Base Load Power Hub (BLPH)

NITROGEN GENERATION PACKAGE A-64000

I/O LIST

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COES

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ISSUER:

ISSUER DOCUMENT CODE :

DOCUMENT TITLE :

INPUT-OUTPUT LIST

PROJECT DESCRIPTION :

COES_PSA 64-LP-001 (PSA LOCAL PANEL)

CLIENT :

CUSTOMER'S REFERENCES :

JOB
SYSTEM OR EQUIPMENT
CONTRACT
P. & ID.

0.2	11/09/2024	FOR APPROVAL	RM	RM	RM
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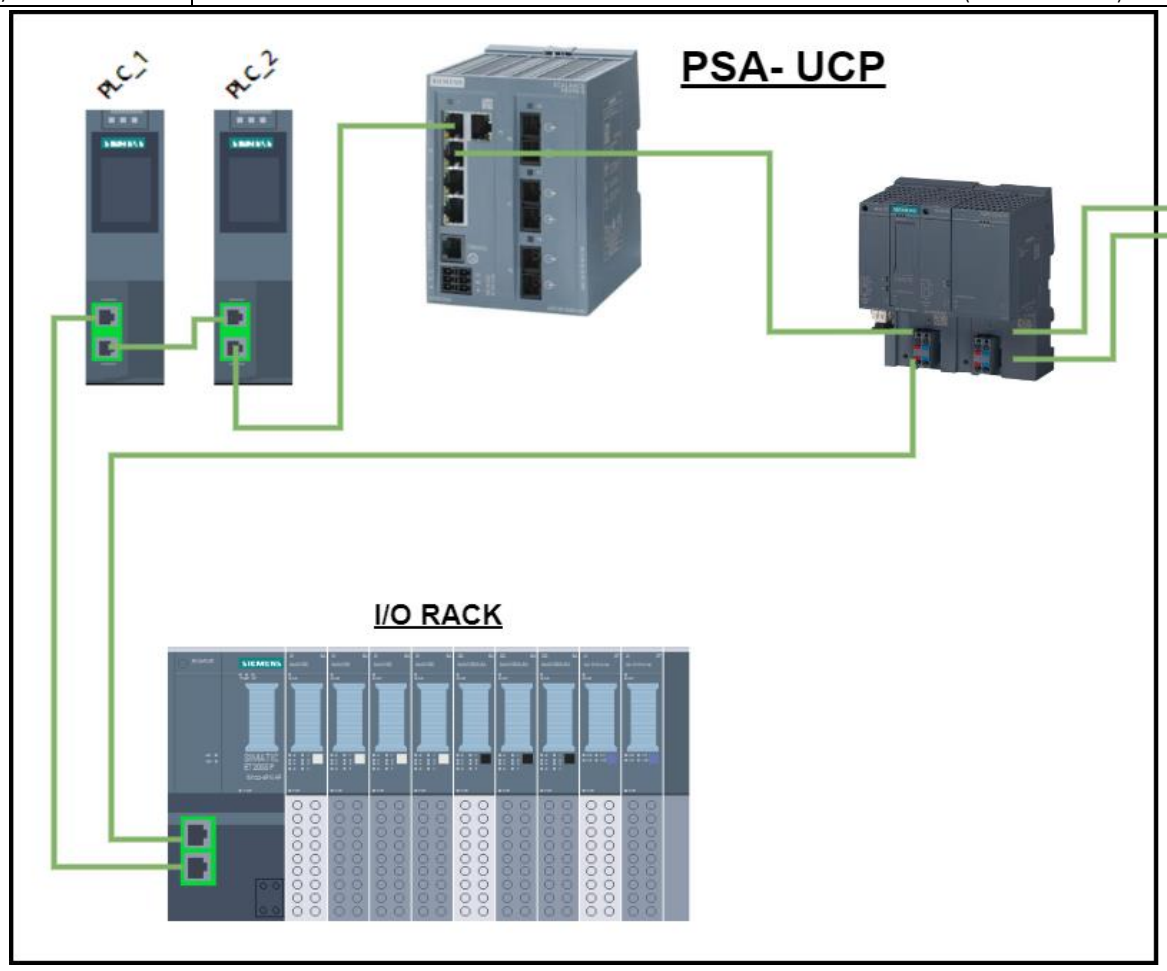
HARDWARE CONFIGURATION

N. SLOT	CODE	DESCRIPTION
N2 A-64000 (PSA LOCAL PANEL)		
CPU + ADDITIONAL COMPONENTS		
CPU_A	6ES7513-1RL00-0AB0 + 6ES7954-8LE03-0AA0	CPU 1513R-1PN SIMATIC S7-1500R, CPU 1513R-1PN, central processing unit with 300 KB work memory for program and 1.5 MB for data, 1st interface: PROFINET RT with 2-port switch +MEMORY CARD 12MB (6ES7954-8LE03-0AA0)
CPU_B	6ES7513-1RL00-0AB0 + 6ES7954-8LE03-0AA0	CPU 1513R-1PN SIMATIC S7-1500R, CPU 1513R-1PN, central processing unit with 300 KB work memory for program and 1.5 MB for data, 1st interface: PROFINET RT with 2-port switch +MEMORY CARD 12MB (6ES7954-8LE03-0AA0)
SWITCH	6GK5205-3BD00-2AB2	SCALANCE XB205-3 manageable Layer 2 IE Switch 5x porte RJ45 da 10/100 Mbit/s 3x porta MM FO SC 1x porta di console, LED di diagnostica, ridondante alimentazione di tensione; certificato IEC 62443-4-2
PN/PN Coupler	6ES7158-3AD10-0XA0	SIMATIC PN/PN Coupler for deterministic data exchange between max.4 PN-Controller per subnet, also from subnet to subnet, PROFIsafe data exchange, I/O-, MSI-, MSO- and data record communication, redundant power supply
RACK I/O		
SLOT 0	6ES7155-6AU01-0CN0 + 6ES7193-6AR00-0AA0	ET 200SP, IM155-6PN/2 HF SIMATIC ET 200SP, PROFINET, 2-port interface module IM 155-6PN/2 High Feature(6ES7155-6AU01-0CN0), 1 slot for BusAdapter, max. 64 I/O modules and 16 ET 200AL modules, S2 redundancy, multi-hotswap, 0.25 ms, isochronous mode, optional PN strain relief, including server module (6ES7193-6PA00-0AA0) + BusAdapter BA 2xRJ45 (6ES7193-6AR00-0AA0)
SLOT 1	6ES7131-6BF01-0AA0 + 6ES7193-6BP00-0DA0	ET 200SP, DI 8x 24V DC Basic, PU □ SIMATIC ET 200SP, Digital input module, DI 8x 24V DC Basic, type 2 (IEC 61131), sink input, (PNP, P-reading) (6ES7131-6BF01-0AA0) and BaseUnit BU15-P16+A0+2D, BU type A0, push-in terminals, without aux. terminals, new load group (6ES7193-6BP00-0DA0)
SLOT 2	6ES7131-6BF01-0AA0 +6ES7193-6BP00-0BA0	ET 200SP, DI 8x 24V DC Basic, PU □ SIMATIC ET 200SP, Digital input module, DI 8x 24V DC Basic, type 2 (IEC 61131), sink input, (PNP, P-reading) (6ES7131-6BF01-0AA0) BaseUnit BU15-P16+A0+2B, BU type A0, Push-in terminals, without AUX terminals, load group bridged to the left (6ES7193-6BP00-0BA0)
SLOT 3	6ES7131-6BF01-0AA0 +6ES7193-6BP00-0BA0	ET 200SP, DI 8x 24V DC Basic, PU □ SIMATIC ET 200SP, Digital input module, DI 8x 24V DC Basic, type 2 (IEC 61131), sink input, (PNP, P-reading) (6ES7131-6BF01-0AA0) BaseUnit BU15-P16+A0+2B, BU type A0, Push-in terminals, without AUX terminals, load group bridged to the left (6ES7193-6BP00-0BA0)
SLOT 4	6ES7131-6BF01-0AA0 +6ES7193-6BP00-0BA0	ET 200SP, DI 8x 24V DC Basic, PU □ SIMATIC ET 200SP, Digital input module, DI 8x 24V DC Basic, type 2 (IEC 61131), sink input, (PNP, P-reading) (6ES7131-6BF01-0AA0) BaseUnit BU15-P16+A0+2B, BU type A0, Push-in terminals, without AUX terminals, load group bridged to the left (6ES7193-6BP00-0BA0)
SLOT 5	6ES7132-6BF01-0AA0 + 6ES7193-6BP00-0DA0	ET 200SP, DQ 8x 24V DC/0,5A Basic, PU □ SIMATIC ET 200SP, Digital output module, DQ 8x 24V DC/0,5A Basic, Source output (PNP,P-switching) (6ES7132-6BF01-0AA0) and BaseUnit BU15-P16+A0+2D, BU type A0, push-in terminals, without aux. terminals, new load group (6ES7193-6BP00-0DA0)
SLOT 6	6ES7132-6BF01-0AA0 +6ES7193-6BP00-0BA0	ET 200SP, DQ 8x 24V DC/0,5A Basic, PU □ SIMATIC ET 200SP, Digital output module, DQ 8x 24V DC/0,5A Basic, Source output (PNP,P-switching) (6ES7132-6BF01-0AA0) BaseUnit BU15-P16+A0+2B, BU type A0, Push-in terminals, without AUX terminals, load group bridged to the left (6ES7193-6BP00-0BA0)
SLOT 7	6ES7132-6BF01-0AA0 +6ES7193-6BP00-0BA0	ET 200SP, DQ 8x 24V DC/0,5A Basic, PU □ SIMATIC ET 200SP, Digital output module, DQ 8x 24V DC/0,5A Basic, Source output (PNP,P-switching) (6ES7132-6BF01-0AA0) BaseUnit BU15-P16+A0+2B, BU type A0, Push-in terminals, without AUX terminals, load group bridged to the left (6ES7193-6BP00-0BA0)
SLOT 8	6ES7134-6GD01-0BA1 + 6ES7193-6BP00-0DA0	ET 200SP, AI 4XI 2-/4-Wire ST, PU 1 SIMATIC ET 200SP, ANALOG INPUT MODULE, AI 4XI 2-/4-WIRE STANDARD (6ES7134-6GD01-0BA1) and BaseUnit BU15-P16+A0+2D, BU type A0, push-in terminals, without aux. terminals, new load group (6ES7193-6BP00-0DA0)
SLOT 9	6ES7134-6GD01-0BA1 +6ES7193-6BP00-0BA0	ET 200SP, AI 4XI 2-/4-Wire ST, PU 1 SIMATIC ET 200SP, ANALOG INPUT MODULE, AI 4XI 2-/4-WIRE STANDARD (6ES7134-6GD01-0BA1) BaseUnit BU15-P16+A0+2B, BU type A0, Push-in terminals, without AUX terminals, load group bridged to the left (6ES7193-6BP00-0BA0)
SLOT 10	/	Modulo Server (Incluso nella 6ES7155-6AU01-0CN0 - Slot 0)

Note: Base unit connection for each I/O Card has been indicated in I/O List sheet.

NETWORK ARCHITECTURE

NR	IP ADDRESS	COMMENT
1	192.168.9.1 / 255.255.255.0	REDUNDANCY CPUs SYSTEM ADDRESS
2	192.168.9.2 / 255.255.255.0	PLC 1 ADDRESS
3	192.168.9.3 / 255.255.255.0	PLC 2 ADDRESS
4	192.168.9.4 / 255.255.255.0	SWITCH ADDRESS
5	192.168.9.5 / 255.255.255.0	INTERFACE MODULE ADDRESS (I/O RACK)
6	192.168.9.6 / 255.255.255.0	COUPLER ADDRESS (IN THE RING)
7	192.168.9.7 / 255.255.255.0	COUPLER ADDRESS(NOT IN THE RING)



N2 A-64000 (PSA LOCAL PANEL)				
CPU RACK				
CPU_1	CPU 1513R-1PN	6ES7513-1RL00-0AB0		
CPU_2	CPU 1513R-1PN	6ES7513-1RL00-0AB0		
I/O RACK				
RACK F1 SLOT 0	ET 200SP, IM155-6PN/2 HF	6ES7155-6AU01-0CN0		
RACK F1 SLOT 1	INPUT MODULE: DI 8x 24V DC Basic	6ES7131-6BF01-0AA0		BASE UNIT: 6ES7193-6BP00-0DA0 (WHITE type +A0, BU15-P16+A0+2D)
RACK F1 SLOT 1 IN 0	%I0.0	VALVE 64-XV-051 OPEN LIMIT SWITCH	64-ZSH-051	
RACK F1 SLOT 1 IN 1	%I0.1	VALVE 64-XV-051 CLOSED LIMIT SWITCH	64-ZSL-051	
RACK F1 SLOT 1 IN 2	%I0.2	VALVE 64-XV-052 OPEN LIMIT SWITCH	64-ZSH-052	
RACK F1 SLOT 1 IN 3	%I0.3	VALVE 64-XV-052 CLOSED LIMIT SWITCH	64-ZSL-052	
RACK F1 SLOT 1 IN 4	%I0.4	VALVE 64-XV-053 OPEN LIMIT SWITCH	64-ZSH-053	
RACK F1 SLOT 1 IN 5	%I0.5	VALVE 64-XV-053 CLOSED LIMIT SWITCH	64-ZSL-053	
RACK F1 SLOT 1 IN 6	%I0.6	VALVE 64-XV-054 OPEN LIMIT SWITCH	64-ZSH-054	
RACK F1 SLOT 1 IN 7	%I0.7	VALVE 64-XV-054 CLOSED LIMIT SWITCH	64-ZSL-054	
RACK F1 SLOT 2	INPUT MODULE: DI 8x 24V DC Basic	6ES7131-6BF01-0AA0		BASE UNIT: 6ES7193-6BP00-0BA0 (BLACK, type A0, BU15-P16+A0+2B)
RACK F1 SLOT 2 IN 0	%I1.0	VALVE 64-XV-055 OPEN LIMIT SWITCH	64-ZSH-055	
RACK F1 SLOT 2 IN 1	%I1.1	VALVE 64-XV-055 CLOSED LIMIT SWITCH	64-ZSL-055	
RACK F1 SLOT 2 IN 2	%I1.2	VALVE 64-XV-056 OPEN LIMIT SWITCH	64-ZSH-056	
RACK F1 SLOT 2 IN 3	%I1.3	VALVE 64-XV-056 CLOSED LIMIT SWITCH	64-ZSL-056	
RACK F1 SLOT 2 IN 4	%I1.4	VALVE 64-XV-057 OPEN LIMIT SWITCH	64-ZSH-057	
RACK F1 SLOT 2 IN 5	%I1.5	VALVE 64-XV-057 CLOSED LIMIT SWITCH	64-ZSL-057	
RACK F1 SLOT 2 IN 6	%I1.6	VALVE 64-XV-058 OPEN LIMIT SWITCH	64-ZSH-058	
RACK F1 SLOT 2 IN 7	%I1.7	VALVE 64-XV-058 CLOSED LIMIT SWITCH	64-ZSL-058	
RACK F1 SLOT 3	INPUT MODULE: DI 8x 24V DC Basic	6ES7131-6BF01-0AA0		BASE UNIT: 6ES7193-6BP00-0BA0 (BLACK, type A0, BU15-P16+A0+2B)
RACK F1 SLOT 3 IN 0	%I2.0	VALVE 64-XV-059 OPEN LIMIT SWITCH	64-ZSH-059	
RACK F1 SLOT 3 IN 1	%I2.1	VALVE 64-XV-059 CLOSED LIMIT SWITCH	64-ZSL-059	
RACK F1 SLOT 3 IN 2	%I2.2	INTERNAL CABINET THERMOSTAT	64-TH-001	
RACK F1 SLOT 3 IN 3	%I2.3	LOCAL START PUSH BUTTON	64-HS-001	
RACK F1 SLOT 3 IN 4	%I2.4	LOCAL STOP PUSH BUTTON	64-HS-002	
RACK F1 SLOT 3 IN 5	%I2.5	LOCAL ALARM RESET	64-HS-003	
RACK F1 SLOT 3 IN 6	%I2.6	LOCAL REMOTE SELECTOR STATUS	64-HS-004	
RACK F1 SLOT 3 IN 7	%I2.7	SHUTDOWN ALARM FROM SIS - INDICATION ONLY (0=FAULT)	64-ESD-001	This standard signal is only an indication of cumulative critical alarms: 64-XS-001 (processed by SIL 2 Relay) & Emergency pushbutton on 63-LP-001
RACK F1 SLOT 4	INPUT MODULE: DI 8x 24V DC Basic	6ES7131-6BF01-0AA0		BASE UNIT: 6ES7193-6BP00-0BA0 (BLACK, type A0, BU15-P16+A0+2B)
RACK F1 SLOT 4 IN 0	%I3.0	VALVE 64-XV-060 OPEN LIMIT SWITCH	64-ZSH-060	
RACK F1 SLOT 4 IN 1	%I3.1	VALVE 64-XV-060 CLOSED LIMIT SWITCH	64-ZSL-060	
RACK F1 SLOT 4 IN 2	%I3.2	VALVE 64-XV-061 OPEN LIMIT SWITCH	64-ZSH-061	
RACK F1 SLOT 4 IN 3	%I3.3	VALVE 64-XV-061 CLOSED LIMIT SWITCH	64-ZSL-061	
RACK F1 SLOT 4 IN 4	%I3.4	SPARE		
RACK F1 SLOT 4 IN 5	%I3.5	SPARE		
RACK F1 SLOT 4 IN 6	%I3.6	SPARE		
RACK F1 SLOT 4 IN 7	%I3.7	SPARE		
RACK F1 SLOT 5	OUTPUT MODULE: DQ 8x 24V DC/0,5A	6ES7132-6BF01-0AA0		BASE UNIT: 6ES7193-6BP00-0DA0 (WHITE type +A0, BU15-P16+A0+2D)
RACK F1 SLOT 5 OUT 0	%Q0.0	VALVE 64-XV-051 COMMAND	64-XV-051	
RACK F1 SLOT 5 OUT 1	%Q0.1	VALVE 64-XV-052 COMMAND	64-XV-052	
RACK F1 SLOT 5 OUT 2	%Q0.2	VALVE 64-XV-053 COMMAND	64-XV-053	
RACK F1 SLOT 5 OUT 3	%Q0.3	VALVE 64-XV-054 COMMAND	64-XV-054	
RACK F1 SLOT 5 OUT 4	%Q0.4	VALVE 64-XV-055 COMMAND	64-XV-055	
RACK F1 SLOT 5 OUT 5	%Q0.5	VALVE 64-XV-056 COMMAND	64-XV-056	
RACK F1 SLOT 5 OUT 6	%Q0.6	VALVE 64-XV-057 COMMAND	64-XV-057	
RACK F1 SLOT 5 OUT 7	%Q0.7	VALVE 64-XV-058 COMMAND	64-XV-058	
RACK F1 SLOT 6	OUTPUT MODULE: DQ 8x 24V DC/0,5A	6ES7132-6BF01-0AA0		BASE UNIT: 6ES7193-6BP00-0BA0 (BLACK, type A0, BU15-P16+A0+2B)
RACK F1 SLOT 6 OUT 0	%Q1.0	VALVE 64 XV-059 COMMAND	64-XV-059	
RACK F1 SLOT 6 OUT 1	%Q1.1	SPARE		
RACK F1 SLOT 6 OUT 2	%Q1.2	RUNNING SYSTEM LAMP	64-XL-003	
RACK F1 SLOT 6 OUT 3	%Q1.3	GENERAL ALARM SYSTEM LAMP	64-XA-001	
RACK F1 SLOT 6 OUT 4	%Q1.4	NITROGEN GENERATOR RUNNING (TO DCS)	64-XL-003-DCS	
RACK F1 SLOT 6 OUT 5	%Q1.5	NITROGEN GENERATOR ALARM (TO DCS)	64-XA-001-DCS	
RACK F1 SLOT 6 OUT 6	%Q1.6	VALVE 64 XV-060 COMMAND	64-XV-060	
RACK F1 SLOT 6 OUT 7	%Q1.7	VALVE 64 XV-061 COMMAND	64-XV-061	
RACK F1 SLOT 7	OUTPUT MODULE: DQ 8x 24V DC/0,5A	6ES7132-6BF01-0AA0		BASE UNIT: 6ES7193-6BP00-0BA0 (BLACK, type A0, BU15-P16+A0+2B)
RACK F1 SLOT 7 OUT 0	%Q2.0	SPARE		
RACK F1 SLOT 7 OUT 1	%Q2.1	SPARE		
RACK F1 SLOT 7 OUT 2	%Q2.2	SPARE		
RACK F1 SLOT 7 OUT 3	%Q2.3	SPARE		
RACK F1 SLOT 7 OUT 4	%Q2.4	SPARE		
RACK F1 SLOT 7 OUT 5	%Q2.5	SPARE		
RACK F1 SLOT 7 OUT 6	%Q2.6	SPARE		
RACK F1 SLOT 7 OUT 7	%Q2.7	SPARE		
RACK F1 SLOT 8	AN. INPUT MODULE: AI 4xI 2/4 wire 4-20mA	6ES7134-6GD01-0BA1		BASE UNIT: 6ES7193-6BP00-0DA0 (WHITE type +A0, BU15-P16+A0+2D)
RACK F1 SLOT 8 A. IN. 0	%IW4	INLET PRESSUTE TRANSMITTER	64-PT-051	
RACK F1 SLOT 8 A. IN. 1	%IW6	TOWER 1 PRESSURE TRANSMITTER	64-PT-052	
RACK F1 SLOT 8 A. IN. 2	%IW8	TOWER 2 PRESSURE TRANSMITTER	64-PT-053	
RACK F1 SLOT 8 A. IN. 3	%IW10	OUTLET B PRESSURE TRANSMITTER	64-PT-057	
RACK F1 SLOT 9	AN. INPUT MODULE: AI 4xI 2/4 wire 4-20mA	6ES7134-6GD01-0BA1		BASE UNIT: 6ES7193-6BP00-0BA0 (BLACK, type A0, BU15-P16+A0+2B)
RACK F1 SLOT 9 A. IN. 0	%IW12	PRESSURE TRANSMITTER INSTRUMENT AIR RECIEVER	64-PT-059	
RACK F1 SLOT 9 A. IN. 1	%IW14	DIFFERENTIAL PRESSURE TRANSMITTER OUTLET FILTERS	64-PDIT-056	
RACK F1 SLOT 9 A. IN. 2	%IW16	OXYGEN TRANSMITTER	64-AT-051	
RACK F1 SLOT 9 A. IN. 3	%IW18	SPARE		
RACK 1 SLOT 9	SERVER MODULE	6ES7193-6PA00-0AA0		

N2 A-64000

Rev 3

PROFINET SIGNALS TABLE

N. BYTE	N. BIT	DATA TYPE	TAG	DESCRIPTION	MEANING	SCALING	OFFSET	READ/WRITE	
1000	0	BOOL	RED_FAIL	REDUNDANCY CPU FAILURE	0=ALARM, 1=OK			R	ALARMS
	1	BOOL	CPU_SWITCH	PRIMARY CPU SWITCH	0=ALARM, 1=OK			R	
	2	BOOL	IM_ERR	IM ERROR	0=ALARM, 1=OK			R	
	3	BOOL	PNPN_ERR	PNPN COUPLER ERROR	0=ALARM, 1=OK			R	
	4	BOOL	NET_ERR	NETWORK PN/IE_1 ERROR	0=ALARM, 1=OK			R	
	5	BOOL		SPARE				R	
	6	BOOL		SPARE				R	
	7	BOOL		SPARE				R	
1001	0	BOOL	FILTER_1-H	DIFFERENTIAL PRESSURE EXCEEDED FOR AFTER FILTER 1 - ALARM	0=ALARM, 1=OK			R	
	1	BOOL	FILTER_2-H	DIFFERENTIAL PRESSURE EXCEEDED FOR AFTER FILTER 2 - ALARM	0=ALARM, 1=OK			R	
	2	BOOL	FILTERS-H	DIFFERENTIIAL PRESSURE EXCEEDED FOR BOTH AFTER FILTER	0=ALARM, 1=OK			R	
	3	BOOL		SPARE				R	
	4	BOOL	STOP_REQUEST	STOP TAKEN WAITING UNTIL THE END OF PHASE 5	1 = IN PROGRESS 0 = DONE			R	
	5	BOOL		SPARE				R	
	6	BOOL		SPARE				R	
	7	BOOL		SPARE				R	
1002	0	BOOL		SPARE				R	
	1	BOOL		SPARE				R	
	2	BOOL		SPARE				R	
	3	BOOL		SPARE				R	
	4	BOOL		SPARE				R	
	5	BOOL		SPARE				R	
	6	BOOL		SPARE				R	
	7	BOOL		SPARE				R	
1003	0	BOOL	64-TH-001-H	INTERNAL CABINET THERMOSTAT - ALARM	0=ALARM, 1=OK			R	
	1	BOOL		SPARE				R	
	2	BOOL		SPARE				R	
	3	BOOL		SPARE				R	
	4	BOOL		SPARE				R	
	5	BOOL		SPARE				R	
	6	BOOL		SPARE				R	
	7	BOOL		SPARE				R	
1004	0	BOOL	64-XY-051-H	VALVE 64-XY-051 ALARM	0=ALARM, 1=OK			R	
	1	BOOL	64-XY-052-H	VALVE 64-XY-052 ALARM	0=ALARM, 1=OK			R	
	2	BOOL	64-XY-053-H	VALVE 64-XY-053 ALARM	0=ALARM, 1=OK			R	
	3	BOOL	64-XY-054-H	VALVE 64-XY-054 ALARM	0=ALARM, 1=OK			R	
	4	BOOL	64-XY-055-H	VALVE 64-XY-055 ALARM	0=ALARM, 1=OK			R	
	5	BOOL	64-XY-056-H	VALVE 64-XY-056 ALARM	0=ALARM, 1=OK			R	
	6	BOOL	64-XY-057-H	VALVE 64-XY-057 ALARM	0=ALARM, 1=OK			R	
	7	BOOL	64-XY-058-H	VALVE 64-XY-058 ALARM	0=ALARM, 1=OK			R	
1005	0	BOOL	64-XY-059-H	VALVE 64-XY-059 ALARM	0=ALARM, 1=OK			R	
	1	BOOL	64-XY-060-H	VALVE 64-XY-060 ALARM	0=ALARM, 1=OK			R	
	2	BOOL	64-XY-061-H	VALVE 64-XY-061 ALARM	0=ALARM, 1=OK			R	
	3	BOOL		SPARE				R	
	4	BOOL		SPARE				R	
	5	BOOL		SPARE				R	
	6	BOOL		SPARE				R	
	7	BOOL		SPARE				R	
1006	0	BOOL		SPARE				R	
	1	BOOL		SPARE				R	
	2	BOOL		SPARE				R	
	3	BOOL		SPARE				R	
	4	BOOL		SPARE				R	
	5	BOOL		SPARE				R	
	6	BOOL		SPARE				R	
	7	BOOL		SPARE				R	
1007	0	BOOL	64-PT-051-LL	INLET PRESSURE TRANSMITTER - LOW LOW ALARM (LL)	0=ALARM, 1=OK			R	
	1	BOOL	64-PT-051-L	INLET PRESSURE TRANSMITTER - LOW ALARM (L)	0=ALARM, 1=OK			R	
	2	BOOL	64-PT-051-H	INLET PRESSURE TRANSMITTER - HIGH ALARM (H)	0=ALARM, 1=OK			R	
	3	BOOL	64-PT-051-HH	INLET PRESSURE TRANSMITTER - HIGH HIGH ALARM (HH)	0=ALARM, 1=OK			R	
	4	BOOL	64-PT-052-LL	TOWER 1 PRESSURE TRANSMITTER - LOW LOW ALARM (LL)	0=ALARM, 1=OK			R	
	5	BOOL	64-PT-052-L	TOWER 1 PRESSURE TRANSMITTER - LOW ALARM (L)	0=ALARM, 1=OK			R	
	6	BOOL	64-PT-052-H	TOWER 1 PRESSURE TRANSMITTER - HIGH ALARM (H)	0=ALARM, 1=OK			R	
	7	BOOL	64-PT-052-HH	TOWER 1 PRESSURE TRANSMITTER - HIGH HIGH ALARM (HH)	0=ALARM, 1=OK			R	
1008	0	BOOL	64-PT-053-LL	TOWER 2 PRESSURE TRANSMITTER - LOW LOW ALARM (LL)	0=ALARM, 1=OK			R	
	1	BOOL	64-PT-053-L	TOWER 2 PRESSURE TRANSMITTER - LOW ALARM (L)	0=ALARM, 1=OK			R	
	2	BOOL	64-PT-053-H	TOWER 2 PRESSURE TRANSMITTER - HIGH ALARM (H)	0=ALARM, 1=OK			R	
	3	BOOL	64-PT-053-HH	TOWER 2 PRESSURE TRANSMITTER - HIGH HIGH ALARM (HH)	0=ALARM, 1=OK			R	
	4	BOOL	64-PT-057-LL	OUTLET B PRESSURE TRANSMITTER - LOW LOW ALARM (LL)	0=ALARM, 1=OK			R	
	5	BOOL	64-PT-057-L	OUTLET B PRESSURE TRANSMITTER - LOW ALARM (L)	0=ALARM, 1=OK			R	
	6	BOOL	64-PT-057-H	OUTLET B PRESSURE TRANSMITTER - HIGH ALARM (H)	0=ALARM, 1=OK			R	
	7	BOOL	64-PT-057-HH	OUTLET B PRESSURE TRANSMITTER - HIGH HIGH ALARM (HH)	0=ALARM, 1=OK			R	
1009	0	BOOL	64-PT-059-LL	PRESSURE TRANSMITTER INSTRUMENT AIR RECIEVER - LOW LOW ALARM (LL)	0=ALARM, 1=OK			R	
	1	BOOL	64-PT-059-L	PRESSURE TRANSMITTER INSTRUMENT AIR RECIEVER - LOW ALARM (L)	0=ALARM, 1=OK			R	
	2	BOOL	64-PT-059-H	PRESSURE TRANSMITTER INSTRUMENT AIR RECIEVER - HIGH ALARM (H)	0=ALARM, 1=OK			R	
	3	BOOL	64-PT-059-HH	PRESSURE TRANSMITTER INSTRUMENT AIR RECIEVER - HIGH HIGH ALARM (HH)	0=ALARM, 1=OK			R	
	4	BOOL	64-PDIT-056-LL	DIFFERENTIAL PRESSURE TRANSMITTER OUTLET FILTERS - LOW LOW ALARM (LL)	0=ALARM, 1=OK			R	
	5	BOOL	64-PDIT-056-L	DIFFERENTIAL PRESSURE TRANSMITTER OUTLET FILTERS - LOW ALARM (L)	0=ALARM, 1=OK			R	
	6	BOOL	64-PDIT-056-H	DIFFERENTIAL PRESSURE TRANSMITTER OUTLET FILTERS - HIGH ALARM (H)	0=ALARM, 1=OK			R	
	7	BOOL	64-PDIT-056-HH	DIFFERENTIAL PRESSURE TRANSMITTER OUTLET FILTERS - HIGH HIGH ALARM (HH)	0=ALARM, 1=OK			R	
1010	0	BOOL	64-AT-051-LL	OXYGEN TRANSMITTER - LOW LOW ALARM (LL)	0=ALARM, 1=OK			R	
	1	BOOL	64-AT-051-L	OXYGEN TRANSMITTER - LOW ALARM (L)	0=ALARM, 1=OK			R	
	2	BOOL	64-AT-051-H	OXYGEN TRANSMITTER - HIGH ALARM (H)	0=ALARM, 1=OK			R	
	3	BOOL	64-AT-051-HH	OXYGEN TRANSMITTER - HIGH HIGH ALARM (HH)	0=ALARM, 1=OK			R	
	4	BOOL		SPARE				R	
	5	BOOL		SPARE				R	
	6	BOOL		SPARE				R	
	7	BOOL		SPARE				R	
1011	0	BOOL	64-PT-051-BADPV	INLET PRESSURE TRANSMITTER - BAD PROCESS VALUE	0=ALARM, 1=OK			R	
	1	BOOL	64-PT-052-BADPV	TOWER 1 PRESSURE TRANSMITTER - BAD PROCESS VALUE	0=ALARM, 1=OK			R	
	2	BOOL	64-PT-053-BADPV	TOWER 2 PRESSURE TRANSMITTER - BAD PROCESS VALUE	0=ALARM, 1=OK			R	
	3	BOOL	64-PT-057-BADPV	OUTLET B PRESSURE TRANSMITTER - BAD PROCESS VALUE	0=ALARM, 1=OK			R	
	4	BOOL	64-PT-059-BADPV	PRESSURE TRANSMITTER INSTRUMENT AIR RECIEVER - BAD PROCESS VALUE	0=ALARM, 1=OK			R	
	5	BOOL	64-PDIT-056-BADPV	DIFFERENTIAL PRESSURE TRANSMITTER OUTLET FILTERS - BAD PROCESS VALUE	0=ALARM, 1=OK			R	
	6	BOOL	64-AT-051-BADPV	OXYGEN TRANSMITTER - BAD PROCESS VALUE	0=ALARM, 1=OK			R	
	7	BOOL		SPARE				R	
1012	0	BOOL	64-ESD-SIS-001-H	PLANT SHUTDOWN ALARM (SIS)	0=SHUTDOWN ALARM, 1=OK			R	PLANT STATUS
	1	BOOL	64-ALARM-PLANT	PLANT GENERAL ALARM	0=CUMULATIVE STANDARD ALARM, 1=OK			R	
	2	BOOL	64-PLANT-READY	PLANT READY	0=NOT READY, 1=READY TO START			R	
	3	BOOL	64-PLANT-RUNNING	PLANT RUNNING	0=STOPPED, 1=RUNNING			R	
	4	BOOL	64-PLANT-LOCA-REM	PLANT IN REMOTE MODE	0=LOCAL (PLC), 1=REMOTE (DCS)			R	
	5	BOOL		SPARE				R	
	6	BOOL		SPARE				R	
	7	BOOL		SPARE				R	
1013	0	BOOL	64-XY-051-DCS	VALVE 64-XY-051 COMMAND	1 = COMMAND			R	
	1	BOOL	64-XY-052-DCS	VALVE 64-XY-052 COMMAND	1 = COMMAND			R	
	2	BOOL	64-XY-053-DCS	VALVE 64-XY-053 COMMAND	1 = COMMAND			R	
	3	BOOL	64-XY-054-DCS	VALVE 64-XY-054 COMMAND	1 = COMMAND			R	
	4	BOOL	64-XY-055-DCS	VALVE 64-XY-055 COMMAND	1 = COMMAND			R	
	5	BOOL	64-XY-056-DCS	VALVE 64-XY-056 COMMAND	1 = COMMAND			R	
	6	BOOL	64-XY-057-DCS	VALVE 64-XY-057 COMMAND	1 = COMMAND			R	
	7	BOOL	64-XY-058-DCS	VALVE 64-XY-058 COMMAND	1 = COMMAND			R	
1014	0	BOOL	64-XY-059-DCS	VALVE 64-XY-059 COMMAND	1 = COMMAND			R	
	1	BOOL	64-XY-060-DCS	VALVE 64-XY-060 COMMAND	1 = COMMAND			R	
	2	BOOL	64-XY-061-DCS	VALVE 64-XY-061 COMMAND	1 = COMMAND			R	
	3	BOOL		SPARE				R	

[illegible]	4	BOOL		SPARE				R	
	5	BOOL		SPARE				R	
	6	BOOL		SPARE				R	
	7	BOOL		SPARE				R	
1015	0	BOOL	64-ZSH-051	VALVE 64-XY-051 OPEN	1 = OPEN			R	
	1	BOOL	64-ZSL-051	VALVE 64-XY-051 CLOSED	1 = CLOSED			R	
	2	BOOL	64-ZSH-052	VALVE 64-XY-052 OPEN	1 = OPEN			R	
	3	BOOL	64-ZSL-052	VALVE 64-XY-052 CLOSED	1 = CLOSED			R	
	4	BOOL	64-ZSH-053	VALVE 64-XY-053 OPEN	1 = OPEN			R	
	5	BOOL	64-ZSL-053	VALVE 64-XY-053 CLOSED	1 = CLOSED			R	
	6	BOOL	64-ZSH-054	VALVE 64-XY-054 OPEN	1 = OPEN			R	
	7	BOOL	64-ZSL-054	VALVE 64-XY-054 CLOSED	1 = CLOSED			R	
1016	0	BOOL	64-ZSH-055	VALVE 64-XY-055 OPEN	1 = OPEN			R	
	1	BOOL	64-ZSL-055	VALVE 64-XY-055 CLOSED	1 = CLOSED			R	
	2	BOOL	64-ZSH-056	VALVE 64-XY-056 OPEN	1 = OPEN			R	
	3	BOOL	64-ZSL-056	VALVE 64-XY-056 CLOSED	1 = CLOSED			R	
	4	BOOL	64-ZSH-057	VALVE 64-XY-057 OPEN	1 = OPEN			R	
	5	BOOL	64-ZSL-057	VALVE 64-XY-057 CLOSED	1 = CLOSED			R	
	6	BOOL	64-ZSH-058	VALVE 64-XY-058 OPEN	1 = OPEN			R	
	7	BOOL	64-ZSL-058	VALVE 64-XY-058 CLOSED	1 = CLOSED			R	
1017	0	BOOL	64-ZSH-059	VALVE 64-XY-059 OPEN	1 = OPEN			R	
	1	BOOL	64-ZSL-059	VALVE 64-XY-059 CLOSED	1 = CLOSED			R	
	2	BOOL	64-ZSH-060	VALVE 64-XY-060 OPEN	1 = OPEN			R	
	3	BOOL	64-ZSL-060	VALVE 64-XY-060 CLOSED	1 = CLOSED			R	
	4	BOOL	64-ZSH-061	VALVE 64-XY-061 OPEN	1 = OPEN			R	
	5	BOOL	64-ZSL-061	VALVE 64-XY-061 CLOSED	1 = CLOSED			R	
	6	BOOL		SPARE				R	
	7	BOOL		SPARE				R	
1018	/	REAL (IEEE 754)	64-PT-051-PV	INLET PRESSURE TRANSMITTER - PROCESS VALUE	range 0..16 barg			R	**MEASURES**
1022	/	REAL (IEEE 754)	64-PT-052-PV	TOWER 1 PRESSURE TRANSMITTER - PROCESS VALUE	range 0..16 barg			R	
1026	/	REAL (IEEE 754)	64-PT-053-PV	TOWER 2 PRESSURE TRANSMITTER - PROCESS VALUE	range 0..16 barg			R	
1030	/	REAL (IEEE 754)	64-PT-057-PV	OUTLET B PRESSURE TRANSMITTER - PROCESS VALUE	range 0..16 barg			R	
1034	/	REAL (IEEE 754)	64-PT-059-PV	PRESSURE TRANSMITTER INSTRUMENT AIR RECIEVER - PROCESS VALUE	range 0..16 barg			R	
1038	/	REAL (IEEE 754)	64-PDIT-056-PV	DIFFERENTIAL PRESSURE TRANSMITTER OUTLET FILTERS - PROCESS VALUE	range 0..1 barg			R	
1042	/	REAL (IEEE 754)	64-AT-051-PV	OXYGEN TRANSMITTER - PROCESS VALUE	range 0..100%			R	
1046	/	REAL (IEEE 754)		SPARE				R	
1050	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 001				R	**PARAMETERS**
1054	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 002				R	
1058	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 003				R	
1062	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 004				R	
1066	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 005				R	
1070	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 006				R	
1074	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 007				R	
1078	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 008				R	
1082	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 009				R	
1086	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 010				R	
1090	/	INT	FILTER_IN_USE	INFORMATION ABOUT WHICH AFTER FILTER HAS MASTER ROLE	1= FILTER A ; 2 = FILTER B			R	
1092	/	INT	CURRENT_PHASE	INFORMATION ABOUT CURRENT PHASE	0= READY TO START ; 1= A: GEN, B: DEP ; 2= EQ ; 3= A: DEP, B: GEN ; 4= EQ			R	
1094	/	INT		SPARE - INTEGER PARAMETER 003				R	
1096	/	INT		SPARE - INTEGER PARAMETER 004				R	
1098	/	INT		SPARE - INTEGER PARAMETER 005				R	
1100	/	INT		SPARE - INTEGER PARAMETER 006				R	
1102	/	INT		SPARE - INTEGER PARAMETER 007				R	
1104	/	INT		SPARE - INTEGER PARAMETER 008				R	
1106	/	INT		SPARE - INTEGER PARAMETER 009				R	
1108	/	INT		SPARE - INTEGER PARAMETER 010				R	
1110	/	TIME (DINT)		SPARE - TIME PARAMETER 001				R	
1114	/	TIME (DINT)		SPARE - TIME PARAMETER 002				R	
1118	/	TIME (DINT)		SPARE - TIME PARAMETER 003				R	
1122	/	TIME (DINT)		SPARE - TIME PARAMETER 004				R	
1126	/	TIME (DINT)		SPARE - TIME PARAMETER 005				R	
1130	/	TIME (DINT)		SPARE - TIME PARAMETER 006				R	
1134	/	TIME (DINT)		SPARE - TIME PARAMETER 007				R	
1138	/	TIME (DINT)		SPARE - TIME PARAMETER 008				R	
1142	/	TIME (DINT)		SPARE - TIME PARAMETER 009				R	
1146	/	TIME (DINT)		SPARE - TIME PARAMETER 010				R	

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PROFINET SIGNALS TABLE

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N. BYTE	N. BIT	DATA TYPE	TAG	DESCRIPTION	MEANING	SCALING	OFFSET	READ/WRITE	
	0	BOOL	64-START-PLANT-CMD	REMOTE START COMMAND	1 = START (PULSE 1 sec)			W	**REMOTE COMMANDS**
	1	BOOL	64-STOP-PLANT-CMD	REMOTE STOP COMMAND	0 = STOP (PULSE 1 sec)			W	
	2	BOOL		SPARE				W	
	3	BOOL	64-ACK-ALARM	REMOTE ALARMS ACKNOWLEDGE	1 = ACK (PULSE 1 sec)			W	
	4	BOOL	CHANGE_FILTER	CHANGE WORKING FILTER	1= CHANGE (PULSE 1 SEC)			W	
	5	BOOL	WATCHDOG_BIT	WATCHDOG TO CHECK CONNECTION STATUS WITH DCS	1= ALWAYS AS OK CONDITION 0= FAULT			W	
	6	BOOL		SPARE				W	
1150	7	BOOL		SPARE				W	
	0	BOOL		SPARE				W	
	1	BOOL		SPARE				W	
	2	BOOL		SPARE				W	
	3	BOOL		SPARE				W	
	4	BOOL		SPARE				W	
	5	BOOL		SPARE				W	
	6	BOOL		SPARE				W	
1151	7	BOOL		SPARE				W	
1152	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 001					**PARAMETERS**
1156	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 002				W	
1160	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 003				W	
1164	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 004				W	
1168	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 005				W	
1172	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 006				W	
1176	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 007				W	
1180	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 008				W	
1184	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 009				W	
1188	/	REAL (IEEE 754)		SPARE - REAL PARAMETER 010				W	
1192	/	INT		SPARE - INTEGER PARAMETER 001				W	
1194	/	INT		SPARE - INTEGER PARAMETER 002				W	
1196	/	INT		SPARE - INTEGER PARAMETER 003				W	
1198	/	INT		SPARE - INTEGER PARAMETER 004				W	
1200	/	INT		SPARE - INTEGER PARAMETER 005				W	
1202	/	INT		SPARE - INTEGER PARAMETER 006				W	
1204	/	INT		SPARE - INTEGER PARAMETER 007				W	
1206	/	INT		SPARE - INTEGER PARAMETER 008				W	
1208	/	INT		SPARE - INTEGER PARAMETER 009				W	
1210	/	INT		SPARE - INTEGER PARAMETER 010				W	
1212	/	TIME (DINT)	PHASE_TIME_1	SET PHASE 1 DURATION [ms]	can't be lower than 50 seconds			W	
1216	/	TIME (DINT)	PHASE_TIME_2	SET PHASE 2 DURATION [ms]	can't be lower than 10 seconds			W	
1220	/	TIME (DINT)	PHASE_TIME_3	SET PHASE 3 DURATION [ms]	can't be lower than 50 seconds			W	
1224	/	TIME (DINT)	PHASE_TIME_4	SET PHASE 4 DURATION [ms]	can't be lower than 10 seconds			W	
1228	/	TIME (DINT)		SPARE - TIME PARAMETER 005				W	
1232	/	TIME (DINT)		SPARE - TIME PARAMETER 006				W	
1236	/	TIME (DINT)		SPARE - TIME PARAMETER 007				W	
1240	/	TIME (DINT)		SPARE - TIME PARAMETER 008				W	
1244	/	TIME (DINT)		SPARE - TIME PARAMETER 010				W	