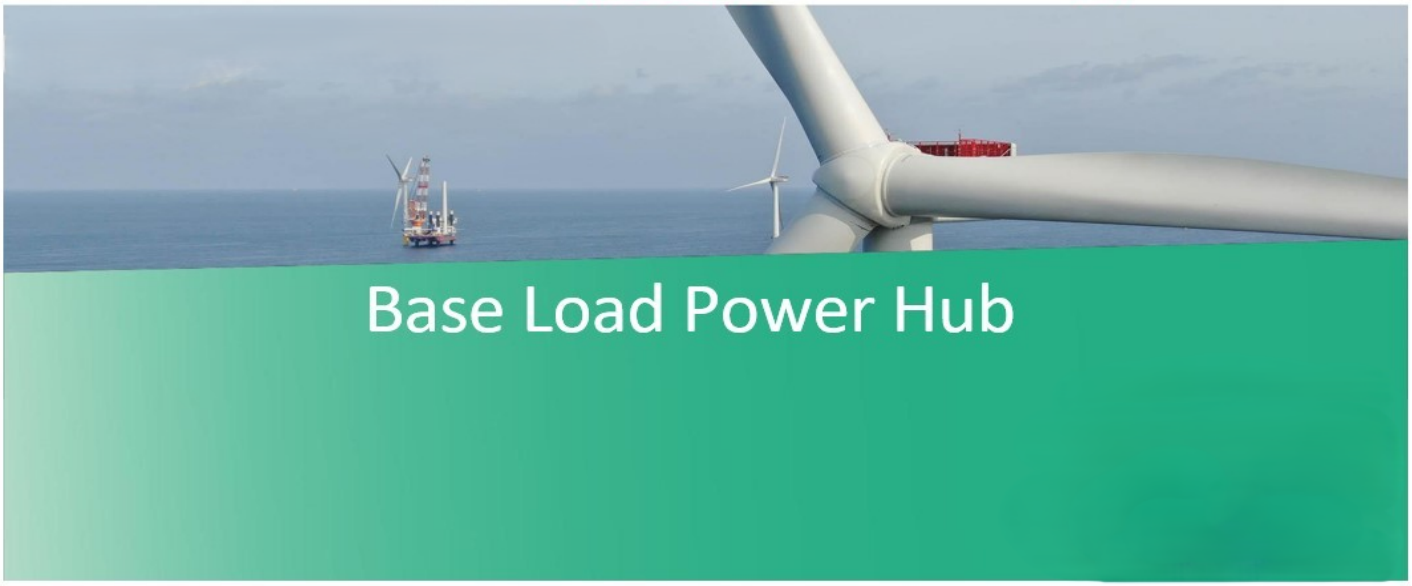
CROSSWIND

ROSETTI MARINO

PROVERLIS

PROJECT **123A90 - HOLLANDSE KUST NOORD WIND PARK**
BLPH Project



MECHANICAL COMPLETION DOSSIER (ONSHORE)

SYSTEM	63 Instrument Air
SUBSYSTEM	63-00 Instrument Air Package (A-63000)

CROSSWIND	123A90 - HOLLANDSE KUST NOORD WIND PARK BLPH Project MECHANICAL COMPLETION DOSSIER INDEX	ROSETTI MARINO

Sub System N°:	63-00	Tick as appropriate	ONSHORE	O
Description:	Instrument Air Package (A-63000)		OFFSHORE	NA

1.	***READY FOR COMMISSIONING CERTIFICATE*** *Ready For Commissioning Certificate (RFC)*	O
2.	***CONSOLIDATED PUNCH LISTS*** *Cleared and Residual Items*	O
3.	***SYSTEM/SUB-SYSTEM LIMIT DRAWINGS*** *Mark-up drawings showing the limits of the relevant System/Sub-System*	O
4.	***MECHANICAL COMPLETION STATUS INDEX – BUILDING DISCIPLINE*** *Building Sub-System Status Index (Print out) and Check/Test sheets*	NA
5.	***MECHANICAL COMPLETION STATUS INDEX – ELECTRICAL DISCIPLINE*** *Electrical Sub-System Status Index (Print out) and Check/Test Sheets* *Hazardous Area Equipment Detailed Inspection*	O
6.	***MECHANICAL COMPLETION STATUS INDEX - INSTRUMENTAL DISCIPLINE*** *Instrumental Sub-System Status Index (Print out) and Check/Test Sheets*	O
7.	***MECHANICAL COMPLETION STATUS INDEX - MECHANICAL DISCIPLINE*** *Mechanical SubSystem Status Index (Print out) and Check/Test Sheets*	O
8.	***MECHANICAL COMPLETION STATUS INDEX - TELECOMMUNICATION DISCIPLINE*** *Telecommunication Sub-System Status Index (Print out) and Check/Test Sheets*	O
9.	***MECHANICAL COMPLETION STATUS INDEX - HVAC DISCIPLINE*** *HVAC Sub-System Status Index (Print out) and Check/Test Sheets*	NA
10.	***MECHANICAL COMPLETION STATUS INDEX - PIPING DISCIPLINE*** *Piping Sub-System Status Index and Check/Test Sheets*	O
11.	***MECHANICAL COMPLETION INDEX - SAFETY DISCIPLINE*** *Safety Sub-System Status Index (Print out) and Check/Test Sheets*	NA
12.	***FAT / VENDOR REPORTS*** *Fat reports issued by vendors and/or vendor reports*	OK
13.	***MECHANICAL COMPLETION CHANGES / MARK-UPS*** *A copy of the changes initiated during the Mechanical Completion process pertaining to the relevant Sub-System will be incorporated in this section*	NA

Note: Under the generic terminology “Building” are also covered the following disciplines: **Structural, Painting**

Under the generic terminology “Instrumental” is also covered the following discipline: **Fire & Gas**

ROSETTI MARINO

123A90 - HOLLANDSE KUST NOORD WIND PARK
BLPH Project

CROSSWIND

Ready For Commissioning (RFC) Certificate

COMPLETE	●	PARTIAL	

Revision:	3		Issued on:	2025-03-24	
System:	63	/	Instrument Air		
SubSystem:	63-00	/	Instrument Air Package (A-63000)		

1	COMPANY has, at its option and if required, reviewed the mechanical completion associated with the above-named system/sub-system of the SCOPE and observed that such functional sub-system has been brought into readiness for commencement of the associated pre-commissioning and commissioning activities, but for the outstanding punch list items, if any, attached and referred in this Certificate.
2	Issuance of this Certificate shall not release CONTRACTOR from any of his obligations, responsibilities or liabilities under the CONTRACT.
3	Mechanical Completion Status Index attached (per Discipline) Punch List report attached (Outstanding and Cleared)

PUNCH LIST	PENDING POINTS	
Note: All Category "A" Items must be cleared prior to issue a Ready For Commissioning (RFC) Certificate	A	B
	'0	6

REMARKS:

	CONTRACTOR Construction Manager	**CONTRACTOR** Commissioning Manager	**COMPANY** Construction Lead (if required)	**COMPANY** Commissioning Lead (if required)
Name	Wolmer Borghi	Anthony Iveson	CPY NOT PRESENT	CPY NOT PRESENT
Date	2025-03-24	2025-03-26	2025-03-26	2025-03-26
Signature	PROVERLIS Digitaly signed by Wolmer Borghi 2025-03-24T12:08:01.666Z	PROVERLIS Digitaly signed by Anthony Iveson 2025-03-26T07:45:55.356Z	PROVERLIS Digitaly signed by CPY NOT PRESEN 2025-03-26T07:48:41.699Z	PROVERLIS Digitaly signed by CPY NOT PRESEN 2025-03-26T07:48:51.248Z

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-00 & process: MC

Electrical	63-00 Instrument Air Package (A-63000)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
83017-CEL-1	LV Switchgear / Instrument Air Package	ONSHORE	C10000537	CPX09	100	2024-12-04	RFC 1
83017-CEL-2	LV Switchgear / Instrument Air Package	ONSHORE	C10000538	CPX09	100	2024-12-04	RFC 1
83110-CEL	Lighting & Small Power DB BoP / UCP - Instrument Air Package -A-63000 - Auxiliary	ONSHORE	C10000629	CPX09	100	2024-12-04	RFC 1
84311-CEL	AC UPS - PAS DB / UCP - Instrument Air Package A-63000	ONSHORE	C10000587	CPX09	100	2024-12-04	RFC 1
A-63000	Instrument Air Package	ONSHORE	C10002352	CZX01E	100	2024-12-04	RFC 2

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-00 & process: MC

Instrumental	63-00 Instrument Air Package (A-63000)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
A-63000	Instrument Air Package	ONSHORE	C10002353	CZX01I	100	2024-12-04	RFC 2
C-63-XA-003/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	ONSHORE	C10001458	CJX10	100	2024-12-04	RFC 1
C-63-XS-001/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	ONSHORE	C10001451	CJX10	100	2024-12-04	RFC 1

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-00 & process: MC

Mechanical	63-00 Instrument Air Package (A-63000)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
A-63000	Instrument Air Package	ONSHORE	C10002354	CZX01M	100	2025-01-15	RFC 2
V-63001	Air Receiver	ONSHORE	C10004527	CDX01	100	2025-01-10	RFC 2

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-00 & process: MC

Piping	63-00 Instrument Air Package (A-63000)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
032-1-J1	Joint 032-1-J1	ONSHORE	C10004218	TMX27	100	2025-01-15	RFC 2
032-1-J2	Joint 032-1-J2	ONSHORE	C10004219	TMX27	100	2025-01-15	RFC 2
032-1-J3	Joint 032-1-J3	ONSHORE	C10004220	TMX27	100	2025-01-31	RFC 2
036-1-J1	Joint 036-1-J1	ONSHORE	C10004231	TMX27	100	2025-01-15	RFC 2
036-1-J2	Joint 036-1-J2	ONSHORE	C10004232	TMX27	100	2025-01-13	RFC 2
127-2-J1	Joint 127-2-J1	ONSHORE	C10004169	TMX27	100	2025-01-14	RFC 2
63-00-TP-025	Test Pack 63-00-TP-025	ONSHORE	C10003421	CLX02A	100	2024-11-29	RFC 3
		ONSHORE	C10003422	CLX02B	100	2025-02-03	RFC 3
		ONSHORE	C10003423	CXX02	100	2025-02-05	RFC 3
		ONSHORE	C10003424	TMX03	100	2024-12-13	RFC 3
		ONSHORE	C10003425	TMX05	100	2024-12-02	RFC 3
		ONSHORE	C10003427	TPLX05	100	2024-12-24	RFC 3
63-00-TP-059	Test Pack 63-00-TP-059	ONSHORE	C10003665	CLX02A	100	2024-11-29	RFC 3
		ONSHORE	C10003666	CLX02B	100	2025-01-30	RFC 3
		ONSHORE	C10003667	CXX01	100	2025-03-21	RFC 3
		ONSHORE	C10003668	CXX02	100	2025-01-30	RFC 3
		ONSHORE	C10003669	TMX03	100	2024-11-29	RFC 3
		ONSHORE	C10003670	TMX05	100	2024-11-29	RFC 3
		ONSHORE	C10003672	TPLX05	100	2024-12-06	RFC 3

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-00 & process: MC

Telecom	63-00 Instrument Air Package (A-63000)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
63-LP-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	ONSHORE	C10004349	CIX09	100	2024-11-27	RFC 1

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000490	A	A-63000	ALL SOLENOIDS HAVE BEEN DISMANTLED FROM THE PACKAGE. SEND TO THE SUB-VENDOR TO BE CHECK. ALL SOLENOID		installed	SLinari 2024-10-29	SLinari 2024-12-18	SLinari 2024-12-18	2024-12-18
C30000496	A	A-63000	CABLING INSIDE CONTROL PANEL NOT REFLECT THE SPECIFICATIONS AND DWG IN TERM OF COLOUR CODING. SEE NCR		NCR CLOSED -	SLinari 2024-10-29	SLinari 2024-12-18	SLinari 2024-12-18	2024-12-18
C30000482	B	A-63000	Check if the set point be set to 9,5 since on the air receiver (63-PT-004) we have a pressure of 8,8 barg		done - max 10 - min 8barg	SLinari 2024-10-29	SLinari 2025-01-24	SLinari 2025-01-24	2025-01-24
C30000483	B	A-63000	Package to be test with PLC set to REMOTE MODE		tested	SLinari 2024-10-29	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000484	B	A-63000	necessary to set the operating logic to ensure that with a DEW POINT measured > -40°C, the DRYER in operation is exchanged with the		DONE	SLinari 2024-10-29	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000485	B	A-63000	TO BE IMPLEMENT: THE PRESSURE SWITCHES IN BAD QUALITY MUST BLOCK AIR DRYER (to be verify at yard)		VERIFIED - CLOSED	SLinari 2024-10-29	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000486	B	A-63000	TO BE IMPLEMENT: THE INTERVENTION TIME OF THE LIMIT SWITCHES (to be verify at yard)		DONE	SLinari 2024-10-29	SLinari 2025-01-24	SLinari 2025-01-24	2025-01-24
C30000487	B	A-63000	TO BE IMPLEMENTED: VALVE POSITION DISCREPANCY (to be verify at yard)		DONE	SLinari 2024-10-29	SLinari 2025-01-24	SLinari 2025-01-24	2025-01-24
C30000488	B	A-63000	VERIFY AND SET THE EXCHANGE OF THE COMPRESSORS WITH THE DUTY/STAND-BY CYCLE TIME. To be verify and to be tested		OTP DONE POINT CLOSED	SLinari 2024-10-29	Vendor 2025-03-19	SLinari 2025-03-19	2025-03-19

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000489	B	A-63000	TO BE VERIFY AND TEST THE CHANGE OVER COMPRESSOR K-63001A TO K-63001B		DONE	SLinari 2024-10-29	SLinari 2025-01-24	SLinari 2025-01-24	2025-01-24
C30000491	B	A-63000	THE RESET COMMAND TO PACKAGE MUST BE MANAGED BY ESD (CURRENTLY IT'S ON LOCAL PANEL). To be verify with engineering.		AFTER CHECK- RESET COMMAND NOT NECESSARY (SEE EMAIL	SLinari 2024-10-29	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000492	B	A-63000	MAX PRESSURE ON VALVE ACTUATORS = 8 BAR IS NOT CONGRUENT WITH OPERATING PRESSURE = 9 BAR.		DONE	SLinari 2024-10-29	SLinari 2025-01-24	SLinari 2025-01-24	2025-01-24
C30000493	B	A-63000	DUE TO THE RUSH TO CONCLUDE ALL TESTS WITHIN ONE DAY, AN EXTENSIVE AND COMPREHENSIVE ON-SITE TEST WILL BE		DONE	SLinari 2024-10-29	SLinari 2025-01-27	SLinari 2025-01-27	2025-01-27
C30000494	B	A-63000	TO BE UPDATED DWG N. 1724000428-MAG-DG-00009 - CORRECT RAL 9002		Re issued	SLinari 2024-10-29	Vendor 2025-03-19	SLinari 2025-03-19	2025-03-19
C30000495	B	A-63000	ALL HARDWIRED AND PROFINET SIGNALS STILL TO BE TESTED		ACTIVITY DONE	SLinari 2024-10-29	SLinari 2025-01-27	SLinari 2025-01-27	2025-01-27
C30000497	B	A-63000	MISSING LEAKAGE TEST REPORTS. To be repeated on site up to rated package pressure		done	SLinari 2024-10-29	SLinari 2025-01-30	SLinari 2025-01-30	2025-01-30
C30000498	B	A-63000	CONTINUITY AND MEGGER TEST REPORTS ARE MISSING. TO BE PROVIDE		done	SLinari 2024-10-29	SLinari 2025-01-30	SLinari 2025-01-30	2025-01-30
C30002432	B	A-63000 C10002354	One of the 10 baseplates for the anchor down points has not been installed on the upper deck structure. See Drawing and 3d excerpt attached	.		KAlbonetti 2025-01-07	2025-01-10	KAlbonetti 2025-01-10	2025-01-10

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30002651	B	V-63001 C10004527	Manhole has not been opened. Internal inspection not completed.	.		KAlbonetti 2025-01-10	2025-03-06	LNovaga 2025-03-06	2025-03-06
C30002654	B	V-63001 C10004527	Valve BLPH-MV-820 installed in place of BLPH-MV-741.	.		KAlbonetti 2025-01-10	2025-01-15	LNovaga 2025-01-15	2025-01-15
C30002655	B	V-63001 C10004527	Item PIT-059 installed in place of the 63-PIT-064.	.		KAlbonetti 2025-01-10	2025-01-15	LNovaga 2025-01-15	2025-01-15
C30002656	B	V-63001 C10004527	For items TI053 and TIT052 the fasteners are bolts L7+nuts 2H but the instruments are in stainless steel. Replace fasteners or add an	.		KAlbonetti 2025-01-10	2025-03-18	LNovaga 2025-03-18	2025-03-18
C30002657	B	V-63001 C10004527	Anchor down system is different from the one marked in the GA drawing 1724000428-MAC-DD-00006. Item 45 has been	.		KAlbonetti 2025-01-10	2025-03-06	LNovaga 2025-03-06	2025-03-06
C30002658	B	V-63001 C10004527	In the GA 1724000428-MAC-DD-00006 ther is no earthing lug marked. In the field there is only one earthing lug instead of two. position has been	.		KAlbonetti 2025-01-10	2025-02-03	LNovaga 2025-02-03	2025-02-03
C30002659	B	V-63001 C10004527	BLPH-MV-740 has rust on the stem.	.		KAlbonetti 2025-01-10	2025-03-06	LNovaga 2025-03-06	2025-03-06
C30002660	B	V-63001 C10004527	the lever of the MBLPH-MV-738 shall be rotated of 180° because it clashes with the vessel body.	.		KAlbonetti 2025-01-10	2025-01-10	KAlbonetti 2025-01-10	2025-01-10
C30002661	B	V-63001 C10004527	BLPH-MV-742 has the lock nuts bended.	.		KAlbonetti 2025-01-10	2025-01-15	LNovaga 2025-01-15	2025-01-15

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30002848	B	V-63001 C10004527	Minor damages to the painting due transportation and installation, also there is rust in the nameplate of the vessel.	.		KAlbonetti 2025-01-14			
C30002850	B	A-63000 C10002354	Minor damages to the painting due transportation and installation.	.		KAlbonetti 2025-01-14			
C30002853	B	A-63000 C10002354	In the Air package GA nameplate detail the operative temperature range is marked as "-10°C/+90°C" but on the nameplate mounted on	.		KAlbonetti 2025-01-15	2025-02-14	KAlbonetti 2025-02-14	2025-02-14
C30002854	B	A-63000 C10002354	One supporting plate (the one added to close PL C300024) is 10 mm thinner compared to the other.	.		KAlbonetti 2025-01-15	2025-03-06	LNovaga 2025-03-06	2025-03-06
C30002855	B	A-63000 C10002354	There is still part of the wooden crate used for transport fixed on the skid. See attachment for the location.	.		KAlbonetti 2025-01-15	2025-03-05	LNovaga 2025-03-05	2025-03-05

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30001283	A	84311-CEL C10000587	Missing the earth connection between the terminal block (PE) and the earthing bar (PE). see 123A90-DDL-EL-DG-20149 sh.40 (SIDE	.		APolo 2024-12-04	2024-12-06	Gtangianu 2024-12-06	2024-12-06
C30001287	A	83110-CEL C10000629	Missing the earth connection between the terminal block (PE) and the earthing bar (PE). see 123A90-DDL-EL-DG-20149 sh.53 . side A-63000.	.		APolo 2024-12-04	2024-12-06	Gtangianu 2024-12-06	2024-12-06
C30001281	B	84311-CEL C10000587	Missing cable tag SIDE DP-200F3 / Panel A-6300	.		APolo 2024-12-04	2025-02-04	APolo 2025-02-04	2025-02-04
C30001282	B	84311-CEL C10000587	Missing cores identification tag. Cabinet side DP-200F3 / A-63000 . (see document 123A90-DDL-EL-DD-20092 sh.7-8)	.		APolo 2024-12-04	2025-02-15	AAndreani 2025-02-15	2025-02-15
C30001288	B	83110-CEL C10000629	Missing cable tag . side A-63000 / DP-200N1	.		APolo 2024-12-04	2025-02-03	APolo 2025-02-03	2025-02-03
C30001289	B	83110-CEL C10000629	Missing cores identification tag. side DP-200N1 / A-63000 . (see document 123A90-DDL-EL-DD-20092 sh.7-8)	.		APolo 2024-12-04	2025-02-19	AAndreani 2025-02-19	2025-02-19
C30001297	B	83017-CEL-1 C10000537	Cover of terminal block doesn't work properly. See attached photo.	.		Gtangianu 2024-12-04	2025-02-06	APolo 2025-02-06	2025-02-06
C30001298	B	83017-CEL-2 C10000538	Cover of terminal block doesn't work properly. See attached photo.	.		Gtangianu 2024-12-04	2025-02-06	APolo 2025-02-06	2025-02-06
C30001299	B	83017-CEL-2 C10000538	Identification tag wires missing both side the83017-CEL-2 .	.		Gtangianu 2024-12-04	2025-02-19	AAndreani 2025-02-19	2025-02-19

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30001300	B	83017-CEL-1 C10000537	Identification tag wires missing both side the 83017-CEL-1 .	.		Gtangianu 2024-12-04	2025-02-19	AAndreani 2025-02-19	2025-02-19
C30001301	B	83017-CEL-2 C10000538	Missing cable tags inside and outside both panels (83017-CEL-2).	.		Gtangianu 2024-12-04	2025-02-04	Gtangianu 2025-02-04	2025-02-04
C30001302	B	83017-CEL-1 C10000537	Missing cable tags inside and outside both panels (83017-CEL-1).	.		Gtangianu 2024-12-04	2025-02-04	Gtangianu 2025-02-04	2025-02-04
C30001303	B	83017-CEL-1 C10000537	Cover of terminal block on grounding cable is missing. See attached photo.	.		Gtangianu 2024-12-04	2025-02-28	Ecarotenuto 2025-02-28	2025-02-28
C30001304	B	83017-CEL-2 C10000538	Cover of terminal block on grounding cable is missing. See attached photo.	.		Gtangianu 2024-12-04	2025-02-28	Ecarotenuto 2025-02-28	2025-02-28
C30001317	B	A-63000 C10002352	Earthing System is not as indicated by the Electrical Typical Installation Details document . see 123A90-DDL-EL-DD-20090 sh.3	.		APolo 2024-12-04	2025-01-23	APolo 2025-01-23	2025-01-23
C30001318	B	A-63000 C10002352	The cables are not adequately preserved. inside Skid	.		APolo 2024-12-04	2025-01-22	Ecarotenuto 2025-01-22	2025-01-22
C30001379	B	84311-CEL C10000587	The cable gland are not closed in accordance with specification.	.		APolo 2024-12-05	2025-02-25	JKrizanic 2025-02-25	2025-02-25

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003339	A	63-00-TP-059 C10003666	Missing earthing connection on earthing plate	.		AMancini 2025-01-30	2025-02-08	Ecarotenuto 2025-02-08	2025-02-08
C30003340	A	63-00-TP-059 C10003666	Flange management activity to be done on joint J1 (Connection to A-63000/A). Broken joint done by Commissioning	.		AMancini 2025-01-30	2025-03-20	LNovaga 2025-03-20	2025-03-20
C30000992	B	63-00-TP-059 C10003665	General final touch-up to do.	-		MBruschi 2024-11-28	2025-02-06	KAlbonetti 2025-02-06	2025-02-06
C30000993	B	63-00-TP-059 C10003665	Unmounted spool-A with its erection materials.	-		MBruschi 2024-11-28	2025-01-17	LNovaga 2025-01-17	2025-01-17
C30001053	B	63-00-TP-025 C10003421	All U-BOLTS S-211 not installed (refer to: ISO 123A90-FDL-PP-DI-00127-01 and 123A90-FDL-PP-DI-00127-02)	-		MBruschi 2024-11-29	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30001054	B	63-00-TP-025 C10003421	Support PS-02075 (F1) is only tack welded (refer to: ISO 123A90-FDL-PP-DI-00127-01)	-		MBruschi 2024-11-29	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30001055	B	63-00-TP-025 C10003421	Spool C is out level of 1,5° (refer to: ISO 123A90-FDL-PP-DI-00127-02)	-		MBruschi 2024-11-29	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30001056	B	63-00-TP-025 C10003421	Support PS-02027 (F2) is out of level 1,1° (refer to: ISO 123A90-FDL-PP-DI-00127-02)	-		MBruschi 2024-11-29	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30003464	B	63-00-TP-025 C10003422	The support "PS-02027" (F2) is out of level about 1.1°. Isometric 123A90-FDL-PP-DI-00127-01.	.		MBruschi 2025-02-03	2025-03-06	LNovaga 2025-03-06	2025-03-06

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003552	B	63-00-TP-025 C10003423	General touch up do to, especially near the supports of the piping line.	.		KAlbonetti 2025-02-05			
C30003553	B	63-00-TP-025 C10003423	Color coding and fluid direction are missing.	.		KAlbonetti 2025-02-05	2025-03-21	LNovaga 2025-03-21	2025-03-21
C30004256	B	63-00-TP-059 C10003667	Color coding and fluid direction are missing.	.		LNovaga 2025-03-21			
C30004257	B	63-00-TP-059 C10003667	Missing the insulation pillow around the valve BLPH-MV-269 and joint 032-1J1.	.		LNovaga 2025-03-21			
C30004258	B	63-00-TP-059 C10003667	The drainage hole in the insulation is missing.	.		LNovaga 2025-03-21			

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Telecom

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000927	B	63-LP-001/B400-NET-001 C10004349	The copper conductor of the cable armor must be individually connected to the earthing bar - B400-NET-001. See 123A90-DDL-EL-DD-20090.	.		APolo 2024-11-26	2025-02-04	APolo 2025-02-04	2025-02-04
C30000928	B	63-LP-001/B400-NET-001 C10004349	Missing cable tag SS project, externally pannel A-630000.	.		APolo 2024-11-26	2025-01-02	Ecarotenuto 2025-01-02	2025-01-02
C30000929	B	63-LP-001/B400-NET-001 C10004349	Missing cable tag , cabinet input A-630000.	.		APolo 2024-11-26	2025-02-04	APolo 2025-02-04	2025-02-04
C30000957	B	63-LP-001/B400-NET-001 C10004349	The cable is not supported and fixed to the rack (outside panel)anel)	.		APolo 2024-11-27	2025-01-23	APolo 2025-01-23	2025-01-23
C30000961	B	63-LP-001/B400-NET-001 C10004349	Missing cable tag , cabinet input U-63000.	.		APolo 2024-11-27	2025-02-04	APolo 2025-02-04	2025-02-04

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30001270	B	C-63-XA-003/B4 00-SIS-001 C10001458	Missing cable tag SS .	.		APolo 2024-12-04	2025-02-04	APolo 2025-02-04	2025-02-04
C30001271	B	C-63-XA-003/B4 00-SIS-001 C10001458	Missing cores identification tag. Cabinet side A-63000. (see document 123A90-DDL-EL-DD-20092 sh.7-8)	.		APolo 2024-12-04	2025-02-08	Gtangianu 2025-02-08	2025-02-08
C30001275	B	C-63-XS-001/B4 00-SIS-001 C10001451	Missing cores identification tag. Cabinet side B400-SIS-001 / JB A-63000 . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-12-04	2025-02-08	Gtangianu 2025-02-08	2025-02-08
C30001276	B	C-63-XS-001/B4 00-SIS-001 C10001451	Missing cable tag SS . side A-63000	.		APolo 2024-12-04	2025-02-04	APolo 2025-02-04	2025-02-04
C30001319	B	A-63000 C10002353	Earthing System is not as indicated by the Electrical Typical Installation Details document . see 123A90-DDL-EL-DD-20090 sh.3	.		APolo 2024-12-04	2025-01-23	APolo 2025-01-23	2025-01-23
C30001320	B	A-63000 C10002353	The tubing are not adequately preserved. inside Skid	.		APolo 2024-12-04	2025-01-22	Ecarotenuto 2025-01-22	2025-01-22

Section 2 CONSOLIDATED PUNCH LISTS

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000490	A	A-63000	ALL SOLENOIDS HAVE BEEN DISMANTLED FROM THE PACKAGE. SEND TO THE SUB-VENDOR TO BE CHECK. ALL SOLENOID		installed	SLinari 2024-10-29	SLinari 2024-12-18	SLinari 2024-12-18	2024-12-18
C30000496	A	A-63000	CABLING INSIDE CONTROL PANEL NOT REFLECT THE SPECIFICATIONS AND DWG IN TERM OF COLOUR CODING. SEE NCR		NCR CLOSED -	SLinari 2024-10-29	SLinari 2024-12-18	SLinari 2024-12-18	2024-12-18
C30000482	B	A-63000	Check if the set point be set to 9,5 since on the air receiver (63-PT-004) we have a pressure of 8,8 barg		done - max 10 - min 8barg	SLinari 2024-10-29	SLinari 2025-01-24	SLinari 2025-01-24	2025-01-24
C30000483	B	A-63000	Package to be test with PLC set to REMOTE MODE		tested	SLinari 2024-10-29	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000484	B	A-63000	necessary to set the operating logic to ensure that with a DEW POINT measured > -40°C, the DRYER in operation is exchanged with the		DONE	SLinari 2024-10-29	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000485	B	A-63000	TO BE IMPLEMENT: THE PRESSURE SWITCHES IN BAD QUALITY MUST BLOCK AIR DRYER (to be verify at yard)		VERIFIED - CLOSED	SLinari 2024-10-29	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000486	B	A-63000	TO BE IMPLEMENT: THE INTERVENTION TIME OF THE LIMIT SWITCHES (to be verify at yard)		DONE	SLinari 2024-10-29	SLinari 2025-01-24	SLinari 2025-01-24	2025-01-24
C30000487	B	A-63000	TO BE IMPLEMENTED: VALVE POSITION DISCREPANCY (to be verify at yard)		DONE	SLinari 2024-10-29	SLinari 2025-01-24	SLinari 2025-01-24	2025-01-24
C30000488	B	A-63000	VERIFY AND SET THE EXCHANGE OF THE COMPRESSORS WITH THE DUTY/STAND-BY CYCLE TIME. To be verify and to be tested		OTP DONE POINT CLOSED	SLinari 2024-10-29	Vendor 2025-03-19	SLinari 2025-03-19	2025-03-19

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PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000489	B	A-63000	TO BE VERIFY AND TEST THE CHANGE OVER COMPRESSOR K-63001A TO K-63001B		DONE	SLinari 2024-10-29	SLinari 2025-01-24	SLinari 2025-01-24	2025-01-24
C30000491	B	A-63000	THE RESET COMMAND TO PACKAGE MUST BE MANAGED BY ESD (CURRENTLY IT'S ON LOCAL PANEL). To be verify with engineering.		AFTER CHECK- RESET COMMAND NOT NECESSARY (SEE EMAIL	SLinari 2024-10-29	SLinari 2025-02-06	SLinari 2025-02-06	2025-02-06
C30000492	B	A-63000	MAX PRESSURE ON VALVE ACTUATORS = 8 BAR IS NOT CONGRUENT WITH OPERATING PRESSURE = 9 BAR.		DONE	SLinari 2024-10-29	SLinari 2025-01-24	SLinari 2025-01-24	2025-01-24
C30000493	B	A-63000	DUE TO THE RUSH TO CONCLUDE ALL TESTS WITHIN ONE DAY, AN EXTENSIVE AND COMPREHENSIVE ON-SITE TEST WILL BE		DONE	SLinari 2024-10-29	SLinari 2025-01-27	SLinari 2025-01-27	2025-01-27
C30000494	B	A-63000	TO BE UPDATED DWG N. 1724000428-MAG-DG-00009 - CORRECT RAL 9002		Re issued	SLinari 2024-10-29	Vendor 2025-03-19	SLinari 2025-03-19	2025-03-19
C30000495	B	A-63000	ALL HARDWIRED AND PROFINET SIGNALS STILL TO BE TESTED		ACTIVITY DONE	SLinari 2024-10-29	SLinari 2025-01-27	SLinari 2025-01-27	2025-01-27
C30000497	B	A-63000	MISSING LEAKAGE TEST REPORTS. To be repeated on site up to rated package pressure		done	SLinari 2024-10-29	SLinari 2025-01-30	SLinari 2025-01-30	2025-01-30
C30000498	B	A-63000	CONTINUITY AND MEGGER TEST REPORTS ARE MISSING. TO BE PROVIDE		done	SLinari 2024-10-29	SLinari 2025-01-30	SLinari 2025-01-30	2025-01-30
C30002432	B	A-63000 C10002354	One of the 10 baseplates for the anchor down points has not been installed on the upper deck structure. See Drawing and 3d excerpt attached	.		KAlbonetti 2025-01-07	2025-01-10	KAlbonetti 2025-01-10	2025-01-10

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PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30002651	B	V-63001 C10004527	Manhole has not been opened. Internal inspection not completed.	.		KAlbonetti 2025-01-10	2025-03-06	LNovaga 2025-03-06	2025-03-06
C30002654	B	V-63001 C10004527	Valve BLPH-MV-820 installed in place of BLPH-MV-741.	.		KAlbonetti 2025-01-10	2025-01-15	LNovaga 2025-01-15	2025-01-15
C30002655	B	V-63001 C10004527	Item PIT-059 installed in place of the 63-PIT-064.	.		KAlbonetti 2025-01-10	2025-01-15	LNovaga 2025-01-15	2025-01-15
C30002656	B	V-63001 C10004527	For items TI053 and TIT052 the fasteners are bolts L7+nuts 2H but the instruments are in stainless steel. Replace fasteners or add an	.		KAlbonetti 2025-01-10	2025-03-18	LNovaga 2025-03-18	2025-03-18
C30002657	B	V-63001 C10004527	Anchor down system is different from the one marked in the GA drawing 1724000428-MAC-DD-00006. Item 45 has been	.		KAlbonetti 2025-01-10	2025-03-06	LNovaga 2025-03-06	2025-03-06
C30002658	B	V-63001 C10004527	In the GA 1724000428-MAC-DD-00006 ther is no earthing lug marked. In the field there is only one earthing lug instead of two. position has been	.		KAlbonetti 2025-01-10	2025-02-03	LNovaga 2025-02-03	2025-02-03
C30002659	B	V-63001 C10004527	BLPH-MV-740 has rust on the stem.	.		KAlbonetti 2025-01-10	2025-03-06	LNovaga 2025-03-06	2025-03-06
C30002660	B	V-63001 C10004527	the lever of the MBLPH-MV-738 shall be rotated of 180° because it clashes with the vessel body.	.		KAlbonetti 2025-01-10	2025-01-10	KAlbonetti 2025-01-10	2025-01-10
C30002661	B	V-63001 C10004527	BLPH-MV-742 has the lock nuts bended.	.		KAlbonetti 2025-01-10	2025-01-15	LNovaga 2025-01-15	2025-01-15

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PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Mechanical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30002848	B	V-63001 C10004527	Minor damages to the painting due transportation and installation, also there is rust in the nameplate of the vessel.	.		KAlbonetti 2025-01-14	2025-04-11	LNovaga 2025-04-11	2025-04-11
C30002850	B	A-63000 C10002354	Minor damages to the painting due transportation and installation.	.		KAlbonetti 2025-01-14	2025-04-11	LNovaga 2025-04-11	2025-04-11
C30002853	B	A-63000 C10002354	In the Air package GA nameplate detail the operative temperature range is marked as "-10°C/+90°C" but on the nameplate mounted on	.		KAlbonetti 2025-01-15	2025-02-14	KAlbonetti 2025-02-14	2025-02-14
C30002854	B	A-63000 C10002354	One supporting plate (the one added to close PL C300024) is 10 mm thinner compared to the other.	.		KAlbonetti 2025-01-15	2025-03-06	LNovaga 2025-03-06	2025-03-06
C30002855	B	A-63000 C10002354	There is still part of the wooden crate used for transport fixed on the skid. See attachment for the location.	.		KAlbonetti 2025-01-15	2025-03-05	LNovaga 2025-03-05	2025-03-05
C30004328	B	A-63000	During execution of Cause & Effect OTP doc. n. 123A90-PML-COM-PRO-03054, it had been noted that on equipment packages provided with		logic implemented and tested	GDelmissier 2025-04-15	GDelmissier 2025-05-15	GDelmissier 2025-05-15	2025-05-15

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30001283	A	84311-CEL C10000587	Missing the earth connection between the terminal block (PE) and the earthing bar (PE). see 123A90-DDL-EL-DG-20149 sh.40 (SIDE	.		APolo 2024-12-04	2024-12-06	Gtangianu 2024-12-06	2024-12-06
C30001287	A	83110-CEL C10000629	Missing the earth connection between the terminal block (PE) and the earthing bar (PE). see 123A90-DDL-EL-DG-20149 sh.53 . side A-63000.	.		APolo 2024-12-04	2024-12-06	Gtangianu 2024-12-06	2024-12-06
C30001281	B	84311-CEL C10000587	Missing cable tag SIDE DP-200F3 / Panel A-6300	.		APolo 2024-12-04	2025-02-04	APolo 2025-02-04	2025-02-04
C30001282	B	84311-CEL C10000587	Missing cores identification tag. Cabinet side DP-200F3 / A-63000 . (see document 123A90-DDL-EL-DD-20092 sh.7-8)	.		APolo 2024-12-04	2025-02-15	AAndreani 2025-02-15	2025-02-15
C30001288	B	83110-CEL C10000629	Missing cable tag . side A-63000 / DP-200N1	.		APolo 2024-12-04	2025-02-03	APolo 2025-02-03	2025-02-03
C30001289	B	83110-CEL C10000629	Missing cores identification tag. side DP-200N1 / A-63000 . (see document 123A90-DDL-EL-DD-20092 sh.7-8)	.		APolo 2024-12-04	2025-02-19	AAndreani 2025-02-19	2025-02-19
C30001297	B	83017-CEL-1 C10000537	Cover of terminal block doesn't work properly. See attached photo.	.		Gtangianu 2024-12-04	2025-02-06	APolo 2025-02-06	2025-02-06
C30001298	B	83017-CEL-2 C10000538	Cover of terminal block doesn't work properly. See attached photo.	.		Gtangianu 2024-12-04	2025-02-06	APolo 2025-02-06	2025-02-06
C30001299	B	83017-CEL-2 C10000538	Identification tag wires missing both side the83017-CEL-2 .	.		Gtangianu 2024-12-04	2025-02-19	AAndreani 2025-02-19	2025-02-19

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PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Electrical

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30001300	B	83017-CEL-1 C10000537	Identification tag wires missing both side the 83017-CEL-1 .	.		Gtangianu 2024-12-04	2025-02-19	AAndreani 2025-02-19	2025-02-19
C30001301	B	83017-CEL-2 C10000538	Missing cable tags inside and outside both panels (83017-CEL-2).	.		Gtangianu 2024-12-04	2025-02-04	Gtangianu 2025-02-04	2025-02-04
C30001302	B	83017-CEL-1 C10000537	Missing cable tags inside and outside both panels (83017-CEL-1).	.		Gtangianu 2024-12-04	2025-02-04	Gtangianu 2025-02-04	2025-02-04
C30001303	B	83017-CEL-1 C10000537	Cover of terminal block on grounding cable is missing. See attached photo.	.		Gtangianu 2024-12-04	2025-02-28	Ecarotenuto 2025-02-28	2025-02-28
C30001304	B	83017-CEL-2 C10000538	Cover of terminal block on grounding cable is missing. See attached photo.	.		Gtangianu 2024-12-04	2025-02-28	Ecarotenuto 2025-02-28	2025-02-28
C30001317	B	A-63000 C10002352	Earthing System is not as indicated by the Electrical Typical Installation Details document . see 123A90-DDL-EL-DD-20090 sh.3	.		APolo 2024-12-04	2025-01-23	APolo 2025-01-23	2025-01-23
C30001318	B	A-63000 C10002352	The cables are not adequately preserved. inside Skid	.		APolo 2024-12-04	2025-01-22	Ecarotenuto 2025-01-22	2025-01-22
C30001379	B	84311-CEL C10000587	The cable gland are not closed in accordance with specification.	.		APolo 2024-12-05	2025-02-25	JKrizanic 2025-02-25	2025-02-25

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PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003339	A	63-00-TP-059 C10003666	Missing earthing connection on earthing plate	.		AMancini 2025-01-30	2025-02-08	Ecarotenuto 2025-02-08	2025-02-08
C30003340	A	63-00-TP-059 C10003666	Flange management activity to be done on joint J1 (Connection to A-63000/A). Broken joint done by Commissioning	.		AMancini 2025-01-30	2025-03-20	LNovaga 2025-03-20	2025-03-20
C30000992	B	63-00-TP-059 C10003665	General final touch-up to do.	-		MBruschi 2024-11-28	2025-02-06	KAlbonetti 2025-02-06	2025-02-06
C30000993	B	63-00-TP-059 C10003665	Unmounted spool-A with its erection materials.	-		MBruschi 2024-11-28	2025-01-17	LNovaga 2025-01-17	2025-01-17
C30001053	B	63-00-TP-025 C10003421	All U-BOLTS S-211 not installed (refer to: ISO 123A90-FDL-PP-DI-00127-01 and 123A90-FDL-PP-DI-00127-02)	-		MBruschi 2024-11-29	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30001054	B	63-00-TP-025 C10003421	Support PS-02075 (F1) is only tack welded (refer to: ISO 123A90-FDL-PP-DI-00127-01)	-		MBruschi 2024-11-29	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30001055	B	63-00-TP-025 C10003421	Spool C is out level of 1,5° (refer to: ISO 123A90-FDL-PP-DI-00127-02)	-		MBruschi 2024-11-29	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30001056	B	63-00-TP-025 C10003421	Support PS-02027 (F2) is out of level 1,1° (refer to: ISO 123A90-FDL-PP-DI-00127-02)	-		MBruschi 2024-11-29	2025-02-17	KAlbonetti 2025-02-17	2025-02-17
C30003464	B	63-00-TP-025 C10003422	The support "PS-02027" (F2) is out of level about 1.1°. Isometric 123A90-FDL-PP-DI-00127-01.	.		MBruschi 2025-02-03	2025-03-06	LNovaga 2025-03-06	2025-03-06

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PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Piping

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30003552	B	63-00-TP-025 C10003423	General touch up do to, especially near the supports of the piping line.	.		KAlbonetti 2025-02-05	2025-04-17	LNovaga 2025-04-17	2025-04-17
C30003553	B	63-00-TP-025 C10003423	Color coding and fluid direction are missing.	.		KAlbonetti 2025-02-05	2025-03-21	LNovaga 2025-03-21	2025-03-21
C30004256	B	63-00-TP-059 C10003667	Color coding and fluid direction are missing.	.	Colour code and fluid flow direction added.	LNovaga 2025-03-21	RDegliEsposti 2025-07-07	RDegliEsposti 2025-07-07	2025-07-07
C30004257	B	63-00-TP-059 C10003667	Missing the insulation pillow around the valve BLPH-MV-269 and joint 032-1J1.	.		LNovaga 2025-03-21	2025-04-04	LNovaga 2025-04-04	2025-04-04
C30004258	B	63-00-TP-059 C10003667	The drainage hole in the insulation is missing.	.		LNovaga 2025-03-21	2025-04-08	LNovaga 2025-04-08	2025-04-08

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air
SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Telecom

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30000927	B	63-LP-001/B400-NET-001 C10004349	The copper conductor of the cable armor must be individually connected to the earthing bar - B400-NET-001. See 123A90-DDL-EL-DD-20090.	.		APolo 2024-11-26	2025-02-04	APolo 2025-02-04	2025-02-04
C30000928	B	63-LP-001/B400-NET-001 C10004349	Missing cable tag SS project, externally pannel A-630000.	.		APolo 2024-11-26	2025-01-02	Ecarotenuto 2025-01-02	2025-01-02
C30000929	B	63-LP-001/B400-NET-001 C10004349	Missing cable tag , cabinet input A-630000.	.		APolo 2024-11-26	2025-02-04	APolo 2025-02-04	2025-02-04
C30000957	B	63-LP-001/B400-NET-001 C10004349	The cable is not supported and fixed to the rack (outside panel)anel)	.		APolo 2024-11-27	2025-01-23	APolo 2025-01-23	2025-01-23
C30000961	B	63-LP-001/B400-NET-001 C10004349	Missing cable tag , cabinet input U-63000.	.		APolo 2024-11-27	2025-02-04	APolo 2025-02-04	2025-02-04

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

PUNCH LIST REPORT

SYSTEM 63 Instrument Air

SUBSYSTEM 63-00 Instrument Air Package (A-63000)

Instrumental

CODE	CAT	ITEM	DEFECT DESCRIPTION	CORRECTIVE ACTION	PERFORMED ACTION	ISSUED	CARRIED	CHECKED	APPROVED
C30001270	B	C-63-XA-003/B4 00-SIS-001 C10001458	Missing cable tag SS .	.		APolo 2024-12-04	2025-02-04	APolo 2025-02-04	2025-02-04
C30001271	B	C-63-XA-003/B4 00-SIS-001 C10001458	Missing cores identification tag. Cabinet side A-63000. (see document 123A90-DDL-EL-DD-20092 sh.7-8)	.		APolo 2024-12-04	2025-02-08	Gtangianu 2025-02-08	2025-02-08
C30001275	B	C-63-XS-001/B4 00-SIS-001 C10001451	Missing cores identification tag. Cabinet side B400-SIS-001 / JB A-63000 . (see document 123A90-DDL-IN-DG-40016 sh.3)	.		APolo 2024-12-04	2025-02-08	Gtangianu 2025-02-08	2025-02-08
C30001276	B	C-63-XS-001/B4 00-SIS-001 C10001451	Missing cable tag SS . side A-63000	.		APolo 2024-12-04	2025-02-04	APolo 2025-02-04	2025-02-04
C30001319	B	A-63000 C10002353	Earthing System is not as indicated by the Electrical Typical Installation Details document . see 123A90-DDL-EL-DD-20090 sh.3	.		APolo 2024-12-04	2025-01-23	APolo 2025-01-23	2025-01-23
C30001320	B	A-63000 C10002353	The tubing are not adequately preserved. inside Skid	.		APolo 2024-12-04	2025-01-22	Ecarotenuto 2025-01-22	2025-01-22

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003552

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003423	1.4 Discipline	Piping
1.2 Item	63-00-TP-025	Test Pack 63-00-TP-025	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

General touch up do to, especially near the supports of the piping line.

Name: Kangi Albonetti

Date: 2025-02-05

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-02-05
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date: 2025-04-17

Signature:

5 - CLEARANCE CHECK

Done

Name: Lorenzo Novaga

Date: 2025-04-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date: 2025-04-17

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003553

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003423	1.4 Discipline	Piping
1.2 Item	63-00-TP-025	Test Pack 63-00-TP-025	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Color coding and fluid direction are missing.

Name: Kangi Albonetti

Date: 2025-02-05

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-02-05
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-03-21

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004256

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003667	1.4 Discipline	Piping
1.2 Item	63-00-TP-059	Test Pack 63-00-TP-059	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Color coding and fluid direction are missing.

Name: Lorenzo Novaga
Date: 2025-03-21
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Lorenzo Novaga
3.4 Activity code	MC Mechanical Completion	Date	2025-03-21
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Colour code and fluid flow direction added.

Name: Raffaele Degli Esposti
Date: 2025-07-07
Signature:

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name: Raffaele Degli Esposti
Date: 2025-07-07
Signature:

6- CLEARANCE APPROVAL

Name:
Date: 2025-07-08
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004257

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003667	1.4 Discipline	Piping
1.2 Item	63-00-TP-059	Test Pack 63-00-TP-059	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Missing the insulation pillow around the valve BLPH-MV-269 and joint 032-1J1.

Name: Lorenzo Novaga

Date: 2025-03-21

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Lorenzo Novaga
3.4 Activity code	MC Mechanical Completion	Date	2025-03-21
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Lorenzo Novaga

Date: 2025-04-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004258

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003667	1.4 Discipline	Piping
1.2 Item	63-00-TP-059	Test Pack 63-00-TP-059	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

The drainage hole in the insulation is missing.

Name: Lorenzo Novaga

Date: 2025-03-21

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Lorenzo Novaga
3.4 Activity code	MC Mechanical Completion	Date	2025-03-21
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date: 2025-04-08

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-04-08

Signature:

6- CLEARANCE APPROVAL

Name:

Date: 2025-04-08

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30004328

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

During execution of Cause & Effect OTP doc. n. 123A90-PML-COM-PRO-03054, it had been noted that on equipment packages provided with a dedicated PLC controller, it was not possible to remotely reset the C&E trip command. Equipment package PLC internal logic to be updated and tested from Yokogawa workstation

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giandonato Delmissier
3.4 Activity code	COMM Commissioning	Date	2025-04-15
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

logic implemented and tested

Name Giandonato Delmissier

Date 2025-05-15

Signature

5 - CLEARANCE CHECK

done

Name Giandonato Delmissier

Date 2025-05-15

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000488

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

VERIFY AND SET THE EXCHANGE OF THE COMPRESSORS WITH THE DUTY/STAND-BY CYCLE TIME. To be verify and to be tested

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by	RM Rosetti Marino Quality	Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

OTP DONE POINT CLOSED

Name Vendor Crosswind

Date 2025-03-19

Signature

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name Stefano Linari

Date 2025-03-19

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-03-19

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000489

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

TO BE VERIFY AND TEST THE CHANGE OVER COMPRESSOR K-63001A TO K-63001B

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

DONE

Name VENDOR COES

Date 2025-01-24

Signature

5 - CLEARANCE CHECK

DONE

Name Stefano Linari

Date 2025-01-24

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000490

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

ALL SOLENOIDS HAVE BEEN DISMANTLED FROM THE PACKAGE. SEND TO THE SUB-VENDOR TO BE CHECK. ALL SOLENOID WILL BE RE INSTALLED

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by	VND Vendor	Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

installed

Name vendor coes

Date 2024-12-18

Signature

5 - CLEARANCE CHECK

installed

Name Stefano Linari

Date 2024-12-18

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature







ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000491

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

THE RESET COMMAND TO PACKAGE MUST BE MANAGED BY ESD (CURRENTLY IT'S ON LOCAL PANEL). To be verify with engineering.

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

AFTER CHECK- RESET COMMAND NOT NECESSARY (SEE EMAIL ATTACHED)

Name SIRIGU FABIO

Date 2025-02-06

Signature

5 - CLEARANCE CHECK

AFTER CHECK- RESET COMMAND NOT NECESSARY (SEE EMAIL ATTACHED

Name Stefano Linari

Date 2025-02-06

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

Linari Stefano (Rosetti)

Da: Sirigu Fabio (ERM)
Inviato: mercoledì 5 febbraio 2025 14:21
A: Calabrese Loredana (Rosetti); Casagrande Davide (ERM); Lo Sterzo Davide (Rosetti); Linari Stefano (Rosetti)
Cc: Iveson Anthony (ERM); Giunchi Claudia (Rosetti); Mura Fabrizio (Rosetti); Cavallo Giuseppe (ERM)
Oggetto: I: 123A90 CW // IO list IA & N2

Ciao,
COES conferma che il package fa trip per:

- pressione pulsante a fronte quadro
- shutdown da SIS

Direi quindi che il reset non è necessario e possiamo rimuovere la relativa punch.
Cordialità

Fabio SIRIGU
Commissioning Lead Automation
CROSSWIND BLPH PROJECT

Da: Luigi Testa <testa@coessrl.com>
Inviato: mercoledì 5 febbraio 2025 12:45
A: Sirigu Fabio (ERM) <Fabio.Sirigu@rosetti.it>
Oggetto: R: 123A90 CW // IO list IA & N2

Buongiorno Sig. Sirigu,

Ho ricevuto conferma che non è stata fatta alcune modifica rispetto a quanto sotto.

Cordiali saluti,
Luigi Testa

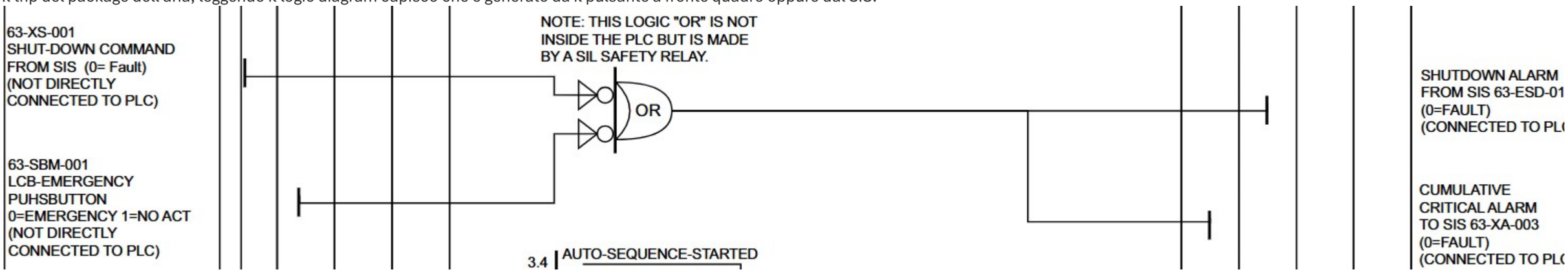
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Da: Sirigu Fabio (ERM) <Fabio.Sirigu@rosetti.it>
Inviato: martedì 4 febbraio 2025 17:47
A: Luigi Testa <testa@coessrl.com>
Oggetto: R: 123A90 CW // IO list IA & N2

Buongiorno Sig. Testa,
avrei necessità di una conferma.
Il trip del package dell'aria, leggendo il logic diagram capisco che è generato da il pulsante a fronte quadro oppure dal SIS:



ed è confermato anche dalla vostra narrativa:

3.2.4 SHUTDOWN

The system shutdown can be activated locally by pressing the mushroom button on the LCP (63-LP-001) or by command from SIS.

In case of shutdown, the compressors are stopped and the valves are brought to "fail position" by deactivating the command to the solenoid valves.

To reset the shutdown, you must act on the LCP (63-LP-001) by pressing the "SAFETY RELAY RESET" button (63-HS-003).

Non trovo altre cause di trip interne al package.
Me lo conferma?
Cordialità

Fabio SIRIGU
Commissioning Lead Automation
CROSSWIND BLPH PROJECT

Da: Luigi Testa <testa@coessrl.com>
Inviato: venerdì 31 gennaio 2025 11:24
A: Sirigu Fabio (ERM) <Fabio.Sirigu@rosetti.it>
Cc: Delmissier Giandonato (ERM) <Giandonato.Delmissier@rosetti.it>; Casagrande Davide (ERM) <Davide.Casagrande@rosetti.it>; Giunchi Claudia (Rosetti) <Claudia.Giunchi@rosetti.it>; Basile Martino (ERM) <Martino.Basile@rosetti.it>
Oggetto: R: 123A90 CW // IO list IA & N2

Buongiorno Sig. Sirigu,

I due segnali sono mantenuti.

Cordiali saluti,
Luigi Testa

Coes Srl
Via Pontida, 265 - 24040 Stezzano, Italy

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Da: Sirigu Fabio (ERM) <Fabio.Sirigu@rosetti.it>
Inviato: mercoledì 29 gennaio 2025 16:12
A: Luigi Testa <testa@coessrl.com>
Cc: Delmissier Giandonato (ERM) <Giandonato.Delmissier@rosetti.it>; Casagrande Davide (ERM) <Davide.Casagrande@rosetti.it>; Giunchi Claudia (Rosetti) <Claudia.Giunchi@rosetti.it>; Basile Martino (ERM) <Martino.Basile@rosetti.it>
Oggetto: R: 123A90 CW // IO list IA & N2

Buon pomeriggio,
un chiarimento riguardo i seguenti segnali:

- 63-CMPR-START-001 COMPRESSOR 1 REMOTE START/STOP
- 63-CMPR-START-002 COMPRESSOR 2 REMOTE START/STOP

sono mantenuti o impulsivi?
Grazie

Fabio SIRIGU
Commissioning Lead Automation
CROSSWIND BLPH PROJECT

Da: Luigi Testa <testa@coessrl.com>
Inviato: venerdì 24 gennaio 2025 11:45
A: Sirigu Fabio (ERM) <Fabio.Sirigu@rosetti.it>
Cc: Delmissier Giandonato (ERM) <Giandonato.Delmissier@rosetti.it>; Casagrande Davide (ERM) <Davide.Casagrande@rosetti.it>; Giunchi Claudia (Rosetti) <Claudia.Giunchi@rosetti.it>; Basile Martino (ERM) <Martino.Basile@rosetti.it>
Oggetto: 123A90 CW // IO list IA & N2

Buongiorno Sig. Sirigu,

Invio in allegato le IO list in ultima versione.

Carico anche a sistema i due documenti.

Cordiali saluti,
Luigi Testa

Coes Srl
Via Pontida, 265 - 24040 Stezzano, Italy

Office +39 035 2050511

Mobile +39 346 9690537
Fax +39 035 2050532
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ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000492

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

MAX PRESSURE ON VALVE ACTUATORS = 8 BAR IS NOT CONGRUENT WITH OPERATING PRESSURE = 9 BAR.

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

DONE

Name VENDOR COES

Date 2025-01-24

Signature

5 - CLEARANCE CHECK

DONE

Name Stefano Linari

Date 2025-01-24

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000493

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

DUE TO THE RUSH TO CONCLUDE ALL TESTS WITHIN ONE DAY, AN EXTENSIVE AND COMPREHENSIVE ON-SITE TEST WILL BE MANDATORY BEFORE PERFORMING THE FUNCTIONAL AND PERFORMANCE TESTS OF THE PACKAGE. ALL PERFORMANCE MUST BE TESTED AND ACCEPTED AT THE CONSTRUCTION SITE.

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

DONE

Name VENDOR COES

Date 2025-01-27

Signature

5 - CLEARANCE CHECK

DONE

Name Stefano Linari

Date 2025-01-27

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000494

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

TO BE UPDATED DWG N. 1724000428-MAG-DG-00009 - CORRECT RAL 9002

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by	VND Vendor	Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

Re issued

Name Vendor Crosswind

Date 2025-03-19

Signature

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name Stefano Linari

Date 2025-03-19

Signature

6- CLEARANCE APPROVAL

Name

Date 2025-03-19

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000495

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

ALL HARDWIRED AND PROFINET SIGNALS STILL TO BE TESTED

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by	VND Vendor	Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

ACTIVITY DONE

Name VENDOR COES

Date 2025-01-27

Signature

5 - CLEARANCE CHECK

ACTIVITY DONE

Name Stefano Linari

Date 2025-01-27

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000496

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

CABLING INSIDE CONTROL PANEL NOT REFLECT THE SPECIFICATIONS AND DWG IN TERM OF COLOUR CODING.
SEE NCR 2024-Q-123A90-0009

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by	VND Vendor	Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

NCR CLOSED -

Name vendor coes

Date 2024-12-18

Signature

5 - CLEARANCE CHECK

NCR CLOSED -

Name Stefano Linari

Date 2024-12-18

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000497

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

MISSING LEAKAGE TEST REPORTS. To be repeated on site up to rated package pressure

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

done

Name VENDOR COES

Date 2025-01-30

Signature

5 - CLEARANCE CHECK

done

Name Stefano Linari

Date 2025-01-30

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

COES Srl
24040 STEZZANO - ITALY - Via Pontida, 265
tel +39 035 2050 511
e.mail: coes@coessrl.com

Sedi operative
24040 STEZZANO – Via Pontida, 265
24040 COMUN NUOVO – Via Europa, 9

LEAKAGE TEST CERTIFICATE

CUSTOMER:	ROSETTI MARINO
PURCHASE ORDER:	1724000428
PROJECT:	HOLLANDSE KUST NOORD WIND PARK Project
SCOPE OF SUPPLY:	INSTRUMENT AIR PACKAGE
ITEM:	A-63000
INSPECTION AND TEST PLAN:	1724000428-QC-ITP-00002
FAT PROCEDURE:	1724000428-QC-PRO-00024
COES JOB:	166/24

ACTIVITY	RESULT
PNEUMATIC LEAKAGE CHECK @ 7 barg	**CONFORM**

Notes:
Test performed at RM Piomboni Yard

COES SRL

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000498

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

CONTINUITY AND MEGGER TEST REPORTS ARE MISSING.
TO BE PROVIDE

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

done

Name VENDOR COES

Date 2025-01-30

Signature

5 - CLEARANCE CHECK

done

Name Stefano Linari

Date 2025-01-30

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

COES Srl
24040 STEZZANO - ITALY - Via Pontida, 265
tel +39 035 2050 511
e.mail: coes@coessrl.com

Sedi operative
24040 STEZZANO – Via Pontida, 265
24040 COMUN NUOVO – Via Europa, 9

CONTINUITY AND INSULATION RESISTANCE TEST CERTIFICATE

CUSTOMER:	ROSETTI MARINO
PURCHASE ORDER:	1724000428
PROJECT:	HOLLANDSE KUST NOORD WIND PARK Project
SCOPE OF SUPPLY:	INSTRUMENT AIR PACKAGE
ITEM:	A-63000
INSPECTION AND TEST PLAN:	1724000428-QC-ITP-00002
FAT PROCEDURE:	1724000428-QC-PRO-00024
COES JOB:	166/24

ACTIVITY	**RESULT**
CHECK THE CONTINUITY OF THE PROTECTIVE BONDING CIRCUIT	**CONFORM**

Test parameters:

Open circuit voltage: 24Vac/dc
Test current: 10A
Test time: 5 s
Localization of the PE terminal: Earth bar

ACTIVITY	**RESULT**
INSULATION RESISTANCE TEST	**CONFORM**

Test parameters:

Test voltage: 500V
Localization of the PE terminal: Earth bar

(When performing the strength tests of insulation, the insulation resistance measured at 500V DC between conductors of the power circuit and the protective bonding circuit shall not be less than 1MΩ.)



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000927

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004349	1.4 Discipline	Telecom
1.2 Item	63-LP-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

The copper conductor of the cable armor must be individually connected to the earthing bar - B400-NET-001. See 123A90-DDL-EL-DD-20090.

Name: Alessio Polo
Date: 2024-11-26
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-26
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

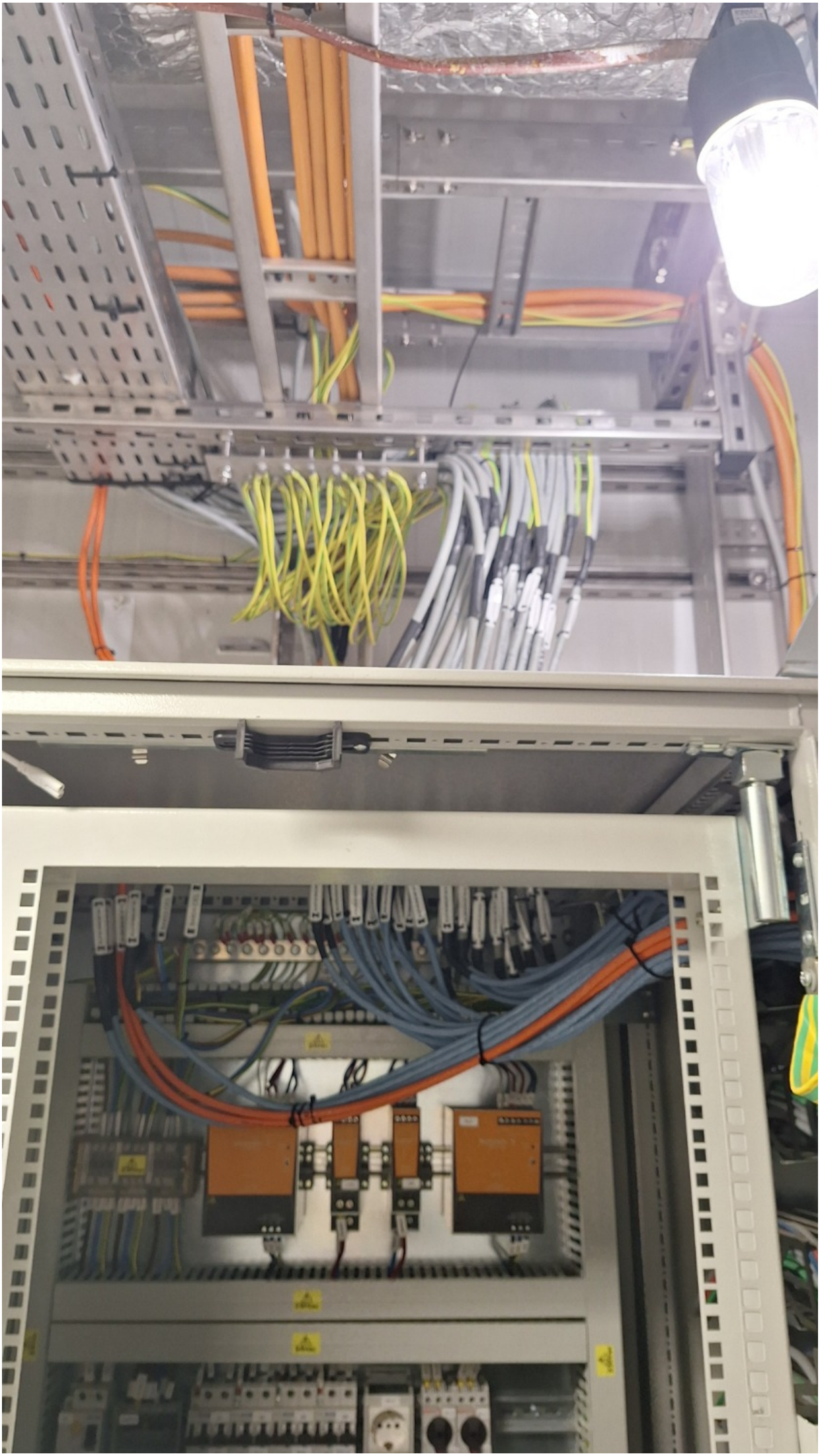
DONE

Name: Alessio Polo
Date: 2025-02-04
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:





ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000928

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004349	1.4 Discipline	Telecom
1.2 Item	63-LP-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Missing cable tag SS project, externally pannel A-630000.

Name: Alessio Polo
Date: 2024-11-26
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-26
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Eleonora Carotenuto
Date: 2025-01-02
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

C-63-CMPR-START-001
C-63-XV-051
C-63-ZSH-057
C-63-PDIT-052
63-LP-001/B400-MET-001

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000929

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004349	1.4 Discipline	Telecom
1.2 Item	63-LP-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Missing cable tag , cabinet input A-630000.

Name: Alessio Polo

Date: 2024-11-26

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-26
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


4xI 2-/4-wire
DIAG
SCH

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000957

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004349	1.4 Discipline	Telecom
1.2 Item	63-LP-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

The cable is not supported and fixed to the rack (outside panel)anel)

Name: Alessio Polo

Date: 2024-11-27

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-27
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-01-23

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000961

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004349	1.4 Discipline	Telecom
1.2 Item	63-LP-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Missing cable tag , cabinet input U-64000

Name: Alessio Polo

Date: 2024-11-27

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-11-27
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-04

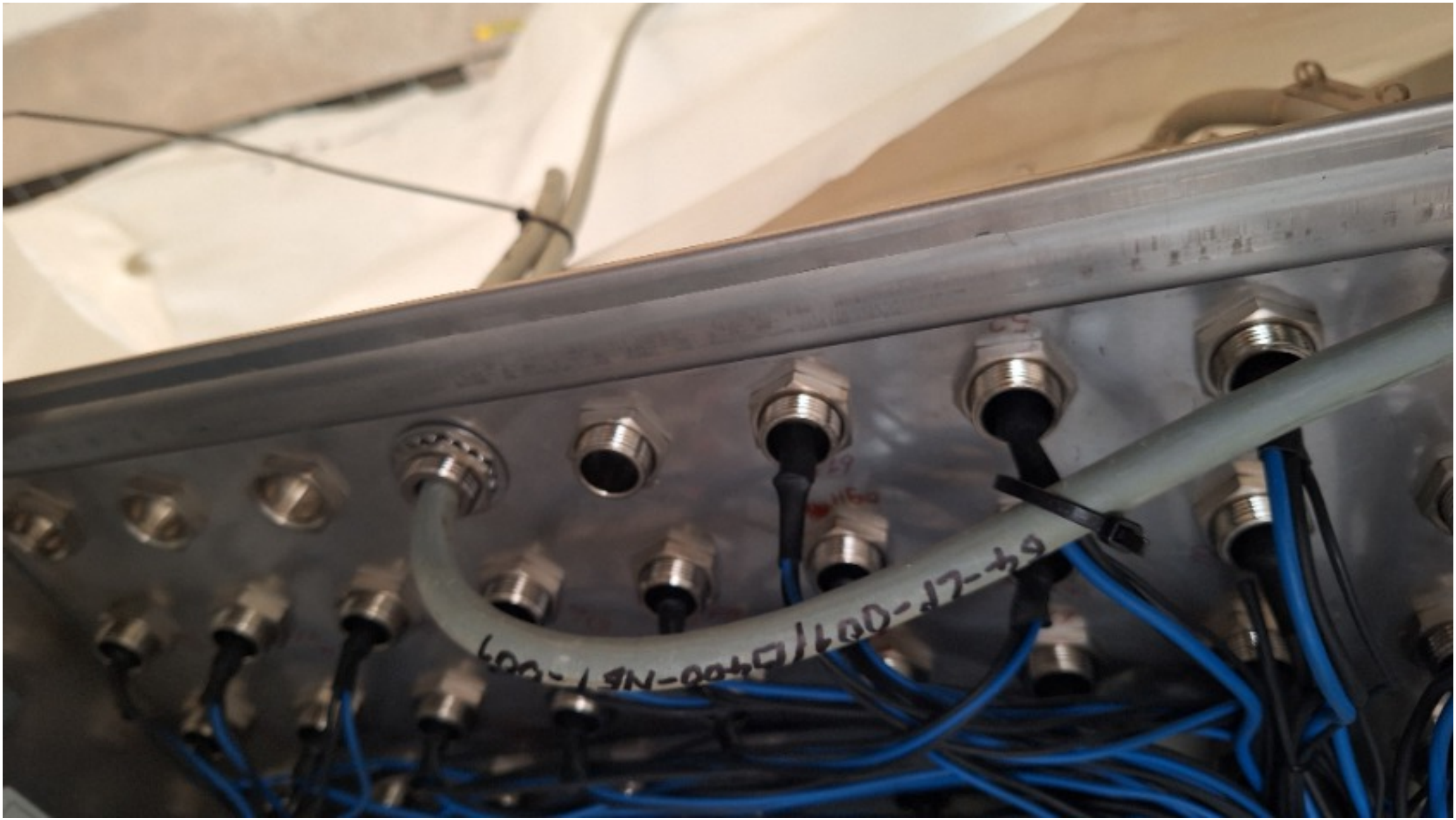
Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:




SCH

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000992

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003665	1.4 Discipline	Piping
1.2 Item	63-00-TP-059	Test Pack 63-00-TP-059	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

General final touch-up to do.

Name: Massimo Bruschi

Date: 2024-11-28

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Massimo Bruschi
3.4 Activity code	MC Mechanical Completion	Date	2024-11-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Activity done.

Name: Kangi Albonetti

Date: 2025-02-06

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000993

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003665	1.4 Discipline	Piping
1.2 Item	63-00-TP-059	Test Pack 63-00-TP-059	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Unmounted spool-A with its erection materials.

Name: Massimo Bruschi

Date: 2024-11-28

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Massimo Bruschi
3.4 Activity code	MC Mechanical Completion	Date	2024-11-28
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Flange management activities done for this test pack.

Name: Lorenzo Novaga

Date: 2025-01-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001053

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003421	1.4 Discipline	Piping
1.2 Item	63-00-TP-025	Test Pack 63-00-TP-025	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

All U-BOLTS S-211 not installed (refer to: ISO 123A90-FDL-PP-DI-00127-01 and 123A90-FDL-PP-DI-00127-02)

Name: Massimo Bruschi

Date: 2024-11-29

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Massimo Bruschi
3.4 Activity code	MC Mechanical Completion	Date	2024-11-29
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Kangi Albonetti

Date: 2025-02-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001054

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003421	1.4 Discipline	Piping
1.2 Item	63-00-TP-025	Test Pack 63-00-TP-025	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Support PS-02075 (F1) is only tack welded (refer to: ISO 123A90-FDL-PP-DI-00127-01)

Name: Massimo Bruschi

Date: 2024-11-29

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Massimo Bruschi
3.4 Activity code	MC Mechanical Completion	Date	2024-11-29
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Kangi Albonetti

Date: 2025-02-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001055

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003421	1.4 Discipline	Piping
1.2 Item	63-00-TP-025	Test Pack 63-00-TP-025	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Spool C is out level of 1,5° (refer to: ISO 123A90-FDL-PP-DI-00127-02)

Name: Massimo Bruschi

Date: 2024-11-29

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Massimo Bruschi
3.4 Activity code	MC Mechanical Completion	Date	2024-11-29
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Kangi Albonetti

Date: 2025-02-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001056

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003421	1.4 Discipline	Piping
1.2 Item	63-00-TP-025	Test Pack 63-00-TP-025	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Support PS-02027 (F2) is out of level 1,1° (refer to: ISO 123A90-FDL-PP-DI-00127-02)

Name: Massimo Bruschi

Date: 2024-11-29

Signature:

3 - DEFECT ASSESSMENT

-

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Massimo Bruschi
3.4 Activity code	MC Mechanical Completion	Date	2024-11-29
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

See PL 30003464.

Name: Kangi Albonetti

Date: 2025-02-17

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001270

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10001458	1.4 Discipline	Instrumental
1.2 Item	C-63-XA-003/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Missing cable tag SS .

Name: Alessio Polo

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001271

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10001458	1.4 Discipline	Instrumental
1.2 Item	C-63-XA-003/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Missing cores identification tag. Cabinet side A-63000. (see document 123A90-DDL-EL-DD-20092 sh.7-8)

Name: Alessio Polo
Date: 2024-12-04
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

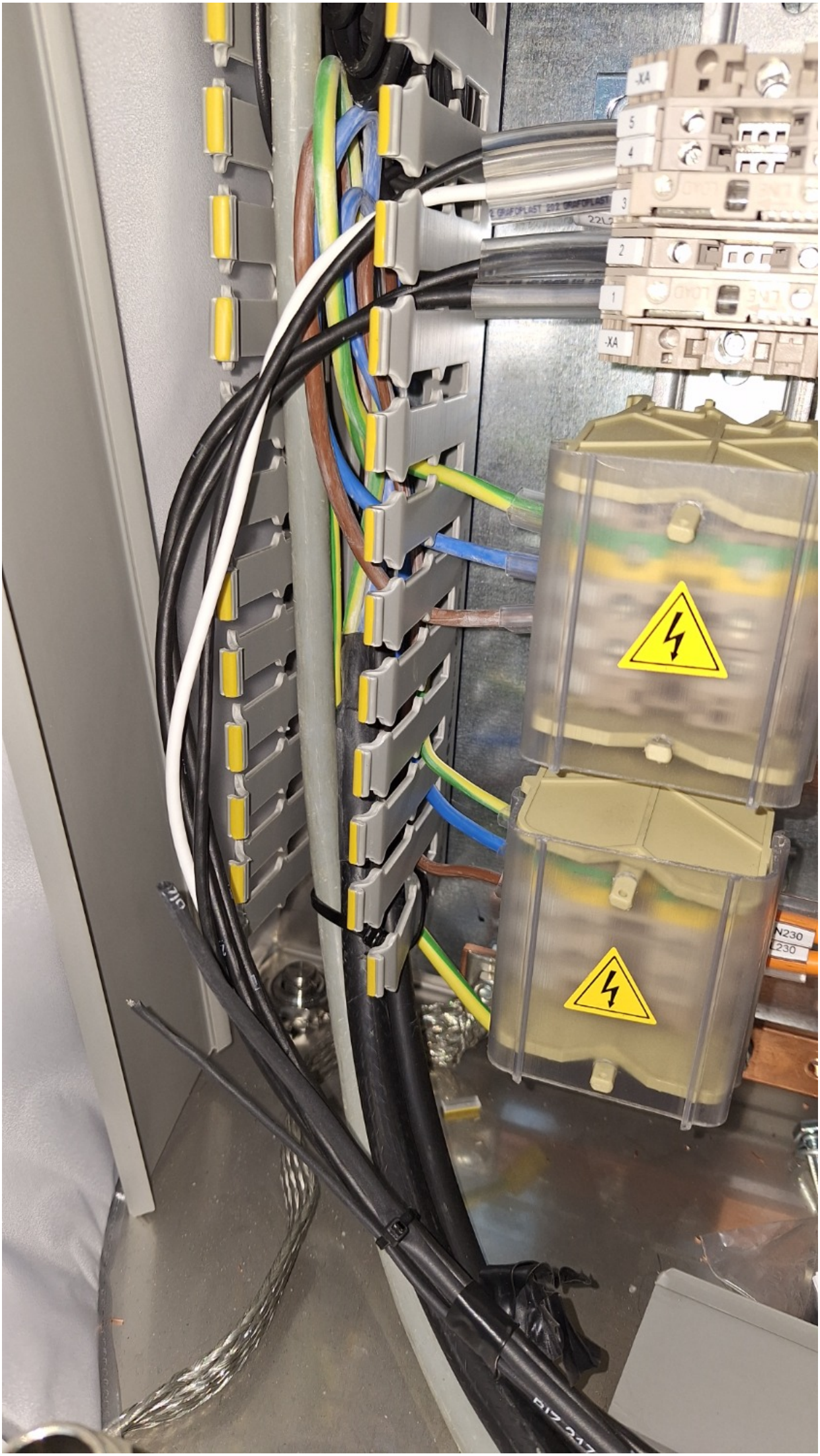
5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu
Date: 2025-02-08
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


XA
5
4
3
2
1
-XA
N230
230

ROSETTI MARINO CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001275

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10001451	1.4 Discipline	Instrumental
1.2 Item	C-63-XS-001/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Missing cores identification tag. Cabinet side B400-SIS-001 / JB A-63000 . (see document 123A90-DDL-IN-DG-40016 sh.3)

Name: Alessio Polo

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-02-08

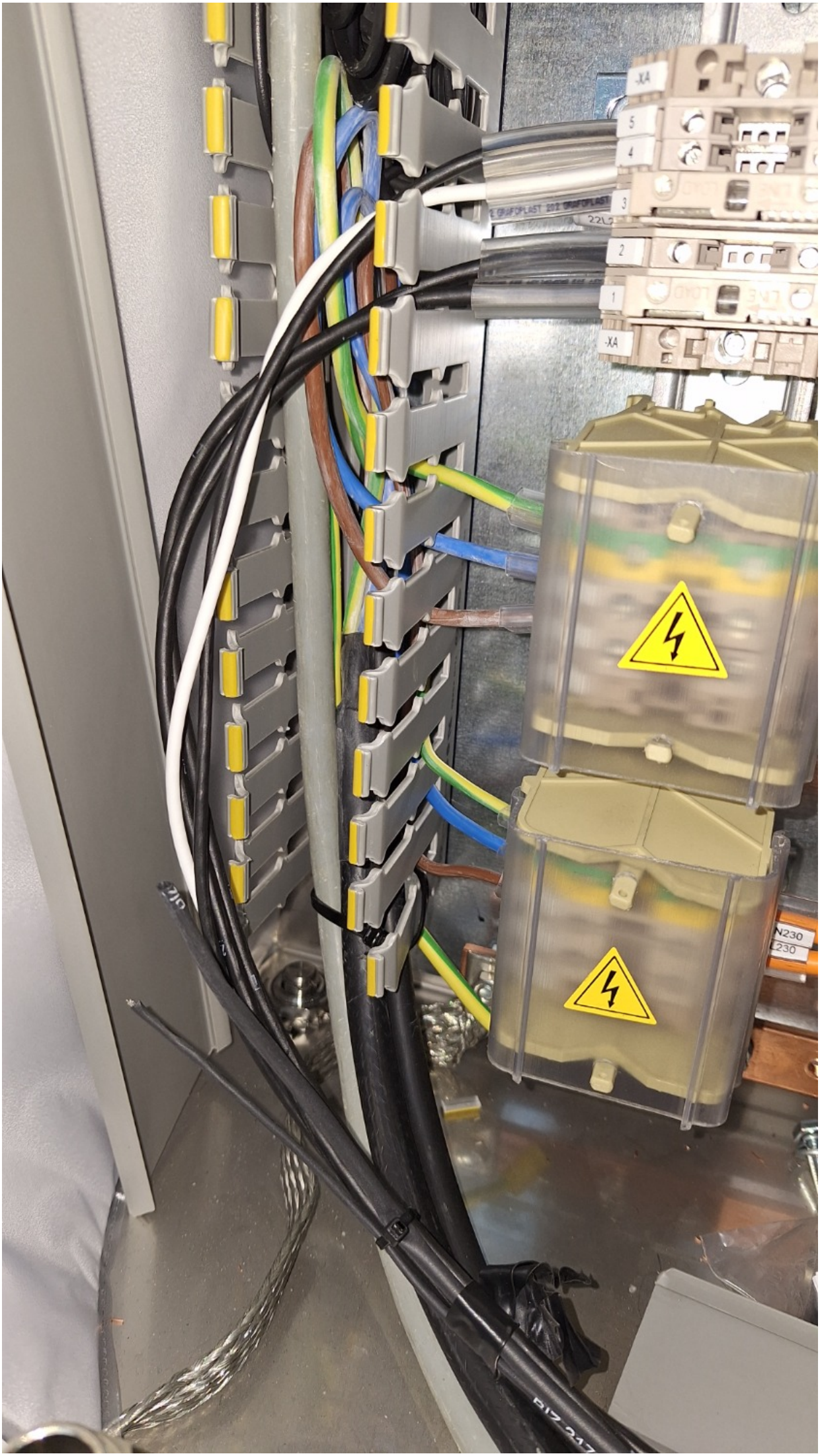
Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


XA
5
4
3
2
1
-XA
N230
230

4
6
8
10
12
14
16
18
20
26
28
30
32
34
CB-200F4B/2ТВ-XS-000/12
CB-200F4B/2ТВ-XS-000/14

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001276

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10001451	1.4 Discipline	Instrumental
1.2 Item	C-63-XS-001/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Missing cable tag SS . side A-63000

Name: Alessio Polo

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001281

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000587	1.4 Discipline	Electrical
1.2 Item	84311-CEL		AC UPS - PAS DB / UCP - Instrument Air Package A-63000
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

Missing cable tag SIDE DP-200F3 / Panel A-6300

Name: Alessio Polo

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

C-63-PS-052
C-63-PS-064
C-63-ZSH-040
C-63-ZSL-040
C-63-XX-053


84312-CEL
84311-CEL
8431 4-CEL
8431 8-CEL

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001282

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000587	1.4 Discipline	Electrical
1.2 Item	84311-CEL		AC UPS - PAS DB / UCP - Instrument Air Package A-63000
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

Missing cores identification tag. Cabinet side DP-200F3 / A-63000 . (see document 123A90-DDL-EL-DD-20092 sh.7-8)

Name: Alessio Polo

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-15

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


X48 N
X47 N
X46 N
X45 N
X44 N
X43 N
X42 N
X41 N
X40 N
X39 N
X38 N
X37 N
X36 N
X35 N
X34 N
X31 PE
N/X48/N/84306-CEL
N/X46/N/84304-CEL
N/X45/N/84303-CEL
N/X44/N/84302-CEL
N/X43/N/84301-CEL
N/X42/N/84317-CEL
N/X41/N/84316-CEL
N/X40/N/84315-CEL
N/X39/N/84314-CEL
N/X38/N/84308-CEL
N/X37/N/8430?-CEL

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001283

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000587	1.4 Discipline	Electrical
1.2 Item	84311-CEL		AC UPS - PAS DB / UCP - Instrument Air Package A-63000
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

Missing the earth connection between the terminal block (PE) and the earthing bar (PE). see 123A90-DDL-EL-DG-20149 sh.40 (SIDE A-63000)

Name: Alessio Polo
Date: 2024-12-04
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

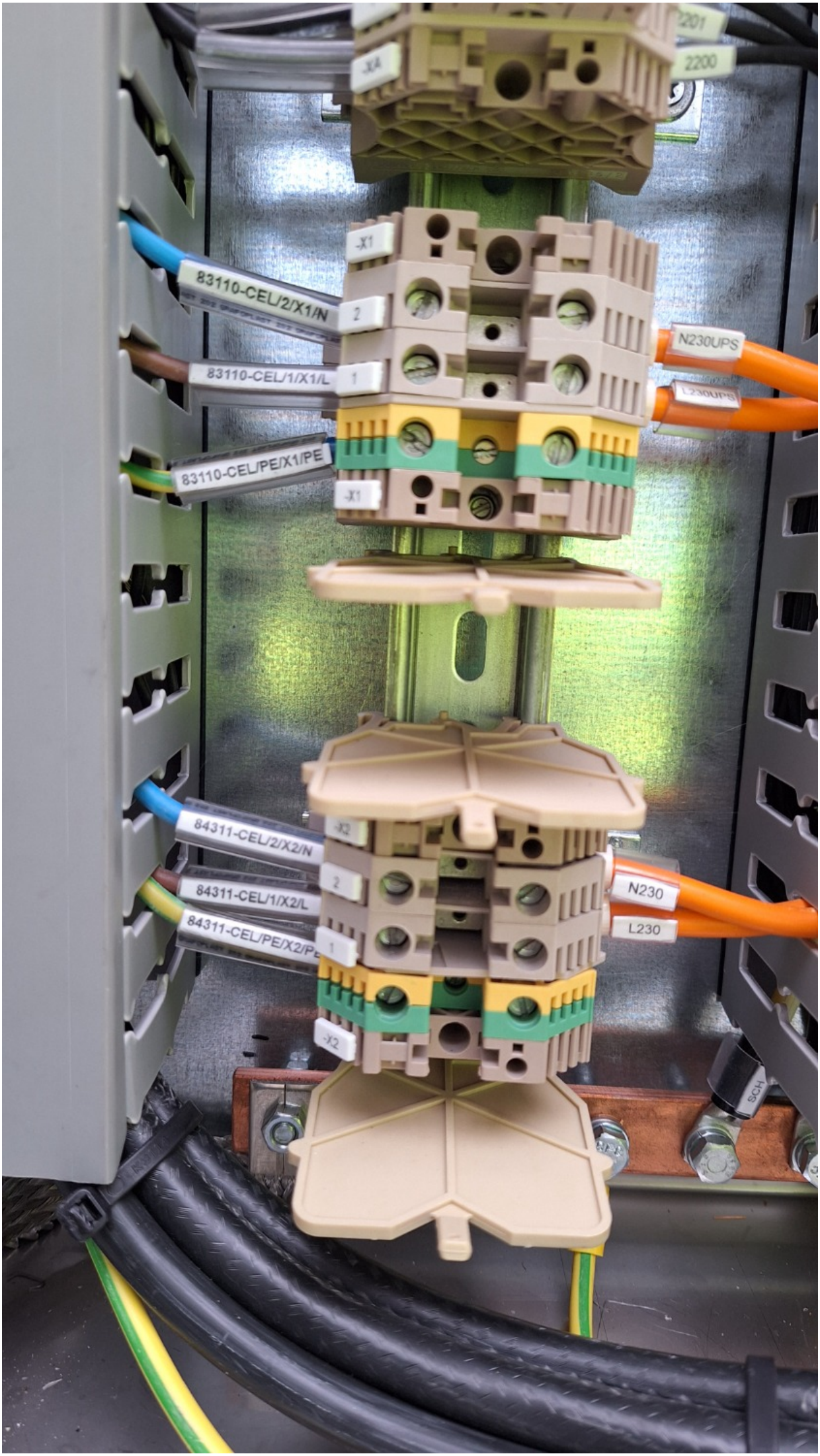
5 - CLEARANCE CHECK

The terminal earthing connection is grounded in the panel.

Name: Giovanni Tangianu
Date: 2024-12-06
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


2201
-XA
2200
-X1
83110-CEL/2/X1/N
2
N230UPS
83110-CEL/1/X1/L
1
L230UPS
83110-CEL/PE/X1/PE
-X1
84311-CEL/2/X2/N
-X2
2
N230
84311-CEL/1/X2/L
L230
1
-X2
SCH

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001287

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000629	1.4 Discipline	Electrical
1.2 Item	83110-CEL		Lighting & Small Power DB BoP / UCP - Instrument Air Package -A-63000 - Auxiliary
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

Missing the earth connection between the terminal block (PE) and the earthing bar (PE). see 123A90-DDL-EL-DG-20149 sh.53 . side A-63000.

Name: Alessio Polo
Date: 2024-12-04
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

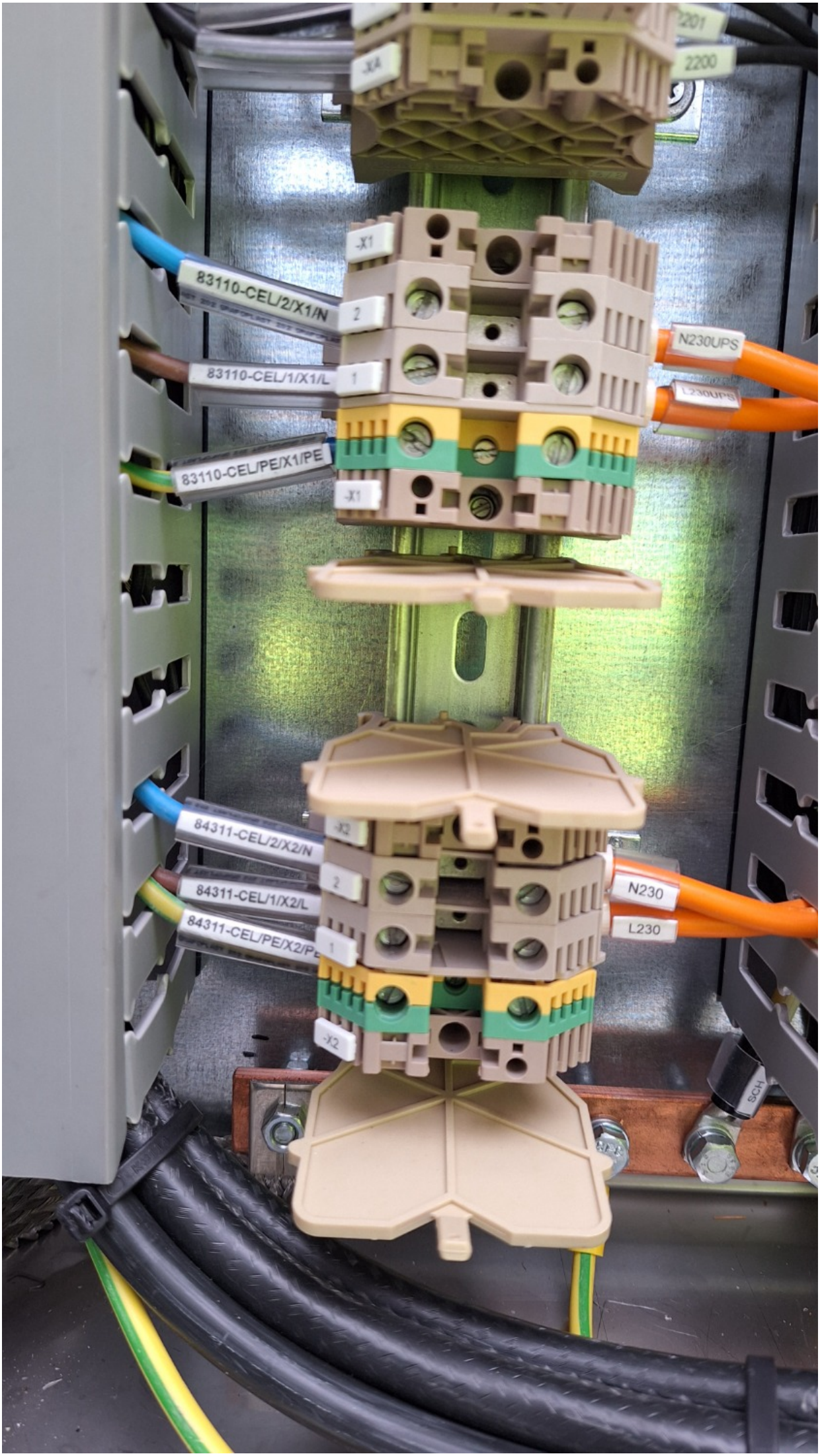
5 - CLEARANCE CHECK

The terminal earthing connection is grounded in the panel.

Name: Giovanni Tangianu
Date: 2024-12-06
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


2201
-XA
2200
-X1
83110-CEL/2/X1/N
2
N230UPS
83110-CEL/1/X1/L
1
L230UPS
83110-CEL/PE/X1/PE
-X1
84311-CEL/2/X2/N
-X2
2
N230
84311-CEL/1/X2/L
L230
1
-X2
SCH

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001288

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000629	1.4 Discipline	Electrical
1.2 Item	83110-CEL		Lighting & Small Power DB BoP / UCP - Instrument Air Package -A-63000 - Auxiliary
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

Missing cable tag . side A-63000 / DP-200N1

Name: Alessio Polo
Date: 2024-12-04
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo
Date: 2025-02-03
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

C-63-PS-052
C-63-PS-064
C-63-ZSH-040
C-63-ZSL-040
C-63-XX-053


LIVE POWER
TTO TENSIONE
400 V

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001289

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000629	1.4 Discipline	Electrical
1.2 Item	83110-CEL		Lighting & Small Power DB BoP / UCP - Instrument Air Package -A-63000 - Auxiliary
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

Missing cores identification tag. side DP-200N1 / A-63000 . (see document 123A90-DDL-EL-DD-20092 sh.7-8)

Name: Alessio Polo

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-19

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

3
2
1
-XA
-X2
-X1


X1-93-N-83105-CEL
X1-94-L3-83106-CEL
X1-95-N-83106-CEL
X1-96-L2-83107-CEL
X1-97-N-83107-CEL
X1-98-L2-83108-CEL
X1-99-N-83108-CEL
X1-100-L2-83109-CEL
83113 CEL
122/X1/L/83119-CEL
123/X1/N/83119-CEL
124/X1/L/83120-CEL
125/X1/N/83120-CEL

ROSETTI MARINO CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001297

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000537	1.4 Discipline	Electrical
1.2 Item	83017-CEL-1	LV Switchgear / Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Cover of terminal block doesn't work properly. See attached photo.

Name: Giovanni Tangianu

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-02-06

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

X0 - L2
X0 - L3
X0 - PE
X0 - L2

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001298

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000538	1.4 Discipline	Electrical
1.2 Item	83017-CEL-2	LV Switchgear / Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Cover of terminal block doesn't work properly. See attached photo.

Name: Giovanni Tangianu

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name: Alessio Polo

Date: 2025-02-06

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

X0 - L2
X0 - L3
X0 - PE
X0 - L2

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001299

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000538	1.4 Discipline	Electrical
1.2 Item	83017-CEL-2	LV Switchgear / Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Identification tag wires missing both side the83017-CEL-2 .

Name: Giovanni Tangianu

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-19

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

X0 - L2
X0 - L3
X0 - PE
X0 - L2

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001300

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000537	1.4 Discipline	Electrical
1.2 Item	83017-CEL-1	LV Switchgear / Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Identification tag wires missing both side the 83017-CEL-1 .

Name: Giovanni Tangianu

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Andrea Andreani

Date: 2025-02-19

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001301

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000538	1.4 Discipline	Electrical
1.2 Item	83017-CEL-2	LV Switchgear / Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Missing cable tags inside and outside both panels (83017-CEL-2).

Name: Giovanni Tangianu

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001302

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000537	1.4 Discipline	Electrical
1.2 Item	83017-CEL-1	LV Switchgear / Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Missing cable tags inside and outside both panels (83017-CEL-1).

Name: Giovanni Tangianu

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Installed.

Name: Giovanni Tangianu

Date: 2025-02-04

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001303

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000537	1.4 Discipline	Electrical
1.2 Item	83017-CEL-1	LV Switchgear / Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Cover of terminal block on grounding cable is missing. See attached photo.

Name: Giovanni Tangianu
Date: 2024-12-04
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Not required by Vendor

Name: Eleonora Carotenuto
Date: 2025-02-28
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

X0 - L2
X0 - L3
X0 - PE
X0 - L2

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001304

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000538	1.4 Discipline	Electrical
1.2 Item	83017-CEL-2	LV Switchgear / Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Cover of terminal block on grounding cable is missing. See attached photo.

Name: Giovanni Tangianu
Date: 2024-12-04
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Giovanni Tangianu
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Not required by Vendor

Name: Eleonora Carotenuto
Date: 2025-02-28
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

X0 - L2
X0 - L3
X0 - PE
X0 - L2

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001317

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002352	1.4 Discipline	Electrical
1.2 Item	A-63000	Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Earthing System is not as indicated by the Electrical Typical Installation Details document . see 123A90-DDL-EL-DD-20090 sh.3

Name: Alessio Polo
Date: 2024-12-04
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo
Date: 2025-01-23
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001318

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002352	1.4 Discipline	Electrical
1.2 Item	A-63000	Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

The cables are not adequately preserved. inside Skid

Name: Alessio Polo

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Eleonora Carotenuto

Date: 2025-01-22

Signature:

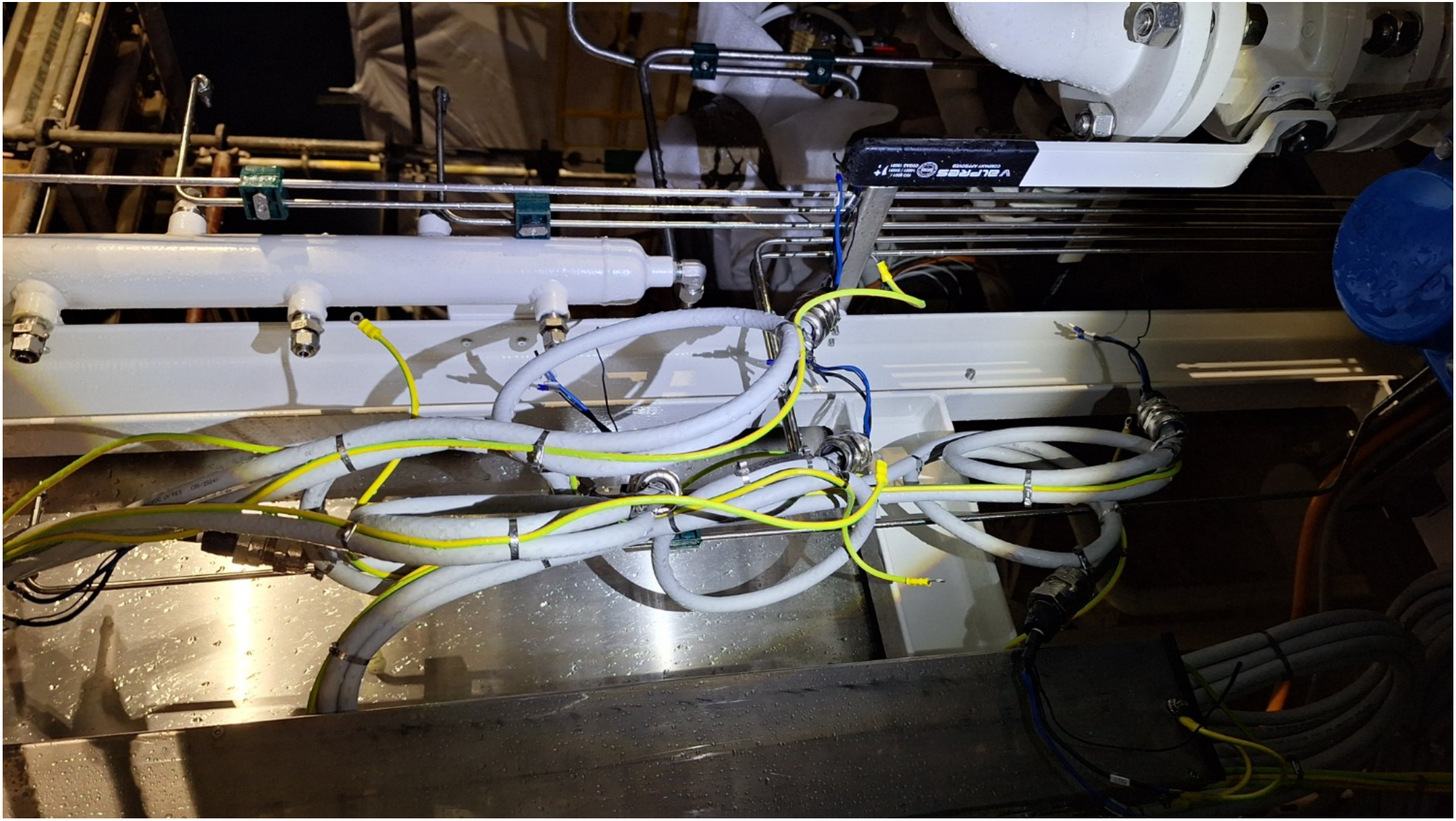
6- CLEARANCE APPROVAL

Name:

Date:

Signature:





ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000482

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

Check if the set point be set to 9,5 since on the air receiver (63-PT-004) we have a pressure of 8,8 barg

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

done - max 10 - min 8barg

Name VENDOR COES

Date 2025-01-24

Signature

5 - CLEARANCE CHECK

done - max 10 - min 8barg

Name Stefano Linari

Date 2025-01-24

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000483

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

Package to be test with PLC set to REMOTE MODE

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

tested

Name VENDOR COES

Date 2025-02-06

Signature

5 - CLEARANCE CHECK

tested

Name Stefano Linari

Date 2025-02-06

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000484

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

necessary to set the operating logic to ensure that with a DEW POINT measured > -40°C, the DRYER in operation is exchanged with the DRYER in pause

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

DONE

Name VENDOR COES

Date 2025-02-06

Signature

5 - CLEARANCE CHECK

DONE

Name Stefano Linari

Date 2025-02-06

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000485

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

TO BE IMPLEMENT: THE PRESSURE SWITCHES IN BAD QUALITY MUST BLOCK AIR DRYER (to be verify at yard)

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

VERIFIED - CLOSED

Name VENDOR COES

Date 2025-02-06

Signature

5 - CLEARANCE CHECK

VERIFIED - CLOSED

Name Stefano Linari

Date 2025-02-06

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000486

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

TO BE IMPLEMENT: THE INTERVENTION TIME OF THE LIMIT SWITCHES (to be verify at yard)

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

DONE

Name VENDOR COES

Date 2025-01-24

Signature

5 - CLEARANCE CHECK

DONE

Name Stefano Linari

Date 2025-01-24

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30000487

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task		1.4 Discipline	Mechanical
1.2 Item	A-63000		Instrument Air Package
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

TO BE IMPLEMENTED: VALVE POSITION DISCREPANCY (to be verify at yard)

Name

Date

Signature

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Stefano Linari
3.4 Activity code	FAT factory acceptance test	Date	2024-10-29
3.5 Action by		Signature	--- Proverlis --- Duplicata issued from database information Signature is on original form

4 - PERFORMED ACTION

DONE

Name VENDOR COES

Date 2025-01-24

Signature

5 - CLEARANCE CHECK

DONE

Name Stefano Linari

Date 2025-01-24

Signature

6- CLEARANCE APPROVAL

Name

Date

Signature

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001319

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002353	1.4 Discipline	Instrumental
1.2 Item	A-63000	Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Earthing System is not as indicated by the Electrical Typical Installation Details document . see 123A90-DDL-EL-DD-20090 sh.3

Name: Alessio Polo

Date: 2024-12-04

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Alessio Polo

Date: 2025-01-23

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001320

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002353	1.4 Discipline	Instrumental
1.2 Item	A-63000	Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

The tubing are not adequately preserved. inside Skid

Name: Alessio Polo
Date: 2024-12-04
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-04
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Eleonora Carotenuto
Date: 2025-01-22
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:



ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30001379

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10000587	1.4 Discipline	Electrical
1.2 Item	84311-CEL		AC UPS - PAS DB / UCP - Instrument Air Package A-63000
1.3 Subsystem	63-00		Instrument Air Package (A-63000)

2 - OBSERVATION

The cable gland are not closed in accordance with specification.

Name: Alessio Polo
Date: 2024-12-05
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Alessio Polo
3.4 Activity code	MC Mechanical Completion	Date	2024-12-05
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

DONE

Name: Josip Krizanic
Date: 2025-02-25
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:


84312-CEL
84311-CEL
8431 4-CEL
8431 8-CEL

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002432

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002354	1.4 Discipline	Mechanical
1.2 Item	A-63000	Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

One of the 10 baseplates for the anchor down points has not been installed on the upper deck structure. See Drawing and 3d excerpt attached for its position.

Name: Kangi Albonetti

Date: 2025-01-07

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-07
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

A plate has been drilled, added underneath and bolted to the skid (but not welded to the structure).

Name: Kangi Albonetti

Date: 2025-01-16

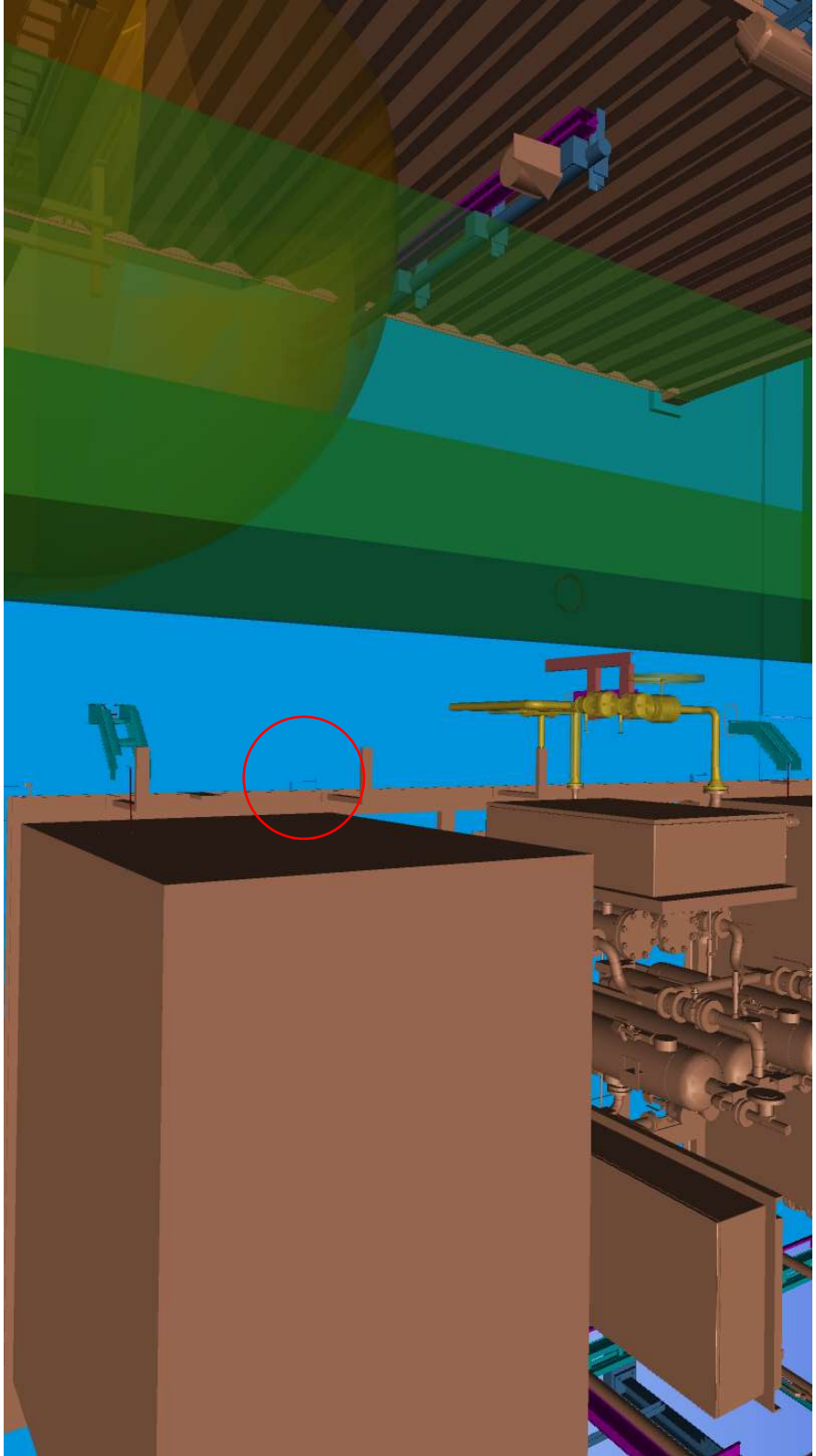
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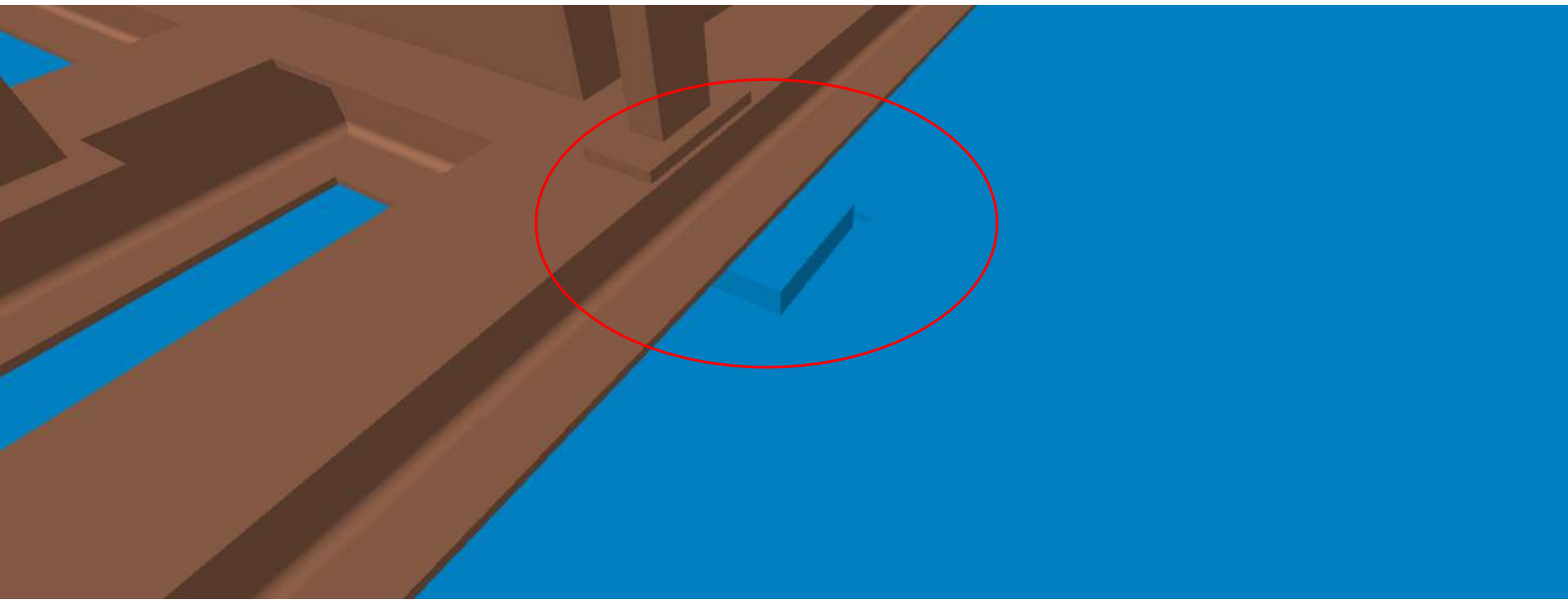
6- CLEARANCE APPROVAL

Name:

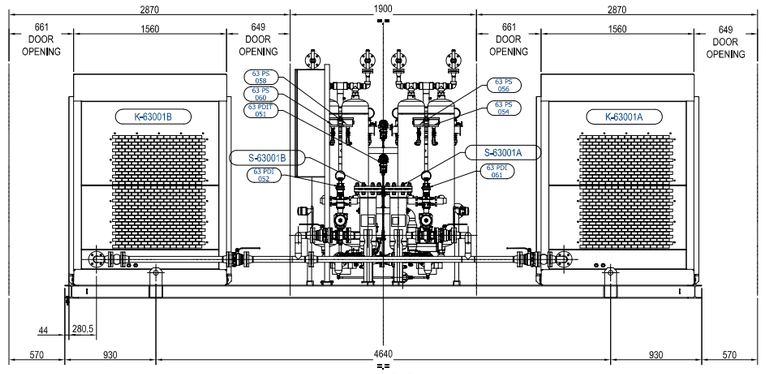
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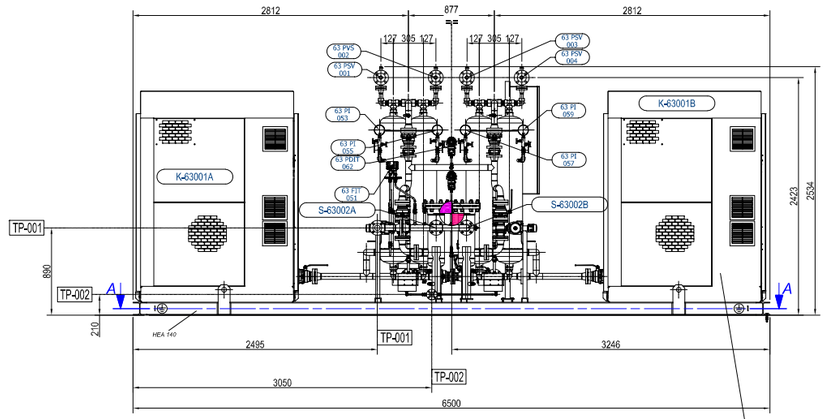




DRAWING NO. 1724000428-MAC-DA-00005 REV. 02



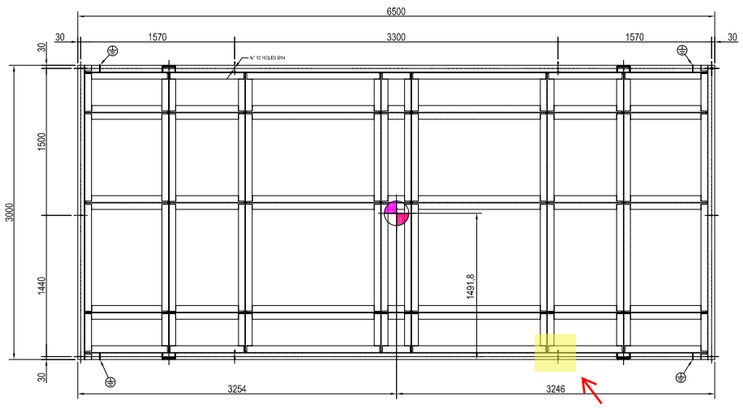
VIEW FROM "C"



VIEW FROM "A"

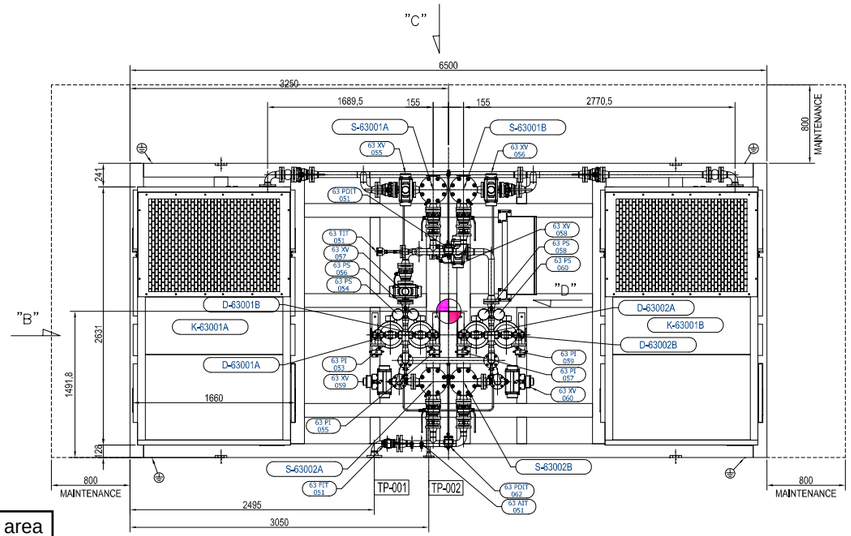
CABLE ENTRY SUITABLE FOR POWER CABLES 5G70sqmm

POWER SUPPLY 400V-3PH-50HZ COMPRESSOR POWER SUPPLY

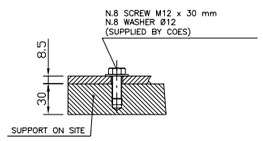


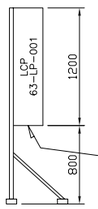
SECTION A-A (1 : 25)

missing plate underneath highlighted area



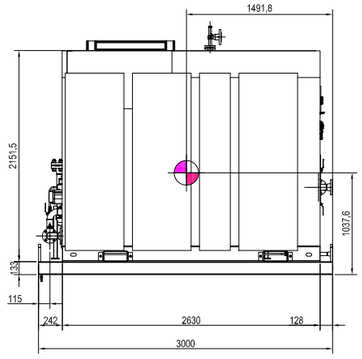
"A"





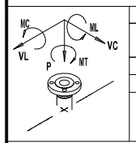
GLAND PLATE CABLE ENTRY SUITABLE
POWER SUPPLY 230V (UPS)
POWER SUPPLY 230V (Normal)
LOCAL CONTROL PANEL POWER SUPPLY

VIEW FROM "D"



VIEW FROM "B"

FOUNDATION LOADS TABLE			
	LIFTING	EMPTY	OPERATION
VERTICAL (kN)	10.8	10.8	10.8
SHEAR Y (kN)	0	0	0
SHEAR X (kN)	0	0	0
MOMENT Y (kNm)	0	0	0
MOMENT X (kNm)	0	0	0



MAX ALLOWABLE LOADS AT B,L, CONNECTIONS							
	FORCES [kN]			MOMENTS [kNm]		
	VL	P	VC	MC	MT	ML
A	1,8	1,5	1,8	0,3	0,4	0,2
B	2	2	2	0,8	0,8	0,8

TAG NUMBER OF EQUIPMENTS	
TAG	DESCRIPTION
K-63001A/B	OIL FREE SCREW COMPRESSOR 1&2
S-63001A/B	DRYER PRE-FILTER
D-63001A/B	DRYER UNIT 1
D-63002A/B	DRYER UNIT 2
S-63002A/B	DRYER AFTER-FILTER
V-63001	INSTRUMENT AIR RECEIVER

NAMEPLATE "COES"

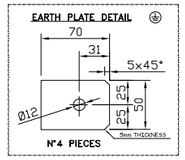
MANUFACTURER	COES SRL - STEZZANO (BG)		
SERVICE	INSTRUMENT AIR PACKAGE		
YEAR	2024	SERIAL NUMBER	*****
WEIGHT	11000 kg	ITEM	A-63000
PRESSURE	12 barg	TEMPERATURE	-10°C / 90°C

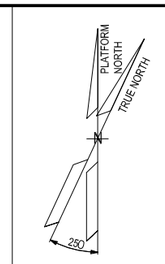
CE 0425 2014/68/UE - Cat.III

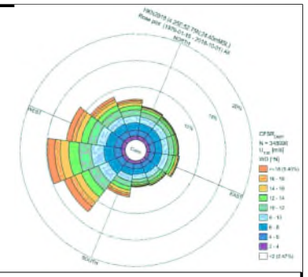
CONNECTIONS			
POS.	TYPE	SERVICE	MATERIAL
A	ø 1" ANSI 150# R.F.	DRAIN DISCHARGE	SS 316/316L
B	ø 2" ANSI 150# R.F.	INSTRUMENT AIR OUTLET	SS 316/316L

TOTAL WEIGHT : 11.000 kg

EARTH PLATE DETAIL







NOTES

1. SKID TOTAL WEIGHT: 5000 kg
2. FOR EQUIPMENT WEIGHT REFER TO EQUIPMENT DS, DOC. NO. 1724000428-MAC-DS-00011
3. FOR DESIGN PARAMETERS & CODES REFER TO EQUIPMENT DS, DOC. NO. 1724000428-MAC-DS-00011
4. FOR WELDING DETAILS REFER TO WELDING SPECIFICATION, DOC. NO. 1724000428-WEL-LIS-00021
5. FOR PAINTING DETAILS REFER TO PAINTING SPECIFICATION, DOC. NO. 1724000428-MAT-PRO-00022
6. NO LUBRICATION REQUIRED
7. FOR LOAD DETAILS REFER TO STRUCTURAL CALCULATION, DOC. NO. 1724000428-ST-RE-00010

LEGEND

HOLDS

N

coes

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	06/08/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
01	08/05/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
00	21/03/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
PACKAGE GENERAL ARRANGEMENT
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE N/A
DRAWN GT	CHECKED MC	APPROVED TM	DATE 06/08/24
A1	DRAWING NO. 1724000428-MAC-DA-00005	SHEET 001	REV. 02

File Name : 1724000428-MAC-DA-00005

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002651

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004527	1.4 Discipline	Mechanical
1.2 Item	V-63001	Air Receiver	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Manhole has not been opened. Internal inspection not completed.

Name: Kangi Albonetti

Date: 2025-01-10

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name: Lorenzo Novaga

Date: 2025-03-06

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002654

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004527	1.4 Discipline	Mechanical
1.2 Item	V-63001	Air Receiver	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Valve BLPH-MV-820 installed in place of BLPH-MV-741.

Name: Kangi Albonetti

Date: 2025-01-10

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-10
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-01-15

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002655

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004527	1.4 Discipline	Mechanical
1.2 Item	V-63001	Air Receiver	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Item PIT-059 installed in place of the 63-PIT-064.

Name: Kangi Albonetti

Date: 2025-01-10

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-10
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-01-15

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002656

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004527	1.4 Discipline	Mechanical
1.2 Item	V-63001	Air Receiver	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

For items TI053 and TIT052 the fasteners are bolts L7+nuts 2H but the instruments are in stainless steel. Replace fasteners or add an insulation kit.

Name: Kangi Albonetti

Date: 2025-01-10

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-10
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

The installation is accepted by ENG dpt as it.

Name: Lorenzo Novaga

Date: 2025-03-18

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002657

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004527	1.4 Discipline	Mechanical
1.2 Item	V-63001	Air Receiver	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Anchor down system is different from the one marked in the GA drawing 1724000428-MAC-DD-00006. Item 45 has been substituted by M33x65 and there is no item 47 because the assembly is "blind bottom hole" type.

Name: Kangi Albonetti

Date: 2025-01-10

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name: Lorenzo Novaga

Date: 2025-03-06

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002658

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004527	1.4 Discipline	Mechanical
1.2 Item	V-63001	Air Receiver	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

In the GA 1724000428-MAC-DD-00006 ther is no earthing lug marked. In the field there is only one earthing lug instead of two. position has been marked in attached dwg.

Name: Kangi Albonetti

Date: 2025-01-10

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-10
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Activity done, see attached dwg.

Name: Lorenzo Novaga

Date: 2025-02-03

Signature:

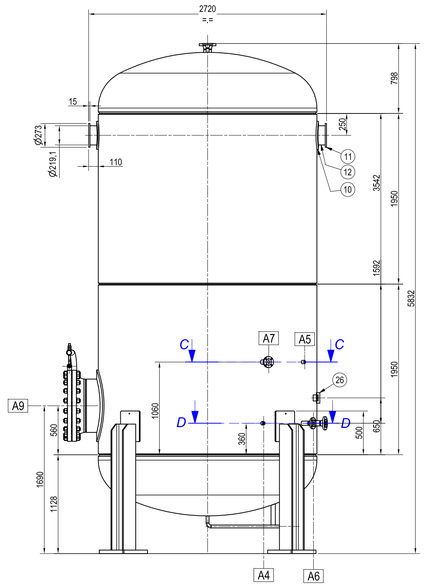
6- CLEARANCE APPROVAL

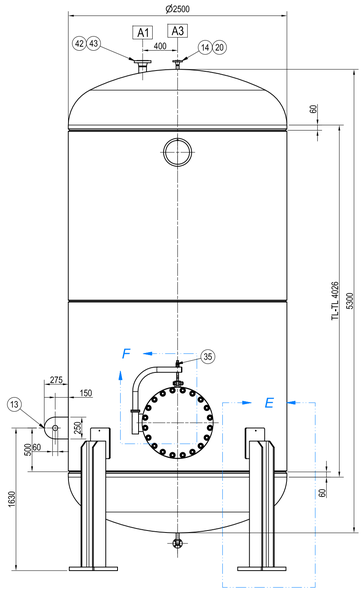
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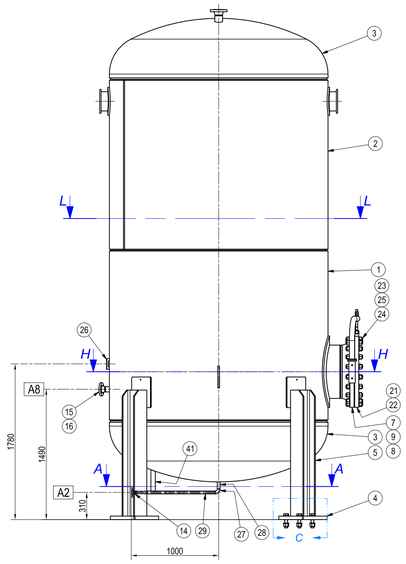
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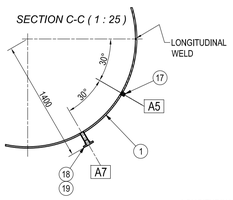
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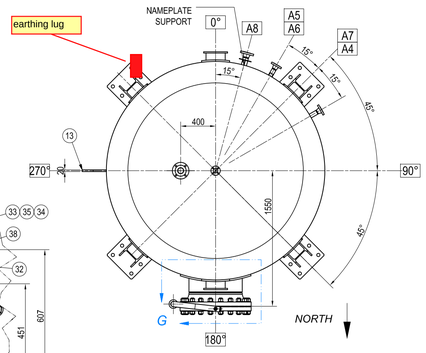




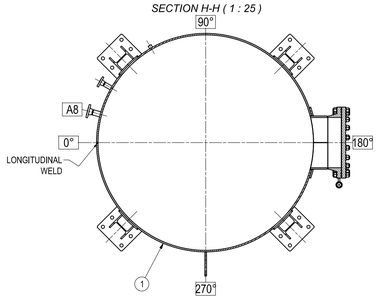


SECTION C-C (1 : 25)

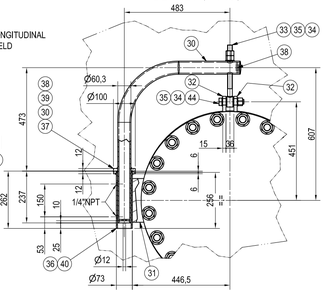




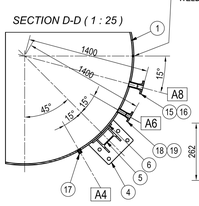
SECTION H-H (1 : 25)



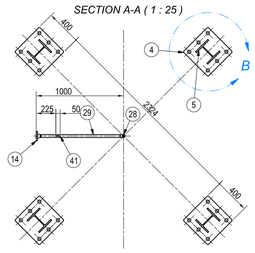
DETAIL F (1 : 10)



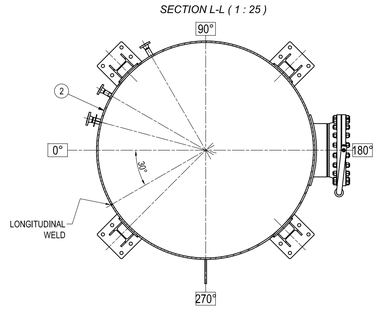
SECTION D-D (1 : 25)



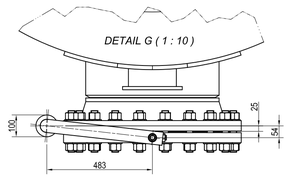
SECTION A-A (1 : 25)



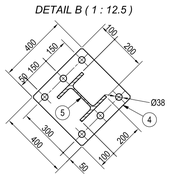
SECTION L-L (1 : 25)



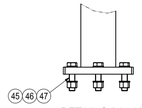
DETAIL G (1 : 10)



DETAIL B (1 : 12.5)



DETAIL C (1 : 10)



NAMEPLATE DETAIL

MANUFACTURER	COES SRL - STEZZANO (BG)
EQUIPMENT	AIR RECEIVER V-63001
SERIAL NUMBER	S240119 YEAR 2024
DESIGN CODE	ASME VIII Div. 1 Ed. 2021 / PED 2014/68/UE
CONFORMITY	Category IV
FLUID	AIR
DESIGN PRESSURE	12 barg
DESIGN TEMPERATURE	-29 / + 90°C
TEST PRESSURE	17.2 barg
CORROSION ALLOWANCE	1.5 mm
WEIGHT	7450 kg
VOLUME	23100 l

CE 0425

ELENCO PARTI / BILL OF MATERIAL

POS	QTY	DESCRIPTION	MATERIAL	WGT	TEST	COD. COES
1	1	SHELL ø2500 Thk. 18 L=1950 (Manhole 24" side)	SA 516 Gr.70	2096,5	B	L3714
2	1	SHELL ø2500 Thk. 18 L=1950	SA 516 Gr.70	2138,5	B	L3715
3	2	ELL. HEAD ø/2464 Thk. 18mm (Thk. 15.3mm min.)	SA 516 Gr.70	2053,1	B	L3728
4	4	PLATE 400x400 thk=40 - N° 6 holes Ø38	SA 516 Gr.70	192,7	C	L3998
5	5760,000 mm	PROFILE HEB 200 L=1440	S 355 J2	351,6	C	F7552
6	4	PAD 350x300 thk=15	SA 516 Gr.70	49,9	B	L3999
7	1	FLANGE W.N.24" Sch. 40 150# RF	SA 350 Gr. LF2 Cl.1	135,9	B	H5869
8	1	PAD thk=18 for Man Hole 24"	SA 516 Gr.70	32,2	B	L3729
9	1	SHELL ø/e610 Thk. 18 L=200	SA 516 Gr.70	45,6	B	L3730
10	2	PAD Øe=320 Øi=222 thk=18 for Trunnion	SA 516 Gr.70	11,8	B	L4000
11	2	DISK Ø273 thk=15	SA 516 Gr.70	13,8	C	D2222
12	200,000 mm	PIPE SMLSS 8 Sch.80	SA 333 Gr. 6	12,6	C	D9560
13	1	LIFTING LUG A=250 E=150 HOLE Ø60 THK=20	SA 516 Gr.70	9,3	B	L3717
14	2	FLANGE W.N.1" Sch. XXS 150# RF	SA 350 Gr. LF2 Cl.1	2,6	B	L3726
15	1	FLANGE W.N.2" Sch. 160 150# RF	SA 350 Gr. LF2 Cl.1	3,1	B	F7664
16	100,000 mm	PIPE SMLSS 2 Sch.160	SA 333 Gr. 6	1,1	B	C1399
17	2	COUPLING 1/2" NPT-F 6000#	SA 350 Gr. LF2 Cl.1	0,7	B	K1337
18	2	FLANGE W.N.1 1/2" Sch. 160 150# RF	SA 350 Gr. LF2 Cl.1	4,1	B	K1808
19	200,000 mm	PIPE SMLSS 1 1/2 Sch.160	SA 333 Gr. 6	1,4	B	H0405
20	65,000 mm	PIPE SMLSS 1 Sch.XXS	SA 333 Gr. 6	0,4	B	D9604
21	1	GKT SPIRAL WOUND 24" 150# Thk. 4.5mm	316L+GRAPHITE	4,7	C	C3128
22	1	FLANGE BLIND B16.5 24" 150# RF	SA 350 Gr. LF2 Cl.1	184,8	B	F1221
23	40	WASHER 1 1/4	C.S.	2,9	C	C6198
24	20	STUD-BOLT 1.1/4" UN x 190	SA 320 Gr.L7	23,7	B	L4002
25	40	NUT 1 1/4 UN	SA 194 Gr.7	13,2	B	J2834
26	1	SUPPORT NAMEPLATE 140x120 Thk.4mm	SA 516 Gr.70	0,5	B	E4247
27	1	ELBOW L.R. 90° 1" Sch. XXS	SA 420 WPL6	0,3	B	D9605
28	98,675 mm	PIPE SMLSS 1 Sch.XXS	SA 333 Gr. 6	0,5	B	D9604
29	902,528 mm	PIPE SMLSS 1 Sch.XXS	SA 333 Gr. 6	4,9	B	D9604
30	1	BENDING PIPE SMLSS 2" SCH. 40 L=1130 (DAVIT 24" 150#)	SA 333 Gr. 6	8,5	C	L4020
31	1	PLATE 200x52.5 thk=18 (DAVIT 24" 150#)	SA 516 Gr.70	1,3	B	L4001
32	2	PLATE 50x70 Thk. 15 mm FOR DAVIT 24"	SA 516 Gr.70	0,7	B	L4230
33	1	LIFTING EYE M22x260	SA 350 Gr. LF2 Cl.1	1	C	L4375
34	3	WASHER A 22	C 40	0,1	C	3393
35	3	NUT M22 UNI 5587	SA 194 Gr.7	0,3	C	L1368
36	1	ROD Øe=100 Øi=74 Thk=12	SA 516 Gr.70	0,3	C	L4016
37	1	ROD Øe=100 Øi=61 Thk=12	SA 516 Gr.70	0,5	C	L4376
38	1	DISK Øe=48 thk=6	SA 516 Gr.70	0,1	C	L4377
39	1	DISK Øe=48 Øi=12 thk=6	SA 516 Gr.70	0,1	C	L4378
40	256,000 mm	PIPE SMLSS 2 1/2 Sch.40 L=256	SA 333 Gr. 6	2,2	C	G6831
41	242,500 mm	PLATE 50x6 L=242,5	SA 516 Gr.70	0,6	B	L4380
42	90,000 mm	PIPE SMLSS 3 Sch.160	SA 333 Gr. 6	1,9	B	F8721
43	1	FLANGE W.N.3" Sch. 160 150# RF	SA 350 Gr. LF2 Cl.1	5,8	B	F7680
44	1	SCREW - M22 x 100 - UNI 5739	SA 320 Gr.L7	0,4	C	L0436
45	24	SCREW - M33 x 140 - UNI 5739	Cl. 8.8	1,9	C	L6140
46	48	WASHER A 33	C 40	5,8	C	F2511
47	24	NUT M33 UNI 5587	Cl. 8	0,4	C	L6139

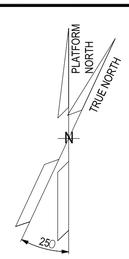
MATERIAL TEST SYMB. (according to EN 10204)

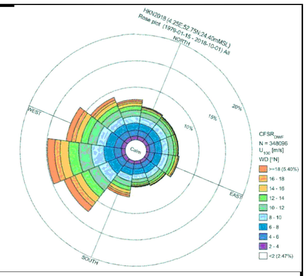
A	Tested material (3.2)
B	Material with certificate of manufacturer (3.1)
C	Material without certificate
D	Material with certificate of manufacturer (2.2)

POS	DESCRIPTION	PIPE CONN.
A1	PSV	WN 3" 150# RF SCH. 160
A2	DRAIN	WN 1" 150# RF SCH. XXS
A3	VENT	WN 1" 150# RF SCH. XXS
A4	PRESSURE GAUGE PG	COUPLING 1/2" NPTF 6000#
A5	PRESSURE TRANSMITTER PT	COUPLING 1/2" NPTF 6000#
A6	TEMPERATURE GAUGE TG	WN 1.1/2" 150# RF SCH. 160
A7	TEMPERATURE TRANSMITTER TT	WN 1.1/2" 150# RF SCH. 160
A8	IN/OUT	WN 2" 150# RF SCH. 160
A9	MAN HOLE	WN 24" 150# RF SCH. 40

DESIGN DATA

Code	Applicable codes and standards		ASME VIII Div.1 Ed. 2021 / PED 2014/68/EU		
	Third party		ICIM GROUP		
	STAMP		No		
	NATIONAL BOARD		No		
	CRN REGISTRATION		N.A.		
Pressure	Design pressure internal		12	barg	
	Working pressure		9	barg	
	Hydrotest pressure vertical		17,2	barg	
	Hydrotest pressure horizontal		N.A.	barg	
	Static head in design		0,6	barg	
	MAWP		14,14	barg	at temperature of 90 °C
Temperat.	Design temperature		90	°C	
	Working temperature		35	°C	
	M.D.M.T. @ MAWP		-29	°C	
	Test temperature min.		10	°C	
Miscellaneous	Corrosion allowance		1,5	mm	
	Out of roundness		1%		
	Insulation		-	mm	
	Capacity		23100,0	ℓ	
	Tollerance on thickness	Plates	0.25 (>4); 6% (<=4)	mm	
		Pipes	-12.5	%	
		Forgings	=0/1	mm	
Fluid	Nature		AIR		
	Physical state		GAS		Group 2
	Specific weight		1,29	kg/Nm³	
Weldings	Joint efficiency (E)		0.85		
	Rad. Cat/class		RT 3		
	Test Coupons		NO		
	Radiographic Examination		SPOT	note:	
Heat treatement and testing	Head assembly in 1 piece		N.A.		
	Heat treatment		NO	note:	
	Liquid penetrant Examination (PT)		YES	note:	
	Ultrasonic Examination (UT)		NO	note:	
	Impact test		NO	note:	Exempt Para. UCS-66 / YES PED 2014/68/EU Annex 1
	External Finishing		According to Coating Specification no. 1724000428-MAT-PRO-00022		
	Internal Finishing		According to Coating Specification no. 1724000428-MAT-PRO-00022		
Ext. Loads	Wind		YES	note:	Project Spec. 123A90-DDL-ST-SP-90017
	Seismic		YES	note:	Project Spec. 123A90-DDL-ST-SP-90017
Weight	Empty		7450,0	kg	
	Hydrotest condition		30550,0	kg	





NOTES

NOTE:

1. QUANTITIES IN MATERIAL LIST FOR No. 1 VESSEL.
2. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED.
3. ALL THICKNESSES SHOWN ARE MINIMUM AFTER FORMING.
4. TOLERANCE OF VESSELS: ACCORDING TO COES PROCEDURE CTP03684 Rev.2
5. FLANGES DRILLED HOLES SHALL STRADDLE MAIN CENTER AXIS OF VESSEL.
6. FLANGES FACE FINISHING: 125-250 AARH.
   FLANGES AND BLIND FLANGES <= 24" ACC TO ASME B16.5 (2020).
7. VENT HOLES ON REINF. PAD: 1/4" NPT/F EACH PAD OR SEGMENT
   PERFORM TEST AT 1 bar(g) WITH AIR AND SOAPY SOLUTION.
8. ALL NOZZLES WITHOUT INTERNAL PROJECTION, TO BE FLUSHED WITH INSIDE SURFACE OF THE VESSEL. THE INSIDE EDGE OF ALL NOZZLES TO BE ROUNDED.
9. FOR WELDING DETAILS REFER TO THE RELATED WELDING BOOK, DOCUMENT NO. 1724000428-WEL-LIS-00021.
10. BUTTWELDING FITTINGS ACCORDING TO ASME B16.9 (2018)
11. THREADED FITTINGS ACCORDING TO ASME B16.11 (2021)
12. QUANTITY 1: SEE ORIENTATION PLAN.

LEGEND

HOLDS

coes

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	02/01/25	STC	GT	TM	ISSUE FOR INFORMATION (IFI)
02	07/10/24	STC	GT	TM	ISSUE FOR INFORMATION (IFI)
01	05/07/24	STC	GT	TM	ISSUE FOR INFORMATION (IFI)
00	29/05/24	STC	GT	TM	ISSUE FOR INFORMATION (IFI)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EQUIPMENT SECTIONAL DRAWING WITH BILL OF MATERIAL
INSTRUMENT AIR RECEIVER V-63000

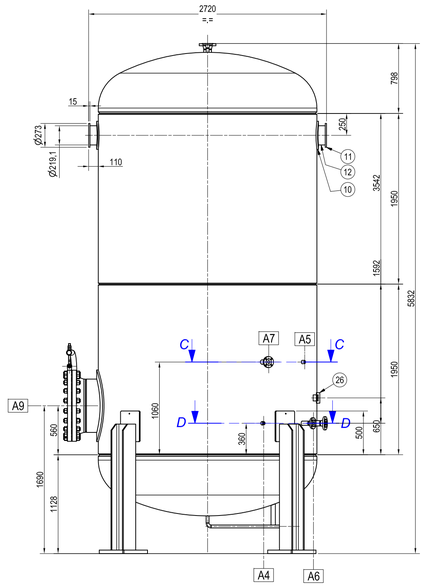
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1:35

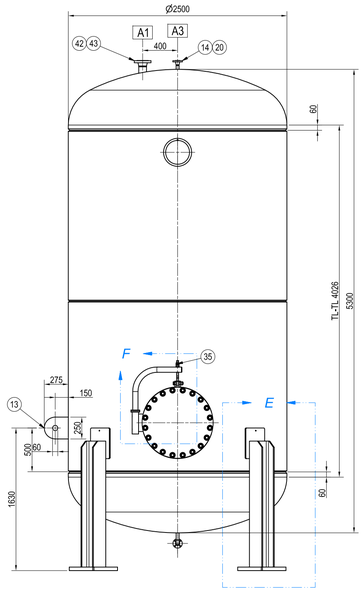
DRAWN STC | CHECKED GT | APPROVED TM | DATE 02/01/2025

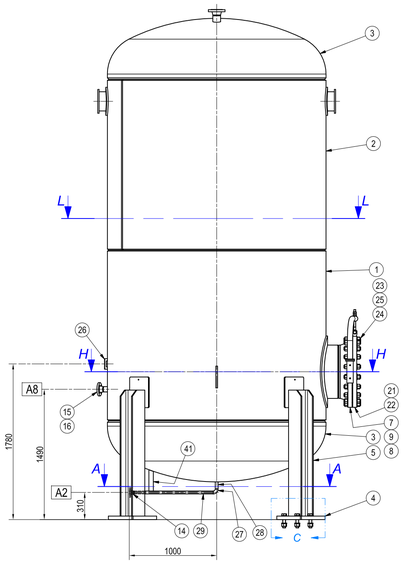
A1 | DRAWING NO. 1724000428-MAC-DD-00006 | SHEET 001 | REV. 03

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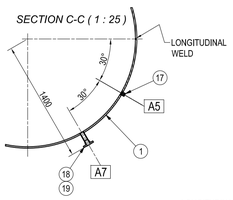
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SECTION H-H (1 : 25)



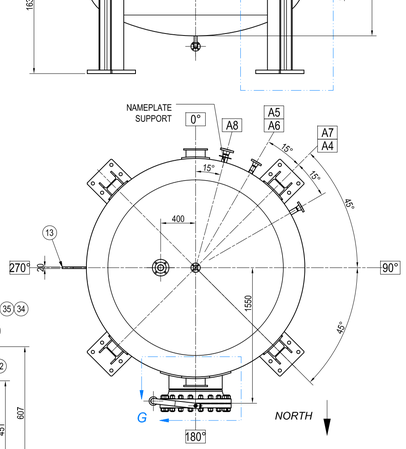
SECTION C-C (1 : 25)

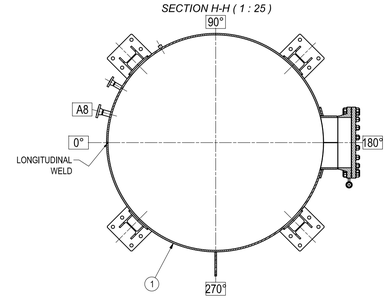
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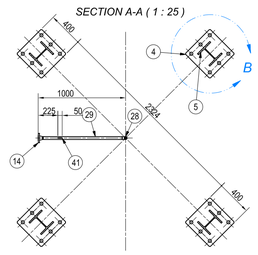
DETAIL F (1 : 10)

DETAIL G (1 : 10)

DETAIL B (1 : 12.5)

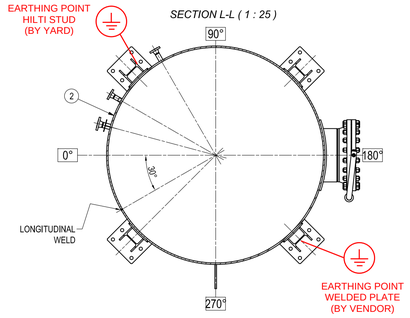




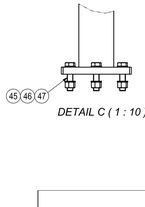


SECTION A-A (1 : 25)

EARTHING POINT HILTI STUD (BY YARD)



SECTION L-L (1 : 25)



DETAIL C (1 : 10)

NAMEPLATE DETAIL

MANUFACTURER	COES SRL - STEZZANO (BG)
EQUIPMENT	AIR RECEIVER V-63001
SERIAL NUMBER	S240119 YEAR 2024
DESIGN CODE	ASME VIII Div. 1 Ed. 2021 / PED 2014/68/UE
CONFORMITY	Category IV
FLUID	AIR
DESIGN PRESSURE	12 barg
DESIGN TEMPERATURE	-29 / + 90°C
TEST PRESSURE	17.2 barg
CORROSION ALLOWANCE	1.5 mm
WEIGHT	7450 kg
VOLUME	23100 l

CE 0425

VALID FOR CONSTRUCTION

VENDOR DOCUMENT - FDL DWG:
123A90-FDL-1724000428-MAC-DD-00006

REV.:	DATE:	SIGNATURE:
3_A	31/01/25	G.Randi

ROSETTI MARINO SpA

ELENCO PARTI / BILL OF MATERIAL

POS	QTY	DESCRIPTION	MATERIAL	WGT	TEST	COD. COES
1	1	SHELL ø2500 Thk. 18 L=1950 (Manhole 24" side)	SA 516 Gr.70	2096,5	B	L3714
2	1	SHELL ø2500 Thk. 18 L=1950	SA 516 Gr.70	2138,5	B	L3715
3	2	ELL. HEAD ø/2464 Thk. 18mm (Thk. 15.3mm min.)	SA 516 Gr.70	2053,1	B	L3728
4	4	PLATE 400x400 thk=40 - N° 6 holes Ø38	SA 516 Gr.70	192,7	C	L3998
5	5760,000 mm	PROFILE HEB 200 L=1440	S 355 J2	351,6	C	F7552
6	4	PAD 350x300 thk=15	SA 516 Gr.70	49,9	B	L3999
7	1	FLANGE W.N.24" Sch. 40 150# RF	SA 350 Gr. LF2 Cl.1	135,9	B	H5869
8	1	PAD thk=18 for Man Hole 24"	SA 516 Gr.70	32,2	B	L3729
9	1	SHELL øe610 Thk. 18 L=200	SA 516 Gr.70	45,6	B	L3730
10	2	PAD Øe=320 Øi=222 thk=18 for Trunnion	SA 516 Gr.70	11,8	B	L4000
11	2	DISK Ø273 thk=15	SA 516 Gr.70	13,8	C	D2222
12	200,000 mm	PIPE SMLSS 8 Sch.80	SA 333 Gr. 6	12,6	C	D9560
13	1	LIFTING LUG A=250 E=150 HOLE Ø60 THK=20	SA 516 Gr.70	9,3	B	L3717
14	2	FLANGE W.N.1" Sch. XXS 150# RF	SA 350 Gr. LF2 Cl.1	2,6	B	L3726
15	1	FLANGE W.N.2" Sch. 160 150# RF	SA 350 Gr. LF2 Cl.1	3,1	B	F7664
16	100,000 mm	PIPE SMLSS 2 Sch.160	SA 333 Gr. 6	1,1	B	C1399
17	2	COUPLING 1/2" NPT-F 6000#	SA 350 Gr. LF2 Cl.1	0,7	B	K1337
18	2	FLANGE W.N.1 1/2" Sch. 160 150# RF	SA 350 Gr. LF2 Cl.1	4,1	B	K1808
19	200,000 mm	PIPE SMLSS 1 1/2 Sch.160	SA 333 Gr. 6	1,4	B	H0405
20	65,000 mm	PIPE SMLSS 1 Sch.XXS	SA 333 Gr. 6	0,4	B	D9604
21	1	GKT SPIRAL WOUND 24" 150# Thk. 4.5mm	316L+GRAPHITE	4,7	C	C3128
22	1	FLANGE BLIND B16.5 24" 150# RF	SA 350 Gr. LF2 Cl.1	184,8	B	F1221
23	40	WASHER 1 1/4	C.S.	2,9	C	C6198
24	20	STUD-BOLT 1.1/4" UN x 190	SA 320 Gr.L7	23,7	B	L4002
25	40	NUT 1 1/4 UN	SA 194 Gr.7	13,2	B	J2834
26	1	SUPPORT NAMEPLATE 140x120 Thk.4mm	SA 516 Gr.70	0,5	B	E4247
27	1	ELBOW L.R. 90° 1" Sch. XXS	SA 420 WPL6	0,3	B	D9605
28	98,675 mm	PIPE SMLSS 1 Sch.XXS	SA 333 Gr. 6	0,5	B	D9604
29	902,528 mm	PIPE SMLSS 1 Sch.XXS	SA 333 Gr. 6	4,9	B	D9604
30	1	BENDING PIPE SMLSS 2" SCH. 40 L=1130 (DAVIT 24" 150#)	SA 333 Gr. 6	8,5	C	L4020
31	1	PLATE 200x52.5 thk=18 (DAVIT 24" 150#)	SA 516 Gr.70	1,3	B	L4001
32	2	PLATE 50x70 Thk. 15 mm FOR DAVIT 24"	SA 516 Gr.70	0,7	B	L4230
33	1	LIFTING EYE M22x260	SA 350 Gr. LF2 Cl.1	1	C	L4375
34	3	WASHER A 22	C 40	0,1	C	3393
35	3	NUT M22 UNI 5587	SA 194 Gr.7	0,3	C	L1368
36	1	ROD Øe=100 Øi=74 Thk=12	SA 516 Gr.70	0,3	C	L4016
37	1	ROD Øe=100 Øi=61 Thk=12	SA 516 Gr.70	0,5	C	L4376
38	1	DISK Øe=48 thk=6	SA 516 Gr.70	0,1	C	L4377
39	1	DISK Øe=48 Øi=12 thk=6	SA 516 Gr.70	0,1	C	L4378
40	256,000 mm	PIPE SMLSS 2 1/2 Sch.40 L=256	SA 333 Gr. 6	2,2	C	G6831
41	242,500 mm	PLATE 50x6 L=242,5	SA 516 Gr.70	0,6	B	L4380
42	90,000 mm	PIPE SMLSS 3 Sch.160	SA 333 Gr. 6	1,9	B	F8721
43	1	FLANGE W.N.3" Sch. 160 150# RF	SA 350 Gr. LF2 Cl.1	5,8	B	F7680
44	1	SCREW - M22 x 100 - UNI 5739	SA 320 Gr.L7	0,4	C	L0436
45	24	SCREW - M33 x 140 - UNI 5739	Cl. 8.8	1,9	C	L6140
46	48	WASHER A 33	C 40	5,8	C	F2511
47	24	NUT M33 UNI 5587	Cl. 8	0,4	C	L6139

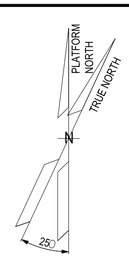
MATERIAL TEST SYMB. (according to EN 10204)

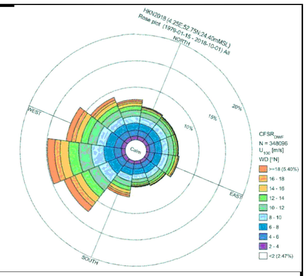
A	Tested material (3.2)
B	Material with certificate of manufacturer (3.1)
C	Material without certificate
D	Material with certificate of manufacturer (2.2)

POS	DESCRIPTION	PIPE CONN.
A1	PSV	WN 3" 150# RF SCH. 160
A2	DRAIN	WN 1" 150# RF SCH. XXS
A3	VENT	WN 1" 150# RF SCH. XXS
A4	PRESSURE GAUGE PG	COUPLING 1/2" NPTF 6000#
A5	PRESSURE TRANSMITTER PT	COUPLING 1/2" NPTF 6000#
A6	TEMPERATURE GAUGE TG	WN 1.1/2" 150# RF SCH. 160
A7	TEMPERATURE TRANSMITTER TT	WN 1.1/2" 150# RF SCH. 160
A8	IN/OUT	WN 2" 150# RF SCH. 160
A9	MAN HOLE	WN 24" 150# RF SCH. 40

DESIGN DATA

Code	Applicable codes and standards		ASME VIII Div.1 Ed. 2021 / PED 2014/68/EU		
	Third party		ICIM GROUP		
	STAMP		No		
	NATIONAL BOARD		No		
	CRN REGISTRATION		N.A.		
Pressure	Design pressure internal		12	barg	
	Working pressure		9	barg	
	Hydrotest pressure vertical		17,2	barg	
	Hydrotest pressure horizontal		N.A.	barg	
	Static head in design		0,6	barg	
	MAWP		14,14	barg	at temperature of 90 °C
Temperat.	Design temperature		90	°C	
	Working temperature		35	°C	
	M.D.M.T. @ MAWP		-29	°C	
	Test temperature min.		10	°C	
Miscellaneous	Corrosion allowance		1,5	mm	
	Out of roundness		1%		
	Insulation		-	mm	
	Capacity		23100,0	ℓ	
	Tollerance on thickness	Plates	0.25 (>4); 6% (<=4)	mm	
		Pipes	-12.5	%	
		Forgings	=0/1	mm	
Fluid	Nature		AIR		
	Physical state		GAS		Group 2
	Specific weight		1,29	kg/Nm³	
Weldings	Joint efficiency (E)		0.85		
	Rad. Cat/class		RT 3		
	Test Coupons		NO		
	Radiographic Examination		SPOT	note:	
Heat treatement and testing	Head assembly in 1 piece		N.A.		
	Heat treatment		NO	note:	
	Liquid penetrant Examination (PT)		YES	note:	
	Ultrasonic Examination (UT)		NO	note:	
	Impact test		NO	note:	Exempt Para. UCS-66 / YES PED 2014/68/EU Annex 1
	External Finishing		According to Coating Specification no. 1724000428-MAT-PRO-00022		
	Internal Finishing		According to Coating Specification no. 1724000428-MAT-PRO-00022		
Ext. Loads	Wind		YES	note:	Project Spec. 123A90-DDL-ST-SP-90017
	Seismic		YES	note:	Project Spec. 123A90-DDL-ST-SP-90017
Weight	Empty		7450,0	kg	
	Hydrotest condition		30550,0	kg	





NOTES

NOTE:
1. QUANTITIES IN MATERIAL LIST FOR No. 1 VESSEL.
2. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED.
3. ALL THICKNESSES SHOWN ARE MINIMUM AFTER FORMING.
4. TOLERANCE OF VESSELS: ACCORDING TO COES PROCEDURE CTP03684 Rev.2
5. FLANGES DRILLED HOLES SHALL STRADDLE MAIN CENTER AXIS OF VESSEL.
6. FLANGES FACE FINISHING: 125-250 AARH.
   FLANGES AND BLIND FLANGES <= 24" ACC TO ASME B16.5 (2020).
7. VENT HOLES ON REINF. PAD: 1/4" NPT/F EACH PAD OR SEGMENT
   PERFORM TEST AT 1 bar(g) WITH AIR AND SOAPY SOLUTION.
8. ALL NOZZLES WITHOUT INTERNAL PROJECTION, TO BE FLUSHED WITH INSIDE SURFACE OF THE VESSEL. THE INSIDE EDGE OF ALL NOZZLES TO BE ROUNDED.
9. FOR WELDING DETAILS REFER TO THE RELATED WELDING BOOK, DOCUMENT NO. 1724000428-WEL-LIS-00021.
10. BUTTWELDING FITTINGS ACCORDING TO ASME B16.9 (2018)
11. THREADED FITTINGS ACCORDING TO ASME B16.11 (2021)
12. QUANTITY 1: SEE ORIENTATION PLAN.

LEGEND

HOLDS

coes

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	02/01/25	STC	GT	TM	ISSUE FOR INFORMATION (IFI)
02	07/10/24	STC	GT	TM	ISSUE FOR INFORMATION (IFI)
01	05/07/24	STC	GT	TM	ISSUE FOR INFORMATION (IFI)
00	29/05/24	STC	GT	TM	ISSUE FOR INFORMATION (IFI)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EQUIPMENT SECTIONAL DRAWING WITH BILL OF MATERIAL
INSTRUMENT AIR RECEIVER V-63000

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:35	
DRAWN STC	CHECKED GT	APPROVED TM	DATE 02/01/2025
A1	DRAWING NO. 1724000428-MAC-DD-00006	SHEET 001	REV. 03

File Name : 1724000428-MAC-DD-00006

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002659

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004527	1.4 Discipline	Mechanical
1.2 Item	V-63001	Air Receiver	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

BLPH-MV-740 has rust on the stem.

Name: Kangi Albonetti

Date: 2025-01-10

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-10
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Stem has been cleaned and painted, see attached photo.

Name: Lorenzo Novaga

Date: 2025-03-06

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


BLPH-MV-740
MANUAL VALVE


BLPH-MV-740
MANUAL VALVE


BLPH-MV-740
MANUAL VALVE

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002660

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004527	1.4 Discipline	Mechanical
1.2 Item	V-63001	Air Receiver	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

the lever of the MBLPH-MV-738 shall be rotated of 180° because it clashes with the vessel body.

Name: Kangi Albonetti

Date: 2025-01-10

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-10
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

The lever has been dismantled and reinstalled rotated correctly by the commissioning team.

Name: Kangi Albonetti

Date: 2025-01-10

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


BLPH-MV-738
MANUAL VALVE


MANUAL VALVE

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002661

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004527	1.4 Discipline	Mechanical
1.2 Item	V-63001	Air Receiver	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

BLPH-MV-742 has the lock nuts bended.

Name: Kangi Albonetti

Date: 2025-01-10

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-10
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done

Name: Lorenzo Novaga

Date: 2025-01-15

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:


BLPH-MV-742
MANUAL VALVE

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002848

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10004527	1.4 Discipline	Mechanical
1.2 Item	V-63001	Air Receiver	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Minor damages to the painting due transportation and installation, also there is rust in the nameplate of the vessel.

Name: Kangi Albonetti

Date: 2025-01-14

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-14
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date: 2025-04-11

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-04-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date: 2025-04-11

Signature:




MANUFACTURER
COES SRL - STEZZANO (BG)
EQUIPMENT
AIR RECEIVER V-63001
SERIAL NUMBER
S240119
YEAR
2024
DESIGN CODE
ASME VIII Div. 1 Ed. 2021 / PED 2014/68/EU
CONFORMITY
Category IV
FLUID
AIR
DESIGN PRESSURE
12 barg
DESIGN TEMPERATURE
-29 / +90°C
TEST PRESSURE
17,2 barg
CORROSION ALLOWANCE
1.5 mm
WEIGHT
7450 kg
VOLUME
23100 l
CE
0425

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002850

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002354	1.4 Discipline	Mechanical
1.2 Item	A-63000	Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Minor damages to the painting due transportation and installation.

Name: Kangi Albonetti

Date: 2025-01-14

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-14
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-04-11

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002853

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002354	1.4 Discipline	Mechanical
1.2 Item	A-63000	Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

In the Air package GA' nameplate detail the operative temperature range is marked as "-10°C/+90°C" but on the nameplate mounted on the skid the range indicated is "-29°C/+80°C"

Name: Kangi Albonetti
Date: 2025-01-15
Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-15
3.5 Action by	VND Vendor	Signature	

4 - PERFORMED ACTION

Name:
Date:
Signature:

5 - CLEARANCE CHECK

Nameplate drawing has been upodated to "-29°C/+90°C" and Nameplate has been swapped for new one with marked "-29°C/+90°c"

Name: Kangi Albonetti
Date: 2025-02-14
Signature:

6- CLEARANCE APPROVAL

Name:
Date:
Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002854

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002354	1.4 Discipline	Mechanical
1.2 Item	A-63000	Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

One supporting plate (the one added to close PL C300024) is 10 mm thinner compared to the other.

Name: Kangi Albonetti

Date: 2025-01-15

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name: Lorenzo Novaga

Date: 2025-03-06

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30002855

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10002354	1.4 Discipline	Mechanical
1.2 Item	A-63000	Instrument Air Package	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

There is still part of the wooden crate used for transport fixed on the skid. See attachment for the location.

Name: Kangi Albonetti

Date: 2025-01-15

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Kangi Albonetti
3.4 Activity code	MC Mechanical Completion	Date	2025-01-15
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Done.

Name: Lorenzo Novaga

Date: 2025-03-05

Signature:

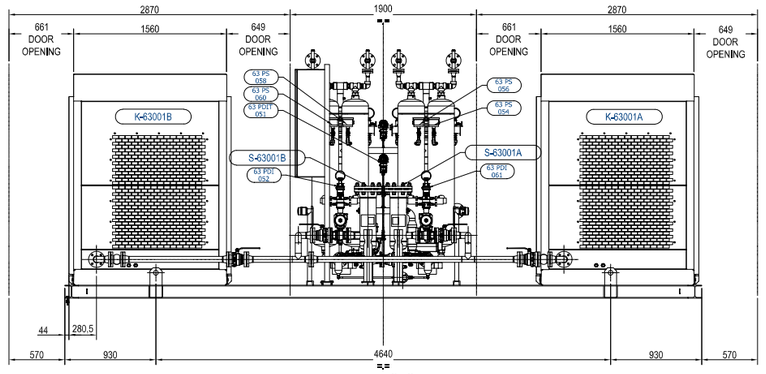
6- CLEARANCE APPROVAL

Name:

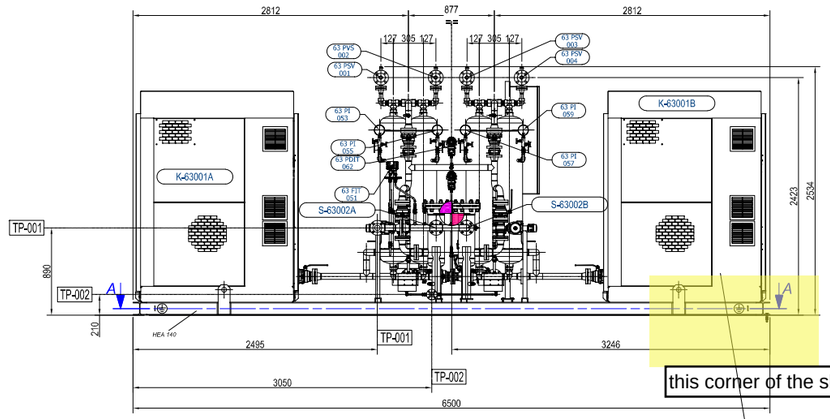
Date:

Signature:

DRAWING NO. 1724000428-MAC-DA-00005 REV. 02



VIEW FROM "C"

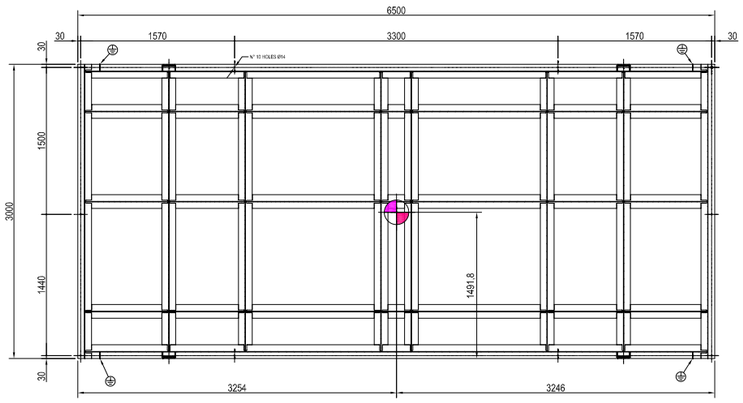


VIEW FROM "A"

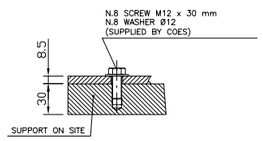
this corner of the skid is still covered in wood

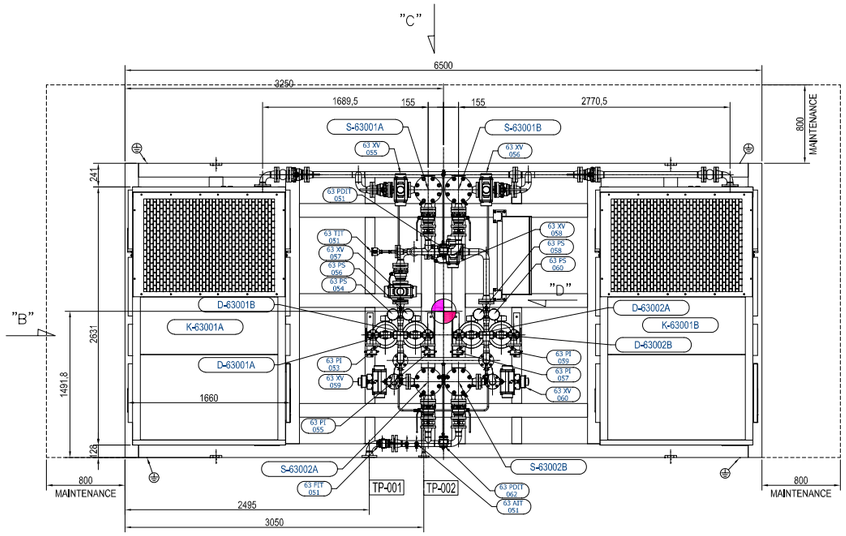
CABLE ENTRY SUITABLE FOR POWER CABLES 5G70sqmm

POWER SUPPLY 400V-3PH-50HZ COMPRESSOR POWER SUPPLY



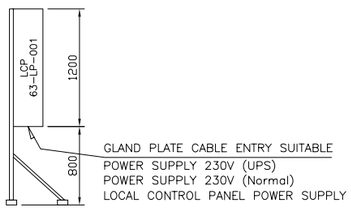
SECTION A-A (1 : 25)





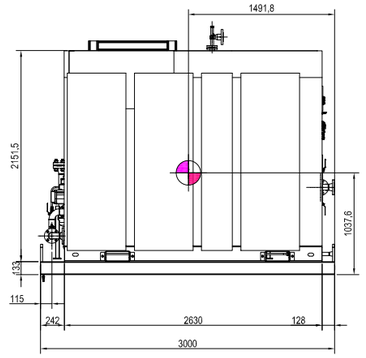
"B"

"A"

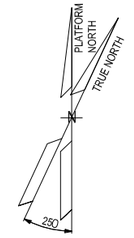


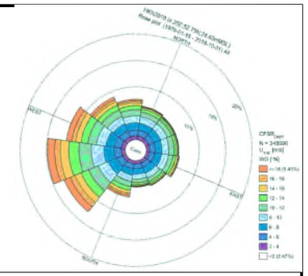
GLAND PLATE CABLE ENTRY SUITABLE
POWER SUPPLY 230V (UPS)
POWER SUPPLY 230V (Normal)
LOCAL CONTROL PANEL POWER SUPPLY

VIEW FROM "D"



VIEW FROM "B"





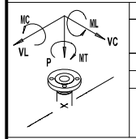
NOTES

1. SKID TOTAL WEIGHT: 5000 kg
2. FOR EQUIPMENT WEIGHT REFER TO EQUIPMENT DS, DOC. NO. 1724000428-MAC-DS-00011
3. FOR DESIGN PARAMETERS & CODES REFER TO EQUIPMENT DS, DOC. NO. 1724000428-MAC-DS-00011
4. FOR WELDING DETAILS REFER TO WELDING SPECIFICATION, DOC. NO. 1724000428-WEL-LIS-00021
5. FOR PAINTING DETAILS REFER TO PAINTING SPECIFICATION, DOC. NO. 1724000428-MAT-PRO-00022
6. NO LUBRICATION REQUIRED
7. FOR LOAD DETAILS REFER TO STRUCTURAL CALCULATION, DOC. NO. 1724000428-ST-RE-00010

LEGEND

HOLDS

FOUNDATION LOADS TABLE			
	LIFTING	EMPTY	OPERATION
VERTICAL (kN)	10.8	10.8	10.8
SHEAR Y (kN)	0	0	0
SHEAR X (kN)	0	0	0
MOMENT Y (kNm)	0	0	0
MOMENT X (kNm)	0	0	0



MAX ALLOWABLE LOADS AT B,L, CONNECTIONS							
	FORCES [kN]			MOMENTS [kNm]		
	VL	P	VC	MC	MT	ML
A	1,8	1,5	1,8	0,3	0,4	0,2
B	2	2	2	0,8	0,8	0,8

TAG NUMBER OF EQUIPMENTS	
TAG	DESCRIPTION
K-63001A/B	OIL FREE SCREW COMPRESSOR 1&2
S-63001A/B	DRYER PRE-FILTER
D-63001A/B	DRYER UNIT 1
D-63002A/B	DRYER UNIT 2
S-63002A/B	DRYER AFTER-FILTER
V-63001	INSTRUMENT AIR RECEIVER

NAMEPLATE "COES"

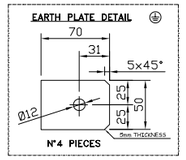
MANUFACTURER	COES SRL - STEZZANO (BG)		
SERVICE	INSTRUMENT AIR PACKAGE		
YEAR	2024	SERIAL NUMBER	*****
WEIGHT	11000 kg	ITEM	A-63000
PRESSURE	12 barg	TEMPERATURE	-10°C / 90°C

CE 0425 2014/68/UE - Cat.III

CONNECTIONS			
POS.	TYPE	SERVICE	MATERIAL
A	ø 1" ANSI 150# R.F.	DRAIN DISCHARGE	SS 316/316L
B	ø 2" ANSI 150# R.F.	INSTRUMENT AIR OUTLET	SS 316/316L

TOTAL WEIGHT : 11.000 kg

EARTH PLATE DETAIL



N°4 PIECES

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	06/08/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
01	08/05/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
00	21/03/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
PACKAGE GENERAL ARRANGEMENT
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE N/A
DRAWN GT	CHECKED MC	APPROVED TM	DATE 06/08/24
A1	DRAWING NO. 1724000428-MAC-DA-00005	SHEET 001	REV. 02

File Name : 1724000428-MAC-DA-00005

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003339

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003666	1.4 Discipline	Piping
1.2 Item	63-00-TP-059	Test Pack 63-00-TP-059	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Missing earthing connection on earthing plate

Name: Andrea Mancini

Date: 2025-01-30

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Andrea Mancini
3.4 Activity code	MC Mechanical Completion	Date	2025-01-30
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

DONE

Name: Eleonora Carotenuto

Date: 2025-02-08

Signature:

6- CLEARANCE APPROVAL

Name:

Date:

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003340

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003666	1.4 Discipline	Piping
1.2 Item	63-00-TP-059	Test Pack 63-00-TP-059	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

Flange management activity to be done on joint J1 (Connection to A-63000/A). Broken joint done by Commissioning

Name: Andrea Mancini

Date: 2025-01-30

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	A PL A	Name	Andrea Mancini
3.4 Activity code	COMM Commissioning	Date	2025-01-30
3.5 Action by	PRE-COMM	Signature	

4 - PERFORMED ACTION

Name:

Date: 2025-03-20

Signature:

5 - CLEARANCE CHECK

Flange management activity done.

Name: Lorenzo Novaga

Date: 2025-03-20

Signature:

6- CLEARANCE APPROVAL

Name:

Date: 2025-03-20

Signature:

ROSETTI MARINO
CROSSWIND

PUNCH ITEM ENTRY / CLEARANCE FORM

C30003464

PROVERLIS

1 -ELEMENT IDENTIFICATION

1.1 Task	C10003422	1.4 Discipline	Piping
1.2 Item	63-00-TP-025	Test Pack 63-00-TP-025	
1.3 Subsystem	63-00	Instrument Air Package (A-63000)	

2 - OBSERVATION

The support "PS-02027" (F2) is out of level about 1.1°. Isometric 123A90-FDL-PP-DI-00127-01.

Name: Massimo Bruschi

Date: 2025-02-03

Signature:

3 - DEFECT ASSESSMENT

.

3.1 Corrective action proposal

3.2 Material required

3.3 Priority	B PL B	Name	Massimo Bruschi
3.4 Activity code	MC Mechanical Completion	Date	2025-02-03
3.5 Action by	RM_CONSTR RM	Signature	

4 - PERFORMED ACTION

Name:

Date:

Signature:

5 - CLEARANCE CHECK

Accepted by Rosetti Marino.

Name: Lorenzo Novaga

Date: 2025-03-06

Signature:

6- CLEARANCE APPROVAL

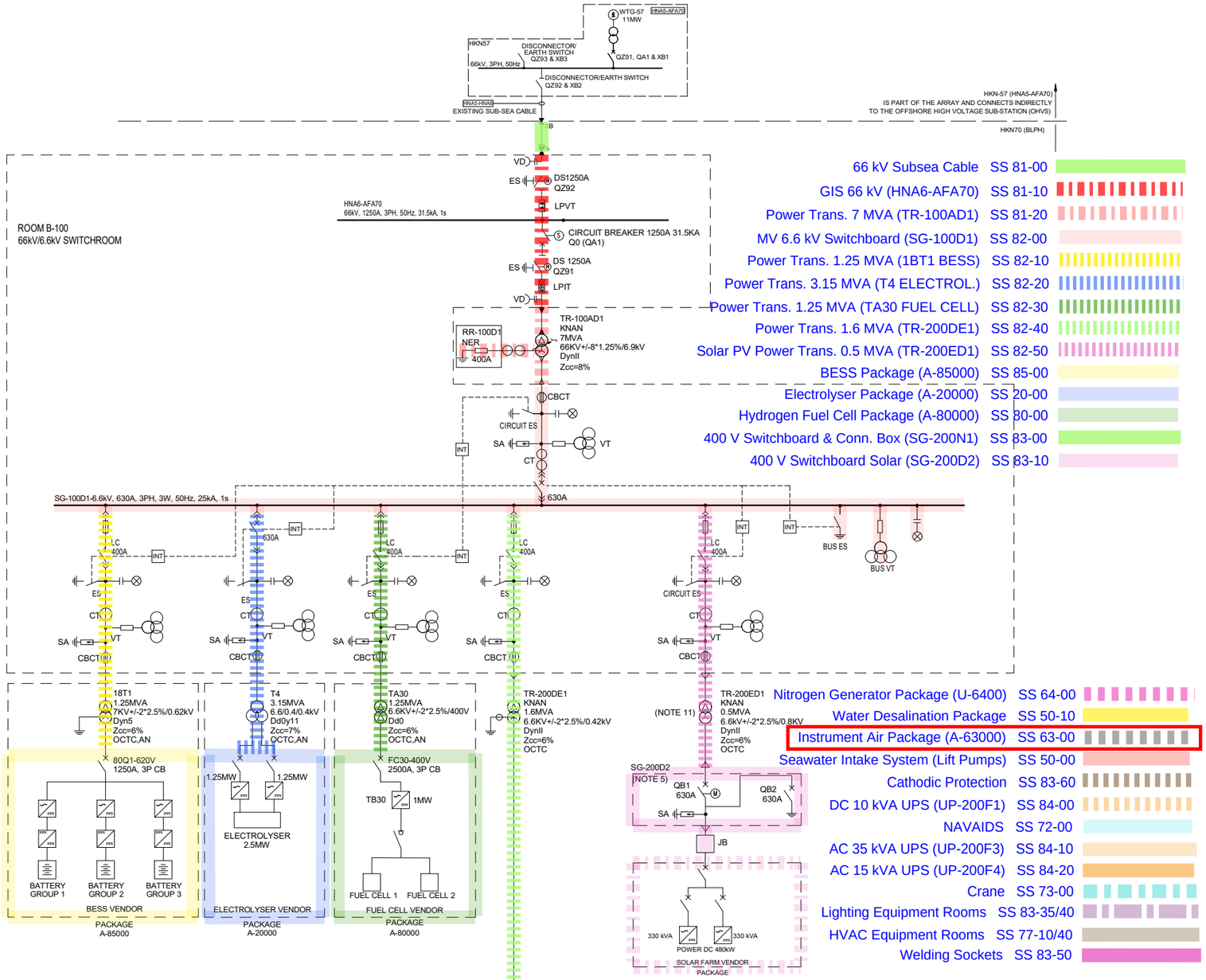
Name:

Date:

Signature:

Section 3 SYSTEM,SUB-SYSTEM LIMIT DRAWINGS

DRAWING NO. 123A90-DDL-EL-DG-20158 REV. 01



SYMBOL LEGEND:

- VOLTAGE DETECTOR
- EARTHING SWITCH DISCONNECTOR
- MOTORIZED EARTHING SWITCH
- CIRCUIT BREAKER
- FUSE
- CONTACTOR
- THREE-PHASE TRANSFORMER WITH TAP CHANGER
- THREE-PHASE TRANSFORMER
- CURRENT TRANSFORMER
- THREE-PHASE TRANSFORMER, WITH THREE WINDINGS
- NEUTRAL EARTHING RESISTOR
- SURGE ARRESTER
- CORE BALANCE CURRENT TRANSFORMER
- SURGE ARRESTOR FOR T-CONNECTOR (N.1 FOR EACH PHASE)
- VOLTAGE & CURRENT TRANSFORMER (3Ø X 2) (LPIT TYPE)
- VOLTAGE TRANSFORMER (3Ø X 2) (LPVT TYPE)
- VOLTAGE TRANSFORMER
- CABLE BOX
- T-CONNECTOR CABLE TERMINATION
- CABLE AIR TERMINATION

OLTC	= ON LOAD TAP CHANGER
OCTC	= OPEN CIRCUIT TAP CHANGER
KNAN	= NON-MINERAL OIL NATURAL AIR COOLED
AN	= AIR NATURAL
XB	= CABLE BOX
QZ	= DISCONNECT SWITCH & EARTH SWITCH
QA	= CIRCUIT BREAKER
LC	= LATCHED FUSED CONTACTOR (400A)
INT	= INTERLOCK SYSTEM
SA	= SURGE ARRESTER
CBCT	= CORE BALANCE CURRENT TRANSFORMER
ES	=EARTHING SWITCH
VD	=VOLTAGE DETECTOR
LCP	=LOCAL CONTROL PANEL
LPVT	=LOW POWER VOLTAGE TRANSFORMER
LPCT	=LOW POWER CURRENT TRANSFORMER
LPIT	=LOW POWER INSTRUMENT TRANSFORMER
JB	=JUNCTION BOX

NOTES:

1. TEMPORARY POWER SUPPLY CONNECTION BOX LOCATED ON OUTSIDE WALL OF LV SWITCHROOM / CONTAINER.
2. LOAD DEFINITION 'ESSENTIAL' / 'NON-ESSENTIAL' IS SHOWN IN THE LOAD LIST. THE CCS, EMCS AND 'SMART' SWITCHGEAR WILL OPEN / CLOSE CIRCUIT BREAKERS AS REQUIRED.
3. A COMBINED CCS/EMCS SYSTEM COMPRISES A MICROPROCESSOR BASED SYSTEM, ASSOCIATED SOFTWARE AND REQUIRED PERIPHERALS FOR MONITORING AND CONTROLLING OF ELECTRICAL POWER NETWORK. ALL ELECTRICAL EQUIPMENT AND PACKAGE UNITS SHALL BE CONNECTED TO THE CENTRAL CONTROL SYSTEM .
4. IMPRESSED CURRENT CATHODIC PROTECTION SYSTEM SUPPLIED BY COMPANY.
5. THE SOLAR FARM IN-FEED POWER CIRCUIT BREAKERS PANEL IS LOCATED INSIDE THE LV SWITCHGEAR ROOM B-200.
6. DELETED.
7. DELETED.
8. DELETED.
9. CROSSWIND SHALL BE ABLE TO CONTROL THE BLPH 66KV MOTORISED CIRCUIT BREAKER Q0 (QA1) & MOTORISED ELECTRICAL DISCONNECTOR / EARTH SWITCH (QZ92, TYPE B) USING THEIR 'HV-SCADA' SYSTEM. THIS BACK-UP / REDUNDANT CONTROL SHALL BE ADDITIONAL TO THAT PROVIDED BY THE CCS AND BE OF HIGHER PRIORITY OVER A SEPARATE FIBRE OPTIC CABLE (FOC). THE CCS OPERATOR AND 'HV-SCADA' SHALL BOTH BE KEPT FULLY AWARE OF EQUIPMENT STATUS AT ALL TIMES. INTERTRIPPING, INHIBITS & INTERLOCKING FOR BLPH 66KV EQUIPMENT SHALL BE AS PER THE WIND FARM.
10. THE LOADS IN THE LOW VOLTAGE SWITCHGEAR AND THE CURRENT VALUES OF THE CIRCUIT BREAKERS ARE ONLY INDICATIVE.
11. NEUTRAL POINT OF TR-200ED1 SHALL NOT BE GROUNDED AS REQUIRED BY SOLAR FARM SUPPLIER IN 123A90-PML-PM-TQ-00040.

REFERENCES:

1. 123A90-DDL-EL-DG-20014 ELECTRICAL CONTROL, PROTECTION AND METERING DIAGRAMS
2. 123A90-DDL-EL-DG-20015 ELECTRICAL SINGLE LINE DIAGRAM 6.6kV SYSTEMS
3. 123A90-DDL-EL-DG-20159 ELECTRICAL SINGLE LINE DIAGRAMS LV SYSTEM
4. 123A90-DDL-EL-DG-20160 ELECTRICAL SINGLE LINE DIAGRAMS AC UPS SYSTEMS
5. 123A90-DDL-EL-DG-20161 ELECTRICAL SINGLE LINE DIAGRAMS DC UPS SYSTEMS
6. 123A90-DDL-EL-DG-20185 ELECTRICAL SINGLE LINE DIAGRAM HV SYSTEMS
7. 123A90-DDL-EL-DL-20104 ELECTRICAL EQUIPMENT LAYOUT - HV SWITCHROOM
8. 123A90-DDL-EL-DL-20105 ELECTRICAL EQUIPMENT LAYOUT - LV SWITCHROOM
9. 123A90-DDL-EL-LIS-20016 ELECTRICAL LOAD LIST and BALANCE -CCS MODE CHARGING-
10. 123A90-DDL-EL-RE-20152 ELECTRICAL EQUIPMENT SIZING CCALCULATION REPORT
11. 123A90-DDL-EL-RE-20170 ELECTRICAL SYSTEM STUDY REPORT - LOAD FLOW
12. 123A90-DDL-EL-RE-20171 ELECTRICAL SYSTEM STUDY REPORT - SHORT CIRCUIT
13. 123A90-DDL-EL-RE-20172 ELECTRICAL SYSTEM STUDY REPORT - ARC FLASH ENERGY CALCULATION
14. 123A90-DDL-EL-RE-20173 ELECTRICAL SYSTEM STUDY REPORT - HARMONICS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	26/03/2024	GPA	LMA/AMA	LMA/MDO	ISSUE FOR REVIEW (IFR)
00	02/11/2023	DSF	CB/AMA	OYFO/MDO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

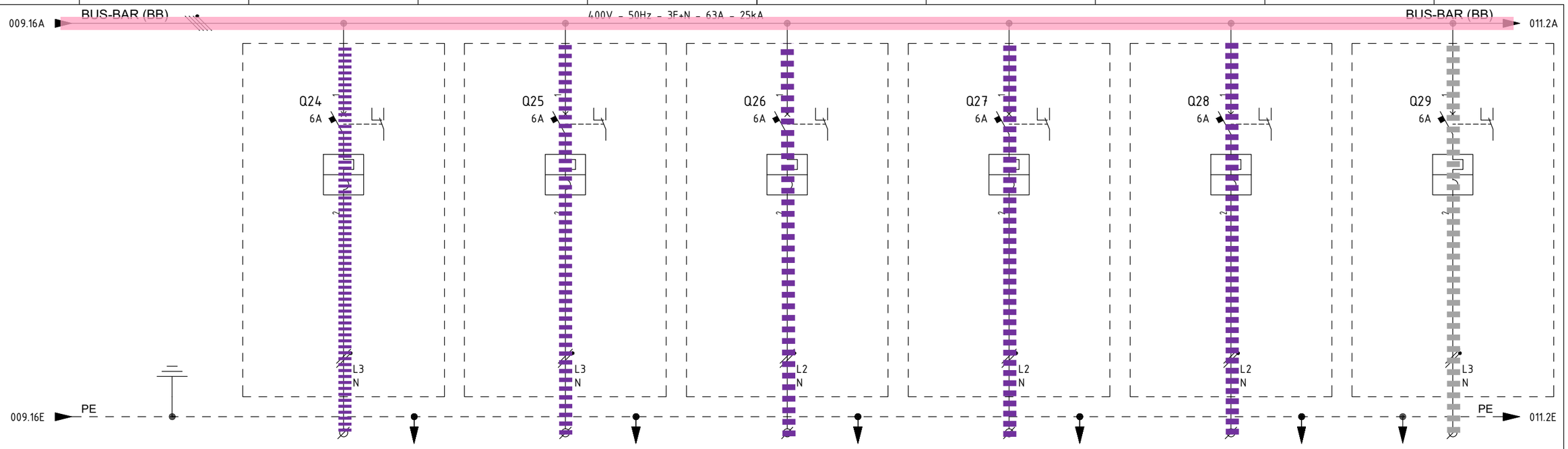
TITLE :

OVERALL/KEY SINGLE LINE DIAGRAM

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE N/A
DRAWN GPA	CHECKED LMA/AMA	APPROVED LMA/MDO	DATE 26/03/2023
A1	DRAWING NO. 123A90-DDL-EL-DG-20158	SHEET 001	REV. 01

01

File Name : 123A90-DDL-EL-DG-20158_REV01.dwg



ITEM			1	B400-PCS-001	B400-EMCS-001	B400-FGS-001	B400-NET-001	B400-SRV-001	CP-630E1
UTILITY			2	PCS-CONTROLLER AND I/O CABINET - AUXILIARY	EMCS-CONTROLLER AND I/O CABINET - AUXILIARY	FGS FIRE & GAS PANEL - AUXILIARY	SYSTEM SERVER / NETWORK CABINET - AUXILIARY	SERVER CABINET ITER - AUXILIARY	UCP - INSTRUMENT AIR PACKAGE -A-63000 - AUXILIARY
CUBICLE			3	+03	+03	+03	+03	+03	+03
RATED POWER | RATED CURRENT			4/5	0.5 KW | 2.72 A	0.5 KW | 2.72 A	0.8 KW | 4.35 A	0.5 KW | 2.72 A	0.5 KW | 2.72 A	0.5 KW | 2.72 A
TYPICAL FUNCTIONAL			6	-	-	-	-	-	-
CIRCUIT BREAKER (ABB)	TYPE		7	S302P-C6	S302P-C6	S302P-C6	S302P-C6	S302P-C6	S302P-C6
	VERSION		8	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE	2P / MINIATURE
	TRIP UNITS		9	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C	In=6A - Curve C
	Icu	KA	10	25kA	25kA	25kA	25kA	25kA	25kA
OVERLOAD	L	Range A	11	-	-	-	-	-	-
		Range t	12	-	-	-	-	-	-
SEL. SHORT-CIRCUIT	S	Range A	13	-	-	-	-	-	-
		Range t	14	-	-	-	-	-	-
INST. SHORT-CIRCUIT	I	Range A	15	-	-	-	-	-	-
		Range t	16	-	-	-	-	-	-
EARTH FAULT PROTECTION	G	Range A	17	-	-	-	-	-	-
		Range t	18	-	-	-	-	-	-
CONTACTOR (ABB)			19	-	-	-	-	-	-
THERMAL OVERLOAD RELAY (ABB)			20	-	-	-	-	-	-
SURGE ARRESTERS (DHENN)			21	-	-	-	-	-	-
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-	-	-	-	-	-
FUSE HOLDER (ABB)			23	-	-	-	-	-	-
TWILIGHT SWITCH (ABB)			24	-	-	-	-	-	-
VOLTMETER (FRER)			25	-	-	-	-	-	-
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-	-	-	-	-	-
	PERFORMANCE/CLASS		27	-	-	-	-	-	-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-	-	-	-	-	-
	PERFORMANCE/CLASS		29	-	-	-	-	-	-
POWER TERM. BLOCK (CABUR)		Type/mm²	30	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4	SCREW / 4
POWER CONDUCTOR		mm²	31	3G2.5	3G2.5	3G2.5	3G2.5	3G2.5	3G2.5

SUBSYSTEM 87-10

SUBSYSTEM 87-00

SUBSYSTEM 70-00

SUBSYSTEM 86-00

SUBSYSTEM 86-00

SUBSYSTEM 63-00

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DWG n° : 231298/SD/13

Item n° : PF1002888/101

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	05/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for construction (AFC)
2	24/04/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	15/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	08/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "DP-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00013

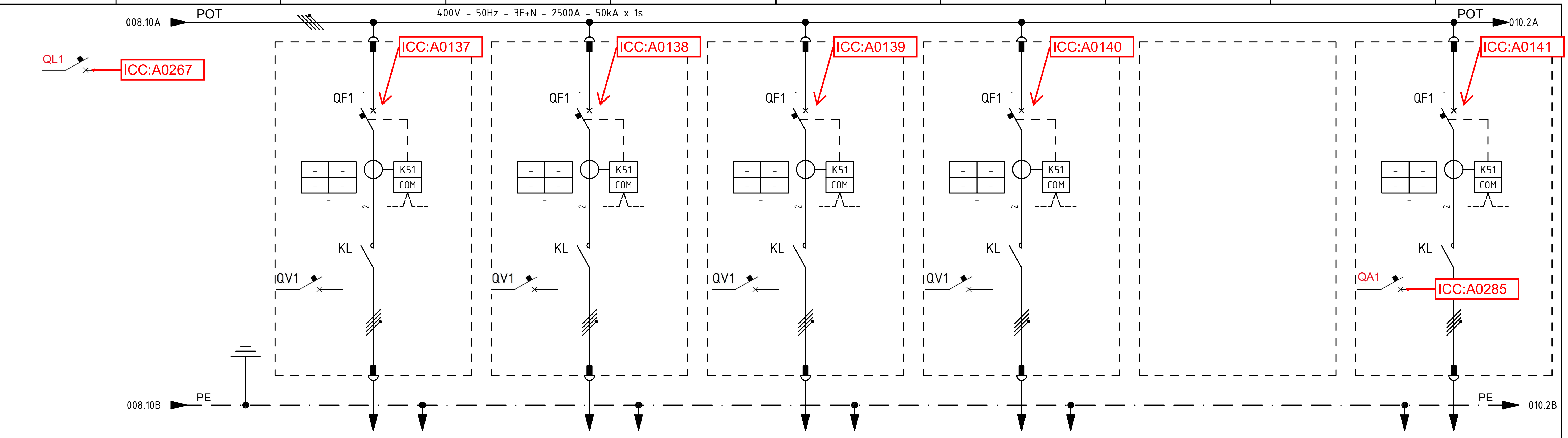
SHEET 010

REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00013 Rev. 03

1	2	3	4	5	6	7	8	9	10



			A-80000	CP-850F03	SPARE	SPARE		K-63001-A
ITEM		1	A-80000	CP-850F03	SPARE	SPARE		K-63001-A
UTILITY		2	FUEL CELL AUXILIARY LOAD	BESS PCS CABINET	SPARE	SPARE		INSTRUMENTS AIR PACKAGE 01A
COLUMN/CUBICLE		3	A4 / +03	A4 / +04	A4 / +05	A4 / +06		A4 / +08
RATED POWER | RATED CURRENT		4/5	20 kW | 32.84 A	11,09 kW | 17.42 A	- kW | - A	20.0 kW | 32.1 A		68.75 kW | 111.24 A
TYPICAL FUNCTIONAL		6	LK1-63	LK1-40	LK1-40	LK1-40		LK2-160
CIRCUIT BREAKER (ABB)	TYPE	7	XT2S - 160	XT2S - 160	XT2S - 160	XT2S - 160		XT4S - 250
	VERSION	8	4P - FIXED	4P - FIXED	4P - FIXED	4P - FIXED		4P - FIXED
	TRIP UNITS	9	EKIP HI TOUCH LSIG (In = 63A)	EKIP HI TOUCH LSIG (In = 40A)	EKIP HI TOUCH LSIG (In = 40A)	EKIP HI TOUCH LSIG (In = 40A)		EKIP HI TOUCH LSIG (In = 160A)
	Icu KA	10	50 kA	50 kA	50 kA	50 kA		50 kA
OVERLOAD	L Range A	11	(0.4 - 1) x In	(0.4 - 1) x In	(0.4 - 1) x In	(0.4 - 1) x In		(0.4 - 1) x In
	L Range t	12	k/I^2	k/I^2	k/I^2	k/I^2		k/I^2
SEL. SHORT-CIRCUIT	S Range A	13	(0.6 - 10) x In	(0.6 - 10) x In	(0.6 - 10) x In	(0.6 - 10) x In		(0.6 - 10) x In
	S Range t	14	0.05 - 0,4 sec / k/I^2	0.05 - 0,4 sec / k/I^2	0.05 - 0,4 sec / k/I^2	0.05 - 0,4 sec / k/I^2		0.05 - 0.4 sec / k/I^2
INST. SHORT-CIRCUIT	I Range A	15	(1.5 - 15) x In	(1.5 - 15) x In	(1.5 - 15) x In	(1.5 - 15) x In		(1.5 - 15) x In
	I Range t	16	instantaneous	instantaneous	instantaneous	instantaneous		instantaneous
EARTH FAULT PROTECTION	G Range A	17	(0.1 - 1) x In	(0.1 - 1) x In	(0.1 - 1) x In	(0.1 - 1) x In		(0.1 - 1) x In
	G Range t	18	t=k / t=k/I^2	t=k / t=k/I^2	t=k / t=k/I^2	t=k / t=k/I^2		t=k / t=k/I^2
CONTACTOR (ABB)		19	AF52-40-00-13 (100A-AC1); 100-250VAC/DC	AF40-40-00-13 (70A-AC1); 100-250VAC/DC	AF40-40-00-13 (70A-AC1); 100-250VAC/DC	AF40-40-00-13 (70A-AC1); 100-250VAC/DC		AF190-40-11-13 (275A-AC1); 100-250 VAC/DC
THERMAL OVERLOAD RELAY (ABB)		20	-	-	-	-		-
SURGE ARRESTER (DEHN)		21	-	-	-	-		-
TOROIDAL CURRENT TRANSFORMER (FRER)		22	-	-	-	-		-
FUSE HOLDER (ITALWEBER)		23	SUBSISTEM 80.00	SUBSISTEM 85.00	SUBSISTEM 83.00	SUBSISTEM 83.00		SUBSISTEM 63.00
INDIRECT PROTECTION (ABB)		24						
VOLTMETER		25						
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE	26	-	-	-	-		-
	PERFORMANCE/CLASS	27	-	-	-	-		-
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE	28	-	-	-	-		-
	PERFORMANCE/CLASS	29	-	-	-	-		-
LOCK-OUT RELAY (-)		30	-	-	-	-		-
POWER CONDUCTOR mmq		31	83012-CEL 5G16	83011-CEL 4 x 10	-	-		5G70

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DWG n° : 231298/SD/11	3	08/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
Item n° : PF1002983/26	2	03/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
	1	28/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
	0	15/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
	REV.	DATE	DRN	CHKD	APPD	DESCRIPTION

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

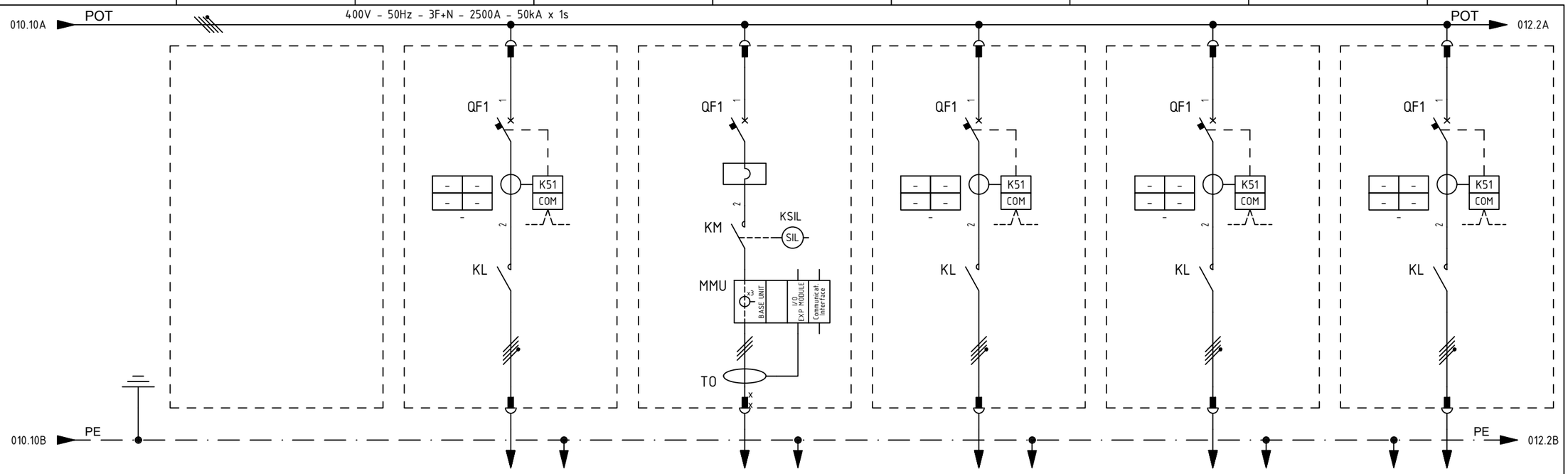
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3 DRAWING NO. 1723002197-EL-DG-00011 SHEET 009 REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00011 Rev. 03



ITEM				K-63001-B		PM-50001 B		CP-850E1		CP-850E2		-	
UTILITY			2	INSTRUMENTS AIR PACKAGE 01B		SEA WATER PUMP B		BESS LV1 CABINET (+DISTR 1)		BESS LV2 CABINET (+DISTR 2)		SPARE	
COLUMN/CUBICLE			3	A5 / +08		A6 / +01		A6 / +02		A6 / +03		A6 / +04	
RATED POWER | RATED CURRENT			4/5	68.75 kW	111.24 A	6.1 kW	11.0 A	11.28 kW	18.09 A	11.28 kW	18.09 A	- kW	- A
TYPICAL FUNCTIONAL			6	LK2-160		M1-6		LK1-40		LK1-40		LK1-40	
CIRCUIT BREAKER (ABB)	TYPE		7	XT4S - 250		XT2S - 160		XT2S - 160		XT2S - 160		XT2S - 160	
	VERSION		8	4P - FIXED		3P - FIXED		4P - FIXED		4P - FIXED		4P - FIXED	
	TRIP UNITS		9	EKIP HI TOUCH LSIG (In = 160A)		MA (In = 20A)		EKIP HI TOUCH LSIG (In = 40A)		EKIP HI TOUCH LSIG (In = 40A)		EKIP HI TOUCH LSIG (In = 40A)	
	Icu	KA	10	50 kA		-		50 kA		50 kA		50 kA	
OVERLOAD	L	Range A	11	(0.4 - 1) x In		-		(0.4 - 1) x In		(0.4 - 1) x In		(0.4 - 1) x In	
		Range t	12	k/I^2		-		k/I^2		k/I^2		k/I^2	
SEL. SHORT-CIRCUIT	S	Range A	13	(0.6 - 10) x In		-		(0.6 - 10) x In		(0.6 - 10) x In		(0.6 - 10) x In	
		Range t	14	0.05 - 0.4 sec / k/I^2		-		0.05 - 0,4 sec / k/I^2		0.05 - 0,4 sec / k/I^2		0.05 - 0,4 sec / k/I^2	
INST. SHORT-CIRCUIT	I	Range A	15	(1.5 - 15) x In		(6 - 14) x I		(1.5 - 15) x In		(1.5 - 15) x In		(1.5 - 15) x In	
		Range t	16	instantaneous		<= 0.02 sec		instantaneous		instantaneous		instantaneous	
EARTH FAULT PROTECTION	G	Range A	17	(0.1 - 1) x In		-		(0.1 - 1) x In		(0.1 - 1) x In		(0.1 - 1) x In	
		Range t	18	t=k / t=k/I^2		-		t=k / t=k/I^2		t=k / t=k/I^2		t=k / t=k/I^2	
CONTACTOR (ABB)			19	AF190-40-11-13 (275A-AC1); 100-250 VAC/DC		AF38-30-00-13 (18.5 kW - AC3) - 100-250Vac/dc		AF40-40-00-13 (70A-AC1); 100-250VAC/DC		AF40-40-00-13 (70A-AC1); 100-250VAC/DC		AF40-40-00-13 (70A-AC1); 100-250VAC/DC	
THERMAL OVERLOAD RELAY (ABB)			20	-		UMC100.3 UC (0.24 - 63A)		-		-		-	
SURGE ARRESTER (DEHN)			21	-		-		-		-		-	
TOROIDAL CURRENT TRANSFORMER (FRER)			22	-		-		-		-		-	
FUSE HOLDER (ITALWEBER)			23	SUBSISTEM 63.00		SUBSISTEM 50.00		SUBSISTEM 85.00		SUBSISTEM 85.00		SUBSISTEM 83.00	
INDIRECT PROTECTION (ABB)			24										
VOLTMETER			25										
CURRENT TRANSFORMER FOR MEASURE (FRER)	TYPE		26	-		-		-		-		-	
	PERFORMANCE/CLASS		27	-		-		-		-		-	
VOLTAGE TRANSFORMER FOR MEASURE (FRER)	TYPE		28	-		-		-		-		-	
	PERFORMANCE/CLASS		29	-		-		-		-		-	
LOCK-OUT RELAY (-)			30	-		-		-		-		-	
POWER CONDUCTOR		mmq	31	5G70		4G4		4 x (1 x 10)		4 x (1 x 10)		-	

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
3	08/07/2024	Santinelli	Flamminio	Sigismondi	Accepted for Construction (AFC)
2	03/05/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
1	28/03/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)
0	15/02/2024	Santinelli	Flamminio	Sigismondi	Issued for review (IFR)

DWG n° : 231298/SD/11
Item n° : PF1002983/26

IMESA ELECTRICAL ENGINEERING

CROSSWIND

ROSETTI MARINO

TITLE : "SG-200N1"

SINGLE LINE DIAGRAM

Single Line Drawing

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : NTS

A3

DRAWING NO. 1723002197-EL-DG-00011

SHEET 011

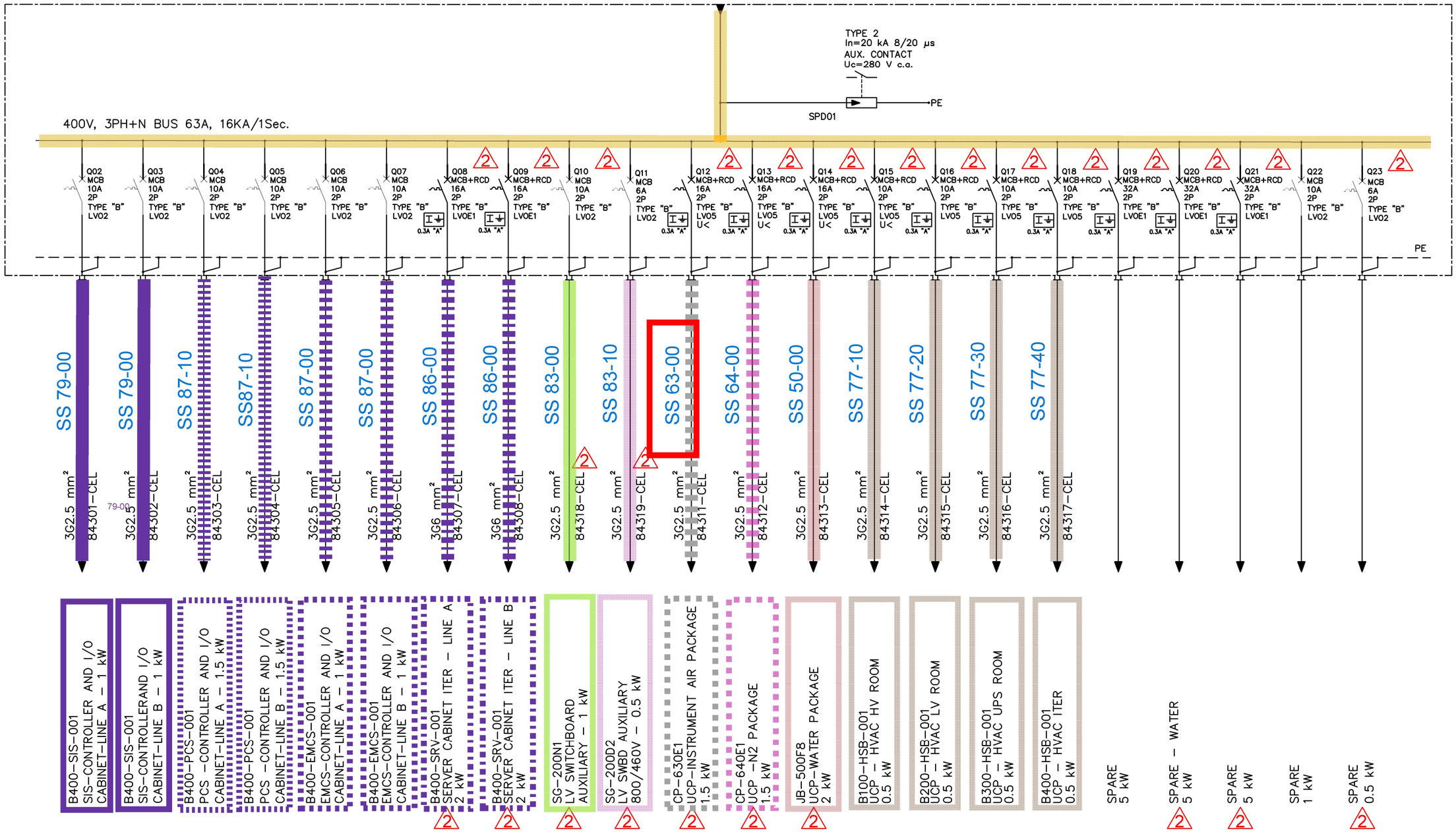
REV. 03

F.to UNI A3: 420mmx297mm

File Name : 1723002197-EL-DG-00011 Rev. 03

AC UPS – PAS SINGLE LINE DIAGRAM(UP–200F3) DISTRIBUTION BOARD DETAILS

AC UPS DISTRIBUTION BOARD–PAS
DP–200F3



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	27/09/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	12/04/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	14/02/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL SINGLE LINE DIAGRAMS AC UPS SYSTEMS
AC UPS – PAS DISTRIBUTION BOARD SLD (UP–200F3)

CONTRACT NO./TITLE CW–I–WP4–2023–05/HOLLANDSE KUST NOORD WIND PARK

SCALE : 1:X

A3

DRAWING NO. 123A90–DDL–EL–DG–20160

SHEET 005

REV. 02

File Name : 123A90–DDL–EL–DG–20160 Rev. 02

F.to UNI A3: 420mmx297mm

DRAWING NO. DRAWING_NO.

REV. REV

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
CAPACITY : 313 Sm3/h (PRODUCTION)

A-64000
NITROGEN GENERATION SYSTEM
CAPACITY : 52.7 Sm3/h (PRODUCTION)

Waste Water Brine Discharge System SS 55-01
Instrument Air Distrubution Network SS 63-30
Instrument Air Package SS 63-00
Nitrogen Distribution Network SS 64-10
Nitrogen Generator Package SS 64-00

SUCTION 63 PI 001 | DISCHARGE 63 PI 002 | COMMON ALARM 63 XA 001 | MCC DEVICE COMMS FAIL 63 XI 001 | AVAILABLE STATUS 63 XI 002 | RUN/STOP STATUS 63 XI 003 | SHUTDOWN STATUS 63 XI 004 | SHUTDOWN ALARM 63 XA 002 | ESD I

FAULT PACKAGE 63 XA 003

ESD I — 63-XS-001 SHUT-DOWN

NOTE 14

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
SEE VENDOR DIAGRAM
NOTE 2, 3, 4, 5, 6

V-63001
AIR RECEIVER

1-1/2"-IA-263-01SS-N

63 PI 004 LL | 63 PI 003 L | ESD

INSTR. PIPING

63 PT 003 | 63 PT 004

BLPH-MV-150 3/4" FLG x 1/2" NPTF | BLPH-MV-151 3/4" FLG x 1/2" NPTF

TP 041 | LO | BLPH-MV-149

1-1/2"-IA-108-01SS-N → 123A90-DDL-PR-PID-80041 TO INSTRUMENT AIR DISTRIBUTION HEADER

TP 039 | BLPH-MV-269 SB LO | 1"-WW-079-01CS-H → 123A90-DDL-PR-PID-80025 TO BRINE DISCHARGE CAISSON

BLPH-MV-270 LO 1.1/2" | 1-1/2"-IA-204-01SS-N

TO SAFE LOCATION | 2"-AV-224-01CS-N | TP 043 | TP 045

A-64000
NITROGEN SYSTEM
SEE VENDOR DIAGRAM

TP 042 | BLPH-MV-271 SB LO | 3/4" BLPH-MV-275 | 1"-N-158-01CS-N

1"-N-262-01CS-N

64 HS 031 | 64 PIC 031A H L | 64 PIC 031B H L | 64 PT 031A | 64 PT 031B | 64 PV 031A | 64 PV 031B | FL-DC TYP.6 1" | N-158 | N-100

NOTE 15 | 64 PI 002 L LL | 64 PT 002 | NOTE 1, 12 SET @ 10 barg | 102 | 64 PSV 001 | NOTE 10 TO ATM | 2"-AV-160-01CS-N

INSTR. PIPING | 3/4" FLG x 1/2" NPTF | BLPH-MV-386 | BLPH-MV-166 | BLPH-MV-167 3/4" FLG x 1/2" NPTF | 1"-N-100-01CS-N

1.5" x 1" | BLPH-MV-278 FB-LO 1.1/2" | 1-1/2"-N-197-01CS-N | 1.5" x 1"

1"-N-101-01CS-N → 123A90-DDL-PR-PID-80028 TO HYDROGEN VENT HEADER

1"-N-125-03HSS-N → 123A90-DDL-PR-PID-80017 TO HYDROGEN STORAGE VESSEL C

1"-N-124-03HSS-N → 123A90-DDL-PR-PID-80016 TO HYDROGEN STORAGE VESSEL B

1"-N-028-03HSS-N → 123A90-DDL-PR-PID-80015 TO HYDROGEN STORAGE VESSEL A

1"-N-257-03HSS-N

UPPER LEVEL | LOWER LEVEL

1"-N-126-03HSS-N → 123A90-DDL-PR-PID-80018 TO HYDROGEN STORAGE VESSEL D

1"-N-127-03HSS-N → 123A90-DDL-PR-PID-80019 TO HYDROGEN STORAGE VESSEL E

1"-N-128-03HSS-N → 123A90-DDL-PR-PID-80020 TO HYDROGEN STORAGE VESSEL F

64 SDV 001 | NOTE 13 | NC FC TYP.2

1"-N-151-01CS-N → 123A90-DDL-PR-PID-80011 TO ELECTROLYSER PACKAGE

01CS 03HSS

ESD I — 64-XS-001 SHUT-DOWN — ESD I — NOTE 14

64 XA 003 FAULT PACKAGE

V-64001
NITROGEN RECEIVER

NOTES

1. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
2. COMPRESSORS AND DRIERS DESIGNED FOR 2 X 100% CONFIGURATION. INSTRUMENT AIR RECEIVER DESIGNED FOR 1 X 100%.
3. VENDOR TO PROVIDE NECESSARY CONTROLS, INSTRUMENTATIONS AND ISOLATIONS IN ORDER TO OPERATE THE PLANT IN SAFE MANNER.
4. COMPRESSORS WILL OPERATE ON THE BASIS OF ONE WORKING AND ONE ON STANDBY.
5. COMPRESSORS TO BE ROTARY SCREW TYPE OIL FREE.
6. AIR COMPRESSOR INLET TO BE LOCATED AWAY FROM ANY VENTS.
7. DELETED. 02
8. DELETED.
9. DELETED.
10. TO SAFE LOCATION, ROUTED AWAY FROM WALKWAYS.
11. DELETED. 02
12. 64PSV001 SIZED FOR UPSTREAM CV FAILURE.
13. 64SDV001 IS NORMALLY CLOSED. IF REQUIRED THE OPERATOR CAN REMOTELY OPEN THE VALVE TO ALLOW PURGING OPERATION. VALVE 64SDV001 IS ALSO CONNECTED TO THE PCS SYSTEM.
14. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
15. THE ALARM 64-PAL-002 WILL CLOSE 64-SDV-001 THROUGH SAFETY SYSTEM.

02

HOLDS

1. DELETED.
2. DELETED. 02
3. DELETED.
4. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	NTS
DRAWN	CHECKED	APPROVED		DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80027			SHEET 001	REV. 02

File Name : FILE_NAME

Section 4 MECHANICAL COMPLETION STATUS INDEX - BUILDING DISCIPLINE

NOT APPLICABLE

Section 5 MECHANICAL COMPLETION STATUS INDEX - ELECTRICAL DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-00 & process: MC & discipline : E

Electrical	63-00 Instrument Air Package (A-63000)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
83017-CEL-1	LV Switchgear / Instrument Air Package	ONSHORE	C10000537	CPX09	100	2024-12-04	RFC 1
83017-CEL-2	LV Switchgear / Instrument Air Package	ONSHORE	C10000538	CPX09	100	2024-12-04	RFC 1
83110-CEL	Lighting & Small Power DB BoP / UCP - Instrument Air Package -A-63000 - Auxiliary	ONSHORE	C10000629	CPX09	100	2024-12-04	RFC 1
84311-CEL	AC UPS - PAS DB / UCP - Instrument Air Package A-63000	ONSHORE	C10000587	CPX09	100	2024-12-04	RFC 1
A-63000	Instrument Air Package	ONSHORE	C10002352	CZX01E	100	2024-12-04	RFC 2

ITEM	Tag	83017-CEL-1	: LV Switchgear / Instrument Air Package		Dwg	123A90-DDL-EL-LIS-20148	
	S/Sys	63-00	: Instrument Air Package (A-63000)		Module	LD_B-200/LD	
TASK	code	C10000537	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Electrical	Form CPX09	LV Power Cable	

CABLE DATA

Type: Cu Cl.2/EPR/LSZH | Cores/Size mm²: 5G70 mm2 | Color: GREY

From: SG-200N1 | To: K-63001-A

1	Confirm cable is as specified in project cable schedule	OK
2	Visual Check cable physical integrity.	OK
3	Check is installed in accordance with layout drawing (segregation, distance…).	OK
4	Check cable is supported and fixed to rack according to project specification.	Note
5	Check bending radius is within the specified limits.	OK
6	Confirm cable glands suit for cable type, correctly mounted and tightened.	OK
7	Check gland plate for single core cables is non ferrous (non -magnetic).	OK
8	Confirm cable labelling is in accordance with specifications.	PL
9	Check cable is correctly loomed and segregated in accordance with specification.	PL
10	Check cable earthing against lastest drawings.	OK
11	Check cores marking are in accordance with termination diagram	PL
12	Check terminations are in accordance with latest termination diagram	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

ROSETTI MARINO PROVERLIS CROSSWIND

ITEM	Tag	83017-CEL-1	: LV Switchgear / Instrument Air Package		Dwg	123A90-DDL-EL-LIS-20148	
	S/Sys	63-00	: Instrument Air Package (A-63000)		Module	LD_B-200/LD	
TASK	code	C10000537	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Electrical	Form	CPX09	LV Power Cable

CONTINUITY				
5	CORE CONTINUITY Ω	PH 1	0,5	
6		PH 2	0,5	
7		PH 3	0,5	
8	ARMOUR CONTINUITY Ω		NA	
9	PROTECTIVE CONDUCTOR CONTINUITY Ω		0,6	
INSULATION				
10	CORES / ARMOUR+EARTH MΩ	PH1 / PH2-PH3-A-E	>999	
11		PH2 / PH1-PH3-A-E	>999	
12		PH3 / PH1-PH2-A-E	>999	
13	CABLE IS CORRECTLY RE-CONNECTED.		Yes	

TESTING INSTRUMENTS USED			
TYPE / SERIAL N° :	MEGGER: KEW3125A SERIAL:W8330207	TYPE / SERIAL N° :	MULTIMETER: FLUKE 175 SERIAL:AW1/018(17140769)
Calibration certificate N° and date:	N° 7722/24 10/07/2024	Calibration certificate N° and date:	N°7715/24 _ 10/07/2024

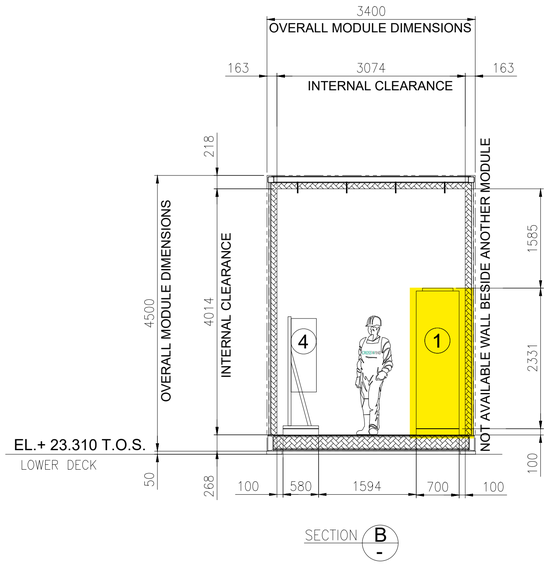
Comments:

CORE CONTINUITY PH 4= 0.4
CORES / ARMOUR+EARTH INS. PH 4 = >999 M

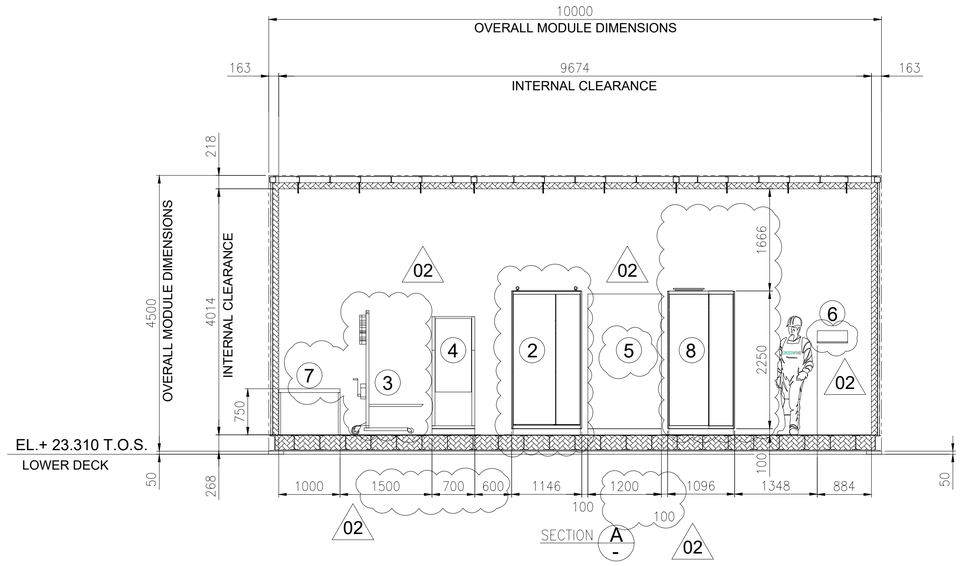
Nota 4: refer to PL C30000679

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Francesco Zucca	Giovanni Tangianu	
Date	2024-12-02	2024-12-04	
Signature	PROVERLIS Digitaly signed by Francesco Zucca 2024-12-02T07:06:04.956Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-12-04T16:52:50.372Z	

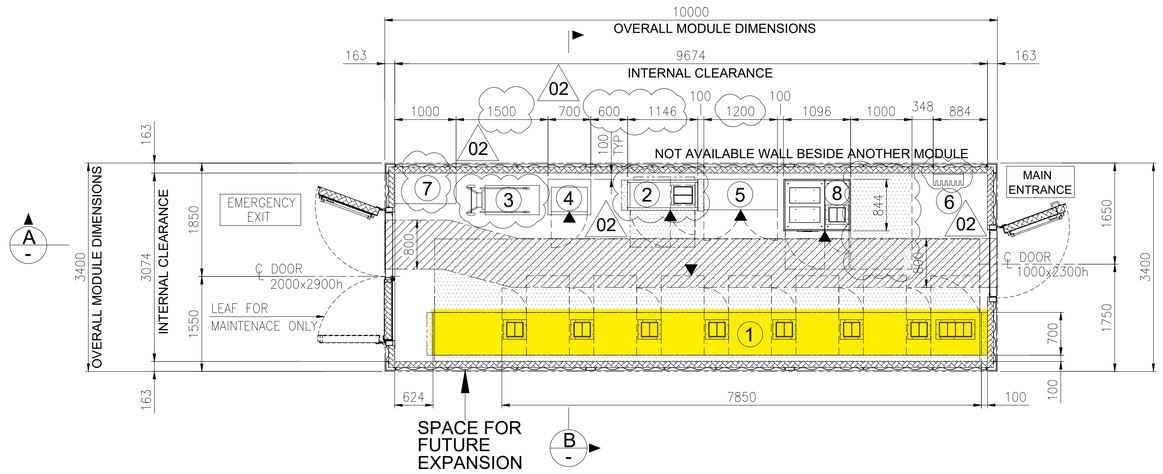
DRAWING NO. 123A90-DDL-EL-DL-20105 REV. 02



SECTION B



SECTION A



A

B

EQUIPMENT LAYOUT

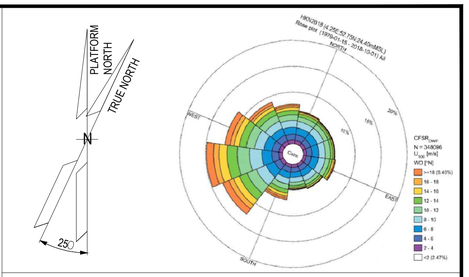
"B-200" LV (400V) SWITCHGEAR ROOM

BOTTOM PLAN

1

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	SG-200N1	400V SWITCHGEAR	7850	700	2331	
2	DP-200N1	DISTRIBUTION BOARD FOR LIGHTING AND SMALL POWER B.O.P.	1146	520	2250	
3	-	SERVICE TROLLEY FOR 400V SWITCHGEAR	1034	490	2030	
4	CN-200N1	ICCP PANEL	700	580	1830	
5	B200-HSB-001	DISTRIBUTION & HVAC PANEL - LV ROOM	1200	600	1900	02
6	-	TOOL BOX	495	200	200	
7	-	TABLE	1000	500	750	
8	SG-200D2	ACB PANEL FOR SOLAR PACKAGE	1096	844	2294	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DELETED.
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
4. FOR OTHER ITEMS, CORRECT LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND DEDICATED PROJECT DOCUMENTATION.
5. HEIGHT OF ALL PANELS IN THE EQUIPMENT LIST TABLE IS WITHOUT THE BASE FRAME (100mm)

02

LEGEND

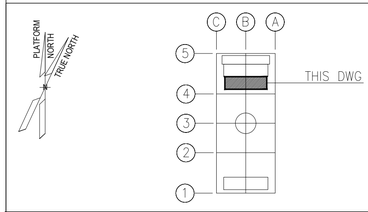
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR - WIDTH 800mm.
_____ MAINTENANCE AREA - VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

REFERENCES

DOCUMENT TITLE	DOCUMENT NUMBER
SG-200N1 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00007
SG-200D2 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00008
DP-200N1 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00009
AC UPS – GENERAL ARRANGEMENT AND DIMENSIONAL DRAWINGS	1724000372-EL-DA-00004
AC UPS – BATTERY LAYOUT INTERCONNECTING DIAGRAM	1724000372-EL-DG-00011
B-200 -GENERAL ARRANGEMENT DRAWINGS - E&I SHELTER	1724000049-AR-DA-00015
ICCC PANEL GENERAL ARRANGEMENT DRAWING	144671-CORR-TF-FAB-DWG-0003

02

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	27/05/2024	FMO	LMA/AMA	LMA/MDO	ACCEPTED FOR CONSTRUCTION (AFC)
01	26/03/2024	GPA	LMA/AMA	LMA/MDO	ISSUE FOR REVIEW (IFR)
00	08/11/2023	DSF	CB/AMA	DYFO/MDO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20105**

REV.:	DATE:	SIGNATURE:
2_A	08/08/24	G.Randi

ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
LV SWITCHROOM

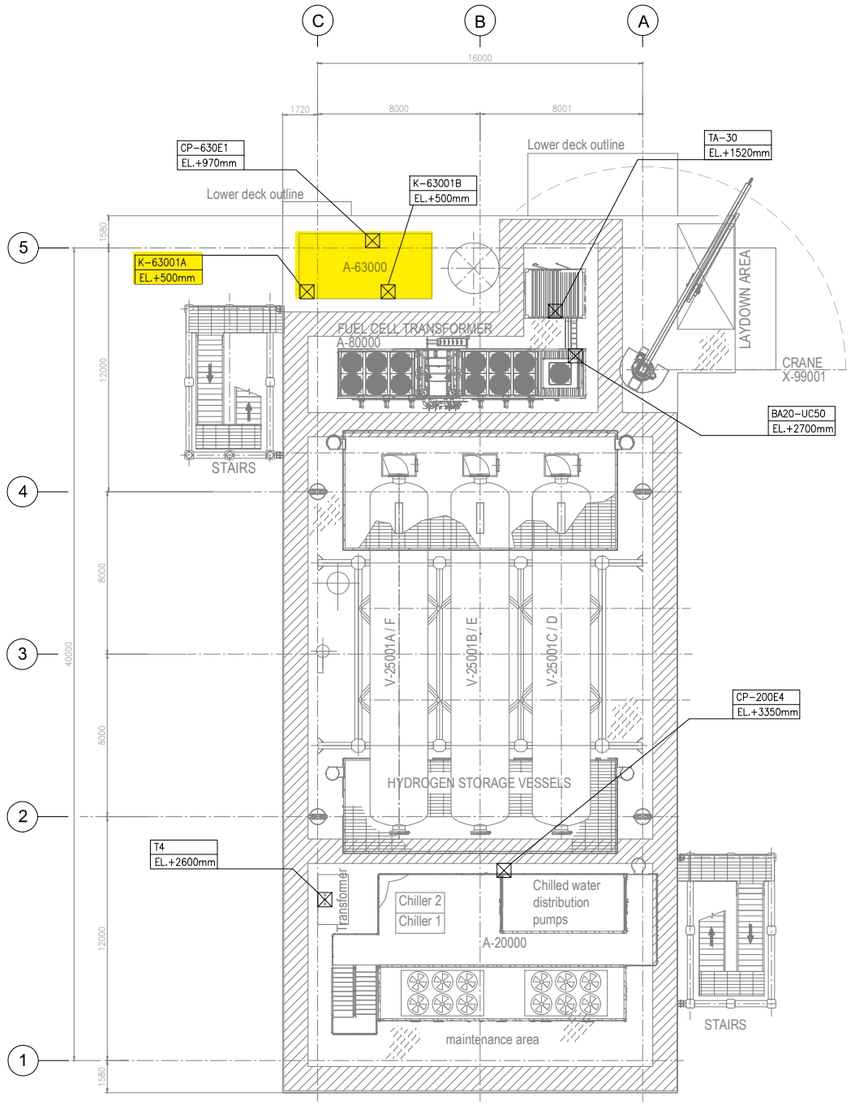
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:50
DRAWN FMO	CHECKED LMA/AMA	APPROVED LMA/MDO	DATE 27/05/2024

A1	DRAWING NO. 123A90-DDL-EL-DL-20105	SHEET 001	REV. 02

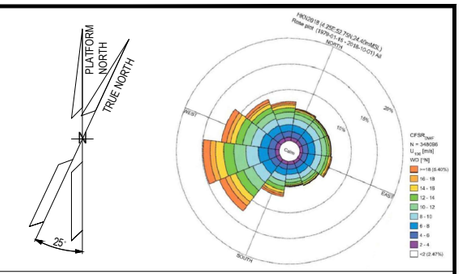
File Name : 123A90-DDL-EL-DL-20105_REV02.dwg

DRAWING NO. 123A90-DDL-EL-DL-20100

REV. 01



PLAN ON TOP DECK
EL+30.310 T.O.S.



NOTES

1. ALL DIMENSIONS IN MM UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS IN METERS. UNLESS NOTED OTHERWISE.
3. ELEVATIONS REFER TO T.O.S. UNLESS NOTED OTHERWISE.
4. AFTER INTERFACE PANEL/BATTERY LIMIT CABLES WILL BE ROUTED INSIDE VENDOR CABLETRAYS

LEGEND

⊠	INTERFACE PANEL/BATTERY LIMIT
JB-200E2 EL.+500mm	TAG ITEM REFERED ELEVATION TO T.O.S. (TOP OF STEEL)

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20140	ELECTRICAL HEAT TRACING JUNCTION BOX LAYOUT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	22/07/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20100
REV.: 1_A | DATE: 08/08/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
TOP DECK

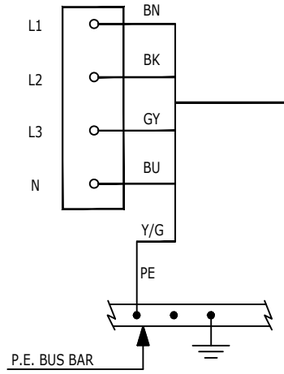
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 22/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20100	SHEET 001	REV. 01

File Name : 123A90-DDL-EL-DL-20100-Electrical Equipment Layout - Top Deck

FROM	TO

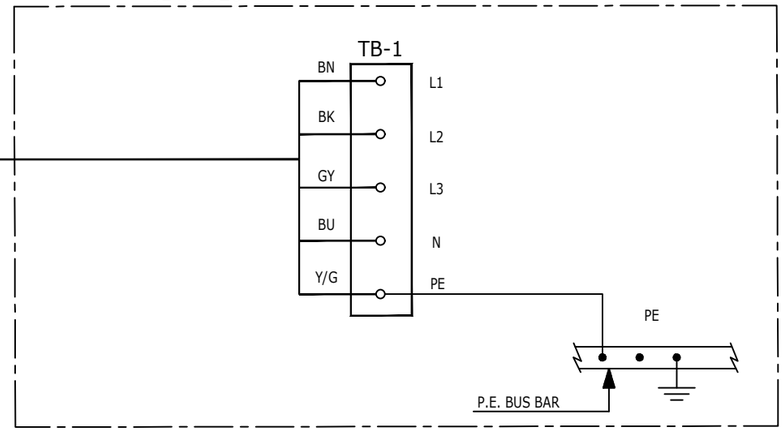
DESCRIPTION: LV SWITCHGEAR
TAG NUMBER: SG-200N1

COLUMN/CUBIC.:A3/+08

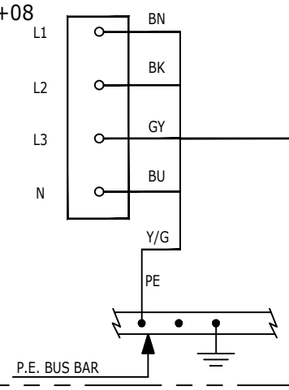


83016-CEL
5G70 mm²

DESCRIPTION: WATER PACKAGE
TAG NUMBER: JB-500E8

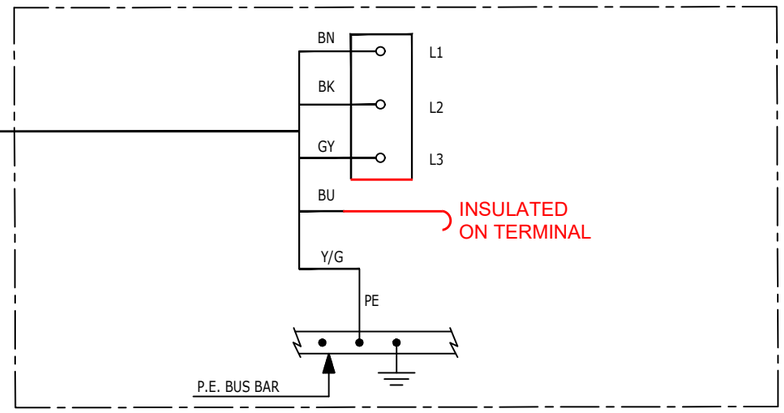


COLUMN/CUBIC.:A4/+08

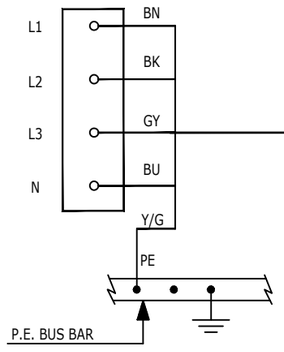


83017-CEL-1
5G70 mm²

DESCRIPTION: INSTRUMENT AIR PACKAGE
TAG NUMBER: K-63001-A

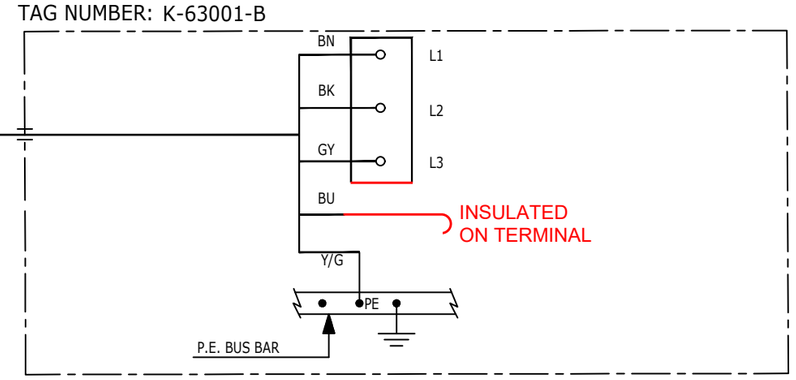


COLUMN/CUBIC.:A5/+08



83017-CEL-2
5G70 mm²

DESCRIPTION: INSTRUMENT AIR PACKAGE
TAG NUMBER: K-63001-B



VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DG-20149

REV.:	DATE:	SIGNATURE:
2_C	02/12/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	19/11/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/10/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	SAI	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL INTERCONNECTING WIRING DIAGRAM
LV SWITCHGEAR SG-200N1

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : 1:X

A3

DRAWING NO. 123A90-DDL-EL-DG-20149

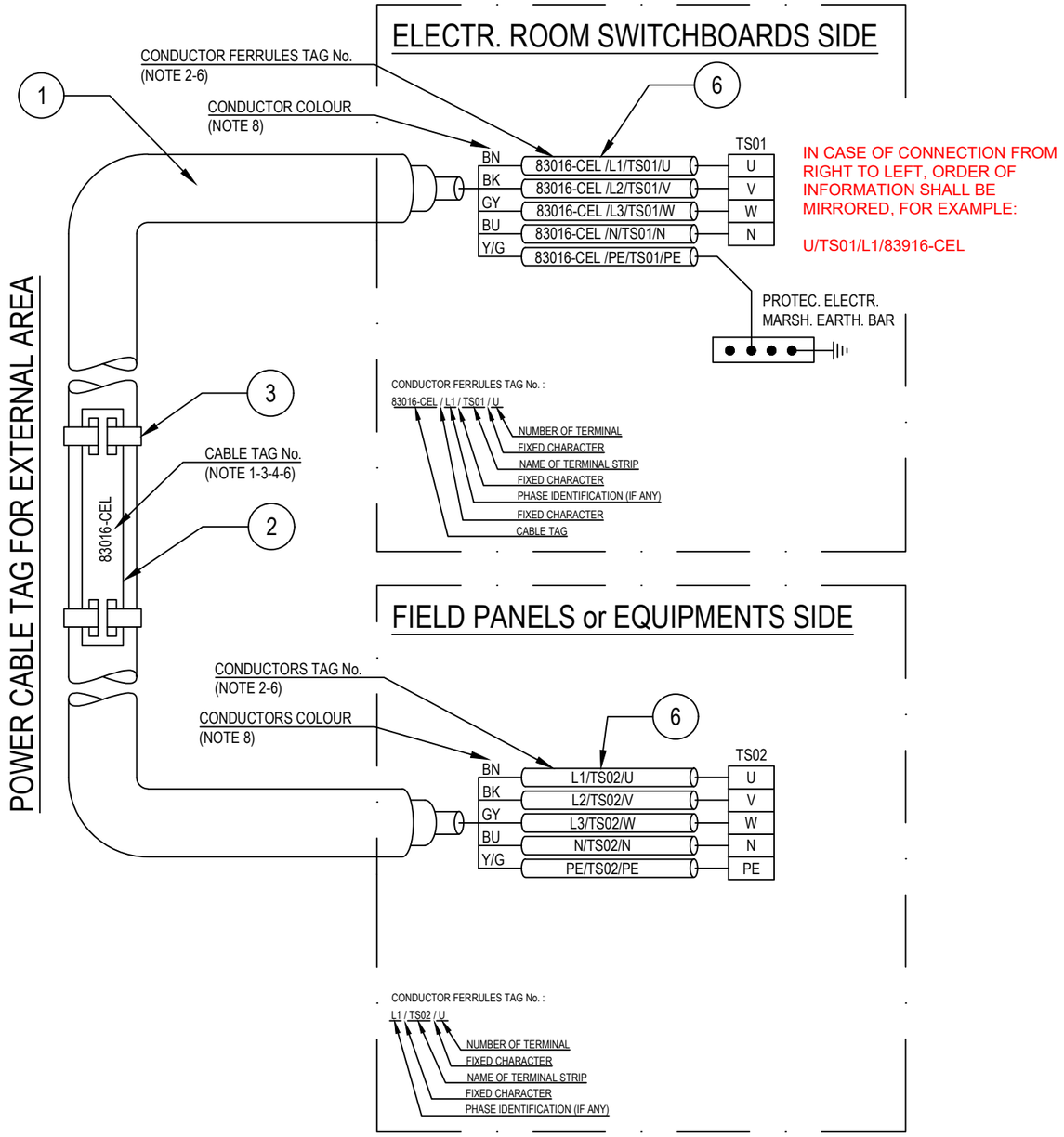
SHEET 023

REV. 02

File Name : 123A90-DDL-EL-DG-20149 Rev. 02

F.to UNI A3: 420mmx297mm

C02



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	UNARMOURED CABLE				
2	CABLE TAG FOR EXTERNAL AREA	HDG/SS			NOTE 1 NOTE 4
3	TIE FOR CABLE TAG IN EXTERNAL AREA	HDG/SS			
4	CABLE TAG FOR INTERNAL AREA	PVC			NOTE 1 NOTE 5
5	TIE FOR CABLE TAG IN INTERNAL AREA	NYLON 6.6			
6	CORE FERRULES	PVC			

NOTES:

1) ALL CABLES SHALL BE IDENTIFIED AT EACH TERMINATION AND EACH SIDE OF ANY OBSTACLE (E.G. CABLE TRANSIT ON WALLS INSIDE SHELTER AND FLOOR DECK CROSSING, BY THEIR RESPECTIVE TAGS/NUMBERS, AS INDICATED ON THE CABLE SCHEDULE.
CABLE IDENTIFICATION SHALL BE ALSO DONE BELOW AND IN THE SWITCHBOARD CABLE COMPARTMENT.

2) CABLE CORE FERRULES SHALL BE FITTED AT EVERY TERMINATION. THESE FERRULES SHALL BE OF ENGRAVED PLASTIC SLIP ON, INTERLOCKED AND SELF GRIP TYPE.

3) ON CABLE TRAYS OR LADDERS, CABLES SHALL BE IDENTIFIED AT EACH END, AND EVERY 25 METERS.

4) THE CABLE TAG FOR EXTERNAL AREA SHALL DONE BY 316L STAINLESS STEEL LABELS, TAG (H=5mm) SHALL BE LASER PRINTED PREFERABLY OR EMBOSSED, LABEL HELD BY TWO 316L STAINLESS STEEL TIES.

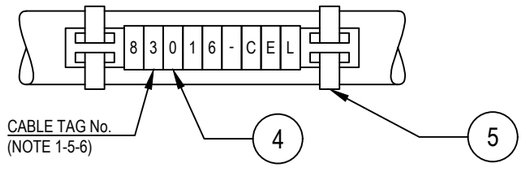
5) THE CABLE TAG FOR INTERNAL AREA SHALL BE DONE BY ENGRAVED PLASTIC SLIP ON CHARACTERS ONTO PLASTIC TIE, BLACK LETTER (H=5mm) ON WHITE.

6) CABLE AND CONDUCTOR TAG ARE INDICATIVE ONLY.

7) WITHIN TECHNICAL BUILDING, PROTECTIVE CONDUCTOR SHALL BE TAGGED BETWEEN FOLLOWING ITEMS:
- PANEL (SWITCHBOARD, SWITCHGEAR, DISTRIBUTION BOARD, ETC) AND EARTH BAR
- EARTH BAR AND EARTH BOSS

8) ONLY IF NECESSARY, SHRINK TUBES OF THE APPROPRIATE COLOR WILL BE INSTALLED TO COVER THE WRONG CONDUCTOR COLOR, THIS WILL BE PERFORMED IN EACH SIDE OF THE CABLES WHERE NECESSARY.

POWER CABLE TAG FOR INTERNAL AREA



VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20092**

REV.:	DATE:	SIGNATURE:
2_B	28/11/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	28/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	04/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-POWER SYSTEM & CABLE INSTALLATION
CABLES INSTALLATION SYSTEM IDENTIFICATION FOR POWER CABLES

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3	DRAWING NO.	SHEET	REV.
	123A90-DDL-EL-DD-20092	007	02

F.to UNI A3: 420mmx297mm

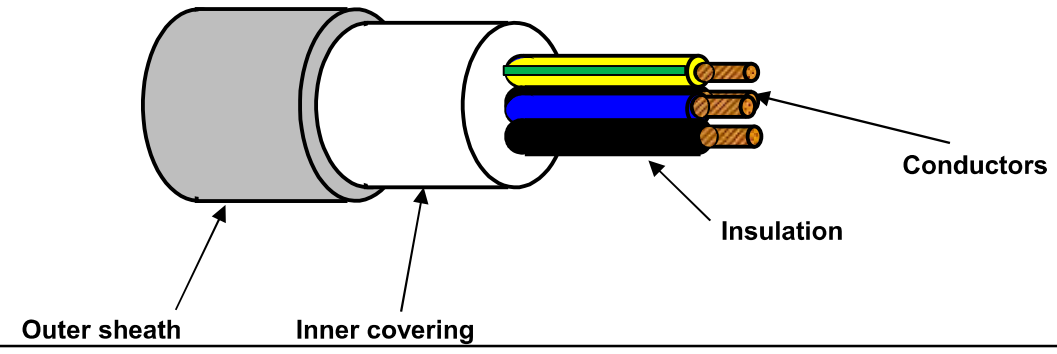
File Name : 123A90-DDL-EL-DD-20092 REV.02.DWG

Tag Number	Category	Discipline	Eng Status	NativeDoc	Layout	Parent Tag	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
83017-CEL-1	Cable	EL	VFC	123A90-DDL-EL-LIS-20148						SG-200N1	LV 0,4 kV MCC Switchgear	Lower Deck (B-200)	K-63001-A	Instrument Air Package A-63000	Lower Deck	ELECV14-5G70	Cable Cu Cl.2/EPR/LSZH 0,6/1kV 5G70mm² - Grey	M50	n.a.			T1_M50_Single				L-450-101-LVT-025 / L-600-101-LVT-016 / E-MCT-201 / L-750-101-LVT-011 / L-450-101-LVT-008 / L-300-101-LVT-112 / E-MCT-U16 / L-150-102-LVT-015

FLEI s.r.l.

Cu Cl.2/EPR/LSZH 0,6/1 KV

5G70 - L.V. POWER CABLE - Flame Retardant



TECHNICAL FEATURES

Conductors :	**STRANDED COMPACTED** plain/bare annealed copper wires	IEC 60228 Class 2
Insulation :	EPR compound, quality to IEC 60092.360, Nominal Thickness 1,4 mm	
Cores colour code :	**Black - Brown - Grey - Blue - Yellow/Green**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not Required	
Total Assembling :	Cores layed up with optimal lay length	
Overall Wrapping:	Not required	
Drain wire :	Not required	
Overall Shield:	Not required	
Inner covering :	Extruded LSZH compound, Average Thickness 1,2 mm	
Inner covering color code:	**Black or Natural**	
Armour :	Not required	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,8 mm	
Outer sheath color code:	**Grey**	
Outer printing (INKJET) :	**FLEI - ELECTRIC CABLE - 1000V - 5G70 SQMM - EPR/LSZH - 0,6/1 KV - IEC 60332.1.2 - IEC 60332.3.22 -**	
	Year of Manufacture - CE + Meter Marking	
Outer diameter :	(39,5 ± 10%) mm	
Bending radius :	cable outer diameter x 10	(in fixed installation)
Voltage test :	3,5 kV a.c. for 5' (Between Cores)	
Conductors DC Resistance :		IEC 60228 Class 2
Insulation Resistance :	≥ 410 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.353**	
ON COMPLETE CABLE		
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance	IEC 61034.2 (LT ≥ 60%)	
Temperature Range :		
ON INSULATION	(max +90°C)	(max continuous operation temperature of conductors)
	(max +250°C)	(max conductors temperature during short-circuit for 5 seconds)
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C)	(in fixed installation)
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner covering together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	30/05/2024	Messa			
Checked :	30/05/2024	Spaccasassi			
Approved :	30/05/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

All proprietary rights reserved according to law. This document shall be not reproduced without written permission. FLEI reserves the right to change characteristics and technical data of product shown at any time.

ITEM	Tag	83017-CEL-2	: LV Switchgear / Instrument Air Package		Dwg	123A90-DDL-EL-LIS-20148	
	S/Sys	63-00	: Instrument Air Package (A-63000)		Module	LD_B-200/LD	
TASK	code	C10000538	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Electrical	Form CPX09	LV Power Cable	

CABLE DATA

Type: Cu Cl.2/EPR/LSZH | Cores/Size mm²: 5G70 mm2 | Color: GREY

From: SG-200N1 | To: K-63001-B

1	Confirm cable is as specified in project cable schedule	OK
2	Visual Check cable physical integrity.	OK
3	Check is installed in accordance with layout drawing (segregation, distance…).	OK
4	Check cable is supported and fixed to rack according to project specification.	Note
5	Check bending radius is within the specified limits.	OK
6	Confirm cable glands suit for cable type, correctly mounted and tightened.	OK
7	Check gland plate for single core cables is non ferrous (non -magnetic).	OK
8	Confirm cable labelling is in accordance with specifications.	PL
9	Check cable is correctly loomed and segregated in accordance with specification.	PL
10	Check cable earthing against lastest drawings.	OK
11	Check cores marking are in accordance with termination diagram	PL
12	Check terminations are in accordance with latest termination diagram	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

ROSETTI MARINO PROVERLIS CROSSWIND

ITEM	Tag	83017-CEL-2	: LV Switchgear / Instrument Air Package		Dwg	123A90-DDL-EL-LIS-20148	
	S/Sys	63-00	: Instrument Air Package (A-63000)		Module	LD_B-200/LD	
TASK	code	C10000538	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Electrical	Form	CPX09	LV Power Cable

CONTINUITY				
5	CORE CONTINUITY Ω	PH 1	0,2	
6		PH 2	0,2	
7		PH 3	0,2	
8	ARMOUR CONTINUITY Ω		NA	
9	PROTECTIVE CONDUCTOR CONTINUITY Ω		0,2	
INSULATION				
10	CORES / ARMOUR+EARTH MΩ	PH1 / PH2-PH3-A-E	>999	
11		PH2 / PH1-PH3-A-E	>999	
12		PH3 / PH1-PH2-A-E	>999	
13	CABLE IS CORRECTLY RE-CONNECTED.		Yes	

TESTING INSTRUMENTS USED			
TYPE / SERIAL N° :	MEGGER: KEW3125A SERIAL:W8330207	TYPE / SERIAL N° :	MULTIMETER: FLUKE 175 SERIAL:AW1/018(17140769)
Calibration certificate N° and date:	N° 7722/24 10/07/2024	Calibration certificate N° and date:	N°7715/24 _ 10/07/2024

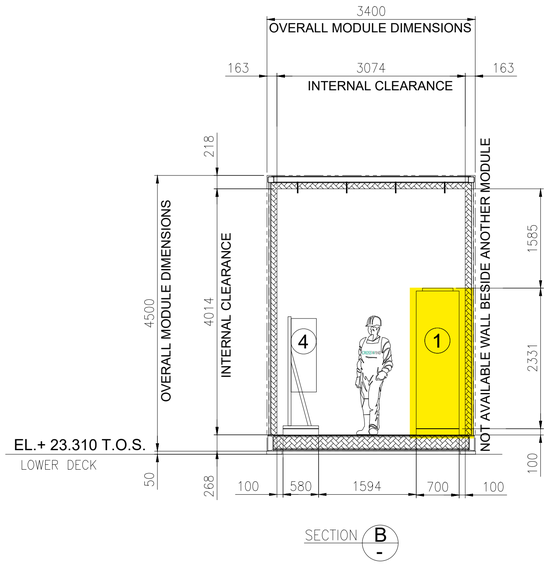
Comments:

CORE CONTINUITY PH 4= 0.3
CORES / ARMOUR+EARTH INS. PH 4 = >999 M

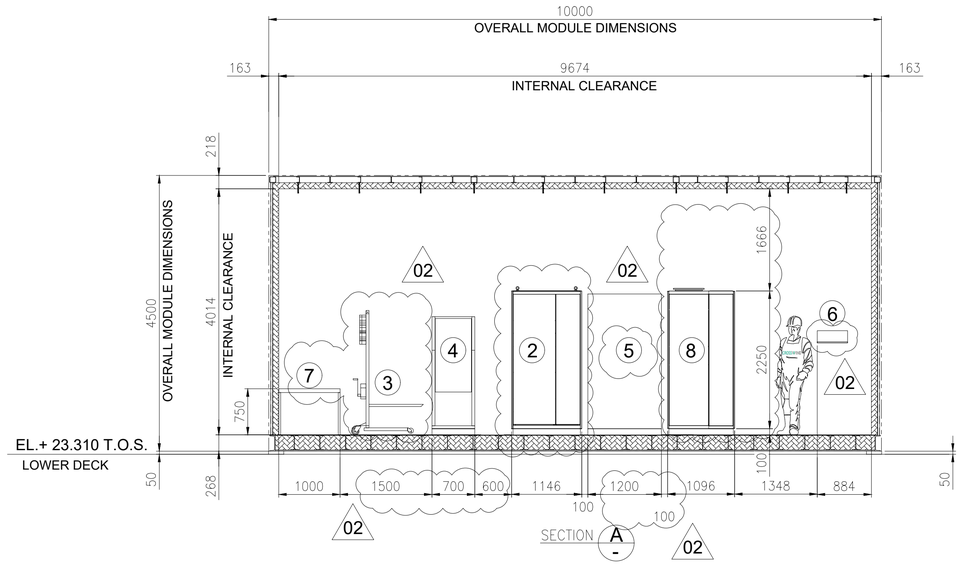
Nota 4: refer to PL C30000679

Page 2/2	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Francesco Zucca	Giovanni Tangianu	
Date	2024-12-02	2024-12-04	
Signature	PROVERLIS Digitaly signed by Francesco Zucca 2024-12-02T07:06:23.681Z	PROVERLIS Digitaly signed by Giovanni Tangianu 2024-12-04T16:53:09.866Z	

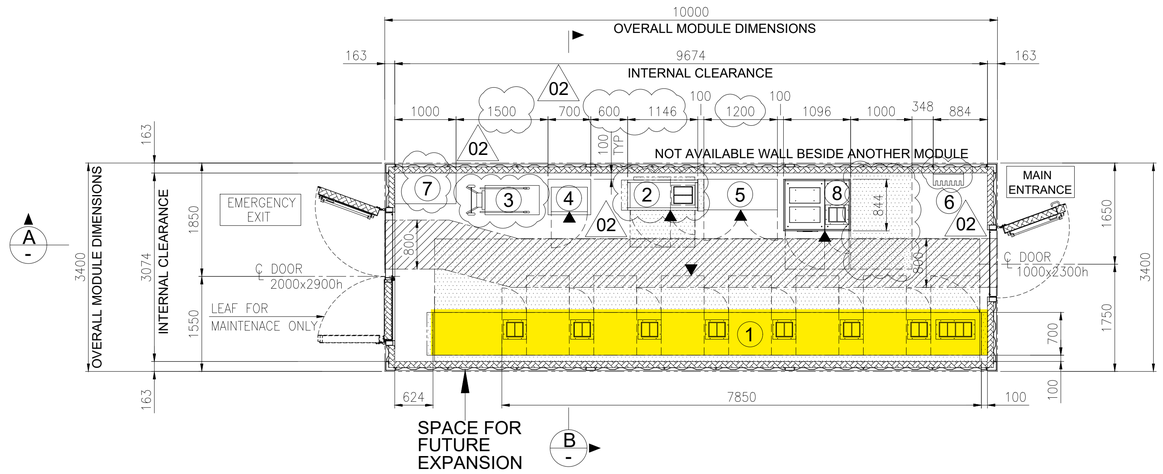
DRAWING NO. 123A90-DDL-EL-DL-20105 REV. 02



SECTION B



SECTION A



A

B

EQUIPMENT LAYOUT

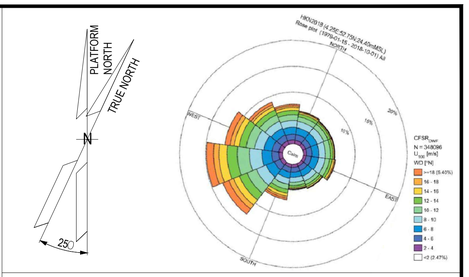
"B-200" LV (400V) SWITCHGEAR ROOM

BOTTOM PLAN

1

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	SG-200N1	400V SWITCHGEAR	7850	700	2331	
2	DP-200N1	DISTRIBUTION BOARD FOR LIGHTING AND SMALL POWER B.O.P.	1146	520	2250	
3	-	SERVICE TROLLEY FOR 400V SWITCHGEAR	1034	490	2030	
4	CN-200N1	ICCP PANEL	700	580	1830	
5	B200-HSB-001	DISTRIBUTION & HVAC PANEL - LV ROOM	1200	600	1900	02
6	-	TOOL BOX	495	200	200	
7	-	TABLE	1000	500	750	
8	SG-200D2	ACB PANEL FOR SOLAR PACKAGE	1096	844	2294	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DELETED.
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
4. FOR OTHER ITEMS, CORRECT LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND DEDICATED PROJECT DOCUMENTATION.
5. HEIGHT OF ALL PANELS IN THE EQUIPMENT LIST TABLE IS WITHOUT THE BASE FRAME (100mm)

02

LEGEND

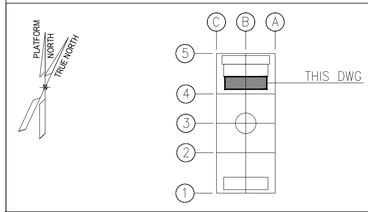
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR - WIDTH 800mm.
_____ MAINTENANCE AREA - VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

REFERENCES

DOCUMENT TITLE	DOCUMENT NUMBER
SG-200N1 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00007
SG-200D2 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00008
DP-200N1 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00009
AC UPS – GENERAL ARRANGEMENT AND DIMENSIONAL DRAWINGS	1724000372-EL-DA-00004
AC UPS – BATTERY LAYOUT INTERCONNECTING DIAGRAM	1724000372-EL-DG-00011
B-200 -GENERAL ARRANGEMENT DRAWINGS - E&I SHELTER	1724000049-AR-DA-00015
ICCC PANEL GENERAL ARRANGEMENT DRAWING	144671-CORR-TF-FAB-DWG-0003

02

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	27/05/2024	FMO	LMA/AMA	LMA/MDO	ACCEPTED FOR CONSTRUCTION (AFC)
01	26/03/2024	GPA	LMA/AMA	LMA/MDO	ISSUE FOR REVIEW (IFR)
00	08/11/2023	DSF	CB/AMA	DYFO/MDO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20105**

REV.:	DATE:	SIGNATURE:
2_A	08/08/24	G.Randi

ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
LV SWITCHROOM

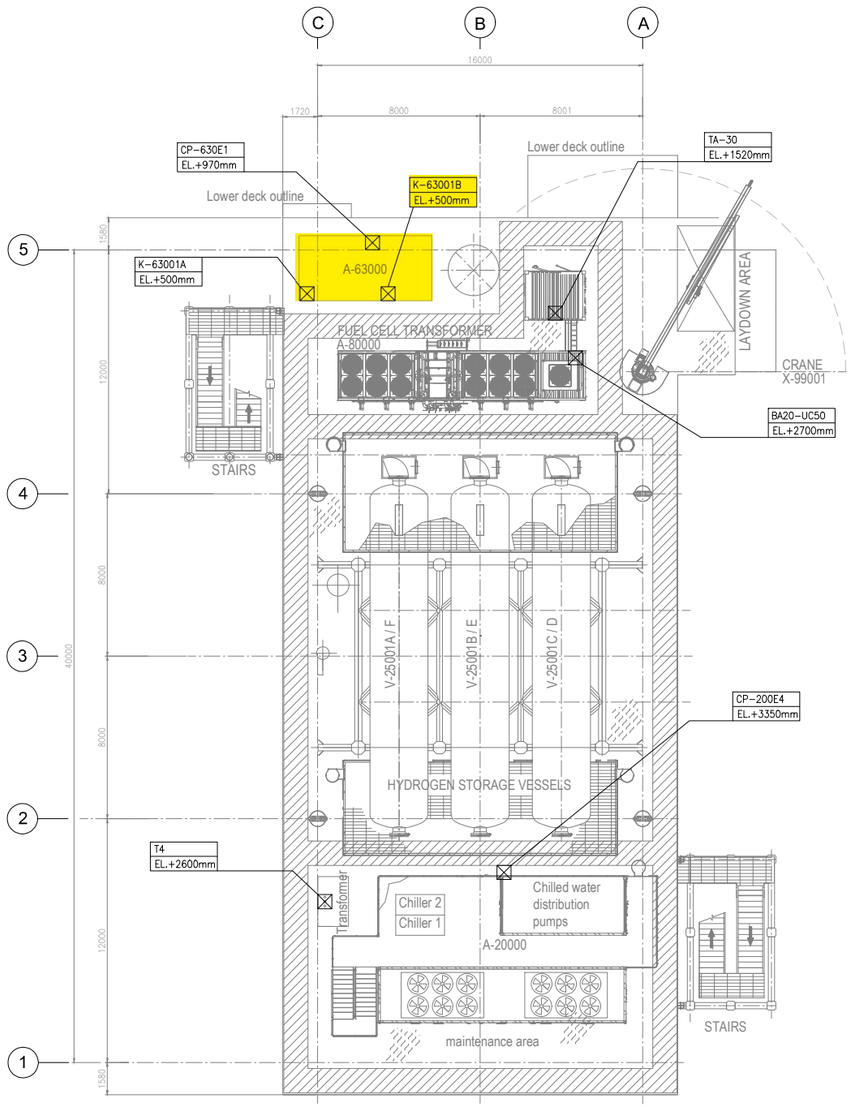
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:50
DRAWN FMO	CHECKED LMA/AMA	APPROVED LMA/MDO	DATE 27/05/2024

A1	DRAWING NO. 123A90-DDL-EL-DL-20105	SHEET 001	REV. 02

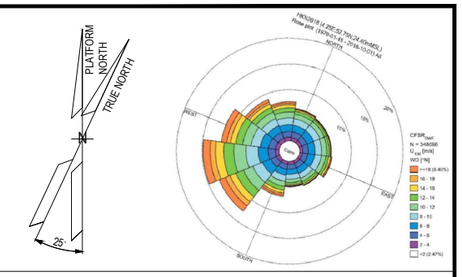
File Name : 123A90-DDL-EL-DL-20105_REV02.dwg

DRAWING NO. 123A90-DDL-EL-DL-20100

REV. 01



PLAN ON TOP DECK
EL+30.310 T.O.S.



NOTES

1. ALL DIMENSIONS IN MM UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS IN METERS. UNLESS NOTED OTHERWISE.
3. ELEVATIONS REFER TO T.O.S. UNLESS NOTED OTHERWISE.
4. AFTER INTERFACE PANEL/BATTERY LIMIT CABLES WILL BE ROUTED INSIDE VENDOR CABLETRAYS

LEGEND

⊠	INTERFACE PANEL/BATTERY LIMIT
JB-200E2 EL.+500mm	TAG ITEM REFERED ELEVATION TO T.O.S. (TOP OF STEEL)

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20140	ELECTRICAL HEAT TRACING JUNCTION BOX LAYOUT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	22/07/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20100
REV.: 1_A | DATE: 08/08/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
TOP DECK

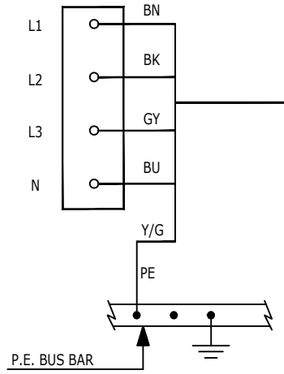
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DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 22/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20100	SHEET 001	REV. 01

File Name : 123A90-DDL-EL-DL-20100-Electrical Equipment Layout - Top Deck

FROM	TO

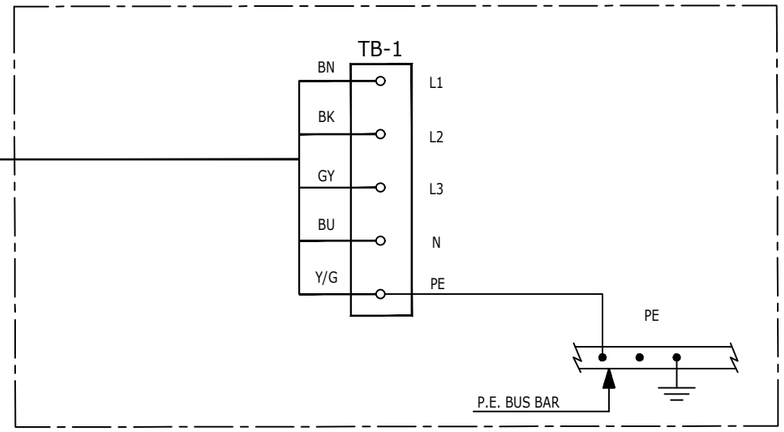
DESCRIPTION: LV SWITCHGEAR
TAG NUMBER: SG-200N1

COLUMN/CUBIC.:A3/+08

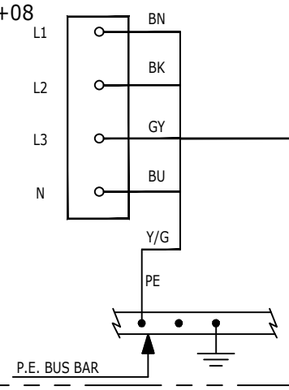


83016-CEL
5G70 mm²

DESCRIPTION: WATER PACKAGE
TAG NUMBER: JB-500E8

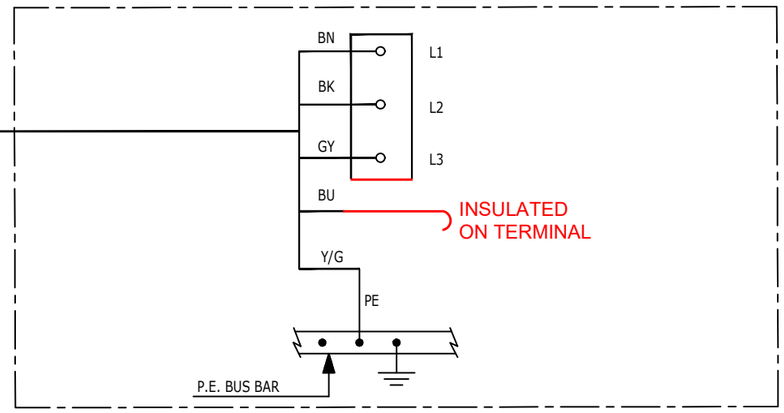


COLUMN/CUBIC.:A4/+08

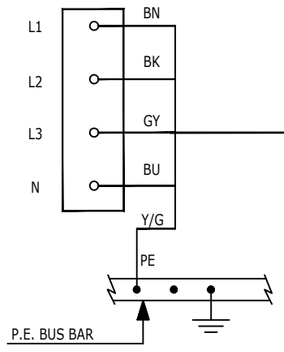


83017-CEL-1
5G70 mm²

DESCRIPTION: INSTRUMENT AIR PACKAGE
TAG NUMBER: K-63001-A

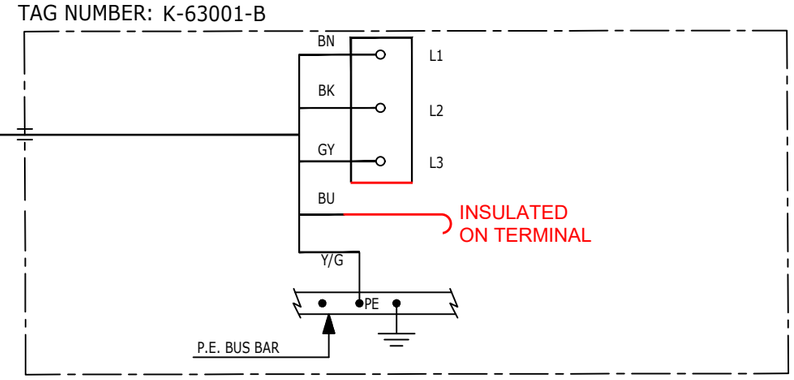


COLUMN/CUBIC.:A5/+08



83017-CEL-2
5G70 mm²

DESCRIPTION: INSTRUMENT AIR PACKAGE
TAG NUMBER: K-63001-B



VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DG-20149

REV.:	DATE:	SIGNATURE:
2_C	02/12/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	19/11/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/10/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	SAI	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL INTERCONNECTING WIRING DIAGRAM
LV SWITCHGEAR SG-200N1

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE : 1:X

A3

DRAWING NO. 123A90-DDL-EL-DG-20149

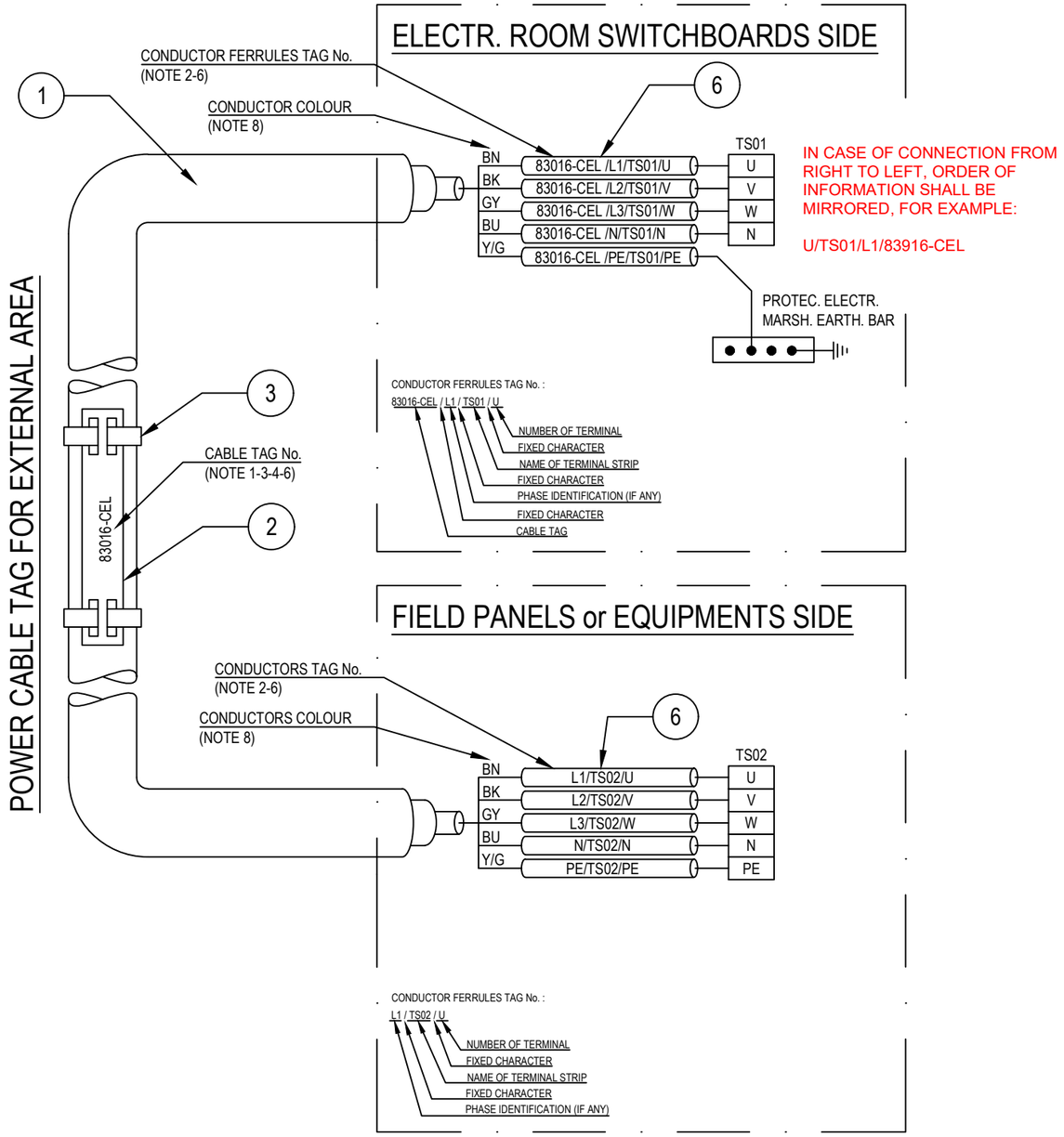
SHEET 023

REV. 02

File Name : 123A90-DDL-EL-DG-20149 Rev. 02

F.to UNI A3: 420mmx297mm

C02



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	UNARMOURED CABLE				
2	CABLE TAG FOR EXTERNAL AREA	HDG/SS			NOTE 1 NOTE 4
3	TIE FOR CABLE TAG IN EXTERNAL AREA	HDG/SS			
4	CABLE TAG FOR INTERNAL AREA	PVC			NOTE 1 NOTE 5
5	TIE FOR CABLE TAG IN INTERNAL AREA	NYLON 6.6			
6	CORE FERRULES	PVC			

NOTES:

1) ALL CABLES SHALL BE IDENTIFIED AT EACH TERMINATION AND EACH SIDE OF ANY OBSTACLE (E.G. CABLE TRANSIT ON WALLS INSIDE SHELTER AND FLOOR DECK CROSSING, BY THEIR RESPECTIVE TAGS/NUMBERS, AS INDICATED ON THE CABLE SCHEDULE.
CABLE IDENTIFICATION SHALL BE ALSO DONE BELOW AND IN THE SWITCHBOARD CABLE COMPARTMENT.

2) CABLE CORE FERRULES SHALL BE FITTED AT EVERY TERMINATION. THESE FERRULES SHALL BE OF ENGRAVED PLASTIC SLIP ON, INTERLOCKED AND SELF GRIP TYPE.

3) ON CABLE TRAYS OR LADDERS, CABLES SHALL BE IDENTIFIED AT EACH END, AND EVERY 25 METERS.

4) THE CABLE TAG FOR EXTERNAL AREA SHALL DONE BY 316L STAINLESS STEEL LABELS, TAG (H=5mm) SHALL BE LASER PRINTED PREFERABLY OR EMBOSSED, LABEL HELD BY TWO 316L STAINLESS STEEL TIES.

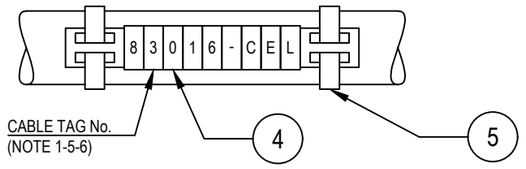
5) THE CABLE TAG FOR INTERNAL AREA SHALL BE DONE BY ENGRAVED PLASTIC SLIP ON CHARACTERS ONTO PLASTIC TIE, BLACK LETTER (H=5mm) ON WHITE.

6) CABLE AND CONDUCTOR TAG ARE INDICATIVE ONLY.

7) WITHIN TECHNICAL BUILDING, PROTECTIVE CONDUCTOR SHALL BE TAGGED BETWEEN FOLLOWING ITEMS:
- PANEL (SWITCHBOARD, SWITCHGEAR, DISTRIBUTION BOARD, ETC) AND EARTH BAR
- EARTH BAR AND EARTH BOSS

8) ONLY IF NECESSARY, SHRINK TUBES OF THE APPROPRIATE COLOR WILL BE INSTALLED TO COVER THE WRONG CONDUCTOR COLOR, THIS WILL BE PERFORMED IN EACH SIDE OF THE CABLES WHERE NECESSARY.

POWER CABLE TAG FOR INTERNAL AREA



VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20092**

REV.:	DATE:	SIGNATURE:
2_B	28/11/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	28/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	04/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-POWER SYSTEM & CABLE INSTALLATION
CABLES INSTALLATION SYSTEM IDENTIFICATION FOR POWER CABLES

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3	DRAWING NO.	SHEET	REV.
	123A90-DDL-EL-DD-20092	007	02

F.to UNI A3: 420mmx297mm

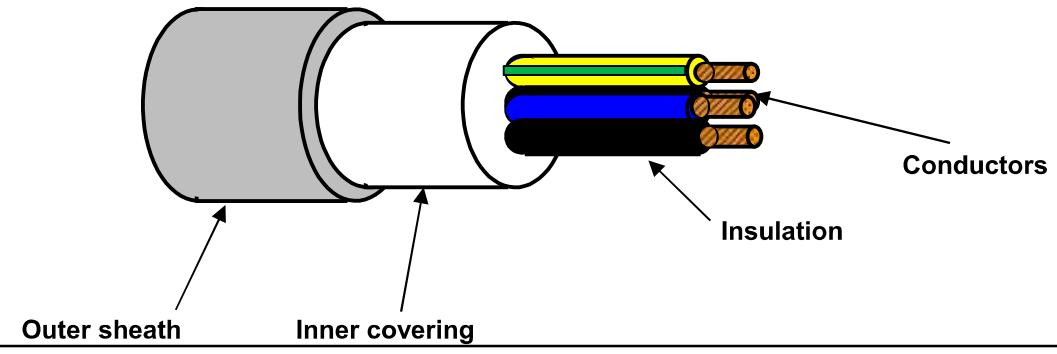
File Name : 123A90-DDL-EL-DD-20092 REV.02.DWG

Tag Number	Category	Discipline	Eng Status	NativeDoc	Layout	Parent Tag	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
83017-CEL-2	Cable	EL	VFC	123A90-DDL-EL-LIS-20148						SG-200N1	LV 0,4 kV MCC Switchgear	Lower Deck (B-200)	K-63001-B	Instrument Air Package A-63000	Lower Deck	ELECV14-5G70	Cable Cu Cl.2/EPR/LSZH 0,6/1kV 5G70mm² - Grey	M50	n.a.			T1_M50_Single				L-450-101-LVT-026 / L-600-101-LVT-016 / E-MCT-201 / L-750-101-LVT-011 / L-450-101-LVT-008 / L-300-101-LVT-078 / E-MCT-U08 / L-150-102-LVT-016

FLEI s.r.l.

Cu Cl.2/EPR/LSZH 0,6/1 KV

5G70 - L.V. POWER CABLE - Flame Retardant



TECHNICAL FEATURES

Conductors :	**STRANDED COMPACTED** plain/bare annealed copper wires	IEC 60228 Class 2
Insulation :	EPR compound, quality to IEC 60092.360, Nominal Thickness 1,4 mm	
Cores colour code :	**Black - Brown - Grey - Blue - Yellow/Green**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not Required	
Total Assembling :	Cores layed up with optimal lay length	
Overall Wrapping:	Not required	
Drain wire :	Not required	
Overall Shield:	Not required	
Inner covering :	Extruded LSZH compound, Average Thickness 1,2 mm	
Inner covering color code:	**Black or Natural**	
Armour :	Not required	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,8 mm	
Outer sheath color code:	**Grey**	
Outer printing (INKJET) :	**FLEI - ELECTRIC CABLE - 1000V - 5G70 SQMM - EPR/LSZH - 0,6/1 KV - IEC 60332.1.2 - IEC 60332.3.22 -**	
	Year of Manufacture - CE + Meter Marking	
Outer diameter :	(39,5 ± 10%) mm	
Bending radius :	cable outer diameter x 10	(in fixed installation)
Voltage test :	3,5 kV a.c. for 5' (Between Cores)	
Conductors DC Resistance :		IEC 60228 Class 2
Insulation Resistance :	≥ 410 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.353**	
ON COMPLETE CABLE		
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance	IEC 61034.2 (LT ≥ 60%)	
Temperature Range :		
ON INSULATION	(max +90°C)	(max continuous operation temperature of conductors)
	(max +250°C)	(max conductors temperature during short-circuit for 5 seconds)
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C)	(in fixed installation)
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner covering together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	30/05/2024	Messa			
Checked :	30/05/2024	Spaccasassi			
Approved :	30/05/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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ITEM	Tag	84311-CEL	: AC UPS - PAS DB / UCP - Instrument Air Package A-63000			Dwg	123A90-DDL-EL-LIS-20148
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	LD_B-300/UD
TASK	code	C10000587		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Electrical	Form	CPX09 LV Power Cable

CABLE DATA

Type	Cu Cl.2/MGT/EPR/LSZH/GSWB/LSZH	Cores/Size mm²	3G2,5 mm2	Color	ORANGE
From	DP-200F3	To	CP-630E1		

1	Confirm cable is as specified in project cable schedule	OK
2	Visual Check cable physical integrity.	OK
3	Check is installed in accordance with layout drawing (segregation, distance…).	OK
4	Check cable is supported and fixed to rack according to project specification.	Note
5	Check bending radius is within the specified limits.	OK
6	Confirm cable glands suit for cable type, correctly mounted and tightened.	OK
7	Check gland plate for single core cables is non ferrous (non -magnetic).	NA
8	Confirm cable labelling is in accordance with specifications.	PL
9	Check cable is correctly loomed and segregated in accordance with specification.	OK
10	Check cable earthing against lastest drawings.	PL
11	Check cores marking are in accordance with termination diagram	PL
12	Check terminations are in accordance with latest termination diagram	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

ROSETTI MARINO PROVERLIS CROSSWIND

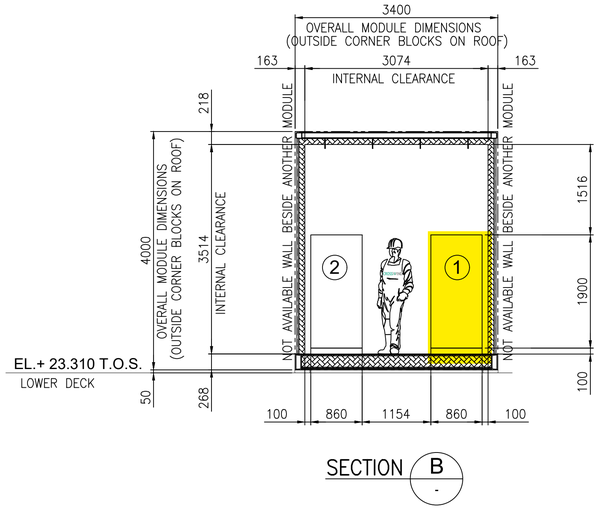
ITEM	Tag	84311-CEL	: AC UPS - PAS DB / UCP - Instrument Air Package A-63000			Dwg	123A90-DDL-EL-LIS-20148
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	LD_B-300/UD
TASK	code	C10000587		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Electrical	Form	CPX09 LV Power Cable

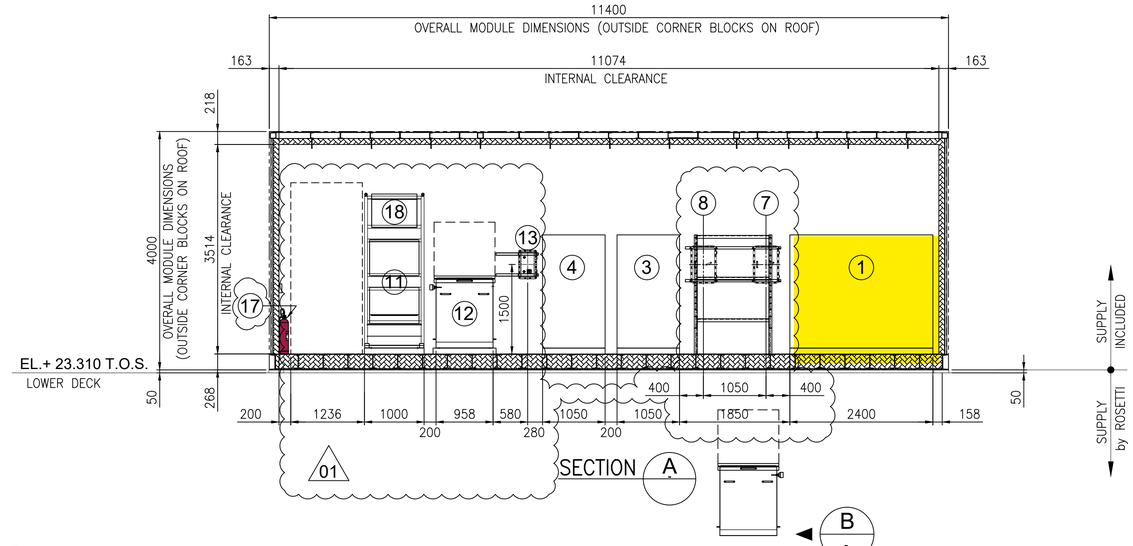
CONTINUITY				
5	CORE CONTINUITY Ω	PH 1	0.4	
6		PH 2	0.4	
7		PH 3	NA	
8	ARMOUR CONTINUITY Ω		0.4	
9	PROTECTIVE CONDUCTOR CONTINUITY Ω		0.4	
INSULATION				
10	CORES / ARMOUR+EARTH MΩ	PH1 / PH2-PH3-A-E	>1999	
11		PH2 / PH1-PH3-A-E	>1999	
12		PH3 / PH1-PH2-A-E	NA	
13	CABLE IS CORRECTLY RE-CONNECTED.		Yes	

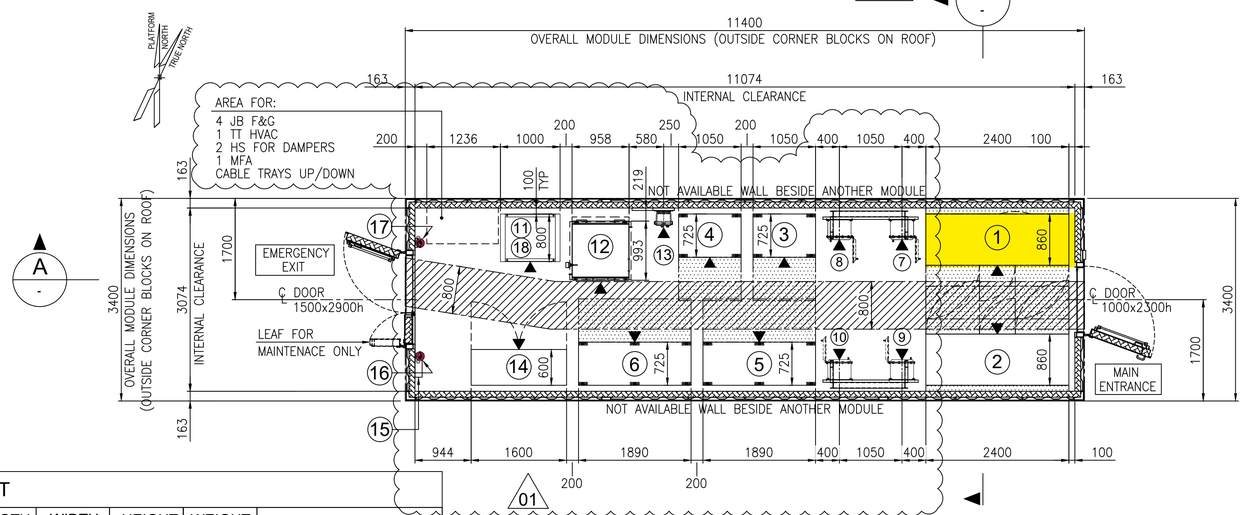
TESTING INSTRUMENTS USED			
TYPE / SERIAL N° :	MEGGER : KEW3125A SERIAL: W8330207	TYPE / SERIAL N° :	MULTIMETER: FLUKE 175 SERIAL:AW1/018(17140769)
Calibration certificate N° and date:	N°7722/24 _ 10/07/2024	Calibration certificate N° and date:	N°7715/24 _ 10/07/2024

Comments: Nota 4: refer to PL C30000679/C30000681

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Francesco Zucca	Alessio Polo	
Date	2024-12-03	2024-12-04	
Signature	PROVERLIS Digitaly signed by Francesco Zucca 2024-12-03T17:02:23.826Z	PROVERLIS Digitaly signed by Alessio Polo 2024-12-04T14:45:18.766Z	





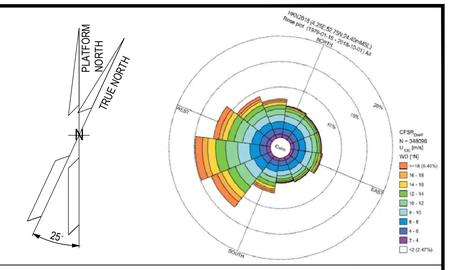


EQUIPMENT LAYOUT
"B-300" UPSs & BATTERIES SWITCHROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (Kg)	NOTES
1	UP-200F3	AC UPS 35kVA	2400	860	1915	2258	
2	UP-200F4	AC UPS 15kVA	2400	860	1915	2258	
3	BA-200F3A	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
4	BA-200F3B	BATTERY RACK GEL VRLA 7y AC UPS 35kVA	1050	725	1272	914	
5	BA-200F4A	BATTERY RACK GEL VRLA 7y AC UPS 15kVA	1890	725	1761	3429	
6	BA-200F4B	BATTERY RACK GEL VRLA 7y AC UPS 15kVA 01	1890	725	1761	3429	
7	CB-200F3A	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
8	CB-200F3B	ISOLATOR BOX AC UPS 35kVA	450	341	632	100	
9	CB-200F4A	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
10	CB-200F4B	ISOLATOR BOX AC UPS 15kVA	450	341	632	100	
11	NC-200F2	NAVAID PANEL 01	1000	800	2600	535	
12	BA-200F2	BATTERY BOX NAVAID	958	993	1210	1552	
13	CB-200F2	ISOLATOR BOX NAVAID	500	400	765	70	
14	B3000-HSB-001	DISTRIBUTION & HVAC PANEL - AC/UPS ROOM	1600	600	2300	1150	
15	-	EYE WASH STATION	228	80	290	5	
16	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
17	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	20	
18	BC-200F2	BATTERY CHARGER NAVAID 01	-	-	-	-	INCLUDED IN THE RACK OF NC-200F2

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20106
REV.: 1_A | DATE: 08/08/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA



NOTES

01
1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. EQUIPMENT DIMENSION ARE DEFINED ACCORDING TO THE LATEST DRAWING AND INFORMATION FROM THE VENDOR
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
   - "B-300" – GENERAL ARRANGEMENT DRAWING DOC. N. 1724000049-AR-DA-00016
   - "B-300" – DETAILED DRAWINGS DOC. N. 1724000049-AR-DD-00020

LEGEND

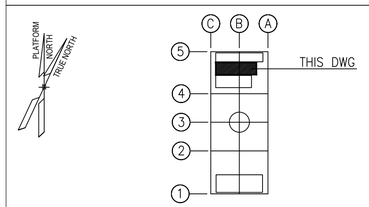
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ MAINTENANCE AREA – VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

HOLDS

REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
"B-300" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00016
"B-300" DETAILED DRAWINGS	1724000049-AR-DD-00020
"B-300" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10022
PLOT PLAN – LOWER & UPPER DECK	123A90-DDL-PP-DL-70070

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	23/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	28/03/24	SAM	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

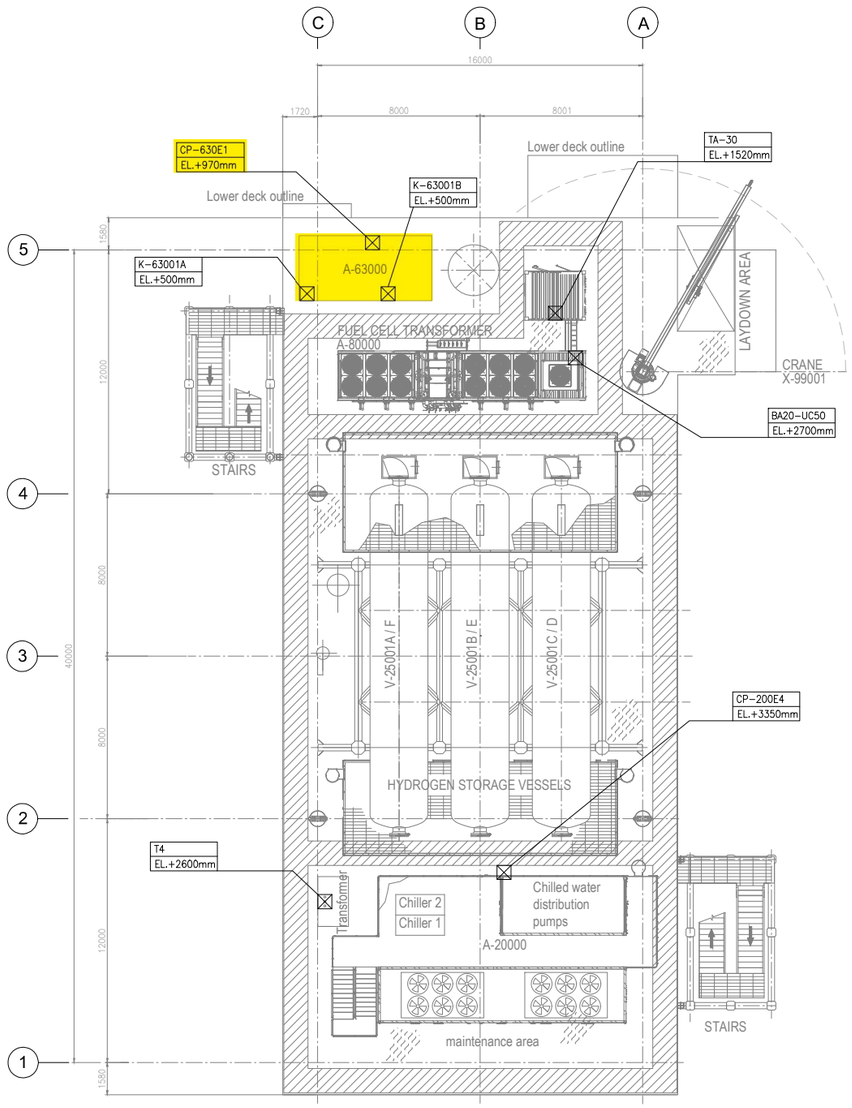
TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
UPSs & BATTERIES SWITCHROOM

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1:50
DRAWN SAM | CHECKED FMA/AMA | APPROVED FPA/DLO | DATE 23/07/24
A1 | DRAWING NO. 123A90-DDL-EL-DL-20106 | SHEET 001 | REV. 01

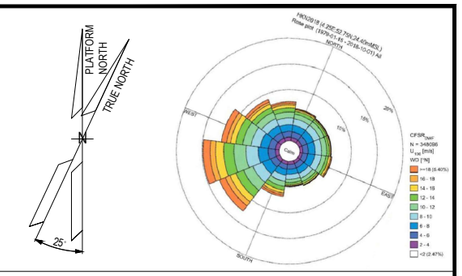
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File Name : 123A90-DDL-EL-DL-20106 Rev.00.dwg

DRAWING NO. 123A90-DDL-EL-DL-20100

REV. 01



PLAN ON TOP DECK
EL+30.310 T.O.S.



NOTES

1. ALL DIMENSIONS IN MM UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS IN METERS. UNLESS NOTED OTHERWISE.
3. ELEVATIONS REFER TO T.O.S. UNLESS NOTED OTHERWISE.
4. AFTER INTERFACE PANEL/BATTERY LIMIT CABLES WILL BE ROUTED INSIDE VENDOR CABLETRAYS

LEGEND

⊠	INTERFACE PANEL/BATTERY LIMIT
JB-200E2 EL.+500mm	TAG ITEM REFERED ELEVATION TO T.O.S. (TOP OF STEEL)

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20140	ELECTRICAL HEAT TRACING JUNCTION BOX LAYOUT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	22/07/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20100
REV.: 1_A | DATE: 08/08/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

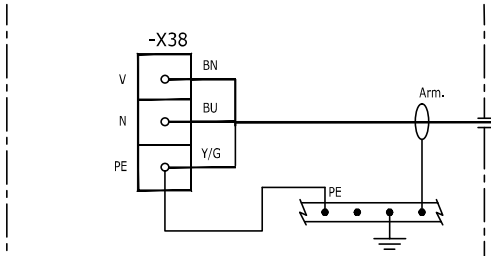
TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
TOP DECK

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 22/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20100	SHEET 001	REV. 01

File Name : 123A90-DDL-EL-DL-20100-Electrical Equipment Layout - Top Deck

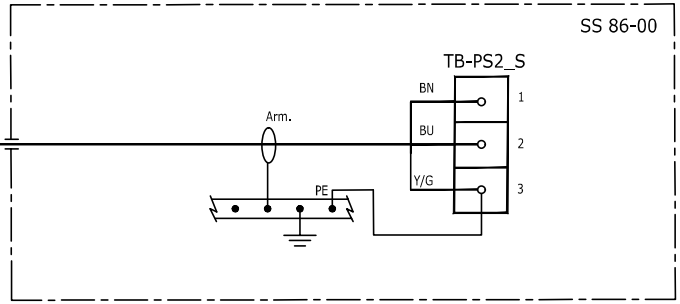
FROM	TO

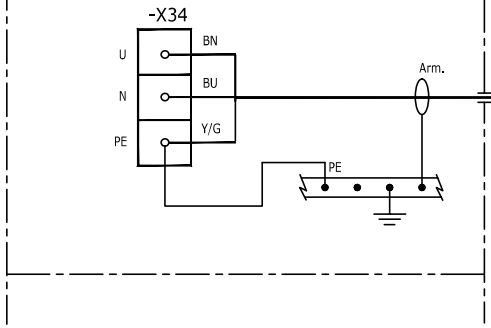
DESCRIPTION: AC UPS - PAS DB
TAG NUMBER: DP-200F3



84308-CEL
3G6 mm²

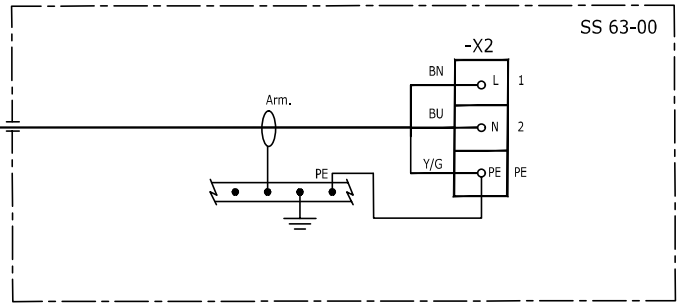
DESCRIPTION: SERVER CABINET ITER - LINE B
TAG NUMBER: B400-SRV-001





84311-CEL
3G2.5 mm²

DESCRIPTION: UCP - INSTRUMENT AIR PACKAGE A-63000
TAG NUMBER: CP-630E1



VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DG-20149
REV.: 2_C | DATE: 02/12/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	19/11/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/10/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	SAI	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL INTERCONNECTING WIRING DIAGRAM
AC UPS – PAS DB DP-200F3

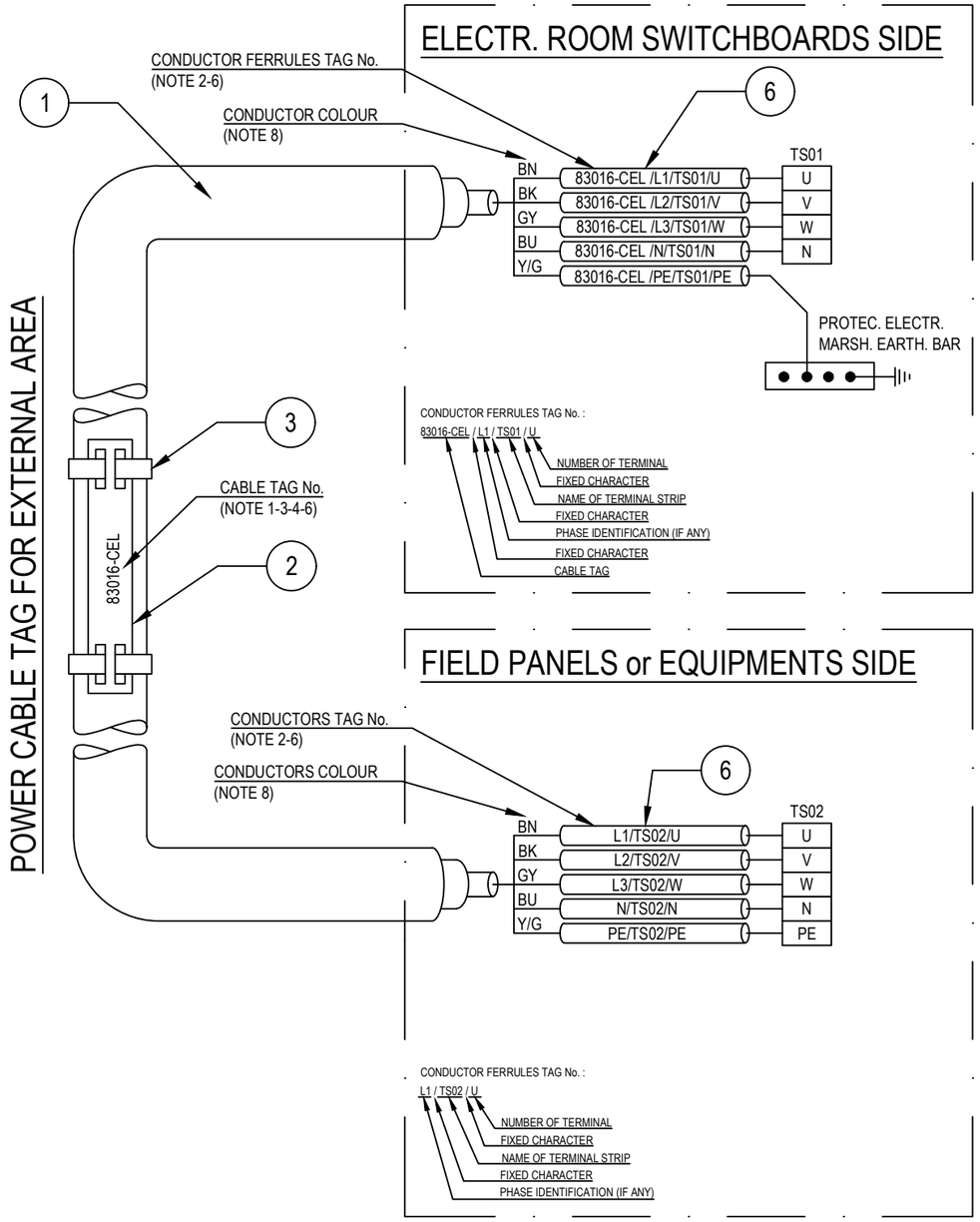
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : 1:X

A3 | DRAWING NO. 123A90-DDL-EL-DG-20149 | SHEET 040 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DG-20149 Rev. 02

C02



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	UNARMOURED CABLE				
2	CABLE TAG FOR EXTERNAL AREA	HDG/SS			NOTE 1 NOTE 4
3	TIE FOR CABLE TAG IN EXTERNAL AREA	HDG/SS			
4	CABLE TAG FOR INTERNAL AREA	PVC			NOTE 1 NOTE 5
5	TIE FOR CABLE TAG IN INTERNAL AREA	NYLON 6.6			
6	CORE FERRULES	PVC			

NOTES:

1) ALL CABLES SHALL BE IDENTIFIED AT EACH TERMINATION AND EACH SIDE OF ANY OBSTACLE (E.G. CABLE TRANSIT ON WALLS INSIDE SHELTER AND FLOOR DECK CROSSING, BY THEIR RESPECTIVE TAGS/NUMBERS, AS INDICATED ON THE CABLE SCHEDULE.
CABLE IDENTIFICATION SHALL BE ALSO DONE BELOW AND IN THE SWITCHBOARD CABLE COMPARTMENT.

2) CABLE CORE FERRULES SHALL BE FITTED AT EVERY TERMINATION. THESE FERRULES SHALL BE OF ENGRAVED PLASTIC SLIP ON, INTERLOCKED AND SELF GRIP TYPE.

3) ON CABLE TRAYS OR LADDERS, CABLES SHALL BE IDENTIFIED AT EACH END, AND EVERY 25 METERS.

4) THE CABLE TAG FOR EXTERNAL AREA SHALL DONE BY 316L STAINLESS STEEL LABELS, TAG (H=5mm) SHALL BE LASER PRINTED PREFERABLY OR EMBOSSED, LABEL HELD BY TWO 316L STAINLESS STEEL TIES.

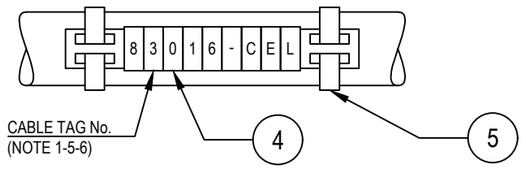
5) THE CABLE TAG FOR INTERNAL AREA SHALL BE DONE BY ENGRAVED PLASTIC SLIP ON CHARACTERS ONTO PLASTIC TIE, BLACK LETTER (H=5mm) ON WHITE.

6) CABLE AND CONDUCTOR TAG ARE INDICATIVE ONLY.

7) WITHIN TECHNICAL BUILDING, PROTECTIVE CONDUCTOR SHALL BE TAGGED BETWEEN FOLLOWING ITEMS:
- PANEL (SWITCHBOARD, SWITCHGEAR, DISTRIBUTION BOARD, ETC) AND EARTH BAR
- EARTH BAR AND EARTH BOSS

8) ONLY IF NECESSARY, SHRINK TUBES OF THE APPROPRIATE COLOR WILL BE INSTALLED TO COVER THE WRONG CONDUCTOR COLOR, THIS WILL BE PERFORMED IN EACH SIDE OF THE CABLES WHERE NECESSARY.

POWER CABLE TAG FOR INTERNAL AREA



VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DD-20092

REV.:	DATE:	SIGNATURE:
2_A	28/08/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	28/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	04/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-POWER SYSTEM & CABLE INSTALLATION
CABLES INSTALLATION SYSTEM IDENTIFICATION FOR POWER CABLES

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20092 | SHEET 007 | REV. 02

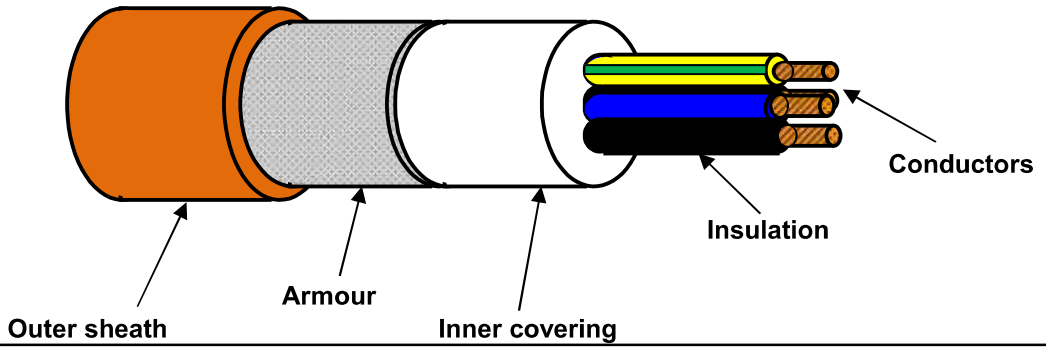
F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DD-20092 REV.02.DWG

Tag Number	Category	Discipline	Eng Status	NativeDoc	Layout	Parent Tag	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
84311-CEL	Cable	EL	VFC	123A90-DDL-EL-LIS-20148						DP-200F3	AC UPS 35 kVA Distribution Board	Lower Deck (B-300)	CP-630E1	UCP - Instrument Air Package A-63000	Lower Deck	ELECV19-3G2,5	Cable Cu Cl.2/MGT/EPR/LSZH/GSWB/LSZH 0,6/1kV 3G2,5mm² - Orange	M20	T2_M20_Double			T2_M20_Double				L-450-101-LVT-040 / L-600-101-LVT-036 / L-600-101-LVT-037 / L-600-101-LVT-035 / E-MCT-301 / L-300-101-LVT-006 / L-450-101-LVT-008 / L-300-101-LVT-078 / L-300-101-LVT-077 / E-MCT-U07 / L-150-102-LVT-017

Cu Cl.2/MGT/EPR/LSZH/GSWB/LSZH 0,6/1 KV

3G2,5 - L.V. POWER CABLE - Fire Resistant & Flame Retardant - ARMOURED



TECHNICAL FEATURES

Conductors :	**STRANDED** plain/bare annealed copper wires	IEC 60228 Class 2
Insulation :	Mica/Glass Tape (MGT) plus EPR compound, quality to IEC 60092.360, Nominal Thickness 1,0 mm	
Cores colour code :	**Brown - Blue - Yellow/Green**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not Required	
Total Assembling :	Cores layed up with optimal lay length	
Overall Wrapping:	Not required	
Drain wire :	Not required	
Overall Shield:	Not required	
Inner covering :	Extruded LSZH compound, Average Thickness 1,0 mm	
Inner covering color code:	**Black or Natural**	
Armour :	**Galvanized Steel Wire Braid Armour (coverage ≥ 90%)**	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - ELECTRIC CABLE - 1000V - 3G2,5 SQMM - MGT/EPR/LSZH/GSWB/LSZH - 0,6/1 KV - IEC 60331.21 - IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under Armour diameter :	(11,7 ± 10%) mm	
Over Armour diameter :	(12,9 ± 10%) mm	
Outer diameter :	(15,5 ± 10%) mm	
Bending radius :	cable outer diameter x 10	(in fixed installation)
Voltage test :	3,5 kV a.c. for 5' (Between Cores - Armour)	
Conductors DC Resistance :		IEC 60228 Class 2
Insulation Resistance :	≥ 940 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.353**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance	IEC 61034.2 (LT ≥ 60%)	
Temperature Range :		
ON INSULATION	(max +90°C)	(max continuous operation temperature of conductors)
	(max +250°C)	(max conductors temperature during short-circuit for 5 seconds)
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C)	(in fixed installation)
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner covering together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	29/03/2024	Messa			
Checked :	29/03/2024	Spaccasassi			
Approved :	29/03/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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ITEM	Tag	83110-CEL	: Lighting & Small Power DB BoP / UCP - Instrument Air Package -A-63000 - Auxiliary		Dwg	123A90-DDL-EL-LIS-20148	
	S/Sys	63-00	: Instrument Air Package (A-63000)		Module	LD_B-200/LD	
TASK	code	C10000629	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Electrical	Form	CPX09	LV Power Cable

CABLE DATA

Type Cu Cl.2/EPR/LSZH Cores/Size mm² 3G2,5 mm2 Color GREY

From DP-200N1 To CP-630E1

1	Confirm cable is as specified in project cable schedule	OK
2	Visual Check cable physical integrity.	OK
3	Check is installed in accordance with layout drawing (segregation, distance…).	OK
4	Check cable is supported and fixed to rack according to project specification.	Note
5	Check bending radius is within the specified limits.	OK
6	Confirm cable glands suit for cable type, correctly mounted and tightened.	OK
7	Check gland plate for single core cables is non ferrous (non -magnetic).	NA
8	Confirm cable labelling is in accordance with specifications.	PL
9	Check cable is correctly loomed and segregated in accordance with specification.	OK
10	Check cable earthing against lastest drawings.	PL
11	Check cores marking are in accordance with termination diagram	PL
12	Check terminations are in accordance with latest termination diagram	OK
13	If required produce Red Line Mark Up for "AS BUILT"	

ROSETTI MARINO PROVERLIS CROSSWIND

ITEM	Tag	83110-CEL	: Lighting & Small Power DB BoP / UCP - Instrument Air Package -A-63000 - Auxiliary			Dwg	123A90-DDL-EL-LIS-20148
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	LD_B-200/LD
TASK	code	C10000629		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Electrical	Form	CPX09 LV Power Cable

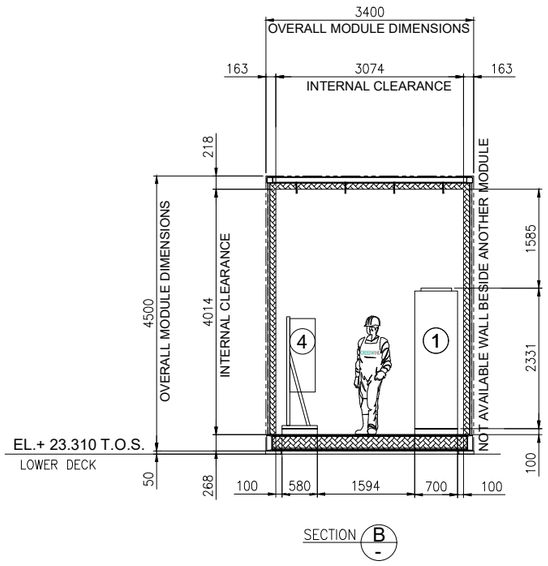
CONTINUITY				
5	CORE CONTINUITY Ω	PH 1	0.5	
6		PH 2	0.5	
7		PH 3	NA	
8	ARMOUR CONTINUITY Ω		NA	
9	PROTECTIVE CONDUCTOR CONTINUITY Ω		0.5	
INSULATION				
10	CORES / ARMOUR+EARTH MΩ	PH1 / PH2-PH3-A-E	>1999	
11		PH2 / PH1-PH3-A-E	>1999	
12		PH3 / PH1-PH2-A-E	NA	
13	CABLE IS CORRECTLY RE-CONNECTED.		Yes	

TESTING INSTRUMENTS USED			
TYPE / SERIAL N° :	MEGGER : KEW3125A SERIAL: W8330207	TYPE / SERIAL N° :	MULTIMETER: FLUKE 175 SERIAL:AW1/018(17140769)
Calibration certificate N° and date:	N°7722/24 _ 10/07/2024	Calibration certificate N° and date:	N°7715/24 _ 10/07/2024

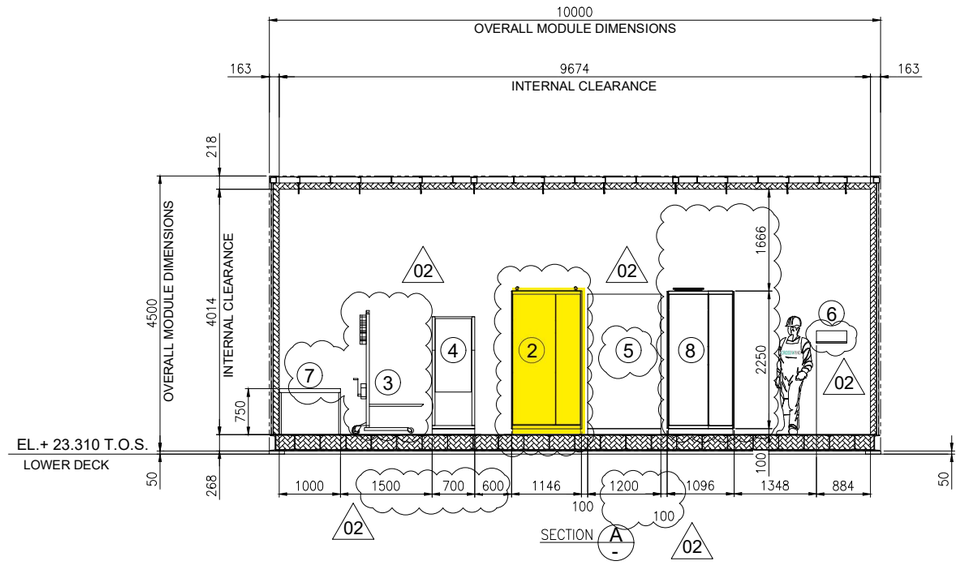
Comments: Nota 4: refer to PL C30000679

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Francesco Zucca	Alessio Polo	
Date	2024-12-03	2024-12-04	
Signature	PROVERLIS Digitaly signed by Francesco Zucca 2024-12-03T17:02:46.539Z	PROVERLIS Digitaly signed by Alessio Polo 2024-12-04T14:59:12.018Z	

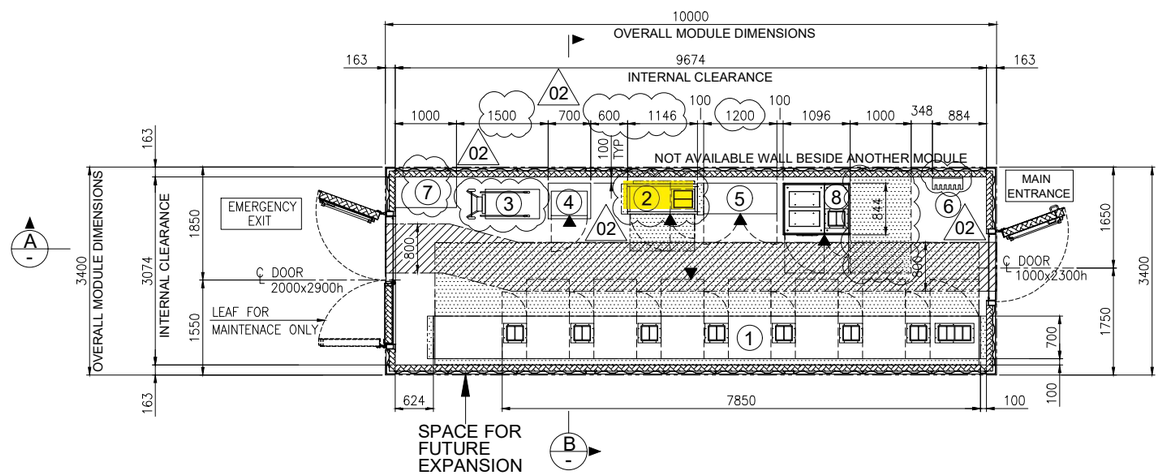
DRAWING NO. 123A90-DDL-EL-DL-20105 | REV. 02



SECTION B



SECTION A

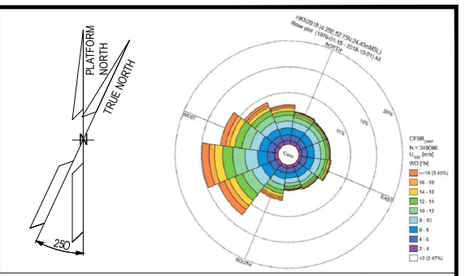


EQUIPMENT LAYOUT
"B-200" LV (400V) SWITCHGEAR ROOM
BOTTOM PLAN

1

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	SG-200N1	400V SWITCHGEAR	7850	700	2331	
2	DP-200N1	DISTRIBUTION BOARD FOR LIGHTING AND SMALL POWER B.O.P.	1146	520	2250	
3	-	SERVICE TROLLEY FOR 400V SWITCHGEAR	1034	490	2030	
4	CN-200N1	ICCP PANEL	700	580	1830	
5	B200-HSB-001	DISTRIBUTION & HVAC PANEL - LV ROOM	1200	600	1900	02
6	-	TOOL BOX	495	200	200	
7	-	TABLE	1000	500	750	
8	SG-200D2	ACB PANEL FOR SOLAR PACKAGE	1096	844	2294	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DELETED.
3. DOCUMENT VALID ONLY FOR ELECTRICAL COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.
4. FOR OTHER ITEMS, CORRECT LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND DEDICATED PROJECT DOCUMENTATION.
5. HEIGHT OF ALL PANELS IN THE EQUIPMENT LIST TABLE IS WITHOUT THE BASE FRAME (100mm)

02

LEGEND

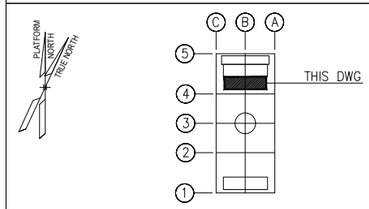
U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR - WIDTH 800mm.
_____ MAINTENANCE AREA - VENDOR REQUIREMENT
_____ SWITCHGEAR ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

REFERENCES

DOCUMENT TITLE	DOCUMENT NUMBER
SG-200N1 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00007
SG-200D2 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00008
DP-200N1 GENERAL ARRANGEMENT DRAWING	1723002197-EL-DA-00009
AC UPS – GENERAL ARRANGEMENT AND DIMENSIONAL DRAWINGS	1724000372-EL-DA-00004
AC UPS – BATTERY LAYOUT INTERCONNECTING DIAGRAM	1724000372-EL-DG-00011
B-200 -GENERAL ARRANGEMENT DRAWINGS - E&I SHELTER	1724000049-AR-DA-00015
ICCC PANEL GENERAL ARRANGEMENT DRAWING	144671-CORR-TF-FAB-DWG-0003

02

KEY PLAN



VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20105**

REV.:	DATE:	SIGNATURE:
2_A	08/08/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	27/05/2024	FMO	LMA/AMA	LMA/MDO	ACCEPTED FOR CONSTRUCTION (AFC)
01	26/03/2024	GPA	LMA/AMA	LMA/MDO	ISSUE FOR REVIEW (IFR)
00	08/11/2023	DSF	CB/AMA	OYFO/MDO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

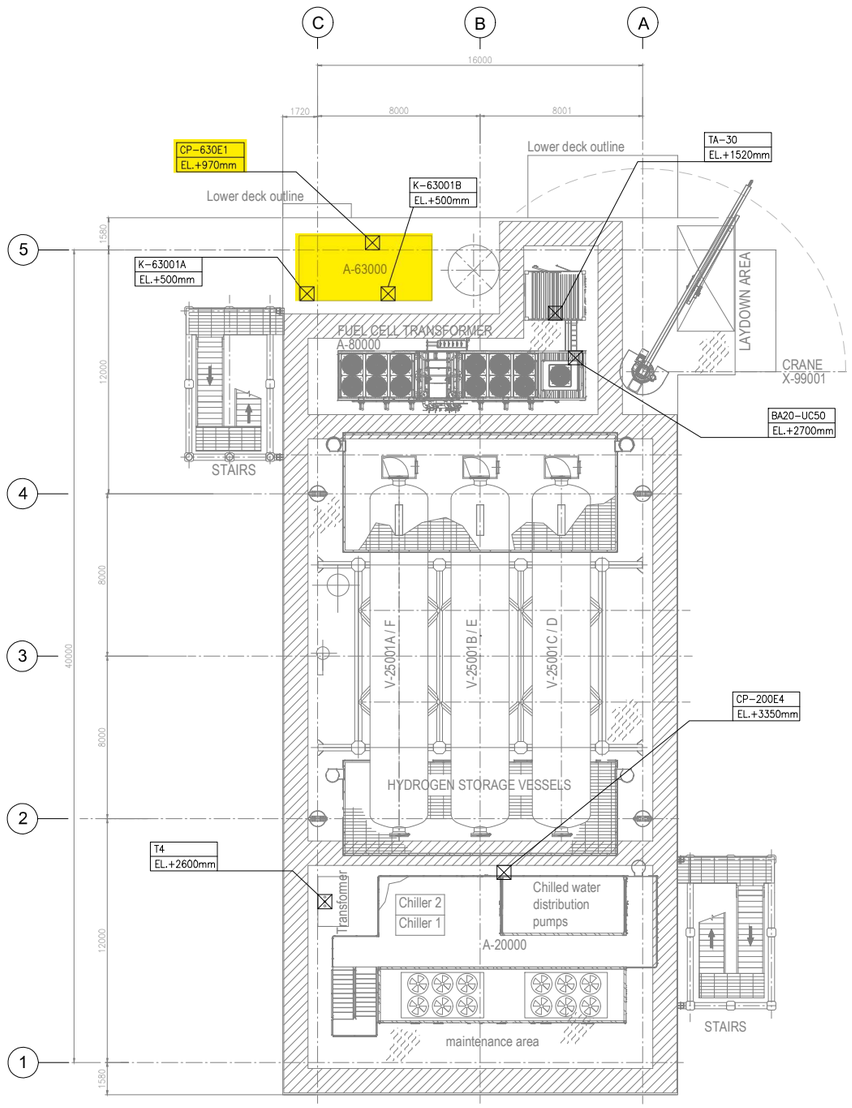
TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
LV SWITCHROOM

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:50
DRAWN FMO	CHECKED LMA/AMA	APPROVED LMA/MDO	DATE 27/05/2024
A1	DRAWING NO. 123A90-DDL-EL-DL-20105	SHEET 001	REV. 02

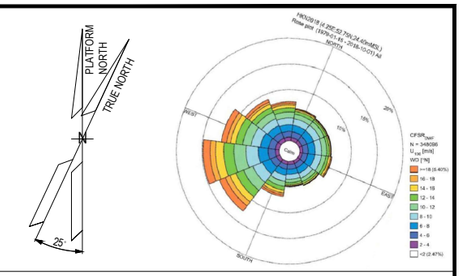
File Name : 123A90-DDL-EL-DL-20105_REV02.dwg

DRAWING NO. 123A90-DDL-EL-DL-20100

REV. 01



PLAN ON TOP DECK
EL+30.310 T.O.S.



NOTES

1. ALL DIMENSIONS IN MM UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS IN METERS. UNLESS NOTED OTHERWISE.
3. ELEVATIONS REFER TO T.O.S. UNLESS NOTED OTHERWISE.
4. AFTER INTERFACE PANEL/BATTERY LIMIT CABLES WILL BE ROUTED INSIDE VENDOR CABLETRAYS

LEGEND

⊠	INTERFACE PANEL/BATTERY LIMIT
JB-200E2 EL.+500mm	TAG ITEM REFERED ELEVATION TO T.O.S. (TOP OF STEEL)

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20140	ELECTRICAL HEAT TRACING JUNCTION BOX LAYOUT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	22/07/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20100
REV.: 1_A | DATE: 08/08/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
TOP DECK

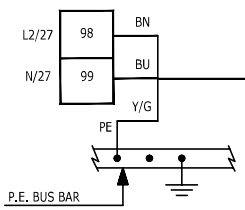
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 22/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20100	SHEET 001	REV. 01

File Name : 123A90-DDL-EL-DL-20100-Electrical Equipment Layout - Top Deck

FROM

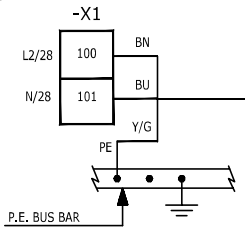
DESCRIPTION: LIGHTING & SMALL POWER DB BOP
TAG NUMBER: DP-200N1

CUBICLE/CB: +03/Q27



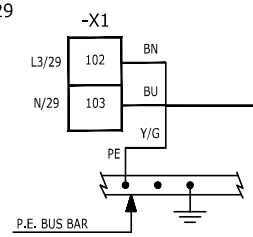
83108-CEL
3G2.5 mm²

CUBICLE/CB: +03/Q28



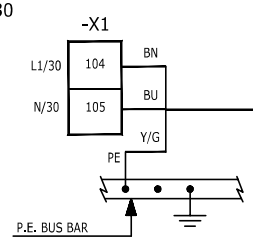
83109-CEL
3G2.5 mm²

CUBICLE/CB: +03/Q29



83110-CEL
3G2.5 mm²

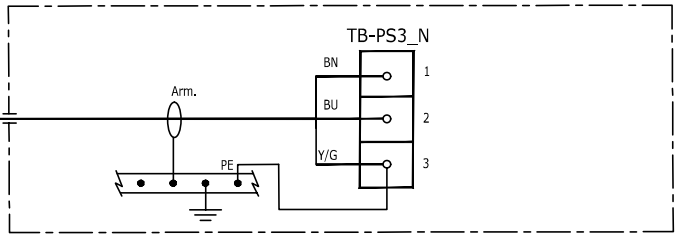
CUBICLE/CB: +03/Q30



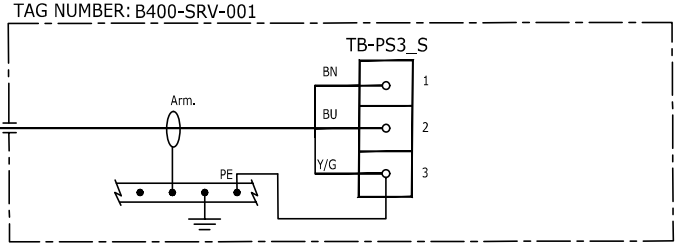
83111-CEL
3G2.5 mm²

TO

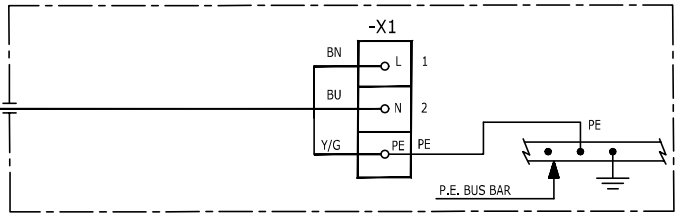
DESCRIPTION: SYSTEM SERVER / NETWORK CABINET - AUXILIARY
TAG NUMBER: B400-NET-001



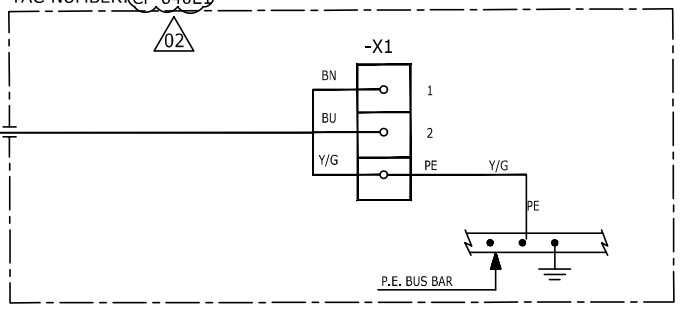
DESCRIPTION: SERVER CABINER ITER - AUXILIARY
TAG NUMBER: B400-SRV-001



DESCRIPTION: UCP - INSTRUMENT AIR PACKAGE -A-63000 - AUXILIARY
TAG NUMBER: CP-630E1



DESCRIPTION: UCP - N2 PACKAGE - AUXILIARY
TAG NUMBER: CP-640E1
02



VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DG-20149
REV.: 2_C | DATE: 02/12/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	19/11/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	16/10/24	SAI	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	08/07/24	SAI	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL INTERCONNECTING WIRING DIAGRAM
LIGHTING & SMALL POWER DB BOP

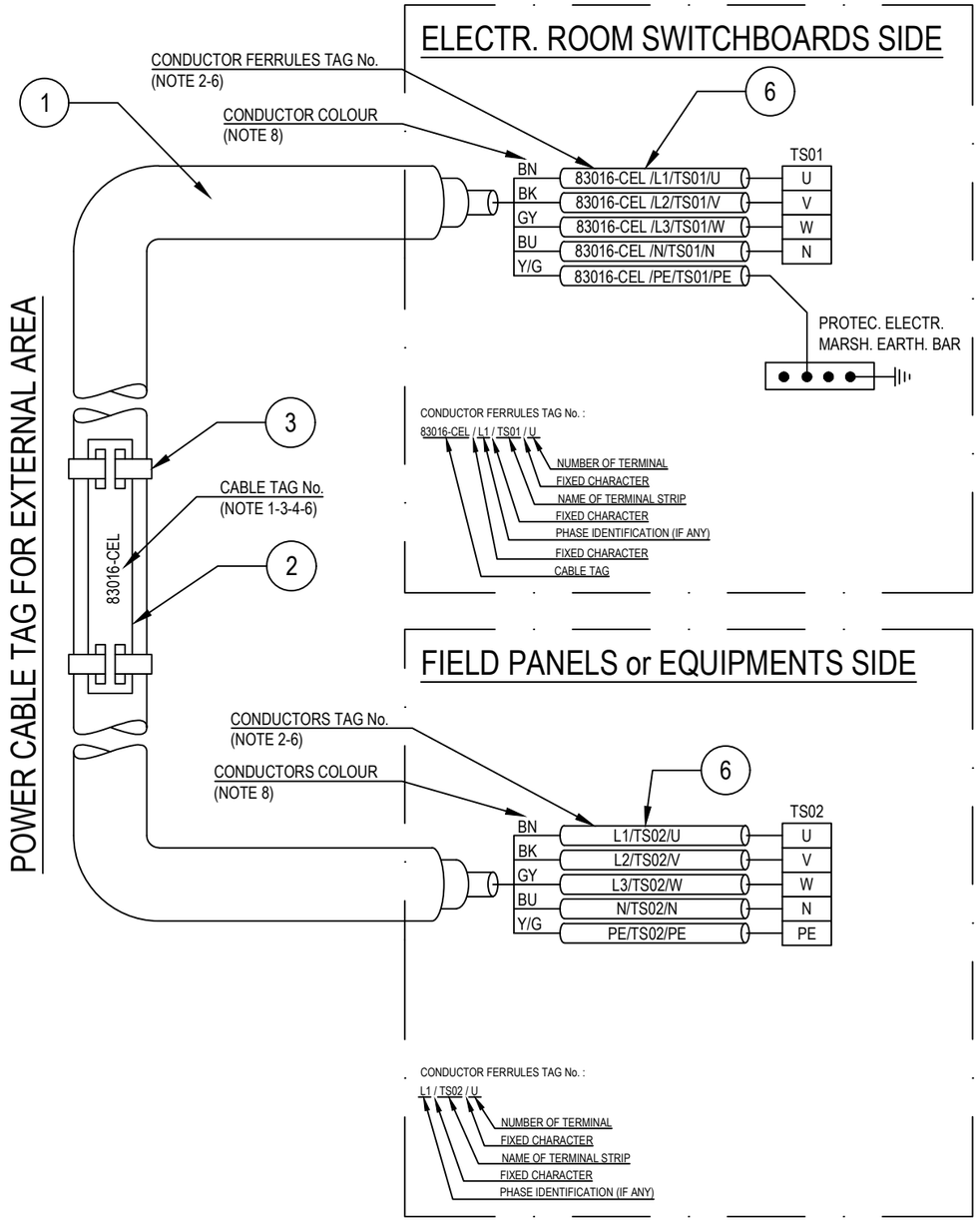
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : 1:X

A3 | DRAWING NO. 123A90-DDL-EL-DG-20149 | SHEET 053 | REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DG-20149 Rev. 02

C02



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	UNARMOURED CABLE				
2	CABLE TAG FOR EXTERNAL AREA	HDG/SS			NOTE 1 NOTE 4
3	TIE FOR CABLE TAG IN EXTERNAL AREA	HDG/SS			
4	CABLE TAG FOR INTERNAL AREA	PVC			NOTE 1 NOTE 5
5	TIE FOR CABLE TAG IN INTERNAL AREA	NYLON 6.6			
6	CORE FERRULES	PVC			

NOTES:

1) ALL CABLES SHALL BE IDENTIFIED AT EACH TERMINATION AND EACH SIDE OF ANY OBSTACLE (E.G. CABLE TRANSIT ON WALLS INSIDE SHELTER AND FLOOR DECK CROSSING, BY THEIR RESPECTIVE TAGS/NUMBERS, AS INDICATED ON THE CABLE SCHEDULE.
CABLE IDENTIFICATION SHALL BE ALSO DONE BELOW AND IN THE SWITCHBOARD CABLE COMPARTMENT.

2) CABLE CORE FERRULES SHALL BE FITTED AT EVERY TERMINATION. THESE FERRULES SHALL BE OF ENGRAVED PLASTIC SLIP ON, INTERLOCKED AND SELF GRIP TYPE.

3) ON CABLE TRAYS OR LADDERS, CABLES SHALL BE IDENTIFIED AT EACH END, AND EVERY 25 METERS.

4) THE CABLE TAG FOR EXTERNAL AREA SHALL DONE BY 316L STAINLESS STEEL LABELS, TAG (H=5mm) SHALL BE LASER PRINTED PREFERABLY OR EMBOSSED, LABEL HELD BY TWO 316L STAINLESS STEEL TIES.

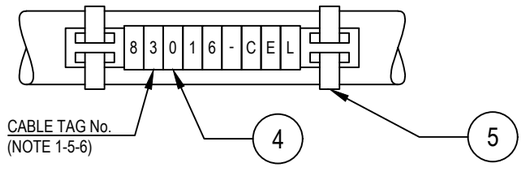
5) THE CABLE TAG FOR INTERNAL AREA SHALL BE DONE BY ENGRAVED PLASTIC SLIP ON CHARACTERS ONTO PLASTIC TIE, BLACK LETTER (H=5mm) ON WHITE.

6) CABLE AND CONDUCTOR TAG ARE INDICATIVE ONLY.

7) WITHIN TECHNICAL BUILDING, PROTECTIVE CONDUCTOR SHALL BE TAGGED BETWEEN FOLLOWING ITEMS:
- PANEL (SWITCHBOARD, SWITCHGEAR, DISTRIBUTION BOARD, ETC) AND EARTH BAR
- EARTH BAR AND EARTH BOSS

8) ONLY IF NECESSARY, SHRINK TUBES OF THE APPROPRIATE COLOR WILL BE INSTALLED TO COVER THE WRONG CONDUCTOR COLOR, THIS WILL BE PERFORMED IN EACH SIDE OF THE CABLES WHERE NECESSARY.

POWER CABLE TAG FOR INTERNAL AREA



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	28/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	04/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS-POWER SYSTEM & CABLE INSTALLATION
CABLES INSTALLATION SYSTEM IDENTIFICATION FOR POWER CABLES

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90-DDL-EL-DD-20092 | SHEET 007 | REV. 02

F.to UNI A3: 420mmx297mm

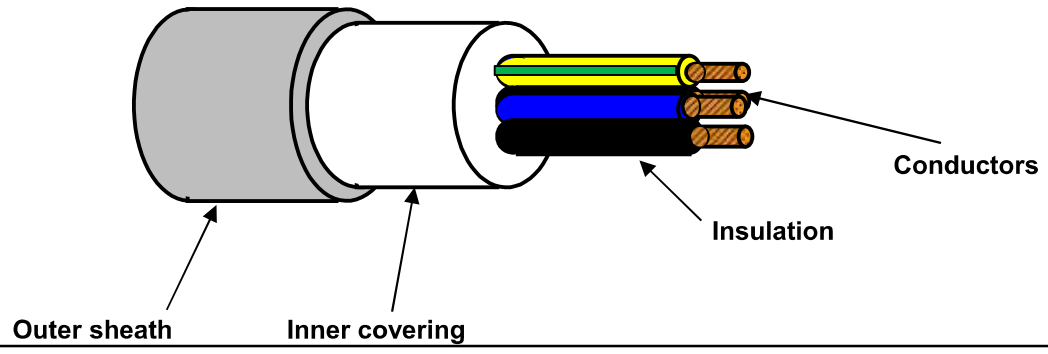
File Name : 123A90-DDL-EL-DD-20092 REV.02.DWG

Tag Number	Category	Discipline	Eng Status	NativeDoc	Layout	Parent Tag	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
83110-CEL	Cable	EL	VFC	123A90-DDL-EL-LIS-20148						DP-200N1	LV 0,4 / 0,23 kV Distribution Switchgear	Lower Deck (B-200)	CP-630E1	UCP - Instrument Air Package A-63000	Lower Deck	ELECV06-3G2,5	Cable Cu Cl.2/EPR/LSZH 0,6/1kV 3G2,5mm² - Grey	M20	n.a.			T1_M20_Single				L-450-101-LVT-030 / L-600-101-LVT-020 / L-600-101-LVT-018 / L-600-101-LVT-017 / E-MCT-201 / L-750-101-LVT-011 / L-450-101-LVT-008 / L-300-101-LVT-078 / L-300-101-LVT-077 / E-MCT-U07 / L-150-102-LVT-017

FLEI s.r.l.

Cu Cl.2/EPR/LSZH 0,6/1 KV

3G2,5 - L.V. POWER CABLE - Flame Retardant



TECHNICAL FEATURES

Conductors :	**STRANDED** plain/bare annealed copper wires	IEC 60228 Class 2
Insulation :	EPR compound, quality to IEC 60092.360, Nominal Thickness 1,0 mm	
Cores colour code :	**Brown - Blue - Yellow/Green**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not Required	
Total Assembling :	Cores layed up with optimal lay length	
Overall Wrapping:	Not required	
Drain wire :	Not required	
Overall Shield:	Not required	
Inner covering :	Extruded LSZH compound, Average Thickness 1,0 mm	
Inner covering color code:	**Black or Natural**	
Armour :	Not required	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,2 mm	
Outer sheath color code:	**Grey**	
Outer printing (INKJET) :	**FLEI - ELECTRIC CABLE - 1000V - 3G2,5 SQMM - EPR/LSZH - 0,6/1 KV - IEC 60332.1.2 - IEC 60332.3.22 -**	
	Year of Manufacture - CE + Meter Marking	
Outer diameter :	(13,0 ± 10%) mm	
Bending radius :	cable outer diameter x 10	(in fixed installation)
Voltage test :	3,5 kV a.c. for 5' (Between Cores)	
Conductors DC Resistance :		IEC 60228 Class 2
Insulation Resistance :	≥ 1100 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.353**	
ON COMPLETE CABLE		
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance	IEC 61034.2 (LT ≥ 60%)	
Temperature Range :		
ON INSULATION	(max +90°C)	(max continuous operation temperature of conductors)
	(max +250°C)	(max conductors temperature during short-circuit for 5 seconds)
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C)	(in fixed installation)
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner covering together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	29/03/2024	Messa			
Checked :	29/03/2024	Spaccasassi			
Approved :	29/03/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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ITEM	Tag	A-63000	: Instrument Air Package			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10002352		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Electrical	Form	CZX01E Package - E

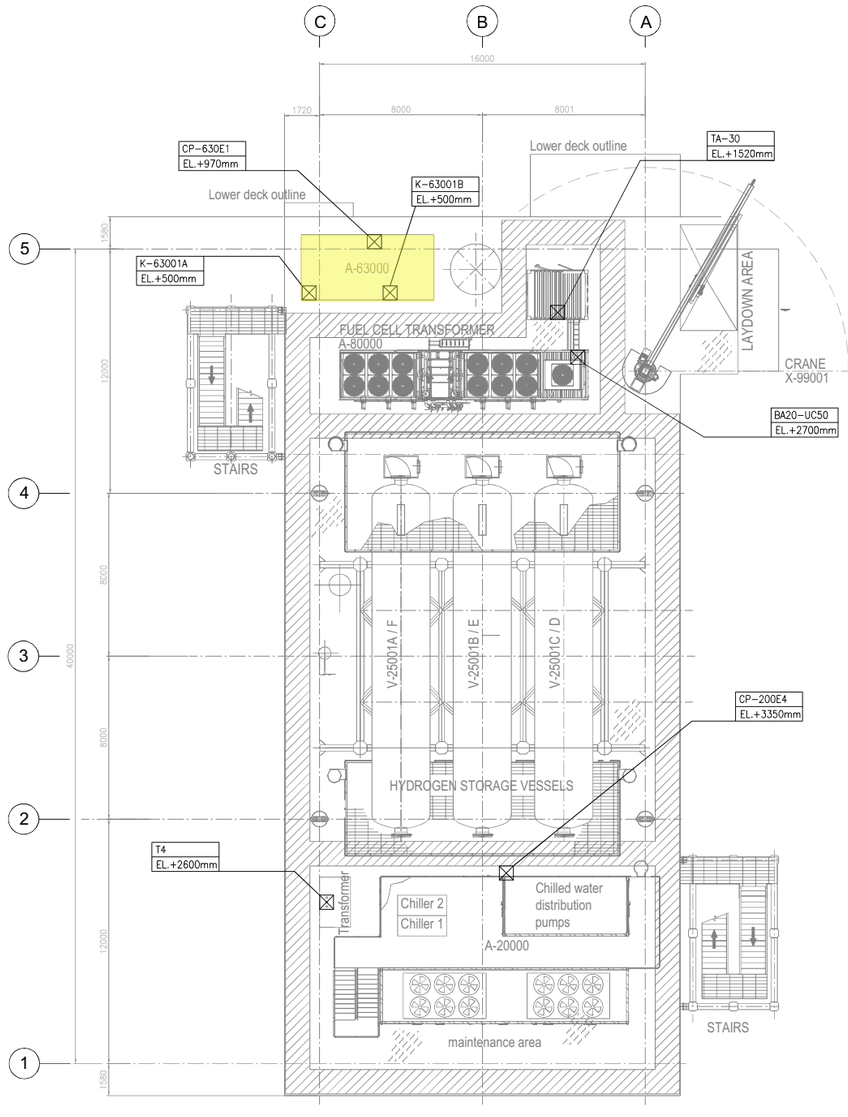
1	Check that electrical component is not damaged.	OK
2	Check that the cables are adequately supported and protected.	PL
3	Check that the equipment, including cables and glands, have been correctly installed (only visual inspection).	OK
4	Check that all equipment has been earthed and bonded.	PL
5	Check if accessibility and maintenance are possible and safe.	OK
6	Verify that all vendor punch list created during FAT are uploaded in the Database.	OK
7	Check identification tag plate.	OK
8	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

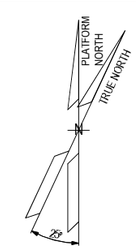
	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Francesco Zucca	Alessio Polo	
Date	2024-12-03	2024-12-04	
Signature	PROVERLIS Digitaly signed by Francesco Zucca 2024-12-03T17:07:59.379Z	PROVERLIS Digitaly signed by Alessio Polo 2024-12-04T17:50:06.527Z	

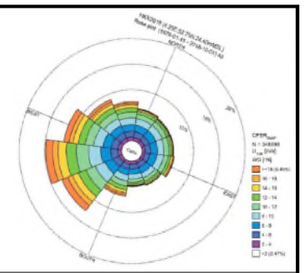
DRAWING NO. 123A90-DDL-EL-DL-20100

REV. 01



PLAN ON TOP DECK
EL+30.310 T.O.S.





NOTES

1. ALL DIMENSIONS IN MM UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS IN METERS. UNLESS NOTED OTHERWISE.
3. ELEVATIONS REFER TO T.O.S. UNLESS NOTED OTHERWISE.
4. AFTER INTERFACE PANEL/BATTERY LIMIT CABLES WILL BE ROUTED INSIDE VENDOR CABLETRAYS

LEGEND

⊠	INTERFACE PANEL/BATTERY LIMIT
JB-200E2	TAG ITEM
EL.+500mm	REFERED ELEVATION TO T.O.S. (TOP OF STEEL)

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20140	ELECTRICAL HEAT TRACING JUNCTION BOX LAYOUT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	22/07/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20100

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA

TITLE :
BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
TOP DECK

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 22/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20100	SHEET 001	REV. 01

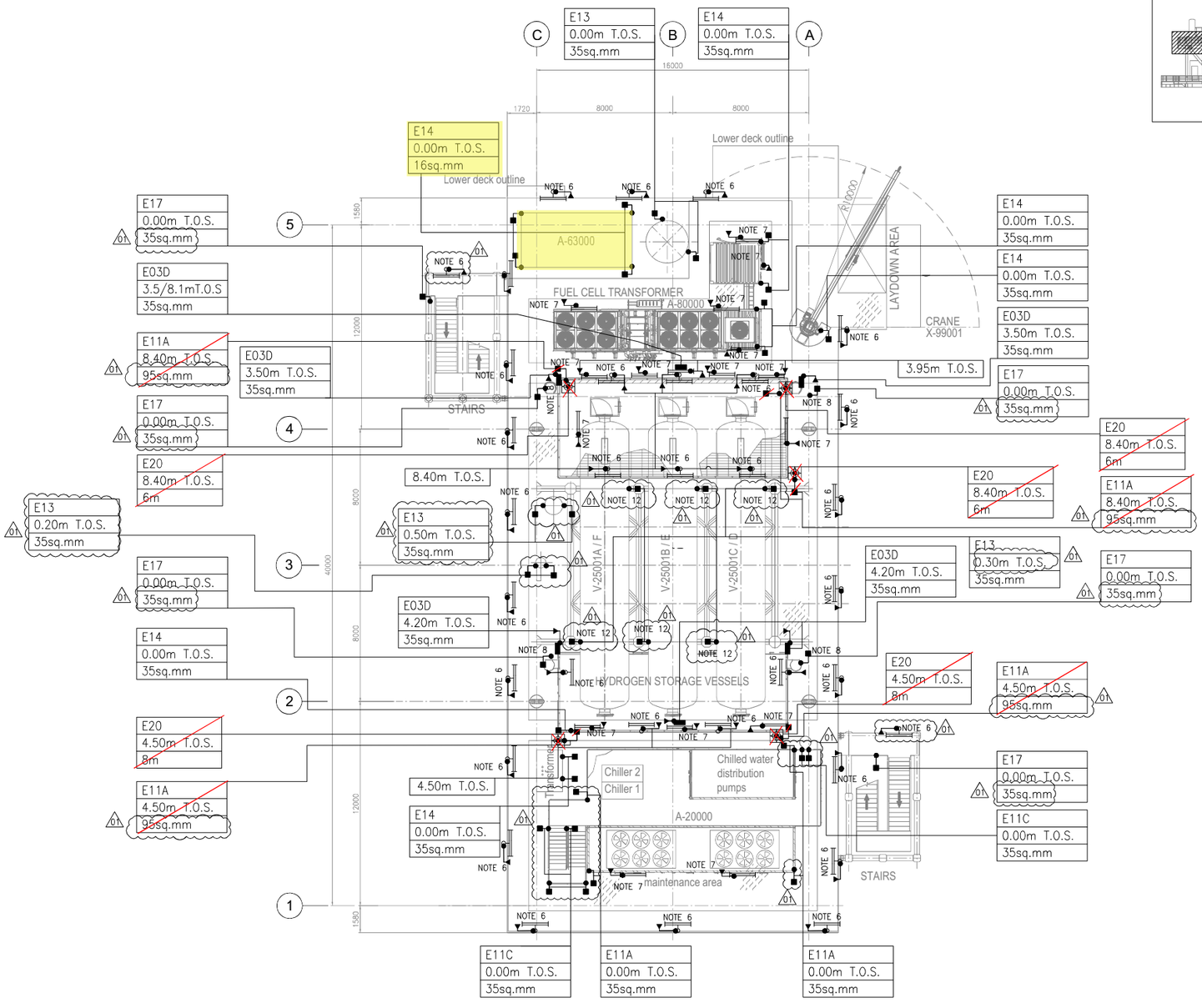
File Name : 123A90-DDL-EL-DL-20100-Electrical Equipment Layout - Top Deck

DRAWING NO. 123A90-DDL-EL-DL-20132

REV. 01

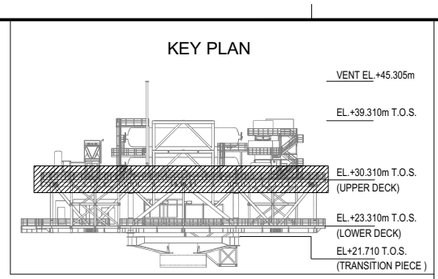
RLMU LIST

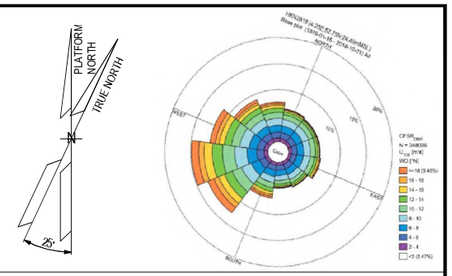
REV. 01_B: Sheet 1, 3



PLAN ON TOP DECK
EL+30.310 T.O.S.

KEY PLAN





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DOCUMENT IS ONLY VALID FOR EARTHING LAYOUT.
4. ALL ELECTRICAL EQUIPMENT NOT DIRECTLY WELDED TO SKID FRAME SHALL BE BONDED TO STEEL TO THE STRUCTURE OF SKID BASEFRAME.
5. FOR LIGHTNING PROTECTION SYSTEM SURGE PROTECTIVE DEVICES (SPD), REFER TO THE DOCUMENT 123A90-DDL-EL-RE-20154.
6. ALL NON-WELDED POLES WILL BE EARTHED AS PER TYPICAL E05 AND E24. 01
7. ALL LINEAR LIGHTING FIXTURE WILL BE EARTHED AS PER TYPICAL E32.
8. LADDER MUST BE EARTHED IF NOT WELDED TO THE STRUCTURE. LADDER MUST BE EARTHED TO THE UPPER BEAM OF THE STRUCTURE, COMPLETE EARTHING INCLUDING WITH 2 THREADED STUDS AS PER TYPICAL E17D.
9. ALL EARTH BAR WILL BE EARTHED AS PER TYPICAL E03D.
10. ALL POLE MOUNTED EQUIPMENTS WILL BE EARTHED AS PER TYPICAL E05.
11. EQUIPOTENTIAL BONDING GROUPING FOR BOLTED HANDRAILS ARE PROVIDED EVERY 3M FOR THE ENTIRE PERIMETER AS TYPICAL E16 AND WILL BE DEFINED DURING ASSEMBLY PHASE.
12. EARTHED VESSELS V-25001D/E/F. FOR EARTHING V-25001A/B/C SEE SHEET 2 01

LEGEND

- LIGHTING FIXTURE POLE MOUNTED
- LINEAR LIGHTING FIXTURE
- EARTHING BOSS AISI316L
- COMPRESSION TYPE LUG TINNED COPPER
- THREADED STUD FOR EARTHING CONNECTION
- AIR TERMINATION ROD FOR LIGHTNING PROTECTION
- Exx EARTHING TYPICAL CODE
- EARTHING BAR

TYP.	TYPICAL
ELE	ELEVATION
SIZE	

E20	AIR TERMINATION ROD NO.
ELE	ELEVATION
HEIGHT	

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20100	ELECTRICAL EQUIPMENT LAYOUT - TOP DECK
123A90-DDL-EL-DD-20090	ELECTRICAL TYPICAL INSTALLATION DETAILS - EARTHING SYSTEM
123A90-DDL-EL-RE-20154	LIGHTNING PROTECTION SYSTEM CALCULATION REPORT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	31/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	27/05/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EARTHING & LIGHTNING LAYOUT
TOP DECK

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN NLK	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 31/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20132	SHEET 001	REV. 01

SHEET 001 OF 002

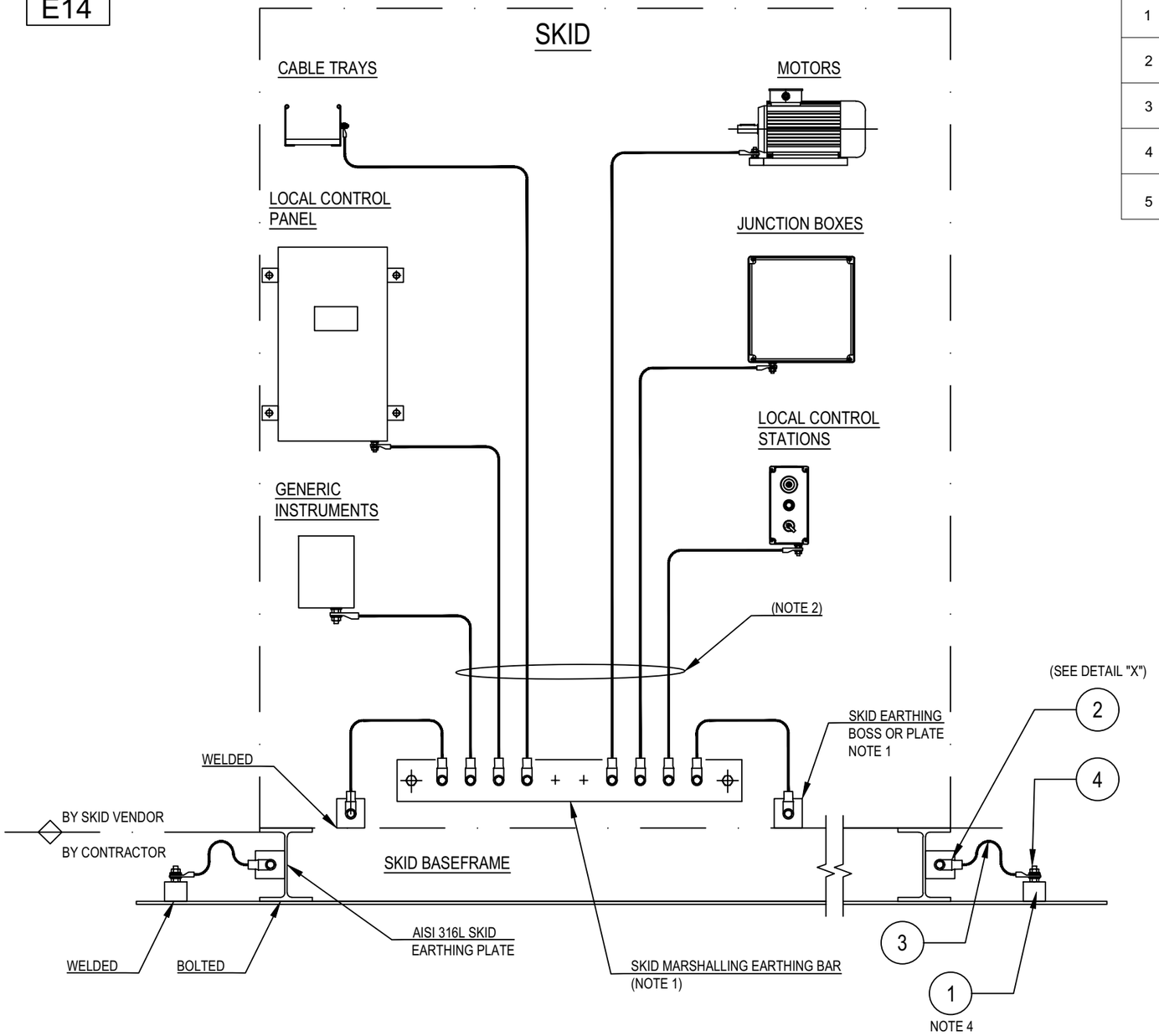
VALID FOR CONSTRUCTION

REV.:	DATE:	SIGNATURE:
1_B	08/11/24	V.Ramponi

ROSETTI MARINO SpA

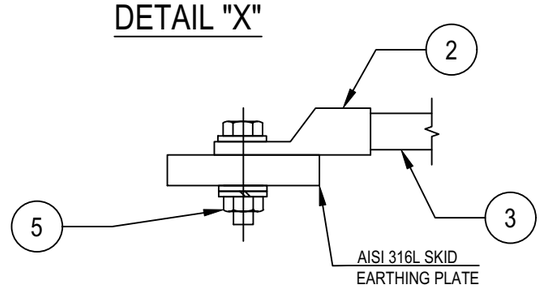
File Name : 123A90-DDL-EL-DL-20132

E14



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BOSS WITH THREADED HOLE M10	AISI 316L	50X50		NOTE 5
2	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	35mm^2		~~NOTE 3~~
3	Y/G INSULATING COPPER CONDUCTOR	COPPER	35mm^2		~~NOTE 3~~
4	STUD BOLT WITH PLANE WASHER, SPRING WASHER AND NUT	AISI 316L	M10X50		
5	HEXAG. BOLT COMPLETE WITH PLANE WASHERS, SPRING WASHER AND NUT	AISI 316L	M10X30		

DETAIL "X"



NOTES:
1) EARTHING BAR/BOSS/PLATE SUPPLIED BY SKID MANUFACTURER
2) ALL EQUIPMENTS AND CABLE TRAYS WILL BE EARTHING ON SKID EARTHING BAR BY SKID MANUFACTURER
3) ~~CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY~~
4) FOR EARTHING BOSS TYPICAL DETAIL E11A
5) EXTERNAL EARTHING CONNECTION ONLY SHALL BE PROTECTED AGAINST CORROSION USING OXIDE RESISTANT COMPOUND (E.G. COPPER GREASE)

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_I	07/11/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR SKID BASEFRAME

CONTRACT NO./TITLE CW–I–WP4–2023–05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90–DDL–EL–DD–20090 | SHEET 014 | REV. 02

F.to UNI A3: 420mmx297mm

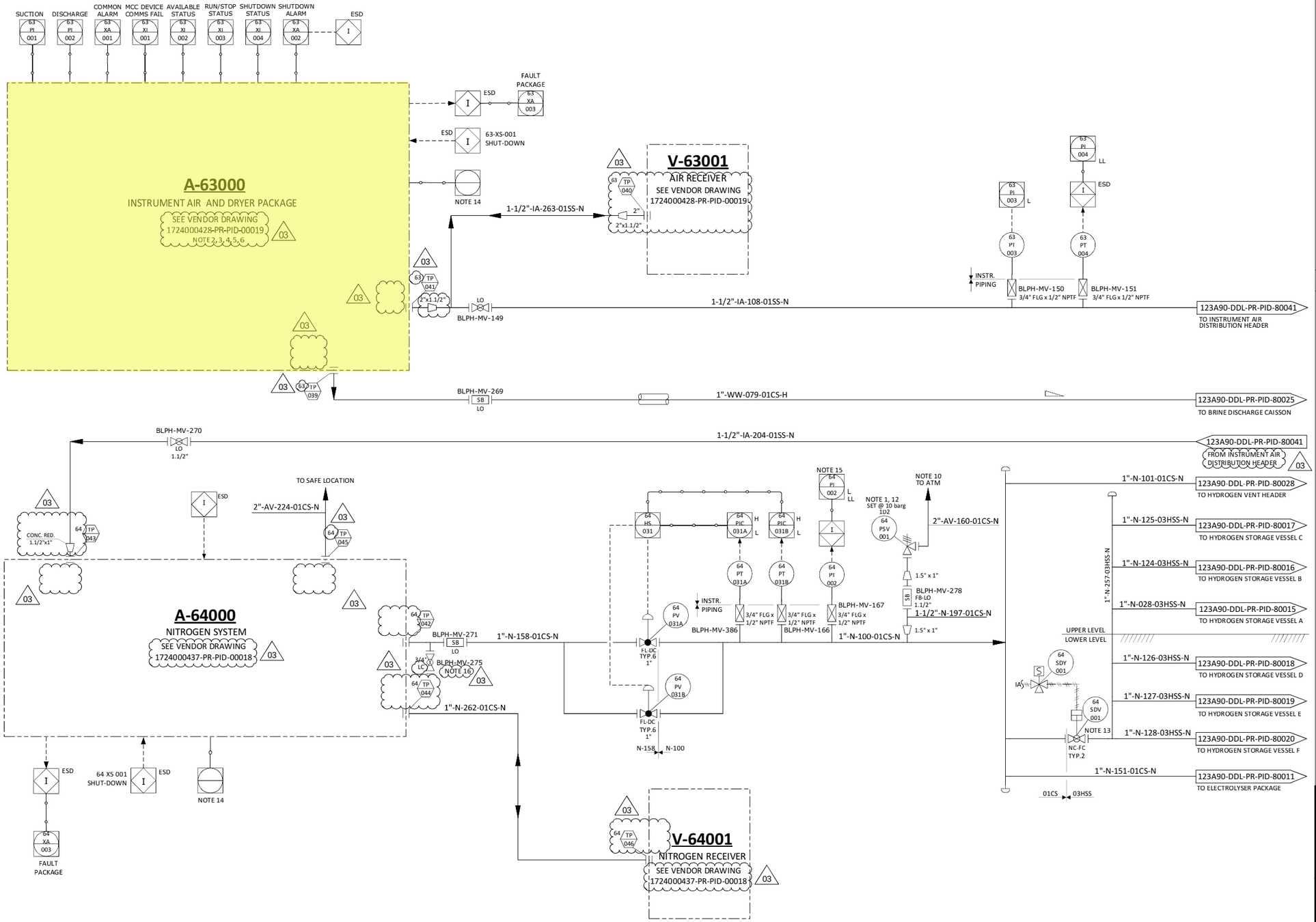
File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

DRAWING NO. DRAWING_NO.

REV. REV

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
CAPACITY : 313 Sm^3/h (PRODUCTION)

A-64000
NITROGEN GENERATION SYSTEM
CAPACITY : 52.7 Sm^3/h (PRODUCTION)



NOTES

1. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
2. COMPRESSORS AND DRIERS DESIGNED FOR 2 X 100% CONFIGURATION. INSTRUMENT AIR RECEIVER DESIGNED FOR 1 X 100%.
3. VENDOR TO PROVIDE NECESSARY CONTROLS, INSTRUMENTATIONS AND ISOLATIONS IN ORDER TO OPERATE THE PLANT IN SAFE MANNER.
4. COMPRESSORS WILL OPERATE ON THE BASIS OF ONE WORKING AND ONE ON STANDBY.
5. COMPRESSORS TO BE ROTARY SCREW TYPE OIL FREE.
6. AIR COMPRESSOR INLET TO BE LOCATED AWAY FROM ANY VENTS.
7. DELETED.
8. DELETED.
9. DELETED.
10. TO SAFE LOCATION, ROUTED AWAY FROM WALKWAYS.
11. DELETED.
12. 64-PSV-001 SIZED FOR UPSTREAM 64-PV-031 CV FAILURE. (03)
13. 64-SDV-001 IS NORMALLY CLOSED. IF REQUIRED THE OPERATOR CAN REMOTELY OPEN THE VALVE TO ALLOW PURGING OPERATION. VALVE 64-SDV-001 IS ALSO CONNECTED TO THE PCS SYSTEM.
14. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
15. THE ALARM 64-PAL-002 WILL CLOSE 64-SDV-001 THROUGH SAFETY SYSTEM.
16. MANUAL VALVE BLPH-MV-275 TO BE CONNECTED WITH MANUAL VALVE BLPH-MV-466 (INSTALLED ON ELECTROLYSER PACKAGE EXIT LINE) BY MEAN ON A FLEXIBLE HOSE DURING COMMISSIONING PHASE FOR PURGING OPERATION. (03)

HOLDS

1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

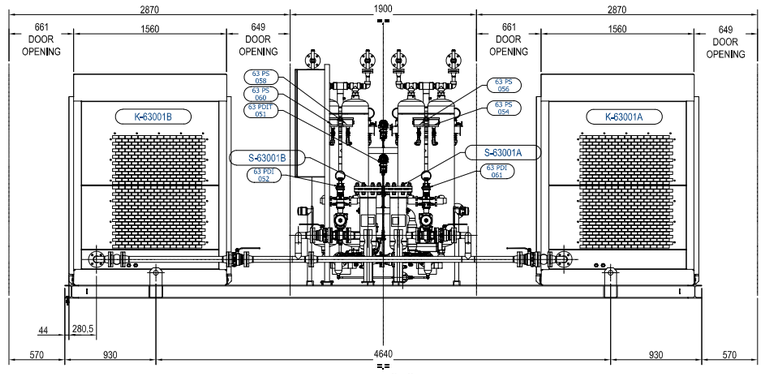
ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR PACKAGE

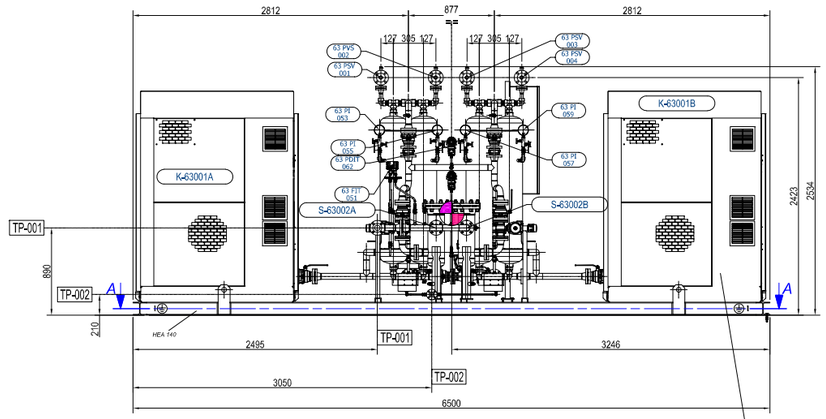
CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80027		SHEET 001	REV. 03

File Name : FILE_NAME

DRAWING NO. 1724000428-MAC-DA-00005 REV. 02



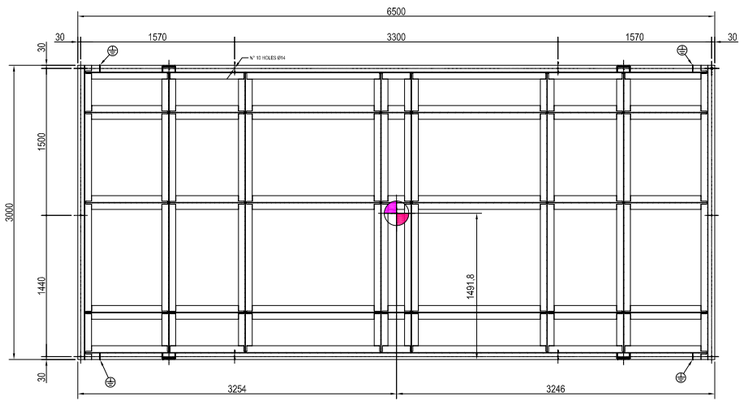
VIEW FROM "C"



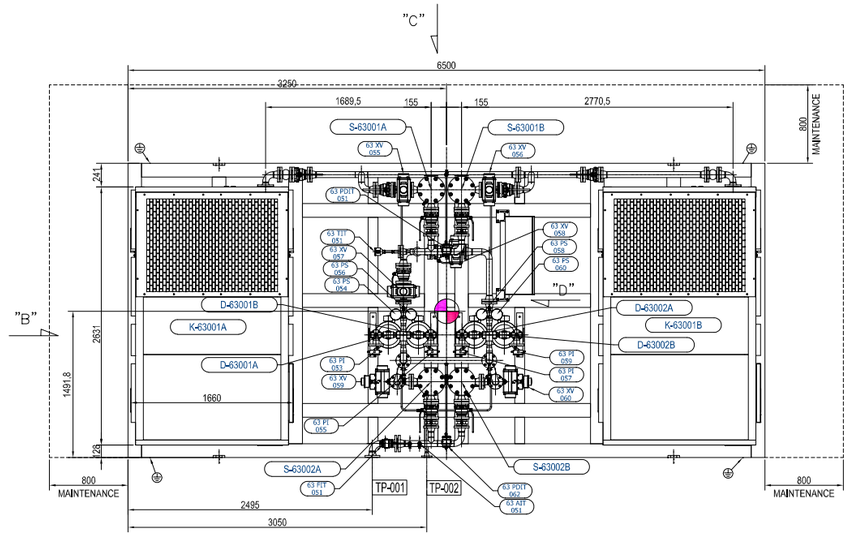
VIEW FROM "A"

CABLE ENTRY SUITABLE FOR POWER CABLES 5G70sqmm

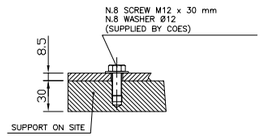
POWER SUPPLY 400V-3PH-50HZ COMPRESSOR POWER SUPPLY

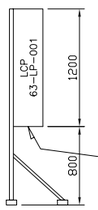


SECTION A-A (1 : 25)



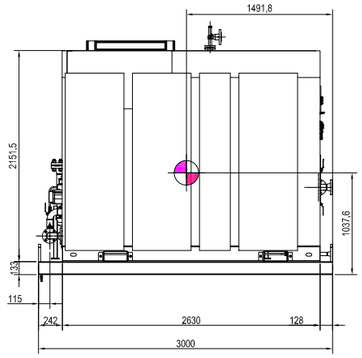
"A"





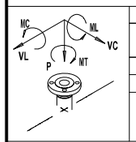
GLAND PLATE CABLE ENTRY SUITABLE
POWER SUPPLY 230V (UPS)
POWER SUPPLY 230V (Normal)
LOCAL CONTROL PANEL POWER SUPPLY

VIEW FROM "D"



VIEW FROM "B"

FOUNDATION LOADS TABLE			
	LIFTING	EMPTY	OPERATION
VERTICAL (kN)	10.8	10.8	10.8
SHEAR Y (kN)	0	0	0
SHEAR X (kN)	0	0	0
MOMENT Y (kNm)	0	0	0
MOMENT X (kNm)	0	0	0



MAX ALLOWABLE LOADS AT B,L, CONNECTIONS							
	FORCES [kN]			MOMENTS [kNm]		
	VL	P	VC	MC	MT	ML
A	1,8	1,5	1,8	0,3	0,4	0,2
B	2	2	2	0,8	0,8	0,8

TAG NUMBER OF EQUIPMENTS	
TAG	DESCRIPTION
K-63001A/B	OIL FREE SCREW COMPRESSOR 1&2
S-63001A/B	DRYER PRE-FILTER
D-63001A/B	DRYER UNIT 1
D-63002A/B	DRYER UNIT 2
S-63002A/B	DRYER AFTER-FILTER
V-63001	INSTRUMENT AIR RECEIVER

NAMEPLATE "COES"

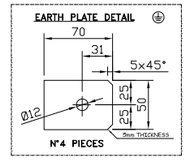
MANUFACTURER	COES SRL - STEZZANO (BG)		
SERVICE	INSTRUMENT AIR PACKAGE		
YEAR	2024	SERIAL NUMBER	*****
WEIGHT	11000 kg	ITEM	A-63000
PRESSURE	12 barg	TEMPERATURE	-10°C / 90°C

CE 0425 2014/68/UE - Cat.III

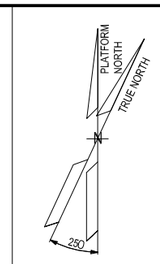
CONNECTIONS			
POS.	TYPE	SERVICE	MATERIAL
A	ø 1" ANSI 150# R.F.	DRAIN DISCHARGE	SS 316/316L
B	ø 2" ANSI 150# R.F.	INSTRUMENT AIR OUTLET	SS 316/316L

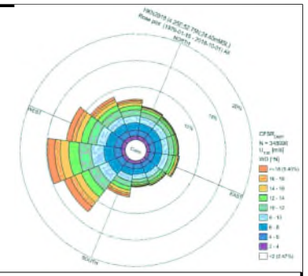
TOTAL WEIGHT : 11.000 kg

EARTH PLATE DETAIL



N°4 PIECES





NOTES

1. SKID TOTAL WEIGHT: 5000 kg
2. FOR EQUIPMENT WEIGHT REFER TO EQUIPMENT DS, DOC. NO. 1724000428-MAC-DS-00011
3. FOR DESIGN PARAMETERS & CODES REFER TO EQUIPMENT DS, DOC. NO. 1724000428-MAC-DS-00011
4. FOR WELDING DETAILS REFER TO WELDING SPECIFICATION, DOC. NO. 1724000428-WEL-LIS-00021
5. FOR PAINTING DETAILS REFER TO PAINTING SPECIFICATION, DOC. NO. 1724000428-MAT-PRO-00022
6. NO LUBRICATION REQUIRED
7. FOR LOAD DETAILS REFER TO STRUCTURAL CALCULATION, DOC. NO. 1724000428-ST-RE-00010

LEGEND

HOLDS

N

coes

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	06/08/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
01	08/05/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
00	21/03/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
PACKAGE GENERAL ARRANGEMENT
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE N/A
DRAWN GT	CHECKED MC	APPROVED TM	DATE 06/08/24
A1	DRAWING NO. 1724000428-MAC-DA-00005	SHEET 001	REV. 02

File Name : 1724000428-MAC-DA-00005

Base Load Power Hub (BLPH)

INSTRUMENT AIR PACKAGE A-63000
PACKAGE WIRING DIAGRAM
INCLUDING LAYOUT OF PACKAGE CONTROL PANEL 63-LP-001

Document Number: 1724000428-MAC-DG-00009

Document Class: 2

02	22/10/2024	Accepted for Construction (AFC)	GT	MC	TM
01	01/07/2024	Issue for Review (IFR)	GT	MC	TM
00	10/05/2024	Issue for Review (IFR)	GT	MC	TM
Rev.	Date	Description	Prepared	Reviewed	Approved

COES

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

	PREPARED	CHECKED AND APPROVED	CUSTOMER APPROVAL	DATE	DESCRIPTION
	ASSOLARI O.	TIRABOSCHI T.		08.05.2024	FIRST ISSUE
A	ASSOLARI O.	TIRABOSCHI T.		30.05.2024	ACCORDING TO CUSTOMER COMMENTS
B	ASSOLARI O.	TIRABOSCHI T.		01.08.2024	ACCORDING TO CUSTOMER COMMENTS
C					
D					
E					
F					

	PREPARED	CHECKED AND APPROVED	CUSTOMER APPROVAL	DATE	DESCRIPTION
G					
H					
I					
L					
M					
N					

TEST CERTIFICATE N	2024...

ELECTRICAL CABINET	=PLANT +LOCATION	WORK ORDER SERIAL NUMBER

TITLE

COMMAND AND CONTROL SWITCHBOARDS DRYER
GENERATION PACKAGE 63-LP-001
WIRING DIAGRAM

REF. Netherlands

TECHNICAL AND CONSTRUCTIVE FEATURES

ELECTRICAL

RATED VOLTAGE:

RATED FREQUENCY:
50Hz

RATED CURRENT:
32A

AUXILIARY CIRCUIT SUPPLY:
230Vac~ 24Vdc

SHORT CIRCUIT CURRENT:
10kA

EARTH BUSBAR SECTION:
Cu 20x5 mm²

REFERENCE STANDARDS:
IEC 61439-1

MECHANICALS

DEGREE OF PROTECTION (INT.):
IP20

DEGREE OF PROTECTION (EXT.):
IP66

INTERNAL PAINTING:
RAL7035

EXTERNAL PAINTING:
RAL7035

SEGREGATION FORM:
--

INSTALLATION CONDITIONS

ENVIRONMENT TEMPERATURE:
-5° - 41°C

RELATIVE HUMIDITY:
90%

ALTITUDE:
<= 1000mt s.l.m.

INSTALLATION:
FOR EXTERNAL

CABLE INCOMING:
FROM LOW

CABLE OUTGOING:
FROM LOW

WIRING

COLORS

POWER CIRCUITS:
BLACK

ac AUXILIARY CIRCUITS:
RED

dc AUXILIARY CIRCUITS:
BLUE

CIRCUITS NOT ISOLATED BY GENERAL DEVICE:
ORANGE

EARTH CIRCUITS:
YELLOW/GREEN

SECTIONS

POWER CIRCUITS:
MINIMUM 2,5mm²

AUXILIARY CIRCUITS:
MINIMUM 1,5mm²

ELECTRONIC CIRCUITS:
MINIMUM 0,5mm²

CURRENT MEASURE CIRCUITS:
2,5mm²

VOLTAGE MEAUSURE CIRCUITS:
2,5mm²

CABLE TYPE:
FS17

TERMINALS

AUXILIARY:
2,5mm²

VOLTAGE MEAUSURE CIRCUITS:
6mm² WITH DISCONNECTING SLIDE-LINK

CURRENT MEASURE CIRCUITS:
6mm² WITH DISCONNECTING SLIDE-LINK AND SHORT-CIRCUIT CROSS CONNECT.

THE SECTIONS OF THE WIRE DON'T SPECIFIED ARE mm²; THE COLORS OF THE WIRE DON'T SPECIFIED ARE:

COES S.r.l.
Via Pontida , 265
24040 Stezzano (BG)-Italy
Tel. +39 035 2050 511 Fax +39 035 2050 532
www.coessrl.com coes@coessrl.com

LEVELS	DRAWING N.	PLANT	PAGE
COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	d241025-WD		01
	WORK ORDER N. 2024.4814_001	LOCATION	NEXT 02
DESCRIPTION: COVER			TOTAL 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

LETTER	TYPE OF COMPONENT	EXAMPLE	MARK
A	ASSEMBLED	LASER MASER REGULATOR	A
		TRANSISTOR AMPLIFIER INTEGRATED CIRCUITS AMPLIFIER MAGNETIC AMPLIFIER VALVE AMPLIFIER	AD AJ - AP AM - AT AV - AR
B	TRASDUCER OF QUANTITY NON-ELECTIC TO ELECTRIC OR VICEVERSA	PHOTOELECTRIC CELL ELECTRIC DYNAMOMETER CRISTAL TRASDUCER MICROPHONE PICK-UP LOUDSPEAKER SYNCRONOUS TRANSMITTER	B
		TRANSDUCER OR ANALOGIC SENSOR OR NUMERIC WITH MULTIPLE STEPS (USABLE FOR INDICATION OR THE MEASURE): PRESSURE TRANSDUCER POSITION TRANSDUCER ROTATION TRANSDUCER (TACHOMETRIC GENERATOR) TEMPERATURE TRANSDUCER VELOCITY TRANSDUCER	 BP BQ BR BT BV
C	CAPACITORS	CAPACITORS	C
D	BYNARY ELEMENTS DEVICE OF DELAY DEVICE OF STORAGE	DEVICE AND INTEGRATED CIRCUITS DIGITAL: DELAY LINE ELEMENT BISTABLE ELEMENT MONOSTABLE RECORDER MEMORY MAGNETIC RECORDER ON TAPE OR ON DISC	D
E	MATERIALS SUNDRIES	DEVICE NOT SPECIFIED IN THIS TABLE	E
		HEATER ILLUMINATION LAMP VENTILATOR	EH EL EV
F	PROTECTION DEVICE	OVER-VOLTAGE DEVICE SOURGE ARRESTER	F
		DEVICE OF PROTECTION WITH CURRENT THRESHOLD WITH INSTANTANEOUS ACTION DEVICE OF PROTECTION WITH CURRENT THRESHOLD WITH DELAYED ACTION DEVICE OF PROTECTION WITH CURRENT THRESHOLD WITH INSTANTANEOUS ACTION AND DELAYED FUSE DEVICE OF PROTECTION WITH VOLTAGE THRESHOLD	 FA FR FS FU FV
G	GENERATOR POWER SUPPLY	ROTATING GENERATOR QUARZ OSCILLATOR	G
		BATTERY OF ACCUMULATORS CONVERTER OF FREQUENCY ROTATING OR STATIC POWER SUPPLY	GB GF GS
H	SEGNALLING DEVICE	ACUSTIC SIGNAL OPTICAL / LUMINOUS INDICATOR	HA HL
K	RELAY CONTACTOR	RELÈ ISTANTANEO CON TUTTO O NIENTE O CONTATTORI ISTANTANEO RELÈ BISTABILI O CONTATTORI INTERBLOCCATI (RELÈ CON TUTTO O NIENTE CON ACCOPPIATORE MECCANICO O MAGNETE PERMANENTE) CONTATTORI RELÈ POLARIZZATO RELÈ REED RELÈ TEMPO CON TUTTO O NIENTE (TIMER)	KA KL KM KP KR KT
L	INDUCTOR, REACTOR	INDUCTOR, RECTOR, COIL	L
M	MOTOR	MOTOR	M
N	ANALOG CIRCUIT INTEGRATED	OPERATIONAL AMPLIFIER ANALOG/DIGITAL HYBRID APPARATUS	N

LETTER	TYPE OF COMPONENT	EXAMPLE	MARK
P	TEST DEVICE AND INSTRUMENT	DEVICE OF MEASURE INDICATOR RECORDERS AND INTEGRATORS GENERATOR OF SIGNALS	P
		AMPEROMETER COUNTER OF IMPULSES WATTMETER APPARATUS RECORDER CLOCK / COUNTER OF HOURS OF SERVICE VOLTMETER	PA PC PJ PS PT PV
Q	MANOEUVRE APPARATUS FOR POWER CIRCUITS	SWITCH AUTOMATIC MOTOR PROTECTION DISCONNETTING SWITCH	QF QM QS
R	RESISTOR	FIXED OR VARIABLE (RHEOSTAT) RESISTOR	R
		POTENTIOMETER DERIVATIVE RESISTOR WITH INTRINSIC VARIATION DEPENDENT OF TEMPERATURE (THERMISTOR) RESISTOR WITH INTRINSIC VARIATION DEPENDENT OF VOLTAGE (VARISTOR)	RP RS RT RV
S	COMMAND OR CONTROL APPARATUS	SELECTOR OR COMMUTATOR PUSH BUTTON (INTO DEVICE ELECTRONIC OF COMMAND WITH PROXIMITY) SENSORS WITH ALL OR NOTHING NUMERIC (WITH STEP SINGLE) OF NATURE MECCANIC AND ELECTRONIC: - SENSOR OF LEVEL OF LIQUID - SENSOR OF PRESSURE - SENSOR OF POSITION (INTO OF PROXIMITY) - SENSOR OF ROTATION - SENSOR OF TEMPERATURE	SA SB SL SP SQ SR ST
T	TRANSFORMER	CURRENT TRANSFORMER COMMAND CIRCUITS POWER SUPPLY TRANSFORMER POWER TRANSFORMER MAGNETIC STABILIZER VOLTAGE TRANSFORMER	TA TC TM TS TV
U	MODULATOR CONVERTER	DISCRIMINATOR DEMODULATOR FREQUENCY CONVERTER ENCODER CONVERTER INVERTER TELEGRAPHIC TRANSLATOR	U
V	ELECTRONIC TUBE SEMICONDUCTOR	ELECTRONIC TUBE GAS DISCHARGE TUBE DIODE TRANSISTOR THYRISTOR	V
		RECTIFIER FOR COMMAND CIRCUITS POWER SUPPLY	VC
W	TRANSMISSION WAYS WAVE GUIDES AERIALS	WIRE CABLE BUS BAR WAVE GUIDE WAVE GUIDE DIRECTIONAL COUPLER DIPOLE PARABOLIC AERIAL	W
X	TERMINAL OUTLET PLUG	CONNECTING BUS BAR TEST PLUG PLUG OUTLET TERMINAL BOARD	XB XJ XP XS XT
Y	APPARATUS MECHANICS ELECTRICALLY OPERATED	ELECTROMAGNET ELECTROMAGNETIC BRAKE ELECTROMAGNETIC FRICTION MAGNETIC MANDREL OR TABLE ELECTROMAGNETIC VALVE	YA YB YC YH YV
Z	TRANSFORMER, IMPEDANCE ADAPTOR EQUALIZER, BAND LIMITER	EQUALIZER OF LINE COMPRESSOR CRYSTAL FILTER	Z

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
MARKS OF IDENTIFIERS ACC. TO IEC 204-2

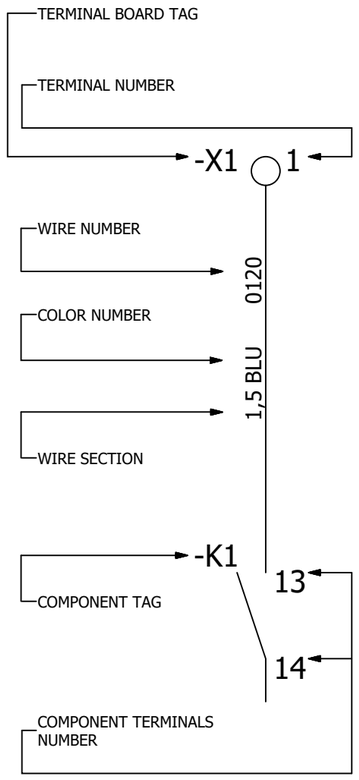
PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	02
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	03
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

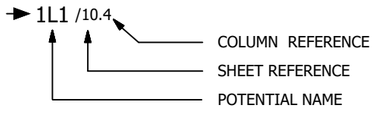
TABLE SYMBOLS

DEFINITION OF IDENTIFIERS (CEI3-34)		
CODE 1	PLANT	=
CODE 2	LOCATION	+
CODE 3	TAG	-
CODE 4	TERMINAL	:

NUMERATION WIRES AND TERMINALS
(CEI 16-1)



POTENTIAL CHAIN

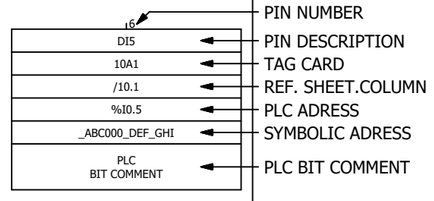


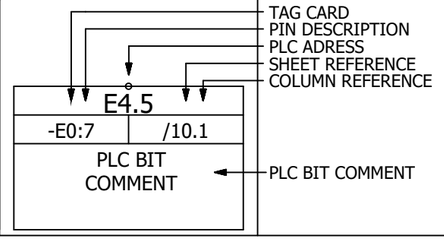
SYMBOL	DESCRIPTION
	TERMINAL
	COLLECTOR BUS-BAR CONNECTION
	FUSE TERMINAL
	FUSE TERMINAL WITH LED
	PUSH BUTTONS
COLOR	HEAD
COLOR	GENERICS
COLOR	LUMINOUS
	SELECTORS
NC	POSITION 0/1
NO	POSITION 1/0/2 FIXED
	POSITION 1/0/2 IMPULSIVE
COLOR	LUMINOUS
	WITH KEY
COLOR COLOR	LED - LAMP
COLOR	LIGHTING BODY FOR OPERATOR LIGHT
	ISOLATED BARRIER (SWITCH AMPLIFIER)
	ISOLATED BARRIER (TEMPERATURE REPEATER)

SYMBOL	DESCRIPTION
	AUXILIARY RELAY POWER RELAY
	TIMED RELAY DELAYED TO EXCITATION
	TIMED RELAY DELAYED TO THE DROP-OUT
	RELAY STEP BY STEP
	POWER CONTACT
	OPEN AND CLOSE AUXILIARY CONTACT
	EXCHANGE AUXILIARY CONTACT
	NORMALLY OPEN NORMALLY CLOSE AUXILIARY CONTACT DELAYED ON OPENING
	NORMALLY OPEN NORMALLY CLOSE AUXILIARY CONTACT DELAYED ON CLOSING
RC	OVERVOTAGE LIMITER

SYMBOL	DESCRIPTION
	TOROIDAL TRANSFORMER
NETWORK ANALIZER	NETWORK ANALIZER
	GENERIC PROTECTION COMMON: -VOLTMETRIC -AMMETRIC -TRANSDUCER
V	VOLTMETER
A	AMMETER
	COMMUTATOR: VOTMETRIC
	AMMETRIC
...n	DIODE MODULE
	Ac/Dc POWER SUPPLY

BIT PLC





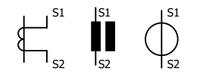
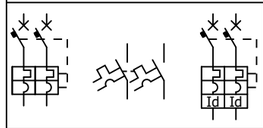
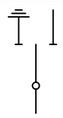
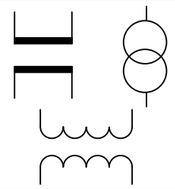
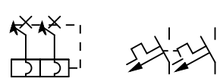
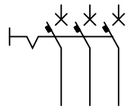
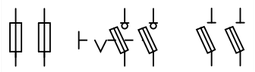
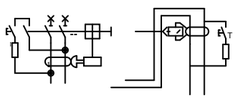
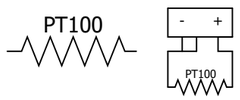
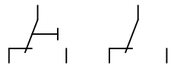
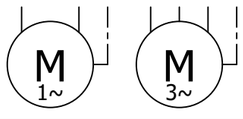
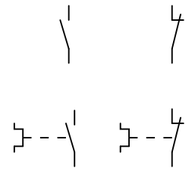
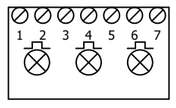
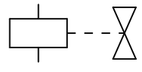
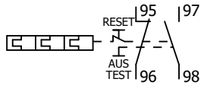
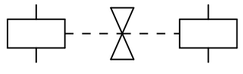
SYMBOL	DESCRIPTION
	HORN
	RESISTOR
	OUTLET SOCKET
	FAN
	MECHANICAL INTERLOCKED
	KEY FREE WITH CLOSED DOOR
	KEY FREE
	KEY LOCKED
	CONNECTOR
	LIMIT SWITCH
P>	AIR PRESSURE SWITCH
L	LEVEL SWITCH
F	SENSOR FILTER
T f	THERMOSTAT
	REED MAGNETIC PROXIMITY SENSOR

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER / PAGE: 03
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE / NEXT: 04
DESCRIPTION: COMMON SYMBOLS	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

TABLE SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SWITCH DISCONNETING SWITCH		GEARED MOTOR DEVICE		LINE/EARTH DISCONNECTING SWITCH MEDIUM VOLTAGE		CURRENT TRANSFORMER
	SWITCH: MAGNETOTHERMAL MAGNETOTERMAL+DIFFERENTIAL	YO	OPENING COIL		LINE/EARTH DISCONNECTING SWITCH MEDIUM VOLTAGE		VOLTAGE TRANSFORMER
		YC	CLOSING COIL				
		YU	MINIMUM VOLTAGE COIL				POWER TRANSFORMER
	AUTOMATIC SWITCH		CAPACITOR POLARIZD CAPACITOR		MEDIUM VOLTAGE SWITCH		
	DISCONNETTING SWITCH WITH FUSE		REACTOR		EARTH DISCONNETTING SWITCH MEDIUM VOLTAGE		
	DIFFERENTIAL SWITCH MINIATURE DIFFERENTIAL		THERMIC PROBE PT100		CAPACITIVE LIVE LINE INDICATOR		
	SOURGE ARRESTER		THERMOCOUPLE				
	EXCHANGE AUXILIARY CONTACT OF: -POSITION -SIGNALLING FOR SWITCH-DISCONNECTOR		ASYNCHRONOUS MOTOR SINGLE-PHASE THREE-PHASE				
	NORMALLY OPEN/CLOSE AUXILIARY CONTACT FOR: -SWITCH-DISCONNECTING SWITCH -AUTOMATIC/MAGNETOTH. SWITCH -THERMAL RELAY		THREE-PHASE FLASHING-LIGHT				
			SIMPLE SOLENOID VALVE				
	RELAY THERMAL WITH AUXILIARY CONTACTS		DOUBLE SOLENOID VALVE				

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 04
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 05
DESCRIPTION COMMON SYMBOLS	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

INDEX PAGES

PAGE	DATE	PREPARED	DESCRIPTION	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.
=DRYER+QE/01	08.05.2024	ASSOLARI O.	COVER	30.05.2024	A	01.08.2024	B																				
=DRYER+QE/02	08.05.2024	ASSOLARI O.	MARKS OF IDENTIFIERS ACC. TO IEC 204-2	30.05.2024	A																						
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=DRYER+QE/25	08.05.2024	ASSOLARI O.	NETWORK ARCHITECTURE	30.05.2024	A																						
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=DRYER+QE/36	08.05.2024	ASSOLARI O.	SUMMARY CARDS I/O RACK																								
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REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 05
DESCRIPTION INDEX PAGES	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 06
	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

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INDEX PAGES

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=DRYER+QE/54	08.05.2024	ASSOLARI O.	ANALOG INPUT I/O RACK	30.05.2024	A																						
=DRYER+QE/55	08.05.2024	ASSOLARI O.	ANALOG INPUT I/O RACK	30.05.2024	A																						
=DRYER+QE/60	08.05.2024	ASSOLARI O.	AUXILIARY CIRCUIT SWTCH 5 PORT PROFINET																								
=DRYER+QE/61	08.05.2024	ASSOLARI O.	CONNECTION ProfiNet INTERNAL SWITCHBOARD	30.05.2024	A																						
=DRYER+QE/62	08.05.2024	ASSOLARI O.	CONNECTION ProfiNet INTERNAL SWITCHBOARD	30.05.2024	A																						
=DRYER+QE/70	08.05.2024	ASSOLARI O.	TERMINAL BOARD -X1																								
=DRYER+QE/71	08.05.2024	ASSOLARI O.	TERMINAL BOARD -X2																								
=DRYER+QE/72	08.05.2024	ASSOLARI O.	TERMINAL BOARD -XA	30.05.2024	A																						
=DRYER+QE/73	08.05.2024	ASSOLARI O.	TERMINAL BOARD -XDI																								
=DRYER+QE/74	08.05.2024	ASSOLARI O.	TERMINAL BOARD -XDI																								
=DRYER+QE/75	08.05.2024	ASSOLARI O.	TERMINAL BOARD -XDO			01.08.2024	B																				
=DRYER+QE/76	08.05.2024	ASSOLARI O.	TERMINAL BOARD -XY			01.08.2024	B																				
=DRYER+QE/77	08.05.2024	ASSOLARI O.	TERMINAL BOARD -XAI																								
=DRYER+QE/78	08.05.2024	ASSOLARI O.	TERMINAL BOARD -XAI																								
=DRYER+QE/79	08.05.2024	ASSOLARI O.	TERMINAL BOARD -XCOM																								
=DRYER+QE/85	08.05.2024	ASSOLARI O.	COMPONENT LIST	30.05.2024	A	01.08.2024	B																				
=DRYER+QE/86	08.05.2024	ASSOLARI O.	COMPONENT LIST	30.05.2024	A	01.08.2024	B																				
=DRYER+QE/87	08.05.2024	ASSOLARI O.	COMPONENT LIST	30.05.2024	A	01.08.2024	B																				
=DRYER+QE/88	08.05.2024	ASSOLARI O.	COMPONENT LIST	30.05.2024	A	01.08.2024	B																				
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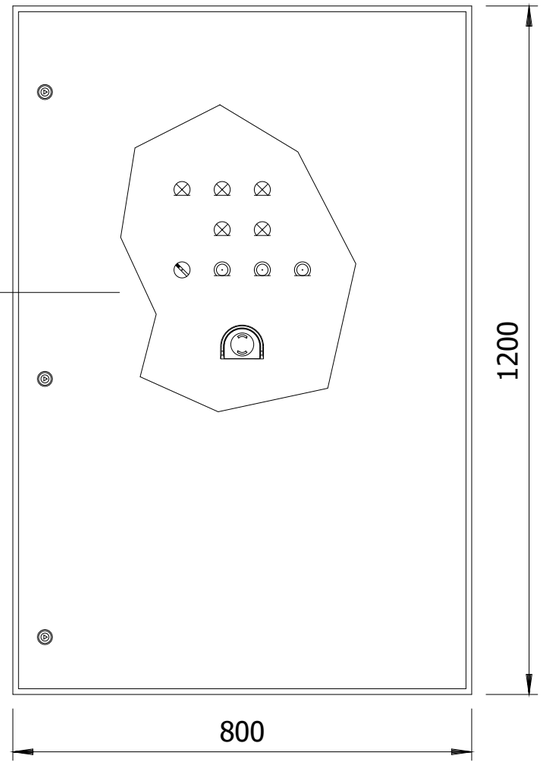
REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

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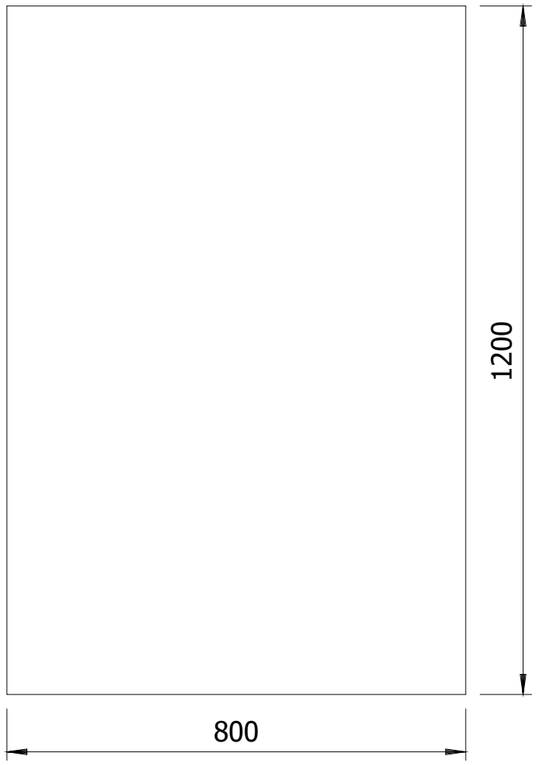
PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 06
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DESCRIPTION INDEX PAGES	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

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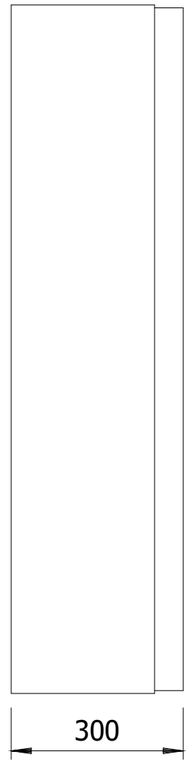
63-LP-001
FRONT



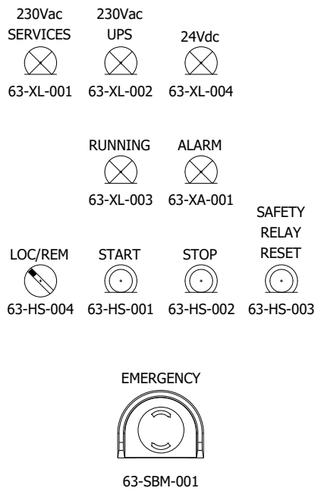
FRONT WITHOUT DOOR



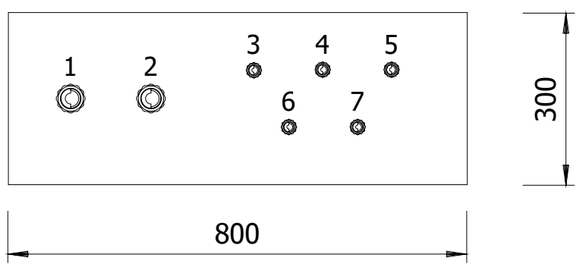
SIDE



OPERATORS
EXAMPLE



FRONT BOTTTOM



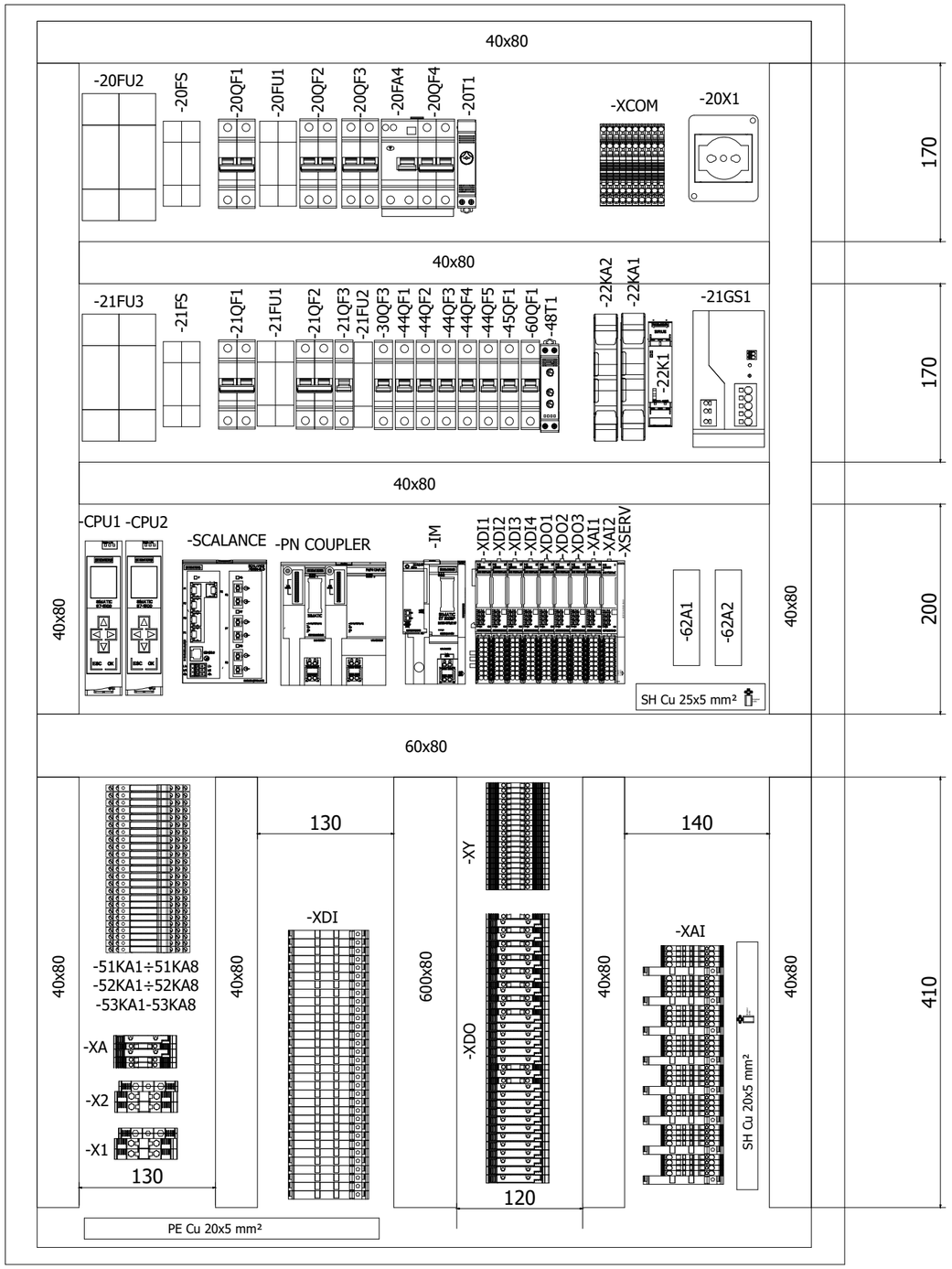
1 =M40 CABLE "83017-CEL-1"
2 =M40 CABLE "83017-CEL-2"
3 =M20 CABLE "84311-CEL"
4 =M20 CABLE "83110-CEL"
5 =M20 CABLE "C-63-XS-001/B400-SIS-001"
6 =M20 CABLE "C-63-XA-003/B400-SIS-001"
7 =M20 CABLE "63-LP-001/B400-NET-001"

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PLANT	PREPARED	CHECKED	PLANT	PAGE
COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	ASSOLARI O.	TIRABOSCHI T.	= DRYER	10
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 11
DESCRIPTION EXTERNAL VIEWS	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

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63-LP-001
INTERNAL

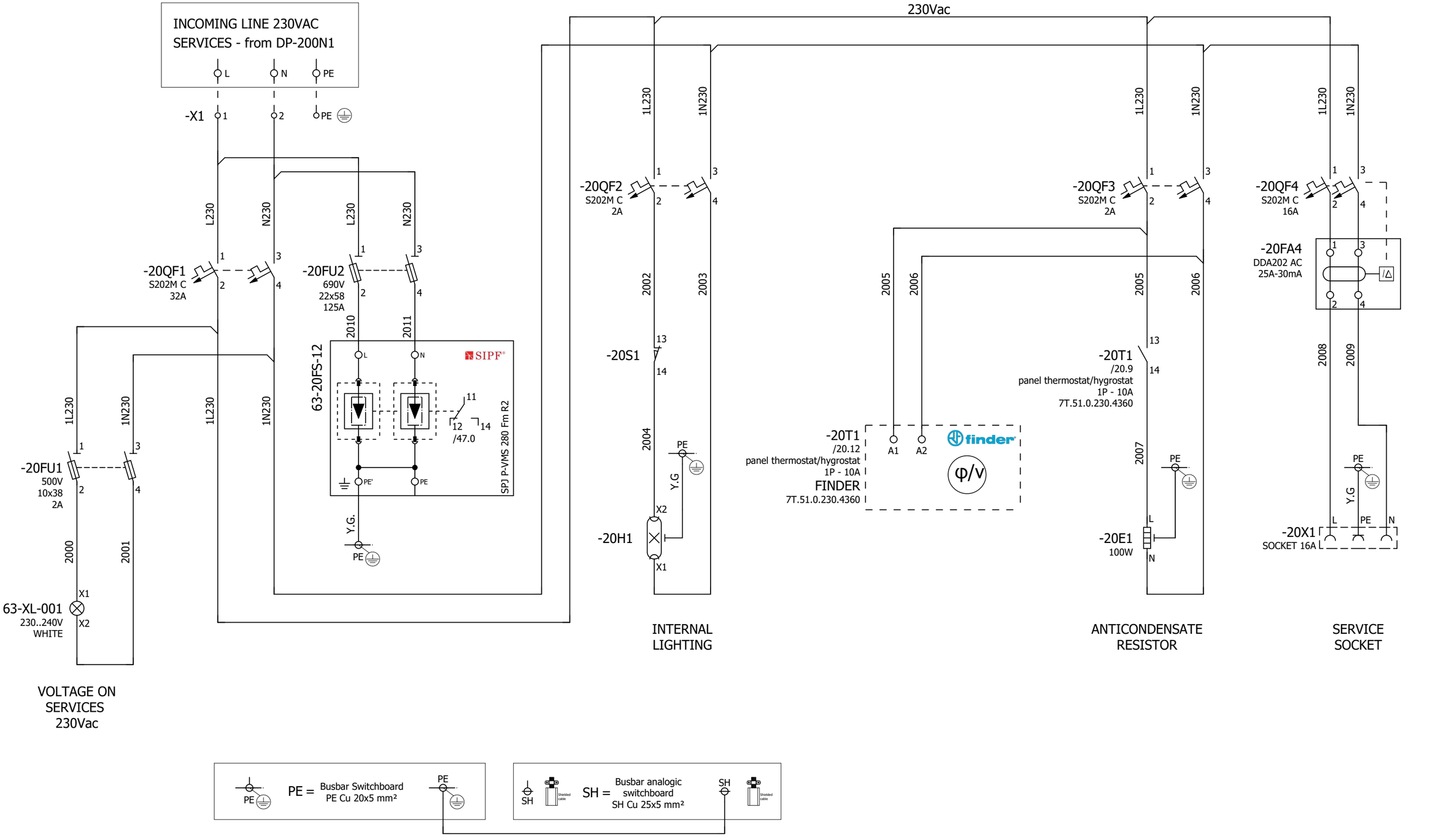


REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

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PLANT		PREPARED	CHECKED	PLANT	PAGE
COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM		ASSOLARI O.	TIRABOSCHI T.	= DRYER	11
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DESCRIPTION		WORK ORDER N	DRAWING N		TOTAL SHEETS
INTERNAL VIEWS		2024.4814_001	d241025-WD		50

RM REFERENCE: 123A90-DDL-EL-DGF-20149 details electrical interface to Package systems



REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT	PREPARED	CHECKED	PLANT
COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	ASSOLARI O.	TIRABOSCHI T.	= DRYER
	DATE	APPROVED	LOCATION
	08.05.2024		+ QE
DESCRIPTION	WORK ORDER N	DRAWING N	TOTAL SHEETS
INCOMING LINE 230Vac SERVICES	2024.4814_001	d241025-WD	50

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NEXT
21

RM REFERENCE: 123A90-DDL-EL-DGF-20149 details electrical interface to Package systems

INCOMING LINE 230VAC
FROM UPS -from UP-200F3

L N PE

-X2 1 2 PE

L230UPS N230UPS

-21QF1
S202M C
32A

-21FU3
690V
22x58
125A

2105 2106

63-21FS-12 SIPF

L N 11 12 14 /47.2

PE' PE

SPJ P-VMS 280 Fm R2

1L230UPS 1N230UPS

-21FU1
500V
10x38
2A

2100 2101

X1
63-XL-002
230..240V
WHITE
X2

Y.G.
PE

VOLTAGE ON
UPS
230Vac

230Vac UPS

1L230UPS 1N230UPS

-21QF2
S202M C
4A

2102 2103

PE
Y.G

-21GS1
L/+ N/- PE
PHOENIX CONTACT
TRIO-PS-2G/1AC/24DC/20
+ + - - 13 14

L24+ 1M24-
Y.G.
PE

-21QF3
S201M C
20A

1L24+

-XCOM 1 2 3 4 5
-XCOM 6 7 8 9 10

24Vdc

1L24+ / 22.0

1L24+

-21FU2
500V
10x38
2A

2104

X1
63-XL-004
24 Vdc
WHITE
X2

1M24-

1M24- / 22.0

VOLTAGE ON
24Vdc

PE = Busbar Switchboard
PE Cu 20x5 mm²

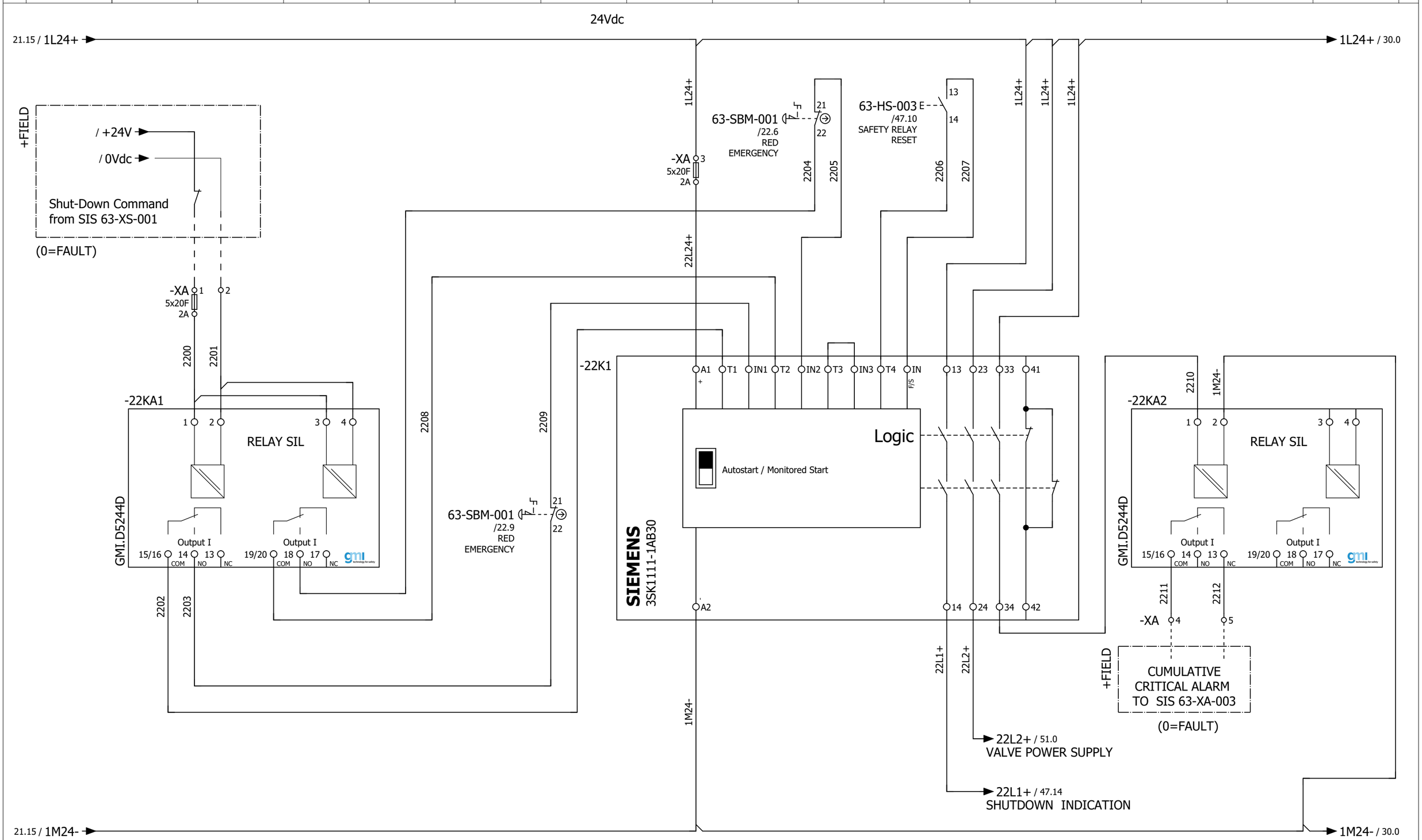
SH = Busbar analogic
switchboard
SH Cu 25x5 mm²

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

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PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: INCOMING LINE 230Vac FROM UPS	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

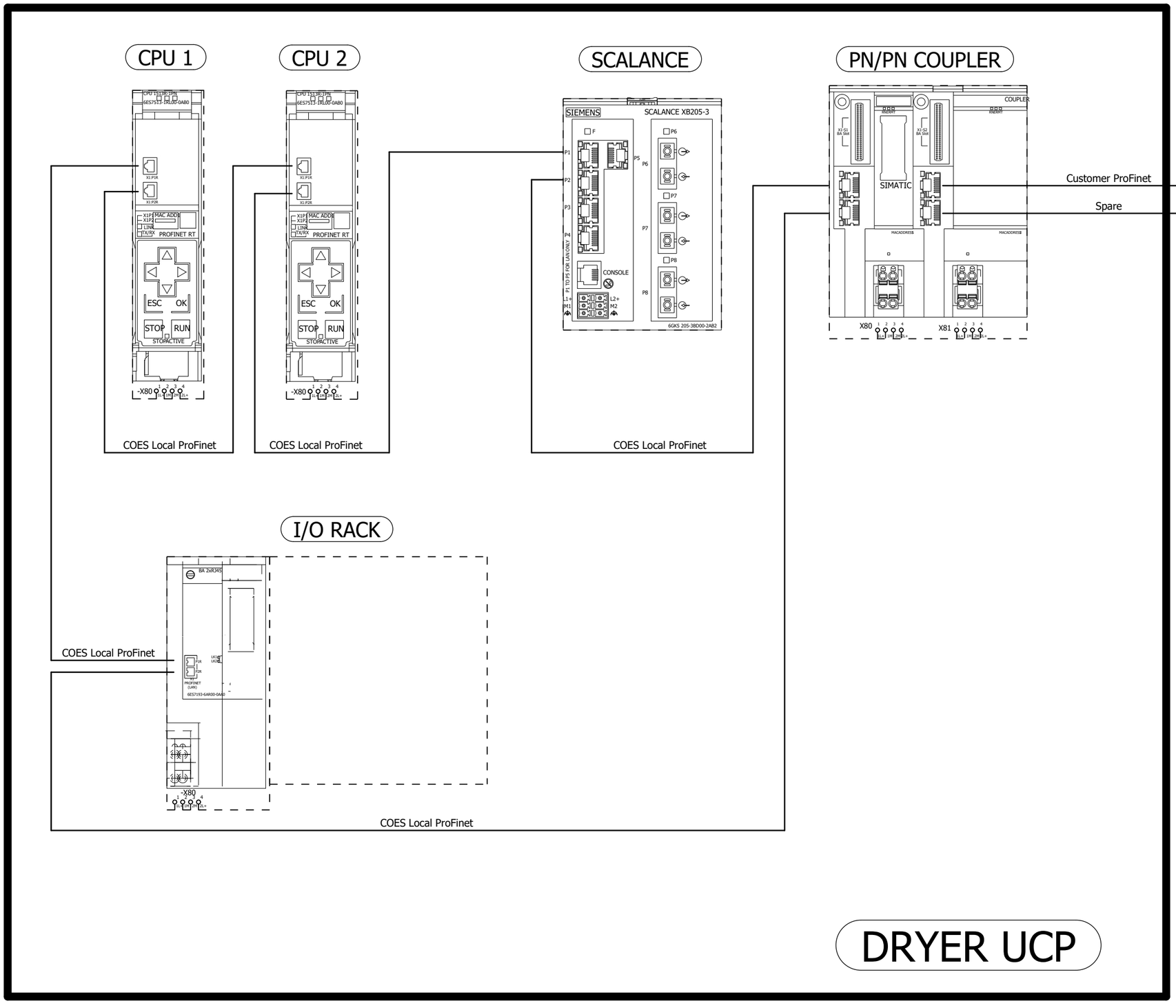
PAGE: 21 | NEXT: 22



REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: SAFETY RELAY 24Vdc	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	

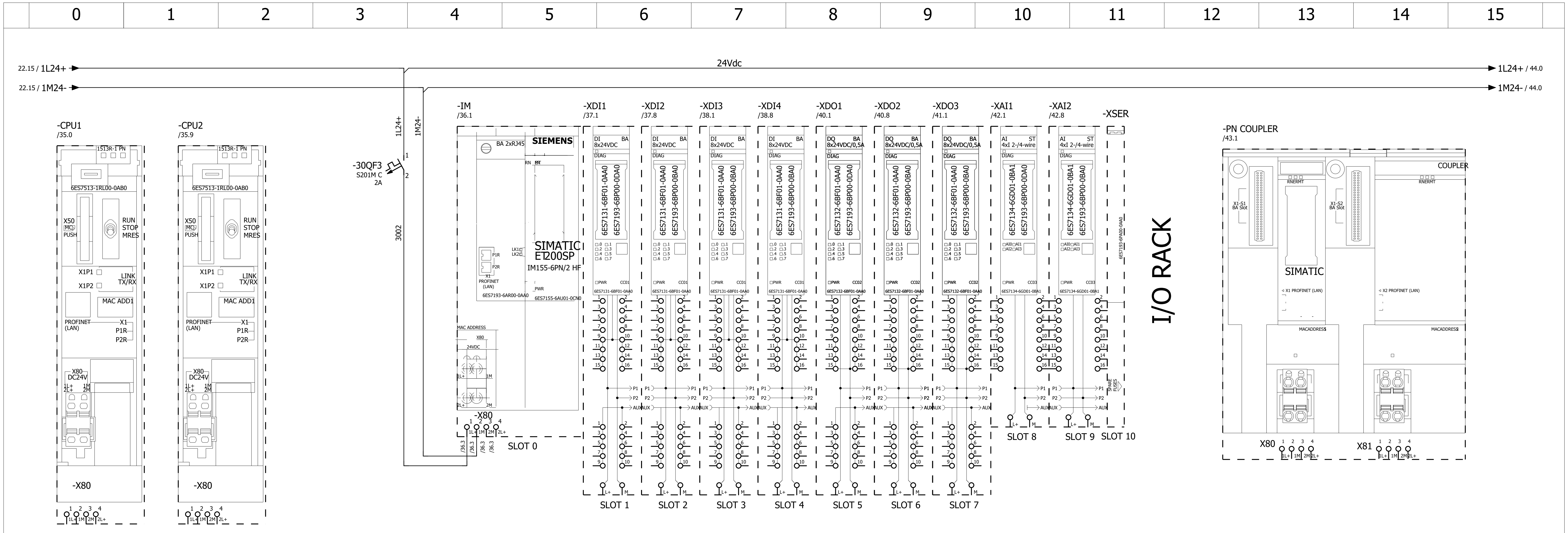
PAGE	NEXT	TOTAL SHEETS
22	25	50



RM REFERENCE: 123A90-DDL-EL-DGF-20149 details electrical interface to Package systems

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 25
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 30
DESCRIPTION: NETWORK ARCHITECTURE	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50



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B	01.08.2024	O.A.			

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
PLC CONFIGURATION

PREPARED	CHECKED	PLANT	PAGE
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08.05.2024		+ QE	35
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

-CPU1
/30.0
/44.10
SIE.6ES7513-1RL00-0AB0
SIE.6ES7954-8LF03-0AA0

S7-1500 SIEMENS
CPU 1513 R

X1P1 R: PN — /61.1
X1P2 R: PN — /61.2

-X80:1 1L+ — /44.10 POWER SUPPLY CPU 1513R-1PN - CPU1
-X80:2 1M — /44.10
-X80:3 2M — /44.10
-X80:4 2L+ — /44.11

6ES7513-1RL00-0AB0

-CPU2
/30.1
/44.13
SIE.6ES7513-1RL00-0AB0
SIE.6ES7954-8LF03-0AA0

S7-1500 SIEMENS
CPU 1513 R

X1P1 R: PN — /61.5
X1P2 R: PN — /61.6

-X80:1 1L+ — /44.13 POWER SUPPLY CPU 1513R-1PN - CPU2
-X80:2 1M — /44.13
-X80:3 2M — /44.13
-X80:4 2L+ — /44.13

6ES7513-1RL00-0AB0

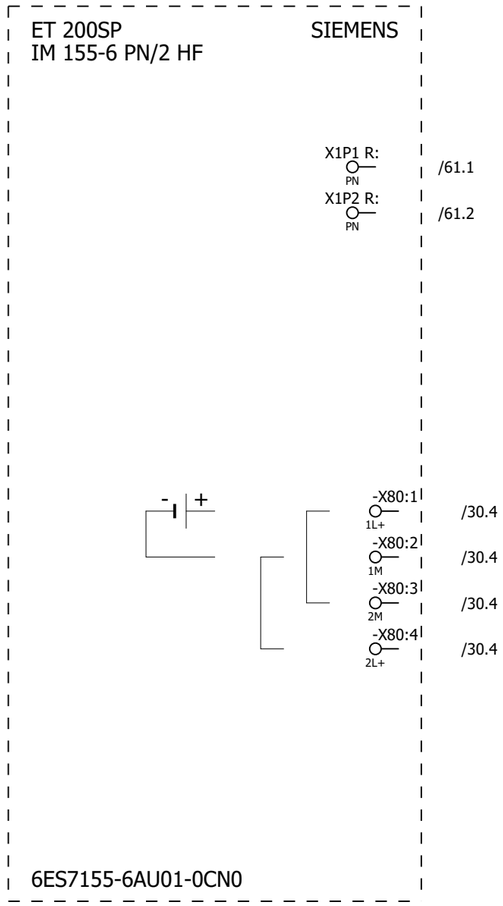
REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

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PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 35
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DESCRIPTION: SUMMARY CPU	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

/30.4
-IM
SIE.6ES7155-6AU01-0CN0
SIE.6ES7193-6AR00-0AA0



REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 36
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 37
DESCRIPTION SUMMARY CARDS I/O RACK	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

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6ES7131-6BF01-0AA0
6ES7193-6BP00-0DA0

-XDI1
/30.5

0	%I0.0	1 DI0	/46.0	63-PS-054	(DRYER 1) TOWER A PRESSURE SWITCH
0		9 24VDC			
1	%I0.1	2 DI1	/46.2	63-PS-056	(DRYER 1) TOWER B PRESSURE SWITCH
1		10 24VDC			
2	%I0.2	3 DI2	/46.4	63-PS-058	(DRYER 2) TOWER A PRESSURE SWITCH
2		11 24VDC			
3	%I0.3	4 DI3	/46.6	63-PS-060	(DRYER 2) TOWER B PRESSURE SWITCH
3		12 24VDC			
4	%I0.4	5 DI4	/46.8	63-CMPR-RUN-FDBCK-001	COMPRESSOR 1 RUNNING
4		13 24VDC			
5	%I0.5	6 DI5	/46.10	63-CMPR-ALARM-FDBCK-001	COMPRESSOR 1 COMMON ALARM
5		14 24VDC			
6	%I0.6	7 DI6	/46.12	63-CMPR-RUN-FDBCK-002	COMPRESSOR 2 RUNNING
6		15 24VDC			
7	%I0.7	8 DI7	/46.14	63-CMPR-ALARM-FDBCK-002	COMPRESSOR 2 COMMON ALARM
7		16 24VDC			
		L+ 24VDC	/44.1		POWER SUPPLY WHITE CARD DIGITAL INPUT -XDI1
		M 0VDC	/44.1		
		SH			

SIEMENS

6ES7131-6BF01-0AA0
6ES7193-6BP00-0BA0

-XDI2
/30.6

0	%I1.0	1 DI0	/47.0	63-20FS-12	SOURGE ARRESTER 230VAC_SERVICES OK
0		9 24VDC			
1	%I1.1	2 DI1	/47.2	63-21FS-12	SOURGE ARRESTER 230VAC_UPS OK
1		10 24VDC			
2	%I1.2	3 DI2	/47.4	63-TH-001	INTERNAL CABINET THERMOSTAT
2		11 24VDC			
3	%I1.3	4 DI3	/47.6	63-HS-001	LOCAL START PUSH BUTTON
3		12 24VDC			
4	%I1.4	5 DI4	/47.8	63-HS-002	LOCAL STOP PUSH BUTTON
4		13 24VDC			
5	%I1.5	6 DI5	/47.10	63-HS-003	LOCAL ALARM RESET
5		14 24VDC			
6	%I1.6	7 DI6	/47.12	63-HS-004	LOCAL REMOTE SELECTOR STATUS
6		15 24VDC			
7	%I1.7	8 DI7	/47.14	63-ESD-001	SHUTDOWN ALARM FROM SIS - INDICATION ONLY
7		16 24VDC			
		L+ 24VDC			
		M 0VDC			
		SH			

SIEMENS

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

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PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

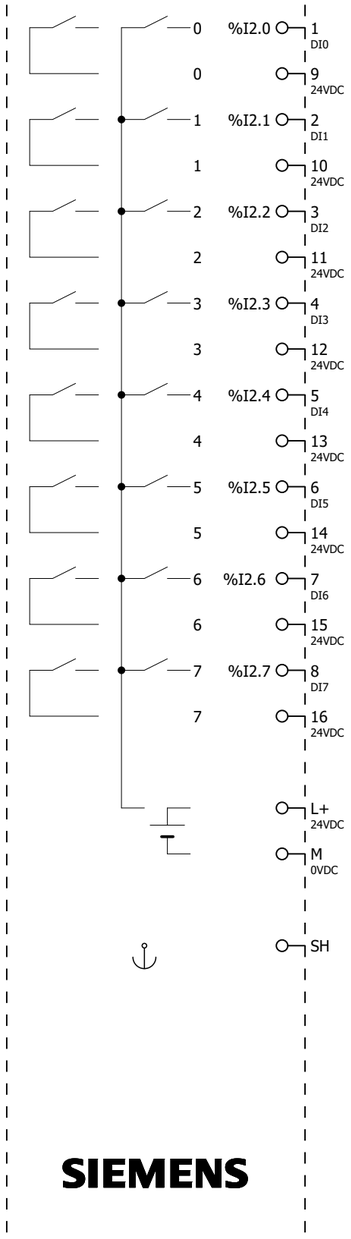
DESCRIPTION
SUMMARY CARDS I/O RACK

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	37
DATE	APPROVED	LOCATION	NEXT
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2024.4814_001	d241025-WD		50

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6ES7131-6BF01-0AA0
6ES7193-6BP00-0BA0

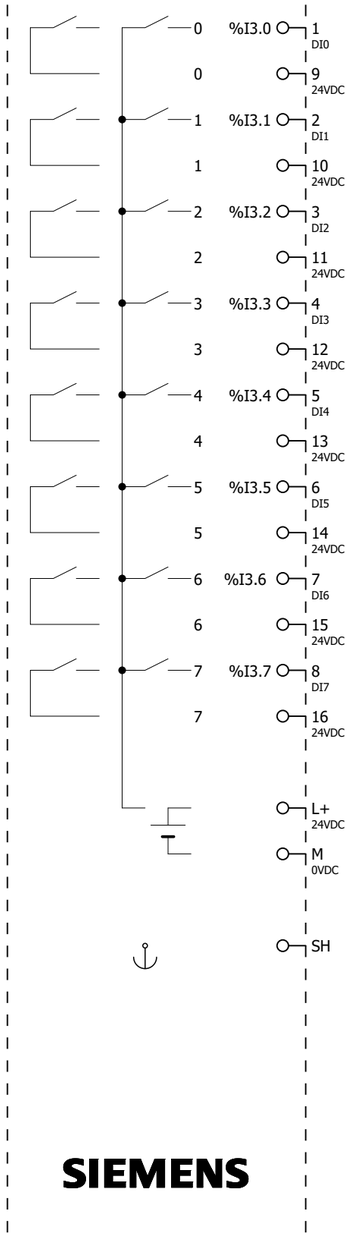
-XDI3
/30.7



/48.0	63-ZSH-055	VALVE 63-XV-055 OPEN LIMIT SWITCH	
/48.2	63-ZSL-055	VALVE 63-XV-055 CLOSED LIMIT SWITCH	
/48.4	63-ZSH-056	VALVE 63-XV-056 OPEN LIMIT SWITCH	
/48.6	63-ZSL-056	VALVE 63-XV-056 CLOSED LIMIT SWITCH	
/48.8	63-ZSH-057	VALVE 63-XV-057 OPEN LIMIT SWITCH	
/48.10	63-ZSL-057	VALVE 63-XV-057 CLOSED LIMIT SWITCH	
/48.12	63-ZSH-058	VALVE 63-XV-058 OPEN LIMIT SWITCH	
/48.14	63-ZSL-058	VALVE 63-XV-058 CLOSED LIMIT SWITCH	

6ES7131-6BF01-0AA0
6ES7193-6BP00-0BA0

-XDI4
/30.7



/49.0	63-ZSH-059	VALVE 63-XV-059 OPEN LIMIT SWITCH	
/49.2	63-ZSL-059	VALVE 63-XV-059 CLOSED LIMIT SWITCH	
/49.4	63-ZSH-060	VALVE 63-XV-060 OPEN LIMIT SWITCH	
/49.6	63-ZSL-060	VALVE 63-XV-060 CLOSED LIMIT SWITCH	
/49.8		SPARE	
/49.10		SPARE	
/49.12		SPARE	
/49.14		SPARE	

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

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PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: SUMMARY CARDS I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

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6ES7132-6BF01-0AA0
6ES7193-6BP00-0DA0

-XDO1
/30.8

0 %Q0.0 1 DQ0	/51.0	63-XY-051	(DRYER 1) 5-WAY VALVE SOV COMMAND		
0 9 M					
1 %Q0.1 2 DQ1	/51.2	63-XY-052	(DRYER 1) DEPRESSURIZATION VALVE SOV COMMAND		
1 10 M					
2 %Q0.2 3 DQ2	/51.4	63-XY-053	(DRYER 2) 5-WAY VALVE SOV COMMAND		
2 11 M					
3 %Q0.3 4 DQ3	/51.6	63-XY-054	(DRYER 2) DEPRESSURIZATION VALVE SOV COMMAND		
3 12 M					
4 %Q0.4 5 DQ4	/51.8	63-XL-003	RUNNING STATUS LAMP		
4 13 M					
5 %Q0.5 6 DQ5	/51.10	63-XA-001	GENERAL ALARM LAMP		
5 14 M					
6 %Q0.6 7 DQ6	/51.12	63-CMPR-START-001	COMPRESSOR 1 REMOTE START/STOP		
6 15 M					
7 %Q0.7 8 DQ7	/51.14	63-CMPR-START-002	COMPRESSOR 2 REMOTE START/STOP		
7 16 M					
L+ 24VDC	/44.3		POWER SUPPLY WHITE CARD DIGITAL OUTPUT -XDO1		
M 0VDC	/44.3				
SH					

SIEMENS

6ES7132-6BF01-0AA0
6ES7193-6BP00-0BA0

-XDO2
/30.8

0 %Q1.0 1 DQ0	/52.0	63-ALARM-DRY-001	DRYER 1 ALARM		
0 9 M					
1 %Q1.1 2 DQ1	/52.2	63-ALARM-DRY-002	DRYER 2 ALARM		
1 10 M					
2 %Q1.2 3 DQ2	/52.4	63-XV-055	VALVE 63-XV-055 COMMAND		
2 11 M					
3 %Q1.3 4 DQ3	/52.6	63-XV-056	VALVE 63-XV-056 COMMAND		
3 12 M					
4 %Q1.4 5 DQ4	/52.8	63-XV-057	VALVE 63-XV-057 COMMAND		
4 13 M					
5 %Q1.5 6 DQ5	/52.10	63-XV-058	VALVE 63-XV-058 COMMAND		
5 14 M					
6 %Q1.6 7 DQ6	/52.12	63-XV-059	VALVE 63-XV-059 COMMAND		
6 15 M					
7 %Q1.7 8 DQ7	/52.14	63-XV-060	VALVE 63-XV-060 COMMAND		
7 16 M					
L+ 24VDC					
M 0VDC					
SH					

SIEMENS

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

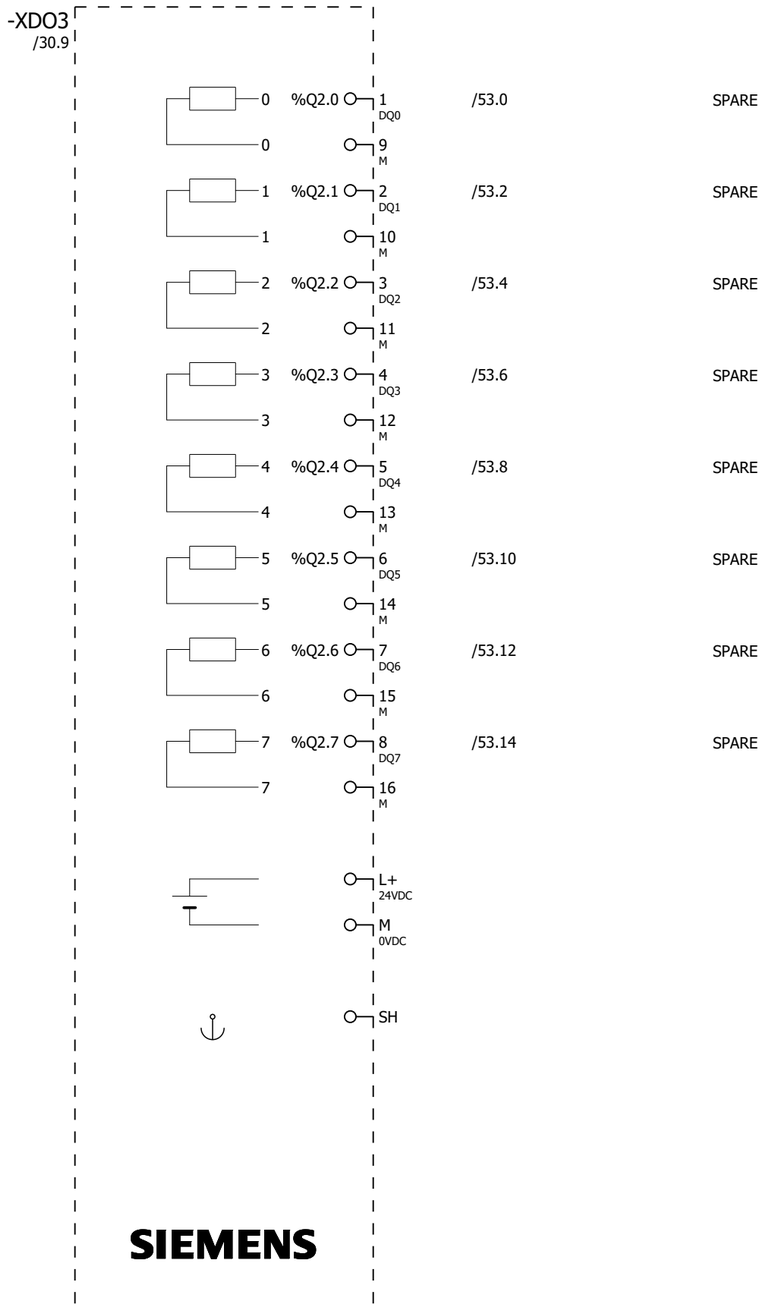
coes 20th coes 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: SUMMARY CARDS I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	

PAGE	NEXT	TOTAL SHEETS
40	41	50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

6ES7132-6BF01-0AA0
6ES7193-6BP00-0BA0



	/53.0	SPARE
	/53.2	SPARE
	/53.4	SPARE
	/53.6	SPARE
	/53.8	SPARE
	/53.10	SPARE
	/53.12	SPARE
	/53.14	SPARE

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

coes 20th 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: SUMMARY CARDS I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	

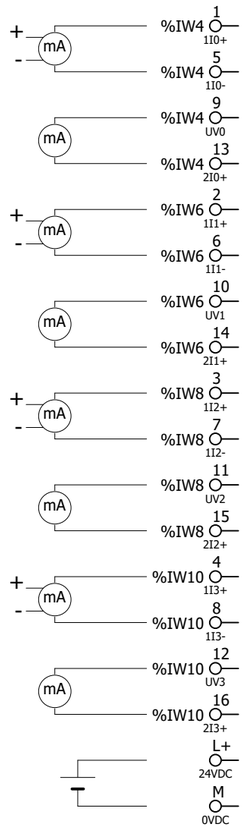
PAGE	NEXT	TOTAL SHEETS
41	42	50

/30.9

-XAI1

SIE.6ES7134-6GD01-0BA1
SIE.6ES7193-6BP00-0DA0

ET 200SP SIEMENS
AI 4xI 2-/4-wire ST



/54.1			
/54.1			
/54.2	63_PT_064	PRESSURE TRANSMITTER INSTRUMENT AIR RECIEVER	
/54.2			
/54.5			
/54.5			
/54.6	63_TIT_051	TEMPERATURE TRANSMITTER INLET AIR	
/54.6			
/54.9			
/54.9			
/54.10	63_TIT_052	TEMPERATURE TRANSMITTER INSTRUMENT AIR RECIEVER	
/54.10			
/54.13			
/54.13			
/54.14	63_AIT_051	DEW POINT TRANSMITTER	
/54.14			
/44.6		POWER SUPPLY WHITE CARD ANALOG INPUT -XAI1	
/44.7			

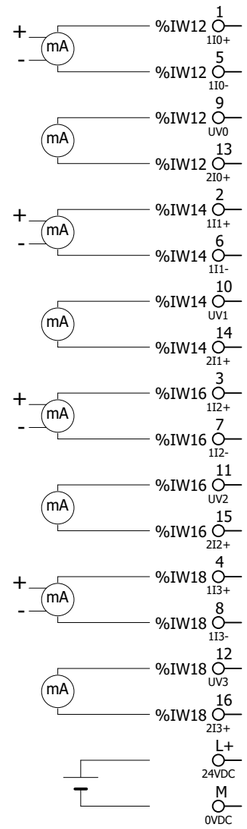
6ES7134-6GD01-0BA1

/30.10

-XAI2

SIE.6ES7134-6GD01-0BA1
SIE.6ES7193-6BP00-0BA0

ET 200SP SIEMENS
AI 4xI 2-/4-wire ST



/55.1		
/55.1		
/55.2	63_FIT_051	FLOW TRANSMITTER OUTLET AIR
/55.2		
/55.5		
/55.5		
/55.6	63_PDIT_051	DIFFERENTIAL PRESSURE TRANSMITTER INLET FILTERS
/55.6		
/55.9		
/55.9		
/55.10	63_PDIT_062	DIFFERENTIAL PRESSURE TRANSMITTER OUTLET FILTERS
/55.10		
/55.13		
/55.13		
/55.14	_XAI_45	SPARE
/55.14		

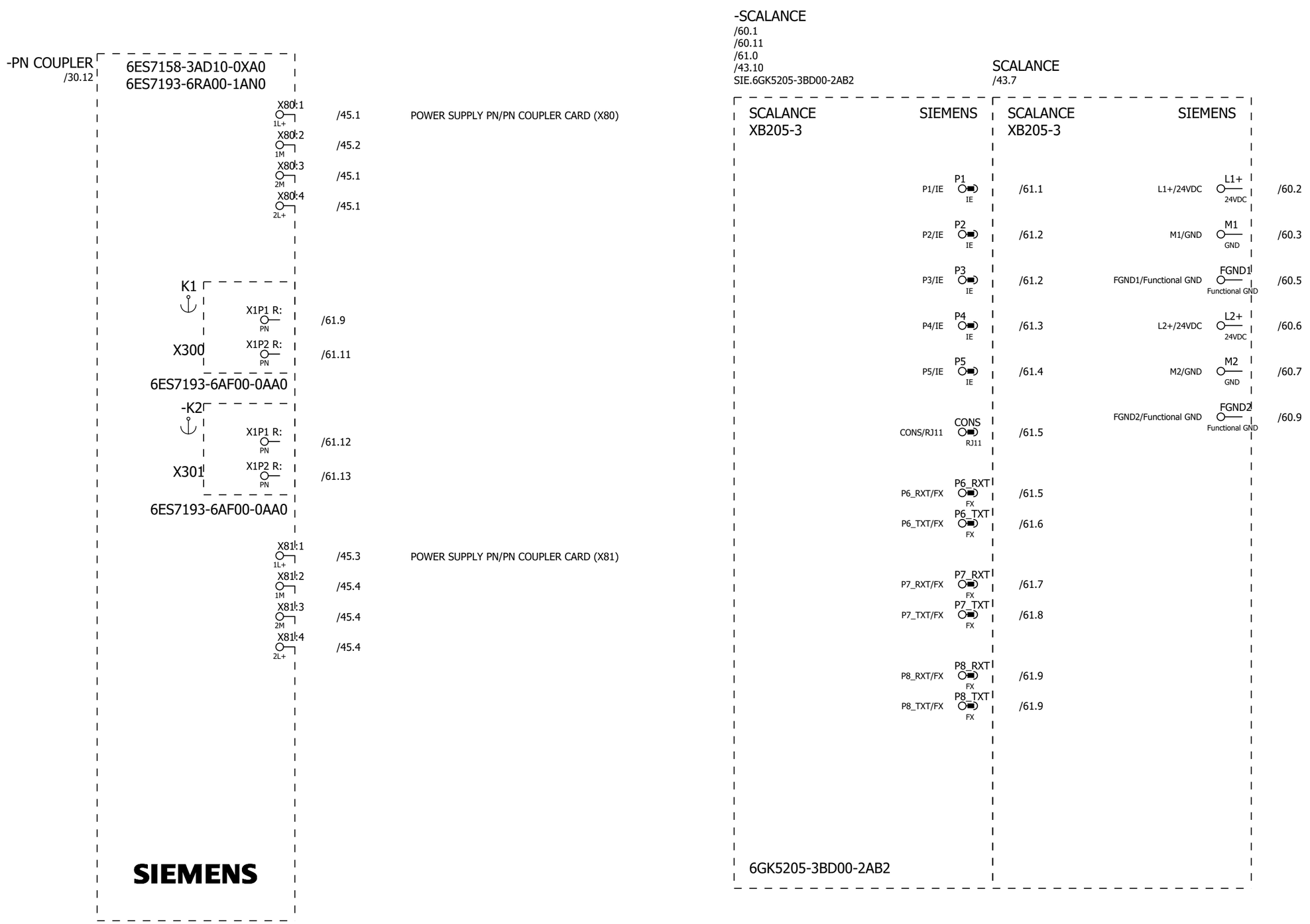
6ES7134-6GD01-0BA1

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
SUMMARY CARDS I/O RACK

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	42
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	43
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

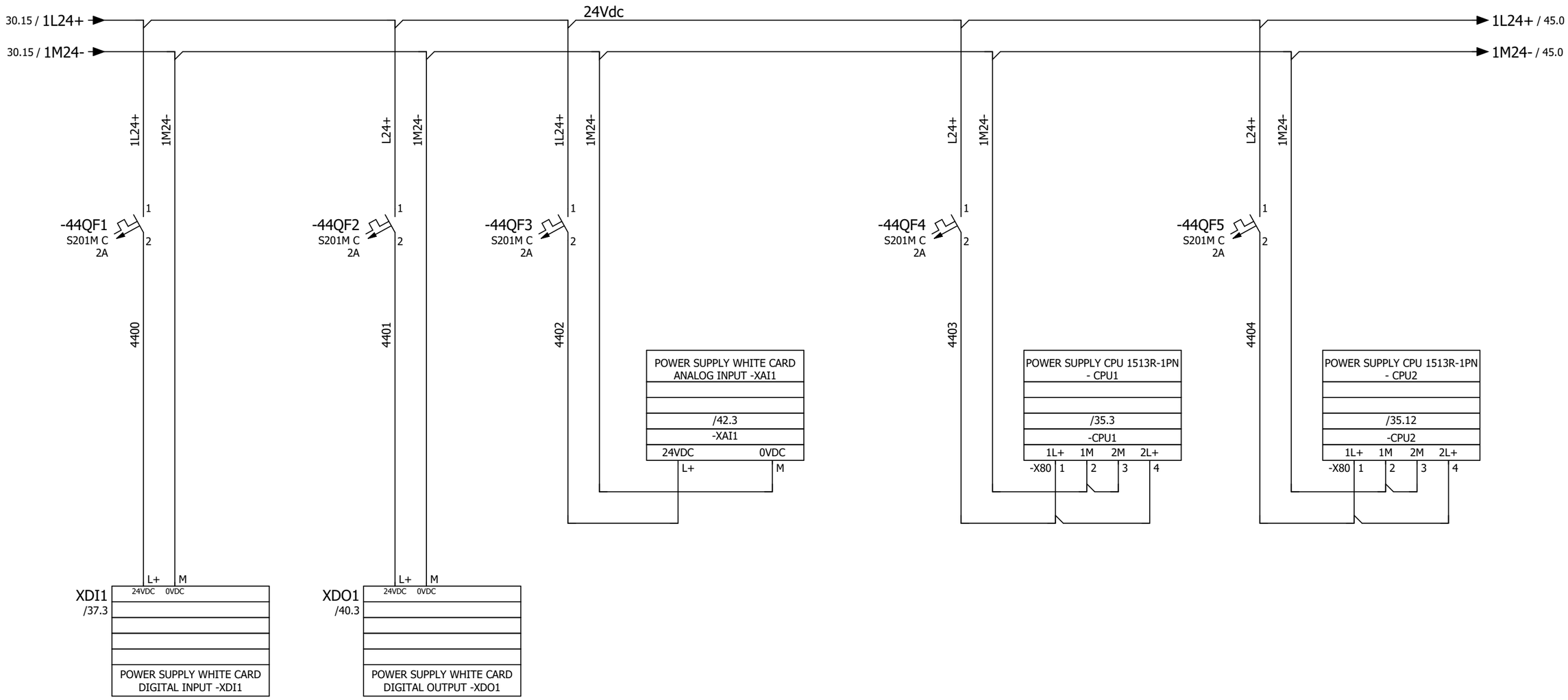


REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

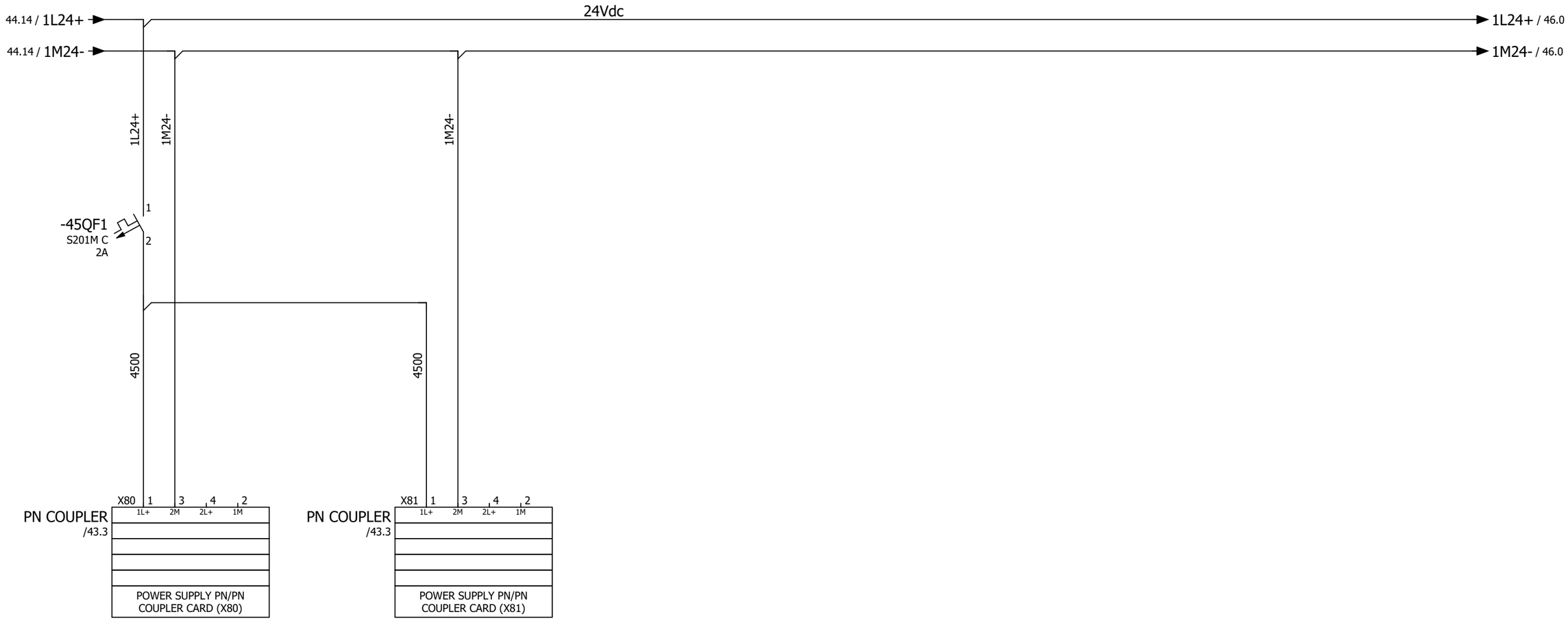
DESCRIPTION
SUMMARY CARD PN COUPLER AND SWITCH SCALANCE

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	43
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	44
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50



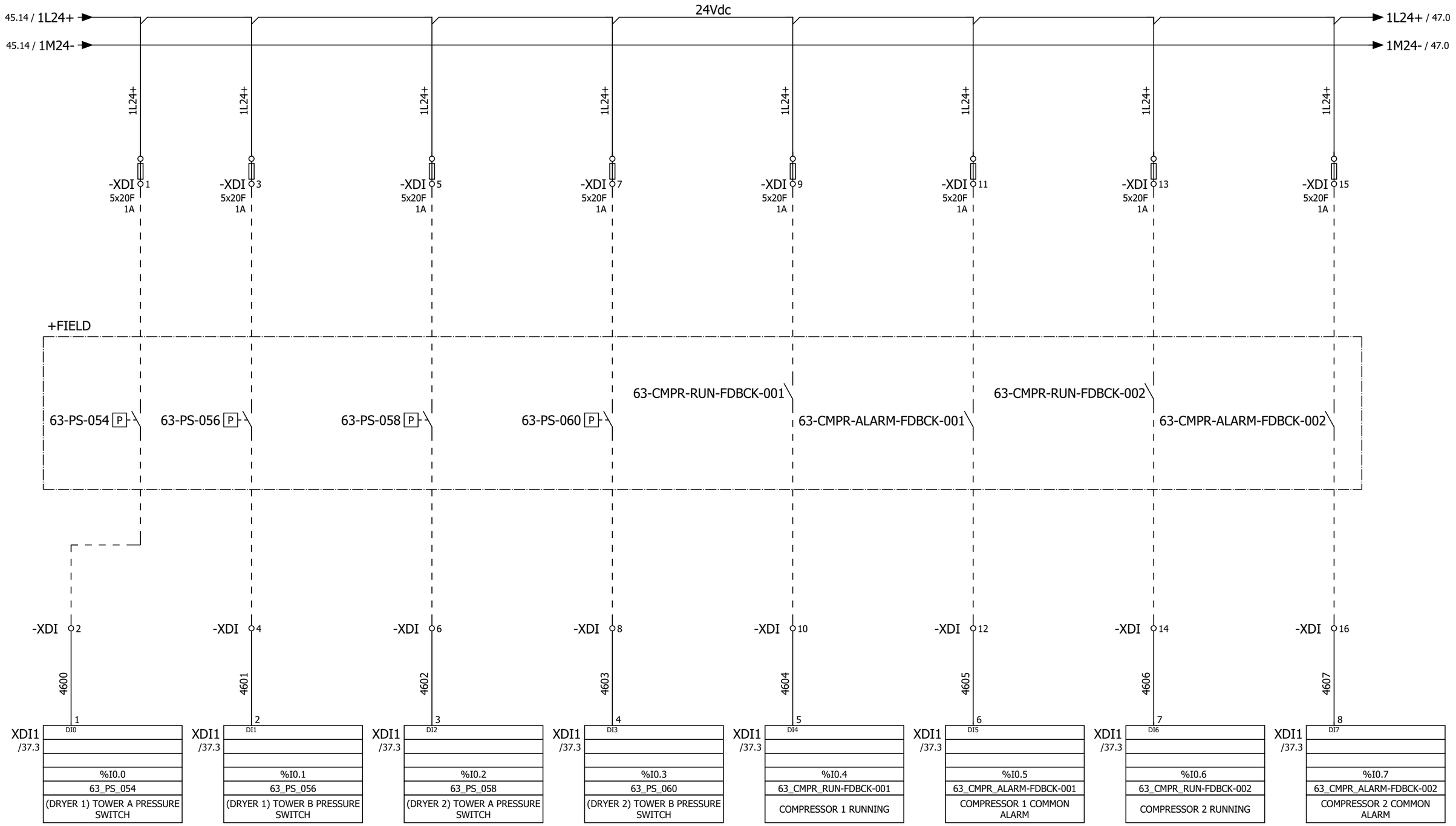
REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 44
DESCRIPTION: POWER SUPPLY CPU AND CARDS I/O RACK	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 45
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50



REV.	DATE	PREPARED	REV.	DATE	PREPARED

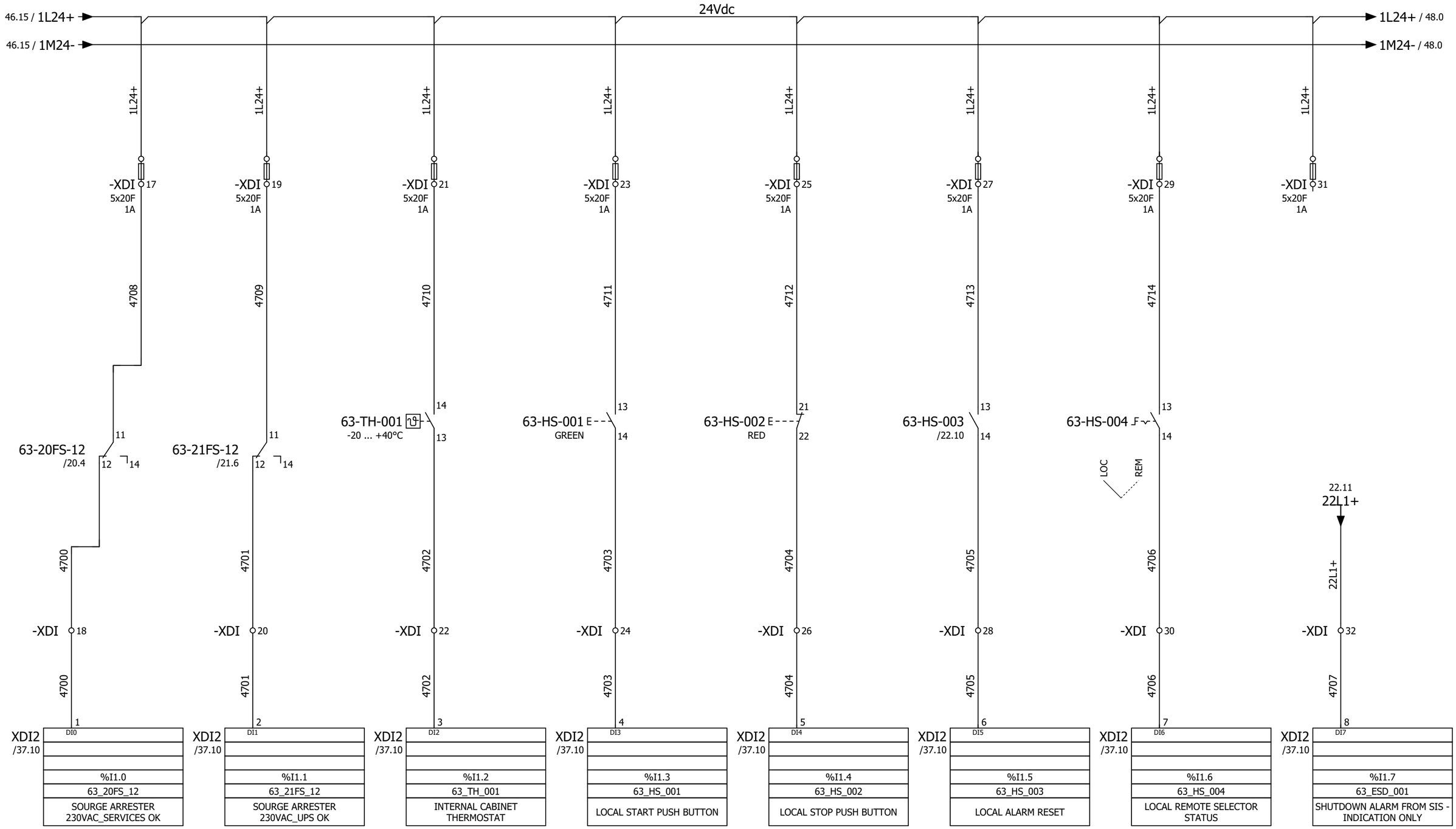
PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 45
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 46
DESCRIPTION POWER SUPPLY PN/PN COUPLER	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50



REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL INPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

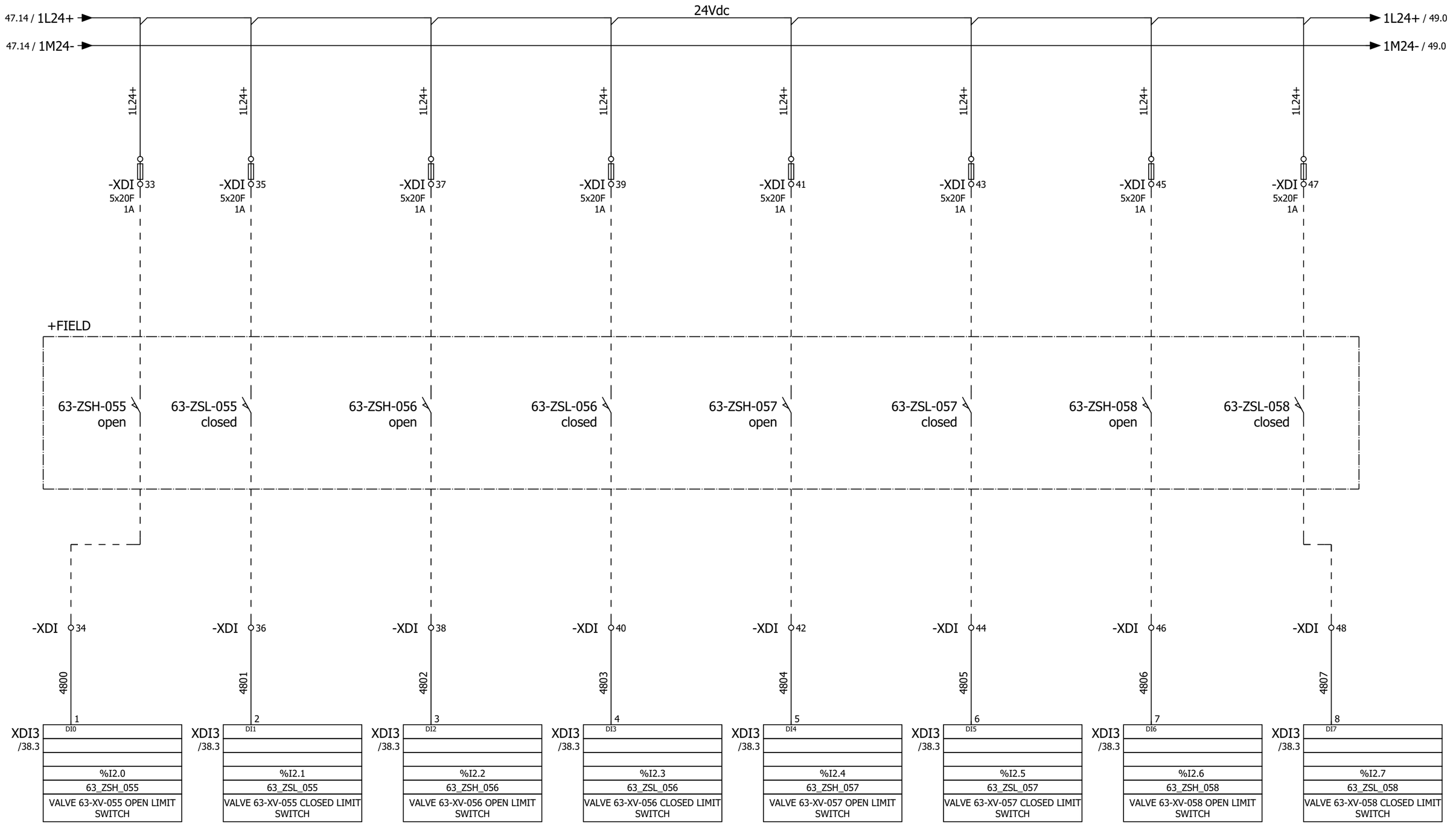
PAGE: 46
NEXT: 47



REV.	DATE	PREPARED	REV.	DATE	PREPARED
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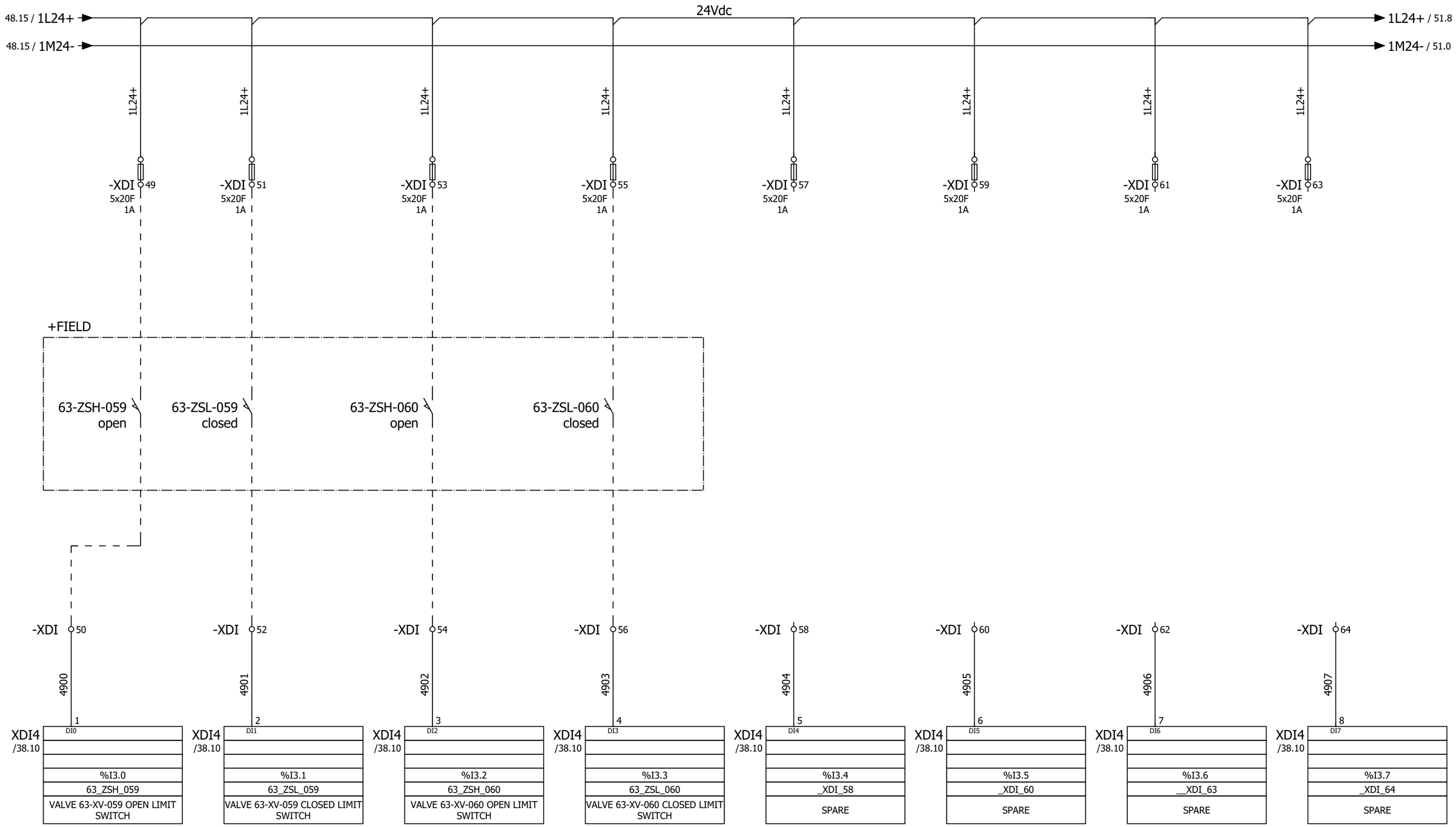
PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL INPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

PAGE: 47
NEXT: 48



REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

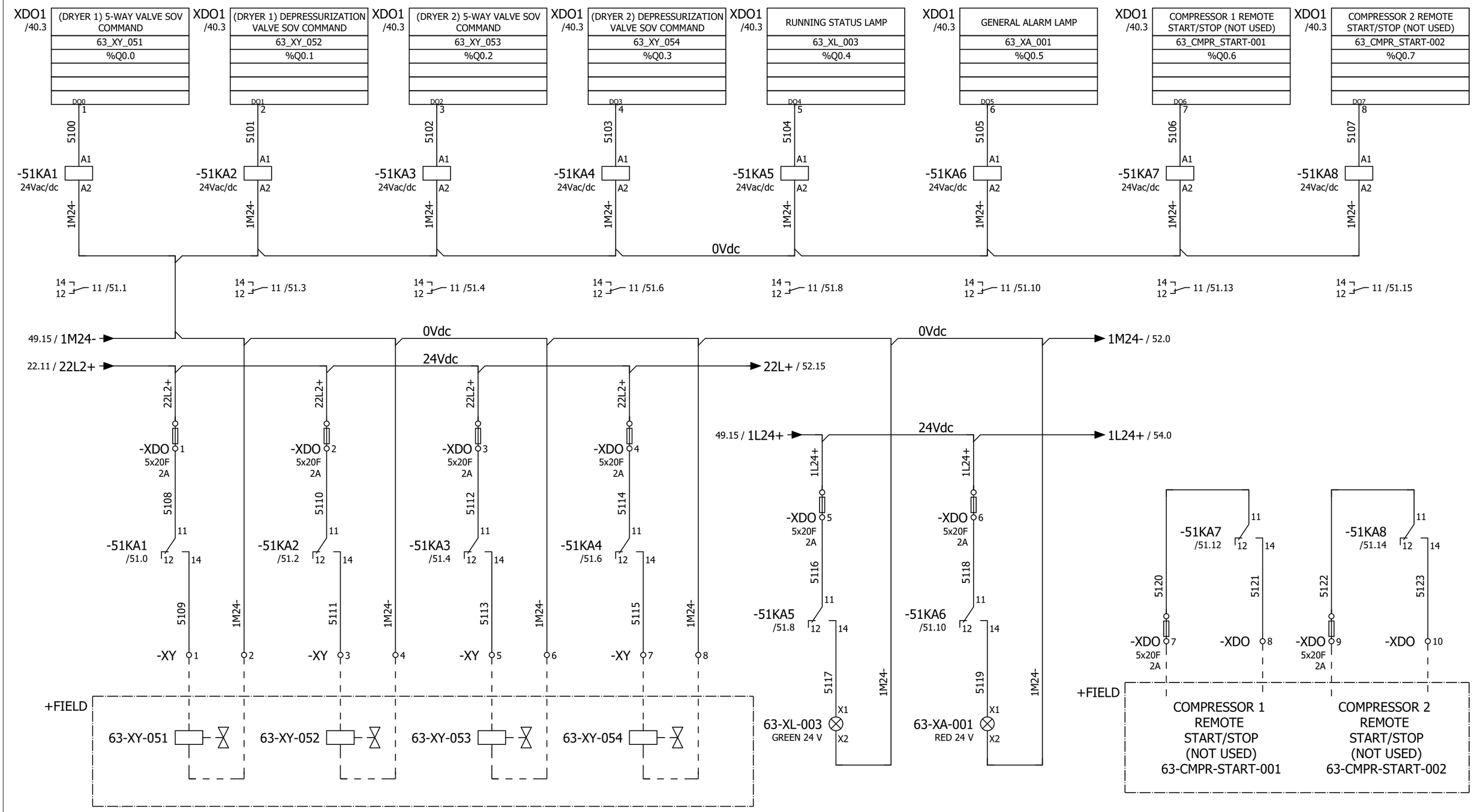
PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
DESCRIPTION: DIGITAL INPUT I/O RACK	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50
			PAGE: 48
			NEXT: 49



REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

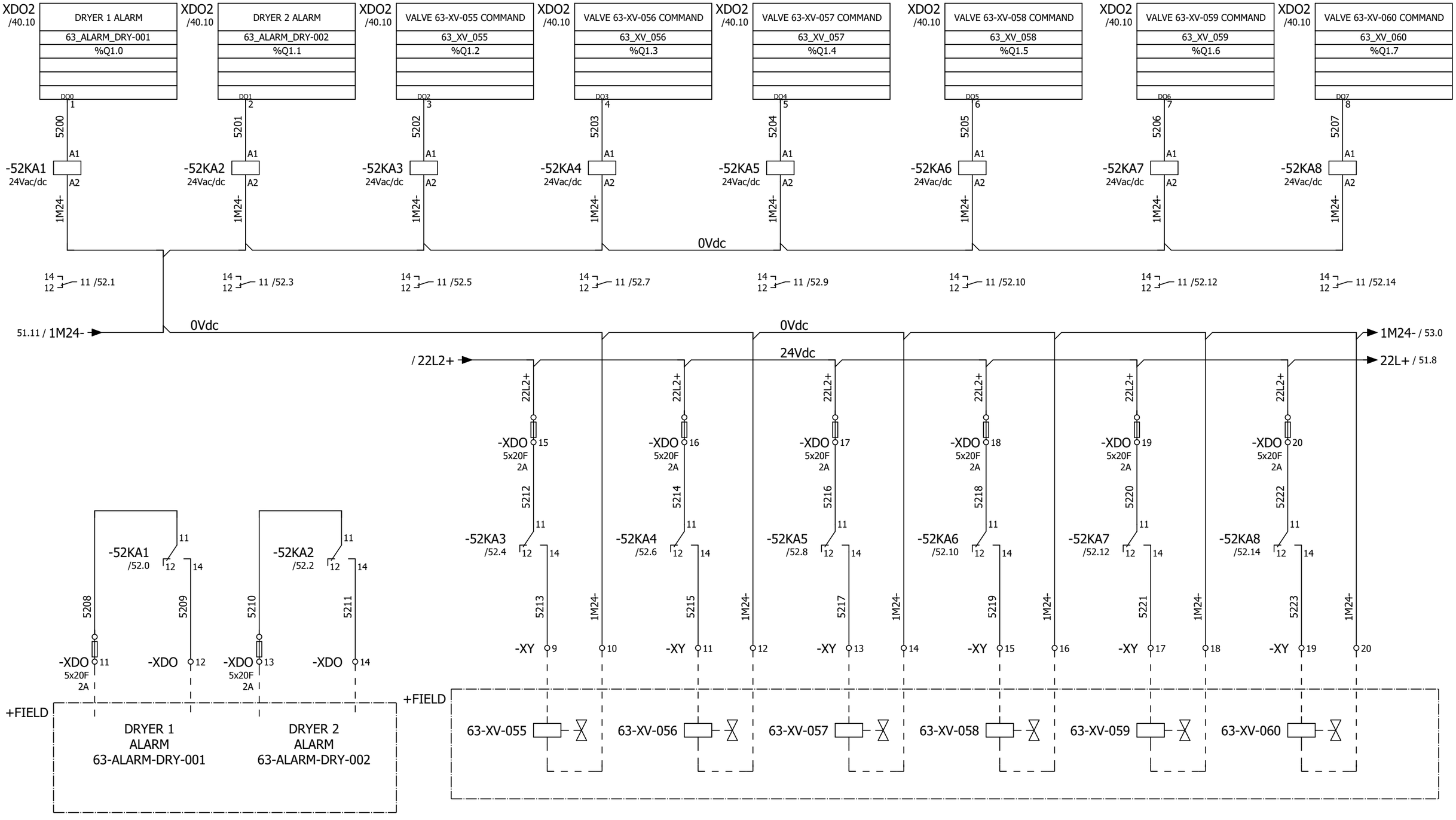
PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL INPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

PAGE	NEXT
49	51



REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

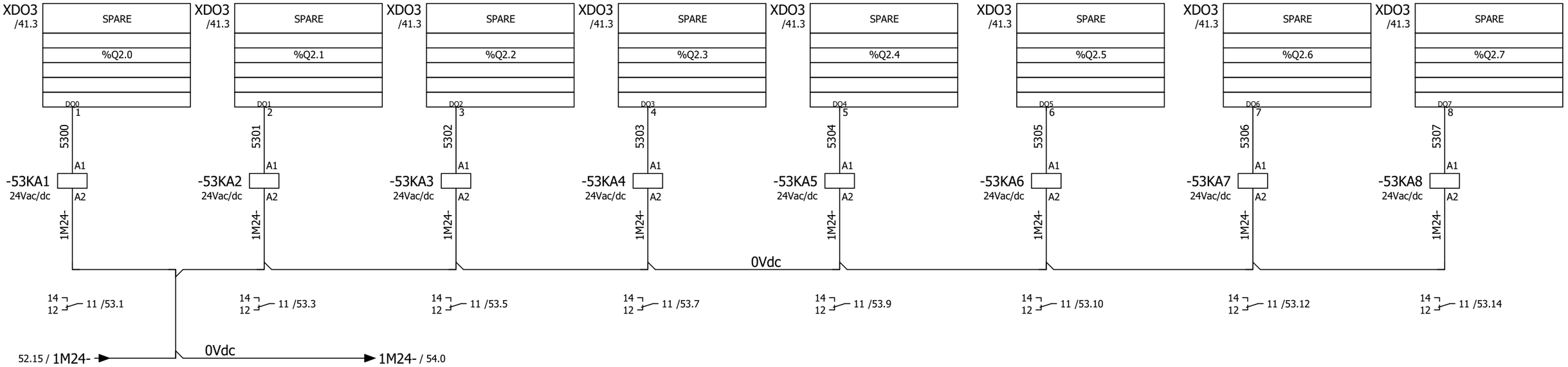
PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL OUTPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50
			PAGE: 51
			NEXT: 52

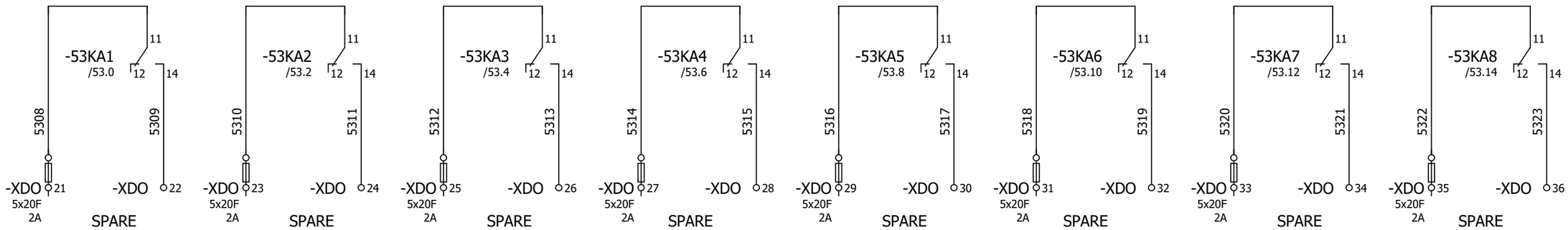


REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL OUTPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50
			PAGE: 52
			NEXT: 53

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15



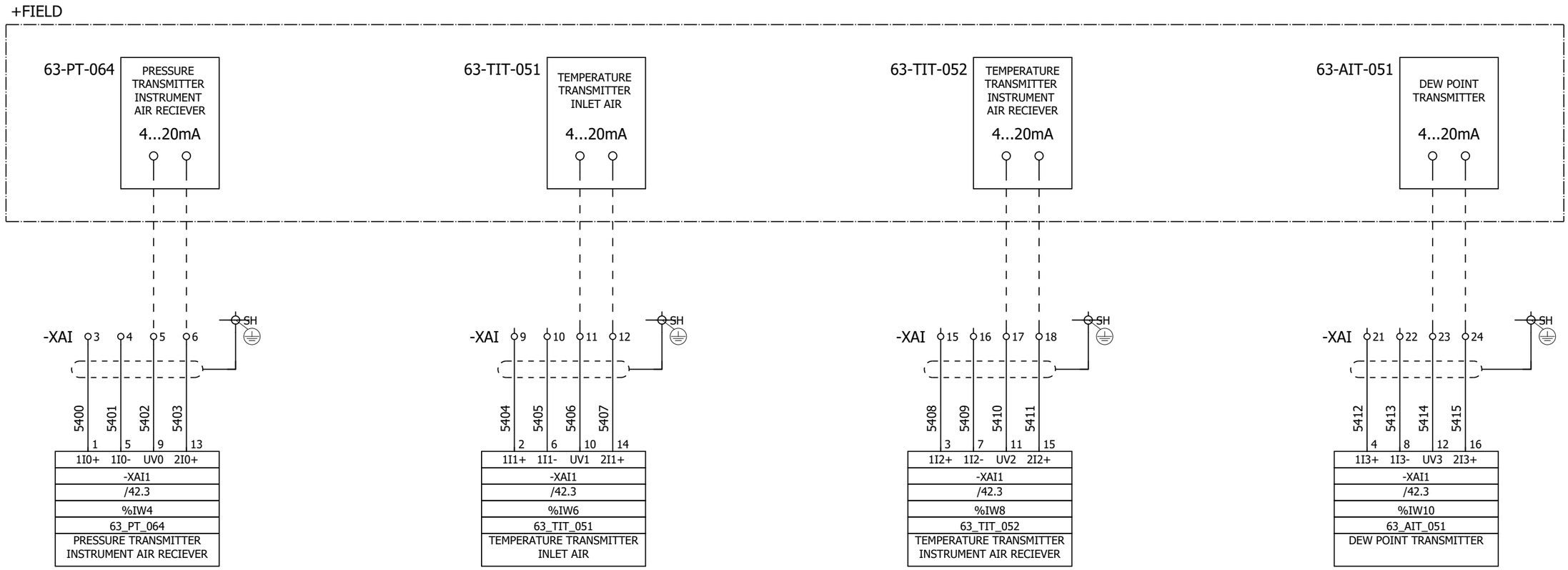


REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL OUTPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

PAGE	NEXT
53	54





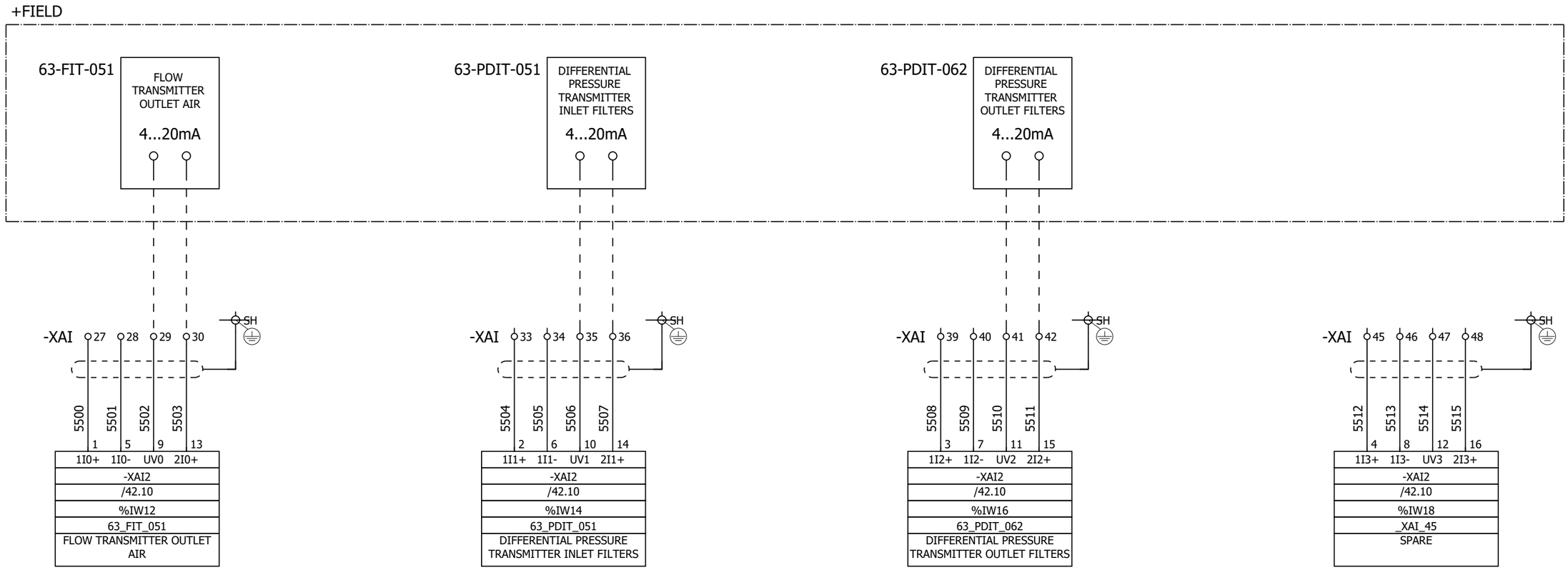
REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
DESCRIPTION: ANALOG INPUT I/O RACK	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

PAGE: 54
NEXT: 55

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15



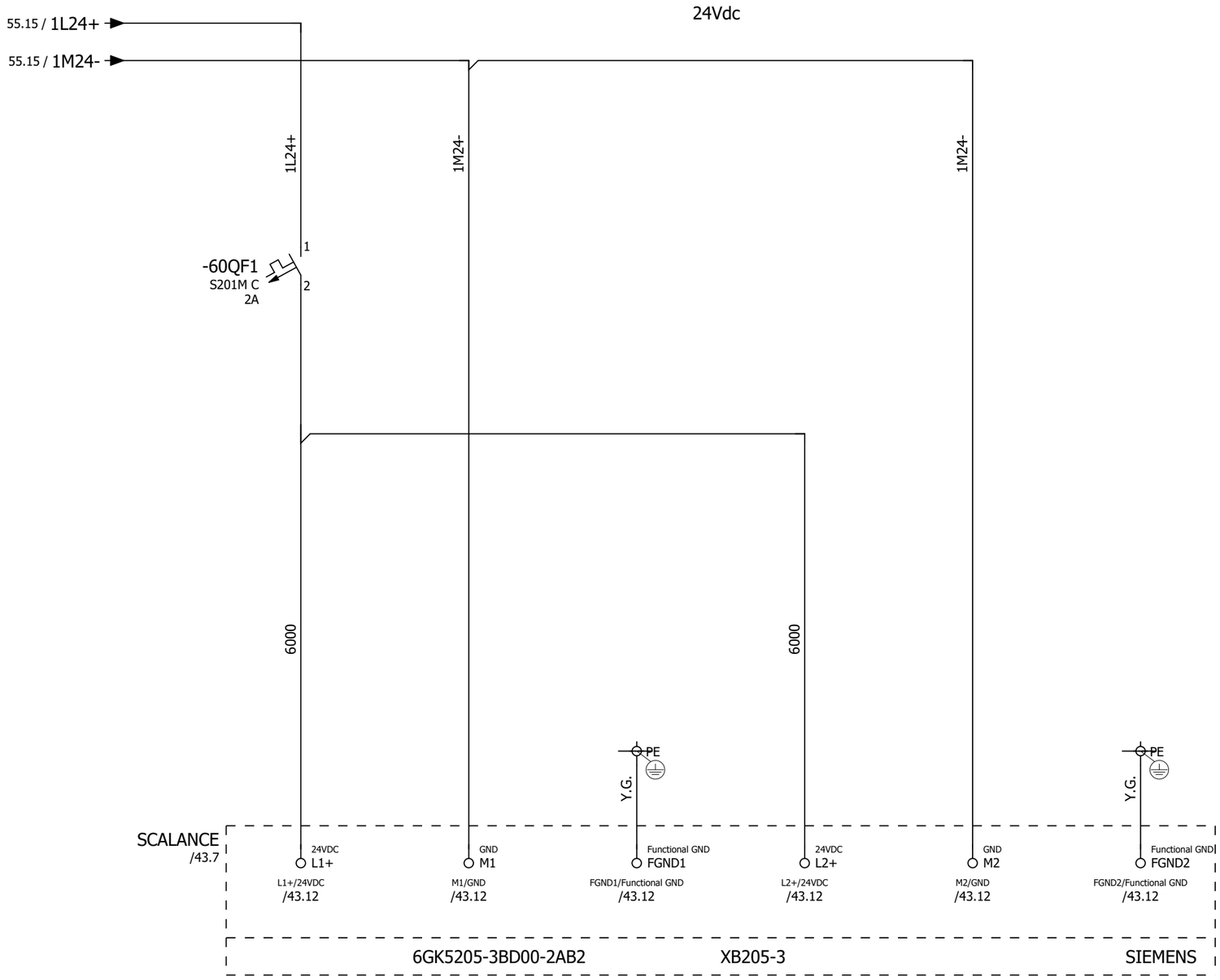


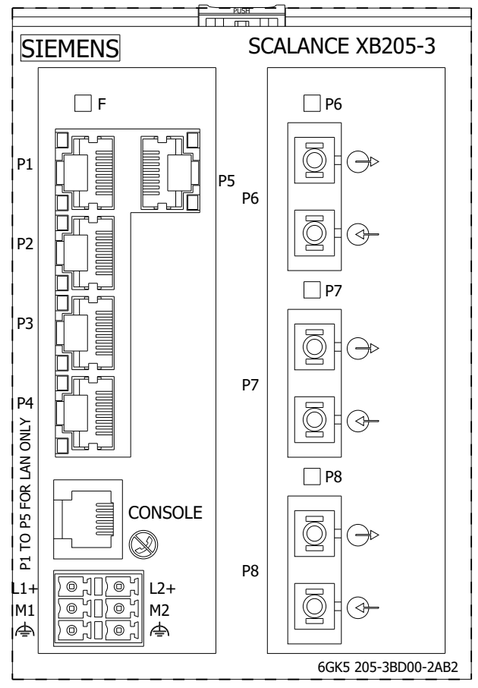
REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 55
DESCRIPTION: ANALOG INPUT I/O RACK	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 60
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

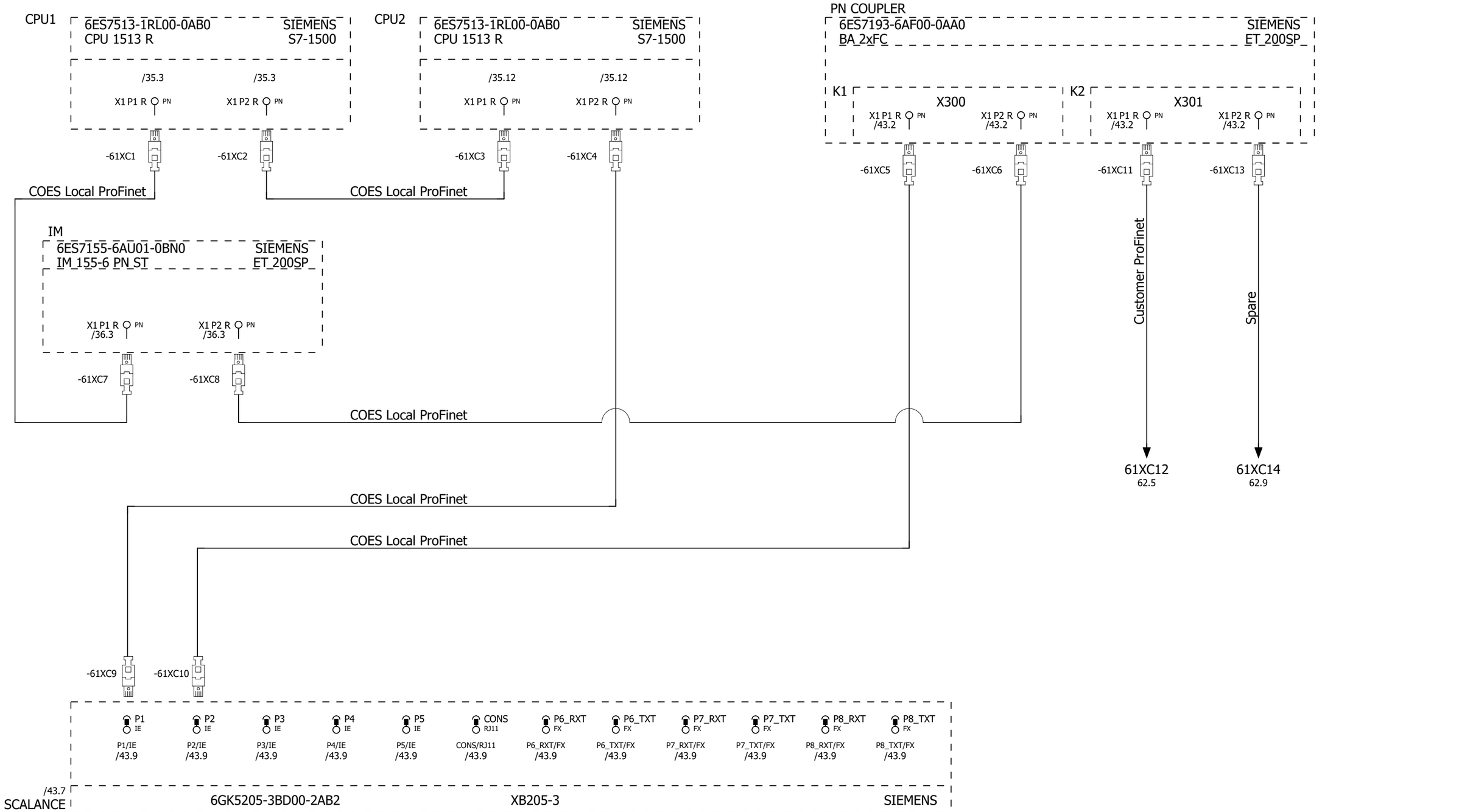




REV.	DATE	PREPARED	REV.	DATE	PREPARED

coes 20th coes 1997 - 2017

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 60
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 61
DESCRIPTION AUXILIARY CIRCUIT SWTCH 5 PORT PROFINET	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

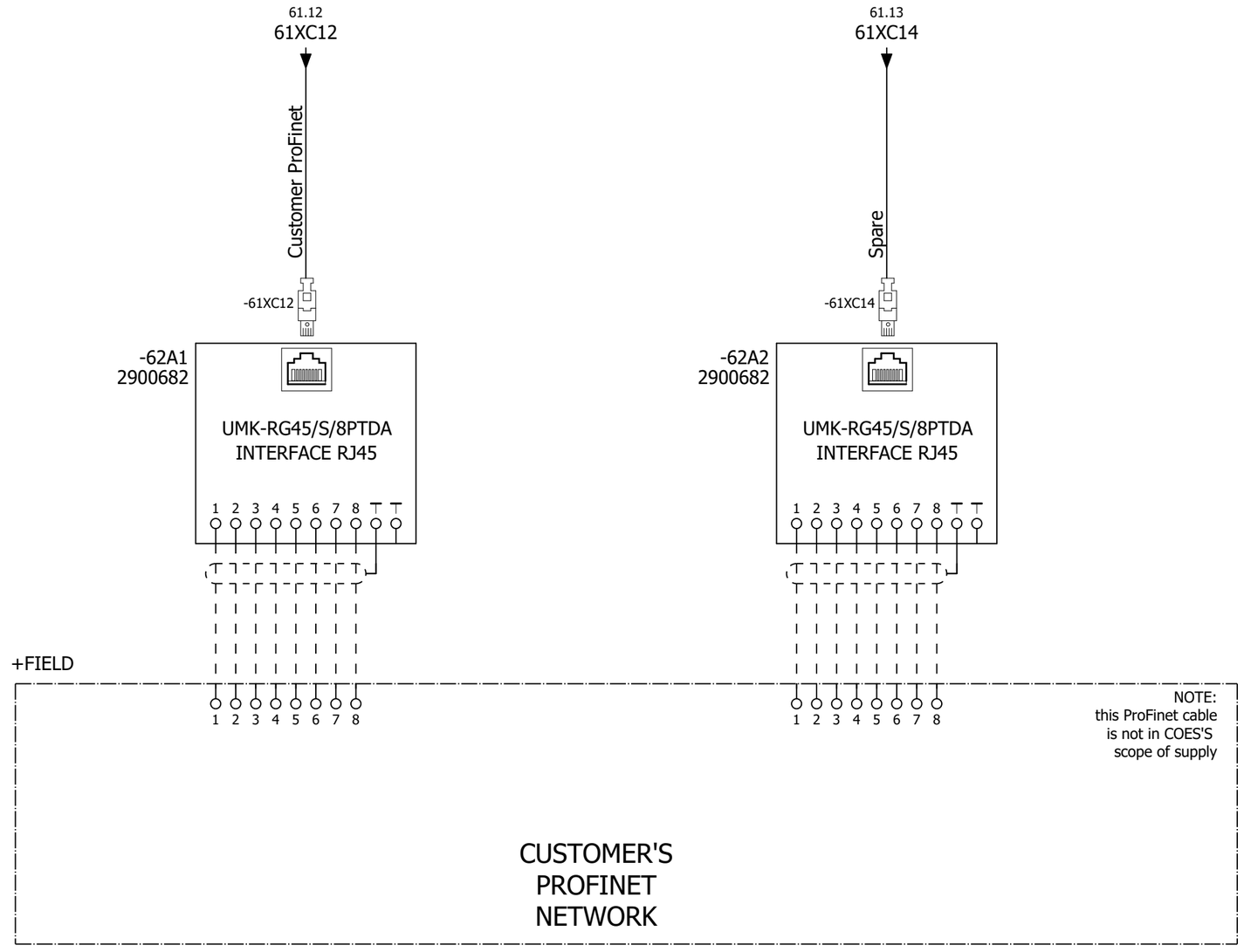


REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
CONNECTION ProfiNet INTERNAL
SWITCHBOARD

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	61
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	62
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50



REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: CONNECTION ProfiNet INTERNAL SWITCHBOARD	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	

PAGE: 62	NEXT: 70	TOTAL SHEETS: 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

TERMINAL STRIP

=DRYER+QE-X1

SWITCHBOARD	DESTIN. DEVICE	SHEET AND COLUMN	/20.2	/20.2	/20.3
		CONNECT.	1	3	
		DEVICE IDENT. CODE	-20QF1	-20QF1	-PE
		WIRING	L230	N230	
	TERMINAL JUM	TERM. TYPE	WDU 10	WDU 10	WPE 10
			-	-	-
		TERM. NUM.	1	2	PE
PLANT	DESTIN. DEVICE	CONNECT.			
		DEVICE IDENT. CODE	-L	-N	

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 70
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 71
DESCRIPTION TERMINAL BOARD -X1	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

TERMINAL STRIP

=DRYER+QE-X2

SWITCHBOARD	DESTIN. DEVICE	SHEET AND COLUMN	/21.3	/21.3	/21.4
		CONNECT.	1	3	
		DEVICE IDENT. CODE	-21QF1	-21QF1	-PE
		WIRING	L230UPS	N230UPS	
	TERMINAL JUM	TERM. TYPE	WDU 10	WDU 10	WPE 10
			-	-	-
		TERM. NUM.	1	2	PE
PLANT	DESTIN. DEVICE	CONNECT.			
		DEVICE IDENT. CODE	-L	-N	

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 71
DESCRIPTION TERMINAL BOARD -X2	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 72
	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

TERMINAL STRIP

=DRYER+QE-XA

Section	Group	Field						
SWITCHBOARD	DESTIN. DEVICE	SHEET AND COLUMN	/22.1	/22.2	/21.14	/22.10	/22.13	/22.13
SWITCHBOARD	DESTIN. DEVICE	CONNECT.			1	13	15/16	14
SWITCHBOARD	DESTIN. DEVICE	DEVICE IDENT. CODE			-21FU2	-22K1	-22KA2	-22KA2
SWITCHBOARD	DESTIN. DEVICE	WIRING			1L24+	1L24+	2211	2212
SWITCHBOARD	TERMINAL JUM	TERM. TYPE	WSI 6	WDU 2.5	WSI 6		WDU 2.5	WDU 2.5
SWITCHBOARD	TERMINAL JUM		-	-	-		-	-
SWITCHBOARD	TERMINAL JUM	TERM. NUM.	1	2	3		4	5
PLANT	DESTIN. DEVICE	CONNECT.	1	2	A1			
PLANT	DESTIN. DEVICE	DEVICE IDENT. CODE	-22KA1	-22KA1	-22K1			

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 72
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 73
DESCRIPTION: TERMINAL BOARD -XA	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

TERMINAL STRIP

=DRYER+QE-XDI

TERMINAL JUM						DESTIN. DEVICE			SWITCHBOARD		
TERM. NUM.	TERM. TYPE	WIRING	DEVICE IDENT. CODE	CONNECT.	SHEET AND COLUMN	DESTIN. DEVICE	CONNECT.	DEVICE IDENT. CODE	PLANT		
1	KDKS 1/35 DB		+FIELD-63-PS-054		/46.1						
2			+FIELD-63-PS-054		/46.1						
3	KDKS 1/35 DB		+FIELD-63-PS-056		/46.2						
4			+FIELD-63-PS-056		/46.2						
5	KDKS 1/35 DB		+FIELD-63-PS-058		/46.4						
6			+FIELD-63-PS-058		/46.4						
7	KDKS 1/35 DB		+FIELD-63-PS-060		/46.6						
8			+FIELD-63-PS-060		/46.6						
9	KDKS 1/35 DB		+FIELD-63-CMPR-RUN-FDBCK-001	11	/46.8						
10			+FIELD-63-CMPR-RUN-FDBCK-001		/46.8						
11	KDKS 1/35 DB		+FIELD-63-CMPR-ALARM-FDBCK-001	12	/46.10						
12			+FIELD-63-CMPR-ALARM-FDBCK-001	11	/46.10						
13	KDKS 1/35 DB		+FIELD-63-CMPR-RUN-FDBCK-002		/46.12						
14			+FIELD-63-CMPR-RUN-FDBCK-002		/46.12						
15	KDKS 1/35 DB		+FIELD-63-CMPR-ALARM-FDBCK-002	12	/46.14						
16			+FIELD-63-CMPR-ALARM-FDBCK-002	14	/46.14						
17	KDKS 1/35 DB	4708	-63-20FS-12	13	/47.0						
18		4700	-63-20FS-12	14	/47.0						
19	KDKS 1/35 DB	4709	-63-21FS-12	13	/47.2						
20		4701	-63-21FS-12	14	/47.2						
21	KDKS 1/35 DB	4710	-63-TH-001	14	/47.4						
22		4702	-63-TH-001	13	/47.4						
23	KDKS 1/35 DB	4711	-63-HS-001	13	/47.6						
24		4703	-63-HS-001	14	/47.6						
25	KDKS 1/35 DB	4712	-63-HS-002	21	/47.8						
26		4704	-63-HS-002	22	/47.8						
27	KDKS 1/35 DB	4713	-63-HS-003	13	/47.10						
28		4705	-63-HS-003	14	/47.10						
29	KDKS 1/35 DB	4714	-63-HS-004	13	/47.12						
30		4706	-63-HS-004	14	/47.12						
31	KDKS 1/35 DB										
32		22L1+	-22K1	14	/22.10						
33	KDKS 1/35 DB		+FIELD-63-ZSH-055		/48.1						
34			+FIELD-63-ZSH-055		/48.1						
35	KDKS 1/35 DB		+FIELD-63-ZSL-055		/48.2						
36			+FIELD-63-ZSL-055		/48.2						
37	KDKS 1/35 DB		+FIELD-63-ZSH-056		/48.4						
38			+FIELD-63-ZSH-056		/48.4						
39	KDKS 1/35 DB		+FIELD-63-ZSL-056		/48.6						
40			+FIELD-63-ZSL-056		/48.6						
				1		PLANT	1	-45QF1			
				1		DESTIN. DEVICE	1	-XDI1			
							2	-XDI1			
				2			3	-XDI1			
							4	-XDI1			
				3			5	-XDI1			
							6	-XDI1			
				4			7	-XDI1			
							8	-XDI1			
				1			1	-XDI2			
							2	-XDI2			
				2			3	-XDI2			
				3			4	-XDI2			
				4			5	-XDI2			
				5			6	-XDI2			
				6			7	-XDI2			
				7			8	-XDI2			
				8			1	-XDI3			
				1			2	-XDI3			
				2			3	-XDI3			
				3			4	-XDI3			
				4							

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
TERMINAL BOARD -XDI

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	73
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	74
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

TERMINAL STRIP

=DRYER+QE-XDI

TERM. NUM.	SWITCHBOARD – DESTIN. DEVICE: SHEET AND COLUMN	SWITCHBOARD – DESTIN. DEVICE: CONNECT.	SWITCHBOARD – DESTIN. DEVICE: DEVICE IDENT. CODE	WIRING	TERMINAL JUM: TERM. TYPE	PLANT – DESTIN. DEVICE: CONNECT.	PLANT – DESTIN. DEVICE: DEVICE IDENT. CODE
41	/48.8		+FIELD-63-ZSH-057		KDKS 1/35 DB		
42	/48.8		+FIELD-63-ZSH-057			5	-XDI3
43	/48.10		+FIELD-63-ZSL-057		KDKS 1/35 DB		
44	/48.10		+FIELD-63-ZSL-057			6	-XDI3
45	/48.12		+FIELD-63-ZSH-058		KDKS 1/35 DB		
46	/48.12		+FIELD-63-ZSH-058			7	-XDI3
47	/48.14		+FIELD-63-ZSL-058		KDKS 1/35 DB		
48	/48.14		+FIELD-63-ZSL-058			8	-XDI3
49	/49.1		+FIELD-63-ZSH-059		KDKS 1/35 DB		
50	/49.1		+FIELD-63-ZSH-059			1	-XDI4
51	/49.2		+FIELD-63-ZSL-059		KDKS 1/35 DB		
52	/49.2		+FIELD-63-ZSL-059			2	-XDI4
53	/49.4		+FIELD-63-ZSH-060		KDKS 1/35 DB		
54	/49.4		+FIELD-63-ZSH-060			3	-XDI4
55	/49.6		+FIELD-63-ZSL-060		KDKS 1/35 DB		
56	/49.6		+FIELD-63-ZSL-060			4	-XDI4
57					KDKS 1/35 DB		
58						5	-XDI4
59					KDKS 1/35 DB		
60						6	-XDI4
61					KDKS 1/35 DB		
62						7	-XDI4
63					KDKS 1/35 DB	5	-XDO
64						8	-XDI4

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 74
DESCRIPTION: TERMINAL BOARD -XDI	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 75
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

TERMINAL STRIP

=DRYER+QE-XDO

TERM. NUM.	SWITCHBOARD – DESTIN. DEVICE: SHEET AND COLUMN	CONNECT.	DEVICE IDENT. CODE	WIRING	TERMINAL JUM: TERM. TYPE	JUM	PLANT – DESTIN. DEVICE: CONNECT.	DEVICE IDENT. CODE
1	/51.1	11	-51KA1	5108	WSI 6	•	24	-22K1
2	/51.3	11	-51KA2	5110	WSI 6	•		
3	/51.4	11	-51KA3	5112	WSI 6	•		
4	/51.6	11	-51KA4	5114	WSI 6	•		
5	/51.8	11	-51KA5	5116	WSI 6	•	63	-XDI
6	/51.10	11	-51KA6	5118	WSI 6	•	1	-XAI
7	/51.12				WSI 6	-	11	-51KA7
8	/51.13	14	-51KA7	5121	WDU 2.5	-		
9	/51.14				WSI 6	-	11	-51KA8
10	/51.15	14	-51KA8	5123	WDU 2.5	-		
11	/52.0				WSI 6	-	11	-52KA1
12	/52.1	14	-52KA1	5209	WDU 2.5	-		
13	/52.2				WSI 6	-	11	-52KA2
14	/52.3	14	-52KA2	5211	WDU 2.5	-		
15	/52.5	11	-52KA3	5212	WSI 6	•		
16	/52.7	11	-52KA4	5214	WSI 6	•		
17	/52.9	11	-52KA5	5216	WSI 6	•		
18	/52.10	11	-52KA6	5218	WSI 6	•		
19	/52.12	11	-52KA7	5220	WSI 6	•		
20	/52.14	11	-52KA8	5222	WSI 6	•		
21					WSI 6	-	11	-53KA1
22	/53.1	14	-53KA1	5309	WDU 2.5	-		
23					WSI 6	-	11	-53KA2
24	/53.3	14	-53KA2	5311	WDU 2.5	-		
25					WSI 6	-	11	-53KA3
26	/53.5	14	-53KA3	5313	WDU 2.5	-		
27					WSI 6	-	11	-53KA4
28	/53.7	14	-53KA4	5315	WDU 2.5	-		
29					WSI 6	-	11	-53KA5
30	/53.9	14	-53KA5	5317	WDU 2.5	-		
31					WSI 6	-	11	-53KA6
32	/53.10	14	-53KA6	5319	WDU 2.5	-		
33					WSI 6	-	11	-53KA7
34	/53.12	14	-53KA7	5321	WDU 2.5	-		
35					WSI 6	-	11	-53KA8
36	/53.14	14	-53KA8	5323	WDU 2.5	-		

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 75
DESCRIPTION: TERMINAL BOARD -XDO	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 76
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

TERMINAL STRIP

=DRYER+QE-XY

SWITCHBOARD – DESTIN. DEVICE: SHEET AND COLUMN	CONNECT.	DEVICE IDENT. CODE	WIRING	TERMINAL JUM: TERM. TYPE	(jumper)	TERM. NUM.	PLANT – DESTIN. DEVICE: CONNECT.	DEVICE IDENT. CODE
/51.1	14	-51KA1	5109	WDU 2.5	-	1		+FIELD-63-XY-051
/51.0	A2	-51KA1	1M24-	WDU 2.5	•	2		+FIELD-63-XY-051
/51.2	A2	-51KA2	1M24-					
/51.3	14	-51KA2	5111	WDU 2.5	-	3		+FIELD-63-XY-052
				WDU 2.5	•	4		+FIELD-63-XY-052
/51.4	14	-51KA3	5113	WDU 2.5	-	5		+FIELD-63-XY-053
				WDU 2.5	•	6		+FIELD-63-XY-053
/51.6	14	-51KA4	5115	WDU 2.5	-	7		+FIELD-63-XY-054
/51.9	X2	-63-XL-003	1M24-	WDU 2.5	•	8		+FIELD-63-XY-054
/52.5	14	-52KA3	5213	WDU 2.5	-	9		+FIELD-63-XV-055
/52.0	A2	-52KA1	1M24-	WDU 2.5	•	10		+FIELD-63-XV-055
/52.2	A2	-52KA2	1M24-					
/52.7	14	-52KA4	5215	WDU 2.5	-	11		+FIELD-63-XV-056
				WDU 2.5	•	12		+FIELD-63-XV-056
/52.9	14	-52KA5	5217	WDU 2.5	-	13		+FIELD-63-XV-057
				WDU 2.5	•	14		+FIELD-63-XV-057
/52.10	14	-52KA6	5219	WDU 2.5	-	15		+FIELD-63-XV-058
				WDU 2.5	•	16		+FIELD-63-XV-058
/52.12	14	-52KA7	5221	WDU 2.5	-	17		+FIELD-63-XV-059
				WDU 2.5	•	18		+FIELD-63-XV-059
/52.14	14	-52KA8	5223	WDU 2.5	-	19		+FIELD-63-XV-060
/53.0	A2	-53KA1	1M24-	WDU 2.5	•	20		+FIELD-63-XV-060
/53.2	A2	-53KA2	1M24-					

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

PLANT	PREPARED	CHECKED	PLANT	PAGE
COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	ASSOLARI O.	TIRABOSCHI T.	= DRYER	76
DESCRIPTION	DATE: 08.05.2024	APPROVED	LOCATION: + QE	NEXT: 77
TERMINAL BOARD -XY	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

TERMINAL STRIP

=DRYER+QE-XAI

SWITCHBOARD	TERMINAL JUM	TERM. NUM.	TERM. TYPE	WIRING	DESTIN. DEVICE: DEVICE IDENT. CODE	DESTIN. DEVICE: CONNECT.	SHEET AND COLUMN
		1	KDKS 1/35 DB				
		2		1M24-	-52KA1	A2	/52.0
				1M24-	-52KA2	A2	/52.2
		3	WDU 2.5	5400	-XAI1	1	/54.1
		4	WDU 2.5	5401	-XAI1	5	/54.1
		5	WDU 2.5	5402	-XAI1	9	/54.2
		6	WDU 2.5	5403	-XAI1	13	/54.2
		7	KDKS 1/35 DB				
		8					
		9	WDU 2.5				
		10	WDU 2.5				
		11	WDU 2.5	0Vdc	+FIELD-63-TIT-051		/54.6
		12	WDU 2.5	0Vdc	+FIELD-63-TIT-051		/54.6
		13	KDKS 1/35 DB				
		14					
		15	WDU 2.5				
		16	WDU 2.5				
		17	WDU 2.5	0Vdc	+FIELD-63-TIT-052		/54.10
		18	WDU 2.5	0Vdc	+FIELD-63-TIT-052		/54.10
		19	KDKS 1/35 DB				
		20					
		21	WDU 2.5				
		22	WDU 2.5				
		23	WDU 2.5	0Vdc	+FIELD-63-AIT-051		/54.14
		24	WDU 2.5	0Vdc	+FIELD-63-AIT-051		/54.14
		25	KDKS 1/35 DB				
		26					
		27	WDU 2.5	5500	-XAI2	1	/55.1
		28	WDU 2.5	5501	-XAI2	5	/55.1
		29	WDU 2.5	5502	-XAI2	9	/55.2
		30	WDU 2.5	5503	-XAI2	13	/55.2
		31	KDKS 1/35 DB				
		32					
		33	WDU 2.5				
		34	WDU 2.5				
		35	WDU 2.5	0Vdc	+FIELD-63-PDIT-051		/55.6
		36	WDU 2.5	0Vdc	+FIELD-63-PDIT-051		/55.6
		37	KDKS 1/35 DB				
		38					
		39	WDU 2.5				

PLANT	DESTIN. DEVICE: CONNECT.	DESTIN. DEVICE: DEVICE IDENT. CODE
	6	-XDO
		+FIELD-63-PT-064
		+FIELD-63-PT-064
	2	-XAI1
	6	-XAI1
	10	-XAI1
	14	-XAI1
	3	-XAI1
	7	-XAI1
	11	-XAI1
	15	-XAI1
	4	-XAI1
	8	-XAI1
	12	-XAI1
	16	-XAI1
		+FIELD-63-FIT-051
		+FIELD-63-FIT-051
	2	-XAI2
	6	-XAI2
	10	-XAI2
	14	-XAI2
	3	-XAI2

REV.	DATE	PREPARED	REV.	DATE	PREPARED

coes 20th coes 1997 - 2017

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER
DESCRIPTION TERMINAL BOARD -XAI	DATE 08.05.2024	APPROVED	LOCATION + QE
	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD	

PAGE	NEXT	TOTAL SHEETS
77	78	50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

TERMINAL STRIP

=DRYER+QE-XAI

SWITCHBOARD	DESTIN. DEVICE	SHEET AND COLUMN		/55.10	/55.10		/60.3				
SWITCHBOARD	DESTIN. DEVICE	CONNECT.					M1				
SWITCHBOARD	DESTIN. DEVICE	DEVICE IDENT. CODE		+FIELD-63-PDIT-062	+FIELD-63-PDIT-062		-SCALANCE				
SWITCHBOARD	DESTIN. DEVICE	WIRING		0Vdc	0Vdc		1M24-				
SWITCHBOARD	TERMINAL JUM	TERM. TYPE	WDU 2.5	WDU 2.5	WDU 2.5	KDKS 1/35 DB		WDU 2.5	WDU 2.5	WDU 2.5	WDU 2.5
SWITCHBOARD	TERMINAL JUM		-	-	-	-	-	-	-	-	-
SWITCHBOARD	TERMINAL JUM	TERM. NUM.	40	41	42	43	44	45	46	47	48
PLANT	DESTIN. DEVICE	CONNECT.	7	11	15	1		4	8	12	16
PLANT	DESTIN. DEVICE	DEVICE IDENT. CODE	-XAI2	-XAI2	-XAI2	-60QF1		-XAI2	-XAI2	-XAI2	-XAI2

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
TERMINAL BOARD -XAI

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	78
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	79
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

TERMINAL STRIP

=DRYER+QE-XCOM

			1	2	3	4	5	6	7	8	9	10
SWITCHBOARD	DESTIN. DEVICE	SHEET AND COLUMN	/21.9					/21.10				
		CONNECT.	2					-				
		DEVICE IDENT. CODE	-21QF3					-21GS1				
		WIRING	1L24+					1M24-				
	TERMINAL JUM	TERM. TYPE	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V
		TERM. NUM.	1	2	3	4	5	6	7	8	9	10
PLANT	DESTIN. DEVICE	CONNECT.					1					X2
		DEVICE IDENT. CODE					-21FU2					-63-XL-004

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 79
DESCRIPTION: TERMINAL BOARD -XCOM	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 85
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

COMPONENT LIST

COMPONENT TAG	QUANTITY	DESCRIPTION	ARTICLE CODE	CONSTRUCTOR	SHEET
-63-20FS-12	1	SPJ P-VMS 280 Fm R surge arrester Type 2 single-phase for L-(PE)N systems	SPJ316227	SIPF	20
-63-21FS-12	1	SPJ P-VMS 280 Fm R surge arrester Type 2 single-phase for L-(PE)N systems	SPJ316227	SIPF	21
-63-HS-001	1	Green flush complete pushbutton Ø22 spring return 1NO "unmarked"	SE.XB4BA31	SCHNEIDER	47
-63-HS-002	1	Red flush complete pushbutton Ø22 spring return 1NC "unmarked"	SE.XB4BA42	SCHNEIDER	47
-63-HS-003	1	Blue flush complete pushbutton Ø22 spring return 1NO	SE.XB4BA61	SCHNEIDER	22
-63-HS-003	1	Harmony XB4/XB5 1NO contact	SE.ZBE101	SCHNEIDER	22
-63-HS-004	1	Black selector switch Ø22 2-position stay put 1NO+1NC 600V	SE.XB4BD25	SCHNEIDER	47
-63-SBM-001	1	Red Ø40 Emergency stop, switching off Ø22 latching turn release 2NC+1NO	SE.XB4BS84441	SCHNEIDER	22
-63-SBM-001	1	Round guard for Ø 40 Emergency stop, plastic, yellow, 63.5 mm	SE.ZB4BZ1905	SCHNEIDER	22
-63-TH-001	1	Panel thermostat, 1 contacts NO (-20...+40)°C	FIN.7T.81.0.000.2301	FINDER	47
-63-XA-001	1	Red complete pilot light Ø22 plain lens with integral LED 24V	SE.XB4BVB4	SCHNEIDER	51
-63-XL-001	1	White complete pilot light Ø22 plain lens with integral LED 230...240V	SE.XB4BVM1	SCHNEIDER	20
-63-XL-002	1	White complete pilot light Ø22 plain lens with integral LED 230...240V	SE.XB4BVM1	SCHNEIDER	21
-63-XL-003	1	Green complete pilot light Ø22 plain lens with integral LED 24V	SE.XB4BVB3	SCHNEIDER	51
-63-XL-004	1	White complete pilot light Ø22 plain lens with integral LED 24V	SE.XB4BVB1	SCHNEIDER	21
-62A1	1	UMK-RJ45/S/8PTDA - VARIOFACE module for connecting a RJ45 socket with spring-cage double connection terminal blocks in direct plug-in method.	PXC.2900682	PHOENIX CONTACT	62
-62A2	1	UMK-RJ45/S/8PTDA - VARIOFACE module for connecting a RJ45 socket with spring-cage double connection terminal blocks in direct plug-in method.	PXC.2900682	PHOENIX CONTACT	62
-CPU1	1	SIMATIC S7-1500R CPU 1513R-1 PN, 300KB program/1,5MB data	SIE.6ES7513-1RL00-0AB0	SIEMENS	35
-CPU1	1	SIMATIC S7 MEMORY CARD, 24 MB	SIE.6ES7954-8LF03-0AA0	SIEMENS	35
-CPU2	1	SIMATIC S7-1500R CPU 1513R-1 PN, 300KB program/1,5MB data	SIE.6ES7513-1RL00-0AB0	SIEMENS	35
-CPU2	1	SIMATIC S7 MEMORY CARD, 24 MB	SIE.6ES7954-8LF03-0AA0	SIEMENS	35
-20E1	1	HEATER 100W 230VAC 90X80X110	HJSHT100	ALFA PLASTIC	20
-20FA4	1	Residual current device DDA202 type AC 25A 30mA - 2P	ABB.2CSB202001R1250	ABB	20
-20FU1	1	FUSE HOLDER 2P 10X38 , 32A 690V	LOV.FB01F2P	LOVATO	20
-20FU1	2	CYLINDRICAL FUSE C10G2 10x38, GG, 2A, 500V AC	KMC10G2	EATON BUSSMAN	20
-20FU2	1	FUSE HOLDER TYPE 2P 22x58 690VAC - 100/125A	Q25802	ETI	20
-20FU2	2	FUSE gL/gG 22x58 125A	gl258125	OMEGA	20
-21FU1	1	FUSE HOLDER 2P 10X38 , 32A 690V	LOV.FB01F2P	LOVATO	21

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

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PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER / PAGE: 85
DESCRIPTION: COMPONENT LIST	DATE: 08.05.2024	APPROVED:	LOCATION: + QE / NEXT: 86
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

COMPONENT LIST

COMPONENT TAG	QUANTITY	DESCRIPTION	ARTICLE CODE	CONSTRUCTOR	SHEET
-21FU1	2	CYLINDRICAL FUSE C10G2 10x38, GG, 2A, 500V AC	KMC10G2	EATON BUSSMAN	21
-21FU2	1	FUSE HOLDER 1P 10X38 , 32A 690V	LOV.FB01F1P	LOVATO	21
-21FU2	1	CYLINDRICAL FUSE C10G2 10x38, GG, 2A, 500V AC	KMC10G2	EATON BUSSMAN	21
-21FU3	1	FUSE HOLDER TYPE 2P 22x58 690VAC - 100/125A	Q25802	ETI	21
-21FU3	2	FUSE gL/gG 22x58 125A	gl258125	OMEGA	21
-21GS1	1	TRIO-PS-2G/1AC/24DC/20 Primary-switched TRIO POWER power supply input: 100VAC...240VAC single-phase, output: 24 V DC/20 A	PXC.2903151	PHOENIX CONTACT	21
-20H1	1	Plafoniera lineare a led, 110÷240V AC, 50/60HZ,600 lm, 368mm	050PEL3C	NEW ELFIN	20
-IM	1	ET 200SP PROFINET INTERFACE MODULE IM155-6PN/2 HF , INCLUDING SERVER MODULE (6ES7193-6PA00-0AA0	SIE.6ES7155-6AU01-0CN0	SIEMENS	36
-IM	1	SIMATIC ET 200SP, BUSADAPTER BA 2X RJ45, 2 RJ45 SOCKETS FOR PROFINET	SIE.6ES7193-6AR00-0AA0	SIEMENS	36
-22K1	1	SIRIUS safety relay Basic unit Standard series Relay enabling circuits 3 NO contacts plus Relay signaling circuit 1 NC contact Us = 24 V AC/DC screw terminal	SIE.3SK1111-1AB30	SIEMENS	22
-22KA1	1	SIL 2 - SIL 3 Digital Relay Output Loop Powered DIN-Rail and terminal board Models D5244D - 2 channels relay output ,provides 2 port isolation (input/output) Supply 24Vdc	GMI.D5244D	gmi	22
-22KA2	1	SIL 2 - SIL 3 Digital Relay Output Loop Powered DIN-Rail and terminal board Models D5244D - 2 channels relay output ,provides 2 port isolation (input/output) Supply 24Vdc	GMI.D5244D	gmi	22
-51KA1	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA2	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA3	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA4	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA5	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA6	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA7	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA8	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-52KA1	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA2	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA3	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA4	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA5	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA6	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA7	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA8	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
COMPONENT LIST

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	86
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	87
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

COMPONENT LIST

COMPONENT TAG	QUANTITY	DESCRIPTION	ARTICLE CODE	CONSTRUCTOR	SHEET
-53KA1	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA2	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA3	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA4	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA5	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA6	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA7	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA8	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-PN COUPLER	1	SIMATIC PN/PN Coupler for deterministic data exchange between max.4 PN-Controller per subnet, , PROFIsafe data exchange, I/O-, MSI-, MSO- and data record communication, redundant power supply, PN-connection via SIMATIC BusAdapter (BA)	SIE.6ES7158-3AD10-0XA0	SIEMENS	43
-PN COUPLER	1	5 pcs. strain relief for PROFINET cable at SIMATIC BusAdapter	SIE.6ES7193-6RA00-1AN0	SIEMENS	43
-20QF1	1	Miniature Circuit Breaker - S202M - 2P - C - 32 A	ABB.2CDS272001R0324	ABB	20
-20QF2	1	Miniature Circuit Breaker - S202M - 2P - C - 2 A	ABB.2CDS272001R0024	ABB	20
-20QF3	1	Miniature Circuit Breaker - S202M - 2P - C - 2 A	ABB.2CDS272001R0024	ABB	20
-20QF4	1	Miniature Circuit Breaker - S202M - 2P - C - 16 A	ABB.2CDS272001R0164	ABB	20
-21QF1	1	Miniature Circuit Breaker - S202M - 2P - C - 32 A	ABB.2CDS272001R0324	ABB	21
-21QF2	1	Miniature Circuit Breaker - S202M - 2P - C - 4 A	ABB.2CDS272001R0044	ABB	21
-21QF3	1	Miniature Circuit Breaker - S201M - 1P - C - 20 A	ABB.2CDS271001R0204	ABB	21
-30QF3	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	30
-44QF1	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	44
-44QF2	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	44
-44QF3	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	44
-44QF4	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	44
-44QF5	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	44
-45QF1	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	45
-60QF1	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	60
-20S1	1	Limit switch ausiliary contacts 1NO+1NC	PIZ.FR505	PIZZATO	20
-SCALANCE	1	SCALANCE XB205-3	SIE.6GK5205-3BD00-2AB2	SIEMENS	43
-20T1	1	Panel thernostat/hygrostat, 1 pole, 10 A - NO - (+10...+60)°C / (50...90)% - Nominal voltage 110...230 VAC/DC	FIN.7T.51.0.230.4360	FINDER	20

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 87
DESCRIPTION: COMPONENT LIST	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 88
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

COMPONENT LIST

COMPONENT TAG	QUANTITY	DESCRIPTION	ARTICLE CODE	CONSTRUCTOR	SHEET
-20X1	1	Shuko/Italian std. socket 2P+T 16A (two module white system series)	GW20246	GEWISS	20
-20X1	1	Wall mounting modular box IP40 (2 modules)	GW27002	GEWISS	20
-XAI1	1	ET 200SP, AI 4XI 2-/4-WIRE ST, PU 1	SIE.6ES7134-6GD01-0BA1	SIEMENS	42
-XAI1	1	BASEUNIT TYPE A0, BU15-P16+A0+2D	SIE.6ES7193-6BP00-0DA0	SIEMENS	42
-XAI2	1	ET 200SP, AI 4XI 2-/4-WIRE ST, PU 1	SIE.6ES7134-6GD01-0BA1	SIEMENS	42
-XAI2	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	42
-61XC1	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC2	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC3	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC4	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC5	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC6	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC7	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC8	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC9	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC10	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC11	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC12	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	62
-61XC13	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC14	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	62
-XDI1	1	SIMATIC ET 200SP DI 8x 24V DC Basic ,sink input	SIE.6ES7131-6BF01-0AA0	SIEMENS	37
-XDI1	1	BASEUNIT TYPE A0, BU15-P16+A0+2D	SIE.6ES7193-6BP00-0DA0	SIEMENS	37
-XDI2	1	SIMATIC ET 200SP DI 8x 24V DC Basic ,sink input	SIE.6ES7131-6BF01-0AA0	SIEMENS	37
-XDI2	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	37
-XDI3	1	SIMATIC ET 200SP DI 8x 24V DC Basic ,sink input	SIE.6ES7131-6BF01-0AA0	SIEMENS	38
-XDI3	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	38
-XDI4	1	SIMATIC ET 200SP DI 8x 24V DC Basic ,sink input	SIE.6ES7131-6BF01-0AA0	SIEMENS	38
-XDI4	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	38

COMPONENT LIST

COMPONENT TAG	QUANTITY	DESCRIPTION	ARTICLE CODE	CONSTRUCTOR	SHEET
-XDO1	1	SIMATIC ET 200SP, DQ 8x 24V DC/0,5A Basic, Source output	SIE.6ES7132-6BF01-0AA0	SIEMENS	40
-XDO1	1	BASEUNIT TYPE A0, BU15-P16+A0+2D	SIE.6ES7193-6BP00-0DA0	SIEMENS	40
-XDO2	1	SIMATIC ET 200SP, DQ 8x 24V DC/0,5A Basic, Source output	SIE.6ES7132-6BF01-0AA0	SIEMENS	40
-XDO2	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	40
-XDO3	1	SIMATIC ET 200SP, DQ 8x 24V DC/0,5A Basic, Source output	SIE.6ES7132-6BF01-0AA0	SIEMENS	41
-XDO3	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	41

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER / PAGE: 89
DESCRIPTION: COMPONENT LIST	DATE: 08.05.2024	APPROVED:	LOCATION: + QE / NEXT:
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

Base Load Power Hub (BLPH)

INSTRUMENT AIR PACKAGE
EQUIPMENT DATA SHEETS
INCLUDING MOTORS, AIR COMPRESSOR, DRYERS, ETC.

Document Number: 1724000428-MAC-DS-00011

Document Class: 2

01	10/05/2024	Issue for Review (IFR)	GT	MC	TM
00	28/03/2024	Issue for Review (IFR)	GT	MC	TM
Rev.	Date	Description	Prepared	Reviewed	Approved

COES

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coes	CLIENTE CUSTOMER	:	ROSETTI MARINO	COMM: JOB:	:	166/24		
	RIFERIMENTO REFERENCE	:	CROSSWIND	UNITA' ITEM	:	/		
	IMPIANTO DRYING UNIT	:	INSTRUMENT AIR PACKAGE	FOGLIO N° SHEET	:	1	DI : OF	5

FOGLIO DATI PER COMPRESSORE
COMPRESSOR DATA SHEET

		DATI GENERALI **GENERAL DATA**		
1	QUANTITA' QUANTITY	:	2x100%	
2	ITEM TAG	:	/	
3	SERVIZIO SERVICE	:	PLANT AIR FOR DRYER AND NITROGEN GENERATOR	
4	TIPO TYPE	:	ROTARY SCREW	
5	CARATTERISTICHE FEATURES	:	OIL-FREE	
		DATI FUNZIONALI **FUNCTIONAL DATA**		
6	INSTALLAZIONE INSTALLATION	:	OUTDOOR	
7	MOSSO DA DRIVEN BY	:	ELECTRIC MOTOR	
8	POTENZA MOTORE MOTOR POWER	:	55 kW	
9	POTENZA TOTALE TOTAL POWER	:	70 kW	
10	TENSIONE DI ALIMENTAZIONE POWER SUPPLY	:	400 V 3 Ph 50 Hz	
11	PRESSIONE ARIA IN MANDATA DISCHARGE AIR PRESSURE	:	9.5 barg	
12	PORTATA ARIA IN MANDATA DISCHARGE AIR FLOWRATE	:	415 Sm3/h	
13	TEMPERATURA ARIA IN MANDATA DISCHARGE AIR TEMPERATURA	:	35 °C	
14	GRADO DI PROTEZIONE PROTECTION DEGREE	:	IP 55	
15	CLASSIFICAZIONE AREA AREA CLASSIFICATION	:	SICURA SAFE	
16				
17				
18				
19				
20				
21				
22				
23				
24				
25	NOTES			
26				
27				
28				
29				

REV.	DESCRIZIONE DESCRIPTION	EMESSO ISSUED	APPROVATO APPROVED	DATA DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	: ROSETTI MARINO	COMM: / JOB:	: 166/24	
	RIFERIMENTO / REFERENCE	: CROSSWIND	UNITA' / ITEM	: /	
	IMPIANTO / DRYING UNIT	: INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	: 2	DI / OF : 5

FOGLIO DATI PER PRE-FILTRO
PRE-FILTER DATA SHEET

DATI GENERALI
GENERAL DATA

1	QUANTITA' / QUANTITY	:	2			
2	ITEM / TAG	:	S-63001A/B			
3	SERVIZIO / SERVICE	:	WATER AND DUST REMOVING			
4						

DATI PROGETTO CALDARERIA
VESSELS DESIGN DATA

5	PRESSIONE PROGETTO / DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO / DESIGN TEMPERATURE	:	-10 / +90 °C
6	MATERIALE / MATERIAL	:	SS 316/316L	SOVRASPESS. CORROSIONE / CORROSION OVER-THICKNESS	:	/
7	NORMATIVA PROGETTO / DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO / INSPECTION CODE	:	2014/68/EU PED

DATI FUNZIONALI
FUNCTIONAL DATA

8	GAS DA TRATTARE / GAS TO BE TREATED	:	OIL FREE AIR	PORTATA IN INGRESSO / INLET FLOWRATE	:	415 Sm3/h
9	PRESSIONE DI ESERCIZIO / OPERATING PRESSURE	:	9.5 barg	TEMPERATURA DI ESERCIZIO / OPERATING TEMPERATURE	:	35 °C
10	PERDITA DI CARICO/FILTRO PULITO / PRESSURE DROP/CLEAN FILTER	:	0.1 bar	PERDITA DI CARICO/FILTRO SPORCO / PRESSURE DROP/DIRTY FILTER	:	0.3 bar
11	EFFICIENZA / EFFICIENCY	:	99.9 %	GRADO DI FILTRAZIONE / FILTRATION DEGREE	:	3 µm
12	OLIO RESIDUO / RESIDUAL OIL	:	N/A			
13						

CARATTERISTICHE ELEMENTI FILTRANTI
FILTRATION ELEMENTS DATA

14						
15	TIPO ELEMENTO FILTRANTE / FILTRATION ELEMENT TYPE	:	CARTRIDGE	MATERIALE / MATERIAL	:	COALESCING MICROFIBER
16	N° CARTUCCE PER FILTRO / No. OF ELEMENTS/EACH FILTER	:	1	MODELLO / MODEL	:	60A

STRUMENTI - ACCESSORI
INSTRUMENTS - ACCESSORIES

17	☐	BY-PASS FILTRO / FILTER BY-PASS						
18	☒	TUBAZIONE DI RACCORDO FILTRO / CONNECTION PIPE TO FILTER						
19	☒	VALVOLE INTERCETTAZIONE / ON/OFF VALVES	☒	2 VIE / 2-WAY	☐	3 VIE / 3-WAY	☐	AUTOMATICHE / AUTOMATIC
20	☐	MANOMETRO DIFFERENZIALE / DIFFERENTIAL PRESSURE GAUGE						
21	☒	TRASMETTITORE DI PRESSIONE DIFFERENZIALE / DIFFERENTIAL PRESSURE TRANSMITTER	AS PER P&ID No. 1724000428-PR-PID-00019					
22	☒	VALVOLA DI DRENAGGIO / DRAIN VALVE						
23	☒	SCARICATORE DI CONDENSA / STEAM TRAP			☐	AUTOMATICO / AUTOMATIC	☒	GALLEGGIANTE / FLOATING
24	☐	VALVOLE DI SICUREZZA / SAFETY VALVES						

NOTE / REMARKS :
- SAFE AREA
- UNPAINTED

REV. / REV.	DESCRIZIONE / DESCRIPTION	EMESSO / ISSUED	APPROVATO / APPROVED	DATA / DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	:	ROSETTI MARINO	COMM: / JOB:	: 166/24
	RIFERIMENTO / REFERENCE	:	CROSSWIND	UNITA' / ITEM	: /
	IMPIANTO / DRYING UNIT	:	INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	: 3 DI / OF 5

FOGLIO DATI PER ESSICCATORE
DRYER DATA SHEET

DATI GENERALI
GENERAL DATA

1	QUANTITA' / QUANTITY	:	2
2	ITEM / TAG	:	D-63001A/B & D-63002A/B
3	SERVIZIO / SERVICE	:	AIR DRYER
4	TIPO / TYPE	:	HEATLESS

DATI PROGETTO MECCANICO
MECHANICAL DESIGN DATA

5	PRESSIONE PROGETTO SERBATOI / VESSELS DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO SERBATOI / VESSELS DESIGN TEMPERATURE	:	-10 / +90 °C
6	MATERIALE SERBATOI / VESSELS MATERIAL	:	SS 316/316L	SOVRASPESS. CORROSIONE SERBATOI / VESSELS CORROSION OVER-THICKNESS	:	/
7	NORMATIVA PROGETTO SERBATOI / VESSELS DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO SERBATOI / VESSELS INSPECTION CODE	:	2014/68/EU PED
8						

DATI FUNZIONALI
FUNCTIONAL DATA

9	PORTATA ARIA IN INGRESSO / INLET AIR FLOWRATE	:	415 Sm3/h
10	PRESSIONE DI ESERCIZIO / OPERATING PRESSURE	:	9.2 barg
11	TEMPERATURA DI ESERCIZIO / OPERATING TEMPERATURE	:	35 °C
12	PUNTO DI RUGIADA IN INGRESSO / INLET DEW POINT	:	35 °C
13	TIPO MATERIALE ADSORBENTE / DESICCANT MATERIAL TYPE	:	ACTIVATED ALUMINA
14	QUANTITA' ADSORBENTE PER TORRE / DESICCANT QUANTITY/EACH TOWER	:	60 kg
15	PORTATA ARIA IN USCITA / OUTLET AIR FLOWRATE	:	350 Sm3/h
16	PUNTO DI RUGIADA IN USCITA / OUTLET DEW POINT	:	-40 °C
17	POTENZA TOTALE INSTALLATA / TOTAL DEMANDE RATE	:	0.05 kW
18	PERDITA DI CARICO / PRESSURE DROP	:	0.2 bar
19	DURATA CICLO / LENGHT OF CYCLE	:	5+5 min
20	PRESSIONE IN USCITA / OUTLET PRESSURE	:	9 barg
21	CONSUMO kWh PER RIGENERAZIONE / kWh CONSUMPTION/EACH REGENERATION	:	/
22	TENSIONE DI ALIMENTAZIONE / SUPPLY VOLTAGE	:	24 VDC AUX.
23	GRADO DI PROTEZIONE / PROTECTION DEGREE	:	IP 65
24	CLASSIFICAZIONE AREA / AREA CLASSIFICATION	:	SAFE
25	RUMOROSITA' / NOISE LEVEL	:	85dB(A) max PRESSURE LEVEL at 1 m
26			

NOTE / REMARKS :
- SAFE AREA
- UNPAINTED
- INSTRUMENTATION AS PER P&ID No. 1724000428-PR-PID-00019

REV. REV.	DESCRIZIONE DESCRIPTION	EMESSO ISSUED	APPROVATO APPROVED	DATA DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	: ROSETTI MARINO	COMM: / JOB:	: 166/24	
	RIFERIMENTO / REFERENCE	: CROSSWIND	UNITA' / ITEM	: /	
	IMPIANTO / DRYING UNIT	: INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	: 4	DI / OF : 5

FOGLIO DATI PER POST-FILTRO
AFTER-FILTER DATA SHEET

DATI GENERALI
GENERAL DATA

1	QUANTITA' / QUANTITY	:	2
2	ITEM / TAG	:	S-63002A/B
3	SERVIZIO / SERVICE	:	DUST REMOVING
4			

DATI PROGETTO CALDARERIA
VESSELS DESIGN DATA

5	PRESSIONE PROGETTO / DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO / DESIGN TEMPERATURE	:	-10 / +90 °C
6	MATERIALE / MATERIAL	:	SS 316/316L	SOVRASPESS. CORROSIONE / CORROSION OVER-THICKNESS	:	/
7	NORMATIVA PROGETTO / DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO / INSPECTION CODE	:	2014/68/EU PED

DATI FUNZIONALI
FUNCTIONAL DATA

8	GAS DA TRATTARE / GAS TO BE TREATED	:	OIL FREE AIR	PORTATA IN INGRESSO / INLET FLOWRATE	:	350 Sm3/h
9	PRESSIONE DI ESERCIZIO / OPERATING PRESSURE	:	9.5 barg	TEMPERATURA DI ESERCIZIO / OPERATING TEMPERATURE	:	35 °C
10	PERDITA DI CARICO/FILTRO PULITO / PRESSURE DROP/CLEAN FILTER	:	0.1 bar	PERDITA DI CARICO/FILTRO SPORCO / PRESSURE DROP/DIRTY FILTER	:	0.3 bar
11	EFFICIENZA / EFFICIENCY	:	99.9 %	GRADO DI FILTRAZIONE / FILTRATION DEGREE	:	3 μm
12	OLIO RESIDUO / RESIDUAL OIL	:	N/A			
13						

CARATTERISTICHE ELEMENTI FILTRANTI
FILTRATION ELEMENTS DATA

14						
15	TIPO ELEMENTO FILTRANTE / FILTRATION ELEMENT TYPE	:	CARTRIDGE	MATERIALE / MATERIAL	:	COALESCING MICROFIBER
16	N° CARTUCCE PER FILTRO / No. OF ELEMENTS/EACH FILTER	:	1	MODELLO / MODEL	:	60A

STRUMENTI - ACCESSORI
INSTRUMENTS - ACCESSORIES

17	☐	BY-PASS FILTRO / FILTER BY-PASS						
18	☒	TUBAZIONE DI RACCORDO FILTRO / CONNECTION PIPE TO FILTER						
19	☒	VALVOLE INTERCETTAZIONE / ON/OFF VALVES	☒	2 VIE / 2-WAY	☐	3 VIE / 3-WAY	☐	AUTOMATICHE / AUTOMATIC
20	☐	MANOMETRO DIFFERENZIALE / DIFFERENTIAL PRESSURE GAUGE						
21	☒	TRASMETTITORE DI PRESSIONE DIFFERENZIALE / DIFFERENTIAL PRESSURE TRANSMITTER	AS PER P&ID No. 1724000428-PR-PID-00019					
22	☒	VALVOLA DI DRENAGGIO / DRAIN VALVE						
23	☐	SCARICATORE DI CONDENSA / STEAM TRAP			☐	AUTOMATICO / AUTOMATIC	☐	GALLEGGIANTE / FLOATING
24	☐	VALVOLE DI SICUREZZA / SAFETY VALVES						

NOTE / REMARKS :
- SAFE AREA
- UNPAINTED

REV.	DESCRIZIONE / DESCRIPTION	EMESSO / ISSUED	APPROVATO / APPROVED	DATA / DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	:	ROSETTI MARINO	COMM: / JOB:	:	166/24	
	RIFERIMENTO / REFERENCE	:	CROSSWIND	UNITA' / ITEM	:	/	
	IMPIANTO / DRYING UNIT	:	INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	:	5	DI / OF : 5

FOGLIO DATI PER SERBATOIO
PRESSURE VESSEL DATA SHEET

DATI PROGETTO MECCANICO
MECHANICAL DESIGN DATA

1	QUANTITA' / QUANTITY	:	1			
2	ITEM / TAG	:	V-63001			
3	SERVIZIO / SERVICE	:	SERBATOIO ARIA SECCA / DRY AIR TANK			
4	TIPO / TYPE	:	VERTICALE / VERTICAL			
5	MATERIALE / MATERIAL	:	LTCS			
6	NORMATIVA PROGETTO / DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO / INSPECTION CODE	:	2014/68/EU PED
7	MATERIALE / MATERIAL	:	LTCS	SOVRASPESS. CORROSIONE / CORROSION OVER-THICKNESS	:	1.5 mm
8	PRESSIONE PROGETTO / DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO / DESIGN TEMPERATURE	:	-10 / +90 °C
9	DIAMETRO ESTERNO / EXTERNAL DIAMETER	:	2000 mm	LUNGHEZZA T/T / T/T LENGHT	:	7000 mm
10	VOLUME / VOLUME	:	23 m3			
11	RADIOGRAFIE / RT TEST	:	☒ YES SPOT	☐ NO		
12	VERNICIATURA / PAINTING	:	☒ EXTERNAL	☐ INTERNAL		
13	ZINCATURA / GALVANIZING	:	☐ YES	☒ NO		
14	NOTE / NOTES	:	FURTHER DETAILS (FASTENERS, GASKETS, ETC.) INCLUDED IN SECTIONAL DRAWING			

ELENCO CONNESSIONI
NOZZLES LIST

	SIGLA / TAG	DIAMETRO / DIAMETER	TIPO / TYPE	SERIE / RATING	SERVIZIO / SERVICE	NOTE / REMARKS
15						
16	N1	2"	WN	ANSI 150	PROCESS INLET/OUTLET	ASME B16.5
17	N2	3/4"	NPT	3000	SAFETY VALVE	
18	N3	1/2"	NPT	3000	PRESSURE GAUGE	
19	N4	1/2"	NPT	3000	PRESSURE TRANSMITTER	
20	N5	3/4"	NPT	3000	TEMPERATURE GAUGE	
21	N6	3/4"	NPT	3000	TEMPERATURE TRANSMITTER	
22	N7	1"	WN	ANSI 150	DRAIN	ASME B16.5
23	N8	16"	WN	ANSI 150	MAN HOLE	ASME B16.5

STRUMENTI - ACCESSORI
INSTRUMENTS - ACCESSORIES

24	☒	VALVOLA DI SICUREZZA / SAFETY VALVE
25	☒	MANOMETRO / PRESSURE GAUGE
26	☒	TRASMETTITORE DI PRESSIONE / PRESSURE TRANSMITTER
27	☒	TERMOMETRO / TEMPERATURE GAUGE
28	☒	TRASMETTITORE DI TEMPERATURA / TEMPERATURE TRANSMITTER
29	☒	VALVOLA DI DRENAGGIO MANUALE / MANUAL DRAIN VALVE
30	☒	SCARICATORE DI CONDENSA / DRAIN TRAP
31		

REV. / REV.	DESCRIZIONE / DESCRIPTION	EMESSO / ISSUED	APPROVATO / APPROVED	DATA / DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

Section 6 MECHANICAL COMPLETION STATUS INDEX - INSTRUMENTAL DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-00 & process: MC & discipline : I

Instrumental	63-00 Instrument Air Package (A-63000)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
A-63000	Instrument Air Package	ONSHORE	C10002353	CZX01I	100	2024-12-04	RFC 2
C-63-XA-003/B400-SIS-001	UCP FAULT ALARM / MARSHALLING PCS	ONSHORE	C10001458	CJX10	100	2024-12-04	RFC 1
C-63-XS-001/B400-SIS-001	TRIP SIGNAL TO UCP / MARSHALLING PCS	ONSHORE	C10001451	CJX10	100	2024-12-04	RFC 1

ITEM	Tag	C-63-XS-001/B400-SIS-001	: TRIP SIGNAL TO UCP / MARSHALLING PCS		Dwg	123A90-DDL-IN-LIS-40091	
	S/Sys	63-00	: Instrument Air Package (A-63000)		Module	UD/LD_B-400	
TASK	code	C10001451	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline Instrumental	Form	CJX10	Multi/Single-Core Instrument Control Cable

CABLE DATA

Type	Cu-MICA-XLPE-OS-LSZH-SWB-LSZH	Cores/Size mm²	2X2,5 mm2	Color	ORANGE
From	A-63000	To	B400-SIS-001		

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	Note
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	PL
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH		>999	MΩ
	CORE to CORE		>999	MΩ
	CORE to SCREEN		>999	MΩ
	CORE to ARMr		>999	MΩ
	SCREEN to EARTH		>999	MΩ
	SCREEN to ARMr		>999	MΩ
CONTINUITY	CORES		0,4	Ω
	SCREEN		0,4	Ω
	EARTH		NA	Ω
	ARMr		0,4	Ω
	TEST VOLTS		500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

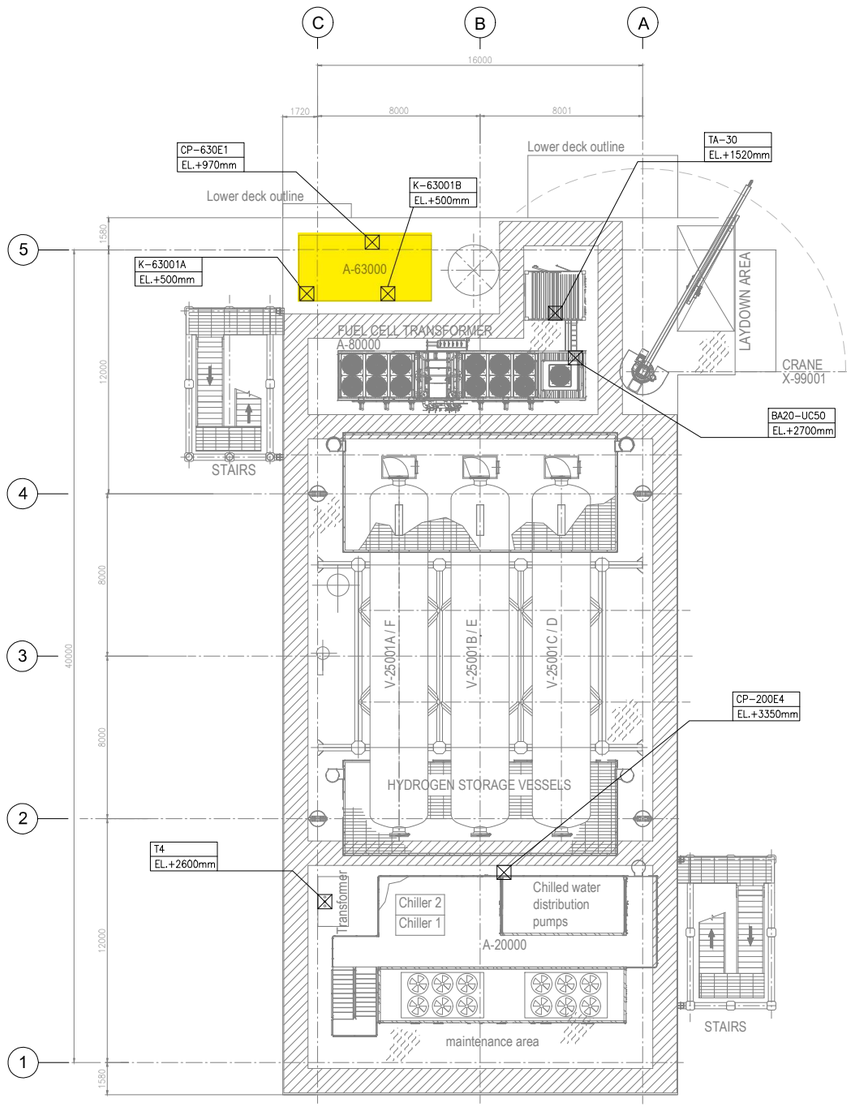
TYPE / SERIAL N°: MEGGER : KEW3125A SERIAL: W8330207 Calibration date: N°7722/24 10/07/2024

Comments Nota 5: refer to PL C30000680

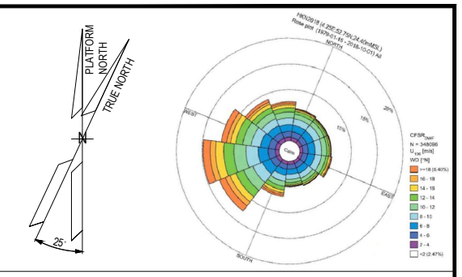
Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Francesco Zucca	Alessio Polo	
Date	2024-12-03	2024-12-04	
Signature	PROVERLIS Digitaly signed by Francesco Zucca 2024-12-03T17:05:28.741Z	PROVERLIS Digitaly signed by Alessio Polo 2024-12-04T14:21:07.003Z	

DRAWING NO. 123A90-DDL-EL-DL-20100

REV. 01



PLAN ON TOP DECK
EL+30.310 T.O.S.



NOTES

1. ALL DIMENSIONS IN MM UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS IN METERS. UNLESS NOTED OTHERWISE.
3. ELEVATIONS REFER TO T.O.S. UNLESS NOTED OTHERWISE.
4. AFTER INTERFACE PANEL/BATTERY LIMIT CABLES WILL BE ROUTED INSIDE VENDOR CABLETRAYS

LEGEND

⊠	INTERFACE PANEL/BATTERY LIMIT
JB-200E2 EL.+500mm	TAG ITEM REFERED ELEVATION TO T.O.S. (TOP OF STEEL)

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20140	ELECTRICAL HEAT TRACING JUNCTION BOX LAYOUT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	22/07/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20100**

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

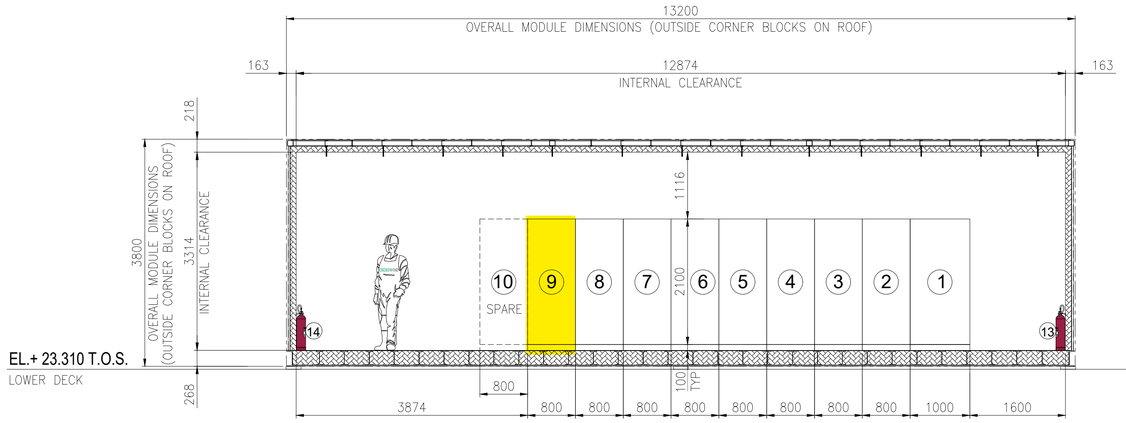
ROSETTI MARINO SpA

TITLE :
BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
TOP DECK

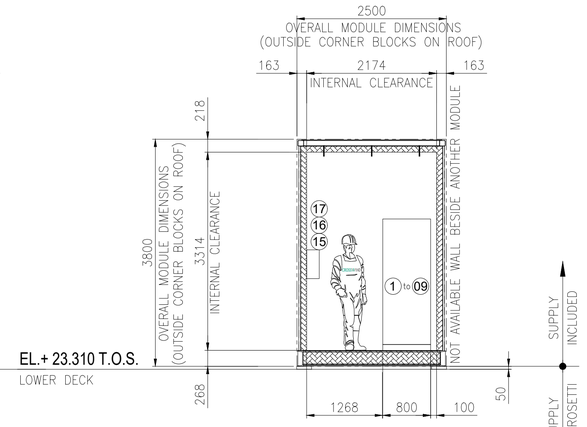
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 22/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20100	SHEET 001	REV. 01

File Name : 123A90-DDL-EL-DL-20100-Electrical Equipment Layout - Top Deck

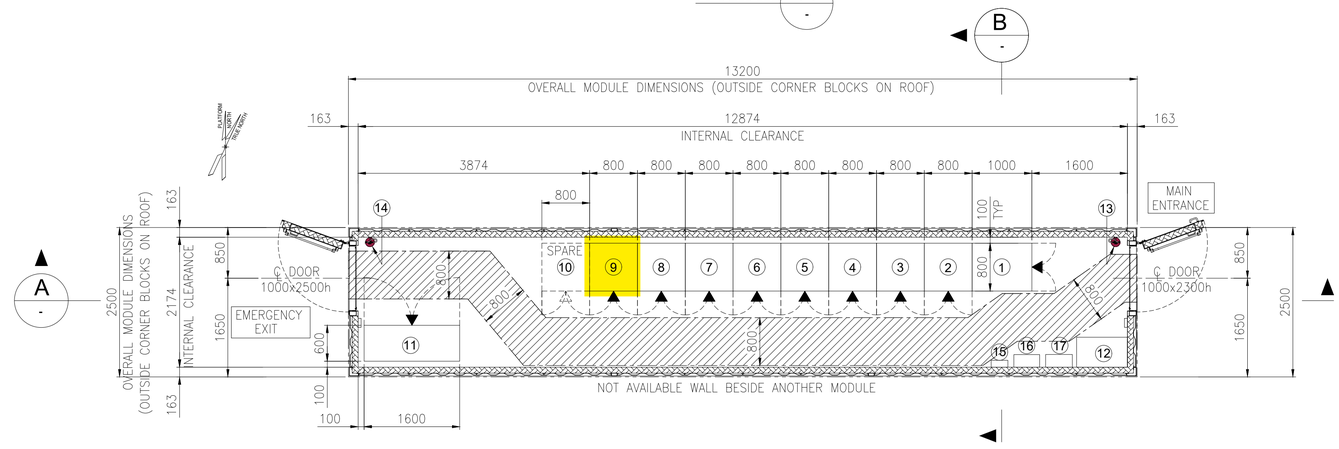
DRAWING NO. 123A90-DDL-IN-DL-40012 REV. 03



SECTION A -



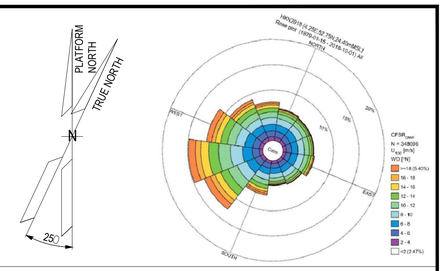
SECTION B -



EQUIPMENT LAYOUT
"B-400" I&T EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	
2	B400-NET-001	NETWORK CABINET	800	800	2100	
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	
4	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	
5	B400-PCS-001	PCS SYSTEM CABINET 03	800	800	2100	
6	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	
8	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	
10	-	SPARE				
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	
12	-	TABLE	850	500	750	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
15	-	FIRST AID KIT	280	115	200	
16	-	RESUSCITATION UNIT	430	210	480	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DOCUMENT VALID ONLY FOR INSTRUMENT COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.

LEGEND

U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ EQUIPMENT ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

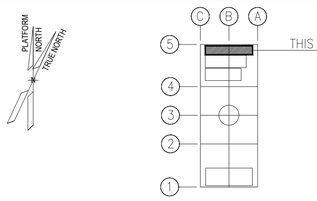
HOLDS

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REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
Control System Architecture Detailed Drawings	123A90-DDL-IN-DD-40096
Data Network Architecture Drawings	123A90-DDL-IN-DD-40019
Earthing layouts drawings (CCR, ITER)	123A90-DDL-IN-DL-40013
Instrument and Telecom MCT Layout – Lower Deck	123A90-DDL-IN-DL-40086
"B-400" I&T Equipment Room – Architectural Layout	123A90-DDL-AR-DL-10015
"B-400" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10015
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00017
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DD-00021
"B-400" HVAC SYSTEM G.A. and DETAILS	1724000049-HV-DA-00067

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	27/05/24	MGA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	22/01/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)
00	07/11/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-DL-40012
REV.: 3_A | DATE: 07/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

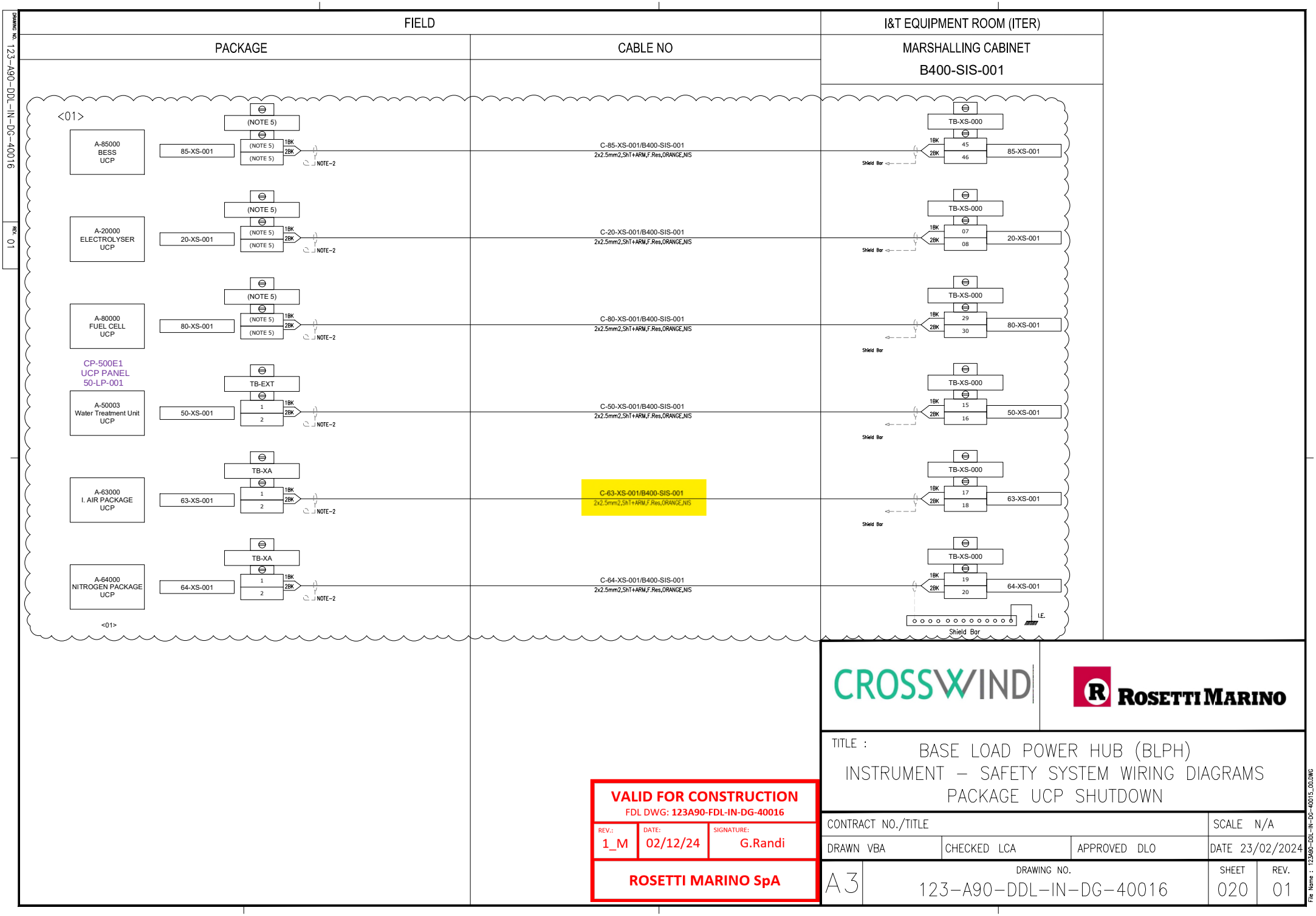
TITLE : BASE LOAD POWER HUB (BLPH) OFF-SHORE ITER EQUIPMENT LAYOUT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1:33,3
DRAWN MGA | CHECKED LCA | APPROVED DLO | DATE 27/05/24
A1 | DRAWING NO. 123A90-DDL-IN-DL-40012 | SHEET 001 | REV. 03

File Name : 123A90-DDL-IN-DL-40012 Rev.03.dwg

DRAWING NO. 123-A90-DDL-IN-DG-40016

REV. 01



VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_M	02/12/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
PACKAGE UCP SHUTDOWN

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO.	SHEET	REV.
	123-A90-DDL-IN-DG-40016	020	01

File Name : 123A90-DDL-IN-DG-40015_00.DWG

DRAWING NO. 123A90-DDL-IN-DG-40016 REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

6. FOR INTRISICALLY SAFE CIRCUIT USE LIGHT BLUE CABLE OR ALTERNATIVELY ORANGE CABLE WITH HEAT SHRINKABLE SLEEVE BLUE AT BOTH END (SEE DOC. 123A90-FDL-IN-DD-40017).

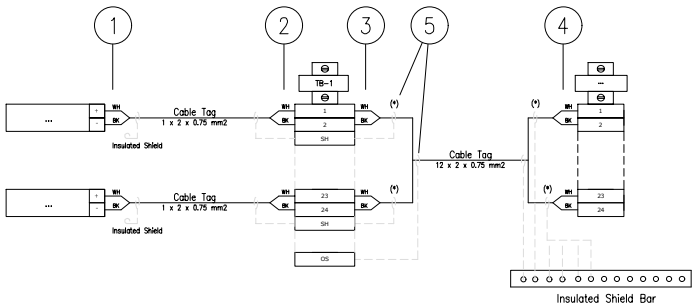
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TERMINAL NO. OR POLARITY/INSTRUMENT TAG NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

6 - IN CASE OF CONNECTION FROM RIGHT TO LEFT, ORDER OF INFORMATION SHALL BE MIRRORED

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_M	02/12/24	G.Randi

ROSETTI MARINO SpA

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

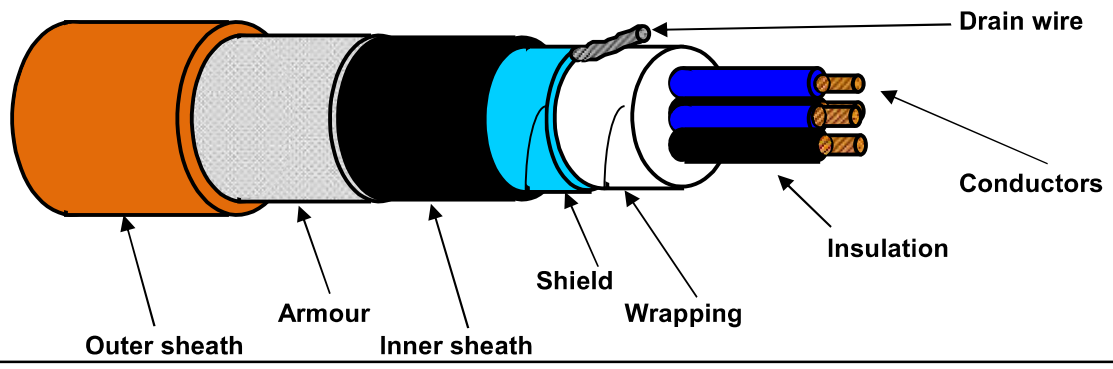
A3	DRAWING NO. 123A90-DDL-IN-DG-40016	SHEET 003	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

Tag Number	Category	Discipline	Eng Status	NativeDoc	Layout	Parent Tag	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-63-XS-001/B400-SIS-001	Cable	IN	VFC	123A90-DDL-IN-LIS-40091						A-63000	Instrument Air Package	Upper Deck	B400-SIS-001	Marshalling SIS	Lower Deck (B-400)	SMICV12-2X2,5	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 2x2,5mm² - Orange	M20	T2_M20_Double			n.a.				I-MCT-U03 / L-SEC-3 / L-SEC-1A / B-400-SEC-1A / I-MCT-401

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

2X2,5 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,6 mm	
Cores colour code :	**Black NUMBERED (from 1 to 2)**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	8/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 1,0 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant,	
	Average Thickness 1,3 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 2X2,5 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(10,3 ± 10%) mm	
Over armour diameter :	(11,5 ± 10%) mm	
Outer diameter :	(14,1 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 7,86 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

All proprietary rights reserved according to law. This document shall be not reproduced without written permission. FLEI reserves the right to change characteristics and technical data of product shown at any time.

ITEM	Tag	C-63-XA-003/B400-SIS-001 : UCP FAULT ALARM / MARSHALLING PCS				Dwg	123A90-DDL-IN-LIS-40091
	S/Sys	63-00 : Instrument Air Package (A-63000)				Module	UD/LD_B-400
TASK	code	C10001458		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CJX10		Multi/Single-Core Instrument Control Cable

CABLE DATA

Type: Cu-MICA-XLPE-OS-LSZH-SWB-LSZH | Cores/Size mm²: 1X2X0,75 mm2 | Color: ORANGE

From: A-63000 | To: B400-SIS-001

1	Check cable is as specified in project cable schedule.	OK
2	Check relevant documents are at the latest revision.	OK
3	Check cable is routed in accordance with cable layout drawings.	OK
4	Check cable for any physical damage.	OK
5	Check cable is adequately supported and correctly fixed to rack according to Project specification.	Note
6	Check bending radius is within the specified limits.	OK
7	Check cable is correctly loomed and segregated in accordance with specification.	OK
8	Check cable and core marking are in accordance with specification.	OK
9	Check cable labelling is in accordance with specification.	PL
10	Check that glands, shrouds and earthing are in accordance with specification.	OK
11	Check terminations are in accordance with termination diagram	PL
12	Check gland plate for single core cables is non-ferrous.	NA
13	If required produce Red Line Mark Up for "AS BUILT"	

INSULATION	CORE to EARTH	>999	MΩ
	CORE to CORE	>999	MΩ
	CORE to SCREEN	>999	MΩ
	CORE to ARMr	>999	MΩ
	SCREEN to EARTH	>999	MΩ
	SCREEN to ARMr	>999	MΩ
CONTINUITY	CORES	0,9	Ω
	SCREEN	0,9	Ω
	EARTH	NA	Ω
	ARMr	0,9	Ω
	TEST VOLTS	500	V

TEST ALL CORES AND RECORD LOWEST VALUE

Notes: The lowest value is recorded and must be within project specifications

TESTING INSTRUMENTS USED

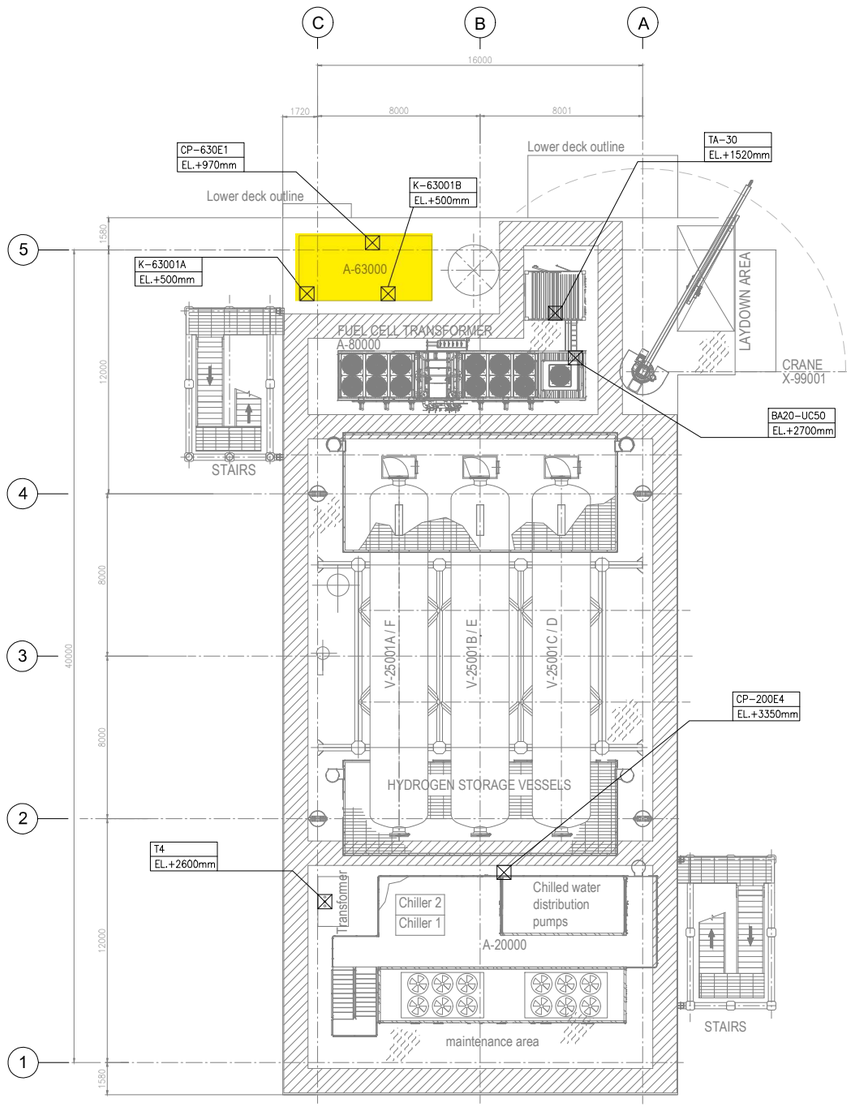
TYPE / SERIAL N°: MEGGER : KEW3125A SERIAL: W8330207 | Calibration date: N°7722/24 10/07/2024

Comments: Nota 5: refer to PL C30000680/C30000682

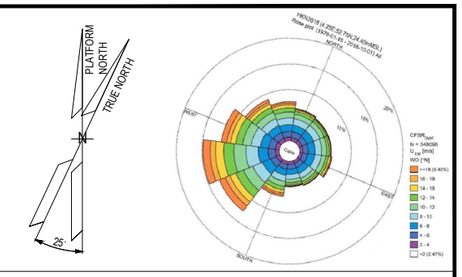
Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Francesco Zucca	Alessio Polo	
Date	2024-12-03	2024-12-04	
Signature	PROVERLIS Digitaly signed by Francesco Zucca 2024-12-03T17:05:49.270Z	PROVERLIS Digitaly signed by Alessio Polo 2024-12-04T14:04:44.666Z	

DRAWING NO. 123A90-DDL-EL-DL-20100

REV. 01



PLAN ON TOP DECK
EL+30.310 T.O.S.



NOTES

1. ALL DIMENSIONS IN MM UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS IN METERS. UNLESS NOTED OTHERWISE.
3. ELEVATIONS REFER TO T.O.S. UNLESS NOTED OTHERWISE.
4. AFTER INTERFACE PANEL/BATTERY LIMIT CABLES WILL BE ROUTED INSIDE VENDOR CABLETRAYS

LEGEND

⊠	INTERFACE PANEL/BATTERY LIMIT
JB-200E2 EL.+500mm	TAG ITEM REFERED ELEVATION TO T.O.S. (TOP OF STEEL)

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20140	ELECTRICAL HEAT TRACING JUNCTION BOX LAYOUT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	22/07/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
TOP DECK

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 22/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20100	SHEET 001	REV. 01

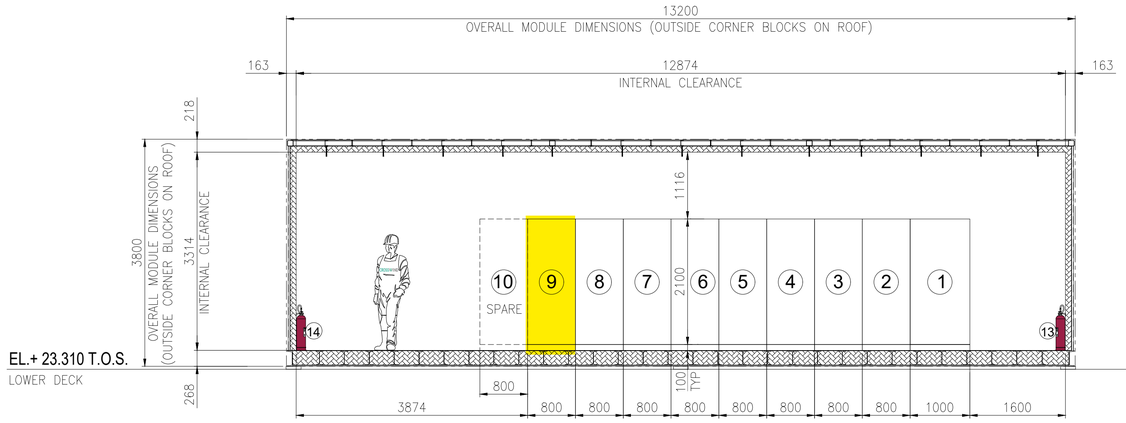
VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DL-20100**

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

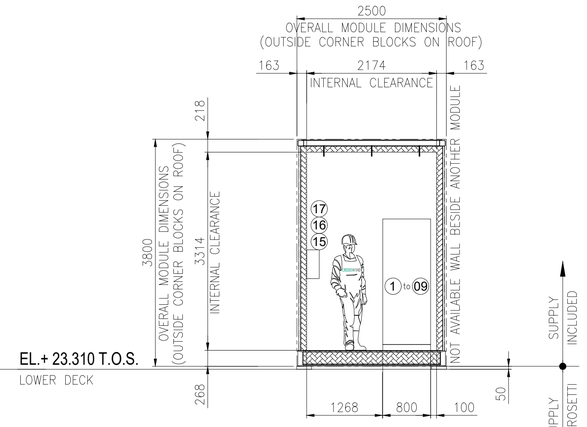
ROSETTI MARINO SpA

File Name : 123A90-DDL-EL-DL-20100-Electrical Equipment Layout – Top Deck

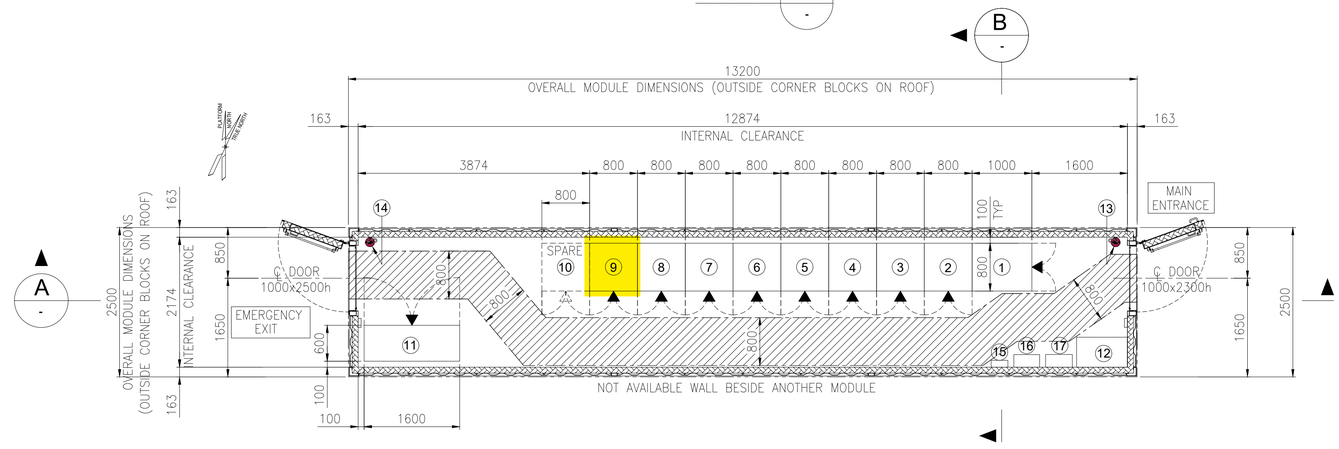
DRAWING NO. 123A90-DDL-IN-DL-40012 REV. 03



SECTION A -



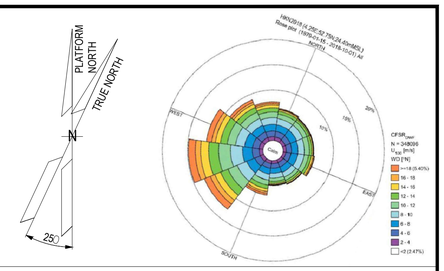
SECTION B -



EQUIPMENT LAYOUT
"B-400" I&T EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	
2	B400-NET-001	NETWORK CABINET	800	800	2100	
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	
4	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	
5	B400-PCS-001	PCS SYSTEM CABINET 03	800	800	2100	
6	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	
8	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	
10	-	SPARE				
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	
12	-	TABLE	850	500	750	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
15	-	FIRST AID KIT	280	115	200	
16	-	RESUSCITATION UNIT	430	210	480	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DOCUMENT VALID ONLY FOR INSTRUMENT COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.

LEGEND

U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ EQUIPMENT ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

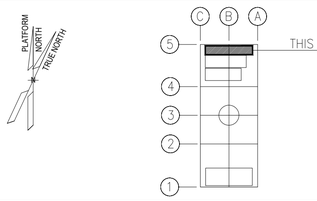
HOLDS

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REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
Control System Architecture Detailed Drawings	123A90-DDL-IN-DD-40096
Data Network Architecture Drawings	123A90-DDL-IN-DD-40019
Earthing layouts drawings (CCR, ITER)	123A90-DDL-IN-DL-40013
Instrument and Telecom MCT Layout – Lower Deck	123A90-DDL-IN-DL-40086
"B-400" I&T Equipment Room – Architectural Layout	123A90-DDL-AR-DL-10015
"B-400" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10015
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00017
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DD-00021
"B-400" HVAC SYSTEM G.A. and DETAILS	1724000049-HV-DA-00067

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	27/05/24	MGA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	22/01/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)
00	07/11/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-IN-DL-40012
REV.: 3_A | DATE: 07/10/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

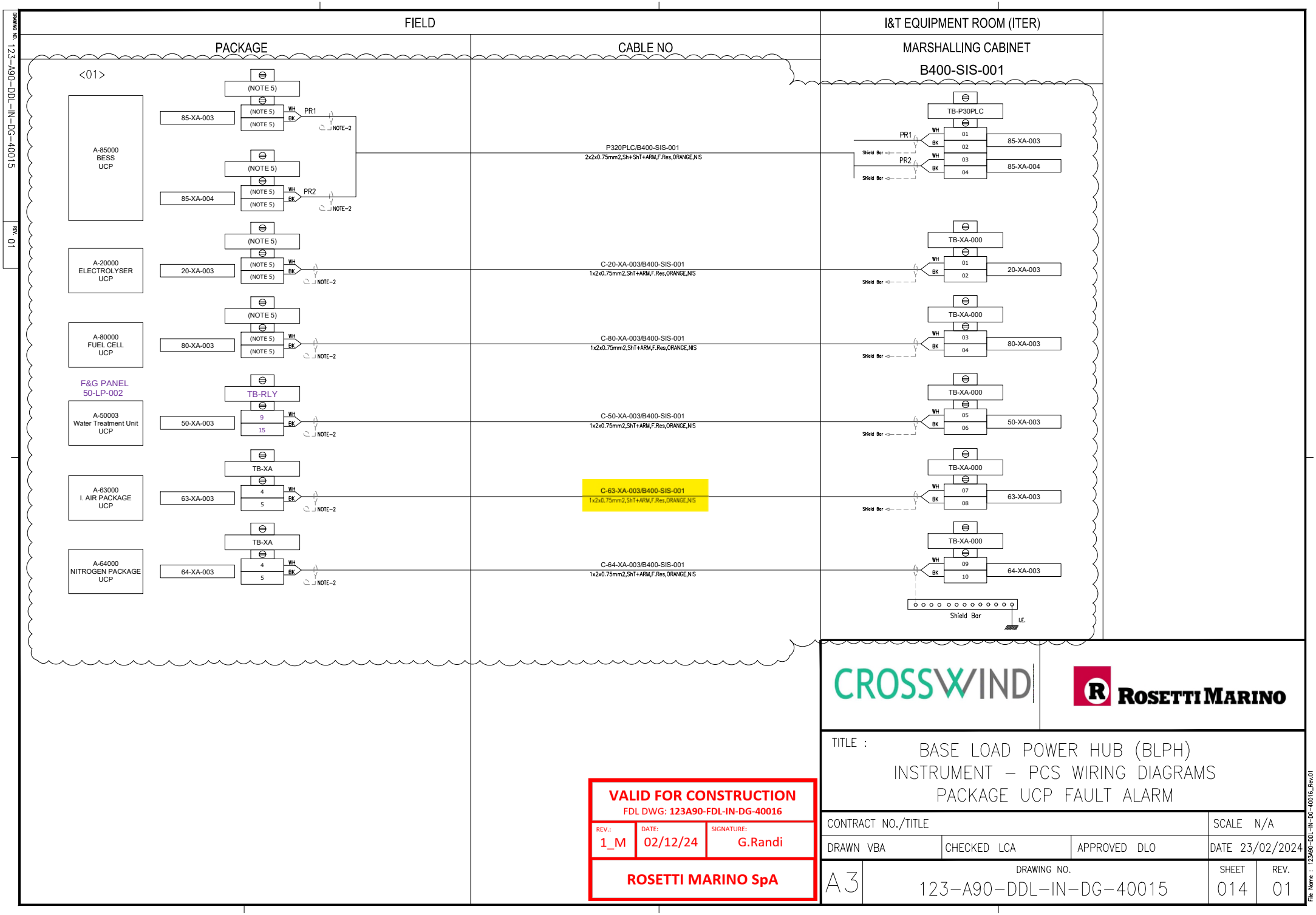
TITLE : BASE LOAD POWER HUB (BLPH) OFF-SHORE ITER EQUIPMENT LAYOUT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK | SCALE 1:33,3
DRAWN MGA | CHECKED LCA | APPROVED DLO | DATE 27/05/24
A1 | DRAWING NO. 123A90-DDL-IN-DL-40012 | SHEET 001 | REV. 03

File Name : 123A90-DDL-IN-DL-40012 Rev.03.dwg

DRAWING NO. 123-A90-DDL-IN-DG-40015

REV. 01



CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT – PCS WIRING DIAGRAMS
PACKAGE UCP FAULT ALARM

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_M	02/12/24	G.Randi

ROSETTI MARINO SpA

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO.	SHEET	REV.
	123-A90-DDL-IN-DG-40015	014	01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40016 REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. CONNECTION TERMINAL BLOCK SHALL BE DEFINED DURING CONSTRUCTION PHASE.

<01>

6. FOR INTRISICALLY SAFE CIRCUIT USE LIGHT BLUE CABLE OR ALTERNATIVELY ORANGE CABLE WITH HEAT SHRINKABLE SLEEVE BLUE AT BOTH END (SEE DOC. 123A90-FDL-IN-DD-40017).

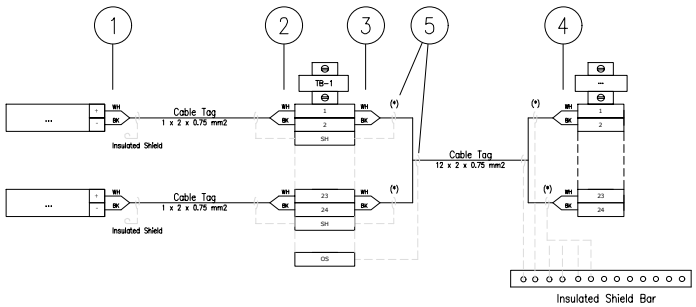
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN/YELLOW —— P.E. EARTH/BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM <01>
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
FGS	- FIRE & GAS SYSTEM <01>
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
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DO	- DIGITAL OUTPUT
JE	- JUNCTION BOX FOR ELECTRICAL SIGNALS <01>

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

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(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

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REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01
F&G DETECTORS LAYOUT	123A90-DDL-SAF-DL-30027

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40016**

REV.:	DATE:	SIGNATURE:
1_M	02/12/24	G.Randi

ROSETTI MARINO SpA

TITLE :

BASE LOAD POWER HUB (BLPH)
INSTRUMENT – SAFETY SYSTEM WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE N/A
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

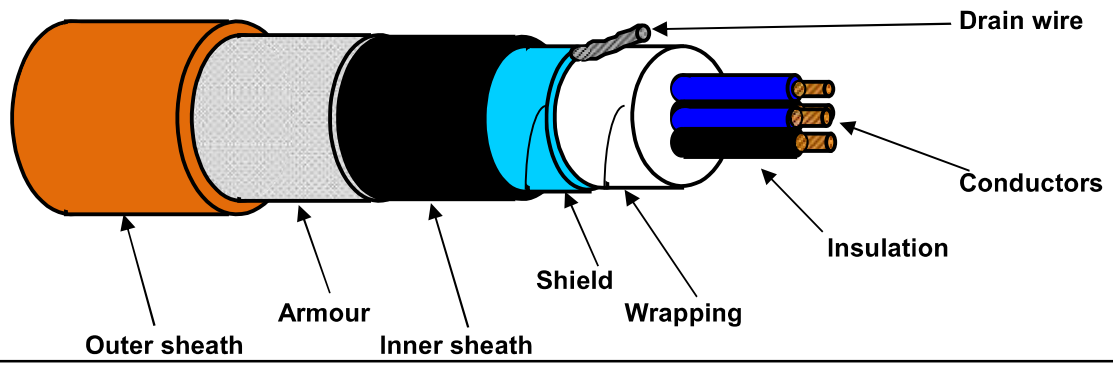
A3	DRAWING NO. 123A90-DDL-IN-DG-40016	SHEET 003	REV. 01

File Name : 123A90-DDL-IN-DG-40016_Rev.01

Tag Number	Category	Discipline	Eng Status	NativeDoc	Layout	Parent Tag	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
C-63-XA-003/B400-SIS-001	Cable	IN	VFC	123A90-DDL-IN-LIS-40091						A-63000	Instrument Air Package	Upper Deck	B400-SIS-001	Marshalling SIS	Lower Deck (B-400)	SMICV08-1X2X0,75	Cable Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250V (300V) 1x2x0,75mm² - Orange	M20S	T2_M20S_Double			n.a.				I-MCT-U03 / L-SEC-3 / L-SEC-1A / B-400-SEC-1A / I-MCT-401

Cu Cl.2/MGT/XLPE/OS/LSZH/SWB/LSZH 150/250 V (300 V)

1X2X0,75 - INSTRUMENT CABLE - Fire Resistant - Not I.S.



TECHNICAL FEATURES

Conductors :	**7-STRANDED** plain/bare soft annealed copper wires	**IEC 60228 Class 2**
Insulation :	Mica/Glass Tape (MGT) plus XLPE, Nominal Thickness 0,5 mm	
Cores colour code :	**White - Black**	
Pair Assembling :	Not required	
Pair Wrapping:	Not required	
Drain wire :	Not required	
Pair Shield :	Not required	
Shield Insulation :	Not required	
Total Assembling :	10/1mt	
Overall Wrapping:	by polyester-PET Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Drain wire :	7-Stranded **TINNED** annealed copper drain wire, **size 0,5 sqmm**, in continuous contact with the shield	
Overall Shield :	by Aluminium-**Al** Minimum Thickness 0,008 mm / polyester-**PET** Minimum Thickness 0,010 mm tape helically wound (overlap ≥ 25%)	
Inner sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, Average Thickness 1,1 mm	
Inner sheath color code:	**Black**	
Armour :	Galvanized Steel Wire Braid Armour (coverage ≥ 90%)	
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant, Average Thickness 1,2 mm	
Outer sheath color code:	**Orange**	
Outer printing (INKJET) :	**FLEI - 1X2X0,75 SQMM - MGT/XLPE/OS/LSZH/SWB/LSZH - 150/250 V - IEC 60331.21 -**	
(every 1000 mm)	**IEC 60332.1.2 - IEC 60332.3.22 - Year of Manufacture - CE + Meter Marking**	
Under armour diameter :	(8,5 ± 10%) mm	
Over armour diameter :	(9,3 ± 10%) mm	
Outer diameter :	(11,7 ± 10%) mm	
Bending radius :	cable outer diameter x 10 (in fixed installation)	
Voltage Test :	1,5 kV a.c. for 5' (Between Cores) / 1,5 kV a.c. for 5' (Between Cores - Shield)	
Conductors DC Resistance :	≤ 26 Ω/km (@ 20°C)	
Insulation Resistance :	≥ 1000 MΩ x Km (@ 20°C)	
Mutual Capacitance :	≤ 150 nF/km	
L/R ratio :	≤ 25 µH/Ω	
Inductance :	≤ 0,9 mH/km	
Applicable Standards		
Design Guidelines :	**IEC 60092.376**	
ON COMPLETE CABLE		
Fire Resistant test :	**IEC 60331.21**	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22	
Acid Gas generation :	IEC 60754.1/2	
Smoke density/Light Transmittance :	IEC 61034.2 (LT ≥ 60%)	
Hazardous Areas :	IEC 60079.14 par.9.3.2a	
Temperature Range :		
ON INSULATION	(max +90°C) (max continuous operation temperature of conductors)	
	(max +250°C) (max conductors temperature during short-circuit for 5 seconds)	
ON COMPLETE CABLE		
During Operation :	(-20°C up to +90°C) (in fixed installation)	
During installation :	(- 5°C up to +50°C)	
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner sheath together with correct ATEX approved equipment or accessories.**	

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	04/04/2024	Messa			
Checked :	04/04/2024	Spaccasassi			
Approved :	04/04/2024	Cucinotta			

The data provided herein are meant for the transaction will be used in the sense of the article 19 of the Regulation (UE) 2016/679 also by such outsiders in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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ITEM	Tag	A-63000	: Instrument Air Package			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10002353		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Instrumental Form CZX01I		Package - I

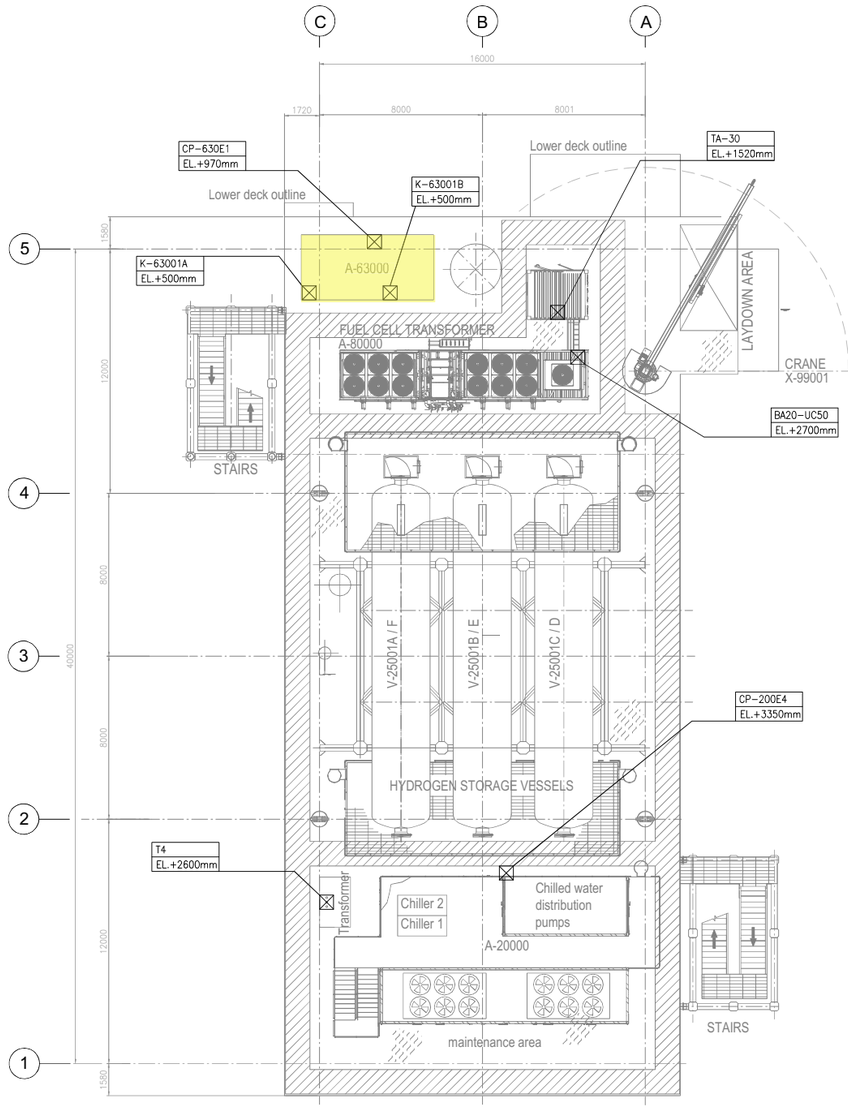
1	Check that electrical component is not damaged.	OK
2	Check that the cables are adequately supported and protected.	PL
3	Check that the equipment, including cables and glands, have been correctly installed (only visual inspection).	OK
4	Check that all equipment has been earthed and bonded.	PL
5	Check if accessibility and maintenance are possible and safe.	OK
6	Verify that all vendor punch list created during FAT are uploaded in the Database.	OK
7	Check if accessibility and maintenance are possible and safe.	OK
8	Check identification tag plate	OK
9	If required produce Red Line Mark Up for "AS BUILT"	

Comments:

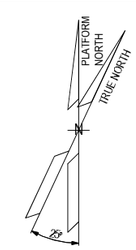
	Performed by	☉ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Francesco Zucca	Alessio Polo	
Date	2024-12-03	2024-12-04	
Signature	Digitaly signed by Francesco Zucca 2024-12-03T17:08:09.136Z	Digitaly signed by Alessio Polo 2024-12-04T17:50:13.076Z	

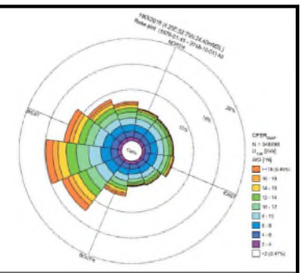
DRAWING NO. 123A90-DDL-EL-DL-20100

REV. 01



PLAN ON TOP DECK
EL+30.310 T.O.S.





NOTES

1. ALL DIMENSIONS IN MM UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS IN METERS. UNLESS NOTED OTHERWISE.
3. ELEVATIONS REFER TO T.O.S. UNLESS NOTED OTHERWISE.
4. AFTER INTERFACE PANEL/BATTERY LIMIT CABLES WILL BE ROUTED INSIDE VENDOR CABLETRAYS

LEGEND

⊠	INTERFACE PANEL/BATTERY LIMIT
JB-200E2	TAG ITEM
EL.+500mm	REFERED ELEVATION TO T.O.S. (TOP OF STEEL)

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20140	ELECTRICAL HEAT TRACING JUNCTION BOX LAYOUT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	22/07/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20100

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA

TITLE :
BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
TOP DECK

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 22/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20100	SHEET 001	REV. 01

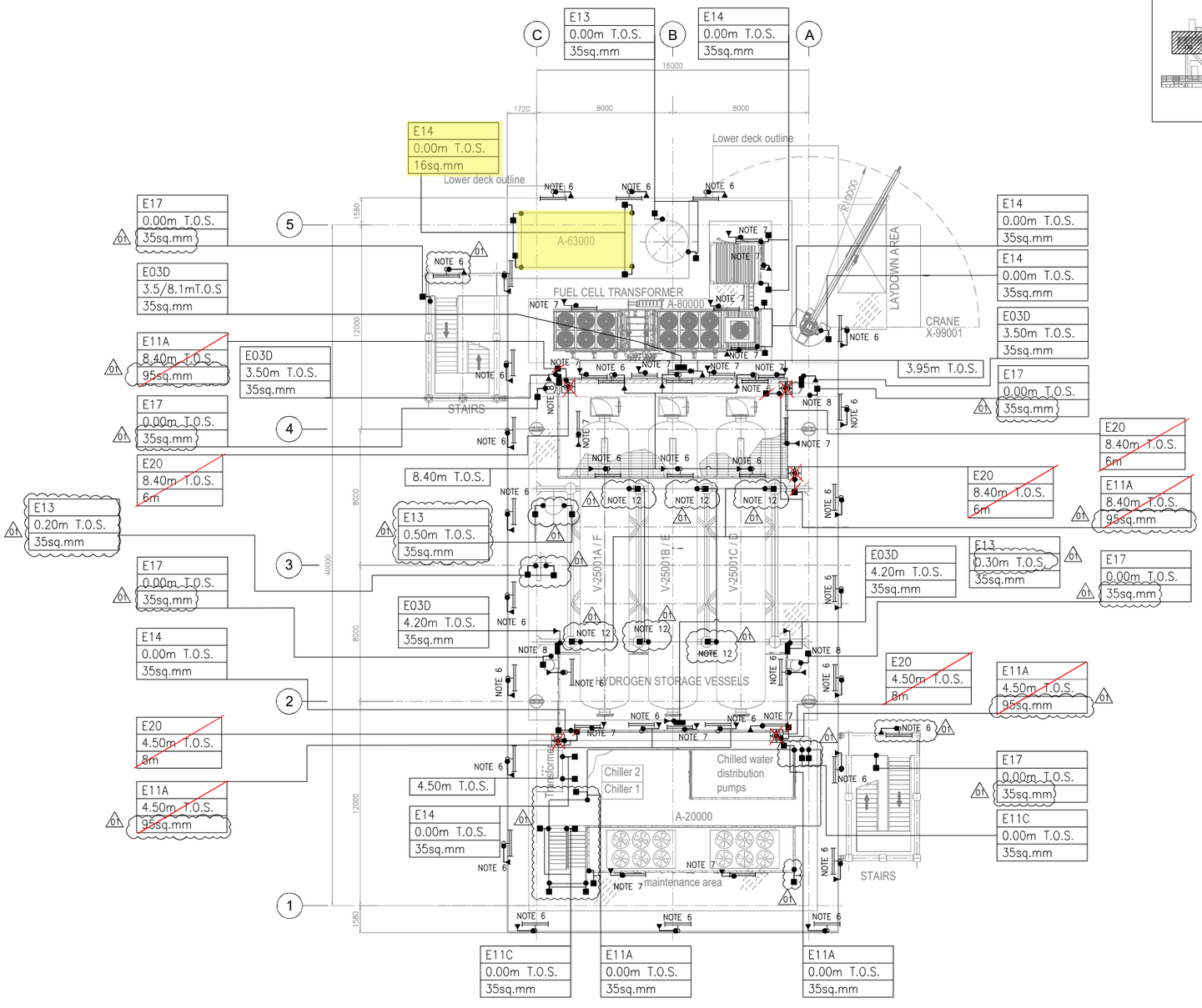
File Name : 123A90-DDL-EL-DL-20100-Electrical Equipment Layout - Top Deck

DRAWING NO. 123A90-DDL-EL-DL-20132

REV. 01

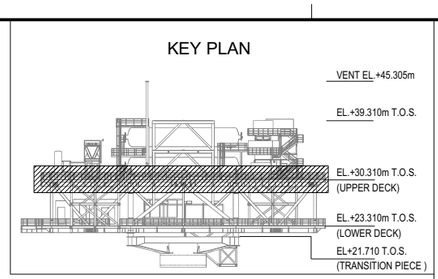
RLMU LIST

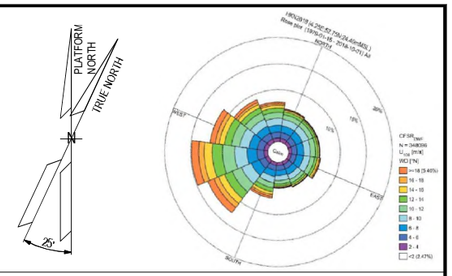
REV. 01_B: Sheet 1, 3



PLAN ON TOP DECK
EL+30.310 T.O.S.

KEY PLAN





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DOCUMENT IS ONLY VALID FOR EARTHING LAYOUT.
4. ALL ELECTRICAL EQUIPMENT NOT DIRECTLY WELDED TO SKID FRAME SHALL BE BONDED TO STEEL TO THE STRUCTURE OF SKID BASEFRAME.
5. FOR LIGHTNING PROTECTION SYSTEM SURGE PROTECTIVE DEVICES (SPD), REFER TO THE DOCUMENT 123A90-DDL-EL-RE-20154.
6. ALL NON-WELDED POLES WILL BE EARTHED AS PER TYPICAL E05 AND E24. 01
7. ALL LINEAR LIGHTING FIXTURE WILL BE EARTHED AS PER TYPICAL E32.
8. LADDER MUST BE EARTHED IF NOT WELDED TO THE STRUCTURE. LADDER MUST BE EARTHED TO THE UPPER BEAM OF THE STRUCTURE, COMPLETE EARTHING INCLUDING WITH 2 THREADED STUDS AS PER TYPICAL E17D.
9. ALL EARTH BAR WILL BE EARTHED AS PER TYPICAL E03D.
10. ALL POLE MOUNTED EQUIPMENTS WILL BE EARTHED AS PER TYPICAL E05.
11. EQUIPOTENTIAL BONDING GROUPING FOR BOLTED HANDRAILS ARE PROVIDED EVERY 3M FOR THE ENTIRE PERIMETER AS TYPICAL E16 AND WILL BE DEFINED DURING ASSEMBLY PHASE.
12. EARTHED VESSELS V-25001D/E/F. FOR EARTHING V-25001A/B/C SEE SHEET 2 01

LEGEND

- LIGHTING FIXTURE POLE MOUNTED
- LINEAR LIGHTING FIXTURE
- EARTHING BOSS AISI316L
- COMPRESSION TYPE LUG TINNED COPPER
- THREADED STUD FOR EARTHING CONNECTION
- AIR TERMINATION ROD FOR LIGHTNING PROTECTION
- Exx EARTHING TYPICAL CODE
- EARTHING BAR

TYP.	TYPICAL
ELE	ELEVATION
SIZE	

E20	AIR TERMINATION ROD NO.
ELE	ELEVATION
HEIGHT	

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20100	ELECTRICAL EQUIPMENT LAYOUT - TOP DECK
123A90-DDL-EL-DD-20090	ELECTRICAL TYPICAL INSTALLATION DETAILS - EARTHING SYSTEM
123A90-DDL-EL-RE-20154	LIGHTNING PROTECTION SYSTEM CALCULATION REPORT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	31/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	27/05/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EARTHING & LIGHTNING LAYOUT
TOP DECK

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN NLK	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 31/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20132	SHEET 001	REV. 01

SHEET 001 OF 002

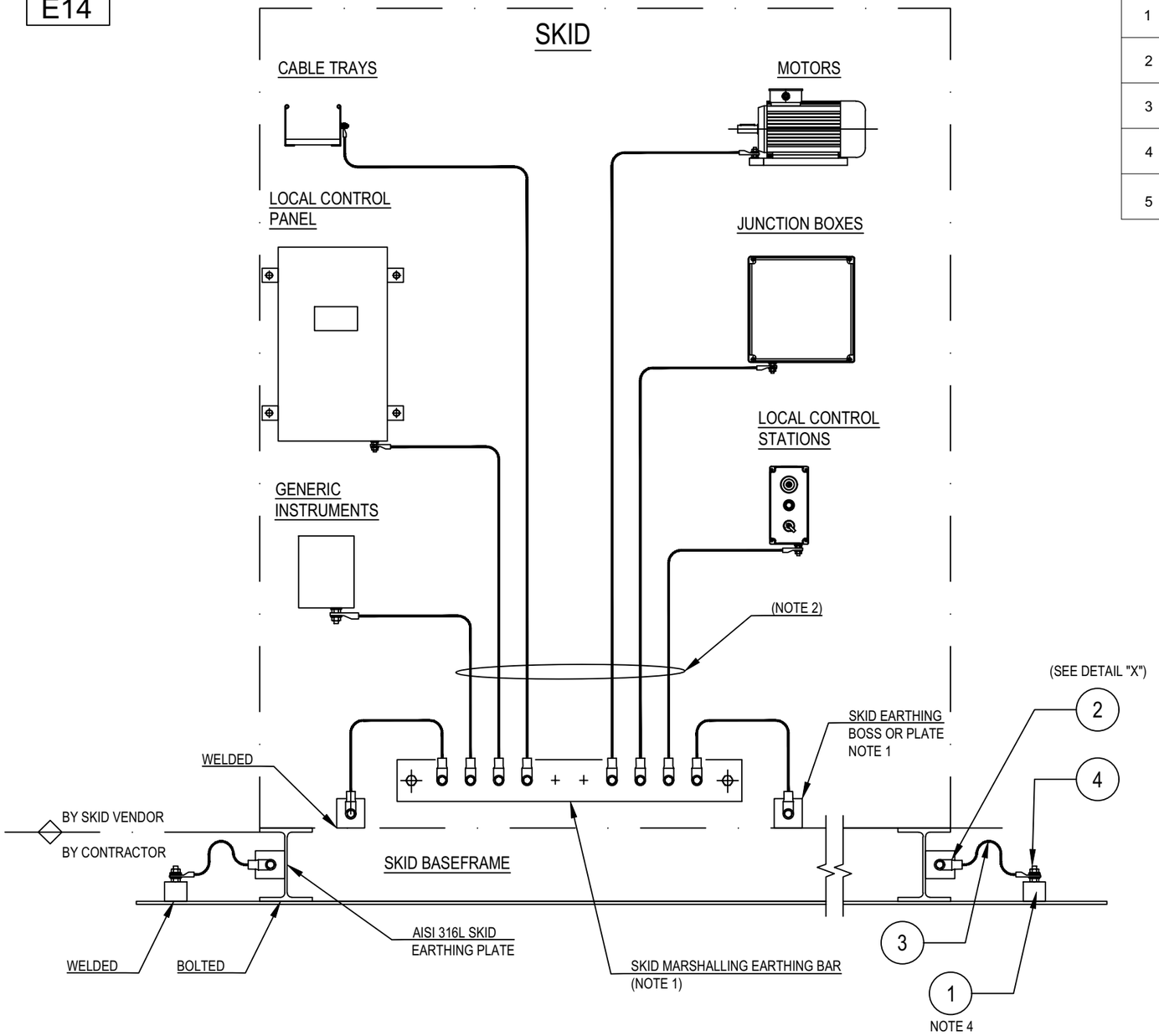
VALID FOR CONSTRUCTION

REV.:	DATE:	SIGNATURE:
1_B	08/11/24	V.Ramponi

ROSETTI MARINO SpA

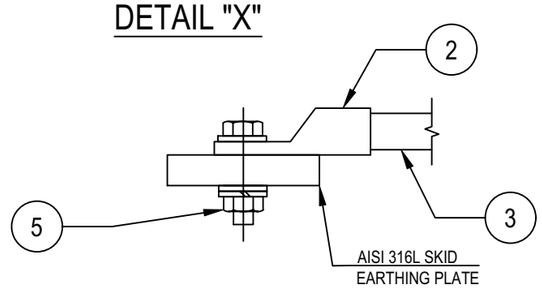
File Name : 123A90-DDL-EL-DL-20132

E14



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BOSS WITH THREADED HOLE M10	AISI 316L	50X50		NOTE 5
2	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	35mm^2		~~NOTE 3~~
3	Y/G INSULATING COPPER CONDUCTOR	COPPER	35mm^2		~~NOTE 3~~
4	STUD BOLT WITH PLANE WASHER, SPRING WASHER AND NUT	AISI 316L	M10X50		
5	HEXAG. BOLT COMPLETE WITH PLANE WASHERS, SPRING WASHER AND NUT	AISI 316L	M10X30		

DETAIL "X"



NOTES:
1) EARTHING BAR/BOSS/PLATE SUPPLIED BY SKID MANUFACTURER
2) ALL EQUIPMENTS AND CABLE TRAYS WILL BE EARTHING ON SKID EARTHING BAR BY SKID MANUFACTURER
3) ~~CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY~~
4) FOR EARTHING BOSS TYPICAL DETAIL E11A
5) EXTERNAL EARTHING CONNECTION ONLY SHALL BE PROTECTED AGAINST CORROSION USING OXIDE RESISTANT COMPOUND (E.G. COPPER GREASE)

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_I	07/11/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR SKID BASEFRAME

CONTRACT NO./TITLE CW–I–WP4–2023–05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90–DDL–EL–DD–20090 | SHEET 014 | REV. 02

F.to UNI A3: 420mmx297mm

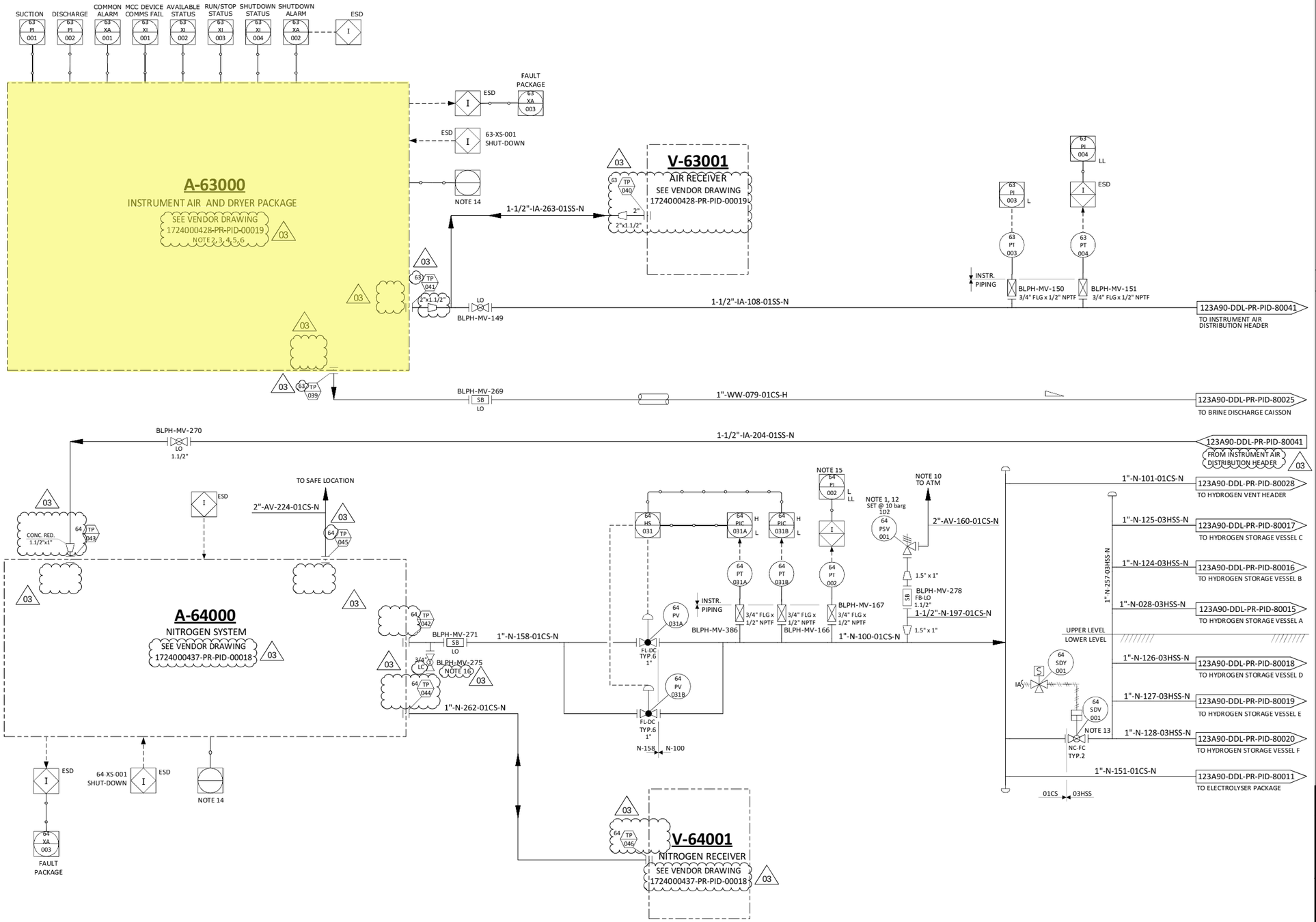
File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

DRAWING NO. DRAWING_NO.

REV. REV

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
CAPACITY : 313 Sm^3/h (PRODUCTION)

A-64000
NITROGEN GENERATION SYSTEM
CAPACITY : 52.7 Sm^3/h (PRODUCTION)



NOTES

1. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
2. COMPRESSORS AND DRIERS DESIGNED FOR 2 X 100% CONFIGURATION. INSTRUMENT AIR RECEIVER DESIGNED FOR 1 X 100%.
3. VENDOR TO PROVIDE NECESSARY CONTROLS, INSTRUMENTATIONS AND ISOLATIONS IN ORDER TO OPERATE THE PLANT IN SAFE MANNER.
4. COMPRESSORS WILL OPERATE ON THE BASIS OF ONE WORKING AND ONE ON STANDBY.
5. COMPRESSORS TO BE ROTARY SCREW TYPE OIL FREE.
6. AIR COMPRESSOR INLET TO BE LOCATED AWAY FROM ANY VENTS.
7. DELETED.
8. DELETED.
9. DELETED.
10. TO SAFE LOCATION, ROUTED AWAY FROM WALKWAYS.
11. DELETED.
12. 64-PSV-001 SIZED FOR UPSTREAM 64-PV-031 CV FAILURE. (03)
13. 64-SDV-001 IS NORMALLY CLOSED. IF REQUIRED THE OPERATOR CAN REMOTELY OPEN THE VALVE TO ALLOW PURGING OPERATION. VALVE 64-SDV-001 IS ALSO CONNECTED TO THE PCS SYSTEM.
14. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
15. THE ALARM 64-PAL-002 WILL CLOSE 64-SDV-001 THROUGH SAFETY SYSTEM.
16. MANUAL VALVE BLPH-MV-275 TO BE CONNECTED WITH MANUAL VALVE BLPH-MV-466 (INSTALLED ON ELECTROLYSER PACKAGE EXIT LINE) BY MEAN ON A FLEXIBLE HOSE DURING COMMISSIONING PHASE FOR PURGING OPERATION. (03)

HOLDS

1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80027		SHEET 001	REV. 03

File Name : FILE_NAME

3 ELECTRICAL LOAD LIST

Equipment	Power factor	Tag	Power supply	Adsorbed Power	Note
Air Compressor	0,72	K-63001A	400V-3Ph+PE 50Hz	67,4 kW	Nominal power 55 kW 100% load power 65,9 kW
					Cooling fan
Air Compressor	0,72	K-63001B	400V-3Ph+PE 50Hz	67,4 kW	Nominal power 55 kW 100% load power 65,9 kW
					Cooling fan
Utilities	1,0		230V-1Ph+N+PE 50Hz	0,5 kW	Not managed by PLC
PLC	1,0	63-LP-001	230V-1Ph+N+PE 50Hz (UPS)	1,0 kW	
Solenoid valve		63-XY-051	24VDC	15 W	power supply is managed directly by the UCP
Solenoid valve		63-XY-052	24VDC	15 W	power supply is managed directly by the UCP
Solenoid valve		63-XY-053	24VDC	15 W	power supply is managed directly by the UCP
Solenoid valve		63-XY-054	24VDC	15 W	power supply is managed directly by the UCP
Differential Pressure Transmitter		63-PDIT-051	24VDC	0.5 W	power supply is managed directly by the UCP
Temperature Transmitter		63-TIT-051	24VDC	0.5 W	power supply is managed directly by the UCP
Differential Pressure Transmitter		63-PDIT-062	24VDC	0.5 W	power supply is managed directly by the UCP
Dew-point Transmitter		63-AIT-051	24VDC	0.5 W	power supply is managed directly by the UCP
Flow Transmitter		63-FIT-051	24VDC	0.5 W	power supply is managed directly by the UCP
Pressure Transmitter		63-PIT-064	24VDC	0.5 W	power supply is managed directly by the UCP
Temperature Transmitter		63-TIT-052	24VDC	0.5 W	power supply is managed directly by the UCP

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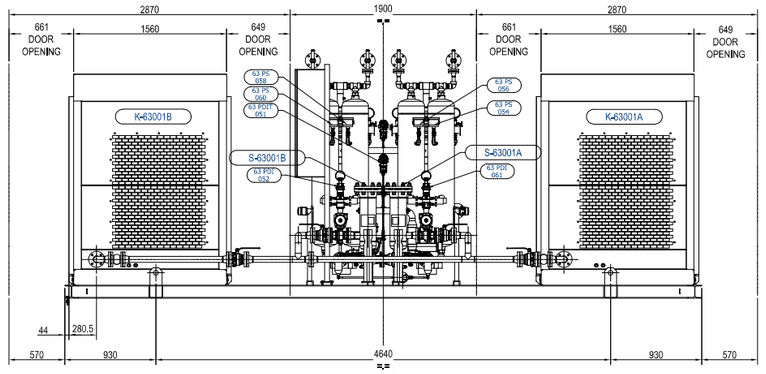
3 CABLE LIST

CABLE LIST																
Revision index	Service	Cable Tag.	Cable ID	Section	Colour		Screened		Type	Fire Resistant	Flame Retardant	Routing		Cable lenght (meter)	Cable gland type	Cable gland size
					External	Internal	Overal	Indivudual				From	To			
0	ANS	C-63PDIT051	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-PDIT-051	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ANS	C-63PDIT052	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-PDIT-052	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ANS	C-63TT051	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-TT-051	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ANS	C-63AIT051	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-AIT-051	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ANS	C-63FIT051	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-FIT-051	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ANS	* C-63PIT064	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-PIT-064	63-LP-001	N.A.	Double compression	ISO M20x1,5
0	ANS	* C-63TIT052	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-TIT-052	63-LP-001	N.A.	Double compression	ISO M20x1,5
0	ZS	C-63PS054	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-PS-054	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63PS056	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-PS-056	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63PS058	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-PS-058	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63PS060	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-PS-060	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSL055	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSL-055	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSH055	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSH-055	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSL056	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSL-056	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSH056	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSH-056	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSL057	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSL-057	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSH057	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSH-057	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSL058	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSL-058	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSH058	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSH-058	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSL059	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSL-059	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSH059	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSH-059	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSL060	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSL-060	63-LP-001	TBA	Double compression	ISO M20x1,5
0	ZS	C-63ZSH060	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x1mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-ZSH-060	63-LP-001	TBA	Double compression	ISO M20x1,5
0	SOV	C-63XY055	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x2,5mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-XY-055	63-LP-001	TBA	Double compression	ISO M20x1,5
0	SOV	C-63XY056	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x2,5mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-XY-056	63-LP-001	TBA	Double compression	ISO M20x1,5
0	SOV	C-63XY057	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x2,5mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-XY-057	63-LP-001	TBA	Double compression	ISO M20x1,5
0	SOV	C-63XY058	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x2,5mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-XY-058	63-LP-001	TBA	Double compression	ISO M20x1,5
0	SOV	C-63XY059	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x2,5mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-XY-059	63-LP-001	TBA	Double compression	ISO M20x1,5
0	SOV	C-63XY060	XLPE/OS/PVC/SWB/PVC - 300V	circular 1x2x2,5mm2 + shield	Grey	Black(+) White(-)	X		SWB Armored	NO	IEC 60332-3-22	63-XY-060	63-LP-001	TBA	Double compression	ISO M20x1,5

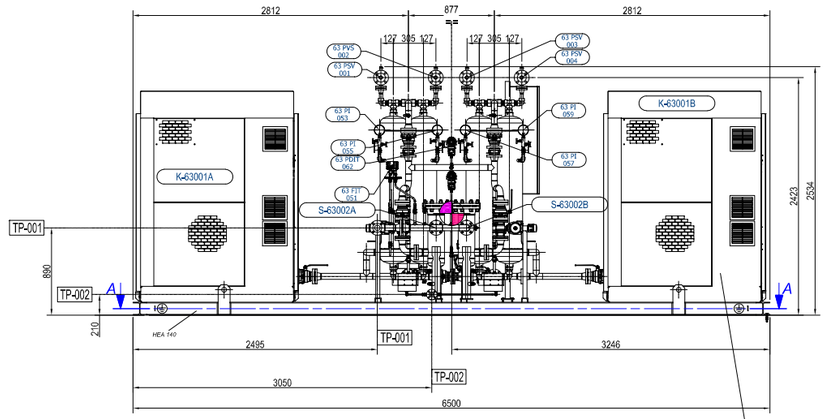
Legenda:
SOV = Solenoid Valve
ZS = Switch
ANS = Signal 4-20mA
* = NOT IN COES SCOPE OF SUPPLY

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DRAWING NO. 1724000428-MAC-DA-00005 REV. 02



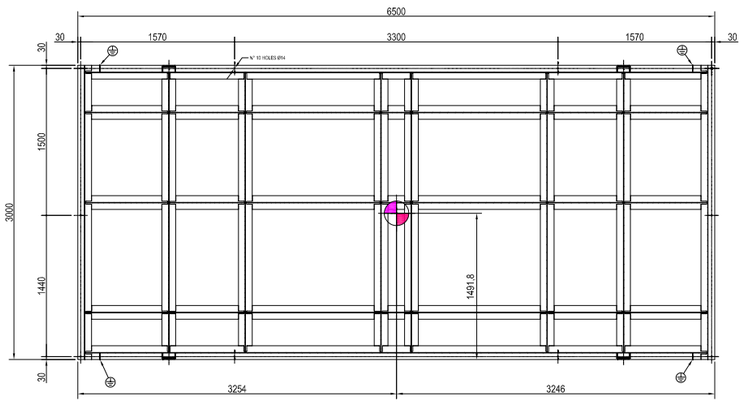
VIEW FROM "C"



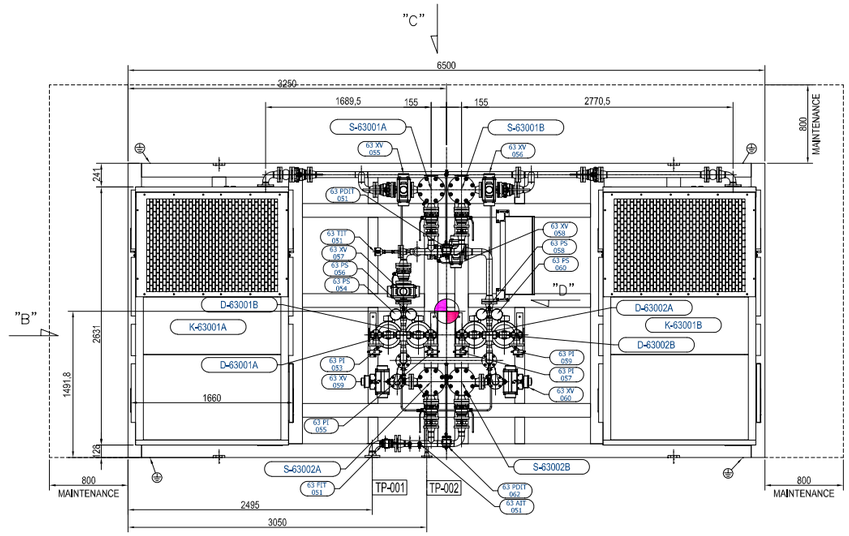
VIEW FROM "A"

CABLE ENTRY SUITABLE FOR POWER CABLES 5G70sqmm

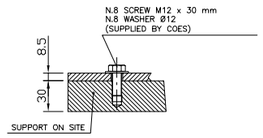
POWER SUPPLY 400V-3PH-50HZ COMPRESSOR POWER SUPPLY

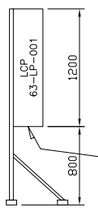


SECTION A-A (1 : 25)



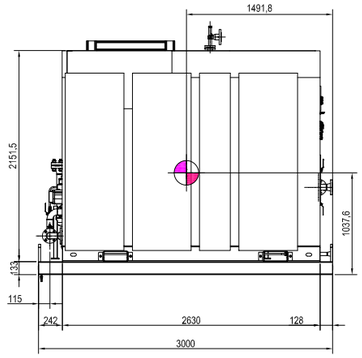
"A"





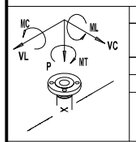
GLAND PLATE CABLE ENTRY SUITABLE
POWER SUPPLY 230V (UPS)
POWER SUPPLY 230V (Normal)
LOCAL CONTROL PANEL POWER SUPPLY

VIEW FROM "D"



VIEW FROM "B"

FOUNDATION LOADS TABLE			
	LIFTING	EMPTY	OPERATION
VERTICAL (kN)	10.8	10.8	10.8
SHEAR Y (kN)	0	0	0
SHEAR X (kN)	0	0	0
MOMENT Y (kNm)	0	0	0
MOMENT X (kNm)	0	0	0



MAX ALLOWABLE LOADS AT B,L, CONNECTIONS							
	FORCES [kN]			MOMENTS [kNm]		
	VL	P	VC	MC	MT	ML
A	1,8	1,5	1,8	0,3	0,4	0,2
B	2	2	2	0,8	0,8	0,8

TAG NUMBER OF EQUIPMENTS	
TAG	DESCRIPTION
K-63001A/B	OIL FREE SCREW COMPRESSOR 1&2
S-63001A/B	DRYER PRE-FILTER
D-63001A/B	DRYER UNIT 1
D-63002A/B	DRYER UNIT 2
S-63002A/B	DRYER AFTER-FILTER
V-63001	INSTRUMENT AIR RECEIVER

NAMEPLATE "COES"

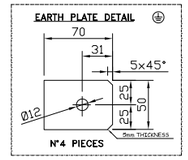
MANUFACTURER	COES SRL - STEZZANO (BG)		
SERVICE	INSTRUMENT AIR PACKAGE		
YEAR	2024	SERIAL NUMBER	*****
WEIGHT	11000 kg	ITEM	A-63000
PRESSURE	12 barg	TEMPERATURE	-10°C / 90°C

CE 0425 2014/68/UE - Cat.III

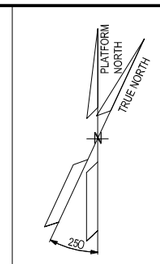
CONNECTIONS			
POS.	TYPE	SERVICE	MATERIAL
A	ø 1" ANSI 150# R.F.	DRAIN DISCHARGE	SS 316/316L
B	ø 2" ANSI 150# R.F.	INSTRUMENT AIR OUTLET	SS 316/316L

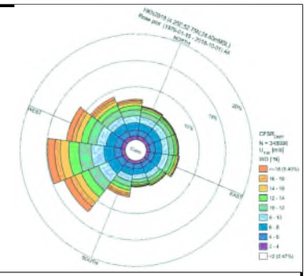
TOTAL WEIGHT : 11.000 kg

EARTH PLATE DETAIL



N°4 PIECES





NOTES

1. SKID TOTAL WEIGHT: 5000 kg
2. FOR EQUIPMENT WEIGHT REFER TO EQUIPMENT DS, DOC. NO. 1724000428-MAC-DS-00011
3. FOR DESIGN PARAMETERS & CODES REFER TO EQUIPMENT DS, DOC. NO. 1724000428-MAC-DS-00011
4. FOR WELDING DETAILS REFER TO WELDING SPECIFICATION, DOC. NO. 1724000428-WEL-LIS-00021
5. FOR PAINTING DETAILS REFER TO PAINTING SPECIFICATION, DOC. NO. 1724000428-MAT-PRO-00022
6. NO LUBRICATION REQUIRED
7. FOR LOAD DETAILS REFER TO STRUCTURAL CALCULATION, DOC. NO. 1724000428-ST-RE-00010

LEGEND

HOLDS

N

coes

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	06/08/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
01	08/05/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
00	21/03/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
PACKAGE GENERAL ARRANGEMENT
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE N/A
DRAWN GT	CHECKED MC	APPROVED TM	DATE 06/08/24
A1	DRAWING NO. 1724000428-MAC-DA-00005	SHEET 001	REV. 02

File Name : 1724000428-MAC-DA-00005

Base Load Power Hub (BLPH)

INSTRUMENT AIR PACKAGE A-63000
PACKAGE WIRING DIAGRAM
INCLUDING LAYOUT OF PACKAGE CONTROL PANEL 63-LP-001

Document Number: 1724000428-MAC-DG-00009

Document Class: 2

02	22/10/2024	Accepted for Construction (AFC)	GT	MC	TM
01	01/07/2024	Issue for Review (IFR)	GT	MC	TM
00	10/05/2024	Issue for Review (IFR)	GT	MC	TM
Rev.	Date	Description	Prepared	Reviewed	Approved

COES

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

	PREPARED	CHECKED AND APPROVED	CUSTOMER APPROVAL	DATE	DESCRIPTION
	ASSOLARI O.	TIRABOSCHI T.		08.05.2024	FIRST ISSUE
A	ASSOLARI O.	TIRABOSCHI T.		30.05.2024	ACCORDING TO CUSTOMER COMMENTS
B	ASSOLARI O.	TIRABOSCHI T.		01.08.2024	ACCORDING TO CUSTOMER COMMENTS
C					
D					
E					
F					

	PREPARED	CHECKED AND APPROVED	CUSTOMER APPROVAL	DATE	DESCRIPTION
G					
H					
I					
L					
M					
N					

TEST CERTIFICATE N	2024...

ELECTRICAL CABINET	=PLANT +LOCATION	WORK ORDER SERIAL NUMBER

TITLE

COMMAND AND CONTROL SWITCHBOARDS DRYER
GENERATION PACKAGE 63-LP-001
WIRING DIAGRAM

REF. Netherlands

TECHNICAL AND CONSTRUCTIVE FEATURES

ELECTRICAL

RATED VOLTAGE:

RATED FREQUENCY:
50Hz

RATED CURRENT:
32A

AUXILIARY CIRCUIT SUPPLY:
230Vac~ 24Vdc

SHORT CIRCUIT CURRENT:
10kA

EARTH BUSBAR SECTION:
Cu 20x5 mm²

REFERENCE STANDARDS:
IEC 61439-1

MECHANICALS

DEGREE OF PROTECTION (INT.):
IP20

DEGREE OF PROTECTION (EXT.):
IP66

INTERNAL PAINTING:
RAL7035

EXTERNAL PAINTING:
RAL7035

SEGREGATION FORM:
--

INSTALLATION CONDITIONS

ENVIRONMENT TEMPERATURE:
-5° - 41°C

RELATIVE HUMIDITY:
90%

ALTITUDE:
<= 1000mt s.l.m.

INSTALLATION:
FOR EXTERNAL

CABLE INCOMING:
FROM LOW

CABLE OUTGOING:
FROM LOW

WIRING

COLORS

POWER CIRCUITS:
BLACK

ac AUXILIARY CIRCUITS:
RED

dc AUXILIARY CIRCUITS:
BLUE

CIRCUITS NOT ISOLATED BY GENERAL DEVICE:
ORANGE

EARTH CIRCUITS:
YELLOW/GREEN

SECTIONS

POWER CIRCUITS:
MINIMUM 2,5mm²

AUXILIARY CIRCUITS:
MINIMUM 1,5mm²

ELECTRONIC CIRCUITS:
MINIMUM 0,5mm²

CURRENT MEASURE CIRCUITS:
2,5mm²

VOLTAGE MEAUSURE CIRCUITS:
2,5mm²

CABLE TYPE:
FS17

TERMINALS

AUXILIARY:
2,5mm²

VOLTAGE MEAUSURE CIRCUITS:
6mm² WITH DISCONNECTING SLIDE-LINK

CURRENT MEASURE CIRCUITS:
6mm² WITH DISCONNECTING SLIDE-LINK AND SHORT-CIRCUIT CROSS CONNECT.

THE SECTIONS OF THE WIRE DON'T SPECIFIED ARE mm²; THE COLORS OF THE WIRE DON'T SPECIFIED ARE:

COES S.r.l.
Via Pontida , 265
24040 Stezzano (BG)-Italy
Tel. +39 035 2050 511 Fax +39 035 2050 532
www.coessrl.com coes@coessrl.com

LEVELS	DRAWING N.	PLANT	PAGE
COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	d241025-WD		01
	WORK ORDER N. 2024.4814_001	LOCATION	NEXT 02
DESCRIPTION: COVER			TOTAL 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

LETTER	TYPE OF COMPONENT	EXAMPLE	MARK
A	ASSEMBLED	LASER MASER REGULATOR	A
		TRANSISTOR AMPLIFIER INTEGRATED CIRCUITS AMPLIFIER MAGNETIC AMPLIFIER VALVE AMPLIFIER	AD AJ - AP AM - AT AV - AR
B	TRASDUCER OF QUANTITY NON-ELECTIC TO ELECTRIC OR VICEVERSA	PHOTOELECTRIC CELL ELECTRIC DYNAMOMETER CRISTAL TRASDUCER MICROPHONE PICK-UP LOUDSPEAKER SYNCRONOUS TRANSMITTER	B
		TRANSDUCER OR ANALOGIC SENSOR OR NUMERIC WITH MULTIPLE STEPS (USABLE FOR INDICATION OR THE MEASURE): PRESSURE TRANSDUCER POSITION TRANSDUCER ROTATION TRANSDUCER (TACHOMETRIC GENERATOR) TEMPERATURE TRANSDUCER VELOCITY TRANSDUCER	 BP BQ BR BT BV
C	CAPACITORS	CAPACITORS	C
D	BYNARY ELEMENTS DEVICE OF DELAY DEVICE OF STORAGE	DEVICE AND INTEGRATED CIRCUITS DIGITAL: DELAY LINE ELEMENT BISTABLE ELEMENT MONOSTABLE RECORDER MEMORY MAGNETIC RECORDER ON TAPE OR ON DISC	D
E	MATERIALS SUNDRIES	DEVICE NOT SPECIFIED IN THIS TABLE	E
		HEATER ILLUMINATION LAMP VENTILATOR	EH EL EV
F	PROTECTION DEVICE	OVER-VOLTAGE DEVICE SOURGE ARRESTER	F
		DEVICE OF PROTECTION WITH CURRENT THRESHOLD WITH INSTANTANEOUS ACTION DEVICE OF PROTECTION WITH CURRENT THRESHOLD WITH DELAYED ACTION DEVICE OF PROTECTION WITH CURRENT THRESHOLD WITH INSTANTANEOUS ACTION AND DELAYED FUSE DEVICE OF PROTECTION WITH VOLTAGE THRESHOLD	 FA FR FS FU FV
G	GENERATOR POWER SUPPLY	ROTATING GENERATOR QUARZ OSCILLATOR	G
		BATTERY OF ACCUMULATORS CONVERTER OF FREQUENCY ROTATING OR STATIC POWER SUPPLY	GB GF GS
H	SEGNALLING DEVICE	ACUSTIC SIGNAL OPTICAL / LUMINOUS INDICATOR	HA HL
K	RELAY CONTACTOR	RELÈ ISTANTANEO CON TUTTO O NIENTE O CONTATTORI ISTANTANEO RELÈ BISTABILI O CONTATTORI INTERBLOCCATI (RELÈ CON TUTTO O NIENTE CON ACCOPPIATORE MECCANICO O MAGNETE PERMANENTE) CONTATTORI RELÈ POLARIZZATO RELÈ REED RELÈ TEMPO CON TUTTO O NIENTE (TIMER)	KA KL KM KP KR KT
L	INDUCTOR, REACTOR	INDUCTOR, RECTOR, COIL	L
M	MOTOR	MOTOR	M
N	ANALOG CIRCUIT INTEGRATED	OPERATIONAL AMPLIFIER ANALOG/DIGITAL HYBRID APPARATUS	N

LETTER	TYPE OF COMPONENT	EXAMPLE	MARK
P	TEST DEVICE AND INSTRUMENT	DEVICE OF MEASURE INDICATOR RECORDERS AND INTEGRATORS GENERATOR OF SIGNALS	P
		AMPEROMETER COUNTER OF IMPULSES WATTMETER APPARATUS RECORDER CLOCK / COUNTER OF HOURS OF SERVICE VOLTMETER	PA PC PJ PS PT PV
Q	MANOEUVRE APPARATUS FOR POWER CIRCUITS	SWITCH AUTOMATIC MOTOR PROTECTION DISCONNETTING SWITCH	QF QM QS
R	RESISTOR	FIXED OR VARIABLE (RHEOSTAT) RESISTOR	R
		POTENTIOMETER DERIVATIVE RESISTOR WITH INTRINSIC VARIATION DEPENDENT OF TEMPERATURE (THERMISTOR) RESISTOR WITH INTRINSIC VARIATION DEPENDENT OF VOLTAGE (VARISTOR)	RP RS RT RV
S	COMMAND OR CONTROL APPARATUS	SELECTOR OR COMMUTATOR PUSH BUTTON (INTO DEVICE ELECTRONIC OF COMMAND WITH PROXIMITY) SENSORS WITH ALL OR NOTHING NUMERIC (WITH STEP SINGLE) OF NATURE MECCANIC AND ELECTRONIC: - SENSOR OF LEVEL OF LIQUID - SENSOR OF PRESSURE - SENSOR OF POSITION (INTO OF PROXIMITY) - SENSOR OF ROTATION - SENSOR OF TEMPERATURE	SA SB SL SP SQ SR ST
T	TRANSFORMER	CURRENT TRANSFORMER COMMAND CIRCUITS POWER SUPPLY TRANSFORMER POWER TRANSFORMER MAGNETIC STABILIZER VOLTAGE TRANSFORMER	TA TC TM TS TV
U	MODULATOR CONVERTER	DISCRIMINATOR DEMODULATOR FREQUENCY CONVERTER ENCODER CONVERTER INVERTER TELEGRAPHIC TRANSLATOR	U
V	ELECTRONIC TUBE SEMICONDUCTOR	ELECTRONIC TUBE GAS DISCHARGE TUBE DIODE TRANSISTOR THYRISTOR	V
		RECTIFIER FOR COMMAND CIRCUITS POWER SUPPLY	VC
W	TRANSMISSION WAYS WAVE GUIDES AERIALS	WIRE CABLE BUS BAR WAVE GUIDE WAVE GUIDE DIRECTIONAL COUPLER DIPOLE PARABOLIC AERIAL	W
X	TERMINAL OUTLET PLUG	CONNECTING BUS BAR TEST PLUG PLUG OUTLET TERMINAL BOARD	XB XJ XP XS XT
Y	APPARATUS MECHANICS ELECTRICALLY OPERATED	ELECTROMAGNET ELECTROMAGNETIC BRAKE ELECTROMAGNETIC FRICTION MAGNETIC MANDREL OR TABLE ELECTROMAGNETIC VALVE	YA YB YC YH YV
Z	TRANSFORMER, IMPEDANCE ADAPTOR EQUALIZER, BAND LIMITER	EQUALIZER OF LINE COMPRESSOR CRYSTAL FILTER	Z

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
MARKS OF IDENTIFIERS ACC. TO IEC 204-2

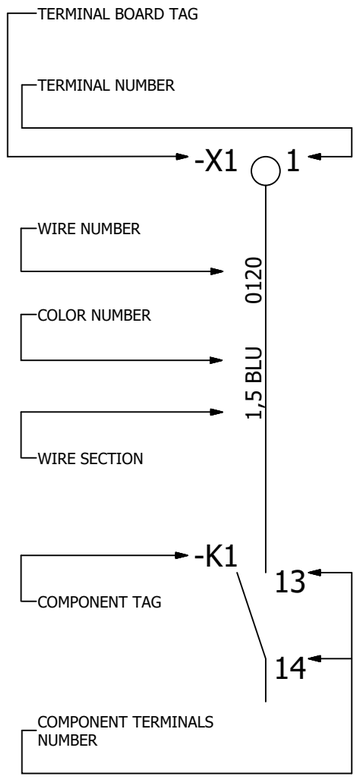
PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	02
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	03
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

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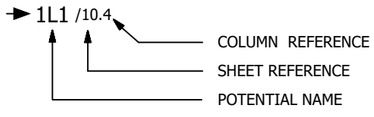
TABLE SYMBOLS

DEFINITION OF IDENTIFIERS (CEI3-34)		
CODE 1	PLANT	=
CODE 2	LOCATION	+
CODE 3	TAG	-
CODE 4	TERMINAL	:

NUMERATION WIRES AND TERMINALS
(CEI 16-1)



POTENTIAL CHAIN

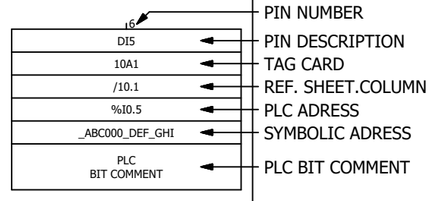


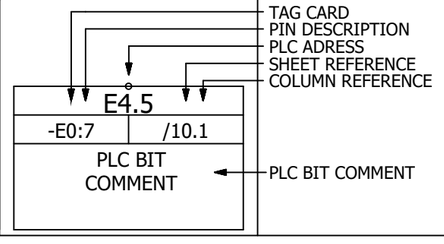
SYMBOL	DESCRIPTION
	TERMINAL
	COLLECTOR BUS-BAR CONNECTION
	FUSE TERMINAL
	FUSE TERMINAL WITH LED
	PUSH BUTTONS
COLOR	HEAD
COLOR	GENERICS
COLOR	LUMINOUS
	SELECTORS
NC	POSITION 0/1
NO	POSITION 1/0/2 FIXED
	POSITION 1/0/2 IMPULSIVE
COLOR	LUMINOUS
	WITH KEY
COLOR COLOR	LED - LAMP
COLOR	LIGHTING BODY FOR OPERATOR LIGHT
	ISOLATED BARRIER (SWITCH AMPLIFIER)
	ISOLATED BARRIER (TEMPERATURE REPEATER)

SYMBOL	DESCRIPTION
	AUXILIARY RELAY POWER RELAY
	TIMED RELAY DELAYED TO EXCITATION
	TIMED RELAY DELAYED TO THE DROP-OUT
	RELAY STEP BY STEP
	POWER CONTACT
	OPEN AND CLOSE AUXILIARY CONTACT
	EXCHANGE AUXILIARY CONTACT
	NORMALLY OPEN NORMALLY CLOSE AUXILIARY CONTACT DELAYED ON OPENING
	NORMALLY OPEN NORMALLY CLOSE AUXILIARY CONTACT DELAYED ON CLOSING
RC	OVERVOTAGE LIMITER

SYMBOL	DESCRIPTION
	TOROIDAL TRANSFORMER
NETWORK ANALIZER	NETWORK ANALIZER
	GENERIC PROTECTION COMMON: -VOLTMETRIC -AMMETRIC -TRANSDUCER
V	VOLTMETER
A	AMMETER
	COMMUTATOR: VOTMETRIC
	AMMETRIC
...n	DIODE MODULE
	Ac/Dc POWER SUPPLY

BIT PLC





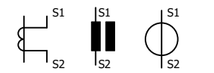
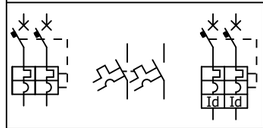
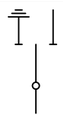
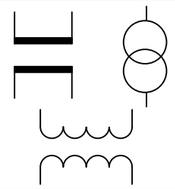
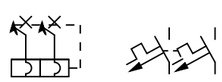
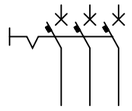
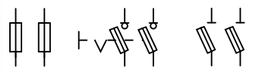
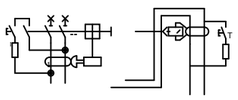
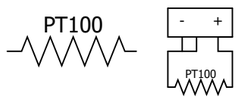
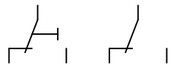
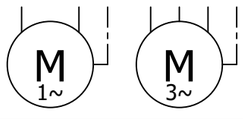
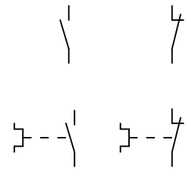
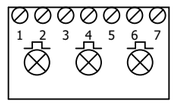
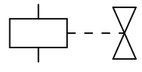
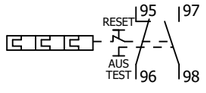
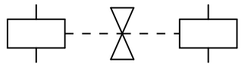
SYMBOL	DESCRIPTION
	HORN
	RESISTOR
	OUTLET SOCKET
	FAN
	MECHANICAL INTERLOCKED
	KEY FREE WITH CLOSED DOOR
	KEY FREE
	KEY LOCKED
	CONNECTOR
	LIMIT SWITCH
P>	AIR PRESSURE SWITCH
L	LEVEL SWITCH
F	SENSOR FILTER
T f	THERMOSTAT
	REED MAGNETIC PROXIMITY SENSOR

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

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PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER / PAGE: 03
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE / NEXT: 04
DESCRIPTION: COMMON SYMBOLS	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

TABLE SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SWITCH DISCONNETING SWITCH		GEARED MOTOR DEVICE		LINE/EARTH DISCONNECTING SWITCH MEDIUM VOLTAGE		CURRENT TRANSFORMER
	SWITCH: MAGNETOTHERMAL MAGNETOTERMAL+DIFFERENTIAL	YO	OPENING COIL		LINE/EARTH DISCONNECTING SWITCH MEDIUM VOLTAGE		VOLTAGE TRANSFORMER
		YC	CLOSING COIL				
		YU	MINIMUM VOLTAGE COIL				POWER TRANSFORMER
	AUTOMATIC SWITCH		CAPACITOR POLARIZD CAPACITOR		MEDIUM VOLTAGE SWITCH		
	DISCONNETTING SWITCH WITH FUSE		REACTOR		EARTH DISCONNETTING SWITCH MEDIUM VOLTAGE		
	DIFFERENTIAL SWITCH MINIATURE DIFFERENTIAL		THERMIC PROBE PT100		CAPACITIVE LIVE LINE INDICATOR		
	SOURGE ARRESTER		THERMOCOUPLE				
	EXCHANGE AUXILIARY CONTACT OF: -POSITION -SIGNALLING FOR SWITCH-DISCONNECTOR		ASYNCHRONOUS MOTOR SINGLE-PHASE THREE-PHASE				
	NORMALLY OPEN/CLOSE AUXILIARY CONTACT FOR: -SWITCH-DISCONNECTING SWITCH -AUTOMATIC/MAGNETOTH. SWITCH -THERMAL RELAY		THREE-PHASE FLASHING-LIGHT				
			SIMPLE SOLENOID VALVE				
	RELAY THERMAL WITH AUXILIARY CONTACTS		DOUBLE SOLENOID VALVE				

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 04
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 05
DESCRIPTION COMMON SYMBOLS	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

INDEX PAGES

PAGE	DATE	PREPARED	DESCRIPTION	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.
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REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 05
DESCRIPTION INDEX PAGES	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 06
	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

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PAGE	DATE	PREPARED	DESCRIPTION	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.	DATE	REV.
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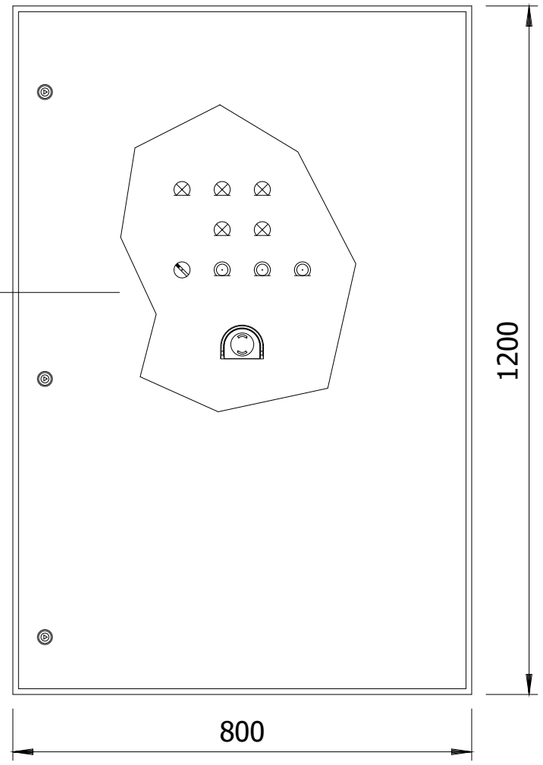
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A	30.05.2024	O.A.			

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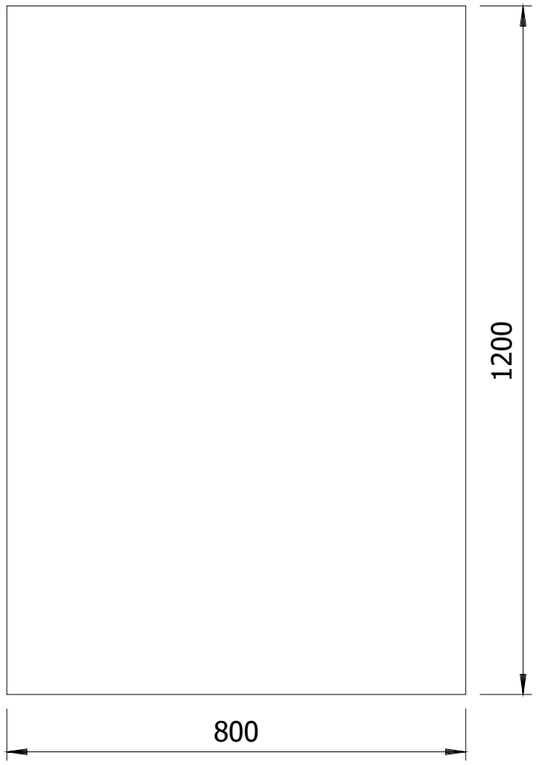
PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 06
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 10
DESCRIPTION INDEX PAGES	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

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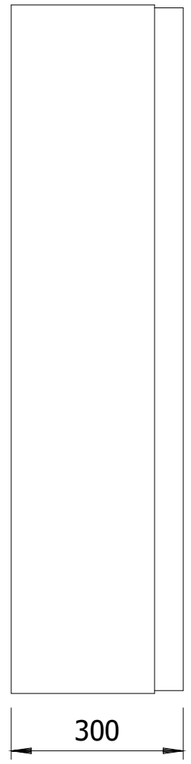
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FRONT



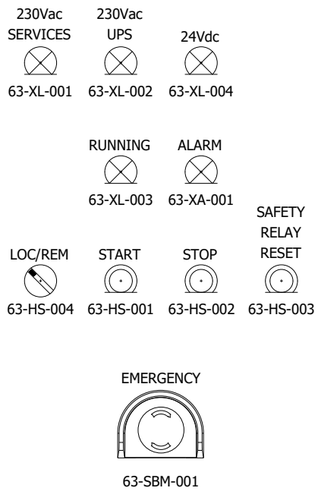
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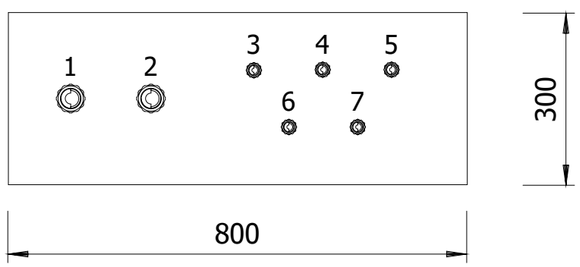
SIDE



OPERATORS
EXAMPLE



FRONT BOTTTOM



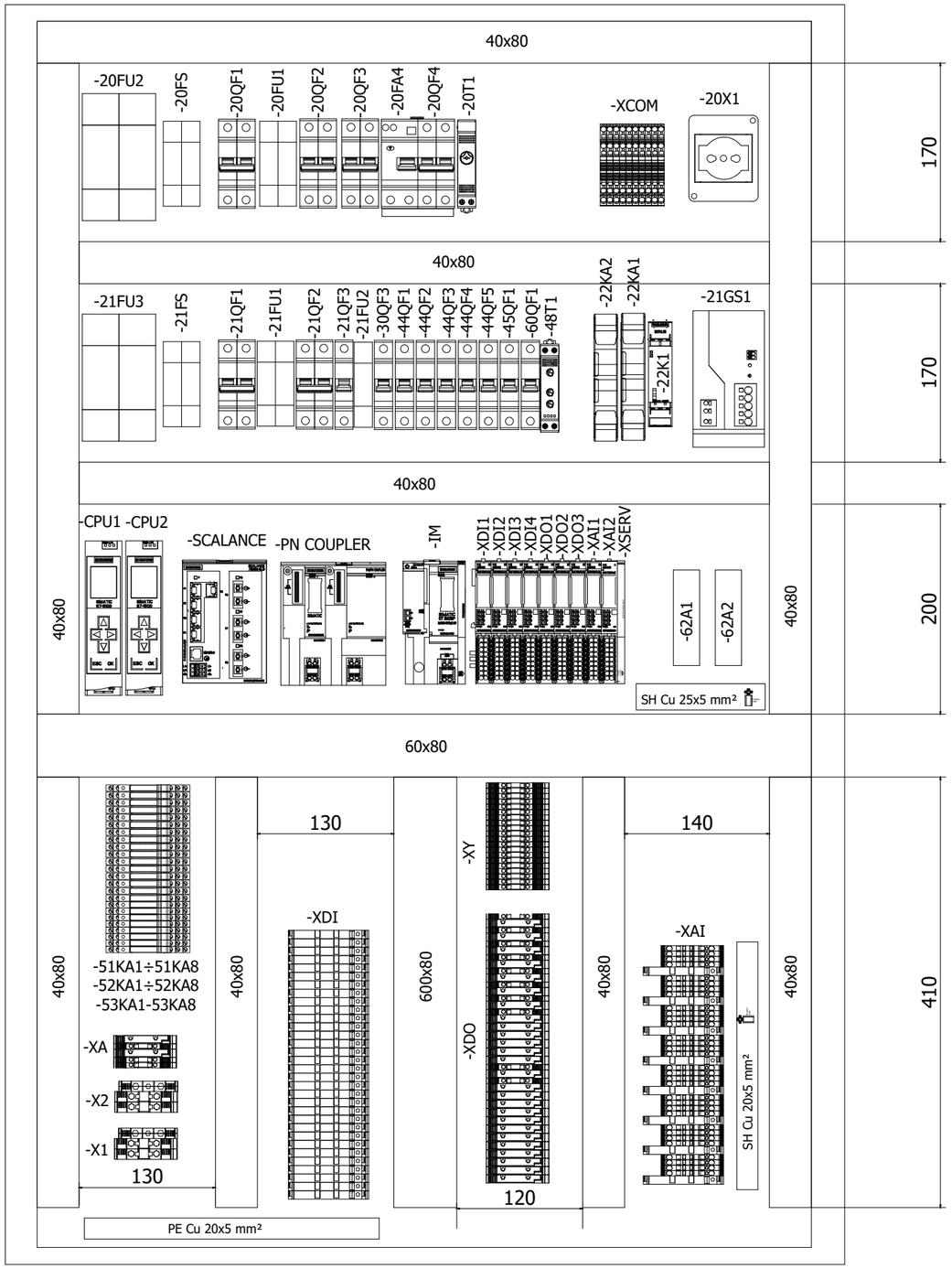
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REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

PLANT	PREPARED	CHECKED	PLANT	PAGE
COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	ASSOLARI O.	TIRABOSCHI T.	= DRYER	10
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 11
DESCRIPTION EXTERNAL VIEWS	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

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63-LP-001
INTERNAL

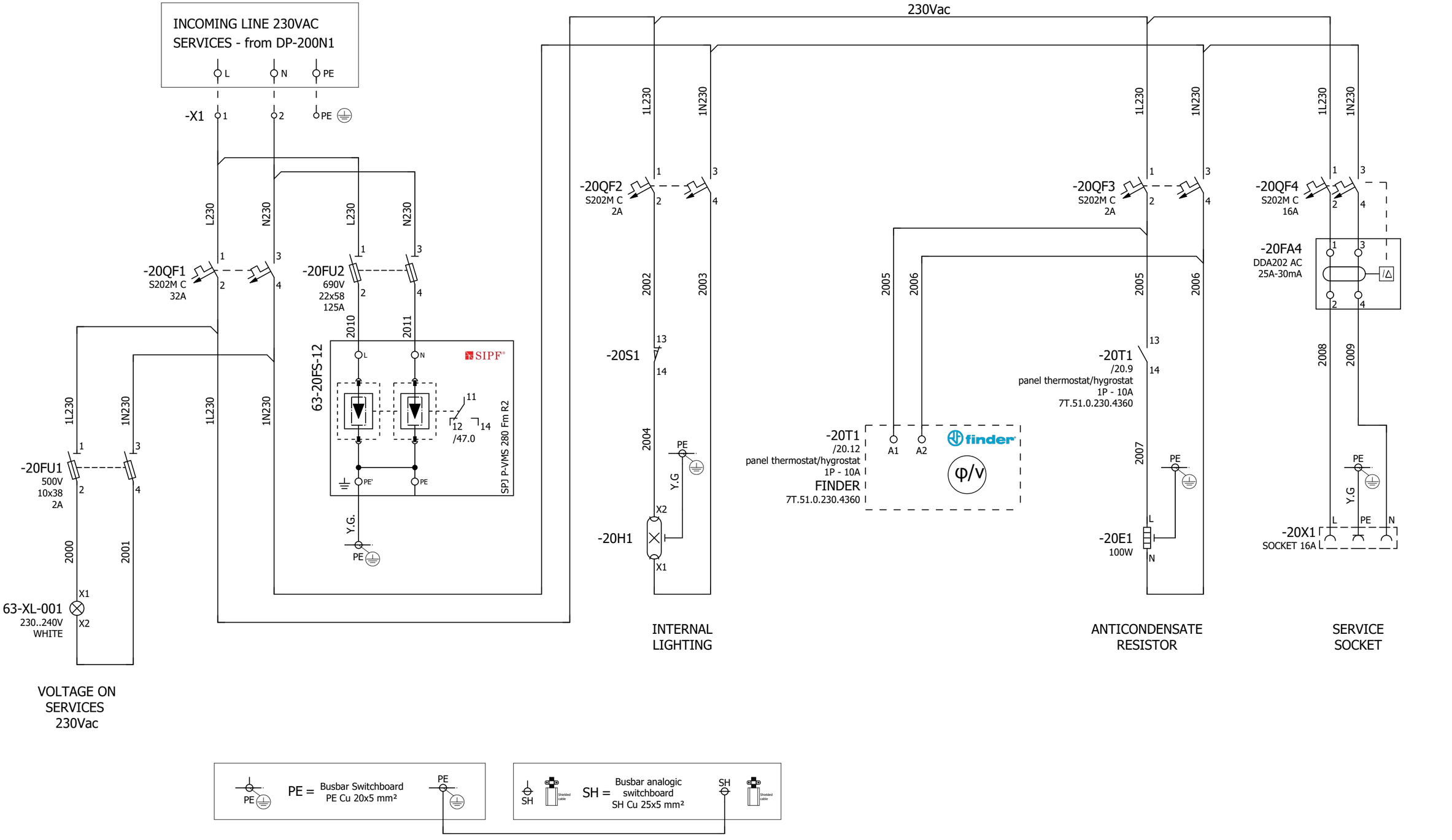


REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT		PREPARED	CHECKED	PLANT	PAGE
COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM		ASSOLARI O.	TIRABOSCHI T.	= DRYER	11
		DATE	APPROVED	LOCATION	NEXT
		08.05.2024		+ QE	20
DESCRIPTION		WORK ORDER N	DRAWING N		TOTAL SHEETS
INTERNAL VIEWS		2024.4814_001	d241025-WD		50

RM REFERENCE: 123A90-DDL-EL-DGF-20149 details electrical interface to Package systems



REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT	PREPARED	CHECKED	PLANT
COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	ASSOLARI O.	TIRABOSCHI T.	= DRYER
	DATE	APPROVED	LOCATION
	08.05.2024		+ QE
DESCRIPTION	WORK ORDER N	DRAWING N	TOTAL SHEETS
INCOMING LINE 230Vac SERVICES	2024.4814_001	d241025-WD	50

PAGE
20
NEXT
21

RM REFERENCE: 123A90-DDL-EL-DGF-20149 details electrical interface to Package systems

INCOMING LINE 230VAC
FROM UPS -from UP-200F3

L N PE

-X2 1 2 PE

L230UPS N230UPS

-21QF1
S202M C
32A

-21FU3
690V
22x58
125A

2105 2106

63-21FS-12 SIPF

L N 11 12 14 /47.2

PE' PE

SPJ P-VMS 280 Fm R2

1L230UPS 1N230UPS

-21FU1
500V
10x38
2A

2100 2101

X1
63-XL-002
230..240V
WHITE
X2

Y.G.
PE

VOLTAGE ON
UPS
230Vac

230Vac UPS

1L230UPS 1N230UPS

-21QF2
S202M C
4A

2102 2103

PE
Y.G

-21GS1
L/+ N/- PE
PHOENIX CONTACT
TRIO-PS-2G/1AC/24DC/20
+ + - - 13 14

L24+ 1M24-
Y.G.
PE

-21QF3
S201M C
20A

1L24+

-XCOM 1 2 3 4 5
-XCOM 6 7 8 9 10

24Vdc

1L24+ / 22.0

1L24+

-21FU2
500V
10x38
2A

2104

X1
63-XL-004
24 Vdc
WHITE
X2

1M24-

1M24- / 22.0

VOLTAGE ON
24Vdc

PE = Busbar Switchboard
PE Cu 20x5 mm²

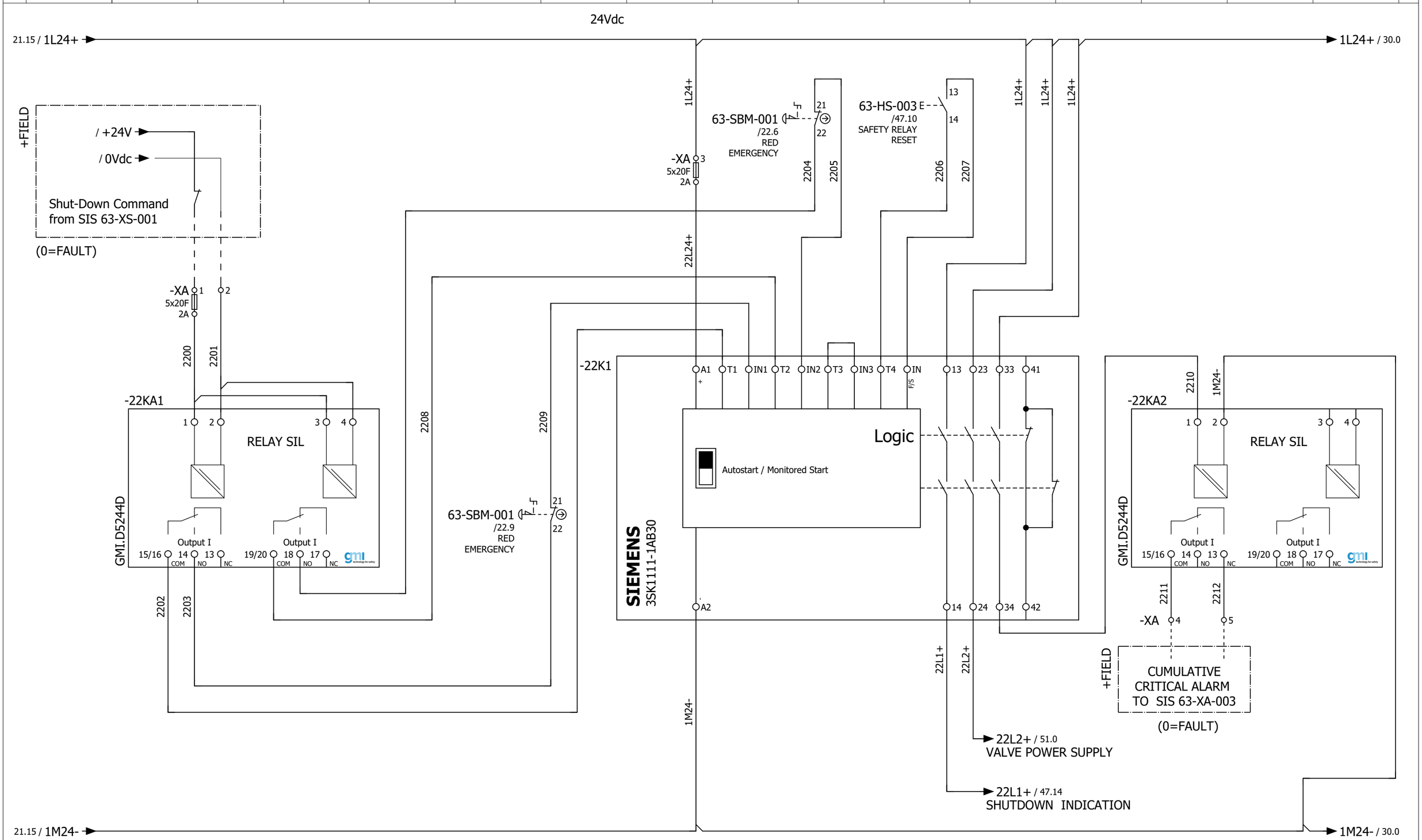
SH = Busbar analogic
switchboard
SH Cu 25x5 mm²

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

coes 20th 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: INCOMING LINE 230Vac FROM UPS	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

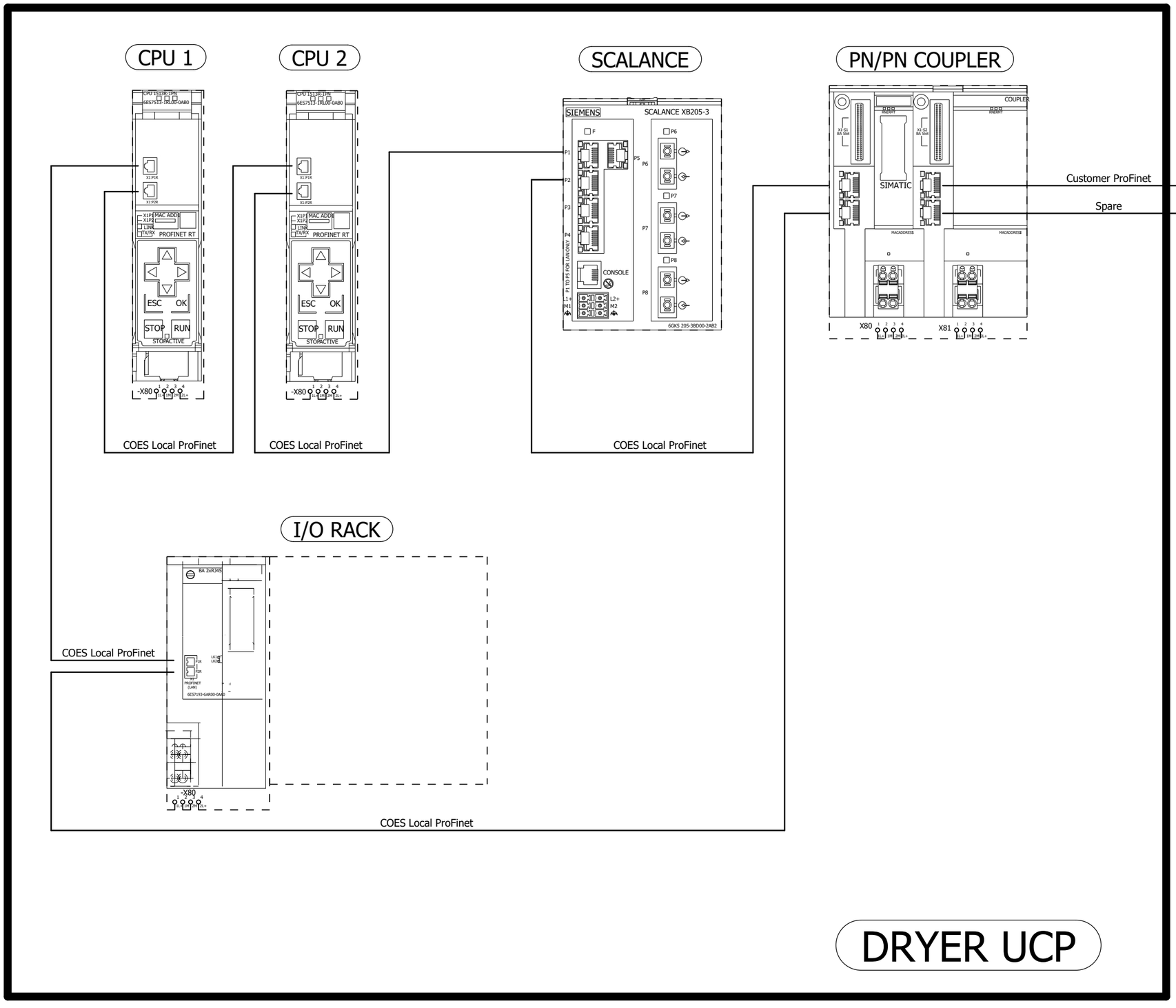
PAGE: 21 | NEXT: 22



REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: SAFETY RELAY 24Vdc	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	

PAGE	NEXT	TOTAL SHEETS
22	25	50

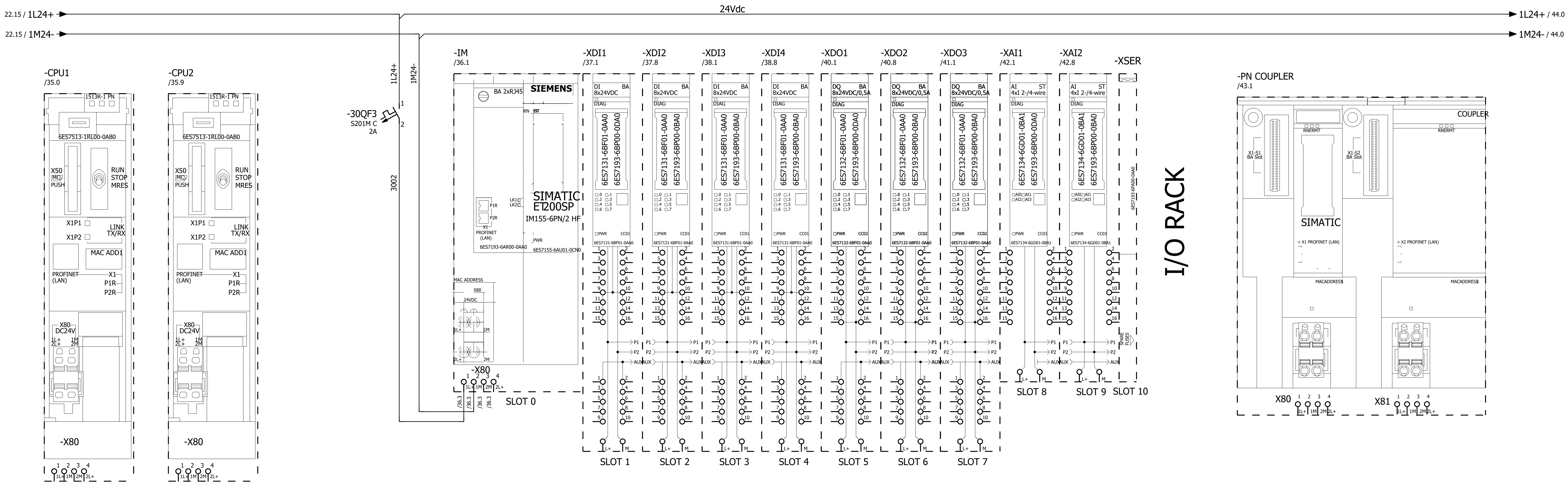


RM REFERENCE: 123A90-DDL-EL-DGF-20149 details electrical interface to Package systems

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 25
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 30
DESCRIPTION: NETWORK ARCHITECTURE	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15



B	01.08.2024	O.A.			
REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 30
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 35
DESCRIPTION PLC CONFIGURATION	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

-CPU1
/30.0
/44.10
SIE.6ES7513-1RL00-0AB0
SIE.6ES7954-8LF03-0AA0

S7-1500 SIEMENS
CPU 1513 R

X1P1 R: PN — /61.1
X1P2 R: PN — /61.2

-X80:1 1L+ — /44.10 POWER SUPPLY CPU 1513R-1PN - CPU1
-X80:2 1M — /44.10
-X80:3 2M — /44.10
-X80:4 2L+ — /44.11

6ES7513-1RL00-0AB0

-CPU2
/30.1
/44.13
SIE.6ES7513-1RL00-0AB0
SIE.6ES7954-8LF03-0AA0

S7-1500 SIEMENS
CPU 1513 R

X1P1 R: PN — /61.5
X1P2 R: PN — /61.6

-X80:1 1L+ — /44.13 POWER SUPPLY CPU 1513R-1PN - CPU2
-X80:2 1M — /44.13
-X80:3 2M — /44.13
-X80:4 2L+ — /44.13

6ES7513-1RL00-0AB0

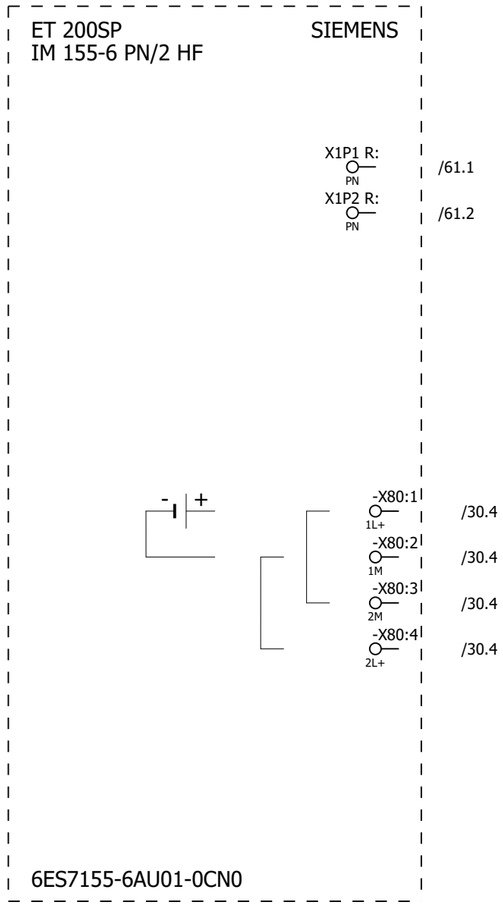
REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

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PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 35
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 36
DESCRIPTION: SUMMARY CPU	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

/30.4
-IM
SIE.6ES7155-6AU01-0CN0
SIE.6ES7193-6AR00-0AA0



REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 36
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 37
DESCRIPTION SUMMARY CARDS I/O RACK	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

6ES7131-6BF01-0AA0
6ES7193-6BP00-0DA0

-XDI1
/30.5

0	%I0.0	1 DI0	/46.0	63-PS-054	(DRYER 1) TOWER A PRESSURE SWITCH
0		9 24VDC			
1	%I0.1	2 DI1	/46.2	63-PS-056	(DRYER 1) TOWER B PRESSURE SWITCH
1		10 24VDC			
2	%I0.2	3 DI2	/46.4	63-PS-058	(DRYER 2) TOWER A PRESSURE SWITCH
2		11 24VDC			
3	%I0.3	4 DI3	/46.6	63-PS-060	(DRYER 2) TOWER B PRESSURE SWITCH
3		12 24VDC			
4	%I0.4	5 DI4	/46.8	63-CMPR-RUN-FDBCK-001	COMPRESSOR 1 RUNNING
4		13 24VDC			
5	%I0.5	6 DI5	/46.10	63-CMPR-ALARM-FDBCK-001	COMPRESSOR 1 COMMON ALARM
5		14 24VDC			
6	%I0.6	7 DI6	/46.12	63-CMPR-RUN-FDBCK-002	COMPRESSOR 2 RUNNING
6		15 24VDC			
7	%I0.7	8 DI7	/46.14	63-CMPR-ALARM-FDBCK-002	COMPRESSOR 2 COMMON ALARM
7		16 24VDC			
		L+ 24VDC	/44.1		POWER SUPPLY WHITE CARD DIGITAL INPUT -XDI1
		M 0VDC	/44.1		
		SH			

SIEMENS

6ES7131-6BF01-0AA0
6ES7193-6BP00-0BA0

-XDI2
/30.6

0	%I1.0	1 DI0	/47.0	63-20FS-12	SOURGE ARRESTER 230VAC_SERVICES OK
0		9 24VDC			
1	%I1.1	2 DI1	/47.2	63-21FS-12	SOURGE ARRESTER 230VAC_UPS OK
1		10 24VDC			
2	%I1.2	3 DI2	/47.4	63-TH-001	INTERNAL CABINET THERMOSTAT
2		11 24VDC			
3	%I1.3	4 DI3	/47.6	63-HS-001	LOCAL START PUSH BUTTON
3		12 24VDC			
4	%I1.4	5 DI4	/47.8	63-HS-002	LOCAL STOP PUSH BUTTON
4		13 24VDC			
5	%I1.5	6 DI5	/47.10	63-HS-003	LOCAL ALARM RESET
5		14 24VDC			
6	%I1.6	7 DI6	/47.12	63-HS-004	LOCAL REMOTE SELECTOR STATUS
6		15 24VDC			
7	%I1.7	8 DI7	/47.14	63-ESD-001	SHUTDOWN ALARM FROM SIS - INDICATION ONLY
7		16 24VDC			
		L+ 24VDC			
		M 0VDC			
		SH			

SIEMENS

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

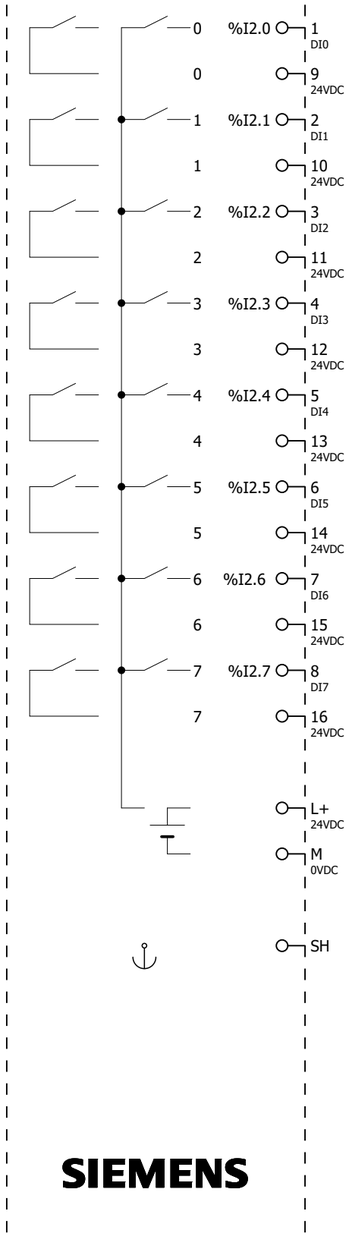
DESCRIPTION
SUMMARY CARDS I/O RACK

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	37
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	38
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

6ES7131-6BF01-0AA0
6ES7193-6BP00-0BA0

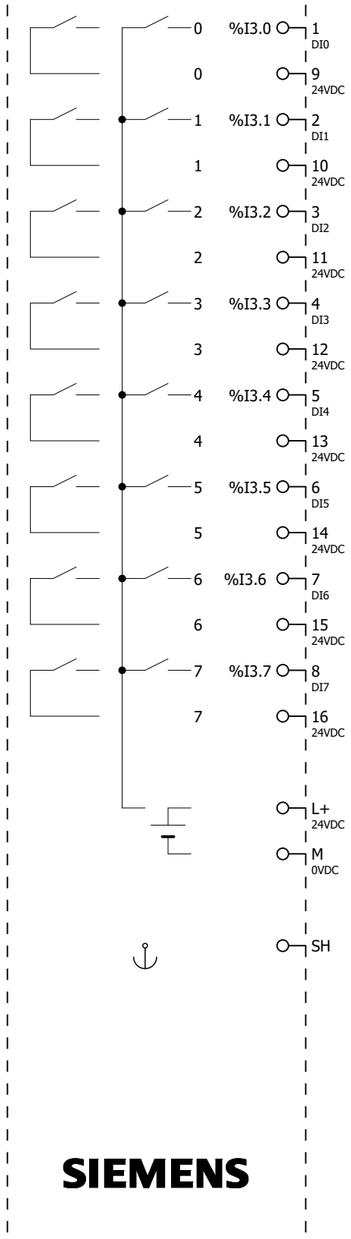
-XDI3
/30.7



/48.0	63-ZSH-055	VALVE 63-XV-055 OPEN LIMIT SWITCH	
/48.2	63-ZSL-055	VALVE 63-XV-055 CLOSED LIMIT SWITCH	
/48.4	63-ZSH-056	VALVE 63-XV-056 OPEN LIMIT SWITCH	
/48.6	63-ZSL-056	VALVE 63-XV-056 CLOSED LIMIT SWITCH	
/48.8	63-ZSH-057	VALVE 63-XV-057 OPEN LIMIT SWITCH	
/48.10	63-ZSL-057	VALVE 63-XV-057 CLOSED LIMIT SWITCH	
/48.12	63-ZSH-058	VALVE 63-XV-058 OPEN LIMIT SWITCH	
/48.14	63-ZSL-058	VALVE 63-XV-058 CLOSED LIMIT SWITCH	

6ES7131-6BF01-0AA0
6ES7193-6BP00-0BA0

-XDI4
/30.7



/49.0	63-ZSH-059	VALVE 63-XV-059 OPEN LIMIT SWITCH	
/49.2	63-ZSL-059	VALVE 63-XV-059 CLOSED LIMIT SWITCH	
/49.4	63-ZSH-060	VALVE 63-XV-060 OPEN LIMIT SWITCH	
/49.6	63-ZSL-060	VALVE 63-XV-060 CLOSED LIMIT SWITCH	
/49.8		SPARE	
/49.10		SPARE	
/49.12		SPARE	
/49.14		SPARE	

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: SUMMARY CARDS I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

PAGE: 38
NEXT: 40

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

6ES7132-6BF01-0AA0
6ES7193-6BP00-0DA0

-XDO1
/30.8

0 %Q0.0 1 DQ0	/51.0	63-XY-051	(DRYER 1) 5-WAY VALVE SOV COMMAND		
0 9 M					
1 %Q0.1 2 DQ1	/51.2	63-XY-052	(DRYER 1) DEPRESSURIZATION VALVE SOV COMMAND		
1 10 M					
2 %Q0.2 3 DQ2	/51.4	63-XY-053	(DRYER 2) 5-WAY VALVE SOV COMMAND		
2 11 M					
3 %Q0.3 4 DQ3	/51.6	63-XY-054	(DRYER 2) DEPRESSURIZATION VALVE SOV COMMAND		
3 12 M					
4 %Q0.4 5 DQ4	/51.8	63-XL-003	RUNNING STATUS LAMP		
4 13 M					
5 %Q0.5 6 DQ5	/51.10	63-XA-001	GENERAL ALARM LAMP		
5 14 M					
6 %Q0.6 7 DQ6	/51.12	63-CMPR-START-001	COMPRESSOR 1 REMOTE START/STOP		
6 15 M					
7 %Q0.7 8 DQ7	/51.14	63-CMPR-START-002	COMPRESSOR 2 REMOTE START/STOP		
7 16 M					
L+ 24VDC	/44.3		POWER SUPPLY WHITE CARD DIGITAL OUTPUT -XDO1		
M 0VDC	/44.3				
SH					

SIEMENS

6ES7132-6BF01-0AA0
6ES7193-6BP00-0BA0

-XDO2
/30.8

0 %Q1.0 1 DQ0	/52.0	63-ALARM-DRY-001	DRYER 1 ALARM		
0 9 M					
1 %Q1.1 2 DQ1	/52.2	63-ALARM-DRY-002	DRYER 2 ALARM		
1 10 M					
2 %Q1.2 3 DQ2	/52.4	63-XV-055	VALVE 63-XV-055 COMMAND		
2 11 M					
3 %Q1.3 4 DQ3	/52.6	63-XV-056	VALVE 63-XV-056 COMMAND		
3 12 M					
4 %Q1.4 5 DQ4	/52.8	63-XV-057	VALVE 63-XV-057 COMMAND		
4 13 M					
5 %Q1.5 6 DQ5	/52.10	63-XV-058	VALVE 63-XV-058 COMMAND		
5 14 M					
6 %Q1.6 7 DQ6	/52.12	63-XV-059	VALVE 63-XV-059 COMMAND		
6 15 M					
7 %Q1.7 8 DQ7	/52.14	63-XV-060	VALVE 63-XV-060 COMMAND		
7 16 M					
L+ 24VDC					
M 0VDC					
SH					

SIEMENS

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

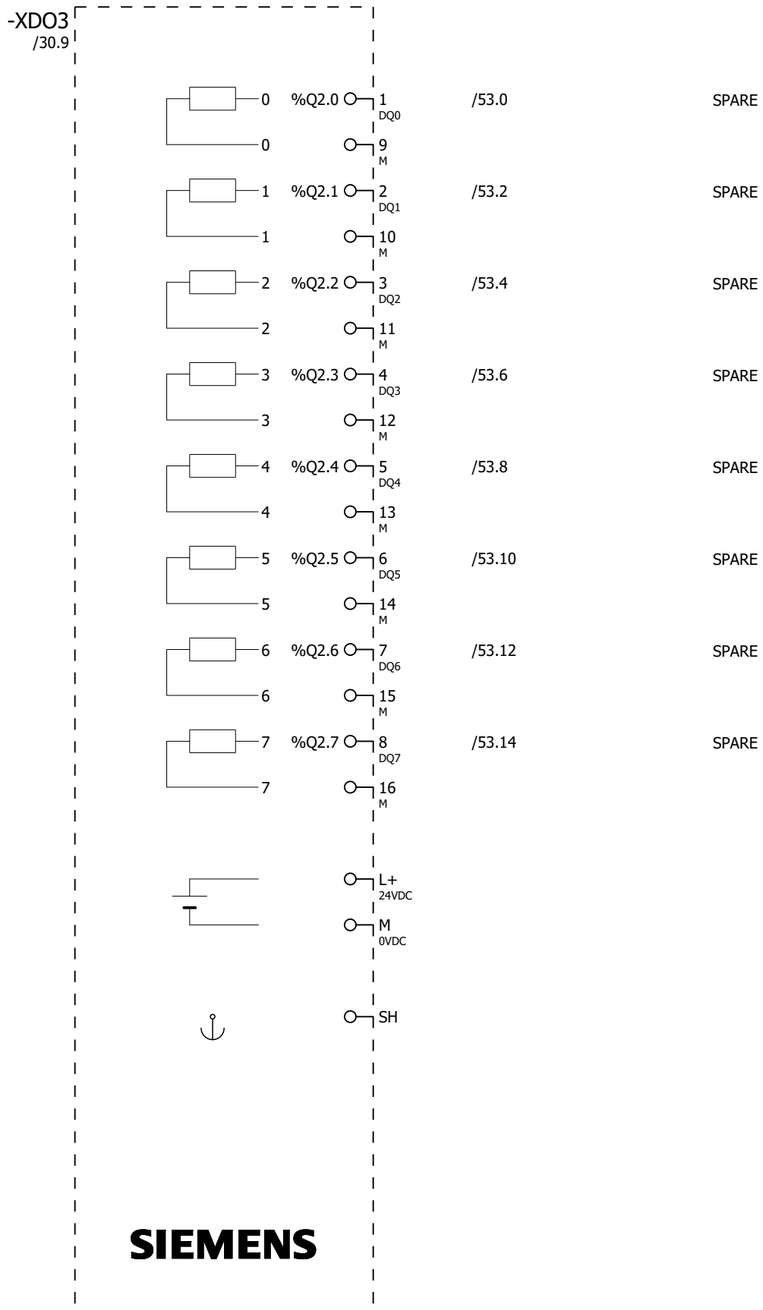
coes 20th coes 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: SUMMARY CARDS I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	

PAGE	NEXT	TOTAL SHEETS
40	41	50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

6ES7132-6BF01-0AA0
6ES7193-6BP00-0BA0



	/53.0	SPARE
	/53.2	SPARE
	/53.4	SPARE
	/53.6	SPARE
	/53.8	SPARE
	/53.10	SPARE
	/53.12	SPARE
	/53.14	SPARE

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

coes 20th 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: SUMMARY CARDS I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	

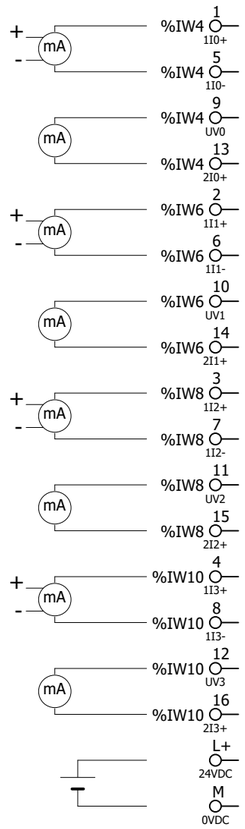
PAGE	NEXT	TOTAL SHEETS
41	42	50

/30.9

-XAI1

SIE.6ES7134-6GD01-0BA1
SIE.6ES7193-6BP00-0DA0

ET 200SP SIEMENS
AI 4xI 2-/4-wire ST



/54.1			
/54.1			
/54.2	63_PT_064	PRESSURE TRANSMITTER INSTRUMENT AIR RECIEVER	
/54.2			
/54.5			
/54.5			
/54.6	63_TIT_051	TEMPERATURE TRANSMITTER INLET AIR	
/54.6			
/54.9			
/54.9			
/54.10	63_TIT_052	TEMPERATURE TRANSMITTER INSTRUMENT AIR RECIEVER	
/54.10			
/54.13			
/54.13			
/54.14	63_AIT_051	DEW POINT TRANSMITTER	
/54.14			
/44.6		POWER SUPPLY WHITE CARD ANALOG INPUT -XAI1	
/44.7			

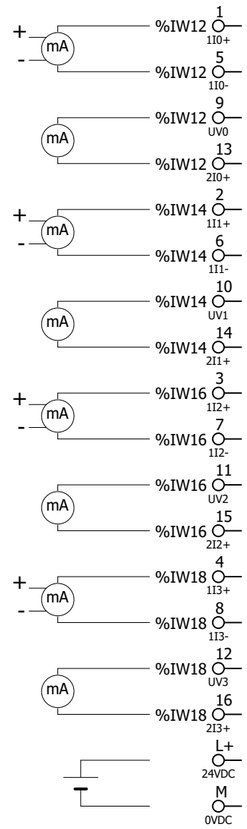
6ES7134-6GD01-0BA1

/30.10

-XAI2

SIE.6ES7134-6GD01-0BA1
SIE.6ES7193-6BP00-0BA0

ET 200SP SIEMENS
AI 4xI 2-/4-wire ST



/55.1		
/55.1		
/55.2	63_FIT_051	FLOW TRANSMITTER OUTLET AIR
/55.2		
/55.5		
/55.5		
/55.6	63_PDIT_051	DIFFERENTIAL PRESSURE TRANSMITTER INLET FILTERS
/55.6		
/55.9		
/55.9		
/55.10	63_PDIT_062	DIFFERENTIAL PRESSURE TRANSMITTER OUTLET FILTERS
/55.10		
/55.13		
/55.13		
/55.14	_XAI_45	SPARE
/55.14		

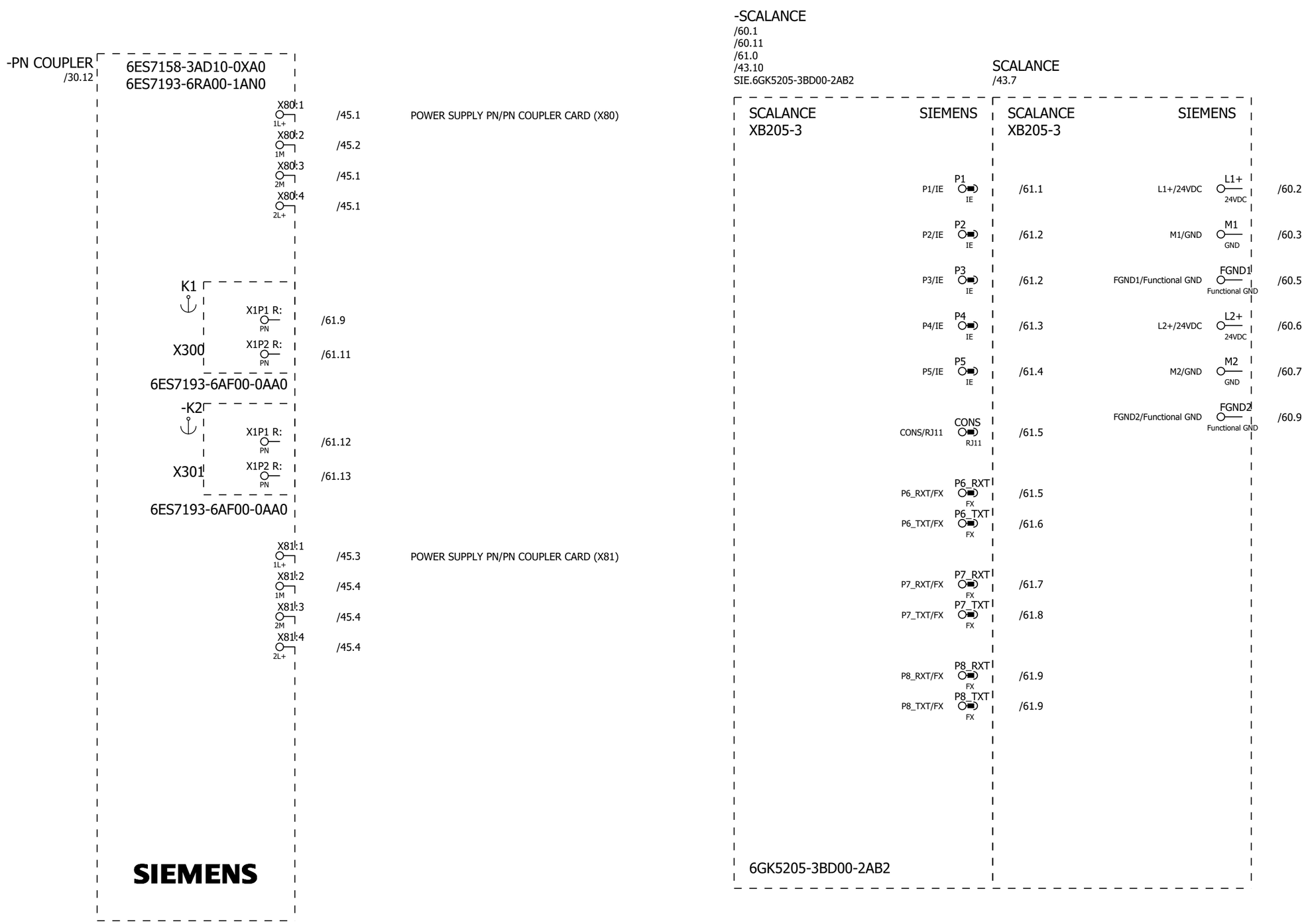
6ES7134-6GD01-0BA1

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
SUMMARY CARDS I/O RACK

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	42
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	43
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

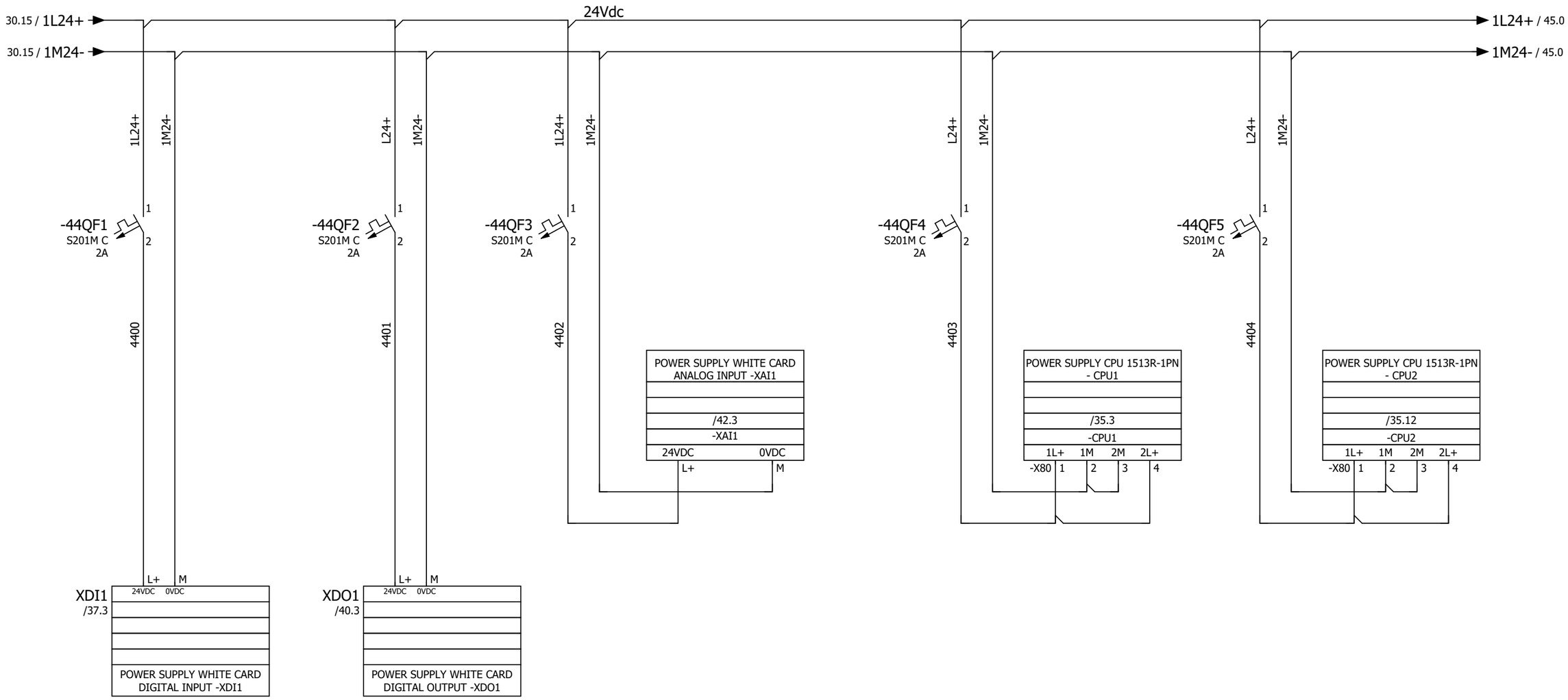


REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

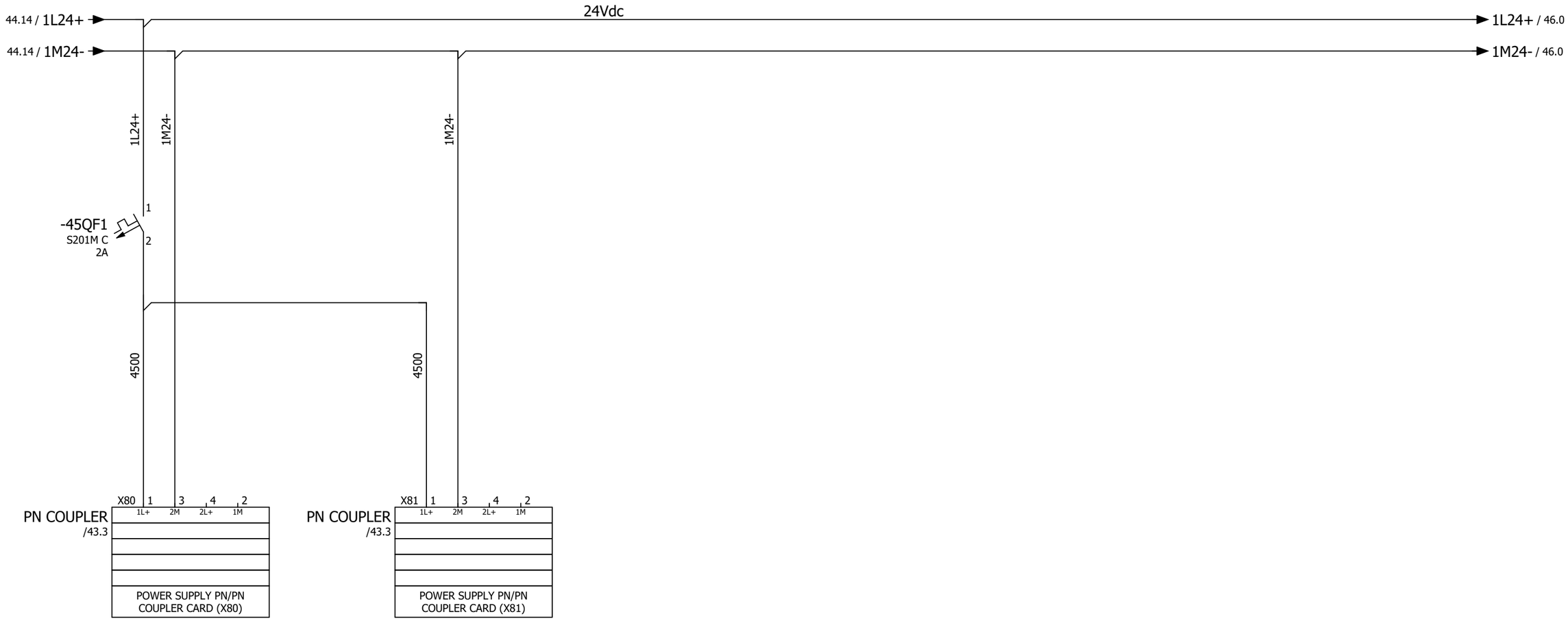
DESCRIPTION
SUMMARY CARD PN COUPLER AND SWITCH SCALANCE

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	43
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	44
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50



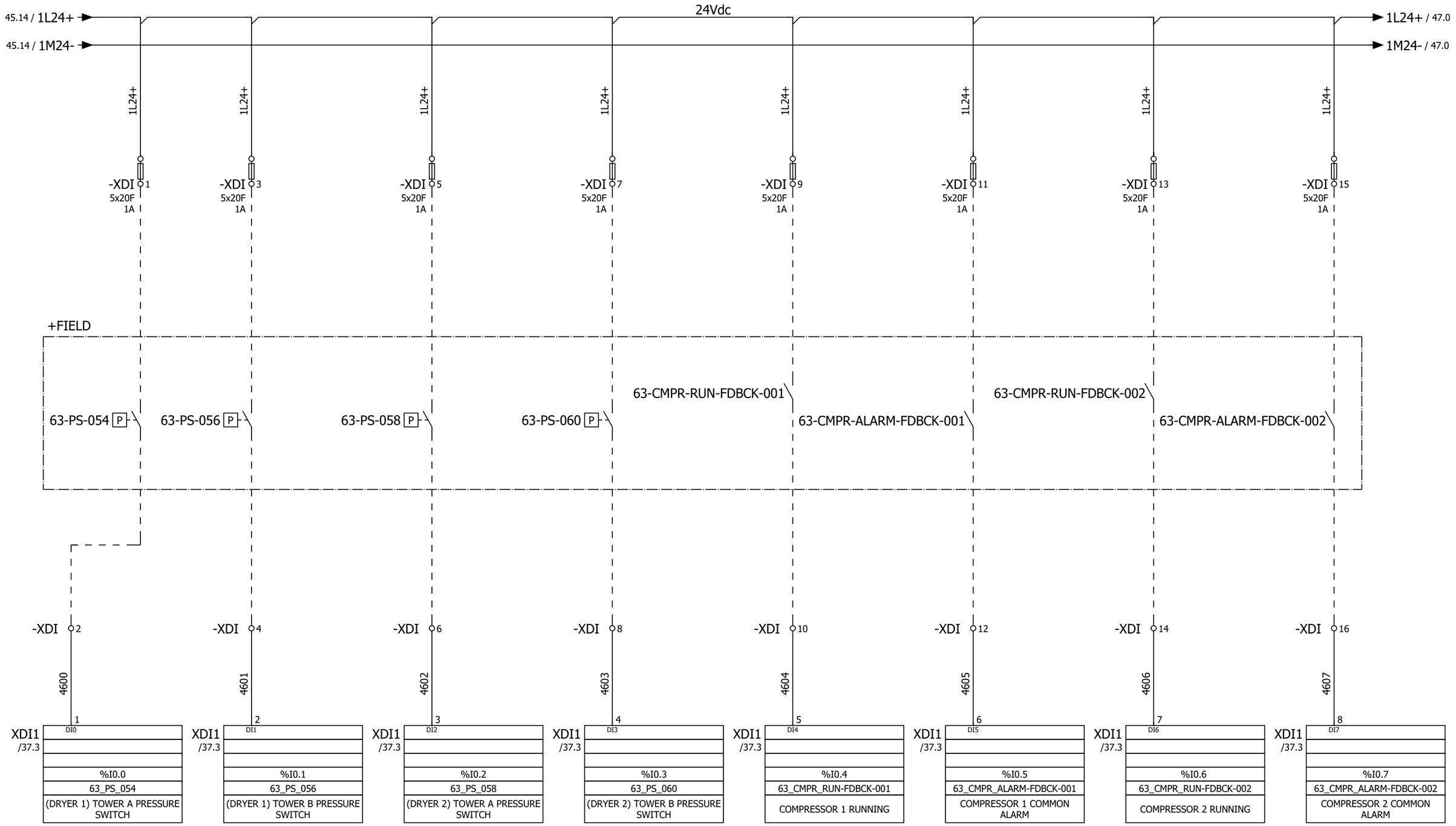
REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 44
DESCRIPTION: POWER SUPPLY CPU AND CARDS I/O RACK	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 45
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50



REV.	DATE	PREPARED	REV.	DATE	PREPARED

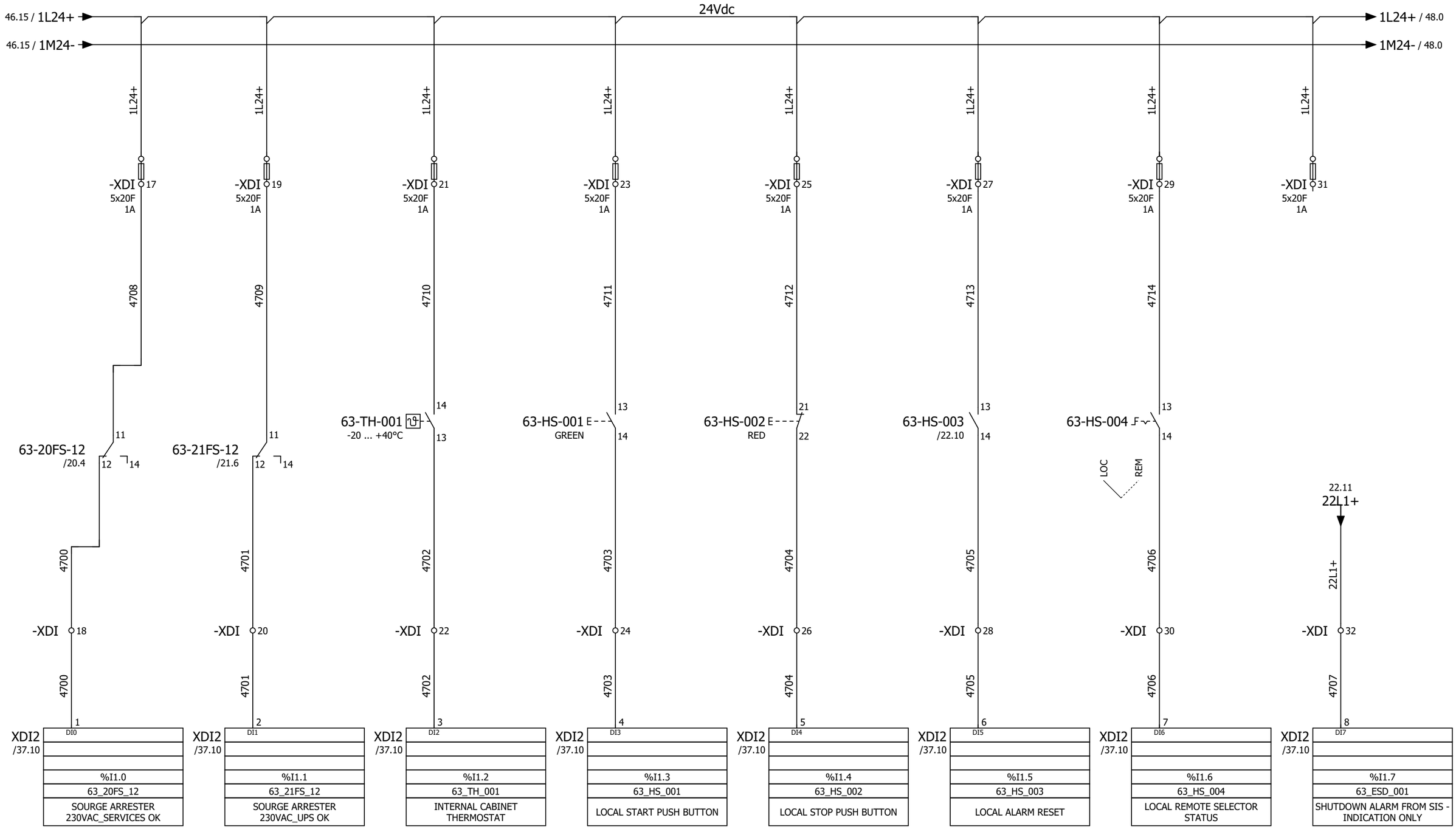
PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 45
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 46
DESCRIPTION POWER SUPPLY PN/PN COUPLER	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50



REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL INPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

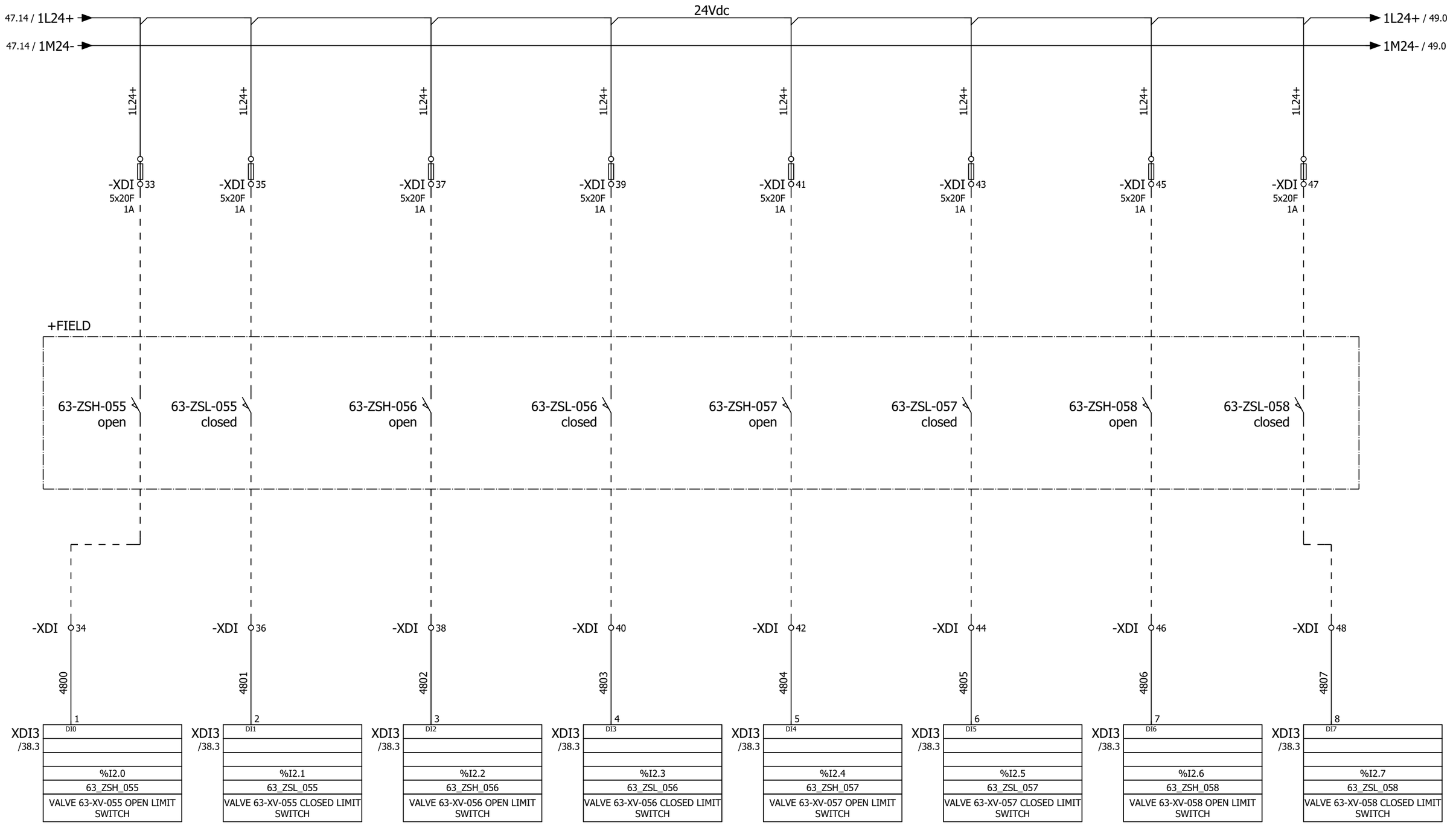
PAGE: 46
NEXT: 47



REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

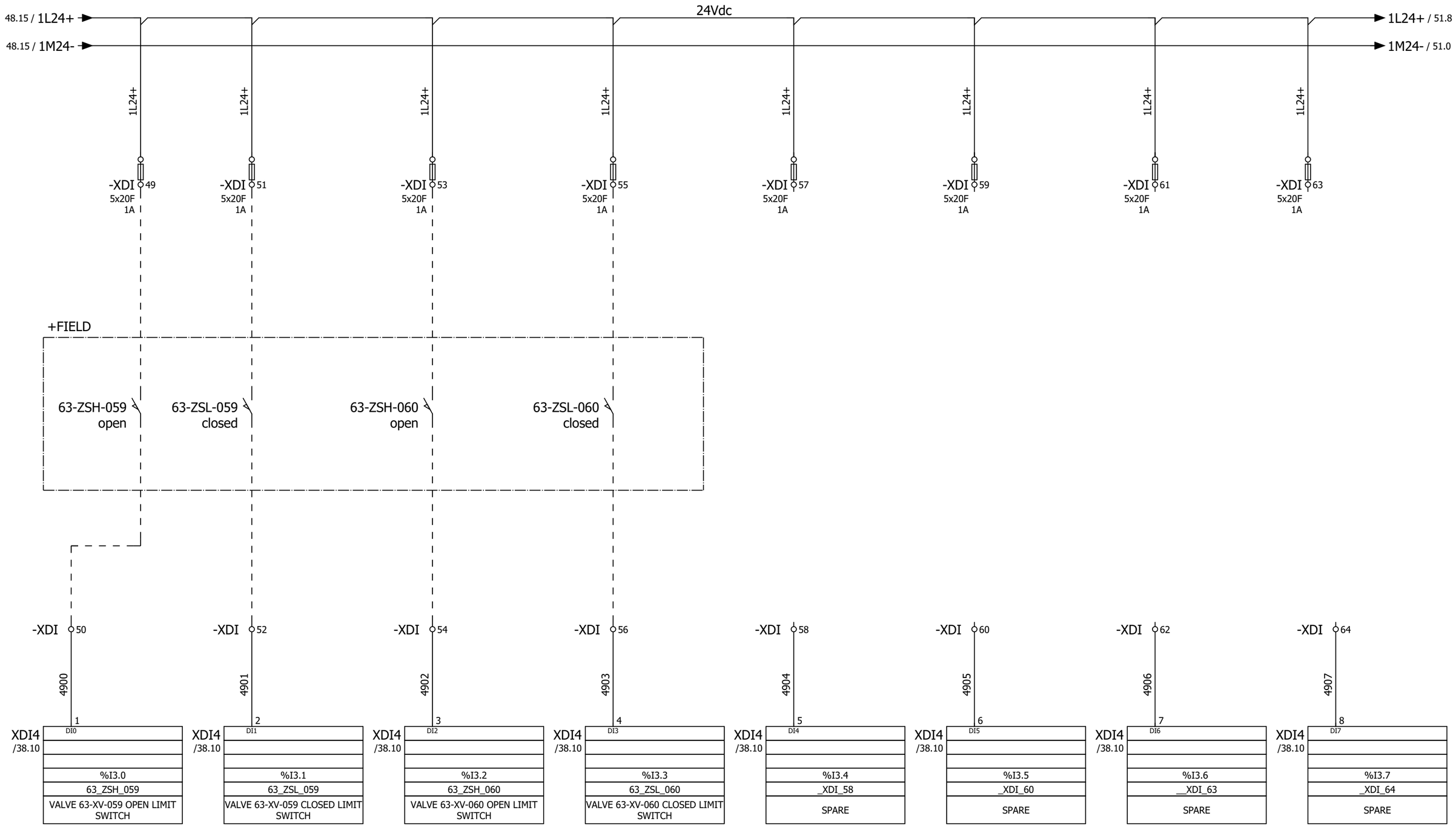
PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL INPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

PAGE: 47
NEXT: 48



REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

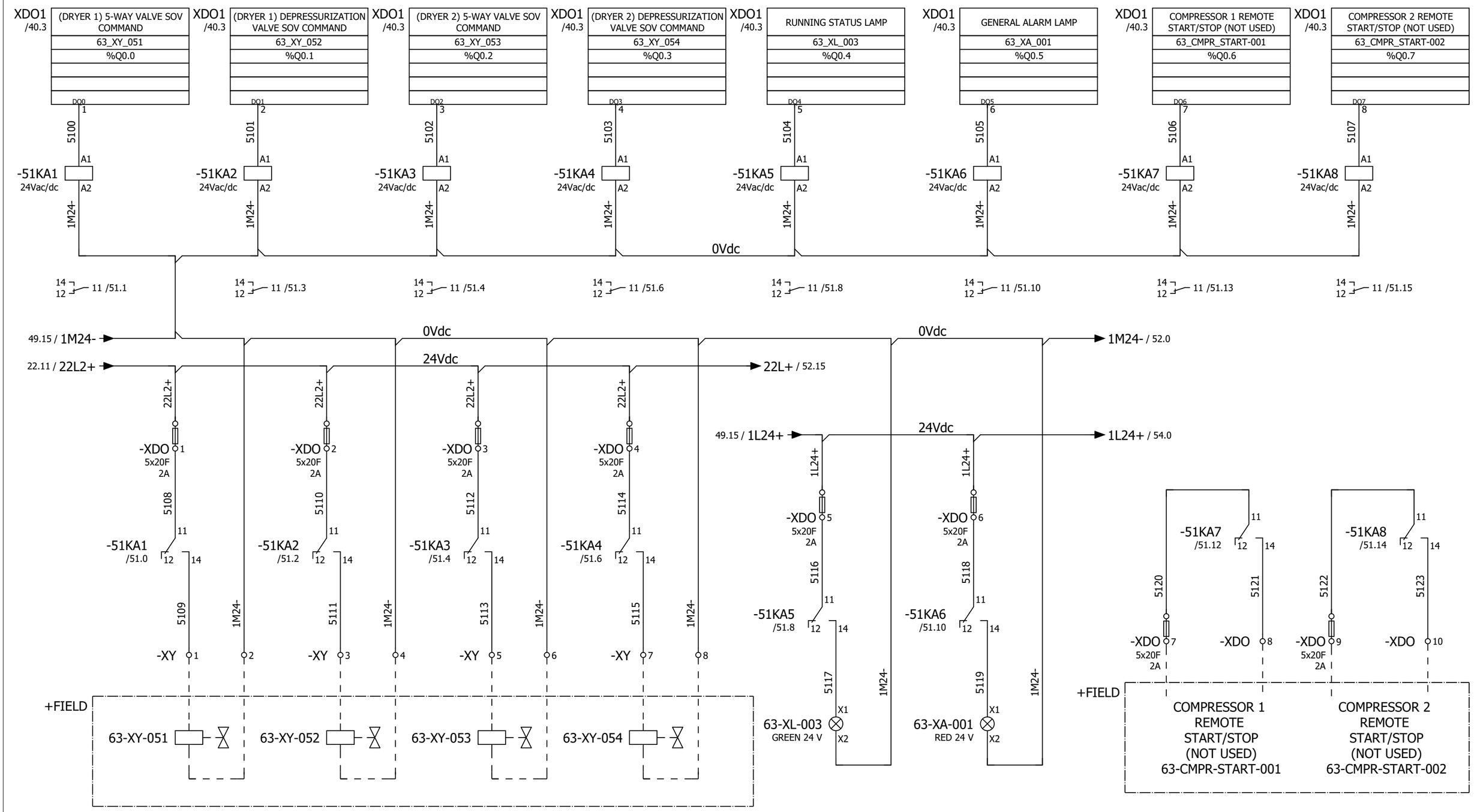
PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
DESCRIPTION: DIGITAL INPUT I/O RACK	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50
			PAGE: 48
			NEXT: 49



REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

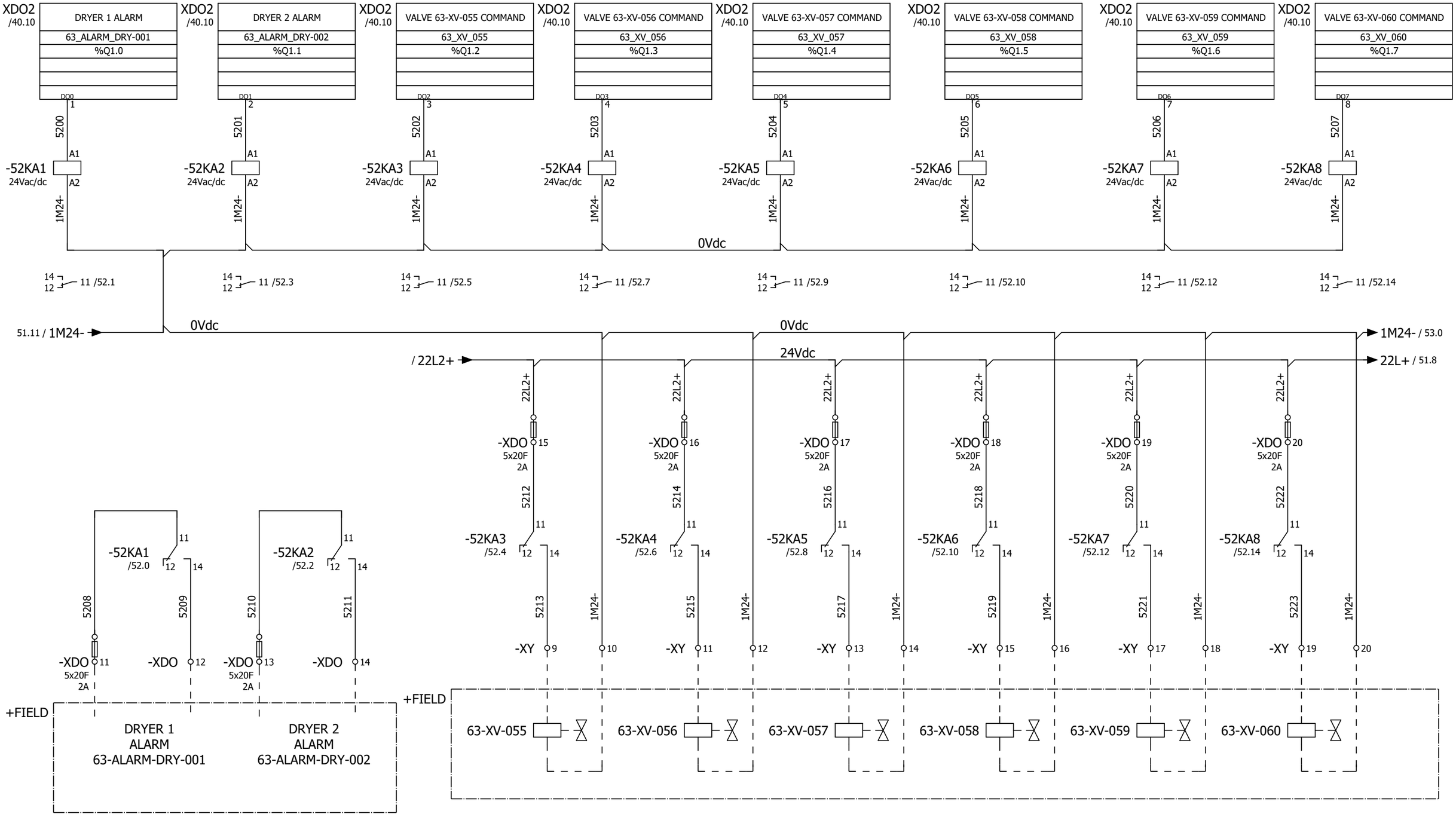
PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL INPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

PAGE	NEXT
49	51



REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

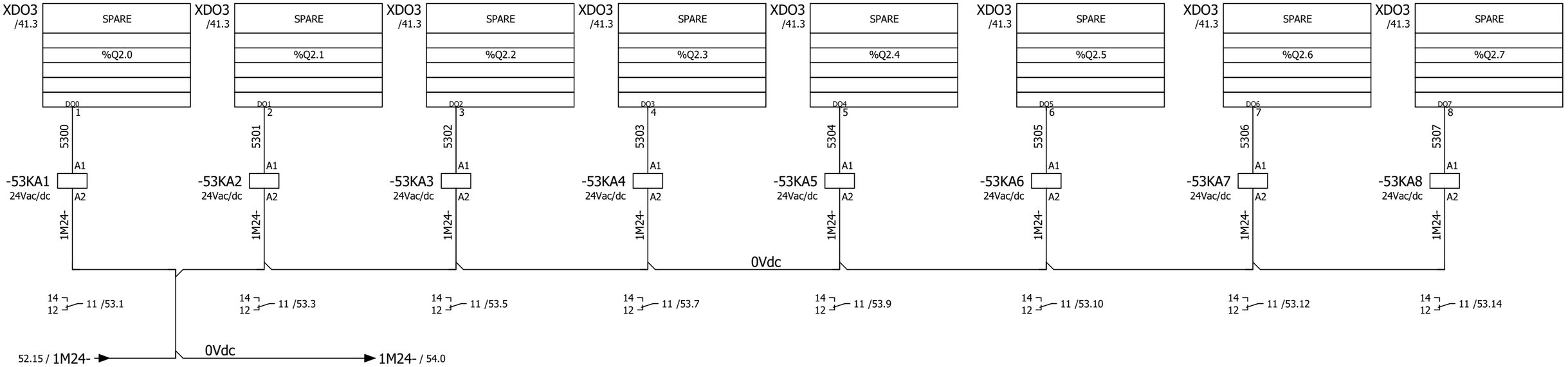
PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL OUTPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50
			PAGE: 51
			NEXT: 52

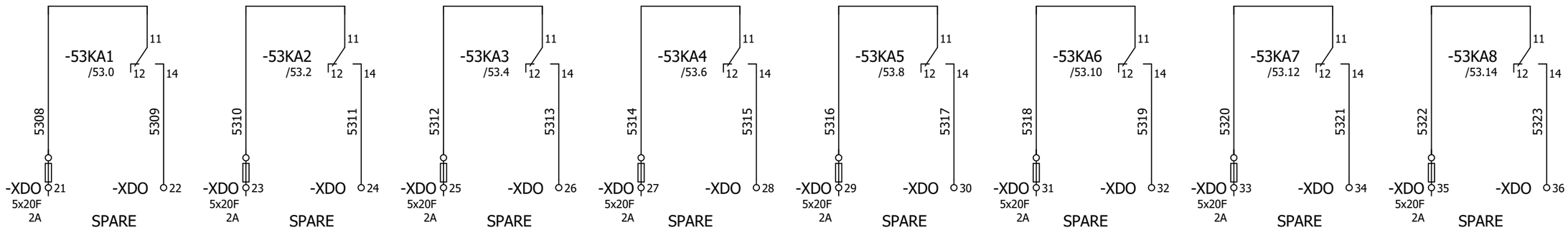


REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL OUTPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50
			PAGE: 52
			NEXT: 53

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15



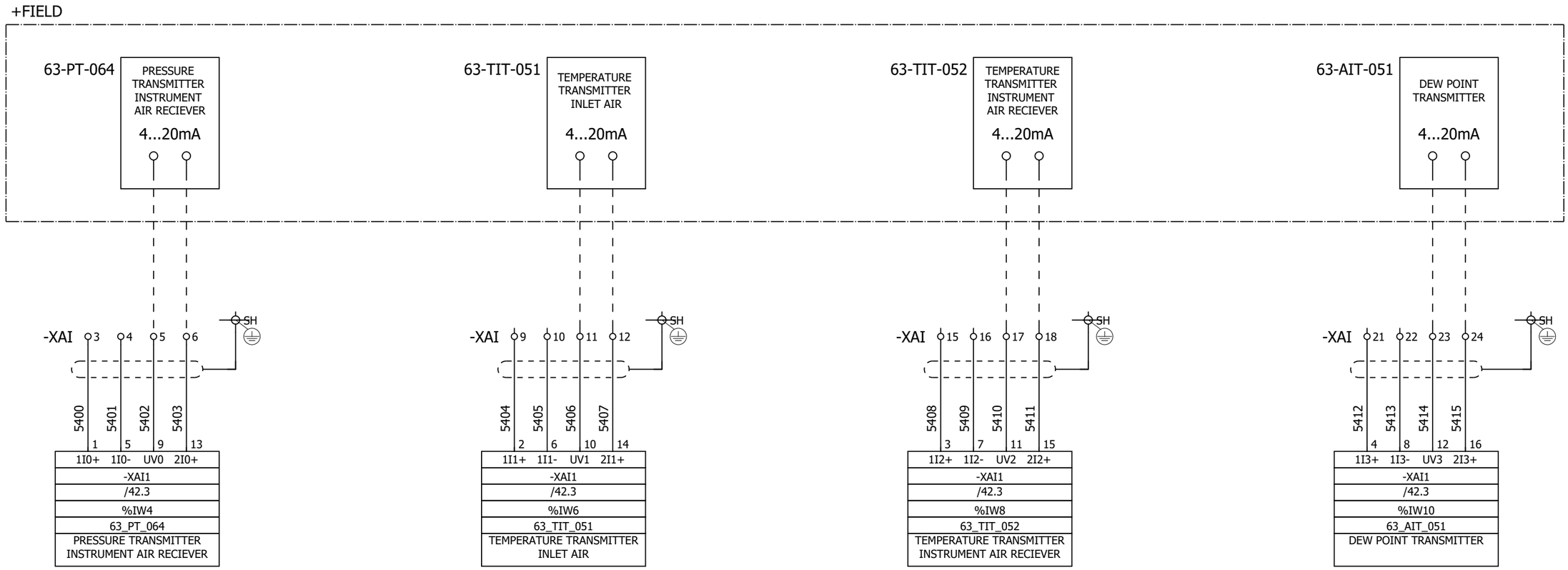


REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: DIGITAL OUTPUT I/O RACK	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

PAGE	NEXT
53	54





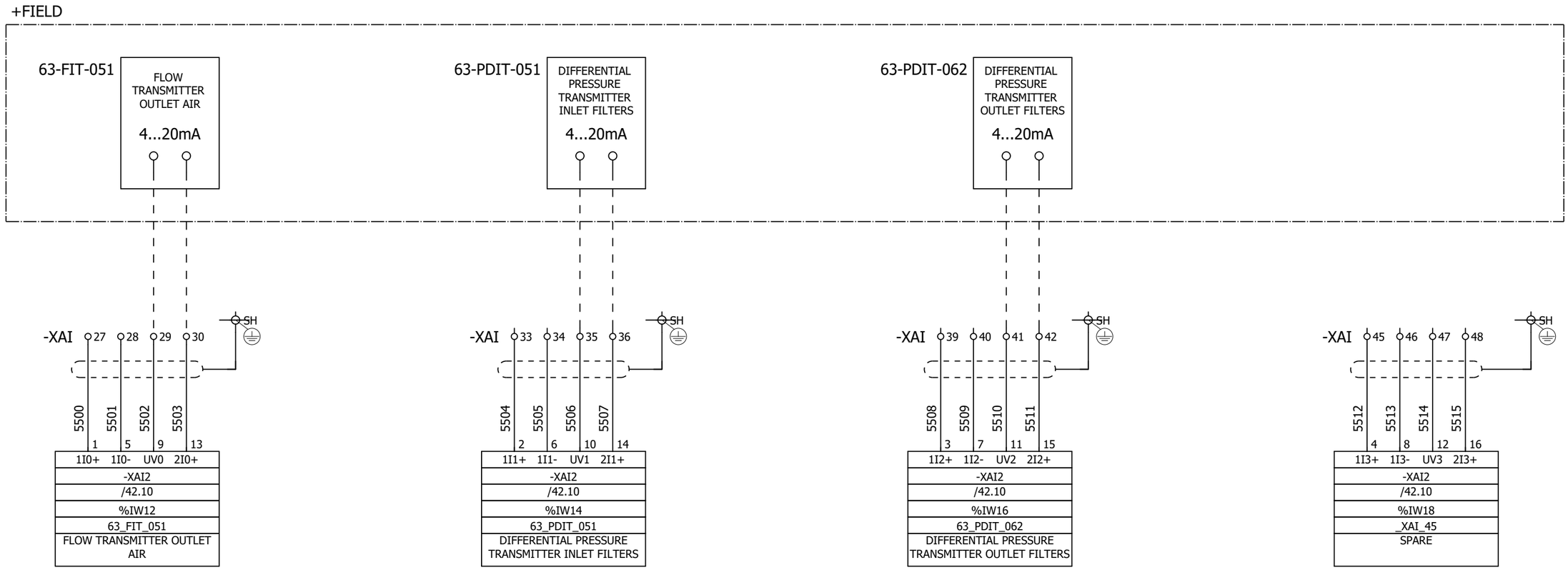
REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
DESCRIPTION: ANALOG INPUT I/O RACK	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

PAGE: 54
NEXT: 55

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15



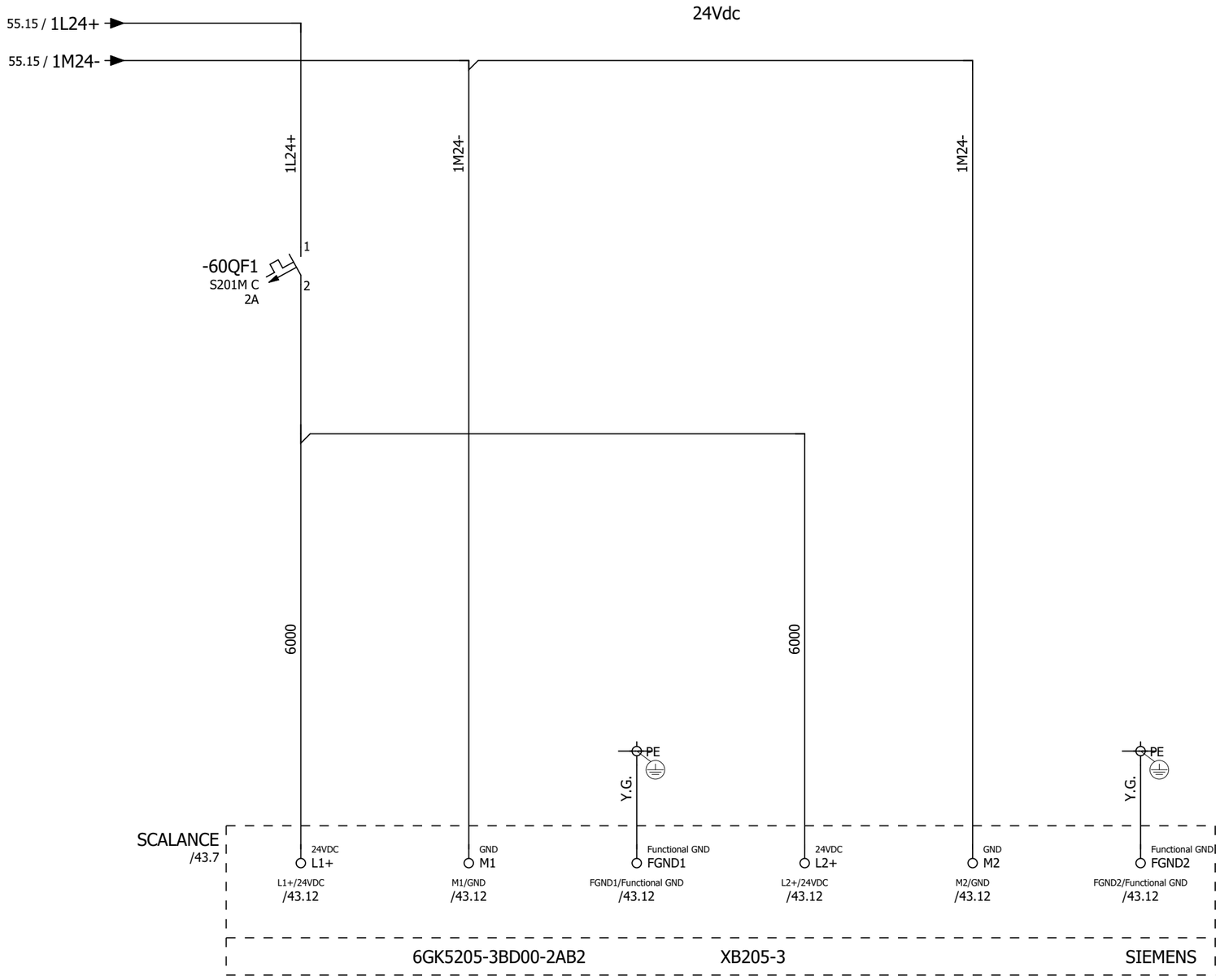


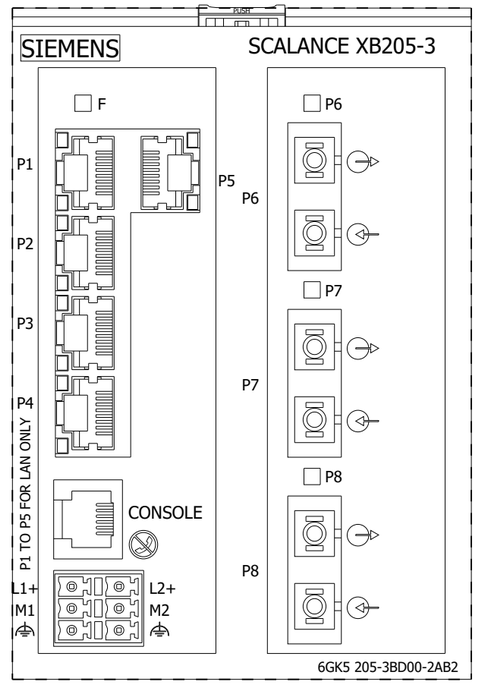
REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 55
DESCRIPTION: ANALOG INPUT I/O RACK	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 60
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

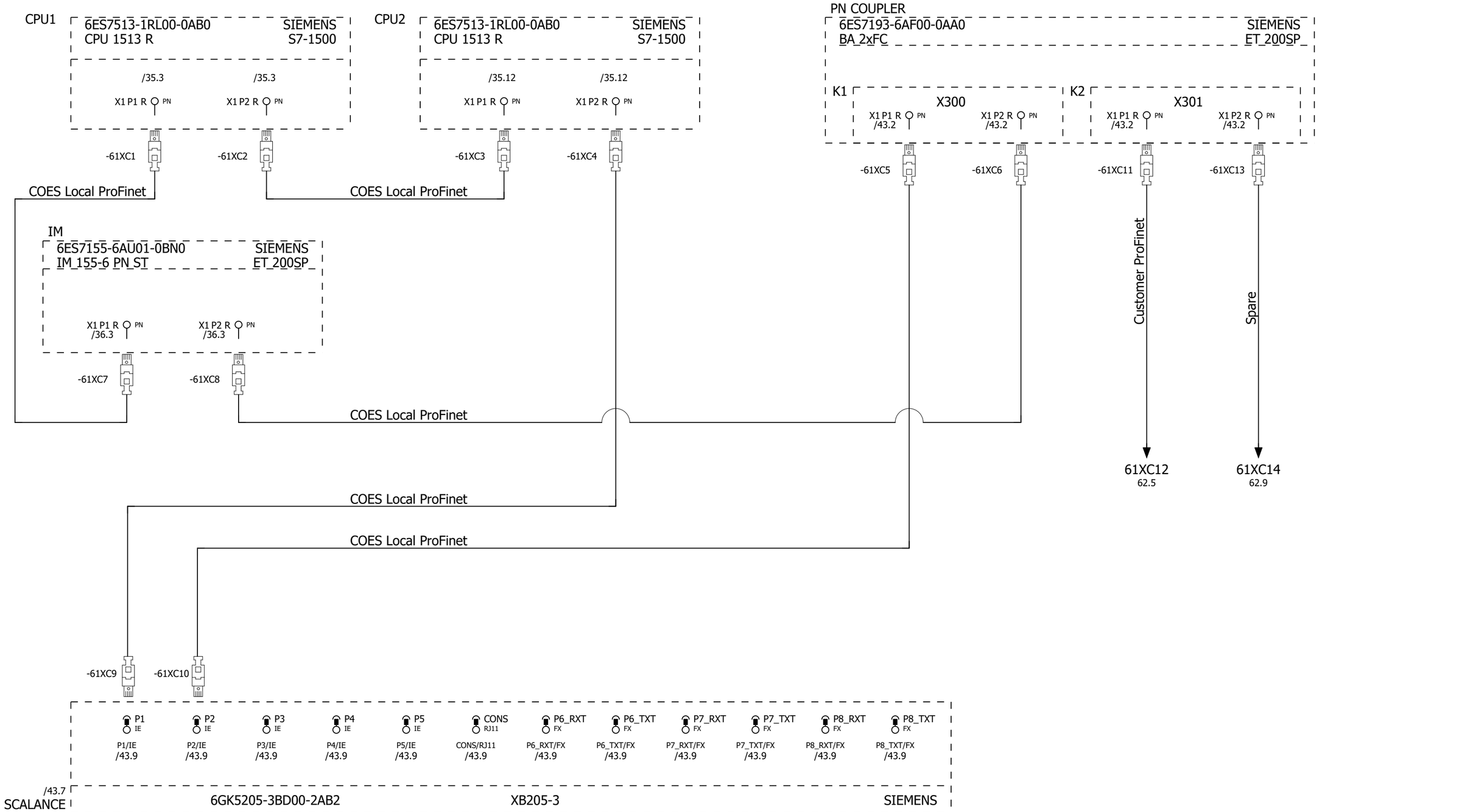




REV.	DATE	PREPARED	REV.	DATE	PREPARED

coes 20th coes 1997 - 2017

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 60
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 61
DESCRIPTION AUXILIARY CIRCUIT SWTCH 5 PORT PROFINET	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

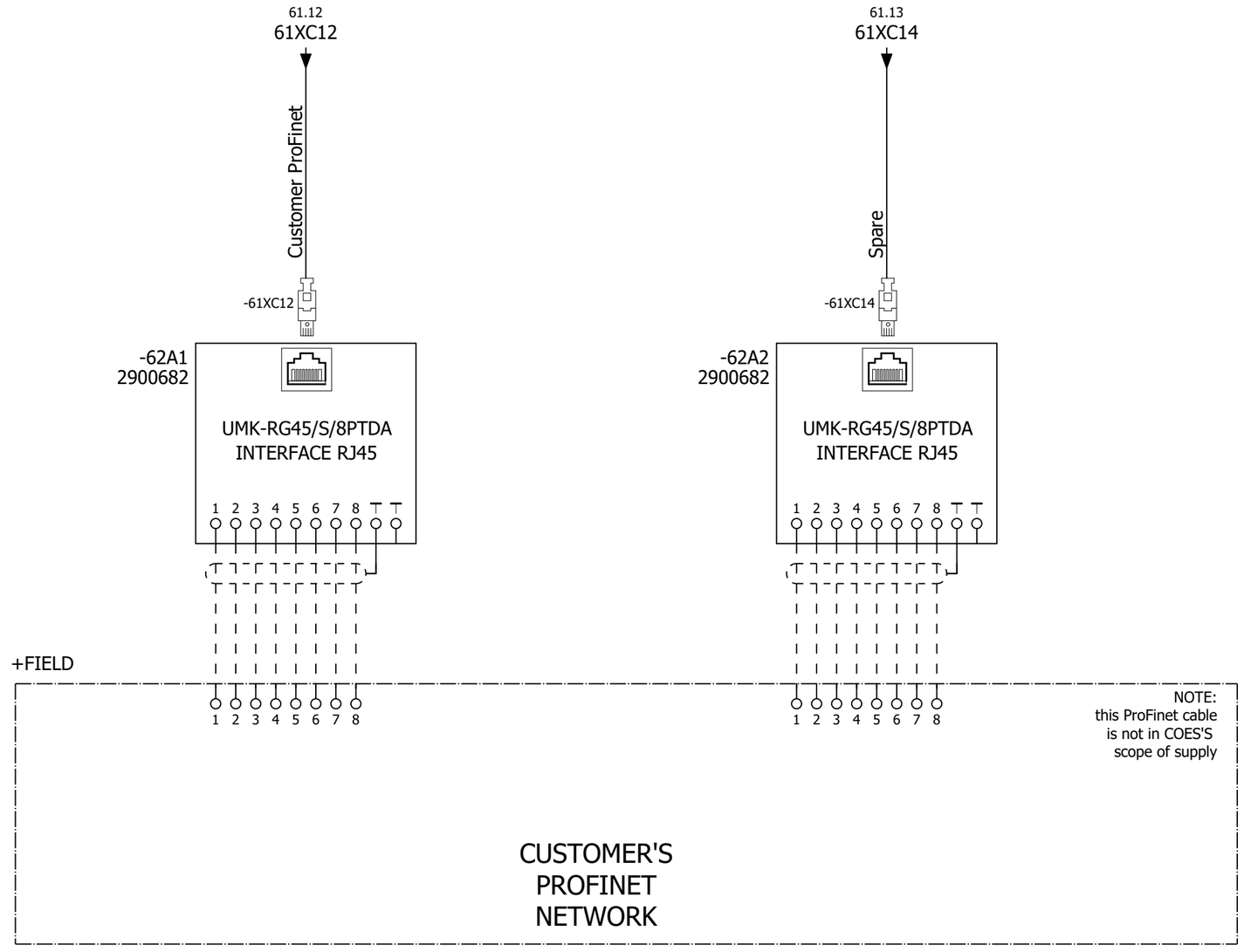


REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
CONNECTION ProfiNet INTERNAL
SWITCHBOARD

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	61
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	62
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50



REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE
DESCRIPTION: CONNECTION ProfiNet INTERNAL SWITCHBOARD	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	

PAGE: 62	NEXT: 70	TOTAL SHEETS: 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

TERMINAL STRIP

=DRYER+QE-X1

SWITCHBOARD	DESTIN. DEVICE	SHEET AND COLUMN	/20.2	/20.2	/20.3
		CONNECT.	1	3	
		DEVICE IDENT. CODE	-20QF1	-20QF1	-PE
		WIRING	L230	N230	
	TERMINAL JUM	TERM. TYPE	WDU 10	WDU 10	WPE 10
			-	-	-
		TERM. NUM.	1	2	PE
PLANT	DESTIN. DEVICE	CONNECT.			
		DEVICE IDENT. CODE	-L	-N	

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 70
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 71
DESCRIPTION: TERMINAL BOARD -X1	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

TERMINAL STRIP

=DRYER+QE-X2

SWITCHBOARD	DESTIN. DEVICE	SHEET AND COLUMN	/21.3	/21.3	/21.4
		CONNECT.	1	3	
		DEVICE IDENT. CODE	-21QF1	-21QF1	-PE
		WIRING	L230UPS	N230UPS	
	TERMINAL JUM	TERM. TYPE	WDU 10	WDU 10	WPE 10
			-	-	-
		TERM. NUM.	1	2	PE
PLANT	DESTIN. DEVICE	CONNECT.			
		DEVICE IDENT. CODE	-L	-N	

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 71
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 72
DESCRIPTION TERMINAL BOARD -X2	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

TERMINAL STRIP

=DRYER+QE-XA

SWITCHBOARD	DESTIN. DEVICE	SHEET AND COLUMN	/22.1	/22.2	/21.14	/22.10	/22.13	/22.13
		CONNECT.			1	13	15/16	14
		DEVICE IDENT. CODE			-21FU2	-22K1	-22KA2	-22KA2
		WIRING			1L24+	1L24+	2211	2212
	TERMINAL JUM	TERM. TYPE	WSI 6	WDU 2.5	WSI 6		WDU 2.5	WDU 2.5
			-	-	-		-	-
		TERM. NUM.	1	2	3		4	5
PLANT	DESTIN. DEVICE	CONNECT.	1	2	A1			
		DEVICE IDENT. CODE	-22KA1	-22KA1	-22K1			

REV.	DATE	PREPARED	REV.	DATE	PREPARED
A	30.05.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 72
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 73
DESCRIPTION: TERMINAL BOARD -XA	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

TERMINAL STRIP

=DRYER+QE-XDI

TERMINAL JUM						DESTIN. DEVICE			SWITCHBOARD		
TERM. NUM.	TERM. TYPE	WIRING	DEVICE IDENT. CODE	CONNECT.	SHEET AND COLUMN	DESTIN. DEVICE	CONNECT.	DEVICE IDENT. CODE	PLANT		
1	KDKS 1/35 DB		+FIELD-63-PS-054		/46.1						
2			+FIELD-63-PS-054		/46.1						
3	KDKS 1/35 DB		+FIELD-63-PS-056		/46.2						
4			+FIELD-63-PS-056		/46.2						
5	KDKS 1/35 DB		+FIELD-63-PS-058		/46.4						
6			+FIELD-63-PS-058		/46.4						
7	KDKS 1/35 DB		+FIELD-63-PS-060		/46.6						
8			+FIELD-63-PS-060		/46.6						
9	KDKS 1/35 DB		+FIELD-63-CMPR-RUN-FDBCK-001	11	/46.8						
10			+FIELD-63-CMPR-RUN-FDBCK-001		/46.8						
11	KDKS 1/35 DB		+FIELD-63-CMPR-ALARM-FDBCK-001	12	/46.10						
12			+FIELD-63-CMPR-ALARM-FDBCK-001	11	/46.10						
13	KDKS 1/35 DB		+FIELD-63-CMPR-RUN-FDBCK-002		/46.12						
14			+FIELD-63-CMPR-RUN-FDBCK-002		/46.12						
15	KDKS 1/35 DB		+FIELD-63-CMPR-ALARM-FDBCK-002	12	/46.14						
16			+FIELD-63-CMPR-ALARM-FDBCK-002	14	/46.14						
17	KDKS 1/35 DB	4708	-63-20FS-12	13	/47.0						
18		4700	-63-20FS-12	14	/47.0						
19	KDKS 1/35 DB	4709	-63-21FS-12	13	/47.2						
20		4701	-63-21FS-12	14	/47.2						
21	KDKS 1/35 DB	4710	-63-TH-001	14	/47.4						
22		4702	-63-TH-001	13	/47.4						
23	KDKS 1/35 DB	4711	-63-HS-001	13	/47.6						
24		4703	-63-HS-001	14	/47.6						
25	KDKS 1/35 DB	4712	-63-HS-002	21	/47.8						
26		4704	-63-HS-002	22	/47.8						
27	KDKS 1/35 DB	4713	-63-HS-003	13	/47.10						
28		4705	-63-HS-003	14	/47.10						
29	KDKS 1/35 DB	4714	-63-HS-004	13	/47.12						
30		4706	-63-HS-004	14	/47.12						
31	KDKS 1/35 DB										
32		22L1+	-22K1	14	/22.10						
33	KDKS 1/35 DB		+FIELD-63-ZSH-055		/48.1						
34			+FIELD-63-ZSH-055		/48.1						
35	KDKS 1/35 DB		+FIELD-63-ZSL-055		/48.2						
36			+FIELD-63-ZSL-055		/48.2						
37	KDKS 1/35 DB		+FIELD-63-ZSH-056		/48.4						
38			+FIELD-63-ZSH-056		/48.4						
39	KDKS 1/35 DB		+FIELD-63-ZSL-056		/48.6						
40			+FIELD-63-ZSL-056		/48.6						
				1		PLANT	1	-45QF1			
				1		DESTIN. DEVICE	1	-XDI1			
							2	-XDI1			
				2			3	-XDI1			
							4	-XDI1			
				3			5	-XDI1			
							6	-XDI1			
				4			7	-XDI1			
							8	-XDI1			
				1			1	-XDI2			
							2	-XDI2			
				2			3	-XDI2			
				3			4	-XDI2			
				4			5	-XDI2			
				5			6	-XDI2			
				6			7	-XDI2			
				7			8	-XDI2			
				8			1	-XDI3			
				1			2	-XDI3			
				2			3	-XDI3			
				3			4	-XDI3			
				4							

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
TERMINAL BOARD -XDI

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	73
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	74
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

TERMINAL STRIP

=DRYER+QE-XDI

TERM. NUM.	SWITCHBOARD – DESTIN. DEVICE: SHEET AND COLUMN	CONNECT.	DEVICE IDENT. CODE	WIRING	TERMINAL JUM: TERM. TYPE	PLANT – DESTIN. DEVICE: CONNECT.	DEVICE IDENT. CODE
41	/48.8		+FIELD-63-ZSH-057		KDKS 1/35 DB		
42	/48.8		+FIELD-63-ZSH-057			5	-XDI3
43	/48.10		+FIELD-63-ZSL-057		KDKS 1/35 DB		
44	/48.10		+FIELD-63-ZSL-057			6	-XDI3
45	/48.12		+FIELD-63-ZSH-058		KDKS 1/35 DB		
46	/48.12		+FIELD-63-ZSH-058			7	-XDI3
47	/48.14		+FIELD-63-ZSL-058		KDKS 1/35 DB		
48	/48.14		+FIELD-63-ZSL-058			8	-XDI3
49	/49.1		+FIELD-63-ZSH-059		KDKS 1/35 DB		
50	/49.1		+FIELD-63-ZSH-059			1	-XDI4
51	/49.2		+FIELD-63-ZSL-059		KDKS 1/35 DB		
52	/49.2		+FIELD-63-ZSL-059			2	-XDI4
53	/49.4		+FIELD-63-ZSH-060		KDKS 1/35 DB		
54	/49.4		+FIELD-63-ZSH-060			3	-XDI4
55	/49.6		+FIELD-63-ZSL-060		KDKS 1/35 DB		
56	/49.6		+FIELD-63-ZSL-060			4	-XDI4
57					KDKS 1/35 DB		
58						5	-XDI4
59					KDKS 1/35 DB		
60						6	-XDI4
61					KDKS 1/35 DB		
62						7	-XDI4
63					KDKS 1/35 DB	5	-XDO
64						8	-XDI4

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER	PAGE 74
	DATE 08.05.2024	APPROVED	LOCATION + QE	NEXT 75
DESCRIPTION TERMINAL BOARD -XDI	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD		TOTAL SHEETS 50

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

TERMINAL STRIP

=DRYER+QE-XDO

TERM. NUM.	SWITCHBOARD – DESTIN. DEVICE: SHEET AND COLUMN	CONNECT.	DEVICE IDENT. CODE	WIRING	TERMINAL JUM: TERM. TYPE	(jumper)	PLANT – DESTIN. DEVICE: CONNECT.	DEVICE IDENT. CODE
1	/51.1	11	-51KA1	5108	WSI 6	•	24	-22K1
2	/51.3	11	-51KA2	5110	WSI 6	•		
3	/51.4	11	-51KA3	5112	WSI 6	•		
4	/51.6	11	-51KA4	5114	WSI 6	•		
5	/51.8	11	-51KA5	5116	WSI 6	•	63	-XDI
6	/51.10	11	-51KA6	5118	WSI 6	•	1	-XAI
7	/51.12				WSI 6	-	11	-51KA7
8	/51.13	14	-51KA7	5121	WDU 2.5	-		
9	/51.14				WSI 6	-	11	-51KA8
10	/51.15	14	-51KA8	5123	WDU 2.5	-		
11	/52.0				WSI 6	-	11	-52KA1
12	/52.1	14	-52KA1	5209	WDU 2.5	-		
13	/52.2				WSI 6	-	11	-52KA2
14	/52.3	14	-52KA2	5211	WDU 2.5	-		
15	/52.5	11	-52KA3	5212	WSI 6	•		
16	/52.7	11	-52KA4	5214	WSI 6	•		
17	/52.9	11	-52KA5	5216	WSI 6	•		
18	/52.10	11	-52KA6	5218	WSI 6	•		
19	/52.12	11	-52KA7	5220	WSI 6	•		
20	/52.14	11	-52KA8	5222	WSI 6	•		
21					WSI 6	-	11	-53KA1
22	/53.1	14	-53KA1	5309	WDU 2.5	-		
23					WSI 6	-	11	-53KA2
24	/53.3	14	-53KA2	5311	WDU 2.5	-		
25					WSI 6	-	11	-53KA3
26	/53.5	14	-53KA3	5313	WDU 2.5	-		
27					WSI 6	-	11	-53KA4
28	/53.7	14	-53KA4	5315	WDU 2.5	-		
29					WSI 6	-	11	-53KA5
30	/53.9	14	-53KA5	5317	WDU 2.5	-		
31					WSI 6	-	11	-53KA6
32	/53.10	14	-53KA6	5319	WDU 2.5	-		
33					WSI 6	-	11	-53KA7
34	/53.12	14	-53KA7	5321	WDU 2.5	-		
35					WSI 6	-	11	-53KA8
36	/53.14	14	-53KA8	5323	WDU 2.5	-		

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

TERMINAL STRIP

=DRYER+QE-XY

SWITCHBOARD / DESTIN. DEVICE: SHEET AND COLUMN	CONNECT.	DEVICE IDENT. CODE	WIRING	TERMINAL JUM: TERM. TYPE		TERM. NUM.	PLANT / DESTIN. DEVICE: CONNECT.	DEVICE IDENT. CODE
/51.1	14	-51KA1	5109	WDU 2.5	-	1		+FIELD-63-XY-051
/51.0	A2	-51KA1	1M24-	WDU 2.5		2		+FIELD-63-XY-051
/51.2	A2	-51KA2	1M24-					
/51.3	14	-51KA2	5111	WDU 2.5	-	3		+FIELD-63-XY-052
				WDU 2.5		4		+FIELD-63-XY-052
/51.4	14	-51KA3	5113	WDU 2.5	-	5		+FIELD-63-XY-053
				WDU 2.5		6		+FIELD-63-XY-053
/51.6	14	-51KA4	5115	WDU 2.5	-	7		+FIELD-63-XY-054
/51.9	X2	-63-XL-003	1M24-	WDU 2.5		8		+FIELD-63-XY-054
/52.5	14	-52KA3	5213	WDU 2.5	-	9		+FIELD-63-XV-055
/52.0	A2	-52KA1	1M24-	WDU 2.5		10		+FIELD-63-XV-055
/52.2	A2	-52KA2	1M24-					
/52.7	14	-52KA4	5215	WDU 2.5	-	11		+FIELD-63-XV-056
				WDU 2.5		12		+FIELD-63-XV-056
/52.9	14	-52KA5	5217	WDU 2.5	-	13		+FIELD-63-XV-057
				WDU 2.5		14		+FIELD-63-XV-057
/52.10	14	-52KA6	5219	WDU 2.5	-	15		+FIELD-63-XV-058
				WDU 2.5		16		+FIELD-63-XV-058
/52.12	14	-52KA7	5221	WDU 2.5	-	17		+FIELD-63-XV-059
				WDU 2.5		18		+FIELD-63-XV-059
/52.14	14	-52KA8	5223	WDU 2.5	-	19		+FIELD-63-XV-060
/53.0	A2	-53KA1	1M24-	WDU 2.5		20		+FIELD-63-XV-060
/53.2	A2	-53KA2	1M24-					

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM

DESCRIPTION: TERMINAL BOARD -XY

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	76
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	77
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

TERMINAL STRIP

=DRYER+QE-XAI

SWITCHBOARD	TERMINAL JUM	TERM. NUM.	TERM. TYPE	WIRING	DESTIN. DEVICE: DEVICE IDENT. CODE	DESTIN. DEVICE: CONNECT.	SHEET AND COLUMN
		1	KDKS 1/35 DB				
		2		1M24-	-52KA1	A2	/52.0
				1M24-	-52KA2	A2	/52.2
		3	WDU 2.5	5400	-XAI1	1	/54.1
		4	WDU 2.5	5401	-XAI1	5	/54.1
		5	WDU 2.5	5402	-XAI1	9	/54.2
		6	WDU 2.5	5403	-XAI1	13	/54.2
		7	KDKS 1/35 DB				
		8					
		9	WDU 2.5				
		10	WDU 2.5				
		11	WDU 2.5	0Vdc	+FIELD-63-TIT-051		/54.6
		12	WDU 2.5	0Vdc	+FIELD-63-TIT-051		/54.6
		13	KDKS 1/35 DB				
		14					
		15	WDU 2.5				
		16	WDU 2.5				
		17	WDU 2.5	0Vdc	+FIELD-63-TIT-052		/54.10
		18	WDU 2.5	0Vdc	+FIELD-63-TIT-052		/54.10
		19	KDKS 1/35 DB				
		20					
		21	WDU 2.5				
		22	WDU 2.5				
		23	WDU 2.5	0Vdc	+FIELD-63-AIT-051		/54.14
		24	WDU 2.5	0Vdc	+FIELD-63-AIT-051		/54.14
		25	KDKS 1/35 DB				
		26					
		27	WDU 2.5	5500	-XAI2	1	/55.1
		28	WDU 2.5	5501	-XAI2	5	/55.1
		29	WDU 2.5	5502	-XAI2	9	/55.2
		30	WDU 2.5	5503	-XAI2	13	/55.2
		31	KDKS 1/35 DB				
		32					
		33	WDU 2.5				
		34	WDU 2.5				
		35	WDU 2.5	0Vdc	+FIELD-63-PDIT-051		/55.6
		36	WDU 2.5	0Vdc	+FIELD-63-PDIT-051		/55.6
		37	KDKS 1/35 DB				
		38					
		39	WDU 2.5				

PLANT	DESTIN. DEVICE: CONNECT.	DESTIN. DEVICE: DEVICE IDENT. CODE
	6	-XDO
		+FIELD-63-PT-064
		+FIELD-63-PT-064
	2	-XAI1
	6	-XAI1
	10	-XAI1
	14	-XAI1
	3	-XAI1
	7	-XAI1
	11	-XAI1
	15	-XAI1
	4	-XAI1
	8	-XAI1
	12	-XAI1
	16	-XAI1
		+FIELD-63-FIT-051
		+FIELD-63-FIT-051
	2	-XAI2
	6	-XAI2
	10	-XAI2
	14	-XAI2
	3	-XAI2

REV.	DATE	PREPARED	REV.	DATE	PREPARED

coes 20th coes 1997 - 2017

PLANT COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED ASSOLARI O.	CHECKED TIRABOSCHI T.	PLANT = DRYER
DESCRIPTION TERMINAL BOARD -XAI	DATE 08.05.2024	APPROVED	LOCATION + QE
	WORK ORDER N 2024.4814_001	DRAWING N d241025-WD	

PAGE	NEXT	TOTAL SHEETS
77	78	50

TERMINAL STRIP

=DRYER+QE-XAI

Section	Field	40	41	42	43	44	45	46	47	48
SWITCHBOARD / DESTIN. DEVICE	SHEET AND COLUMN		/55.10	/55.10		/60.3				
SWITCHBOARD / DESTIN. DEVICE	CONNECT.					M1				
SWITCHBOARD / DESTIN. DEVICE	DEVICE IDENT. CODE		+FIELD-63-PDIT-062	+FIELD-63-PDIT-062		-SCALANCE				
SWITCHBOARD / DESTIN. DEVICE	WIRING		0Vdc	0Vdc		1M24-				
SWITCHBOARD / TERMINAL JUM	TERM. TYPE	WDU 2.5	WDU 2.5	WDU 2.5	KDKS 1/35 DB		WDU 2.5	WDU 2.5	WDU 2.5	WDU 2.5
SWITCHBOARD / TERMINAL JUM		-	-	-	-	-	-	-	-	-
SWITCHBOARD / TERMINAL JUM	TERM. NUM.	40	41	42	43	44	45	46	47	48
PLANT / DESTIN. DEVICE	CONNECT.	7	11	15	1		4	8	12	16
PLANT / DESTIN. DEVICE	DEVICE IDENT. CODE	-XAI2	-XAI2	-XAI2	-60QF1		-XAI2	-XAI2	-XAI2	-XAI2

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 78
	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 79
DESCRIPTION: TERMINAL BOARD -XAI	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

TERMINAL STRIP

=DRYER+QE-XCOM

			1	2	3	4	5	6	7	8	9	10
SWITCHBOARD	DESTIN. DEVICE	SHEET AND COLUMN	/21.9					/21.10				
		CONNECT.	2					-				
		DEVICE IDENT. CODE	-21QF3					-21GS1				
		WIRING	1L24+					1M24-				
	TERMINAL JUM	TERM. TYPE	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V	ZDK 4-2 V
			●	●	●	●	●	●	●	●	●	●
		TERM. NUM.	1	2	3	4	5	6	7	8	9	10
PLANT	DESTIN. DEVICE	CONNECT.					1					X2
		DEVICE IDENT. CODE					-21FU2					-63-XL-004

REV.	DATE	PREPARED	REV.	DATE	PREPARED

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 79
DESCRIPTION: TERMINAL BOARD -XCOM	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 85
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

COMPONENT LIST

COMPONENT TAG	QUANTITY	DESCRIPTION	ARTICLE CODE	CONSTRUCTOR	SHEET
-63-20FS-12	1	SPJ P-VMS 280 Fm R surge arrester Type 2 single-phase for L-(PE)N systems	SPJ316227	SIPF	20
-63-21FS-12	1	SPJ P-VMS 280 Fm R surge arrester Type 2 single-phase for L-(PE)N systems	SPJ316227	SIPF	21
-63-HS-001	1	Green flush complete pushbutton Ø22 spring return 1NO "unmarked"	SE.XB4BA31	SCHNEIDER	47
-63-HS-002	1	Red flush complete pushbutton Ø22 spring return 1NC "unmarked"	SE.XB4BA42	SCHNEIDER	47
-63-HS-003	1	Blue flush complete pushbutton Ø22 spring return 1NO	SE.XB4BA61	SCHNEIDER	22
-63-HS-003	1	Harmony XB4/XB5 1NO contact	SE.ZBE101	SCHNEIDER	22
-63-HS-004	1	Black selector switch Ø22 2-position stay put 1NO+1NC 600V	SE.XB4BD25	SCHNEIDER	47
-63-SBM-001	1	Red Ø40 Emergency stop, switching off Ø22 latching turn release 2NC+1NO	SE.XB4BS84441	SCHNEIDER	22
-63-SBM-001	1	Round guard for Ø 40 Emergency stop, plastic, yellow, 63.5 mm	SE.ZB4BZ1905	SCHNEIDER	22
-63-TH-001	1	Panel thermostat, 1 contacts NO (-20...+40)°C	FIN.7T.81.0.000.2301	FINDER	47
-63-XA-001	1	Red complete pilot light Ø22 plain lens with integral LED 24V	SE.XB4BVB4	SCHNEIDER	51
-63-XL-001	1	White complete pilot light Ø22 plain lens with integral LED 230...240V	SE.XB4BVM1	SCHNEIDER	20
-63-XL-002	1	White complete pilot light Ø22 plain lens with integral LED 230...240V	SE.XB4BVM1	SCHNEIDER	21
-63-XL-003	1	Green complete pilot light Ø22 plain lens with integral LED 24V	SE.XB4BVB3	SCHNEIDER	51
-63-XL-004	1	White complete pilot light Ø22 plain lens with integral LED 24V	SE.XB4BVB1	SCHNEIDER	21
-62A1	1	UMK-RJ45/S/8PTDA - VARIOFACE module for connecting a RJ45 socket with spring-cage double connection terminal blocks in direct plug-in method.	PXC.2900682	PHOENIX CONTACT	62
-62A2	1	UMK-RJ45/S/8PTDA - VARIOFACE module for connecting a RJ45 socket with spring-cage double connection terminal blocks in direct plug-in method.	PXC.2900682	PHOENIX CONTACT	62
-CPU1	1	SIMATIC S7-1500R CPU 1513R-1 PN, 300KB program/1,5MB data	SIE.6ES7513-1RL00-0AB0	SIEMENS	35
-CPU1	1	SIMATIC S7 MEMORY CARD, 24 MB	SIE.6ES7954-8LF03-0AA0	SIEMENS	35
-CPU2	1	SIMATIC S7-1500R CPU 1513R-1 PN, 300KB program/1,5MB data	SIE.6ES7513-1RL00-0AB0	SIEMENS	35
-CPU2	1	SIMATIC S7 MEMORY CARD, 24 MB	SIE.6ES7954-8LF03-0AA0	SIEMENS	35
-20E1	1	HEATER 100W 230VAC 90X80X110	HJSHT100	ALFA PLASTIC	20
-20FA4	1	Residual current device DDA202 type AC 25A 30mA - 2P	ABB.2CSB202001R1250	ABB	20
-20FU1	1	FUSE HOLDER 2P 10X38 , 32A 690V	LOV.FB01F2P	LOVATO	20
-20FU1	2	CYLINDRICAL FUSE C10G2 10x38, GG, 2A, 500V AC	KMC10G2	EATON BUSSMAN	20
-20FU2	1	FUSE HOLDER TYPE 2P 22x58 690VAC - 100/125A	Q25802	ETI	20
-20FU2	2	FUSE gL/gG 22x58 125A	gl258125	OMEGA	20
-21FU1	1	FUSE HOLDER 2P 10X38 , 32A 690V	LOV.FB01F2P	LOVATO	21

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER / PAGE: 85
DESCRIPTION: COMPONENT LIST	DATE: 08.05.2024	APPROVED:	LOCATION: + QE / NEXT: 86
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

COMPONENT LIST

COMPONENT TAG	QUANTITY	DESCRIPTION	ARTICLE CODE	CONSTRUCTOR	SHEET
-21FU1	2	CYLINDRICAL FUSE C10G2 10x38, GG, 2A, 500V AC	KMC10G2	EATON BUSSMAN	21
-21FU2	1	FUSE HOLDER 1P 10X38 , 32A 690V	LOV.FB01F1P	LOVATO	21
-21FU2	1	CYLINDRICAL FUSE C10G2 10x38, GG, 2A, 500V AC	KMC10G2	EATON BUSSMAN	21
-21FU3	1	FUSE HOLDER TYPE 2P 22x58 690VAC - 100/125A	Q25802	ETI	21
-21FU3	2	FUSE gL/gG 22x58 125A	gl258125	OMEGA	21
-21GS1	1	TRIO-PS-2G/1AC/24DC/20 Primary-switched TRIO POWER power supply input: 100VAC...240VAC single-phase, output: 24 V DC/20 A	PXC.2903151	PHOENIX CONTACT	21
-20H1	1	Plafoniera lineare a led, 110÷240V AC, 50/60HZ,600 lm, 368mm	050PEL3C	NEW ELFIN	20
-IM	1	ET 200SP PROFINET INTERFACE MODULE IM155-6PN/2 HF , INCLUDING SERVER MODULE (6ES7193-6PA00-0AA0	SIE.6ES7155-6AU01-0CN0	SIEMENS	36
-IM	1	SIMATIC ET 200SP, BUSADAPTER BA 2X RJ45, 2 RJ45 SOCKETS FOR PROFINET	SIE.6ES7193-6AR00-0AA0	SIEMENS	36
-22K1	1	SIRIUS safety relay Basic unit Standard series Relay enabling circuits 3 NO contacts plus Relay signaling circuit 1 NC contact Us = 24 V AC/DC screw terminal	SIE.3SK1111-1AB30	SIEMENS	22
-22KA1	1	SIL 2 - SIL 3 Digital Relay Output Loop Powered DIN-Rail and terminal board Models D5244D - 2 channels relay output ,provides 2 port isolation (input/output) Supply 24Vdc	GMI.D5244D	gmi	22
-22KA2	1	SIL 2 - SIL 3 Digital Relay Output Loop Powered DIN-Rail and terminal board Models D5244D - 2 channels relay output ,provides 2 port isolation (input/output) Supply 24Vdc	GMI.D5244D	gmi	22
-51KA1	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA2	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA3	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA4	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA5	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA6	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA7	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-51KA8	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	51
-52KA1	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA2	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA3	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA4	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA5	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA6	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA7	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52
-52KA8	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	52

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

PLANT
COMMAND AND CONTROL SWITCHBOARDS
DRYER - WIRING DIAGRAM

DESCRIPTION
COMPONENT LIST

PREPARED	CHECKED	PLANT	PAGE
ASSOLARI O.	TIRABOSCHI T.	= DRYER	86
DATE	APPROVED	LOCATION	NEXT
08.05.2024		+ QE	87
WORK ORDER N	DRAWING N		TOTAL SHEETS
2024.4814_001	d241025-WD		50

COMPONENT LIST

COMPONENT TAG	QUANTITY	DESCRIPTION	ARTICLE CODE	CONSTRUCTOR	SHEET
-53KA1	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA2	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA3	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA4	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA5	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA6	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA7	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-53KA8	1	PLC-RSC- 24UC/21 PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 24 V AC/DC	PXC.2966184	PHOENIX CONTACT	53
-PN COUPLER	1	SIMATIC PN/PN Coupler for deterministic data exchange between max.4 PN-Controller per subnet, , PROFIsafe data exchange, I/O-, MSI-, MSO- and data record communication, redundant power supply, PN-connection via SIMATIC BusAdapter (BA)	SIE.6ES7158-3AD10-0XA0	SIEMENS	43
-PN COUPLER	1	5 pcs. strain relief for PROFINET cable at SIMATIC BusAdapter	SIE.6ES7193-6RA00-1AN0	SIEMENS	43
-20QF1	1	Miniature Circuit Breaker - S202M - 2P - C - 32 A	ABB.2CDS272001R0324	ABB	20
-20QF2	1	Miniature Circuit Breaker - S202M - 2P - C - 2 A	ABB.2CDS272001R0024	ABB	20
-20QF3	1	Miniature Circuit Breaker - S202M - 2P - C - 2 A	ABB.2CDS272001R0024	ABB	20
-20QF4	1	Miniature Circuit Breaker - S202M - 2P - C - 16 A	ABB.2CDS272001R0164	ABB	20
-21QF1	1	Miniature Circuit Breaker - S202M - 2P - C - 32 A	ABB.2CDS272001R0324	ABB	21
-21QF2	1	Miniature Circuit Breaker - S202M - 2P - C - 4 A	ABB.2CDS272001R0044	ABB	21
-21QF3	1	Miniature Circuit Breaker - S201M - 1P - C - 20 A	ABB.2CDS271001R0204	ABB	21
-30QF3	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	30
-44QF1	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	44
-44QF2	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	44
-44QF3	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	44
-44QF4	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	44
-44QF5	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	44
-45QF1	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	45
-60QF1	1	Miniature Circuit Breaker - S201M - 1P - C - 2 A	ABB.2CDS271001R0024	ABB	60
-20S1	1	Limit switch ausiliary contacts 1NO+1NC	PIZ.FR505	PIZZATO	20
-SCALANCE	1	SCALANCE XB205-3	SIE.6GK5205-3BD00-2AB2	SIEMENS	43
-20T1	1	Panel thernostat/hygrostat, 1 pole, 10 A - NO - (+10...+60)°C / (50...90)% - Nominal voltage 110...230 VAC/DC	FIN.7T.51.0.230.4360	FINDER	20

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER	PAGE: 87
DESCRIPTION: COMPONENT LIST	DATE: 08.05.2024	APPROVED:	LOCATION: + QE	NEXT: 88
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD		TOTAL SHEETS: 50

COMPONENT LIST

COMPONENT TAG	QUANTITY	DESCRIPTION	ARTICLE CODE	CONSTRUCTOR	SHEET
-20X1	1	Shuko/Italian std. socket 2P+T 16A (two module white system series)	GW20246	GEWISS	20
-20X1	1	Wall mounting modular box IP40 (2 modules)	GW27002	GEWISS	20
-XAI1	1	ET 200SP, AI 4XI 2-/4-WIRE ST, PU 1	SIE.6ES7134-6GD01-0BA1	SIEMENS	42
-XAI1	1	BASEUNIT TYPE A0, BU15-P16+A0+2D	SIE.6ES7193-6BP00-0DA0	SIEMENS	42
-XAI2	1	ET 200SP, AI 4XI 2-/4-WIRE ST, PU 1	SIE.6ES7134-6GD01-0BA1	SIEMENS	42
-XAI2	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	42
-61XC1	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC2	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC3	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC4	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC5	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC6	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC7	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC8	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC9	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC10	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC11	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC12	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	62
-61XC13	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	61
-61XC14	1	RJ45 connector	PXC.1419001	PHOENIX CONTACT	62
-XDI1	1	SIMATIC ET 200SP DI 8x 24V DC Basic ,sink input	SIE.6ES7131-6BF01-0AA0	SIEMENS	37
-XDI1	1	BASEUNIT TYPE A0, BU15-P16+A0+2D	SIE.6ES7193-6BP00-0DA0	SIEMENS	37
-XDI2	1	SIMATIC ET 200SP DI 8x 24V DC Basic ,sink input	SIE.6ES7131-6BF01-0AA0	SIEMENS	37
-XDI2	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	37
-XDI3	1	SIMATIC ET 200SP DI 8x 24V DC Basic ,sink input	SIE.6ES7131-6BF01-0AA0	SIEMENS	38
-XDI3	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	38
-XDI4	1	SIMATIC ET 200SP DI 8x 24V DC Basic ,sink input	SIE.6ES7131-6BF01-0AA0	SIEMENS	38
-XDI4	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	38

COMPONENT LIST

COMPONENT TAG	QUANTITY	DESCRIPTION	ARTICLE CODE	CONSTRUCTOR	SHEET
-XDO1	1	SIMATIC ET 200SP, DQ 8x 24V DC/0,5A Basic, Source output	SIE.6ES7132-6BF01-0AA0	SIEMENS	40
-XDO1	1	BASEUNIT TYPE A0, BU15-P16+A0+2D	SIE.6ES7193-6BP00-0DA0	SIEMENS	40
-XDO2	1	SIMATIC ET 200SP, DQ 8x 24V DC/0,5A Basic, Source output	SIE.6ES7132-6BF01-0AA0	SIEMENS	40
-XDO2	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	40
-XDO3	1	SIMATIC ET 200SP, DQ 8x 24V DC/0,5A Basic, Source output	SIE.6ES7132-6BF01-0AA0	SIEMENS	41
-XDO3	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	SIE.6ES7193-6BP00-0BA0	SIEMENS	41

REV.	DATE	PREPARED	REV.	DATE	PREPARED
B	01.08.2024	O.A.			
A	30.05.2024	O.A.			

coes 20th coes 1997 - 2017

PLANT: COMMAND AND CONTROL SWITCHBOARDS DRYER - WIRING DIAGRAM	PREPARED: ASSOLARI O.	CHECKED: TIRABOSCHI T.	PLANT: = DRYER / PAGE: 89
DESCRIPTION: COMPONENT LIST	DATE: 08.05.2024	APPROVED:	LOCATION: + QE / NEXT:
	WORK ORDER N: 2024.4814_001	DRAWING N: d241025-WD	TOTAL SHEETS: 50

Base Load Power Hub (BLPH)

INSTRUMENT AIR PACKAGE
EQUIPMENT DATA SHEETS
INCLUDING MOTORS, AIR COMPRESSOR, DRYERS, ETC.

Document Number: 1724000428-MAC-DS-00011

Document Class: 2

01	10/05/2024	Issue for Review (IFR)	GT	MC	TM
00	28/03/2024	Issue for Review (IFR)	GT	MC	TM
Rev.	Date	Description	Prepared	Reviewed	Approved

COES

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coes	CLIENTE CUSTOMER	:	ROSETTI MARINO	COMM: JOB:	:	166/24		
	RIFERIMENTO REFERENCE	:	CROSSWIND	UNITA' ITEM	:	/		
	IMPIANTO DRYING UNIT	:	INSTRUMENT AIR PACKAGE	FOGLIO N° SHEET	:	1	DI : OF	5

FOGLIO DATI PER COMPRESSORE
COMPRESSOR DATA SHEET

		DATI GENERALI **GENERAL DATA**		
1	QUANTITA' QUANTITY	:	2x100%	
2	ITEM TAG	:	/	
3	SERVIZIO SERVICE	:	PLANT AIR FOR DRYER AND NITROGEN GENERATOR	
4	TIPO TYPE	:	ROTARY SCREW	
5	CARATTERISTICHE FEATURES	:	OIL-FREE	
		DATI FUNZIONALI **FUNCTIONAL DATA**		
6	INSTALLAZIONE INSTALLATION	:	OUTDOOR	
7	MOSSO DA DRIVEN BY	:	ELECTRIC MOTOR	
8	POTENZA MOTORE MOTOR POWER	:	55 kW	
9	POTENZA TOTALE TOTAL POWER	:	70 kW	
10	TENSIONE DI ALIMENTAZIONE POWER SUPPLY	:	400 V 3 Ph 50 Hz	
11	PRESSIONE ARIA IN MANDATA DISCHARGE AIR PRESSURE	:	9.5 barg	
12	PORTATA ARIA IN MANDATA DISCHARGE AIR FLOWRATE	:	415 Sm3/h	
13	TEMPERATURA ARIA IN MANDATA DISCHARGE AIR TEMPERATURA	:	35 °C	
14	GRADO DI PROTEZIONE PROTECTION DEGREE	:	IP 55	
15	CLASSIFICAZIONE AREA AREA CLASSIFICATION	:	SICURA SAFE	
16				
17				
18				
19				
20				
21				
22				
23				
24				
25	NOTES			
26				
27				
28				
29				

REV.	DESCRIZIONE DESCRIPTION	EMESSO ISSUED	APPROVATO APPROVED	DATA DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	: ROSETTI MARINO	COMM: / JOB:	: 166/24	
	RIFERIMENTO / REFERENCE	: CROSSWIND	UNITA' / ITEM	: /	
	IMPIANTO / DRYING UNIT	: INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	: 2	DI / OF : 5

FOGLIO DATI PER PRE-FILTRO
PRE-FILTER DATA SHEET

DATI GENERALI
GENERAL DATA

1	QUANTITA' / QUANTITY	:	2			
2	ITEM / TAG	:	S-63001A/B			
3	SERVIZIO / SERVICE	:	WATER AND DUST REMOVING			
4						

DATI PROGETTO CALDARERIA
VESSELS DESIGN DATA

5	PRESSIONE PROGETTO / DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO / DESIGN TEMPERATURE	:	-10 / +90 °C
6	MATERIALE / MATERIAL	:	SS 316/316L	SOVRASPESS. CORROSIONE / CORROSION OVER-THICKNESS	:	/
7	NORMATIVA PROGETTO / DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO / INSPECTION CODE	:	2014/68/EU PED

DATI FUNZIONALI
FUNCTIONAL DATA

8	GAS DA TRATTARE / GAS TO BE TREATED	:	OIL FREE AIR	PORTATA IN INGRESSO / INLET FLOWRATE	:	415 Sm3/h
9	PRESSIONE DI ESERCIZIO / OPERATING PRESSURE	:	9.5 barg	TEMPERATURA DI ESERCIZIO / OPERATING TEMPERATURE	:	35 °C
10	PERDITA DI CARICO/FILTRO PULITO / PRESSURE DROP/CLEAN FILTER	:	0.1 bar	PERDITA DI CARICO/FILTRO SPORCO / PRESSURE DROP/DIRTY FILTER	:	0.3 bar
11	EFFICIENZA / EFFICIENCY	:	99.9 %	GRADO DI FILTRAZIONE / FILTRATION DEGREE	:	3 µm
12	OLIO RESIDUO / RESIDUAL OIL	:	N/A			
13						

CARATTERISTICHE ELEMENTI FILTRANTI
FILTRATION ELEMENTS DATA

14						
15	TIPO ELEMENTO FILTRANTE / FILTRATION ELEMENT TYPE	:	CARTRIDGE	MATERIALE / MATERIAL	:	COALESCING MICROFIBER
16	N° CARTUCCE PER FILTRO / No. OF ELEMENTS/EACH FILTER	:	1	MODELLO / MODEL	:	60A

STRUMENTI - ACCESSORI
INSTRUMENTS - ACCESSORIES

17	☐	BY-PASS FILTRO / FILTER BY-PASS						
18	☒	TUBAZIONE DI RACCORDO FILTRO / CONNECTION PIPE TO FILTER						
19	☒	VALVOLE INTERCETTAZIONE / ON/OFF VALVES	☒	2 VIE / 2-WAY	☐	3 VIE / 3-WAY	☐	AUTOMATICHE / AUTOMATIC
20	☐	MANOMETRO DIFFERENZIALE / DIFFERENTIAL PRESSURE GAUGE						
21	☒	TRASMETTITORE DI PRESSIONE DIFFERENZIALE / DIFFERENTIAL PRESSURE TRANSMITTER	AS PER P&ID No. 1724000428-PR-PID-00019					
22	☒	VALVOLA DI DRENAGGIO / DRAIN VALVE						
23	☒	SCARICATORE DI CONDENSA / STEAM TRAP			☐	AUTOMATICO / AUTOMATIC	☒	GALLEGGIANTE / FLOATING
24	☐	VALVOLE DI SICUREZZA / SAFETY VALVES						

NOTE / REMARKS :
- SAFE AREA
- UNPAINTED

REV. / REV.	DESCRIZIONE / DESCRIPTION	EMESSO / ISSUED	APPROVATO / APPROVED	DATA / DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	:	ROSETTI MARINO	COMM: / JOB:	: 166/24
	RIFERIMENTO / REFERENCE	:	CROSSWIND	UNITA' / ITEM	: /
	IMPIANTO / DRYING UNIT	:	INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	: 3 DI / OF 5

FOGLIO DATI PER ESSICCATORE
DRYER DATA SHEET

DATI GENERALI
GENERAL DATA

1	QUANTITA' / QUANTITY	:	2
2	ITEM / TAG	:	D-63001A/B & D-63002A/B
3	SERVIZIO / SERVICE	:	AIR DRYER
4	TIPO / TYPE	:	HEATLESS

DATI PROGETTO MECCANICO
MECHANICAL DESIGN DATA

5	PRESSIONE PROGETTO SERBATOI / VESSELS DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO SERBATOI / VESSELS DESIGN TEMPERATURE	:	-10 / +90 °C
6	MATERIALE SERBATOI / VESSELS MATERIAL	:	SS 316/316L	SOVRASPESS. CORROSIONE SERBATOI / VESSELS CORROSION OVER-THICKNESS	:	/
7	NORMATIVA PROGETTO SERBATOI / VESSELS DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO SERBATOI / VESSELS INSPECTION CODE	:	2014/68/EU PED
8						

DATI FUNZIONALI
FUNCTIONAL DATA

9	PORTATA ARIA IN INGRESSO / INLET AIR FLOWRATE	:	415 Sm3/h
10	PRESSIONE DI ESERCIZIO / OPERATING PRESSURE	:	9.2 barg
11	TEMPERATURA DI ESERCIZIO / OPERATING TEMPERATURE	:	35 °C
12	PUNTO DI RUGIADA IN INGRESSO / INLET DEW POINT	:	35 °C
13	TIPO MATERIALE ADSORBENTE / DESICCANT MATERIAL TYPE	:	ACTIVATED ALUMINA
14	QUANTITA' ADSORBENTE PER TORRE / DESICCANT QUANTITY/EACH TOWER	:	60 kg
15	PORTATA ARIA IN USCITA / OUTLET AIR FLOWRATE	:	350 Sm3/h
16	PUNTO DI RUGIADA IN USCITA / OUTLET DEW POINT	:	-40 °C
17	POTENZA TOTALE INSTALLATA / TOTAL DEMANDE RATE	:	0.05 kW
18	PERDITA DI CARICO / PRESSURE DROP	:	0.2 bar
19	DURATA CICLO / LENGHT OF CYCLE	:	5+5 min
20	PRESSIONE IN USCITA / OUTLET PRESSURE	:	9 barg
21	CONSUMO kWh PER RIGENERAZIONE / kWh CONSUMPTION/EACH REGENERATION	:	/
22	TENSIONE DI ALIMENTAZIONE / SUPPLY VOLTAGE	:	24 VDC AUX.
23	GRADO DI PROTEZIONE / PROTECTION DEGREE	:	IP 65
24	CLASSIFICAZIONE AREA / AREA CLASSIFICATION	:	SAFE
25	RUMOROSITA' / NOISE LEVEL	:	85dB(A) max PRESSURE LEVEL at 1 m
26			

NOTE / REMARKS :
- SAFE AREA
- UNPAINTED
- INSTRUMENTATION AS PER P&ID No. 1724000428-PR-PID-00019

REV. REV.	DESCRIZIONE DESCRIPTION	EMESSO ISSUED	APPROVATO APPROVED	DATA DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	: ROSETTI MARINO	COMM: / JOB:	: 166/24	
	RIFERIMENTO / REFERENCE	: CROSSWIND	UNITA' / ITEM	: /	
	IMPIANTO / DRYING UNIT	: INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	: 4	DI / OF : 5

FOGLIO DATI PER POST-FILTRO
AFTER-FILTER DATA SHEET

DATI GENERALI
GENERAL DATA

1	QUANTITA' / QUANTITY	:	2
2	ITEM / TAG	:	S-63002A/B
3	SERVIZIO / SERVICE	:	DUST REMOVING
4			

DATI PROGETTO CALDARERIA
VESSELS DESIGN DATA

5	PRESSIONE PROGETTO / DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO / DESIGN TEMPERATURE	:	-10 / +90 °C
6	MATERIALE / MATERIAL	:	SS 316/316L	SOVRASPESS. CORROSIONE / CORROSION OVER-THICKNESS	:	/
7	NORMATIVA PROGETTO / DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO / INSPECTION CODE	:	2014/68/EU PED

DATI FUNZIONALI
FUNCTIONAL DATA

8	GAS DA TRATTARE / GAS TO BE TREATED	:	OIL FREE AIR	PORTATA IN INGRESSO / INLET FLOWRATE	:	350 Sm3/h
9	PRESSIONE DI ESERCIZIO / OPERATING PRESSURE	:	9.5 barg	TEMPERATURA DI ESERCIZIO / OPERATING TEMPERATURE	:	35 °C
10	PERDITA DI CARICO/FILTRO PULITO / PRESSURE DROP/CLEAN FILTER	:	0.1 bar	PERDITA DI CARICO/FILTRO SPORCO / PRESSURE DROP/DIRTY FILTER	:	0.3 bar
11	EFFICIENZA / EFFICIENCY	:	99.9 %	GRADO DI FILTRAZIONE / FILTRATION DEGREE	:	3 μm
12	OLIO RESIDUO / RESIDUAL OIL	:	N/A			
13						

CARATTERISTICHE ELEMENTI FILTRANTI
FILTRATION ELEMENTS DATA

14						
15	TIPO ELEMENTO FILTRANTE / FILTRATION ELEMENT TYPE	:	CARTRIDGE	MATERIALE / MATERIAL	:	COALESCING MICROFIBER
16	N° CARTUCCE PER FILTRO / No. OF ELEMENTS/EACH FILTER	:	1	MODELLO / MODEL	:	60A

STRUMENTI - ACCESSORI
INSTRUMENTS - ACCESSORIES

17	☐	BY-PASS FILTRO / FILTER BY-PASS						
18	☒	TUBAZIONE DI RACCORDO FILTRO / CONNECTION PIPE TO FILTER						
19	☒	VALVOLE INTERCETTAZIONE / ON/OFF VALVES	☒	2 VIE / 2-WAY	☐	3 VIE / 3-WAY	☐	AUTOMATICHE / AUTOMATIC
20	☐	MANOMETRO DIFFERENZIALE / DIFFERENTIAL PRESSURE GAUGE						
21	☒	TRASMETTITORE DI PRESSIONE DIFFERENZIALE / DIFFERENTIAL PRESSURE TRANSMITTER	AS PER P&ID No. 1724000428-PR-PID-00019					
22	☒	VALVOLA DI DRENAGGIO / DRAIN VALVE						
23	☐	SCARICATORE DI CONDENSA / STEAM TRAP			☐	AUTOMATICO / AUTOMATIC	☐	GALLEGGIANTE / FLOATING
24	☐	VALVOLE DI SICUREZZA / SAFETY VALVES						

NOTE / REMARKS :
- SAFE AREA
- UNPAINTED

REV.	DESCRIZIONE / DESCRIPTION	EMESSO / ISSUED	APPROVATO / APPROVED	DATA / DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	:	ROSETTI MARINO	COMM: / JOB:	:	166/24	
	RIFERIMENTO / REFERENCE	:	CROSSWIND	UNITA' / ITEM	:	/	
	IMPIANTO / DRYING UNIT	:	INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	:	5	DI / OF : 5

FOGLIO DATI PER SERBATOIO
PRESSURE VESSEL DATA SHEET

DATI PROGETTO MECCANICO
MECHANICAL DESIGN DATA

1	QUANTITA' / QUANTITY	:	1			
2	ITEM / TAG	:	V-63001			
3	SERVIZIO / SERVICE	:	SERBATOIO ARIA SECCA / DRY AIR TANK			
4	TIPO / TYPE	:	VERTICALE / VERTICAL			
5	MATERIALE / MATERIAL	:	LTCS			
6	NORMATIVA PROGETTO / DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO / INSPECTION CODE	:	2014/68/EU PED
7	MATERIALE / MATERIAL	:	LTCS	SOVRASPESS. CORROSIONE / CORROSION OVER-THICKNESS	:	1.5 mm
8	PRESSIONE PROGETTO / DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO / DESIGN TEMPERATURE	:	-10 / +90 °C
9	DIAMETRO ESTERNO / EXTERNAL DIAMETER	:	2000 mm	LUNGHEZZA T/T / T/T LENGHT	:	7000 mm
10	VOLUME / VOLUME	:	23 m3			
11	RADIOGRAFIE / RT TEST	:	☒ YES SPOT	☐ NO		
12	VERNICIATURA / PAINTING	:	☒ EXTERNAL	☐ INTERNAL		
13	ZINCATURA / GALVANIZING	:	☐ YES	☒ NO		
14	NOTE / NOTES	:	FURTHER DETAILS (FASTENERS, GASKETS, ETC.) INCLUDED IN SECTIONAL DRAWING			

ELENCO CONNESSIONI
NOZZLES LIST

	SIGLA / TAG	DIAMETRO / DIAMETER	TIPO / TYPE	SERIE / RATING	SERVIZIO / SERVICE	NOTE / REMARKS
15						
16	N1	2"	WN	ANSI 150	PROCESS INLET/OUTLET	ASME B16.5
17	N2	3/4"	NPT	3000	SAFETY VALVE	
18	N3	1/2"	NPT	3000	PRESSURE GAUGE	
19	N4	1/2"	NPT	3000	PRESSURE TRANSMITTER	
20	N5	3/4"	NPT	3000	TEMPERATURE GAUGE	
21	N6	3/4"	NPT	3000	TEMPERATURE TRANSMITTER	
22	N7	1"	WN	ANSI 150	DRAIN	ASME B16.5
23	N8	16"	WN	ANSI 150	MAN HOLE	ASME B16.5

STRUMENTI - ACCESSORI
INSTRUMENTS - ACCESSORIES

24	☒	VALVOLA DI SICUREZZA / SAFETY VALVE
25	☒	MANOMETRO / PRESSURE GAUGE
26	☒	TRASMETTITORE DI PRESSIONE / PRESSURE TRANSMITTER
27	☒	TERMOMETRO / TEMPERATURE GAUGE
28	☒	TRASMETTITORE DI TEMPERATURA / TEMPERATURE TRANSMITTER
29	☒	VALVOLA DI DRENAGGIO MANUALE / MANUAL DRAIN VALVE
30	☒	SCARICATORE DI CONDENSA / DRAIN TRAP
31		

REV. / REV.	DESCRIZIONE / DESCRIPTION	EMESSO / ISSUED	APPROVATO / APPROVED	DATA / DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

3 INSTRUMENT DATASHEETS

PRESSURE TRANSMITTER			
General	1	Tag number	63-PIT-064
	2	Service	Instrument air receiver pressure
	3	Quantity	1
Process	4	Fluid	Air
	5	Operating pressure	9 barg
	6	Operating temperature	40°C
	7	Design pressure	12 barg
	8	Design temperature	90°C
	9	Area classification	Safe
	10	Ambient temperature	-8.4 ÷ 25°C
Transmitter	11	Output	4…20mA HART 7
	12	Available range	-0.98 ÷ 20.7 bar
	13	Calibrated range	0 ÷ 16 barg
	14	Element type	Isolating Diaphragm
	15	Wetted parts material	SS 316L
	16	Element material	SS 316L
	17	Case material	SS 316L
	18	Execution	IP66
	19	Process connections	Female thread 1/2-14 NPT-F
	20	Cable entry	M20x1.5
	21	Digital display	YES - LCD type integrated
	22	Accuracy	Better than 0,25% of adjusted span
	23	Power supply	24 VDC
	24	Certification:	ATEX, II 1/2 G Ex db IIC T6…T4 Ga/Gb
Accessories	25	Manifold Supplier	EMERSON
	26	Manifold type / Model	2-Valves / R305C22B11L4
	27	Manifold mat.l Body / seal	SS316 / PTFE
Purchase	28	Instrument Manufacturer	EMERSON
	29	Model	2051CG4A22A1KS5E8L4M5D4T1Q4Q8HR7
Notes	30		

DIFFERENTIAL PRESSURE TRANSMITTER			
General	1	Tag number	63-PDIT-051, 63-PDIT-062
	2	Service	Pre-filters, After-filters pressure drop
	3	Quantity	1 + 1
Process	4	Fluid	Air
	5	Operating pressure	9 barg
	6	Operating temperature	40°C
	7	Design pressure	12 barg
	8	Design temperature	90°C
	9	Area classification	Safe
	10	Ambient temperature	-8.4 ÷ 25°C
Transmitter	11	Output	4…20mA HART 7
	12	Available range	-2.5 ÷ 2.5 bar
	13	Calibrated range	0 ÷ 1 bar
	14	Element type	Isolating Diaphragm
	15	Wetted parts material	SS 316L
	16	Element material	SS 316L
	17	Case material	SS 316L
	18	Execution	IP66
	19	Process connections	Female thread 1/2-14 NPT-F
	20	Cable entry	M20x1.5
	21	Digital display	YES - LCD type integrated
	22	Accuracy	Better than 0,25% of adjusted span
	23	Power supply	24 VDC
	24	Certification:	ATEX, II 1/2 G Ex db IIC T6…T4 Ga/Gb
Accessories	25	Manifold Supplier	EMERSON
	26	Manifold type / Model	5-Valves / R305RC52B11
	27	Manifold mat.l Body / seal	SS316 / PTFE
Purchase	28	Instrument Manufacturer	EMERSON
	29	Model	2051CD3A22A1KS5E8L4M5D4T1Q4Q8HR7
Notes	30		

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PRESSURE GAUGES			
General	1	Tag number	63-PI-053, 63-PI-055, 63-PI-057, 63-PI-059
	2	Service	Dryer towers pressure
	3	Quantity	4
Process	4	Fluid	Air
	5	Operating pressure	9 barg
	6	Operating temperature	40°C
	7	Design pressure	12 barg
	8	Design temperature	90°C
	9	Area classification	Safe
	10	Ambient temperature	-8.4 ÷ 25°C
Gauge	11	Type	Bourdon Tube
	12	Range	0 ÷ 16 barg
	13	Mounting	Local
	14	Dial size	DN100 mm
	15	Dial / Pointer color / material	White / black / aluminum
	16	Case material	Stainless steel SS 316
	17	Ring material	Stainless steel SS 316
	18	Blow out protection	With solid baffle wall and blow-out back
	19	Lens material	Safety glass
	20	Pressure element type	Bourdon
	21	Pressure element material	SS 316L (1.4571)
	22	Socket material	Stainless Steel SS 316
	23	Movement material	Stainless Steel SS 316
	24	Connection size	1/2" NPT-M
	25	Connection type	Radial Bottom
	26	Protection degree	IP66
	27	Nominal accuracy	CLASS 1 EN837 - 1% on range
	28	Over pressure	30% of span
	29	Certification:	ATEX, Ex h Gas II 2G Ex h IIC T6 ...T1 Gb X
Accessories	30	Diaphragm seal	NO
	31	Manifold type	2 Valves
Purchase	32	Instruments Manufacturer	WIKA
	33	Model	233.30
Notes	34		

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PRESSURE GAUGES			
General	1	Tag number	63-PI-063
	2	Service	Air receiver pressure
	3	Quantity	1
Process	4	Fluid	Air
	5	Operating pressure	9 barg
	6	Operating temperature	40°C
	7	Design pressure	12 barg
	8	Design temperature	90°C
	9	Area classification	Safe
	10	Ambient temperature	-8.4 ÷ 25°C
Gauge	11	Type	Bourdon Tube
	12	Range	0 ÷ 16 barg
	13	Mounting	Local
	14	Dial size	DN100 mm
	15	Dial / Pointer color / material	White / black / aluminum
	16	Case material	Stainless steel SS 316
	17	Ring material	Stainless steel SS 316
	18	Blow out protection	With solid baffle wall and blow-out back
	19	Lens material	Safety glass
	20	Pressure element type	Bourdon
	21	Pressure element material	SS 316L (1.4571)
	22	Socket material	Stainless Steel SS 316
	23	Movement material	Stainless Steel SS 316
	24	Connection size	1/2" NPT-M
	25	Connection type	Radial Bottom
	26	Protection degree	IP66
	27	Nominal accuracy	CLASS 1 EN837 - 1% on range
	28	Over pressure	30% of span
	29	Certification:	ATEX, Ex h Gas II 2G Ex h IIC T6 ...T1 Gb X
Accessories	30	Diaphragm seal	NO
	31	Manifold type	2 Valves
Purchase	32	Instruments Manufacturer	WIKA
	33	Model	233.30
Notes	34		

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DIFFERENTIAL PRESSURE GAUGES			
General	1	Tag number	63-PDI-052, 63-PDI-061
	2	Service	Dryer pressure drop
	3	Quantity	1 + 1
Process	4	Fluid	Air
	5	Operating pressure	9 barg
	6	Operating temperature	40°C
	7	Design pressure	12 barg
	8	Design temperature	90°C
	9	Area classification	Safe
	10	Ambient temperature	-8.4 ÷ 25°C
Gauge	11	Type	Bourdon Tube
	12	Range	0 ÷ 1.6 bar
	13	Mounting	Local
	14	Dial size	DN100 mm
	15	Dial / Pointer color / material	White / black / aluminum
	16	Pointer	Micrometric adjustable
	17	Case material	Stainless steel SS 316
	18	Ring material	Stainless steel SS 316
	19	Blow out protection	With solid baffle wall and blow-out back
	20	Lens material	Safety glass
	21	Pressure element type	Bourdon
	22	Pressure element material	SS 316L (1.4571)
	23	Socket material	Stainless Steel SS 316
	24	Movement material	Stainless Steel SS 316
	25	Connection size	1/2" NPT-M
	26	Connection type	Radial Bottom
	27	Protection degree	IP66
	28	Nominal accuracy	CLASS 1 EN837 – 1.6% on range
	29	Certification:	ATEX, Ex h Gas II 2G Ex h IIC T6 ...T1 Gb X
Accessories	30	Manifold type	5-Valves
Purchase	31	Instruments Manufacturer	WIKA
	32	Model	732.51
Notes	33		

PRESSURE SWITCH			
General	1	Tag number	63-PS-054, 63-PS-056, 63-PS-058, 63-PS-060
	2	Service	Dryer towers pressure
	3	Quantity	4
Process	4	Fluid	Air
	5	Operating pressure	9 barg
	6	Operating temperature	40°C
	7	Design pressure	12 barg
	8	Design temperature	90°C
	9	Area classification	Safe
	10	Ambient temperature	-8.4 ÷ 25°C
Instrument	11	Range	0 ÷ 16 barg
	12	Measuring element	Bourdon
	13	Set point	Adjustable
	14	Switch type	Micro switch
	15	Switch action	Hermetically sealed SPDT
	16	Switch load	Resistive
	17	Case material	SS 316
	18	Wetted parts material	Stainless steel
	19	Pressure connection size	½” NPTM
	20	Pressure connection type	Bottom
	21	Electric connection	M20x1.5
	22	Protection degree	IP66
	23	Nominal accuracy	<0,5% on range
	24	Certification:	ATEX, Zone 2, IIC, T1 Ex-d
Accessories	25	Diaphragm seal	NO
	26	Manifold	NO
Purchase	27	Manufacturer	Tema
	28	Model	PMS8.1
Notes	29		Factory set point 5 barg

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TEMPERATURE ELEMENT + TRANSMITTER			
General	1	Tag number	63-TIT-051
	2	Service	Inlet air temperature
	3	Quantity	1
Process	4	Fluid	Air
	5	Operating pressure	9 barg
	6	Operating temperature	40°C
	7	Design pressure	12 barg
	8	Design temperature	90°C
	9	Area classification	Safe
	10	Ambient temperature	-8.4 ÷ 25°C
Transmitter / Element	11	Output	4…20mA HART 7
	12	Input	Dual sensor input
	13	Instrument Range	-50 ÷ 450 °C
	14	Calibration Range	0 ÷ 100°C
	15	Accuracy	±0.15°C
	16	Case material	SS 316
	17	Execution	IP66
	18	Cable Entry	2 x M20x1.5
	19	Installation	DIN A Head mount transmitter
	20	Power supply	24 VDC
	21	Digital display	YES - LCD type integrated
	22	Certification:	ATEX, II 2G Ex db IIC T6…T1 Gb
Purchase	23	Manufacturer	EMERSON
	24	Element Model	214CRTSMA1S3MxxxxSLDFN1SR2C2B1UAE100V20Q4G1XAXW
	25	Transmitter Model	644HANDM5Q4T1HR7XA
	26	Element Type	PT 100 Class A
	27	Element Bulb	Ø6.5mm - extension 100mm
	28	Element insertion length	To be confirmed
	29	Conn. to Thermowell	1/2" NPT-M
	30	Connection to Process	316L – 1.1/2” 150# – 1/2" NPT-F
Thermowell	31	Head length	70 mm
	32	Immersion length	To be confirmed
	33	Thermowell	SS316
Notes	34		

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TEMPERATURE ELEMENT + TRANSMITTER			
General	1	Tag number	63-TIT-052
	2	Service	Instrument air receiver temperature
	3	Quantity	1
Process	4	Fluid	Air
	5	Operating pressure	9 barg
	6	Operating temperature	40°C
	7	Design pressure	12 barg
	8	Design temperature	90°C
	9	Area classification	Safe
	10	Ambient temperature	-8.4 ÷ 25°C
Transmitter / Element	11	Output	4…20mA HART 7
	12	Input	Dual sensor input
	13	Instrument Range	-50 ÷ 450 °C
	14	Calibration Range	0 ÷ 100°C
	15	Accuracy	±0.15°C
	16	Case material	SS 316
	17	Execution	IP66
	18	Cable Entry	2 x M20x1.5
	19	Installation	DIN A Head mount transmitter
	20	Power supply	24 VDC
	21	Digital display	YES - LCD type integrated
	22	Certification:	ATEX, II 2G Ex db IIC T6…T1 Gb
Purchase	23	Manufacturer	EMERSON
	24	Element Model	214CRTSMA1S3MxxxxSLDFN1SR2C2B1UAE100V20Q4G1XAXW
	25	Transmitter Model	644HANDM5Q4T1HR7XA
	26	Element Type	PT 100 Class A
	27	Element Bulb	Ø6.5mm - extension 100mm
	28	Element insertion length	To be confirmed
	29	Conn. to Thermowell	1/2" NPT-M
	30	Connection to Process	316L – 1.1/2” 150# – 1/2" NPT-F
Thermowell	31	Head length	70 mm
	32	Immersion length	To be confirmed
	33	Thermowell	SS316
Notes	34		

TEMPERATURE GAUGES			
General	1	Tag number	63-TI-053
	2	Service	Instrument air receiver temperature
	3	Quantity	1
Process	4	Fluid	Air
	5	Operating pressure	9 barg
	6	Operating temperature	40°C
	7	Design pressure	12 barg
	8	Design temperature	90°C
	9	Area classification	Safe
	10	Ambient temperature	-8.4 ÷ 25°C
Gauge	11	Type	Bimetal
	12	Range	0 ÷ 100°C
	13	Mounting	Local
	14	Dial size	DN100 mm
	15	Dial / Pointer color / material	White / black / aluminum
	16	Case material	Stainless steel SS 304
	17	Ring material	Stainless steel SS 304
	18	Bulb Diameter	6.5mm
	19	Lens material	Safety glass
	20	Socket material	Stainless Steel SS 316
	21	Movement material	Stainless Steel SS 316
	22	Connection size	1/2" NPT-M
	23	Connection type	Back mount, adjustable
	24	Filling	None
	25	Protection degree	IP66
	26	Nominal accuracy	CLASS 1 EN837 - 1% on range
	27	Certification:	ATEX, Ex h Gas II 2G Ex h IIC T6 ...T1 Gb X
Accessories	28	Thermowell	316L – 1.1/2” 150# - 1/2" NPT-F
	29	Thermowell Head length	70 mm
	30	Thermowell Immersion length	450 mm under flange
Purchase	31	Instruments Manufacturer	WIKA
	32	Model	S55 + TW10
Notes	33		

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DEW POINT ANALYZER			
General	1	Tag number	63-AIT-051
	2	Service	Package outlet dewpoint
	3	Quantity	1
Process	4	Fluid	Air
	5	Operating pressure	9 barg
	6	Operating temperature	40°C
	7	Design pressure	12 barg
	8	Design temperature	90°C
	9	Area classification	Safe
	10	Ambient temperature	-8.4 ÷ 25°C
Transmitter	11	Analog output	4…20mA HART 7
	12	Calibrated Range	-100 ÷ +20°C
	13	Power supply	24 VDC
	14	Sensor	Thin film aluminum oxide
	15	Accuracy	±2°C above -100°C / ±2°C below -100°C
	16	Repeatability	±2°C above -100°C / ±0.5°C below -100°C
	17	Execution	IP66
	18	Cable Entry	M20x1.5
	19	Certification:	ATEX, II 1G Ex ia IIC T4 Ga
Probe	20	Mounting	Local
Accessories	21	Digital display	YES
	22	Isolation valves	YES
Purchase	23	Manufacturer	GE SENSING
	24	Model	HYGROPROII-2-1-0-4-0-0-0-3-0
Notes	25		

This document undergoes an issuance cycle within EDMS Fusionlive". Its distribution is electronically controlled. Once printed shall be considered as "NOT CONTROLLED" copy

FLOW TRANSMITTER			
General	1	Tag number	63-FIT-051
	2	Service	Package outlet flowrate
	3	Quantity	1
Process	4	Fluid	Air
	5	Operating pressure	9 barg
	6	Operating temperature	40°C
	7	Design pressure	12 barg
	8	Design temperature	90°C
	9	Area classification	Safe
	10	Ambient temperature	-8.4 ÷ 25°C
Transmitter	11	Output	4…20mA HART 7
	12	Available range	-623 ÷ 623 mbar
	13	Calibrated range	0 ÷ 500 Sm^3/h
	14	Element type	Isolating Diaphragm
	15	Wetted parts material	SS 316L
	16	Element material	SS 316L
	17	Case material	SS 316L
	18	Execution	IP65
	19	Process connections	Female thread 1/2-14 NPT-F
	20	Cable entry	M20x1.5
	21	Digital display	YES - LCD type integrated
	22	Accuracy	Better than 0,25% of adjusted span
	23	Power supply	24 VDC
	24	Certification:	ATEX, II 1/2 G Ex db IIC T6…T4 Ga/Gb
Accessories	25	Manifold Supplier	EMERSON
	26	Manifold type / Model	5-Valves / R305RC52B11
	27	Manifold mat.l Body / seal	SS316 / PTFE
	28	Restriction Orifice Plate	Yes, Model 1495
Purchase	29	Instrument Manufacturer	EMERSON
	30	Model	2051CD2A22A1KS5E8L4M5D4T1Q4Q8HR7
Notes	31		

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SOLENOID VALVE			
General	1	Tag number	63-XY-051, 63-XY-052, 63-XY-053, 63-XY-054, 63-XY-055, 63-XY-056, 63-XY-056, 63-XY-057, 63-XY-058, 63-XY-059, 63-XY-060
	2	Service	Actuated valves command
	3	Type	Solenoid valve
Body	4	Material	SS 316
	5	Connections	1/4" NPT-F
	6	Seals	NBR
Acting	7	Ways/Position	3/2
	8	Type	UNIVERSAL
Coil	9	Power supply	24Vdc
	10	Insulation class	H
	11	Protection degree	IP66
	12	Electrical connection	M20 x 1.5
	13	Power consumption	11W
Purchase	14	Manufacturer	NADI
	15	Model	C28I60D0C
	16	Certification	ATEX, Eexd IIC T6
Notes	17	Installed inside local control panel	

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SAFETY VALVE			
General	1	Tag number	63-PSV-001, 63-PSV-002, 63-PSV-003, 63-PSV-004
	2	Service	Vessel protection
	3	Quantity	4
	4	Type	Safety relief valve
Process	5	Fluid	Air
	6	Operating pressure	12 barg
	7	Operating temperature	40°C
	8	Design pressure	12 barg
	9	Design temperature	80°C
	10	Area classification	Safe
	11	Ambient temperature	-8.4 ÷ 25°C
Design	12	Design	2014/68/EU PED
	13	Code	ISO 4126-1
	14	Design case	Fire case
	15	Inlet connection	1” ANSI 150 RF
	16	Outlet connection	2” ANSI 150 RF
	17	Orifice designation	D
	18	Set pressure	12 barg
	19	Back pressure	0
	20	Overpressure	10%
Materials	21	Diaphragm seal	NO
	22	Body	SS316
Purchase	23	Manufacturer	N.G.I.
	24	Model	G10-API
Notes	25		

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SAFETY VALVE			
General	1	Tag number	63-PSV-005
	2	Service	Air receiver protection
	3	Quantity	1
	4	Type	Safety relief valve
Process	5	Fluid	Air
	6	Operating pressure	12 barg
	7	Operating temperature	40°C
	8	Design pressure	12 barg
	9	Design temperature	80°C
	10	Area classification	Safe
	11	Ambient temperature	-8.4 ÷ 25°C
Design	12	Design	2014/68/EU PED
	13	Code	ISO 4126-1
	14	Design case	Fire case
	15	Inlet connection	3” ANSI 150 RF
	16	Outlet connection	4” ANSI 150 RF
	17	Orifice designation	K
	18	Set pressure	12 barg
	19	Back pressure	0
	20	Overpressure	10%
Materials	21	Diaphragm seal	NO
	22	Body	SS316
Purchase	23	Manufacturer	N.G.I.
	24	Model	G40-API
Notes	25		

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ACTUATED VALVES			
General	1	Tag number	63-XV-055, 63-XV-056, 63-XV-057, 63-XV-058 63-XV-059, 63-XV-060
	2	Service	ON-OFF actuated valves
	3	Quantity	6
	4	Type	Ball valve
Process	5	Fluid	AIR
	6	Operating pressure	12 barg
	7	Operating temperature	40°C
	8	Design pressure	12 barg
	9	Design temperature	80°C
	10	Area classification	Safe
	11	Ambient temperature	-8.4 ÷ 25°C
Body	12	Size	2”
	13	Rating	150
	14	End connections	RF
	15	Material	A351 CF8M
	16	Ball	SS 316
	17	Seat	FKM+GRAPHITE
Actuator	18	Type	RACK & PINION
	19	Fail position	OPEN
Purchase	20	Manufacturer	VALPRES
	21	Model	ART.68J000
Notes	22		

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Section 7 MECHANICAL COMPLETION STATUS INDEX - MECHANICAL DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-00 & process: MC & discipline : M

Mechanical	63-00 Instrument Air Package (A-63000)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
A-63000	Instrument Air Package	ONSHORE	C10002354	CZX01M	100	2025-01-15	RFC 2
V-63001	Air Receiver	ONSHORE	C10004527	CDX01	100	2025-01-10	RFC 2

ITEM	Tag	A-63000	: Instrument Air Package			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10002354		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Mechanical Form CZX01M		Package - M

1	Check that the nameplate details and tag number are complete and correct.	PL
2	Check that the holding down arrangements are correct.	PL
3	Check for all interface piping/mechanical reinstated on site by contractor.	OK
4	Check that the package Mechanical equipment is complete and not damaged.	PL
5	Check all the equipment for correct lubrication, for oil leaks and cleanliness.	OK
6	Check for the free rotation of rotating equipment.	OK
7	Check the insulation, painting and for correct tagging and identification.	PL
8	Check that the earthing system of the equipment is as per specification.	OK
9	Check that the Package is fixed and tightened to the structures.	OK
10	Check the release note, FAT report and outstanding Punch list for the Package	Note
11	If required produce Red Line Mark Up for "AS BUILT".	

Comments:

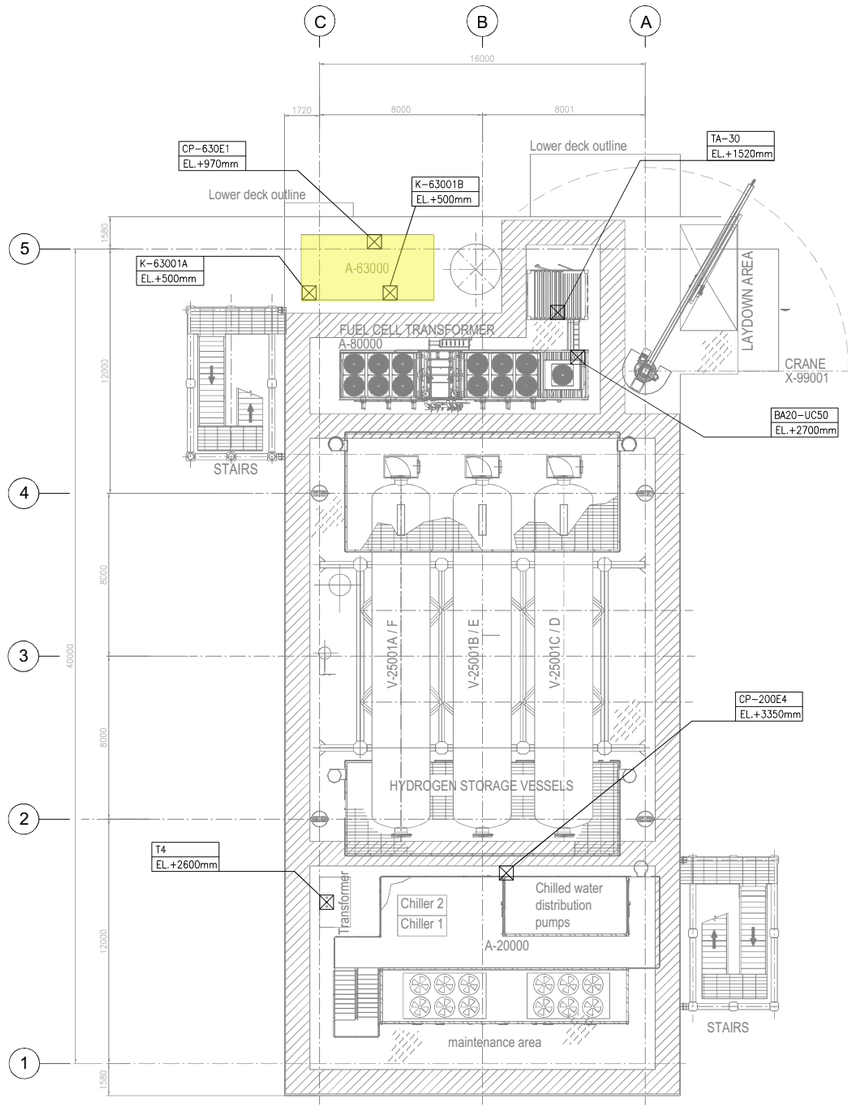
1. SN.I240007. In the Air package GA there is no SN marked.

10. Checked. Release note is missing. FAT report is conforming but all related PL are still outstanding.

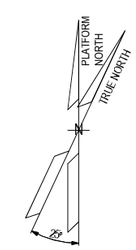
	Performed by	☉ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (Rosetti Marino)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2025-01-09	2025-01-15	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-09T05:46:11.096Z	PROVERLIS Digitaly signed by Massimo Bruschi 2025-01-15T07:42:40.736Z	

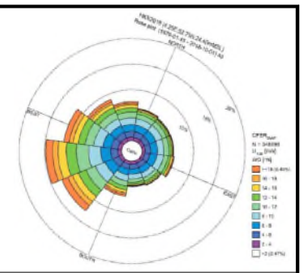
DRAWING NO. 123A90-DDL-EL-DL-20100

REV. 01



PLAN ON TOP DECK
EL+30.310 T.O.S.





NOTES

1. ALL DIMENSIONS IN MM UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS IN METERS. UNLESS NOTED OTHERWISE.
3. ELEVATIONS REFER TO T.O.S. UNLESS NOTED OTHERWISE.
4. AFTER INTERFACE PANEL/BATTERY LIMIT CABLES WILL BE ROUTED INSIDE VENDOR CABLETRAYS

LEGEND

⊠	INTERFACE PANEL/BATTERY LIMIT
JB-200E2	TAG ITEM
EL.+500mm	REFERED ELEVATION TO T.O.S. (TOP OF STEEL)

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20140	ELECTRICAL HEAT TRACING JUNCTION BOX LAYOUT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	22/07/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20100

REV.:	DATE:	SIGNATURE:
1_A	08/08/24	G.Randi

ROSETTI MARINO SpA

TITLE :
BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
TOP DECK

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 22/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20100	SHEET 001	REV. 01

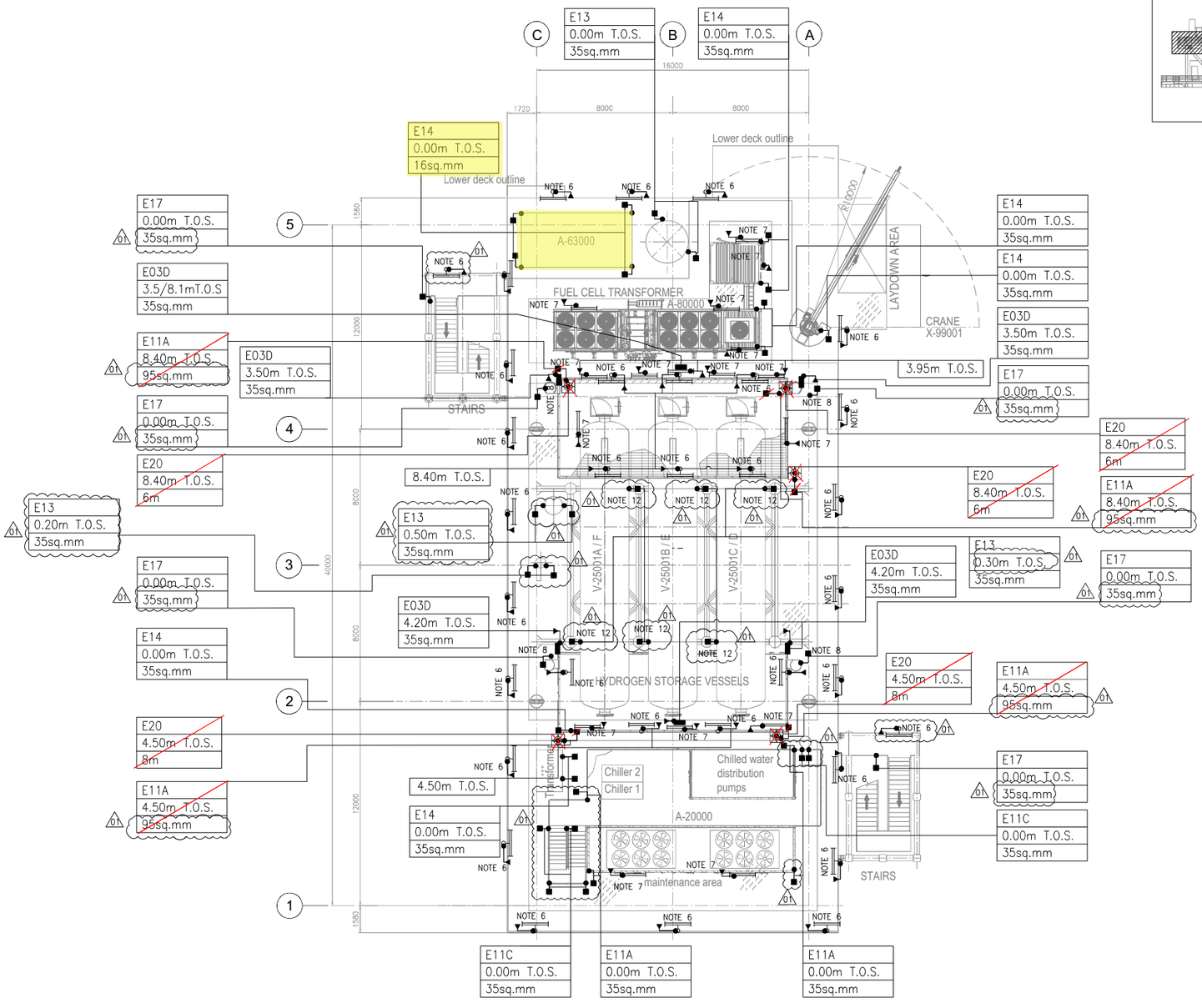
File Name : 123A90-DDL-EL-DL-20100-Electrical Equipment Layout - Top Deck

DRAWING NO. 123A90-DDL-EL-DL-20132

REV. 01

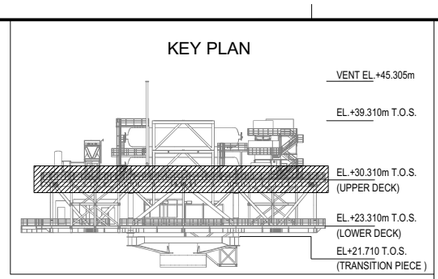
RLMU LIST

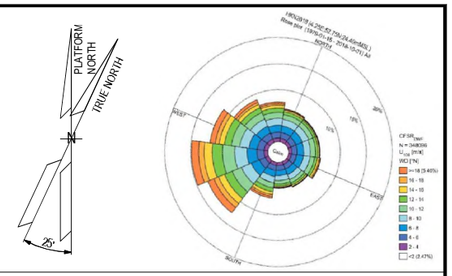
REV. 01_B: Sheet 1, 3



PLAN ON TOP DECK
EL+30.310 T.O.S.

KEY PLAN





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DOCUMENT IS ONLY VALID FOR EARTHING LAYOUT.
4. ALL ELECTRICAL EQUIPMENT NOT DIRECTLY WELDED TO SKID FRAME SHALL BE BONDED TO STEEL TO THE STRUCTURE OF SKID BASEFRAME.
5. FOR LIGHTNING PROTECTION SYSTEM SURGE PROTECTIVE DEVICES (SPD), REFER TO THE DOCUMENT 123A90-DDL-EL-RE-20154.
6. ALL NON-WELDED POLES WILL BE EARTHED AS PER TYPICAL E05 AND E24. 01
7. ALL LINEAR LIGHTING FIXTURE WILL BE EARTHED AS PER TYPICAL E32.
8. LADDER MUST BE EARTHED IF NOT WELDED TO THE STRUCTURE. LADDER MUST BE EARTHED TO THE UPPER BEAM OF THE STRUCTURE, COMPLETE EARTHING INCLUDING WITH 2 THREADED STUDS AS PER TYPICAL E17D.
9. ALL EARTH BAR WILL BE EARTHED AS PER TYPICAL E03D.
10. ALL POLE MOUNTED EQUIPMENTS WILL BE EARTHED AS PER TYPICAL E05.
11. EQUIPOTENTIAL BONDING GROUPING FOR BOLTED HANDRAILS ARE PROVIDED EVERY 3M FOR THE ENTIRE PERIMETER AS TYPICAL E16 AND WILL BE DEFINED DURING ASSEMBLY PHASE.
12. EARTHED VESSELS V-25001D/E/F. FOR EARTHING V-25001A/B/C SEE SHEET 2 01

LEGEND

- LIGHTING FIXTURE POLE MOUNTED
- LINEAR LIGHTING FIXTURE
- EARTHING BOSS AISI316L
- COMPRESSION TYPE LUG TINNED COPPER
- THREADED STUD FOR EARTHING CONNECTION
- AIR TERMINATION ROD FOR LIGHTNING PROTECTION
- Exx EARTHING TYPICAL CODE
- EARTHING BAR

TYP.	TYPICAL
ELE	ELEVATION
SIZE	

E20	AIR TERMINATION ROD NO.
ELE	ELEVATION
HEIGHT	

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20100	ELECTRICAL EQUIPMENT LAYOUT - TOP DECK
123A90-DDL-EL-DD-20090	ELECTRICAL TYPICAL INSTALLATION DETAILS - EARTHING SYSTEM
123A90-DDL-EL-RE-20154	LIGHTNING PROTECTION SYSTEM CALCULATION REPORT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	31/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	27/05/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
EARTHING & LIGHTNING LAYOUT
TOP DECK

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN NLK	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 31/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20132	SHEET 001	REV. 01

SHEET 001 OF 002

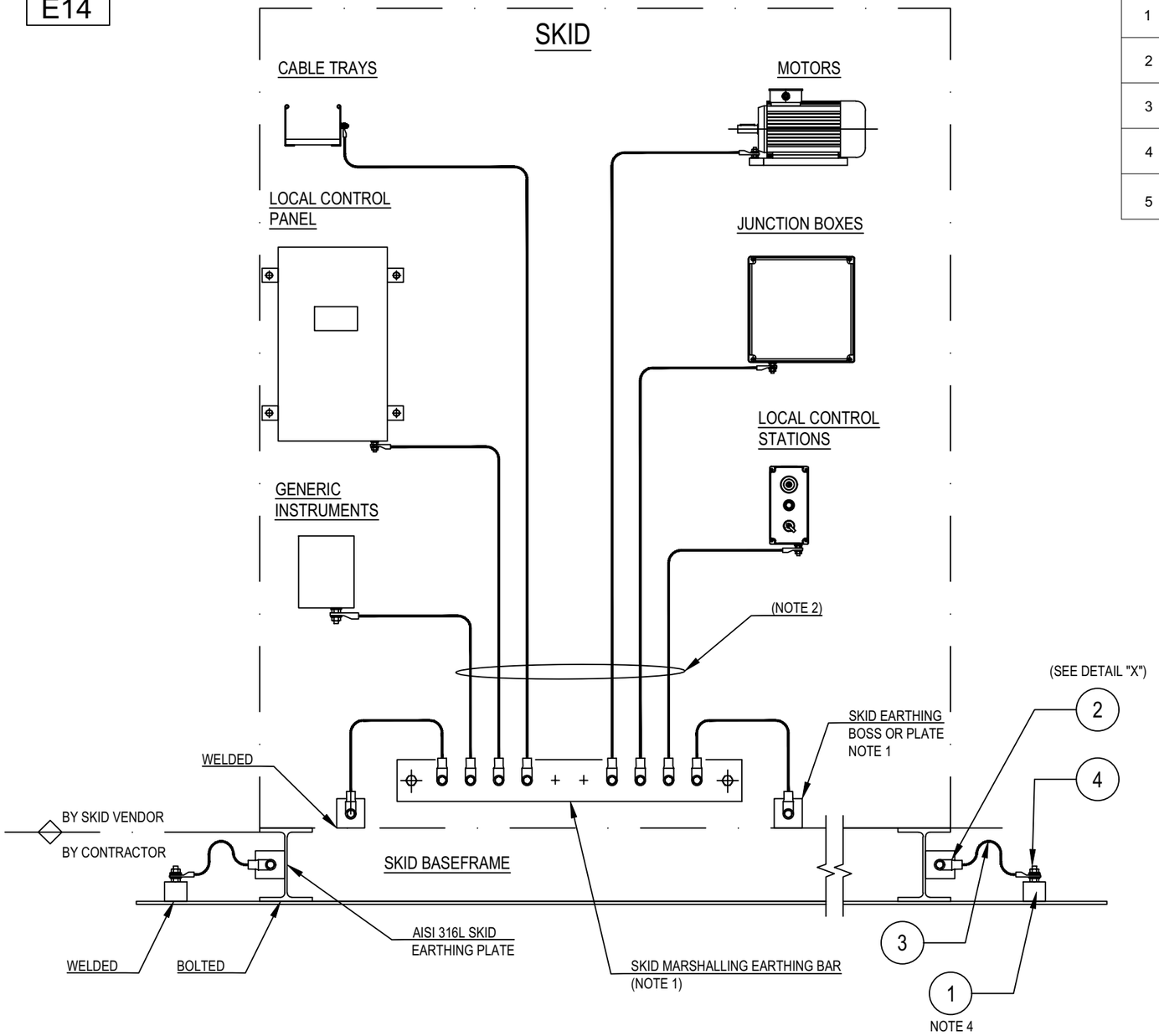
VALID FOR CONSTRUCTION

REV.:	DATE:	SIGNATURE:
1_B	08/11/24	V.Ramponi

ROSETTI MARINO SpA

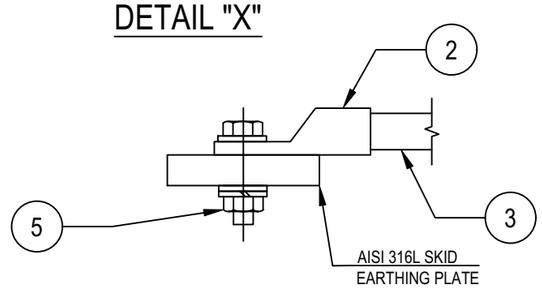
File Name : 123A90-DDL-EL-DL-20132

E14



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BOSS WITH THREADED HOLE M10	AISI 316L	50X50		NOTE 5
2	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	35mm^2		~~NOTE 3~~
3	Y/G INSULATING COPPER CONDUCTOR	COPPER	35mm^2		~~NOTE 3~~
4	STUD BOLT WITH PLANE WASHER, SPRING WASHER AND NUT	AISI 316L	M10X50		
5	HEXAG. BOLT COMPLETE WITH PLANE WASHERS, SPRING WASHER AND NUT	AISI 316L	M10X30		

DETAIL "X"



NOTES:
1) EARTHING BAR/BOSS/PLATE SUPPLIED BY SKID MANUFACTURER
2) ALL EQUIPMENTS AND CABLE TRAYS WILL BE EARTHING ON SKID EARTHING BAR BY SKID MANUFACTURER
3) ~~CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY~~
4) FOR EARTHING BOSS TYPICAL DETAIL E11A
5) EXTERNAL EARTHING CONNECTION ONLY SHALL BE PROTECTED AGAINST CORROSION USING OXIDE RESISTANT COMPOUND (E.G. COPPER GREASE)

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_I	07/11/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR SKID BASEFRAME

CONTRACT NO./TITLE CW–I–WP4–2023–05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3 | DRAWING NO. 123A90–DDL–EL–DD–20090 | SHEET 014 | REV. 02

F.to UNI A3: 420mmx297mm

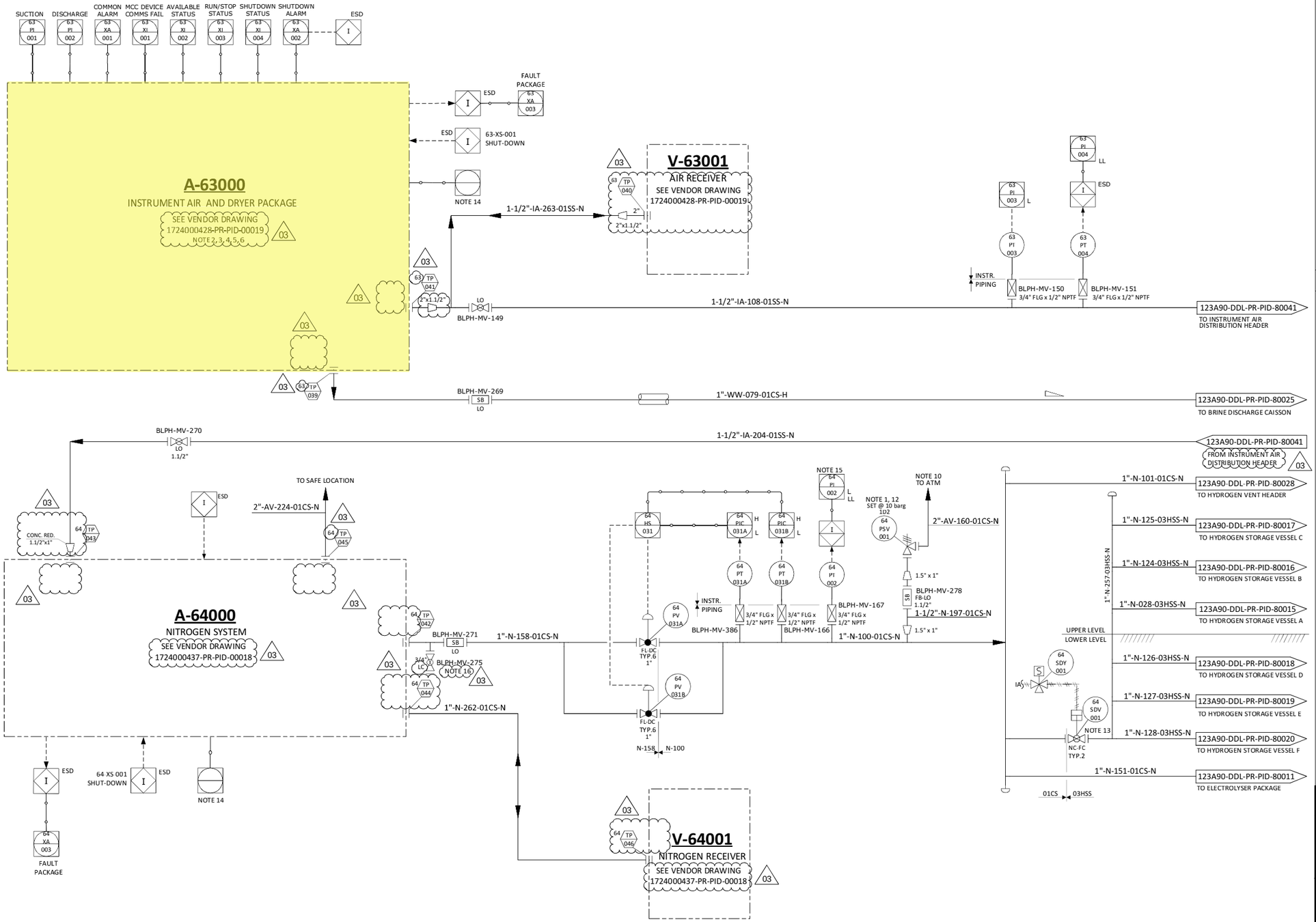
File Name : 123A90-DDL-EL-DD-20090 REV.02.DWG

DRAWING NO. DRAWING_NO.

REV. REV

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
CAPACITY : 313 Sm^3/h (PRODUCTION)

A-64000
NITROGEN GENERATION SYSTEM
CAPACITY : 52.7 Sm^3/h (PRODUCTION)



NOTES

1. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
2. COMPRESSORS AND DRIERS DESIGNED FOR 2 X 100% CONFIGURATION. INSTRUMENT AIR RECEIVER DESIGNED FOR 1 X 100%.
3. VENDOR TO PROVIDE NECESSARY CONTROLS, INSTRUMENTATIONS AND ISOLATIONS IN ORDER TO OPERATE THE PLANT IN SAFE MANNER.
4. COMPRESSORS WILL OPERATE ON THE BASIS OF ONE WORKING AND ONE ON STANDBY.
5. COMPRESSORS TO BE ROTARY SCREW TYPE OIL FREE.
6. AIR COMPRESSOR INLET TO BE LOCATED AWAY FROM ANY VENTS.
7. DELETED.
8. DELETED.
9. DELETED.
10. TO SAFE LOCATION, ROUTED AWAY FROM WALKWAYS.
11. DELETED.
12. 64-PSV-001 SIZED FOR UPSTREAM 64-PV-031 CV FAILURE. (03)
13. 64-SDV-001 IS NORMALLY CLOSED. IF REQUIRED THE OPERATOR CAN REMOTELY OPEN THE VALVE TO ALLOW PURGING OPERATION. VALVE 64-SDV-001 IS ALSO CONNECTED TO THE PCS SYSTEM.
14. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
15. THE ALARM 64-PAL-002 WILL CLOSE 64-SDV-001 THROUGH SAFETY SYSTEM.
16. MANUAL VALVE BLPH-MV-275 TO BE CONNECTED WITH MANUAL VALVE BLPH-MV-466 (INSTALLED ON ELECTROLYSER PACKAGE EXIT LINE) BY MEAN ON A FLEXIBLE HOSE DURING COMMISSIONING PHASE FOR PURGING OPERATION. (03)

HOLDS

1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

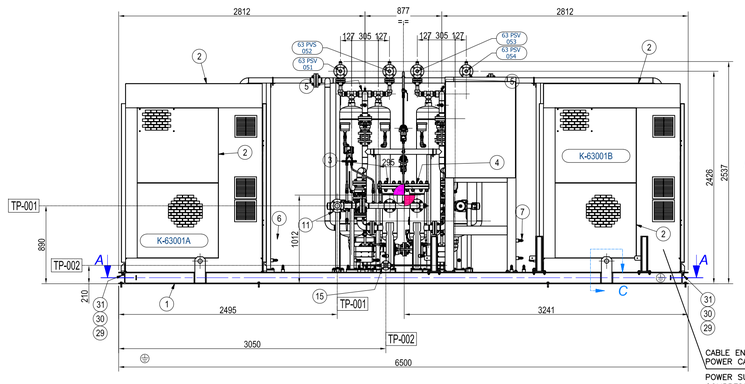
TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR PACKAGE

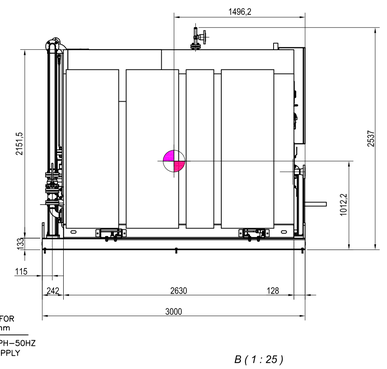
CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80027		SHEET 001	REV. 03

File Name : FILE_NAME

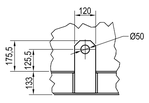
DRAWING NO. 1724000428-MAC-DA-00005

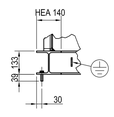
REV. 03

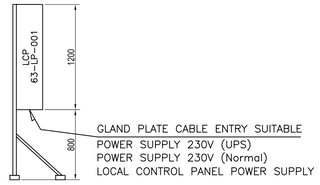


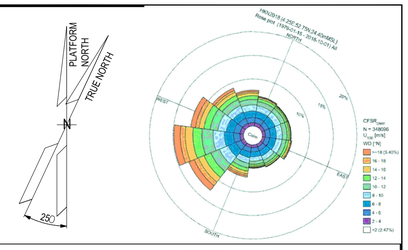


B (1 : 25)







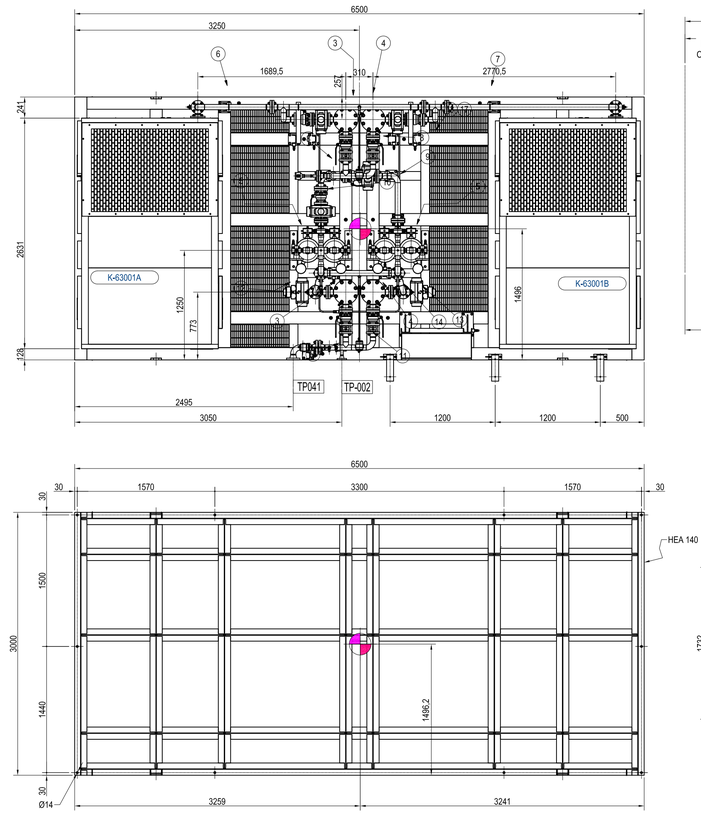


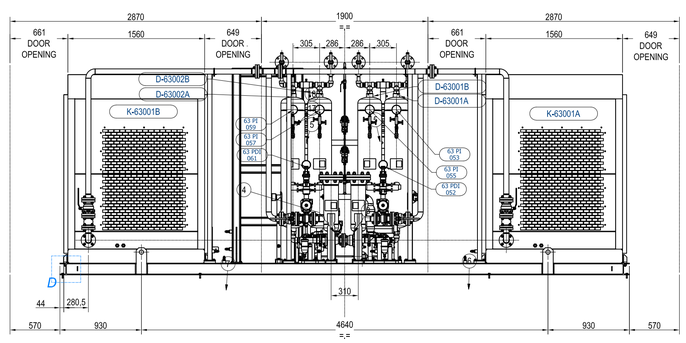
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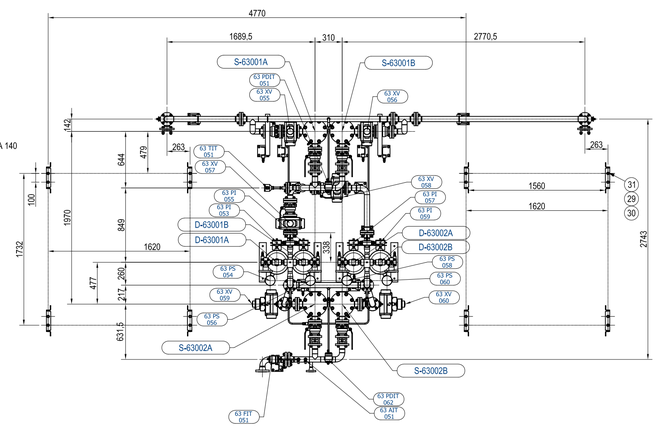
1. SKID TOTAL WEIGHT: 5000 kg
2. FOR EQUIPMENT WEIGHT REFER TO EQUIPMENT DS, DOC. NO. 1724000428-MAC-DS-00011
3. FOR DESIGN PARAMETERS & CODES REFER TO EQUIPMENT DS, DOC. NO. 1724000428-MAC-DS-00011
4. FOR WELDING DETAILS REFER TO WELDING SPECIFICATION, DOC. NO. 1724000428-WEL-LIS-00021
5. FOR PAINTING DETAILS REFER TO PAINTING SPECIFICATION, DOC. NO. 1724000428-MAT-PRO-00022
6. NO LUBRICATION REQUIRED
7. FOR LOAD DETAILS REFER TO STRUCTURAL CALCULATION, DOC. NO. 1724000428-ST-RE-00010

LEGEND

HOLDS







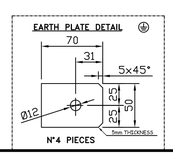
	FOUNDATION LOADS TABLE		
	LIFTING	EMPTY	OPERATION
VERTICAL (kN)	10.8	10.8	10.8
MAX SHEAR Y (kN)	N.A.	4.76	4.76
MAX SHEAR X (kN)	N.A.	6.68	6.68
MAX MOMENT Y (kNm)	N.A.	0.04	0.04
MAX MOMENT X (kNm)	N.A.	0.18	0.18

MAX ALLOWABLE LOADS AT B.L. CONNECTIONS						
	FORCES [kN]			MOMENTS [kNm]		
	VL	P	VC	MC	MT	ML
A	1.8	1.5	1.8	0.3	0.4	0.2
B	2	2	2	0.8	0.8	0.8

TAG NUMBER OF EQUIPMENTS	
TAG	DESCRIPTION
K-63001A/B	OIL FREE SCREW COMPRESSOR 1&2
S-63001A/B	DRYER PRE-FILTER
D-63001A/B	DRYER UNIT 1
D-63002A/B	DRYER UNIT 2
S-63002A/B	DRYER AFTER-FILTER
V-63001	INSTRUMENT AIR RECEIVER

CONNECTIONS			
POS.	TYPE	SERVICE	MATERIAL
TP002	ø 1" ANSI 150# R.F.	DRAIN DISCHARGE	SS 316/316L
TP041	ø 2" ANSI 150# R.F.	INSTRUMENT AIR OUTLET	SS 316/316L

EARTH PLATE DETAIL



PACKAGE NAMEPLATE

MANUFACTURER	COES SRL – STEZZANO (BG)		
SERVICE	INSTRUMENT AIR PACKAGE		
YEAR	2024	SERIAL NUMBER	I240007
WEIGHT	11000 kg	ITEM	A-63000
DISCHARGE AIR PROCESS DATA			
FLOW	350 Sm3/h	PRESSURE	9.1 barg
TEMPERATURE	35°C	DEW POINT	-40°C
DESIGN DATA			
PRESSURE	12 barg	TEMPERATURE	-29 / +90°C
CE 0425	2014/68/EU – Cat. II		

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	17/12/24	GT	MC	TM	ACCEPTED FOR CONSTRUCTION (AFC)
02	06/08/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
01	08/05/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
00	21/03/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)

coes

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
PACKAGE GENERAL ARRANGEMENT
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	N/A
DRAWN GT	CHECKED MC	APPROVED TM	DATE	17/12/24
A1	DRAWING NO. 1724000428-MAC-DA-00005		SHEET 001	REV. 03

File Name : 1724000428-MAC-DA-00005

Base Load Power Hub (BLPH)

INSTRUMENT AIR PACKAGE
EQUIPMENT DATA SHEETS
INCLUDING MOTORS, AIR COMPRESSOR, DRYERS, ETC.

Document Number: 1724000428-MAC-DS-00011

Document Class: 2

01	10/05/2024	Issue for Review (IFR)	GT	MC	TM
00	28/03/2024	Issue for Review (IFR)	GT	MC	TM
Rev.	Date	Description	Prepared	Reviewed	Approved

COES

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coes	CLIENTE CUSTOMER	:	ROSETTI MARINO	COMM: JOB:	:	166/24		
	RIFERIMENTO REFERENCE	:	CROSSWIND	UNITA' ITEM	:	/		
	IMPIANTO DRYING UNIT	:	INSTRUMENT AIR PACKAGE	FOGLIO N° SHEET	:	1	DI : OF	5

FOGLIO DATI PER COMPRESSORE
COMPRESSOR DATA SHEET

		DATI GENERALI **GENERAL DATA**		
1	QUANTITA' QUANTITY	:	2x100%	
2	ITEM TAG	:	/	
3	SERVIZIO SERVICE	:	PLANT AIR FOR DRYER AND NITROGEN GENERATOR	
4	TIPO TYPE	:	ROTARY SCREW	
5	CARATTERISTICHE FEATURES	:	OIL-FREE	
		DATI FUNZIONALI **FUNCTIONAL DATA**		
6	INSTALLAZIONE INSTALLATION	:	OUTDOOR	
7	MOSSO DA DRIVEN BY	:	ELECTRIC MOTOR	
8	POTENZA MOTORE MOTOR POWER	:	55 kW	
9	POTENZA TOTALE TOTAL POWER	:	70 kW	
10	TENSIONE DI ALIMENTAZIONE POWER SUPPLY	:	400 V 3 Ph 50 Hz	
11	PRESSIONE ARIA IN MANDATA DISCHARGE AIR PRESSURE	:	9.5 barg	
12	PORTATA ARIA IN MANDATA DISCHARGE AIR FLOWRATE	:	415 Sm3/h	
13	TEMPERATURA ARIA IN MANDATA DISCHARGE AIR TEMPERATURA	:	35 °C	
14	GRADO DI PROTEZIONE PROTECTION DEGREE	:	IP 55	
15	CLASSIFICAZIONE AREA AREA CLASSIFICATION	:	SICURA SAFE	
16				
17				
18				
19				
20				
21				
22				
23				
24				
25	NOTES			
26				
27				
28				
29				

REV.	DESCRIZIONE DESCRIPTION	EMESSO ISSUED	APPROVATO APPROVED	DATA DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	: ROSETTI MARINO	COMM: / JOB:	: 166/24	
	RIFERIMENTO / REFERENCE	: CROSSWIND	UNITA' / ITEM	: /	
	IMPIANTO / DRYING UNIT	: INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	: 2	DI / OF : 5

FOGLIO DATI PER PRE-FILTRO
PRE-FILTER DATA SHEET

DATI GENERALI
GENERAL DATA

1	QUANTITA' / QUANTITY	:	2			
2	ITEM / TAG	:	S-63001A/B			
3	SERVIZIO / SERVICE	:	WATER AND DUST REMOVING			
4						

DATI PROGETTO CALDARERIA
VESSELS DESIGN DATA

5	PRESSIONE PROGETTO / DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO / DESIGN TEMPERATURE	:	-10 / +90 °C
6	MATERIALE / MATERIAL	:	SS 316/316L	SOVRASPESS. CORROSIONE / CORROSION OVER-THICKNESS	:	/
7	NORMATIVA PROGETTO / DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO / INSPECTION CODE	:	2014/68/EU PED

DATI FUNZIONALI
FUNCTIONAL DATA

8	GAS DA TRATTARE / GAS TO BE TREATED	:	OIL FREE AIR	PORTATA IN INGRESSO / INLET FLOWRATE	:	415 Sm3/h
9	PRESSIONE DI ESERCIZIO / OPERATING PRESSURE	:	9.5 barg	TEMPERATURA DI ESERCIZIO / OPERATING TEMPERATURE	:	35 °C
10	PERDITA DI CARICO/FILTRO PULITO / PRESSURE DROP/CLEAN FILTER	:	0.1 bar	PERDITA DI CARICO/FILTRO SPORCO / PRESSURE DROP/DIRTY FILTER	:	0.3 bar
11	EFFICIENZA / EFFICIENCY	:	99.9 %	GRADO DI FILTRAZIONE / FILTRATION DEGREE	:	3 µm
12	OLIO RESIDUO / RESIDUAL OIL	:	N/A			
13						

CARATTERISTICHE ELEMENTI FILTRANTI
FILTRATION ELEMENTS DATA

14						
15	TIPO ELEMENTO FILTRANTE / FILTRATION ELEMENT TYPE	:	CARTRIDGE	MATERIALE / MATERIAL	:	COALESCING MICROFIBER
16	N° CARTUCCE PER FILTRO / No. OF ELEMENTS/EACH FILTER	:	1	MODELLO / MODEL	:	60A

STRUMENTI - ACCESSORI
INSTRUMENTS - ACCESSORIES

17	☐	BY-PASS FILTRO / FILTER BY-PASS						
18	☒	TUBAZIONE DI RACCORDO FILTRO / CONNECTION PIPE TO FILTER						
19	☒	VALVOLE INTERCETTAZIONE / ON/OFF VALVES	☒	2 VIE / 2-WAY	☐	3 VIE / 3-WAY	☐	AUTOMATICHE / AUTOMATIC
20	☐	MANOMETRO DIFFERENZIALE / DIFFERENTIAL PRESSURE GAUGE						
21	☒	TRASMETTITORE DI PRESSIONE DIFFERENZIALE / DIFFERENTIAL PRESSURE TRANSMITTER	AS PER P&ID No. 1724000428-PR-PID-00019					
22	☒	VALVOLA DI DRENAGGIO / DRAIN VALVE						
23	☒	SCARICATORE DI CONDENSA / STEAM TRAP			☐	AUTOMATICO / AUTOMATIC	☒	GALLEGGIANTE / FLOATING
24	☐	VALVOLE DI SICUREZZA / SAFETY VALVES						

NOTE / REMARKS :
- SAFE AREA
- UNPAINTED

REV. / REV.	DESCRIZIONE / DESCRIPTION	EMESSO / ISSUED	APPROVATO / APPROVED	DATA / DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	:	ROSETTI MARINO	COMM: / JOB:	: 166/24
	RIFERIMENTO / REFERENCE	:	CROSSWIND	UNITA' / ITEM	: /
	IMPIANTO / DRYING UNIT	:	INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	: 3 DI / OF 5

FOGLIO DATI PER ESSICCATORE
DRYER DATA SHEET

DATI GENERALI
GENERAL DATA

1	QUANTITA' / QUANTITY	:	2
2	ITEM / TAG	:	D-63001A/B & D-63002A/B
3	SERVIZIO / SERVICE	:	AIR DRYER
4	TIPO / TYPE	:	HEATLESS

DATI PROGETTO MECCANICO
MECHANICAL DESIGN DATA

5	PRESSIONE PROGETTO SERBATOI / VESSELS DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO SERBATOI / VESSELS DESIGN TEMPERATURE	:	-10 / +90 °C
6	MATERIALE SERBATOI / VESSELS MATERIAL	:	SS 316/316L	SOVRASPESS. CORROSIONE SERBATOI / VESSELS CORROSION OVER-THICKNESS	:	/
7	NORMATIVA PROGETTO SERBATOI / VESSELS DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO SERBATOI / VESSELS INSPECTION CODE	:	2014/68/EU PED
8						

DATI FUNZIONALI
FUNCTIONAL DATA

9	PORTATA ARIA IN INGRESSO / INLET AIR FLOWRATE	:	415 Sm3/h
10	PRESSIONE DI ESERCIZIO / OPERATING PRESSURE	:	9.2 barg
11	TEMPERATURA DI ESERCIZIO / OPERATING TEMPERATURE	:	35 °C
12	PUNTO DI RUGIADA IN INGRESSO / INLET DEW POINT	:	35 °C
13	TIPO MATERIALE ADSORBENTE / DESICCANT MATERIAL TYPE	:	ACTIVATED ALUMINA
14	QUANTITA' ADSORBENTE PER TORRE / DESICCANT QUANTITY/EACH TOWER	:	60 kg
15	PORTATA ARIA IN USCITA / OUTLET AIR FLOWRATE	:	350 Sm3/h
16	PUNTO DI RUGIADA IN USCITA / OUTLET DEW POINT	:	-40 °C
17	POTENZA TOTALE INSTALLATA / TOTAL DEMANDE RATE	:	0.05 kW
18	PERDITA DI CARICO / PRESSURE DROP	:	0.2 bar
19	DURATA CICLO / LENGHT OF CYCLE	:	5+5 min
20	PRESSIONE IN USCITA / OUTLET PRESSURE	:	9 barg
21	CONSUMO kWh PER RIGENERAZIONE / kWh CONSUMPTION/EACH REGENERATION	:	/
22	TENSIONE DI ALIMENTAZIONE / SUPPLY VOLTAGE	:	24 VDC AUX.
23	GRADO DI PROTEZIONE / PROTECTION DEGREE	:	IP 65
24	CLASSIFICAZIONE AREA / AREA CLASSIFICATION	:	SAFE
25	RUMOROSITA' / NOISE LEVEL	:	85dB(A) max PRESSURE LEVEL at 1 m
26			

NOTE / REMARKS :
- SAFE AREA
- UNPAINTED
- INSTRUMENTATION AS PER P&ID No. 1724000428-PR-PID-00019

REV. REV.	DESCRIZIONE DESCRIPTION	EMESSO ISSUED	APPROVATO APPROVED	DATA DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	: ROSETTI MARINO	COMM: / JOB:	: 166/24	
	RIFERIMENTO / REFERENCE	: CROSSWIND	UNITA' / ITEM	: /	
	IMPIANTO / DRYING UNIT	: INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	: 4	DI / OF : 5

FOGLIO DATI PER POST-FILTRO
AFTER-FILTER DATA SHEET

DATI GENERALI
GENERAL DATA

1	QUANTITA' / QUANTITY	:	2
2	ITEM / TAG	:	S-63002A/B
3	SERVIZIO / SERVICE	:	DUST REMOVING
4			

DATI PROGETTO CALDARERIA
VESSELS DESIGN DATA

5	PRESSIONE PROGETTO / DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO / DESIGN TEMPERATURE	:	-10 / +90 °C
6	MATERIALE / MATERIAL	:	SS 316/316L	SOVRASPESS. CORROSIONE / CORROSION OVER-THICKNESS	:	/
7	NORMATIVA PROGETTO / DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO / INSPECTION CODE	:	2014/68/EU PED

DATI FUNZIONALI
FUNCTIONAL DATA

8	GAS DA TRATTARE / GAS TO BE TREATED	:	OIL FREE AIR	PORTATA IN INGRESSO / INLET FLOWRATE	:	350 Sm3/h
9	PRESSIONE DI ESERCIZIO / OPERATING PRESSURE	:	9.5 barg	TEMPERATURA DI ESERCIZIO / OPERATING TEMPERATURE	:	35 °C
10	PERDITA DI CARICO/FILTRO PULITO / PRESSURE DROP/CLEAN FILTER	:	0.1 bar	PERDITA DI CARICO/FILTRO SPORCO / PRESSURE DROP/DIRTY FILTER	:	0.3 bar
11	EFFICIENZA / EFFICIENCY	:	99.9 %	GRADO DI FILTRAZIONE / FILTRATION DEGREE	:	3 μm
12	OLIO RESIDUO / RESIDUAL OIL	:	N/A			
13						

CARATTERISTICHE ELEMENTI FILTRANTI
FILTRATION ELEMENTS DATA

14						
15	TIPO ELEMENTO FILTRANTE / FILTRATION ELEMENT TYPE	:	CARTRIDGE	MATERIALE / MATERIAL	:	COALESCING MICROFIBER
16	N° CARTUCCE PER FILTRO / No. OF ELEMENTS/EACH FILTER	:	1	MODELLO / MODEL	:	60A

STRUMENTI - ACCESSORI
INSTRUMENTS - ACCESSORIES

17	☐	BY-PASS FILTRO / FILTER BY-PASS						
18	☒	TUBAZIONE DI RACCORDO FILTRO / CONNECTION PIPE TO FILTER						
19	☒	VALVOLE INTERCETTAZIONE / ON/OFF VALVES	☒	2 VIE / 2-WAY	☐	3 VIE / 3-WAY	☐	AUTOMATICHE / AUTOMATIC
20	☐	MANOMETRO DIFFERENZIALE / DIFFERENTIAL PRESSURE GAUGE						
21	☒	TRASMETTITORE DI PRESSIONE DIFFERENZIALE / DIFFERENTIAL PRESSURE TRANSMITTER	AS PER P&ID No. 1724000428-PR-PID-00019					
22	☒	VALVOLA DI DRENAGGIO / DRAIN VALVE						
23	☐	SCARICATORE DI CONDENSA / STEAM TRAP			☐	AUTOMATICO / AUTOMATIC	☐	GALLEGGIANTE / FLOATING
24	☐	VALVOLE DI SICUREZZA / SAFETY VALVES						

NOTE / REMARKS :
- SAFE AREA
- UNPAINTED

REV.	DESCRIZIONE / DESCRIPTION	EMESSO / ISSUED	APPROVATO / APPROVED	DATA / DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

coes	CLIENTE / CUSTOMER	:	ROSETTI MARINO	COMM: / JOB:	:	166/24	
	RIFERIMENTO / REFERENCE	:	CROSSWIND	UNITA' / ITEM	:	/	
	IMPIANTO / DRYING UNIT	:	INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	:	5	DI / OF : 5

FOGLIO DATI PER SERBATOIO
PRESSURE VESSEL DATA SHEET

DATI PROGETTO MECCANICO
MECHANICAL DESIGN DATA

1	QUANTITA' / QUANTITY	:	1			
2	ITEM / TAG	:	V-63001			
3	SERVIZIO / SERVICE	:	SERBATOIO ARIA SECCA / DRY AIR TANK			
4	TIPO / TYPE	:	VERTICALE / VERTICAL			
5	MATERIALE / MATERIAL	:	LTCS			
6	NORMATIVA PROGETTO / DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO / INSPECTION CODE	:	2014/68/EU PED
7	MATERIALE / MATERIAL	:	LTCS	SOVRASPESS. CORROSIONE / CORROSION OVER-THICKNESS	:	1.5 mm
8	PRESSIONE PROGETTO / DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO / DESIGN TEMPERATURE	:	-10 / +90 °C
9	DIAMETRO ESTERNO / EXTERNAL DIAMETER	:	2000 mm	LUNGHEZZA T/T / T/T LENGHT	:	7000 mm
10	VOLUME / VOLUME	:	23 m3			
11	RADIOGRAFIE / RT TEST	:	☒ YES SPOT	☐ NO		
12	VERNICIATURA / PAINTING	:	☒ EXTERNAL	☐ INTERNAL		
13	ZINCATURA / GALVANIZING	:	☐ YES	☒ NO		
14	NOTE / NOTES	:	FURTHER DETAILS (FASTENERS, GASKETS, ETC.) INCLUDED IN SECTIONAL DRAWING			

ELENCO CONNESSIONI
NOZZLES LIST

	SIGLA / TAG	DIAMETRO / DIAMETER	TIPO / TYPE	SERIE / RATING	SERVIZIO / SERVICE	NOTE / REMARKS
15						
16	N1	2"	WN	ANSI 150	PROCESS INLET/OUTLET	ASME B16.5
17	N2	3/4"	NPT	3000	SAFETY VALVE	
18	N3	1/2"	NPT	3000	PRESSURE GAUGE	
19	N4	1/2"	NPT	3000	PRESSURE TRANSMITTER	
20	N5	3/4"	NPT	3000	TEMPERATURE GAUGE	
21	N6	3/4"	NPT	3000	TEMPERATURE TRANSMITTER	
22	N7	1"	WN	ANSI 150	DRAIN	ASME B16.5
23	N8	16"	WN	ANSI 150	MAN HOLE	ASME B16.5

STRUMENTI - ACCESSORI
INSTRUMENTS - ACCESSORIES

24	☒	VALVOLA DI SICUREZZA / SAFETY VALVE
25	☒	MANOMETRO / PRESSURE GAUGE
26	☒	TRASMETTITORE DI PRESSIONE / PRESSURE TRANSMITTER
27	☒	TERMOMETRO / TEMPERATURE GAUGE
28	☒	TRASMETTITORE DI TEMPERATURA / TEMPERATURE TRANSMITTER
29	☒	VALVOLA DI DRENAGGIO MANUALE / MANUAL DRAIN VALVE
30	☒	SCARICATORE DI CONDENSA / DRAIN TRAP
31		

REV. / REV.	DESCRIZIONE / DESCRIPTION	EMESSO / ISSUED	APPROVATO / APPROVED	DATA / DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

ROSETTI MARINO — PROVERLIS — CROSSWIND

ITEM	Tag	V-63001	: Air Receiver			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10004527		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Mechanical Form CDX01		Storage Tank

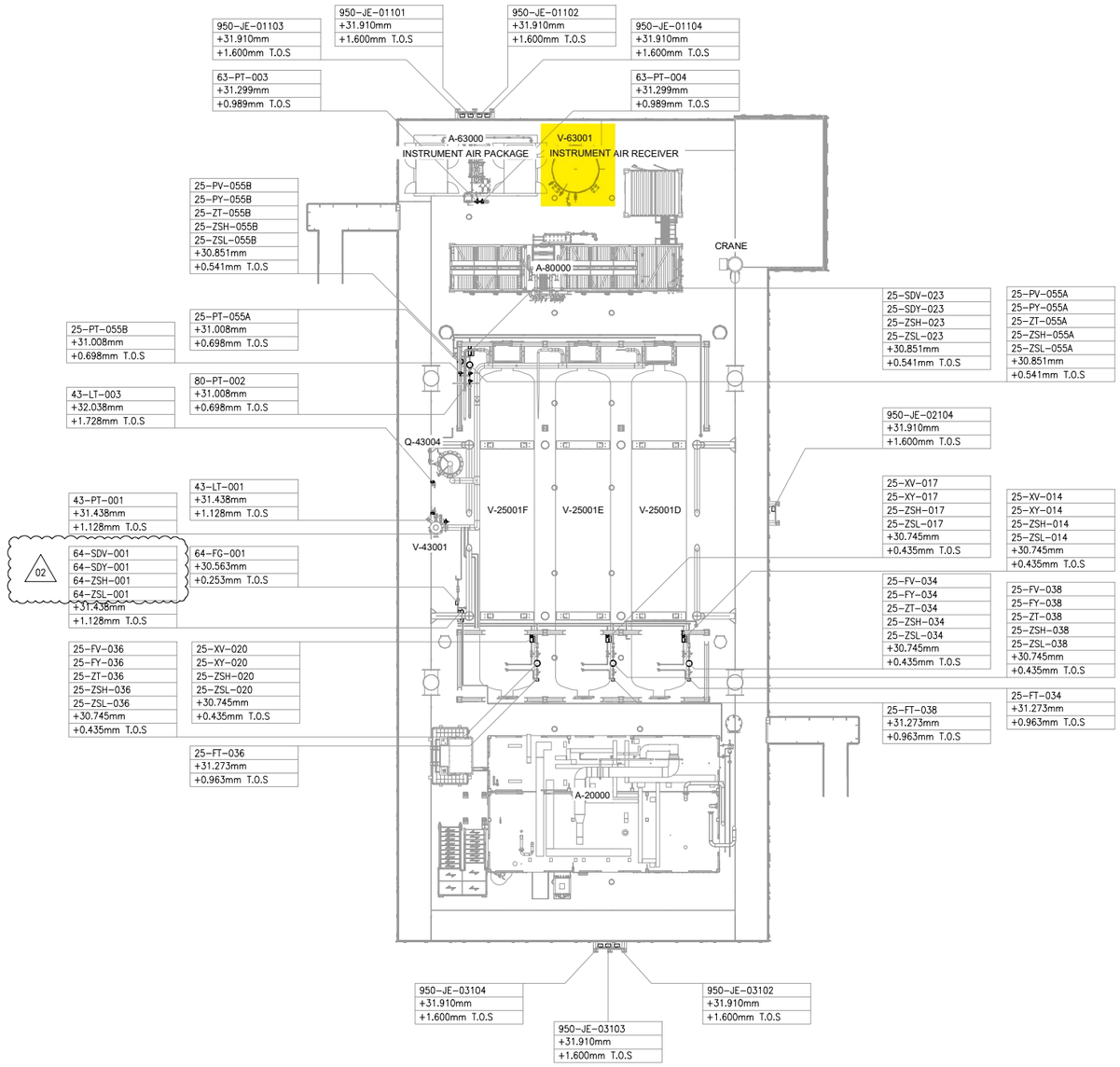
1	Check that the nameplate details are correct.	OK
2	Check the location, elevation, orientation and that the vessel is level.	OK
3	Check that the holding down arrangements are correct.	PL
4	Check for any installation damage.	OK
5	Check the vessel internals are as per approved drawings.	PL
6	Check the vessel internally for cleanliness.	PL
7	Check all platforms and ladders are installed as per approved drawings. Also man ways are accessible and suitable for operation.	OK
8	Check out the painting, insulation and the lining for damage.	OK
9	Check the earthing and bonding are as per Project Specifications.	PL
10	Check that the pipe supports are in accordance with the approved design.	OK
11	Check the disconnected pipework flanges against the nozzle flanges for correct alignment.	OK
12	Atmospheric Transportable Drain Vessel to be equipped with Breathing / Vacuum breaker valve.	NA
13	Check Flame Arrestor (if any).	NA
14	If required produce Red Line Mark Up for "AS BUILT".	

Comments: Note: BLPH-MV-742 has the lock nuts nut bended but working.

	Performed by	☒ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (Rosetti Marino)	
Name	Emanuele Delfino	Kangi Albonetti	
Date	2025-01-04	2025-01-10	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-04T06:02:31.917Z	PROVERLIS Digitaly signed by Kangi Albonetti 2025-01-10T16:32:47.179Z	

DRAWING NO. 123A90-DDL-IN-DL-40081

REV. 01

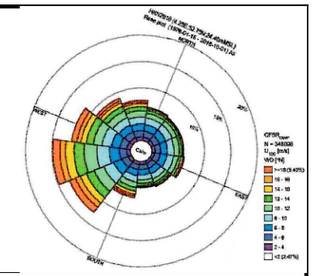


UPPER DECK

SCALE: 1:100

VIEW EL. 29310mm to 33740mm





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DRAWING IS VALID ONLY FOR INSTRUMENT LOCATION LAYOUT.

LEGEND

- INSTRUMENT JUNCTION BOX
- ELECTRONIC INSTRUMENT
- CONTROL / ON-OFF VALVE

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-IN-DL-40080	INSTRUMENT LAYOUT - LOWER DECK
123A90-DDL-IN-LIS-40091	INSTRUMENT CABLE LIST
123A90-DDL-IN-DG-40015	INSTRUMENT-CCS WIRING DIAGRAMS
123A90-DDL-IN-DG-40016	INSTRUMENT-SAFETY SYSTEM WIRING DIAGRAMS
123A90-DDL-IN-DL-40083	INSTRUMENT MAIN CABLES ROUTING-LOWER DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	26/08/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	22/12/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

VALID FOR CONSTRUCTION

FDL DWG: **123A90-FDL-IN-DL-40081**

REV.:	DATE:	SIGNATURE:
2_A	07/10/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
INSTRUMENT LOCATION LAYOUT–UPPER DECK
TOS EL. 30.310M

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 04/10/24

A1	DRAWING NO. 123A90-DDL-IN-DL-40081	SHEET 001	REV. 02

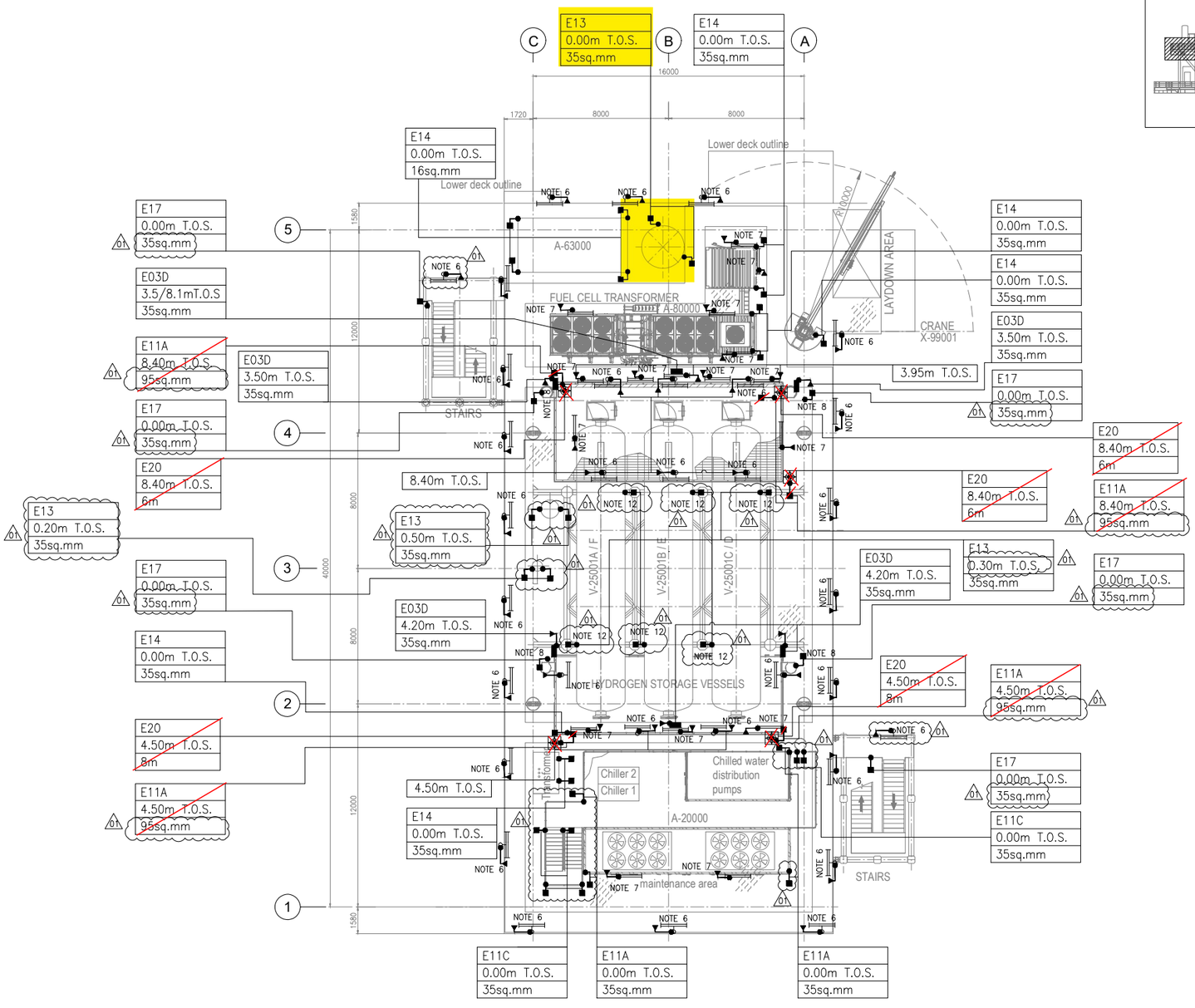
File Name : 123A90-DDL-IN-DL-40081 REV01.dwg

DRAWING NO. 123A90-DDL-EL-DL-20132

REV. 01

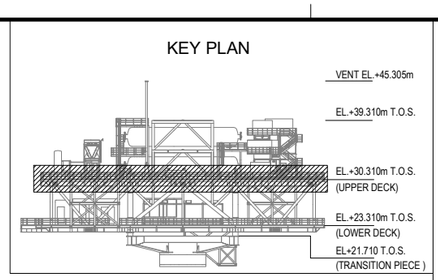
RLMU LIST

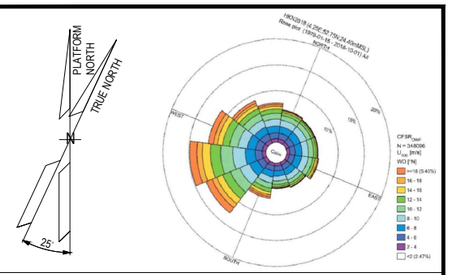
REV. 01_B: Sheet 1, 3



PLAN ON TOP DECK
EL+30.310 T.O.S.

KEY PLAN





NOTES

1. ALL DIMENSIONS AND ELEVATIONS ARE GIVEN IN mm UNLESS OTHERWISE NOTED.
2. ELEVATIONS REFER TO T.O.S.
3. THIS DOCUMENT IS ONLY VALID FOR EARTHING LAYOUT.
4. ALL ELECTRICAL EQUIPMENT NOT DIRECTLY WELDED TO SKID FRAME SHALL BE BONDED TO STEEL TO THE STRUCTURE OF SKID BASEFRAME.
5. FOR LIGHTNING PROTECTION SYSTEM SURGE PROTECTIVE DEVICES (SPD), REFER TO THE DOCUMENT 123A90-DDL-EL-RE-20154.
6. ALL NON-WELDED POLES WILL BE EARTHED AS PER TYPICAL E05 AND E24. 01
7. ALL LINEAR LIGHTING FIXTURE WILL BE EARTHED AS PER TYPICAL E32.
8. LADDER MUST BE EARTHED IF NOT WELDED TO THE STRUCTURE. LADDER MUST BE EARTHED TO THE UPPER BEAM OF THE STRUCTURE, COMPLETE EARTHING INCLUDING WITH 2 THREADED STUDS AS PER TYPICAL E17D.
9. ALL EARTH BAR WILL BE EARTHED AS PER TYPICAL E03D.
10. ALL POLE MOUNTED EQUIPMENTS WILL BE EARTHED AS PER TYPICAL E05.
11. EQUIPOTENTIAL BONDING GROUPING FOR BOLTED HANDRAILS ARE PROVIDED EVERY 3M FOR THE ENTIRE PERIMETER AS TYPICAL E16 AND WILL BE DEFINED DURING ASSEMBLY PHASE
12. EARTHED VESSELS V-25001D/E/F. FOR EARTHING V-25001A/B/C SEE SHEET 2 01

LEGEND

- LIGHTING FIXTURE POLE MOUNTED
- LINEAR LIGHTING FIXTURE
- EARTHING BOSS AISI316L
- COMPRESSION TYPE LUG TINNED COPPER
- THREADED STUD FOR EARTHING CONNECTION
- AIR TERMINATION ROD FOR LIGHTNING PROTECTION
- Exx EARTHING TYPICAL CODE
- EARTHING BAR

TYP.	○	TYPICAL
ELE	○	ELEVATION
SIZE		

E20	○	AIR TERMINATION ROD NO.
ELE	○	ELEVATION
HEIGHT		

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20100	ELECTRICAL EQUIPMENT LAYOUT - TOP DECK
123A90-DDL-EL-DD-20090	ELECTRICAL TYPICAL INSTALLATION DETAILS - EARTHING SYSTEM
123A90-DDL-EL-RE-20154	LIGHTNING PROTECTION SYSTEM CALCULATION REPORT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	31/07/24	SAM	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	27/05/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND | ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
EARTHING & LIGHTNING LAYOUT
TOP DECK

CONTRACT NO./TITLE CW-1-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN NLK	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 31/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20132	SHEET 001	REV. 01

SHEET 001 OF 002

VALID FOR CONSTRUCTION

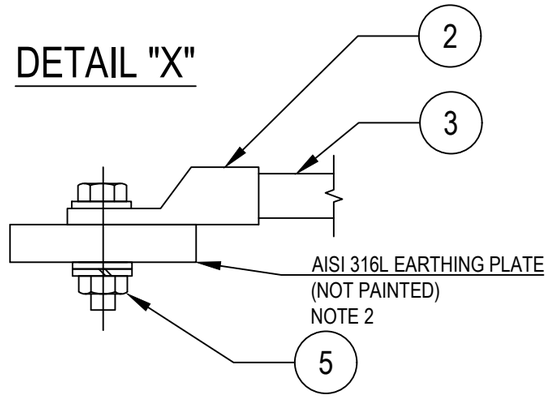
REV.:	DATE:	SIGNATURE:
1_B	08/11/24	V.Ramponi

ROSETTI MARINO SpA

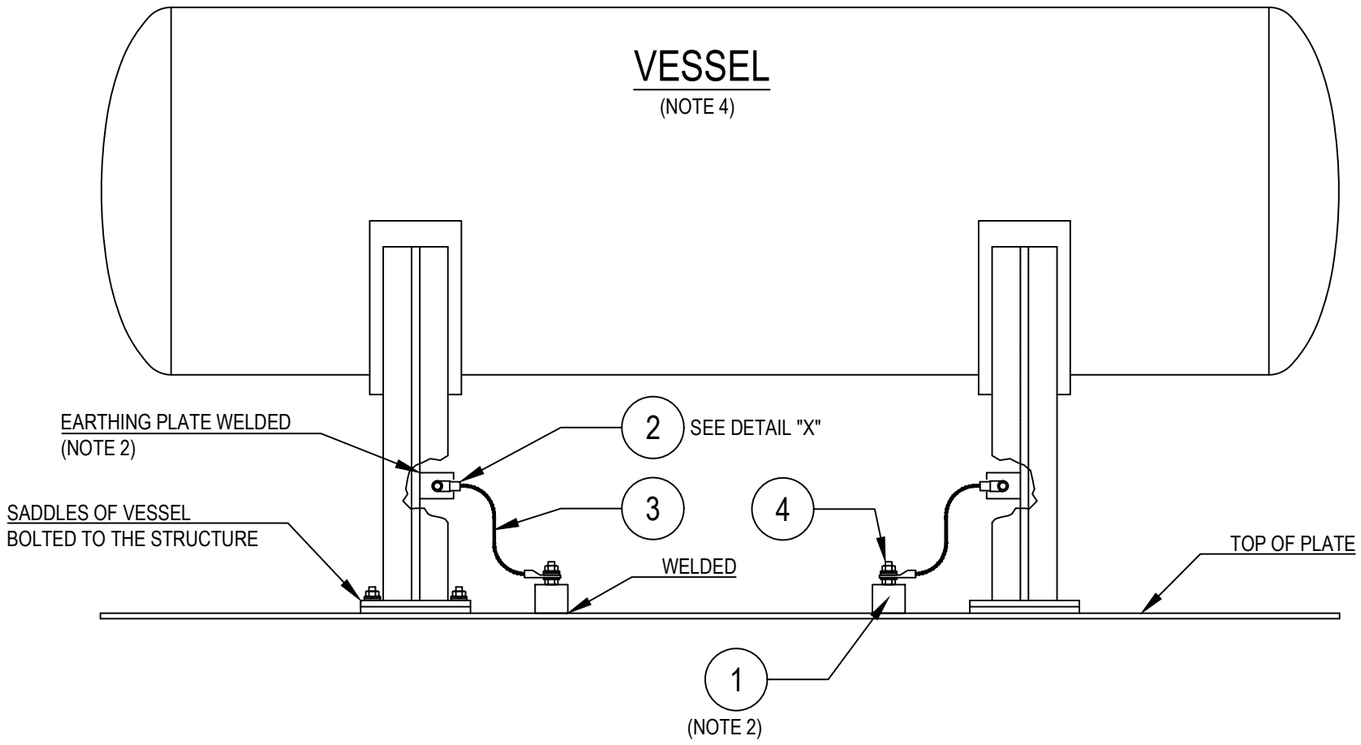
File Name : 123A90-DDL-EL-DL-20132

E13

DETAIL "X"



POS.	DESCRIPTION	MATERIAL	SIZE	Q.TY	NOTE
1	EARTHING BOSS WITH THREADED HOLE M10	AISI 316L	50X50	2	NOTE 3
2	COMPRESSION TYPE LUG FOR INSULATION COPPER CONDUCTOR	TINNED COPPER	35mm^2	4	~~NOTE 1~~
3	Y/G INSULATING COPPER CONDUCTOR	COPPER	35mm^2		~~NOTE 1~~
4	STUD BOLT WITH PLANE WASHER, SPRING WASHER AND NUT	AISI 316L	M10X50	2	
5	HEXAG. BOLT COMPLETE WITH PLANE WASHERS, SPRING WASHER AND NUT	AISI 316L	M10X30	2	



NOTES:
~~1) CABLE LUG CRIMPING METHOD SHALL BE HEXAGONAL COMPRESSION DIES ONLY.~~
2) FOR EARTHING BOSS/PLATE DETAIL SEE TYPICAL DETAIL E11A
3) EARTHING BOSS SHALL BE PROTECTED AGAINST CORROSION USING AN OXIDE RESISTANT COMPOUND

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-EL-DD-20090**

REV.:	DATE:	SIGNATURE:
2_I	07/11/24	G.Randi

ROSETTI MARINO SpA

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	26/08/24	GRA	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	10/06/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	21/11/23	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL INSTALLATION DETAILS–EARTHING SYSTEM
EARTHING FOR VESSEL WITH LEGS BOLTED ON STRUCTURE

CONTRACT NO./TITLE CW–I–WP4–2023–05/HOLLANDSE KUST NOORD WIND PARK | SCALE : NTS

A3	DRAWING NO.	SHEET	REV.
	123A90–DDL–EL–DD–20090	016	02

F.to UNI A3: 420mmx297mm

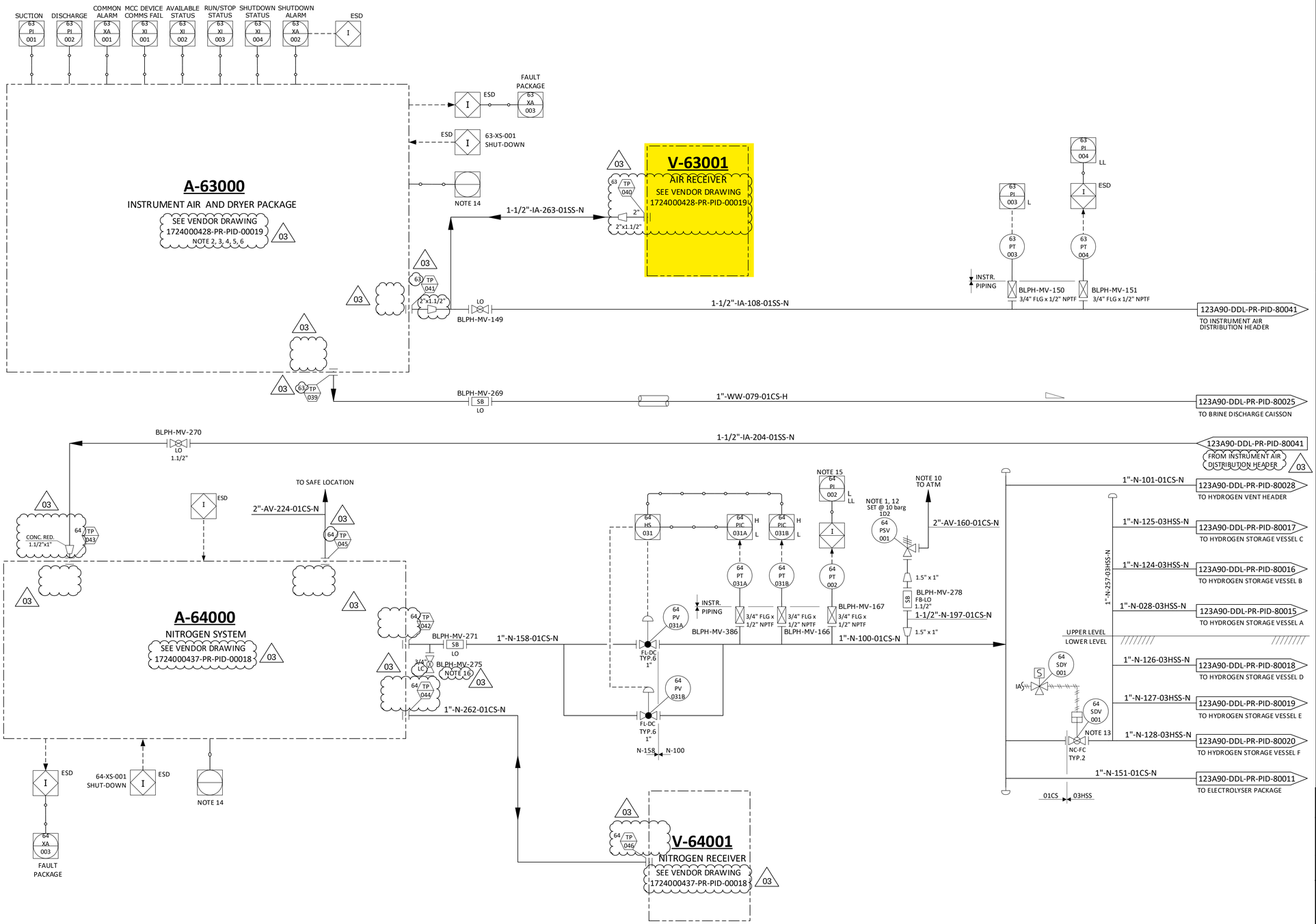
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DRAWING NO. DRAWING_NO.

REV. REV

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
CAPACITY : 313 Sm³/h (PRODUCTION)

A-64000
NITROGEN GENERATION SYSTEM
CAPACITY : 52.7 Sm³/h (PRODUCTION)



NOTES

1. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
2. COMPRESSORS AND DRIERS DESIGNED FOR 2 X 100% CONFIGURATION. INSTRUMENT AIR RECEIVER DESIGNED FOR 1 X 100%.
3. VENDOR TO PROVIDE NECESSARY CONTROLS, INSTRUMENTATIONS AND ISOLATIONS IN ORDER TO OPERATE THE PLANT IN SAFE MANNER.
4. COMPRESSORS WILL OPERATE ON THE BASIS OF ONE WORKING AND ONE ON STANDBY.
5. COMPRESSORS TO BE ROTARY SCREW TYPE OIL FREE.
6. AIR COMPRESSOR INLET TO BE LOCATED AWAY FROM ANY VENTS.
7. DELETED.
8. DELETED.
9. DELETED.
10. TO SAFE LOCATION, ROUTED AWAY FROM WALKWAYS.
11. DELETED.
12. 64-PSV-001 SIZED FOR UPSTREAM 64-PV-031 CV FAILURE.
13. 64-SDV-001 IS NORMALLY CLOSED. IF REQUIRED THE OPERATOR CAN REMOTELY OPEN THE VALVE TO ALLOW PURGING OPERATION. VALVE 64-SDV-001 IS ALSO CONNECTED TO THE PCS SYSTEM.
14. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
15. THE ALARM 64-PAL-002 WILL CLOSE 64-SDV-001 THROUGH SAFETY SYSTEM.
16. MANUAL VALVE BLPH-MV-275 TO BE CONNECTED WITH MANUAL VALVE BLPH-MV-466 (INSTALLED ON ELECTROLYSER PACKAGE EXIT LINE) BY MEAN ON A FLEXIBLE HOSE DURING COMMISSIONING PHASE FOR PURGING OPERATION.

03

HOLDS

1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	NTS
DRAWN	CHECKED / APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80027	SHEET 001	REV. 03

File Name : FILE_NAME

DRAWING NO. 1724000428-PR-PID-00019 REV. 04

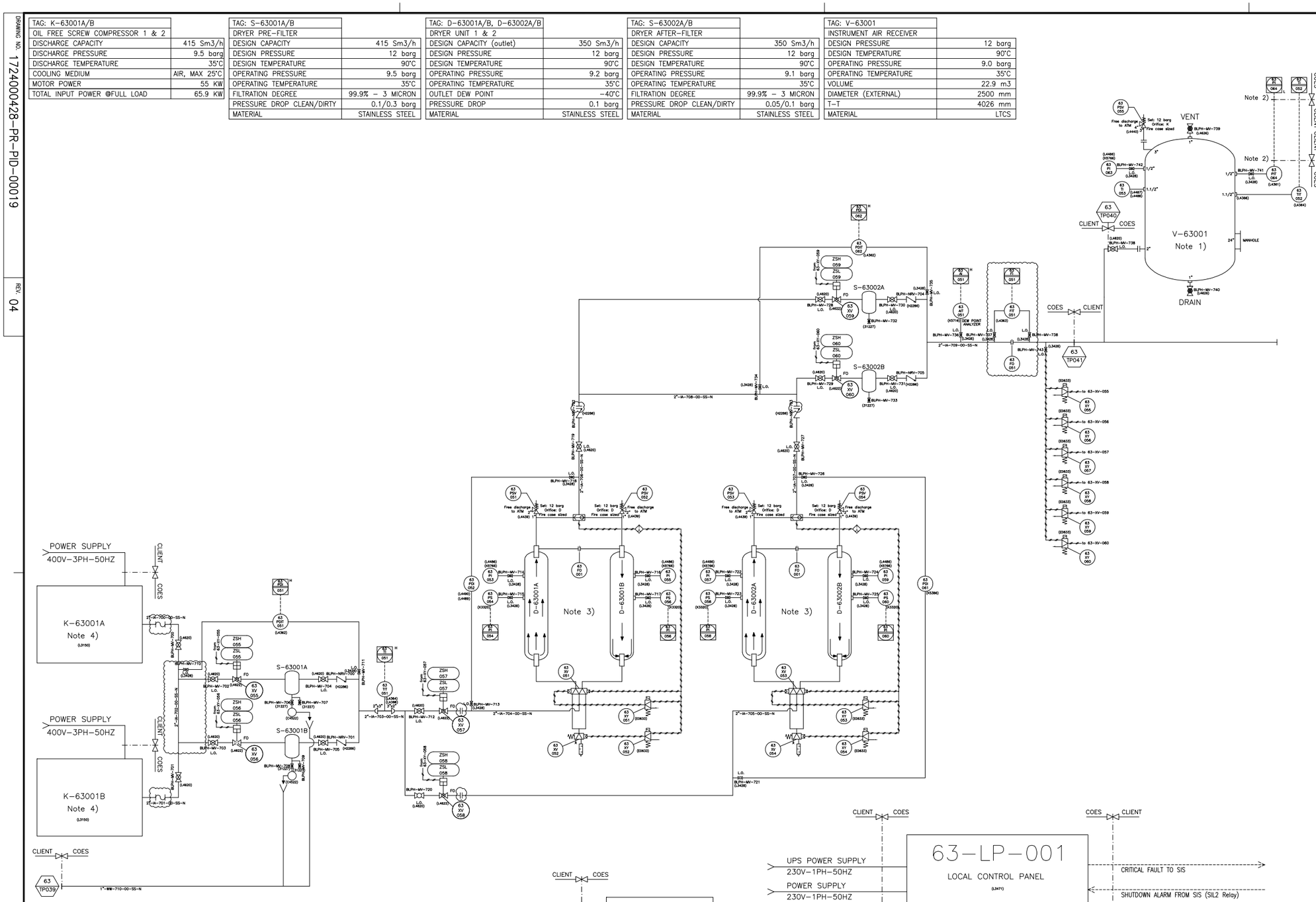
TAG: K-63001A/B	
OIL FREE SCREW COMPRESSOR 1 & 2	
DISCHARGE CAPACITY	415 Sm3/h
DISCHARGE PRESSURE	9.5 barg
DISCHARGE TEMPERATURE	35°C
COOLING MEDIUM	AIR, MAX 25°C
MOTOR POWER	55 KW
TOTAL INPUT POWER @FULL LOAD	65.9 KW

TAG: S-63001A/B	
DRYER PRE-FILTER	
DESIGN CAPACITY	415 Sm3/h
DESIGN PRESSURE	12 barg
DESIGN TEMPERATURE	90°C
OPERATING PRESSURE	9.5 barg
OPERATING TEMPERATURE	35°C
FILTRATION DEGREE	99.9% - 3 MICRON
PRESSURE DROP CLEAN/DIRTY	0.1/0.3 barg
MATERIAL	STAINLESS STEEL

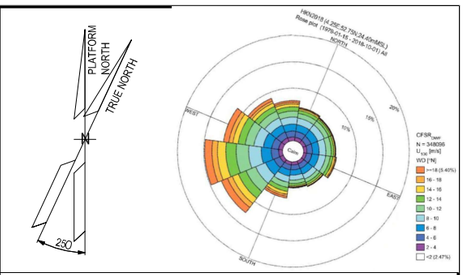
TAG: D-63001A/B, D-63002A/B	
DRYER UNIT 1 & 2	
DESIGN CAPACITY (outlet)	350 Sm3/h
DESIGN PRESSURE	12 barg
DESIGN TEMPERATURE	90°C
OPERATING PRESSURE	9.2 barg
OPERATING TEMPERATURE	35°C
OUTLET DEW POINT	-40°C
PRESSURE DROP	0.1 barg
MATERIAL	STAINLESS STEEL

TAG: S-63002A/B	
DRYER AFTER-FILTER	
DESIGN CAPACITY	350 Sm3/h
DESIGN PRESSURE	12 barg
DESIGN TEMPERATURE	90°C
OPERATING PRESSURE	9.1 barg
OPERATING TEMPERATURE	35°C
FILTRATION DEGREE	99.9% - 3 MICRON
PRESSURE DROP CLEAN/DIRTY	0.05/0.1 barg
MATERIAL	STAINLESS STEEL

TAG: V-63001	
INSTRUMENT AIR RECEIVER	
DESIGN PRESSURE	12 barg
DESIGN TEMPERATURE	90°C
OPERATING PRESSURE	9.0 barg
OPERATING TEMPERATURE	35°C
VOLUME	22.9 m3
DIAMETER (EXTERNAL)	2500 mm
T-T	4026 mm
MATERIAL	LTCS



CONNECTIONS			
POS.	TYPE	MATERIAL	SERVICE
TP039	ø 1" ANSI B16.5 150 R.F.	SS 316/316L	DRAIN DISCHARGE
TP041	ø 2" ANSI B16.5 150 R.F.	SS 316/316L	INSTRUMENT AIR OUTLET
TP040	ø 2" ANSI B16.5 150 R.F.	SS 316/316L	AIR RECEIVER



NOTES

1) INSTRUMENT AIR RECEIVER IS SUPPLIED LOOSE
2) CABLE, CABLE GLANDS AND CABLE TRAY PROVIDED BY COES. WIRING CONNECTION TO THE PLC SHALL BE EXECUTED BY CLIENT.
3) AUTOMATIC SWITCH-OVER DIRECTLY MANAGED BY PLC.
4) REFER TO SHEET NO. 002 FOR DETAILED AIR COMPRESSOR P&ID.
5) FOR THE EXCHANGED SERIAL SIGNALS SEE VENDOR'S DOCUMENT "I/O LIST" NUMBER 1724000428-IN-LIS-00016
6) FOR THE OPERATING PHILOSOPHY SEE VENDOR'S DOCUMENT "SYSTEM/PACKAGE FUNCTIONAL DESCRIPTION" NUMBER 1724000428-MAC-SP-00003

LEGEND

- SKID MOUNTED INSTRUMENT
- TIE-IN POINT
- SKID PLC SIGNAL
- PROCESS LINE
- INSTRUMENT AIR / IMPULSE LINE
- ELECTRICAL / INSTRUMENT SIGNAL
- SOFTWARE SIGNAL
- AUTOMATIC DRAIN TRAP
- 5-WAY PNEUMATIC VALVE
- THREADED BALL VALVE
- 3-WAY PNEUMATIC VALVE
- FLANGED BALL VALVE
- 3-WAY SELF ACTUATED VALVE
- PRESSURE RELIEF VALVE
- SOLENOID VALVE
- SILENCER
- EXPANSION JOINT

HOLDS

coes

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	28/10/24	GT	MC	TM	ACCEPTED FOR CONSTRUCTION (AFC)
03	05/09/24	GT	MC	TM	ACCEPTED FOR CONSTRUCTION (AFC)
02	04/07/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
01	06/05/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
00	21/03/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
PACKAGE P&ID
INSTRUMENT AIR PACKAGE

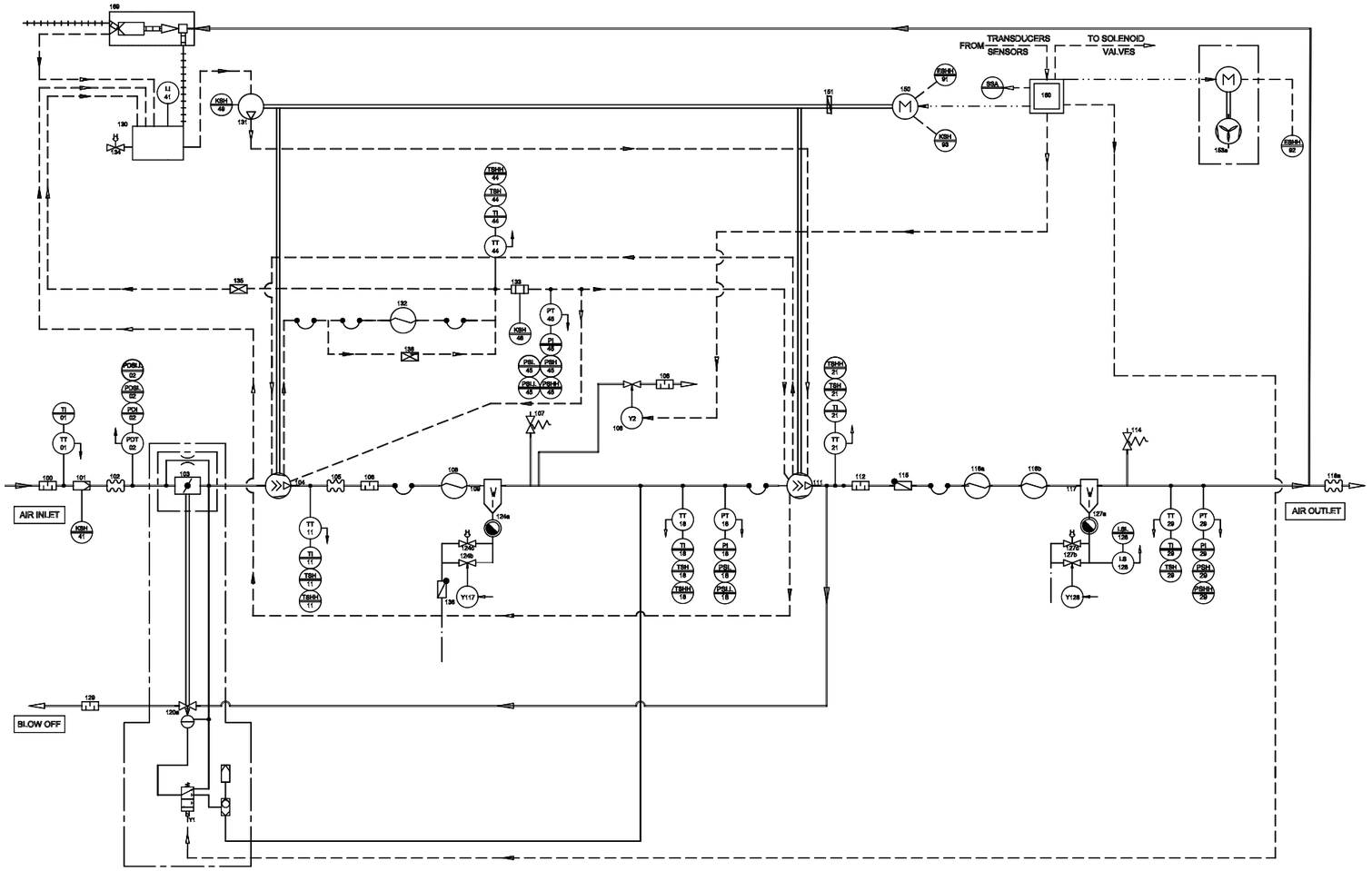
CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE N/A
DRAWN GT	CHECKED MC	APPROVED TM	DATE 28/10/24

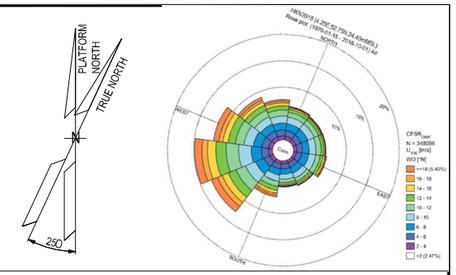
A1	DRAWING NO. 1724000428-PR-PID-00019	SHEET 001	REV. 04

File Name : 1724000428-PR-PID-00019

DRAWING NO. 1724000428-PR-PID-00019

REV. 04





NOTES

LEGEND

HOLDS

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
04	28/10/24	GT	MC	TM	ACCEPTED FOR CONSTRUCTION (AFC)
03	05/09/24	GT	MC	TM	ACCEPTED FOR CONSTRUCTION (AFC)
02	04/07/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
01	06/05/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)
00	21/03/24	GT	MC	TM	ISSUE FOR REVIEW (IFR)

CROSSWIND

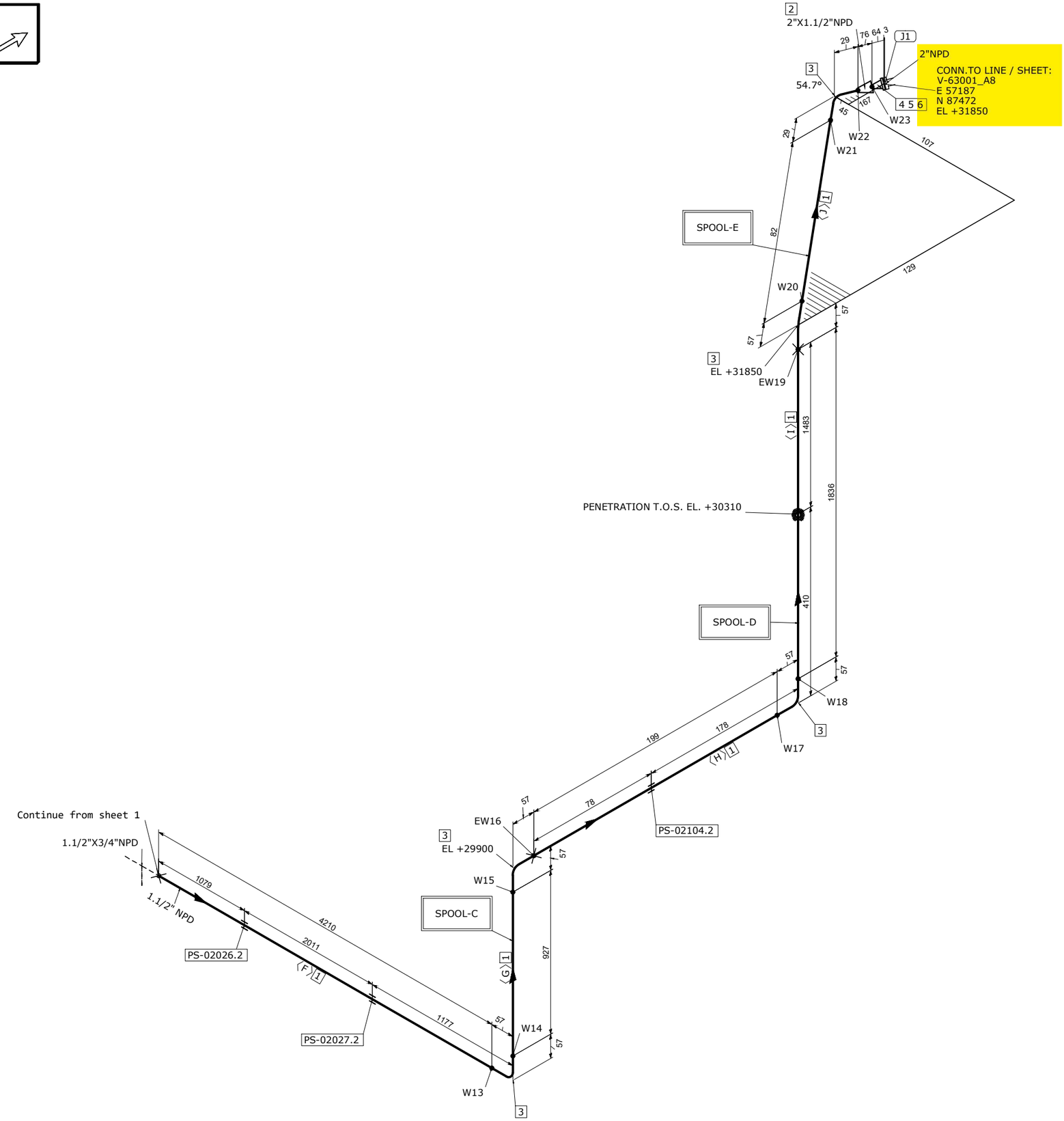
ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
PACKAGE P&ID
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE N/A
DRAWN GT	CHECKED MC	APPROVED TM	DATE 28/10/24
A1	DRAWING NO. 1724000428-PR-PID-00019	SHEET 002	REV. 04

File Name : 1724000428-PR-PID-00019



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	7.3M	29.8
2	2X1.1/2	REC0SS0280021H	Reducer Concentric ASME B16.9 BW 2,77x3,68 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	5	1.9
4	2	FLW0SS00010200	Flange WN ASME B16.5 150LB RF 2,77 FRG ASTM A182 Gr.F316/316L	1	2.7

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
5	2	GSW0GK11130200	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	1	0.1
6	5/8	SB20BO00660300	85 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	1.0

FABRICATION WEIGHT [kg]	34.7
ERECTION WEIGHT [kg]	1.1
OVERALL WEIGHT [kg]	35.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W13	1.1/2	BW
W14	1.1/2	BW
W15	1.1/2	BW
EW16	1.1/2	BW
W17	1.1/2	BW
W18	1.1/2	BW
EW19	1.1/2	BW
W20	1.1/2	BW
W21	1.1/2	BW
W22	1.1/2	BW
W23	2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
F	1.1/2	4210	BEVEL	BEVEL
G	1.1/2	927	BEVEL	BEVEL
H	1.1/2	199	BEVEL	BEVEL
I	1.1/2	1836	BEVEL	BEVEL
J	1.1/2	82	BEVEL	BEVEL

SUPPORT LIST

PS-02026.2
PS-02027.2
PS-02104.2

SPOOL	WELD [inches]	WEIGHT [kg]
C	4.5	21.9
D	3	8.7
E	6.5	4.1
MONT	3	1.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-263-01SS-N
SK.127

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12	[barg]	TEMP. -29 / 100	[°C]	
HEAT TRACING	N/A		TEST	PRESS. 18	[barg]	TEMP. AMB.	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

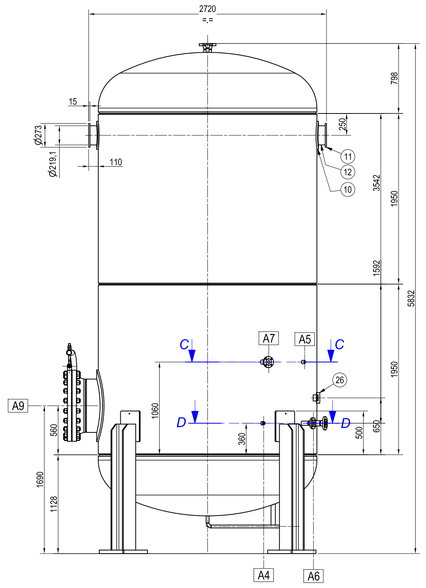
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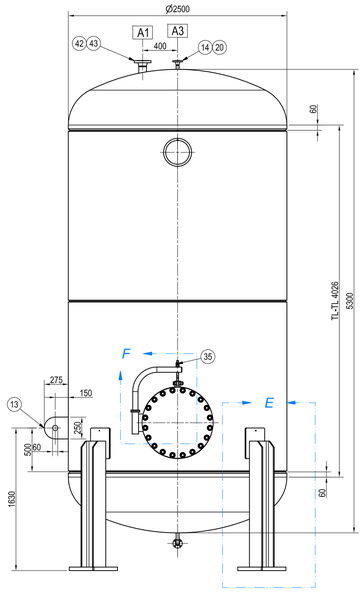
MASTER

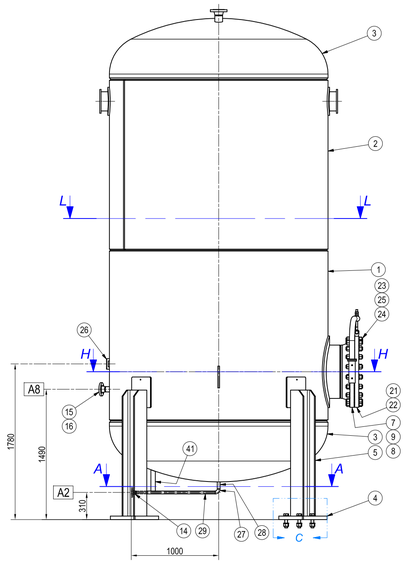
CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	N/A
DRAWN	STAFF SRL	CHECKED RT	APPROVED LM	DATE 20-08-2024
FORMAT A3	DRAWING NO. 123A90-FDL-PP-DI-00127		SHEET / OF 2/2	REV. 00

DRAWING NO. 1724000428-MAC-DD-00006

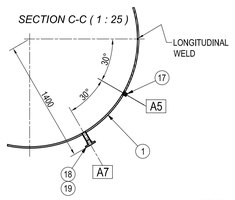
REV. 03

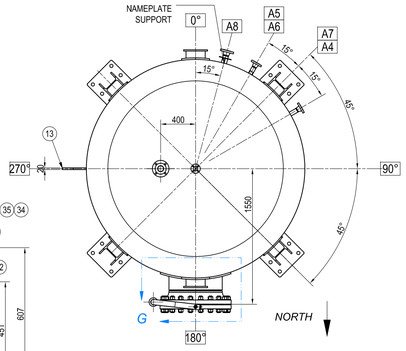


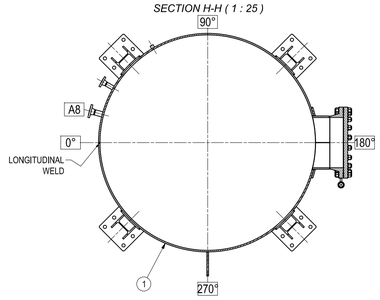


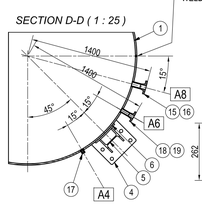


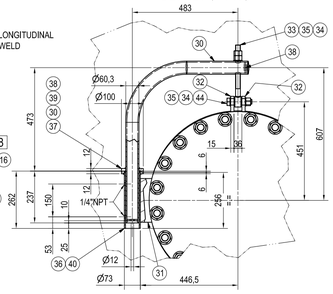
SECTION H-H (1 : 25)

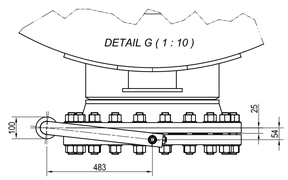


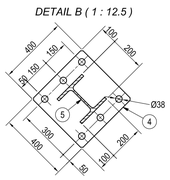


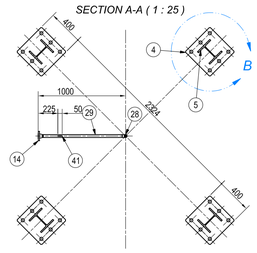


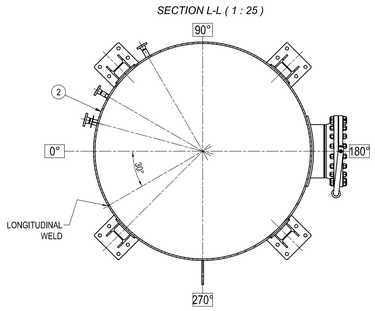


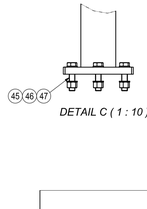












DETAIL C (1 : 10)

ELENCO PARTI / BILL OF MATERIAL

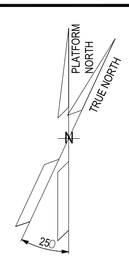
POS	QTY	DESCRIPTION	MATERIAL	WGT	TEST	COD. COES
1	1	SHELL ø2500 Thk. 18 L=1950 (Manhole 24" side)	SA 516 Gr.70	2096,5	B	L3714
2	1	SHELL ø2500 Thk. 18 L=1950	SA 516 Gr.70	2138,5	B	L3715
3	2	ELL. HEAD ø/2464 Thk. 18mm (Thk. 15.3mm min.)	SA 516 Gr.70	2053,1	B	L3728
4	4	PLATE 400x400 thk=40 - N° 6 holes Ø38	SA 516 Gr.70	192,7	C	L3998
5	5760,000 mm	PROFILE HEB 200 L=1440	S 355 J2	351,6	C	F7552
6	4	PAD 350x300 thk=15	SA 516 Gr.70	49,9	B	L3999
7	1	FLANGE W.N.24" Sch. 40 150# RF	SA 350 Gr. LF2 Cl.1	135,9	B	H5869
8	1	PAD thk=18 for Man Hole 24"	SA 516 Gr.70	32,2	B	L3729
9	1	SHELL øe610 Thk. 18 L=200	SA 516 Gr.70	45,6	B	L3730
10	2	PAD Øe=320 Øi=222 thk=18 for Trunnion	SA 516 Gr.70	11,8	B	L4000
11	2	DISK Ø273 thk=15	SA 516 Gr.70	13,8	C	D2222
12	200,000 mm	PIPE SMLSS 8 Sch.80	SA 333 Gr. 6	12,6	C	D9560
13	1	LIFTING LUG A=250 E=150 HOLE Ø60 THK=20	SA 516 Gr.70	9,3	B	L3717
14	2	FLANGE W.N.1" Sch. XXS 150# RF	SA 350 Gr. LF2 Cl.1	2,6	B	L3726
15	1	FLANGE W.N.2" Sch. 160 150# RF	SA 350 Gr. LF2 Cl.1	3,1	B	F7664
16	100,000 mm	PIPE SMLSS 2 Sch.160	SA 333 Gr. 6	1,1	B	C1399
17	2	COUPLING 1/2" NPT-F 6000#	SA 350 Gr. LF2 Cl.1	0,7	B	K1337
18	2	FLANGE W.N.1 1/2" Sch. 160 150# RF	SA 350 Gr. LF2 Cl.1	4,1	B	K1808
19	200,000 mm	PIPE SMLSS 1 1/2 Sch.160	SA 333 Gr. 6	1,4	B	H0405
20	65,000 mm	PIPE SMLSS 1 Sch.XXS	SA 333 Gr. 6	0,4	B	D9604
21	1	GKT SPIRAL WOUND 24" 150# Thk. 4.5mm	316L+GRAPHITE	4,7	C	C3128
22	1	FLANGE BLIND B16.5 24" 150# RF	SA 350 Gr. LF2 Cl.1	184,8	B	F1221
23	40	WASHER 1 1/4	C.S.	2,9	C	C6198
24	20	STUD-BOLT 1.1/4" UN x 190	SA 320 Gr.L7	23,7	B	L4002
25	40	NUT 1 1/4 UN	SA 194 Gr.7	13,2	B	J2834
26	1	SUPPORT NAMEPLATE 140x120 Thk.4mm	SA 516 Gr.70	0,5	B	E4247
27	1	ELBOW L.R. 90° 1" Sch. XXS	SA 420 WPL6	0,3	B	D9605
28	98,675 mm	PIPE SMLSS 1 Sch.XXS	SA 333 Gr. 6	0,5	B	D9604
29	902,528 mm	PIPE SMLSS 1 Sch.XXS	SA 333 Gr. 6	4,9	B	D9604
30	1	BENDING PIPE SMLSS 2" SCH. 40 L=1130 (DAVIT 24" 150#)	SA 333 Gr. 6	8,5	C	L4020
31	1	PLATE 200x52.5 thk=18 (DAVIT 24" 150#)	SA 516 Gr.70	1,3	B	L4001
32	2	PLATE 50x70 Thk. 15 mm FOR DAVIT 24"	SA 516 Gr.70	0,7	B	L4230
33	1	LIFTING EYE M22x260	SA 350 Gr. LF2 Cl.1	1	C	L4375
34	3	WASHER A 22	C 40	0,1	C	3393
35	3	NUT M22 UNI 5587	SA 194 Gr.7	0,3	C	L1368
36	1	ROD Øe=100 Øi=74 Thk=12	SA 516 Gr.70	0,3	C	L4016
37	1	ROD Øe=100 Øi=61 Thk=12	SA 516 Gr.70	0,5	C	L4376
38	1	DISK Øe=48 thk=6	SA 516 Gr.70	0,1	C	L4377
39	1	DISK Øe=48 Øi=12 thk=6	SA 516 Gr.70	0,1	C	L4378
40	256,000 mm	PIPE SMLSS 2 1/2 Sch.40 L=256	SA 333 Gr. 6	2,2	C	G6831
41	242,500 mm	PLATE 50x6 L=242,5	SA 516 Gr.70	0,6	B	L4380
42	90,000 mm	PIPE SMLSS 3 Sch.160	SA 333 Gr. 6	1,9	B	F8721
43	1	FLANGE W.N.3" Sch. 160 150# RF	SA 350 Gr. LF2 Cl.1	5,8	B	F7680
44	1	SCREW - M22 x 100 - UNI 5739	SA 320 Gr.L7	0,4	C	L0436
45	24	SCREW - M33 x 140 - UNI 5739	Cl. 8.8	1,9	C	L6140
46	48	WASHER A 33	C 40	5,8	C	F2511
47	24	NUT M33 UNI 5587	Cl. 8	0,4	C	L6139

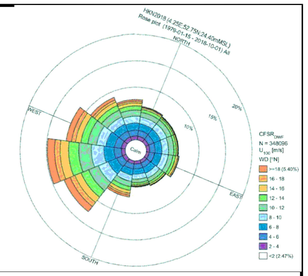
MATERIAL TEST SYMB. (according to EN 10204)	
A	Tested material (3.2)
B	Material with certificate of manufacturer (3.1)
C	Material without certificate
D	Material with certificate of manufacturer (2.2)

POS	DESCRIPTION	PIPE CONN.
A1	PSV	WN 3" 150# RF SCH. 160
A2	DRAIN	WN 1" 150# RF SCH. XXS
A3	VENT	WN 1" 150# RF SCH. XXS
A4	PRESSURE GAUGE PG	COUPLING 1/2" NPTF 6000#
A5	PRESSURE TRANSMITTER PT	COUPLING 1/2" NPTF 6000#
A6	TEMPERATURE GAUGE TG	WN 1.1/2" 150# RF SCH. 160
A7	TEMPERATURE TRANSMITTER TT	WN 1.1/2" 150# RF SCH. 160
A8	IN/OUT	WN 2" 150# RF SCH. 160
A9	MAN HOLE	WN 24" 150# RF SCH. 40

DESIGN DATA

Code	Applicable codes and standards		ASME VIII Div.1 Ed. 2021 / PED 2014/68/EU		
	Third party		ICIM GROUP		
	STAMP		No		
	NATIONAL BOARD		No		
	CRN REGISTRATION		N.A.		
Pressure	Design pressure internal		12	barg	
	Working pressure		9	barg	
	Hydrotest pressure vertical		17,2	barg	
	Hydrotest pressure horizontal		N.A.	barg	
	Static head in design		0,6	barg	
	MAWP		14,14	barg	at temperature of 90 °C
Temperat.	Design temperature		90	°C	
	Working temperature		35	°C	
	M.D.M.T. @ MAWP		-29	°C	
	Test temperature min.		10	°C	
Miscellaneous	Corrosion allowance		1,5	mm	
	Out of roundness		1%		
	Insulation		-	mm	
	Capacity		23100,0	ℓ	
	Tollerance on thickness	Plates	0.25 (>4); 6% (<=4)	mm	
		Pipes	-12.5	%	
		Forgings	=0/1	mm	
Fluid	Nature		AIR		
	Physical state		GAS		Group 2
	Specific weight		1,29	kg/Nm³	
Weldings	Joint efficiency (E)		0.85		
	Rad. Cat/class		RT 3		
	Test Coupons		NO		
	Radiographic Examination		SPOT	note:	
Heat treatement and testing	Head assembly in 1 piece		N.A.		
	Heat treatment		NO	note:	
	Liquid penetrant Examination (PT)		YES	note:	
	Ultrasonic Examination (UT)		NO	note:	
	Impact test		NO	note:	Exempt Para. UCS-66 / YES PED 2014/68/EU Annex 1
	External Finishing		According to Coating Specification no. 1724000428-MAT-PRO-00022		
	Internal Finishing		According to Coating Specification no. 1724000428-MAT-PRO-00022		
Ext. Loads	Wind		YES	note:	Project Spec. 123A90-DDL-ST-SP-90017
	Seismic		YES	note:	Project Spec. 123A90-DDL-ST-SP-90017
Weight	Empty		7450,0	kg	
	Hydrotest condition		30550,0	kg	





NOTES

NOTE:

1. QUANTITIES IN MATERIAL LIST FOR No. 1 VESSEL.
2. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED.
3. ALL THICKNESSES SHOWN ARE MINIMUM AFTER FORMING.
4. TOLERANCE OF VESSELS: ACCORDING TO COES PROCEDURE CTP03684 Rev.2
5. FLANGES DRILLED HOLES SHALL STRADDLE MAIN CENTER AXIS OF VESSEL.
6. FLANGES FACE FINISHING: 125-250 AARH.
   FLANGES AND BLIND FLANGES <= 24" ACC TO ASME B16.5 (2020).
7. VENT HOLES ON REINF. PAD: 1/4" NPT/F EACH PAD OR SEGMENT
   PERFORM TEST AT 1 bar(g) WITH AIR AND SOAPY SOLUTION.
8. ALL NOZZLES WITHOUT INTERNAL PROJECTION, TO BE FLUSHED WITH INSIDE SURFACE OF THE VESSEL. THE INSIDE EDGE OF ALL NOZZLES TO BE ROUNDED.
9. FOR WELDING DETAILS REFER TO THE RELATED WELDING BOOK, DOCUMENT NO. 1724000428-WEL-LIS-00021.
10. BUTTWELDING FITTINGS ACCORDING TO ASME B16.9 (2018)
11. THREADED FITTINGS ACCORDING TO ASME B16.11 (2021)
12. QUANTITY 1: SEE ORIENTATION PLAN.

LEGEND

HOLDS

NAMEPLATE DETAIL

MANUFACTURER	COES SRL - STEZZANO (BG)
EQUIPMENT	AIR RECEIVER V-63001
SERIAL NUMBER	S240119 YEAR 2024
DESIGN CODE	ASME VIII Div. 1 Ed. 2021 / PED 2014/68/UE
CONFORMITY	Category IV
FLUID	AIR
DESIGN PRESSURE	12 barg
DESIGN TEMPERATURE	-29 / + 90°C
TEST PRESSURE	17.2 barg
CORROSION ALLOWANCE	1.5 mm
WEIGHT	7450 kg
VOLUME	23100 l

CE 0425

coes

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	02/01/25	STC	GT	TM	ISSUE FOR INFORMATION (IFI)
02	07/10/24	STC	GT	TM	ISSUE FOR INFORMATION (IFI)
01	05/07/24	STC	GT	TM	ISSUE FOR INFORMATION (IFI)
00	29/05/24	STC	GT	TM	ISSUE FOR INFORMATION (IFI)

CROSSWIND

ROSETTI MARINO

TITLE :
BASE LOAD POWER HUB (BLPH)
EQUIPMENT SECTIONAL DRAWING WITH BILL OF MATERIAL
INSTRUMENT AIR RECEIVER V-63000

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1:35	
DRAWN STC	CHECKED GT	APPROVED TM	DATE 02/01/2025
A1	DRAWING NO. 1724000428-MAC-DD-00006	SHEET 001	REV. 03

File Name : 1724000428-MAC-DD-00006

coes	CLIENTE / CUSTOMER	:	ROSETTI MARINO	COMM: / JOB:	: 166/24
	RIFERIMENTO / REFERENCE	:	CROSSWIND	UNITA' / ITEM	: /
	IMPIANTO / DRYING UNIT	:	INSTRUMENT AIR PACKAGE	FOGLIO N° / SHEET	: 5 DI / OF 5

FOGLIO DATI PER SERBATOIO
PRESSURE VESSEL DATA SHEET

DATI PROGETTO MECCANICO
MECHANICAL DESIGN DATA

1	QUANTITA' / QUANTITY	:	1			
2	ITEM / TAG	:	V-63001			
3	SERVIZIO / SERVICE	:	SERBATOIO ARIA SECCA / DRY AIR TANK			
4	TIPO / TYPE	:	VERTICALE / VERTICAL			
5	MATERIALE / MATERIAL	:	LTCS			
6	NORMATIVA PROGETTO / DESIGN CODE	:	ASME VIII DIV.1	NORMATIVA COLLAUDO / INSPECTION CODE	:	2014/68/EU PED
7	MATERIALE / MATERIAL	:	LTCS	SOVRASPESS. CORROSIONE / CORROSION OVER-THICKNESS	:	1.5 mm
8	PRESSIONE PROGETTO / DESIGN PRESSURE	:	12 barg	TEMPERATURA PROGETTO / DESIGN TEMPERATURE	:	-10 / +90 °C
9	DIAMETRO ESTERNO / EXTERNAL DIAMETER	:	2000 mm	LUNGHEZZA T/T / T/T LENGHT	:	7000 mm
10	VOLUME / VOLUME	:	23 m3			
11	RADIOGRAFIE / RT TEST	:	☒ YES SPOT	☐ NO		
12	VERNICIATURA / PAINTING	:	☒ EXTERNAL	☐ INTERNAL		
13	ZINCATURA / GALVANIZING	:	☐ YES	☒ NO		
14	NOTE / NOTES	:	FURTHER DETAILS (FASTENERS, GASKETS, ETC.) INCLUDED IN SECTIONAL DRAWING			

ELENCO CONNESSIONI
NOZZLES LIST

	SIGLA / TAG	DIAMETRO / DIAMETER	TIPO / TYPE	SERIE / RATING	SERVIZIO / SERVICE	NOTE / REMARKS
15						
16	N1	2"	WN	ANSI 150	PROCESS INLET/OUTLET	ASME B16.5
17	N2	3/4"	NPT	3000	SAFETY VALVE	
18	N3	1/2"	NPT	3000	PRESSURE GAUGE	
19	N4	1/2"	NPT	3000	PRESSURE TRANSMITTER	
20	N5	3/4"	NPT	3000	TEMPERATURE GAUGE	
21	N6	3/4"	NPT	3000	TEMPERATURE TRANSMITTER	
22	N7	1"	WN	ANSI 150	DRAIN	ASME B16.5
23	N8	16"	WN	ANSI 150	MAN HOLE	ASME B16.5

STRUMENTI - ACCESSORI
INSTRUMENTS - ACCESSORIES

24	☒	VALVOLA DI SICUREZZA / SAFETY VALVE
25	☒	MANOMETRO / PRESSURE GAUGE
26	☒	TRASMETTITORE DI PRESSIONE / PRESSURE TRANSMITTER
27	☒	TERMOMETRO / TEMPERATURE GAUGE
28	☒	TRASMETTITORE DI TEMPERATURA / TEMPERATURE TRANSMITTER
29	☒	VALVOLA DI DRENAGGIO MANUALE / MANUAL DRAIN VALVE
30	☒	SCARICATORE DI CONDENSA / DRAIN TRAP
31		

REV. / REV.	DESCRIZIONE / DESCRIPTION	EMESSO / ISSUED	APPROVATO / APPROVED	DATA / DATE
01	ISSUE FOR REVIEW	GT	TM	09-mag-24
00	ISSUE FOR REVIEW	GT	TM	28-mar-24

Section 8 MECHANICAL COMPLETION STATUS INDEX - TELECOMMUNICATION DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-00 & process: MC & discipline : T

Telecom	63-00 Instrument Air Package (A-63000)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
63-LP-001/B400-NET-001	COMMUNICATION / NETWORK CABINET	ONSHORE	C10004349	CIX09	100	2024-11-27	RFC 1

ITEM	Tag	63-LP-001/B400-NET-001	: COMMUNICATION / NETWORK CABINET	Dwg	123A90-DDL-IN-LIS-40091		
	S/Sys	63-00	: Instrument Air Package (A-63000)	Module	UD/LD_B-400		
TASK	code	C10004349	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity CCK	Discipline	Telecom	Form CIX09	Telecom Cable RJ45

CABLE DATA

Type: FTP-LSZH-IS-OS-SWB-LSZH | Cores/Size mm²: 4X2X23AWG mm2 | Color: GREY

From: 63-LP-001 | To: B400-NET-001

1	Confirm cable is as specified in project cable schedule	OK
2	Check cable physical integrity.	OK
3	Check is installed in accordance with layout drawing (segregation, distance…).	PL
4	Check cable is supported and fixed to rack according to project specification.	PL
5	Check bending radius is within the specified limits.	OK
6	Confirm cable glands suit for cable type, correctly mounted and tightened.	OK
7	Confirm cable labelling is in accordance with specifications.	PL
8	Check cable is correctly loomed and segregated in accordance with specification.	OK
9	Check proper fitting of heat shrink sleeves and cable glands (if applicable).	PL
10	Check cores marking are in accordance with termination diagram.	OK
11	Check terminations are in accordance with latest termination diagram.	PL
12	To roll up that measured lenght complies with pulled lenght.	OK
13	To roll up the cable complies with Cat. 5E performance requirements (250 Mhz).	OK
14	Attach LAN tester print out to this test sheet.	OK
15	if required produce Red Line Mark Up for "AS BUILT"	

Comments: Nota 4: refer to PL C30000680/C30000682

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	ICS IMPIANTI	RM(ROSETTI MARINO)	
Name	Francesco Zucca	Alessio Polo	
Date	2024-11-25	2024-11-27	
Signature	PROVERLIS Digitaly signed by Francesco Zucca 2024-11-25T11:04:08.124Z	PROVERLIS Digitaly signed by Alessio Polo 2024-11-27T12:21:38.815Z	

ROSETTI MARINO

Cable ID: 63-LP-001/B400-NET-001

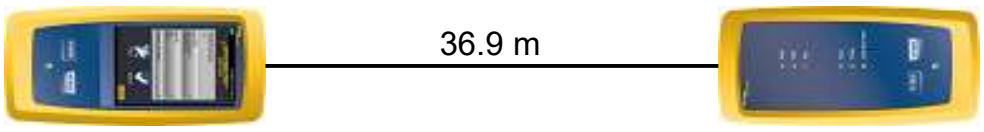
Test Limit: ISO11801 PL2 Class Ea
Limits Version: V7.6
Date / Time: 22-11-2024 16:23:20
Headroom 4.4 dB (NEXT 4,5-7,8)
Cable Type: Cat 6A S/FTP
NVP: 77.0%

Main: Versiv
S/N: 2226344
Software Version: V6.7 Build 1
Calibration Date: 12-12-2022
Adapter: DSX-8000 (DSX-PLA804)
S/N: 22340270

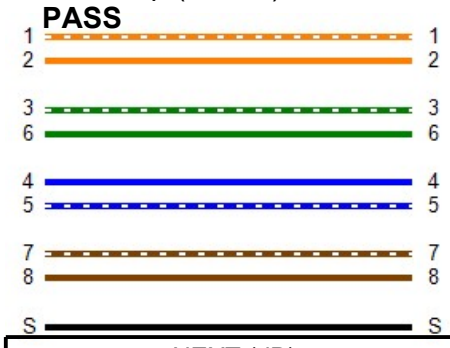
Test Summary: PASS

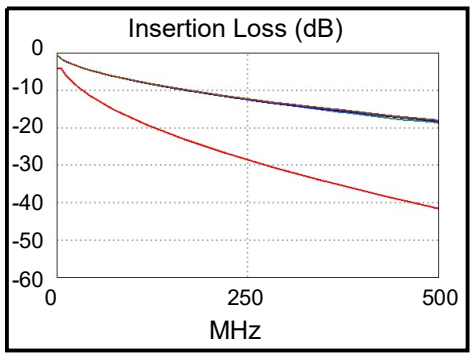
Remote: Versiv
S/N: 2226336
Software Version: V6.7 Build 1
Calibration Date: 12-12-2022
Adapter: DSX-8000R (DSX-PLA804)
S/N: 22340257

Length (m), Limit 90.0	[Pair 4,5]	36.9
Prop. Delay (ns), Limit 496	[Pair 1,2]	164
Delay Skew (ns), Limit 43	[Pair 1,2]	4
Resistance (ohms), Limit 20.60	[Pair 3,6]	5.28
Insertion Loss Margin (dB)	[Pair 3,6]	22.9
Frequency (MHz)	[Pair 3,6]	500.0
Limit (dB)	[Pair 3,6]	41.6

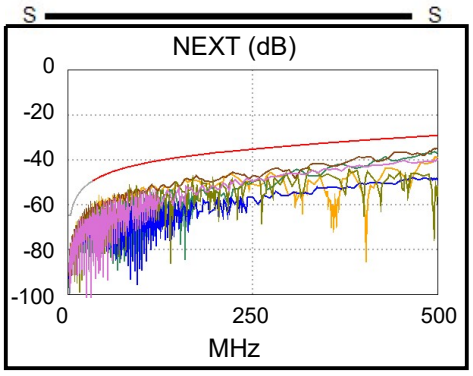


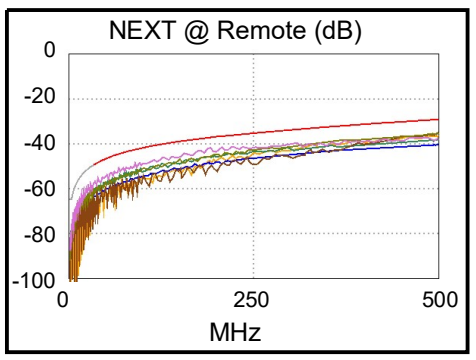
Wire Map (T568B)
PASS



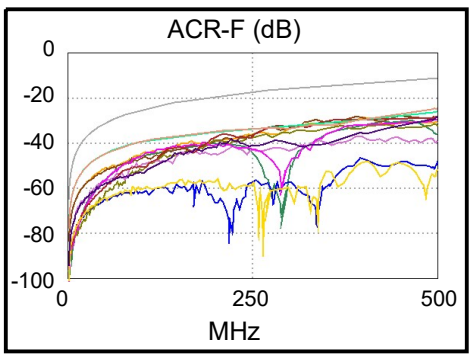


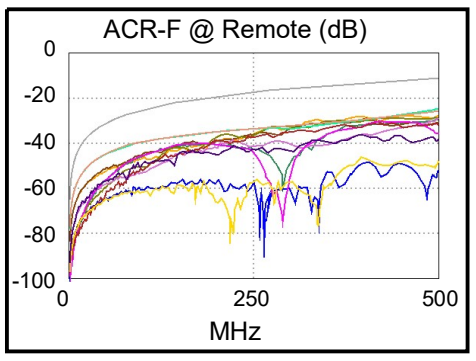
	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	3,6-4,5	4,5-7,8	3,6-4,5	3,6-4,5
NEXT (dB)	5.6	4.4	5.6	5.9
Freq. (MHz)	499.0	190.5	499.0	499.0
Limit (dB)	29.3	37.3	29.3	29.3
Worst Pair	4,5	3,6	4,5	3,6
PS NEXT (dB)	5.5	4.6	5.6	4.6
Freq. (MHz)	496.0	499.0	499.0	499.0
Limit (dB)	26.5	26.4	26.4	26.4



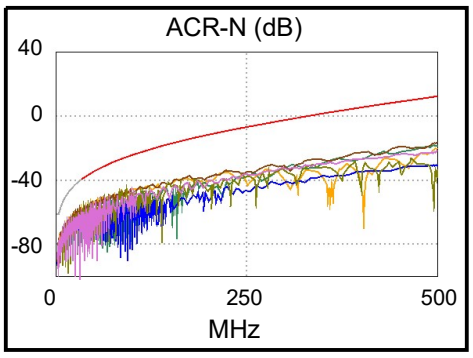


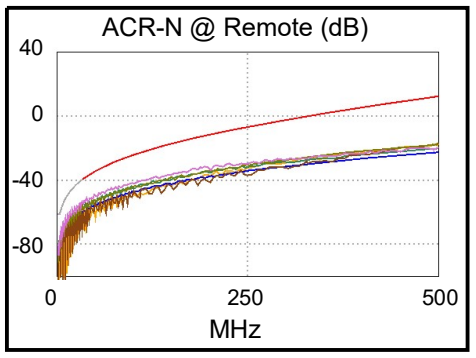
PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5-7,8	7,8-4,5	7,8-4,5	4,5-7,8
ACR-F (dB)	12.8	12.8	13.4	13.6
Freq. (MHz)	4.6	4.6	500.0	500.0
Limit (dB)	51.9	51.9	11.3	11.3
Worst Pair	4,5	4,5	4,5	4,5
PS ACR-F (dB)	15.2	14.4	15.3	14.7
Freq. (MHz)	493.0	460.0	496.0	500.0
Limit (dB)	8.4	9.0	8.3	8.3



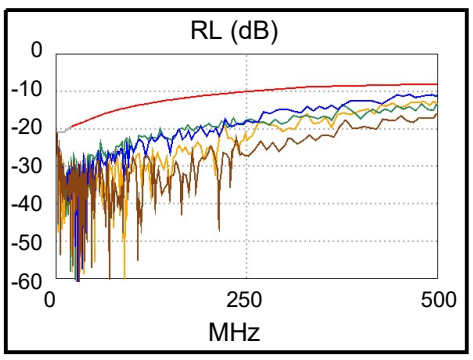


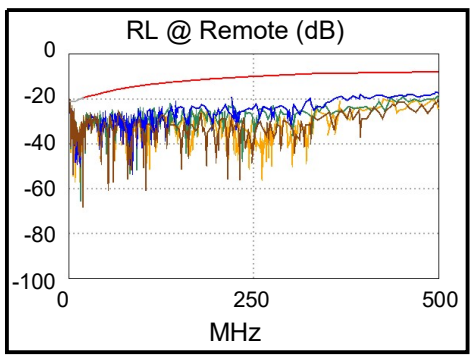
PASS	MAIN	SR	MAIN	SR
Worst Pair	1,2-3,6	4,5-7,8	3,6-4,5	3,6-4,5
ACR-N (dB)	17.3	13.3	28.9	29.2
Freq. (MHz)	42.0	35.8	499.0	499.0
Limit (dB)	36.7	38.7	-12.3	-12.3
Worst Pair	3,6	7,8	4,5	3,6
PS ACR-N (dB)	16.8	13.7	28.9	27.5
Freq. (MHz)	39.0	36.0	499.0	499.0
Limit (dB)	35.2	36.1	-15.2	-15.2





PASS	MAIN	SR	MAIN	SR
Worst Pair	4,5	3,6	4,5	4,5
RL (dB)	2.7	7.5	2.7	9.0
Freq. (MHz)	451.0	23.8	451.0	496.0
Limit (dB)	8.0	19.1	8.0	8.0





Compliant Network Standards:

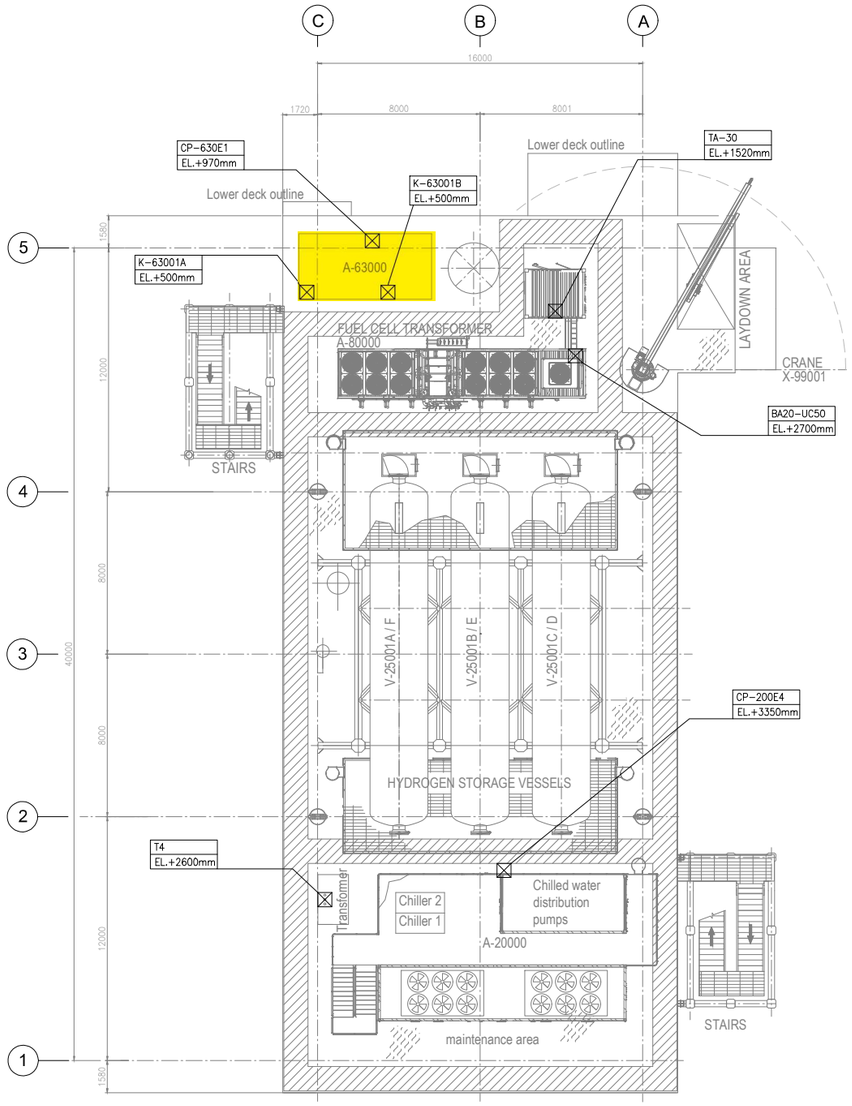
10BASE-T	100BASE-TX	100BASE-T4
1000BASE-T	2.5GBASE-T	5GBASE-T
10GBASE-T	ATM-25	ATM-51
ATM-155	100VG-AnyLan	TR-4
TR-16 Active	TR-16 Passive	

LinkWare™ PC Version 11.4

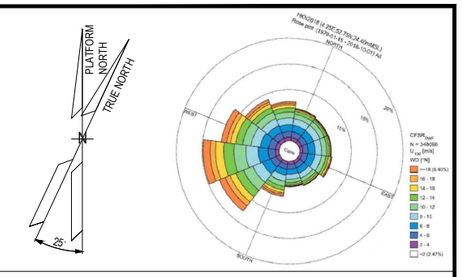
FLUKE networks

DRAWING NO. 123A90-DDL-EL-DL-20100

REV. 01



PLAN ON TOP DECK
EL+30.310 T.O.S.



NOTES

1. ALL DIMENSIONS IN MM UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS IN METERS. UNLESS NOTED OTHERWISE.
3. ELEVATIONS REFER TO T.O.S. UNLESS NOTED OTHERWISE.
4. AFTER INTERFACE PANEL/BATTERY LIMIT CABLES WILL BE ROUTED INSIDE VENDOR CABLETRAYS

LEGEND

⊠	INTERFACE PANEL/BATTERY LIMIT
JB-200E2 EL.+500mm	TAG ITEM REFERED ELEVATION TO T.O.S. (TOP OF STEEL)

HOLDS

REFERENCE DOCUMENTS

123A90-DDL-PP-DL-70070	PLOT PLAN - LOWER & UPPER DECK
123A90-DDL-EL-DL-20140	ELECTRICAL HEAT TRACING JUNCTION BOX LAYOUT
123A90-DDL-EL-DL-20118	LIGHTING & SOCKET LAYOUT - TOP DECK

INSERT SUBCONTRACTOR / VENDOR LOGO HERE

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	22/07/24	SPS	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	29/05/24	SPS	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

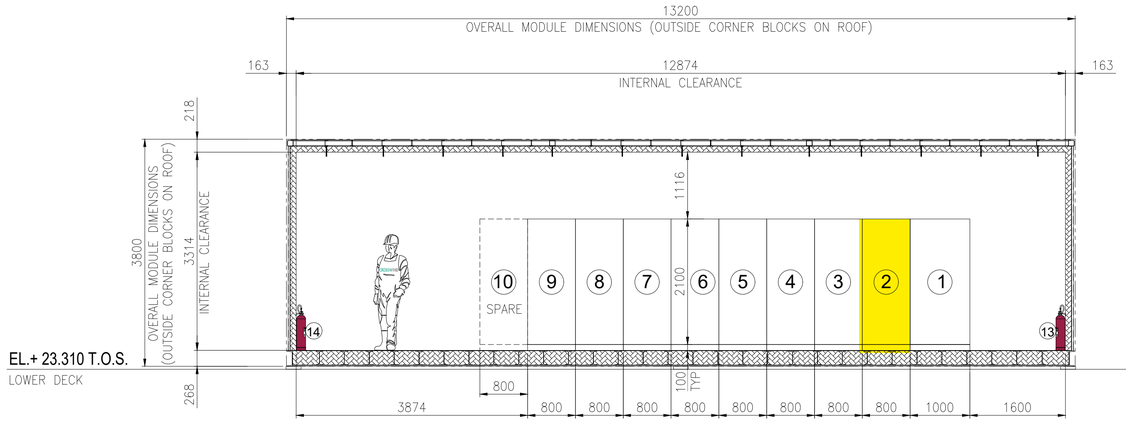
VALID FOR CONSTRUCTION
FDL DWG: 123A90-FDL-EL-DL-20100
REV.: 1_A | DATE: 08/08/24 | SIGNATURE: G.Randi
ROSETTI MARINO SpA

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL EQUIPMENT LAYOUT
TOP DECK

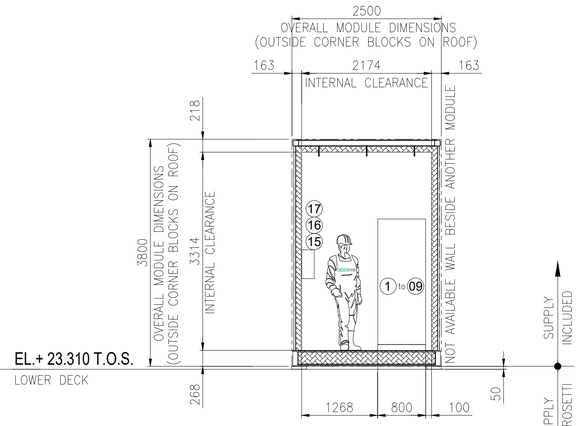
CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:150
DRAWN SPS	CHECKED FMA/AMA	APPROVED FPA/DLO	DATE 22/07/24
A1	DRAWING NO. 123A90-DDL-EL-DL-20100	SHEET 001	REV. 01

File Name : 123A90-DDL-EL-DL-20100-Electrical Equipment Layout - Top Deck

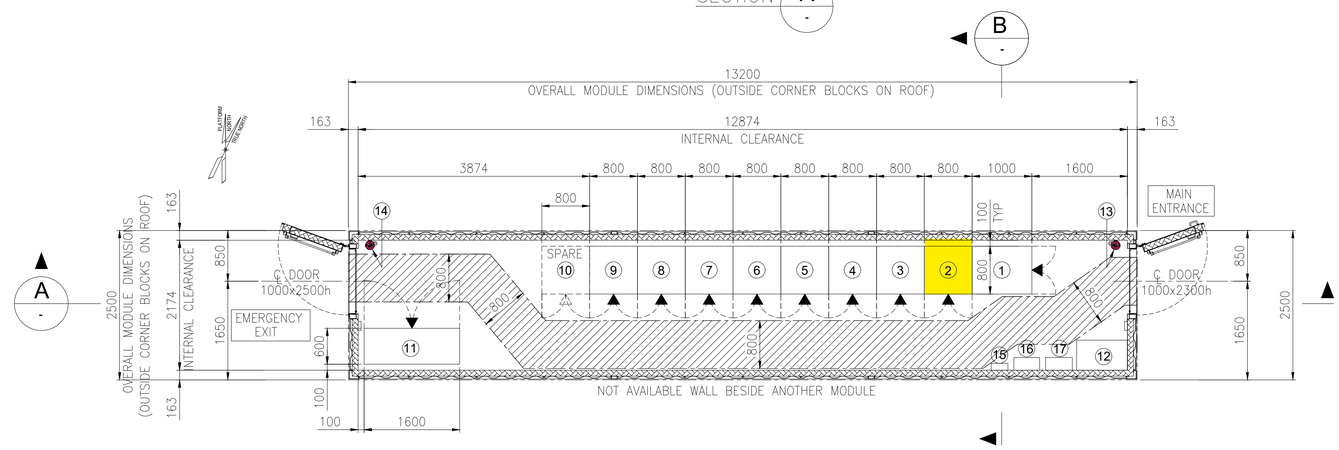
DRAWING NO. 123A90-DDL-IN-DL-40012 REV. 03



SECTION A -



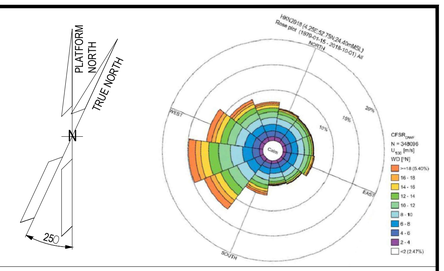
SECTION B -



EQUIPMENT LAYOUT
"B-400" I&T EQUIPMENT ROOM
BOTTOM PLAN

EQUIPMENT LIST

REF.	TAG No.	DESCRIPTION	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	NOTE
1	B400-SRV-001	SERVER CABINET	1000	800	2100	
2	B400-NET-001	NETWORK CABINET	800	800	2100	
3	B400-EMCS-001	EMCS SYSTEM CABINET	800	800	2100	
4	B400-PCS-002	PCS MARSHALLING CABINET	800	800	2100	
5	B400-PCS-001	PCS SYSTEM CABINET 03	800	800	2100	
6	B400-FGS-003	FGS MARSHALLING CABINET 2	800	800	2100	
7	B400-FGS-002	FGS MARSHALLING CABINET 1	800	800	2100	
8	B400-FGS-001	FGS SYSTEM CABINET	800	800	2100	
9	B400-SIS-001	SIS SYSTEM/MARSHALLING CABINET	800	800	2100	
10	-	SPARE				
11	B400-HSB-001	DISTRIBUTION & HVAC PANEL - I&T ROOM	1600	600	2300	
12	-	TABLE	850	500	750	
13	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
14	-	PORTABLE EXTINGUISHER (CO2) 5 Kg.	150	150	750	
15	-	FIRST AID KIT	280	115	200	
16	-	RESUSCITATION UNIT	430	210	480	
17	-	CABINET INCLUDED N.10 ESCAPE MASK	448	213	422	



NOTES

1. U.N.O. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DOCUMENT VALID ONLY FOR INSTRUMENT COMPONENT, FOR OTHER SCOPE LOCATION AND INFORMATION, PLEASE REFER TO VENDORS AND PROJECT DOCUMENTS.

LEGEND

U.N.O. _____ UNLESS NOTED OTHERWISE
T.O.S. _____ TOP OF STEEL
_____ ESCAPE CORRIDOR – WIDTH 800mm.
_____ EQUIPMENT ROOM ENCLOUSURE
_____ FRONT OF EQUIPMENT

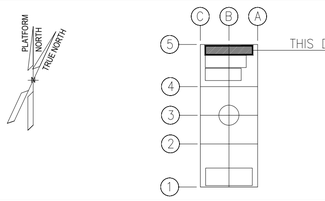
HOLDS

.

REFERENCE

DOCUMENT TITLE	DOCUMENT NUMBER
Control System Architecture Detailed Drawings	123A90-DDL-IN-DD-40096
Data Network Architecture Drawings	123A90-DDL-IN-DD-40019
Earthing layouts drawings (CCR, ITER)	123A90-DDL-IN-DL-40013
Instrument and Telecom MCT Layout – Lower Deck	123A90-DDL-IN-DL-40086
"B-400" I&T Equipment Room – Architectural Layout	123A90-DDL-AR-DL-10015
"B-400" ARCHITECTURAL GENERAL LAYOUT PLAN, WIEW, SECTIONS & TYP. DETAILS	123A90-DDL-AR-DL-10015
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DA-00017
"B-400" GENERAL ARRANGEMENT DRAWING	1724000049-AR-DD-00021
"B-400" HVAC SYSTEM G.A. and DETAILS	1724000049-HV-DA-00067

KEY PLAN



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	04/10/24	VBA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	27/05/24	MGA	LCA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	22/01/24	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)
00	07/11/23	VBA	LCA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND — ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH) OFF-SHORE ITER EQUIPMENT LAYOUT

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE 1:33,3
DRAWN MGA	CHECKED LCA	APPROVED DLO	DATE 27/05/24
A1	DRAWING NO. 123A90-DDL-IN-DL-40012	SHEET 001	REV. 03

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DL-40012**

REV.:	DATE:	SIGNATURE:
3_A	07/10/24	G.Randi

ROSETTI MARINO SpA

File Name : 123A90-DDL-IN-DL-40012 Rev.03.dwg

DRAWING NO. 123A90-DDL-IN-DG-40015

REV. 01

FIELD					I&T EQUIPMENT ROOM (ITER B400)		
					NETWORK CABINET - B400-NET-001		
					<01>		
CP-500E1 UCP PANEL	SEA WATER TREAT. (A-50003) 50-LP-001	ITEM: PORT: P3	RJ45	50-LP-001 / B400-NET-001 CAT.6A4x2xAWG23,Sh+ShT+ARM,F.Ret,GREEN,NIS	RJ45	SWITCH: COOP-01 PORT: P16	
	I. A. PACKAGE (A-63000) 63-LP-001	ITEM: NOTE 5 PORT: NOTE 5	RJ45	63-LP-001 / B400-NET-001 CAT.6A4x2xAWG23,Sh+ShT+ARM,F.Ret,GREEN,NIS	RJ45	SWITCH: COOP-01 PORT: P17	
	NITROGEN SYSTEM (U-64000) 64-LP-001	ITEM: NOTE 5 PORT: NOTE 5	RJ45	64-LP-001 / B400-NET-001 CAT.6A4x2xAWG23,Sh+ShT+ARM,F.Ret,GR	RJ45	SWITCH: COOP-01 PORT: P18	
	TRANSFORMER TR-100AD1 AVR	ITEM: TAPCON 230 - EXPERT PORT: SCADA ETHERNET	RJ45	TR-100AD1AVR/B400-NET-001 ~~TR-100AD1-AVR/ B400-EMCS-001~~ CAT.6A4x2xAWG23,Sh+ShT+ARM,F.Ret,GREEN,NIS	RJ45	SWITCH: COOP-01 PORT: P19	

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40015**

REV.:	DATE:	SIGNATURE:
1_E	19/11/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – PCS WIRING DIAGRAMS
COMMUNICATION – CAT-6

CONTRACT NO./TITLE			SCALE 1:1
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40015	SHEET 038	REV. 01

File Name : 123A90-DDL-IN-DG-40015_Rev.01

DRAWING NO. 123A90-DDL-IN-DG-40015

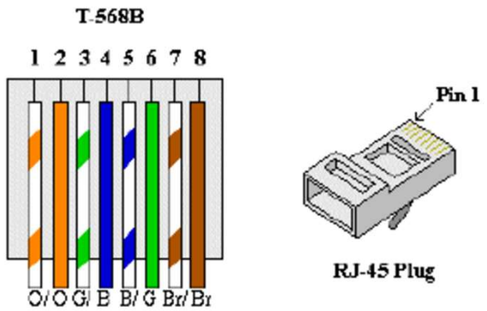
REV. 01

NOTES:

1. ALL SPARE ENTRIES SHALL BE PROVIDED WITH CERTIFIED EX PROOF PLUGS.
2. CABLE SCREENS / DRAIN WIRE SHALL BE SECURELY INSULATED AND TIED BACK IN THE INSTRUMENT SIDE AND SHAL BE TERMINATED IN THE MARSHALLING SIDE OF THE PANEL.
3. SPARE PAIRS / TRIADS SHALL BE CONNECTED TO TERMINALS IN JUNCTION BOX AND PANEL / MARSHALLING CABINETS.
4. ALL CABLE SCREENS TO BE TERMINATED AT THE INSTRUMENT EARTH BAR IN THE RESPECTIVE EARTH BARS (IS OR NIS) AS APPLICABLE IN THE MARSHALLING CABINET.
5. SWITCH TAG NAME AND PORT WILL BE DEFINED DURING THE CONSTRUCTION PHASE
6. FIBER OPTIC TAG NAME WILL BE DEFINED DURING THE CONSTRUCTION PHASE.

<01>

7. CAT. 6A CABLE SHALL BE TERMINATED MEETING REQUIREMENTS OF STANDARD EIA/TIA 568B:



RJ-45 Plug

8. FOR OPTICAL FIBERS, USE THE FOLLOWING COLOR CODING:
   01) RED
   02) GREEN
   03) BLUE
   04) YELLOW
   05) GREY
   06) PURPLE
   07) BROWN
   08) ORANGE
   09) WHITE
   10) PINK
   11) BLACK
   12) TURQUOISE

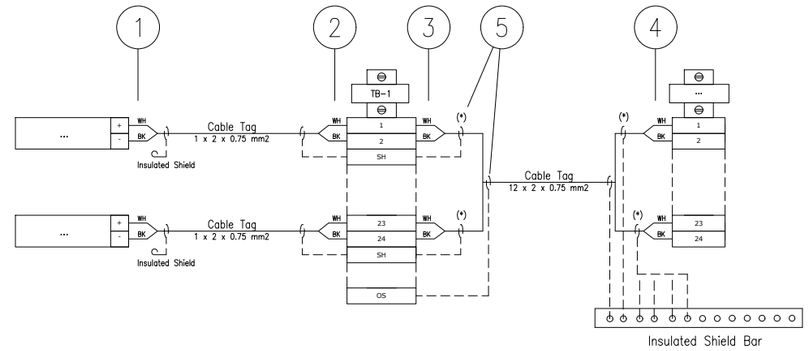
LEGENDS & SYMBOLS:

LEGEND:

I.E.	- GREEN ——— INSTRUMENT SIGNAL EARTH
P.E.	- GREEN / YELLOW —— P.E. EARTH / BONDING
	- TERMINAL BLOCK (TB)
WH	- WHITE
BK	- BLACK
RD	- RED
S	- SHIELD TERMINAL
OS	- OVERALL SHIELD TERMINAL
O/A Shld	- OVERALL SHIELD
I&O/A Shld	- INDIVIDUAL & OVERALL SHIELD
NIS	- NON INTRINSICALLY SAFE
IS	- INTRINSICALLY SAFE
P.E.	- PLANT EARTH
PCS	- PROCESS CONTROL SYSTEM
ESD	- EMERGENCY SHUTDOWN SYSTEM
SIS	- SAFETY INSTRUMENT SYSTEM
MC	- MARSHALLING CABINET
AI	- ANALOGUE INPUT
AO	- ANALOGUE OUTPUT
DI	- DIGITAL INPUT
DO	- DIGITAL OUTPUT

TYPICAL WIRE CROSS-FERRULING:

PHILOSOPHY OF CROSS-FERRULING: <01>



(*) Single shield is foreseen only for AI/AO signals.

1 - INSTRUMENT TERMINAL NO. OR POLARITY/JB NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

2 - INSTRUMENT TERMINAL NO. OR POLARITY/INSTRUMENT TAG NO./JB TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

3 - PAIR OR CORE NO./MARSHALLING CABINET NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

4 - PAIR OR CORE NO./JB NO./JB TERMINAL NO./TB NO./TERMINAL NO.
(SAME TAGGING PHILOSOPHY SHALL APPLIED ALSO TO THE SHIELD)

5 - HEAT SHRINKABLE BLACK FOR SHIELD OF NIS INSTRUMENT CABLE.
(HEAT SHRINKABLE BLUE FOR SHIELD OF NIS INSTRUMENT CABLE)

6 - IN CASE OF CONNECTION FROM RIGHT TO LEFT, ORDER OF INFORMATION SHALL BE MIRRORED

REFERENCE DRAWINGS

PIPING AND INSTRUMENT DIAGRAM	123A90-DDL-PR-PID-80009
INSTRUMENT INDEX	123A90-DDL-IN-LIS-40088 Rev.01

VALID FOR CONSTRUCTION
FDL DWG: **123A90-FDL-IN-DG-40015**

REV.:	DATE:	SIGNATURE:
1_E	19/11/24	G.Randi

ROSETTI MARINO SpA

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
INSTRUMENT – PCS WIRING DIAGRAMS
GENERAL NOTES/LEGENDS

CONTRACT NO./TITLE			SCALE 1:1
DRAWN VBA	CHECKED LCA	APPROVED DLO	DATE 23/02/2024

A3	DRAWING NO. 123A90-DDL-IN-DG-40015	SHEET 003	REV. 01

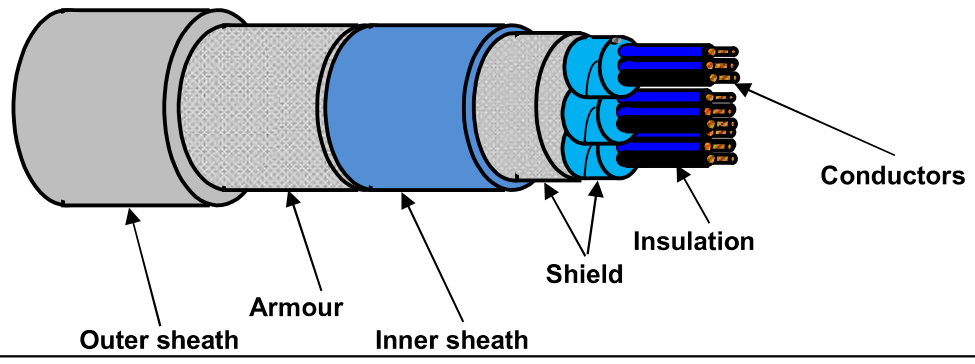
File Name : 123A90-DDL-IN-DG-40015_Rev.01

Tag Number	Category	Discipline	Eng Status	NativeDoc	Layout	Parent Tag	Main Function	Secondary Function	Area	From Tag	From Main Function	From Area	To Tag	To Main Function	To Area	Material ID	Material Desc.	Gland Standard	From Gland	From Entry	From Fitting	To Gland	To Entry	To Fitting	Routing	Routing Manual
63-LP-001/B400-NET-001	Cable	IN	VFC	123A90-DDL-IN-LIS-40091						63-LP-001	Communication	Upper Deck	B400-NET-001	Network Cabinet / EMCS System	Lower Deck (B-400)	TELCV03-4X2X23AWG	Cable CAT 6A S/FTP 4x2x23AWG Armoured LSZH - Grey	M20S	n.a.			n.a.				I-MCT-U03 / L-SEC-3 / L-SEC-1A / B-400-SEC-3A / B-400-SEC-2I / B-400-SEC-2G / B-400-SEC-2E / B-400-SEC-2C / B-400-SEC-3B / I-MCT-402

FLEI s.r.l.

CAT. 6A S/FTP ARMOURED LSZH

4X2X23AWG - Based on Draka UC500 HS23



TECHNICAL FEATURES

Conductors :	**SOLID** plain annealed copper wires (AWG23) **ø 0,56 mm**
Insulation :	Foamskin PE - **ø 1,38 mm**
Cores colour code :	**blue/white; orange/white; green/white; brown/white**
Pair Assembling :	Cores twisted in pairs
Pair Shield :	Al-laminated plastic foil
Overall Shield:	Tinned copper braid
Inner sheath :	Extruded LSZH Thermoplastic Compound
Inner sheath color code:	**Blue**
Armour :	**Galvanized Steel Wire Braid Armour (coverage ≥ 90%)**
Outer sheath :	Extruded LSZH Thermoplastic Compound (O.I. ≥ 30%), type **SHF1** to IEC 60093.360, moisture/abrasion/UV Resistant, Average Thickness 1,2 mm
Outer sheath color code:	**Grey**
Outer printing (INKJET) :	**FLEI - 4X2X23AWG - CAT.6A S/FTP ARMOURED LSZH - IEC 60332.1.2 - IEC 60332.3.22 -**
(every 1000 mm)	**Year of Manufacture - CE + Meter Marking**
Under armour diameter :	(7,5 ± 10%) mm
Over armour diameter :	(8,3 ± 10%) mm
Outer diameter :	(10,7 ± 10%) mm
Bending radius :	cable outer diameter x 8 (in fixed installation)
Test Voltage :	1000 V DC for 1' (Between Cores) / 1000 V DC for 1' (Between Cores - Shield)
Loop Resistance :	≤ 154 Ω/Km (@ 20°C)
Insulation Resistance :	≥ 2000 MΩ x km (@ 20°C)
Mutual Capacitance :	Nom. 43 nF/km
Characteristic Impedance :	(100 ± 5) Ω
Applicable Standards	
Design Guidelines :	**Generally to ISO/IEC 11801 / IEC 61156-5 / EN 50173-1 / EN 50288-10 / IEEE 802.3at / af / bt**
ON COMPLETE CABLE	
Flame Retardant test :	IEC 60332.1.2 - IEC 60332.3.22
Acid Gas generation :	IEC 60754.1/2
Smoke density/Light Transm	IEC 61034.2 (LT ≥ 60%)
Hazardous Areas :	IEC 60079.14 par.9.3.2a
Temperature Range :	
ON COMPLETE CABLE	
During Operation :	(-20°C up to +60°C) (in fixed installation)
During installation :	(0°C up to +50°C)
Note :	**To meet the requirements of installation and use in Zone 1 & Zone 2 (IEC 60079-14) and "Gas & Vapour Tight" the cable must be provided with Penetrating Inner Sheath together with correct ATEX approved equipment or accessories.**

Office	Date	Sign	Rev.	Date	Sign
Drawn by :	29/05/2024	Messa			
Checked :	29/05/2024	Spaccasassi			
Approved :	29/05/2024	Cucinotta			

The data provided, lending assent for the treatment, will be used to the sense of the article 13 of of the Regulation (UE) 2016/679, also through outsiders, in order to allow the realization of the fulfilments informatives, administrative, commercial and accounting related to the contractual relationship. Integral copy of the informative could be requested at our offices.

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Section 9 MECHANICAL COMPLETION STATUS INDEX - HVAC DISCIPLINE

NOT APPLICABLE

Section 10 MECHANICAL COMPLETION STATUS INDEX - PIPING DISCIPLINE

CROSSWIND

ROSETTI MARINO

Project CROSSWIND

STATUS INDEX DETAIL

Filtered on subsystem: 63-00 & process: MC & discipline : P

Piping	63-00 Instrument Air Package (A-63000)						
ITEM		TASK					
Code	Description	Location	Code	Form	Progress	Date	Certificate
032-1-J1	Joint 032-1-J1	ONSHORE	C10004218	TMX27	100	2025-01-15	RFC 2
032-1-J2	Joint 032-1-J2	ONSHORE	C10004219	TMX27	100	2025-01-15	RFC 2
032-1-J3	Joint 032-1-J3	ONSHORE	C10004220	TMX27	100	2025-01-31	RFC 2
036-1-J1	Joint 036-1-J1	ONSHORE	C10004231	TMX27	100	2025-01-15	RFC 2
036-1-J2	Joint 036-1-J2	ONSHORE	C10004232	TMX27	100	2025-01-13	RFC 2
127-2-J1	Joint 127-2-J1	ONSHORE	C10004169	TMX27	100	2025-01-14	RFC 2
63-00-TP-025	Test Pack 63-00-TP-025	ONSHORE	C10003421	CLX02A	100	2024-11-29	RFC 3
		ONSHORE	C10003422	CLX02B	100	2025-02-03	RFC 3
		ONSHORE	C10003423	CXX02	100	2025-02-05	RFC 3
		ONSHORE	C10003424	TMX03	100	2024-12-13	RFC 3
		ONSHORE	C10003425	TMX05	100	2024-12-02	RFC 3
		ONSHORE	C10003427	TPLX05	100	2024-12-24	RFC 3
63-00-TP-059	Test Pack 63-00-TP-059	ONSHORE	C10003665	CLX02A	100	2024-11-29	RFC 3
		ONSHORE	C10003666	CLX02B	100	2025-01-30	RFC 3
		ONSHORE	C10003667	CXX01	100	2025-03-21	RFC 3
		ONSHORE	C10003668	CXX02	100	2025-01-30	RFC 3
		ONSHORE	C10003669	TMX03	100	2024-11-29	RFC 3
		ONSHORE	C10003670	TMX05	100	2024-11-29	RFC 3
		ONSHORE	C10003672	TPLX05	100	2024-12-06	RFC 3

ITEM	Tag	63-00-TP-025	: Test Pack 63-00-TP-025			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	LD
TASK	code	C10003421		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	CLX02A Pipework Before Test

1	Check for each line of the Test Pack the NDT clearance.	OK
2	Confirm that materials conforms to the line specifications (ref. to the last issued revision of the isometric material table)	OK
3	Check the installation of all pipe – supports are in accordance with the specifications and drawings.	PL
4	Check that pipework at pump and vessel nozzles are free from spring.	Note
5	Check that the pipe flanges have been mounted square to each other. Also that the bolting and gaskets are correct (all TMX27 are complete, if necessary).	Note
6	Check bolt tightening and flange management (excluded battery limit joints).	NA
7	Check that the flow direction of the valves and check – valve is in the correct sense / direction (ball valves to be set at half open).	NA
8	Check that the removed equipment is in accordance with the agreed list of fragile devices. Check valve should be removed or flappers locked.	NA
9	Check that spool pieces or other substitution means have been put in place instead of the removed fragile device.	NA
10	Check the Blind list.	NA
11	Check that all the temporary material to perform the task are conforms to the procedure & suitable pressure rating.	OK
12	If required produce Red Line Mark Up for "AS BUILT".	

Comments: Note 4, 5: to be checked during Flange management activity.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	rodeo	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2024-11-29	2024-11-29	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2024-11-29T09:10:59.240Z	PROVERLIS Digitaly signed by Massimo Bruschi 2024-11-29T17:46:02.795Z	

ITEM	Tag	63-00-TP-025	: Test Pack 63-00-TP-025			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	LD
TASK	code	C10003422		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	CLX02B Pipework After Test

1	Check that the pipework and equipment are drained as per procedure.	OK
2	Check if all temporary equipment (test spades, filters ,spool pieces..etc) have been removed.	OK
3	All plugs installed on vents and drains for test have been removed.	OK
4	Check that all removed devices and valves have been re-installed.	OK
5	Check that the new gaskets have been installed after pipework and equipment reinstallation.	OK
6	All specific blinds and / or spectacle blinds have been correctly installed as per P&ID.	OK
7	Check that the pipework, valves , check valves are undamaged. Also check the ancillaries and any other components.	OK
8	After the (re) installation of a valve check that it operates freely.	OK
9	Check that the flow direction of the valves and check – valve is in correct sense /direction in correct open/closed position as per P&ID.	OK
10	Check all locking device.	OK
11	Check that the valves have been correctly lubricated and that they have the correct spindle packing.	NA
12	Check that all the bolts and fasteners are suitably lubricated inline with the flange management procedure.	OK
13	Check that the bolts have been tightned at opened joints.	OK
14	Check that all golden welds (final tie-ins without hydrotest) have been performed as per procedure.	NA
15	Check for the correct tagging, labeling and colour coding of pipework and equipment (only for bare pipe lines).	NA
16	Check that the pipework and equipment (re) installation conforms to the specifications, drawings and to the P&ID's.	PL
17	If required produce Red Line Mark Up for "AS BUILT".	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2025-01-28	2025-02-03	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-28T14:49:17.184Z	PROVERLIS Digitaly signed by Massimo Bruschi 2025-02-03T08:32:45.663Z	

ITEM	Tag	63-00-TP-025	: Test Pack 63-00-TP-025			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	LD
TASK	code	C10003423		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Piping	Form	CXX02 Painting Line

1	Check that the completed painting is in accordance with the specifications covering quality and thickness.	OK
2	Check that the color coding conforms to the specifications.	PL
3	Check that the fluid direction is correct.	PL
4	Check that line marking is correct.	NA
5	Check that the painting of piping systems and of the equipment is "touched-up" and conforms to the specifications.	PL
6	If required produce Red Line Mark Up for "AS BUILT".	

Comments: 1. Checked the painting report made by Vendor and signed by RM coating Dpt.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	IMPRESA DONELLI	RM (ROSETTI MARINO)	
Name	Alex Sanna	Kangi Albonetti	
Date	2025-02-04	2025-02-05	
Signature	PROVERLIS Digitaly signed by Alex Sanna 2025-02-04T12:34:26.083Z	PROVERLIS Digitaly signed by Kangi Albonetti 2025-02-05T12:39:52.270Z	

ROSETTI MARINO — CROSSWIND

ITEM	Tag	63-00-TP-025	: Test Pack 63-00-TP-025		Dwg	123A90-DDL-PR-PID-80027	
	S/Sys	63-00	: Instrument Air Package (A-63000)		Module	LD	
TASK	code	C10003424	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity PIP	Discipline Piping	Form	TMX03	Cleaning

CLEANING MEDIUM

Air		Water	●	Steam		Oil		Other		Mechanical	

Component	NA					
Chemical treatment	No	NA	Filtration	No	Screen size	NA

EQUIPMENTS

Equipment **removed**	Yes	Agreed list of removed fragile devices to be attached to this Test Sheet	NA
Excepted removed equipments, pipework installation is conform to the specifications & PID's			OK
Equipment **added**	No	Exhaustive list to be attached (temporary filters, spools…etc)	NA

TEST RESULTS

Test date	29-11-24	Start time	15:00	End time	15:15
Flow rate	N/A	Duration	15 min	Medium T°	N/A

Operation Description

"Connected the water source to the lowest point of the piping system.
Maintained a high flow rate to help dislodging and carry away debrises.
Flushing flow kept until the water exiting the system was clear and free of visible contaminants. Expelled water inspected for any debris to be noted."

Safety Precautions

Restricting access to the area.

Result and comments

Water has been found clear of debris. All contaminants have been expelled.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company		RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2024-11-29	2024-12-13	
Signature	Digitaly signed by Emanuele Delfino 2024-11-29T09:11:59.723Z	Digitaly signed by Massimo Bruschi 2024-12-13T13:05:44.936Z	

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	63-00-TP-025	: Test Pack 63-00-TP-025		Dwg	123A90-DDL-PR-PID-80027	
	S/Sys	63-00	: Instrument Air Package (A-63000)		Module	LD	
TASK	code	C10003425	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity PIP	Discipline Piping	Form	TMX05	Pressure Test

TEST DATA

Reference procedure	123A90-PML-QHSE-PRO-00092				
Design pressure	12 barg	Max test pressure	18 barg	Min hold period	30 min

TEST PREPARATION

Check all equipments used for the test are safe for use under pressure (valide certificate)	Yes
Pressure relief devices are installed and in line and set to correct pressure (calibration certificate)	Yes

Medium

Test medium	WATER

TEST RESULTS

Test date	See attachment	Start time	See attachment	End time	See attachment
Ambient temperature is recorded	NA			Test medium temperature is recorded	Yes
Pressure recorded during test hold period	Min See attachment	Max See attachment		Variation	See attachment
Line has been depressurised to	NA			At maximum of bar/min	See attachment
Pressure test completed sucessfully and approved	Yes			Temperature and pressure disc chart attached	NA
Instrument calibration certificates attached	Yes			Dead-weight tester log attached	NA
Record of failures and corrective action attached	No			Battery limits of the test attached	Yes
If required produce Red Line Mark Up for "AS BUILT".					

Comments: NOTE 1: see attached certificate for test data and result.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	rodeo	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2024-11-29	2024-12-02	
Signature	Digitaly signed by Emanuele Delfino 2024-11-29T09:12:51.127Z	Digitaly signed by Massimo Bruschi 2024-12-02T13:32:11.002Z	

Logger protocol

Protocollo di acquisizione elenco dati

ROSETTI MARINO
Group of Companies

Log no. *N. elenco dati*	123A90-63-00-TP025

Instrument

Strumento

Electrical pressure gauge *Misuratore di pressione elettronico*	
Model *Modello*	CPG1500
Serial number *Numero di serie*	1A014ILNH2N
Log temperature *Registrazioni di Temperatura*	Active *Attivo*
Scale range *Campo scala*	(0 ... 1000) bar a
Accuracy *Accuratezza*	0.1 % FS
Tag number *Numero tag*	
Communication *Comunicazione*	Wireless (00:13:43:85:E0:AF)

Measurement conditions

Condizioni di misura

Settings *Impostazioni*	
Mode *Modalità*	Automatic *Automatico*
Interval (ms) *Intervallo (ms)*	60000
Duration (hh:mm:ss) *Durata (hh:mm:ss)*	01:02:59
Start time (hh:mm:ss) *Tempo di avvio (hh:mm:ss)*	03:21:17 pm

Logger protocol

Protocollo di acquisizione elenco dati

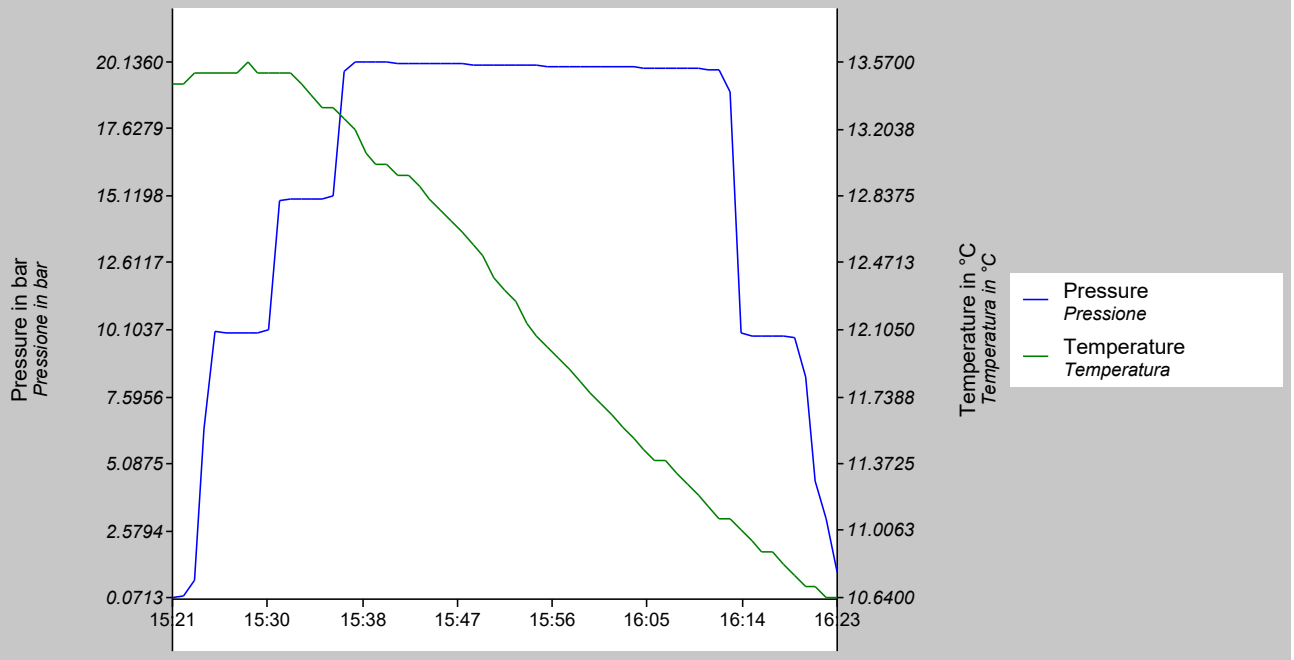
ROSETTI MARINO
Group of Companies

Log no. *N. elenco dati*	123A90-63-00-TP025

Measurement results

Risultati della misura

Graphical representation of progression
Rappresentazione grafica dell'andamento



Timestamp *Data e ora*	Measured value *Valore misurato* bar	Measured value *Valore misurato* °C
11/29/2024 15:21:17.000	0.0713	13.4500
11/29/2024 15:22:17.000	0.1377	13.4500
11/29/2024 15:23:17.000	0.7201	13.5100
11/29/2024 15:24:17.000	6.3783	13.5100
11/29/2024 15:25:17.000	10.0249	13.5100
11/29/2024 15:26:17.000	10.0146	13.5100
11/29/2024 15:27:17.000	10.0081	13.5100
11/29/2024 15:28:17.000	10.0030	13.5700
11/29/2024 15:29:17.000	9.9987	13.5100
11/29/2024 15:30:17.000	10.0854	13.5100
11/29/2024 15:31:17.000	14.9464	13.5100
11/29/2024 15:32:17.000	15.0010	13.5100
11/29/2024 15:33:17.000	14.9931	13.4500
11/29/2024 15:34:17.000	14.9871	13.3900
11/29/2024 15:35:17.000	14.9788	13.3200
11/29/2024 15:36:17.000	15.1381	13.3200
11/29/2024 15:37:17.000	19.7924	13.2600

Logger protocol

Protocollo di acquisizione elenco dati

ROSETTI MARINO
Group of Companies

Log no. *N. elenco dati*	123A90-63-00-TP025

Measurement results

Risultati della misura

Timestamp *Data e ora*	Measured value *Valore misurato* bar	Measured value *Valore misurato* °C
11/29/2024 15:38:17.000	20.1360	13.2000
11/29/2024 15:39:17.000	20.1253	13.0700
11/29/2024 15:40:17.000	20.1158	13.0100
11/29/2024 15:41:17.000	20.1091	13.0100
11/29/2024 15:42:17.000	20.1009	12.9500
11/29/2024 15:43:17.000	20.0908	12.9500
11/29/2024 15:44:17.000	20.0829	12.8900
11/29/2024 15:45:17.000	20.0787	12.8200
11/29/2024 15:46:17.000	20.0724	12.7600
11/29/2024 15:47:17.000	20.0636	12.7000
11/29/2024 15:48:17.000	20.0543	12.6400
11/29/2024 15:49:17.000	20.0469	12.5700
11/29/2024 15:50:17.000	20.0324	12.5100
11/29/2024 15:51:17.000	20.0293	12.3900
11/29/2024 15:52:17.000	20.0228	12.3200
11/29/2024 15:53:17.000	20.0147	12.2600
11/29/2024 15:54:17.000	20.0050	12.1400
11/29/2024 15:55:17.000	19.9952	12.0700
11/29/2024 15:56:17.000	19.9863	12.0100
11/29/2024 15:57:17.000	19.9807	11.9500
11/29/2024 15:58:17.000	19.9724	11.8900
11/29/2024 15:59:17.000	19.9639	11.8200
11/29/2024 16:00:17.000	19.9585	11.7600
11/29/2024 16:01:17.000	19.9538	11.7000
11/29/2024 16:02:17.000	19.9433	11.6400
11/29/2024 16:03:17.000	19.9363	11.5700
11/29/2024 16:04:17.000	19.9296	11.5100
11/29/2024 16:05:17.000	19.9220	11.4500
11/29/2024 16:06:17.000	19.9107	11.3900
11/29/2024 16:07:17.000	19.8994	11.3900
11/29/2024 16:08:17.000	19.8928	11.3200
11/29/2024 16:09:17.000	19.8803	11.2600
11/29/2024 16:10:17.000	19.8708	11.2000
11/29/2024 16:11:17.000	19.8494	11.1400
11/29/2024 16:12:17.000	19.8150	11.0700
11/29/2024 16:13:17.000	19.0064	11.0700
11/29/2024 16:14:17.000	9.9932	11.0100
11/29/2024 16:15:17.000	9.8646	10.9500
11/29/2024 16:16:17.000	9.8606	10.8900
11/29/2024 16:17:17.000	9.8505	10.8900
11/29/2024 16:18:17.000	9.8409	10.8200
11/29/2024 16:19:17.000	9.8342	10.7600
11/29/2024 16:20:17.000	8.3515	10.7000
11/29/2024 16:21:17.000	4.4446	10.7000
11/29/2024 16:22:17.000	3.0472	10.6400
11/29/2024 16:23:17.000	1.0284	10.6400

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Centro di Taratura LAT N°114
Calibration Centre
Laboratorio Accreditato di Taratura
Accredited Calibration Laboratory

LAT N° 114

CERTIFICATO DI TARATURA LAT 114 0514-SM-24

Certificate of Calibration

- data di emissione date of issue	2024-10-31
- cliente customer	FAST AUTOMATION SRL VIA DELLA PREVIDENZA SOCIALE, 8 IT-42124 REGGIO EMILIA (RE)
- destinatario receiver	ROSETTI MARINO SPA - YARD PIOMBONI VIA DEL MARCHESATO, 37 IT-48122 MARINA DI RAVENNA (RA)

Il presente certificato di taratura è emesso in base all'accreditamento LAT N. 114 rilasciato in accordo ai decreti attuativi della legge n. 273/1991 che ha istituito il Sistema Nazionale di Taratura (SNT). ACCREDIA attesta le capacità di misura e di taratura, le competenze metrologiche del Centro e la riferibilità delle tarature eseguite ai campioni nazionali ed internazionali delle unità del Sistema Internazionale delle Unità (SI).
Questo certificato non può essere riprodotto in modo parziale, salvo espressa autorizzazione scritta da parte del Centro.

Si riferisce a
referring to

- oggetto *item*	Misuratore di pressione elettronico Electrical pressure gauge
- costruttore *manufacturer*	WIKA
- modello *model*	CPG1500
- matricola *serial number*	1A014ILNH2N
- data di ricev. oggetto *date of receipt of item*	2024-10-24
- data delle misure *date of measurements*	2024-10-31
- registro di laboratorio *laboratory reference*	0514-SM-24

This certificate of calibration is issued in compliance with the accreditation LAT No.114 granted according to decrees connected with Italian law No. 273/1991 which has established the National Calibration System. ACCREDIA attests the calibration and measurement capability, metrological competence of the Centre and the traceability of calibration results to the national and International standards of the International System of Units (SI).
This certificate may not be partially reproduced, except with the prior written permission of the issuing Centre.

I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando le procedure di taratura citate alla pagina seguente, dove sono specificati anche i campioni o gli strumenti che garantiscono la catena di riferibilità del Centro e i rispettivi certificati di taratura in corso di validità. Essi si riferiscono esclusivamente all'oggetto in taratura e sono validi nel momento e nelle condizioni di taratura, salvo diversamente specificato.

The measurement results reported in this Certificate were obtained following the calibration procedures given in the following page, where the reference standards or instruments are indicated which guarantee the traceability chain of the laboratory, and the related calibration certificates in the course of validity are indicated as well. They relate only to the calibrated item and they are valid for the time and conditions of calibration, unless otherwise specified.

Le incertezze di misura dichiarate in questo documento sono state determinate conformemente alla Guida ISO/IEC 98 e al documento EA-4/02. Solitamente sono espresse come incertezza estesa ottenuta moltiplicando l'incertezza tipo per il fattore di copertura *k* corrispondente ad un livello di fiducia di circa il 95 %. Normalmente tale fattore *k* vale 2.

The measurement uncertainties stated in this document have been determined according to the ISO/IEC Guide 98 and to EA-4/02. Usually, they have been estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level of about 95%. Normally, this factor k is 2.

Direzione Tecnica
(Approving Officer)

Enrico Reccagni

Enrico Reccagni

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LAT N° 114

CARATTERISTICHE DELLO STRUMENTO IN TARATURA/ Properties of devices under calibration

Misuratore di pressione elettronico *Electrical pressure gauge*	
Tipo *Model*	Misuratore di pressione elettronico Electrical pressure gauge
Numero di matricola *Serial No.*	1A014ILNH2N
Campo di misura *Scale range*	(0 ... 1000) bar g
Accuratezza dichiarata dal costruttore *Accuracy declared by the manufacturer*	0,1 % FS
Risoluzione *Resolution (scale division)*	0,1 bar
Tag. N. *Tag No.*	--

Procedura di taratura e catena di riferibilità
Calibration procedure and traceability chain

La taratura è stata effettuata in accordo alla linea guida DKD-R 6-1 "Taratura di strumenti di pressione" (versione 03/2014) procedura B, per confronto fra i valori dello strumento in taratura con quelli di riferimento dati dal campione di lavoro.

Calibration was carried out according to DKD-R 6-1 "Kalibrierung von Druckmessgeräten" (Ausgabe 03/2014) procedure B, by comparing the measured values of the calibration item with those of the reference or working standard.

I risultati riportati sono stati ottenuti applicando le procedure n° LMO-PT-01 rev.2

The results have been obtained using the procedures n° LMO-PT-01 rev.2

La catena di riferibilità ha inizio dai campioni di riferimento n° PM1-09

The traceability chain starts from the reference standards n° PM1-09

muniti di certificati validi di taratura, rispettivamente n° D21090

with the relevant valid calibration certificates n° D21090

Luogo di taratura
Place of calibration

Laboratorio WIKA ITALIA - Laboratorio di Modugno (BA)
WIKA ITALY Laboratory - Modugno (BA)

Campione di lavoro
Working Standard

Norma di riferimento (RS) Bilancia di pressione *Reference standard (RS) Dead-weight tester*	
Tipo *Model*	PM1-09
Certificato di taratura *Calibration mark*	D-K-15105/D21090
Campo di misura *Scale range*	(10 ... 2500) bar g
Accuratezza *Accuracy*	0,015 % della lettura + 255 Pa

Operatore
Technichian

Francesco Donatelli

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Condizioni di misura
Measurement conditions

Schema di collegamento *Assembly*	
Fluido utilizzato	Sebacate
Pressure medium	*Sebacate*
Livello di riferimento	Superficie di tenuta DUT
Refence height (for reference value)	*Sealing face DUT*
Posizione di montaggio	verticale
Position during calibration	*vertical*

Note di taratura
Calibration Note

Lo strumento è stato tarato e riconsegnato nelle stesse condizioni in cui è arrivato nel laboratorio, in accordo con il metodo "as found as left" / The device under test (DUT) was calibrated in the same conditions it was arrived in laboratory, according to the method "as found as left".

Condizioni Ambientali
Environmental conditions

Temperatura *Temperature*	(22 ± 1,5)	°C
Pressione atmoferica *Atmospheric pressure*	(1016,6 ± 0,2)	hPa
Umidità relativa *Rel. Humidity*	(50 ± 15)	% UR

I dati meteo sono stati acquisiti tramite stazione meteo WIKA CPU6000-W s/n.1A00VCX6GJ2

Weather data were acquired via the WIKA CPU6000-W weather station s/n.1A00VCX6GJ2

Misure rilevate
Measurement results

Valore di riferimento *Reference value RS* bar	**Letture** *Reading DUT* bar		
	M1	**M2**	**M3**
0,00	0,0	0,0	0,0
99,91	99,9	100,0	99,9
199,82	199,9	199,9	199,9
299,72	299,8	299,9	299,8
399,63	399,7	399,8	399,7
499,53	499,6	499,6	499,6
599,43	599,5	599,5	599,5
699,33	699,3	699,4	699,4
799,24	799,2	799,2	799,2
899,13	899,1	899,1	899,1
999,03	999,0	999,0	999,0

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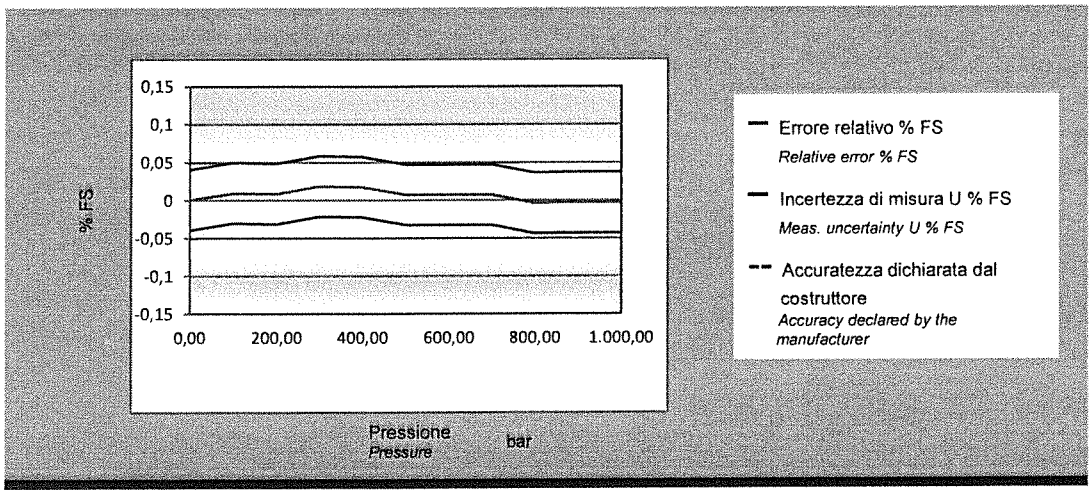
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Incertezza di misura
Uncertainty of measurement

Valori di riferimento *Reference value RS* bar	Media delle misure *Mean value* bar	Errore *Error* bar	Ripetibilità *Repeatability* bar	Isteresi *Hysteresis* bar	Incertezza di misura *Meas. Uncertainty* bar
0,00	0,0	0,0	0,0	0,0	0,40
99,91	100,0	0,1	0,0	0,1	0,40
199,82	199,9	0,1	0,0	0,0	0,40
299,72	299,9	0,2	0,0	0,1	0,40
399,63	399,8	0,2	0,0	0,1	0,40
499,53	499,6	0,1	0,0	0,0	0,40
599,43	599,5	0,1	0,0	0,0	0,40
699,33	699,4	0,1	0,1	0,1	0,40
799,24	799,2	0,0	0,0	0,0	0,40
899,13	899,1	0,0	0,0	0,0	0,40
999,03	999,0	0,0	0,0	0,0	0,40

Grafico degli errori di misura
Graphical representation of measurement uncertainty



L'incertezza estesa senza correzione del DUT è pari a 0,6 bar
The expanded uncertainty of the DUT without correction is equal to

Questo dato è ottenuto come MAX{Incertezza_di_misura$_i$ + |Errore$_i$|} della tabella precedente
This data is obatined as MAX{Meas._uncertainty$_i$ + |Error$_i$|} of the previous table

Il presente certificato non rappresenta una dichiarazione di conformità a specifica
This certificate is not a statement of compliance

Base Load Power Hub (BLPH)

TEST PACK

N°63-00-TP-025
SUB-SYSTEM N° 63-00

System	63
Sub-System	63-00
Test Pressure	18 barg
Test Fluid	WATER
Test Duration	30 min

Rev.	Date	Prepared by	Checked by
0	27/09/2024	J.Q.	L.M.

List of Contents

1. COLOURED MARKED P&IDs
2. PIPING TEST 3D CIRCUIT
3. MATERIAL LIST FOR TEST
4. EXTRACT OF LINE LIST
5. ISOMETRIC RED-MARKED DRAWINGS & EXTRACT OF ISO LIST
6. EXTRACT OF SUPPORT LIST AND DETAILS
7. WELDING REGISTER & MATERIAL TRACEABILITY RECORD
8. PIPING & VESSEL PRE-COMMISSIONING CONFORMITY CHECKS & TESTS:
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   - 8.2 CLX02B - Pipework After Test
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   - 8.4 CXX02 – Painting Line
   - 8.5 TMX03 – Cleaning
   - 8.6 TMX05 – Pressure test
   - 8.7 TMX25 – Gross Air Leak Test – NOT APPLICABLE
   - 8.8 TMX27 – Bolt Tensioning / Torquing
   - 8.9 TPLX05 - Drying

1. COLOURED MARKED P&IDs

DRAWING NO. DRAWING_NO.

REV. REV

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
CAPACITY : 313 Sm³/h (PRODUCTION)

A-64000
NITROGEN GENERATION SYSTEM
CAPACITY : 52.7 Sm³/h (PRODUCTION)

63-00-TP-025
18.00 barg

SUCTION 63 PI 001 | DISCHARGE 63 PI 002 | COMMON ALARM 63 XA 001 | MCC DEVICE COMMS FAIL 63 XI 001 | AVAILABLE STATUS 63 XI 002 | RUN/STOP STATUS 63 XI 003 | SHUTDOWN STATUS 63 XI 004 | SHUTDOWN ALARM 63 XA 002 | ESD I

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
SEE VENDOR DRAWING 1724000428-PR-PID-00019 NOTE 2, 3, 4, 5, 6
03

ESD I → FAULT PACKAGE 63 XA 003
ESD I → 63-XS-001 SHUT-DOWN
NOTE 14

03 **V-63001**
AIR RECEIVER
SEE VENDOR DRAWING 1724000428-PR-PID-00019
63 TP 040
2" | 2"x1.1/2"

1-1/2"-IA-263-01SS-N

03 63 TP 041 2"x1.1/2"
LO BLPH-MV-149
1-1/2"-IA-108-01SS-N

63 PI 004 LL
ESD I
63 PT 004
63 PI 003 L
63 PT 003
INSTR. PIPING
BLPH-MV-150 3/4" FLG x 1/2" NPTF
BLPH-MV-151 3/4" FLG x 1/2" NPTF
123A90-DDL-PR-PID-80041 TO INSTRUMENT AIR DISTRIBUTION HEADER

03 63 TP 039
BLPH-MV-269 SB LO
1"-WW-079-01CS-H
123A90-DDL-PR-PID-80025 TO BRINE DISCHARGE CAISSON

BLPH-MV-270 LO 1.1/2"
1-1/2"-IA-204-01SS-N
123A90-DDL-PR-PID-80041 FROM INSTRUMENT AIR DISTRIBUTION HEADER 03

03 CONC. RED. 1.1/2"x1" 64 TP 043
ESD I
TO SAFE LOCATION
2"-AV-224-01CS-N
03 64 TP 045

NOTE 15 64 PI 002 L LL
64 HS 031
64 PIC 031A H L
64 PIC 031B H L
64 PT 031A
64 PT 031B
64 PT 002
NOTE 1, 12 SET @ 10 barg 1D2 64 PSV 001
NOTE 10 TO ATM
2"-AV-160-01CS-N
1.5" x 1"
SB BLPH-MV-278 FB-LO 1.1/2"
1-1/2"-N-197-01CS-N
1.5" x 1"

1"-N-101-01CS-N → 123A90-DDL-PR-PID-80028 TO HYDROGEN VENT HEADER
1"-N-125-03HSS-N → 123A90-DDL-PR-PID-80017 TO HYDROGEN STORAGE VESSEL C
1"-N-124-03HSS-N → 123A90-DDL-PR-PID-80016 TO HYDROGEN STORAGE VESSEL B
1"-N-028-03HSS-N → 123A90-DDL-PR-PID-80015 TO HYDROGEN STORAGE VESSEL A
1"-N-126-03HSS-N → 123A90-DDL-PR-PID-80018 TO HYDROGEN STORAGE VESSEL D
1"-N-127-03HSS-N → 123A90-DDL-PR-PID-80019 TO HYDROGEN STORAGE VESSEL E
1"-N-128-03HSS-N → 123A90-DDL-PR-PID-80020 TO HYDROGEN STORAGE VESSEL F
1"-N-151-01CS-N → 123A90-DDL-PR-PID-80011 TO ELECTROLYSER PACKAGE
1" N-257-03HSS-N
UPPER LEVEL
LOWER LEVEL
64 SDY 001
64 SDV 001
NOTE 13
NC-FC TYP.2
01CS 03HSS

A-64000
NITROGEN SYSTEM
SEE VENDOR DRAWING 1724000437-PR-PID-00018
03

64 TP 042
BLPH-MV-271 SB LO
1"-N-158-01CS-N
3/4" LC BLPH-MV-275 NOTE 16
64 TP 044
1"-N-262-01CS-N
INSTR. PIPING
64 PV 031A
64 PV 031B
FL-DC TYP.6 1"
BLPH-MV-386 3/4" FLG x 1/2" NPTF
BLPH-MV-166 3/4" FLG x 1/2" NPTF
BLPH-MV-167 3/4" FLG x 1/2" NPTF
1"-N-100-01CS-N
N-158 N-100

ESD I → FAULT PACKAGE 64 XA 003
64-XS-001 SHUT-DOWN ESD I
NOTE 14

03 64 TP 046 **V-64001**
NITROGEN RECEIVER
SEE VENDOR DRAWING 1724000437-PR-PID-00018
03

NOTES

1. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
2. COMPRESSORS AND DRIERS DESIGNED FOR 2 X 100% CONFIGURATION. INSTRUMENT AIR RECEIVER DESIGNED FOR 1 X 100%.
3. VENDOR TO PROVIDE NECESSARY CONTROLS, INSTRUMENTATIONS AND ISOLATIONS IN ORDER TO OPERATE THE PLANT IN SAFE MANNER.
4. COMPRESSORS WILL OPERATE ON THE BASIS OF ONE WORKING AND ONE ON STANDBY.
5. COMPRESSORS TO BE ROTARY SCREW TYPE OIL FREE.
6. AIR COMPRESSOR INLET TO BE LOCATED AWAY FROM ANY VENTS.
7. DELETED.
8. DELETED.
9. DELETED.
10. TO SAFE LOCATION, ROUTED AWAY FROM WALKWAYS.
11. DELETED.
12. 64-PSV-001 SIZED FOR UPSTREAM 64-PV-031 CV FAILURE. (03)
13. 64-SDV-001 IS NORMALLY CLOSED. IF REQUIRED THE OPERATOR CAN REMOTELY OPEN THE VALVE TO ALLOW PURGING OPERATION. VALVE 64-SDV-001 IS ALSO CONNECTED TO THE PCS SYSTEM.
14. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
15. THE ALARM 64-PAL-002 WILL CLOSE 64-SDV-001 THROUGH SAFETY SYSTEM.
16. MANUAL VALVE BLPH-MV-275 TO BE CONNECTED WITH MANUAL VALVE BLPH-MV-466 (INSTALLED ON ELECTROLYSER PACKAGE EXIT LINE) BY MEAN ON A FLEXIBLE HOSE DURING COMMISSIONING PHASE FOR PURGING OPERATION. (03)

HOLDS

1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

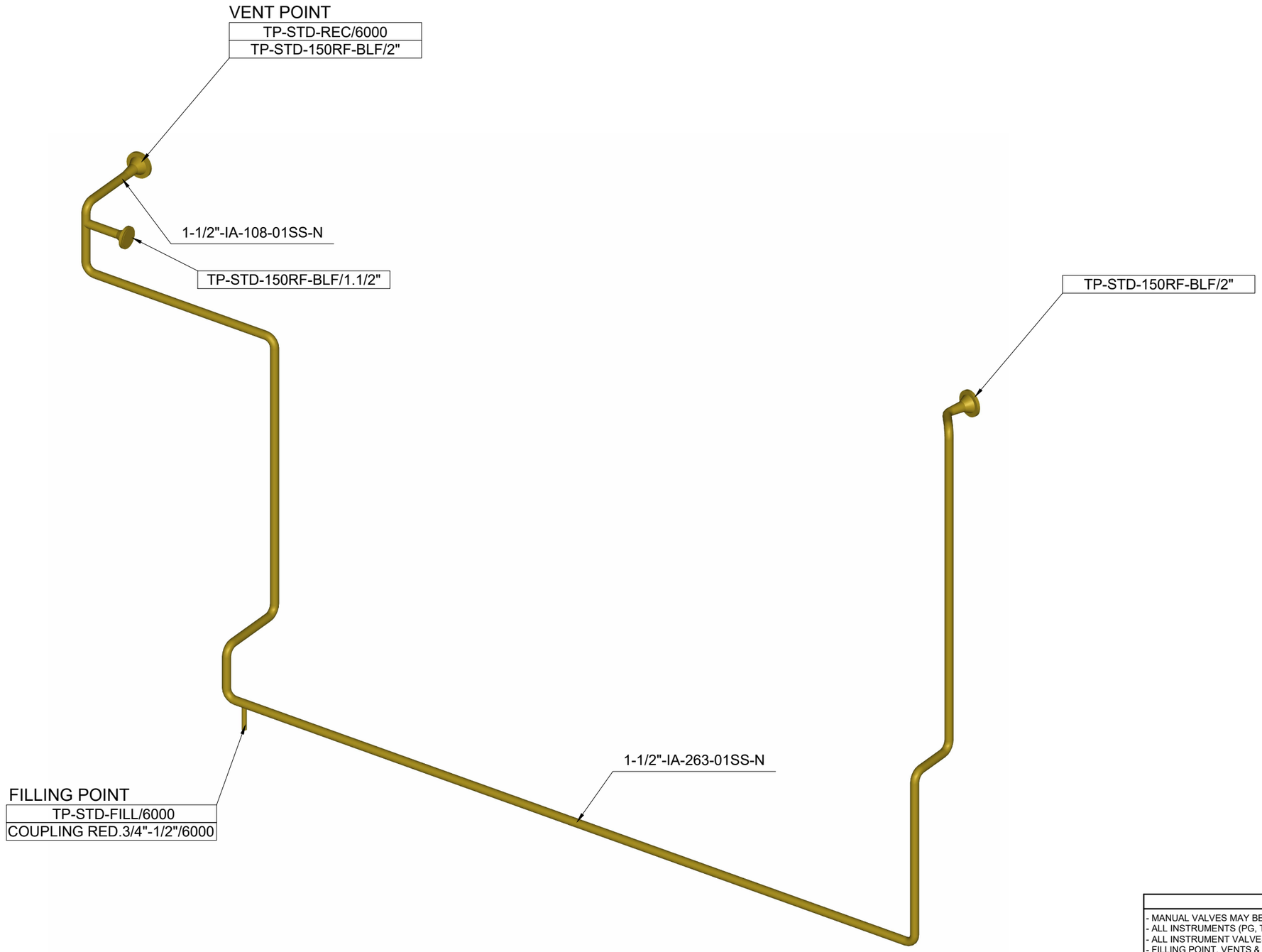
ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80027		SHEET 001	REV. 03

File Name : FILE_NAME

2. HYDROSTATIC TEST 3D CIRCUIT



63-00-TP-025

18 barg

NOTES

- MANUAL VALVES MAY BE EXCLUDED FROM THE TEST
- ALL INSTRUMENTS (PG, TT, etc.) SHALL BE EXCLUDED FROM THE TEST
- ALL INSTRUMENT VALVES (SDV, PCV, etc.) SHALL BE EXCLUDED FROM THE TEST
- FILLING POINT, VENTS & DRAINS SHALL BE DEFINED ON SITE AS FOR REAL TEST CIRCUIT CONFIGURATION

REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	27-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

CROSSWIND

ROSETTI MARINO

HOLLANDSE KUST NOORD WIND PARK

PIPING TEST 3D CIRCUIT
63-00-TP-025

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	N/A	00	1 OF 1

3. MATERIAL LIST FOR TEST

CROSSWIND / ROSETTI MARINO	CONTRACTOR: Rosetti Marino SpA	JOB :	123A90
	PROJECT: Base Load Power Hub (BLPH)	DATE :	20/09/2024
	TITLE: MATERIAL LIST FOR HYDROSTATIC TEST	REV. :	00

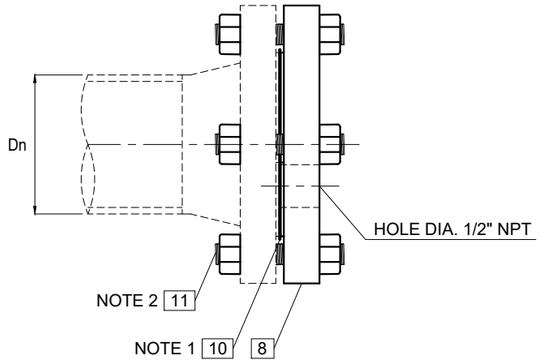
TEST REF.	TYPICAL ITEM CODE	ROSETTI CODE	ROSETTI DESCRIPTION	Q.TY X SINGLE STD	Q.TY STD X TP	Q.ty x TP	NOTES
ALL TEST	TP-STD-FILL/6000	1EQP252	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5	1	5	
ALL TEST	TP-STD-FILL/6000	N100SS02660H00	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	7	1	7	
ALL TEST	TP-STD-FILL/6000	TEEFSS00060H00	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	3	1	3	
ALL TEST	TP-STD-FILL/6000	1MECH069	Adapter THRD-M NPT x BSPP ø1/2" 400 bar ASTM A182 Gr.F316/316L	2	1	2	
ALL TEST	TP-STD-REC/6000	1EQP252	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4	1	4	
ALL TEST	TP-STD-REC/6000	N100SS02660H00	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	9	1	9	
ALL TEST	TP-STD-REC/6000	TEEFSS00060H00	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	2	1	2	
ALL TEST	TP-STD-REC/6000	CAPFSS00200H00	Cap Forged THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
ALL TEST	TP-STD-REC/6000	CPL0SS00240H00	Coupling THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
ALL TEST	TP-STD-REC/6000	E900SS00340H00	90 Deg Elbow THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
ALL TEST	TP-STD-PLGNPT/1/2"	PLGHSS00090H00	Plug Hex. Head THRD-M NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
TP-025	/	CPLRSS00233Q0H	Coupling Reducing ASME B16.11 THRD-F NPT 6000# FRG ASTM A182 Gr.F316/316L	-	-	1	
TP-025	TP-STD-150RF-BLF/1.1/2"	FLBHCS00241H0H	Flange Blind c/w NPT Hole ø1.1/2"x1/2" 150LB RF ASTM/ASME A/SA105	1	1	1	
TP-025	TP-STD-150RF-BLF/1.1/2"	GSW0GK11121H00	Gasket Spiral Wound Thk. 3.2 mm ø1.1/2" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	1	1	1	
TP-025	TP-STD-150RF-BLF/1.1/2"	SB20BO00980200	Stud Bolt + 2 Heavy Nuts 1/2" L=80MM ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	1	4	
TP-025	TP-STD-150RF-BLF/2"	FLBHCS0007020H	Flange Blind c/w NPT Hole ø2"x1/2" 150LB RF ASTM/ASME A/SA105	1	2	2	
TP-025	TP-STD-150RF-BLF/2"	GSW0GK11130200	Gasket Spiral Wound Thk. 3.2 mm ø2" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	1	2	2	
TP-025	TP-STD-150RF-BLF/2"	SB20BO00680300	Stud Bolt + 2 Heavy Nuts 5/8" L=100MM ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	2	8	

STD NAME	RATING	DESCRIPTION
TP-STD-150RF	150 RF	STANDARD FOR BLIND POINT

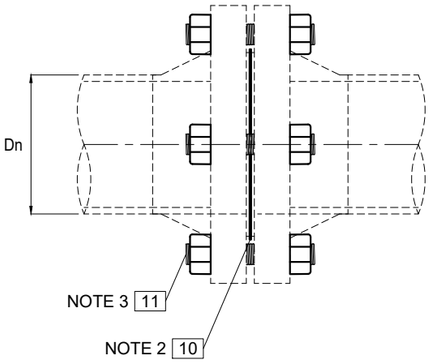
TP-STD-150RF-BLF/Dn
TP-STD-150RF-GSK/Dn

MATERIAL LIST

STD	POS.	DESCRIPTION	Q.TY
TP-STD-150RF-___/1/2"	8	Flange Blind c/w NPT Hole ø1/2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1/2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=60 MM	4
TP-STD-150RF-___/3/4"	8	Flange Blind c/w NPT Hole ø3/4"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø3/4" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=65 MM	4
TP-STD-150RF-___/1"	8	Flange Blind c/w NPT Hole ø1"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=65 MM	4
TP-STD-150RF-___/1.1/4"	8	Flange Blind c/w NPT Hole ø1.1/4"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1.1/4" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=70 MM	4
TP-STD-150RF-___/1.1/2"	8	Flange Blind c/w NPT Hole ø1.1/2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1.1/2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=70 MM	4
TP-STD-150RF-___/2"	8	Flange Blind c/w NPT Hole ø2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=85 MM	4
TP-STD-150RF-___/2.1/2"	8	Flange Blind c/w NPT Hole ø2.1/2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø2.1/2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=90 MM	4
TP-STD-150RF-___/3"	8	Flange Blind c/w NPT Hole ø3"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø3" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=90 MM	4
TP-STD-150RF-___/4"	8	Flange Blind c/w NPT Hole ø4"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø4" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=90 MM	8
TP-STD-150RF-___/6"	8	Flange Blind c/w NPT Hole ø6"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø6" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 3/4" L=105 MM	8
TP-STD-150RF-___/8"	8	Flange Blind c/w NPT Hole ø8"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø8" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 3/4" L=110 MM	8
TP-STD-150RF-___/10"	8	Flange Blind c/w NPT Hole ø10"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø10" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 7/8" L=120 MM	12
TP-STD-150RF-___/12"	8	Flange Blind c/w NPT Hole ø12"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø12" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 7/8" L=125 MM	12
TP-STD-150RF-___/14"	8	Flange Blind c/w NPT Hole ø14"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø14" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1" L=135 MM	12
TP-STD-150RF-___/16"	8	Flange Blind c/w NPT Hole ø16"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø16" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1" L=140 MM	16
TP-STD-150RF-___/18"	8	Flange Blind c/w NPT Hole ø18"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø18" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1.1/8" L=150 MM	16
TP-STD-150RF-___/20"	8	Flange Blind c/w NPT Hole ø20"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø20" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1.1/8" L=160 MM	20
TP-STD-150RF-___/24"	8	Flange Blind c/w NPT Hole ø24"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø24" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1.1/4" L=175 MM	20



TP-STD-150RF-BLF/Dn
BLIND FLANGE



TP-STD-150RF-GSK/Dn
GASKET ONLY

NOTES

1. GASKET MATERIAL AS PER PIPING CLASS
2. STUD BOLTS AND NUTS MATERIAL AS PER TEST MTO

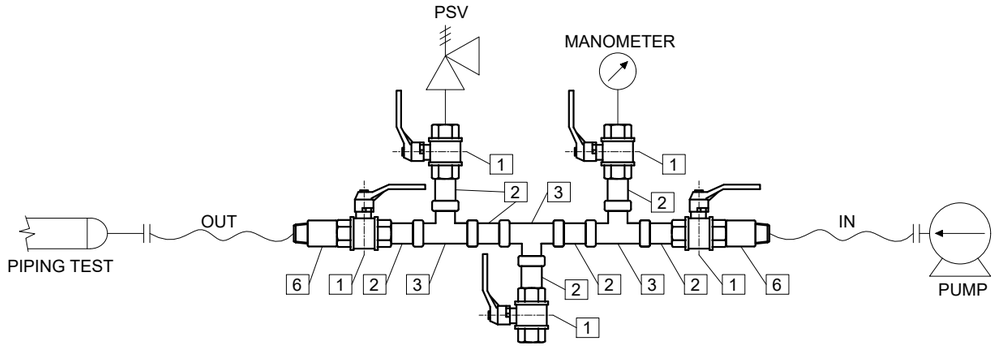
REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	06-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

ROSETTI MARINO

PIPING TEST STANDARD DRAWING
TP-STD-150RF
TP-STD-150RF-BLF/Dn
TP-STD-150RF-GSK/Dn

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	TP_STD_150RF	00	1 OF 1

STD NAME	RATING	DESCRIPTION
TP-STD-FILL	3000 / 6000 / 9000	STANDARD FOR FILLING POINT
TP-STD-FILL/RATING		



TP-STD-FILL/RATING

FILLING POINT 3000/6000/9000

MATERIAL LIST

STD	POS.	DESCRIPTION	Q.TY
TP-STD-FILL/3000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5
	2	Nipple L=100mm TBE ø1/2" Thk.3.73mm ASTM A312 Gr.TP316/316L	7
	3	Tee Forged THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	3
	6	Adapter THRD-M NPT x BSPP ø1/2" 400 bar ASTM A182 Gr.F316/316L	2
TP-STD-FILL/6000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5
	2	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	7
	3	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	3
	6	Adapter THRD-M NPT x BSPP ø1/2" 400 bar ASTM A182 Gr.F316/316L	2
TP-STD-FILL/9000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5
	2	Nipple L=100mm TBE ø1/2" Thk.7,47mm ASTM A312 Gr.TP316/316L	7
	3	Tee Forged THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	3
	6	Adapter THRD-M NPT x BSPP ø1/2" 523 bar 304SS	2

NOTES

REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	06-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

ROSETTI MARINO

PIPING TEST STANDARD DRAWING

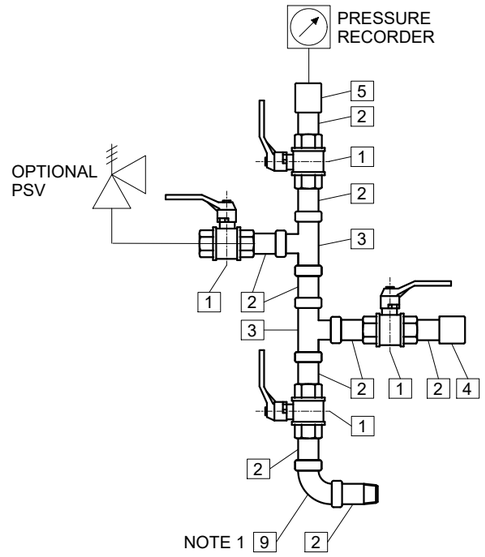
TP-STD-FILL

TP-STD-FILL/RATING

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	TP_STD_FILL	00	1 OF 1

STD NAME	RATING	DESCRIPTION
TP-STD-REC	3000 / 6000 / 9000	STANDARD FOR RECORDING POINT

TP-STD-REC/RATING



TP-STD-REC/RATING
RECORDING POINT 3000/6000/9000

MATERIAL LIST

STD	POS.	DESCRIPTION	Q.TY
TP-STD-REC/3000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4
	2	Nipple L=100mm TBE ø1/2" Thk.3.73mm ASTM A312 Gr.TP316/316L	9
	3	Tee Forged THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	2
	4	Cap Forged THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	1
	5	Coupling THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	1
	9	90 Deg Elbow THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	1
TP-STD-REC/6000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4
	2	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	9
	3	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	2
	4	Cap Forged THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1
	5	Coupling THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1
	9	90 Deg Elbow THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1
TP-STD-REC/9000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4
	2	Nipple L=100mm TBE ø1/2" Thk.7,47mm ASTM A312 Gr.TP316/316L	9
	3	Tee Forged THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	2
	4	Cap Forged THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	1
	5	Coupling THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	1
	9	90 Deg Elbow THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	1

NOTES

1. 90 DEG ELBOW SHALL BE INSTALLED WHERE APPLICABLE ONLY

REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	06-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

ROSETTI MARINO

PIPING TEST STANDARD DRAWING
TP-STD-REC
TP-STD-REC/RATING

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	TP_STD_REC	00	1 OF 1

4. EXTRACT OF LINE LIST

Isometric N°	Short Line N°	Sequential Number	Size [in]	Piping Class	Insulation Type	Pipe Wall Thicknes [mm]	Pipe Schedule	Tracing	Line Number	PID Number	Design Pressure [barg]	Commissioning System Code	Commissioning SubSystem Code	Test Pack N°	Test Fluid	Test Pressure [barg]	Fluid Service	Class Base Material	Line INF/SUP/TL	Ped Category	Painting System	Line Base Ral
36	IA-108	108	1.1/2	01SS	N	3,68	40S	N/A	1-1/2"-IA-108-01SS-N	123A90-DDL-PR-PID-80027	12,00	63	63-00 / 63-30	TP-025/TP-027	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002
127	IA-263	263	1.1/2	01SS	N	3,68	40S	N/A	1-1/2"-IA-263-01SS-N	123A90-DDL-PR-PID-80027	12,00	63	63-00	TP-025	Water	18.00	Instrument Air	Stainless Steel	INF	Art. 4, par. 3	6A	RAL 9002

5. ISOMETRIC RED MARKED DRAWING & EXTRACT OF ISO LIST

CROSSWIND

ROSETTI MARINO

PROJECT

BASE LOAD POWER HUB (BLPH)

JOB **123A90**

DOCUMENT NR **123A90-FDL-ST-LIS-00001**

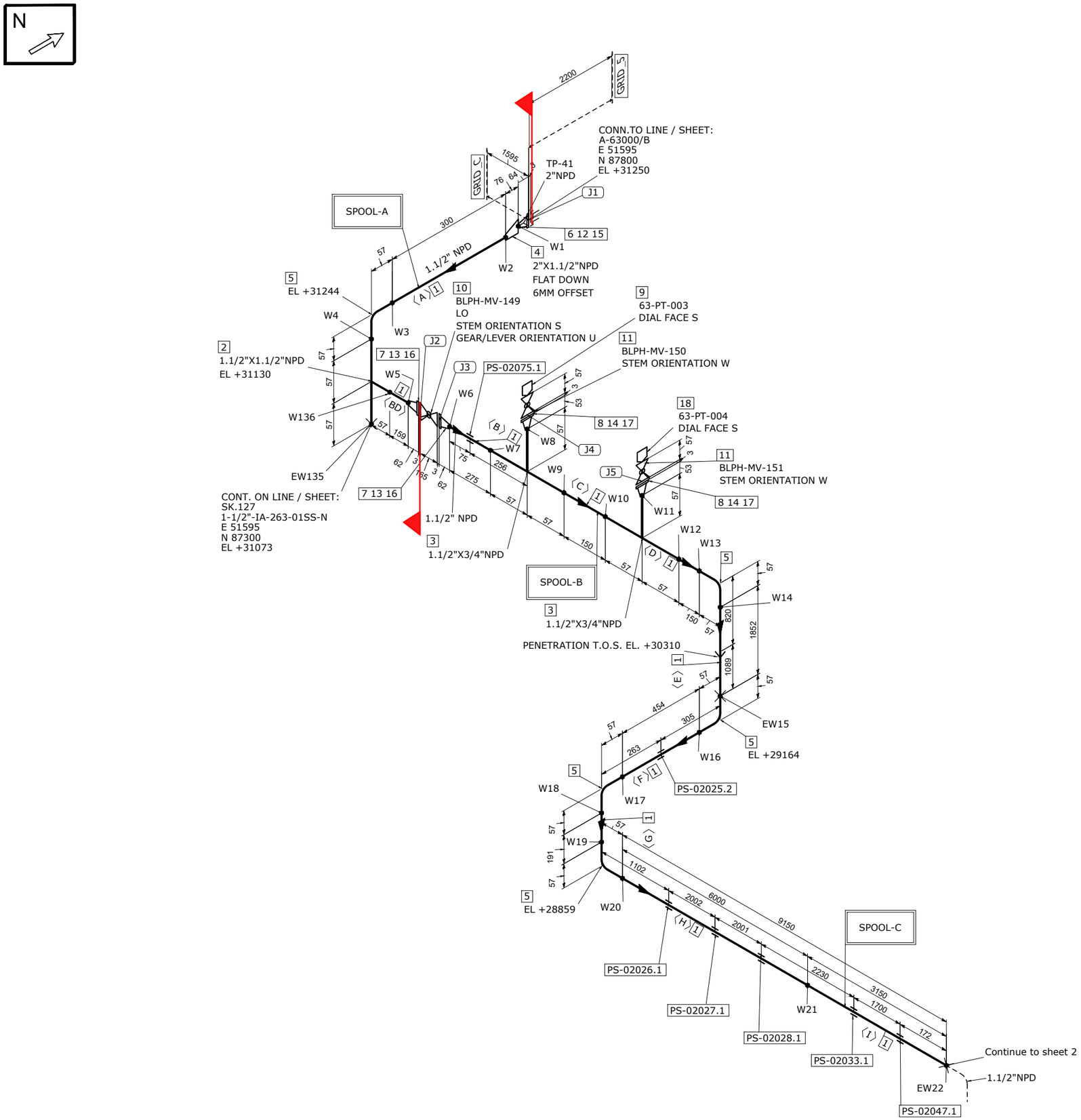
REV. **05**

TITLE

SHOP DRAWING ISOMETRIC LIST

DATE **17/09/2024**

POS.	DOCUMENT NR	ROSETTI SKETCH NR	SHEET	DOCUMENT TITLE	Rev. 00	Rev. 01	Rev. 02	Rev. 03	Rev. 04	Rev. 05	Rev. 06	Rev. 07	Rev. 08	Rev. 09	Rev. 10	Mark-up Rev.	Mark-up Data	LAST REV	LIST REV	NOTES	TEST PACK NR
49	123A90-FDL-PP-DI-00036-01	**036**	01	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-108-01SS-N	27/08/2024													**00**	**03**		**TP-025/TP-027**
162	123A90-FDL-PP-DI-00127-01	**127**	01	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-263-01SS-N	20/08/2024													**00**	**02**		**TP-025**
163	123A90-FDL-PP-DI-00127-02	**127**	02	SHOP DRAWING ISOMETRIC - LINE NR 1-1/2"-IA-263-01SS-N	20/08/2024													**00**	**02**		**TP-025**



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	12.5M	51.5
2	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	1.1/2X3/4	TER0SS03751H3Q	Tee Reducing ASME B16.9 BW 3,68x2,87 WRS ASTM A403 Gr.WP316/316L	2	1.5
4	2X1.1/2	REE0SS0242021H	Reducer Eccentric ASME B16.9 BW 2,77x3,68 WRS ASTM A403 Gr.WP316/316L	1	0.3
5	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	5	1.9
6	2	FLW0SS00010200	Flange WN ASME B16.5 150LB RF 2,77 FRG ASTM A182 Gr.F316/316L	1	2.7
7	1.1/2	FLW0SS00941H00	Flange WN ASME B16.5 150LB RF 3,68 FRG ASTM A182 Gr.F316/316L	2	3.7
8	3/4	FLW0SS00923Q00	Flange WN ASME B16.5 150LB RF 2,87 FRG ASTM A182 Gr.F316/316L	2	1.8

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
9	1/2		Pressure Transmitter - Online	1	0.0
10	1.1/2	VBC0NN06961H00	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	12.7
11	3/4X1/2	VLBNNN00033Q0H	Monoflange Block & Bleed Valve API 6D FLG x THRD-F NPT 150LB RF MS01C02Y	2	8.6
12	2	GSW0GK11130200	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	1	0.1
13	1.1/2	GSW0GK11121H00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
14	3/4	GSW0GK11093Q00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
15	5/8	SB20BO00660300	85 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	1.0
16	1/2	SB20BO00930200	70 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
17	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
18	1/2		Pressure Transmitter - Online	1	0.0

FABRICATION WEIGHT [kg]	64.2
ERECTION WEIGHT [kg]	24.6
OVERALL WEIGHT [kg]	88.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	2	BW
W2	1.1/2	BW
W3	1.1/2	BW
W4	1.1/2	BW
W5	1.1/2	BW
W6	1.1/2	BW
W7	1.1/2	BW
W8	3/4	BW
W9	1.1/2	BW
W10	1.1/2	BW
W11	3/4	BW
W12	1.1/2	BW
W13	1.1/2	BW
W14	1.1/2	BW
EW15	1.1/2	BW
W16	1.1/2	BW
W17	1.1/2	BW
W18	1.1/2	BW
W19	1.1/2	BW
W20	1.1/2	BW
W21	1.1/2	BW
EW22	1.1/2	BW
EW135	1.1/2	BW
W136	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1.1/2	300	BEVEL	BEVEL
B	1.1/2	275	BEVEL	BEVEL
C	1.1/2	150	BEVEL	BEVEL
D	1.1/2	150	BEVEL	BEVEL
E	1.1/2	1852	BEVEL	BEVEL
F	1.1/2	454	BEVEL	BEVEL
G	1.1/2	191	BEVEL	BEVEL
H	1.1/2	6000	BEVEL	BEVEL
I	1.1/2	3150	BEVEL	BEVEL
BD	1.1/2	155	BEVEL	BEVEL

SUPPORT LIST

PS-02075.1
PS-02025.2
PS-02026.1
PS-02027.1
PS-02028.1
PS-02033.1
PS-02047.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	9.5	7.3
B	12	15.5
C	9	41.4
MONT	4.5	24.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

SK.036

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 27-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00036 | SHEET / OF: 1/8 | REV.: 00

63-00-TP-025

MASTER

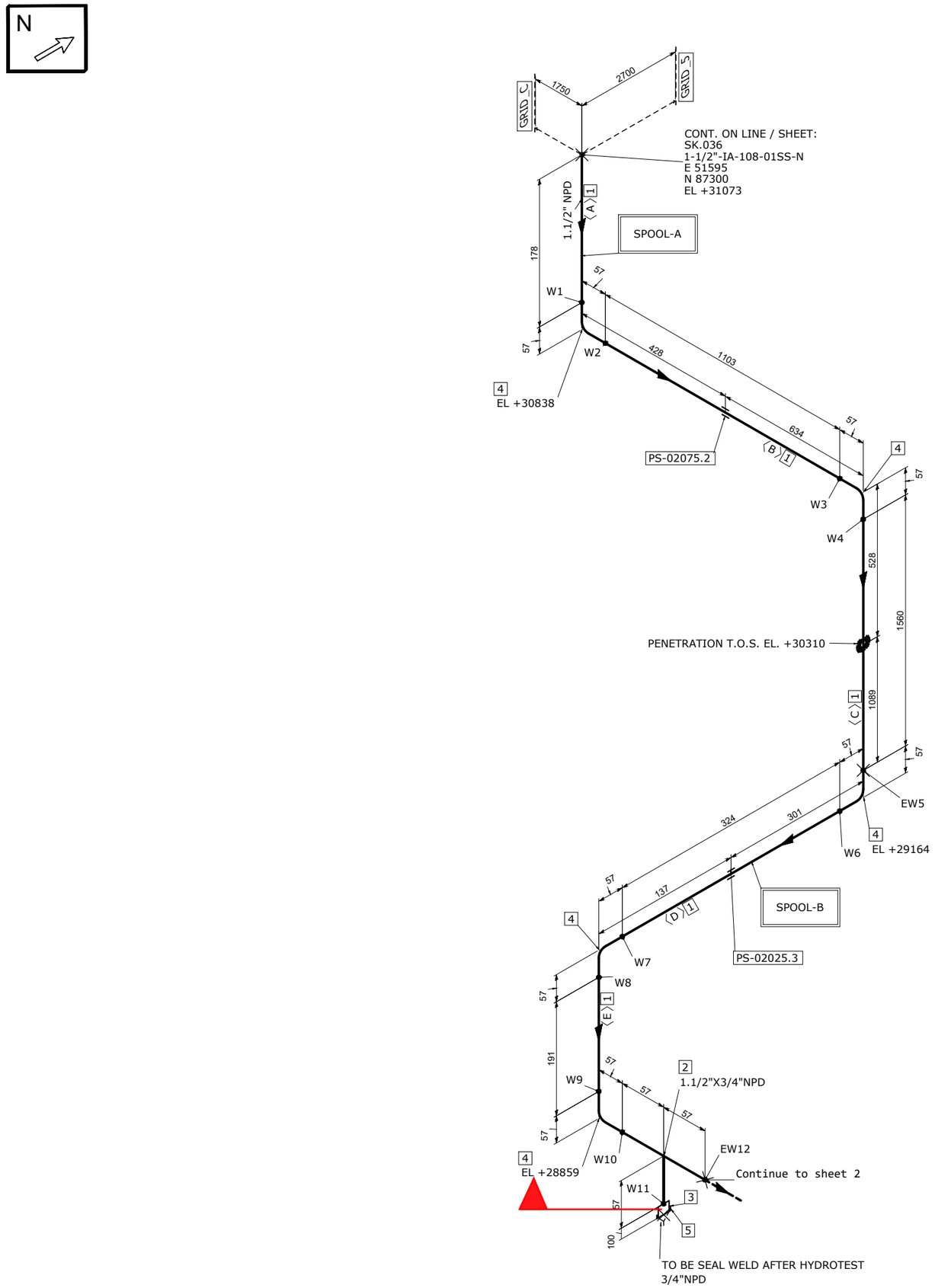
LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	3.2M	13.2
2	1.1/2X3/4	TER0SS03751H3Q	Tee Reducing ASME B16.9 BW 3,68x2,87 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	3/4	N100SS02653Q00	Nipple L=100mm ASME B36.19M THRD-M NPT x PE 2,87 SML ASTM A312 Gr.TP316/316L	1	0.2
4	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	5	1.9

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
5	3/4	CAPFSS00023Q00	Cap Forged ASME B16.11 THRD-F NPT 3000# FRG ASTM A182 Gr.F316/316L	1	0.2

FABRICATION WEIGHT [kg]	16.1
ERECTION WEIGHT [kg]	0.2
OVERALL WEIGHT [kg]	16.1

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1.1/2	BW
W2	1.1/2	BW
W3	1.1/2	BW
W4	1.1/2	BW
EW5	1.1/2	BW
W6	1.1/2	BW
W7	1.1/2	BW
W8	1.1/2	BW
W9	1.1/2	BW
W10	1.1/2	BW
W11	3/4	BW
EW12	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1.1/2	178	BEVEL	BEVEL
B	1.1/2	1103	BEVEL	BEVEL
C	1.1/2	1560	BEVEL	BEVEL
D	1.1/2	324	BEVEL	BEVEL
E	1.1/2	191	BEVEL	BEVEL

SUPPORT LIST

PS-02075.2
PS-02025.3

SPOOL	WELD [inches]	WEIGHT [kg]
A	6	11.8
B	8.25	4.1
MONT	3	0.2

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-263-01SS-N
SK.127

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024
FORMAT: A3
DRAWING NO.: 123A90-FDL-PP-DI-00127
SHEET / OF: 1/2
REV.: 00

63-00-TP-025

MASTER

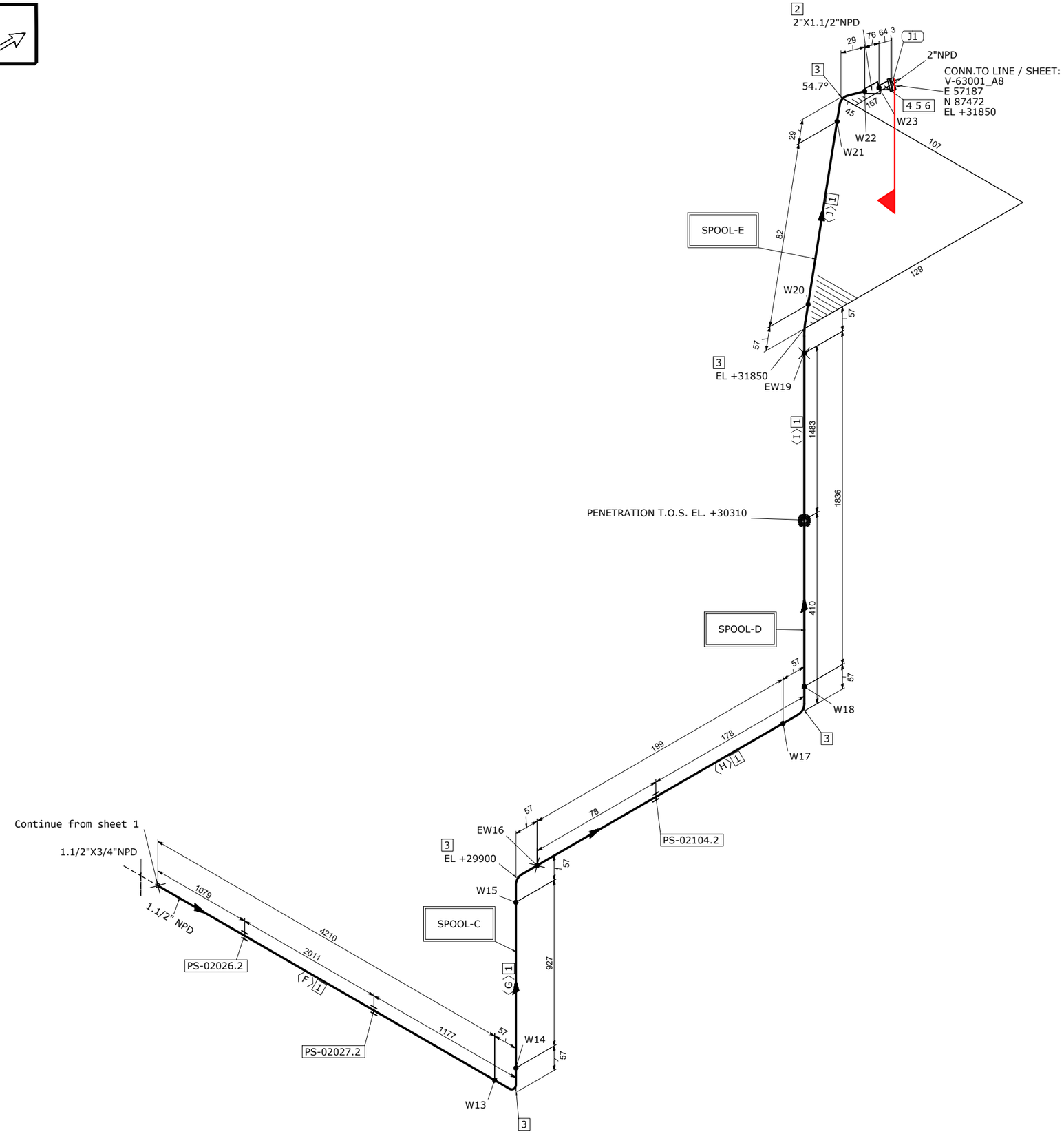
LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	7.3M	29.8
2	2X1.1/2	REC0SS0280021H	Reducer Concentric ASME B16.9 BW 2,77x3,68 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	5	1.9
4	2	FLW0SS00010200	Flange WN ASME B16.5 150LB RF 2,77 FRG ASTM A182 Gr.F316/316L	1	2.7

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
5	2	GSW0GK11130200	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	1	0.1
6	5/8	SB20BO00660300	85 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	1.0

FABRICATION WEIGHT [kg]	34.7
ERECTION WEIGHT [kg]	1.1
OVERALL WEIGHT [kg]	35.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W13	1.1/2	BW
W14	1.1/2	BW
W15	1.1/2	BW
EW16	1.1/2	BW
W17	1.1/2	BW
W18	1.1/2	BW
EW19	1.1/2	BW
W20	1.1/2	BW
W21	1.1/2	BW
W22	1.1/2	BW
W23	2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
F	1.1/2	4210	BEVEL	BEVEL
G	1.1/2	927	BEVEL	BEVEL
H	1.1/2	199	BEVEL	BEVEL
I	1.1/2	1836	BEVEL	BEVEL
J	1.1/2	82	BEVEL	BEVEL

SUPPORT LIST

PS-02026.2
PS-02027.2
PS-02104.2

SPOOL	WELD [inches]	WEIGHT [kg]
C	4.5	21.9
D	3	8.7
E	6.5	4.1
MONT	3	1.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

63-00-TP-025

MASTER

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-263-01SS-N
SK.127

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM
DATE: 20-08-2024
FORMAT: A3
DRAWING NO.: 123A90-FDL-PP-DI-00127
SHEET / OF: 2/2
REV.: 00

LINE DATA

NDT INSPECTION CATEGORY	2			PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002		FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]		DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A			TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

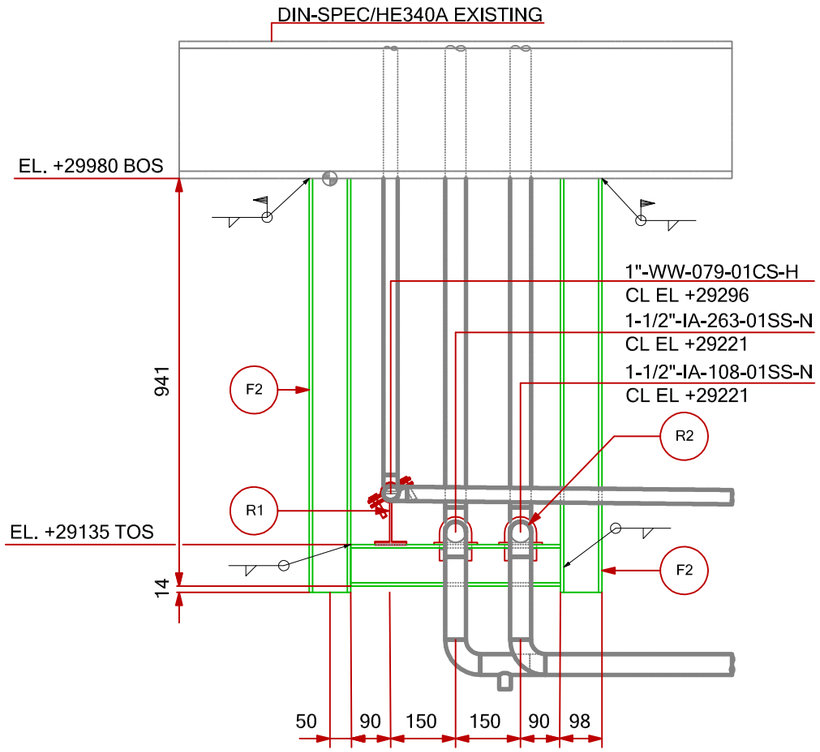
P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

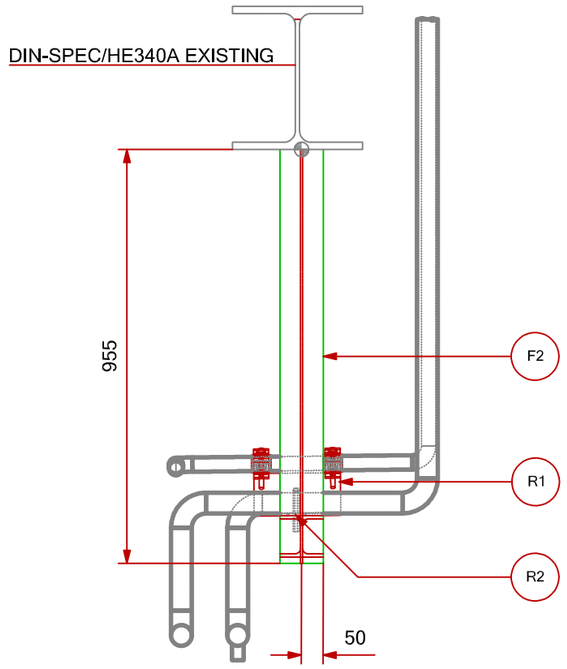
6. EXTRACT OF SUPPORT LIST & DETAILS

SUPPORT LIST

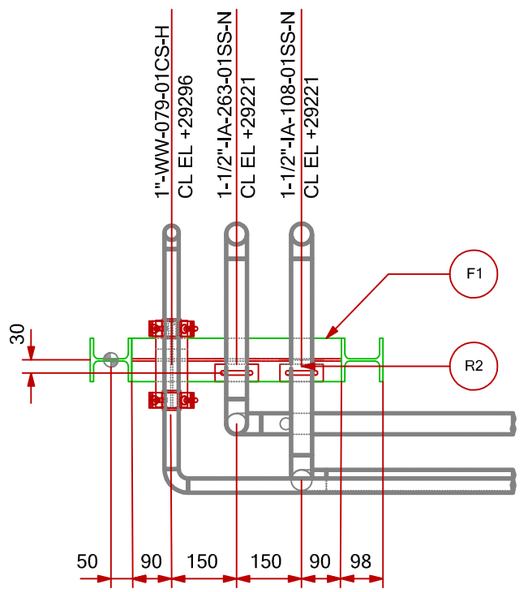
SUPPORT	SUFFIX	SERVICE	DECK IDENTIFICATION	SUB ASSEMBLY	LINE	SUPPORTS STANDARD	NDT CATEGORY	QUANTITY	TOT. WEIGTH (KG)	PAINTING SURFACE (SQM)	REV	DATE	STATUS	NOTES	Test Pack N°
PS-02025	B3	PIP	UPPER DECK		1-1/2"-IA-263-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	00	19/08/2024	IFR		TP-025
PS-02026	B2	PIP	UPPER DECK		1-1/2"-IA-263-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	00	19/08/2024	IFR		TP-025
PS-02027	B2	PIP	UPPER DECK		1-1/2"-IA-263-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	00	19/08/2024	IFR		TP-025
PS-02075	B2	PIP	UPPER DECK		1-1/2"-IA-263-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	00	19/08/2024	IFR		TP-025
PS-02104	B2	PIP	UPPER DECK		1-1/2"-IA-263-01SS-N	S-211 - 1 1/2"		1	0,486	0,000	00	19/08/2024	IFR		TP-025



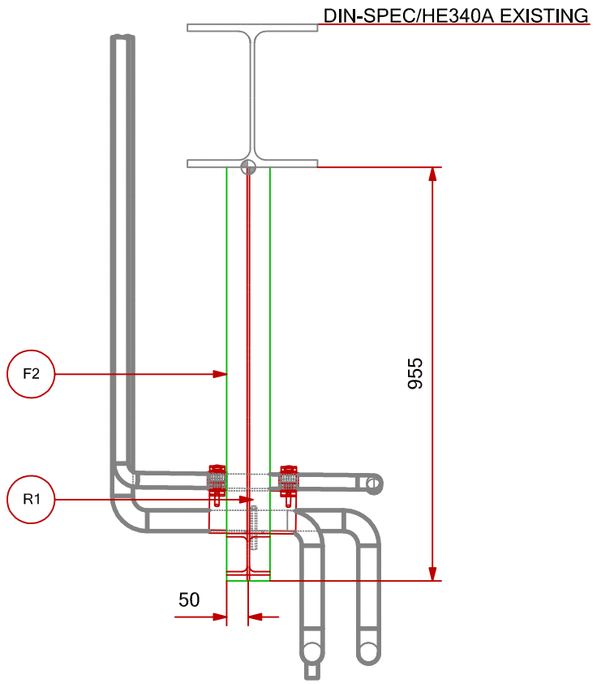
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VIEW LOOKING WEST



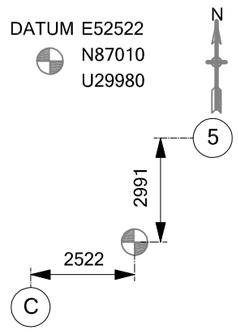
PLAN VIEW

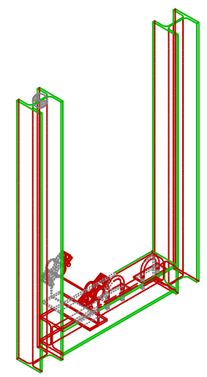


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-75-1"-98-92-200	-	-	1	-	4.64	0.034
R2	STD	S-211-1 1/2"	-	-	2	-	0.49	-
F1	BEAM	HEA100	CarbonSteel	480	1	16.76	8.05	0.274
F2	BEAM	HEA100	CarbonSteel	955	2	16.76	32.00	1.080
						TOTAL	45.7	1.39





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

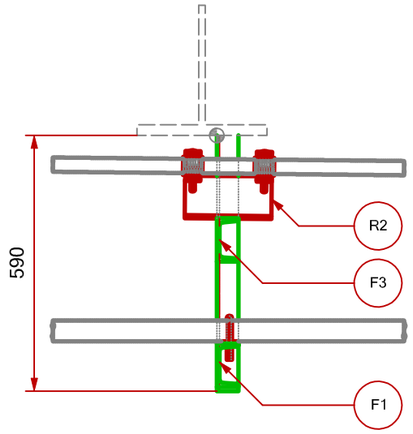
ROSETTI MARINO

TITLE :

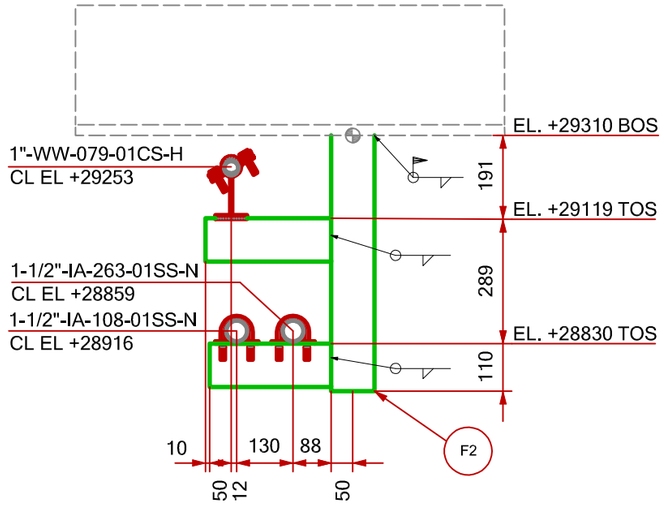
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02025

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	1 : 10
DRAWN	CHECKED / APPROVED	DATE	19/08/24
DRAWING NO.	123A90-DDL-PP-DD-72000	SHEET	1 of 1
		REV.	00

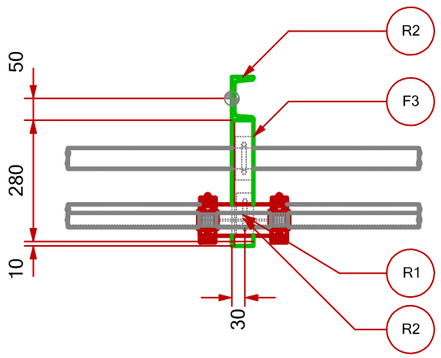
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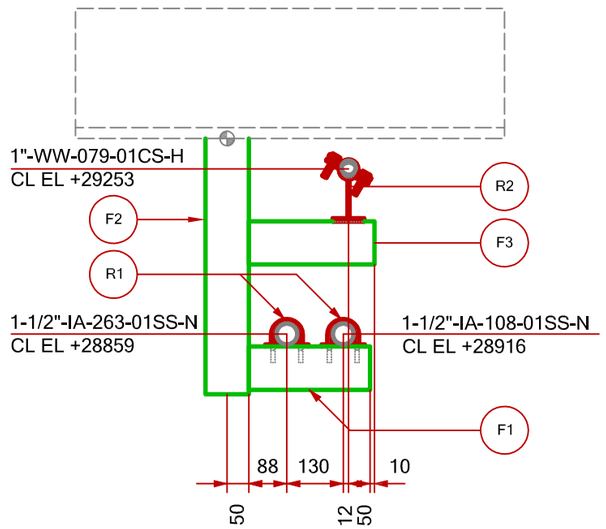
VIEW LOOKING NORTH



VIEW LOOKING WEST



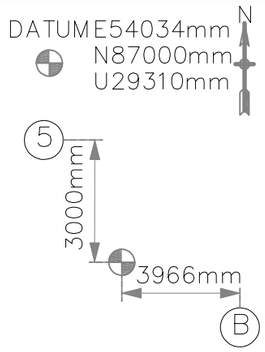
PLAN VIEW

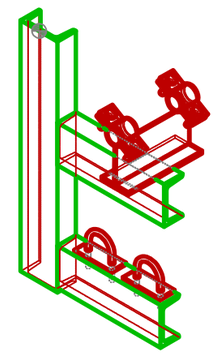


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	2	-	0.49	-
R2	STD	S-75-1"-98-92-200	-	-	1	-	4.64	0.034
F1	BEAM	UPN100	Carbon Steel	280	1	10.57	2.96	0.107
F2	BEAM	UPN100	Carbon Steel	590	1	10.57	6.24	0.222
F3	BEAM	UPN100	Carbon Steel	290	1	10.57	3.07	0.110
						TOTAL	17.9	0.47





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

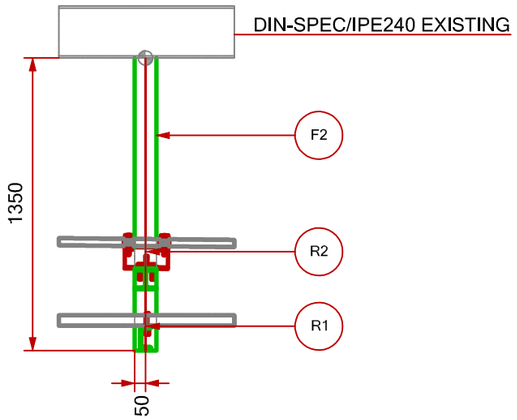
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BASE LOAD POWER HUB (BLPH)
Support Drawings

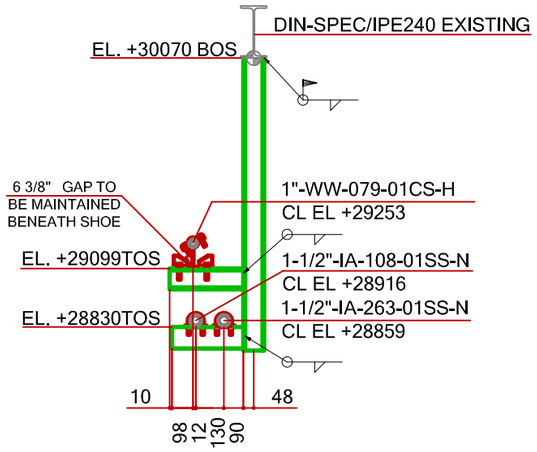
PS-02026

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

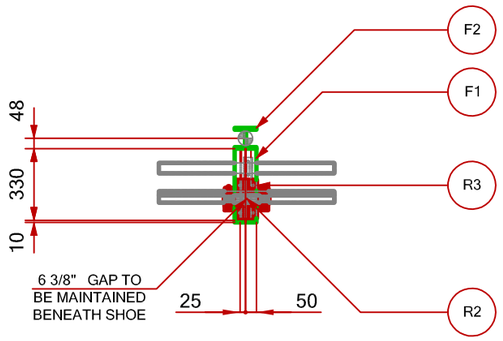
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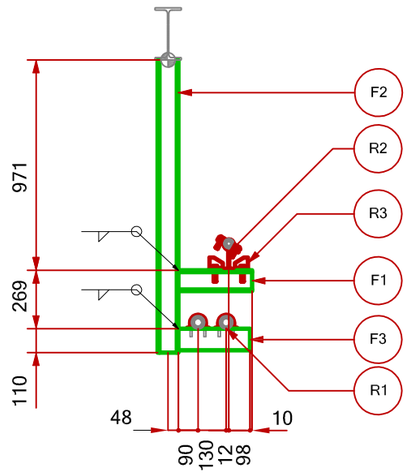
VIEW LOOKING NORTH



VIEW LOOKING WEST



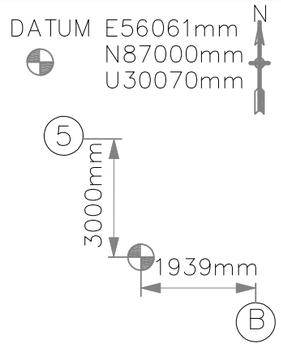
PLAN VIEW

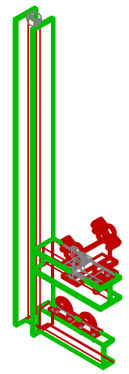


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	2	-	0.49	-
R2	STD	S-75-1"-98-92-200	-	-	1	-	4.64	0.034
R3	STD	C-33-2-A-2	-	-	1	-	4.30	0.044
F1	BEAM	HEA100	Carbon Steel	340	1	16.76	5.70	0.195
F2	BEAM	HEA100	Carbon Steel	1350	1	16.76	22.63	0.762
F3	BEAM	UPN100	Carbon Steel	330	1	10.57	3.49	0.125
						TOTAL	41.7	1.16





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

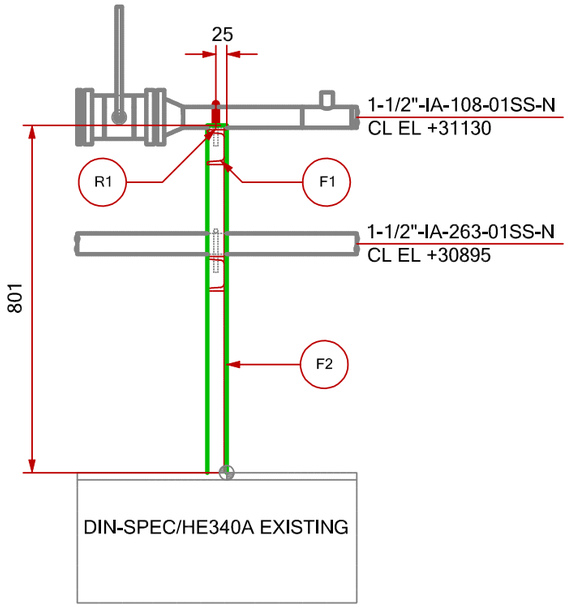
ROSETTI MARINO

TITLE :

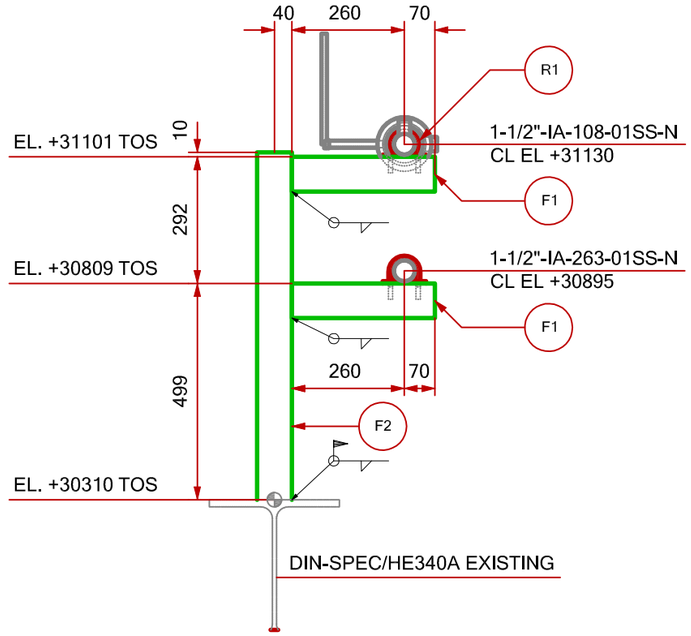
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02027

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 20
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

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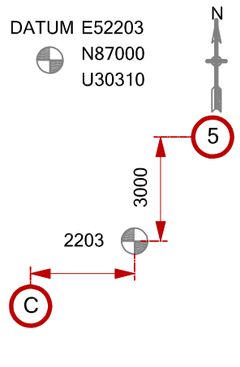
VIEW LOOKING NORTH

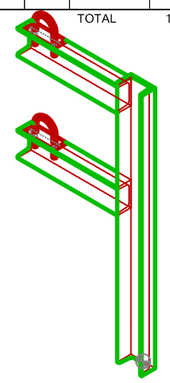


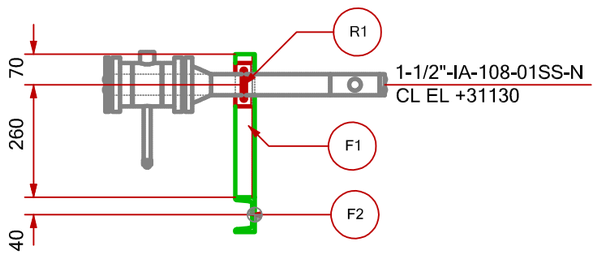
VIEW LOOKING WEST

SUPPORT MATERIAL LIST

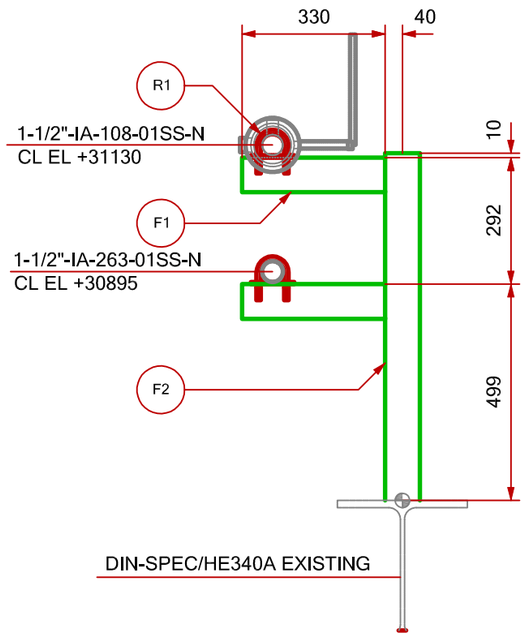
POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-1 1/2"	-	-	2	-	0.49	-
F1	BEAM	UPN80	Carbon Steel	330	2	8.66	5.72	0.212
F2	BEAM	UPN80	Carbon Steel	801	1	8.66	6.94	0.253
						TOTAL	13.6	0.46







PLAN VIEW



VIEW LOOKING EAST

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

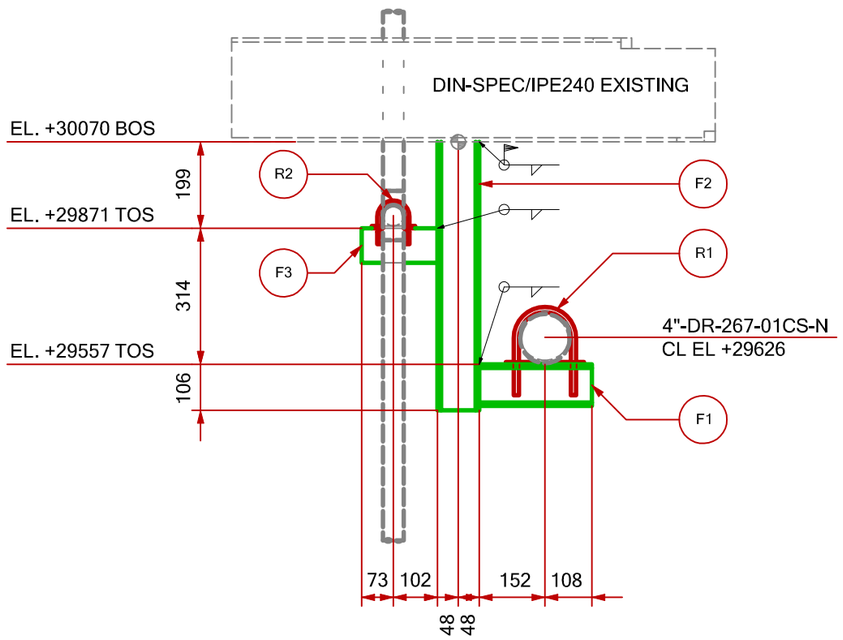
ROSETTI MARINO

TITLE :

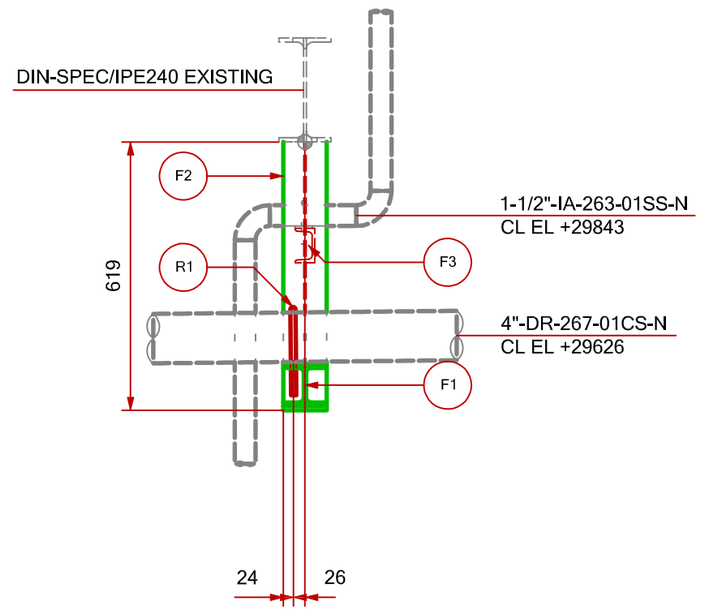
BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02075

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK	SCALE	1 : 10
DRAWN	CHECKED / APPROVED	DATE	19/08/24
DRAWING NO.	123A90-DDL-PP-DD-72000	SHEET	1 of 1
		REV.	00

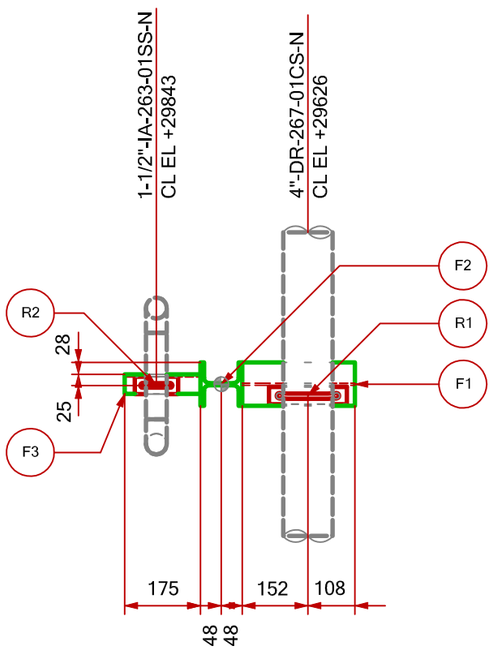
File Name :



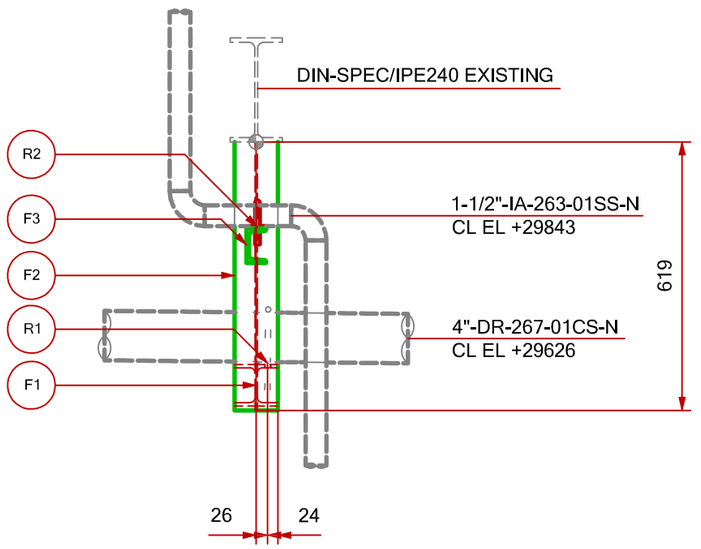
VIEW LOOKING NORTH



VIEW LOOKING WEST



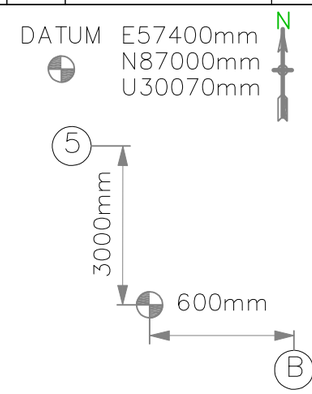
PLAN VIEW

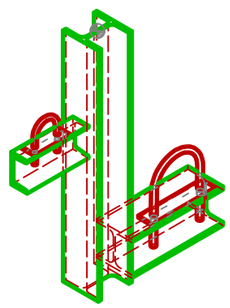


VIEW LOOKING EAST

SUPPORT MATERIAL LIST

POS.	TYPE	DESCRIPTION	MATERIAL	LENGHT (mm)	Q.TY (n°)	UNIT WEIGHT (Kg/mt)	TOTAL WEIGHT (Kg)	PAINT SURF. (m2)
R1	STD	S-211-4"	-	-	1	-	0.96	-
R2	STD	S-211-1 1/2"	-	-	1	-	0.49	-
F1	BEAM	HEA100	Carbon Steel	260	1	16.69	4.34	0.150
F2	BEAM	HEA100	Carbon Steel	619	1	16.76	10.38	0.352
F3	BEAM	UPN80	Carbon Steel	175	1	8.66	1.52	0.057
						TOTAL	17.7	0.56





REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	19/08/24	MMA	SLO	DLO	ISSUE FOR REVIEW

CROSSWIND

ROSETTI MARINO

TITLE :

BASE LOAD POWER HUB (BLPH)
Support Drawings
PS-02104

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE 1 : 10
DRAWN	CHECKED	APPROVED	DATE 19/08/24
DRAWING NO. 123A90-DDL-PP-DD-72000			SHEET 1 of 1 / REV. 00

File Name :

ROSETTI MARINO

STANDARD SPECIFICATION
PIPE SUPPORT DETAIL STANDARD

Document Number: STD–PP–DD–0001

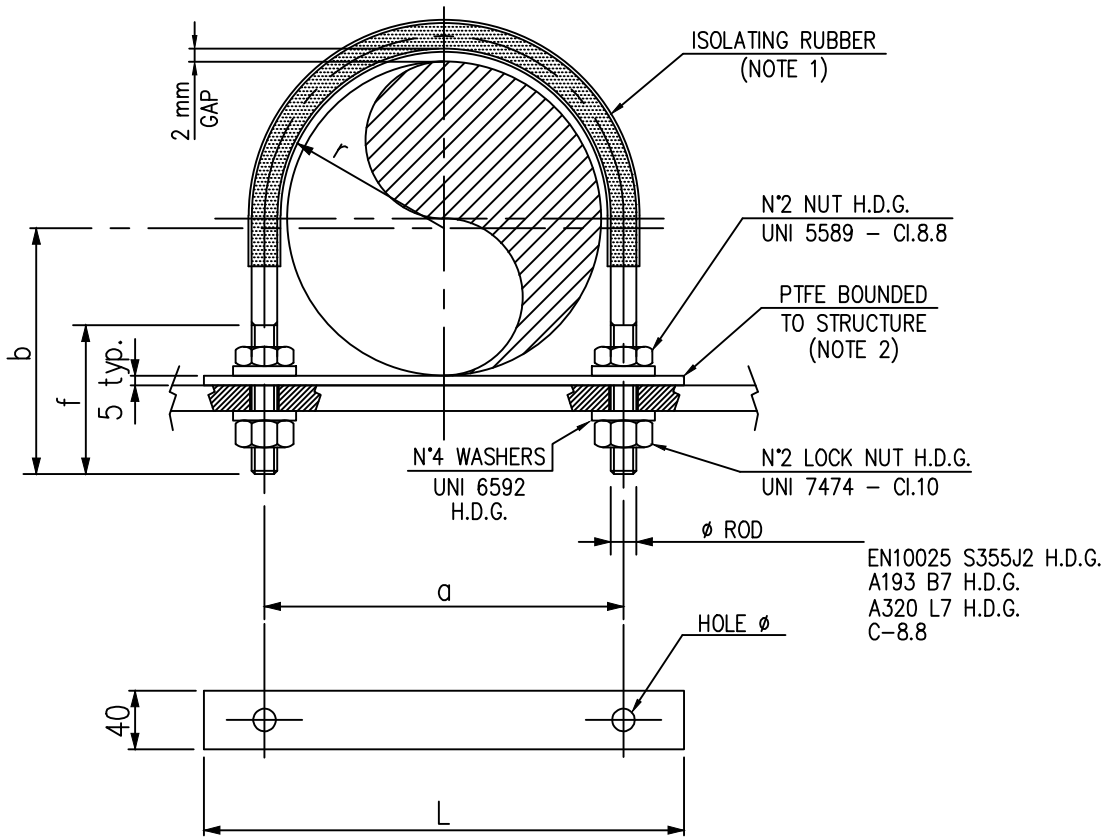
Revision: 0

Date: –

CAVALLOTTI GALVANIZZATI DI GUIDA PER TUBAZIONI IN C.S S.S. E ALLOY
GALVANIZED U–BOLTS GUIDE FOR C.S. S.S. AND ALLOY PIPES (NON GRIP)

S–211

Example of designation : STD – PIPE ND"
(S–211 – 10")



SIZE ND	ROD DIA	r	a	b	f	L	HOLE ø	DEV	DEV. RUBBER	WEIGHT Kg
½"	M8	14	36	55	52	65	10	167	62	0.16
3/4"	M8	17	42	55	52	70	10	176	75	0.16
1"	M8	20	48	60	55	80	10	196	90	0.18
1½"	M10	27	64	70	65	100	12	240	120	0.32
2"	M10	33	76	80	70	110	12	280	150	0.35
3"	M12	48	108	100	80	150	14	370	210	0.60
4"	M12	60	132	110	80	180	14	430	260	0.67
6"	M16	87	190	150	100	250	18	600	380	1.39
8"	M16	113	242	170	100	300	18	720	500	1.60
10"	M16	140	296	200	100	350	18	865	650	1.86
12"	M20	165	350	240	120	420	22	1030	750	3.31
14"	M20	181	382	260	120	450	22	1120	840	3.55
16"	M24	207	438	290	130	520	26	1270	1000	5.76
18"	M24	232	488	320	130	570	26	1410	1100	6.28
20"	M30	257	544	360	160	640	32	1570	1200	11.02
24"	M30	308	646	410	160	750	32	1830	1450	12.52

NOTES:

1) HEAT SHRINK TUBE TYPE FLAME RETARDANT, WITH RATIO 2:1
2) MULTIPLE SHEETS OF PTFE CAN BE ADDED IN ORDER TO ENSURE THE CORRECT ELEVATION AND SLOPE OF THE LINES.

Revision Number	Date	Description	DRAW	CHKD.	APPR.
00	–	ISSUED FOR REVIEW	SLO	GMA	MCO

Documento di proprietà aziendale.La Società tutelerà i propri diritti a termine di legge.This document is Company property. The Company lawfulliy reserves all rights.

7. WELDING REGISTER & MATERIAL TRACEABILITY RECORD

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	36	**To**	36
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
	ITEM				
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**	A	**To**	A
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH) Order Number CW-I-WP4-2023-05

Client CRWIND CROSSWIND

Discipline PP Piping ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Item type / Oper.	Exam. %	N. Rep	Dimension / Films n.	Thickness	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn	Accept. Date	Spool
1/36/1/_		**00**	**17-09-2024**	**13**	**AZ36**		**FWN**			**2,00 in**	**2,77 mm**	**V**	**0,189 m**	**P**	**S.S.**	**C1B**	**GTAW+SMAW**	**BW**	**18-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					18-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
2/36/1/_		**00**	**17-09-2024**	**13**	**AZ36**		**RED**			**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					18-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
3/36/1/_		**00**	**16-09-2024**	**13-5**	**AZ36**		**PIPE**			**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**15-11-2024**	**A**
					AX416	**After Cutting**														
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					18-09-2024			
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000068	3		Acceptable					18-09-2024			
Cut 11-11-2024		VIS	C1 DTA	After Cutting		123A90-PML-QHSE-PRO-00103 Rev 00	IARRIGONIT	100 %	OK			Acceptable D1A		GTAW			15-11-2024			
		RT	C1 DTA	After Cutting		IDL-QCI-RT 0036 00	PR	10 %	001007	3		Acceptable					15-11-2024			
4/36/1/_		**00**	**13-09-2024**	**11**	**AZ35**		**ELB**			**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					17-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
5/36/1/_		**00**	**13-09-2024**	**11**	**AZ35**		**TEE**			**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					17-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
136/36/1/_		**00**	**16-09-2024**	**12**	**AZ35**		**TEE**			**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					17-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								

Totals per DWG	**36**	**Prefabrication**	**0,94 m**	**6 Nr. Welds**	**9,50 inch**
		Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,94 m**	**6 Nr. Welds**	**9,50 inch**
		Accepted	**0,94 m**	**6 Nr. Welds**	**9,50 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number	Rev.	Prod. Date	Prod. Sheet	Welders	Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Cont.	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase	Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.	Defect length	CND date	NOTE		
136/36/1/_		**00**	**16-09-2024**	**12**	**AZ35**	**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**17-09-2024**	**A**

Totals by Discipline	**Prefabrication**	**0,94 m**	**6 Nr. Welds**	**9,50 inch**
	Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Performed	**0,94 m**	**6 Nr. Welds**	**9,50 inch**
	Accepted	**0,94 m**	**6 Nr. Welds**	**9,50 inch**
	Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project	**Prefabrication**	**0,94 m**	**6 Nr. Welds**	**9,50 inch**
	Erection	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Performed	**0,94 m**	**6 Nr. Welds**	**9,50 inch**
	Accepted	**0,94 m**	**6 Nr. Welds**	**9,50 inch**
	Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Rosetti Marino S.p.A.

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	36	**To**	36
Sheet		**From**	1	**To**	1
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**	25-11-2024	**To**	25-11-2024
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number		Rev.	Prod. Date	Prod. Sheet	Welders		Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Conn	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase		Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.		Defect length	CND date	NOTE		
135/36/1/_		**00**	**12-11-2024**	**30-36**	**AX416**	**Welding + Repair done**	**TEE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**25-11-2024**	
01SS	2	VIS	FTP	FIT-UP and on weld	123A90-PML-QHSE-PRO-00103 Rev 00	IARRIGONIT	100 %	OK		Acceptable					13-11-2024			
		RT	FIN	Weld Completion	IDL-QCI-RT 0036 00	PR	10 %	001010	3	Repair				0,020 m	15-11-2024			
Cut 18-11-2024		VIS	C 1	DTA	After Cutting	123A90-PML-QHSE-PRO-00103 Rev 00	LCOSCA	100 %	OK		Acceptable D1A		GTAW		19-11-2024			
		RT	C 1	DTA	After Cutting	IDL-QCI-RT 0036 00	AA	10 %	001023	3	Acceptable				25-11-2024			

Totals per DWG	**36**	**Prefabrication**	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Erection	**0,15 m**	**1 Nr. Welds**	**1,50 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,15 m**	**1 Nr. Welds**	**1,50 inch**
		Accepted	**0,15 m**	**1 Nr. Welds**	**1,50 inch**
		Repaired	**0,02 m**	**1 Nr. Welds**	**1,50 inch**
Totals by Discipline		**Prefabrication**	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Erection	**0,15 m**	**1 Nr. Welds**	**1,50 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,15 m**	**1 Nr. Welds**	**1,50 inch**
		Accepted	**0,15 m**	**1 Nr. Welds**	**1,50 inch**
		Repaired	**0,02 m**	**1 Nr. Welds**	**1,50 inch**
Totals by Project		**Prefabrication**	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Erection	**0,15 m**	**1 Nr. Welds**	**1,50 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**0,15 m**	**1 Nr. Welds**	**1,50 inch**
		Accepted	**0,15 m**	**1 Nr. Welds**	**1,50 inch**
		Repaired	**0,02 m**	**1 Nr. Welds**	**1,50 inch**

Cliente/Contractor	**CROSSWIND**	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by	
SubContrattista/SubContractor	**ROSETTIMARINO/GROUPOFCOMPANY**	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:	
Progetto/Project	**Hollandse Kust Noord Wind Park Project**				
Commessa/Job	**123A90 - Piping**				
Disciplina/Discipline	**PIPING**				
TitoloDocumento/DocumentTitle	**Material Traceability Report**	StatoDocumento/Document Status:		Data/Date: 29/11/2024	
RosettiDoc.Num.	**123A90MTR001**				

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
36	00	1	A	01SS	2	1	Tee BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	66HSJ128	1724000839	00490	T202318004128	W4-W5	
36	00	1	A	01SS	4	1	Reducer Eccentric BW ›2"x1.1/2" Thk.2.77mmx3.68mm ASTM A403 Gr.WP316/316L	MN086-1	1724001267	00380	PSA3-FT-49124	W1-W2	
36	00	1	A	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W3-W4	
36	00	1	A	01SS	6	1	Flange WN ›2" Thk.2.77mm 150LB RF ASTM A182 Gr.F316/316L	DJ836	1724000839	00910	1000028548/52 REV.1	W1	
36	00	1	A	01SS	7	1	Flange WN ›1.1/2" Thk.3.68mm 150LB RF ASTM A182 Gr.F316/316L	CH-17777	1724000839	00970	EXP/22-23/00790-12	W5	
36	00	1	A	01SS	1A	0,3	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	A	01SS	1BD	0,155	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	B	01SS	3	1	Tee Reducing BW ›1.1/2"x3/4" Thk.3.68mmx2.87mm ASTM A403 Gr.WP316/316L	E61718	1724001267	00410	JNDIA2023-GW517-08	W7-W8-W9	
36	00	1	B	01SS	3	1	Tee Reducing BW ›1.1/2"x3/4" Thk.3.68mmx2.87mm ASTM A403 Gr.WP316/316L	E61718	1724001267	00410	JNDIA2023-GW517-08	W10-W11-W12	
36	00	1	B	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W13-W14	
36	00	1	B	01SS	7	1	Flange WN ›1.1/2" Thk.3.68mm 150LB RF ASTM A182 Gr.F316/316L	CH-17777	1724000839	00970	EXP/22-23/00790-12	W6	
36	00	1	B	01SS	8	1	Flange WN ›3/4" Thk.2.87mm 150LB RF ASTM A182 Gr.F316/316L	CH-18532	1724000839	00950	EXP/22-23/01571-30	W8	
36	00	1	B	01SS	8	1	Flange WN ›3/4" Thk.2.87mm 150LB RF ASTM A182 Gr.F316/316L	CH-18532	1724000839	00950	EXP/22-23/01571-30	W11	
36	00	1	B	01SS	1B	0,275	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	B	01SS	1C	0,15	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	B	01SS	1D	0,15	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	B	01SS	1E	1,852	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	C	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W16	
36	00	1	C	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W17-W18	
36	00	1	C	01SS	5	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724000839	00280	24-01-0127	W19-W20	
36	00	1	C	01SS	1F	0,454	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	C	01SS	1G	0,191	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	C	01SS	1H	6	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
36	00	1	C	01SS	1I	3,15	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	127	**To**	127
Sheet		**From**	1	**To**	2
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Cont.	Accept. Date	Spool
1/127/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
01SS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
2/127/1/_		**00**	**06-09-2024**	**5**	**AZ53**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable				11-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
3/127/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
4/127/1/_		**00**	**10-09-2024**	**6**	**AZ39**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable				11-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
5/127/1/_		**00**	**11-11-2024**	**29**	**AX416**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**13-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	IARRIGONIT	100 %	OK			Acceptable				13-11-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
6/127/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
7/127/1/_		**00**	**10-09-2024**	**6**	**AZ39**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable				11-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
8/127/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
9/127/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				06-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Cont.	Accept. Date	Spool
9/127/1/_		**00**	**05-09-2024**	**3**	**AZ53**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**B**
10/127/1/_		**00**	**10-09-2024**	**6**	**AZ39**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
11/127/1/_		**00**	**05-09-2024**	**4**	**AZ39**			**TEE**		**0,75 in**	**2,87 mm**	**V**	**0,083 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
12/127/1/_		**00**	**11-11-2024**	**29**	**AX416**			**TEE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**13-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	IARRIGONIT	100 %	OK			Acceptable					13-11-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
13/127/2/_		**00**	**06-09-2024**	**5**	**AZ53**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK			Acceptable					11-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
14/127/2/_		**00**	**05-09-2024**	**3**	**AZ53**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
15/127/2/_		**00**	**05-09-2024**	**3**	**AZ53**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
16/127/2/_		**00**	**13-11-2024**	**31**	**AX416**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**15-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	IARRIGONIT	100 %	OK			Acceptable					15-11-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
17/127/2/_		**00**	**05-09-2024**	**3**	**AZ53**			**PIPE**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**11-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					06-09-2024			
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000036		3	Acceptable					11-09-2024			
18/127/2/_		**00**	**06-09-2024**	**5**	**AZ53**			**ELB**		**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**D**

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	Dimension / N. Rep	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Cont.	Accept. Date	Spool
18/127/2/_		**00**	**06-09-2024**	**5**	**AZ53**			**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	RGARDINIT	100 %	OK		Acceptable							11-09-2024	
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000050	3	Acceptable							18-09-2024	
19/127/2/_		**00**	**13-11-2024**	**31**	**AX416**			**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**M**	**S.S.**	**D1A**	**GTAW**	**BW**	**15-11-2024**	
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	IARRIGONIT	100 %	OK		Acceptable							15-11-2024	
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	PR	10 %	001008	3	Acceptable							15-11-2024	
20/127/2/_		**00**	**05-09-2024**	**3**	**AZ53**			**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**06-09-2024**	**E**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable							06-09-2024	
		RT	FIN	Weld Completion				10 %			Acceptable								
21/127/2/_		**00**	**12-09-2024**	**8-4**	**AZ35**			**PIPE**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**15-11-2024**	**E**
					AX416	**After Cutting**													
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable							13-09-2024	
		RT	FIN	Weld Completion				10 %			Acceptable								
Cut 13-11-2024		VIS	C 1 DTA	After Cutting		123A90-PML-QHSE-PRO-00103 Rev 00	IARRIGONIT	100 %	OK		Acceptable	D1A		GTAW				15-11-2024	
		RT	C 1 DTA	After Cutting		IDL-QCI-RT 0036 00	PR	10 %	001009	3	Acceptable							15-11-2024	
22/127/2/_		**00**	**12-09-2024**	**8**	**AZ35**			**ELB**	**1,50 in**	**3,68 mm**	**V**	**0,151 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**13-09-2024**	**E**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable							13-09-2024	
		RT	FIN	Weld Completion				10 %			Acceptable								
23/127/2/_		**00**	**12-09-2024**	**14**	**AZ35**			**RED**	**2,00 in**	**2,77 mm**	**V**	**0,189 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**E**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK		Acceptable							18-09-2024	
		RT	FIN	Weld Completion				10 %			Acceptable								

Totals per DWG	**127**				
		Prefabrication	**2,82 m**	**19 Nr. Welds**	**28,25 inch**
		Erection	**0,60 m**	**4 Nr. Welds**	**6,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**3,42 m**	**23 Nr. Welds**	**34,25 inch**
		Accepted	**3,42 m**	**23 Nr. Welds**	**34,25 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number		Rev.	Prod. Date	Prod. Sheet	Welders		Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Conn	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase		Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.		Defect length	CND date	NOTE		
23/127/2/_		**00**	**12-09-2024**	**14**	**AZ35**		**RED**	**2,00 in**	**2,77 mm**	**V**	**0,189 m**	**P**	**S.S.**	**C1A**	**GTAW**	**BW**	**18-09-2024**	**E**

Totals by Discipline	**Prefabrication**	**2,82 m**	**19 Nr. Welds**	**28,25 inch**
	Erection	**0,60 m**	**4 Nr. Welds**	**6,00 inch**
	Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Performed	**3,42 m**	**23 Nr. Welds**	**34,25 inch**
	Accepted	**3,42 m**	**23 Nr. Welds**	**34,25 inch**
	Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Project	**Prefabrication**	**2,82 m**	**19 Nr. Welds**	**28,25 inch**
	Erection	**0,60 m**	**4 Nr. Welds**	**6,00 inch**
	Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
	Performed	**3,42 m**	**23 Nr. Welds**	**34,25 inch**
	Accepted	**3,42 m**	**23 Nr. Welds**	**34,25 inch**
	Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Cliente/Contractor	**CROSSWIND**	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
SubContrattista/SubContractor	**ROSETTIMARINO/GROUPOFCOMPANY**	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
Progetto/Project	**Hollandse Kust Noord Wind Park Project**			
Commessa/Job	**123A90 - Piping**			
Disciplina/Discipline	**PIPING**			
TitoloDocumento/DocumentTitle	**Material Traceability Report**	StatoDocumento/Document Status:		Data/Date: 21/11/2024
RosettiDoc.Num.	**123A90MTR001**			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
127	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W1-W2	
127	00	1	A	01SS	4	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W3-W4	
127	00	1	A	01SS	1A	0,178	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
127	00	1	A	01SS	1B	1,103	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
127	00	1	A	01SS	1C	1,56	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
127	00	1	B	01SS	2	1	Tee Reducing BW ›1.1/2"x3/4" Thk.3.68mmx2.87mm ASTM A403 Gr.WP316/316L	12B258	1724000839	00610	10303342	W10-W11	
127	00	1	B	01SS	3	1	Nipple L=100mm TOE ›3/4" Thk.2,87mm ASTM A312 Gr.TP316/316L	SZ8	1724001267	00260	002978	W11	
127	00	1	B	01SS	4	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W6	
127	00	1	B	01SS	4	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W7-W8	
127	00	1	B	01SS	4	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W9-W10	
127	00	1	B	01SS	1D	0,324	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
127	00	1	B	01SS	1E	0,191	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		

Cliente/Contractor	**CROSSWIND**	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by
SubContrattista/SubContractor	**ROSETTIMARINO/GROUPOFCOMPANY**	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:
Progetto/Project	**Hollandse Kust Noord Wind Park Project**			
Commessa/Job	**123A90 - Piping**			
Disciplina/Discipline	**PIPING**			
TitoloDocumento/DocumentTitle	**Material Traceability Report**	StatoDocumento/Document Status:		Data/Date: 21/11/2024
RosettiDoc.Num.	**123A90MTR001**			

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
127	00	2	C	01SS	3	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W13-W14	
127	00	2	C	01SS	3	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W15-W16	
127	00	2	C	01SS	1F	4,21	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
127	00	2	C	01SS	1G	0,927	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
127	00	2	D	01SS	3	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W17-W18	
127	00	2	D	01SS	1H	0,199	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
127	00	2	D	01SS	1I	1,836	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		
127	00	2	E	01SS	2	1	Reducer Concentric BW ›2"x1.1/2" Thk.2.77mmx3.68mm ASTM A403 Gr.WP316/316L	LN007-1	1724001267	00340	PSA3-FT-49115	W22-W23	
127	00	2	E	01SS	3	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W20	
127	00	2	E	01SS	3	1	90 Deg Elbow Long Radius BW ›1.1/2" Thk.3.68mm ASTM A403 Gr.WP316/316L	M230941	1724001267	00080	MCP2404-00012-12	W21-W22	
127	00	2	E	01SS	4	1	Flange WN ›2" Thk.2.77mm 150LB RF ASTM A182 Gr.F316/316L	DJ836	1724000839	00910	1000028548/52 REV.1	W23	
127	00	2	E	01SS	1J	0,082	Pipe 48.3mm(1.1/2") thk.3.68mm ASTM A312 Gr.TP316/316L	235415	1724000839	00060	WSSL/SP-316L/00757/1023		

8. PIPING & VESSEL PRE-COMMISSIONING CONFORMITY CHECKS & TESTS:

8.1 CLX02A - Pipework Before test

8.2 CLX02B - Pipework After Test

8.3 CXX01 - Thermal insulation - NOT APPLICABLE

8.4 CXX02 – Painting Line

8.5 TMX03 – Cleaning

8.6 TMX05 – Pressure test

8.7 TMX25 – Gross Air Leak Test - NOT APPLICABLE

8.8 TMX27 – Bolt Tensioning / Torquing

8.9 TPLX05 - Drying

ITEM	Tag	63-00-TP-025	: Test Pack 63-00-TP-025			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	LD
TASK	code	C10003427		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity STS	Discipline	Piping	Form	TPLX05 Drying

1	Drying out method :	Drying with dry air.
2	Operation description :	"Dry the system using a flow of dry air, ensuring all drains are open to facilitate the removal of moisture. The drying process shall be monitored closely to ensure complete moisture removal. After drying, isolate and close the inlet and outlet points."
3	Temporary means :	Covers to close all openings after the drying.
4	Dew point (obtain after soaking and nitrogen purging):	NA

5	Valve body cavity, branches, etc.. Have been drained form residual water	●
	Attachments	
6	Procedures	
7	Sketches and drawings	
8	Pressure records	
9	Records of failures	
10	SAFETY PRECAUTIONS:	Restricting access to the area.
11	REMARKS:	

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Page 1/1			
Company	Rodeo	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2024-11-29	2024-12-24	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2024-11-29T09:13:18.240Z	PROVERLIS Digitaly signed by Massimo Bruschi 2024-12-24T08:29:49.096Z	

ROSETTI MARINO — CROSSWIND

ITEM	Tag	63-00-TP-059	: Test Pack 63-00-TP-059			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10003665		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	CLX02A — Pipework Before Test

1	Check for each line of the Test Pack the NDT clearance.	OK
2	Confirm that materials conforms to the line specifications (ref. to the last issued revision of the isometric material table)	OK
3	Check the installation of all pipe – supports are in accordance with the specifications and drawings.	PL
4	Check that pipework at pump and vessel nozzles are free from spring.	NA
5	Check that the pipe flanges have been mounted square to each other. Also that the bolting and gaskets are correct (all TMX27 are complete, if necessary).	PL
6	Check bolt tightening and flange management (excluded battery limit joints).	PL
7	Check that the flow direction of the valves and check – valve is in the correct sense / direction (ball valves to be set at half open).	NA
8	Check that the removed equipment is in accordance with the agreed list of fragile devices. Check valve should be removed or flappers locked.	NA
9	Check that spool pieces or other substitution means have been put in place instead of the removed fragile device.	NA
10	Check the Blind list.	NA
11	Check that all the temporary material to perform the task are conforms to the procedure & suitable pressure rating.	OK
12	If required produce Red Line Mark Up for "AS BUILT".	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	Rodeo	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2024-11-29	2024-11-29	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2024-11-29T09:14:18.104Z	PROVERLIS Digitaly signed by Massimo Bruschi 2024-11-29T16:03:52.811Z	

ITEM	Tag	63-00-TP-059	: Test Pack 63-00-TP-059			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10003666		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	CLX02B Pipework After Test

1	Check that the pipework and equipment are drained as per procedure.	OK
2	Check if all temporary equipment (test spades, filters ,spool pieces..etc) have been removed.	OK
3	All plugs installed on vents and drains for test have been removed.	OK
4	Check that all removed devices and valves have been re-installed.	OK
5	Check that the new gaskets have been installed after pipework and equipment reinstallation.	OK
6	All specific blinds and / or spectacle blinds have been correctly installed as per P&ID.	NA
7	Check that the pipework, valves , check valves are undamaged. Also check the ancillaries and any other components.	NA
8	After the (re) installation of a valve check that it operates freely.	NA
9	Check that the flow direction of the valves and check – valve is in correct sense /direction in correct open/closed position as per P&ID.	NA
10	Check all locking device.	NA
11	Check that the valves have been correctly lubricated and that they have the correct spindle packing.	NA
12	Check that all the bolts and fasteners are suitably lubricated inline with the flange management procedure.	OK
13	Check that the bolts have been tightned at opened joints.	PL
14	Check that all golden welds (final tie-ins without hydrotest) have been performed as per procedure.	NA
15	Check for the correct tagging, labeling and colour coding of pipework and equipment (only for bare pipe lines).	NA
16	Check that the pipework and equipment (re) installation conforms to the specifications, drawings and to the P&ID's.	PL
17	If required produce Red Line Mark Up for "AS BUILT".	

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Andrea Mancini	
Date	2025-01-28	2025-01-30	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-28T14:50:01.031Z	PROVERLIS Digitaly signed by Andrea Mancini 2025-01-30T12:29:27.653Z	

ITEM	Tag	63-00-TP-059	: Test Pack 63-00-TP-059			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10003667		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Piping	Form	CXX01 Thermal Insulation

1	Ensure CLX02B Pipework After Test (reinstatement) check completed.	OK
2	Ensure CXX02 "Painting Line" check (for the concerned insulated lines) completed.	OK
3	Ensure CPX22A "Heat tracing Before Insulation" check completed.	NA
4	Check that the insulation and cladding materials conform to the specifications.	PL
5	Check that the insulation is compatible with the Heat tracing system.	NA
6	Check that the surface condition prior to the application of the insulation	OK
7	Check the installation of wire mesh	OK
8	Check the overlap of the metal cladding.	OK
9	Check that each joint is sealed with a suitable sealant specified for water proofing.	OK
10	Check the staggering of the metal cladding joints and verify that they have been applied as per the specifications.	OK
11	Control that the locking devices boxes opretated satisfactorily.	PL
12	Check the blinds, the spectacles and the instruments are visible.	NA
13	Check the flange accessibility without damaging the insulation.	PL
14	Check that color coding/line marking/flow direction are correct	PL

Comments:

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RM_CONSTR (ROSETTI MARINO)	RM (ROSETTI MARINO)	
Name	Gianluca De Maglie	Lorenzo Novaga	
Date	2025-03-21	2025-03-21	
Signature	PROVERLIS Digitaly signed by Gianluca De Maglie 2025-03-21T15:20:52.854Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-03-21T15:24:54.613Z	

ITEM	Tag	63-00-TP-059	: Test Pack 63-00-TP-059			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10003668		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity CCK	Discipline	Piping	Form	CXX02 Painting Line

1	Check that the completed painting is in accordance with the specifications covering quality and thickness.	OK
2	Check that the color coding conforms to the specifications.	Note
3	Check that the fluid direction is correct.	Note
4	Check that line marking is correct.	NA
5	Check that the painting of piping systems and of the equipment is "touched-up" and conforms to the specifications.	OK
6	If required produce Red Line Mark Up for "AS BUILT".	

Comments: 1. Checked the painting report made by Vendor and signed by RM Coating Dpt.
Points 2 and 3 to be checked during thermal insulation.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	IMPRESA DONELLI	RM (Rosetti Marino)	
Name	Alex Sanna	Kangi Albonetti	
Date	2025-01-30	2025-01-30	
Signature	PROVERLIS Digitaly signed by Alex Sanna 2025-01-30T12:47:24.865Z	PROVERLIS Digitaly signed by Kangi Albonetti 2025-01-30T13:48:52.351Z	

ROSETTI MARINO — CROSSWIND

ITEM	Tag	63-00-TP-059	: Test Pack 63-00-TP-059		Dwg	123A90-DDL-PR-PID-80027	
	S/Sys	63-00	: Instrument Air Package (A-63000)		Module	UD	
TASK	code	C10003669	Location	Onshore Activities	User	Rosetti Marino Quality Control	
FORM	Process	MC	Activity PIP	Discipline Piping	Form	TMX03	Cleaning

CLEANING MEDIUM

Air	Water	Steam	Oil	Other	Mechanical
☐	●	☐	☐	☐	☐

Component	N/A					
Chemical treatment	No	N/A	Filtration	No	Screen size	N/A

EQUIPMENTS

Equipment **removed**	Yes	Agreed list of removed fragile devices to be attached to this Test Sheet	NA
Excepted removed equipments, pipework installation is conform to the specifications & PID's			OK
Equipment **added**	No	Exhaustive list to be attached (temporary filters, spools…etc)	NA

TEST RESULTS

Test date	28-11-2024	Start time	09:40	End time	09:55
Flow rate	N/A	Duration	15 min	Medium T°	N/A

Operation Description

"Connected the water source to the lowest point of the piping system.
Maintained a high flow rate to help dislodging and carry away debrises.
Flushing flow kept until the water exiting the system was clear and free of visible contaminants. Expelled water inspected for any debris to be noted."

Safety Precautions

Restricting access to the area.

Result and comments

Water has been found clear of debris. All contaminants have been expelled.

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	Rodeo	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2024-11-29	2024-11-29	
Signature	Digitaly signed by Emanuele Delfino 2024-11-29T09:14:53.337Z	Digitaly signed by Massimo Bruschi 2024-11-29T16:06:26.974Z	

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	63-00-TP-059	: Test Pack 63-00-TP-059			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10003670		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX05 Pressure Test

TEST DATA

Reference procedure	123A90-PML-QHSE-PRO-00092				
Design pressure	3,5 barg	Max test pressure	5,25 barg	Min hold period	30 min

TEST PREPARATION

Check all equipments used for the test are safe for use under pressure (valide certificate)	Yes
Pressure relief devices are installed and in line and set to correct pressure (calibration certificate)	Yes

Medium

Test medium	WATER

TEST RESULTS

Test date	NOTE 1	Start time	NOTE 1	End time	NOTE 1
Ambient temperature is recorded	No			Test medium temperature is recorded	Yes
Pressure recorded during test hold period	Min NOTE 1	Max NOTE 1		Variation	NOTE 1
Line has been depressurised to	NOTE 1			At maximum of bar/min	NOTE 1
Pressure test completed sucessfully and approved	Yes			Temperature and pressure disc chart attached	Yes
Instrument calibration certificates attached	Yes			Dead-weight tester log attached	Yes
Record of failures and corrective action attached	Yes			Battery limits of the test attached	Yes
If required produce Red Line Mark Up for "AS BUILT".					

Comments: NOTE 1: see attached certificate for test data and result.

Page 1/1	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	Rodeo	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2024-11-29	2024-11-29	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2024-11-29T09:15:30.261Z	PROVERLIS Digitaly signed by Massimo Bruschi 2024-11-29T16:05:53.010Z	

Logger protocol

Protocollo di acquisizione elenco dati

ROSETTI MARINO
Group of Companies

Log no. *N. elenco dati*	123A90-63-00-TP059

Instrument

Strumento

Electrical pressure gauge *Misuratore di pressione elettronico*	
Model *Modello*	CPG1500
Serial number *Numero di serie*	1A014ILNH2N
Log temperature *Registrazioni di Temperatura*	Active *Attivo*
Scale range *Campo scala*	(0 ... 1000) bar a
Accuracy *Accuratezza*	0.1 % FS
Tag number *Numero tag*	
Communication *Comunicazione*	Wireless (00:13:43:85:E0:AF)

Measurement conditions

Condizioni di misura

Settings *Impostazioni*	
Mode *Modalità*	Automatic *Automatico*
Interval (ms) *Intervallo (ms)*	60000
Duration (hh:mm:ss) *Durata (hh:mm:ss)*	00:42:52
Start time (hh:mm:ss) *Tempo di avvio (hh:mm:ss)*	09:57:17 am

Logger protocol

Protocollo di acquisizione elenco dati

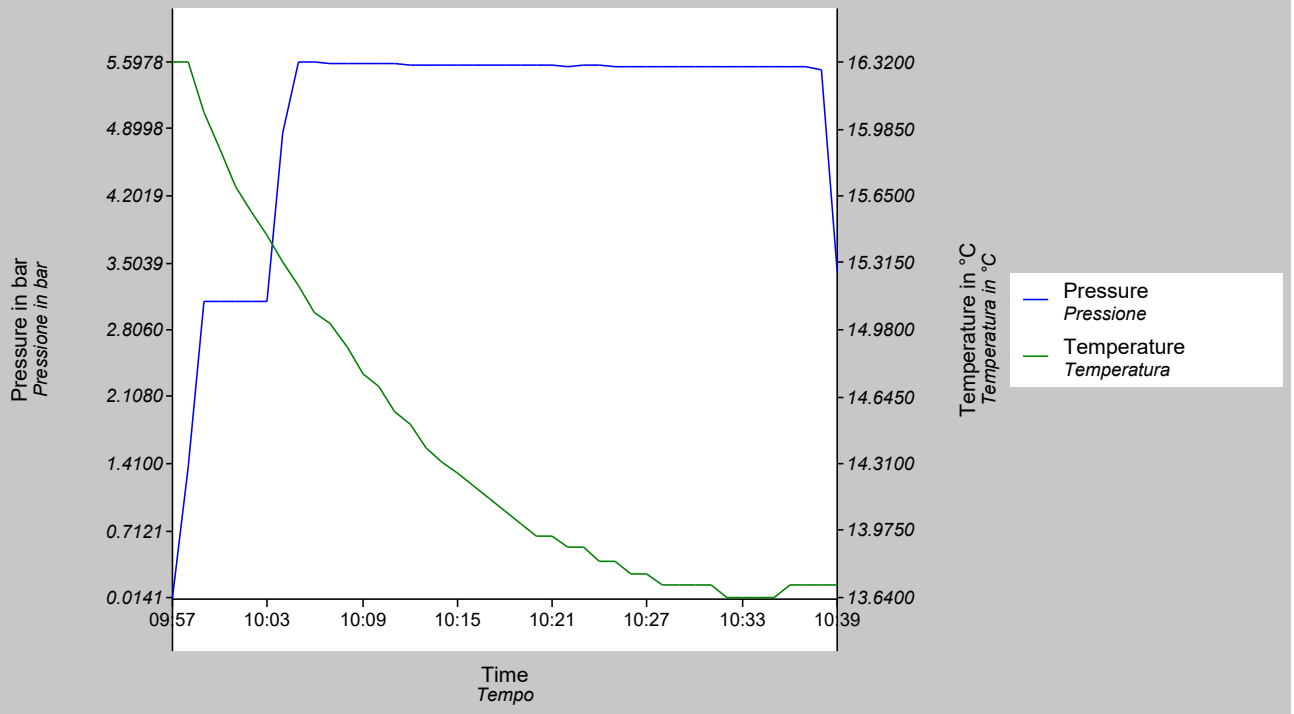
ROSETTI MARINO
Group of Companies

Log no. *N. elenco dati*	123A90-63-00-TP059

Measurement results

Risultati della misura

Graphical representation of progression
Rappresentazione grafica dell'andamento



Timestamp *Data e ora*	Measured value *Valore misurato* bar	Measured value *Valore misurato* °C
11/28/2024 09:57:17.000	0.0141	16.3200
11/28/2024 09:58:17.000	1.3818	16.3200
11/28/2024 09:59:17.000	3.1038	16.0700
11/28/2024 10:00:17.000	3.0965	15.8900
11/28/2024 10:01:17.000	3.1030	15.7000
11/28/2024 10:02:17.000	3.1004	15.5700
11/28/2024 10:03:17.000	3.0988	15.4500
11/28/2024 10:04:17.000	4.8631	15.3200
11/28/2024 10:05:17.000	5.5978	15.2000
11/28/2024 10:06:17.000	5.5897	15.0700
11/28/2024 10:07:17.000	5.5853	15.0100
11/28/2024 10:08:17.000	5.5833	14.8900
11/28/2024 10:09:17.000	5.5823	14.7600
11/28/2024 10:10:17.000	5.5781	14.7000
11/28/2024 10:11:17.000	5.5780	14.5700
11/28/2024 10:12:17.000	5.5702	14.5100
11/28/2024 10:13:17.000	5.5685	14.3900

Logger protocol

Protocollo di acquisizione elenco dati

ROSETTI MARINO
Group of Companies

Log no. *N. elenco dati*	123A90-63-00-TP059

Measurement results

Risultati della misura

Timestamp *Data e ora*	Measured value *Valore misurato* bar	Measured value *Valore misurato* °C
11/28/2024 10:14:17.000	5.5670	14.3200
11/28/2024 10:15:17.000	5.5694	14.2600
11/28/2024 10:16:17.000	5.5684	14.2000
11/28/2024 10:17:17.000	5.5668	14.1400
11/28/2024 10:18:17.000	5.5688	14.0700
11/28/2024 10:19:17.000	5.5638	14.0100
11/28/2024 10:20:17.000	5.5630	13.9500
11/28/2024 10:21:17.000	5.5585	13.9500
11/28/2024 10:22:17.000	5.5544	13.8900
11/28/2024 10:23:17.000	5.5599	13.8900
11/28/2024 10:24:17.000	5.5584	13.8200
11/28/2024 10:25:17.000	5.5566	13.8200
11/28/2024 10:26:17.000	5.5541	13.7600
11/28/2024 10:27:17.000	5.5530	13.7600
11/28/2024 10:28:17.000	5.5502	13.7000
11/28/2024 10:29:17.000	5.5496	13.7000
11/28/2024 10:30:17.000	5.5480	13.7000
11/28/2024 10:31:17.000	5.5479	13.7000
11/28/2024 10:32:17.000	5.5473	13.6400
11/28/2024 10:33:17.000	5.5484	13.6400
11/28/2024 10:34:17.000	5.5453	13.6400
11/28/2024 10:35:17.000	5.5497	13.6400
11/28/2024 10:36:17.000	5.5472	13.7000
11/28/2024 10:37:17.000	5.5477	13.7000
11/28/2024 10:38:17.000	5.5190	13.7000
11/28/2024 10:39:17.000	3.4170	13.7000

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Centro di Taratura LAT N°114
Calibration Centre
Laboratorio Accreditato di Taratura
Accredited Calibration Laboratory

LAT N° 114

CERTIFICATO DI TARATURA LAT 114 0514-SM-24

Certificate of Calibration

- data di emissione date of issue	2024-10-31
- cliente customer	FAST AUTOMATION SRL VIA DELLA PREVIDENZA SOCIALE, 8 IT-42124 REGGIO EMILIA (RE)
- destinatario receiver	ROSETTI MARINO SPA - YARD PIOMBONI VIA DEL MARCHESATO, 37 IT-48122 MARINA DI RAVENNA (RA)

Il presente certificato di taratura è emesso in base all'accreditamento LAT N. 114 rilasciato in accordo ai decreti attuativi della legge n. 273/1991 che ha istituito il Sistema Nazionale di Taratura (SNT). ACCREDIA attesta le capacità di misura e di taratura, le competenze metrologiche del Centro e la riferibilità delle tarature eseguite ai campioni nazionali ed internazionali delle unità del Sistema Internazionale delle Unità (SI).
Questo certificato non può essere riprodotto in modo parziale, salvo espressa autorizzazione scritta da parte del Centro.

Si riferisce a
referring to

- oggetto *item*	Misuratore di pressione elettronico Electrical pressure gauge
- costruttore *manufacturer*	WIKA
- modello *model*	CPG1500
- matricola *serial number*	1A014ILNH2N
- data di ricev. oggetto *date of receipt of item*	2024-10-24
- data delle misure *date of measurements*	2024-10-31
- registro di laboratorio *laboratory reference*	0514-SM-24

This certificate of calibration is issued in compliance with the accreditation LAT No.114 granted according to decrees connected with Italian law No. 273/1991 which has established the National Calibration System. ACCREDIA attests the calibration and measurement capability, metrological competence of the Centre and the traceability of calibration results to the national and International standards of the International System of Units (SI).
This certificate may not be partially reproduced, except with the prior written permission of the issuing Centre.

I risultati di misura riportati nel presente Certificato sono stati ottenuti applicando le procedure di taratura citate alla pagina seguente, dove sono specificati anche i campioni o gli strumenti che garantiscono la catena di riferibilità del Centro e i rispettivi certificati di taratura in corso di validità. Essi si riferiscono esclusivamente all'oggetto in taratura e sono validi nel momento e nelle condizioni di taratura, salvo diversamente specificato.

The measurement results reported in this Certificate were obtained following the calibration procedures given in the following page, where the reference standards or instruments are indicated which guarantee the traceability chain of the laboratory, and the related calibration certificates in the course of validity are indicated as well. They relate only to the calibrated item and they are valid for the time and conditions of calibration, unless otherwise specified.

Le incertezze di misura dichiarate in questo documento sono state determinate conformemente alla Guida ISO/IEC 98 e al documento EA-4/02. Solitamente sono espresse come incertezza estesa ottenuta moltiplicando l'incertezza tipo per il fattore di copertura *k* corrispondente ad un livello di fiducia di circa il 95 %. Normalmente tale fattore *k* vale 2.

The measurement uncertainties stated in this document have been determined according to the ISO/IEC Guide 98 and to EA-4/02. Usually, they have been estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level of about 95%. Normally, this factor k is 2.

Direzione Tecnica
(Approving Officer)

Enrico Reccagni

Enrico Reccagni

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Centro di Taratura LAT N°114
Calibration Centre
Laboratorio Accreditato di Taratura
Accredited Calibration Laboratory

LAT N° 114

CARATTERISTICHE DELLO STRUMENTO IN TARATURA/ Properties of devices under calibration

Misuratore di pressione elettronico *Electrical pressure gauge*	
Tipo *Model*	Misuratore di pressione elettronico Electrical pressure gauge
Numero di matricola *Serial No.*	1A014ILNH2N
Campo di misura *Scale range*	(0 ... 1000) bar g
Accuratezza dichiarata dal costruttore *Accuracy declared by the manufacturer*	0,1 % FS
Risoluzione *Resolution (scale division)*	0,1 bar
Tag. N. *Tag No.*	--

Procedura di taratura e catena di riferibilità
Calibration procedure and traceability chain

La taratura è stata effettuata in accordo alla linea guida DKD-R 6-1 "Taratura di strumenti di pressione" (versione 03/2014) procedura B, per confronto fra i valori dello strumento in taratura con quelli di riferimento dati dal campione di lavoro.

Calibration was carried out according to DKD-R 6-1 "Kalibrierung von Druckmessgeräten" (Ausgabe 03/2014) procedure B, by comparing the measured values of the calibration item with those of the reference or working standard.

I risultati riportati sono stati ottenuti applicando le procedure n° LMO-PT-01 rev.2

The results have been obtained using the procedures n° LMO-PT-01 rev.2

La catena di riferibilità ha inizio dai campioni di riferimento n° PM1-09

The traceability chain starts from the reference standards n° PM1-09

muniti di certificati validi di taratura, rispettivamente n° D21090

with the relevant valid calibration certificates n° D21090

Luogo di taratura
Place of calibration

Laboratorio WIKA ITALIA - Laboratorio di Modugno (BA)
WIKA ITALY Laboratory - Modugno (BA)

Campione di lavoro
Working Standard

Norma di riferimento (RS) Bilancia di pressione *Reference standard (RS) Dead-weight tester*	
Tipo *Model*	PM1-09
Certificato di taratura *Calibration mark*	D-K-15105/D21090
Campo di misura *Scale range*	(10 ... 2500) bar g
Accuratezza *Accuracy*	0,015 % della lettura + 255 Pa

Operatore
Technichian

Francesco Donatelli

WIKA Italia S.r.l. & C. s.a.s.
Viale dell'Artigianato,
I Traversa, n. 8
70026 - Modugno (BA) • Italy
www.wika.it

Centro di Taratura LAT N°114
Calibration Centre
Laboratorio Accreditato di Taratura
Accredited Calibration Laboratory

LAT N° 114

Condizioni di misura
Measurement conditions

Schema di collegamento *Assembly*	
Fluido utilizzato	Sebacate
Pressure medium	*Sebacate*
Livello di riferimento	Superficie di tenuta DUT
Refence height (for reference value)	*Sealing face DUT*
Posizione di montaggio	verticale
Position during calibration	*vertical*

Note di taratura
Calibration Note

Lo strumento è stato tarato e riconsegnato nelle stesse condizioni in cui è arrivato nel laboratorio, in accordo con il metodo "as found as left" / The device under test (DUT) was calibrated in the same conditions it was arrived in laboratory, according to the method "as found as left".

Condizioni Ambientali
Environmental conditions

Temperatura *Temperature*	(22 ± 1,5)	°C
Pressione atmoferica *Atmospheric pressure*	(1016,6 ± 0,2)	hPa
Umidità relativa *Rel. Humidity*	(50 ± 15)	% UR

I dati meteo sono stati acquisiti tramite stazione meteo WIKA CPU6000-W s/n.1A00VCX6GJ2

Weather data were acquired via the WIKA CPU6000-W weather station s/n.1A00VCX6GJ2

Misure rilevate
Measurement results

Valore di riferimento *Reference value RS* bar	**Letture** *Reading DUT* bar		
	M1	**M2**	**M3**
0,00	0,0	0,0	0,0
99,91	99,9	100,0	99,9
199,82	199,9	199,9	199,9
299,72	299,8	299,9	299,8
399,63	399,7	399,8	399,7
499,53	499,6	499,6	499,6
599,43	599,5	599,5	599,5
699,33	699,3	699,4	699,4
799,24	799,2	799,2	799,2
899,13	899,1	899,1	899,1
999,03	999,0	999,0	999,0

WIKA Italia S.r.l. & C. s.a.s.
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70026 - Modugno (BA) • Italy
www.wika.it

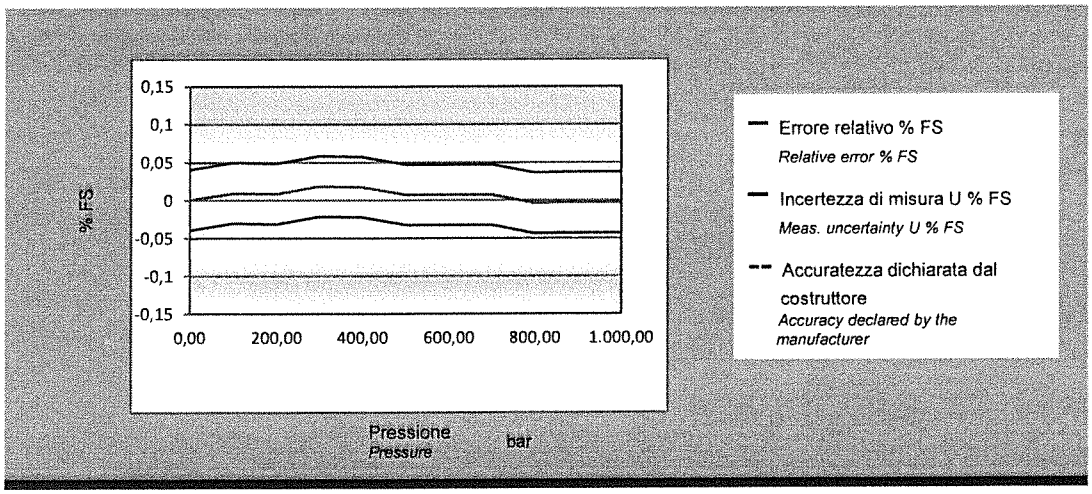
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LAT N° 114

Incertezza di misura
Uncertainty of measurement

Valori di riferimento *Reference value RS* bar	Media delle misure *Mean value* bar	Errore *Error* bar	Ripetibilità *Repeatability* bar	Isteresi *Hysteresis* bar	Incertezza di misura *Meas. Uncertainty* bar
0,00	0,0	0,0	0,0	0,0	0,40
99,91	100,0	0,1	0,0	0,1	0,40
199,82	199,9	0,1	0,0	0,0	0,40
299,72	299,9	0,2	0,0	0,1	0,40
399,63	399,8	0,2	0,0	0,1	0,40
499,53	499,6	0,1	0,0	0,0	0,40
599,43	599,5	0,1	0,0	0,0	0,40
699,33	699,4	0,1	0,1	0,1	0,40
799,24	799,2	0,0	0,0	0,0	0,40
899,13	899,1	0,0	0,0	0,0	0,40
999,03	999,0	0,0	0,0	0,0	0,40

Grafico degli errori di misura
Graphical representation of measurement uncertainty



L'incertezza estesa senza correzione del DUT è pari a 0,6 bar
The expanded uncertainty of the DUT without correction is equal to

Questo dato è ottenuto come MAX{Incertezza_di_misura$_i$ + |Errore$_i$|} della tabella precedente
This data is obatined as MAX{Meas._uncertainty$_i$ + |Error$_i$|} of the previous table

Il presente certificato non rappresenta una dichiarazione di conformità a specifica
This certificate is not a statement of compliance

ROSETTI MARINO	PRESSURE SAFETY VALVE CALIBRATION CHECK LIST		CROSSWIND		
Project	BLPH Base Load Power Hub	Job Nr.	123A90	Test Pack	63-00-TP59

Serial number:	SS-4R3A5	Manufacturer:	SWAGELOK	Calibration Date:	28/11/24
Shutter pressure:	/ barg	Back pressure:	N/A	Calibration pressure:	9,0 barg
Pressure gauge type:	0÷1000 barg	Serial number:	1A01G1LNH2N		

1	Visual inspection of external parts	A	R	NA	NI
A	Valve body	X			
B	Hat	X			
C	Hood			X	
D	Paint			X	
E	Data plate			X	
F	Connection Flange			X	
G	Flange sealing seat			X	
H	Spy hole			X	
I	Lever			X	
L	Lever connection System			X	
M	Pressure take off line (pilot operated valves only)			X	
N	Linkage			X	
O	Check the integrity of the relief valve seal			X	

2	Pre Pop Test	A	R	NA	NI
A	PSV before test (clean/dirty)	X			
B	Opening pressure, bar	X			
C	Closing pressure, bar	X			

3	Non-destructive test	A	R	NA	NI
A	Dye penetrant on the spring			X	
B	Dye penetrant on the valve seal seats			X	
C	Check the integrity of the belows			X	

4	Assembly and calibration	A	R	NA	NI
A	Check greasing and correct valve assembly	X			
B	Calibration certificate verification data	X			
C	Valve trip test	X			
D	Valve closure check	X			
E	Valve opening with lever check			X	
F	Calibration screw height annotation			X	
G	Annotation of number of calibration screw threads			X	
H	Lead seal installation	X			
I	Valve painting			X	

Note:

A = Accepted **R** = Rejected **NA** = Not Applicable **NI** = Not Inspected

PERFORMED BY	VERIFIED BY		
Contractor/Technician	Quality Control	Company Repr.	Third Party
RODEO	Quality Control Dept. Alberto Cavazzi Rosetti Marino SpA		

Base Load Power Hub (BLPH)

TEST PACK

N°63-00-TP-059
SUB-SYSTEM N° 63-00

System	63
Sub-System	63-00
Test Pressure	5.25 barg
Test Fluid	WATER
Test Duration	30 min

Rev.	Date	Prepared by	Checked by
0	27/09/2024	J.Q.	L.M.

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5. ISOMETRIC RED-MARKED DRAWINGS & EXTRACT OF ISO LIST
6. EXTRACT OF SUPPORT LIST AND DETAILS – NOT APPLICABLE
7. WELDING REGISTER & MATERIAL TRACEABILITY RECORD
8. PIPING & VESSEL PRE-COMMISSIONING CONFORMITY CHECKS & TESTS:
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1. COLOURED MARKED P&IDs

DRAWING NO. DRAWING_NO.

REV. REV

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
CAPACITY : 313 Sm³/h (PRODUCTION)

A-64000
NITROGEN GENERATION SYSTEM
CAPACITY : 52.7 Sm³/h (PRODUCTION)

SUCTION 63 PI 001 | DISCHARGE 63 PI 002 | COMMON ALARM 63 XA 001 | MCC DEVICE COMMS FAIL 63 XI 001 | AVAILABLE STATUS 63 XI 002 | RUN/STOP STATUS 63 XI 003 | SHUTDOWN STATUS 63 XI 004 | SHUTDOWN ALARM 63 XA 002 | ESD I

A-63000
INSTRUMENT AIR AND DRYER PACKAGE
SEE VENDOR DRAWING 1724000428-PR-PID-00019 NOTE 2, 3, 4, 5, 6 — 03

ESD I → FAULT PACKAGE 63 XA 003
ESD I → 63-XS-001 SHUT-DOWN
NOTE 14

1-1/2"-IA-263-01SS-N

03 — **V-63001** AIR RECEIVER — SEE VENDOR DRAWING 1724000428-PR-PID-00019
63 TP 040 — 2" — 2"x1.1/2"

03 — 63 TP 041 — 2"x1.1/2" — LO — BLPH-MV-149

1-1/2"-IA-108-01SS-N

63 PI 004 LL — ESD I
63 PI 003 L
INSTR. PIPING
BLPH-MV-150 3/4" FLG x 1/2" NPTF
BLPH-MV-151 3/4" FLG x 1/2" NPTF
63 PT 003 | 63 PT 004

123A90-DDL-PR-PID-80041 TO INSTRUMENT AIR DISTRIBUTION HEADER

03 — 63 TP 039

BLPH-MV-269 SB LO

1"-WW-079-01CS-H

123A90-DDL-PR-PID-80025 TO BRINE DISCHARGE CAISSON

BLPH-MV-270 LO 1.1/2"

1-1/2"-IA-204-01SS-N

123A90-DDL-PR-PID-80041 FROM INSTRUMENT AIR DISTRIBUTION HEADER — 03

03 — CONC. RED. 1.1/2"x1" — 64 TP 043

ESD I

TO SAFE LOCATION
2"-AV-224-01CS-N
03 — 64 TP 045

NOTE 15
64 PI 002 L LL
64 HS 031
64 PIC 031A H L
64 PIC 031B H L
64 PT 031A | 64 PT 031B | 64 PT 002
64 PV 031A | 64 PV 031B
INSTR. PIPING
3/4" FLG x 1/2" NPTF
BLPH-MV-386 | BLPH-MV-166 | BLPH-MV-167
FL-DC TYP.6 1"
N-158 N-100

NOTE 1, 12
SET @ 10 barg
102 64 PSV 001
NOTE 10 TO ATM
2"-AV-160-01CS-N
1.5" x 1"
SB BLPH-MV-278 FB-LO 1.1/2"
1-1/2"-N-197-01CS-N
1.5" x 1"

1"-N-100-01CS-N

1"-N-101-01CS-N — 123A90-DDL-PR-PID-80028 TO HYDROGEN VENT HEADER
1"-N-125-03HSS-N — 123A90-DDL-PR-PID-80017 TO HYDROGEN STORAGE VESSEL C
1"-N-124-03HSS-N — 123A90-DDL-PR-PID-80016 TO HYDROGEN STORAGE VESSEL B
1"-N-028-03HSS-N — 123A90-DDL-PR-PID-80015 TO HYDROGEN STORAGE VESSEL A
1"-N-257-03HSS-N
UPPER LEVEL
LOWER LEVEL
1"-N-126-03HSS-N — 123A90-DDL-PR-PID-80018 TO HYDROGEN STORAGE VESSEL D
1"-N-127-03HSS-N — 123A90-DDL-PR-PID-80019 TO HYDROGEN STORAGE VESSEL E
1"-N-128-03HSS-N — 123A90-DDL-PR-PID-80020 TO HYDROGEN STORAGE VESSEL F
1"-N-151-01CS-N — 123A90-DDL-PR-PID-80011 TO ELECTROLYSER PACKAGE
01CS 03HSS

64 SDY 001 — IA — S
64 SDV 001 — NOTE 13 — NC-FC TYP.2

03 — 64 TP 042 — BLPH-MV-271 SB LO — 1"-N-158-01CS-N
03 — 3/4" LC — BLPH-MV-275 NOTE 16 — 03
64 TP 044 — 1"-N-262-01CS-N

A-64000
NITROGEN SYSTEM
SEE VENDOR DRAWING 1724000437-PR-PID-00018 — 03

ESD I → FAULT PACKAGE 64 XA 003
64-XS-001 SHUT-DOWN — ESD I
NOTE 14

03 — 64 TP 046 — **V-64001** NITROGEN RECEIVER — SEE VENDOR DRAWING 1724000437-PR-PID-00018 — 03

63-00-TP-059
5.25 barg

NOTES

1. ONE UNINSTALLED SPARE PSV SHALL BE AVAILABLE.
2. COMPRESSORS AND DRIERS DESIGNED FOR 2 X 100% CONFIGURATION. INSTRUMENT AIR RECEIVER DESIGNED FOR 1 X 100%.
3. VENDOR TO PROVIDE NECESSARY CONTROLS, INSTRUMENTATIONS AND ISOLATIONS IN ORDER TO OPERATE THE PLANT IN SAFE MANNER.
4. COMPRESSORS WILL OPERATE ON THE BASIS OF ONE WORKING AND ONE ON STANDBY.
5. COMPRESSORS TO BE ROTARY SCREW TYPE OIL FREE.
6. AIR COMPRESSOR INLET TO BE LOCATED AWAY FROM ANY VENTS.
7. DELETED.
8. DELETED.
9. DELETED.
10. TO SAFE LOCATION, ROUTED AWAY FROM WALKWAYS.
11. DELETED.
12. 64-PSV-001 SIZED FOR UPSTREAM 64-PV-031 CV FAILURE. (03)
13. 64-SDV-001 IS NORMALLY CLOSED. IF REQUIRED THE OPERATOR CAN REMOTELY OPEN THE VALVE TO ALLOW PURGING OPERATION. VALVE 64-SDV-001 IS ALSO CONNECTED TO THE PCS SYSTEM.
14. SERIAL COMMUNICATION WITH CONTROL SYSTEM.
15. THE ALARM 64-PAL-002 WILL CLOSE 64-SDV-001 THROUGH SAFETY SYSTEM.
16. MANUAL VALVE BLPH-MV-275 TO BE CONNECTED WITH MANUAL VALVE BLPH-MV-466 (INSTALLED ON ELECTROLYSER PACKAGE EXIT LINE) BY MEAN ON A FLEXIBLE HOSE DURING COMMISSIONING PHASE FOR PURGING OPERATION. (03)

HOLDS

1. DELETED.
2. DELETED.
3. DELETED.
4. DELETED.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
03	09/09/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
02	12/06/2024	CIM	RZI	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
01	15/02/2024	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)
00	20/10/2023	CIM	RZI	DLO	ISSUE FOR ACCEPTANCE (IFA)

CROSSWIND

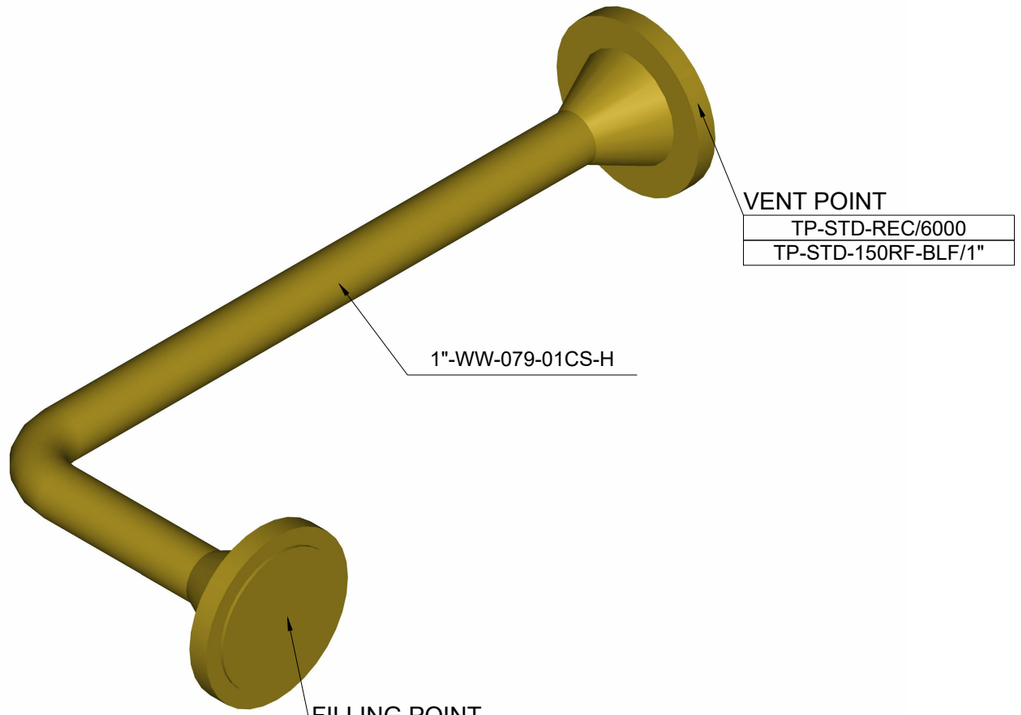
ROSETTI MARINO

TITLE :
BLPH PIPING AND INSTRUMENTATION DIAGRAM
INSTRUMENT AIR PACKAGE

CONTRACT NO./TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK		SCALE	NTS
DRAWN	CHECKED	APPROVED	DATE	
A1	DRAWING NO. 123A90-DDL-PR-PID-80027		SHEET 001	REV. 03

File Name : FILE_NAME

2. HYDROSTATIC TEST 3D CIRCUIT



63-00-TP-059

5.25 barg

NOTES

- MANUAL VALVES MAY BE EXCLUDED FROM THE TEST
- ALL INSTRUMENTS (PG, TT, etc.) SHALL BE EXCLUDED FROM THE TEST
- ALL INSTRUMENT VALVES (SDV, PCV, etc.) SHALL BE EXCLUDED FROM THE TEST
- FILLING POINT, VENTS & DRAINS SHALL BE DEFINED ON SITE AS FOR REAL TEST CIRCUIT CONFIGURATION

REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	27-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

CROSSWIND | ROSETTI MARINO

HOLLANDSE KUST NOORD WIND PARK

PIPING TEST 3D CIRCUIT
63-00-TP-059

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	N/A	00	1 OF 1

3. MATERIAL LIST FOR TEST

CROSSWIND / ROSETTI MARINO	CONTRACTOR: Rosetti Marino SpA	JOB :	123A90
	PROJECT: Base Load Power Hub (BLPH)	DATE :	20/09/2024
	TITLE: MATERIAL LIST FOR HYDROSTATIC TEST	REV. :	00

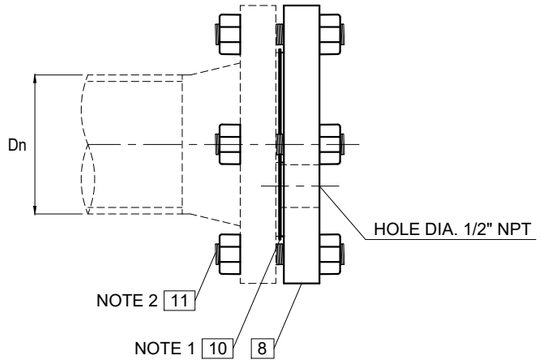
TEST REF.	TYPICAL ITEM CODE	ROSETTI CODE	ROSETTI DESCRIPTION	Q.TY X SINGLE STD	Q.TY STD X TP	Q.ty x TP	NOTES
ALL TEST	TP-STD-FILL/6000	1EQP252	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5	1	5	
ALL TEST	TP-STD-FILL/6000	N100SS02660H00	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	7	1	7	
ALL TEST	TP-STD-FILL/6000	TEEFSS00060H00	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	3	1	3	
ALL TEST	TP-STD-FILL/6000	1MECH069	Adapter THRD-M NPT x BSPP ø1/2" 400 bar ASTM A182 Gr.F316/316L	2	1	2	
ALL TEST	TP-STD-REC/6000	1EQP252	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4	1	4	
ALL TEST	TP-STD-REC/6000	N100SS02660H00	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	9	1	9	
ALL TEST	TP-STD-REC/6000	TEEFSS00060H00	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	2	1	2	
ALL TEST	TP-STD-REC/6000	CAPFSS00200H00	Cap Forged THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
ALL TEST	TP-STD-REC/6000	CPL0SS00240H00	Coupling THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
ALL TEST	TP-STD-REC/6000	E900SS00340H00	90 Deg Elbow THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
ALL TEST	TP-STD-PLGNPT/1/2"	PLGHSS00090H00	Plug Hex. Head THRD-M NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1	1	1	
TP-059	TP-STD-150RF-BLF/1"	FLBHCS0022010H	Flange Blind c/w NPT Hole ø1"x1/2" 150LB RF ASTM/ASME A/SA105	1	2	2	
TP-059	TP-STD-150RF-BLF/1"	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ø1" 150LB RF AISI 316 + GRAPHITE c/w INNER RING	1	2	2	
TP-059	TP-STD-150RF-BLF/1"	SB20BO00980200	Stud Bolt + 2 Heavy Nuts 1/2" L=80MM ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	2	8	

STD NAME	RATING	DESCRIPTION
TP-STD-150RF	150 RF	STANDARD FOR BLIND POINT

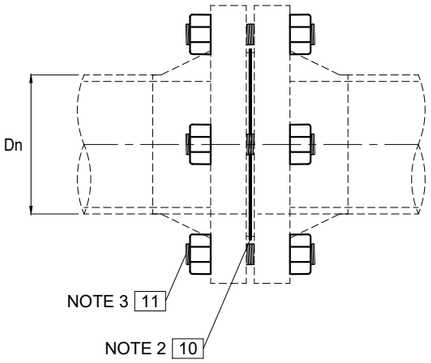
TP-STD-150RF-BLF/Dn
TP-STD-150RF-GSK/Dn

MATERIAL LIST

STD	POS.	DESCRIPTION	Q.TY
TP-STD-150RF-___/1/2"	8	Flange Blind c/w NPT Hole ø1/2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1/2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=60 MM	4
TP-STD-150RF-___/3/4"	8	Flange Blind c/w NPT Hole ø3/4"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø3/4" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=65 MM	4
TP-STD-150RF-___/1"	8	Flange Blind c/w NPT Hole ø1"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=65 MM	4
TP-STD-150RF-___/1.1/4"	8	Flange Blind c/w NPT Hole ø1.1/4"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1.1/4" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=70 MM	4
TP-STD-150RF-___/1.1/2"	8	Flange Blind c/w NPT Hole ø1.1/2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø1.1/2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1/2" L=70 MM	4
TP-STD-150RF-___/2"	8	Flange Blind c/w NPT Hole ø2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=85 MM	4
TP-STD-150RF-___/2.1/2"	8	Flange Blind c/w NPT Hole ø2.1/2"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø2.1/2" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=90 MM	4
TP-STD-150RF-___/3"	8	Flange Blind c/w NPT Hole ø3"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø3" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=90 MM	4
TP-STD-150RF-___/4"	8	Flange Blind c/w NPT Hole ø4"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø4" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 5/8" L=90 MM	8
TP-STD-150RF-___/6"	8	Flange Blind c/w NPT Hole ø6"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø6" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 3/4" L=105 MM	8
TP-STD-150RF-___/8"	8	Flange Blind c/w NPT Hole ø8"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø8" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 3/4" L=110 MM	8
TP-STD-150RF-___/10"	8	Flange Blind c/w NPT Hole ø10"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø10" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 7/8" L=120 MM	12
TP-STD-150RF-___/12"	8	Flange Blind c/w NPT Hole ø12"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø12" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 7/8" L=125 MM	12
TP-STD-150RF-___/14"	8	Flange Blind c/w NPT Hole ø14"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø14" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1" L=135 MM	12
TP-STD-150RF-___/16"	8	Flange Blind c/w NPT Hole ø16"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø16" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1" L=140 MM	16
TP-STD-150RF-___/18"	8	Flange Blind c/w NPT Hole ø18"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø18" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1.1/8" L=150 MM	16
TP-STD-150RF-___/20"	8	Flange Blind c/w NPT Hole ø20"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø20" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1.1/8" L=160 MM	20
TP-STD-150RF-___/24"	8	Flange Blind c/w NPT Hole ø24"x1/2" 150LB RF ASTM/ASME A/SA105	1
	10	Gasket ø24" 150LB RF	1
	11	Stud Bolt + 2 Heavy Nuts 1.1/4" L=175 MM	20



TP-STD-150RF-BLF/Dn
BLIND FLANGE



TP-STD-150RF-GSK/Dn
GASKET ONLY

NOTES

1. GASKET MATERIAL AS PER PIPING CLASS
2. STUD BOLTS AND NUTS MATERIAL AS PER TEST MTO

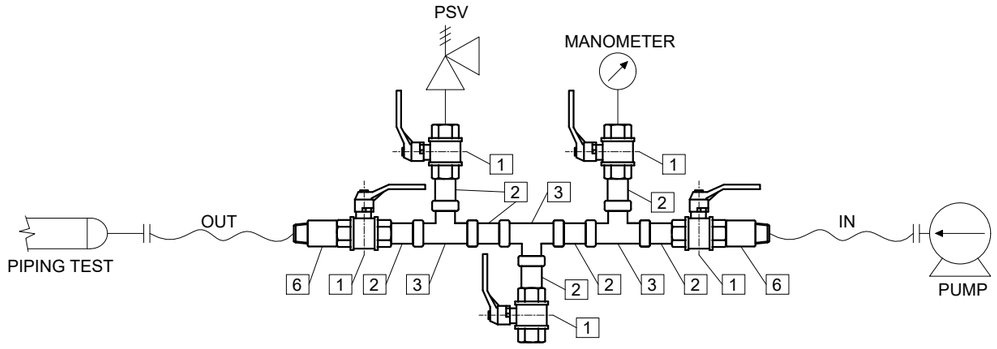
REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	06-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

ROSETTI MARINO

PIPING TEST STANDARD DRAWING
TP-STD-150RF
TP-STD-150RF-BLF/Dn
TP-STD-150RF-GSK/Dn

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	TP_STD_150RF	00	1 OF 1

STD NAME	RATING	DESCRIPTION
TP-STD-FILL	3000 / 6000 / 9000	STANDARD FOR FILLING POINT
TP-STD-FILL/RATING		



TP-STD-FILL/RATING

FILLING POINT 3000/6000/9000

MATERIAL LIST

STD	POS.	DESCRIPTION	Q.TY
TP-STD-FILL/3000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5
	2	Nipple L=100mm TBE ø1/2" Thk.3.73mm ASTM A312 Gr.TP316/316L	7
	3	Tee Forged THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	3
	6	Adapter THRD-M NPT x BSPP ø1/2" 400 bar ASTM A182 Gr.F316/316L	2
TP-STD-FILL/6000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5
	2	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	7
	3	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	3
	6	Adapter THRD-M NPT x BSPP ø1/2" 400 bar ASTM A182 Gr.F316/316L	2
TP-STD-FILL/9000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	5
	2	Nipple L=100mm TBE ø1/2" Thk.7,47mm ASTM A312 Gr.TP316/316L	7
	3	Tee Forged THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	3
	6	Adapter THRD-M NPT x BSPP ø1/2" 523 bar 304SS	2

NOTES

REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	06-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

ROSETTI MARINO

PIPING TEST STANDARD DRAWING

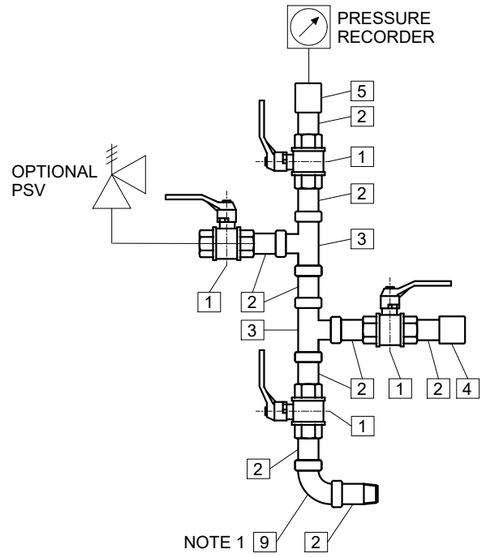
TP-STD-FILL

TP-STD-FILL/RATING

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	TP_STD_FILL	00	1 OF 1

STD NAME	RATING	DESCRIPTION
TP-STD-REC	3000 / 6000 / 9000	STANDARD FOR RECORDING POINT

TP-STD-REC/RATING



TP-STD-REC/RATING
RECORDING POINT 3000/6000/9000

MATERIAL LIST

STD	POS.	DESCRIPTION	Q.TY
TP-STD-REC/3000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4
	2	Nipple L=100mm TBE ø1/2" Thk.3.73mm ASTM A312 Gr.TP316/316L	9
	3	Tee Forged THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	2
	4	Cap Forged THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	1
	5	Coupling THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	1
	9	90 Deg Elbow THRD-F NPT ø1/2" 3000# ASTM A182 Gr.F316/316L	1
TP-STD-REC/6000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4
	2	Nipple L=100mm TBE ø1/2" Thk.4,78mm ASTM A312 Gr.TP316/316L	9
	3	Tee THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	2
	4	Cap Forged THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1
	5	Coupling THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1
	9	90 Deg Elbow THRD-F NPT ø1/2" 6000# ASTM A182 Gr.F316/316L	1
TP-STD-REC/9000	1	Ball Valve THRD-F NPT ø1/2" 7250 psi 316L	4
	2	Nipple L=100mm TBE ø1/2" Thk.7,47mm ASTM A312 Gr.TP316/316L	9
	3	Tee Forged THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	2
	4	Cap Forged THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	1
	5	Coupling THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	1
	9	90 Deg Elbow THRD-F NPT ø1/2" 9000# ASTM A182 Gr.F316/316L	1

NOTES

1. 90 DEG ELBOW SHALL BE INSTALLED WHERE APPLICABLE ONLY

REV.	DATE	DESCRIPTION	DRN	CHKD	APPD
00	06-09-24	ISSUED FOR INFORMATION	J.Q.	T.L.	L.M.

ROSETTI MARINO

PIPING TEST STANDARD DRAWING
TP-STD-REC
TP-STD-REC/RATING

FORMAT	SCALE	DRAWING N.	REV.	SHEET
A3	NTS	TP_STD_REC	00	1 OF 1

4. EXTRACT OF LINE LIST

Isometric N°	Short Line N°	Sequential Number	Size [in]	Piping Class	Insulation Type	Pipe Wall Thicknes [mm]	Pipe Schedule	Tracing	Line Number	PID Number	Design Pressure [barg]	Commissioning System Code	Commissioning SubSystem Code	Test Pack N°	Test Fluid	Test Pressure [barg]	Fluid Service	Class Base Material	Line INF/SUP/TL	Ped Category	Painting System	Line Base Ral
32	WW-079	079	1	01CS	H	4,55	80	N/A	1"-WW-079-01CS-H	123A90-DDL-PR-PID-80027	3,50	55 / 63	55-01 / 63-00	TP-003/TP-059	Water	5.25	Waste Water	Carbon Steel	INF	Art. 4, par. 3	1D	N/A

5. ISOMETRIC RED MARKED DRAWING & EXTRACT OF ISO LIST

CROSSWIND

ROSETTI MARINO

PROJECT

BASE LOAD POWER HUB (BLPH)

JOB **123A90**

DOCUMENT NR **123A90-FDL-ST-LIS-00001**

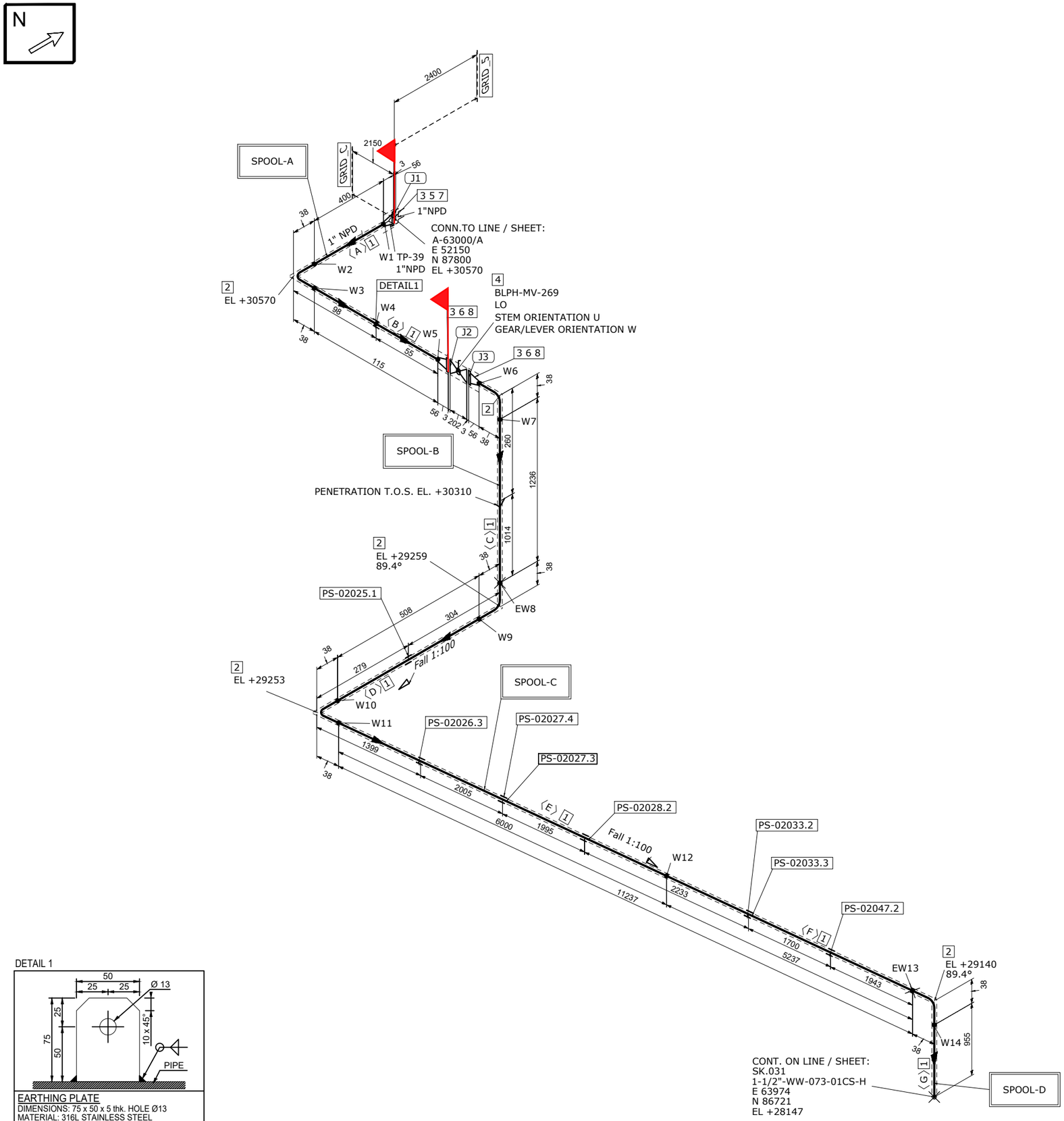
REV. **05**

TITLE

SHOP DRAWING ISOMETRIC LIST

DATE **17/09/2024**

POS.	DOCUMENT NR	ROSETTI SKETCH NR	SHEET	DOCUMENT TITLE	Rev. 00	Rev. 01	Rev. 02	Rev. 03	Rev. 04	Rev. 05	Rev. 06	Rev. 07	Rev. 08	Rev. 09	Rev. 10	Mark-up Rev.	Mark-up Data	LAST REV	LIST REV	NOTES	TEST PACK NR
44	123A90-FDL-PP-DI-00032-01	**032**	01	SHOP DRAWING ISOMETRIC - LINE NR 1"-WW-079-01CS-H	27/08/2024													**00**	**03**		**TP-003/TP-059**



DETAIL 1

EARTHING PLATE
DIMENSIONS: 75 x 50 x 5 thk. HOLE Ø13
MATERIAL: 316L STAINLESS STEEL
ORIENTATION: UP UNLESS OTHERWISE NOTED

MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPECS08300100	Pipe ASME B36.10M PE 4,55 SML ASTM/ASME A/SA333 Gr.6	14.5M	46.9
2	1	E90RCS01780100	90 Deg Elbow Long Radius ASME B16.9 BW 4,55 WRS ASTM/ASME A/SA420 Gr.WPL6	5	0.9
3	1	FLW0CS16540100	Flange WN ASME B16.5 150LB RF 4,55 FRG ASTM/ASME A/SA350 Gr.LF2	3	4.2

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VLBLNN01280100	Block & Bleed Valve API 6D FLG 150LB RF BS01B01RFS	1	12.5
5	1	SPIKNN01220100	Insulation Kit Ends as per ASME B16.5 150LB RF	1	0.1
6	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
7	1/2	SB20BO00980200	80 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	0.5
8	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	52.0
ERECTION WEIGHT [kg]	14.2
OVERALL WEIGHT [kg]	66.2

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4		FW
W5	1	BW
W6	1	BW
W7	1	BW
EW8	1	BW
W9	1	BW
W10	1	BW
W11	1	BW
W12	1	BW
EW13	1	BW
W14	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	400	BEVEL	BEVEL
B	1	115	BEVEL	BEVEL
C	1	1236	BEVEL	BEVEL
D	1	508	BEVEL	BEVEL
E	1	6000	BEVEL	BEVEL
F	1	5237	BEVEL	BEVEL
G	1	955	BEVEL	BEVEL

SUPPORT LIST

PS-02025.1
PS-02026.3
PS-02027.3
PS-02027.4
PS-02028.2
PS-02033.2
PS-02033.3
PS-02047.2

SPOOL	WELD [inches]	WEIGHT [kg]
A	4	4.7
B	2	5.6
C	4	38.4
D	1	3.3
MONT	2	14.2

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 1D	BASE RAL N/A	FLUID PHASE	Liquid				
INSULATION	TYPE H	THICKNESS 20 [mm]	DESIGN	PRESS. 3.5 [barg]	TEMP. -46 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 5.25 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

63-00-TP-059

MASTER

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-WW-079-01CS-H

SK.032

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK

SCALE: N/A

DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 27-08-2024

FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00032 | SHEET / OF: 1/1 | REV.: 00

6. EXTRACT OF SUPPORT LIST & DETAILS

NOT APPLICABLE

7. WELDING REGISTER & MATERIAL TRACEABILITY RECORD

Welding Register

Job	123A90	BASE LOAD POWER HUB (BLPH)			
From Discipline	PP	Piping			
To Discipline	PP	Piping			
Drawings		**From**	32	**To**	32
Sheet		**From**	0	**To**	0
Marks		**From**		**To**	
Location		**From**		**To**	
Material		**From**		**To**	
Welds Execution		**From**		**To**	
Welds Acceptance		**From**		**To**	
Report Date		**From**		**To**	
Prefabrication	All				
Welding Status	All				
ITEM					
ADDITIONAL PARAMETERS	**LINE**	**From**		**To**	
	SPOOL	**From**		**To**	
		From		**To**	

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension / Films n.	Thickness	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Cont.	Accept. Date	Spool
1/32/1/_		**00**	**17-09-2024**	**9**	**AZ53**			**FWN**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**18-09-2024**	**A**
01CS	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
2/32/1/_		**00**	**24-09-2024**	**14**	**AZ53**			**PIPE**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**26-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				26-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
3/32/1/_		**00**	**17-09-2024**	**9**	**AZ53**			**ELB**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**18-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
4/32/1/_		**00**	**25-09-2024**	**18**	**AZ53**			**PL**		**50,00 mm**	**5,00 mm**	**FILL**	**0,050 m**	**P**	**S.S.**	**C1A**	**GTAW**	**F**	**28-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				28-09-2024				
		LP	FIN	Weld Completion				10 %				Acceptable								
5/32/1/_		**00**	**17-09-2024**	**9**	**AZ53**			**PIPE**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**18-09-2024**	**A**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
6/32/1/_		**00**	**17-09-2024**	**9**	**AZ53**			**FWN**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**18-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
7/32/1/_		**00**	**24-09-2024**	**14**	**AZ53**			**ELB**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**26-09-2024**	**B**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				26-09-2024				
		RT	FIN	Weld Completion				10 %				Acceptable								
8/32/1/_		**00**						**PIPE**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**M**	**C.S.**			**BW**		
	2	VIS	FTP	FIT-UP and on weld				100 %												
		RT	FIN	Weld Completion				10 %												
9/32/1/_		**00**	**17-09-2024**	**9**	**AZ53**			**ELB**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**26-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable				18-09-2024				
		RT	FIN	Weld Completion		IDL-QCI-RT 0036 00	AA	10 %	000083	4		Acceptable				26-09-2024				

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05
ITEM

Weld Number / Class	Insp. Category	Rev. / Cont.	Prod. Date / Examination phase	Prod. Sheet	Welders	Work Instructions	Oper.	Item type / Exam. %	N. Rep	Dimension	Thickness / Films n.	Bevel / Result	Weld Length / WPS Rip.	P/M / Techn. Weld.	Material / Defect length	WPS / CND date	Techn. Weld. / NOTE	Type Conn	Accept. Date	Spool
9/32/1/_		**00**	**17-09-2024**	**9**	**AZ53**			**ELB**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**26-09-2024**	**C**
10/32/1/_		**00**	**17-09-2024**	**9**	**AZ53**			**PIPE**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**18-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					18-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
11/32/1/_		**00**	**26-09-2024**	**17**	**AZ52**			**ELB**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**28-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					28-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
12/32/1/_		**00**	**27-09-2024**	**19**	**AZ53**			**PIPE**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**30-09-2024**	**C**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					30-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								
13/32/1/_		**00**						**PIPE**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**M**	**C.S.**			**BW**		
	2	VIS	FTP	FIT-UP and on weld				100 %												
		RT	FIN	Weld Completion				10 %												
14/32/1/_		**00**	**18-09-2024**	**10**	**AZ53**			**ELB**		**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**19-09-2024**	**D**
	2	VIS	FTP	FIT-UP and on weld		123A90-PML-QHSE-PRO-00103 Rev 00	SSANTUCCI	100 %	OK			Acceptable					19-09-2024			
		RT	FIN	Weld Completion				10 %				Acceptable								

Totals per DWG	**32**	**Prefabrication**	**1,15 m**	**12 Nr. Welds**	**11,00 inch**
		Erection	**0,20 m**	**2 Nr. Welds**	**2,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**1,15 m**	**12 Nr. Welds**	**11,00 inch**
		Accepted	**1,15 m**	**12 Nr. Welds**	**11,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Totals by Discipline		**Prefabrication**	**1,15 m**	**12 Nr. Welds**	**11,00 inch**
		Erection	**0,20 m**	**2 Nr. Welds**	**2,00 inch**
		Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
		Performed	**1,15 m**	**12 Nr. Welds**	**11,00 inch**
		Accepted	**1,15 m**	**12 Nr. Welds**	**11,00 inch**
		Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Rosetti Marino S.p.A.

Welding Register

Job 123A90 BASE LOAD POWER HUB (BLPH)
Client CRWIND CROSSWIND
Discipline PP Piping

Order Number CW-I-WP4-2023-05

ITEM

Weld Number		Rev.	Prod. Date	Prod. Sheet	Welders		Item type	Dimension	Thickness	Bevel	Weld Length	P/M	Material	WPS	Techn. Weld.	Type Conn	Accept. Date	Spool
Class	Insp. Category	Cont.	Examination phase		Work Instructions	Oper.	Exam. %	N. Rep	Films n.	Result	WPS Rip.	Techn. Weld.		Defect length	CND date	NOTE		
14/32/1/_		**00**	**18-09-2024**	**10**	**AZ53**		**ELB**	**1,00 in**	**4,55 mm**	**V**	**0,104 m**	**P**	**C.S.**	**A1A**	**GTAW**	**BW**	**19-09-2024**	**D**

Totals by Project			
Prefabrication	**1,15 m**	**12 Nr. Welds**	**11,00 inch**
Erection	**0,20 m**	**2 Nr. Welds**	**2,00 inch**
Offshore	**0,00 m**	**0 Nr. Welds**	**0,00 inch**
Performed	**1,15 m**	**12 Nr. Welds**	**11,00 inch**
Accepted	**1,15 m**	**12 Nr. Welds**	**11,00 inch**
Repaired	**0,00 m**	**0 Nr. Welds**	**0,00 inch**

Cliente/Contractor	**CROSSWIND**	Preparato da/Prepared by	Controllato da/Checked by	Approvato da/Approved by	
SubContrattista/SubContractor	**ROSETTIMARINO/GROUPOFCOMPANY**	Nome/Name: Antonio Galesi	Nome/Name:	Nome/Name:	
Progetto/Project	**Hollandse Kust Noord Wind Park Project**				
Commessa/Job	**123A90 - Piping**				
Disciplina/Discipline	**PIPING**				
TitoloDocumento/DocumentTitle	**Material Traceability Report**	StatoDocumento/Document Status:		Data/Date: 21/11/2024	
RosettiDoc.Num.	**123A90MTR001**				

Sketch no.	Rev.	sheet	Spool	Piping Class	pos.	Q.ty (n° - m)	Description	Heat/Serial Number	PurchaseOrder	Pos. Order	Mat. Certificate	Weld Ref.	Note
32	00	1	A	01CS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.4,55mm ASTM/ASME A/SA420 Gr.WPL6	402212	1724000839	00690	4527-P4	W2-W3	
32	00	1	A	01CS	3	1	Flange WN ›1" Thk.4.55mm 150LB RF ASTM/ASME A/SA350 Gr.LF2	23/70335	1724000839	01220	2024-C_MFF-01243	W1	
32	00	1	A	01CS	3	1	Flange WN ›1" Thk.4.55mm 150LB RF ASTM/ASME A/SA350 Gr.LF2	23/70335	1724000839	01220	2024-C_MFF-01243	W5	
32	00	1	A	01CS	1A	0,4	Pipe 33,4mm(1") thk.4.55mm ASTM/ASME A/SA333 Gr.6	1234196	1724000838	00050	24A2938		
32	00	1	A	01CS	1B	0,115	Pipe 33,4mm(1") thk.4.55mm ASTM/ASME A/SA333 Gr.6	1234196	1724000838	00050	24A2938		
32	00	1	A	01CS	MESSA A TERRA	1	MESSA A TERRA PL75 x 50 x 5 thk. FORO Ø13	43076	1724000275	00010	929116/002	W4	
32	00	1	B	01CS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.4,55mm ASTM/ASME A/SA420 Gr.WPL6	402212	1724000839	00690	4527-P4	W6-W7	
32	00	1	B	01CS	3	1	Flange WN ›1" Thk.4.55mm 150LB RF ASTM/ASME A/SA350 Gr.LF2	23/70335	1724000839	01220	2024-C_MFF-01243	W6	
32	00	1	B	01CS	1C	1,236	Pipe 33,4mm(1") thk.4.55mm ASTM/ASME A/SA333 Gr.6	1234196	1724000838	00050	24A2938		
32	00	1	C	01CS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.4,55mm ASTM/ASME A/SA420 Gr.WPL6	402212	1724000839	00690	4527-P4	W9	
32	00	1	C	01CS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.4,55mm ASTM/ASME A/SA420 Gr.WPL6	402212	1724000839	00690	4527-P4	W10-W11	
32	00	1	C	01CS	1D	0,508	Pipe 33,4mm(1") thk.4.55mm ASTM/ASME A/SA333 Gr.6	1234196	1724000838	00050	24A2938		
32	00	1	C	01CS	1E	6	Pipe 33,4mm(1") thk.4.55mm ASTM/ASME A/SA333 Gr.6	1234196	1724000838	00050	24A2938		
32	00	1	C	01CS	1F	5,237	Pipe 33,4mm(1") thk.4.55mm ASTM/ASME A/SA333 Gr.6	1234196	1724000838	00050	24A2938		
32	00	1	D	01CS	2	1	90 Deg Elbow Long Radius BW ›1" Thk.4,55mm ASTM/ASME A/SA420 Gr.WPL6	402212	1724000839	00690	4527-P4	W14	
32	00	1	D	01CS	1G	0,955	Pipe 33,4mm(1") thk.4.55mm ASTM/ASME A/SA333 Gr.6	1234196	1724000838	00050	24A2938		

8. PIPING & VESSEL PRE-COMMISSIONING CONFORMITY CHECKS & TESTS:

8.1 CLX02A - Pipework Before test

8.2 CLX02B - Pipework After Test

8.3 CXX01 - Thermal insulation

8.4 CXX02 – Painting Line

8.5 TMX03 – Cleaning

8.6 TMX05 – Pressure test

8.7 TMX25 – Gross Air Leak Test – NOT APPLICABLE

8.8 TMX27 – Bolt Tensioning / Torquing

8.9 TPLX05 - Drying

ITEM	Tag	63-00-TP-059	: Test Pack 63-00-TP-059			Dwg	123A90-DDL-PR-PID-80027
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10003672		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity STS	Discipline	Piping	Form	TPLX05 Drying

1	Drying out method :	Drying with dry air.
2	Operation description :	Dry the system using a flow of dry air, ensuring all drains are open to facilitate the removal of moisture. The drying process shall be monitored closely to ensure complete moisture removal. After drying, isolate and close the inlet and outlet points.
3	Temporary means :	Cups to isolate inlet and outlet points.
4	Dew point (obtain after soaking and nitrogen purging):	NA

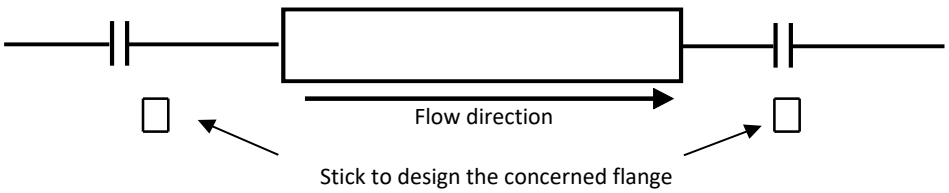
5	Valve body cavity, branches, etc.. Have been drained form residual water	●
	Attachments	
6	Procedures	
7	Sketches and drawings	
8	Pressure records	
9	Records of failures	
10	SAFETY PRECAUTIONS:	Delimit the test area.
11	REMARKS:	

	Performed by	● WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	Rodeo	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Massimo Bruschi	
Date	2024-11-29	2024-12-06	
Signature	Digitaly signed by Emanuele Delfino 2024-11-29T09:15:55.197Z	Digitaly signed by Massimo Bruschi 2024-12-06T16:51:05.287Z	

ITEM	Tag	127-2-J1	: Joint 127-2-J1			Dwg	123A90-FDL-PP-DI-00127-02
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	LD
TASK	code	C10004169		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-025

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	2"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 / RD00261
Bolt tensioning/Torquing value	122.2		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	37	123	37	73	122.2
2	37	123	37	73	122.2
3	37	123	37	73	122.2
4	37	123	37	73	122.2
5			37	73	122.2
6			37	73	122.2
7			37	73	122.2
8			37	73	122.2
9			37	73	122.2
10			37	73	122.2
11			37	73	122.2
12			37	73	122.2
13			37	73	122.2
14			37	73	122.2
15			37	73	122.2
16			37	73	122.2
17			37	73	122.2
18			37	73	122.2
19			37	73	122.2
20			37	73	122.2

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

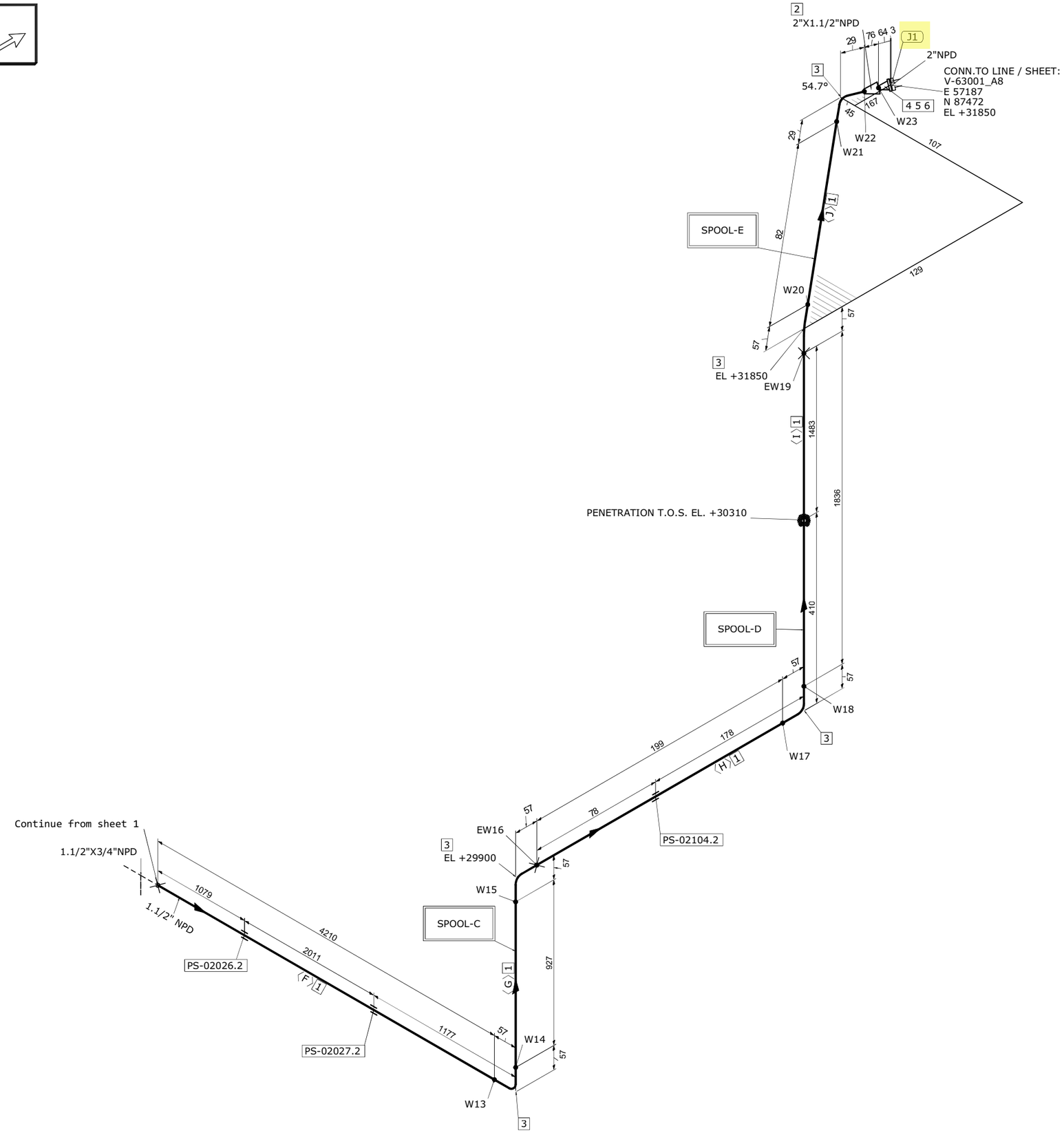
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-14	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:51:52.695Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-14T16:07:21.100Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	7.3M	29.8
2	2X1.1/2	REC0SS0280021H	Reducer Concentric ASME B16.9 BW 2,77x3,68 WRS ASTM A403 Gr.WP316/316L	1	0.3
3	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	5	1.9
4	2	FLW0SS00010200	Flange WN ASME B16.5 150LB RF 2,77 FRG ASTM A182 Gr.F316/316L	1	2.7

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
5	2	GSW0GK11130200	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	1	0.1
6	5/8	SB20BO00660300	85 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	1.0

FABRICATION WEIGHT [kg]	34.7
ERECTION WEIGHT [kg]	1.1
OVERALL WEIGHT [kg]	35.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W13	1.1/2	BW
W14	1.1/2	BW
W15	1.1/2	BW
EW16	1.1/2	BW
W17	1.1/2	BW
W18	1.1/2	BW
EW19	1.1/2	BW
W20	1.1/2	BW
W21	1.1/2	BW
W22	1.1/2	BW
W23	2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
F	1.1/2	4210	BEVEL	BEVEL
G	1.1/2	927	BEVEL	BEVEL
H	1.1/2	199	BEVEL	BEVEL
I	1.1/2	1836	BEVEL	BEVEL
J	1.1/2	82	BEVEL	BEVEL

SUPPORT LIST

PS-02026.2
PS-02027.2
PS-02104.2

SPOOL	WELD [inches]	WEIGHT [kg]
C	4.5	21.9
D	3	8.7
E	6.5	4.1
MONT	3	1.1

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	20-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-263-01SS-N
SK.127

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 20-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00127 | SHEET / OF: 2/2 | REV.: 00

LINE DATA

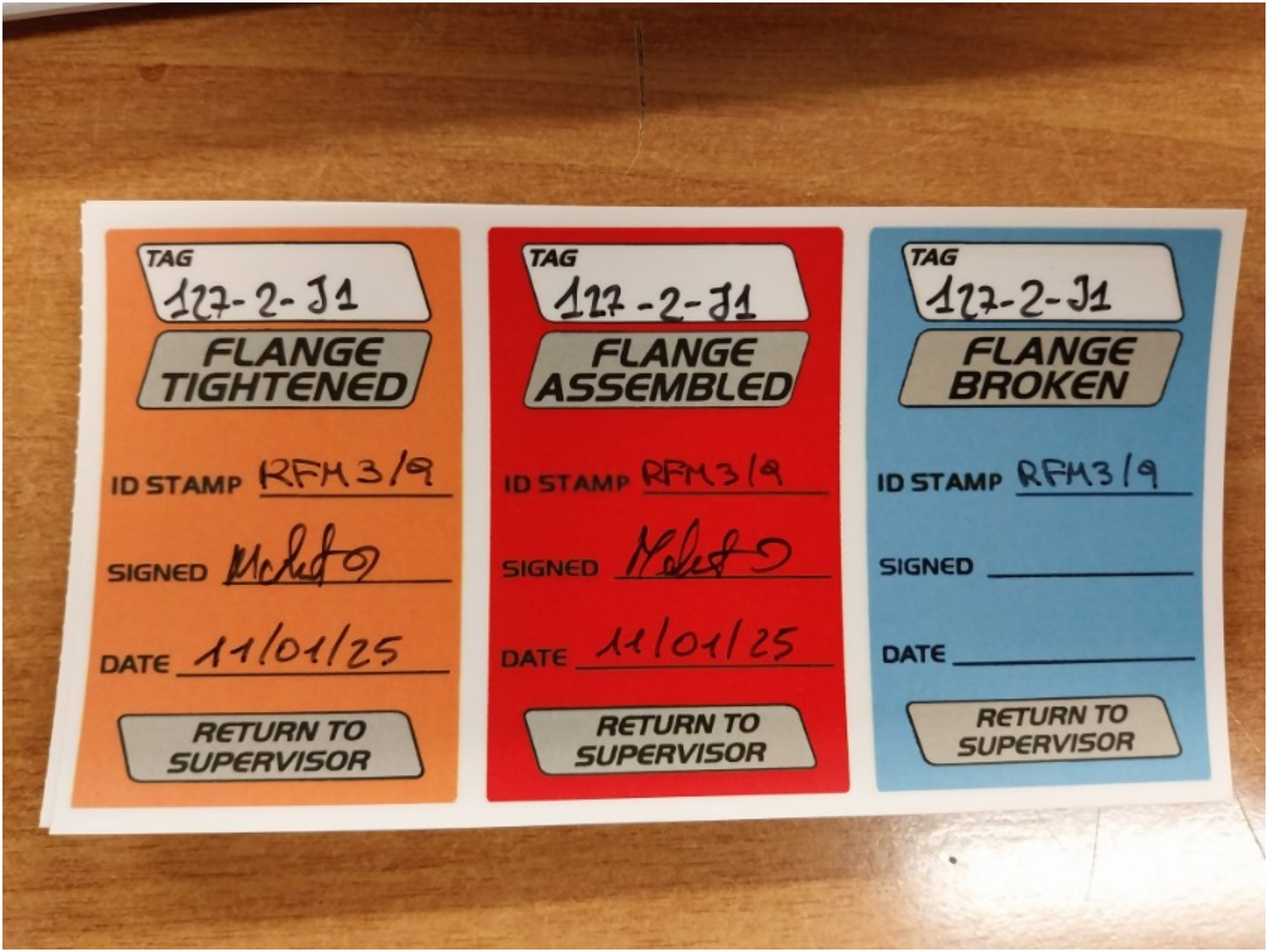
NDT INSPECTION CATEGORY	2			PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 6A	BASE RAL RAL-9002		FLUID PHASE	Gas			
INSULATION	TYPE N	THICKNESS [mm]		DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]		
HEAT TRACING	N/A			TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

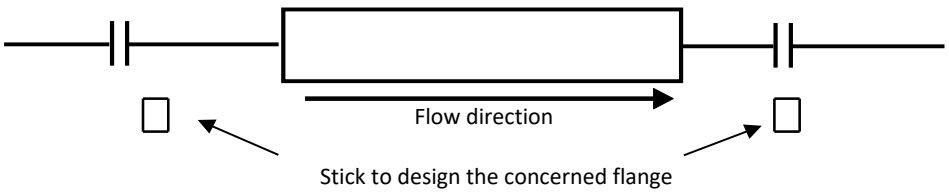

TAG
127-2-J1
FLANGE TIGHTENED
ID STAMP RFM3/9
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
127-2-J1
FLANGE ASSEMBLED
ID STAMP RFM3/9
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
127-2-J1
FLANGE BROKEN
ID STAMP RFM3/9
SIGNED
DATE
RETURN TO SUPERVISOR

ROSETTI MARINO | PROVERLIS | CROSSWIND

ITEM	Tag	032-1-J1	: Joint 032-1-J1			Dwg	123A90-FDL-PP-DI-00032-01
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10004218		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27
							Bolt tensioning / torquing

Test Pack N.: TP-059

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	INSULATION KIT	**Used tools**	Torque wrench T064079 (20-100 Nm)
Bolt tensioning/Torquing value	65		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	20	65	20	39	65
2	20	65	20	39	65
3	20	65	20	39	65
4	20	65	20	39	65
5			20	39	65
6			20	39	65
7			20	39	65
8			20	39	65
9			20	39	65
10			20	39	65
11			20	39	65
12			20	39	65
13			20	39	65
14			20	39	65
15			20	39	65
16			20	39	65
17			20	39	65
18			20	39	65
19			20	39	65
20			20	39	65

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

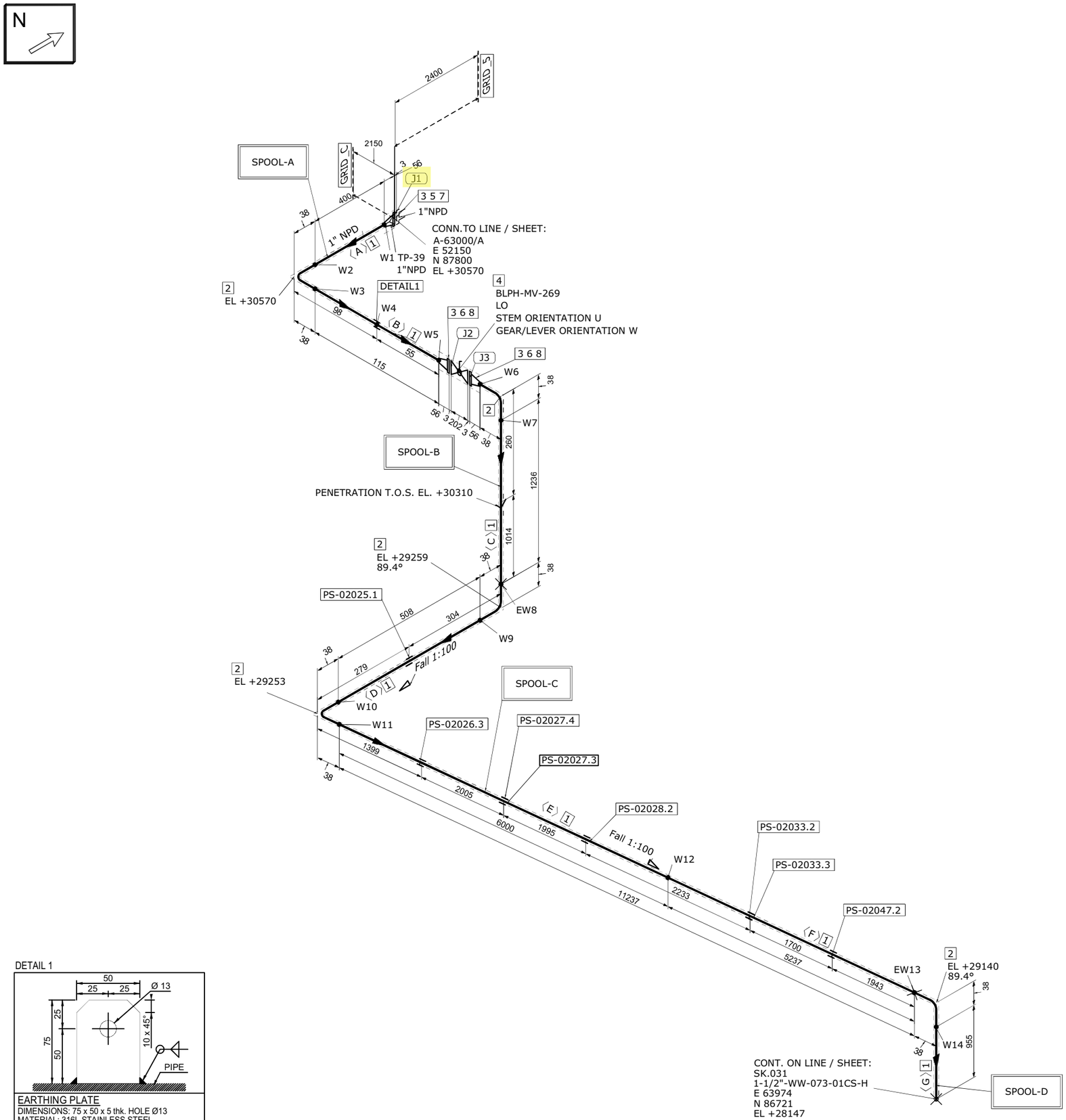
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-15	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:52:06.621Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-15T08:44:22.612Z	



DETAIL 1

EARTHING PLATE
DIMENSIONS: 75 x 50 x 5 thk. HOLE Ø13
MATERIAL: 316L STAINLESS STEEL
ORIENTATION: UP UNLESS OTHERWISE NOTED

MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPECS08300100	Pipe ASME B36.10M PE 4,55 SML ASTM/ASME A/SA333 Gr.6	14.5M	46.9
2	1	E90RCS01780100	90 Deg Elbow Long Radius ASME B16.9 BW 4,55 WRS ASTM/ASME A/SA420 Gr.WPL6	5	0.9
3	1	FLW0CS16540100	Flange WN ASME B16.5 150LB RF 4,55 FRG ASTM/ASME A/SA350 Gr.LF2	3	4.2

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VLBLNN01280100	Block & Bleed Valve API 6D FLG 150LB RF BS01B01RFS	1	12.5
5	1	SPIKNN01220100	Insulation Kit Ends as per ASME B16.5 150LB RF	1	0.1
6	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
7	1/2	SB20BO00980200	80 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	0.5
8	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	52.0
ERECTION WEIGHT [kg]	14.2
OVERALL WEIGHT [kg]	66.2

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4		FW
W5	1	BW
W6	1	BW
W7	1	BW
EW8	1	BW
W9	1	BW
W10	1	BW
W11	1	BW
W12	1	BW
EW13	1	BW
W14	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	400	BEVEL	BEVEL
B	1	115	BEVEL	BEVEL
C	1	1236	BEVEL	BEVEL
D	1	508	BEVEL	BEVEL
E	1	6000	BEVEL	BEVEL
F	1	5237	BEVEL	BEVEL
G	1	955	BEVEL	BEVEL

SUPPORT LIST

PS-02025.1
PS-02026.3
PS-02027.3
PS-02027.4
PS-02028.2
PS-02033.2
PS-02033.3
PS-02047.2

SPOOL	WELD [inches]	WEIGHT [kg]
A	4	4.7
B	2	5.6
C	4	38.4
D	1	3.3
MONT	2	14.2

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-WW-079-01CS-H

SK.032

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM
DATE	27-08-2024				
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00032	SHEET / OF	1/1
REV.	00				

LINE DATA

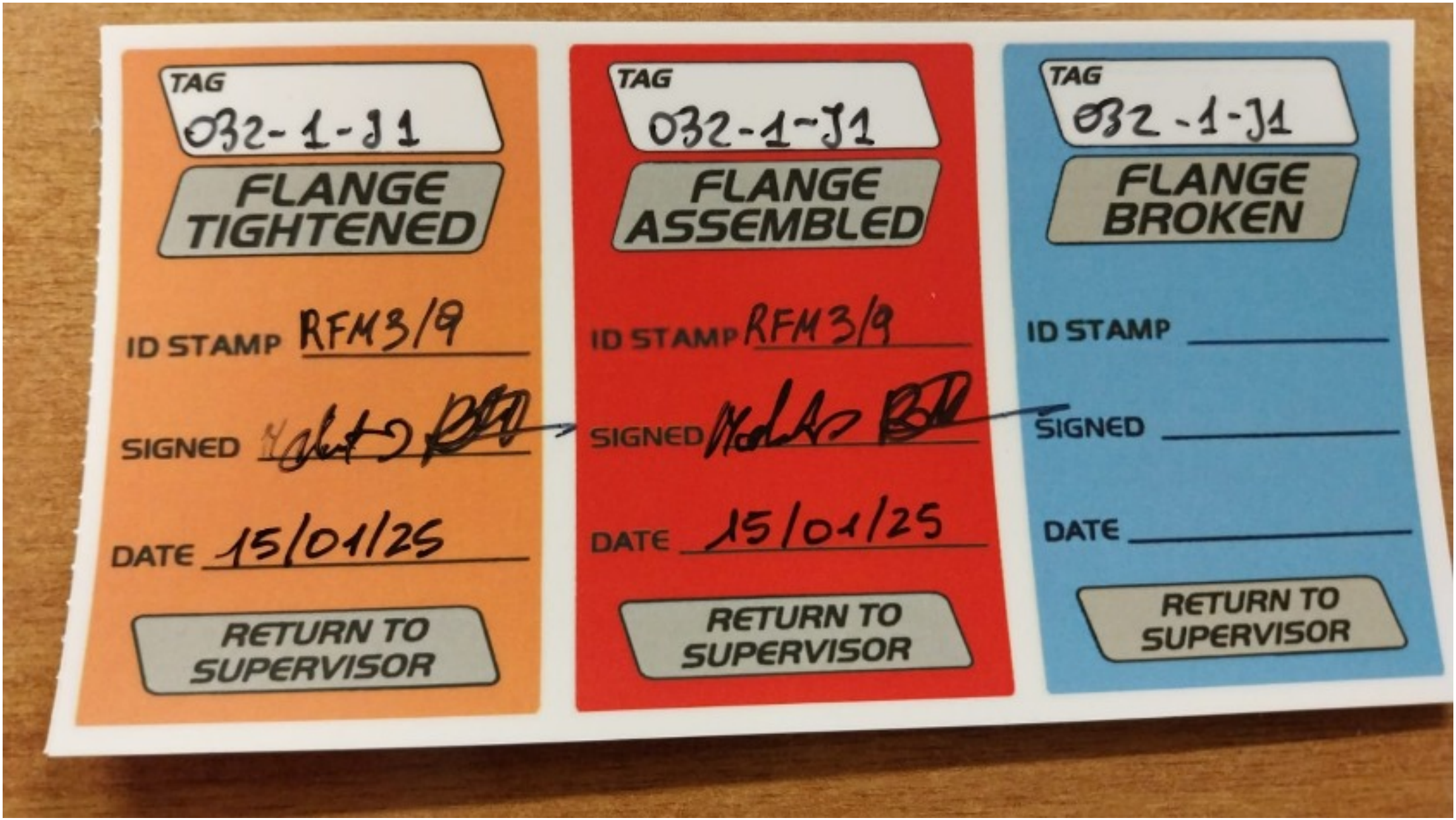
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 1D	BASE RAL N/A	FLUID PHASE	Liquid			
INSULATION	TYPE H	THICKNESS 20 [mm]	DESIGN	PRESS. 3.5 [barg]	TEMP. -46 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 5.25 [barg]	TEMP. AMB	MEDIUM Water	

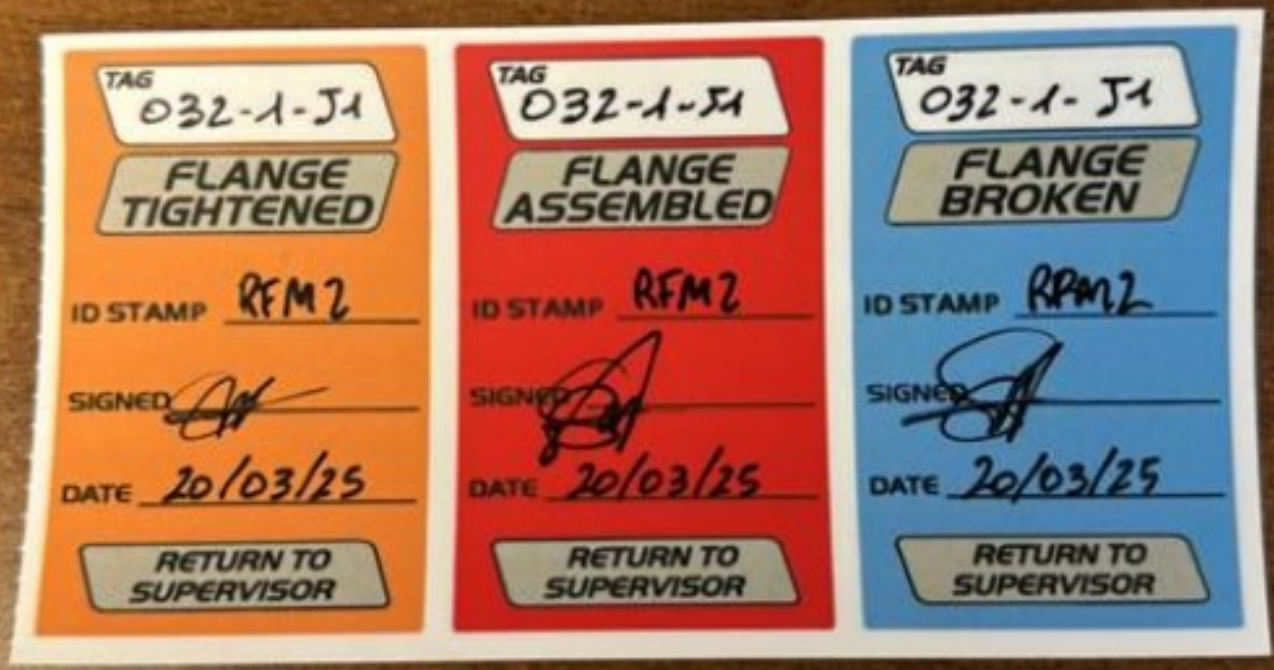
REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER

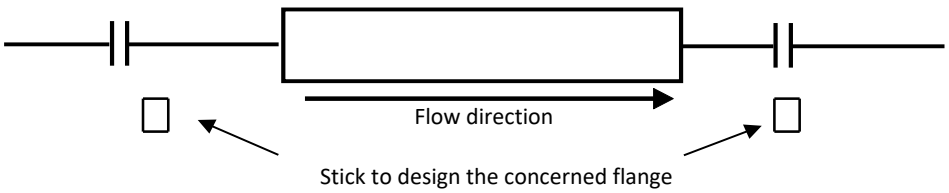

TAG
032-1-J1
FLANGE TIGHTENED
ID STAMP RFM3/9
SIGNED
DATE 15/01/25
RETURN TO SUPERVISOR
TAG
032-1-J1
FLANGE ASSEMBLED
ID STAMP RFM3/9
SIGNED
DATE 15/01/25
RETURN TO SUPERVISOR
TAG
032-1-J1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR


TAG
032-1-J1
FLANGE TIGHTENED
ID STAMP RFM2
SIGNED
DATE 20/03/25
RETURN TO SUPERVISOR
TAG
032-1-J1
FLANGE ASSEMBLED
ID STAMP RFM2
SIGNED
DATE 20/03/25
RETURN TO SUPERVISOR
TAG
032-1-J1
FLANGE BROKEN
ID STAMP RFM2
SIGNED
DATE 20/03/25
RETURN TO SUPERVISOR

ITEM	Tag	032-1-J2	: Joint 032-1-J2			Dwg	123A90-FDL-PP-DI-00032-01
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10004219		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27
							Bolt tensioning / torquing

Test Pack N.: TP-059

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench T064079 (20-100 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

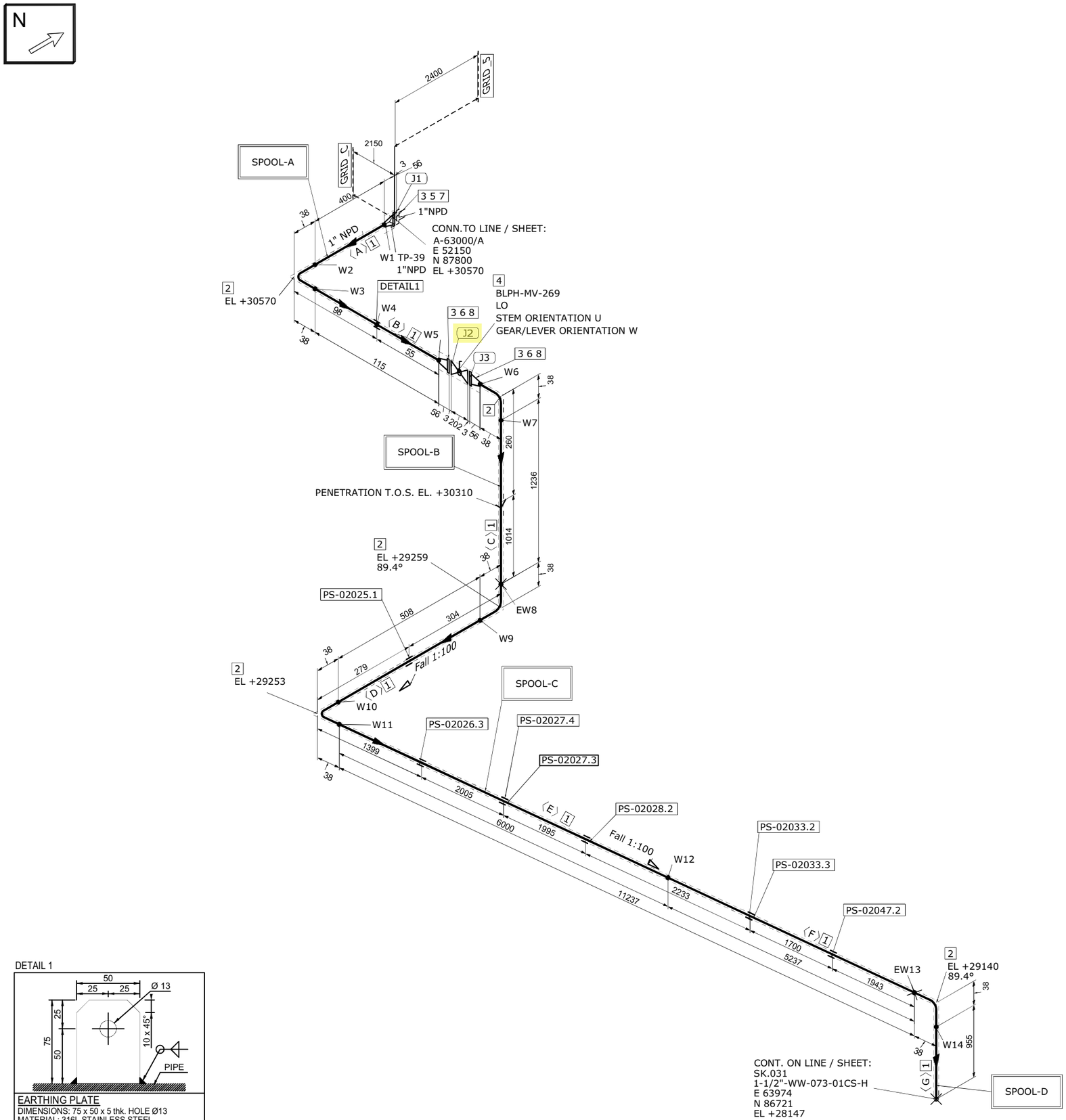
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-15	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:52:18.524Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-15T08:44:14.880Z	



DETAIL 1

EARTHING PLATE
DIMENSIONS: 75 x 50 x 5 thk. HOLE Ø13
MATERIAL: 316L STAINLESS STEEL
ORIENTATION: UP UNLESS OTHERWISE NOTED

MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPECS08300100	Pipe ASME B36.10M PE 4,55 SML ASTM/ASME A/SA333 Gr.6	14.5M	46.9
2	1	E90RCS01780100	90 Deg Elbow Long Radius ASME B16.9 BW 4,55 WRS ASTM/ASME A/SA420 Gr.WPL6	5	0.9
3	1	FLW0CS16540100	Flange WN ASME B16.5 150LB RF 4,55 FRG ASTM/ASME A/SA350 Gr.LF2	3	4.2

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VLBLNN01280100	Block & Bleed Valve API 6D FLG 150LB RF BS01B01RFS	1	12.5
5	1	SPIKNN01220100	Insulation Kit Ends as per ASME B16.5 150LB RF	1	0.1
6	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
7	1/2	SB20BO00980200	80 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	0.5
8	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	52.0
ERECTION WEIGHT [kg]	14.2
OVERALL WEIGHT [kg]	66.2

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4		FW
W5	1	BW
W6	1	BW
W7	1	BW
EW8	1	BW
W9	1	BW
W10	1	BW
W11	1	BW
W12	1	BW
EW13	1	BW
W14	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	400	BEVEL	BEVEL
B	1	115	BEVEL	BEVEL
C	1	1236	BEVEL	BEVEL
D	1	508	BEVEL	BEVEL
E	1	6000	BEVEL	BEVEL
F	1	5237	BEVEL	BEVEL
G	1	955	BEVEL	BEVEL

SUPPORT LIST

PS-02025.1
PS-02026.3
PS-02027.3
PS-02027.4
PS-02028.2
PS-02033.2
PS-02033.3
PS-02047.2

SPOOL	WELD [inches]	WEIGHT [kg]
A	4	4.7
B	2	5.6
C	4	38.4
D	1	3.3
MONT	2	14.2

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-WW-079-01CS-H

SK.032

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM
DATE	27-08-2024				
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00032	SHEET / OF	1/1
REV.	00				

LINE DATA

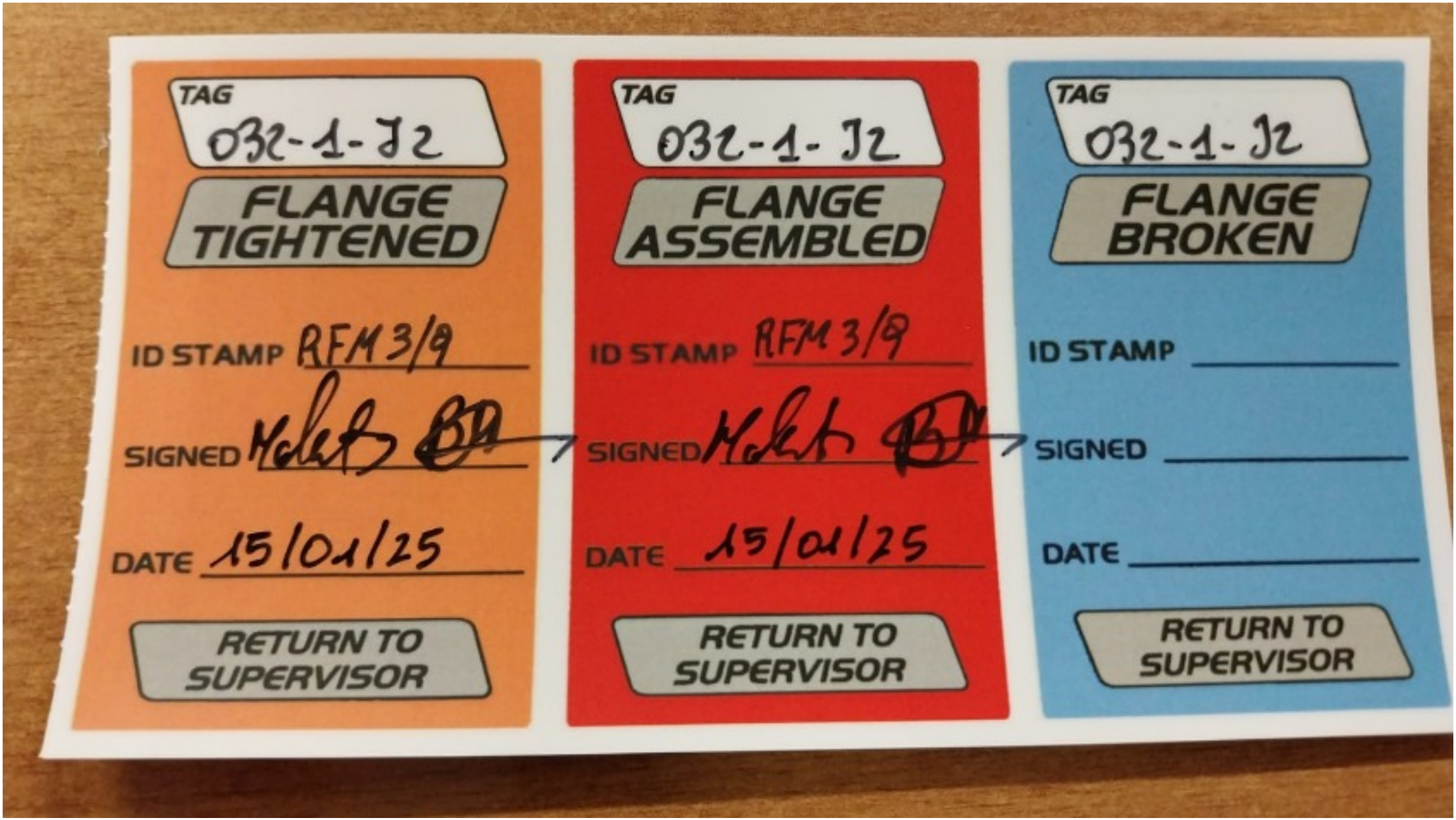
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 1D	BASE RAL N/A	FLUID PHASE	Liquid			
INSULATION	TYPE H	THICKNESS 20 [mm]	DESIGN	PRESS. 3.5 [barg]	TEMP. -46 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 5.25 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

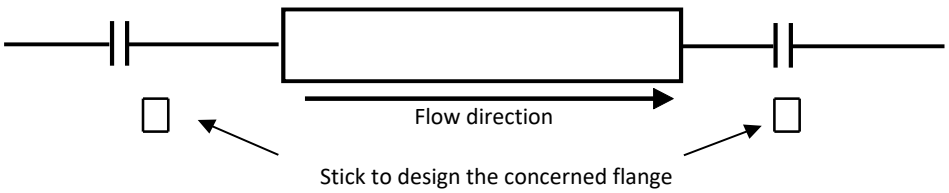
MASTER


TAG
032-1-J2
FLANGE TIGHTENED
ID STAMP RFM 3/9
SIGNED
DATE 15/01/25
RETURN TO SUPERVISOR
TAG
032-1-J2
FLANGE ASSEMBLED
ID STAMP RFM 3/9
SIGNED
DATE 15/01/25
RETURN TO SUPERVISOR
TAG
032-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	032-1-J3	: Joint 032-1-J3			Dwg	123A90-FDL-PP-DI-00032-01
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10004220		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-059

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

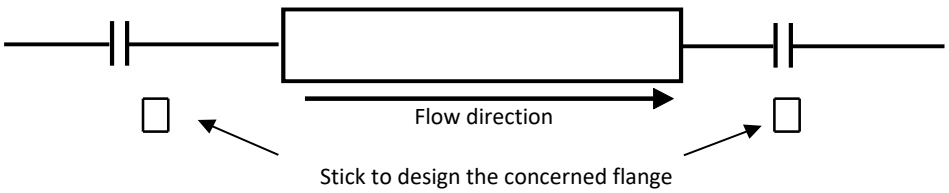
Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM (ROSETTI MARINO)	
Name	Emanuele Delfino	Kangi Albonetti	
Date	2025-01-31	2025-01-31	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-31T07:07:28.345Z	PROVERLIS Digitaly signed by Kangi Albonetti 2025-01-31T17:51:56.331Z	


TAG
032-1-J3
FLANGE TIGHTENED
ID STAMP RFM 3/9
SIGNED
DATE 31/01/2025
RETURN TO SUPERVISOR
TAG
032-1-J3
FLANGE ASSEMBLED
ID STAMP RFM 3/9
SIGNED
DATE 31/01/2025
RETURN TO SUPERVISOR
TAG
032-1-J3
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR
TAG
032-1-J3
FLANGE TIGHTENED
ID STAMP RFM3/9
SIGNED
DATE 15/01/25
RETURN TO SUPERVISOR
TAG
032-1-J3
FLANGE ASSEMBLED
ID STAMP RFM3/9
SIGNED
DATE 15/01/25
RETURN TO SUPERVISOR
TAG
032-1-J3
FLANGE BROKEN
ID STAMP KANOÏ
SIGNED
DATE 29/1/2025
RETURN TO SUPERVISOR

ITEM	Tag	032-1-J3	: Joint 032-1-J3			Dwg	123A90-FDL-PP-DI-00032-01
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	UD
TASK	code	C10004220		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-059

EQUIPMENT TAG



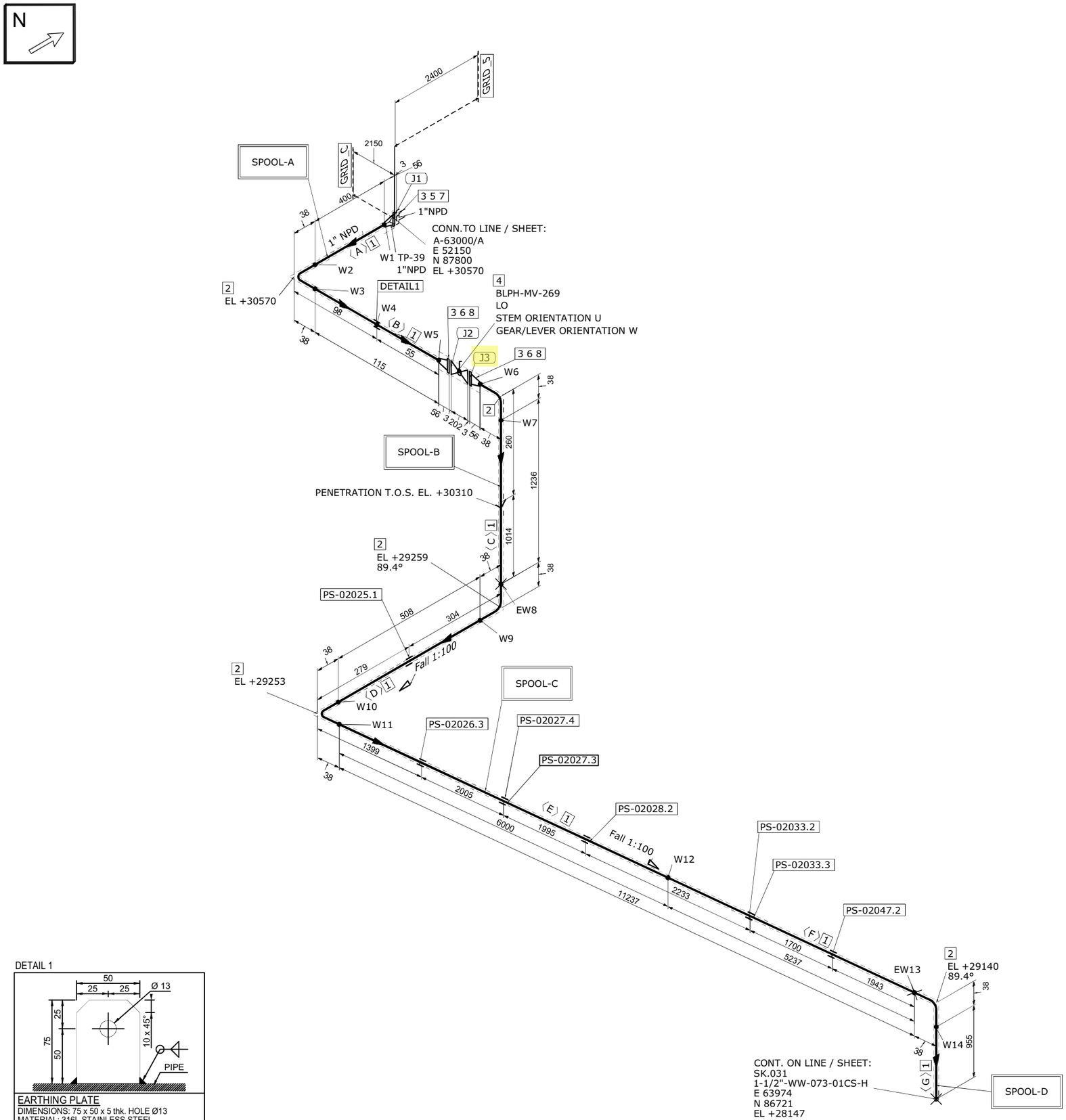
Flange Type	150LB	**Lubricant**	Yes
Flange Size	1"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench T064079 (20-100 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	19	63	19	38	62.5
2	19	63	19	38	62.5
3	19	63	19	38	62.5
4	19	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1	**Clear Bore Inspection:** Pipe and Valve clear of debris/contamination.	Yes
2	**Flange Face Check:** Both flanges clean and free from damage.	Yes
3	**Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique.	Yes
4	**Alignment:** Check alignment according to code.	Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-15	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:52:32.880Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-15T08:44:03.966Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1	PIPECS08300100	Pipe ASME B36.10M PE 4,55 SML ASTM/ASME A/SA333 Gr.6	14.5M	46.9
2	1	E90RCS01780100	90 Deg Elbow Long Radius ASME B16.9 BW 4,55 WRS ASTM/ASME A/SA420 Gr.WPL6	5	0.9
3	1	FLW0CS16540100	Flange WN ASME B16.5 150LB RF 4,55 FRG ASTM/ASME A/SA350 Gr.LF2	3	4.2

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
4	1	VLBLNN01280100	Block & Bleed Valve API 6D FLG 150LB RF BS01B01RFS	1	12.5
5	1	SPIKNN01220100	Insulation Kit Ends as per ASME B16.5 150LB RF	1	0.1
6	1	GSW0GK11100100	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
7	1/2	SB20BO00980200	80 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	0.5
8	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0

FABRICATION WEIGHT [kg]	52.0
ERECTION WEIGHT [kg]	14.2
OVERALL WEIGHT [kg]	66.2

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	1	BW
W2	1	BW
W3	1	BW
W4		FW
W5	1	BW
W6	1	BW
W7	1	BW
EW8	1	BW
W9	1	BW
W10	1	BW
W11	1	BW
W12	1	BW
EW13	1	BW
W14	1	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1	400	BEVEL	BEVEL
B	1	115	BEVEL	BEVEL
C	1	1236	BEVEL	BEVEL
D	1	508	BEVEL	BEVEL
E	1	6000	BEVEL	BEVEL
F	1	5237	BEVEL	BEVEL
G	1	955	BEVEL	BEVEL

SUPPORT LIST

PS-02025.1
PS-02026.3
PS-02027.3
PS-02027.4
PS-02028.2
PS-02033.2
PS-02033.3
PS-02047.2

SPOOL	WELD [inches]	WEIGHT [kg]
A	4	4.7
B	2	5.6
C	4	38.4
D	1	3.3
MONT	2	14.2

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE
SHOP DRAWING ISOMETRIC
LINE NR. 1"-WW-079-01CS-H

SK.032

CONTRACT NO./ TITLE	CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE	N/A
DRAWN	STAFF SRL	CHECKED	RT	APPROVED	LM
DATE	27-08-2024				
FORMAT	A3	DRAWING NO.	123A90-FDL-PP-DI-00032	SHEET / OF	1/1
REV.	00				

LINE DATA

NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3			
PAINTING	SYSTEM 1D	BASE RAL N/A	FLUID PHASE	Liquid			
INSULATION	TYPE H	THICKNESS 20 [mm]	DESIGN	PRESS. 3.5 [barg]	TEMP. -46 / 100 [°C]		
HEAT TRACING	N/A		TEST	PRESS. 5.25 [barg]	TEMP. AMB	MEDIUM Water	

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

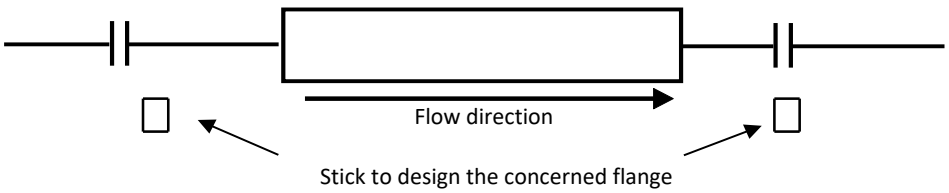
MASTER


TAG
032-1-J3
FLANGE TIGHTENED
ID STAMP RFM3/9
SIGNED
DATE 15/01/25
RETURN TO SUPERVISOR
TAG
032-1-J3
FLANGE ASSEMBLED
ID STAMP RFM3/9
SIGNED
DATE 15/01/25
RETURN TO SUPERVISOR
TAG
032-1-J3
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	036-1-J1	: Joint 036-1-J1			Dwg	123A90-FDL-PP-DI-00036-01
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	LD
TASK	code	C10004231		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-025

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	2"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm) & Torque
Bolt tensioning/Torquing value	122.2		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	37	123	37	73	122.2
2	37	123	37	73	122.2
3	37	123	37	73	122.2
4	37	123	37	73	122.2
5			37	73	122.2
6			37	73	122.2
7			37	73	122.2
8			37	73	122.2
9			37	73	122.2
10			37	73	122.2
11			37	73	122.2
12			37	73	122.2
13			37	73	122.2
14			37	73	122.2
15			37	73	122.2
16			37	73	122.2
17			37	73	122.2
18			37	73	122.2
19			37	73	122.2
20			37	73	122.2

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

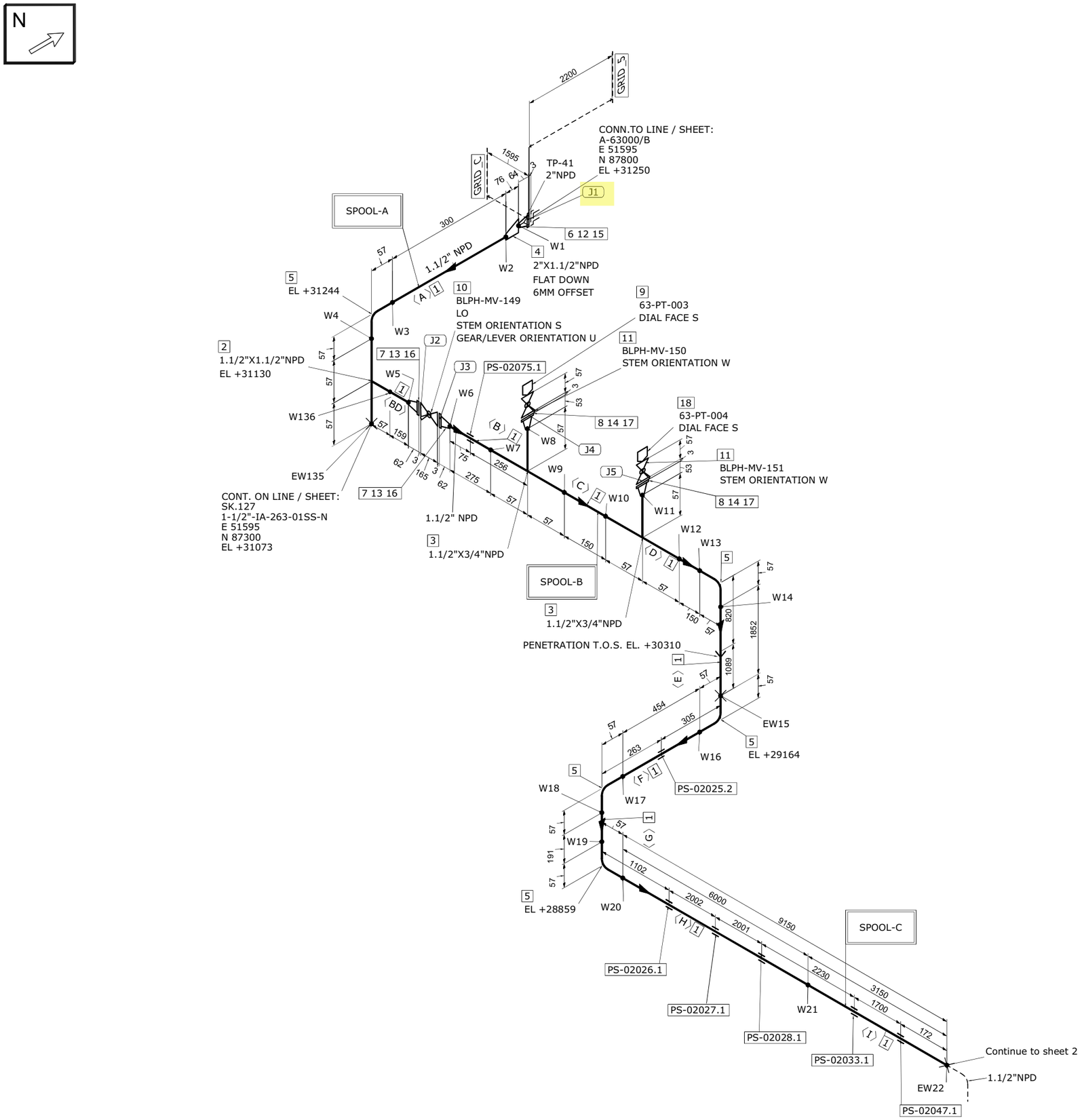
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Kangi Albonetti	
Date	2025-01-15	2025-01-15	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-15T06:26:31.304Z	PROVERLIS Digitaly signed by Kangi Albonetti 2025-01-15T07:23:45.766Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	12.5M	51.5
2	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	1.1/2X3/4	TER0SS03751H3Q	Tee Reducing ASME B16.9 BW 3,68x2,87 WRS ASTM A403 Gr.WP316/316L	2	1.5
4	2X1.1/2	REE0SS0242021H	Reducer Eccentric ASME B16.9 BW 2,77x3,68 WRS ASTM A403 Gr.WP316/316L	1	0.3
5	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	5	1.9
6	2	FLW0SS00010200	Flange WN ASME B16.5 150LB RF 2,77 FRG ASTM A182 Gr.F316/316L	1	2.7
7	1.1/2	FLW0SS00941H00	Flange WN ASME B16.5 150LB RF 3,68 FRG ASTM A182 Gr.F316/316L	2	3.7
8	3/4	FLW0SS00923Q00	Flange WN ASME B16.5 150LB RF 2,87 FRG ASTM A182 Gr.F316/316L	2	1.8

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
9	1/2		Pressure Transmitter - Online	1	0.0
10	1.1/2	VBC0NN06961H00	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	12.7
11	3/4X1/2	VLBNNN00033Q0H	Monoflange Block & Bleed Valve API 6D FLG x THRD-F NPT 150LB RF MS01C02Y	2	8.6
12	2	GSW0GK11130200	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	1	0.1
13	1.1/2	GSW0GK11121H00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
14	3/4	GSW0GK11093Q00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
15	5/8	SB20BO00660300	85 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	1.0
16	1/2	SB20BO00930200	70 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
17	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
18	1/2		Pressure Transmitter - Online	1	0.0

FABRICATION WEIGHT [kg]	64.2
ERECTION WEIGHT [kg]	24.6
OVERALL WEIGHT [kg]	88.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	2	BW
W2	1.1/2	BW
W3	1.1/2	BW
W4	1.1/2	BW
W5	1.1/2	BW
W6	1.1/2	BW
W7	1.1/2	BW
W8	3/4	BW
W9	1.1/2	BW
W10	1.1/2	BW
W11	3/4	BW
W12	1.1/2	BW
W13	1.1/2	BW
W14	1.1/2	BW
EW15	1.1/2	BW
W16	1.1/2	BW
W17	1.1/2	BW
W18	1.1/2	BW
W19	1.1/2	BW
W20	1.1/2	BW
W21	1.1/2	BW
EW22	1.1/2	BW
EW135	1.1/2	BW
W136	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1.1/2	300	BEVEL	BEVEL
B	1.1/2	275	BEVEL	BEVEL
C	1.1/2	150	BEVEL	BEVEL
D	1.1/2	150	BEVEL	BEVEL
E	1.1/2	1852	BEVEL	BEVEL
F	1.1/2	454	BEVEL	BEVEL
G	1.1/2	191	BEVEL	BEVEL
H	1.1/2	6000	BEVEL	BEVEL
I	1.1/2	3150	BEVEL	BEVEL
BD	1.1/2	155	BEVEL	BEVEL

SUPPORT LIST

PS-02075.1
PS-02025.2
PS-02026.1
PS-02027.1
PS-02028.1
PS-02033.1
PS-02047.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	9.5	7.3
B	12	15.5
C	9	41.4
MONT	4.5	24.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N
SK.036

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 27-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00036 | SHEET / OF: 1/8 | REV.: 00

LINE DATA

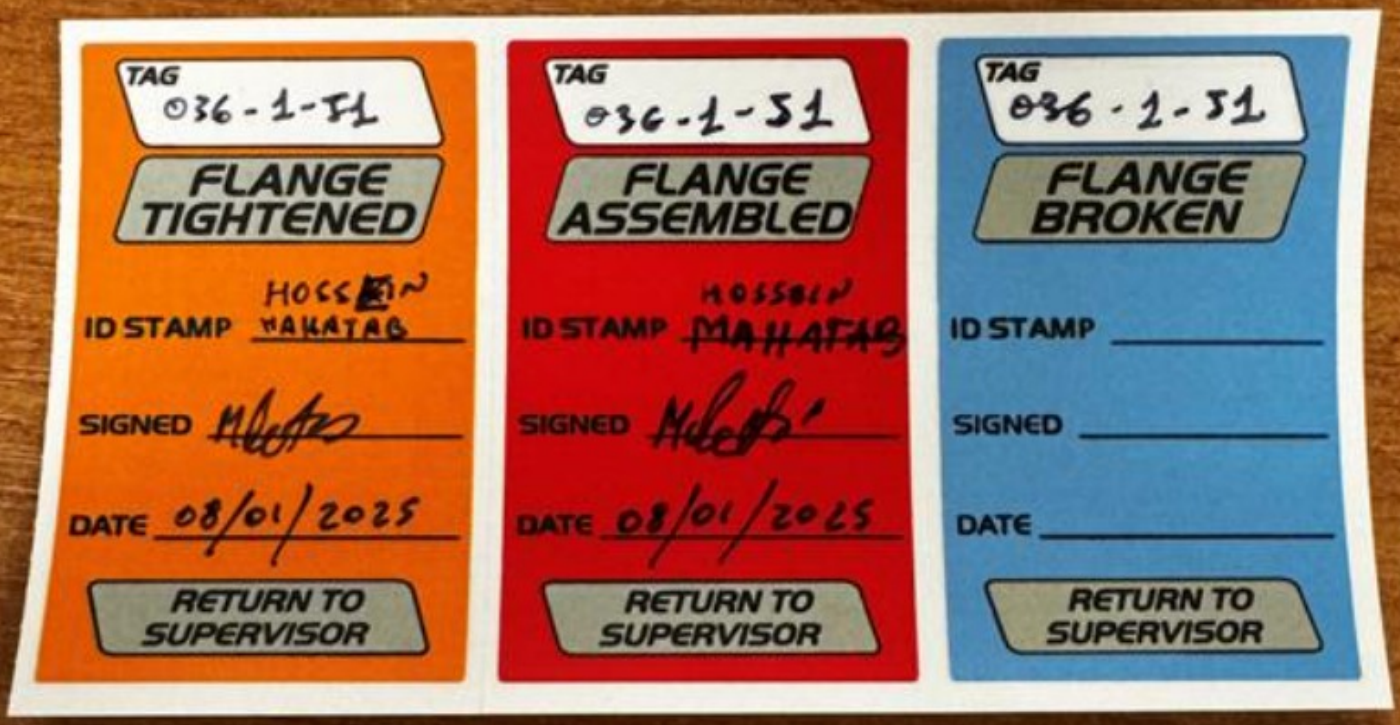
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

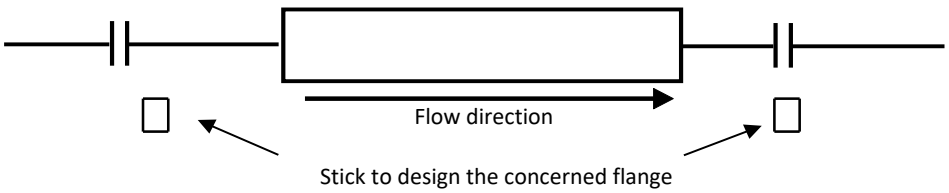
MASTER


TAG
036-1-F1
FLANGE TIGHTENED
ID STAMP HOSSEIN MAHATAB
SIGNED
DATE 08/01/2025
RETURN TO SUPERVISOR
TAG
036-1-S1
FLANGE ASSEMBLED
ID STAMP HOSSEIN MAHATAB
SIGNED
DATE 08/01/2025
RETURN TO SUPERVISOR
TAG
036-1-S1
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

ITEM	Tag	036-1-J2	: Joint 036-1-J2			Dwg	123A90-FDL-PP-DI-00036-01
	S/Sys	63-00	: Instrument Air Package (A-63000)			Module	LD
TASK	code	C10004232		Location	Onshore Activities	User	Rosetti Marino Quality Control
FORM	Process	MC	Activity PIP	Discipline	Piping	Form	TMX27		Bolt tensioning / torquing

Test Pack N.: TP-025

EQUIPMENT TAG



Flange Type	150LB	**Lubricant**	Yes
Flange Size	1.1/2"	**Lubricant Type**	MOLYKOTE 1000 PASTE
Gasket Type	Gasket Spiral Wound Thk. 3.2 mm	**Used tools**	Torque wrench V030390 (12-68 Nm)
Bolt tensioning/Torquing value	62.5		

			Torque (Design Value)		
Sequence	Pre tension/torque	Final tension/torque	30%	60%	100%
1	20	63	19	38	62.5
2	20	63	19	38	62.5
3	20	63	19	38	62.5
4	20	63	19	38	62.5
5			19	38	62.5
6			19	38	62.5
7			19	38	62.5
8			19	38	62.5
9			19	38	62.5
10			19	38	62.5
11			19	38	62.5
12			19	38	62.5
13			19	38	62.5
14			19	38	62.5
15			19	38	62.5
16			19	38	62.5
17			19	38	62.5
18			19	38	62.5
19			19	38	62.5
20			19	38	62.5

1 **Clear Bore Inspection:** Pipe and Valve clear of debris/contamination. Yes

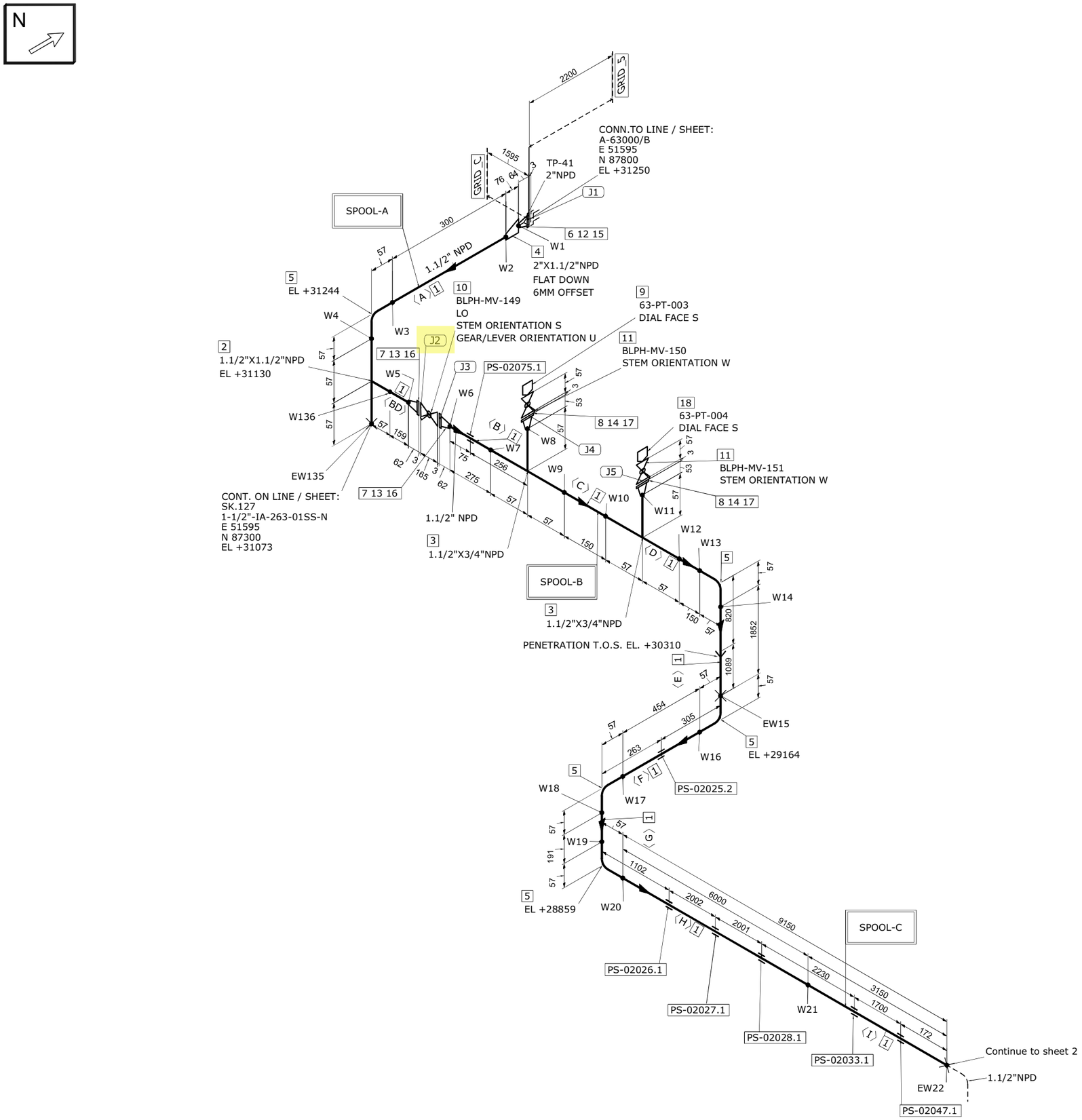
2 **Flange Face Check:** Both flanges clean and free from damage. Yes

3 **Gaskets and Bolts:** Gaskets and Bolts checked for correctness to specification, any damage and for correct length technique. Yes

4 **Alignment:** Check alignment according to code. Yes

Comments:

Page 1/1	Performed by	☑ WITNESS ☐ REVIEW	☐ WITNESS ☐ REVIEW
Company	RODEO	RM(ROSETTI MARINO)	
Name	Emanuele Delfino	Lorenzo Novaga	
Date	2025-01-13	2025-01-13	
Signature	PROVERLIS Digitaly signed by Emanuele Delfino 2025-01-13T05:52:46.734Z	PROVERLIS Digitaly signed by Lorenzo Novaga 2025-01-13T13:22:02.283Z	



MATERIAL LIST

FABRICATION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
1	1.1/2	PIPESS00531H00	Pipe ASME B36.19M PE 3,68 SML ASTM A312 Gr.TP316/316L	12.5M	51.5
2	1.1/2X1.1/2	TEE0SS00561H00	Tee ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	1	0.8
3	1.1/2X3/4	TER0SS03751H3Q	Tee Reducing ASME B16.9 BW 3,68x2,87 WRS ASTM A403 Gr.WP316/316L	2	1.5
4	2X1.1/2	REE0SS0242021H	Reducer Eccentric ASME B16.9 BW 2,77x3,68 WRS ASTM A403 Gr.WP316/316L	1	0.3
5	1.1/2	E90RSS00681H00	90 Deg Elbow Long Radius ASME B16.9 BW 3,68 WRS ASTM A403 Gr.WP316/316L	5	1.9
6	2	FLW0SS00010200	Flange WN ASME B16.5 150LB RF 2,77 FRG ASTM A182 Gr.F316/316L	1	2.7
7	1.1/2	FLW0SS00941H00	Flange WN ASME B16.5 150LB RF 3,68 FRG ASTM A182 Gr.F316/316L	2	3.7
8	3/4	FLW0SS00923Q00	Flange WN ASME B16.5 150LB RF 2,87 FRG ASTM A182 Gr.F316/316L	2	1.8

ERECTION

POS.	SIZE	SAP CODE	DESCRIPTION	Q.TY	WEIGHT [kg]
9	1/2		Pressure Transmitter - Online	1	0.0
10	1.1/2	VBC0NN06961H00	Ball Valve Split Body FB API 6D FLG 150LB RF BS01C01RF	1	12.7
11	3/4X1/2	VLBNNN00033Q0H	Monoflange Block & Bleed Valve API 6D FLG x THRD-F NPT 150LB RF MS01C02Y	2	8.6
12	2	GSW0GK11130200	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	1	0.1
13	1.1/2	GSW0GK11121H00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
14	3/4	GSW0GK11093Q00	Gasket Spiral Wound Thk. 3.2 mm ASME B16.20 150LB RF GSK AISI 316 + GRAPHITE c/w INNER RING	2	0.1
15	5/8	SB20BO00660300	85 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	4	1.0
16	1/2	SB20BO00930200	70 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
17	1/2	SB20BO01080200	65 Stud Bolt + 2 Heavy Nuts ASME B1.1 ASTM A193 Gr.B7 - A194 Gr.2H Hot dip galvanized	8	1.0
18	1/2		Pressure Transmitter - Online	1	0.0

FABRICATION WEIGHT [kg]	64.2
ERECTION WEIGHT [kg]	24.6
OVERALL WEIGHT [kg]	88.8

WELD SUMMARY

WELD No.	SIZE [inches]	TYPE
W1	2	BW
W2	1.1/2	BW
W3	1.1/2	BW
W4	1.1/2	BW
W5	1.1/2	BW
W6	1.1/2	BW
W7	1.1/2	BW
W8	3/4	BW
W9	1.1/2	BW
W10	1.1/2	BW
W11	3/4	BW
W12	1.1/2	BW
W13	1.1/2	BW
W14	1.1/2	BW
EW15	1.1/2	BW
W16	1.1/2	BW
W17	1.1/2	BW
W18	1.1/2	BW
W19	1.1/2	BW
W20	1.1/2	BW
W21	1.1/2	BW
EW22	1.1/2	BW
EW135	1.1/2	BW
W136	1.1/2	BW

CUTTING LIST

PIECE No.	SIZE [inches]	LENGTH [mm]	END PREP.1	END PREP.2
A	1.1/2	300	BEVEL	BEVEL
B	1.1/2	275	BEVEL	BEVEL
C	1.1/2	150	BEVEL	BEVEL
D	1.1/2	150	BEVEL	BEVEL
E	1.1/2	1852	BEVEL	BEVEL
F	1.1/2	454	BEVEL	BEVEL
G	1.1/2	191	BEVEL	BEVEL
H	1.1/2	6000	BEVEL	BEVEL
I	1.1/2	3150	BEVEL	BEVEL
BD	1.1/2	155	BEVEL	BEVEL

SUPPORT LIST

PS-02075.1
PS-02025.2
PS-02026.1
PS-02027.1
PS-02028.1
PS-02033.1
PS-02047.1

SPOOL	WELD [inches]	WEIGHT [kg]
A	9.5	7.3
B	12	15.5
C	9	41.4
MONT	4.5	24.6

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	27-08-2024	STAFF SRL	RT	LM	ISSUED FOR CONSTRUCTION

CROSSWIND

ROSETTI MARINO

TITLE: SHOP DRAWING ISOMETRIC
LINE NR. 1-1/2"-IA-108-01SS-N

SK.036

CONTRACT NO./ TITLE: CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK
SCALE: N/A
DRAWN: STAFF SRL | CHECKED: RT | APPROVED: LM | DATE: 27-08-2024
FORMAT: A3 | DRAWING NO.: 123A90-FDL-PP-DI-00036 | SHEET / OF: 1/8 | REV.: 00

LINE DATA

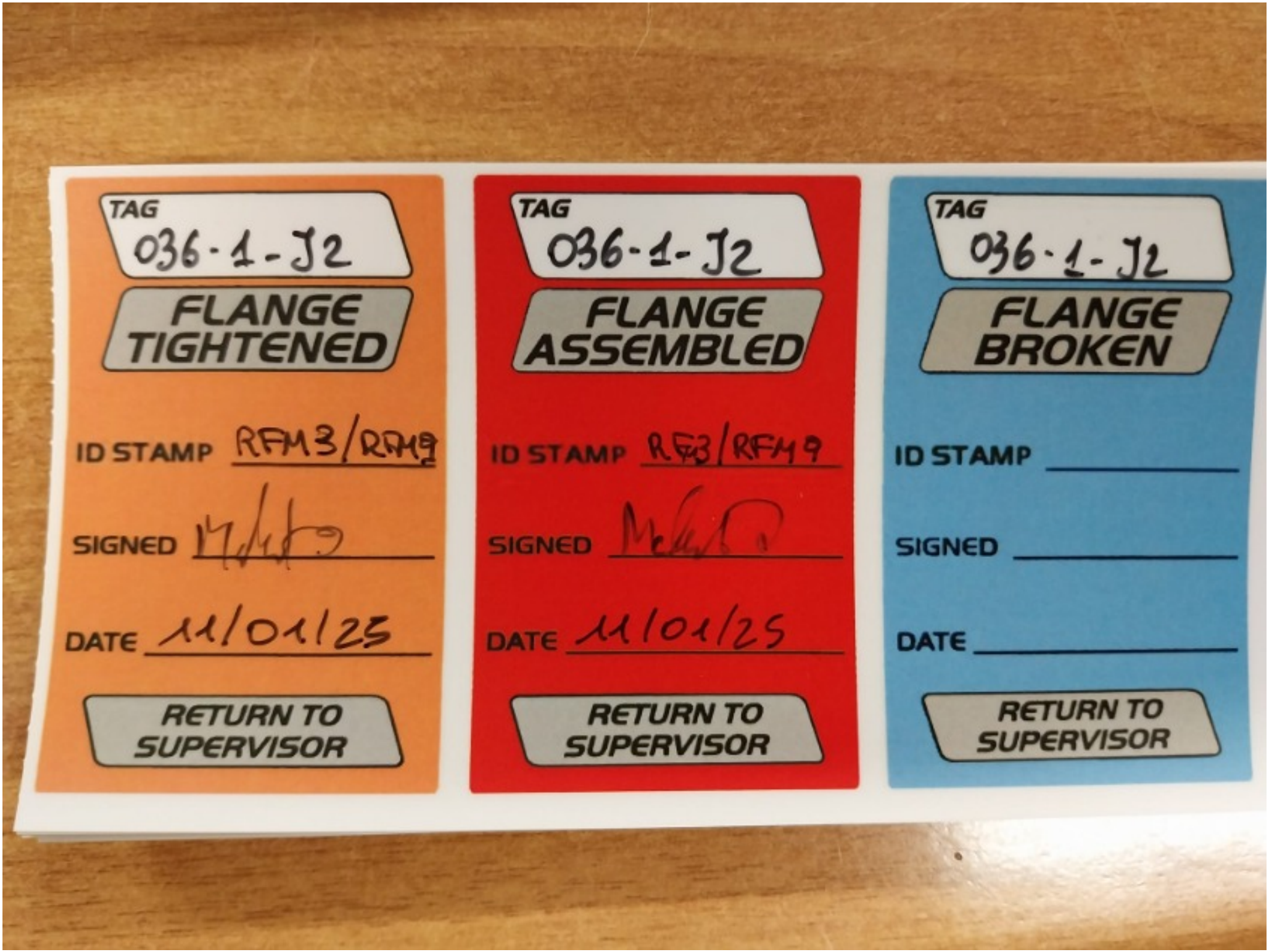
NDT INSPECTION CATEGORY	2		PED CATEGORY	Art. 4, par. 3				
PAINTING	SYSTEM 6A	BASE RAL RAL-9002	FLUID PHASE	Gas				
INSULATION	TYPE N	THICKNESS [mm]	DESIGN	PRESS. 12 [barg]	TEMP. -29 / 100 [°C]			
HEAT TRACING	N/A		TEST	PRESS. 18 [barg]	TEMP. AMB	MEDIUM Water		

REFERENCE DOCUMENTS

P&ID	123A90-DDL-PR-PID-80027
ISOMETRIC SHOP DWG LIST	123A90-FDL-PP-LIS-00001
PIPING SUPPORT BOOK	123A90-DDL-PP-DD-72000
PIPING MATERIAL CLASS	123A90-DDL-PP-SP-70029

NOTES

MASTER


TAG
036-1-J2
FLANGE TIGHTENED
ID STAMP RFM3/RFM9
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
036-1-J2
FLANGE ASSEMBLED
ID STAMP RFM3/RFM9
SIGNED
DATE 11/01/25
RETURN TO SUPERVISOR
TAG
036-1-J2
FLANGE BROKEN
ID STAMP
SIGNED
DATE
RETURN TO SUPERVISOR

Section 11 MECHANICAL COMPLETION INDEX - SAFETY DISCIPLINE

NOT APPLICABLE

Section 12 FAT / VENDOR REPORTS

COES Srl
24040 STEZZANO - ITALY - Via Pontida, 265
tel +39 035 2050 511
e.mail: coes@coessrl.com

Sedi operative
24040 STEZZANO – Via Pontida, 265
24040 COMUN NUOVO – Via Europa, 9

FACTORY ACCEPTANCE TEST CERTIFICATE

CUSTOMER:	ROSETTI MARINO
PURCHASE ORDER:	1724000428
PROJECT:	HOLLANDSE KUST NOORD WIND PARK Project
SCOPE OF SUPPLY:	INSTRUMENT AIR PACKAGE
ITEM:	A-63000
INSPECTION AND TEST PLAN:	1724000428-QC-ITP-00002
FAT PROCEDURE:	1724000428-QC-PRO-00024
COES JOB:	166/24

ACTIVITY	RESULT
VISUAL AND DIMENSIONAL CHECK	**CONFORM**
LOCAL PANEL WIRING CHECK	**CONFORM (SEE NOTE 1)**
MARKING AND NAMEPLATES CHECK	**CONFORM (SEE NOTE 1)**
PNEUMATIC LEAKAGE CHECK	**NOT WITNESSED**
FAT PERFORMANCE TEST	**CONFORM (SEE NOTE 1 & 2)**
PAINTING CHECK	**CONFORM**

Notes:
1. See attached punch list
2. Operating conditions have been reached.

Client agrees with Coes to dismount all solenoid valves before shipment preparation and re-install them on RM site (Ravenna Yard) after further investigation to identify and resolve the cause of malfunctioning of solenoid valve installed on Nitrogen Generation package, since all the solenoid valves are the same model.

COES SRL
Via Pontida, 265
24040 STEZZANO (BG)
P.IVA.C.F. 02529570166
Tel. 035 2050511
29/10/24

ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
29/10/24
Comm. mgr.

DOC. N°: CDC54946

CDC54946 - FAT REPORT – Attachment

INSTRUMENT AIR PACKAGE

- Start the Compressor K-63001A in LOCAL MODE, immediately it goes into LOAD since the pressure 63-PT-064 is below 8 barg. (The compressor working max 10 barg with set point 9 barg).
- Valves in the AIR DRYER fully open. When the pressure 63-PT-064 reaches 8 barg the logic selects the PRE-FILTER /DRYER / AFTER-FILTER.
- Dryer Cycle:
    1. ADSORPTION TOWER A – REGENERATION TOWER B **240 seconds**
    2. ADSORPTION TOWER A – PRESSURIZED TOWER B **60 seconds**
    3. REGENERATION TOWER A – ADSORPTION TOWER B **240 seconds**
    4. PRESSURIZATION TOWER A – ADSORPTION TOWER B **60 seconds**
- The 63-PDT-051 on H alarm we change (with a delay time of 30 seconds) the PRE-FILTER A with PRE-FILTER B and vice versa. (test simulated by putting the negative chamber in atmosphere).
- The 63-PDT-052 on H alarm we change (with a delay time of 30 seconds) the AFTER-FILTER A with AFTER-FILTER B and vice versa. (test simulated by putting the negative chamber in atmosphere).
- The DEW POINT 63-AIT-051 value (-40.58°C).
- The Pressure switches 63-PS-054 / 63-PS-056 / 63-PS-058 / 63-PS-060 DRYER UNIT 1 & 2 we forced to verify the exchange between the DRYER D-63001A/B al DRYER D-63002A/B and vice versa.
- Stop the Compressor K-63001A.
- Start the Compressor K-63001B in LOCAL MODE (verify the changeover with PUSH BUTTON). Compressor K-63001B in STOP, Compressor K-63001A in SERVICE.

ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
29/10/24

COES SRL
Via Portella, 265
24040 STEZZANO (BG)
P.I./C.F. 02329570168
Tel. 035/2050511
29/10/24

For acceptance

ROSETTI MARINO

Base Load Power Hub (BLPH)

Punch List Entry Form

CROSSWIND

Sub-system code:	Sub-system description: INSTRUMENT AIR PACKAGE A-63000	Date: 29/10/2024

Category "A" → Items to be cleared before the issuance of the RFCC (Ready for Commissioning Certificate).

Category "B" → Items to be cleared before the issuance of the RFOC (Ready For Operations Certificate).

Category "C" → Items to be cleared before Sail Away.

Item N.	Check sheet ref.	Disc.	Tag Number	Raised By	Defect Description / Corrective Action	Attachments	Cat.	Action By	Duty Phase	Deadline date
1.	-		A-63000	RM Comm.	CHECK IF THE SET POINT SHOULD BE SET TO 9.5 SINCE ON THE AIR RECEIVER (63-PT-04) WE HAVE A PRESSURE OF 8.8 barg		B	COES		02/12/24
2.	-		A-63000	RM Comm.	PACKAGE to be test with PLC set to REMOTE MODE		B	COES/RM		02/12/24
3.	-		A-63000	RM Comm.	necessary to set the operating logic to ensure that with a DEW POINT measured > -40°C, the DRYER in operation is exchanged with the DRYER in pause		B	COES/RM		02/12/24
4.	-		A-63000	RM Comm.	TO BE IMPLEMENT: THE PRESSURE SWITCHES IN BAD QUALITY MUST BLOCK AIR DRYER (to be verify at yard)		B	COES/RM		02/12/24
5.	-		A-63000	RM Comm.	TO BE IMPLEMENT: THE INTERVENTION TIME OF THE LIMIT SWITCHES (to be verify at yard)		B	COES		02/12/24
6.			A-63000	RM Comm.	TO BE IMPLEMENTED: VALVE POSITION DISCREPANCY (to be verify at yard)		B	COES		02/12/24
7.			A-63000	RM Comm.	VERIFY AND SET THE EXCHANGE OF THE COMPRESSORS WITH THE DUTY/STAND-BY CYCLE TIME. To be verify and to be tested		B	COES/RM		02/12/24
8.			A-63000	RM Comm.	TO BE VERIFY AND TEST THE CHANGE OVER COMPRESSOR K-63001A TO K-63001B		B	COES		02/12/24
9.			A-63000	RM Comm.	ALL SOLENOIDS HAVE BEEN DISMANTLED FROM THE PACKAGE. SEND TO THE SUB-VENDOR TO BE CHECK. ALL SOLENOID WILL BE RE INSTALLED		A	COES		02/12/24
10.			A-63000	RM Comm.	THE RESET COMMAND TO PACKAGE MUST BE MANAGED BY ESD (CURRENTLY IT'S ON LOCAL PANEL). To be verify with engineering		B	RM		02/12/24
11.			A-63000	RM Comm.	MAX PRESSURE ON VALVE ACTUATORS = 8 BAR IS NOT CONGRUENT WITH OPERATING PRESSURE = 9 BAR		B	COES		02/12/24

12.			A-63000	RM Comm.	DUE TO THE RUSH TO CONCLUDE ALL TESTS WITHIN ONE DAY, AN EXTENSIVE AND COMPREHENSIVE ON-SITE TEST WILL BE MANDATORY BEFORE PERFORMING THE FUNCTIONAL AND PERFORMANCE TESTS OF THE PACKAGE. ALL PERFORMANCE MUST BE TESTED AND ACCEPTED AT THE CONSTRUCTION SITE		B	COES		02/12/24
13.			A-63000	RM Comm.	ALL HARDWIRED AND PROFINET SIGNALS STILL TO BE TESTED		A	COES		02/12/24
14.			A-63000	S.Linari	TO BE UPDATED DWG N. 1724000428-MAG-DG-00009 – CORRECT RAL 9002		B	COES		02/12/24
15.			A-63000	S.Linari	CABLING INSIDE CONTROL PANEL NOT REFLECT THE SPECIFICATIONS AND DWG IN TERM OF COLOUR CODING. SEE NCR **2024-Q-123A90-0009**		A	COES		02/12/24
16.			A-63000	S.Linari	MISSING LEAKAGE TEST REPORTS. To be repeated on site up to rated package pressure		B	COES		02/12/24
17.			A-63000	S.Linari	CONTINUITY AND MEGGER TEST REPORTS ARE MISSING. TO BE PROVIDE		B	COES		02/12/24

Raised by
Contractor / Subcontractor: _____

Checked by
Contractor QA/QC: _____

ROSETTI MARINO SpA
Stefano Linari
Quality Control Dept.
29/10/24

Accepted by
COMPANY: _____

COES SRL
Via Portalta, 265
24040 STEZZANO (BG)
P.I./C.F. 02529570166
Tel. 035/2050611

For acceptance

Section 13 MECHANICAL COMPLETION CHANGES / MARK-UPS

NOT APPLICABLE