BASE LOAD POWER HUB (BLPH)

Electrical Typical Schematic Diagrams

(Distribution Boards, AC UPS, DC UPS, etc)

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS-BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)
FRONT PAGE

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

SCALE : NTS

A3

DRAWING NO. 123A90-DDL-EL-DG-20163

SHEET 001

REV. 02

File Name : 123A90-DDL-EL-DG-20163 Rev. 02

F.to UNI A3: 420mmx297mm

REV.	SHEET NUMBER	DESCRIPTION	REF. CODE
00	001	FRONT PAGE	
00	002	SUMMARY & GENERAL NOTES / REFERENCE DOCUMENTS	
00	003	LEGEND	
00	004	AC, DC UPS & DISTRIBUTION BOARD INCOMER – LVI1	LVI1
00	005	DB 1PH OUTGOING WITHOUT EARTH FAULT – LVO2	LVO2
00	006	LIGHTING DB OUTGOING FEEDER WITH PHOTO CELL–LVO3 LVO3A	LVO3 & LVO3A
00	007	DB 1PH OUTGOING WITH EARTH FAULT – LVOE1	LVOE1
00	008	COMMON FAULT SIGNAL	–
00	009	SURGE PROTECTION DEVICE – SPD01	SPD01
00	010	GENERAL INCOMER FOR HEAT TRACING –LVO4	LVO4
00	011	AC & DC UPS BATTERY ISOLATION CONTROL – BIC1	BIC1
00	012	AC UPS OUTGOING FEEDER FOR UCP – LVO5	LVO5

GENERAL NOTES / REFERENCE DOCUMENTS

GENERAL NOTES:

1. THE SCHEMATIC DIAGRAMS SHOWN IN THIS DOCUMENT ARE GIVEN FOR REFERENCE ONLY. VENDOR OF PANELS SHALL DEVELOP DETAILED SCHEMATICS AND CONSTRUCTION DRAWINGS.
2. MCBS SHALL HAVE FACILITY TO LOCK IN OPEN POSITION.
3. POSITION INDICATION REQUIRED. USUALLY AS PER MANUFACTURER'S STANDARD.

REFERENCE DOCUMENTS:

DOC. NO.	DESCRIPTION
123A90-DDL-EL-LIS-20165	ELECTRICAL SCHEDULES (DISTRIBUTION BOARDS, AC UPS, DC UPS, etc.)
123A90-DDL-EL-LIS-20016	ELECTRICAL LOAD LIST & BALANCE (CCS MODE 'IMPORT')
123A90-DDL-EL-DG-20158	OVERALL/KEY SINGLE LINE DIAGRAM
123A90-DDL-EL-DG-20160	ELECTRICAL SINGLE LINE DIAGRAMS AC UPS SYSTEMS
123A90-DDL-EL-DG-20161	ELECTRICAL SINGLE LINE DIAGRAMS DC UPS SYSTEM
123A90-DDL-EL-DG-20162	ELECTRICAL SINGLE LINE DIAGRAMS DISTRIBUTION BOARD BoP

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS-BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)
SUMMARY & GENERAL NOTES / REFERENCE DOCUMENTS

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

SCALE : NTS

A3

DRAWING NO. 123A90-DDL-EL-DG-20163

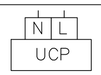
SHEET 002

REV. 02

File Name : 123A90-DDL-EL-DG-20163 Rev. 02

F.to UNI A3: 420mmx297mm

LEGEND

SYMBOL	DESCRIPTION
	MOLDED CASE CIRCUIT BREAKER
	CIRCUIT BREAKER WITHDRAWABLE TYPE
	MINIATURE CIRCUIT BREAKER WITH OVERCURRENT PROTECTION
	CHANGE–OVER BREAK BEFORE MAKE CONTACT
	CONTACTOR
	AUXILIARY CONTACT
	FUSE, GENERAL
	ACTUATOR, OPERATED BY TURNING
	NON–AUTOMATIC RETURN
	PHOTO CELL
	BREAK CONTACT
	AMBIENT THERMOSTAT
	AUXILIARY CONTACTOR
	UNIT CONTROL PANEL
	SIL 2 TYPE 24V DC RELAY
	KEY TYPE SWITCH

LEGEND

SYMBOL	DESCRIPTION
	DIRECTION OF SIGNAL
	MINIATURE CIRCUIT BREAKER (MCB) (LINE INDICATES NO. OF POLES)
	REMOTE CONTROL UNIT BY ROTARY STACK SWITCH FOR USE ON SINGLE–LINE DIAGRAM
	SIGNAL LAMP
	EARTHING CONNECTION
	THERMAL
	MOTOR
	AUXILIARY RELAY
2P	2 POLE
4P	4 POLE
	SURGE PROTECTION DEVICE
	UNDERVOLTAGE COIL
SIS	SAFETY INSTRUMENTED SYSTEM
RPC	REMOTE PROCEDURE CALL RELAY
SA	SELECTOR SWITCH
PCS	PROCESS CONTROL SYSTEM

LEGEND

SYMBOL	DESCRIPTION
	SHUNT COIL
	MINIATURE CIRCUIT BREAKER WITH OVER CURRENT & RESIDUAL CURRENT PROTECTION
OF	ON/OFF STATUS
SD	FAULT STATUS
	FUSE FAILURE RELAY
LVI1	AC, DC UPS & DISTRIBUTION BOARD INCOMER
LVO2	DB 1PH OUTGOING WITHOUT EARTH FAULT
LVO3	NORMAL LIGHTING DB OUTGOING FEEDER WITH PHOTO CELL
LVO3A	EMERGENCY LIGHTING DB OUTGOING FEEDER WITH PHOTO CELL
LVOE1	DB 1PH OUTGOING WITH EARTH FAULT
SPD01	SURGE PROTECTION DEVICE CONNECTED
LVO4	GENERAL INCOMER FOR HEAT TRACING
BIC1	AC & DC UPS BATTERY ISOLATION CONTROL
LVO5	AC UPS OUTGOING FEEDER FOR UCP
ESD	EMERGENCY SHUTDOWN
CB	CIRCUIT BREAKER

CROSSWIND

ROSETTI MARINO

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS–BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)
LEGEND

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

SCALE : NTS

A3

DRAWING NO. 123A90–DDL–EL–DG–20163

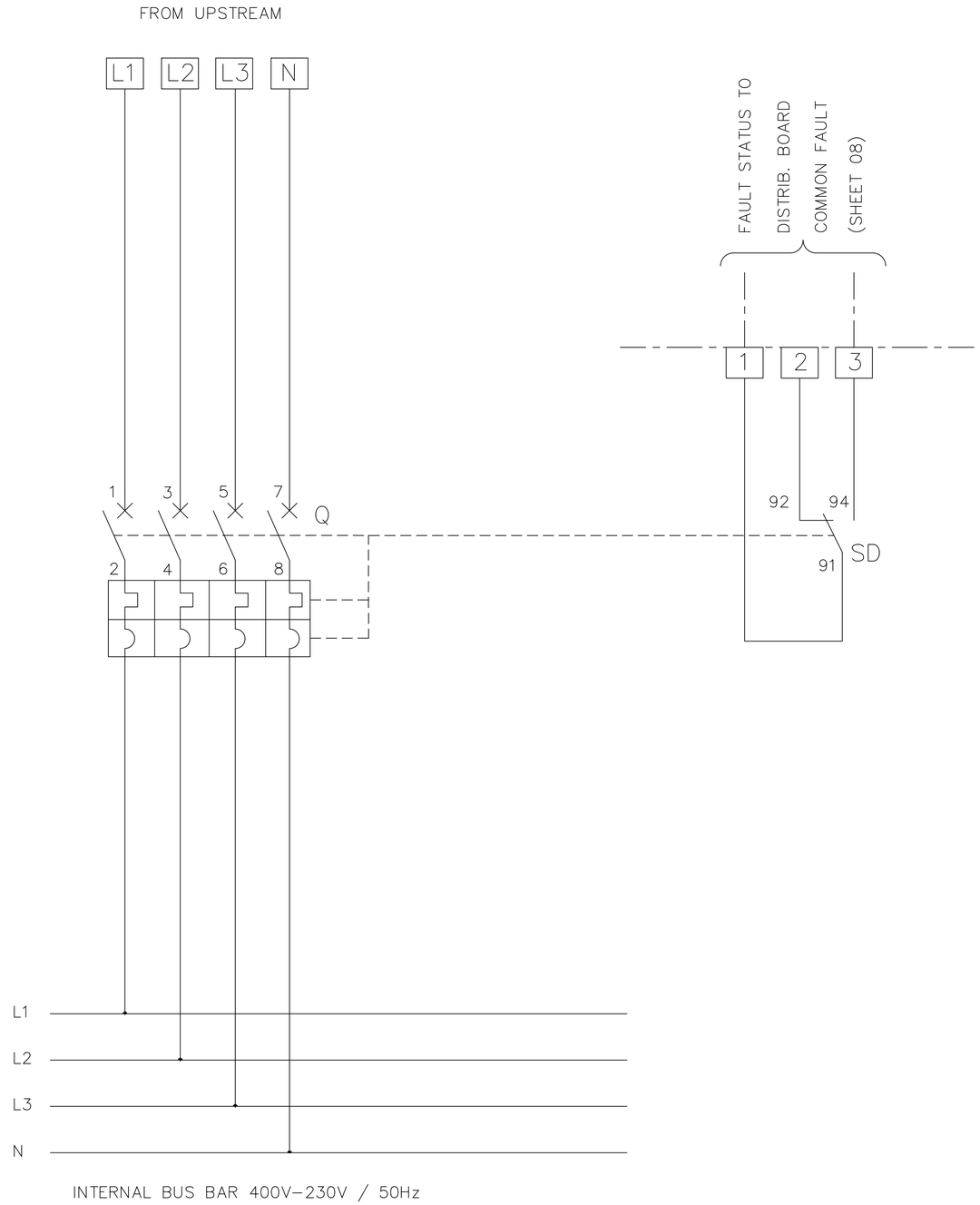
SHEET 003

REV. 02

File Name : 123A90–DDL–EL–DG–20163 Rev. 02

F.to UNI A3: 420mmx297mm

LVI1



INTERNAL BUS BAR 400V–230V / 50Hz

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS–BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)
AC, DC UPS & DISTRIBUTION BOARD INCOMER–LVI1

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

SCALE : NTS

A3

DRAWING NO. 123A90–DDL–EL–DG–20163

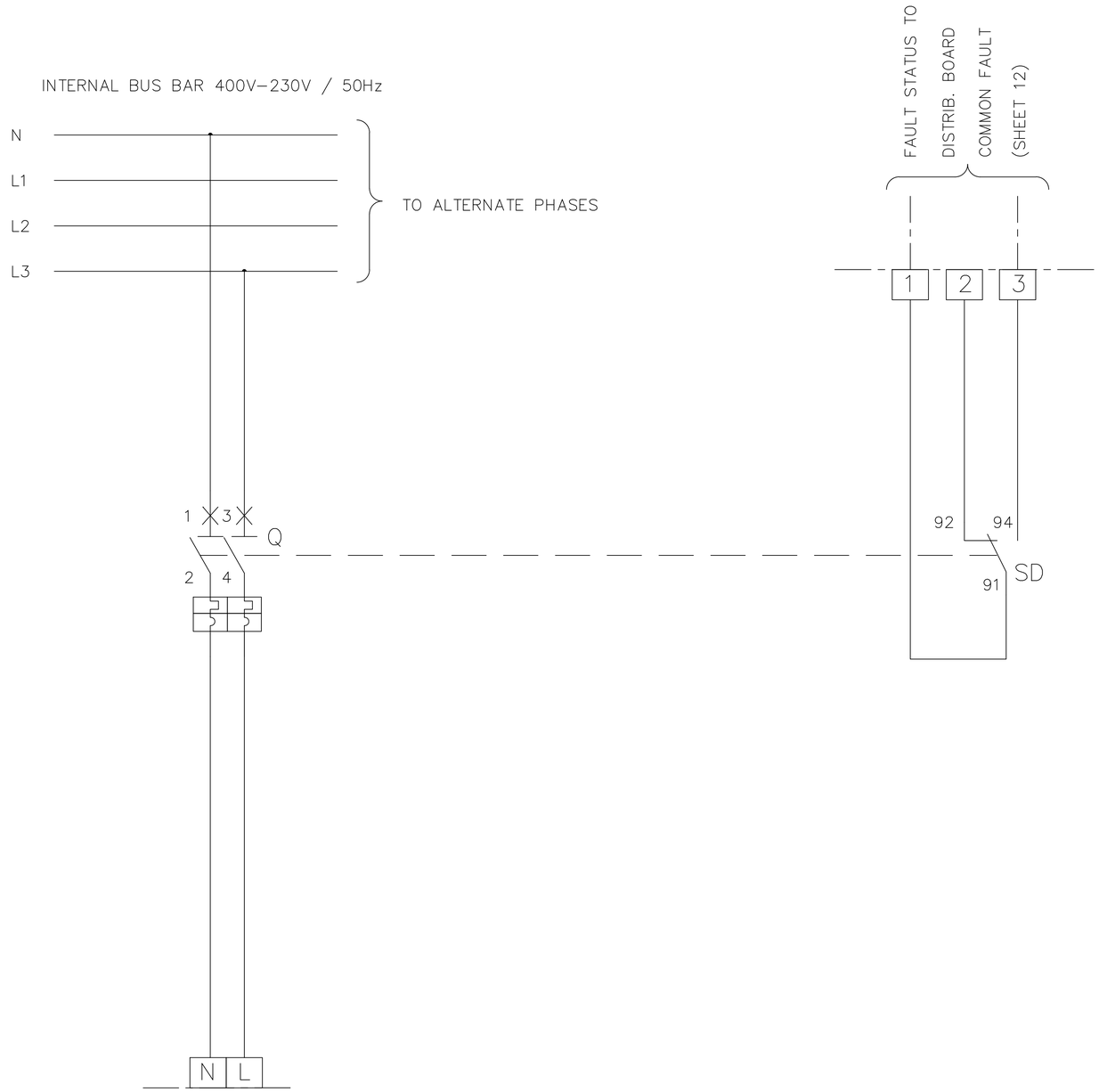
SHEET 004

REV. 02

File Name : 123A90–DDL–EL–DG–20163 Rev. 02

F.to UNI A3: 420mmx297mm

LV02



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS–BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)
DB 1PH OUTGOING WITHOUT EARTH FAULT – LVO2

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

SCALE : NTS

A3

DRAWING NO. 123A90–DDL–EL–DG–20163

SHEET 005

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90–DDL–EL–DG–20163 Rev. 02

LV03A

(FOR EMERGENCY LIGHTING)

INTERNAL BUS BAR 400V–230V / 50Hz

N

L1

L2

L3

1 3 Q

2 4

I_d

VALUE AS INDICATED ON SLD

1 3 KM

2 4

N L L'

LV03

(FOR NORMAL LIGHTING)

INTERNAL BUS BAR 400V–230V / 50Hz

TO ALTERNATE PHASES

1 3 Q

2 4

I_d

VALUE AS INDICATED ON SLD

1 3 KM

2 4

N L

FAULT STATUS TO DISTRIB. BOARD COMMON FAULT (SHEET 08)

CB STATUS AVAILABLE

FUSE FAILURE STATUS

1 2 3 5 6 4 13 14

92 94 SD

91

12 14 OF

11

FFR Contact

INTERNAL AUXILIARY SUPPLY 230VAC

N

L1

1 3 FUSE

2 4

FFR

Note 1

ONLY IN FIRST OUTGOING

7 8 RPC

ON/OFF STATUS

9 10

AUTO/MANUAL STATUS

11 12

1–MANNED

2–UNMANNED

1 3

1 2 SA

2 ① 4 ②

RPC

13

14

A1 KM A2

14 KM 11

NOTE:

1. OTHER SOLUTION TO MONITORING FUSE TRIP DEPENDING ON VENDOR STANDARD

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS–BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)

ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)

LIGHTING DB OUTGOING FEEDER WITH PHOTO CELL–LV03 E LV03A

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

SCALE : NTS

A3

DRAWING NO. 123A90–DDL–EL–DG–20163

SHEET 006

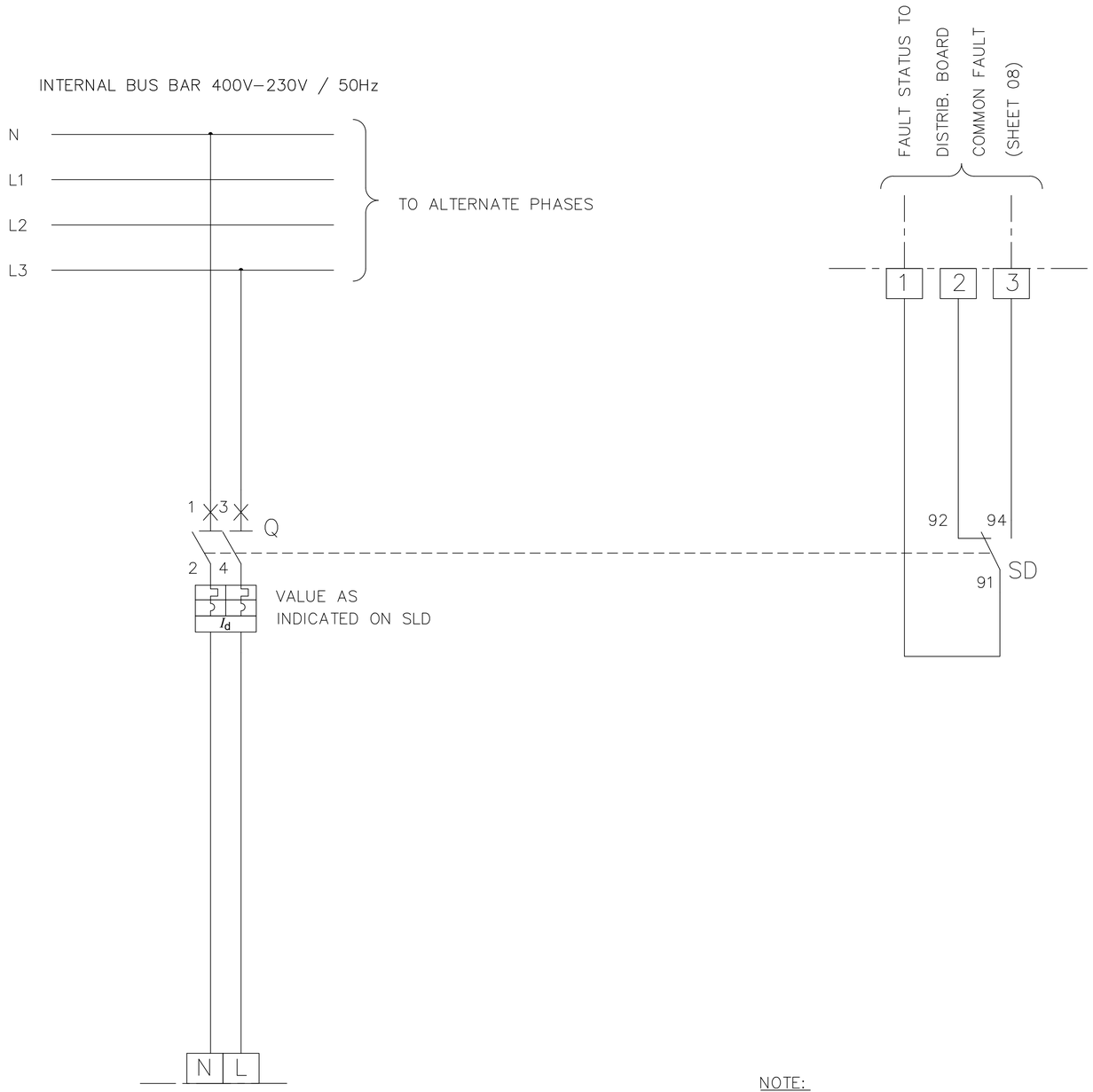
REV. 02

File Name : 123A90–DDL–EL–DG–20163 Rev. 02

F.to UNI A3: 420mmx297mm

LVOE1

NOTE–1



NOTE:

1. TYPICAL ALSO VALID FOR ELECTRICAL TRACE HEATING FEEDERS.

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS–BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)
DB 1PH OUTGOING WITH EARTH FAULT – LVOE1

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

SCALE : NTS

A3

DRAWING NO. 123A90–DDL–EL–DG–20163

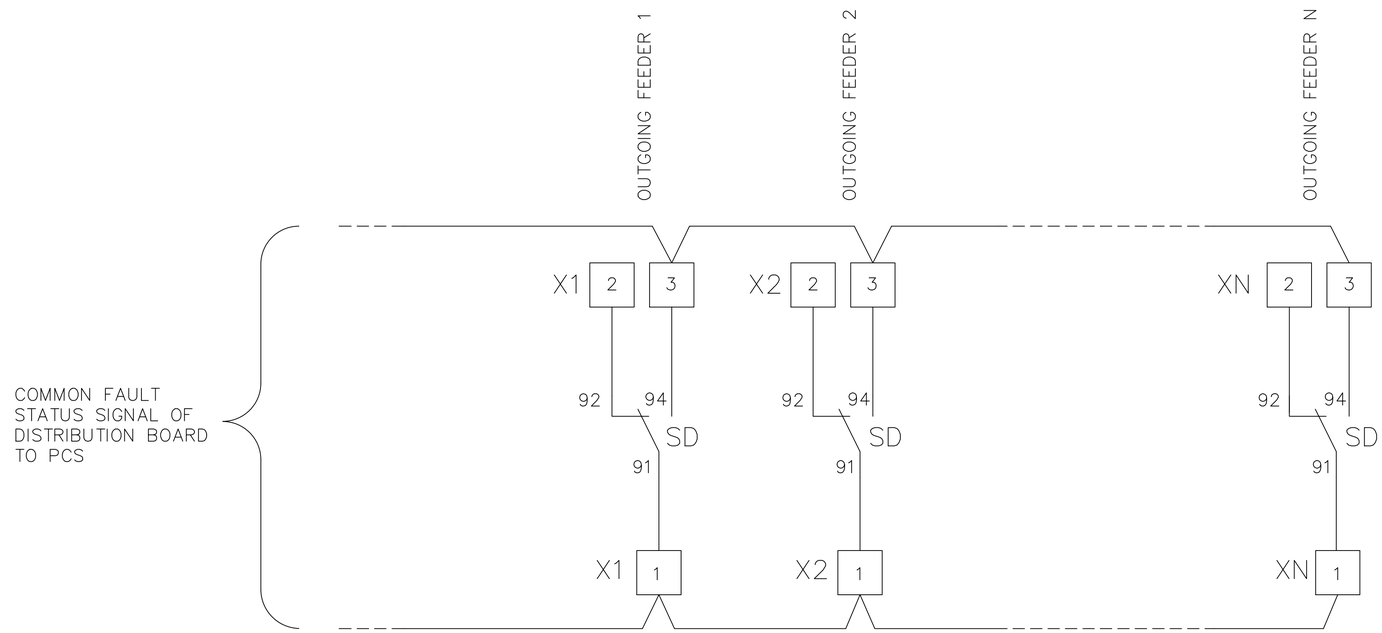
SHEET 007

REV. 02

123A90–DDL–EL–DG–20163 Rev. 02

Z E

F.to UNI A3: 420mmx297mm



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS-BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)
COMMON FAULT SIGNAL

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

SCALE : NTS

A3

DRAWING NO. 123A90-DDL-EL-DG-20163

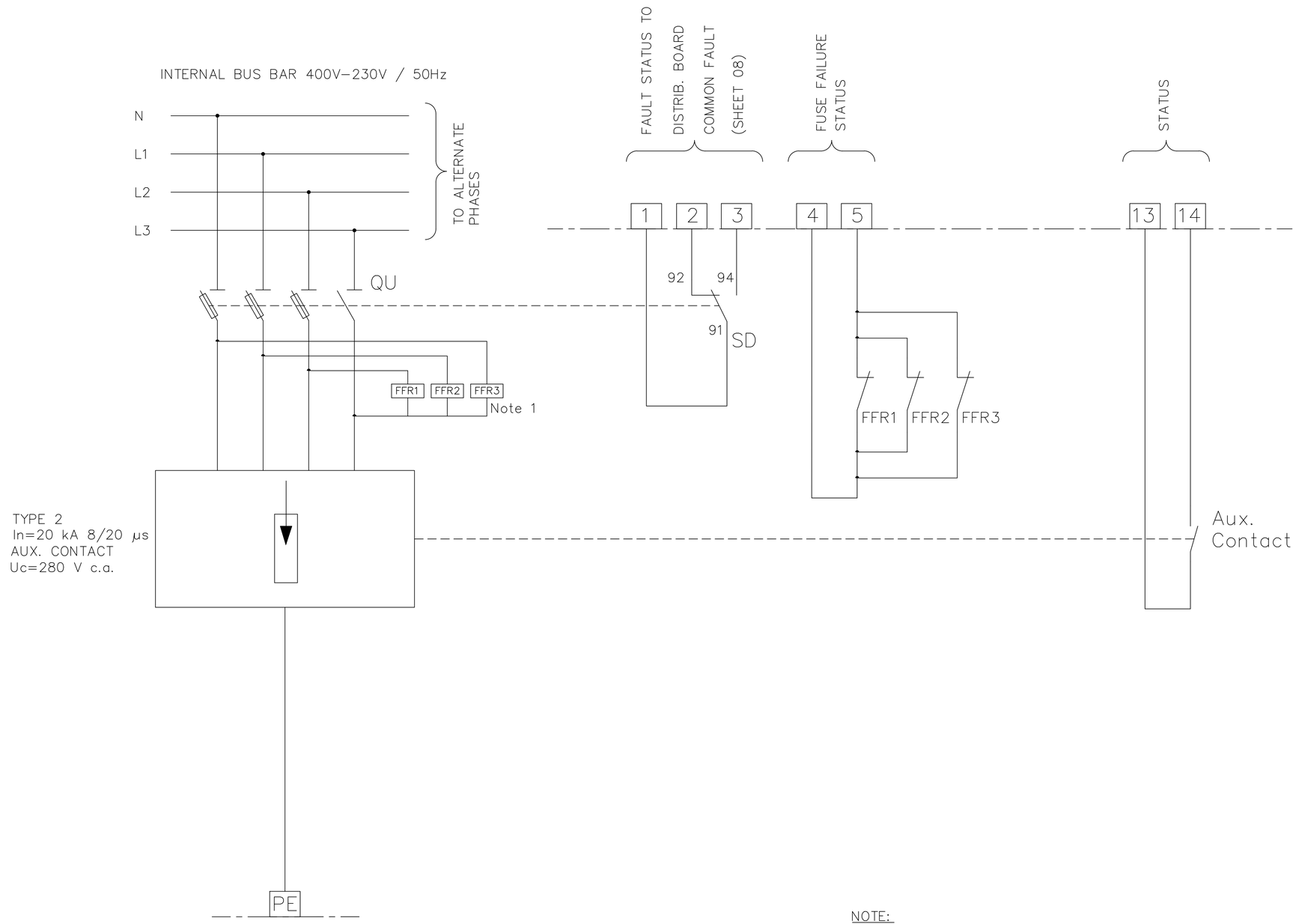
SHEET 008

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90-DDL-EL-DG-20163 Rev. 02

SPD01



NOTE:

1. OTHER SOLUTION TO MONITORING FUSE TRIP DEPENDING ON VENDOR STANDARD

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS–BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)
SURGE PROTECTION DEVICE – SPD01

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

SCALE : NTS

A3

DRAWING NO. 123A90–DDL–EL–DG–20163

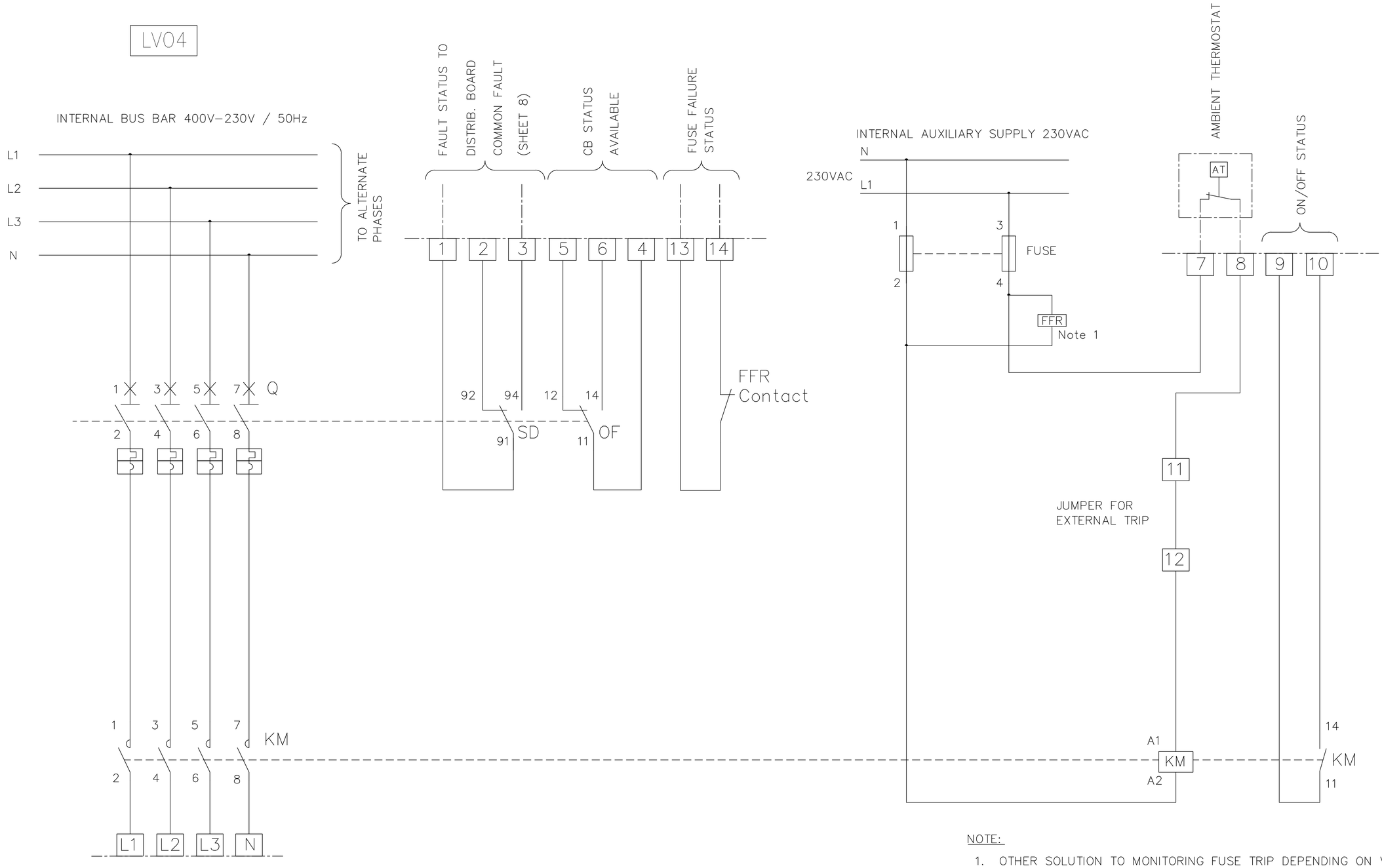
SHEET 009

REV. 02

F.to UNI A3: 420mmx297mm

File Name : 123A90–DDL–EL–DG–20163 Rev. 02

LV04



NOTE:

1. OTHER SOLUTION TO MONITORING FUSE TRIP DEPENDING ON VENDOR STANDARD

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS–BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)
GENERAL INCOMER FOR HEAT TRACING –LV04

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

SCALE : NTS

A3

DRAWING NO. 123A90–DDL–EL–DG–20163

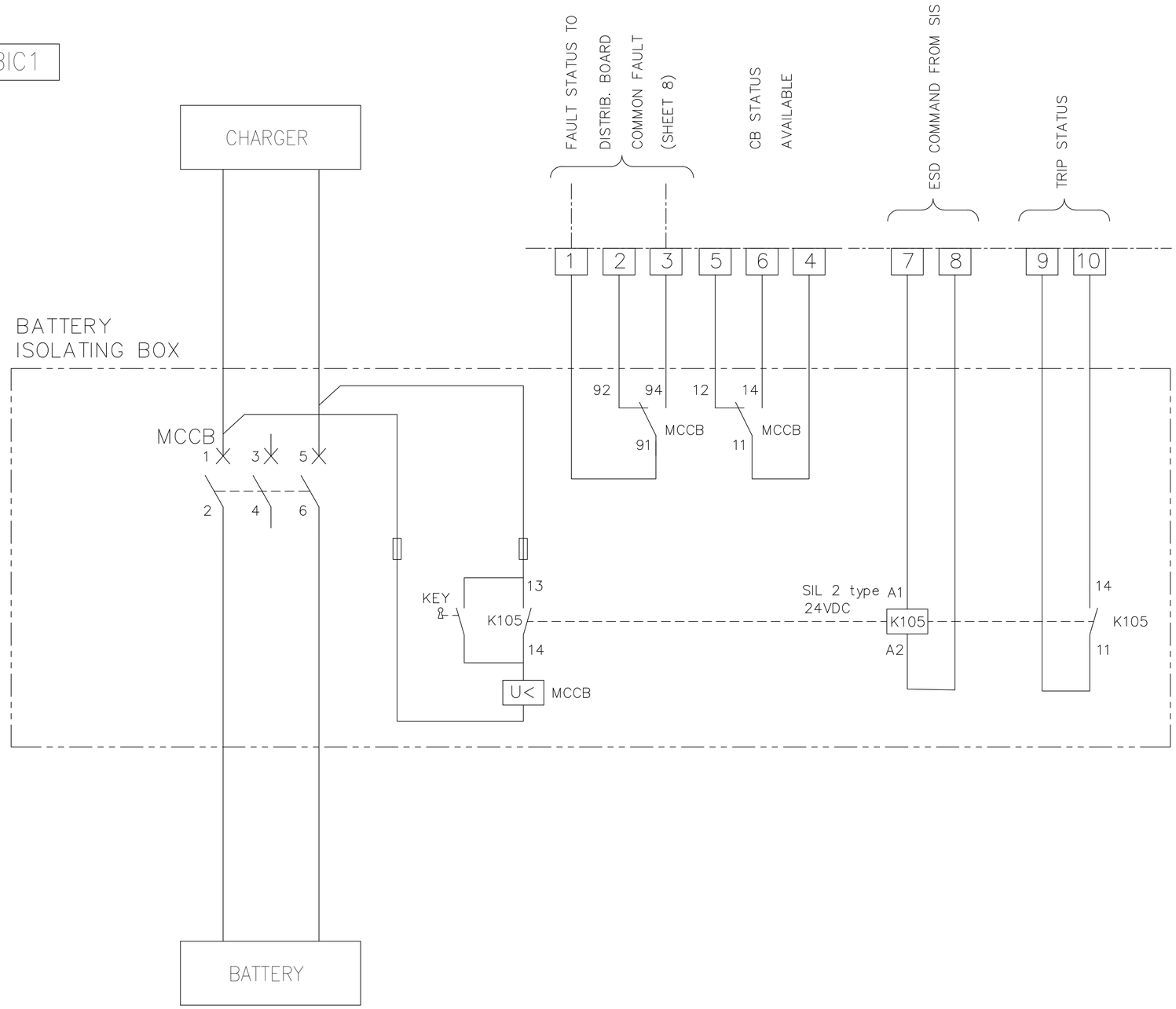
SHEET 010

REV. 02

File Name : 123A90–DDL–EL–DG–20163 Rev. 02

F.to UNI A3: 420mmx297mm

BIC1



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS-BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)
AC & DC UPS BATTERY ISOLATION CONTROL – BIC1

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

SCALE : NTS

A3

DRAWING NO. 123A90-DDL-EL-DG-20163

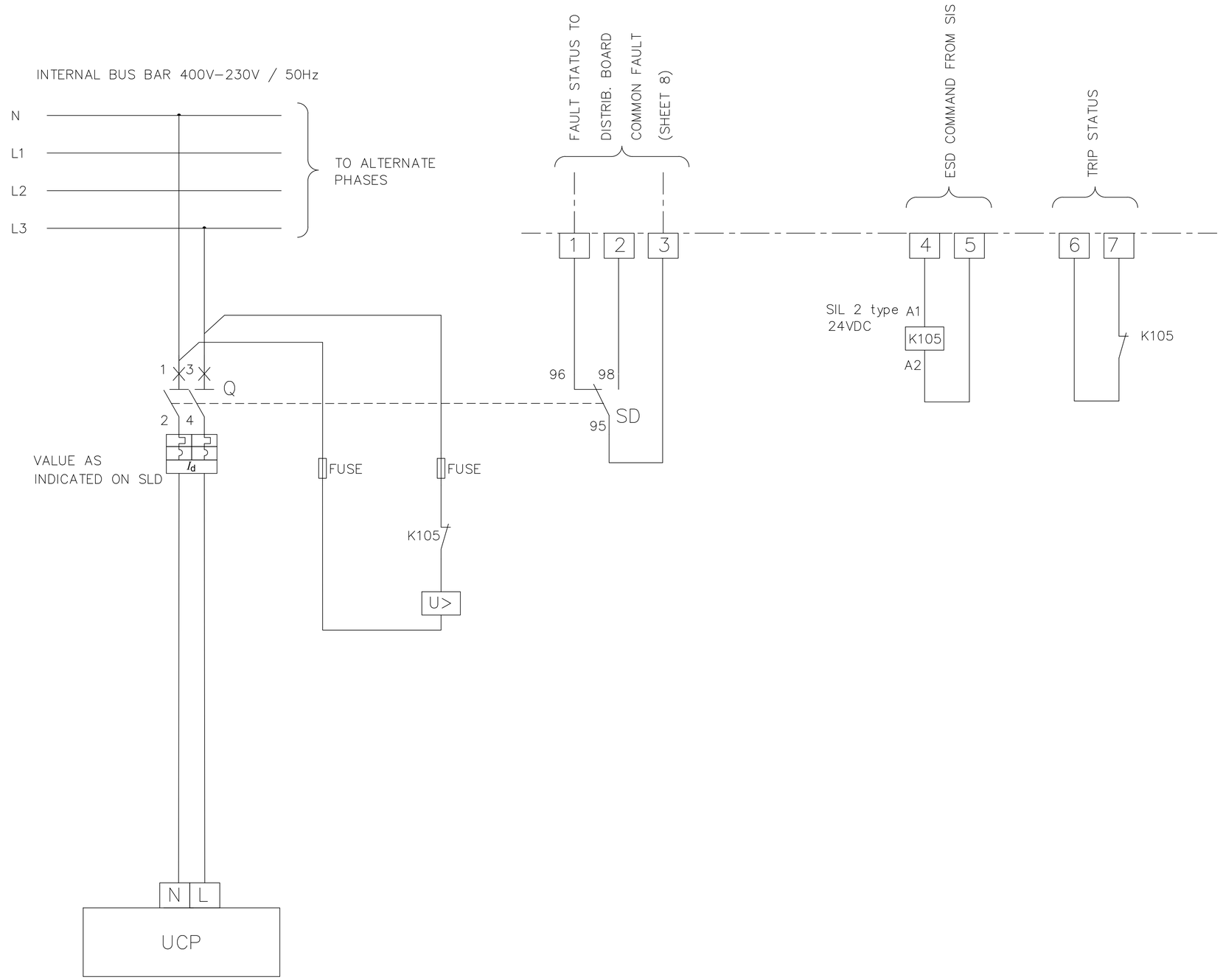
SHEET 011

REV. 02

File Name : 123A90-DDL-EL-DG-20163 Rev. 02

F.to UNI A3: 420mmx297mm

LV05



REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
02	15/09/25	SPS	FMA/AMA	CGI	AS–BUILT (ASB)
01	23/07/24	NLK	FMA/AMA	FPA/DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	11/06/24	NLK	FMA/AMA	FPA/DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE : BASE LOAD POWER HUB (BLPH)
ELECTRICAL TYPICAL SCHEMATIC DIAGRAMS (DBS, AC UPS, DC UPS, ETC)
AC UPS OUTGOING FEEDER FOR UCP – LV05

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

SCALE : NTS

A3

DRAWING NO. 123A90–DDL–EL–DG–20163

SHEET 012

REV. 02

File Name : 123A90–DDL–EL–DG–20163 Rev. 02

F.to UNI A3: 420mmx297mm