EUROPEAN
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Projekt name: PSS for Test Stand 2

Functional Location (FBS): =ESS.ACC.A06.F02

Physical Location (LBS): +ESS.G02.100.1001.102

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

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Documentation protection
ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
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SYMBOLS AND INFORMATION

SYMBOLS

PROTECTIVE EARTH, PE

FUNCTIONAL EARTH, FE

PROTECTIVE BONDING, PB

FUNCTIONAL BONDING, FB

INFORMATION

SHIELDED EXTERNAL CABLES MUST BE CONNECTED TO THE EARTH-RAIL WHITH SHIELD TERMINAL CLAMPS.

MINIMUM CONDUCTOR CROSS SECTION AREA FOR CONTROL CIRCUITS: 0,5mm²

MINIMUM CONDUCTOR CROSS SECTION AREA FOR POWER CIRCUITS: 1,5mm²

TERMINATION SLEEVES MUST BE USED ON INTERNAL CONDUCTORS.
ALL CABLES SHALL BE HALOGEN FREE

SS-EN 60204

Conductors for:	Colour:
Neutral Conductors	Light blue (BU) [EN 60204-1:2006 clause 13.2.3]
Earth conductors	Green-and-Yellow [EN 60204-1:2006 clause 13.2.2]
AC Power Circuits 1) DC Power Circuits with a voltage exceeding 50VDC.	Black
Control circuits AC, e.g. 230VAC.	Red
Control circuits and DC power circuits below 50VDC, e.g. PLC digital input (DI) & Digital output (DO) signals.	Dark Blue (DBU) 2)
Analog control circuits, e.g. PLC analog input (AI) and output (AO) signals	Violet 2)
Excepted circuits 3) [EN 60207-1:2006 clause 5.3.5]	Orange

1. Circuit that supplies power from the supply network to units of equipment used for productive operation and to transformers supplying control circuits.

2. Conductors carrying negative (0V/L-) potential may be provided with a white stripe along its full length, if not available instead a white ring may be provided in both ends of the conductor.

   Optionally a asterisk (*) can be included in front of the letter code to further highlight this fact in reports.

3. All conductors in circuits not disconnected by the supply disconnecting device shall be colored orange, see EN 60207-1:2006 clause 5.3.5.

IEC 60757

Colour	Letter Code
Black	BK
Brown	BN
Red	RD
Orange	OG
Yellow	YE
Green	GN
Blue	BU
Dark Blue	DBU
Violet	VT
Grey	GY
White	WH
Pink	PK
Gold	GD
Turquoise	TQ
Silver	SR
Green-and-Yellow	GNYE

Additional Colour Codes

∗ Colour letter codes preceded by an asterisk:

Indicates that the conductors are carrying a negative potential or 0V and they may be provided with a white stripe along his full lenght or a white ring in both ends, as stated in remark no. 2 of the adjacent table

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Revision Notes

REV. No.	DESCRIPTION	CHANGES
1	Preliminary drawings	First issue for the TS2 PSS Electrical and Mechanical Drawings, comprised of: - The PLC cabinet electrical schematics and the 2D layout for the PLC cabinet mounting plates and rear door. This first revision is valid for the construction of the PLC cabinet.
2	Full version	Second issue and first full version, comprised of: - Second version of the PLC cabinet electrical schematics and 2D layout. - Key Exchange Cabinet electrical schematics and 2D layout. - Blue/Red lights contactor cabinet electrical schematics and 2D layout. - Modulator interface contactor cabinet electrical schematics and 2D layout. - LLRF Relay Box 1 electrical schematics. - LLRF Relay Box 2 electrical schematics. - TS2 field devices electrical schematics. - Blue/Red lighting system electrical schematics.

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	AA/2	Title page / cover sheet		2	2019-04-05	ATZ
	AA/3	Graphic		2	2019-04-05	ATZ
	AB/1	Table of contents		2	2019-04-05	ATZ
	AB/2	Table of contents		2	2019-04-05	ATZ
	AB/3	Table of contents		2	2019-04-05	ATZ
	AB/4	Table of contents		2	2019-04-05	ATZ
	AB/5	Table of contents		2	2019-04-05	ATZ
	AB/6	Table of contents		2	2019-04-05	ATZ
	AB/7	Table of contents		2	2019-04-05	ATZ
	PD/1	Summarized parts list		2	2019-04-05	ATZ
	PD/2	Summarized parts list		2	2019-04-05	ATZ
	PD/3	Summarized parts list		2	2019-04-05	ATZ
	PD/4	Summarized parts list		2	2019-04-05	ATZ
	PD/5	Summarized parts list		2	2019-04-05	ATZ
=ESS.ACC.A06.F02.K01.U1 PLC cabinet	AA/1	Graphic	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	LU/1	Panel layout	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	LU/2	Panel layout	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	LU/3	Panel layout	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	LU/4	Panel layout	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/1	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ

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	FS/3	Overview	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
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	FS/5	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
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	FS/7	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
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	FS/10	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/11	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/12	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/13	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/14	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/15	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/16	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/17	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/18	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/19	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/20	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/21	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/22	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/23	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/24	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/25	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ

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	FS/29	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	FS/30	Schematic multi-line	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
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	PC/5	Parts list	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	PC/6	Parts list	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
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	PC/8	Parts list	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	PC/9	Parts list	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	MB/1	Cable diagram	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	MB/2	Cable diagram	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
	MB/3	Cable diagram	PLC cabinet TS2-010Row:CnPw-U-012	2	2019-04-05	ATZ
=ESS.ACC.A06.F02.K01.U2 Key Exchange cabinet	AA/1	Graphic	Key Exchange cabinet TS2-010Row:CnPw-U-011	2	2019-04-05	ATZ
	LU/1	Panel layout	Key Exchange cabinet TS2-010Row:CnPw-U-011	2	2019-04-05	ATZ

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Key Exchange cabinet						
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	LU/3	Panel layout	Key Exchange cabinet TS2-010Row:CnPw-U-011	2	2019-04-05	ATZ
	LU/4	Panel layout	Key Exchange cabinet TS2-010Row:CnPw-U-011	2	2019-04-05	ATZ
	FS/1	Schematic multi-line	Key Exchange cabinet TS2-010Row:CnPw-U-011	2	2019-04-05	ATZ
	FS/2	Schematic multi-line	Key Exchange cabinet TS2-010Row:CnPw-U-011	2	2019-04-05	ATZ
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	MB/1	Cable diagram	Key Exchange cabinet TS2-010Row:CnPw-U-011	2	2019-04-05	ATZ
	MB/2	Cable diagram	Key Exchange cabinet TS2-010Row:CnPw-U-011	2	2019-04-05	ATZ
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Blue/Red lights contactor cabinet						
	AA/1	Graphic	Blue/Red lights contactor cabinet KG-GTA:PSS-ICC-1	2	2019-04-05	ATZ
	LU/1	Panel layout	Blue/Red lights contactor cabinet KG-GTA:PSS-ICC-1	2	2019-04-05	ATZ
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	PC/1	Parts list	Blue/Red lights contactor cabinet KG-GTA:PSS-ICC-1	2	2019-04-05	ATZ
=ESS.ACC.A06.F02.K01.U4						
Modulator interface contactor cabinet						
	AA/1	Graphic	Modulator interface contactor cabinet KG-GTA:PSS-ICC-2	2	2019-04-05	ATZ
	LU/1	Panel layout	Modulator interface contactor cabinet KG-GTA:PSS-ICC-2	2	2019-04-05	ATZ
	FS/1	Schematic multi-line	Modulator interface contactor cabinet KG-GTA:PSS-ICC-2	2	2019-04-05	ATZ
	PC/1	Parts list	Modulator interface contactor cabinet KG-GTA:PSS-ICC-2	2	2019-04-05	ATZ
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	PC/2	Parts list	TS2 PSS field devices	2	2019-04-05	ATZ
	PC/3	Parts list	TS2 PSS field devices	2	2019-04-05	ATZ
	PC/4	Parts list	TS2 PSS field devices	2	2019-04-05	ATZ
	PC/5	Parts list	TS2 PSS field devices	2	2019-04-05	ATZ
	PC/6	Parts list	TS2 PSS field devices	2	2019-04-05	ATZ
	PC/7	Parts list	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/1	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/2	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/3	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/4	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/5	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/6	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/7	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/8	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/9	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/10	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/11	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/12	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
	MB/13	Cable diagram	TS2 PSS field devices	2	2019-04-05	ATZ
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Summarized parts list

ESS_Sum_Part_list_2018

Order number	Quantity	Designation	Type number Part number	Manufacturer
7227801	1	Green LED Prominent Indicator;	RS PRO 7227801 RS.7227801	
2CSR255140R0105	1	DS201 B10 A10 - RCBO	DS201 B10 A10 ABB.2CSR255140R0105	ABB
2CDS272001R0014	1	Miniature Circuit Breaker - S200M - 2P - C - 1 A	S202M-C1 ABB.2CDS272001R0014	ABB
2CDS271001R0104	1	Miniature Circuit Breaker - S200M - 1P - C - 10 A	S201M-C10 ABB.2CDS271001R0104	ABB
2CDS271001R0044	3	Miniature Circuit Breaker - S200M - 1P - C - 4 A	S201M-C4 ABB.2CDS271001R0044	ABB
2CDS200922R0001	6	S2C-S/H6R - Signal / Auxiliary Contact	S2C-S/H6R ABB.2CDS200922R0001	ABB
2CDS271001R0024	2	Miniature Circuit Breaker - S200M - 1P - C - 2 A	S201M-C2 ABB.2CDS271001R0024	ABB
2CDS271001R0014	1	Miniature Circuit Breaker - S200M - 1P - C - 1 A	S201M-C1 ABB.2CDS271001R0014	ABB
1SCA104857R1001	2	OT25F3 switch-disconnector	OT25F3 ABB.1SCA104857R1001	ABB
531024FULL-0088	4	Solex xenon, Red Lens, Deep Red Base,10CD	531024FULL-0088 ETN.531024FULL-0088	Eaton
T3606	1	S-CLIS-A02022 & ODL3-CLIS-X006	T3606 FOR.T3606	Fortress Interlock
T3604	1	TA1-T6-R4-SR418 ATTACHED TO SS1 CLIS 24V 20A 4NO 4NC	T3604 FOR.T3604	Fortress Interlock
SR-CLIN-A02022	1	mGard SS1, Solenoid Controlled Key Switch	SR-CLIN-A02022 FOR.SR-CLIN-A02022	Fortress Interlock
MIR089463 MIR089463	4	Surface Mounted, Tube, RED/BLUE light	MIRZ67 (L) 258F ALB 3/5 TW PC M20 GLA.MIR089463	
LEDS-ULT-470	2	LED Sign: "ACCESS/NO ACCESS", RED/GREEN	Ultra Range of LED signs - LEDS-ULT-470 LAS.LEDS-ULT-470-RG	Lasermet
LEDS-ULT-470	2	LED Sign: "RF ON", RED	Ultra Range of LED signs - LEDS-ULT-470 LAS.LEDS-ULT-470-R	Lasermet
LEDS-ULT-470	2	LED Sign: "SEARCHING", WHITE	Ultra Range of LED signs- LEDS-ULT-470 LAS.LEDS-ULT-470	Lasermet
LEDS-ULT-470	2	Backbox for three 470mm or three 790mm wide sign	Ultra Range of LED signs - Mounting Options LAS.LEDS-ULT-470-BB3	Lasermet
LEDS-ULT-470-PT	4	Plastic trim for multiple 470mm	Ultra Range of LED signs - Mounting Options LAS.LEDS-ULT-470-PT	Lasermet

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Summarized parts list	Functional location (FBS):		
APPROVED BY: SBH	DATE:	FUNCTION:	Physical location (LBS): +ESS.G02.100.1001.102		
DESIGN SITE: ESS			CHESS Doc. NR: ESS-0508473	Document: &PD1	

ePLAN electric P8 V2.7

Summarized parts list

ESS_Sum_Part_list_2018

Order number	Quantity	Designation	Type number Part number	Manufacturer
60118-542	2	LED light	LED-700L NVE.60118-542	nVent
60118-550	2	Female Connector	LED-700L NVE.60118-550	nVent
60118-552	1	Male Connector	LED-700L NVE.60118-552	nVent
12937-090	2	Rack-LR Aisle, EMC Cabinet Orange RAL2000	12937-090 NVE.12937-090	nVent
07-0180	2	NEMA 4X Oxygen Deficiency Monitor	O2iM OXI.07-0180	Oxigraf
3211757	17	Feed-through terminal block	PT 4 PXC.3211757	Phoenix Contact
3030336	3	Plug-in bridge	FBS 2-6 PXC.3030336	Phoenix Contact
3211760	5	Feed-through terminal block	PT 4 BU PXC.3211760	Phoenix Contact
3211766	4	Ground modular terminal block	PT 4-PE PXC.3211766	Phoenix Contact
3210156	345	Knife disconnect terminal block	PT 2,5-MT PXC.3210156	Phoenix Contact
3022276	15	End clamp	CLIPFIX 35-5 PXC.3022276	Phoenix Contact
3211003	22	End cover	D-PT 2,5-MT PXC.3211003	Phoenix Contact
3030226	4	Plug-in bridge	FBS 20-5 PXC.3030226	Phoenix Contact
3273376	3	Distribution Block	PTFIX 6/18X2,5 BU PXC.3273376	Phoenix Contact
3273386	3	Distribution block	PTFIX 6/18X2,5 WH PXC.3273386	Phoenix Contact
R570323000	2	SPDT Ramses	R570323000 RAD.R570323000	Radiall
1031500	1	AE Compact enclosure, WHD: 380x300x210 mm, Sheet steel, with mounting plate	AE.1031500 RIT.1031500	Rittal
1035500	1	AE Compact enclosure, WHD: 200x300x155 mm, Sheet steel, with mounting plate	AE.1035500 RIT.1035500	Rittal
1500510	4	KL Terminal box, WHD: 150x150x120 mm, Sheet steel, without mounting plate	KL.1500510 RIT.1500510	Rittal

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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

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CHECKED BY: MMI	DATE	PAGE TYPE: Summarized parts list	Functional location (FBS):		
APPROVED BY: SBH	DATE	FUNCTION	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &PD2	

Summarized parts list

ESS_Sum_Part_list_2018

Order number	Quantity	Designation	Type number Part number	Manufacturer
9508050	4	PK Polycarbonate enclosure, WHD: 130x94x57 mm	PK.9508050 RIT.9508050	Rittal
9504000	2	PK Polycarbonate enclosure, WHD: 94x94x57 mm	PK.9504000 RIT.9504000	Rittal
5SD7432-1	1	SURGE ARR. D/T3/III 230V 1-PHASE	5SD7432-1 SIE.5SD7432-1	Siemens AG
6EP19612BA31	2	SITOP PSE200U	6EP1961-2BA31 SIE.6EP1961-2BA31	Siemens AG
6EP4135-0GB00-0AY0	1	SITOP UPS1100	6EP4135-0GB00-0AY0 SIE.6EP4135-0GB00-0AY0	Siemens AG
LZS:PT3A5L24	48	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24 SIE.LZS:PT3A5L24	Siemens AG
6ES7515-2FM01-0AB0	1	CPU 1515F-2 PN, 750KB PROG.,3MB DATA	6ES7515-2FM01-0AB0 SIE.6ES7515-2FM01-0AB0	Siemens AG
6ES7590-1AE80-0AA0	1	MOUNTING RAIL 482MM (19")	6ES7590-1AE80-0AA0 SIE.6ES7590-1AE80-0AA0	Siemens AG
6ES7954-8LE03-0AA0	1	SIMATIC S7 MEMORY CARD, 12 MB	6ES7954-8LE03-0AA0 SIE.6ES7954-8LE03-0AA0	Siemens AG
6GK7543-1AX00-0XE0	1	COMMUNICATION PROCESSOR CP 1543-1	6GK7543-1AX00-0XE0 SIE.6GK7543-1AX00-0XE0	Siemens AG
6ES7155-6AU00-0CN0	1	ET 200SP, IM155-6PN HF	6ES7155-6AU00-0CN0 SIE.6ES7155-6AU00-0CN0	Siemens AG
6ES7193-6AR00-0AA0	1	BA 2XRJ45	6ES7193-6AR00-0AA0 SIE.6ES7193-6AR00-0AA0	Siemens AG
6ES7511-1AK02-0AB0	1	CPU 1511-1PN, 150KB PROGRAM, 1MB DATA	6ES7511-1AK02-0AB0 SIE.6ES7511-1AK02-0AB0	Siemens AG
6GK7542-1AX00-0XE0	1	COMMUNICATIONS MODULE CM 1542-1	6GK7542-1AX00-0XE0 SIE.6GK7542-1AX00-0XE0	Siemens AG
6ES7136-6BA00-0CA0	8	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0 SIE.6ES7136-6BA00-0CA0	Siemens AG
6ES7193-6BP00-0DA0	4	BASEUNIT TYPE A0, BU15-P16+A0+2D	6ES7193-6BP00-0DA0 SIE.6ES7193-6BP00-0DA0	Siemens AG
6ES7193-6BP00-0BA0	14	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0 SIE.6ES7193-6BP00-0BA0	Siemens AG
6ES7131-6BH00-0BA0	1	DI 16X24V DC ST	6ES7131-6BH00-0BA0 SIE.6ES7131-6BH00-0BA0	Siemens AG
6ES7131-6BH01-0BA0	2	ET 200SP, DI 16X24VDC ST	6ES7131-6BH01-0BA0 SIE.6ES7131-6BH01-0BA0	Siemens AG

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REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Summarized parts list	Functional location (FBS):		
APPROVED BY SBH	DATE	FUNCTION	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PD3	

Summarized parts list

ESS_Sum_Part_list_2018

Order number	Quantity	Designation	Type number Part number	Manufacturer
6ES7134-6HD00-0BA1	1	ET 200SP, AI 4XU/I 2-WIRE ST	6ES7134-6HD00-0BA1 SIE.6ES7134-6HD00-0BA1	Siemens AG
6ES7136-6DB00-0CA0	3	ET 200SP, EL-MOD., F-DQ 4XDC 24V/2A	6ES7136-6DB00-0CA0 SIE.6ES7136-6DB00-0CA0	Siemens AG
6ES7132-6BH00-0BA0	3	DQ 16X24V DC / 0,5A ST	6ES7132-6BH00-0BA0 SIE.6ES7132-6BH00-0BA0	Siemens AG
6AV2124-0QC02-0AX0	1	TP1500 COMFORT	6AV2124-0QC02-0AX0 SIE.6AV2124-0QC02-0AX0	Siemens AG
6EP4134-3AB00-2AY0	1	SITOP UPS1600	6EP4134-3AB00-2AY0 SIE.6EP4134-3AB00-2AY0	Siemens AG
6EP1334-2BA20	1	SITOP PSU100S	6EP1334-2BA20 SIE.6EP1334-2BA20	Siemens AG
6GK5206-2BS00-2AC2	1	SCALANCE XC206-2SFP	6GK5206-2BS00-2AC2 SIE.6GK5206-2BS00-2AC2	Siemens AG
5TE6800	2	SCHUKO SOCKET for mounting on support rails	SIE.5TE6800 SIE.5TE6800	Siemens AG
3RT20171BB41	2	CONTACTOR, AC-3, 5.5KW/400V, 1NO, DC 24V,	3RT2017-1BB41 SIE.3RT2017-1BB41	Siemens AG
3RH21221FB40	2	CONTACTOR RELAY, 2NO+2NC DC 24V, W. INTEGRATED DIODE	3RH2122-1FB40 SIE.3RH2122-1FB40	Siemens AG
3RT29161LM00	2	SURGE SUPPRESSOR, SUPPRESSION DIODE WITH LED,	3RT2916-1LM00 SIE.3RT2916-1LM00	Siemens AG
8WD4408-0AB	4	SIGNALLING COLUMN CONNECT. ELEMENT FOR WITH BASE MOUNT./ANGLE MOUNT. C OVER LID AND SEAL FOR SCREW CONNECTION	8WD4408-0AB SIE.8WD4408-0AB	Siemens AG
8WD4420-0EA2 ESS-0316374	6	Siren element, multi-tone 100 dB	8WD4420-0EA2 SIE.8WD4420-0EA2	Siemens AG
8WD4420-5AE	6	Continuous light element, with integrated LED, Clear, 24 V AC/DC, Diameter 70 mm	8WD4420-5AE SIE.8WD4420-5AE	Siemens AG
3SU1051-1HB20-0AA0	4	EM. STOP MUSHROOM PUSHBUTTON, 40MM, RED	3SU1051-1HB20-0AA0 SIE.3SU1051-1HB20-0AA0	Siemens AG
3SU1950-0DL80-0AA0	4	PROTECTIVE COLLAR	3SU1950-0DL80-0AA0 SIE.3SU1950-0DL80-0AA0	Siemens AG
3SU1550-0AA10-0AA0	8	HOLDER	3SU1550-0AA10-0AA0 SIE.3SU1550-0AA10-0AA0	Siemens AG
3SU1401-1BB00-1AA0	4	LED MODULE, AMBER	3SU1401-1BB00-1AA0 SIE.3SU1401-1BB00-1AA0	Siemens AG
3SU1400-1AA10-3EA0	8	CONTACT MODULE 2NC	3SU1400-1AA10-3EA0 SIE.3SU1400-1AA10-3EA0	Siemens AG

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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Summarized parts list	Functional location (FBS):		
APPROVED BY SBH	DATE	FUNCTION	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PD4	

Summarized parts list

ESS_Sum_Part_list_2018

Order number	Quantity	Designation	Type number Part number	Manufacturer
3SU1400-1AA10-1BA0	4	CONTACT MODULE 1NO	3SU1400-1AA10-1BA0 SIE.3SU1400-1AA10-1BA0	Siemens AG
3SU1401-1BB60-1AA0	4	LED MODULE, WHITE	3SU1401-1BB60-1AA0 SIE.3SU1401-1BB60-1AA0	Siemens AG
3SU1051-0AB60-0AA0	4	ILLUMINATED PUSHBUTTON, WHITE	3SU1051-0AB60-0AA0 SIE.3SU1051-0AB60-0AA0	Siemens AG
3SE6604-2BA	2	3SE6 magnetically operated switch (switching element)	3SE6604-2BA SIE.3SE6604-2BA	Siemens AG
3SE6704-2BA	2	Solenoid rectangular large	3SE6704-2BA SIE.3SE6704-2BA	Siemens AG
3SX3260	2	Spacer for rectangular encoder unit 25 x 88	SIE.3SX3260 SIE.3SX3260	Siemens AG
3SE5112-1QV10	2	position switch	3SE5112-1QV10 SIE.3SE5112-1QV10	Siemens AG
3SE5000-0AV07	2	Separate actuator	3SE5000-0AV07 SIE.3SE5000-0AV07	Siemens AG
8WD4408-0AA	2	signaling column 8WD44, Ø 70 mm, connection element with top cover	8WD4408-0AA SIE.8WD4408-0AA	Siemens AG
8WD4420-5AC ESS-0316370	2	Continuous light element, with integrated LED, green, 24 V AC/DC, Diameter 70 mm	8WD4420-5AC SIE.8WD4420-5AC	Siemens AG
8WD4408-0CC	2	Bracket for foot mounting	8WD4408-0CC SIE.8WD4408-0CC	Siemens AG
8WD4308-0DA	2	Pipe with foot,	8WD4308-0DA SIE.8WD4308-0DA	Siemens AG
1753280000	40	Feed-through terminal block	WDU 1.5/R3.5 WEI.1753280000	Weidmueller
1798460000	12	PE terminal	WPE 1.5/R3.5 WEI.1798460000	Weidmueller
14015050	1	Multi-t.sounder WM 32 tne 9-28VDC RD	14015050 WER.14015050	Werma

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Summarized parts list	Functional location (FBS):		
APPROVED BY SBH	DATE	FUNCTION	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PD5	

EUROPEAN SPALLATION SOURCE

Description: PLC cabinet

Functional Location (FBS): =ESS.ACC.A06.F02.K01.U1

Physical Location (LBS): +ESS.G02.100.1001.102.104.012

ESS Name: TS2-010Row:CnPw-U-012

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
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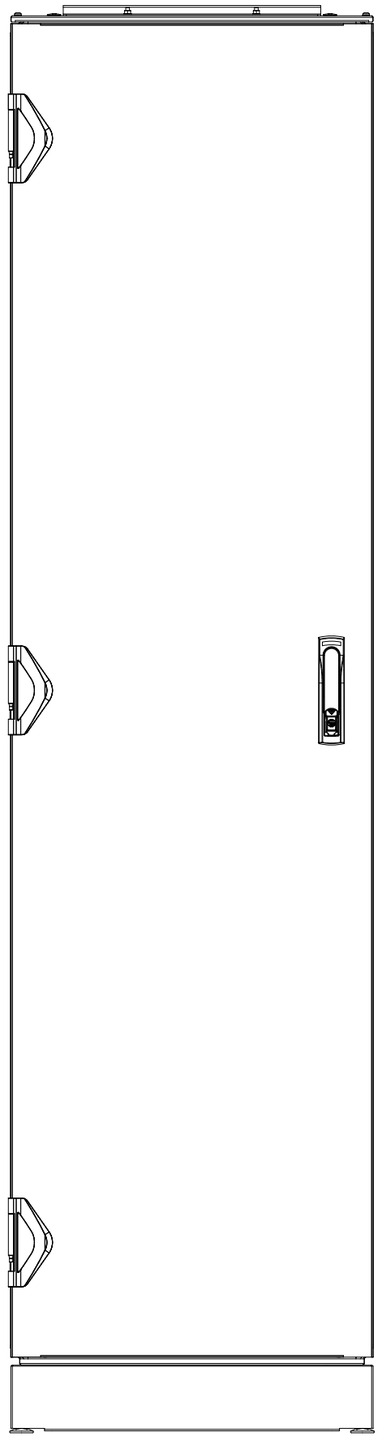
EUROPEAN SPALLATION SOURCE

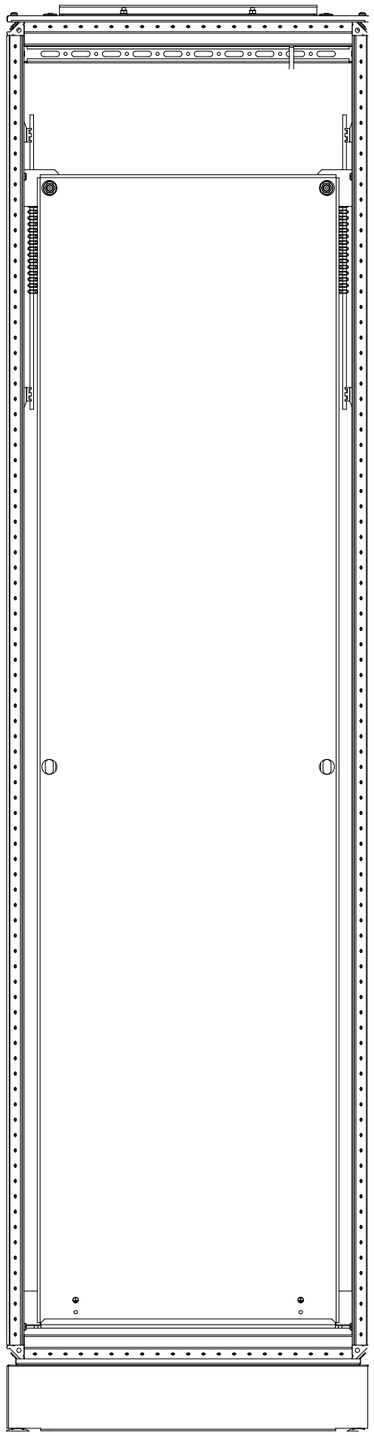
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Graphic	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &AA1	

FRONT DOOR



FRONT VIEW



-PSS EMC Cabinet painted in Orange RAL2000.

The cabinet has a front door made of steel with no perforation.
Rear door is perforated in the bottom half and has a dust filter.
Front door have hinges in the left side.
Rear door have hinges in the right side.

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EUROPEAN SPALLATION SOURCE

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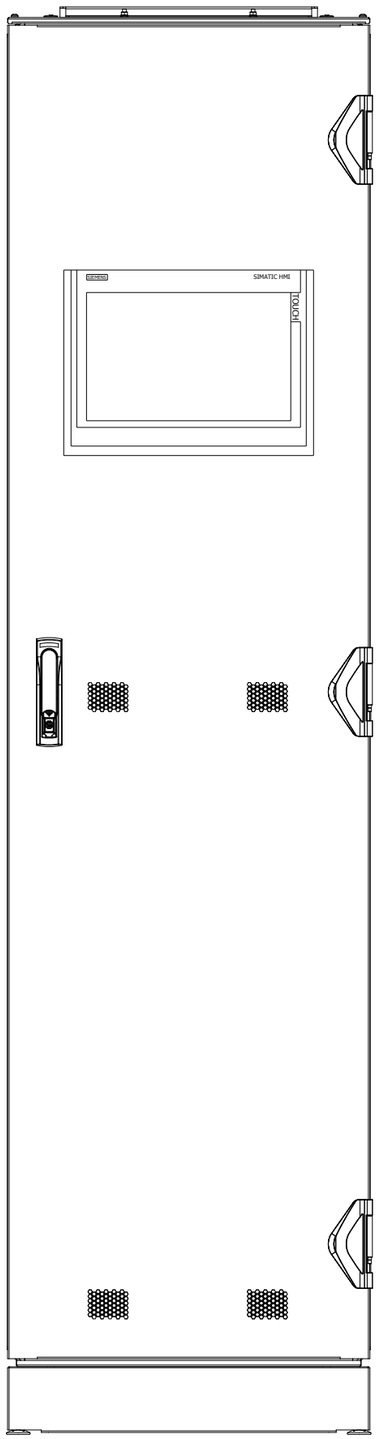
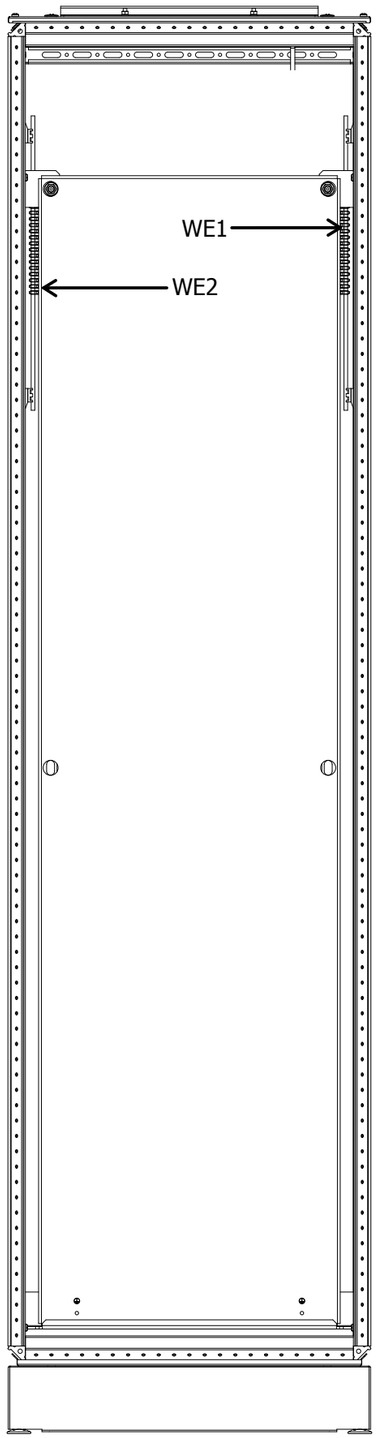
ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Panel layout	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &LU1	

REAR DOOR



REAR VIEW



- PSS EMC Cabinet painted in Orange RAL2000.

  The cabinet has a front door made of steel with no perforation.
  Rear door is perforated in the bottom half and has a dust filter.
  Front door have hinges in the left side.
  Rear door have hinges in the right side.

- WE1
  Protective Earth Bonding Busbar.

- WE2
  Functional Earth Bonding Busbar.

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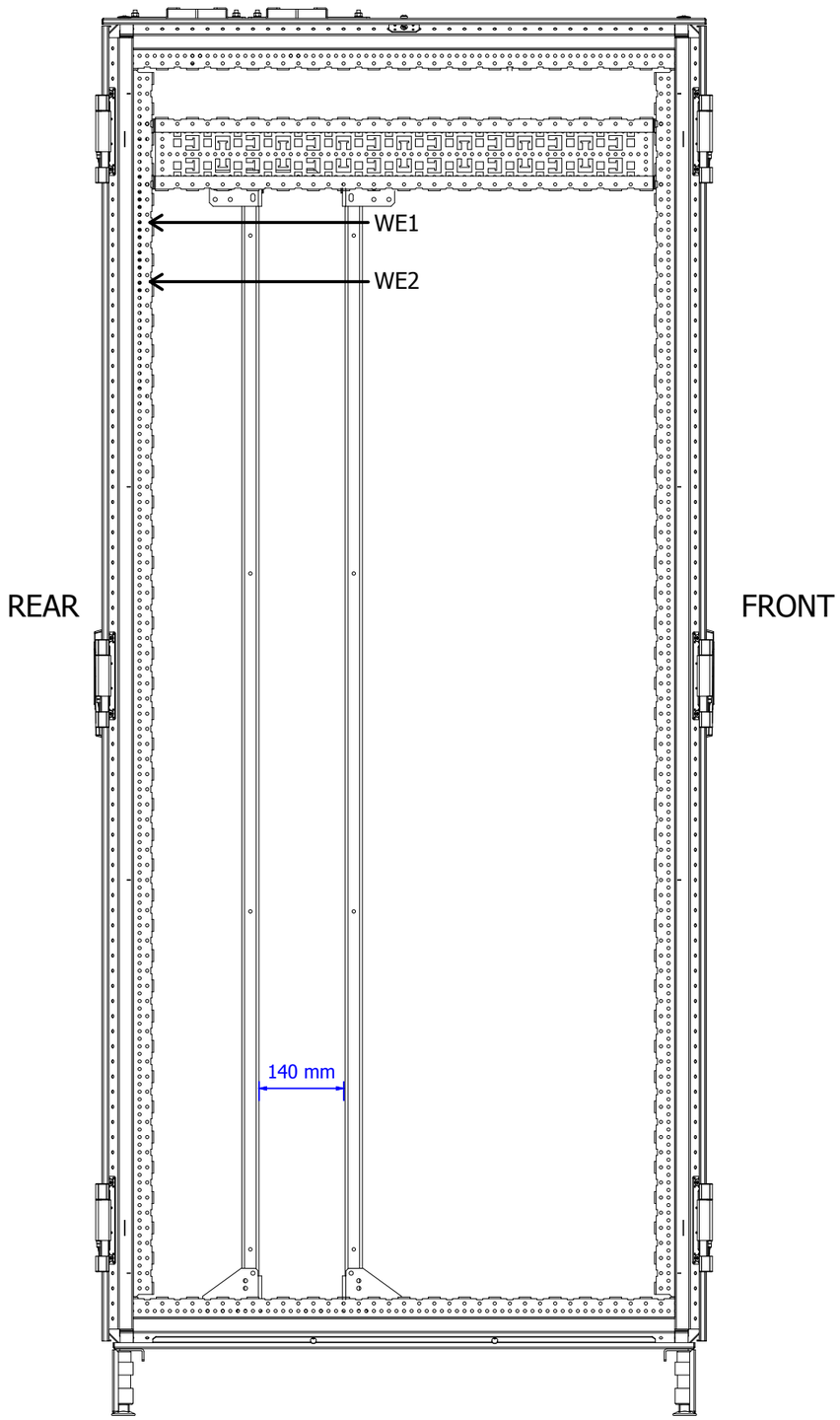
EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Panel layout	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
DESIGN SITE: ESS			CHESS Doc. NR: ESS-0508473	Document: &LU2	

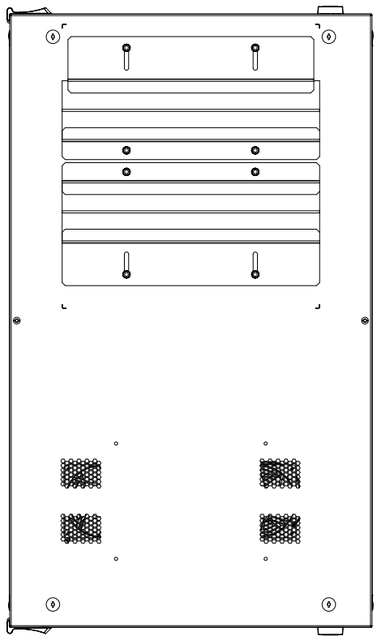
SIDE VIEW



REAR

FRONT

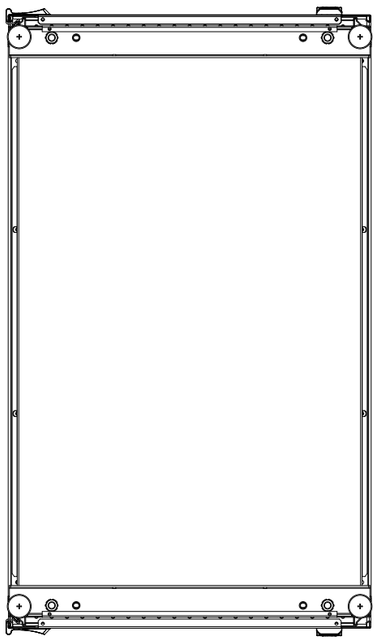
REAR



TOP PANEL

FRONT

FRONT



BOTTOM PANEL

REAR

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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ePLAN electric P8 V2.7

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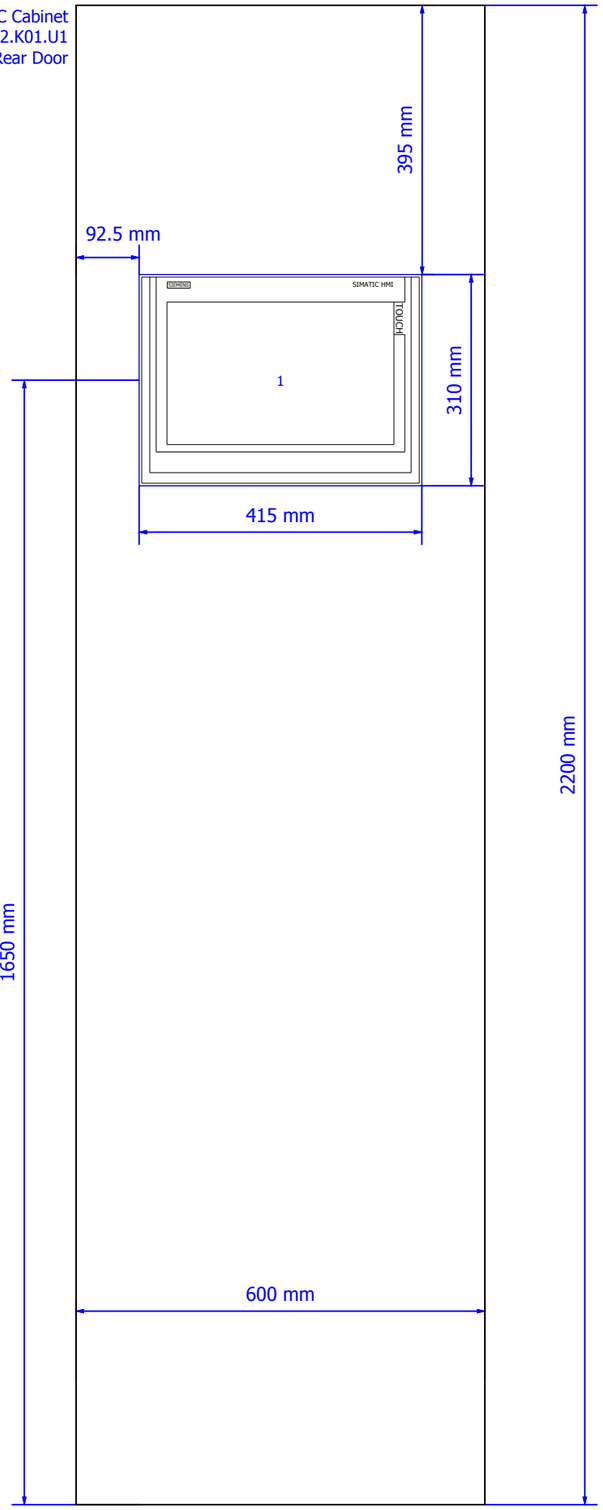
CHECKED BY: MMI	DATE:	PAGE TYPE: Panel layout	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &LU3	

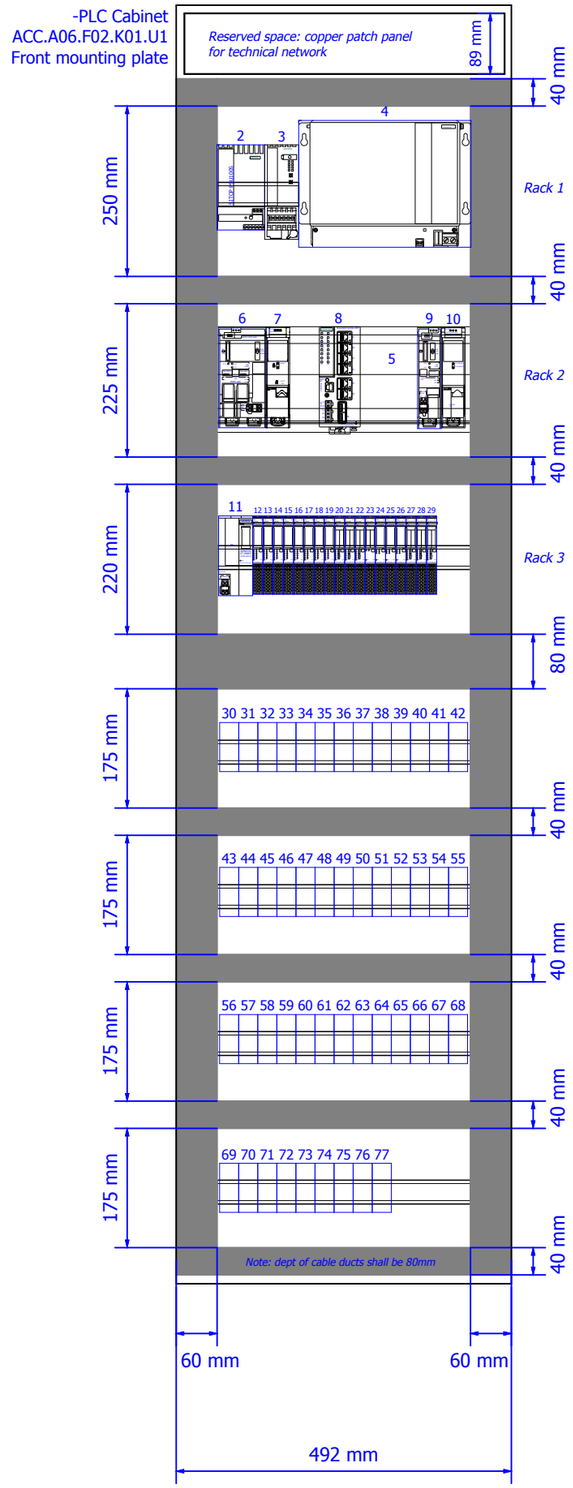
REAR DOOR

-PLC Cabinet
ACC.A06.F02.K01.U1
Rear Door



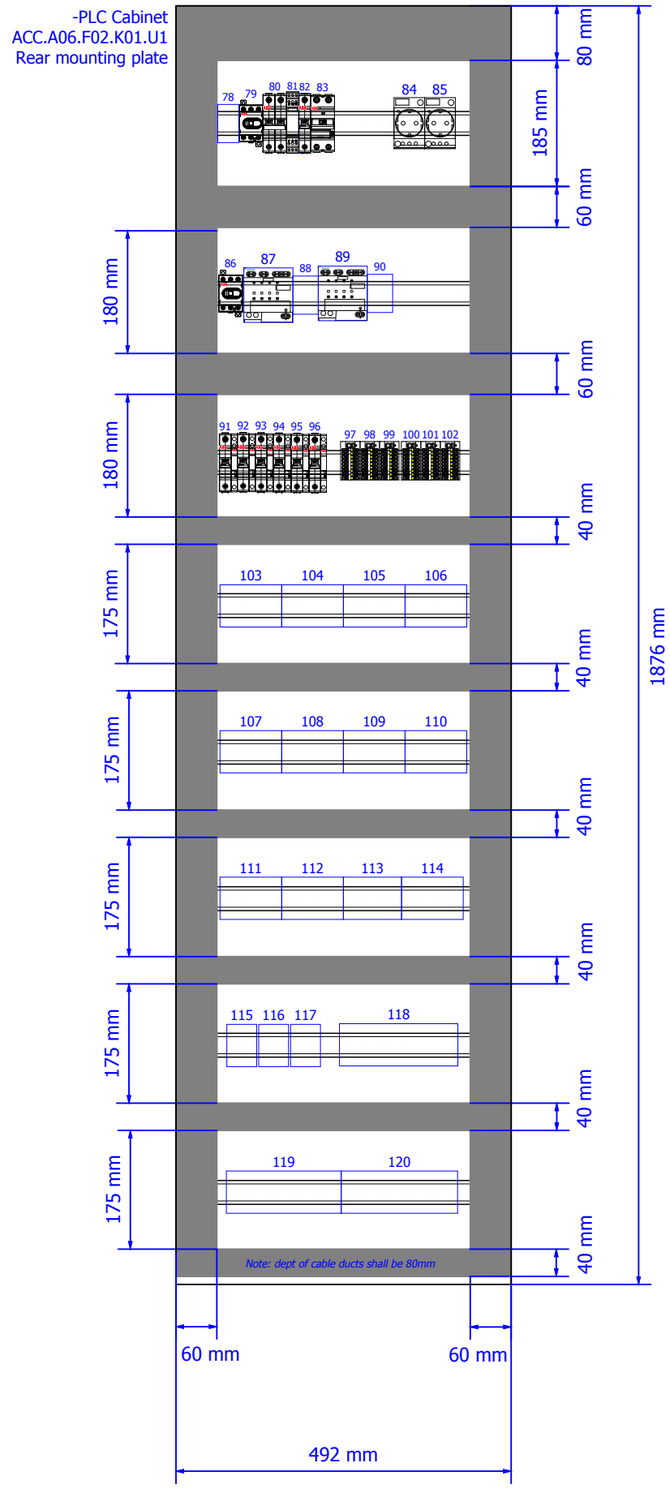
FRONT MOUNTING PLATE

-PLC Cabinet
ACC.A06.F02.K01.U1
Front mounting plate



REAR MOUNTING PLATE

-PLC Cabinet
ACC.A06.F02.K01.U1
Rear mounting plate



Enclosure legend

Item	FBS-Tag
1	-PH1
2	-TA1
3	-RB1
4	-GB1
5	-KF1
6	-KF1
7	-KF2
8	-XF1
9	-KF4
10	-KF5
11	-KF3
12	-KF6
13	-KF7
14	-KF8
15	-KF9
16	-KF10
17	-KF11
18	-KF12
19	-KF13
20	-KF14
21	-KF15
22	-KF16
23	-KF17
24	-KF18
25	-KF19
26	-KF20
27	-KF21
28	-KF22
29	-KF23
30	-K1
31	-K2
32	-K3
33	-K4
34	-K5
35	-K6
36	-K7
37	-K8
38	-K9
39	-K10
40	-K11
41	-K12
42	-K13
43	-K14
44	-K15
45	-K16
46	-K17
47	-K18
48	-K19
49	-K20
50	-K21
51	-K22
52	-K23
53	-K24
54	-K25
55	-K26
56	-K27
57	-K28
58	-K29
59	-K30
60	-K31
61	-K32
62	-K33
63	-K34
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66	-K37
67	-K38
68	-K39
69	-K40
70	-K41
71	-K42
72	-K43
73	-K44
74	-K45
75	-K46
76	-K47
77	-K48
78	-X1
79	-QB1
80	-FC1
81	-FA1
82	-FC2
83	-FB1
84	-XG1
85	-XG2
86	-QB2
87	-FC3
88	-X2
89	-FC4
90	-X3
91	-FC5
92	-FC6
93	-FC7
94	-FC8
95	-FC9
96	-FC10
103	-X4
104	-X5
105	-X6
106	-X7
107	-X8
108	-X9
109	-X10
110	-X11
111	-X12
112	-X13
113	-X14
114	-X15
115	-X16
116	-X17
117	-X18
118	-X19
119	-X20
120	-X21

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

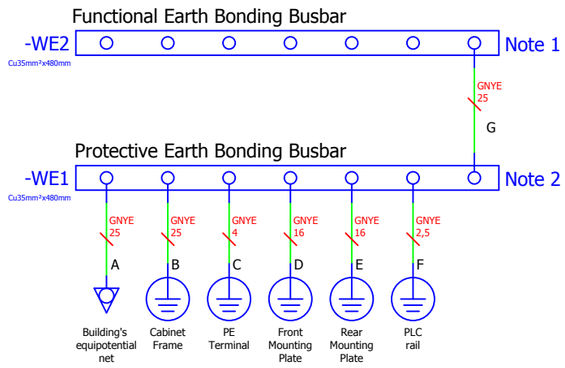
EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Panel layout	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &LU4	

Cabinet equipotential earth overview

EARTHING BUSBARS CONNECTION LAYOUT



A: connection to the main equipotential Protective Bonding in the actual building.
25mm² Multi-Stranded CU Conductor shall be used.

B: connection to Cabinet Frame.
25mm² Multi-Stranded CU Conductor shall be used.

C: connection to Incoming Protective Earth Terminal.
Size of conductor should be at least the same size as the Protective Earth in the incoming power cable but no less than 4mm².
Multi-Stranded CU Conductor shall be used.

D: connection to the front Mounting Plate.
16mm² Multi-Stranded CU Conductor shall be used.

E: connection to the rear Mounting Plate.
16mm² Multi-Stranded CU Conductor shall be used.

F: connection to the SIEMENS PLC Rail, 6ES7590-1AE80-0AA0
2,5mm² Multi-Stranded CU Conductor shall be used.

G: connection between Protective Earth Busbar and Functional Earth Busbar.
25mm² Multi-Stranded CU Conductor shall be used.

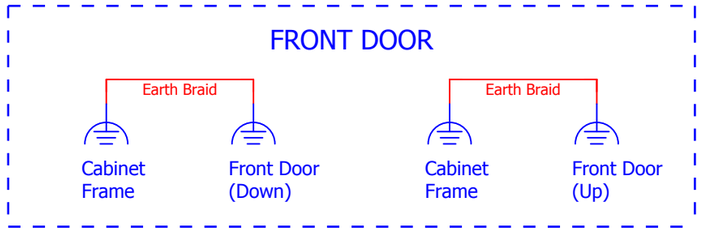
Note 1:
Earth bonding busbar. It is a copper rail with a length of 480mm and a cross section diameter of 35mm², nVent part number 60118144.
WE2- Functional Earth Bonding Busbar (FB) is placed in vertical to the right-side seen from the rear view.

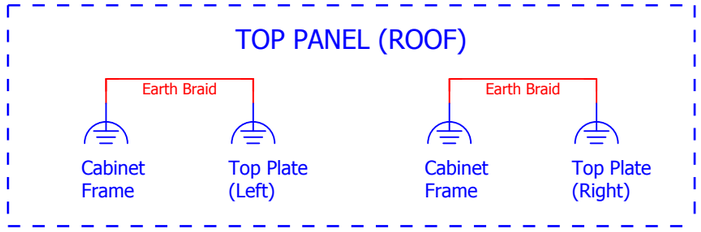
Note 2:
Earth bonding busbar. It is a copper rail with a length of 480mm and a cross section diameter of 35mm², nVent part number 60118144.
WE1- Protective Earth Bonding Busbar (PE) is placed in vertical to the left-side seen from the rear view.

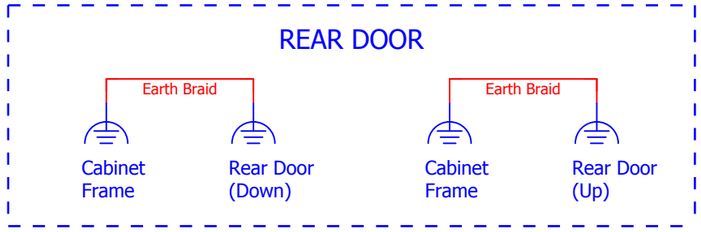
EARTHING BRAIDS CONNECTION LAYOUT

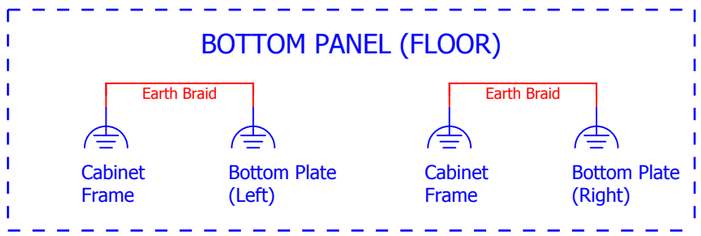
Flexible tin-coated copper EMC braids are connected from the frame to various other parts of the cabinet.

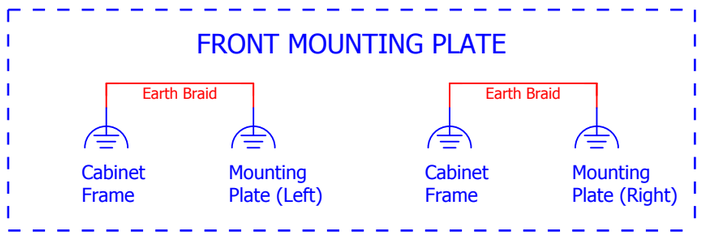
The EMC braids have a length of 350mm and a cross section diameter of 25mm², the nVent part number is 60130912

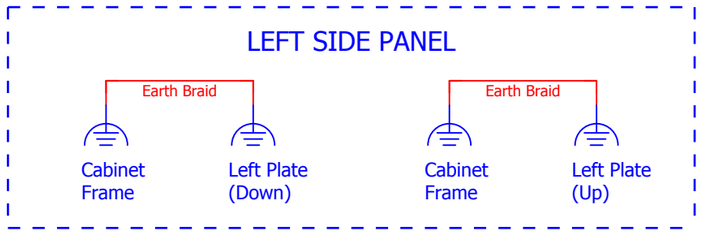


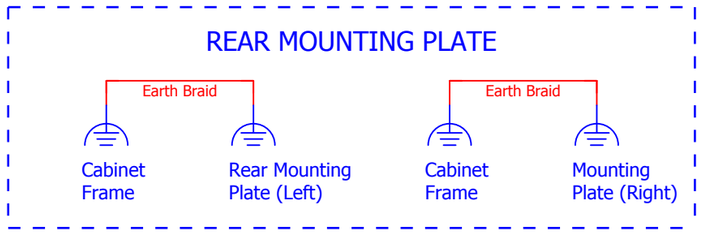












REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
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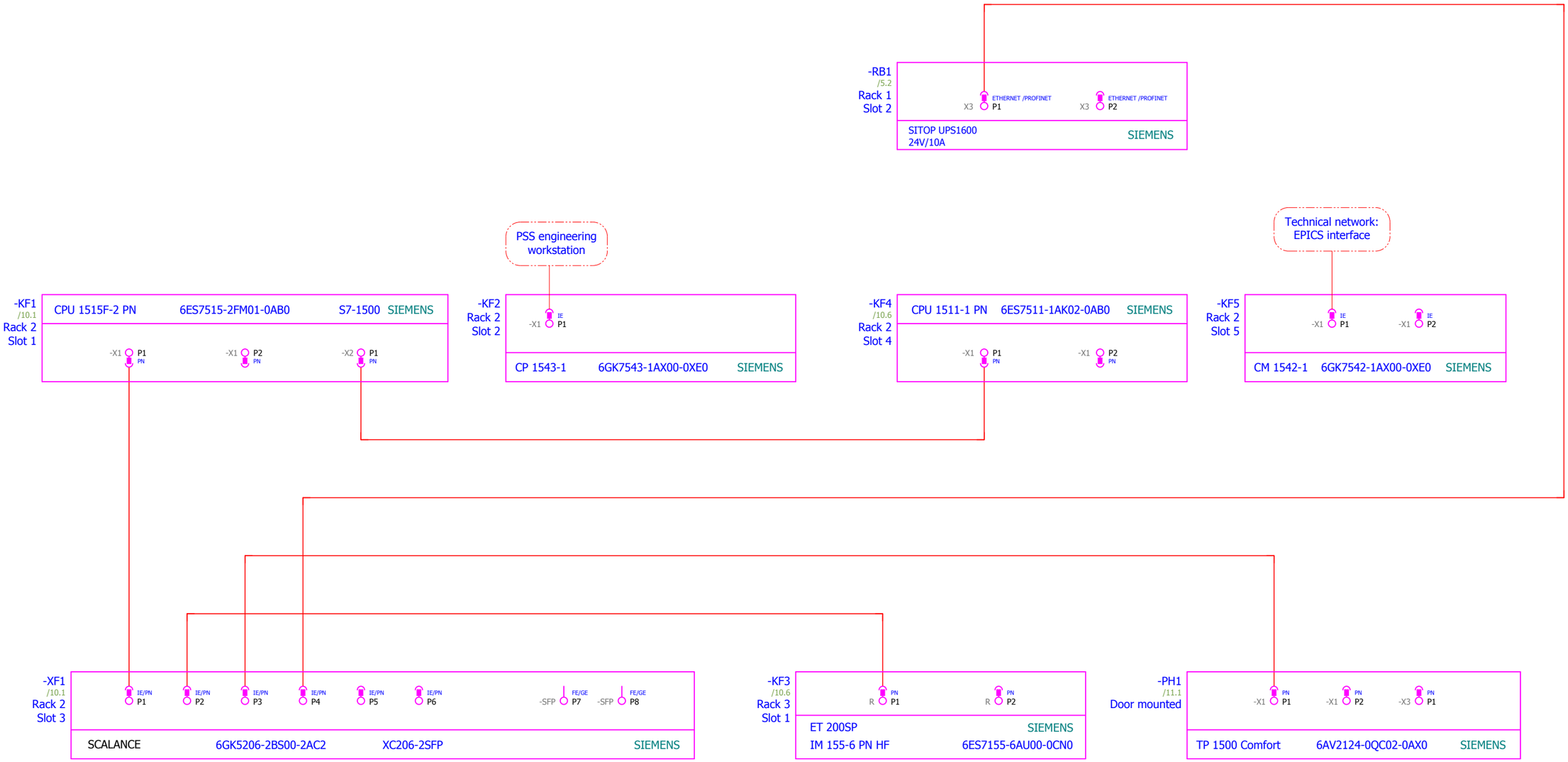
EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS1	

Network physical topology



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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic single-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS2	

PLC modules overview

Fail-safe Digital Input (F-DI)

/12.0
-KF6
F-DI 8x24VDC HF
6ES7136-6BA00-0CA0 + BU15-P16+A0+2D
SIEMENS ET 200SP

1	/12.1 DI0	ESOS-1 Switch Off Button - NC1
2	/12.2 DI1	ESOS-1 Switch Off Button - NC2
3	/12.3 DI2	ESOS-2 Switch Off Button - NC1
4	/12.4 DI3	ESOS-2 Switch Off Button - NC2
5	/12.6 DI4	ESOS-3 Switch Off Button - NC1
6	/12.7 DI5	ESOS-3 Switch Off Button - NC2
7	/12.8 DI6	ESOS-4 Switch Off Button - NC1
8	/12.9 DI7	ESOS-4 Switch Off Button - NC2

/13.0
-KF7
F-DI 8x24VDC HF
6ES7136-6BA00-0CA0 + BU15-P16+A0+2B
SIEMENS ET 200SP

1	/13.1 DI0	MgS-1 - NC1
2	/13.2 DI1	MgS-2 - NC2
3	/13.3 DI2	MeS-1 - NC1
4	/13.4 DI3	MeS-2 - NC2
5	/13.5 DI4	MgS-2 - NC1
6	/13.6 DI5	MgS-2 - NC2
7	/13.8 DI6	MeS-2 - NC1
8	/13.9 DI7	MeS-2 - NC2

/14.0
-KF8
F-DI 8x24VDC HF
6ES7136-6BA00-0CA0 + BU15-P16+A0+2B
SIEMENS ET 200SP

1	/14.1 DI0	MeL-1 Key - NC2
2	/14.2 DI1	MeL-1 Key - NO2
3	/14.3 DI2	MeL-1 Solenoid - NC1
4	/14.4 DI3	MeL-1 Safety Circuit 1 - NC
5	/14.6 DI4	MeL-1 Safety Circuit 2 - NC
6	/14.7 DI5	Wg1.WgS-1 Removable Wg IN
7	/14.8 DI6	Wg1.WgS-1 Short-circuit plate IN
8	/14.9 DI7	Wg1.WgS-2 Removable Wg IN

/15.0
-KF9
F-DI 8x24VDC HF
6ES7136-6BA00-0CA0 + BU15-P16+A0+2B
SIEMENS ET 200SP

1	/15.1 DI0	Wg1.WgS-2 Short-circuit plate IN
2	/15.2 DI1	Wg2.WgS-3 Removable Wg IN
3	/15.3 DI2	Wg2.WgS-3 Short-circuit plate IN
4	/15.4 DI3	Wg2.WgS-4 Removable Wg IN
5	/15.6 DI4	Wg2.WgS-4 Short-circuit plate IN
6	/15.7 DI5	Wg3.WgS-5 Removable Wg IN
7	/15.8 DI6	Wg3.WgS-5 Short-circuit plate IN
8	/15.9 DI7	Wg3.WgS-6 Removable Wg IN

/16.0
-KF10
F-DI 8x24VDC HF
6ES7136-6BA00-0CA0 + BU15-P16+A0+2B
SIEMENS ET 200SP

1	/16.1 DI0	Wg3.WgS-6 Short-circuit plate IN
2	/16.2 DI1	Wg4.WgS-7 Removable Wg IN
3	/16.3 DI2	Wg4.WgS-7 Short-circuit plate IN
4	/16.4 DI3	Wg4.WgS-8 Removable Wg IN
5	/16.6 DI4	Wg4.WgS-8 Short-circuit plate IN
6	/16.7 DI5	Key Ex. S Unit - NC1
7	/16.8 DI6	Key Ex. S Unit - NO1
8	/16.9 DI7	Key Ex. Lock1 - NC1

/17.0
-KF11
F-DI 8x24VDC HF
6ES7136-6BA00-0CA0 + BU15-P16+A0+2B
SIEMENS ET 200SP

1	/17.1 DI0	Key Ex. Lock1 - NO1
2	/17.2 DI1	Key Ex. Lock2 - NC1
3	/17.3 DI2	Key Ex. Lock2 - NO1
4	/17.4 DI3	Key Ex. Lock3 - NC1
5	/17.5 DI4	Key Ex. Lock3 - NO1
6	/17.7 DI5	Key Ex. Lock4 - NC1
7	/17.8 DI6	Key Ex. Lock4 - NO1
8	/17.9 DI7	Modulator Contactors - NC1

/18.0
-KF12
F-DI 8x24VDC HF
6ES7136-6BA00-0CA0 + BU15-P16+A0+2B
SIEMENS ET 200SP

1	/18.1 DI0	Modulator Contactors - NO2
2	/18.2 DI1	RM1 - NO High radiation outside TS2
3	/18.3 DI2	RM1 -Status NOK
4	/18.4 DI3	RM2 - NO High radiation outside TS2
5	/18.6 DI4	RM2 -Status NOK
6	/18.7 DI5	Spare
7	/18.8 DI6	Spare
8	/18.9 DI7	Spare

/19.0
-KF13
F-DI 8x24VDC HF
6ES7136-6BA00-0CA0 + BU15-P16+A0+2B
SIEMENS ET 200SP

1	/19.1 DI0	Spare
2	/19.2 DI1	Spare
3	/19.3 DI2	Spare
4	/19.4 DI3	Spare
5	/19.6 DI4	Spare
6	/19.7 DI5	Spare
7	/19.8 DI6	Spare
8	/19.9 DI7	Spare

Digital Input (DI)

/20.0
-KF14
6ES7131-6BH00-0BA0 + BU15-P16+A0+2D
DI 16x24VDC ST
ET 200SP
SIEMENS

1	/20.0 DI0	Surge Arrester OK
2	/20.1 DI1	PS 24V DC OK
3	/20.2 DI2	UPS BAT
4	/20.2 DI3	UPS 24VDC OK
5	/20.3 DI4	UPS Alarm
6	/20.3 DI5	UPS Ready to buffer
7	/20.4 DI6	UPS BAT > 85%
8	/20.4 DI7	Selectivity Module 1 OK
9	/20.5 DI8	Selectivity Module 2 OK
10	/20.6 DI9	FC5 24V DC OK
11	/20.6 DI10	FC6 24V DC OK
12	/20.7 DI11	FC7 24V DC OK
13	/20.7 DI12	FC8 24V DC OK
14	/20.8 DI13	FC9 24V DC OK
15	/20.8 DI14	FC10 24V DC OK
16	/20.9 DI15	Scalance Module OK

/21.0
-KF15
6ES7131-6BH00-0BA0 + BU15-P16+A0+2B
DI 16x24VDC ST
ET 200SP
SIEMENS

1	/21.0 DI0	O2iM 1 - ALARM
2	/21.1 DI1	O2iM 1 - SYSTEM OK
3	/21.2 DI2	O2iM 1 - WARNING
4	/21.2 DI3	O2iM 1 - LIMIT A
5	/21.3 DI4	O2iM 1 - LIMIT B
6	/21.3 DI5	O2iM 2 - ALARM
7	/21.4 DI6	O2iM 2 - SYSTEM OK
8	/21.4 DI7	O2iM 2 - WARNING
9	/21.5 DI8	O2iM 2 - LIMIT A
10	/21.6 DI9	O2iM 2 - LIMIT B
11	/21.6 DI10	ESOS-1 Search Button - NO
12	/21.7 DI11	ESOS-2 Search Button - NO
13	/21.7 DI12	ESOS-3 Search Button - NO
14	/21.8 DI13	ESOS-4 Search Button - NO
15	/21.8 DI14	MeL-1 Guard Unlocked
16	/21.9 DI15	MeL-1 Guard Open

/22.0
-KF16
6ES7131-6BH00-0BA0 + BU15-P16+A0+2B
DI 16x24VDC ST
ET 200SP
SIEMENS

1	/22.0 DI0	Red Lights Contactor -NO
2	/22.1 DI1	Blue Lights Contactor - NO
3	/22.2 DI2	MCCB Tmax T5 630 - NC
4	/22.2 DI3	LLRF Relay 1 - NO
5	/22.3 DI4	LLRF Relay 1 - NC
6	/22.3 DI5	LLRF Relay 2 - NO
7	/22.4 DI6	LLRF Relay 2 - NO
8	/22.4 DI7	Shutter Switch 110 & 120 CLOSED
9	/22.5 DI8	Shutter Switch 210 & 220 CLOSED
10	/22.6 DI9	Spare
11	/22.6 DI10	Spare
12	/22.7 DI11	Spare
13	/22.7 DI12	Spare
14	/22.8 DI13	Spare
15	/22.8 DI14	Spare
16	/22.9 DI15	Spare

Analog Input (AI)

/23.0
-KF17
6ES7134-6HD00-0BA1 + BU15-P16+A0+2B
AI 4xU/I 2-wire ST
ET 200SP
SIEMENS

1	/23.0 U0+	Spare
5	/23.1 U0-	Spare
9	/23.2 UV0	O2iM 1 4-20 mA-
13	/23.2 I0+	O2iM 1 4-20 mA+
2	/23.3 U1+	Spare
6	/23.3 U1-	Spare
10	/23.4 UV1	O2iM 2 4-20 mA-
14	/23.4 I1+	O2iM 2 4-20 mA+
3	/23.5 U2+	Spare
7	/23.6 U2-	Spare
11	/23.6 UV2	Spare
15	/23.7 I2+	Spare
4	/23.7 U3+	Spare
8	/23.8 U3-	Spare
12	/23.8 UV3	Spare
16	/23.9 I3+	Spare

Fail-safe Digital Output (F-DQ)

/24.0
-KF18
F-DQ 4X24VDC/2A PM HF
6ES7136-6DB00-0CA0 + BU15-P16+A0+2D
SIEMENS ET 200SP

1	/24.0 DQ-P0	MeL-1 Solenoid. Coil +
5	/24.1 DQ-P0.	
2	/24.2 DQ-P1	Red Lights Contactor. Coil +
6	/24.3 DQ-P1.	
3	/24.5 DQ-P2	Blue Lights Contactor. Coil +
7	/24.6 DQ-P2.	
4	/24.7 DQ-P3	Modulator Contactors. Coil +
8	/24.8 DQ-P3.	

/25.0
-KF19
F-DQ 4X24VDC/2A PM HF
6ES7136-6DB00-0CA0 + BU15-P16+A0+2B
SIEMENS ET 200SP

1	/25.0 DQ-P0	LLRF Relay 1. Coil +
5	/25.1 DQ-P0.	
2	/25.3 DQ-P1	LLRF Relay 2. Coil +
6	/25.3 DQ-P1.	
3	/25.5 DQ-P2	Spare
7	/25.6 DQ-P2.	
4	/25.7 DQ-P3	Spare
8	/25.8 DQ-P3.	

/26.0
-KF20
F-DQ 4X24VDC/2A PM HF
6ES7136-6DB00-0CA0 + BU15-P16+A0+2B
SIEMENS ET 200SP

1	/26.0 DQ-P0	Spare
5	/26.1 DQ-P0.	
2	/26.3 DQ-P1	Spare
6	/26.3 DQ-P1.	
3	/26.5 DQ-P2	Spare
7	/26.6 DQ-P2.	
4	/26.7 DQ-P3	Spare
8	/26.8 DQ-P3.	

Digital Output (DQ)

/27.0
-KF21
6ES7132-6BH00-0BA0 + BU15-P16+A0+2D
DQ 16x24 VDC/0.5A ST
ET 200SP
SIEMENS

1	/27.0 DQ0	ODH O2iM-1 (Alarm Ack.)
2	/27.1 DQ1	ODH O2iM-2 (Alarm Ack.)
3	/27.2 DQ2	ODH RSL inside bunker
4	/27.2 DQ3	ODH ACS inside bunker
5	/27.3 DQ4	ODH RSL outside bunker
6	/27.3 DQ5	PSS Permit Status OK to RF Sys.1
7	/27.4 DQ6	PSS Permit Status OK to RF Sys.2
8	/27.4 DQ7	TS2 ODH Warning to Fire Alarm
9	/27.5 DQ8	TS2 ODH Alarm to Fire Alarm
10	/27.6 DQ9	TS2 ODHDS Fault to Fire Alarm
11	/27.6 DQ10	Spare
12	/27.7 DQ11	Spare
13	/27.7 DQ12	Spare
14	/27.8 DQ13	Spare
15	/27.8 DQ14	Spare
16	/27.9 DQ15	Spare

/28.0
-KF22
6ES7132-6BH00-0BA0 + BU15-P16+A0+2B
DQ 16x24 VDC/0.5A ST
ET 200SP
SIEMENS

1	/28.0 DQ0	ESOS-1 Switch Off Button - OG Led
2	/28.1 DQ1	ESOS-1 Coulmn- Sounder
3	/28.2 DQ2	ESOS-1 Column - WH light
4	/28.2 DQ3	ESOS-1 Search Button - WH Led
5	/28.3 DQ4	ESOS-2 Switch Off Button - OG Led
6	/28.3 DQ5	ESOS-2 Coulmn- Sounder
7	/28.4 DQ6	ESOS-2 Column - WH light
8	/28.5 DQ7	ESOS-2 Search Button - WH Led
9	/28.5 DQ8	ESOS-3 Switch Off Button - OG Led
10	/28.6 DQ9	ESOS-3 Coulmn- Sounder
11	/28.6 DQ10	ESOS-3 Column - WH light
12	/28.7 DQ11	ESOS-3 Search Button - WH Led
13	/28.7 DQ12	ESOS-4 Switch Off Button - OG Led
14	/28.8 DQ13	ESOS-4 Coulmn- Sounder
15	/28.8 DQ14	ESOS-4 Column - WH light
16	/28.9 DQ15	ESOS-4 Search Button - WH Led

/29.0
-KF23
6ES7132-6BH00-0BA0 + BU15-P16+A0+2B
DQ 16x24 VDC/0.5A ST
ET 200SP
SIEMENS

1	/29.0 DQ0	Ann-1 Sounder
2	/29.1 DQ1	Ann-1 White light
3	/29.2 DQ2	Ann-1 Green light
4	/29.2 DQ3	Ann-2 Sounder
5	/29.3 DQ4	Ann-2 White light
6	/29.3 DQ5	Ann-2 Green light
7	/29.4 DQ6	LiP-1 ACCESS
8	/29.4 DQ7	LiP-1 NO ACCESS
9	/29.5 DQ8	LiP-1 RF ON
10	/29.6 DQ9	LiP-1 SEARCHING
11	/29.6 DQ10	LiP-2 ACCESS
12	/29.7 DQ11	LiP-2 NO ACCESS
13	/29.7 DQ12	LiP-2 RF ON
14	/29.8 DQ13	LiP-2 SEARCHING
15	/29.8 DQ14	GN Led - PSS permit enabled
16	/29.9 DQ15	Spare

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary / Rev: 2 / Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Overview	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012
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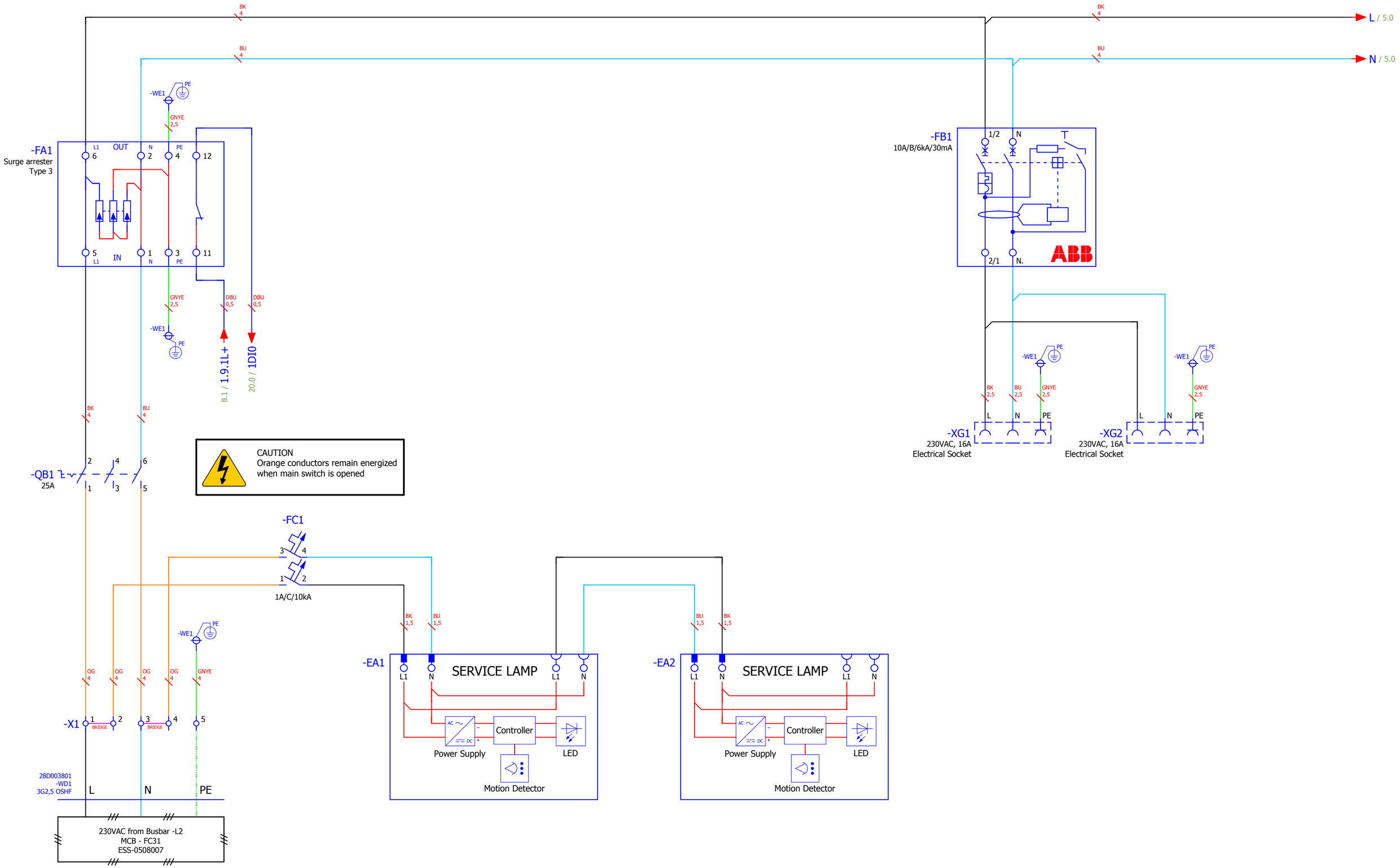

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Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
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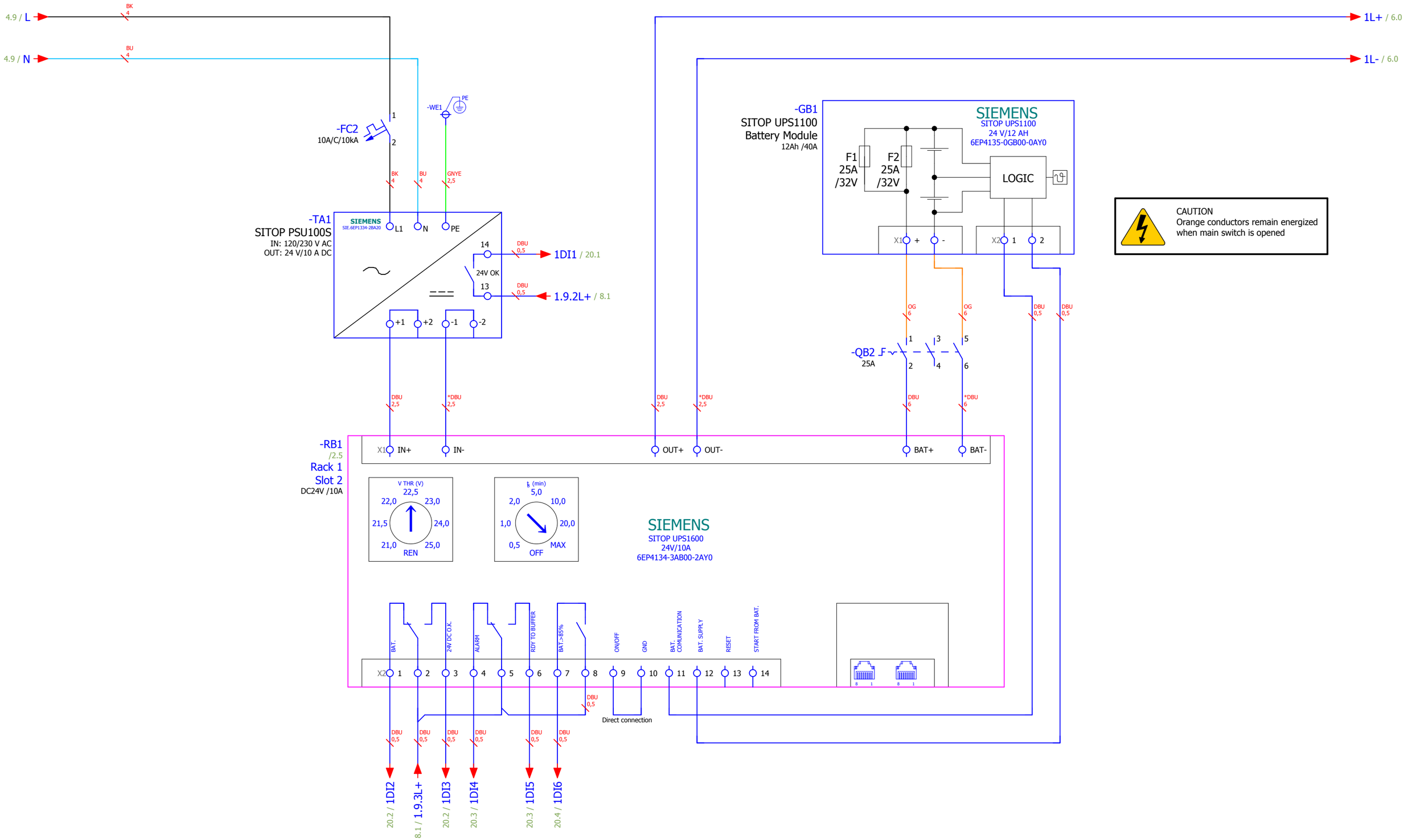

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Documentation protection ISO 16016

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CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS5	

5.9 / 1L+ — DBU 2,5

5.9 / 1L- — *DBU 2,5

DBU 2,5 — 1L+ / 7.0

*DBU 2,5 — 1L- / 7.0

-FC3
In: DC 24 V
Out: DC 24 V/3 A

SIEMENS
SITOP PSE200U
SELECTIVITY MODULE 3A
6EP19612BA31

DELAY

A	B	
	■	1
■		0

INPUT
+24V (1)
+24V (2)

E---
RESET

CONTROL LOGIC
STATUS OUTPUT
RESET
S
RST
0V (1)
0V (2)

OUTPUT
1
2
3
4

DBU 0,5 — 20.4 / 1DI7

DBU 2,5

DBU 1,5 — 10.1 / 1.1L+

DBU 1,5 — 10.6 / 1.2L+

DBU 1,5 — 11.1 / 1.3L+

-X2
1 BRIDGE 2 3 4 5 6

*DBU 1,5 — 10.2 / 1.1L-

*DBU 1,5 — 10.7 / 1.2L-

*DBU 1,5 — 11.2 / 1.3L-

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APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS6	

6.9 / 1L+ — DBU 2,5

6.9 / 1L- — *DBU 2,5

DBU 2,5 — 1L+ / 8.0

*DBU 2,5 — 1L- / 8.0

-FC4
In: DC 24 V
Out: DC 24 V/3 A

SIEMENS
SITOP PSE200U
SELECTIVITY MODULE 3A
6EP19612BA31

DELAY

A	B	
	■	1
■		0

INPUT
+24V (1)
+24V (2)

RESET
RESET
RESET
RESET

CONTROL LOGIC
STATUS OUTPUT
RESET
S
RST
0V (1)
0V (2)

OUTPUT
1
2
3
4

DBU 0,5 — 20.5 / 1DI8

DBU 2,5

DBU 1,5 — 11.5 / 1.5L+

DBU 1,5 — 11.5 / 1.6L+

DBU 1,5 — 11.5 / 1.7L+

DBU 1,5 — 11.5 / 1.8L+

-X3 1 BRIDGE 2 3 4 5 6

*DBU 1,5 — 11.6 / 1.5L-

*DBU 1,5 — 11.6 / 1.6L-

*DBU 1,5 — 11.6 / 1.7L-

*DBU 1,5 — 11.6 / 1.8L-

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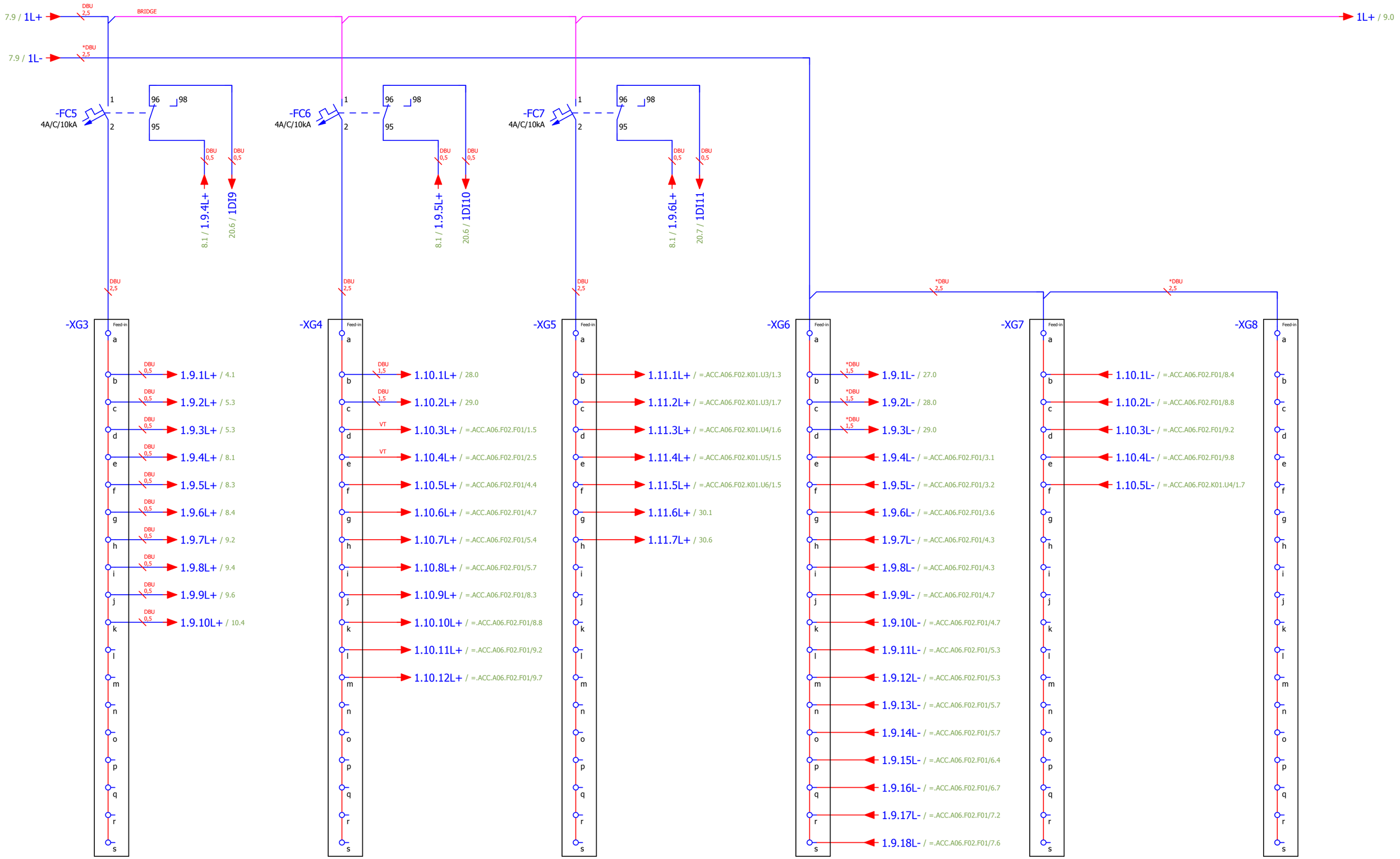

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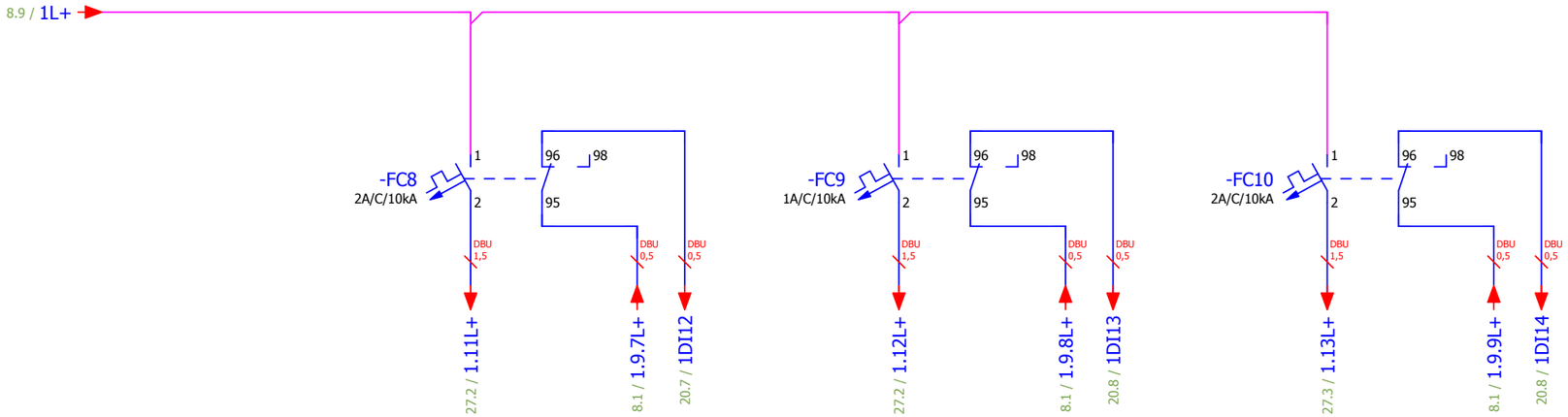

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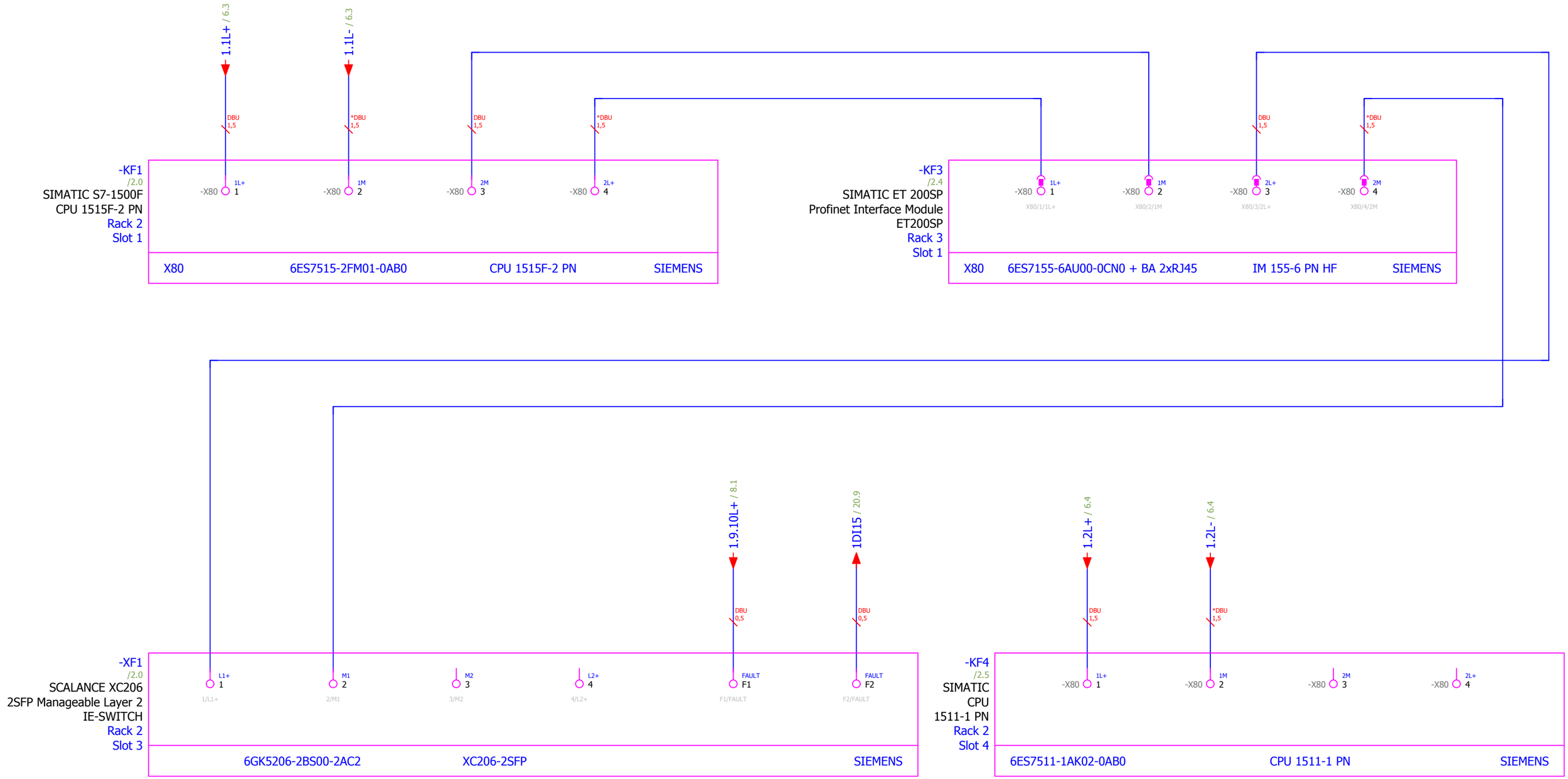
Supply CPU's + ET200 + Scalance



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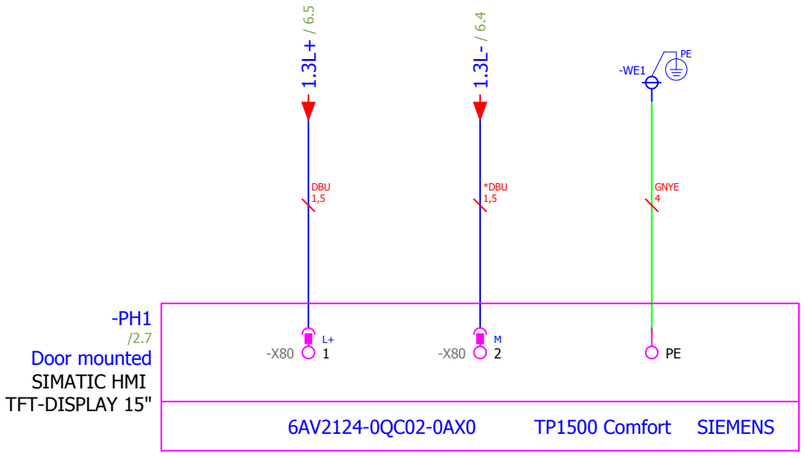
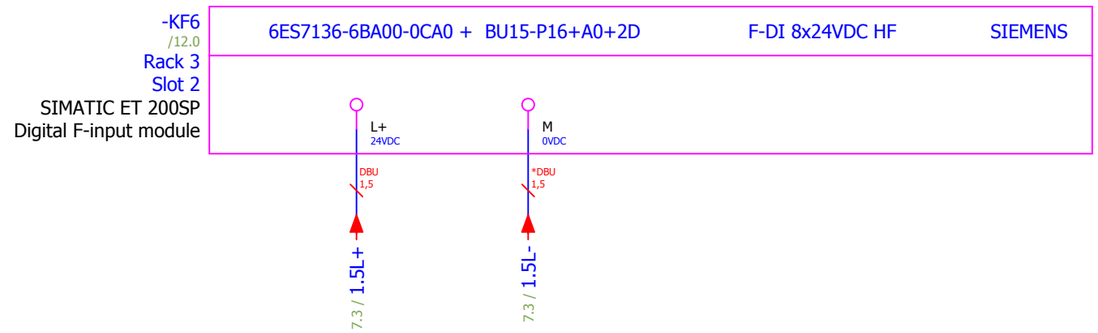
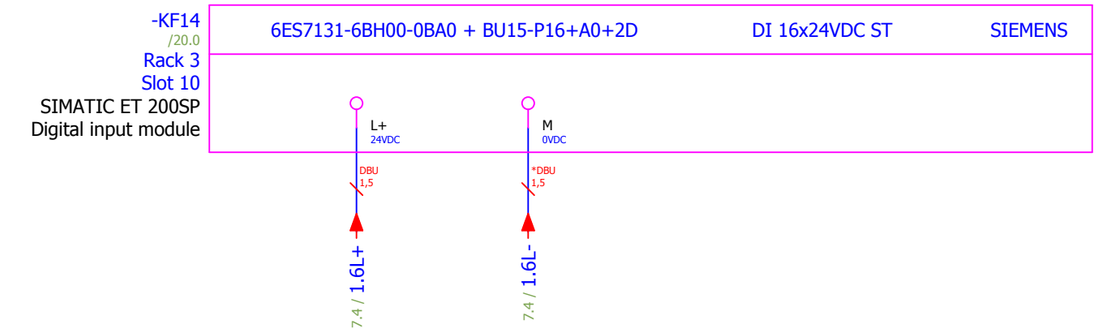
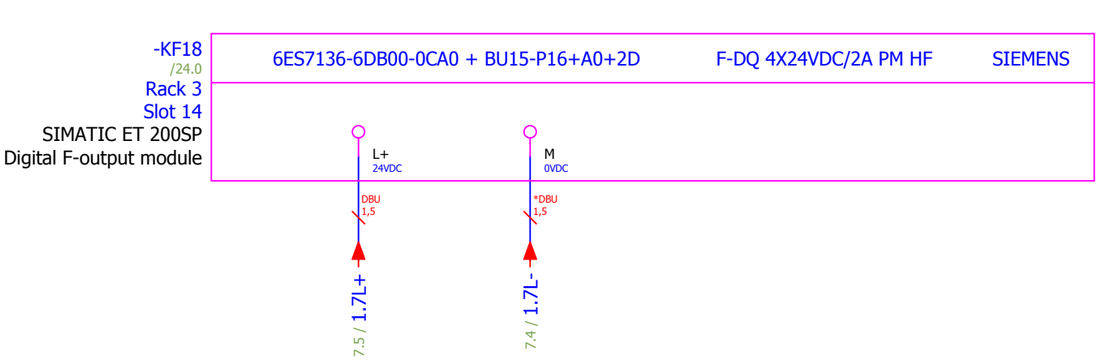
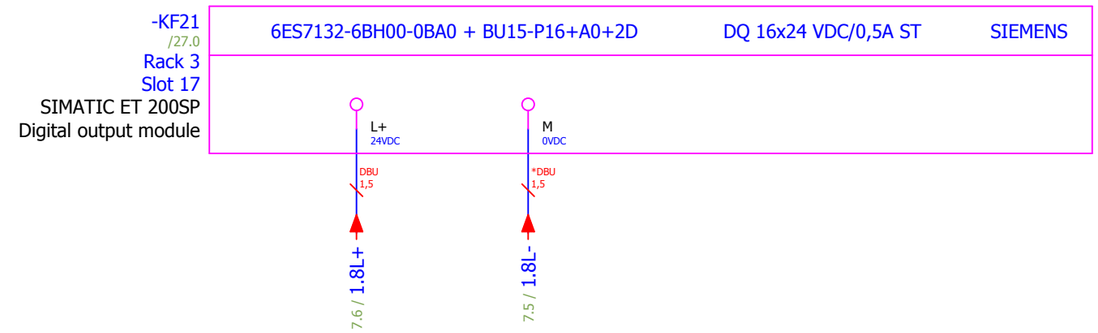
Supply HMI + baseunits











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CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
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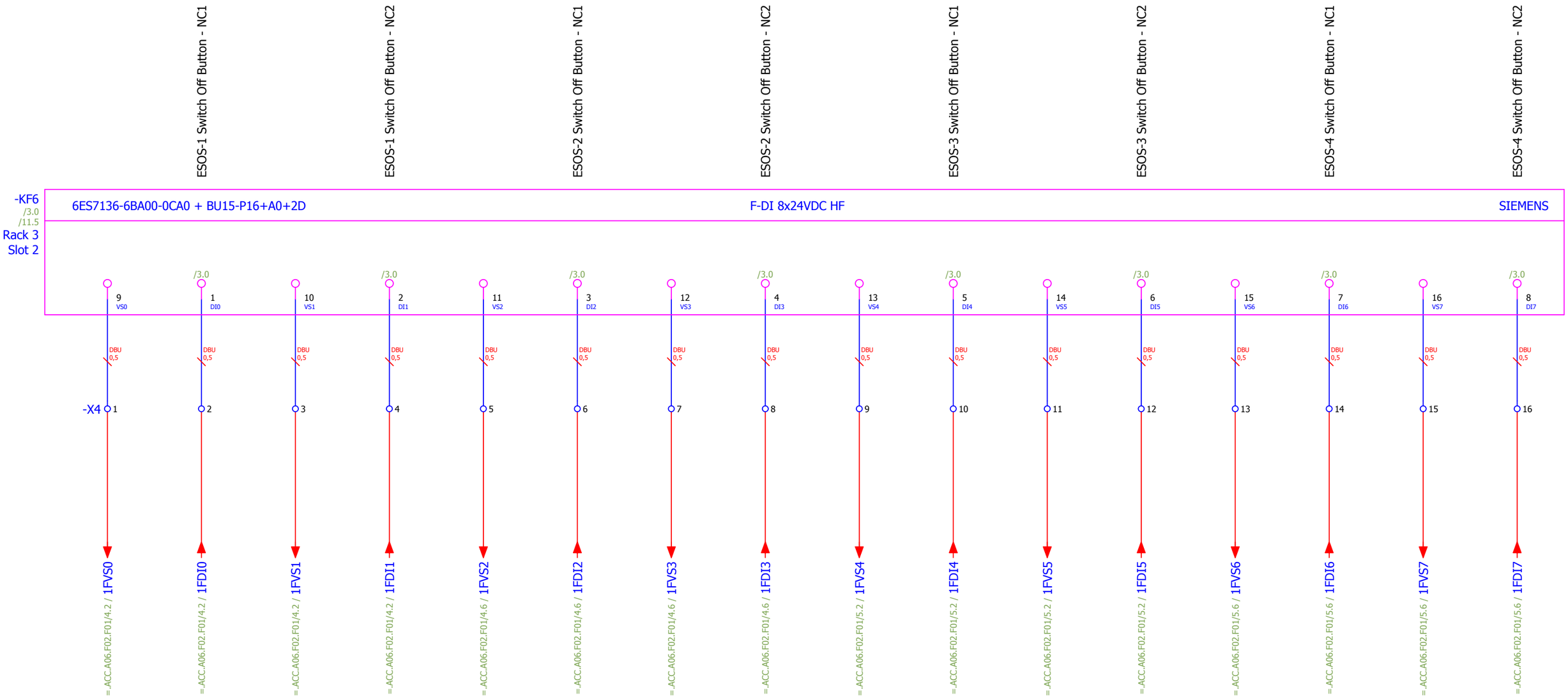
DESIGN SITE: ESS	ePLAN electric P8 V2.7		CHESS Doc. NR: ESS-0508473	Document: &FS11	

F-DI module 1 (2D)



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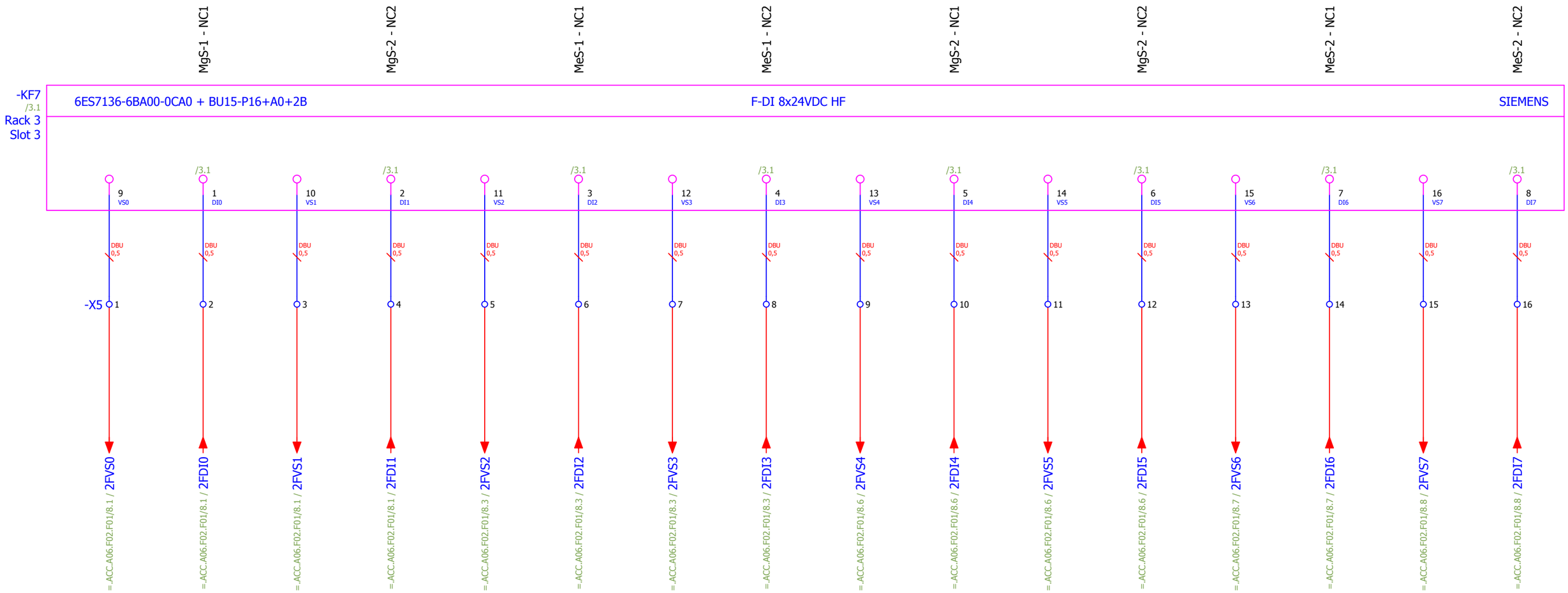
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS12	

F-DI module 2 (2B)



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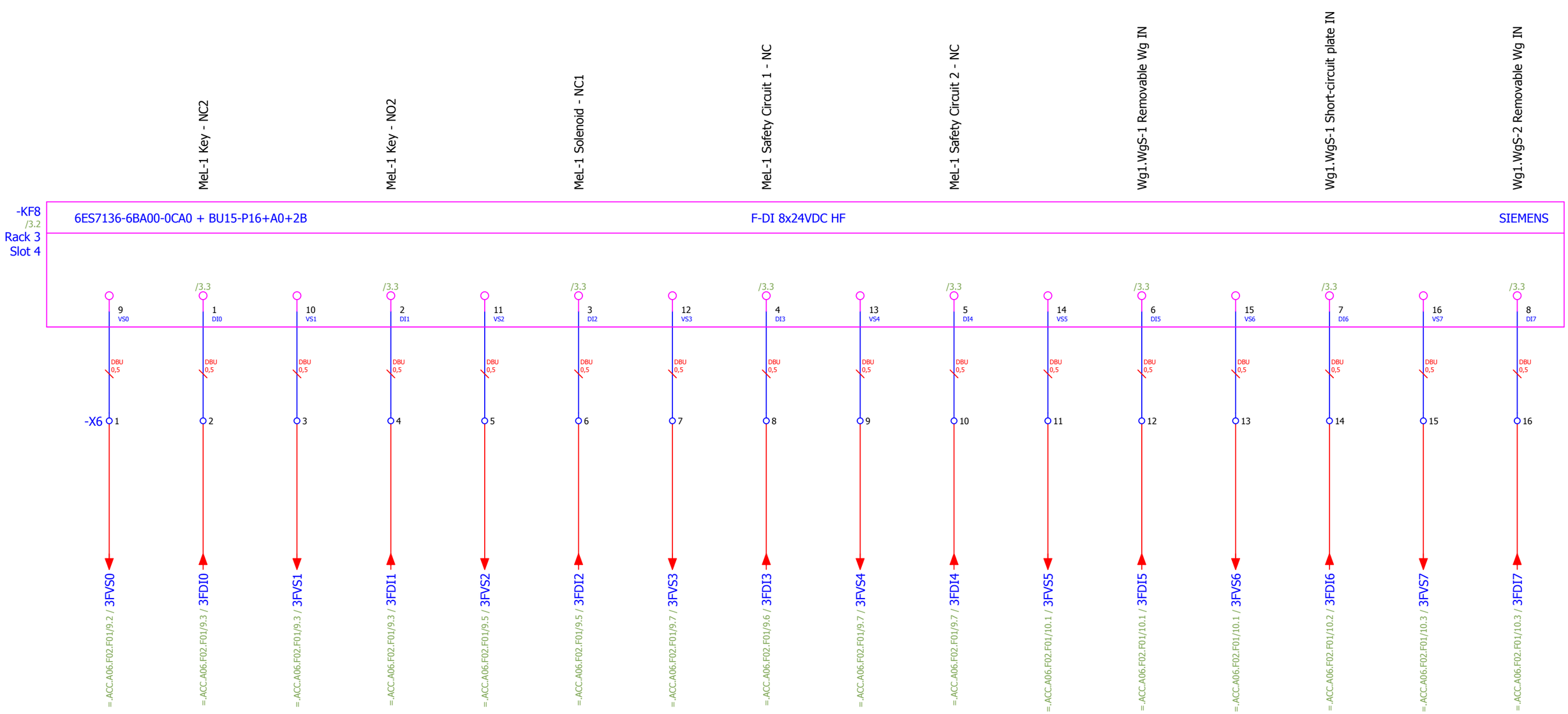
F-DI module 3 (2B)



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ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS14	

F-DI module 4 (2B)

Wg1.WgS-2 Short-circuit plate IN
Wg2.WgS-3 Removable Wg IN
Wg2.WgS-3 Short-circuit plate IN
Wg2.WgS-4 Removable Wg IN
Wg2.WgS-4 Short-circuit plate IN
Wg3.WgS-5 Removable Wg IN
Wg3.WgS-5 Short-circuit plate IN
Wg3.WgS-6 Removable Wg IN

-KF9
/3.4
Rack 3
Slot 5

6ES7136-6BA00-0CA0 + BU15-P16+A0+2B | F-DI 8x24VDC HF | SIEMENS

/3.4	/3.4	/3.4	/3.4	/3.4	/3.4	/3.4	/3.4	/3.4	/3.4	/3.4	/3.4	/3.4	/3.4	/3.4	/3.4
9 VS0	1 DI0	10 VS1	2 DI1	11 VS2	3 DI2	12 VS3	4 DI3	13 VS4	5 DI4	14 VS5	6 DI5	15 VS6	7 DI6	16 VS7	8 DI7
DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5
-X7 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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ePLAN electric P8 V2.7

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CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
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DESIGN SITE: ESS			CHESS Doc. NR: ESS-0508473	Document: &FS15	

F-DI module 5 (2B)

Wg3.WgS-6 Short-circuit plate IN
Wg4.WgS-7 Removable Wg IN
Wg4.WgS-7 Short-circuit plate IN
Wg4.WgS-8 Removable Wg IN
Wg4.WgS-8 Short-circuit plate IN
Key Ex. S Unit - NC1
Key Ex. S Unit - NO1
Key Ex. Lock1 - NC1

-KF10
/3.0
Rack 3
Slot 6

6ES7136-6BA00-0CA0 + BU15-P16+A0+2B | F-DI 8x24VDC HF | SIEMENS

/3.0	/3.0	/3.0	/3.0	/3.0	/3.0	/3.0	/3.0	/3.0	/3.0	/3.0	/3.0	/3.0	/3.0	/3.0	/3.0
9 VS0	1 DI0	10 VS1	2 DI1	11 VS2	3 DI2	12 VS3	4 DI3	13 VS4	5 DI4	14 VS5	6 DI5	15 VS6	7 DI6	16 VS7	8 DI7
DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5
-X8 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
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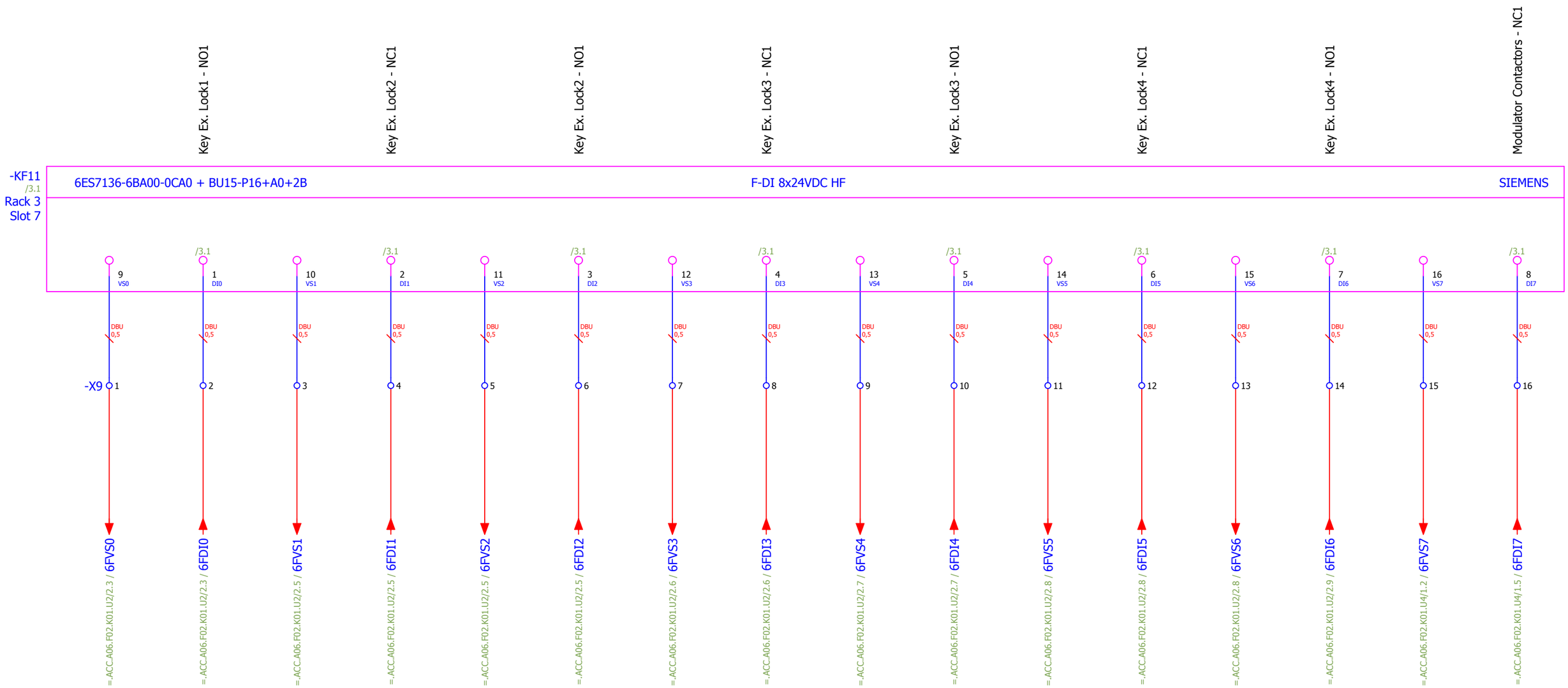
F-DI module 6 (2B)



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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS17	

F-DI module 7 (2B)

	Modulator Contactors - NO2	RM1 - NO High radiation outside TS2	RM1 -Status NOK	RM2 - NO High radiation outside TS2	RM2 -Status NOK	Spare	Spare	Spare	
-KF12 /3.2 Rack 3 Slot 8	6ES7136-6BA00-0CA0 + BU15-P16+A0+2B			F-DI 8x24VDC HF					SIEMENS

	9	1	10	2	11	3	12	4	13	5	14	6	15	7	16	8
	VS0	DI0	VS1	DI1	VS2	DI2	VS3	DI3	VS4	DI4	VS5	DI5	VS6	DI6	VS7	DI7
	/3.3	/3.3	/3.3	/3.3	/3.3	/3.3	/3.3	/3.3	/3.3	/3.3	/3.3	/3.3	/3.3	/3.3	/3.3	/3.3
	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5
-X10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	=.ACC.A06.F02.K01.U4/1.3 / 7FVS0	=.ACC.A06.F02.K01.U4/1.5 / 7FDI0	31.2 / 7FVS1	31.2 / 7FDI1	31.2 / 7FVS2	31.2 / 7FDI2	31.5 / 7FVS3	31.5 / 7FDI3	31.6 / 7FVS4	31.6 / 7FDI4						

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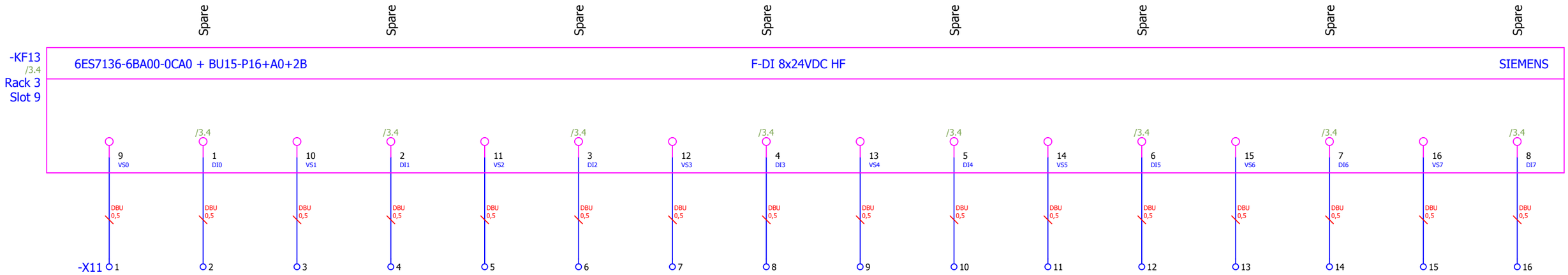
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS18	

F-DI module 8 (2B)



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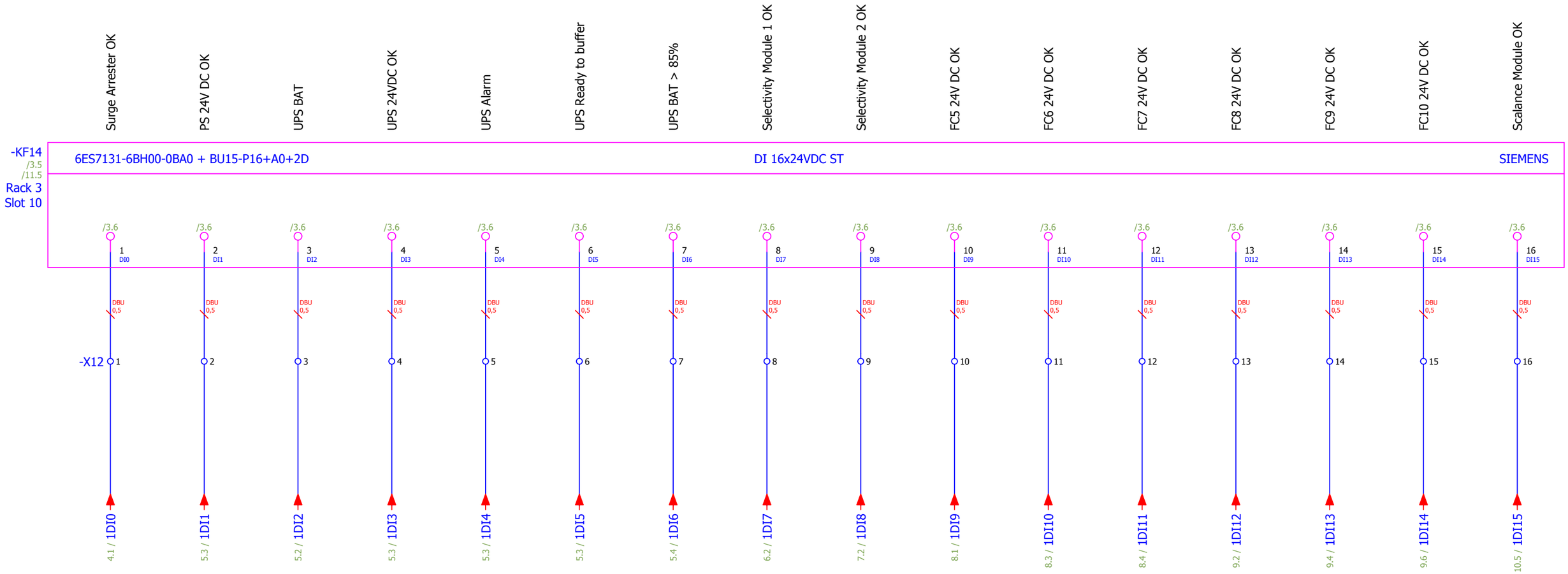
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS19	

DI module 1 (2D)



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APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS20	

DI module 2 (2B)

O2iM 1 - ALARM	O2iM 1 - SYSTEM OK	O2iM 1 - WARNING	O2iM 1 - LIMIT A	O2iM 1 - LIMIT B	O2iM 2 - ALARM	O2iM 2 - SYSTEM OK	O2iM 2 - WARNING	O2iM 2 - LIMIT A	O2iM 2 - LIMIT B	ESOS-1 Search Button - NO	ESOS-2 Search Button - NO	ESOS-3 Search Button - NO	ESOS-4 Search Button - NO	MeL-1 Guard Unlocked	MeL-1 Guard Open
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DI0	DI1	DI2	DI3	DI4	DI5	DI6	DI7	DI8	DI9	DI10	DI11	DI12	DI13	DI14	DI15
/3.7	/3.7	/3.7	/3.7	/3.7	/3.7	/3.7	/3.7	/3.7	/3.7	/3.7	/3.7	/3.7	/3.7	/3.7	/3.7
DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5
-X13 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
WH	BN	GN	YE	GY	WH	BN	GN	YE	GY						
=.ACC.A06.F02.F01/1.5 / 2DI0	=.ACC.A06.F02.F01/1.6 / 2DI1	=.ACC.A06.F02.F01/1.6 / 2DI2	=.ACC.A06.F02.F01/1.7 / 2DI3	=.ACC.A06.F02.F01/1.8 / 2DI4	=.ACC.A06.F02.F01/2.5 / 2DI5	=.ACC.A06.F02.F01/2.6 / 2DI6	=.ACC.A06.F02.F01/2.6 / 2DI7	=.ACC.A06.F02.F01/2.7 / 2DI8	=.ACC.A06.F02.F01/2.8 / 2DI9	=.ACC.A06.F02.F01/4.3 / 2DI10	=.ACC.A06.F02.F01/4.7 / 2DI11	=.ACC.A06.F02.F01/5.3 / 2DI12	=.ACC.A06.F02.F01/5.7 / 2DI13	=.ACC.A06.F02.F01/9.7 / 2DI14	=.ACC.A06.F02.F01/9.8 / 2DI15

-KF15
/3.7
Rack 3
Slot 11

6ES7131-6BH00-0BA0 + BU15-P16+A0+2B — DI 16x24VDC ST — SIEMENS

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Documentation protection ISO 16016

ePLAN electric P8 V2.7

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CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
DESIGN SITE: ESS			CHESS Doc. NR: ESS-0508473	Document: &FS21	

DI module 3 (2B)

Red Lights Contactor -NO	Blue Lights Contactor - NO	MCCB Tmax T5 630 - NC	LLRF Relay 1 - NO	LLRF Relay 1 - NC	LLRF Relay 2 - NO	LLRF Relay 2 - NO	Shutter Switch 110 & 120 CLOSED	Shutter Switch 210 & 220 CLOSED	Spare	Spare	Spare	Spare	Spare	Spare	Spare

-KF16
/3.8
Rack 3
Slot 12

6ES7131-6BH00-0BA0 + BU15-P16+A0+2B — DI 16x24VDC ST — SIEMENS

/3.8	/3.8	/3.8	/3.8	/3.8	/3.8	/3.8	/3.8	/3.8	/3.8	/3.8	/3.8	/3.8	/3.8	/3.8	/3.8
1 DI0	2 DI1	3 DI2	4 DI3	5 DI4	6 DI5	7 DI6	8 DI7	9 DI8	10 DI9	11 DI10	12 DI11	13 DI12	14 DI13	15 DI14	16 DI15
DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5	DBU 0,5
-X14 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
= ACC.A06.F02.K01.U3/1.2 / 3DI0	= ACC.A06.F02.K01.U3/1.6 / 3DI1	= ACC.A06.F02.K01.U4/1.6 / 3DI2	= ACC.A06.F02.K01.U5/1.4 / 3DI3	= ACC.A06.F02.K01.U5/1.4 / 3DI4	= ACC.A06.F02.K01.U6/1.4 / 3DI5	= ACC.A06.F02.K01.U6/1.4 / 3DI6	30.1 / 3DI7	30.6 / 3DI8							

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REVISION 2	REVISION DATE 2019-04-05	CHANGE ORDER Full version	REASON FOR REVISION CHANGE Contains: PLC cabinet design + Field devices
REVISION 1	REVISION DATE 2019-02-07	CHANGE ORDER Preliminary version	REASON FOR REVISION CHANGE Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

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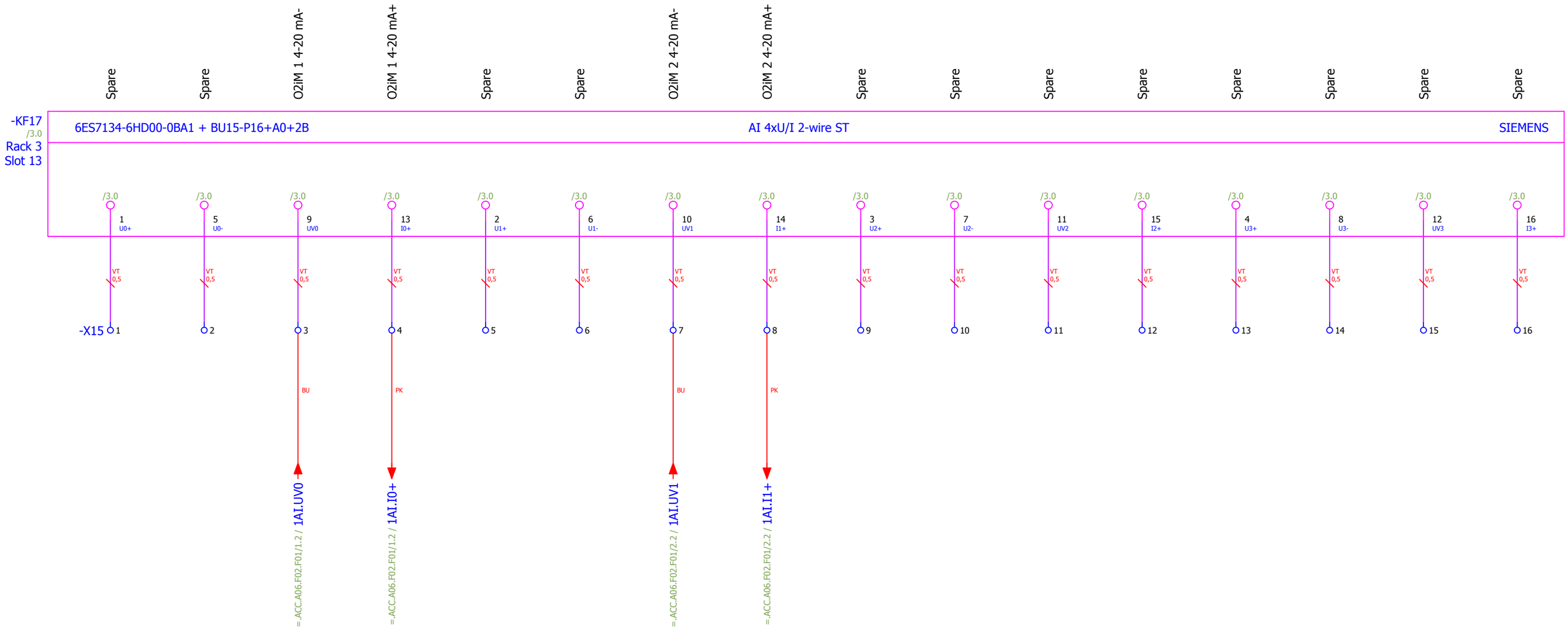
CHECKED BY MMI	DATE	PAGE TYPE Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY SBH	DATE	FUNCTION PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &FS22	

AI module 1 (2B)



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ePLAN electric P8 V2.7

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CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
DESIGN SITE: ESS			CHESS Doc. NR: ESS-0508473	Document: &FS23	

F-DQ module 1 (2D)

MeL-1 Solenoid. Coil +
MeL-1 Solenoid. Coil -
Red Lights Contactor. Coil +
Red Lights Contactor. Coil -
Blue Lights Contactor. Coil +
Blue Lights Contactor. Coil -
Modulator Contactors. Coil +
Modulator Contactors. Coil -

-KF18
/3.1
/11.5
Rack 3
Slot 14

6ES7136-6DB00-0CA0 + BU15-P16+A0+2D | F-DQ 4X24VDC/2A PM HF | SIEMENS

/3.1 /3.1	/3.1 /3.1	/3.1 /3.1	/3.1 /3.1	/3.1 /3.1	/3.1 /3.1	/3.1 /3.1	/3.1 /3.1
1 DQ-P0	9 DQ-M0	2 DQ-P1	10 DQ-M1	3 DQ-P2	11 DQ-M2	4 DQ-P3	12 DQ-M3
5 DQ-P0.	13 DQ-M0.	6 DQ-P1.	14 DQ-M1.	7 DQ-P2.	15 DQ-M2.	8 DQ-P3.	16 DQ-M3.
DBU 0,5	*DBU 0,5	DBU 0,5	*DBU 0,5	DBU 0,5	*DBU 0,5	DBU 0,5	*DBU 0,5
-X16 1	5	2	6	3	7	4	8
=.ACC.A06.F02.F01/9.5 / 1FDQP0	=.ACC.A06.F02.F01/9.5 / 1FDQM0	=.ACC.A06.F02.K01.U3/1.2 / 1FDQP1	=.ACC.A06.F02.K01.U3/1.3 / 1FDQM1	=.ACC.A06.F02.K01.U3/1.5 / 1FDQP2	=.ACC.A06.F02.K01.U3/1.6 / 1FDQM2	=.ACC.A06.F02.K01.U2/2.1 / 1FDQP3	=.ACC.A06.F02.K01.U2/2.1 / 1FDQM3

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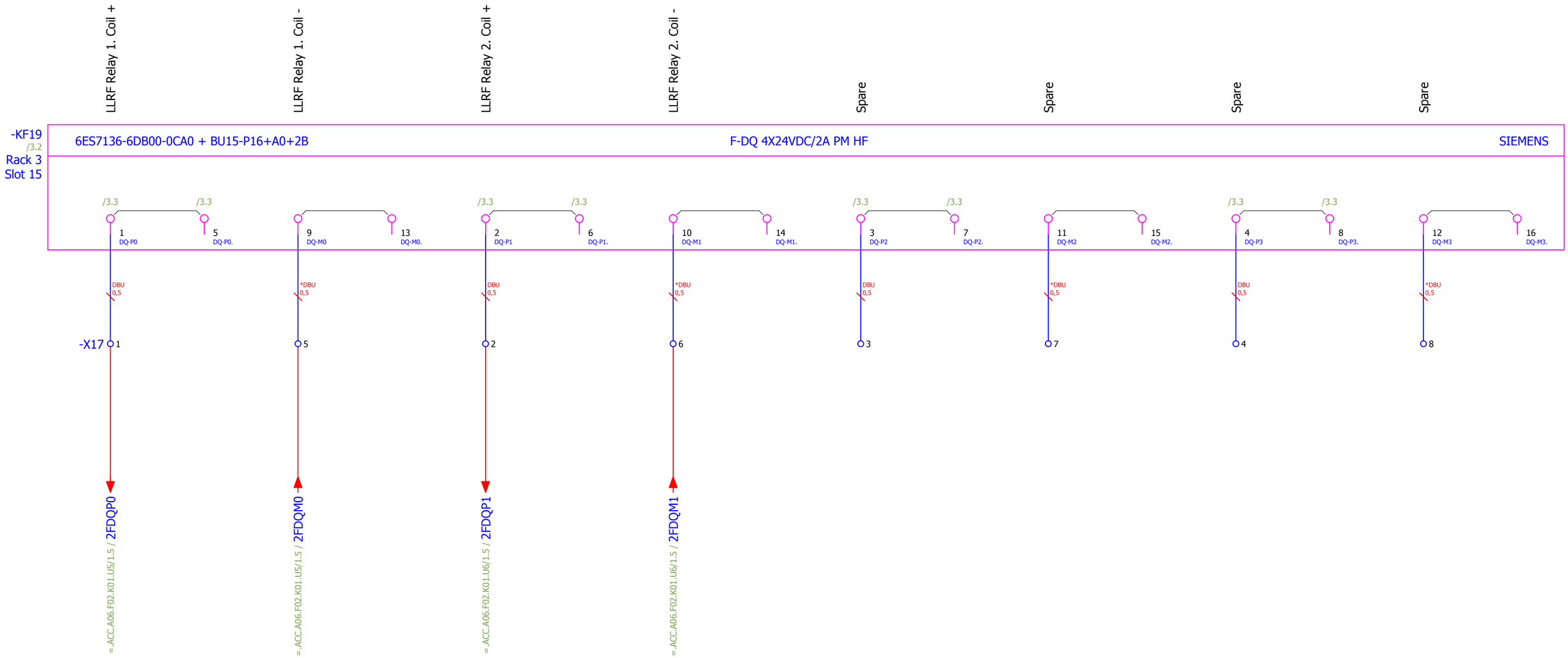
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS24	

F-DQ module 2 (2B)



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ePLAN electric P8 V2.7

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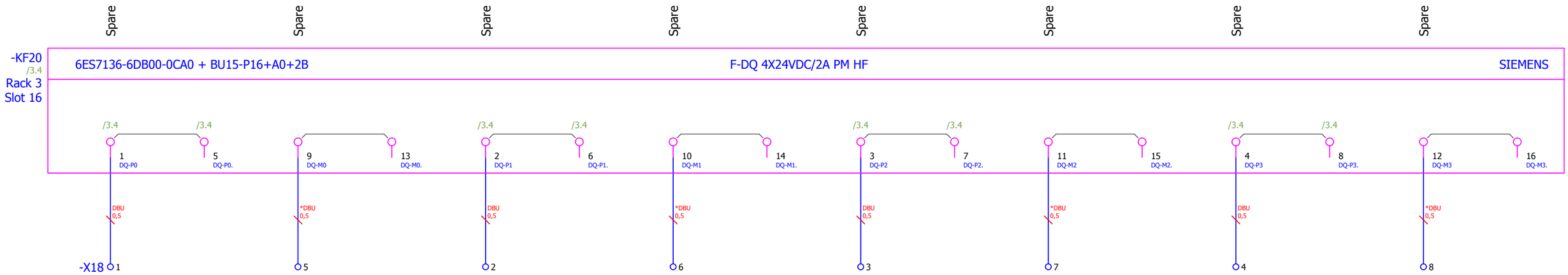
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
DESIGN SITE: ESS			CHESS Doc. NR: ESS-0508473	Document: &FS25	

F-DQ module 3 (2B)



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APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS26	

DQ module 1 (2D)

ODH O2iM-1 (Alarm Ack.)
ODH O2iM-2 (Alarm Ack.)
ODH RSL inside bunker
ODH ACS inside bunker
ODH RSL outside bunker
PSS Permit Status OK to RF Sys.1
PSS Permit Status OK to RF Sys.2
TS2 ODH Warning to Fire Alarm
TS2 ODH Alarm to Fire Alarm
TS2 ODHDS Fault to Fire Alarm
Spare
Spare
Spare
Spare
Spare
Spare

-KF21
/3.5
/11.5
Rack 3
Slot 17

6ES7132-6BH00-0BA0 + BU15-P16+A0+2D — DQ 16x24 VDC/0,5A ST — SIEMENS

8.6 / 1.9.1L-

-X19

-K1	-K2	-K3	-K4	-K5	-K6	-K7	-K8	-K9	-K10	-K11	-K12	-K13	-K14	-K15	-K16	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
DQ0	DQ1	DQ2	DQ3	DQ4	DQ5	DQ6	DQ7	DQ8	DQ9	DQ10	DQ11	DQ12	DQ13	DQ14	DQ15	
RD	BK	RD	BK													
=.ACC.A06.F02.F01/1.1 / 1DQ0.C	=.ACC.A06.F02.F01/1.1 / 1DQ0.NO	=.ACC.A06.F02.F01/2.1 / 1DQ1.C	=.ACC.A06.F02.F01/2.1 / 1DQ1.NO	9.2 / 1.11L+	=.ACC.A06.F02.F01/3.1 / 1DQ2	9.3 / 1.12L+	=.ACC.A06.F02.F01/3.2 / 1DQ3	9.5 / 1.13L+	=.ACC.A06.F02.F01/3.6 / 1DQ4	30.3 / 1DQ5.C	30.3 / 1DQ5.NO	30.8 / 1DQ6.C	30.8 / 1DQ6.NO	32.4 / 1DQ7.C	32.4 / 1DQ7.NO	32.4 / 1DQ8.C	32.4 / 1DQ8.NO	32.4 / 1DQ9.C	32.5 / 1DQ9.NO

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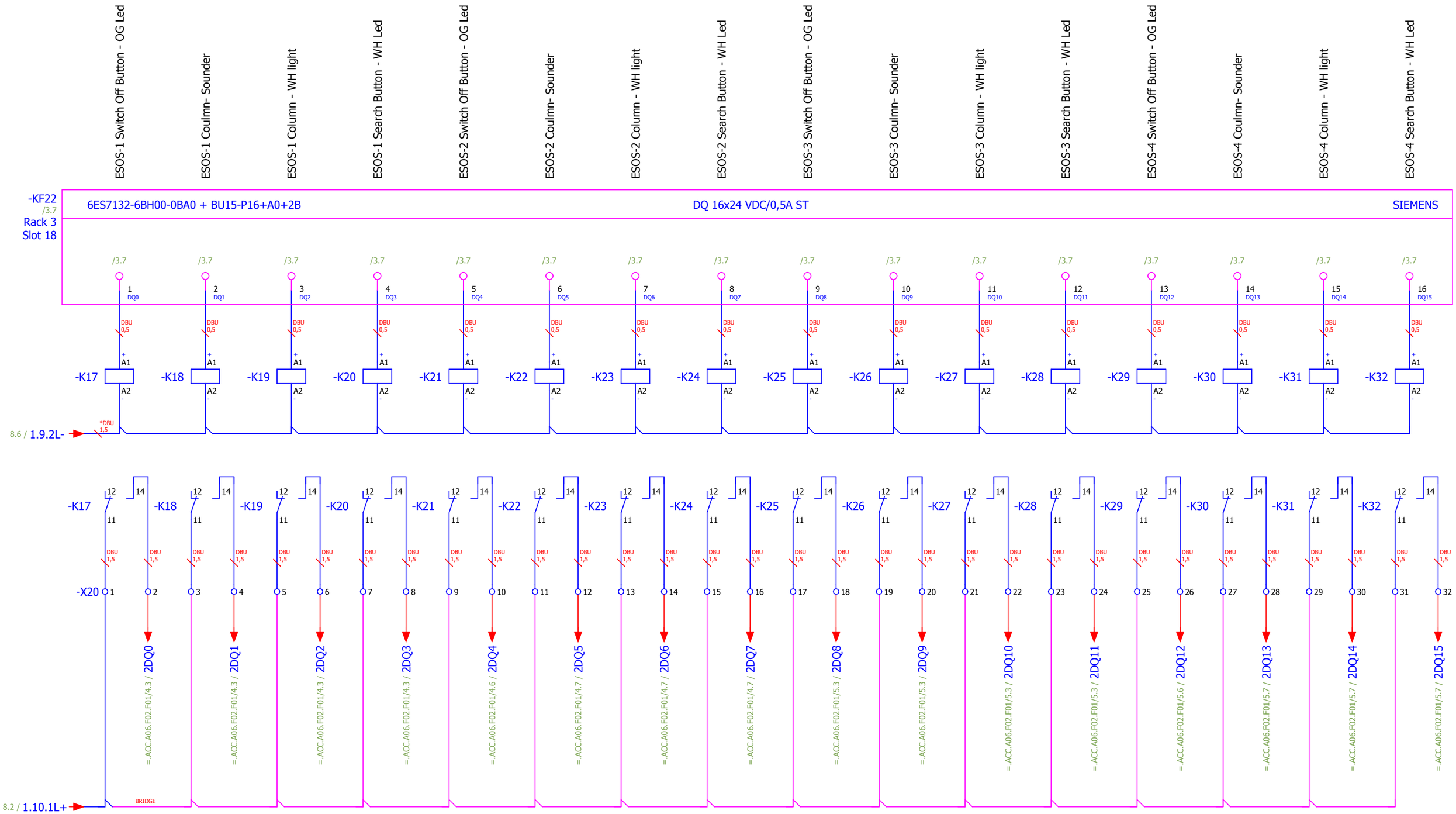
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS27	

DQ module 2 (2B)



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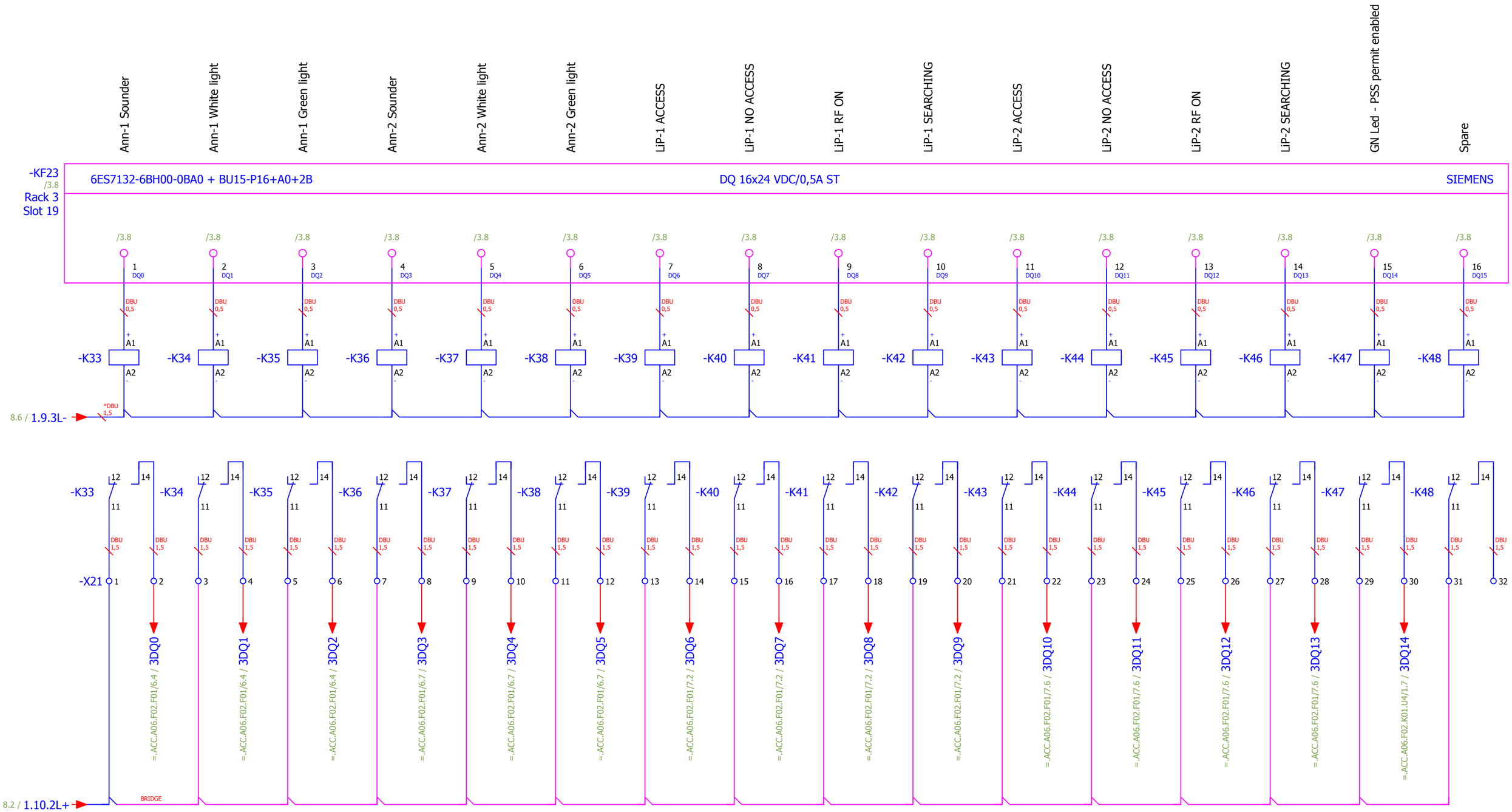
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS28	

DQ module 3 (2B)



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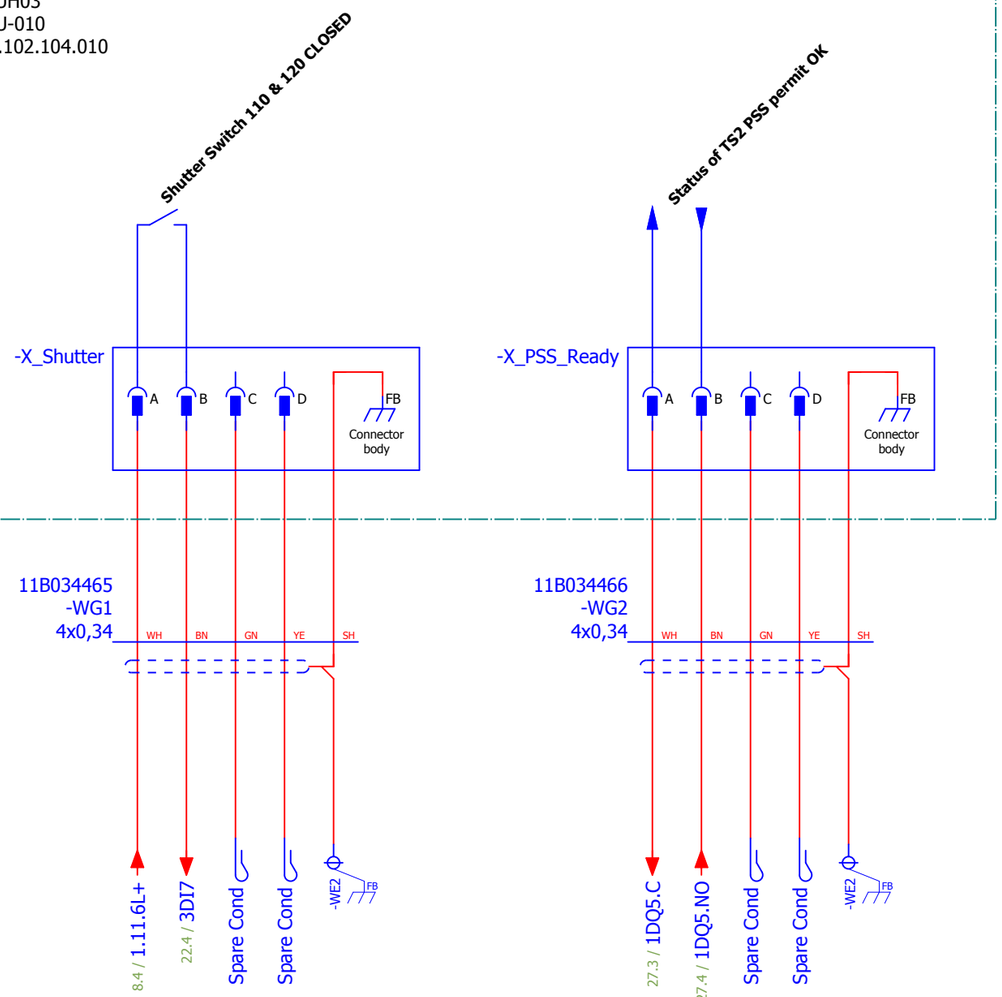
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS29	

RF LPS interface

RF-System 1

Control Rack LLRF-LPS
=ESS.ACC.A06.E01.UH03
TS2-010Row:CnPw-U-010
+ESS.G02.100.1001.102.104.010



RF-System 2

Control Rack LLRF-LPS
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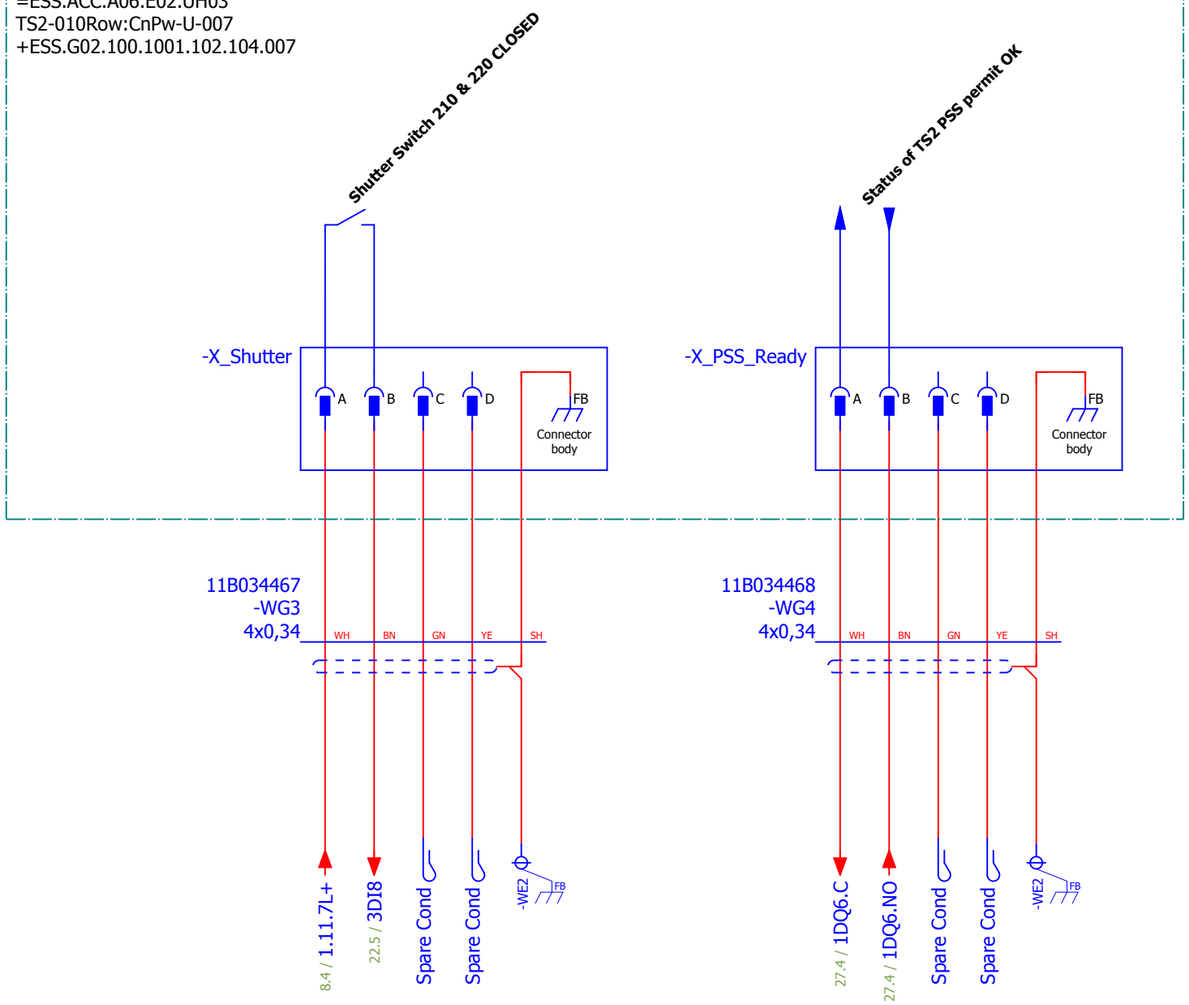
TS2-010Row:CnPw-U-007
+ESS.G02.100.1001.102.104.007



REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

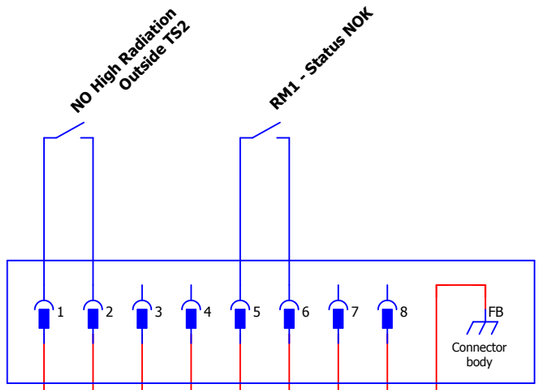
Documentation protection ISO 16016

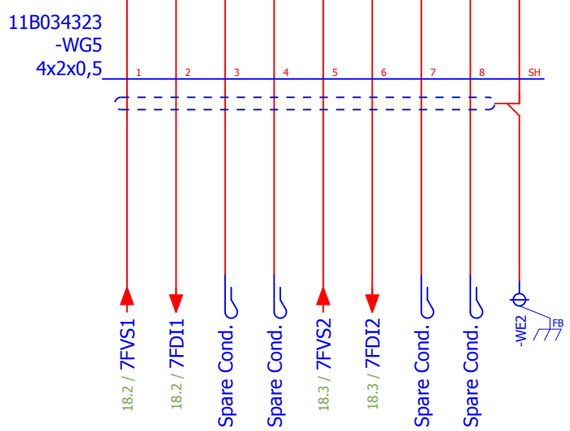
DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS30	

Radiation Monitors interface

Radiation Monitor 1

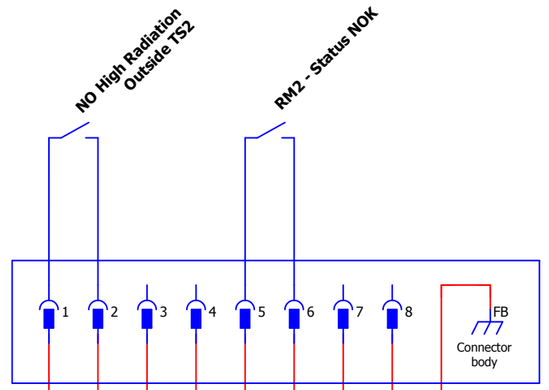
Area Gamma Monitor in TS2 - Position 1
=ESS.INFR.B01.P01.P01.P01
REMS-TS2RS:RMT-AGM-001
+ESS.G02.100.1001.102

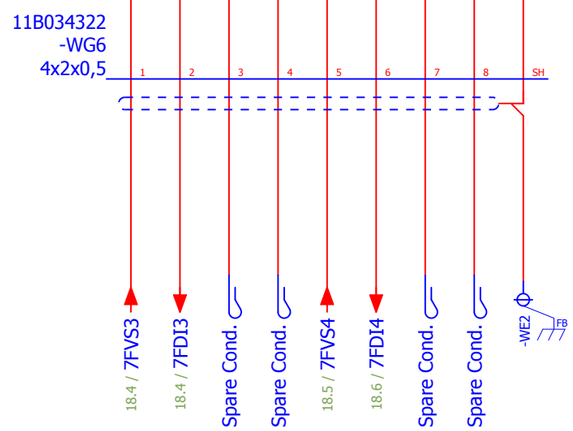




Radiation Monitor 2

Area Gamma Monitor in TS2 - Position 2
=ESS.INFR.B01.P01.P01.P02
REMS-TS2RS:RMT-AGM-002
+ESS.G02.100.1001.102





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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

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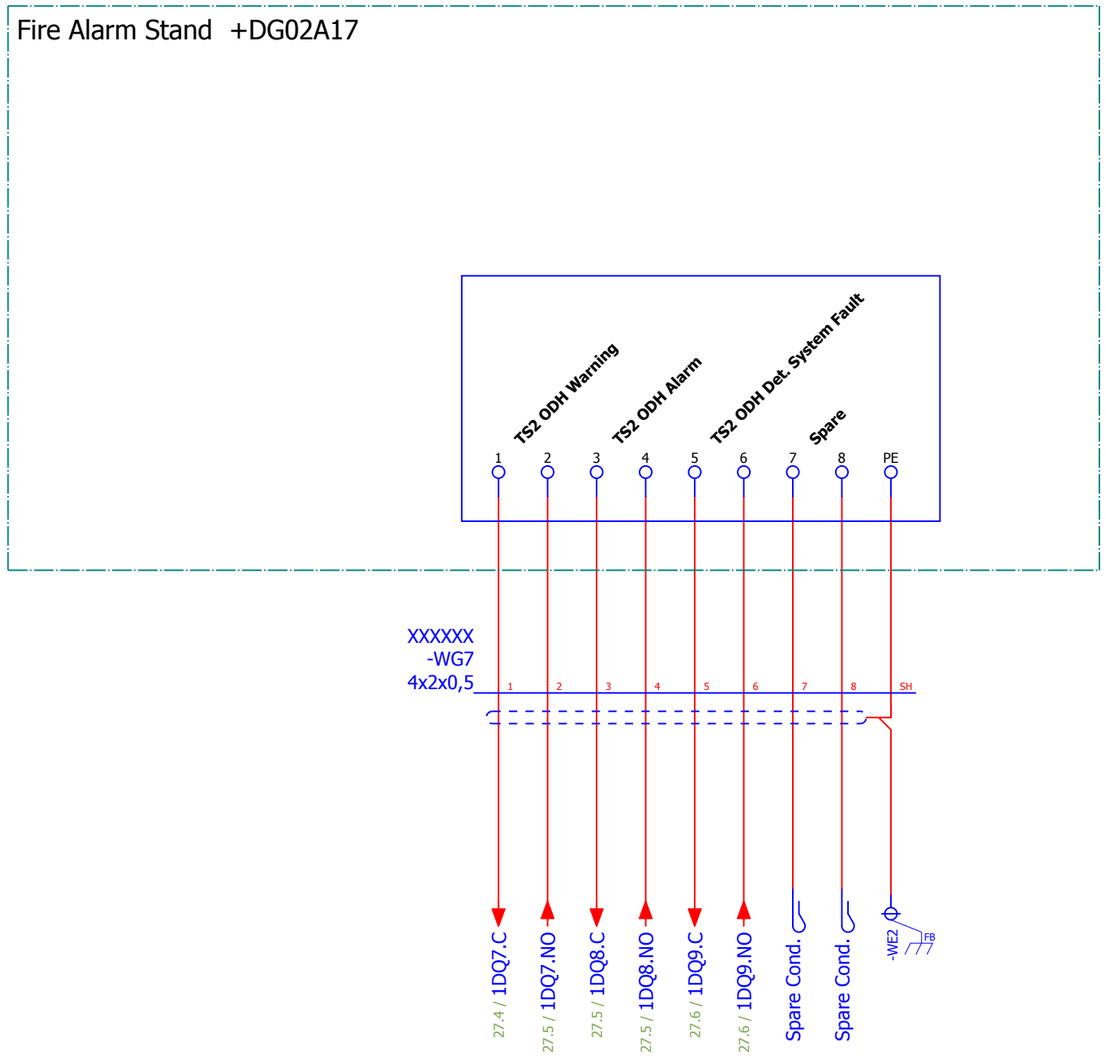
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS31	

Fire Alarm interface



REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
DESIGN SITE: ESS			CHESS Doc. NR: ESS-0508473	Document: &FS32	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U1-EA1	1	LED light	LED-700L	nVent	NVE.60118-542	
=ESS.ACC.A06.F02.K01.U1-EA1	1	Female Connector	LED-700L	nVent	NVE.60118-550	
=ESS.ACC.A06.F02.K01.U1-EA1	1	Male Connector	LED-700L	nVent	NVE.60118-552	
=ESS.ACC.A06.F02.K01.U1-EA2	1	LED light	LED-700L	nVent	NVE.60118-542	
=ESS.ACC.A06.F02.K01.U1-EA2	1	Female Connector	LED-700L	nVent	NVE.60118-550	
=ESS.ACC.A06.F02.K01.U1-FA1	1	SURGE ARR. D/T3/III 230V 1-PHASE	5SD7432-1	Siemens AG	SIE.5SD7432-1	
=ESS.ACC.A06.F02.K01.U1-FB1	1	DS201 B10 A10 - RCBO	DS201 B10 A10	ABB	ABB.2CSR255140R0105	
=ESS.ACC.A06.F02.K01.U1-FC1	1	Miniature Circuit Breaker - S200M - 2P - C - 1 A	S202M-C1	ABB	ABB.2CDS272001R0014	
=ESS.ACC.A06.F02.K01.U1-FC2	1	Miniature Circuit Breaker - S200M - 1P - C - 10 A	S201M-C10	ABB	ABB.2CDS271001R0104	
=ESS.ACC.A06.F02.K01.U1-FC3	1	SITOP PSE200U	6EP1961-2BA31	Siemens AG	SIE.6EP1961-2BA31	
=ESS.ACC.A06.F02.K01.U1-FC4	1	SITOP PSE200U	6EP1961-2BA31	Siemens AG	SIE.6EP1961-2BA31	
=ESS.ACC.A06.F02.K01.U1-FC5	1	Miniature Circuit Breaker - S200M - 1P - C - 4 A	S201M-C4	ABB	ABB.2CDS271001R0044	
=ESS.ACC.A06.F02.K01.U1-FC5	1	S2C-S/H6R - Signal / Auxiliary Contact	S2C-S/H6R	ABB	ABB.2CDS200922R0001	
=ESS.ACC.A06.F02.K01.U1-FC6	1	Miniature Circuit Breaker - S200M - 1P - C - 4 A	S201M-C4	ABB	ABB.2CDS271001R0044	
=ESS.ACC.A06.F02.K01.U1-FC6	1	S2C-S/H6R - Signal / Auxiliary Contact	S2C-S/H6R	ABB	ABB.2CDS200922R0001	
=ESS.ACC.A06.F02.K01.U1-FC7	1	Miniature Circuit Breaker - S200M - 1P - C - 4 A	S201M-C4	ABB	ABB.2CDS271001R0044	
=ESS.ACC.A06.F02.K01.U1-FC7	1	S2C-S/H6R - Signal / Auxiliary Contact	S2C-S/H6R	ABB	ABB.2CDS200922R0001	
=ESS.ACC.A06.F02.K01.U1-FC8	1	Miniature Circuit Breaker - S200M - 1P - C - 2 A	S201M-C2	ABB	ABB.2CDS271001R0024	
=ESS.ACC.A06.F02.K01.U1-FC8	1	S2C-S/H6R - Signal / Auxiliary Contact	S2C-S/H6R	ABB	ABB.2CDS200922R0001	
=ESS.ACC.A06.F02.K01.U1-FC9	1	Miniature Circuit Breaker - S200M - 1P - C - 1 A	S201M-C1	ABB	ABB.2CDS271001R0014	
=ESS.ACC.A06.F02.K01.U1-FC9	1	S2C-S/H6R - Signal / Auxiliary Contact	S2C-S/H6R	ABB	ABB.2CDS200922R0001	
=ESS.ACC.A06.F02.K01.U1-FC10	1	Miniature Circuit Breaker - S200M - 1P - C - 2 A	S201M-C2	ABB	ABB.2CDS271001R0024	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION 2	REVISION DATE 2019-04-05	CHANGE ORDER Full version	REASON FOR REVISION CHANGE Contains: PLC cabinet design + Field devices
REVISION 1	REVISION DATE 2019-02-07	CHANGE ORDER Preliminary version	REASON FOR REVISION CHANGE Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY SBH	DATE	FUNCTION PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PC1	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U1-FC10	1	S2C-S/H6R - Signal / Auxiliary Contact	S2C-S/H6R	ABB	ABB.2CDS200922R0001	
=ESS.ACC.A06.F02.K01.U1-GB1	1	SITOP UPS1100	6EP4135-0GB00-0AY0	Siemens AG	SIE.6EP4135-0GB00-0AY0	
=ESS.ACC.A06.F02.K01.U1-K1	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K2	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K3	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K4	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K5	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K6	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K7	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K8	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K9	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K10	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K11	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K12	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K13	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K14	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K15	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K16	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K17	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K18	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K19	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K20	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY SBH	DATE	FUNCTION PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PC2	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U1-K21	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K22	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K23	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K24	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K25	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K26	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K27	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K28	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K29	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K30	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K31	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K32	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K33	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K34	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K35	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K36	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K37	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K38	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K39	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K40	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K41	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K42	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	

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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY SBH	DATE	FUNCTION PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PC3	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U1-K43	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K44	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K45	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K46	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K47	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-K48	1	Plug-in relay complete unit 3 W, 24 V DC	LZS:PT3A5L24	Siemens AG	SIE.LZS:PT3A5L24	
=ESS.ACC.A06.F02.K01.U1-KF1	1	CPU 1515F-2 PN, 750KB PROG.,3MB DATA	6ES7515-2FM01-0AB0	Siemens AG	SIE.6ES7515-2FM01-0AB0	
=ESS.ACC.A06.F02.K01.U1-KF1	1	MOUNTING RAIL 482MM (19")	6ES7590-1AE80-0AA0	Siemens AG	SIE.6ES7590-1AE80-0AA0	
=ESS.ACC.A06.F02.K01.U1-KF1	1	SIMATIC S7 MEMORY CARD, 12 MB	6ES7954-8LE03-0AA0	Siemens AG	SIE.6ES7954-8LE03-0AA0	
=ESS.ACC.A06.F02.K01.U1-KF2	1	COMMUNICATION PROCESSOR CP 1543-1	6GK7543-1AX00-0XE0	Siemens AG	SIE.6GK7543-1AX00-0XE0	
=ESS.ACC.A06.F02.K01.U1-KF3	1	ET 200SP, IM155-6PN HF	6ES7155-6AU00-0CN0	Siemens AG	SIE.6ES7155-6AU00-0CN0	
=ESS.ACC.A06.F02.K01.U1-KF3	1	BA 2XRJ45	6ES7193-6AR00-0AA0	Siemens AG	SIE.6ES7193-6AR00-0AA0	
=ESS.ACC.A06.F02.K01.U1-KF4	1	CPU 1511-1PN, 150KB PROGRAM, 1MB DATA	6ES7511-1AK02-0AB0	Siemens AG	SIE.6ES7511-1AK02-0AB0	
=ESS.ACC.A06.F02.K01.U1-KF5	1	COMMUNICATIONS MODULE CM 1542-1	6GK7542-1AX00-0XE0	Siemens AG	SIE.6GK7542-1AX00-0XE0	
=ESS.ACC.A06.F02.K01.U1-KF6	1	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0	Siemens AG	SIE.6ES7136-6BA00-0CA0	
=ESS.ACC.A06.F02.K01.U1-KF6	1	BASEUNIT TYPE A0, BU15-P16+A0+2D	6ES7193-6BP00-0DA0	Siemens AG	SIE.6ES7193-6BP00-0DA0	
=ESS.ACC.A06.F02.K01.U1-KF7	1	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0	Siemens AG	SIE.6ES7136-6BA00-0CA0	
=ESS.ACC.A06.F02.K01.U1-KF7	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF8	1	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0	Siemens AG	SIE.6ES7136-6BA00-0CA0	
=ESS.ACC.A06.F02.K01.U1-KF8	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF9	1	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0	Siemens AG	SIE.6ES7136-6BA00-0CA0	
=ESS.ACC.A06.F02.K01.U1-KF9	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION 2	REVISION DATE 2019-04-05	CHANGE ORDER Full version	REASON FOR REVISION CHANGE Contains: PLC cabinet design + Field devices
REVISION 1	REVISION DATE 2019-02-07	CHANGE ORDER Preliminary version	REASON FOR REVISION CHANGE Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY SBH	DATE	FUNCTION PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PC4	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U1-KF10	1	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0	Siemens AG	SIE.6ES7136-6BA00-0CA0	
=ESS.ACC.A06.F02.K01.U1-KF10	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF11	1	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0	Siemens AG	SIE.6ES7136-6BA00-0CA0	
=ESS.ACC.A06.F02.K01.U1-KF11	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF12	1	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0	Siemens AG	SIE.6ES7136-6BA00-0CA0	
=ESS.ACC.A06.F02.K01.U1-KF12	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF13	1	ET 200SP, EL-MOD., F-DI 8X24VDC HF	6ES7136-6BA00-0CA0	Siemens AG	SIE.6ES7136-6BA00-0CA0	
=ESS.ACC.A06.F02.K01.U1-KF13	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF14	1	DI 16X24V DC ST	6ES7131-6BH00-0BA0	Siemens AG	SIE.6ES7131-6BH00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF14	1	BASEUNIT TYPE A0, BU15-P16+A0+2D	6ES7193-6BP00-0DA0	Siemens AG	SIE.6ES7193-6BP00-0DA0	
=ESS.ACC.A06.F02.K01.U1-KF15	1	ET 200SP, DI 16X24VDC ST	6ES7131-6BH01-0BA0	Siemens AG	SIE.6ES7131-6BH01-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF15	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF16	1	ET 200SP, DI 16X24VDC ST	6ES7131-6BH01-0BA0	Siemens AG	SIE.6ES7131-6BH01-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF16	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF17	1	ET 200SP, AI 4XU/I 2-WIRE ST	6ES7134-6HD00-0BA1	Siemens AG	SIE.6ES7134-6HD00-0BA1	
=ESS.ACC.A06.F02.K01.U1-KF17	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF18	1	ET 200SP, EL-MOD., F-DQ 4XDC 24V/2A	6ES7136-6DB00-0CA0	Siemens AG	SIE.6ES7136-6DB00-0CA0	
=ESS.ACC.A06.F02.K01.U1-KF18	1	BASEUNIT TYPE A0, BU15-P16+A0+2D	6ES7193-6BP00-0DA0	Siemens AG	SIE.6ES7193-6BP00-0DA0	
=ESS.ACC.A06.F02.K01.U1-KF19	1	ET 200SP, EL-MOD., F-DQ 4XDC 24V/2A	6ES7136-6DB00-0CA0	Siemens AG	SIE.6ES7136-6DB00-0CA0	
=ESS.ACC.A06.F02.K01.U1-KF19	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF20	1	ET 200SP, EL-MOD., F-DQ 4XDC 24V/2A	6ES7136-6DB00-0CA0	Siemens AG	SIE.6ES7136-6DB00-0CA0	
=ESS.ACC.A06.F02.K01.U1-KF20	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary / Rev: 2 / Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473 / Document: &PC5

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U1-KF21	1	DQ 16X24V DC / 0,5A ST	6ES7132-6BH00-0BA0	Siemens AG	SIE.6ES7132-6BH00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF21	1	BASEUNIT TYPE A0, BU15-P16+A0+2D	6ES7193-6BP00-0DA0	Siemens AG	SIE.6ES7193-6BP00-0DA0	
=ESS.ACC.A06.F02.K01.U1-KF22	1	DQ 16X24V DC / 0,5A ST	6ES7132-6BH00-0BA0	Siemens AG	SIE.6ES7132-6BH00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF22	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF23	1	DQ 16X24V DC / 0,5A ST	6ES7132-6BH00-0BA0	Siemens AG	SIE.6ES7132-6BH00-0BA0	
=ESS.ACC.A06.F02.K01.U1-KF23	1	BASEUNIT TYPE A0, BU15-P16+A0+2B	6ES7193-6BP00-0BA0	Siemens AG	SIE.6ES7193-6BP00-0BA0	
=ESS.ACC.A06.F02.K01.U1-PH1	1	TP1500 COMFORT	6AV2124-0QC02-0AX0	Siemens AG	SIE.6AV2124-0QC02-0AX0	
=ESS.ACC.A06.F02.K01.U1-QB1	1	OT25F3 switch-disconnector	OT25F3	ABB	ABB.1SCA104857R1001	
=ESS.ACC.A06.F02.K01.U1-QB2	1	OT25F3 switch-disconnector	OT25F3	ABB	ABB.1SCA104857R1001	
=ESS.ACC.A06.F02.K01.U1-RB1	1	SITOP UPS1600	6EP4134-3AB00-2AY0	Siemens AG	SIE.6EP4134-3AB00-2AY0	
=ESS.ACC.A06.F02.K01.U1-TA1	1	SITOP PSU100S	6EP1334-2BA20	Siemens AG	SIE.6EP1334-2BA20	
=ESS.ACC.A06.F02.K01.U1-UH01	1	Rack-LR Aisle, EMC Cabinet Orange RAL2000	12937-090	nVent	NVE.12937-090	
=ESS.ACC.A06.F02.K01.U1-X1	2	Feed-through terminal block	PT 4	Phoenix Contact	PXC.3211757	
=ESS.ACC.A06.F02.K01.U1-X1	1	Plug-in bridge	FBS 2-6	Phoenix Contact	PXC.3030336	
=ESS.ACC.A06.F02.K01.U1-X1	2	Feed-through terminal block	PT 4 BU	Phoenix Contact	PXC.3211760	
=ESS.ACC.A06.F02.K01.U1-X1	1	Ground modular terminal block	PT 4-PE	Phoenix Contact	PXC.3211766	
=ESS.ACC.A06.F02.K01.U1-X2	6	Feed-through terminal block	PT 4	Phoenix Contact	PXC.3211757	
=ESS.ACC.A06.F02.K01.U1-X2	1	Plug-in bridge	FBS 2-6	Phoenix Contact	PXC.3030336	
=ESS.ACC.A06.F02.K01.U1-X3	6	Feed-through terminal block	PT 4	Phoenix Contact	PXC.3211757	
=ESS.ACC.A06.F02.K01.U1-X3	1	Plug-in bridge	FBS 2-6	Phoenix Contact	PXC.3030336	
=ESS.ACC.A06.F02.K01.U1-X4	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X4	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION 2	REVISION DATE 2019-04-05	CHANGE ORDER Full version	REASON FOR REVISION CHANGE Contains: PLC cabinet design + Field devices
REVISION 1	REVISION DATE 2019-02-07	CHANGE ORDER Preliminary version	REASON FOR REVISION CHANGE Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY SBH	DATE	FUNCTION PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PC6	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U1-X4	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X5	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X5	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U1-X5	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X6	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X6	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U1-X6	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X7	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X7	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U1-X7	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X8	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X8	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U1-X8	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X9	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X9	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U1-X9	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X10	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X10	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U1-X10	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X11	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X11	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U1-X11	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION 2	REVISION DATE 2019-04-05	CHANGE ORDER Full version	REASON FOR REVISION CHANGE Contains: PLC cabinet design + Field devices
REVISION 1	REVISION DATE 2019-02-07	CHANGE ORDER Preliminary version	REASON FOR REVISION CHANGE Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY SBH	DATE	FUNCTION PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PC7	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U1-X12	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X12	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X12	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U1-X13	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X13	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X13	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U1-X14	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X14	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X15	16	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X15	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X15	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U1-X16	8	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X16	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X17	8	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X17	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X18	8	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X18	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X19	32	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X19	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U1-X19	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X20	32	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X20	2	Plug-in bridge	FBS 20-5	Phoenix Contact	PXC.3030226	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY SBH	DATE	FUNCTION PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PC8	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U1-X20	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-X21	32	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U1-X21	2	Plug-in bridge	FBS 20-5	Phoenix Contact	PXC.3030226	
=ESS.ACC.A06.F02.K01.U1-X21	2	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U1-XF1	1	SCALANCE XC206-2SFP	6GK5206-2BS00-2AC2	Siemens AG	SIE.6GK5206-2BS00-2AC2	
=ESS.ACC.A06.F02.K01.U1-XG1	1	SCHUKO SOCKET for mounting on support rails	SIE.5TE6800	Siemens AG	SIE.5TE6800	
=ESS.ACC.A06.F02.K01.U1-XG2	1	SCHUKO SOCKET for mounting on support rails	SIE.5TE6800	Siemens AG	SIE.5TE6800	
=ESS.ACC.A06.F02.K01.U1-XG3	1	Distribution Block	PTFIX 6/18X2,5 BU	Phoenix Contact	PXC.3273376	
=ESS.ACC.A06.F02.K01.U1-XG4	1	Distribution Block	PTFIX 6/18X2,5 BU	Phoenix Contact	PXC.3273376	
=ESS.ACC.A06.F02.K01.U1-XG5	1	Distribution Block	PTFIX 6/18X2,5 BU	Phoenix Contact	PXC.3273376	
=ESS.ACC.A06.F02.K01.U1-XG6	1	Distribution block	PTFIX 6/18X2,5 WH	Phoenix Contact	PXC.3273386	
=ESS.ACC.A06.F02.K01.U1-XG7	1	Distribution block	PTFIX 6/18X2,5 WH	Phoenix Contact	PXC.3273386	
=ESS.ACC.A06.F02.K01.U1-XG8	1	Distribution block	PTFIX 6/18X2,5 WH	Phoenix Contact	PXC.3273386	
=ESS.ACC.A06.F02.K01.U1-X_PSS_Ready	2	Cable range 3-6,5 mm	RT0L-10CG-S1	Amphenol	AMP.RT0L-10CG-S1	
=ESS.ACC.A06.F02.K01.U1-X_PSS_Ready	2	Plug	RT06104PNH	Amphenol	AMP.RT06104PNH	
=ESS.ACC.A06.F02.K01.U1-X_PSS_Ready	2	Pin (Male)	MP20M23F	Amphenol	AMP.MP20M23F	
=ESS.ACC.A06.F02.K01.U1-X_Shutter	2	Cable range 3-6,5 mm	RT0L-10CG-S1	Amphenol	AMP.RT0L-10CG-S1	
=ESS.ACC.A06.F02.K01.U1-X_Shutter	2	Plug	RT06104PNH	Amphenol	AMP.RT06104PNH	
=ESS.ACC.A06.F02.K01.U1-X_Shutter	2	Pin (Male)	MP20M23F	Amphenol	AMP.MP20M23F	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION 2	REVISION DATE 2019-04-05	CHANGE ORDER Full version	REASON FOR REVISION CHANGE Contains: PLC cabinet design + Field devices
REVISION 1	REVISION DATE 2019-02-07	CHANGE ORDER Preliminary version	REASON FOR REVISION CHANGE Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY SBH	DATE	FUNCTION PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PC9	

Cable name =ESS.ACC.A06.F02.K01.U1-WG1
Database name 11B034465
Cable type UNI® LiHCH 4x0,34 mm²

=ESS.ACC.A06.F02.K01.U1-WG1

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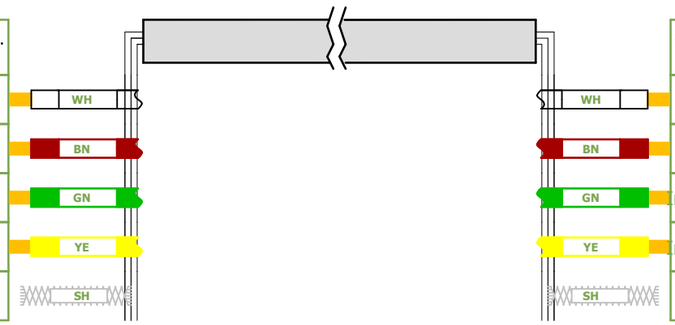
=ESS.ACC.A06.F02.K01.U1&FS/22.4	=ESS.ACC.A06.F02.K01.U1-X14	8:b	B	=ESS.ACC.A06.F02.K01.U1-X_Shutter	=ESS.ACC.A06.F02.K01.U1&FS/30.1
=ESS.ACC.A06.F02.K01.U1&FS/30.1	=ESS.ACC.A06.F02.K01.U1-Spare Cond	Insulat.	C	=ESS.ACC.A06.F02.K01.U1-X_Shutter	=ESS.ACC.A06.F02.K01.U1&FS/30.1
=ESS.ACC.A06.F02.K01.U1&FS/30.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond	Insulat.	D	=ESS.ACC.A06.F02.K01.U1-X_Shutter	=ESS.ACC.A06.F02.K01.U1&FS/30.2
30.2		FB	-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/30.2

Cable name =ESS.ACC.A06.F02.K01.U1-WG2
Database name 11B034466
Cable type UNI® LiHCH 4x0,34 mm²

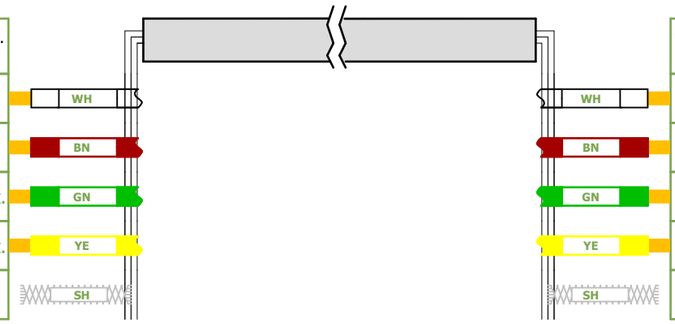
=ESS.ACC.A06.F02.K01.U1-WG2



Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/30.3	=ESS.ACC.A06.F02.K01.U1-X_PSS_Ready	A	11:b	=ESS.ACC.A06.F02.K01.U1-X19	=ESS.ACC.A06.F02.K01.U1&FS/27.3
=ESS.ACC.A06.F02.K01.U1&FS/30.3	=ESS.ACC.A06.F02.K01.U1-X_PSS_Ready	B	12:b	=ESS.ACC.A06.F02.K01.U1-X19	=ESS.ACC.A06.F02.K01.U1&FS/27.4
=ESS.ACC.A06.F02.K01.U1&FS/30.3	=ESS.ACC.A06.F02.K01.U1-X_PSS_Ready	C	Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond	=ESS.ACC.A06.F02.K01.U1&FS/30.3
=ESS.ACC.A06.F02.K01.U1&FS/30.4	=ESS.ACC.A06.F02.K01.U1-X_PSS_Ready	D	Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond	=ESS.ACC.A06.F02.K01.U1&FS/30.4
30.4		FB	-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/30.4

Cable name =ESS.ACC.A06.F02.K01.U1-WG3
Database name 11B034467
Cable type UNI® LiHCH 4x0,34 mm²

=ESS.ACC.A06.F02.K01.U1-WG3



Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
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=ESS.ACC.A06.F02.K01.U1&FS/22.5	=ESS.ACC.A06.F02.K01.U1-X14	9:b	B	=ESS.ACC.A06.F02.K01.U1-X_Shutter	=ESS.ACC.A06.F02.K01.U1&FS/30.6
=ESS.ACC.A06.F02.K01.U1&FS/30.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond	Insulat.	C	=ESS.ACC.A06.F02.K01.U1-X_Shutter	=ESS.ACC.A06.F02.K01.U1&FS/30.6
=ESS.ACC.A06.F02.K01.U1&FS/30.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond	Insulat.	D	=ESS.ACC.A06.F02.K01.U1-X_Shutter	=ESS.ACC.A06.F02.K01.U1&FS/30.6
30.7		FB	-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/30.7

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB1	

0	1	2	3	4	5	6	7	8	9

Cable name =ESS.ACC.A06.F02.K01.U1-WG4
Database name 11B034468
Cable type UNI® LiHCH 4x0,34 mm²

=ESS.ACC.A06.F02.K01.U1-WG4

Page / column	Source designation from	Connect. point
=ESS.ACC.A06.F02.K01.U1&FS/30.8	=ESS.ACC.A06.F02.K01.U1-X_PSS_Ready	A
=ESS.ACC.A06.F02.K01.U1&FS/30.8	=ESS.ACC.A06.F02.K01.U1-X_PSS_Ready	B
=ESS.ACC.A06.F02.K01.U1&FS/30.8	=ESS.ACC.A06.F02.K01.U1-X_PSS_Ready	C
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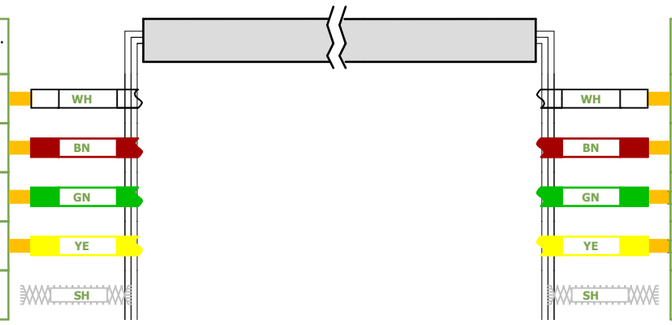
30.9		FB



Connect. point	Target designation from	Page / column
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14:b	=ESS.ACC.A06.F02.K01.U1-X19	=ESS.ACC.A06.F02.K01.U1&FS/27.4
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond	=ESS.ACC.A06.F02.K01.U1&FS/30.8
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond	=ESS.ACC.A06.F02.K01.U1&FS/30.8
-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/30.9

Cable name =ESS.ACC.A06.F02.K01.U1-WG5
Database name 11B034323
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.K01.U1-WG5

Page / column	Source designation from	Connect. point
31.2		1
31.2		2
31.2		3
31.2		4
31.2		5
31.2		6
31.3		7
31.3		8
31.3		FB

Connect. point	Target designation from	Page / column
3:b	=ESS.ACC.A06.F02.K01.U1-X10	=ESS.ACC.A06.F02.K01.U1&FS/18.2
4:b	=ESS.ACC.A06.F02.K01.U1-X10	=ESS.ACC.A06.F02.K01.U1&FS/18.2
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/31.2
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/31.2
5:b	=ESS.ACC.A06.F02.K01.U1-X10	=ESS.ACC.A06.F02.K01.U1&FS/18.3
6:b	=ESS.ACC.A06.F02.K01.U1-X10	=ESS.ACC.A06.F02.K01.U1&FS/18.3
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/31.3
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/31.3
-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/31.3

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

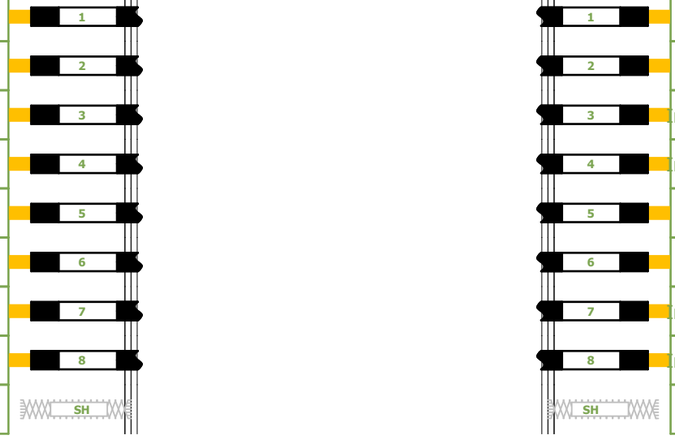
EUROPEAN SPALLATION SOURCE
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary / Rev: 2 / Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473 / Document: &MB2

Cable name =ESS.ACC.A06.F02.K01.U1-WG6
Database name 11B034322
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.K01.U1-WG6

Page / column	Source designation from	Connect. point
31.5		1
31.5		2
31.6		3
31.6		4
31.6		5
31.6		6
31.6		7
31.6		8
31.7		FB



Connect. point	Target designation from	Page / column
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8:b	=ESS.ACC.A06.F02.K01.U1-X10	=ESS.ACC.A06.F02.K01.U1&FS/18.4
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/31.6
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/31.6
9:b	=ESS.ACC.A06.F02.K01.U1-X10	=ESS.ACC.A06.F02.K01.U1&FS/18.5
10:b	=ESS.ACC.A06.F02.K01.U1-X10	=ESS.ACC.A06.F02.K01.U1&FS/18.6
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/31.6
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/31.6
-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/31.7

Cable name =ESS.ACC.A06.F02.K01.U1-WG7
Database name XXXXXX
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.K01.U1-WG7

Page / column	Source designation from	Connect. point
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=ESS.ACC.A06.F02.K01.U1&FS/27.5	=ESS.ACC.A06.F02.K01.U1-X19	16:b
=ESS.ACC.A06.F02.K01.U1&FS/27.5	=ESS.ACC.A06.F02.K01.U1-X19	17:b
=ESS.ACC.A06.F02.K01.U1&FS/27.5	=ESS.ACC.A06.F02.K01.U1-X19	18:b
=ESS.ACC.A06.F02.K01.U1&FS/27.6	=ESS.ACC.A06.F02.K01.U1-X19	19:b
=ESS.ACC.A06.F02.K01.U1&FS/27.6	=ESS.ACC.A06.F02.K01.U1-X19	20:b
=ESS.ACC.A06.F02.K01.U1&FS/32.5	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/32.5	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
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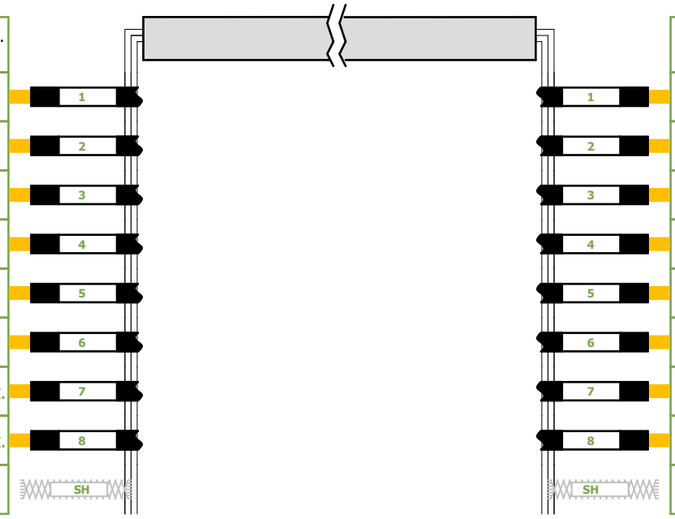

Connect. point	Target designation from	Page / column
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3		32.4
4		32.4
5		32.4
6		32.5
7		32.5
8		32.5
PE		32.5

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.K01.U1		
APPROVED BY: SBH	DATE:	FUNCTION: PLC cabinet TS2-010Row:CnPw-U-012	Physical location (LBS): +ESS.G02.100.1001.102.104.012		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB3	

EUROPEAN
SPALLATION
SOURCE

Description: Key Exchange cabinet

Functional Location (FBS): =ESS.ACC.A06.F02.K01.U2

Physical Location (LBS): +ESS.G02.100.1001.102.104.11

ESS Name: TS2-010Row:CnPw-U-011

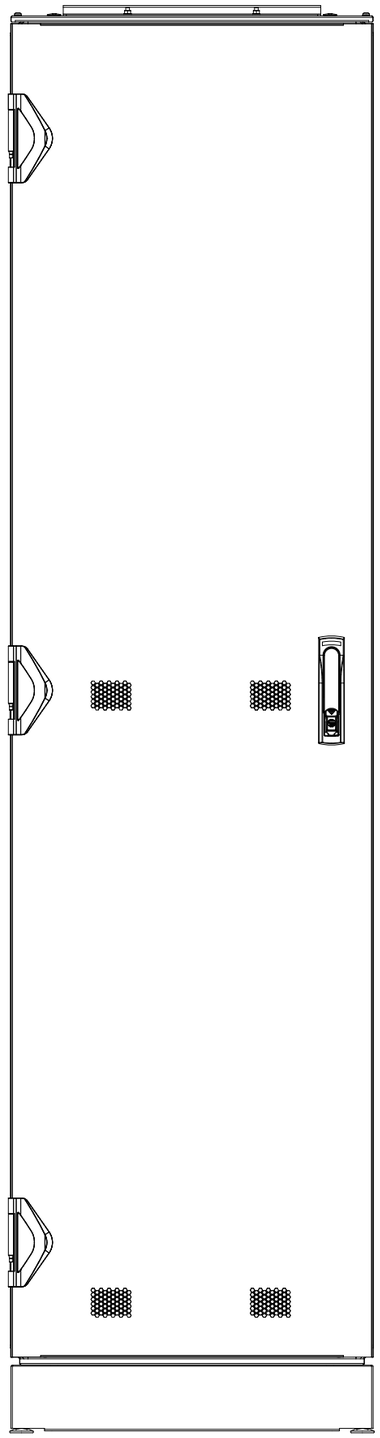
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

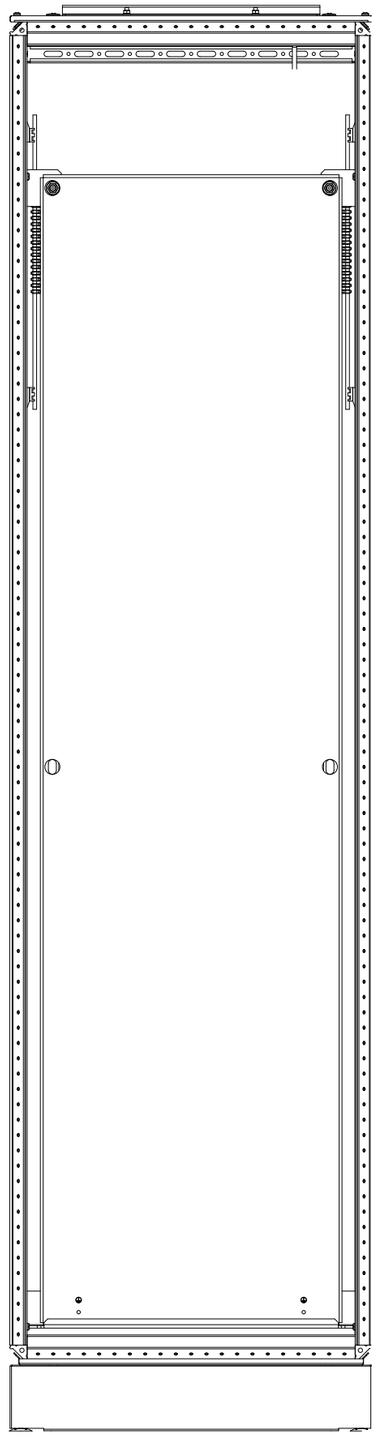
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Graphic	Functional location (FBS): =ESS.ACC.A06.F02.K01.U2		
APPROVED BY: SBH	DATE:	FUNCTION: Key Exchange cabinet TS2-010Row:CnPw-U-011	Physical location (LBS): +ESS.G02.100.1001.102.104.011		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &AA1	

FRONT DOOR



FRONT VIEW



-PSS EMC Cabinet painted in Orange RAL2000.

The cabinet has a front door made of steel.
Front door is perforated in the bottom half and has a dust filter.
Rear door is made of steel with no perforation.
Front door have hinges in the right side.
Rear door have hinges in the left side.

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

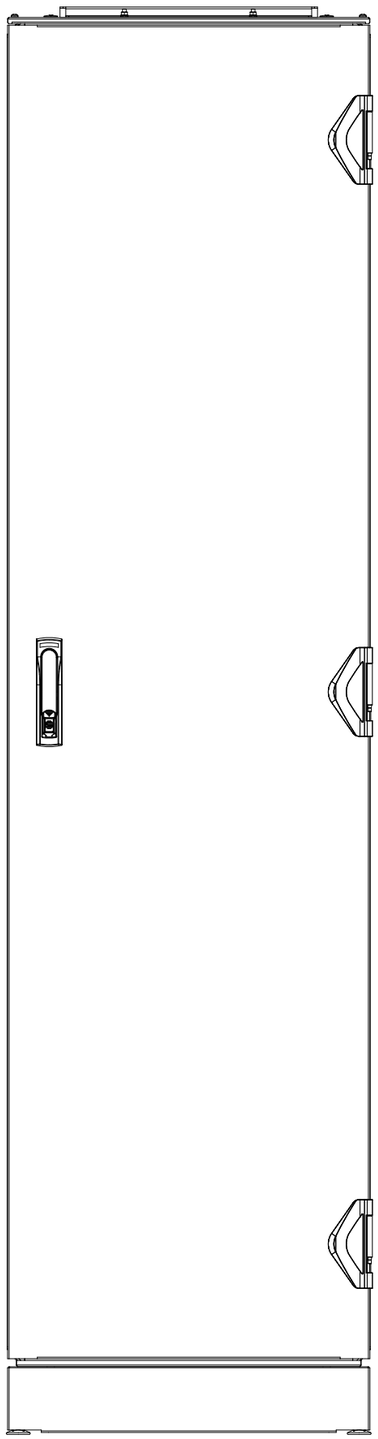
EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

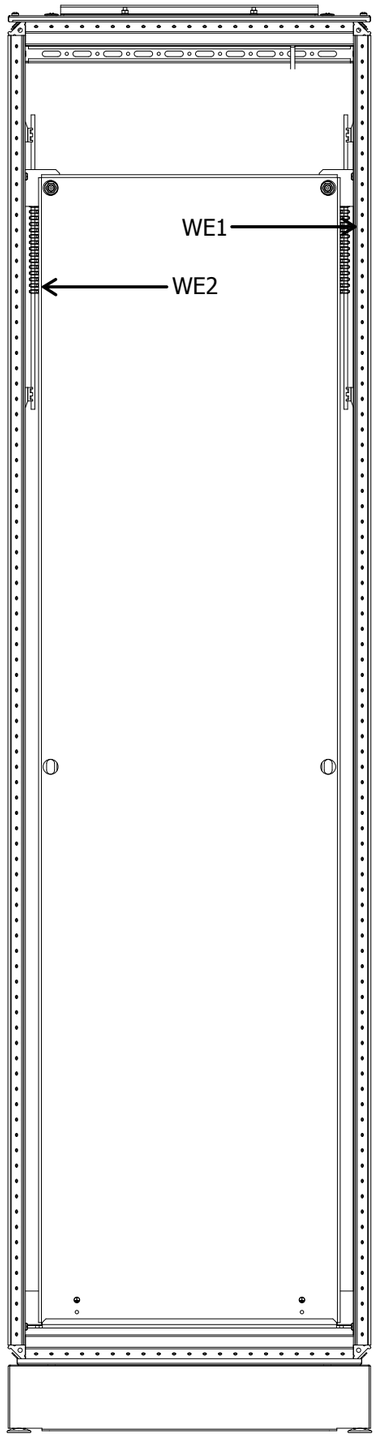
ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Panel layout	Functional location (FBS): =ESS.ACC.A06.F02.K01.U2		
APPROVED BY: SBH	DATE:	FUNCTION: Key Exchange cabinet TS2-010Row:CnPw-U-011	Physical location (LBS): +ESS.G02.100.1001.102.104.011		
	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &LU1	

REAR DOOR



REAR VIEW



- PSS EMC Cabinet painted in Orange RAL2000.

  The cabinet has a front door made of steel.
  Front door is perforated in the bottom half and has a dust filter.
  Rear door is made of steel with no perforation.
  Front door have hinges in the right side.
  Rear door have hinges in the left side.

- WE1
  Protective Earth Bonding Busbar.

- WE2
  Functional Earth Bonding Busbar.

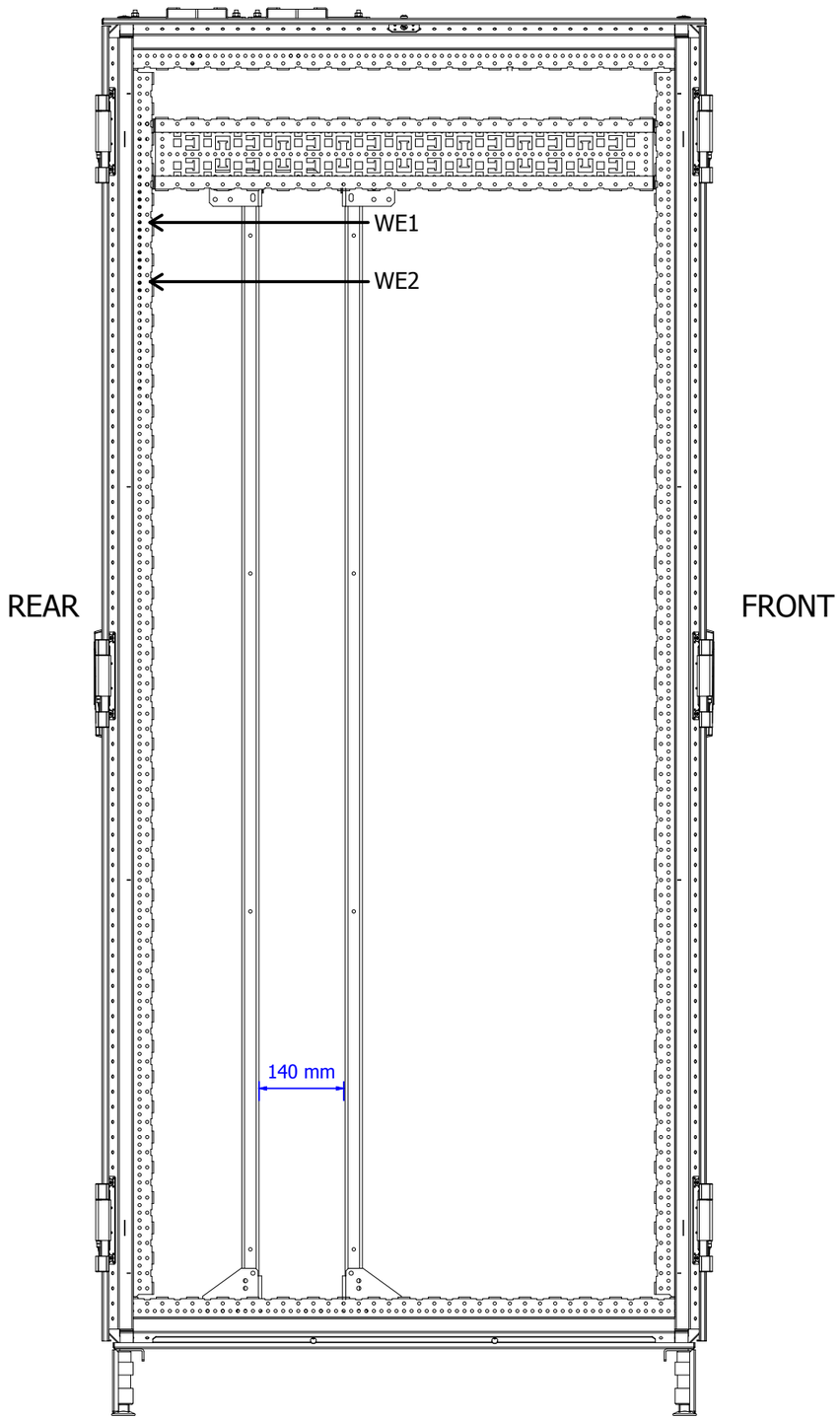
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Panel layout	Functional location (FBS): =ESS.ACC.A06.F02.K01.U2		
APPROVED BY: SBH	DATE:	FUNCTION: Key Exchange cabinet TS2-010Row:CnPw-U-011	Physical location (LBS): +ESS.G02.100.1001.102.104.011		
ePLAN electric8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &LU2	

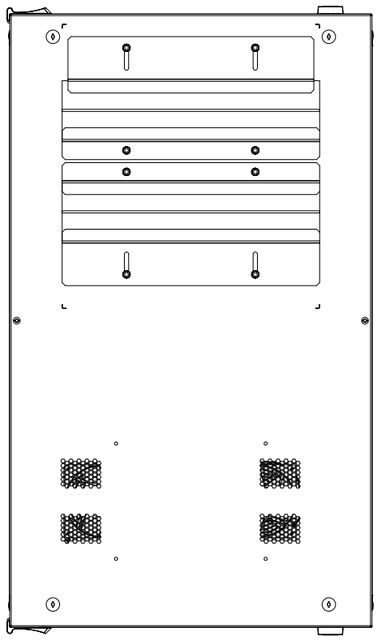
SIDE VIEW



REAR

FRONT

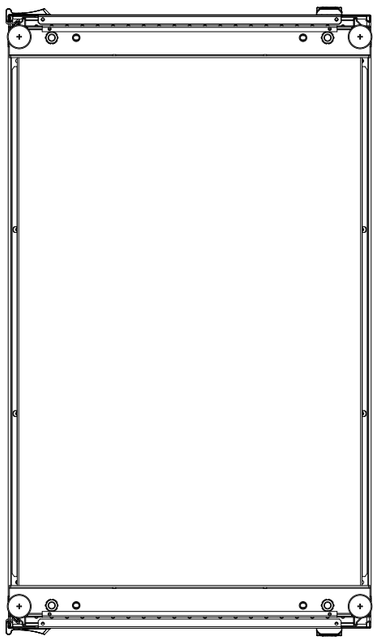
REAR



TOP PANEL

FRONT

FRONT



BOTTOM PANEL

REAR

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

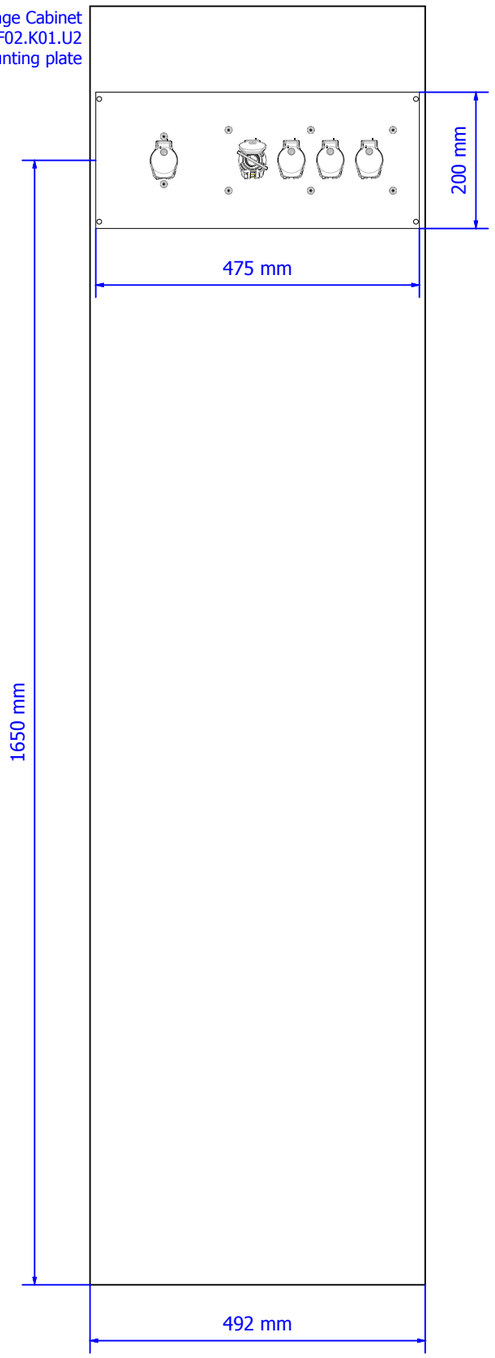
EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Panel layout	Functional location (FBS): =ESS.ACC.A06.F02.K01.U2		
APPROVED BY: SBH	DATE:	FUNCTION: Key Exchange cabinet TS2-010Row:CnPw-U-011	Physical location (LBS): +ESS.G02.100.1001.102.104.011		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &LU3	

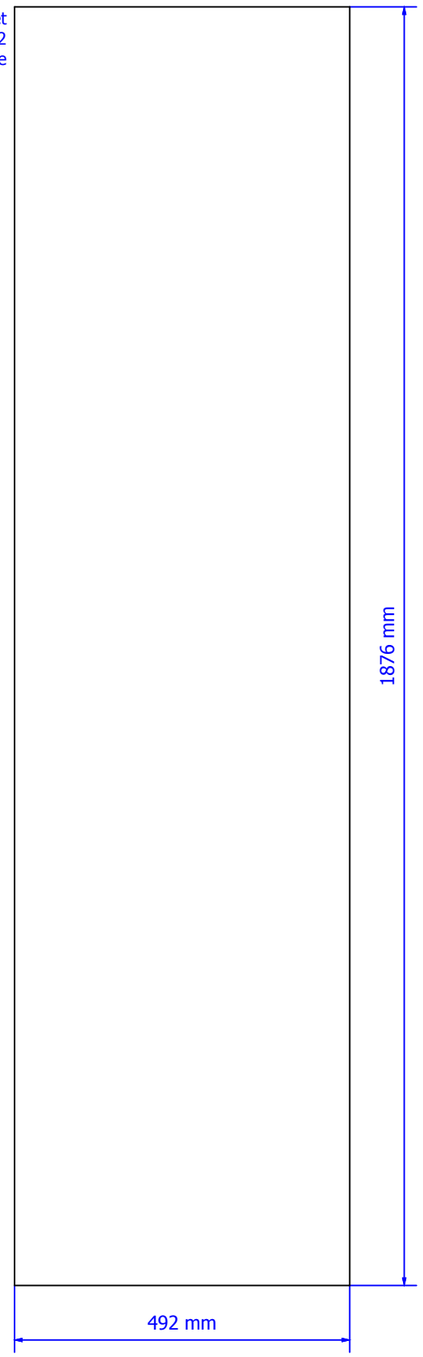
FRONT MOUNTING PLATE

-Key Exchange Cabinet
ACC.A06.F02.K01.U2
Front mounting plate



REAR MOUNTING PLATE

-Key Exchange Cabinet
ACC.A06.F02.K01.U2
Rear mounting plate



REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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EUROPEAN SPALLATION SOURCE

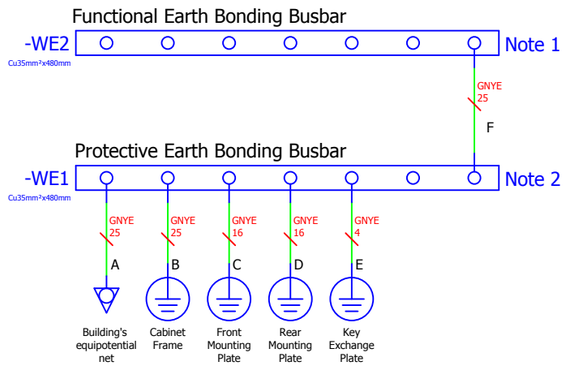
Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Panel layout	Functional location (FBS): =ESS.ACC.A06.F02.K01.U2		
APPROVED BY: SBH	DATE:	FUNCTION: Key Exchange cabinet TS2-010Row:CnPw-U-011	Physical location (LBS): +ESS.G02.100.1001.102.104.011		
	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &LU4	

Cabinet equipotential earth overview

EARTHING BUSBARS CONNECTION LAYOUT



A: connection to the main equipotential Protective Bonding in the actual building.
25mm² Multi-Stranded CU Conductor shall be used.

B: connection to Cabinet Frame.
25mm² Multi-Stranded CU Conductor shall be used.

C: connection to the front Mounting Plate.
16mm² Multi-Stranded CU Conductor shall be used.

D: connection to the rear Mounting Plate.
16mm² Multi-Stranded CU Conductor shall be used.

E: connection to the Key Exchange Plate.
16mm² Multi-Stranded CU Conductor shall be used.

F: connection between Protective Earth Busbar and Functional Earth Busbar.
25mm² Multi-Stranded CU Conductor shall be used.

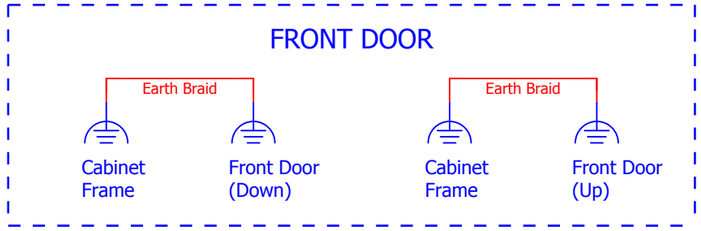
Note 1:
Earth bonding busbar. It is a copper rail with a length of 480mm and a cross section diameter of 35mm², nVent part number 60118144.
WE2- Functional Earth Bonding Busbar (FB) is placed in vertical to the right-side seen from the rear view.

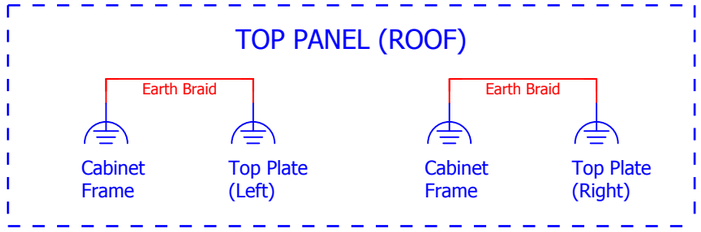
Note 2:
Earth bonding busbar. It is a copper rail with a length of 480mm and a cross section diameter of 35mm², nVent part number 60118144.
WE1- Protective Earth Bonding Busbar (PE) is placed in vertical to the left-side seen from the rear view.

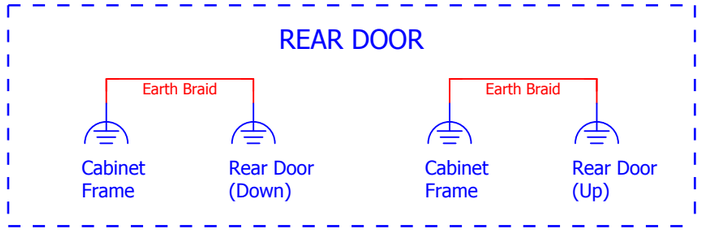
EARTHING BRAIDS CONNECTION LAYOUT

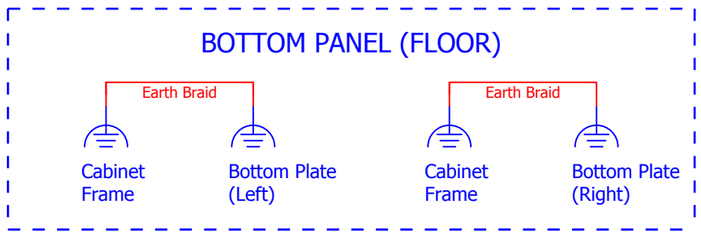
Flexible tin-coated copper EMC braids are connected from the frame to various other parts of the cabinet.

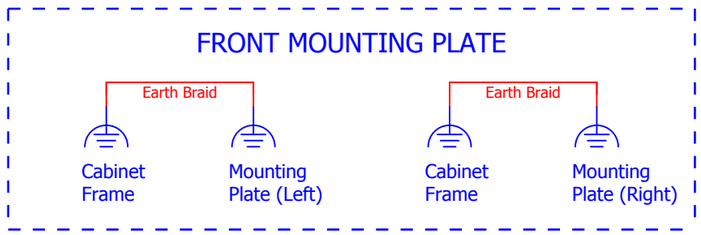
The EMC braids have a length of 350mm and a cross section diameter of 25mm², the nVent part number is 60130912

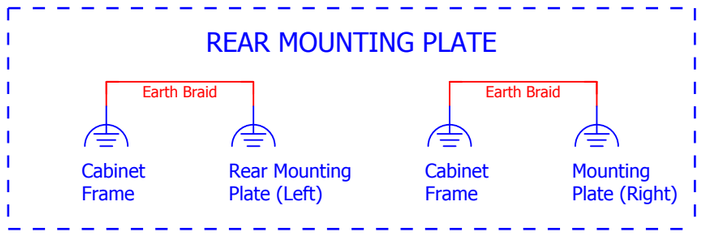












REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U2		
APPROVED BY: SBH	DATE:	FUNCTION: Key Exchange cabinet TS2-010Row:CnPw-U-011	Physical location (LBS): +ESS.G02.100.1001.102.104.011		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS1	

Key Exchange unit

Modulator interface
contactor cabinet
=ESS.ACC.A06.F02.K01.U4
KG-GTA:PSS-ICC-2

WG1.1 / =.ACC.A06.F02.K01.U4/1.1
WG1.2 / =.ACC.A06.F02.K01.U4/1.1
WG1.3 / =.ACC.A06.F02.K01.U4/1.1
WG1.4 / =.ACC.A06.F02.K01.U4/1.2

Spare Cond.
Spare Cond.

-FQ1
Key
Ex.
Unit

S Unit
Main key

Lock 1
Main key
(primary/control)

Lock 2
PAD key

Lock 3
MAD key

Lock 4
Spare key

11B034469
-WG1
4x2x0,5

11B034471
-WG2
2x2x0,5

11B034472
-WG3
2x2x0,5

11B034473
-WG4
2x2x0,5

11B034474
-WG5
2x2x0,5

-WE2
FB
SH

=.ACC.A06.F02.K01.U1/16.6 / 5FVS5
=.ACC.A06.F02.K01.U1/16.7 / 5FDI5
=.ACC.A06.F02.K01.U1/16.7 / 5FVS6
=.ACC.A06.F02.K01.U1/16.8 / 5FDI6
=.ACC.A06.F02.K01.U1/24.8 / 1FDQM3
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Spare Cond.
Spare Cond.

=.ACC.A06.F02.K01.U1/16.8 / 5FVS7
=.ACC.A06.F02.K01.U1/16.9 / 5FDI7
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PLC cabinet
=ESS.ACC.A06.F02.K01.U1
TS2-010Row:CnPw-U-012

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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U2		
APPROVED BY: SBH	DATE:	FUNCTION: Key Exchange cabinet TS2-010Row:CnPw-U-011	Physical location (LBS): +ESS.G02.100.1001.102.104.011		
DESIGN SITE: ESS	ePLAN electric P8 V2.7		CHESS Doc. NR: ESS-0508473	Document: &FS2	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U2-FQ1	1	S-CLIS-A02022 & ODL3-CLIS-X006	T3606	Fortress Interlock	FOR.T3606	
=ESS.ACC.A06.F02.K01.U2-UH01	1	Rack-LR Aisle, EMC Cabinet Orange RAL2000	12937-090	nVent	NVE.12937-090	

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ISO 16016

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary
CHECKED BY MMI	DATE	PAGE TYPE Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U2
APPROVED BY SBH	DATE	FUNCTION Key Exchange cabinet TS2-010Row:CnPw-U-011	Physical location (LBS): +ESS.G02.100.1001.102.104.011
EPLAN electric P8 V2.7	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473

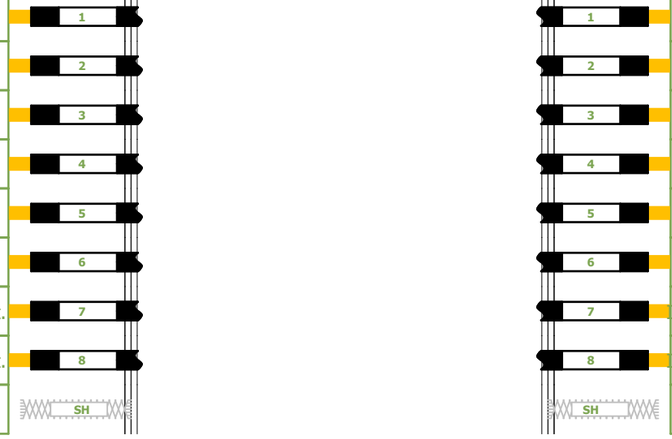
Rev: 2

Page size: A3

Document: &PC1

Cable name =ESS.ACC.A06.F02.K01.U2-WG1
Database name 11B034469
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.K01.U2-WG1



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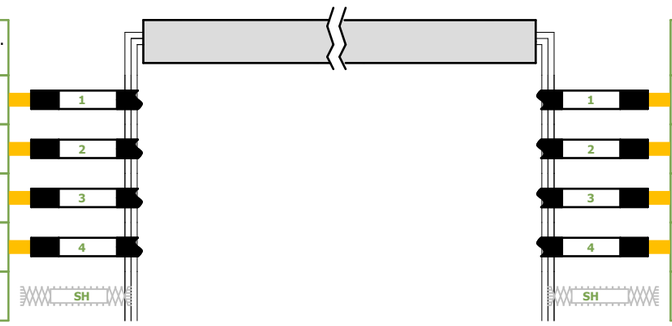

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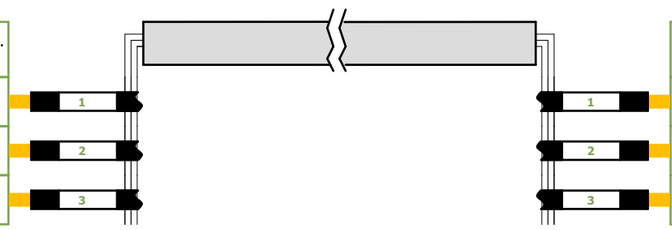

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REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
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APPROVED BY: SBH	DATE:	FUNCTION: Key Exchange cabinet TS2-010Row:CnPw-U-011	Physical location (LBS): +ESS.G02.100.1001.102.104.011		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB1	

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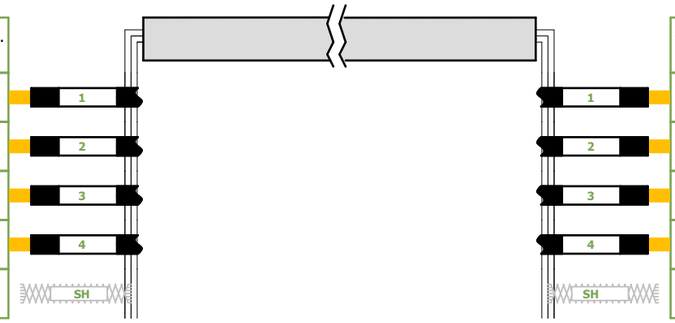

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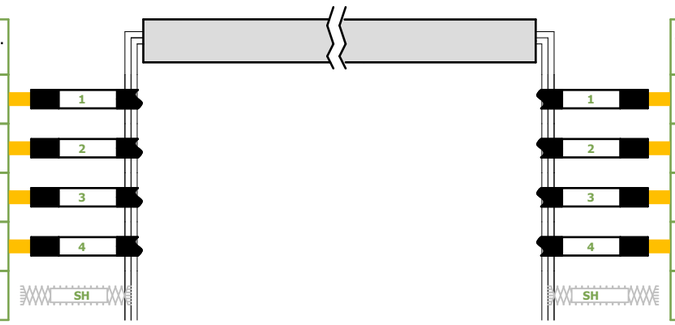
=ESS.ACC.A06.F02.K01.U1&FS/2.7	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2	-WE2	=ESS.ACC.A06.F02.K01.U2-WE2	=ESS.ACC.A06.F02.K01.U2&FS/2.7

Cable name =ESS.ACC.A06.F02.K01.U2-WG5
Database name 11B034474
Cable type Radox 125 NUM BK ESS 2x2x0,5 mm²

=ESS.ACC.A06.F02.K01.U2-WG5



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=ESS.ACC.A06.F02.K01.U1&FS/17.7	=ESS.ACC.A06.F02.K01.U1-X9	12:b	1	=ESS.ACC.A06.F02.K01.U2-FQ1-SH2	=ESS.ACC.A06.F02.K01.U2&FS/2.8
=ESS.ACC.A06.F02.K01.U1&FS/17.7	=ESS.ACC.A06.F02.K01.U1-X9	13:b	4	=ESS.ACC.A06.F02.K01.U2-FQ1-SH2	=ESS.ACC.A06.F02.K01.U2&FS/2.8
=ESS.ACC.A06.F02.K01.U1&FS/17.8	=ESS.ACC.A06.F02.K01.U1-X9	14:b	3	=ESS.ACC.A06.F02.K01.U2-FQ1-SH2	=ESS.ACC.A06.F02.K01.U2&FS/2.8
=ESS.ACC.A06.F02.K01.U1&FS/2.9	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2	-WE2	=ESS.ACC.A06.F02.K01.U2-WE2	=ESS.ACC.A06.F02.K01.U2&FS/2.9

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.K01.U2		
APPROVED BY: SBH	DATE:	FUNCTION: Key Exchange cabinet TS2-010Row:CnPw-U-011	Physical location (LBS): +ESS.G02.100.1001.102.104.011		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB2	

EUROPEAN
SPALLATION
SOURCE

Description: Blue/Red lights contactor cabinet

Functional Location (FBS): =ESS.ACC.A06.F02.K01.U3

Physical Location (LBS): +ESS.G02.100.1001.102

ESS Name: KG-GTA:PSS-ICC-1

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

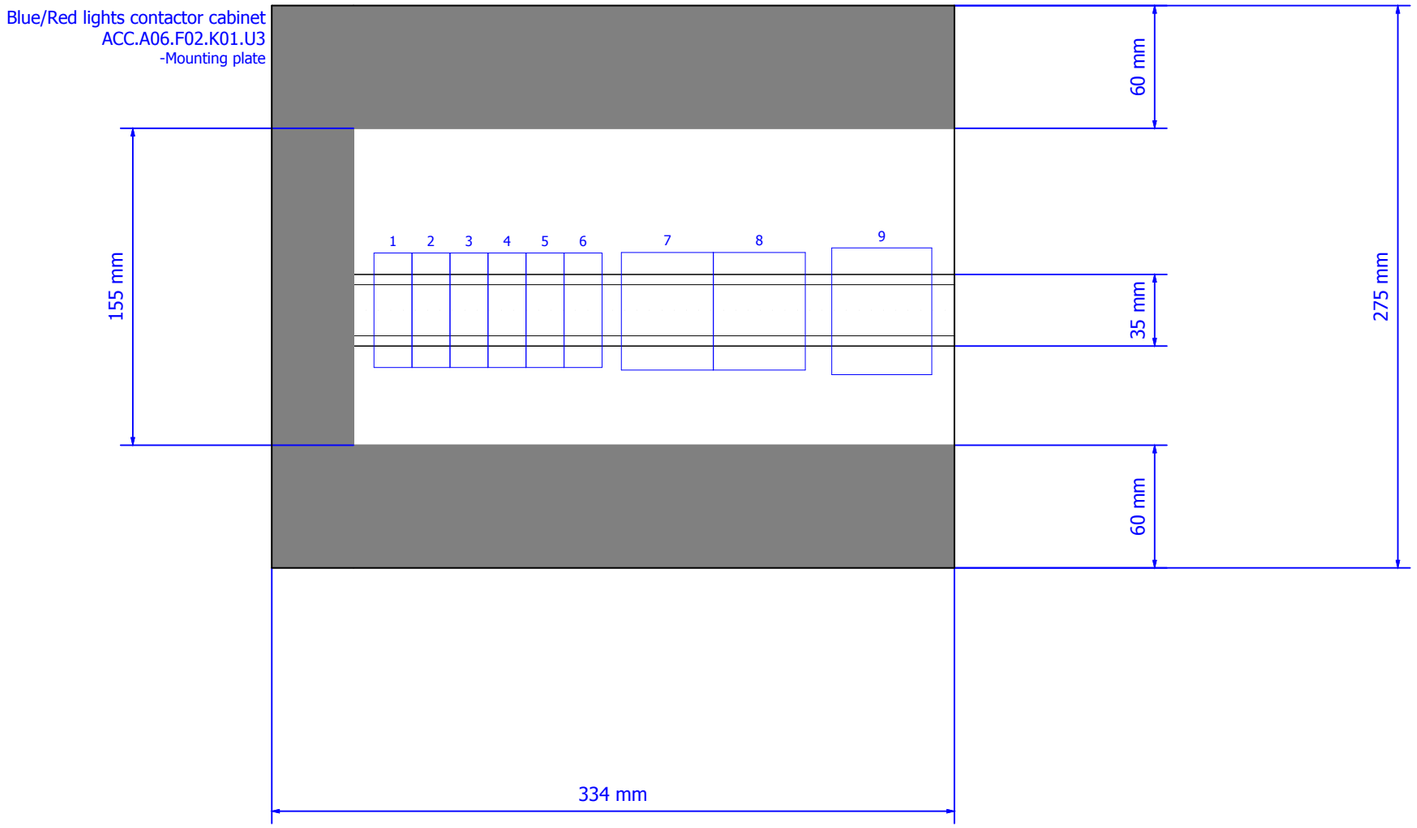
EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Graphic	Functional location (FBS): =ESS.ACC.A06.F02.K01.U3		
APPROVED BY: SBH	DATE:	FUNCTION: Blue/Red lights contactor cabinet KG-GTA:PSS-ICC-1	Physical location (LBS): +ESS.G02.100.1001.102		
	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &AA1	

MOUNTING PLATE



Enclosure legend

Item	FBS-Tag
1	-X1
2	-X2
3	-X3
4	-X4
5	-X6
6	-X7
7	-XF1
8	-XF2
9	-X8

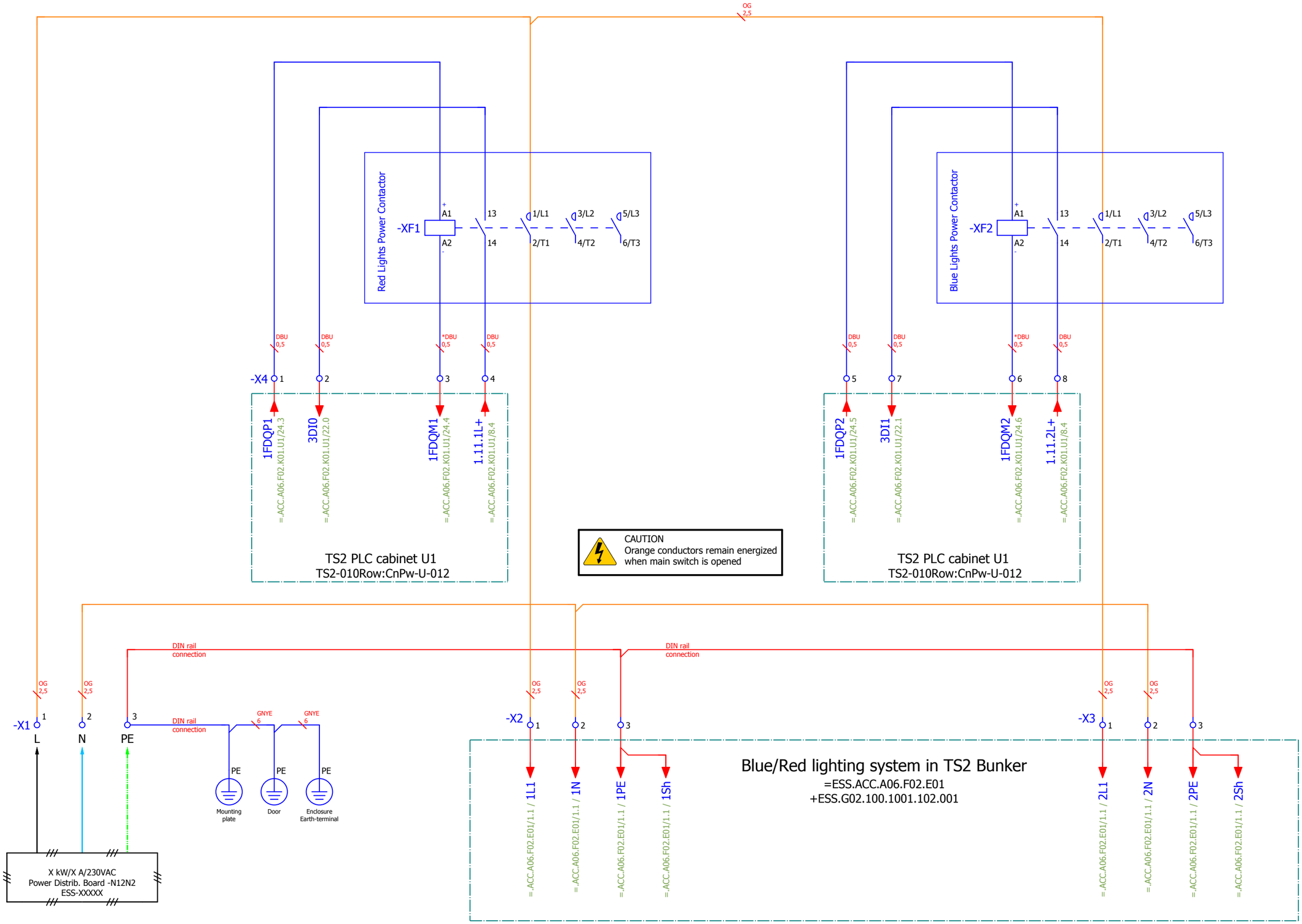
Note: AE Compact enclosure, WHD: 380x300x210 mm
Sheet steel, with mounting plate, single door, with one cam lock

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITTLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Panel layout	Functional location (FBS): =ESS.ACC.A06.F02.K01.U3		
APPROVED BY: SBH	DATE:	FUNCTION: Blue/Red lights contactor cabinet KG-GTA:PSS-ICC-1	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &LU1	



REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U3		
APPROVED BY: SBH	DATE:	FUNCTION: Blue/Red lights contactor cabinet KG-GTA:PSS-ICC-1	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS1	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U3-Mounting pla te	1	AE Compact enclosure, WHD: 380x300x210 mm, Sheet steel, with mou nting plate	AE.1031500	Rittal	RIT.1031500	
=ESS.ACC.A06.F02.K01.U3-X1	1	Feed-through terminal block	PT 4	Phoenix Contact	PXC.3211757	
=ESS.ACC.A06.F02.K01.U3-X1	1	Feed-through terminal block	PT 4 BU	Phoenix Contact	PXC.3211760	
=ESS.ACC.A06.F02.K01.U3-X1	1	Ground modular terminal block	PT 4-PE	Phoenix Contact	PXC.3211766	
=ESS.ACC.A06.F02.K01.U3-X2	1	Feed-through terminal block	PT 4	Phoenix Contact	PXC.3211757	
=ESS.ACC.A06.F02.K01.U3-X2	1	Feed-through terminal block	PT 4 BU	Phoenix Contact	PXC.3211760	
=ESS.ACC.A06.F02.K01.U3-X2	1	Ground modular terminal block	PT 4-PE	Phoenix Contact	PXC.3211766	
=ESS.ACC.A06.F02.K01.U3-X3	1	Feed-through terminal block	PT 4	Phoenix Contact	PXC.3211757	
=ESS.ACC.A06.F02.K01.U3-X3	1	Feed-through terminal block	PT 4 BU	Phoenix Contact	PXC.3211760	
=ESS.ACC.A06.F02.K01.U3-X3	1	Ground modular terminal block	PT 4-PE	Phoenix Contact	PXC.3211766	
=ESS.ACC.A06.F02.K01.U3-X4	8	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U3-X4	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U3-X4	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U3-XF1	1	CONTACTOR, AC-3, 5.5KW/400V, 1NO, DC 24V,	3RT2017-1BB41	Siemens AG	SIE.3RT2017-1BB41	
=ESS.ACC.A06.F02.K01.U3-XF2	1	CONTACTOR, AC-3, 5.5KW/400V, 1NO, DC 24V,	3RT2017-1BB41	Siemens AG	SIE.3RT2017-1BB41	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U3		
APPROVED BY: SBH	DATE:	FUNCTION: Blue/Red lights contactor cabinet KG-GTA:PSS-ICC-1	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &PC1	

EUROPEAN SPALLATION SOURCE

Description: Modulator interface contactor cabinet

Functional Location (FBS): =ESS.ACC.A06.F02.K01.U4

Physical Location (LBS): +ESS.G02.100.1001.102

ESS Name: KG-GTA:PSS-ICC-2

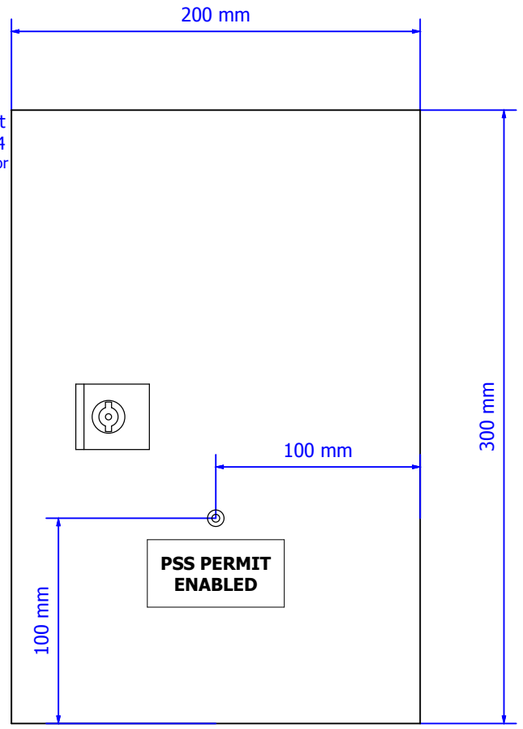
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

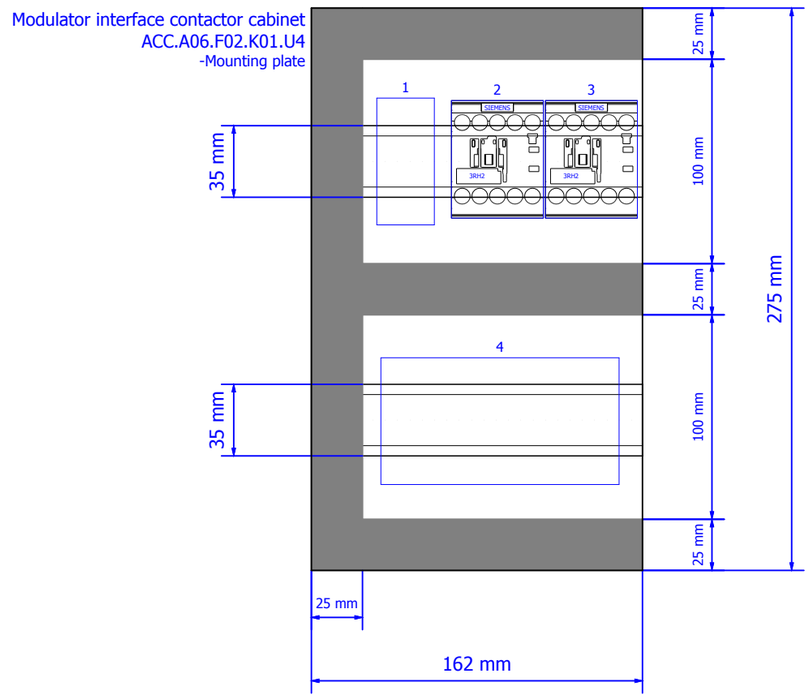
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Graphic	Functional location (FBS): =ESS.ACC.A06.F02.K01.U4		
APPROVED BY: SBH	DATE:	FUNCTION: Modulator interface contactor cabinet KG-GTA:PSS-ICC-2	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &AA1	

FRONT DOOR



MOUNTING PLATE



Enclosure legend

Item	FBS-Tag
1	-X1
2	-XF1
3	-XF2
4	-X2

Note 1:
AE Compact enclosure, WHD: 200x300x155 mm
Sheet steel, with mounting plate, single-door, with one cam lock (coded key).
Painted in RAL 2000

Note 2:
A green LED indicator is installed in the front door.
Underneath the LED indicator there is a label with the text: "PSS PERMIT ENABLED"

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Panel layout	Functional location (FBS): =ESS.ACC.A06.F02.K01.U4		
APPROVED BY: SBH	DATE:	FUNCTION: Modulator interface contactor cabinet KG-GTA:PSS-ICC-2	Physical location (LBS): +ESS.G02.100.1001.102		
	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &LU1	

TS2 Modulator

=ESS.ACC.A06.T01
TS2-010RFC:RFS-Mod-110
+ESS.G02.100.1001.102

24V DC from modulator safety circuit

24V DC to MCCB Tmax T5 630 UVR-Coil

NC feedback from MCCB Tmax T5 630

-X1 1 — OG 2,5

2 — OG 2,5

3 — OG 0,75

4 — OG 0,75

CAUTION
Orange conductors remain energized when main switch is opened

DBU 0,5

DBU 0,5

XF1
Modulator interface contactor
A1 (+) A2 (-)
13 21 31 43
14 22 32 44

-XF2
Modulator interface contactor
A1 (+) A2 (-)
13 21 31 43
14 22 32 44

OG 2,5

DBU 0,5

*DBU 0,5

Front door

LED
PSS permit enabled
GN
2
1

*DBU 0,5 DBU 0,5 DBU 0,5 DBU 0,5 DBU 0,5 DBU 0,5 DBU 0,5 DBU 0,5 *DBU 0,5

-X2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 PE

DIN rail connection

GNYE 6 GNYE 6

PE PE PE

Mounting plate
Enclosure Earth-terminal
Door

11B034475
-WG1
2x2x0,5
1 2 3 4 SH

11B034476
-WG2
8x2x0,5
1 2 3 4 5 6 7 8 SH

-WE2 FB

-WE2 FB

=.ACC.A06.F02.K01.U2/2.1 / WG1.1

=.ACC.A06.F02.K01.U2/2.1 / WG1.2

=.ACC.A06.F02.K01.U2/2.1 / WG1.3

=.ACC.A06.F02.K01.U2/2.1 / WG1.4

=.ACC.A06.F02.K01.U1/17.8 / 6FVS7

=.ACC.A06.F02.K01.U1/18.0 / 7FVS0

Spare Cond.

Spare Cond.

Spare Cond.

Spare Cond.

Spare Cond.

Spare Cond.

=.ACC.A06.F02.K01.U1/17.9 / 6FDI7

=.ACC.A06.F02.K01.U1/18.1 / 7FDI0

=.ACC.A06.F02.K01.U1/8.4 / 1.11.3L+

=.ACC.A06.F02.K01.U1/22.2 / 3DI2

Spare Cond.

Spare Cond.

=.ACC.A06.F02.K01.U1/29.9 / 3DQ14

=.ACC.A06.F02.K01.U1/8.7 / 1.10.5L-

Key Exchange cabinet

=ESS.ACC.A06.F02.K01.U2
TS2-010Row:CnPw-U-011

PLC cabinet

=ESS.ACC.A06.F02.K01.U1
TS2-010Row:CnPw-U-012

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary; Rev: 2; Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U4
APPROVED BY: SBH	DATE:	FUNCTION: Modulator interface contactor cabinet KG-GTA:PSS-ICC-2	Physical location (LBS): +ESS.G02.100.1001.102
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473; Document: &FS1

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U4-LED	1	Green LED Prominent Indicator;	RS PRO 7227801		RS.7227801	
=ESS.ACC.A06.F02.K01.U4-Mounting plate	1	AE Compact enclosure, WHD: 200x300x155 mm, Sheet steel, with mounting plate	AE.1035500	Rittal	RIT.1035500	
=ESS.ACC.A06.F02.K01.U4-X1	4	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U4-X1	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U4-X1	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U4-X2	21	Knife disconnect terminal block	PT 2,5-MT	Phoenix Contact	PXC.3210156	
=ESS.ACC.A06.F02.K01.U4-X2	1	End clamp	CLIPFIX 35-5	Phoenix Contact	PXC.3022276	
=ESS.ACC.A06.F02.K01.U4-X2	1	End cover	D-PT 2,5-MT	Phoenix Contact	PXC.3211003	
=ESS.ACC.A06.F02.K01.U4-XF1	1	CONTACTOR RELAY, 2NO+2NC DC 24V, W. INTEGRATED DIODE	3RH2122-1FB40	Siemens AG	SIE.3RH2122-1FB40	
=ESS.ACC.A06.F02.K01.U4-XF1	1	SURGE SUPPRESSOR, SUPPRESSION DIODE WITH LED,	3RT2916-1LM00	Siemens AG	SIE.3RT2916-1LM00	
=ESS.ACC.A06.F02.K01.U4-XF2	1	CONTACTOR RELAY, 2NO+2NC DC 24V, W. INTEGRATED DIODE	3RH2122-1FB40	Siemens AG	SIE.3RH2122-1FB40	
=ESS.ACC.A06.F02.K01.U4-XF2	1	SURGE SUPPRESSOR, SUPPRESSION DIODE WITH LED,	3RT2916-1LM00	Siemens AG	SIE.3RT2916-1LM00	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U4		
APPROVED BY: SBH	DATE:	FUNCTION: Modulator interface contactor cabinet KG-GTA:PSS-ICC-2	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &PC1	

Cable name =ESS.ACC.A06.F02.K01.U4-WG1
Database name 11B034475
Cable type Radox 125 NUM BK ESS 2x2x0,5 mm²

=ESS.ACC.A06.F02.K01.U4-WG1

Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
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=ESS.ACC.A06.F02.K01.U4&FS/1.1	=ESS.ACC.A06.F02.K01.U4-X2	3:b	5	=ESS.ACC.A06.F02.K01.U2-FQ1-SH2	=ESS.ACC.A06.F02.K01.U2&FS/2.1
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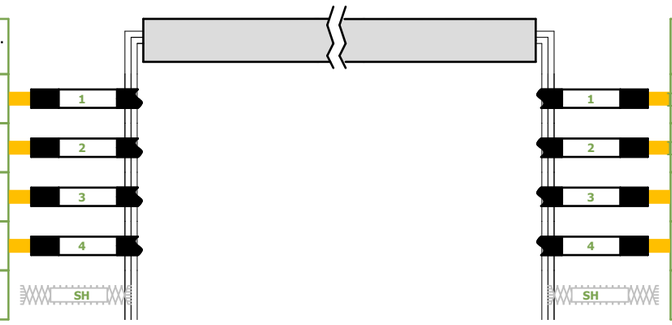
=ESS.ACC.A06.F02.K01.U4&FS/1.7	=ESS.ACC.A06.F02.K01.U4-X2	PE:a	-WE2	=ESS.ACC.A06.F02.K01.U2-WE2	=ESS.ACC.A06.F02.K01.U2&FS/1.2



Cable name =ESS.ACC.A06.F02.K01.U4-WG2
Database name 11B034476
Cable type Radox 125 NUM BK ESS 8x2x0,5 mm²

=ESS.ACC.A06.F02.K01.U4-WG2

Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
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=ESS.ACC.A06.F02.K01.U4&FS/1.3	=ESS.ACC.A06.F02.K01.U4-X2	6:b	1:b	=ESS.ACC.A06.F02.K01.U1-X10	=ESS.ACC.A06.F02.K01.U1&FS/18.0
=ESS.ACC.A06.F02.K01.U4&FS/1.3	=ESS.ACC.A06.F02.K01.U4-X2	7:b	Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/1.3
=ESS.ACC.A06.F02.K01.U4&FS/1.4	=ESS.ACC.A06.F02.K01.U4-X2	8:b	Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/1.4
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=ESS.ACC.A06.F02.K01.U4&FS/1.4	=ESS.ACC.A06.F02.K01.U4-X2	12:b	Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/1.4
=ESS.ACC.A06.F02.K01.U4&FS/1.5	=ESS.ACC.A06.F02.K01.U4-X2	13:b	16:b	=ESS.ACC.A06.F02.K01.U1-X9	=ESS.ACC.A06.F02.K01.U1&FS/17.9
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REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.K01.U4		
APPROVED BY: SBH	DATE:	FUNCTION: Modulator interface contactor cabinet KG-GTA:PSS-ICC-2	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB1	

EUROPEAN SPALLATION SOURCE

Description: LLRF Relay Box 1

Functional Location (FBS): =ESS.ACC.A06.F02.K01.U5

Physical Location (LBS): +ESS.G02.100.1001.102.104.010

ESS Name: KG-GTA:PSS-LLRRB-1

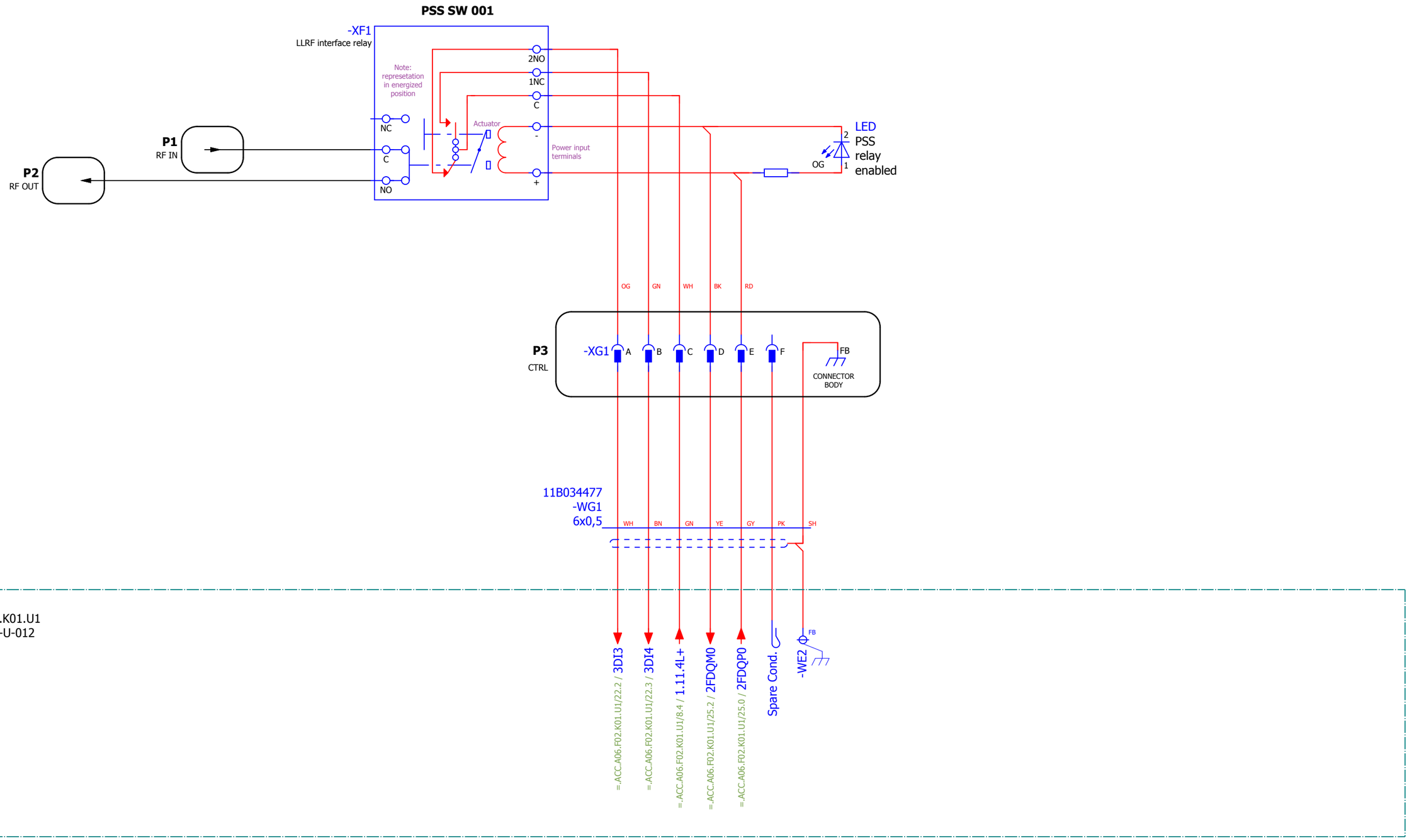
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Graphic	Functional location (FBS): =ESS.ACC.A06.F02.K01.U5		
APPROVED BY: SBH	DATE:	FUNCTION: KG-GTA:PSS-LLRRB-1 LLRF Relay Box in RF rack: TS2-010Row:CnPw-U-010	Physical location (LBS): +ESS.G02.100.1001.102.104.010		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &AA1	

PSS LLRF Relay 1



REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U5		
APPROVED BY: SBH	DATE:	FUNCTION: KG-GTA:PSS-LLRRB-1 LLRF Relay Box in RF rack: TS2-010Row:CnPw-U-010	Physical location (LBS): +ESS.G02.100.1001.102.104.010		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS1	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U5-XF1	1	SPDT Ramses	R570323000	Radiall	RAD.R570323000	
=ESS.ACC.A06.F02.K01.U5-XG1	6	Pin (Male)	MP20M23F	Amphenol	AMP.MP20M23F	
=ESS.ACC.A06.F02.K01.U5-XG1	1	Plug	RT0W6106PNH	Amphenol	AMP.RT0W6106PNH	
=ESS.ACC.A06.F02.K01.U5-XG1	1	Cable range 5-8,5 mm	RT0L-10CG-S2	Amphenol	AMP.RT0L-10CG-S2	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U5		
APPROVED BY: SBH	DATE:	FUNCTION: KG-GTA:PSS-LLRRB-1 LLRF Relay Box in RF rack: TS2-010Row:CnPw-U-010	Physical location (LBS): +ESS.G02.100.1001.102.104.010		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &PC1	

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Cable name =ESS.ACC.A06.F02.K01.U5-WG1
Database name 11B034477
Cable type UNI® LiHCH 6x0,5 mm²

=ESS.ACC.A06.F02.K01.U5-WG1

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=ESS.ACC.A06.F02.K01.U1&FS/25.2	=ESS.ACC.A06.F02.K01.U1-X17	5:b
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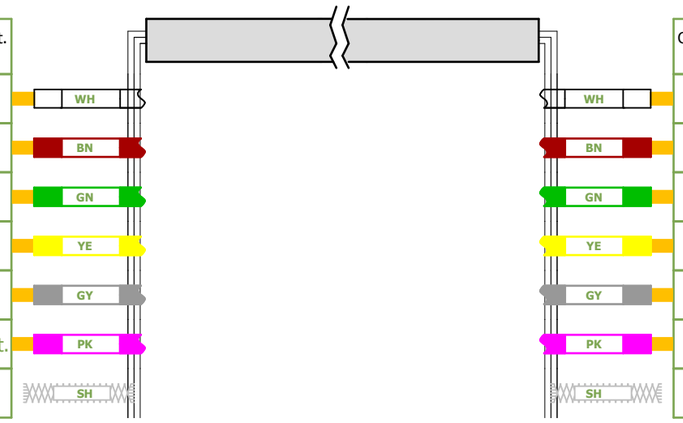

Connect. point	Target designation from	Page / column
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C	=ESS.ACC.A06.F02.K01.U5-XG1	=ESS.ACC.A06.F02.K01.U5&FS/1.5
D	=ESS.ACC.A06.F02.K01.U5-XG1	=ESS.ACC.A06.F02.K01.U5&FS/1.5
E	=ESS.ACC.A06.F02.K01.U5-XG1	=ESS.ACC.A06.F02.K01.U5&FS/1.5
F	=ESS.ACC.A06.F02.K01.U5-XG1	=ESS.ACC.A06.F02.K01.U5&FS/1.5
	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/1.5

ESS_Graphical_Cable_diagram_ver1-2018

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.K01.U5		
APPROVED BY: SBH	DATE:	FUNCTION: KG-GTA:PSS-LLRRB-1 LLRF Relay Box in RF rack: TS2-010Row:CnPw-U-010	Physical location (LBS): +ESS.G02.100.1001.102.104.010		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB1	

EUROPEAN SPALLATION SOURCE

Description: LLRF Relay Box 2

Functional Location (FBS): =ESS.ACC.A06.F02.K01.U6

Physical Location (LBS): +ESS.G02.100.1001.102.104.007

ESS Name: KG-GTA:PSS-LLRRB-2

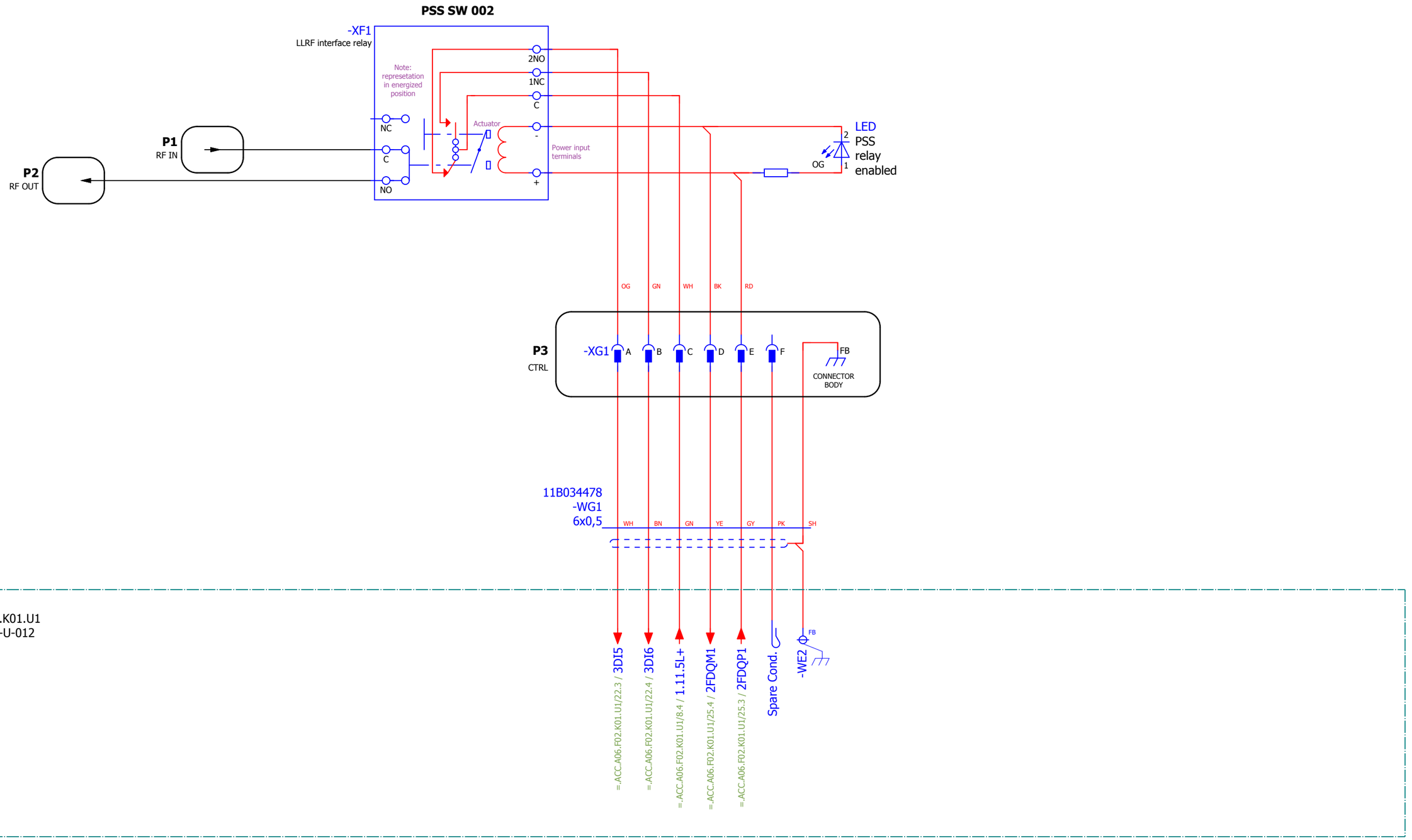
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Graphic	Functional location (FBS): =ESS.ACC.A06.F02.K01.U6		
APPROVED BY: SBH	DATE:	FUNCTION: KG-GTA:PSS-LLRRB-2 LLRF Relay Box in RF rack: TS2-010Row:CnPw-U-007	Physical location (LBS): +ESS.G02.100.1001.102.104.007		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &AA1	

PSS LLRF Relay 2



REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.K01.U6		
APPROVED BY: SBH	DATE:	FUNCTION: KG-GTA:PSS-LLRRB-2 LLRF Relay Box in RF rack: TS2-010Row:CnPw-U-007	Physical location (LBS): +ESS.G02.100.1001.102.104.007		
DESIGN SITE: ESS			CHESS Doc. NR: ESS-0508473	Document: &FS1	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.K01.U6-XF1	1	SPDT Ramses	R570323000	Radiall	RAD.R570323000	
=ESS.ACC.A06.F02.K01.U6-XG1	6	Pin (Male)	MP20M23F	Amphenol	AMP.MP20M23F	
=ESS.ACC.A06.F02.K01.U6-XG1	1	Plug	RT0W6106PNH	Amphenol	AMP.RT0W6106PNH	
=ESS.ACC.A06.F02.K01.U6-XG1	1	Cable range 5-8,5 mm	RT0L-10CG-S2	Amphenol	AMP.RT0L-10CG-S2	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Parts list	Functional location (FBS): =ESS.ACC.A06.F02.K01.U6		
APPROVED BY: SBH	DATE:	FUNCTION: KG-GTA:PSS-LLRRB-2 LLRF Relay Box in RF rack: TS2-010Row:CnPw-U-007	Physical location (LBS): +ESS.G02.100.1001.102.104.007		
DESIGN SITE: ESS			CHESS Doc. NR: ESS-0508473	Document: &PC1	

Cable name =ESS.ACC.A06.F02.K01.U6-WG1
Database name 11B034478
Cable type UNI® LiHCH 6x0,5 mm²

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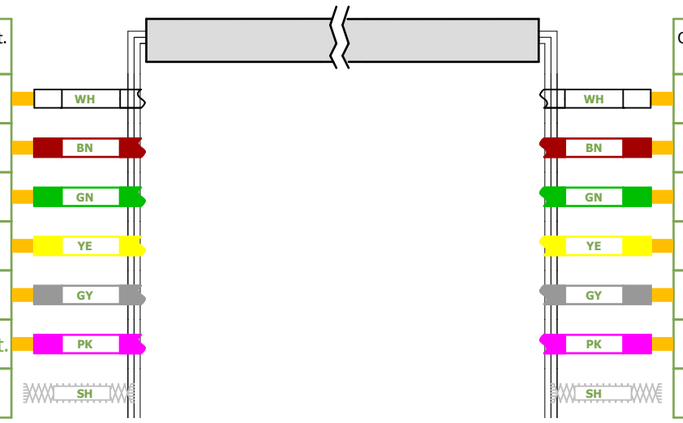

Connect. point	Target designation from	Page / column
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C	=ESS.ACC.A06.F02.K01.U6-XG1	=ESS.ACC.A06.F02.K01.U6&FS/1.5
D	=ESS.ACC.A06.F02.K01.U6-XG1	=ESS.ACC.A06.F02.K01.U6&FS/1.5
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F	=ESS.ACC.A06.F02.K01.U6-XG1	=ESS.ACC.A06.F02.K01.U6&FS/1.5
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REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.K01.U6		
APPROVED BY: SBH	DATE:	FUNCTION: KG-GTA:PSS-LLRRB-2 LLRF Relay Box in RF rack: TS2-010Row:CnPw-U-007	Physical location (LBS): +ESS.G02.100.1001.102.104.007		
DESIGN SITE: ESS			CHESS Doc. NR: ESS-0508473	Document: &MB1	

EUROPEAN
SPALLATION
SOURCE

Description: Field devices

Functional Location (FBS): =ESS.ACC.A06.F02.F01

Physical Location (LBS): +ESS.G02.100.1001.102

ESS Name: KG-GTA

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

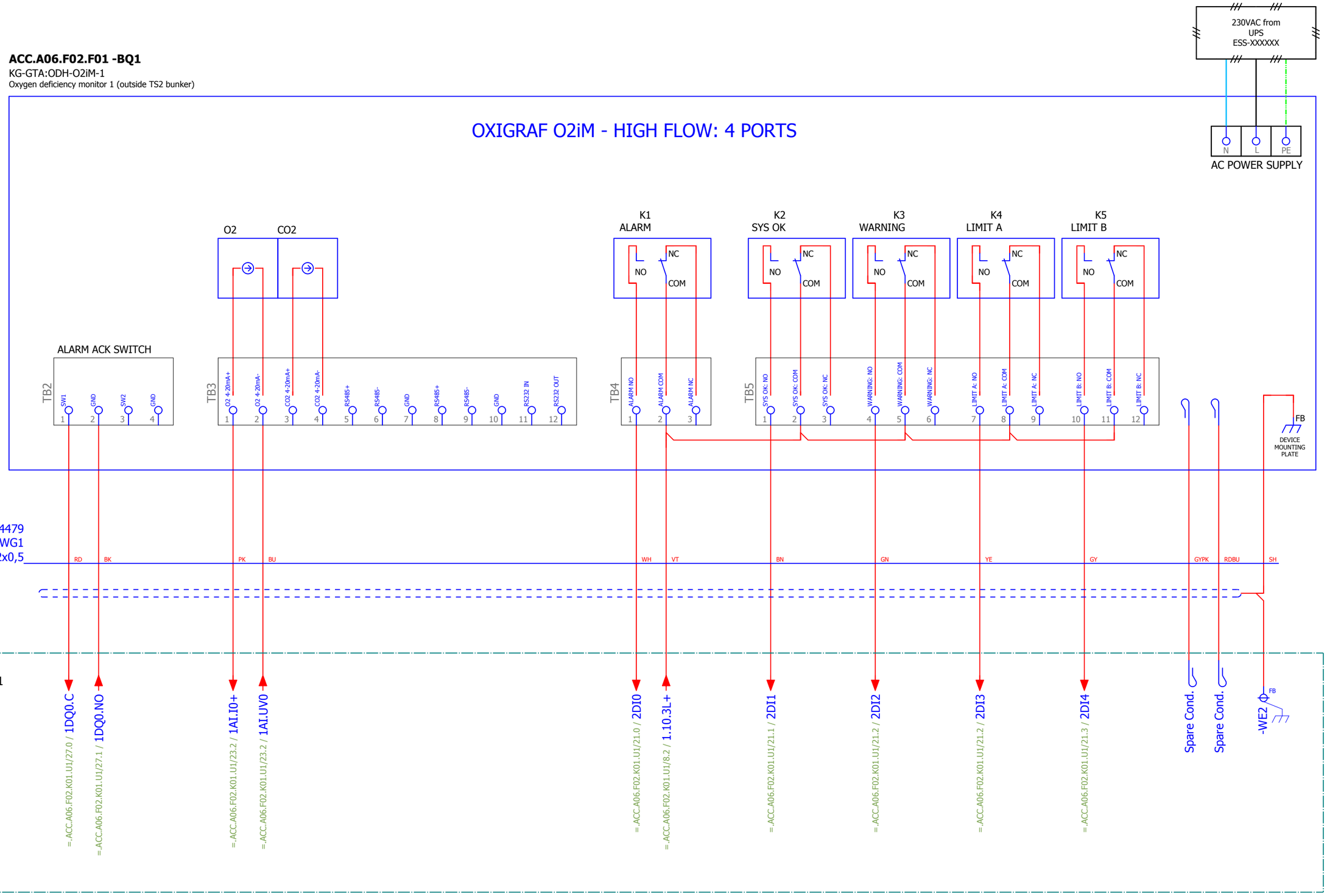
EUROPEAN
SPALLATION
SOURCE

Documentation protection
ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Graphic	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &AA1	

Oxigen deficiency monitor 1

ACC.A06.F02.F01 -BQ1
KG-GTA:ODH-O2iM-1
Oxygen deficiency monitor 1 (outside TS2 bunker)



REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.F01		
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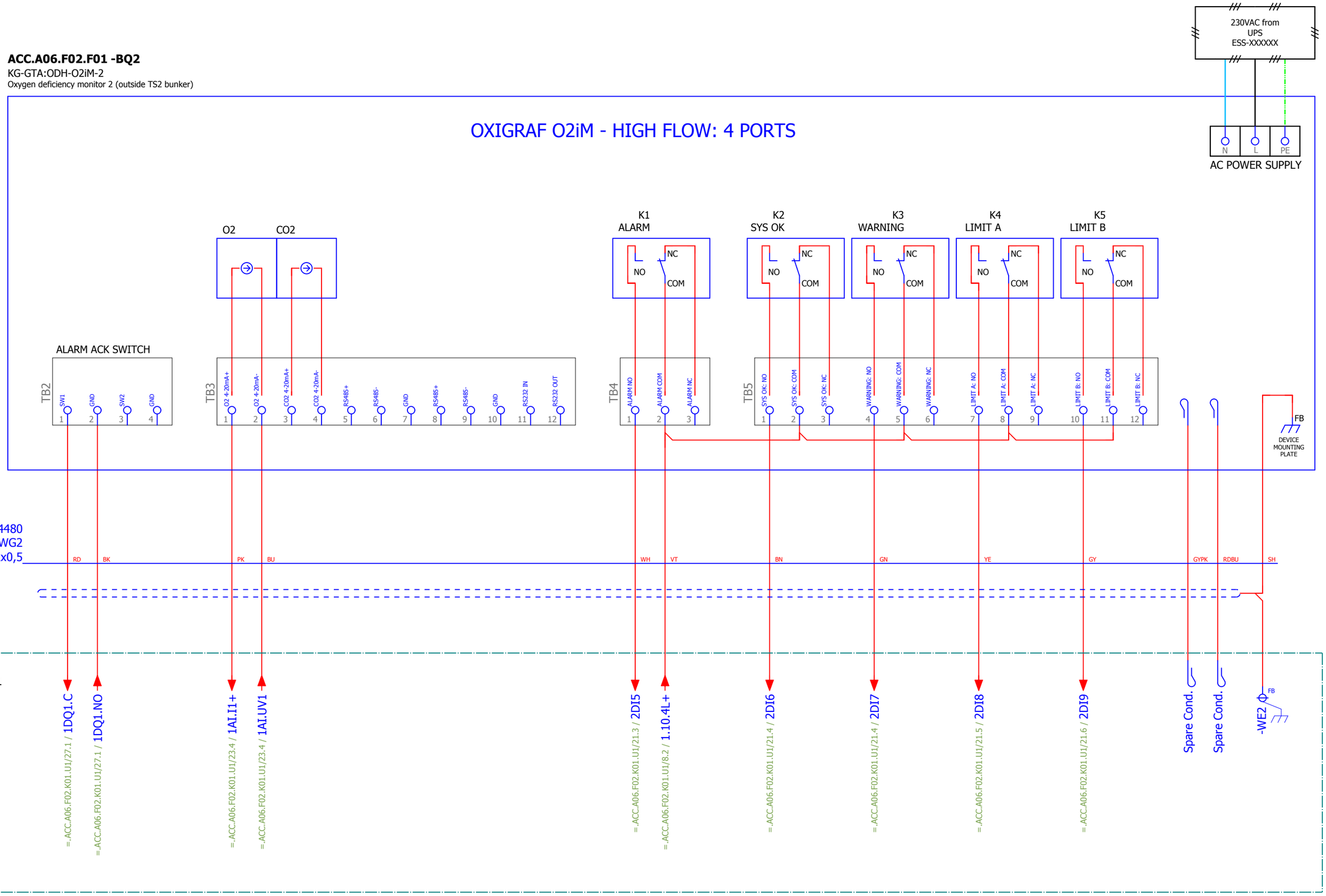
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS1	

Oxigen deficiency monitor 2

ACC.A06.F02.F01 -BQ2
KG-GTA:ODH-O2iM-2
Oxygen deficiency monitor 2 (outside TS2 bunker)



REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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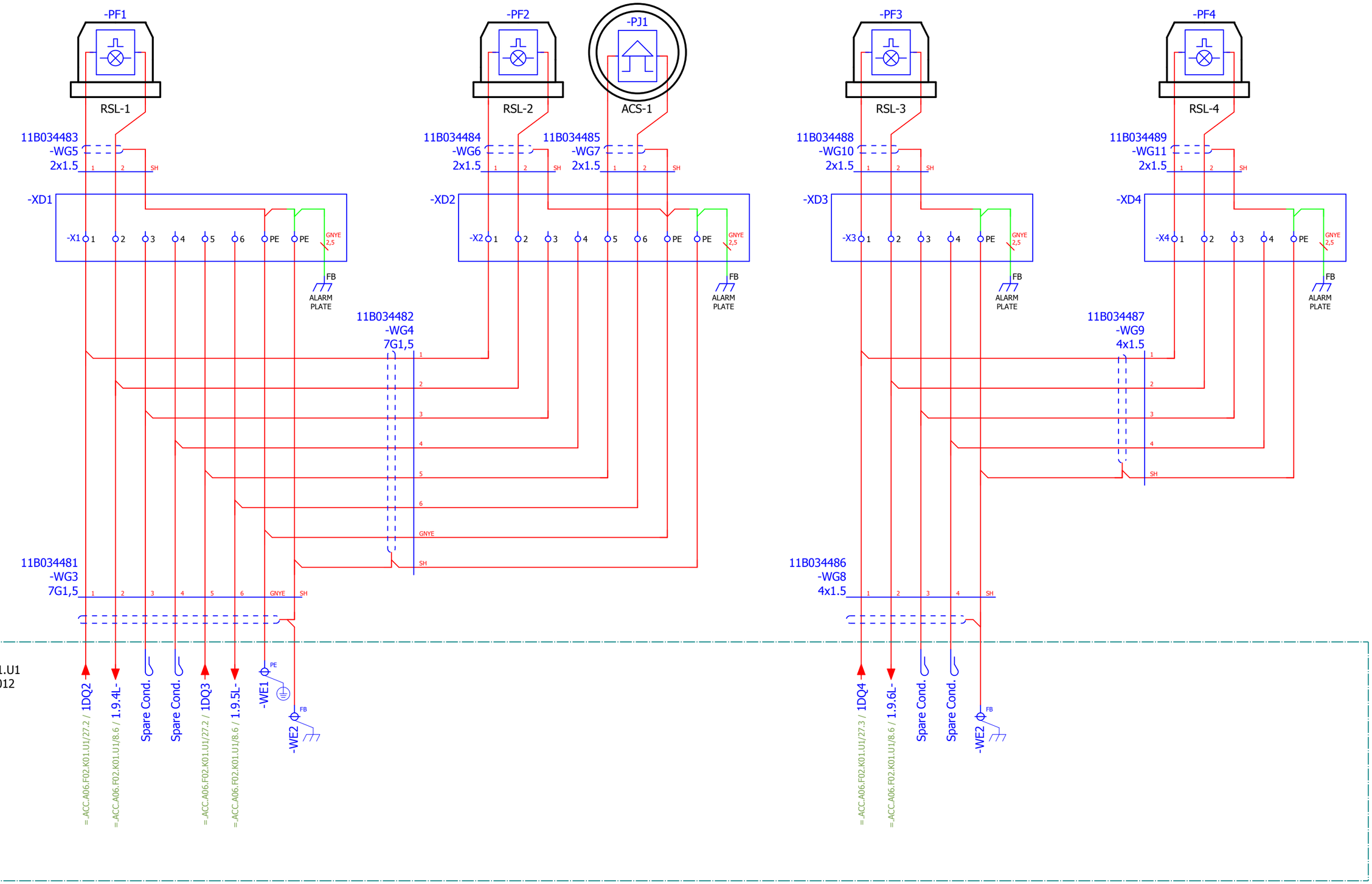
EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS2	

ODH Alarm plates



REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
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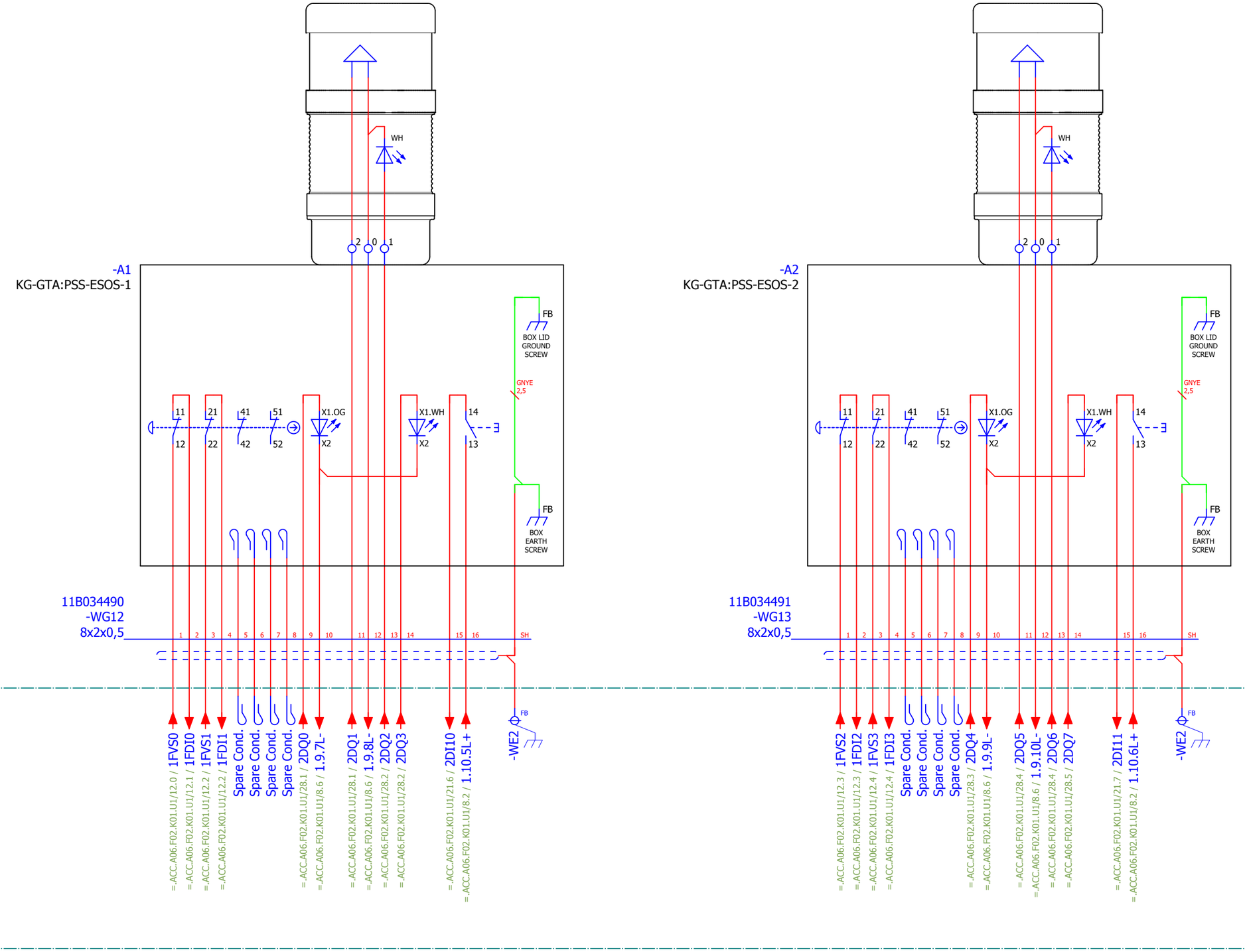
EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS3	

Emergency switch-Off stations 1&2



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Documentation protection ISO 16016

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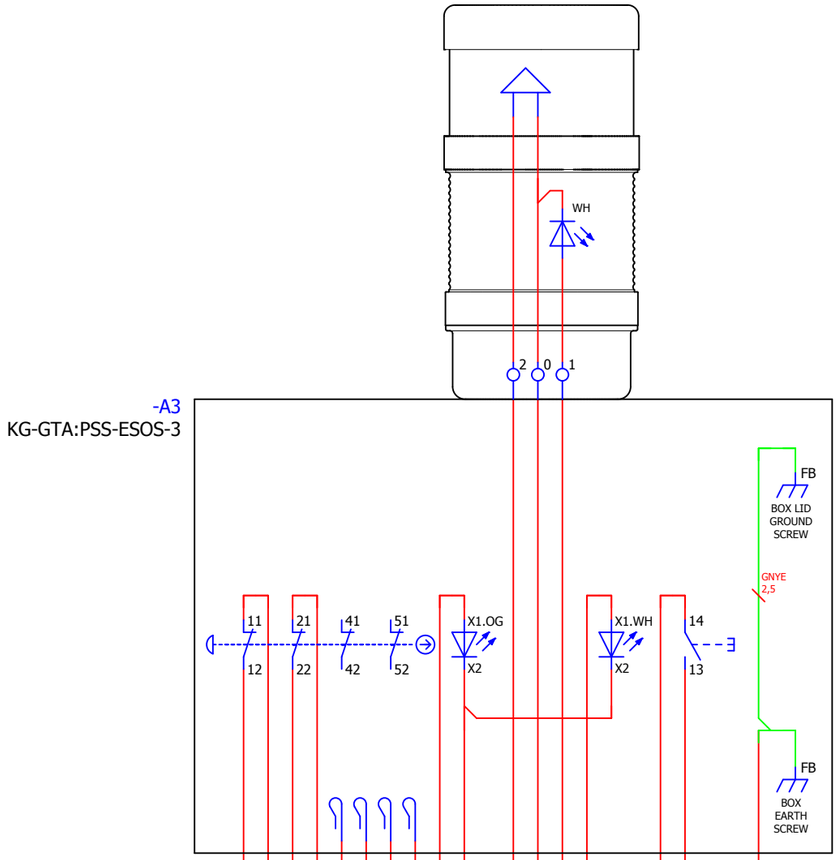
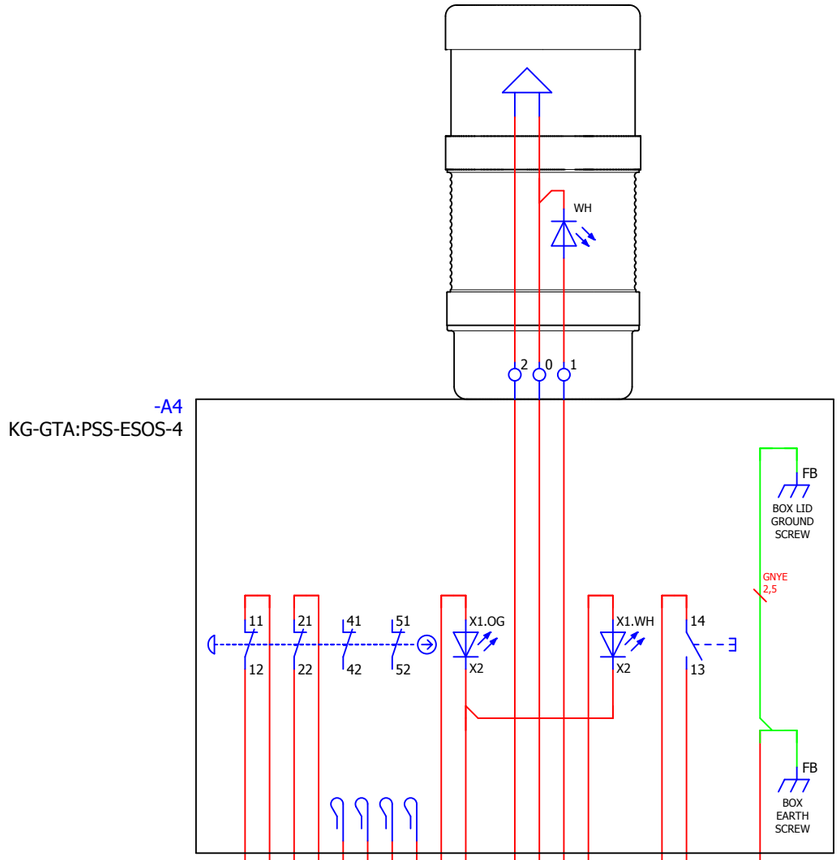
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS4	

Emergency Switch-Off stations 3&4





PLC cabinet
=ESS.ACC.A06.F02.K01.U1
TS2-010Row:CnPw-U-012

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Documentation protection ISO 16016

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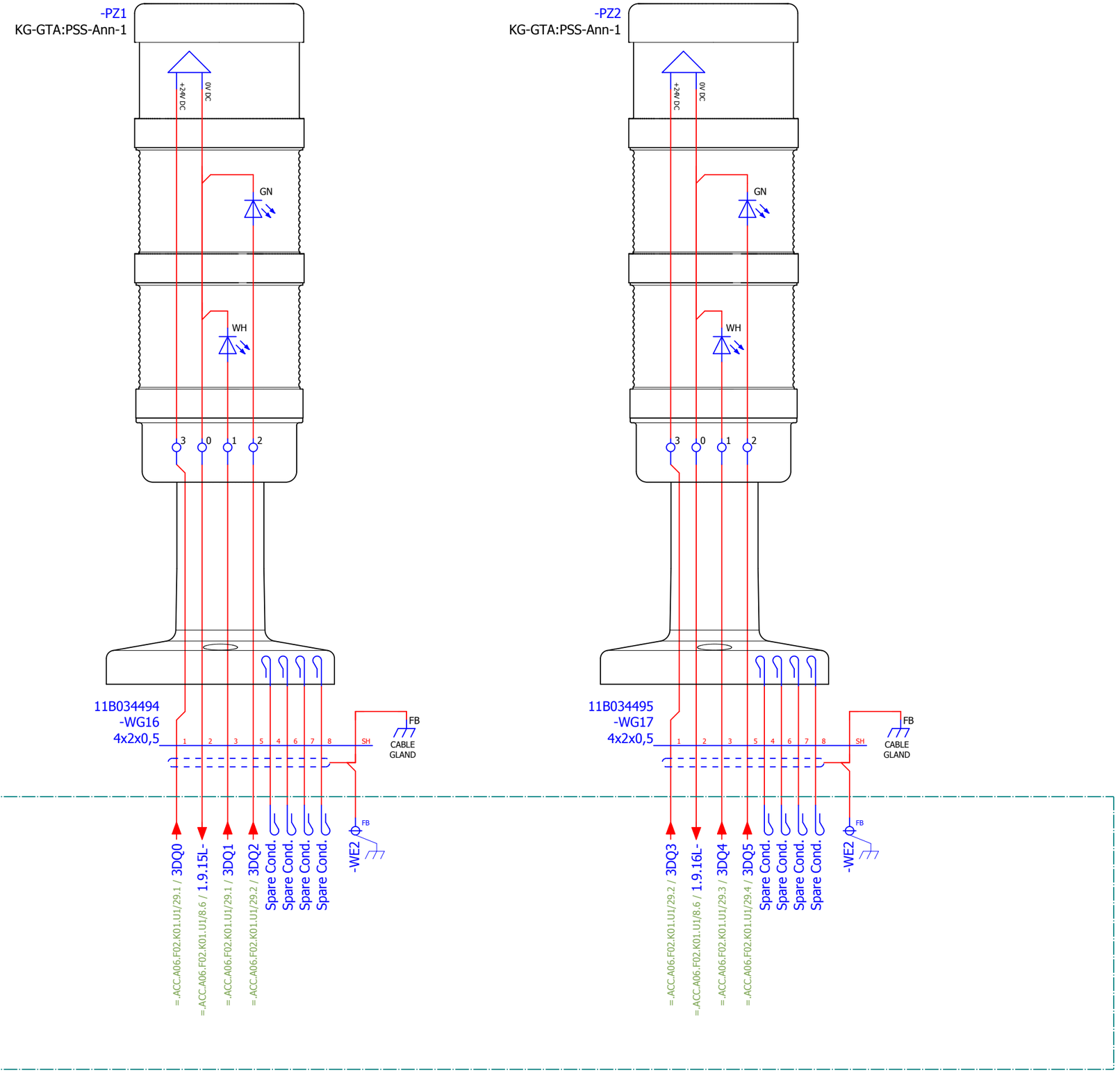
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS5	

Signaling columns (Annunciator)



PLC cabinet
=ESS.ACC.A06.F02.K01.U1
TS2-010Row:CnPw-U-012

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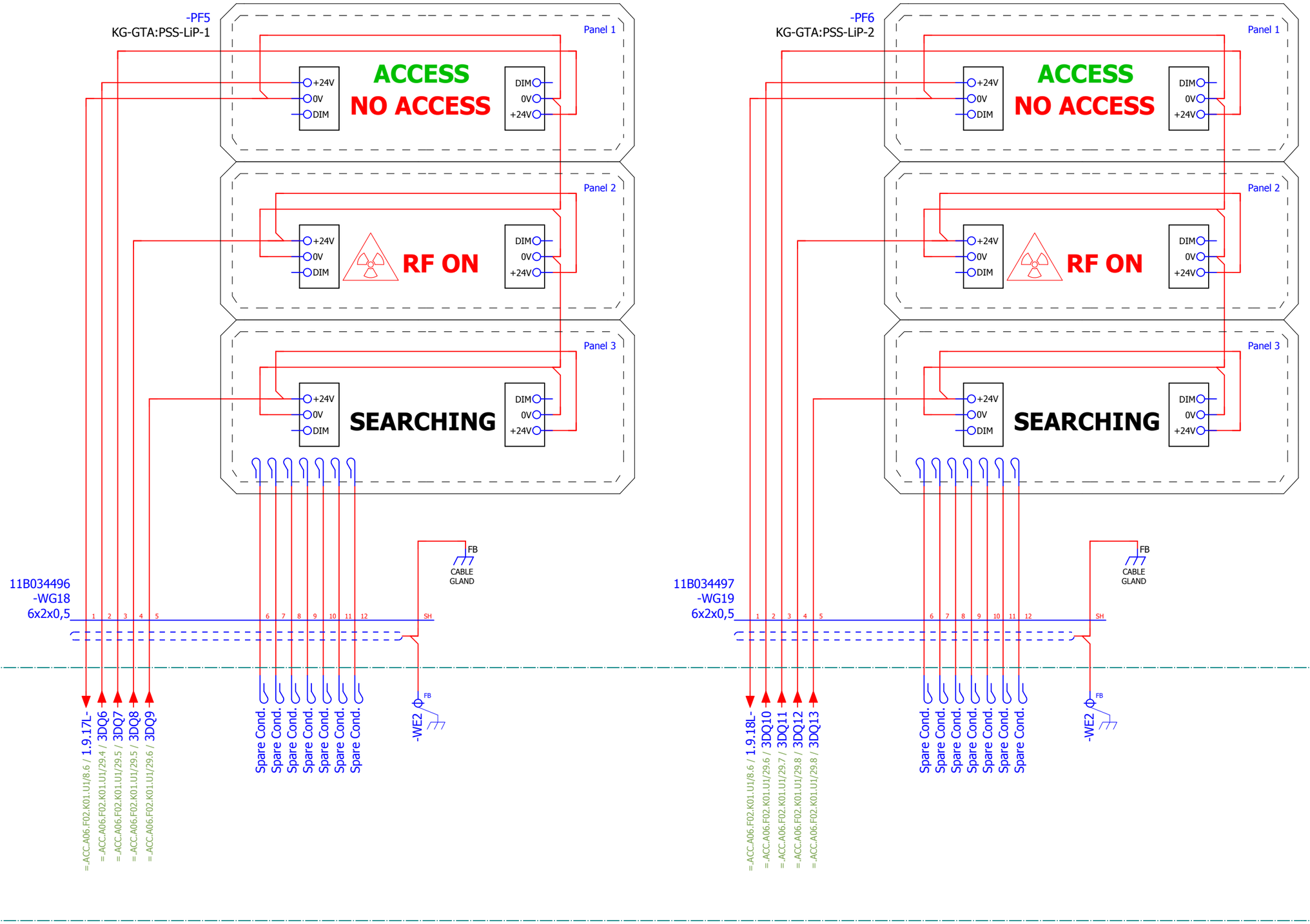
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
DESIGN SITE: ESS	ePLAN electric P8 V2.7		CHESS Doc. NR: ESS-0508473	Document: &FS6	

Information panels



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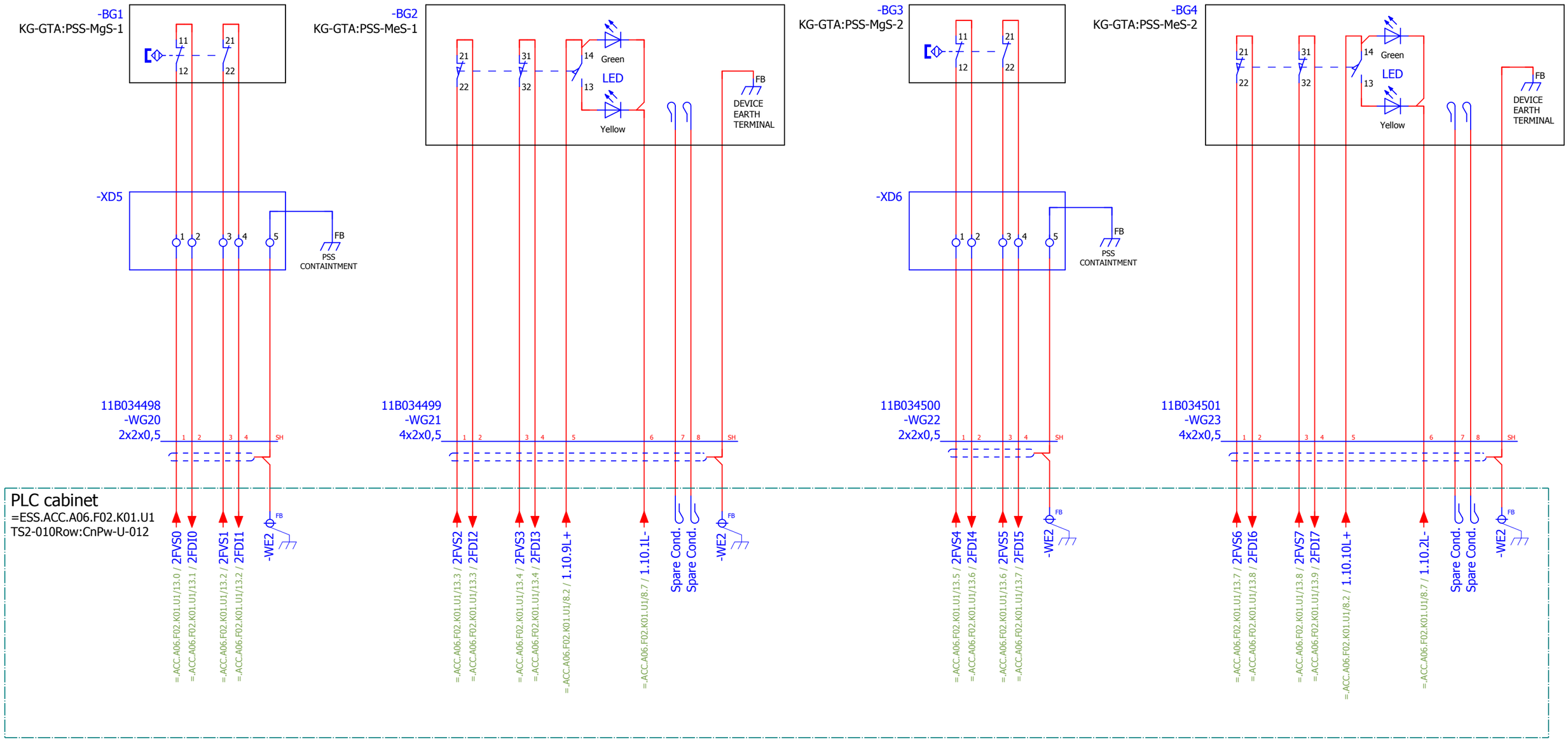
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS7	

Position switches



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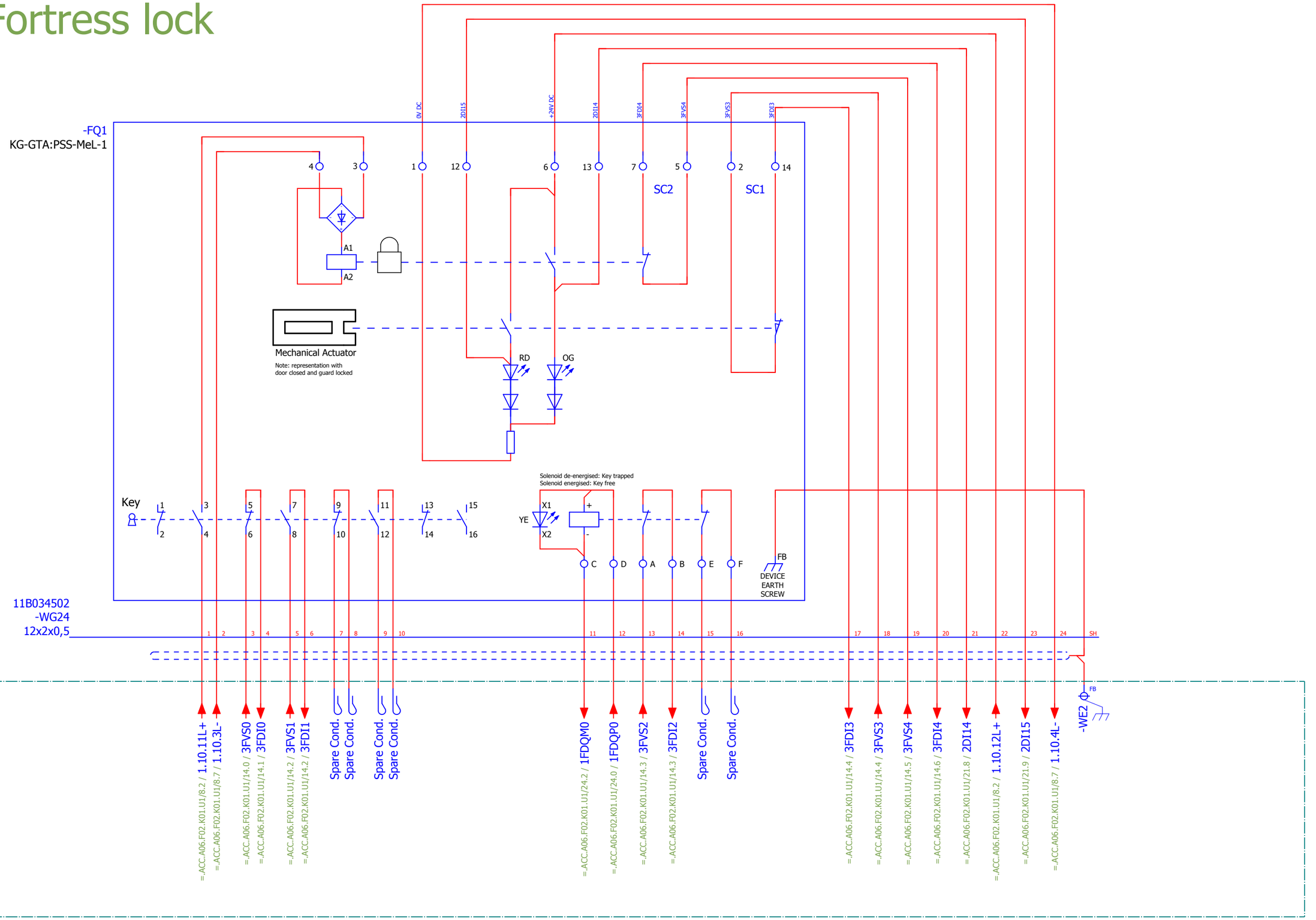
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS8	

PAD Fortress lock



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REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
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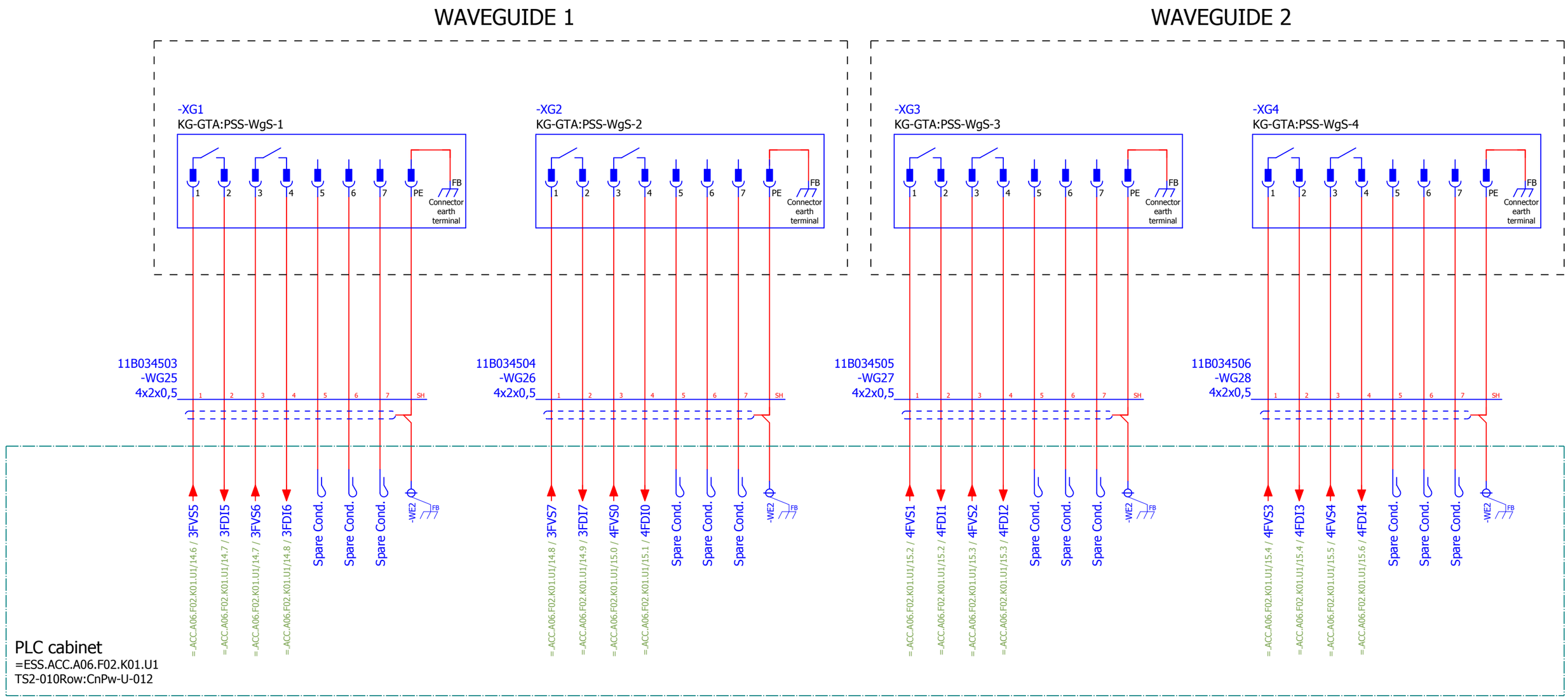
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.F01
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473; Document: &FS9

Waveguide Switches 1 to 4



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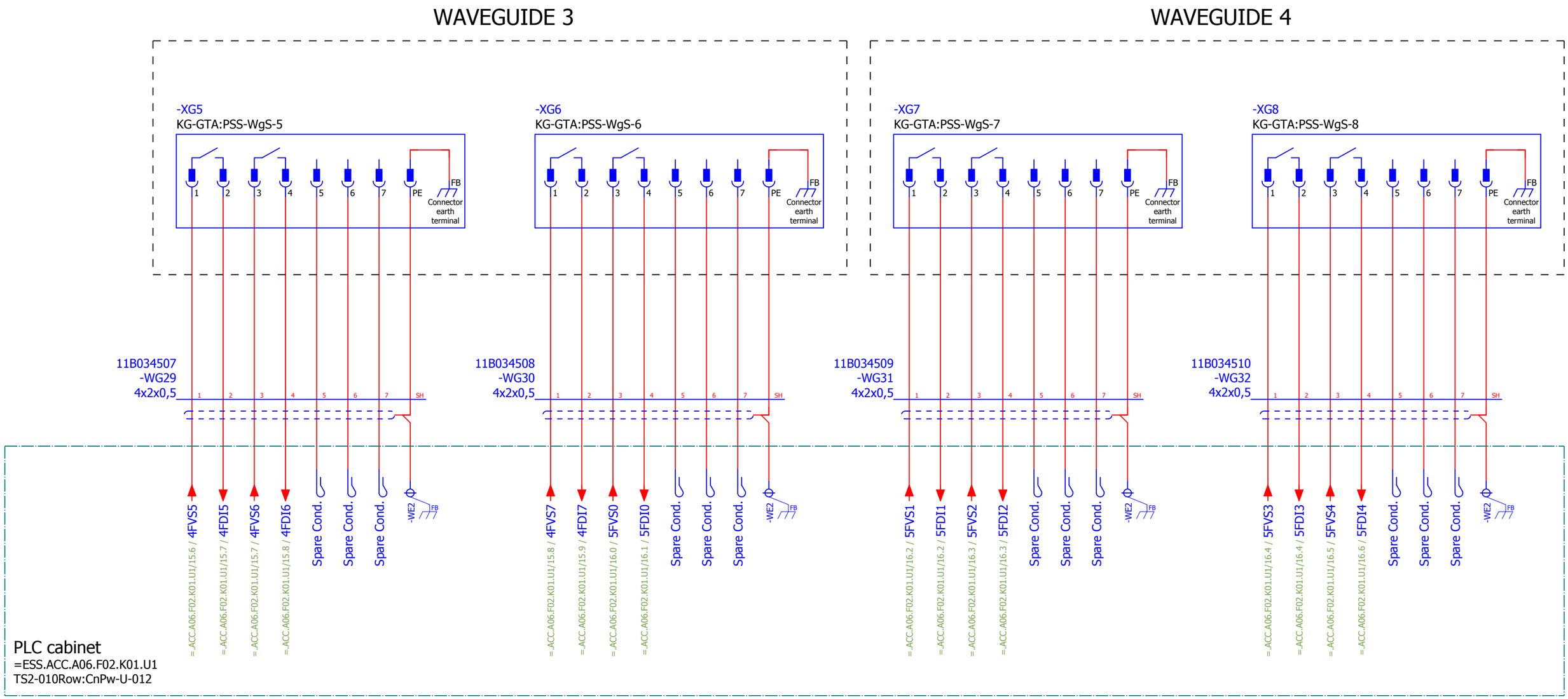
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS10	

Waveguide Switches 5 to 8



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APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473 / Document: &FS11

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	1	SIGNALLING COLUMN CONNECT. ELEMENT FOR WITH BASE MOUNT./ ANGLE MOUNT. COVER LID AND SEAL FOR SCREW CONNECTION	8WD4408-0AB	Siemens AG	SIE.8WD4408-0AB	
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	1	Siren element, multi-tone 100 dB	8WD4420-0EA2	Siemens AG	SIE.8WD4420-0EA2	ESS-0316374
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	1	Continuous light element, with integrated LED, Clear, 24 V AC/DC, Dia meter 70 mm	8WD4420-5AE	Siemens AG	SIE.8WD4420-5AE	
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	1	EM. STOP MUSHROOM PUSHBUTTON, 40MM, RED	3SU1051-1HB20-0AA0	Siemens AG	SIE.3SU1051-1HB20-0AA0	
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	1	PROTECTIVE COLLAR	3SU1950-0DL80-0AA0	Siemens AG	SIE.3SU1950-0DL80-0AA0	
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	2	HOLDER	3SU1550-0AA10-0AA0	Siemens AG	SIE.3SU1550-0AA10-0AA0	
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	1	LED MODULE, AMBER	3SU1401-1BB00-1AA0	Siemens AG	SIE.3SU1401-1BB00-1AA0	
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	2	CONTACT MODULE 2NC	3SU1400-1AA10-3EA0	Siemens AG	SIE.3SU1400-1AA10-3EA0	
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	1	CONTACT MODULE 1NO	3SU1400-1AA10-1BA0	Siemens AG	SIE.3SU1400-1AA10-1BA0	
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	1	LED MODULE, WHITE	3SU1401-1BB60-1AA0	Siemens AG	SIE.3SU1401-1BB60-1AA0	
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	1	ILLUMINATED PUSHBUTTON, WHITE	3SU1051-0AB60-0AA0	Siemens AG	SIE.3SU1051-0AB60-0AA0	
=ESS.ACC.A06.F02.F01-A1 KG-GTA:PSS-ESOS-1	1	KL Terminal box, WHD: 150x150x120 mm, Sheet steel, without mounti ng plate	KL.1500510	Rittal	RIT.1500510	
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	1	SIGNALLING COLUMN CONNECT. ELEMENT FOR WITH BASE MOUNT./ ANGLE MOUNT. COVER LID AND SEAL FOR SCREW CONNECTION	8WD4408-0AB	Siemens AG	SIE.8WD4408-0AB	
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	1	Siren element, multi-tone 100 dB	8WD4420-0EA2	Siemens AG	SIE.8WD4420-0EA2	ESS-0316374
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	1	Continuous light element, with integrated LED, Clear, 24 V AC/DC, Dia meter 70 mm	8WD4420-5AE	Siemens AG	SIE.8WD4420-5AE	
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	1	EM. STOP MUSHROOM PUSHBUTTON, 40MM, RED	3SU1051-1HB20-0AA0	Siemens AG	SIE.3SU1051-1HB20-0AA0	
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	1	PROTECTIVE COLLAR	3SU1950-0DL80-0AA0	Siemens AG	SIE.3SU1950-0DL80-0AA0	
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	2	HOLDER	3SU1550-0AA10-0AA0	Siemens AG	SIE.3SU1550-0AA10-0AA0	
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	1	LED MODULE, AMBER	3SU1401-1BB00-1AA0	Siemens AG	SIE.3SU1401-1BB00-1AA0	
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	2	CONTACT MODULE 2NC	3SU1400-1AA10-3EA0	Siemens AG	SIE.3SU1400-1AA10-3EA0	
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	1	CONTACT MODULE 1NO	3SU1400-1AA10-1BA0	Siemens AG	SIE.3SU1400-1AA10-1BA0	
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	1	LED MODULE, WHITE	3SU1401-1BB60-1AA0	Siemens AG	SIE.3SU1401-1BB60-1AA0	

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EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

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CHECKED BY: MMI	DATE:	PAGE TYPE: Parts list	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &PC1	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	1	ILLUMINATED PUSHBUTTON, WHITE	3SU1051-0AB60-0AA0	Siemens AG	SIE.3SU1051-0AB60-0AA0	
=ESS.ACC.A06.F02.F01-A2 KG-GTA:PSS-ESOS-2	1	KL Terminal box, WHD: 150x150x120 mm, Sheet steel, without mounting plate	KL.1500510	Rittal	RIT.1500510	
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	1	SIGNALLING COLUMN CONNECT. ELEMENT FOR WITH BASE MOUNT./ ANGLE MOUNT. COVER LID AND SEAL FOR SCREW CONNECTION	8WD4408-0AB	Siemens AG	SIE.8WD4408-0AB	
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	1	Siren element, multi-tone 100 dB	8WD4420-0EA2	Siemens AG	SIE.8WD4420-0EA2	ESS-0316374
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	1	Continuous light element, with integrated LED, Clear, 24 V AC/DC, Diameter 70 mm	8WD4420-5AE	Siemens AG	SIE.8WD4420-5AE	
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	1	EM. STOP MUSHROOM PUSHBUTTON, 40MM, RED	3SU1051-1HB20-0AA0	Siemens AG	SIE.3SU1051-1HB20-0AA0	
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	1	PROTECTIVE COLLAR	3SU1950-0DL80-0AA0	Siemens AG	SIE.3SU1950-0DL80-0AA0	
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	2	HOLDER	3SU1550-0AA10-0AA0	Siemens AG	SIE.3SU1550-0AA10-0AA0	
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	1	LED MODULE, AMBER	3SU1401-1BB00-1AA0	Siemens AG	SIE.3SU1401-1BB00-1AA0	
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	2	CONTACT MODULE 2NC	3SU1400-1AA10-3EA0	Siemens AG	SIE.3SU1400-1AA10-3EA0	
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	1	CONTACT MODULE 1NO	3SU1400-1AA10-1BA0	Siemens AG	SIE.3SU1400-1AA10-1BA0	
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	1	LED MODULE, WHITE	3SU1401-1BB60-1AA0	Siemens AG	SIE.3SU1401-1BB60-1AA0	
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	1	ILLUMINATED PUSHBUTTON, WHITE	3SU1051-0AB60-0AA0	Siemens AG	SIE.3SU1051-0AB60-0AA0	
=ESS.ACC.A06.F02.F01-A3 KG-GTA:PSS-ESOS-3	1	KL Terminal box, WHD: 150x150x120 mm, Sheet steel, without mounting plate	KL.1500510	Rittal	RIT.1500510	
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	1	SIGNALLING COLUMN CONNECT. ELEMENT FOR WITH BASE MOUNT./ ANGLE MOUNT. COVER LID AND SEAL FOR SCREW CONNECTION	8WD4408-0AB	Siemens AG	SIE.8WD4408-0AB	
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	1	Siren element, multi-tone 100 dB	8WD4420-0EA2	Siemens AG	SIE.8WD4420-0EA2	ESS-0316374
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	1	Continuous light element, with integrated LED, Clear, 24 V AC/DC, Diameter 70 mm	8WD4420-5AE	Siemens AG	SIE.8WD4420-5AE	
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	1	EM. STOP MUSHROOM PUSHBUTTON, 40MM, RED	3SU1051-1HB20-0AA0	Siemens AG	SIE.3SU1051-1HB20-0AA0	
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	1	PROTECTIVE COLLAR	3SU1950-0DL80-0AA0	Siemens AG	SIE.3SU1950-0DL80-0AA0	
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	2	HOLDER	3SU1550-0AA10-0AA0	Siemens AG	SIE.3SU1550-0AA10-0AA0	
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	1	LED MODULE, AMBER	3SU1401-1BB00-1AA0	Siemens AG	SIE.3SU1401-1BB00-1AA0	
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	2	CONTACT MODULE 2NC	3SU1400-1AA10-3EA0	Siemens AG	SIE.3SU1400-1AA10-3EA0	

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ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &PC2	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	1	CONTACT MODULE 1NO	3SU1400-1AA10-1BA0	Siemens AG	SIE.3SU1400-1AA10-1BA0	
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	1	LED MODULE, WHITE	3SU1401-1BB60-1AA0	Siemens AG	SIE.3SU1401-1BB60-1AA0	
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	1	ILLUMINATED PUSHBUTTON, WHITE	3SU1051-0AB60-0AA0	Siemens AG	SIE.3SU1051-0AB60-0AA0	
=ESS.ACC.A06.F02.F01-A4 KG-GTA:PSS-ESOS-4	1	KL Terminal box, WHD: 150x150x120 mm, Sheet steel, without mounting plate	KL.1500510	Rittal	RIT.1500510	
=ESS.ACC.A06.F02.F01-BG1 KG-GTA:PSS-MgS-1	1	3SE6 magnetically operated switch (switching element)	3SE6604-2BA	Siemens AG	SIE.3SE6604-2BA	
=ESS.ACC.A06.F02.F01-BG1 KG-GTA:PSS-MgS-1	1	Solenoid rectangular large	3SE6704-2BA	Siemens AG	SIE.3SE6704-2BA	
=ESS.ACC.A06.F02.F01-BG1 KG-GTA:PSS-MgS-1	1	Spacer for rectangular encoder unit 25 x 88	SIE.3SX3260	Siemens AG	SIE.3SX3260	
=ESS.ACC.A06.F02.F01-BG2 KG-GTA:PSS-MeS-1	1	position switch	3SE5112-1QV10	Siemens AG	SIE.3SE5112-1QV10	
=ESS.ACC.A06.F02.F01-BG2 KG-GTA:PSS-MeS-1	1	Separate actuator	3SE5000-0AV07	Siemens AG	SIE.3SE5000-0AV07	
=ESS.ACC.A06.F02.F01-BG3 KG-GTA:PSS-MgS-2	1	3SE6 magnetically operated switch (switching element)	3SE6604-2BA	Siemens AG	SIE.3SE6604-2BA	
=ESS.ACC.A06.F02.F01-BG3 KG-GTA:PSS-MgS-2	1	Solenoid rectangular large	3SE6704-2BA	Siemens AG	SIE.3SE6704-2BA	
=ESS.ACC.A06.F02.F01-BG3 KG-GTA:PSS-MgS-2	1	Spacer for rectangular encoder unit 25 x 88	SIE.3SX3260	Siemens AG	SIE.3SX3260	
=ESS.ACC.A06.F02.F01-BG4 KG-GTA:PSS-MeS-2	1	position switch	3SE5112-1QV10	Siemens AG	SIE.3SE5112-1QV10	
=ESS.ACC.A06.F02.F01-BG4 KG-GTA:PSS-MeS-2	1	Separate actuator	3SE5000-0AV07	Siemens AG	SIE.3SE5000-0AV07	
=ESS.ACC.A06.F02.F01-BQ1 KG-GTA:ODH-O2iM-1	1	NEMA 4X Oxygen Deficiency Monitor	O2iM	Oxigraf	OXI.07-0180	
=ESS.ACC.A06.F02.F01-BQ2 KG-GTA:ODH-O2iM-2	1	NEMA 4X Oxygen Deficiency Monitor	O2iM	Oxigraf	OXI.07-0180	
=ESS.ACC.A06.F02.F01-FQ1 KG-GTA:PSS-MeL-1	1	TA1-T6-R4-SR418 ATTACHED TO SS1 CLIS 24V 20A 4NO 4NC	T3604	Fortress Interlock	FOR.T3604	
=ESS.ACC.A06.F02.F01-FQ1	1	mGard SS1, Solenoid Controlled Key Switch	SR-CLIN-A02022	Fortress Interlock	FOR.SR-CLIN-A02022	
=ESS.ACC.A06.F02.F01-PF1 RSL-1	1	Solex xenon, Red Lens, Deep Red Base,10CD	531024FULL-0088	Eaton	ETN.531024FULL-0088	
=ESS.ACC.A06.F02.F01-PF2 RSL-2	1	Solex xenon, Red Lens, Deep Red Base,10CD	531024FULL-0088	Eaton	ETN.531024FULL-0088	
=ESS.ACC.A06.F02.F01-PF3 RSL-3	1	Solex xenon, Red Lens, Deep Red Base,10CD	531024FULL-0088	Eaton	ETN.531024FULL-0088	
=ESS.ACC.A06.F02.F01-PF4 RSL-4	1	Solex xenon, Red Lens, Deep Red Base,10CD	531024FULL-0088	Eaton	ETN.531024FULL-0088	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Parts list	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &PC3	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.F01-PF5 KG-GTA:PSS-LiP-1	1	LED Sign: "ACCESS/NO ACCESS", RED/GREEN	Ultra Range of LED signs - LEDS-ULT-470	Lasermet	LAS.LEDS-ULT-470-RG	
=ESS.ACC.A06.F02.F01-PF5 KG-GTA:PSS-LiP-1	1	LED Sign: "RF ON", RED	Ultra Range of LED signs - LEDS-ULT-470	Lasermet	LAS.LEDS-ULT-470-R	
=ESS.ACC.A06.F02.F01-PF5 KG-GTA:PSS-LiP-1	1	LED Sign: "SEARCHING", WHITE	Ultra Range of LED signs- LEDS-ULT-470	Lasermet	LAS.LEDS-ULT-470	
=ESS.ACC.A06.F02.F01-PF5 KG-GTA:PSS-LiP-1	1	Backbox for three 470mm or three 790mm wide sign	Ultra Range of LED signs - Mounting Options	Lasermet	LAS.LEDS-ULT-470-BB3	
=ESS.ACC.A06.F02.F01-PF5 KG-GTA:PSS-LiP-1	2	Plastic trim for multiple 470mm	Ultra Range of LED signs - Mounting Options	Lasermet	LAS.LEDS-ULT-470-PT	
=ESS.ACC.A06.F02.F01-PF6 KG-GTA:PSS-LiP-2	1	LED Sign: "ACCESS/NO ACCESS", RED/GREEN	Ultra Range of LED signs - LEDS-ULT-470	Lasermet	LAS.LEDS-ULT-470-RG	
=ESS.ACC.A06.F02.F01-PF6 KG-GTA:PSS-LiP-2	1	LED Sign: "RF ON", RED	Ultra Range of LED signs - LEDS-ULT-470	Lasermet	LAS.LEDS-ULT-470-R	
=ESS.ACC.A06.F02.F01-PF6 KG-GTA:PSS-LiP-2	1	LED Sign: "SEARCHING", WHITE	Ultra Range of LED signs- LEDS-ULT-470	Lasermet	LAS.LEDS-ULT-470	
=ESS.ACC.A06.F02.F01-PF6 KG-GTA:PSS-LiP-2	1	Backbox for three 470mm or three 790mm wide sign	Ultra Range of LED signs - Mounting Options	Lasermet	LAS.LEDS-ULT-470-BB3	
=ESS.ACC.A06.F02.F01-PF6 KG-GTA:PSS-LiP-2	2	Plastic trim for multiple 470mm	Ultra Range of LED signs - Mounting Options	Lasermet	LAS.LEDS-ULT-470-PT	
=ESS.ACC.A06.F02.F01-PJ1 ACS-1	1	Multi-t.sounder WM 32 tne 9-28VDC RD	14015050	Werma	WER.14015050	
=ESS.ACC.A06.F02.F01-PZ1 KG-GTA:PSS-Ann-1	1	signaling column 8WD44, Ø 70 mm, connection element with top cover	8WD4408-0AA	Siemens AG	SIE.8WD4408-0AA	
=ESS.ACC.A06.F02.F01-PZ1 KG-GTA:PSS-Ann-1	1	Siren element, multi-tone 100 dB	8WD4420-0EA2	Siemens AG	SIE.8WD4420-0EA2	ESS-0316374
=ESS.ACC.A06.F02.F01-PZ1 KG-GTA:PSS-Ann-1	1	Continuous light element, with integrated LED, green, 24 V AC/DC, Dia meter 70 mm	8WD4420-5AC	Siemens AG	SIE.8WD4420-5AC	ESS-0316370
=ESS.ACC.A06.F02.F01-PZ1 KG-GTA:PSS-Ann-1	1	Bracket for foot mounting	8WD4408-0CC	Siemens AG	SIE.8WD4408-0CC	
=ESS.ACC.A06.F02.F01-PZ1 KG-GTA:PSS-Ann-1	1	Pipe with foot,	8WD4308-0DA	Siemens AG	SIE.8WD4308-0DA	
=ESS.ACC.A06.F02.F01-PZ1 KG-GTA:PSS-Ann-1	1	Continuous light element, with integrated LED, Clear, 24 V AC/DC, Dia meter 70 mm	8WD4420-5AE	Siemens AG	SIE.8WD4420-5AE	
=ESS.ACC.A06.F02.F01-PZ2 KG-GTA:PSS-Ann-1	1	signaling column 8WD44, Ø 70 mm, connection element with top cover	8WD4408-0AA	Siemens AG	SIE.8WD4408-0AA	
=ESS.ACC.A06.F02.F01-PZ2 KG-GTA:PSS-Ann-1	1	Siren element, multi-tone 100 dB	8WD4420-0EA2	Siemens AG	SIE.8WD4420-0EA2	ESS-0316374
=ESS.ACC.A06.F02.F01-PZ2 KG-GTA:PSS-Ann-1	1	Continuous light element, with integrated LED, green, 24 V AC/DC, Dia meter 70 mm	8WD4420-5AC	Siemens AG	SIE.8WD4420-5AC	ESS-0316370
=ESS.ACC.A06.F02.F01-PZ2 KG-GTA:PSS-Ann-1	1	Bracket for foot mounting	8WD4408-0CC	Siemens AG	SIE.8WD4408-0CC	
=ESS.ACC.A06.F02.F01-PZ2 KG-GTA:PSS-Ann-1	1	Pipe with foot,	8WD4308-0DA	Siemens AG	SIE.8WD4308-0DA	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Parts list	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &PC4	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.F01-PZ2 KG-GTA:PSS-Ann-1	1	Continuous light element, with integrated LED, Clear, 24 V AC/DC, Diameter 70 mm	8WD4420-5AE	Siemens AG	SIE.8WD4420-5AE	
=ESS.ACC.A06.F02.F01-WG10	2	UNITRONIC LiHCH 2X0,5	UNITRONIC® LiHCH	LAPP	LAPP.0037602	
=ESS.ACC.A06.F02.F01-WG11	2	UNITRONIC LiHCH 2X0,5	UNITRONIC® LiHCH	LAPP	LAPP.0037602	
=ESS.ACC.A06.F02.F01-X1	12	Feed-through terminal block	WDU 1.5/R3.5	Weidmueller	WEI.1753280000	
=ESS.ACC.A06.F02.F01-X1	4	PE terminal	WPE 1.5/R3.5	Weidmueller	WEI.1798460000	
=ESS.ACC.A06.F02.F01-X2	12	Feed-through terminal block	WDU 1.5/R3.5	Weidmueller	WEI.1753280000	
=ESS.ACC.A06.F02.F01-X2	4	PE terminal	WPE 1.5/R3.5	Weidmueller	WEI.1798460000	
=ESS.ACC.A06.F02.F01-X3	8	Feed-through terminal block	WDU 1.5/R3.5	Weidmueller	WEI.1753280000	
=ESS.ACC.A06.F02.F01-X3	2	PE terminal	WPE 1.5/R3.5	Weidmueller	WEI.1798460000	
=ESS.ACC.A06.F02.F01-X4	8	Feed-through terminal block	WDU 1.5/R3.5	Weidmueller	WEI.1753280000	
=ESS.ACC.A06.F02.F01-X4	2	PE terminal	WPE 1.5/R3.5	Weidmueller	WEI.1798460000	
=ESS.ACC.A06.F02.F01-XD1	1	PK Polycarbonate enclosure, WHD: 130x94x57 mm	PK.9508050	Rittal	RIT.9508050	
=ESS.ACC.A06.F02.F01-XD2	1	PK Polycarbonate enclosure, WHD: 130x94x57 mm	PK.9508050	Rittal	RIT.9508050	
=ESS.ACC.A06.F02.F01-XD3	1	PK Polycarbonate enclosure, WHD: 130x94x57 mm	PK.9508050	Rittal	RIT.9508050	
=ESS.ACC.A06.F02.F01-XD4	1	PK Polycarbonate enclosure, WHD: 130x94x57 mm	PK.9508050	Rittal	RIT.9508050	
=ESS.ACC.A06.F02.F01-XD5	1	PK Polycarbonate enclosure, WHD: 94x94x57 mm	PK.9504000	Rittal	RIT.9504000	
=ESS.ACC.A06.F02.F01-XD6	1	PK Polycarbonate enclosure, WHD: 94x94x57 mm	PK.9504000	Rittal	RIT.9504000	
=ESS.ACC.A06.F02.F01-XG1 KG-GTA:PSS-WgS-1	1	Inserts	Han Q 7/0-M	Harting	HAR.09120073001	
=ESS.ACC.A06.F02.F01-XG1 KG-GTA:PSS-WgS-1	1	Hoods/Housings	Han 3EMV-gg-M20	Harting	HAR.19620031440	
=ESS.ACC.A06.F02.F01-XG1 KG-GTA:PSS-WgS-1	2	Inserts	Han Q 7/0-F	Harting	HAR.09120073101	
=ESS.ACC.A06.F02.F01-XG1 KG-GTA:PSS-WgS-1	2	Hoods/Housings	Han 3EMV-agw-QB	Harting	HAR.09620030801	
=ESS.ACC.A06.F02.F01-XG1 KG-GTA:PSS-WgS-1	7	Contacts	R 15-BU-C-0,5 QMM	Harting	HAR.09150006203	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Parts list	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
DESIGN SITE: ESS			CHESS Doc. NR: ESS-0508473	Document: &PC5	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.F01-XG1 KG-GTA:PSS-WgS-1	7	Contacts	R 15-STI-C-0,5 QMM-AWG 20	Harting	HAR.09150006103	
=ESS.ACC.A06.F02.F01-XG2 KG-GTA:PSS-WgS-2	1	Inserts	Han Q 7/0-M	Harting	HAR.09120073001	
=ESS.ACC.A06.F02.F01-XG2 KG-GTA:PSS-WgS-2	1	Hoods/Housings	Han 3EMV-gg-M20	Harting	HAR.19620031440	
=ESS.ACC.A06.F02.F01-XG2 KG-GTA:PSS-WgS-2	2	Inserts	Han Q 7/0-F	Harting	HAR.09120073101	
=ESS.ACC.A06.F02.F01-XG2 KG-GTA:PSS-WgS-2	2	Hoods/Housings	Han 3EMV-agw-QB	Harting	HAR.09620030801	
=ESS.ACC.A06.F02.F01-XG2 KG-GTA:PSS-WgS-2	7	Contacts	R 15-BU-C-0,5 QMM	Harting	HAR.09150006203	
=ESS.ACC.A06.F02.F01-XG2 KG-GTA:PSS-WgS-2	7	Contacts	R 15-STI-C-0,5 QMM-AWG 20	Harting	HAR.09150006103	
=ESS.ACC.A06.F02.F01-XG3 KG-GTA:PSS-WgS-3	1	Inserts	Han Q 7/0-M	Harting	HAR.09120073001	
=ESS.ACC.A06.F02.F01-XG3 KG-GTA:PSS-WgS-3	1	Hoods/Housings	Han 3EMV-gg-M20	Harting	HAR.19620031440	
=ESS.ACC.A06.F02.F01-XG3 KG-GTA:PSS-WgS-3	2	Inserts	Han Q 7/0-F	Harting	HAR.09120073101	
=ESS.ACC.A06.F02.F01-XG3 KG-GTA:PSS-WgS-3	2	Hoods/Housings	Han 3EMV-agw-QB	Harting	HAR.09620030801	
=ESS.ACC.A06.F02.F01-XG3 KG-GTA:PSS-WgS-3	7	Contacts	R 15-BU-C-0,5 QMM	Harting	HAR.09150006203	
=ESS.ACC.A06.F02.F01-XG3 KG-GTA:PSS-WgS-3	7	Contacts	R 15-STI-C-0,5 QMM-AWG 20	Harting	HAR.09150006103	
=ESS.ACC.A06.F02.F01-XG4 KG-GTA:PSS-WgS-4	1	Inserts	Han Q 7/0-M	Harting	HAR.09120073001	
=ESS.ACC.A06.F02.F01-XG4 KG-GTA:PSS-WgS-4	1	Hoods/Housings	Han 3EMV-gg-M20	Harting	HAR.19620031440	
=ESS.ACC.A06.F02.F01-XG4 KG-GTA:PSS-WgS-4	2	Inserts	Han Q 7/0-F	Harting	HAR.09120073101	
=ESS.ACC.A06.F02.F01-XG4 KG-GTA:PSS-WgS-4	2	Hoods/Housings	Han 3EMV-agw-QB	Harting	HAR.09620030801	
=ESS.ACC.A06.F02.F01-XG4 KG-GTA:PSS-WgS-4	7	Contacts	R 15-BU-C-0,5 QMM	Harting	HAR.09150006203	
=ESS.ACC.A06.F02.F01-XG4 KG-GTA:PSS-WgS-4	7	Contacts	R 15-STI-C-0,5 QMM-AWG 20	Harting	HAR.09150006103	
=ESS.ACC.A06.F02.F01-XG5 KG-GTA:PSS-WgS-5	1	Inserts	Han Q 7/0-M	Harting	HAR.09120073001	
=ESS.ACC.A06.F02.F01-XG5 KG-GTA:PSS-WgS-5	1	Hoods/Housings	Han 3EMV-gg-M20	Harting	HAR.19620031440	
=ESS.ACC.A06.F02.F01-XG5 KG-GTA:PSS-WgS-5	2	Inserts	Han Q 7/0-F	Harting	HAR.09120073101	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION 2	REVISION DATE 2019-04-05	CHANGE ORDER Full version	REASON FOR REVISION CHANGE Contains: PLC cabinet design + Field devices
REVISION 1	REVISION DATE 2019-02-07	CHANGE ORDER Preliminary version	REASON FOR REVISION CHANGE Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

ePLAN electric P8 V2.7

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Parts list	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY SBH	DATE	FUNCTION TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PC6	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.F01-XG5 KG-GTA:PSS-WgS-5	2	Hoods/Housings	Han 3EMV-agw-QB	Harting	HAR.09620030801	
=ESS.ACC.A06.F02.F01-XG5 KG-GTA:PSS-WgS-5	7	Contacts	R 15-BU-C-0,5 QMM	Harting	HAR.09150006203	
=ESS.ACC.A06.F02.F01-XG5 KG-GTA:PSS-WgS-5	7	Contacts	R 15-STI-C-0,5 QMM-AWG 20	Harting	HAR.09150006103	
=ESS.ACC.A06.F02.F01-XG6 KG-GTA:PSS-WgS-6	1	Inserts	Han Q 7/0-M	Harting	HAR.09120073001	
=ESS.ACC.A06.F02.F01-XG6 KG-GTA:PSS-WgS-6	1	Hoods/Housings	Han 3EMV-gg-M20	Harting	HAR.19620031440	
=ESS.ACC.A06.F02.F01-XG6 KG-GTA:PSS-WgS-6	2	Inserts	Han Q 7/0-F	Harting	HAR.09120073101	
=ESS.ACC.A06.F02.F01-XG6 KG-GTA:PSS-WgS-6	2	Hoods/Housings	Han 3EMV-agw-QB	Harting	HAR.09620030801	
=ESS.ACC.A06.F02.F01-XG6 KG-GTA:PSS-WgS-6	7	Contacts	R 15-BU-C-0,5 QMM	Harting	HAR.09150006203	
=ESS.ACC.A06.F02.F01-XG6 KG-GTA:PSS-WgS-6	7	Contacts	R 15-STI-C-0,5 QMM-AWG 20	Harting	HAR.09150006103	
=ESS.ACC.A06.F02.F01-XG7 KG-GTA:PSS-WgS-7	1	Inserts	Han Q 7/0-M	Harting	HAR.09120073001	
=ESS.ACC.A06.F02.F01-XG7 KG-GTA:PSS-WgS-7	1	Hoods/Housings	Han 3EMV-gg-M20	Harting	HAR.19620031440	
=ESS.ACC.A06.F02.F01-XG7 KG-GTA:PSS-WgS-7	2	Inserts	Han Q 7/0-F	Harting	HAR.09120073101	
=ESS.ACC.A06.F02.F01-XG7 KG-GTA:PSS-WgS-7	2	Hoods/Housings	Han 3EMV-agw-QB	Harting	HAR.09620030801	
=ESS.ACC.A06.F02.F01-XG7 KG-GTA:PSS-WgS-7	7	Contacts	R 15-BU-C-0,5 QMM	Harting	HAR.09150006203	
=ESS.ACC.A06.F02.F01-XG7 KG-GTA:PSS-WgS-7	7	Contacts	R 15-STI-C-0,5 QMM-AWG 20	Harting	HAR.09150006103	
=ESS.ACC.A06.F02.F01-XG8 KG-GTA:PSS-WgS-8	1	Inserts	Han Q 7/0-M	Harting	HAR.09120073001	
=ESS.ACC.A06.F02.F01-XG8 KG-GTA:PSS-WgS-8	1	Hoods/Housings	Han 3EMV-gg-M20	Harting	HAR.19620031440	
=ESS.ACC.A06.F02.F01-XG8 KG-GTA:PSS-WgS-8	2	Inserts	Han Q 7/0-F	Harting	HAR.09120073101	
=ESS.ACC.A06.F02.F01-XG8 KG-GTA:PSS-WgS-8	2	Hoods/Housings	Han 3EMV-agw-QB	Harting	HAR.09620030801	
=ESS.ACC.A06.F02.F01-XG8 KG-GTA:PSS-WgS-8	7	Contacts	R 15-BU-C-0,5 QMM	Harting	HAR.09150006203	
=ESS.ACC.A06.F02.F01-XG8 KG-GTA:PSS-WgS-8	7	Contacts	R 15-STI-C-0,5 QMM-AWG 20	Harting	HAR.09150006103	

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION 2	REVISION DATE 2019-04-05	CHANGE ORDER Full version	REASON FOR REVISION CHANGE Contains: PLC cabinet design + Field devices
REVISION 1	REVISION DATE 2019-02-07	CHANGE ORDER Preliminary version	REASON FOR REVISION CHANGE Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Parts list	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY SBH	DATE	FUNCTION TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &PC7	

Cable name =ESS.ACC.A06.F02.F01-WG1
Database name 11B034479
Cable type UNITRONIC® LiHCH (TP) 12x0,5 mm²

=ESS.ACC.A06.F02.F01-WG1

Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
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=ESS.ACC.A06.F02.K01.U1&FS/21.1	=ESS.ACC.A06.F02.K01.U1-X13	2:b	TB5:1	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.6
=ESS.ACC.A06.F02.K01.U1&FS/21.2	=ESS.ACC.A06.F02.K01.U1-X13	3:b	TB5:4	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.6
=ESS.ACC.A06.F02.K01.U1&FS/21.2	=ESS.ACC.A06.F02.K01.U1-X13	4:b	TB5:7	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.7
=ESS.ACC.A06.F02.K01.U1&FS/21.3	=ESS.ACC.A06.F02.K01.U1-X13	5:b	TB5:10	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.8
=ESS.ACC.A06.F02.K01.U1&FS/23.2	=ESS.ACC.A06.F02.K01.U1-X15	4:b	TB3:1	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.2
=ESS.ACC.A06.F02.K01.U1&FS/23.2	=ESS.ACC.A06.F02.K01.U1-X15	3:b	TB3:2	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.2
=ESS.ACC.A06.F02.K01.U1&FS/27.0	=ESS.ACC.A06.F02.K01.U1-X19	1:b	TB2:1	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.1
=ESS.ACC.A06.F02.K01.U1&FS/27.1	=ESS.ACC.A06.F02.K01.U1-X19	2:b	TB2:2	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.1
=ESS.ACC.A06.F02.K01.U1&FS/8.2	=ESS.ACC.A06.F02.K01.U1-XG4	d	TB4:2	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.5
=ESS.ACC.A06.F02.K01.U1&FS/1.8	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	Insulat.	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.8
=ESS.ACC.A06.F02.K01.U1&FS/1.8	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	Insulat.	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.8
=ESS.ACC.A06.F02.K01.U1&FS/1.9	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2	FB	=ESS.ACC.A06.F02.F01-BQ1	=ESS.ACC.A06.F02.F01&FS/1.9

Cable name =ESS.ACC.A06.F02.F01-WG2
Database name 11B034480
Cable type UNITRONIC® LiHCH (TP) 12x0,5 mm²

=ESS.ACC.A06.F02.F01-WG2

Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/21.3	=ESS.ACC.A06.F02.K01.U1-X13	6:b	TB4:1	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.5
=ESS.ACC.A06.F02.K01.U1&FS/21.4	=ESS.ACC.A06.F02.K01.U1-X13	7:b	TB5:1	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.6
=ESS.ACC.A06.F02.K01.U1&FS/21.4	=ESS.ACC.A06.F02.K01.U1-X13	8:b	TB5:4	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.6
=ESS.ACC.A06.F02.K01.U1&FS/21.5	=ESS.ACC.A06.F02.K01.U1-X13	9:b	TB5:7	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.7
=ESS.ACC.A06.F02.K01.U1&FS/21.6	=ESS.ACC.A06.F02.K01.U1-X13	10:b	TB5:10	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.8
=ESS.ACC.A06.F02.K01.U1&FS/23.4	=ESS.ACC.A06.F02.K01.U1-X15	8:b	TB3:1	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.2
=ESS.ACC.A06.F02.K01.U1&FS/23.4	=ESS.ACC.A06.F02.K01.U1-X15	7:b	TB3:2	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.2
=ESS.ACC.A06.F02.K01.U1&FS/27.1	=ESS.ACC.A06.F02.K01.U1-X19	3:b	TB2:1	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.1
=ESS.ACC.A06.F02.K01.U1&FS/27.1	=ESS.ACC.A06.F02.K01.U1-X19	4:b	TB2:2	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.1
=ESS.ACC.A06.F02.K01.U1&FS/8.2	=ESS.ACC.A06.F02.K01.U1-XG4	e	TB4:2	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.5

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary / Rev: 2 / Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473 / Document: &MB1

ESS_GraphicalCable_diagram_ver1-2018

Cable name =ESS.ACC.A06.F02.F01-WG2
Database name 11B034480
Cable type UNITRONIC® LiHCH (TP) 12x0,5 mm²

=ESS.ACC.A06.F02.F01-WG2

Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
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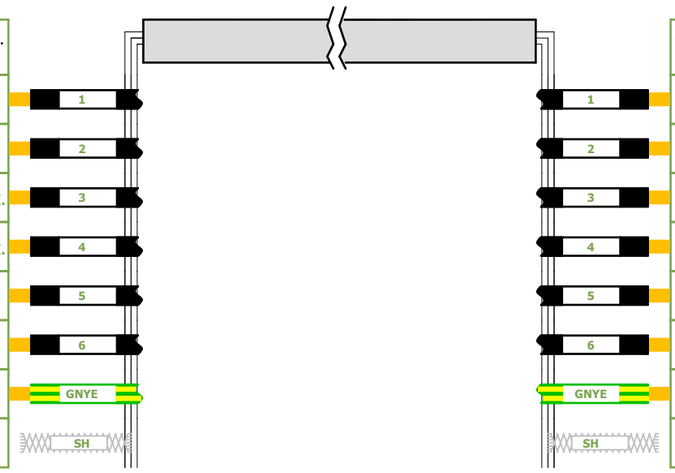
=ESS.ACC.A06.F02.K01.U1&FS/2.8	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	Insulat.	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.8
=ESS.ACC.A06.F02.K01.U1&FS/2.9	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2	FB	=ESS.ACC.A06.F02.F01-BQ2	=ESS.ACC.A06.F02.F01&FS/2.9

Cable name =ESS.ACC.A06.F02.F01-WG3
Database name 11B034481
Cable type ÖLFLEX® CLASSIC 135 CH 7G1,5 mm²

=ESS.ACC.A06.F02.F01-WG3



Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
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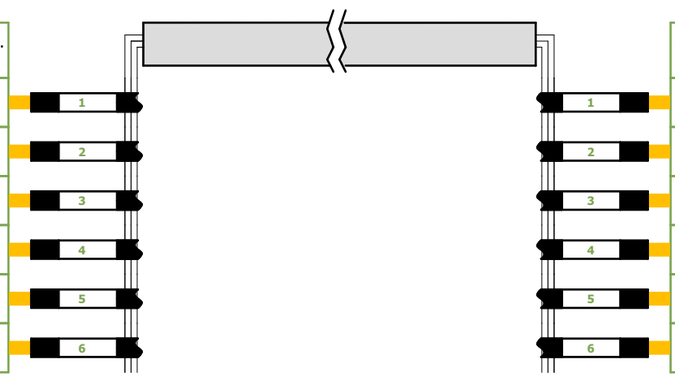
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	e	2:2	=ESS.ACC.A06.F02.F01-X1	=ESS.ACC.A06.F02.F01&FS/3.1
=ESS.ACC.A06.F02.K01.U1&FS/3.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	3:2	=ESS.ACC.A06.F02.F01-X1	=ESS.ACC.A06.F02.F01&FS/3.2
=ESS.ACC.A06.F02.K01.U1&FS/3.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	4:2	=ESS.ACC.A06.F02.F01-X1	=ESS.ACC.A06.F02.F01&FS/3.2
=ESS.ACC.A06.F02.K01.U1&FS/27.2	=ESS.ACC.A06.F02.K01.U1-X19	8:b	5:2	=ESS.ACC.A06.F02.F01-X1	=ESS.ACC.A06.F02.F01&FS/3.2
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	f	6:2	=ESS.ACC.A06.F02.F01-X1	=ESS.ACC.A06.F02.F01&FS/3.2
=ESS.ACC.A06.F02.K01.U1&FS/3.2	=ESS.ACC.A06.F02.K01.U1-WE1	-WE1	PE:2	=ESS.ACC.A06.F02.F01-X1	=ESS.ACC.A06.F02.F01&FS/3.2
=ESS.ACC.A06.F02.K01.U1&FS/3.2	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2	PE:2	=ESS.ACC.A06.F02.F01-X1	=ESS.ACC.A06.F02.F01&FS/3.2

Cable name =ESS.ACC.A06.F02.F01-WG4
Database name 11B034482
Cable type ÖLFLEX® CLASSIC 135 CH 7G1,5 mm²

=ESS.ACC.A06.F02.F01-WG4



Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
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=ESS.ACC.A06.F02.F01&FS/3.1	=ESS.ACC.A06.F02.F01-X1	2:2	2:2	=ESS.ACC.A06.F02.F01-X2	=ESS.ACC.A06.F02.F01&FS/3.4
=ESS.ACC.A06.F02.F01&FS/3.2	=ESS.ACC.A06.F02.F01-X1	3:2	3:2	=ESS.ACC.A06.F02.F01-X2	=ESS.ACC.A06.F02.F01&FS/3.4
=ESS.ACC.A06.F02.F01&FS/3.2	=ESS.ACC.A06.F02.F01-X1	4:2	4:2	=ESS.ACC.A06.F02.F01-X2	=ESS.ACC.A06.F02.F01&FS/3.4
=ESS.ACC.A06.F02.F01&FS/3.2	=ESS.ACC.A06.F02.F01-X1	5:2	5:2	=ESS.ACC.A06.F02.F01-X2	=ESS.ACC.A06.F02.F01&FS/3.4
=ESS.ACC.A06.F02.F01&FS/3.2	=ESS.ACC.A06.F02.F01-X1	6:2	6:2	=ESS.ACC.A06.F02.F01-X2	=ESS.ACC.A06.F02.F01&FS/3.5

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB2	

Cable name =ESS.ACC.A06.F02.F01-WG4
Database name 11B034482
Cable type ÖLFLEX® CLASSIC 135 CH 7G1,5 mm²

=ESS.ACC.A06.F02.F01-WG4

Page / column	Source designation from	Connect. point
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=ESS.ACC.A06.F02.F01&FS/3.2	=ESS.ACC.A06.F02.F01-X1	PE:2

Connect. point	Target designation from	Page / column
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PE:2	=ESS.ACC.A06.F02.F01-X2	=ESS.ACC.A06.F02.F01&FS/3.5

Cable name =ESS.ACC.A06.F02.F01-WG5
Database name 11B034483
Cable type ÖLFLEX® CL 135 CH 2x1.5 mm

=ESS.ACC.A06.F02.F01-WG5

Page / column	Source designation from	Connect. point
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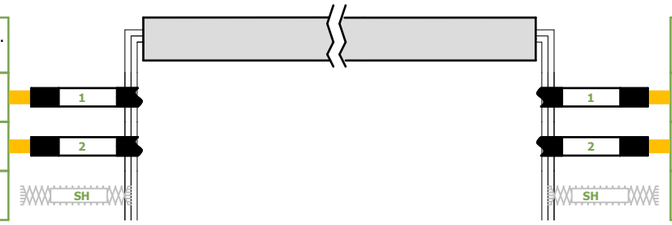
=ESS.ACC.A06.F02.F01&FS/3.1	=ESS.ACC.A06.F02.F01-X1	2:1
=ESS.ACC.A06.F02.F01&FS/3.2	=ESS.ACC.A06.F02.F01-X1	PE:1



Connect. point	Target designation from	Page / column
X1	=ESS.ACC.A06.F02.F01-PF1	=ESS.ACC.A06.F02.F01&FS/3.1
X2	=ESS.ACC.A06.F02.F01-PF1	=ESS.ACC.A06.F02.F01&FS/3.1
		3.1

Cable name =ESS.ACC.A06.F02.F01-WG6
Database name 11B034484
Cable type ÖLFLEX® CL 135 CH 2x1.5 mm

=ESS.ACC.A06.F02.F01-WG6

Page / column	Source designation from	Connect. point
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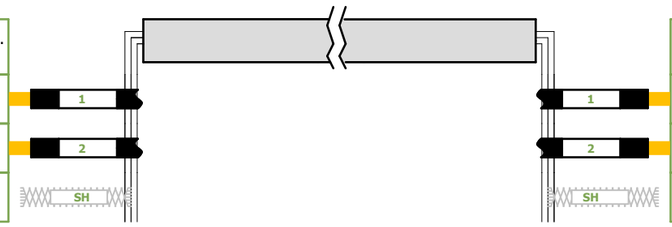
=ESS.ACC.A06.F02.F01&FS/3.5	=ESS.ACC.A06.F02.F01-X2	PE:1



Connect. point	Target designation from	Page / column
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X2	=ESS.ACC.A06.F02.F01-PF2	=ESS.ACC.A06.F02.F01&FS/3.4
		3.4

Cable name =ESS.ACC.A06.F02.F01-WG7
Database name 11B034485
Cable type ÖLFLEX® CL 135 CH 2x1.5 mm

=ESS.ACC.A06.F02.F01-WG7

Page / column	Source designation from	Connect. point
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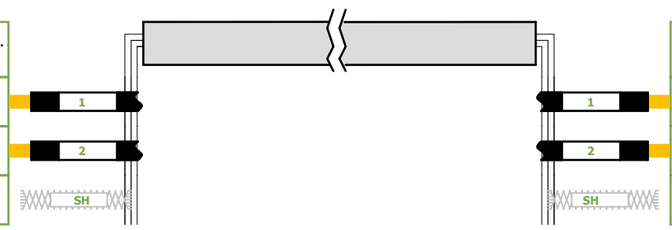

Connect. point	Target designation from	Page / column
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X2	=ESS.ACC.A06.F02.F01-PJ1	=ESS.ACC.A06.F02.F01&FS/3.5
		3.5

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB3	

Cable name =ESS.ACC.A06.F02.F01-WG8
Database name 11B034486
Cable type ÖLFLEX® CL 135 CH 4x1.5 mm

=ESS.ACC.A06.F02.F01-WG8

Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
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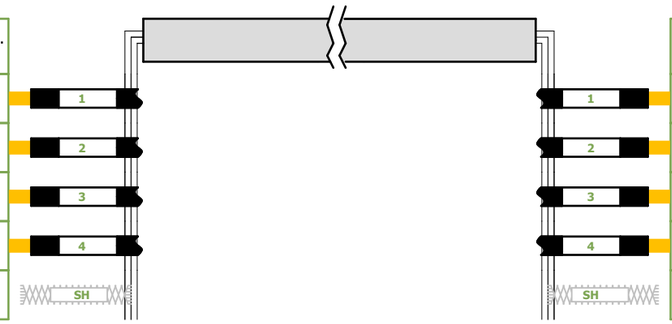
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	g	2:2	=ESS.ACC.A06.F02.F01-X3	=ESS.ACC.A06.F02.F01&FS/3.6
=ESS.ACC.A06.F02.K01.U1&FS/3.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	3:2	=ESS.ACC.A06.F02.F01-X3	=ESS.ACC.A06.F02.F01&FS/3.6
=ESS.ACC.A06.F02.K01.U1&FS/3.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	4:2	=ESS.ACC.A06.F02.F01-X3	=ESS.ACC.A06.F02.F01&FS/3.7
=ESS.ACC.A06.F02.K01.U1&FS/3.7	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2	PE:2	=ESS.ACC.A06.F02.F01-X3	=ESS.ACC.A06.F02.F01&FS/3.7

Cable name =ESS.ACC.A06.F02.F01-WG9
Database name 11B034487
Cable type ÖLFLEX® CL 135 CH 4x1.5 mm

=ESS.ACC.A06.F02.F01-WG9



Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
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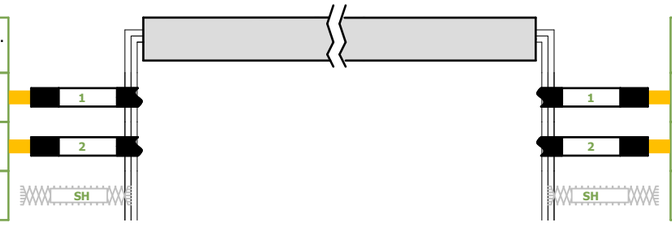
=ESS.ACC.A06.F02.F01&FS/3.6	=ESS.ACC.A06.F02.F01-X3	2:2	2:2	=ESS.ACC.A06.F02.F01-X4	=ESS.ACC.A06.F02.F01&FS/3.8
=ESS.ACC.A06.F02.F01&FS/3.6	=ESS.ACC.A06.F02.F01-X3	3:2	3:2	=ESS.ACC.A06.F02.F01-X4	=ESS.ACC.A06.F02.F01&FS/3.8
=ESS.ACC.A06.F02.F01&FS/3.7	=ESS.ACC.A06.F02.F01-X3	4:2	4:2	=ESS.ACC.A06.F02.F01-X4	=ESS.ACC.A06.F02.F01&FS/3.9
=ESS.ACC.A06.F02.F01&FS/3.7	=ESS.ACC.A06.F02.F01-X3	PE:2	PE:2	=ESS.ACC.A06.F02.F01-X4	=ESS.ACC.A06.F02.F01&FS/3.9

Cable name =ESS.ACC.A06.F02.F01-WG10
Database name 11B034488
Cable type ÖLFLEX® CL 135 CH 2x1.5 mm

=ESS.ACC.A06.F02.F01-WG10



Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.F01&FS/3.6	=ESS.ACC.A06.F02.F01-X3	1:1	X1	=ESS.ACC.A06.F02.F01-PF3	=ESS.ACC.A06.F02.F01&FS/3.6
=ESS.ACC.A06.F02.F01&FS/3.6	=ESS.ACC.A06.F02.F01-X3	2:1	X2	=ESS.ACC.A06.F02.F01-PF3	=ESS.ACC.A06.F02.F01&FS/3.6
=ESS.ACC.A06.F02.F01&FS/3.7	=ESS.ACC.A06.F02.F01-X3	PE:1			3.6

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB4	

Cable name =ESS.ACC.A06.F02.F01-WG11
Database name 11B034489
Cable type ÖLFLEX® CL 135 CH 2x1.5 mm

=ESS.ACC.A06.F02.F01-WG11

Page / column	Source designation from	Connect. point	Wire	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.F01&FS/3.8	=ESS.ACC.A06.F02.F01-X4	1:1	1	X1	=ESS.ACC.A06.F02.F01-PF4	=ESS.ACC.A06.F02.F01&FS/3.8
=ESS.ACC.A06.F02.F01&FS/3.8	=ESS.ACC.A06.F02.F01-X4	2:1	2	X2	=ESS.ACC.A06.F02.F01-PF4	=ESS.ACC.A06.F02.F01&FS/3.8
=ESS.ACC.A06.F02.F01&FS/3.9	=ESS.ACC.A06.F02.F01-X4	PE:1	SH			3.8

Cable name =ESS.ACC.A06.F02.F01-WG12
Database name 11B034490
Cable type Radox 125 NUM BK ESS 8x2x0,5 mm²

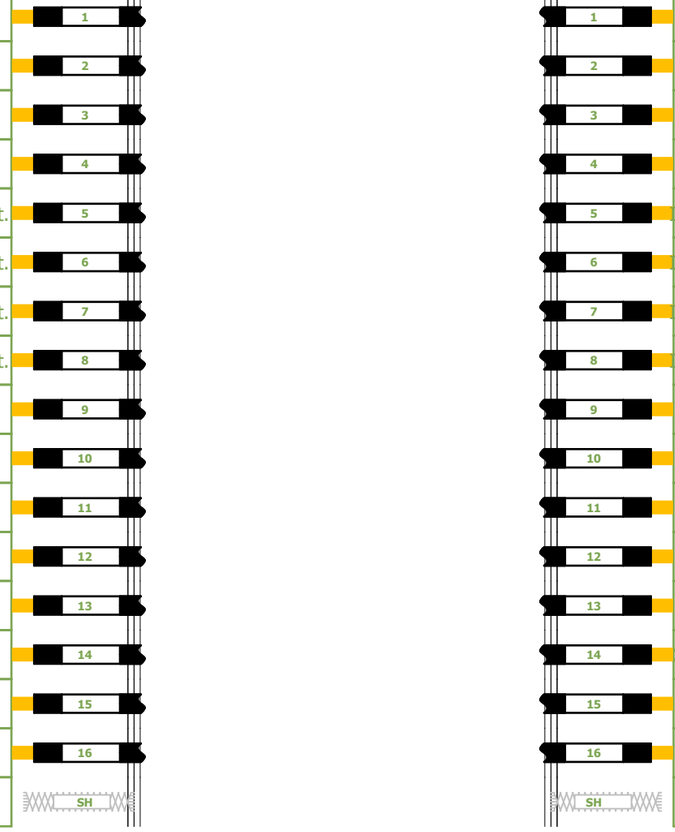
=ESS.ACC.A06.F02.F01-WG12

Page / column	Source designation from	Connect. point	Wire	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/12.0	=ESS.ACC.A06.F02.K01.U1-X4	1:b	1	12	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.2
=ESS.ACC.A06.F02.K01.U1&FS/12.1	=ESS.ACC.A06.F02.K01.U1-X4	2:b	2	11	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.2
=ESS.ACC.A06.F02.K01.U1&FS/12.2	=ESS.ACC.A06.F02.K01.U1-X4	3:b	3	22	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.2
=ESS.ACC.A06.F02.K01.U1&FS/12.2	=ESS.ACC.A06.F02.K01.U1-X4	4:b	4	21	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.2
=ESS.ACC.A06.F02.K01.U1&FS/4.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	5	Insulat.	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.2
=ESS.ACC.A06.F02.K01.U1&FS/4.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	6	Insulat.	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.2
=ESS.ACC.A06.F02.K01.U1&FS/4.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	7	Insulat.	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.2
=ESS.ACC.A06.F02.K01.U1&FS/4.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	8	Insulat.	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.2
=ESS.ACC.A06.F02.K01.U1&FS/28.1	=ESS.ACC.A06.F02.K01.U1-X20	2:b	9	X1.OG	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.3
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	h	10	X2	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.3
=ESS.ACC.A06.F02.K01.U1&FS/28.1	=ESS.ACC.A06.F02.K01.U1-X20	4:b	11	2	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.3
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	i	12	0	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.3
=ESS.ACC.A06.F02.K01.U1&FS/28.2	=ESS.ACC.A06.F02.K01.U1-X20	6:b	13	1	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.3
=ESS.ACC.A06.F02.K01.U1&FS/28.2	=ESS.ACC.A06.F02.K01.U1-X20	8:b	14	X1.WH	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.3
=ESS.ACC.A06.F02.K01.U1&FS/21.6	=ESS.ACC.A06.F02.K01.U1-X13	11:b	15	14	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.4
=ESS.ACC.A06.F02.K01.U1&FS/8.2	=ESS.ACC.A06.F02.K01.U1-XG4	f	16	13	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.4
=ESS.ACC.A06.F02.K01.U1&FS/4.4	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2	SH	FB	=ESS.ACC.A06.F02.F01-A1	=ESS.ACC.A06.F02.F01&FS/4.4

Cable name =ESS.ACC.A06.F02.F01-WG13
Database name 11B034491
Cable type Radox 125 NUM BK ESS 8x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG13

Page / column	Source designation from	Connect. point
=ESS.ACC.A06.F02.K01.U1&FS/12.3	=ESS.ACC.A06.F02.K01.U1-X4	5:b
=ESS.ACC.A06.F02.K01.U1&FS/12.3	=ESS.ACC.A06.F02.K01.U1-X4	6:b
=ESS.ACC.A06.F02.K01.U1&FS/12.4	=ESS.ACC.A06.F02.K01.U1-X4	7:b
=ESS.ACC.A06.F02.K01.U1&FS/12.4	=ESS.ACC.A06.F02.K01.U1-X4	8:b
=ESS.ACC.A06.F02.K01.U1&FS/4.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/4.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/4.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/4.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/28.3	=ESS.ACC.A06.F02.K01.U1-X20	10:b
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	j
=ESS.ACC.A06.F02.K01.U1&FS/28.4	=ESS.ACC.A06.F02.K01.U1-X20	12:b
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	k
=ESS.ACC.A06.F02.K01.U1&FS/28.4	=ESS.ACC.A06.F02.K01.U1-X20	14:b
=ESS.ACC.A06.F02.K01.U1&FS/28.5	=ESS.ACC.A06.F02.K01.U1-X20	16:b
=ESS.ACC.A06.F02.K01.U1&FS/21.7	=ESS.ACC.A06.F02.K01.U1-X13	12:b
=ESS.ACC.A06.F02.K01.U1&FS/8.2	=ESS.ACC.A06.F02.K01.U1-XG4	g
=ESS.ACC.A06.F02.K01.U1&FS/4.8	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2

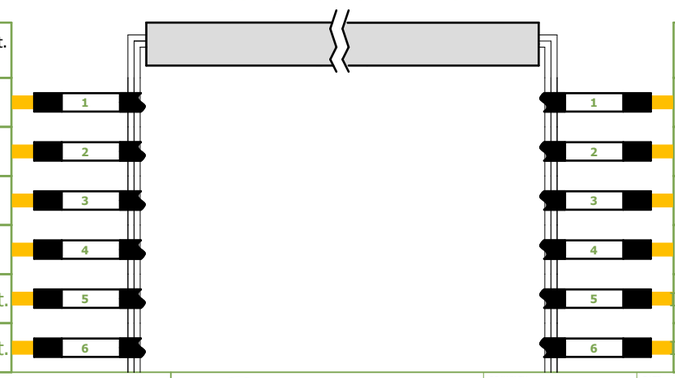


Connect. point	Target designation from	Page / column
12	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.6
11	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.6
22	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.6
21	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.6
Insulat.	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.6
Insulat.	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.6
Insulat.	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.6
Insulat.	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.6
X1.OG	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.7
X2	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.7
2	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.7
0	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.7
1	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.7
X1.WH	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.7
14	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.7
13	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.7
FB	=ESS.ACC.A06.F02.F01-A2	=ESS.ACC.A06.F02.F01&FS/4.8

Cable name =ESS.ACC.A06.F02.F01-WG14
Database name 11B034492
Cable type Radox 125 NUM BK ESS 8x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG14

Page / column	Source designation from	Connect. point
=ESS.ACC.A06.F02.K01.U1&FS/12.5	=ESS.ACC.A06.F02.K01.U1-X4	9:b
=ESS.ACC.A06.F02.K01.U1&FS/12.6	=ESS.ACC.A06.F02.K01.U1-X4	10:b
=ESS.ACC.A06.F02.K01.U1&FS/12.6	=ESS.ACC.A06.F02.K01.U1-X4	11:b
=ESS.ACC.A06.F02.K01.U1&FS/12.7	=ESS.ACC.A06.F02.K01.U1-X4	12:b
=ESS.ACC.A06.F02.K01.U1&FS/5.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/5.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.



Connect. point	Target designation from	Page / column
12	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.2
11	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.2
22	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.2
21	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.2
Insulat.	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.2
Insulat.	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.2

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary / Rev: 2 / Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473 / Document: &MB6

ESS_Graphical_Cable_diagram_ver1-2018

Cable name =ESS.ACC.A06.F02.F01-WG14
Database name 11B034492
Cable type Radox 125 NUM BK ESS 8x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG14

Page / column	Source designation from	Connect. point	Wire	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/5.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	7	Insulat.	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.2
=ESS.ACC.A06.F02.K01.U1&FS/5.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	8	Insulat.	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.2
=ESS.ACC.A06.F02.K01.U1&FS/28.5	=ESS.ACC.A06.F02.K01.U1-X20	18:b	9	X1.OG	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.3
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	l	10	X2	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.3
=ESS.ACC.A06.F02.K01.U1&FS/28.6	=ESS.ACC.A06.F02.K01.U1-X20	20:b	11	2	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.3
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	m	12	0	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.3
=ESS.ACC.A06.F02.K01.U1&FS/28.6	=ESS.ACC.A06.F02.K01.U1-X20	22:b	13	1	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.3
=ESS.ACC.A06.F02.K01.U1&FS/28.7	=ESS.ACC.A06.F02.K01.U1-X20	24:b	14	X1.WH	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.3
=ESS.ACC.A06.F02.K01.U1&FS/21.7	=ESS.ACC.A06.F02.K01.U1-X13	13:b	15	14	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.4
=ESS.ACC.A06.F02.K01.U1&FS/8.2	=ESS.ACC.A06.F02.K01.U1-XG4	h	16	13	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.4
=ESS.ACC.A06.F02.K01.U1&FS/5.4	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2	SH	FB	=ESS.ACC.A06.F02.F01-A3	=ESS.ACC.A06.F02.F01&FS/5.4

Cable name =ESS.ACC.A06.F02.F01-WG15
Database name 11B034493
Cable type Radox 125 NUM BK ESS 8x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG15

Page / column	Source designation from	Connect. point	Wire	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/12.7	=ESS.ACC.A06.F02.K01.U1-X4	13:b	1	12	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.6
=ESS.ACC.A06.F02.K01.U1&FS/12.8	=ESS.ACC.A06.F02.K01.U1-X4	14:b	2	11	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.6
=ESS.ACC.A06.F02.K01.U1&FS/12.8	=ESS.ACC.A06.F02.K01.U1-X4	15:b	3	22	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.6
=ESS.ACC.A06.F02.K01.U1&FS/12.9	=ESS.ACC.A06.F02.K01.U1-X4	16:b	4	21	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.6
=ESS.ACC.A06.F02.K01.U1&FS/5.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	5	Insulat.	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.6
=ESS.ACC.A06.F02.K01.U1&FS/5.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	6	Insulat.	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.6
=ESS.ACC.A06.F02.K01.U1&FS/5.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	7	Insulat.	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.6
=ESS.ACC.A06.F02.K01.U1&FS/5.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	8	Insulat.	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.6
=ESS.ACC.A06.F02.K01.U1&FS/28.8	=ESS.ACC.A06.F02.K01.U1-X20	26:b	9	X1.OG	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.7
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	n	10	X2	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.7
=ESS.ACC.A06.F02.K01.U1&FS/28.8	=ESS.ACC.A06.F02.K01.U1-X20	28:b	11	2	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.7
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	o	12	0	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.7

Cable name =ESS.ACC.A06.F02.F01-WG15
Database name 11B034493
Cable type Radox 125 NUM BK ESS 8x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG15

Page / column	Source designation from	Connect. point	Core	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/28.9	=ESS.ACC.A06.F02.K01.U1-X20	30:b	13	1	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.7
=ESS.ACC.A06.F02.K01.U1&FS/28.9	=ESS.ACC.A06.F02.K01.U1-X20	32:b	14	X1.WH	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.7
=ESS.ACC.A06.F02.K01.U1&FS/21.8	=ESS.ACC.A06.F02.K01.U1-X13	14:b	15	14	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.7
=ESS.ACC.A06.F02.K01.U1&FS/8.2	=ESS.ACC.A06.F02.K01.U1-XG4	i	16	13	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.7
=ESS.ACC.A06.F02.K01.U1&FS/5.8	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2	SH	FB	=ESS.ACC.A06.F02.F01-A4	=ESS.ACC.A06.F02.F01&FS/5.8

Cable name =ESS.ACC.A06.F02.F01-WG16
Database name 11B034494
Cable type Radox 125 NUM BK ESS 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG16

Page / column	Source designation from	Connect. point	Core	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/29.1	=ESS.ACC.A06.F02.K01.U1-X21	2:b	1	3	=ESS.ACC.A06.F02.F01-PZ1	=ESS.ACC.A06.F02.F01&FS/6.4
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	p	2	0	=ESS.ACC.A06.F02.F01-PZ1	=ESS.ACC.A06.F02.F01&FS/6.4
=ESS.ACC.A06.F02.K01.U1&FS/29.1	=ESS.ACC.A06.F02.K01.U1-X21	4:b	3	1	=ESS.ACC.A06.F02.F01-PZ1	=ESS.ACC.A06.F02.F01&FS/6.4
=ESS.ACC.A06.F02.K01.U1&FS/6.4	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	4	Insulat.	=ESS.ACC.A06.F02.F01-PZ1	=ESS.ACC.A06.F02.F01&FS/6.4
=ESS.ACC.A06.F02.K01.U1&FS/29.2	=ESS.ACC.A06.F02.K01.U1-X21	6:b	5	2	=ESS.ACC.A06.F02.F01-PZ1	=ESS.ACC.A06.F02.F01&FS/6.4
=ESS.ACC.A06.F02.K01.U1&FS/6.5	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	6	Insulat.	=ESS.ACC.A06.F02.F01-PZ1	=ESS.ACC.A06.F02.F01&FS/6.5
=ESS.ACC.A06.F02.K01.U1&FS/6.5	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	7	Insulat.	=ESS.ACC.A06.F02.F01-PZ1	=ESS.ACC.A06.F02.F01&FS/6.5
=ESS.ACC.A06.F02.K01.U1&FS/6.5	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	8	Insulat.	=ESS.ACC.A06.F02.F01-PZ1	=ESS.ACC.A06.F02.F01&FS/6.5
6.5		FB	SH	-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/6.5

Cable name =ESS.ACC.A06.F02.F01-WG17
Database name 11B034495
Cable type Radox 125 NUM BK ESS 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG17

Page / column	Source designation from	Connect. point	Core	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/29.2	=ESS.ACC.A06.F02.K01.U1-X21	8:b	1	3	=ESS.ACC.A06.F02.F01-PZ2	=ESS.ACC.A06.F02.F01&FS/6.7
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	q	2	0	=ESS.ACC.A06.F02.F01-PZ2	=ESS.ACC.A06.F02.F01&FS/6.7
=ESS.ACC.A06.F02.K01.U1&FS/29.3	=ESS.ACC.A06.F02.K01.U1-X21	10:b	3	1	=ESS.ACC.A06.F02.F01-PZ2	=ESS.ACC.A06.F02.F01&FS/6.7

ESS_Graphical_Cable_diagram_ver1-2018

Cable name =ESS.ACC.A06.F02.F01-WG17
Database name 11B034495
Cable type Radox 125 NUM BK ESS 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG17

Page / column	Source designation from	Connect. point	Wire	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/6.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	4	Insulat.	=ESS.ACC.A06.F02.F01-PZ2	=ESS.ACC.A06.F02.F01&FS/6.7
=ESS.ACC.A06.F02.K01.U1&FS/29.4	=ESS.ACC.A06.F02.K01.U1-X21	12:b	5	2	=ESS.ACC.A06.F02.F01-PZ2	=ESS.ACC.A06.F02.F01&FS/6.7
=ESS.ACC.A06.F02.K01.U1&FS/6.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	6	Insulat.	=ESS.ACC.A06.F02.F01-PZ2	=ESS.ACC.A06.F02.F01&FS/6.7
=ESS.ACC.A06.F02.K01.U1&FS/6.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	7	Insulat.	=ESS.ACC.A06.F02.F01-PZ2	=ESS.ACC.A06.F02.F01&FS/6.7
=ESS.ACC.A06.F02.K01.U1&FS/6.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	8	Insulat.	=ESS.ACC.A06.F02.F01-PZ2	=ESS.ACC.A06.F02.F01&FS/6.7
6.8		FB	SH	-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/6.8

Cable name =ESS.ACC.A06.F02.F01-WG18
Database name 11B034496
Cable type Radox 125 NUM BK ESS 6x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG18

Page / column	Source designation from	Connect. point	Wire	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	r	1	1:0V	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.3
=ESS.ACC.A06.F02.K01.U1&FS/29.4	=ESS.ACC.A06.F02.K01.U1-X21	14:b	2	1:+24V	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.3
=ESS.ACC.A06.F02.K01.U1&FS/29.5	=ESS.ACC.A06.F02.K01.U1-X21	16:b	3	1:+24V	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.4
=ESS.ACC.A06.F02.K01.U1&FS/29.5	=ESS.ACC.A06.F02.K01.U1-X21	18:b	4	2:+24V	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.3
=ESS.ACC.A06.F02.K01.U1&FS/29.6	=ESS.ACC.A06.F02.K01.U1-X21	20:b	5	3:+24V	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.3
=ESS.ACC.A06.F02.K01.U1&FS/7.3	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	6	Insulat.	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.3
=ESS.ACC.A06.F02.K01.U1&FS/7.3	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	7	Insulat.	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.3
=ESS.ACC.A06.F02.K01.U1&FS/7.3	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	8	Insulat.	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.3
=ESS.ACC.A06.F02.K01.U1&FS/7.3	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	9	Insulat.	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.3
=ESS.ACC.A06.F02.K01.U1&FS/7.3	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	10	Insulat.	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.3
=ESS.ACC.A06.F02.K01.U1&FS/7.3	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	11	Insulat.	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.3
=ESS.ACC.A06.F02.K01.U1&FS/7.3	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	12	Insulat.	=ESS.ACC.A06.F02.F01-PF5	=ESS.ACC.A06.F02.F01&FS/7.3
7.4		FB	SH	-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/7.4

Cable name =ESS.ACC.A06.F02.F01-WG19
Database name 11B034497
Cable type Radox 125 NUM BK ESS 6x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG19

Page / column	Source designation from	Connect. point	Wire	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/8.5	=ESS.ACC.A06.F02.K01.U1-XG6	s	1	1:0V	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.7
=ESS.ACC.A06.F02.K01.U1&FS/29.6	=ESS.ACC.A06.F02.K01.U1-X21	22:b	2	1:+24V	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.7
=ESS.ACC.A06.F02.K01.U1&FS/29.7	=ESS.ACC.A06.F02.K01.U1-X21	24:b	3	1:+24V	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.8
=ESS.ACC.A06.F02.K01.U1&FS/29.8	=ESS.ACC.A06.F02.K01.U1-X21	26:b	4	2:+24V	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.7
=ESS.ACC.A06.F02.K01.U1&FS/29.8	=ESS.ACC.A06.F02.K01.U1-X21	28:b	5	3:+24V	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.7
=ESS.ACC.A06.F02.K01.U1&FS/7.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	6	Insulat.	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.7
=ESS.ACC.A06.F02.K01.U1&FS/7.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	7	Insulat.	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.7
=ESS.ACC.A06.F02.K01.U1&FS/7.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	8	Insulat.	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.7
=ESS.ACC.A06.F02.K01.U1&FS/7.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	9	Insulat.	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.7
=ESS.ACC.A06.F02.K01.U1&FS/7.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	10	Insulat.	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.7
=ESS.ACC.A06.F02.K01.U1&FS/7.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	11	Insulat.	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.7
=ESS.ACC.A06.F02.K01.U1&FS/7.7	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	12	Insulat.	=ESS.ACC.A06.F02.F01-PF6	=ESS.ACC.A06.F02.F01&FS/7.7
7.8		FB	SH	-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/7.8

Cable name =ESS.ACC.A06.F02.F01-WG20
Database name 11B034498
Cable type Radox 125 NUM BK ESS 2x2x0,5 mm²

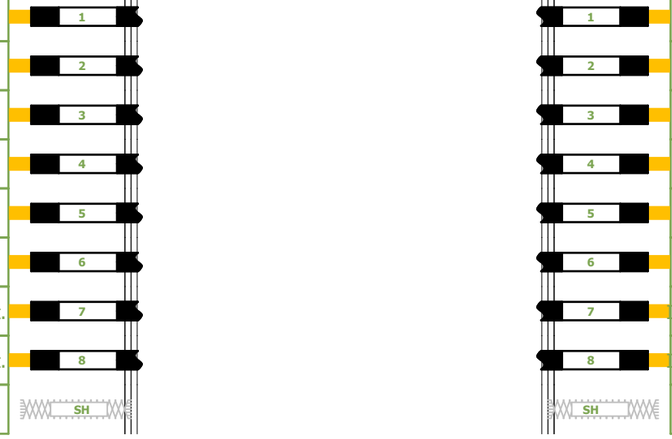
=ESS.ACC.A06.F02.F01-WG20

Page / column	Source designation from	Connect. point	Wire	Connect. point	Target designation from	Page / column
=ESS.ACC.A06.F02.K01.U1&FS/13.0	=ESS.ACC.A06.F02.K01.U1-X5	1:b	1	1	=ESS.ACC.A06.F02.F01-XD5	=ESS.ACC.A06.F02.F01&FS/8.1
=ESS.ACC.A06.F02.K01.U1&FS/13.1	=ESS.ACC.A06.F02.K01.U1-X5	2:b	2	2	=ESS.ACC.A06.F02.F01-XD5	=ESS.ACC.A06.F02.F01&FS/8.1
=ESS.ACC.A06.F02.K01.U1&FS/13.2	=ESS.ACC.A06.F02.K01.U1-X5	3:b	3	3	=ESS.ACC.A06.F02.F01-XD5	=ESS.ACC.A06.F02.F01&FS/8.1
=ESS.ACC.A06.F02.K01.U1&FS/13.2	=ESS.ACC.A06.F02.K01.U1-X5	4:b	4	4	=ESS.ACC.A06.F02.F01-XD5	=ESS.ACC.A06.F02.F01&FS/8.1
=ESS.ACC.A06.F02.K01.U1&FS/8.1	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2	SH	5	=ESS.ACC.A06.F02.F01-XD5	=ESS.ACC.A06.F02.F01&FS/8.1

Cable name =ESS.ACC.A06.F02.F01-WG21
Database name 11B034499
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG21

Page / column	Source designation from	Connect. point
=ESS.ACC.A06.F02.K01.U1&FS/13.3	=ESS.ACC.A06.F02.K01.U1-X5	5:b
=ESS.ACC.A06.F02.K01.U1&FS/13.3	=ESS.ACC.A06.F02.K01.U1-X5	6:b
=ESS.ACC.A06.F02.K01.U1&FS/13.4	=ESS.ACC.A06.F02.K01.U1-X5	7:b
=ESS.ACC.A06.F02.K01.U1&FS/13.4	=ESS.ACC.A06.F02.K01.U1-X5	8:b
=ESS.ACC.A06.F02.K01.U1&FS/8.2	=ESS.ACC.A06.F02.K01.U1-XG4	j
=ESS.ACC.A06.F02.K01.U1&FS/8.7	=ESS.ACC.A06.F02.K01.U1-XG7	b
8.4		Insulat.
8.4		Insulat.
8.4		FB

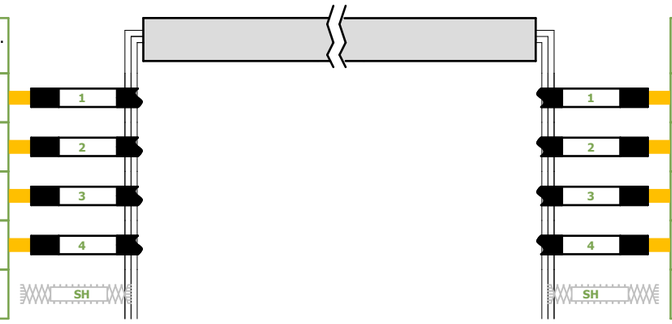


Connect. point	Target designation from	Page / column
22	=ESS.ACC.A06.F02.F01-BG2	=ESS.ACC.A06.F02.F01&FS/8.3
21	=ESS.ACC.A06.F02.F01-BG2	=ESS.ACC.A06.F02.F01&FS/8.3
32	=ESS.ACC.A06.F02.F01-BG2	=ESS.ACC.A06.F02.F01&FS/8.3
31	=ESS.ACC.A06.F02.F01-BG2	=ESS.ACC.A06.F02.F01&FS/8.3
14	=ESS.ACC.A06.F02.F01-BG2	=ESS.ACC.A06.F02.F01&FS/8.3
0V	=ESS.ACC.A06.F02.F01-LED	=ESS.ACC.A06.F02.F01&FS/8.4
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/8.4
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/8.4
-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/8.4

Cable name =ESS.ACC.A06.F02.F01-WG22
Database name 11B034500
Cable type Radox 125 NUM BK ESS 2x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG22

Page / column	Source designation from	Connect. point
=ESS.ACC.A06.F02.K01.U1&FS/13.5	=ESS.ACC.A06.F02.K01.U1-X5	9:b
=ESS.ACC.A06.F02.K01.U1&FS/13.6	=ESS.ACC.A06.F02.K01.U1-X5	10:b
=ESS.ACC.A06.F02.K01.U1&FS/13.6	=ESS.ACC.A06.F02.K01.U1-X5	11:b
=ESS.ACC.A06.F02.K01.U1&FS/13.7	=ESS.ACC.A06.F02.K01.U1-X5	12:b
=ESS.ACC.A06.F02.K01.U1&FS/8.6	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2

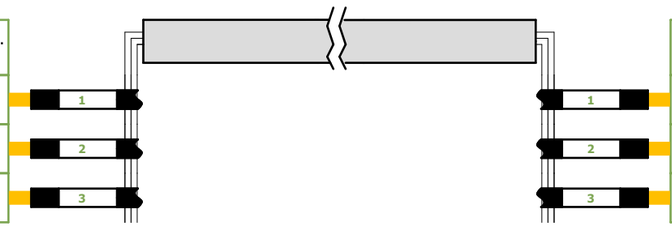


Connect. point	Target designation from	Page / column
1	=ESS.ACC.A06.F02.F01-XD6	=ESS.ACC.A06.F02.F01&FS/8.6
2	=ESS.ACC.A06.F02.F01-XD6	=ESS.ACC.A06.F02.F01&FS/8.6
3	=ESS.ACC.A06.F02.F01-XD6	=ESS.ACC.A06.F02.F01&FS/8.6
4	=ESS.ACC.A06.F02.F01-XD6	=ESS.ACC.A06.F02.F01&FS/8.6
5	=ESS.ACC.A06.F02.F01-XD6	=ESS.ACC.A06.F02.F01&FS/8.6

Cable name =ESS.ACC.A06.F02.F01-WG23
Database name 11B034501
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG23

Page / column	Source designation from	Connect. point
=ESS.ACC.A06.F02.K01.U1&FS/13.7	=ESS.ACC.A06.F02.K01.U1-X5	13:b
=ESS.ACC.A06.F02.K01.U1&FS/13.8	=ESS.ACC.A06.F02.K01.U1-X5	14:b
=ESS.ACC.A06.F02.K01.U1&FS/13.8	=ESS.ACC.A06.F02.K01.U1-X5	15:b



Connect. point	Target designation from	Page / column
22	=ESS.ACC.A06.F02.F01-BG4	=ESS.ACC.A06.F02.F01&FS/8.7
21	=ESS.ACC.A06.F02.F01-BG4	=ESS.ACC.A06.F02.F01&FS/8.7
32	=ESS.ACC.A06.F02.F01-BG4	=ESS.ACC.A06.F02.F01&FS/8.8

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

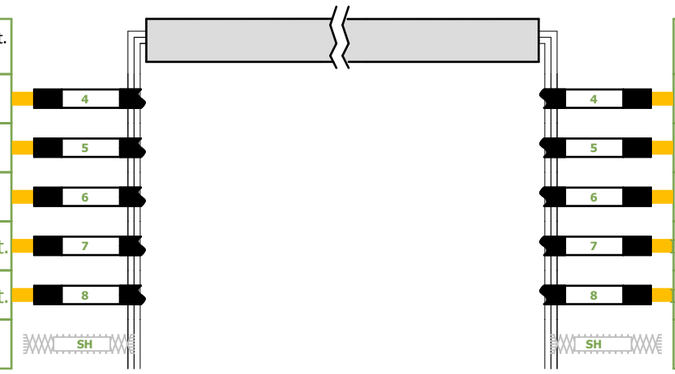
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB11	

Cable name =ESS.ACC.A06.F02.F01-WG23
Database name 11B034501
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG23

Page / column	Source designation from	Connect. point
=ESS.ACC.A06.F02.K01.U1&FS/13.9	=ESS.ACC.A06.F02.K01.U1-X5	16:b
=ESS.ACC.A06.F02.K01.U1&FS/8.2	=ESS.ACC.A06.F02.K01.U1-XG4	k
=ESS.ACC.A06.F02.K01.U1&FS/8.7	=ESS.ACC.A06.F02.K01.U1-XG7	c
8.9		Insulat.
8.9		Insulat.
8.9		FB



Connect. point	Target designation from	Page / column
31	=ESS.ACC.A06.F02.F01-BG4	=ESS.ACC.A06.F02.F01&FS/8.8
14	=ESS.ACC.A06.F02.F01-BG4	=ESS.ACC.A06.F02.F01&FS/8.8
0V	=ESS.ACC.A06.F02.F01-LED	=ESS.ACC.A06.F02.F01&FS/8.8
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/8.9
Insulat.	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	=ESS.ACC.A06.F02.K01.U1&FS/8.9
-WE2	=ESS.ACC.A06.F02.K01.U1-WE2	=ESS.ACC.A06.F02.K01.U1&FS/8.9

Cable name =ESS.ACC.A06.F02.F01-WG24
Database name 11B034502
Cable type Radox 125 NUM BK ESS 12x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG24

Page / column	Source designation from	Connect. point
=ESS.ACC.A06.F02.K01.U1&FS/8.2	=ESS.ACC.A06.F02.K01.U1-XG4	l
=ESS.ACC.A06.F02.K01.U1&FS/8.7	=ESS.ACC.A06.F02.K01.U1-XG7	d
=ESS.ACC.A06.F02.K01.U1&FS/14.0	=ESS.ACC.A06.F02.K01.U1-X6	1:b
=ESS.ACC.A06.F02.K01.U1&FS/14.1	=ESS.ACC.A06.F02.K01.U1-X6	2:b
=ESS.ACC.A06.F02.K01.U1&FS/14.2	=ESS.ACC.A06.F02.K01.U1-X6	3:b
=ESS.ACC.A06.F02.K01.U1&FS/14.2	=ESS.ACC.A06.F02.K01.U1-X6	4:b
=ESS.ACC.A06.F02.K01.U1&FS/9.3	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/9.3	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/9.3	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/9.3	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/24.2	=ESS.ACC.A06.F02.K01.U1-X16	5:b
=ESS.ACC.A06.F02.K01.U1&FS/24.0	=ESS.ACC.A06.F02.K01.U1-X16	1:b
=ESS.ACC.A06.F02.K01.U1&FS/14.3	=ESS.ACC.A06.F02.K01.U1-X6	5:b
=ESS.ACC.A06.F02.K01.U1&FS/14.3	=ESS.ACC.A06.F02.K01.U1-X6	6:b
=ESS.ACC.A06.F02.K01.U1&FS/9.5	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/9.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/14.4	=ESS.ACC.A06.F02.K01.U1-X6	8:b

Connect. point	Target designation from	Page / column
4	=ESS.ACC.A06.F02.F01-FQ1-SH1	=ESS.ACC.A06.F02.F01&FS/9.2
4	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.3
6	=ESS.ACC.A06.F02.F01-FQ1-SH1	=ESS.ACC.A06.F02.F01&FS/9.2
5	=ESS.ACC.A06.F02.F01-FQ1-SH1	=ESS.ACC.A06.F02.F01&FS/9.2
8	=ESS.ACC.A06.F02.F01-FQ1-SH1	=ESS.ACC.A06.F02.F01&FS/9.3
7	=ESS.ACC.A06.F02.F01-FQ1-SH1	=ESS.ACC.A06.F02.F01&FS/9.3
10	=ESS.ACC.A06.F02.F01-FQ1-SH1	=ESS.ACC.A06.F02.F01&FS/9.3
9	=ESS.ACC.A06.F02.F01-FQ1-SH1	=ESS.ACC.A06.F02.F01&FS/9.3
12	=ESS.ACC.A06.F02.F01-FQ1-SH1	=ESS.ACC.A06.F02.F01&FS/9.3
11	=ESS.ACC.A06.F02.F01-FQ1-SH1	=ESS.ACC.A06.F02.F01&FS/9.3
C	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.5
D	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.5
A	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.5
B	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.5
E	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.5
F	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.6
14	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.6

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB12	

Cable name =ESS.ACC.A06.F02.F01-WG24
Database name 11B034502
Cable type Radox 125 NUM BK ESS 12x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG24

Page / column	Source designation from	Connect. point
=ESS.ACC.A06.F02.K01.U1&FS/14.4	=ESS.ACC.A06.F02.K01.U1-X6	7:b
=ESS.ACC.A06.F02.K01.U1&FS/14.5	=ESS.ACC.A06.F02.K01.U1-X6	9:b
=ESS.ACC.A06.F02.K01.U1&FS/14.6	=ESS.ACC.A06.F02.K01.U1-X6	10:b
=ESS.ACC.A06.F02.K01.U1&FS/21.8	=ESS.ACC.A06.F02.K01.U1-X13	15:b
=ESS.ACC.A06.F02.K01.U1&FS/8.2	=ESS.ACC.A06.F02.K01.U1-XG4	m
=ESS.ACC.A06.F02.K01.U1&FS/21.9	=ESS.ACC.A06.F02.K01.U1-X13	16:b
=ESS.ACC.A06.F02.K01.U1&FS/8.7	=ESS.ACC.A06.F02.K01.U1-XG7	e
=ESS.ACC.A06.F02.K01.U1&FS/9.8	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2

Connect. point	Target designation from	Page / column
2	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.6
5	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.5
7	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.5
13	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.5
6	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.4
12	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.4
1	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.4
FB	=ESS.ACC.A06.F02.F01-FQ1	=ESS.ACC.A06.F02.F01&FS/9.6

Cable name =ESS.ACC.A06.F02.F01-WG25
Database name 11B034503
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG25

Page / column	Source designation from	Connect. point
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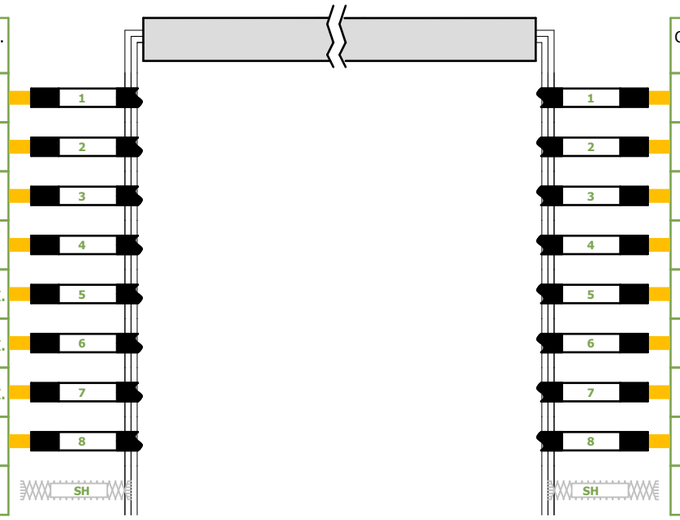
=ESS.ACC.A06.F02.K01.U1&FS/14.7	=ESS.ACC.A06.F02.K01.U1-X6	12:b
=ESS.ACC.A06.F02.K01.U1&FS/14.7	=ESS.ACC.A06.F02.K01.U1-X6	13:b
=ESS.ACC.A06.F02.K01.U1&FS/14.8	=ESS.ACC.A06.F02.K01.U1-X6	14:b
=ESS.ACC.A06.F02.K01.U1&FS/10.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.2	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2



Connect. point	Target designation from	Page / column
1	=ESS.ACC.A06.F02.F01-XG1	=ESS.ACC.A06.F02.F01&FS/10.1
2	=ESS.ACC.A06.F02.F01-XG1	=ESS.ACC.A06.F02.F01&FS/10.1
3	=ESS.ACC.A06.F02.F01-XG1	=ESS.ACC.A06.F02.F01&FS/10.1
4	=ESS.ACC.A06.F02.F01-XG1	=ESS.ACC.A06.F02.F01&FS/10.2
5	=ESS.ACC.A06.F02.F01-XG1	=ESS.ACC.A06.F02.F01&FS/10.2
6	=ESS.ACC.A06.F02.F01-XG1	=ESS.ACC.A06.F02.F01&FS/10.2
7	=ESS.ACC.A06.F02.F01-XG1	=ESS.ACC.A06.F02.F01&FS/10.2
PE	=ESS.ACC.A06.F02.F01-XG1	=ESS.ACC.A06.F02.F01&FS/10.2

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary / Rev: 2 / Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473 / Document: &MB13

Cable name =ESS.ACC.A06.F02.F01-WG26
Database name 11B034504
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG26

Page / column	Source designation from	Connect. point
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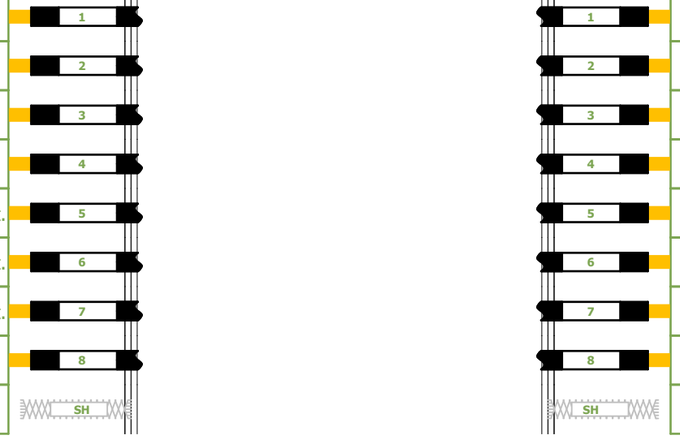
=ESS.ACC.A06.F02.K01.U1&FS/14.9	=ESS.ACC.A06.F02.K01.U1-X6	16:b
=ESS.ACC.A06.F02.K01.U1&FS/15.0	=ESS.ACC.A06.F02.K01.U1-X7	1:b
=ESS.ACC.A06.F02.K01.U1&FS/15.1	=ESS.ACC.A06.F02.K01.U1-X7	2:b
=ESS.ACC.A06.F02.K01.U1&FS/10.4	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.4	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.4	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.4	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2



Connect. point	Target designation from	Page / column
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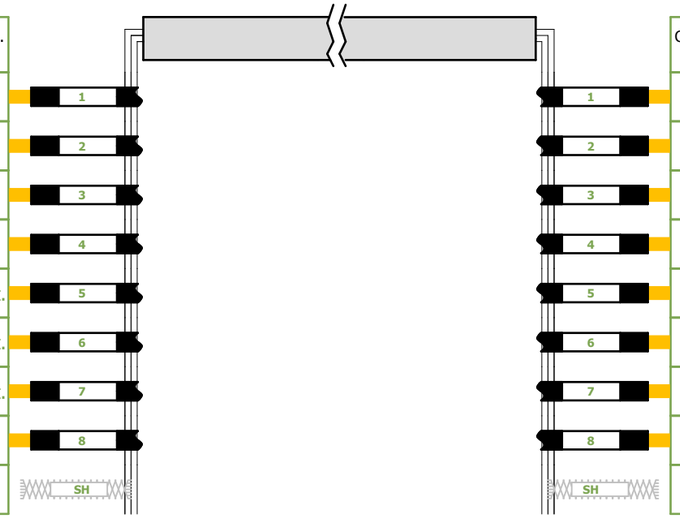
2	=ESS.ACC.A06.F02.F01-XG2	=ESS.ACC.A06.F02.F01&FS/10.3
3	=ESS.ACC.A06.F02.F01-XG2	=ESS.ACC.A06.F02.F01&FS/10.4
4	=ESS.ACC.A06.F02.F01-XG2	=ESS.ACC.A06.F02.F01&FS/10.4
5	=ESS.ACC.A06.F02.F01-XG2	=ESS.ACC.A06.F02.F01&FS/10.4
6	=ESS.ACC.A06.F02.F01-XG2	=ESS.ACC.A06.F02.F01&FS/10.4
7	=ESS.ACC.A06.F02.F01-XG2	=ESS.ACC.A06.F02.F01&FS/10.4
PE	=ESS.ACC.A06.F02.F01-XG2	=ESS.ACC.A06.F02.F01&FS/10.4

Cable name =ESS.ACC.A06.F02.F01-WG27
Database name 11B034505
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG27

Page / column	Source designation from	Connect. point
=ESS.ACC.A06.F02.K01.U1&FS/15.2	=ESS.ACC.A06.F02.K01.U1-X7	3:b
=ESS.ACC.A06.F02.K01.U1&FS/15.2	=ESS.ACC.A06.F02.K01.U1-X7	4:b
=ESS.ACC.A06.F02.K01.U1&FS/15.3	=ESS.ACC.A06.F02.K01.U1-X7	5:b
=ESS.ACC.A06.F02.K01.U1&FS/15.3	=ESS.ACC.A06.F02.K01.U1-X7	6:b
=ESS.ACC.A06.F02.K01.U1&FS/10.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.7	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2



Connect. point	Target designation from	Page / column
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2	=ESS.ACC.A06.F02.F01-XG3	=ESS.ACC.A06.F02.F01&FS/10.6
3	=ESS.ACC.A06.F02.F01-XG3	=ESS.ACC.A06.F02.F01&FS/10.6
4	=ESS.ACC.A06.F02.F01-XG3	=ESS.ACC.A06.F02.F01&FS/10.6
5	=ESS.ACC.A06.F02.F01-XG3	=ESS.ACC.A06.F02.F01&FS/10.6
6	=ESS.ACC.A06.F02.F01-XG3	=ESS.ACC.A06.F02.F01&FS/10.6
7	=ESS.ACC.A06.F02.F01-XG3	=ESS.ACC.A06.F02.F01&FS/10.6
PE	=ESS.ACC.A06.F02.F01-XG3	=ESS.ACC.A06.F02.F01&FS/10.7

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB14	

Cable name =ESS.ACC.A06.F02.F01-WG28
Database name 11B034506
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG28

Page / column	Source designation from	Connect. point
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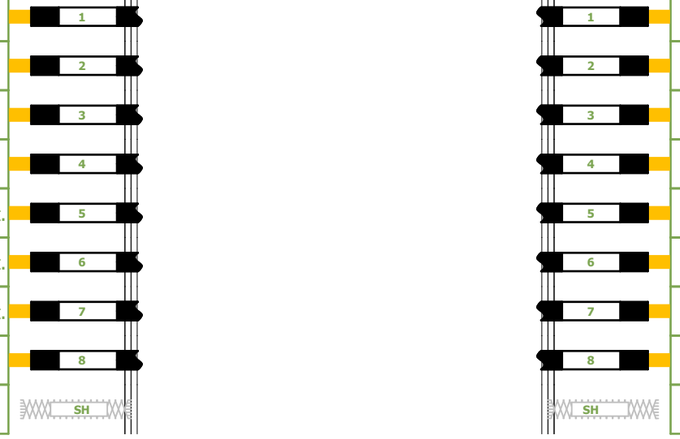
=ESS.ACC.A06.F02.K01.U1&FS/15.4	=ESS.ACC.A06.F02.K01.U1-X7	8:b
=ESS.ACC.A06.F02.K01.U1&FS/15.5	=ESS.ACC.A06.F02.K01.U1-X7	9:b
=ESS.ACC.A06.F02.K01.U1&FS/15.6	=ESS.ACC.A06.F02.K01.U1-X7	10:b
=ESS.ACC.A06.F02.K01.U1&FS/10.8	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.8	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.9	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/10.9	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2



Connect. point	Target designation from	Page / column
1	=ESS.ACC.A06.F02.F01-XG4	=ESS.ACC.A06.F02.F01&FS/10.8
2	=ESS.ACC.A06.F02.F01-XG4	=ESS.ACC.A06.F02.F01&FS/10.8
3	=ESS.ACC.A06.F02.F01-XG4	=ESS.ACC.A06.F02.F01&FS/10.8
4	=ESS.ACC.A06.F02.F01-XG4	=ESS.ACC.A06.F02.F01&FS/10.8
5	=ESS.ACC.A06.F02.F01-XG4	=ESS.ACC.A06.F02.F01&FS/10.8
6	=ESS.ACC.A06.F02.F01-XG4	=ESS.ACC.A06.F02.F01&FS/10.8
7	=ESS.ACC.A06.F02.F01-XG4	=ESS.ACC.A06.F02.F01&FS/10.9
PE	=ESS.ACC.A06.F02.F01-XG4	=ESS.ACC.A06.F02.F01&FS/10.9

Cable name =ESS.ACC.A06.F02.F01-WG29
Database name 11B034507
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG29

Page / column	Source designation from	Connect. point
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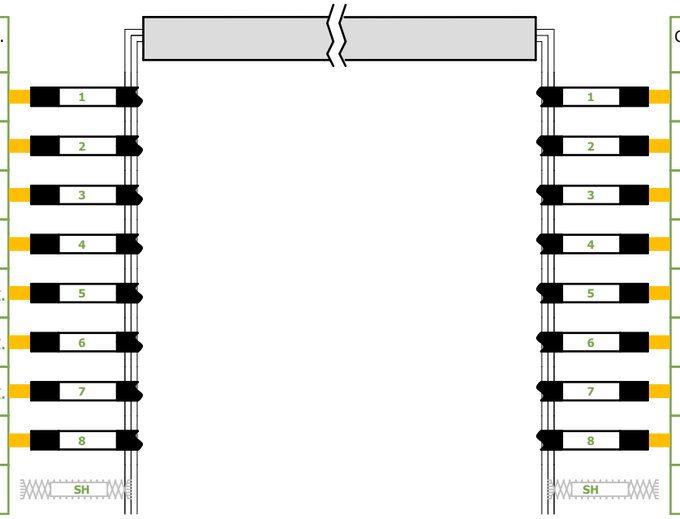
=ESS.ACC.A06.F02.K01.U1&FS/15.7	=ESS.ACC.A06.F02.K01.U1-X7	12:b
=ESS.ACC.A06.F02.K01.U1&FS/15.7	=ESS.ACC.A06.F02.K01.U1-X7	13:b
=ESS.ACC.A06.F02.K01.U1&FS/15.8	=ESS.ACC.A06.F02.K01.U1-X7	14:b
=ESS.ACC.A06.F02.K01.U1&FS/11.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/11.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/11.2	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/11.2	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2



Connect. point	Target designation from	Page / column
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2	=ESS.ACC.A06.F02.F01-XG5	=ESS.ACC.A06.F02.F01&FS/11.1
3	=ESS.ACC.A06.F02.F01-XG5	=ESS.ACC.A06.F02.F01&FS/11.1
4	=ESS.ACC.A06.F02.F01-XG5	=ESS.ACC.A06.F02.F01&FS/11.2
5	=ESS.ACC.A06.F02.F01-XG5	=ESS.ACC.A06.F02.F01&FS/11.2
6	=ESS.ACC.A06.F02.F01-XG5	=ESS.ACC.A06.F02.F01&FS/11.2
7	=ESS.ACC.A06.F02.F01-XG5	=ESS.ACC.A06.F02.F01&FS/11.2
PE	=ESS.ACC.A06.F02.F01-XG5	=ESS.ACC.A06.F02.F01&FS/11.2

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE
Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB15	

Cable name =ESS.ACC.A06.F02.F01-WG30
Database name 11B034508
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG30

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=ESS.ACC.A06.F02.K01.U1&FS/11.4	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/11.4	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
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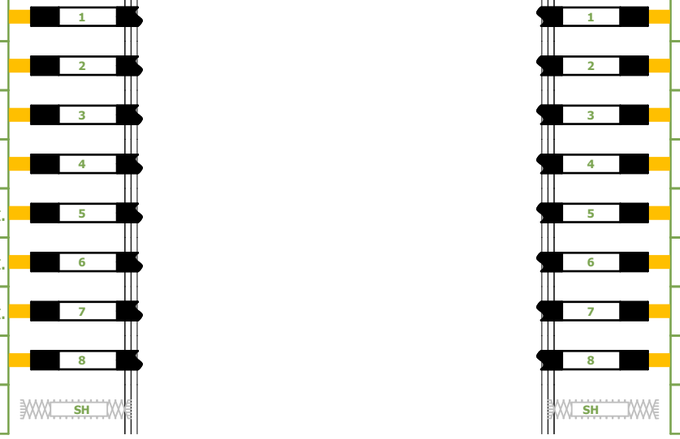

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4	=ESS.ACC.A06.F02.F01-XG6	=ESS.ACC.A06.F02.F01&FS/11.4
5	=ESS.ACC.A06.F02.F01-XG6	=ESS.ACC.A06.F02.F01&FS/11.4
6	=ESS.ACC.A06.F02.F01-XG6	=ESS.ACC.A06.F02.F01&FS/11.4
7	=ESS.ACC.A06.F02.F01-XG6	=ESS.ACC.A06.F02.F01&FS/11.4
PE	=ESS.ACC.A06.F02.F01-XG6	=ESS.ACC.A06.F02.F01&FS/11.4

Cable name =ESS.ACC.A06.F02.F01-WG31
Database name 11B034509
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG31

Page / column	Source designation from	Connect. point
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=ESS.ACC.A06.F02.K01.U1&FS/16.3	=ESS.ACC.A06.F02.K01.U1-X8	5:b
=ESS.ACC.A06.F02.K01.U1&FS/16.3	=ESS.ACC.A06.F02.K01.U1-X8	6:b
=ESS.ACC.A06.F02.K01.U1&FS/11.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/11.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
=ESS.ACC.A06.F02.K01.U1&FS/11.6	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.
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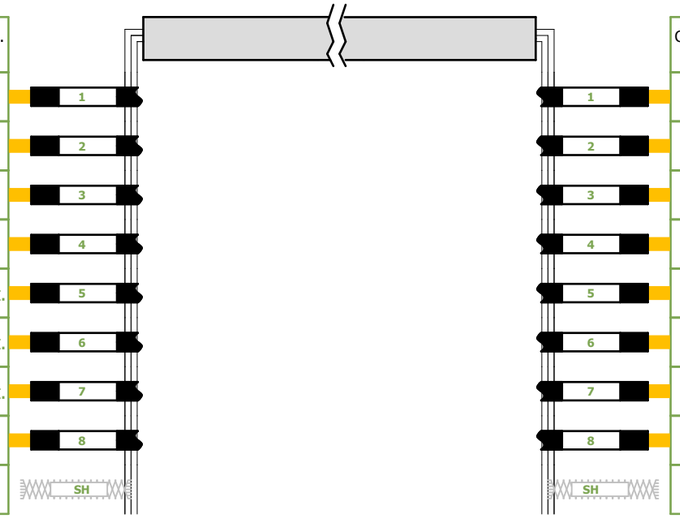

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4	=ESS.ACC.A06.F02.F01-XG7	=ESS.ACC.A06.F02.F01&FS/11.6
5	=ESS.ACC.A06.F02.F01-XG7	=ESS.ACC.A06.F02.F01&FS/11.6
6	=ESS.ACC.A06.F02.F01-XG7	=ESS.ACC.A06.F02.F01&FS/11.6
7	=ESS.ACC.A06.F02.F01-XG7	=ESS.ACC.A06.F02.F01&FS/11.6
PE	=ESS.ACC.A06.F02.F01-XG7	=ESS.ACC.A06.F02.F01&FS/11.7

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary / Rev: 2 / Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473 / Document: &MB16

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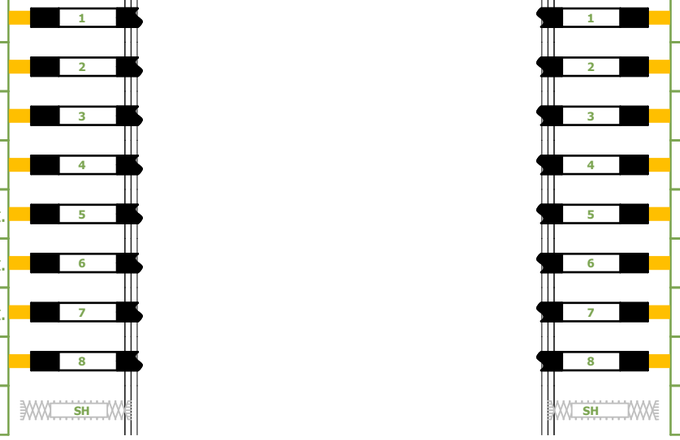
Cable name =ESS.ACC.A06.F02.F01-WG32
Database name 11B034510
Cable type Radox 125 4x2x0,5 mm²

=ESS.ACC.A06.F02.F01-WG32



Page / column	Source designation from	Connect. point	Connect. point	Target designation from	Page / column
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=ESS.ACC.A06.F02.K01.U1&FS/16.4	=ESS.ACC.A06.F02.K01.U1-X8	8:b	2	=ESS.ACC.A06.F02.F01-XG8	=ESS.ACC.A06.F02.F01&FS/11.8
=ESS.ACC.A06.F02.K01.U1&FS/16.5	=ESS.ACC.A06.F02.K01.U1-X8	9:b	3	=ESS.ACC.A06.F02.F01-XG8	=ESS.ACC.A06.F02.F01&FS/11.8
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=ESS.ACC.A06.F02.K01.U1&FS/11.8	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	5	=ESS.ACC.A06.F02.F01-XG8	=ESS.ACC.A06.F02.F01&FS/11.8
=ESS.ACC.A06.F02.K01.U1&FS/11.8	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	6	=ESS.ACC.A06.F02.F01-XG8	=ESS.ACC.A06.F02.F01&FS/11.8
=ESS.ACC.A06.F02.K01.U1&FS/11.9	=ESS.ACC.A06.F02.K01.U1-Spare Cond.	Insulat.	7	=ESS.ACC.A06.F02.F01-XG8	=ESS.ACC.A06.F02.F01&FS/11.9
=ESS.ACC.A06.F02.K01.U1&FS/11.9	=ESS.ACC.A06.F02.K01.U1-WE2	-WE2	PE	=ESS.ACC.A06.F02.F01-XG8	=ESS.ACC.A06.F02.F01&FS/11.9

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.F01		
APPROVED BY: SBH	DATE:	FUNCTION: TS2 PSS field devices	Physical location (LBS): +ESS.G02.100.1001.102		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB17	

ESS_Graphical_Cable_diagram_ver1-2018

EUROPEAN SPALLATION SOURCE

Description: Blue/Red lighting system

Functional Location (FBS): =ESS.ACC.A06.F02.E01

Physical Location (LBS): +ESS.G02.100.1001.102.001

ESS Name: KG-GTA:PSS-BRL

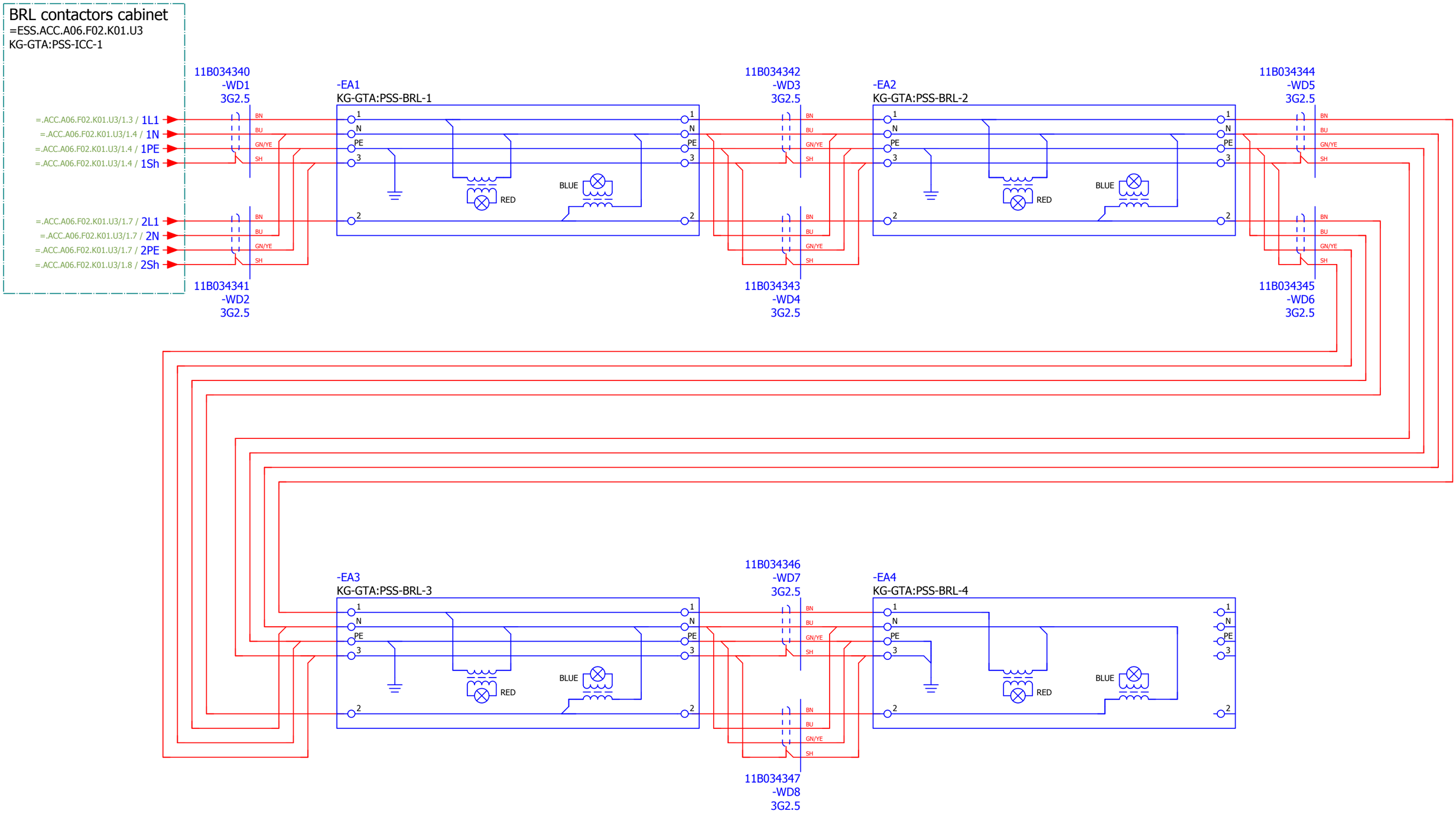
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Graphic	Functional location (FBS): =ESS.ACC.A06.F02.E01		
APPROVED BY: SBH	DATE:	FUNCTION: Blue/Red lighting sytem	Physical location (LBS): +ESS.G02.100.1001.102.001		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &AA1	

Blue/Red fluorescent lighting



REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Schematic multi-line	Functional location (FBS): =ESS.ACC.A06.F02.E01		
APPROVED BY: SBH	DATE:	FUNCTION: Blue/Red lighting sytem	Physical location (LBS): +ESS.G02.100.1001.102.001		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &FS1	

Parts list

ESS_Parts_list_ver1-2018-ATZ

FBS-Tag ESS-Name	Quantity	Designation	Type number	Manufacturer	Part number	ESS-Part no.
=ESS.ACC.A06.F02.E01-EA1 KG-GTA:PSS-BRL-1	1	Surface Mounted, Tube, RED/BLUE light	MIRZ67 (L) 258F ALB 3/5 TW PC M20		GLA.MIR089463	MIR089463
=ESS.ACC.A06.F02.E01-EA2 KG-GTA:PSS-BRL-2	1	Surface Mounted, Tube, RED/BLUE light	MIRZ67 (L) 258F ALB 3/5 TW PC M20		GLA.MIR089463	MIR089463
=ESS.ACC.A06.F02.E01-EA3 KG-GTA:PSS-BRL-3	1	Surface Mounted, Tube, RED/BLUE light	MIRZ67 (L) 258F ALB 3/5 TW PC M20		GLA.MIR089463	MIR089463
=ESS.ACC.A06.F02.E01-EA4 KG-GTA:PSS-BRL-4	1	Surface Mounted, Tube, RED/BLUE light	MIRZ67 (L) 258F ALB 3/5 TW PC M20		GLA.MIR089463	MIR089463

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Parts list	Functional location (FBS): =ESS.ACC.A06.F02.E01		
APPROVED BY: SBH	DATE:	FUNCTION: Blue/Red lighting sytem	Physical location (LBS): +ESS.G02.100.1001.102.001		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &PC1	

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Database name 11B034340
Cable type EQLQ 3G2.5 mm²

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=ESS.ACC.A06.F02.K01.U3&FS/1.4	=ESS.ACC.A06.F02.K01.U3-X2	3
=ESS.ACC.A06.F02.K01.U3&FS/1.4	=ESS.ACC.A06.F02.K01.U3-X2	3

Connect. point	Target designation from	Page / column
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N	=ESS.ACC.A06.F02.E01-EA1	=ESS.ACC.A06.F02.E01&FS/1.2
PE	=ESS.ACC.A06.F02.E01-EA1	=ESS.ACC.A06.F02.E01&FS/1.2
3	=ESS.ACC.A06.F02.E01-EA1	=ESS.ACC.A06.F02.E01&FS/1.2

Cable name =ESS.ACC.A06.F02.E01-WD2
Database name 11B034341
Cable type EQLQ 3G2.5 mm²

=ESS.ACC.A06.F02.E01-WD2

Page / column	Source designation from	Connect. point
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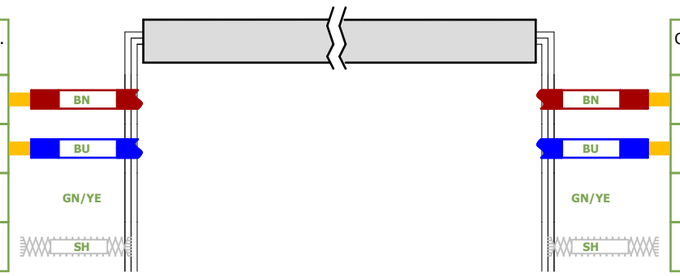

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N	=ESS.ACC.A06.F02.E01-EA1	=ESS.ACC.A06.F02.E01&FS/1.2
PE	=ESS.ACC.A06.F02.E01-EA1	=ESS.ACC.A06.F02.E01&FS/1.2
3	=ESS.ACC.A06.F02.E01-EA1	=ESS.ACC.A06.F02.E01&FS/1.2

Cable name =ESS.ACC.A06.F02.E01-WD3
Database name 11B034342
Cable type EQLQ 3G2.5 mm²

=ESS.ACC.A06.F02.E01-WD3

Page / column	Source designation from	Connect. point
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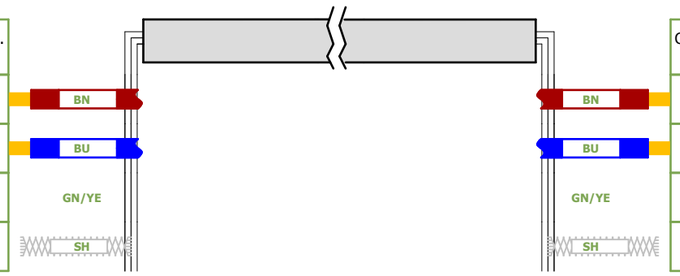

Connect. point	Target designation from	Page / column
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N	=ESS.ACC.A06.F02.E01-EA2	=ESS.ACC.A06.F02.E01&FS/1.6
PE	=ESS.ACC.A06.F02.E01-EA2	=ESS.ACC.A06.F02.E01&FS/1.6
3	=ESS.ACC.A06.F02.E01-EA2	=ESS.ACC.A06.F02.E01&FS/1.6

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.E01		
APPROVED BY: SBH	DATE:	FUNCTION: Blue/Red lighting sytem	Physical location (LBS): +ESS.G02.100.1001.102.001		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB1	

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Database name 11B034343
Cable type EQLQ 3G2.5 mm²

=ESS.ACC.A06.F02.E01-WD4

Page / column	Source designation from	Connect. point
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=ESS.ACC.A06.F02.E01&FS/1.4	=ESS.ACC.A06.F02.E01-EA1	3

Connect. point	Target designation from	Page / column
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PE	=ESS.ACC.A06.F02.E01-EA2	=ESS.ACC.A06.F02.E01&FS/1.6
3	=ESS.ACC.A06.F02.E01-EA2	=ESS.ACC.A06.F02.E01&FS/1.6

Cable name =ESS.ACC.A06.F02.E01-WD5
Database name 11B034344
Cable type EQLQ 3G2.5 mm²

=ESS.ACC.A06.F02.E01-WD5

Page / column	Source designation from	Connect. point
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=ESS.ACC.A06.F02.E01&FS/1.8	=ESS.ACC.A06.F02.E01-EA2	PE
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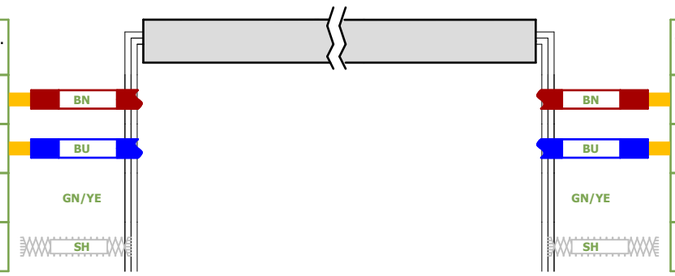

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N	=ESS.ACC.A06.F02.E01-EA3	=ESS.ACC.A06.F02.E01&FS/1.2
PE	=ESS.ACC.A06.F02.E01-EA3	=ESS.ACC.A06.F02.E01&FS/1.2
3	=ESS.ACC.A06.F02.E01-EA3	=ESS.ACC.A06.F02.E01&FS/1.2

Cable name =ESS.ACC.A06.F02.E01-WD6
Database name 11B034345
Cable type EQLQ 3G2.5 mm²

=ESS.ACC.A06.F02.E01-WD6

Page / column	Source designation from	Connect. point
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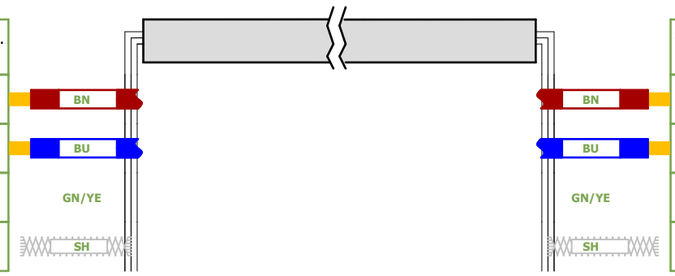
=ESS.ACC.A06.F02.E01&FS/1.8	=ESS.ACC.A06.F02.E01-EA2	N
=ESS.ACC.A06.F02.E01&FS/1.8	=ESS.ACC.A06.F02.E01-EA2	PE
=ESS.ACC.A06.F02.E01&FS/1.8	=ESS.ACC.A06.F02.E01-EA2	3



Connect. point	Target designation from	Page / column
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PE	=ESS.ACC.A06.F02.E01-EA3	=ESS.ACC.A06.F02.E01&FS/1.2
3	=ESS.ACC.A06.F02.E01-EA3	=ESS.ACC.A06.F02.E01&FS/1.2

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION 2	REVISION DATE 2019-04-05	CHANGE ORDER Full version	REASON FOR REVISION CHANGE Contains: PLC cabinet design + Field devices
REVISION 1	REVISION DATE 2019-02-07	CHANGE ORDER Preliminary version	REASON FOR REVISION CHANGE Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE
Documentation protection ISO 16016

DRAWN BY ATZ	DATE 2019-04-05	DRAWING TITLE PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY MMI	DATE	PAGE TYPE Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.E01		
APPROVED BY SBH	DATE	FUNCTION Blue/Red lighting sytem	Physical location (LBS): +ESS.G02.100.1001.102.001		
ePLAN electric P8 V2.7	DESIGN SITE ESS		CHESS Doc. NR: ESS-0508473	Document: &MB2	

Cable name =ESS.ACC.A06.F02.E01-WD7
Database name 11B034346
Cable type EQLQ 3G2.5 mm²

=ESS.ACC.A06.F02.E01-WD7

Page / column	Source designation from	Connect. point
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=ESS.ACC.A06.F02.E01&FS/1.4	=ESS.ACC.A06.F02.E01-EA3	PE
=ESS.ACC.A06.F02.E01&FS/1.4	=ESS.ACC.A06.F02.E01-EA3	3

Connect. point	Target designation from	Page / column
1	=ESS.ACC.A06.F02.E01-EA4	=ESS.ACC.A06.F02.E01&FS/1.6
N	=ESS.ACC.A06.F02.E01-EA4	=ESS.ACC.A06.F02.E01&FS/1.6
PE	=ESS.ACC.A06.F02.E01-EA4	=ESS.ACC.A06.F02.E01&FS/1.6
3	=ESS.ACC.A06.F02.E01-EA4	=ESS.ACC.A06.F02.E01&FS/1.6

Cable name =ESS.ACC.A06.F02.E01-WD8
Database name 11B034347
Cable type EQLQ 3G2.5 mm²

=ESS.ACC.A06.F02.E01-WD8

Page / column	Source designation from	Connect. point
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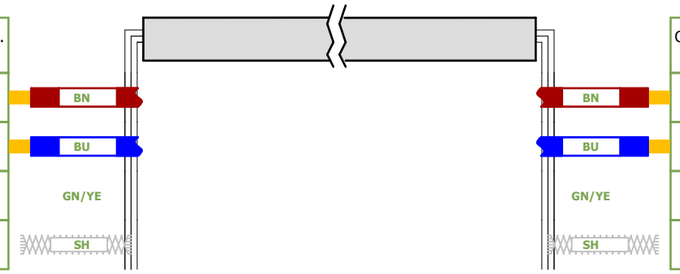
=ESS.ACC.A06.F02.E01&FS/1.4	=ESS.ACC.A06.F02.E01-EA3	PE
=ESS.ACC.A06.F02.E01&FS/1.4	=ESS.ACC.A06.F02.E01-EA3	3



Connect. point	Target designation from	Page / column
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PE	=ESS.ACC.A06.F02.E01-EA4	=ESS.ACC.A06.F02.E01&FS/1.6
3	=ESS.ACC.A06.F02.E01-EA4	=ESS.ACC.A06.F02.E01&FS/1.6

REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
2	2019-04-05	Full version	Contains: PLC cabinet design + Field devices
REVISION	REVISION DATE	CHANGE ORDER	REASON FOR REVISION CHANGE
1	2019-02-07	Preliminary version	Contains: PLC cabinet design

EUROPEAN SPALLATION SOURCE

Documentation protection ISO 16016

DRAWN BY: ATZ	DATE: 2019-04-05	DRAWING TITLE: PSS for Test Stand 2	Lifecycle label: Preliminary	Rev: 2	Page size: A3
CHECKED BY: MMI	DATE:	PAGE TYPE: Cable diagram	Functional location (FBS): =ESS.ACC.A06.F02.E01		
APPROVED BY: SBH	DATE:	FUNCTION: Blue/Red lighting sytem	Physical location (LBS): +ESS.G02.100.1001.102.001		
ePLAN electric P8 V2.7	DESIGN SITE: ESS		CHESS Doc. NR: ESS-0508473	Document: &MB3	