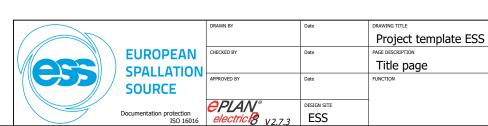


Projekt name: Test Rig for Target Wheel

System: ESS.ACC.DTL

Location: G02.DTL.01.A1



ESS-xxxxxxxx

=ESS.ACC.DTL+G02.DTL.01.A1&AA/1

Preliminary

&AB/1

Table of contents

ESS_Table_of_contents_ver1

Assignment	Page	Page description	Supplementary page field	Date	Edited by
=ESS.ACC.DTL+G02.DTL.01.A1					
	AA/1	Title page		1/21/2020	Markuslarsson
	AB/1	Table of contents		1/21/2020	Markuslarsson
	LU/2	Enclosure legend: =TS+SSS.DTL.01.A1-F1 - =TS+SSS.DTL.01.A1-F12		1/21/2020	Markuslarsson
	LU/3	Enclosure legend: =+-1 - =+-25		1/21/2020	Markuslarsson
	LU/3.1	Enclosure legend: =ESS.ACC.DTL+G02.DTL.01.A1-A1- =ESS.ACC.DTL+G02.DTL.01.A1-T1		1/21/2020	Markuslarsson

1/21/2020

1/21/2020

Markuslarsson

Markuslarsson

PC/1

PC/2

Part List

Part List

Enclosure legend

F18_005

Item number	Device tag	Type number
1	F1	FAZ-C32/3
2	F2	FAZ-C6/1
3	F3	FAZ-C6/1
4	F4	FAZ-C6/1
5	U1	HCS02.1E-W0028-A-03-NNNN
6	FB1	FI-16/2/003
7	XG1	SZ.2506100
9	A1	CX5130-0130
10	A2	PNOZ s30 C 24-240VAC/DC
11	A3	PNOZ s3 24VDC
12	DI1	EL1018
13	DO1	EL2808
14	ST1	EL9505
15	DI2	EL1252-0050
16	ST2	EL9410
17	LC1	HNL01.1E-1000-N0020-A-500-NNNN
18	LF1	NFD03.1-480-030
19	T1	QS10.241
20	F11	FAZ-C6/1
21	F12	FAZ-C6/1

BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
		Project template ESS	ESS-xxxxxxxx			
D BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
		Enclosure legend: =TS+SSS.DTL.01.A1-F1 -	=PriseliississadyTL.01.A1-	F1A23	1	0.
/ED BY	Date	FUNCTION	SHEET			
			=ESS.ACC.DTL+G02	.DTL.01	L.A1&LL	J/2
ZAN®	DESIGN SITE		NEXT			
ectric R V273	ESS		3			

Enclosure legend

F18_005

Item number	Device tag	Type number
1	1	DK.5526120
2	1	
3	1	
4	1	
5	1	
6	1	
7	1	
8	1	
9	1	
10	1	
11	1	
12	1	
13	1	
14	1	
15 16	1	
17	1	
18	1	
19	1	
20	1	
21	1	
22	1	
23	1	
24	1	
25	1	
26	1	
27	1	
28	1	
29	1	
30	1	
31	2	DK.7495000
32	3	DK.7495000
33	4	DK.7495000
34	5	DK.7495000
36	6	TS.8614660
43	Q2	6SL3210-1PE22-7AL0
44	12 15	TS 35_10 KK6040
h		
48 49	16 17	KK6040 TS 35_10
50	18	KK6040
51	R1	6SL3203-0CE23-8AA0
52	19	TS 35_10
53	20	TS 35_10
54	F1	FAZ-C32/3
55	F2	FAZ-C6/1
56	F3	FAZ-C6/1
57	F4	FAZ-C6/1
58	F5	FAZ-C6/1
59	F11	FAZ-C6/1
60	F12	FAZ-C6/1
61	F21	FAZ-C6/1
62	F22	FAZ-C6/1
63	F23	FAZ-C6/1
64	21	KK6040
65	22	KK6040
66	23	KK6040
67	24	KK6040
68	25	KK6040

		DRAWN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
				Project template ESS	ESS-xxxxxxxx			
١	EUROPEAN	CHECKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
	SPALLATION			Enclosure legend: =+-1 - =+-25	Preliminary	A3	1	0.1
١	/	APPROVED BY	Date	FUNCTION	SHEET			
	SOURCE				=ESS.ACC.DTL+G02	.DTL.0	1.A1⋘	J/3
١		<i>eplan</i> [®]	DESIGN SITE		NEXT			
	Documentation protection ISO 16016	electric 8 V2.7.3	ESS		3.1			

⁼ ESS.ACC.DTL + G02.DTL.01.A1

Enclosure legend

F18_005

Item number	Device tag	Type number
69	A1	CX5130-0130
70	26	KK6040
71	T1	QS10.241



	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
		Project template ESS	ESS-xxxxxxxx			
	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
		Enclosure legend: =ESS.ACC.DTL+G02.DTL.	01 P.Ae1 imAinar¥ESS.ACC	DTAB+G	0 2 .DTL	.COL.1A
	Date	FUNCTION	SHEET			
			=ESS.ACC.DTL+G02	.DTL.01	L.A1&LL	J/3.1
1/ <u>V</u> °	DESIGN SITE		NEXT			
ic /8 v2.7.3	ESS		&PC/1			

ESS_Parts_list_ver1

PAGE SIZE PAGE SCALE REV 0.1

=ESS.ACC.DTL+G02.DTL.01.A1&PC/1

Preliminary

Device tag	Quantity	Designation	Type number	Supplier	Part number	ESS-Part number
\ 1	1	CX5130 Embedded PC with Intel® Atom™ processor	CX5130-0130	BEC	BEC.CX5130-0130	
⁻ 1	1	MCB, C-Curve, 32A, 3p	FAZ-C32/3	MOE	MOE.FAZ-C32/3	
2	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
3	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
4	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
5	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
<u>. </u>	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
12	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
21	1	MCB, C-Curve, 6A, 1p	FAZ-C0/1	MOE	MOE FAZ CC/1	
21	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
22	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
23	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
1		SINAMICS PM240-2 IP20-FSC-A-400V-11KW	6SL3210-1PE22-7AL0	SIE	SIE.6SL3210-1PE22-7AL0	
1		LINE REACTOR FSC 3AC 380-480V-47A	6SL3203-0CE23-8AA0	SIE	SIE.6SL3203-0CE23-8AA0	
1	1	Power Supply, 1AC, Output 24V 10A	QS10.241	PULS	PULS.QS10.241	
						+
				DRAWN BY Date	DRAWING TITLE	DRAWING NUMBER (Doc)
				DRAWN BY Date	DRAWING TITLE	ESS-XXXXXXX



Device tag	Quantity	Designation	Type number	Supplier	Part number	ESS-Part number
2000 09	Quaries,	200.3	7,50	Supplies.		255 1 616 116111551
-A1	1	CX5130 Embedded PC with Intel® Atom™ processor	CX5130-0130	BEC	BEC.CX5130-0130	
-F1	1	MCB, C-Curve, 32A, 3p	FAZ-C32/3	MOE	MOE.FAZ-C32/3	
-F2	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
-F3	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
-F4	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
-F5	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
-F11	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
F12	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
-F21	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
-F22	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
-F23	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
-O2	1	SINAMICS PM240-2 IP20-FSC-A-400V-11KW	6SL3210-1PE22-7AL0	SIE	SIE.6SL3210-1PE22-7AL0	
-Q2 -R1		LINE REACTOR FSC 3AC 380-480V-47A	6SL3203-0CE23-8AA0	SIE	SIE.6SL3203-0CE23-8AA0	
-T1		Power Supply, 1AC, Output 24V 10A	QS10.241	PULS	PULS.QS10.241	
14	1	1 over Supply, Inc, Suspect 217 10/1	Q310.2 11	1 013	1 025.Q510.211	
				+		
				+		
				+		
				+		
				+		
				+		+

		DRAWN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
				Project template ESS	ESS-xxxxxxxx			
	EUROPEAN	CHECKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
	SPALLATION			Part List	Preliminary	A3	1	0.1
		APPROVED BY	Date	FUNCTION	SHEET			
	SOURCE				=ESS.ACC.DTL+G02	.DTL.0	L.A1&P0	C/2
		<i>eplan</i> °	DESIGN SITE		NEXT			
	Documentation protection ISO 16016	electric 8 V2.7.3	ESS		=+&AA/1			

ESS_Parts_list_ver1



Projekt name: Test Rig for Target Wheel

System:

Location:

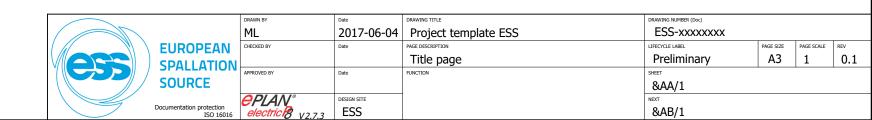


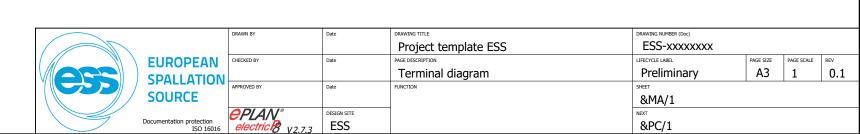
Table of contents

ESS_Table_of_contents_ver1

Assignment	Page	Page description	Supplementary page field	Date	Edited by				
=+									
	AA/1	Title page		6/16/2017	markuslarsson				
	AB/1	Table of contents		1/21/2020	Markuslarsson				
	MA/1	Terminal diagram		1/21/2020	Markuslarsson				
	PC/1	Part List		9/12/2017	markuslarsson				
	PC/2	Part List		9/12/2017	markuslarsson				

Terminal diagram

			=TS+SSS.DTL01.A1-1W1	Cable name				trip = +	=TS+SSS.DTL.01.A1-1W1	
Function text			PSEN cable axial M12	Cable type	Target designation	Connection point	Terminal	Cable type Connection point Target designation	PSEN cable axial M12	Page / column
Spare	 						3	=TS+SSS.DTL.01.A1-F2 2		=TS+SSS.DTL.01.A1&FS/1.7
=	+ +			-			4	2		=TS+SSS.DTL.01.A1&FS/1.7
			BR		=TS+SSS.DTL.01.A1-S11	2	1	=TS+SSS.DTL.01.A1-A3 X1.3		=TS+SSS.DTL.01.A1&FS/40.297
			BU	-	=TS+SSS.DTL.01.A1-S11	7	2	=TS+SSS.DTL.01.A1-A3 X2.3		=TS+SSS.DTL.01.A1&FS/40.297
	+ +			\dashv	=TS+SSS.DTL.01.A1-DI	1	5	=TS+SSS.DTL.01.A1-S11 5	GY	=TS+SSS.DTL.01.A1&FS/40.298
	+ +									,
	+ +			1						



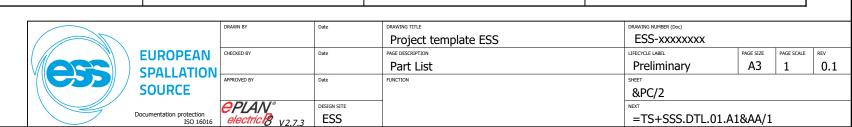
ESS_Treminal_diagram_ver1

Device tag	Quantity	Designation	Type number	Supplier	Part number	ESS-Part number
-1	1	Network/server enclosure TS IT, WHD: 600x1200x600 mm,	24DM.5526120	RIT	RIT.5526120	
-2	1	DK Twin castors, M12, each 2 with/without Lock	DK.7495000	RIT	RIT.7495000	
-3	1	DK Twin castors, M12, each 2 with/without Lock	DK.7495000	RIT	RIT.7495000	
-4	1	DK Twin castors, M12, each 2 with/without Lock	DK.7495000	RIT	RIT.7495000	
-5	1	DK Twin castors, M12, each 2 with/without Lock	DK.7495000	RIT	RIT.7495000	
-6	1	TS Partial mounting plate, for TS, SE, W/DH: 500x500 mm	TS.8614660	RIT	RIT.8614660	
-12	1	Mounting rail EN 50 022 (35x10)	TS 35_10		TS 35_10	
-15	1	Cable duct 60x40	KK6040		KK6040	
-16	1	Cable duct 60x40	KK6040		KK6040	
-17	1	Mounting rail EN 50 022 (35x10)	TS 35_10		TS 35_10	
-18	1	Cable duct 60x40	KK6040		KK6040	
-19	1	Mounting rail EN 50 022 (35x10)	TS 35_10		TS 35_10	
-20	1	Mounting rail EN 50 022 (35x10)	TS 35_10		TS 35_10	
-21	1	Cable duct 60x40	KK6040		KK6040	
-22	1	Cable duct 60x40	KK6040		KK6040	
-23	1	Cable duct 60x40	KK6040		KK6040	
-24	1	Cable duct 60x40	KK6040		KK6040	
-25	1	Cable duct 60x40	KK6040		KK6040	
-26	1	Cable duct 60x40	KK6040		KK6040	
	l		1			

		DRAWN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
				Project template ESS	ESS-xxxxxxxx			
	EUROPEAN	CHECKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
	SPALLATION			Part List	Preliminary	A3	1	0.1
		APPROVED BY	Date	FUNCTION	SHEET			
	SOURCE				&PC/1			
		<i>eplan</i> °	DESIGN SITE		NEXT			
	Documentation protection ISO 16016	electric 8 V2.7.3	ESS		2			

ESS_Parts_list_ver1

Device tag	Quantity	Designation	Type number	Supplier	Part number	ESS-Part number
-1	1	Network/server enclosure TS IT, WHD: 600x1200x600 mm, 2	Ð k .5526120	RIT	RIT.5526120	
-2	1	DK Twin castors, M12, each 2 with/without Lock	DK.7495000	RIT	RIT.7495000	
-3	1	DK Twin castors, M12, each 2 with/without Lock	DK.7495000	RIT	RIT.7495000	
-4	1	DK Twin castors, M12, each 2 with/without Lock	DK.7495000	RIT	RIT.7495000	
-5			DK.7495000	RIT	RIT.7495000	
-6	1	TS Partial mounting plate, for TS, SE, W/DH: 500x500 mm	TS.8614660	RIT	RIT.8614660	
-12	1	Mounting rail EN 50 022 (35x10)	TS 35_10		TS 35_10	
-15	1	Cable duct 60x40	KK6040		KK6040	
-16		Cable duct 60x40	KK6040		KK6040	
-17		Mounting rail EN 50 022 (35x10)	TS 35_10		TS 35_10	
-18	1	Cable duct 60x40	KK6040		KK6040	
-19		Mounting rail EN 50 022 (35x10)	TS 35_10		TS 35_10	
-20	1	Mounting rail EN 50 022 (35x10)	TS 35_10		TS 35_10	
-21	1	Cable duct 60x40	KK6040		KK6040	
-22		Cable duct 60x40	KK6040		KK6040	
-23		Cable duct 60x40	KK6040		KK6040	
-24	1	Cable duct 60x40	KK6040		KK6040	
-25	1	Cable duct 60x40	KK6040		KK6040	
-26		Cable duct 60x40	KK6040		KK6040	
	_					
				1		
				+		



ESS_Parts_list_ver1



Projekt name: Test Rig for Target Wheel

System: TS

Location: SSS.DTL.01.A1



WN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
L	2017-06-14	Project template ESS	ESS-xxxxxxxx			
CKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
		Title page	Preliminary	A3	1	(
ROVED BY	Date	FUNCTION	SHEET			
			=TS+SSS.DTL.01.A1	.&AA/1		
PLAN [®]	DESIGN SITE		NEXT			
lectric 🛭 V2.7.3	ESS		&AB/1			

Table of contents ESS_Table_of_contents_ver1

Assignment Page Page description Supplementary page field Date Edited by =TS+SSS.DTL.01.A1

AA/1	Title page		6/21/2018	Markuslarsson
AB/1	Table of contents		1/21/2020	Markuslarsson
AB/1.1	Table of contents		1/21/2020	Markuslarsson
EC/Genral	requ Titlenpatje		6/21/2018	Markuslarsson
FA/1	Power supply	Power supply rigg Target wheel	6/21/2018	Markuslarsson
FS/1	Power supply incoming feed	Power supply in cabinet	1/21/2020	Markuslarsson
FS/2	Power supply 400V	400V Power supply	1/21/2020	Markuslarsson
FS/3	PLC Overview	PLC Overview	11/15/2018	Markuslarsson
FS/4	PLC Power supply	Digital inputs	1/21/2020	Markuslarsson
FS/5	PLC I/O	Beckhoff	1/21/2020	Markuslarsson
FS/6	PLC I/O	Beckhoff	11/15/2018	Markuslarsson
FS/7	Timing system		1/21/2020	Markuslarsson
FS/8	Drive Controller safety	Digital outputs Start/Stop pump 1-3	11/15/2018	Markuslarsson
FS/9	Drive Digital input 24V		1/21/2020	Markuslarsson
FS/10	Encoder Sin Con		11/15/2018	Markuslarsson
FS/39	Safety overspeed	Overspeed	11/15/2018	Markuslarsson
FS/40	Safety Estop +Door		1/21/2020	Markuslarsson
FS/41	Brake Target Wheel		6/21/2018	Markuslarsson
FQ/1	Fuse table		6/21/2018	Markuslarsson
MA/1	Terminal diagram		1/21/2020	Markuslarsson
MA/2	Terminal diagram		1/21/2020	Markuslarsson
MB/1	Cable Overview		1/21/2020	Markuslarsson
MB/10	Cable diagram		1/21/2020	Markuslarsson
MB/10.1	Cable diagram		1/21/2020	Markuslarsson
MB/10.2	Cable diagram		1/21/2020	Markuslarsson

 Table of contents

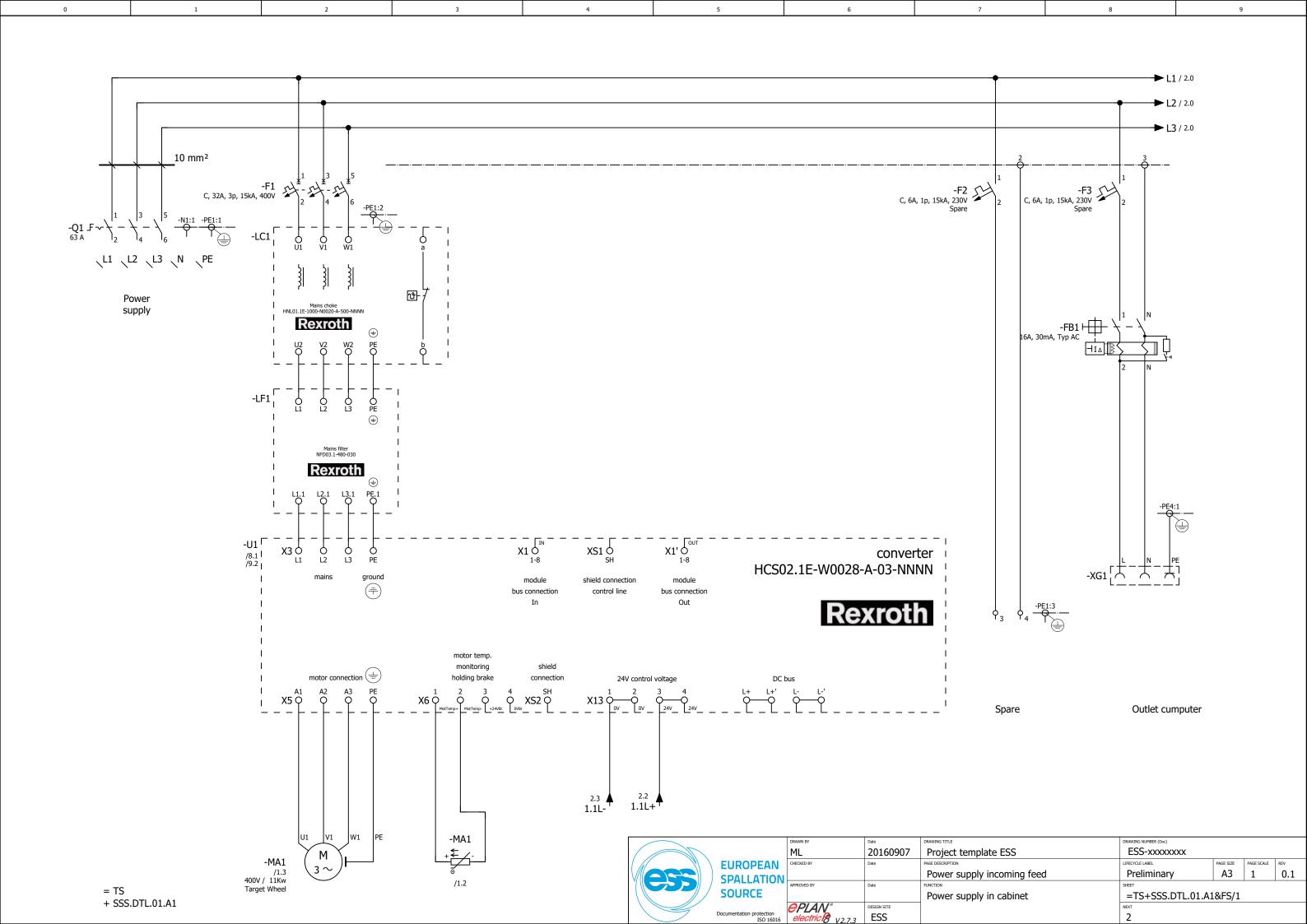
 Assignment
 Page
 Page description
 Supplementary page field
 Date
 Edited by

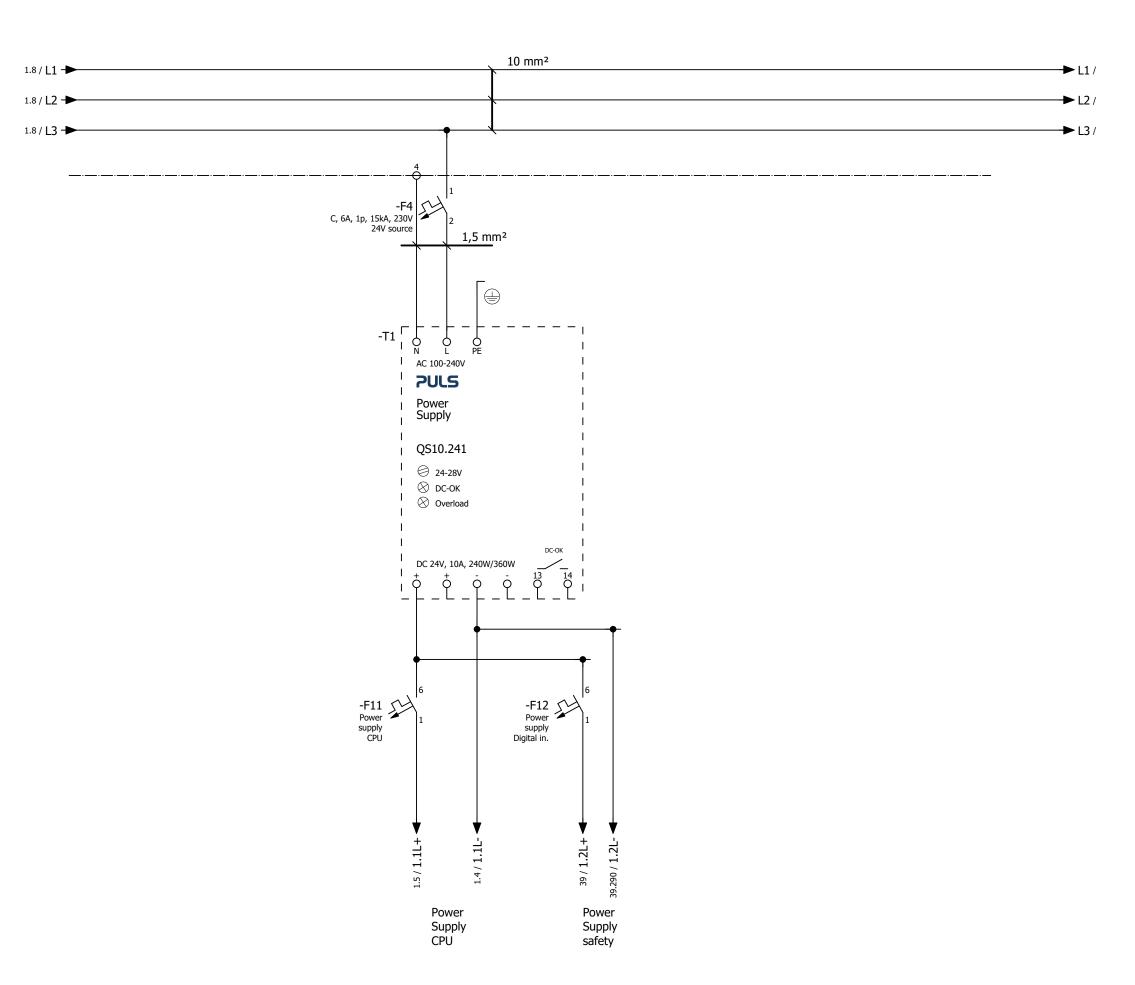
	LU/1	Panel layout	6/21/2018	Markuslarsson
	LU/2	Panel layout	1/21/2020	Markuslarsson
	PC/1	Part List	1/21/2020	Markuslarsson
	PC/2	Part List	1/21/2020	Markuslarsson
,				

PAGE DESCRIPTION
Title page DRAWING NUMBER (Doc)
ESS-XXXXXXXXX SPALLATION
SOURCE

Documentation protection
ISO 16016 LIFECYCLE LABEL
Preliminary PAGE SIZE PAGE SCALE REV 0.1 =TS+SSS.DTL.01.A1&EC/Genral requirem DESIGN SITE %FA/1

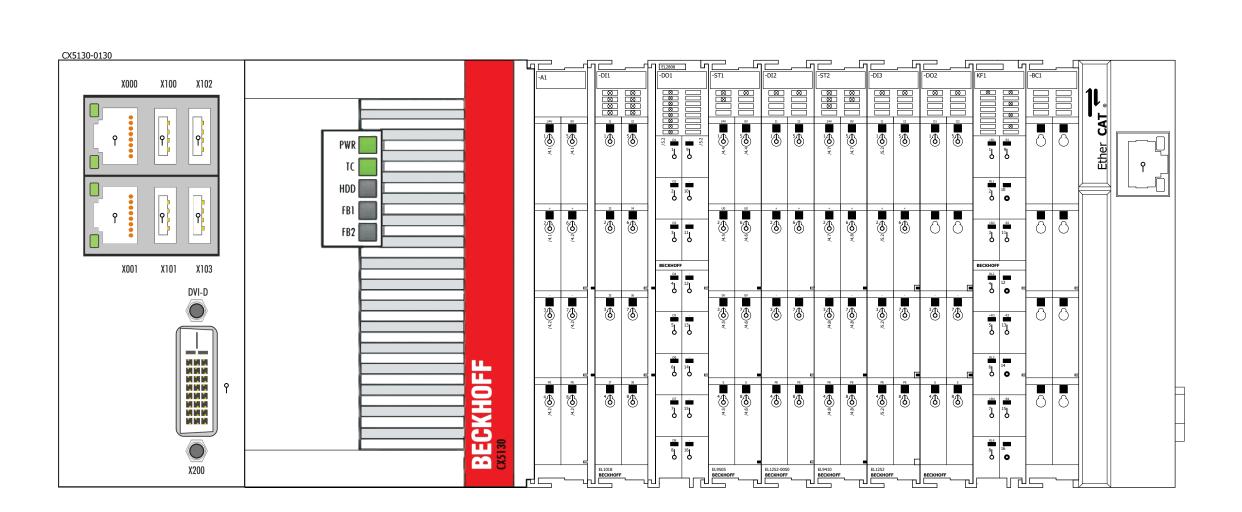
EUROPEAN
SPALLATION
SOURCE
Downstellan Stations
Do Vision Sp. 1000
Downstellan Station

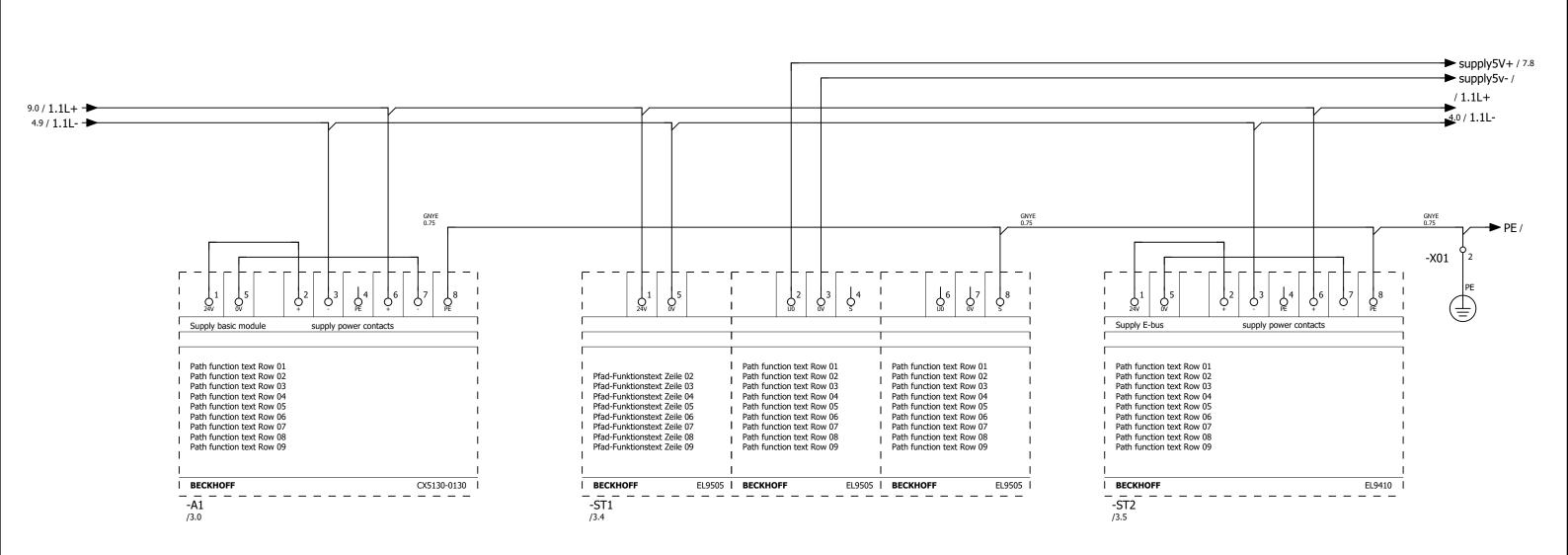


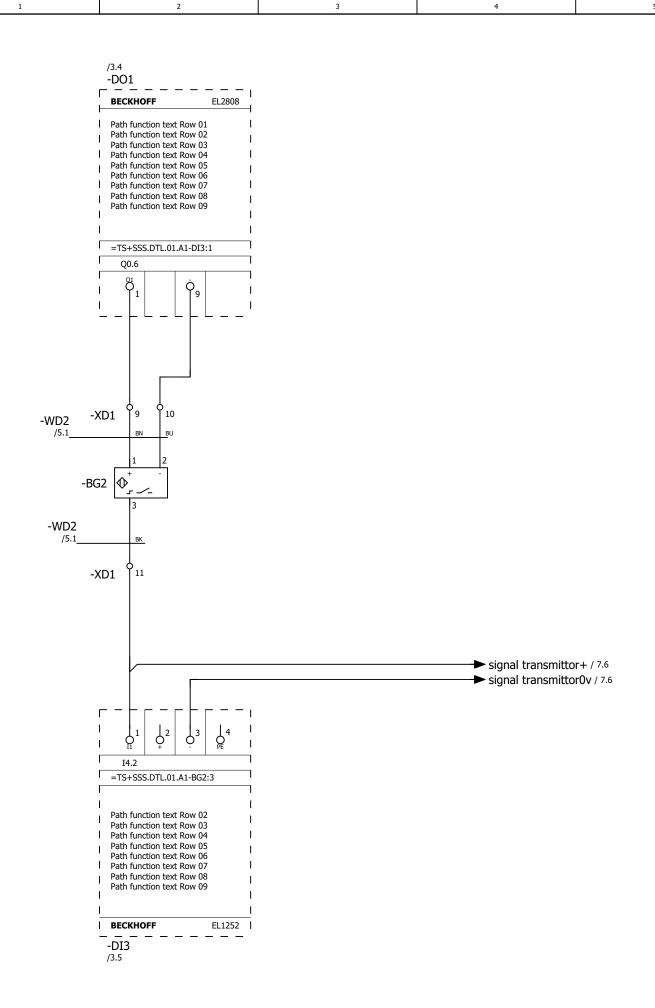


		DRAWN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
		ML	20160820	Project template ESS	ESS-xxxxxxxx			
	EUROPEAN	CHECKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
	SPALLATION			Power supply 400V	Preliminary	A3	1	0.1
		APPROVED BY	Date	FUNCTION	SHEET			
	SOURCE			400V Power supply	=TS+SSS.DTL.01.A1	L&FS/2		
		<i>eplan</i> °	DESIGN SITE		NEXT			
	Documentation protection ISO 16016	electric 8 V 2.7.3	ESS		3			

8







PIcDoorOk
40.298

Table 1

Table 2

Table 2

Table 2

Table 3

Table 2

Table 3

Table 3

Table 3

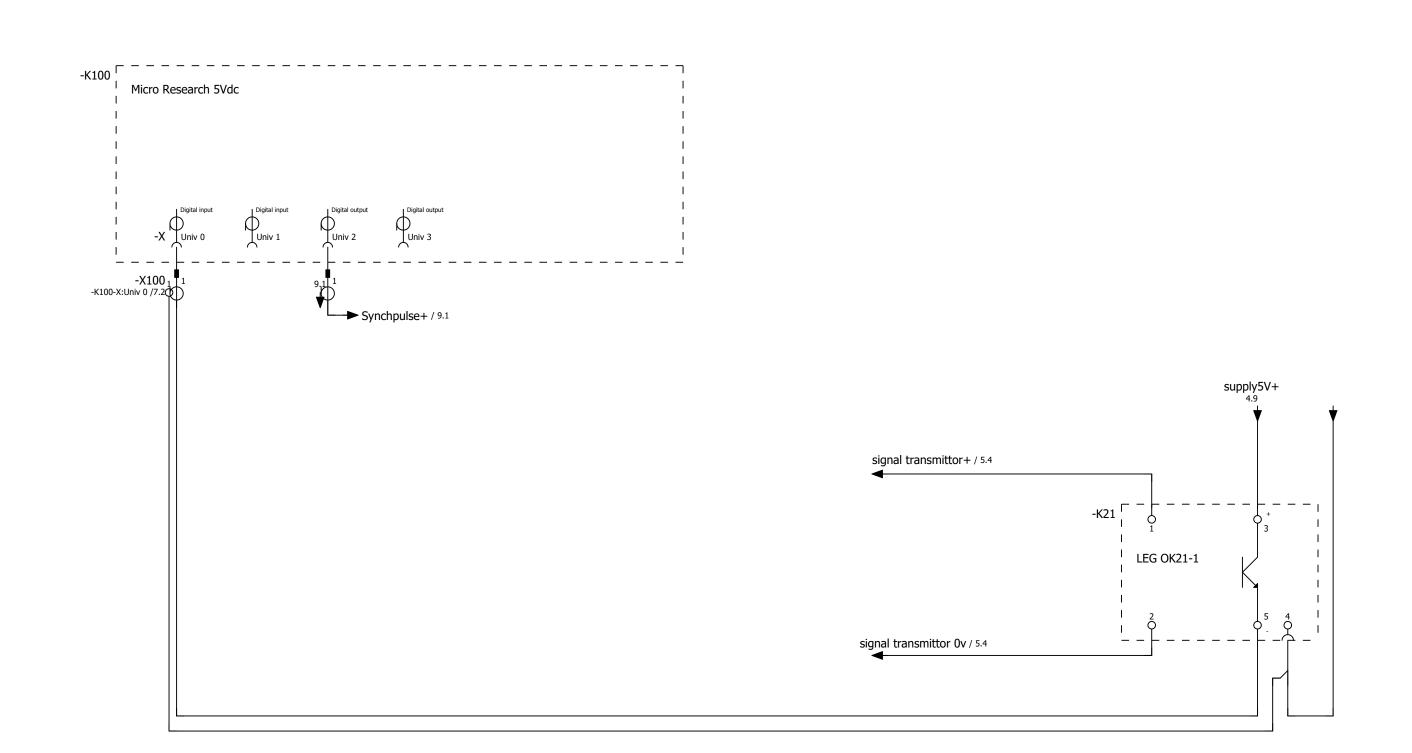
Table 4

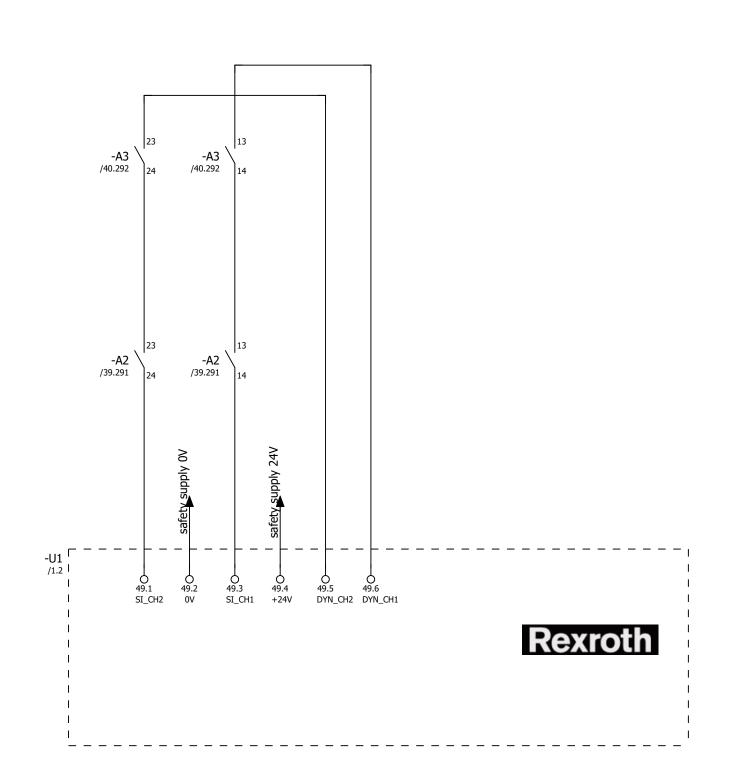
Table 3

Table 4

Tab

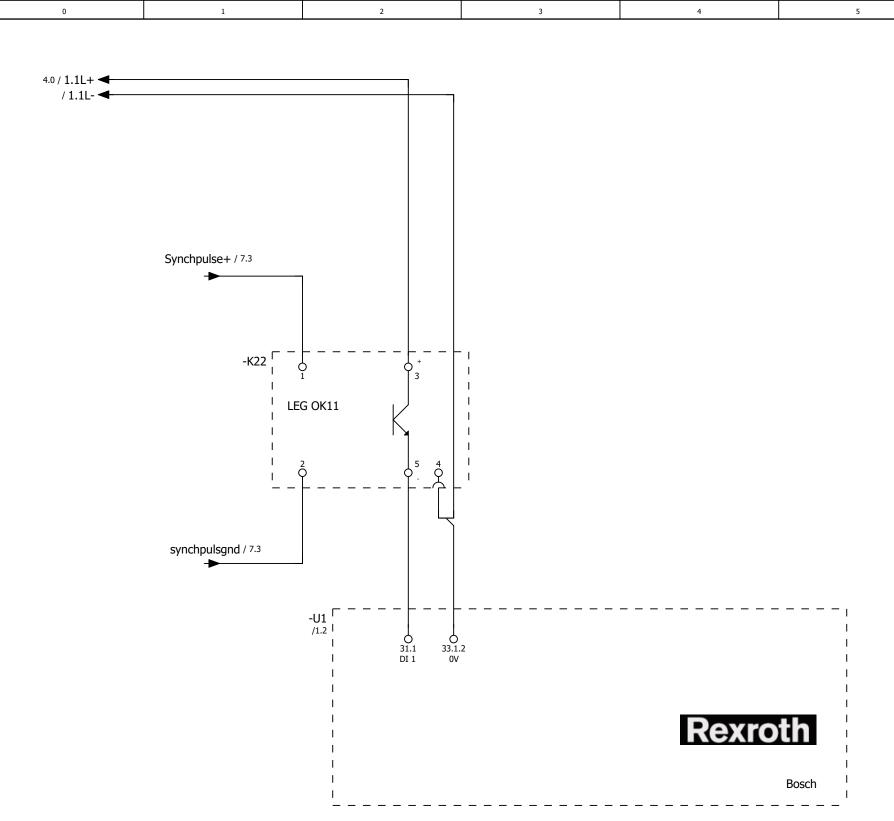
DRAWN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
		Project template ESS	ESS-xxxxxxxx			
CHECKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
		PLC I/O	Preliminary	A3	1	0.1
APPROVED BY	Date	FUNCTION	SHEET			
		Beckhoff	=TS+SSS.DTL.01.A1	.&FS/6		
<i>epian</i> °	DESIGN SITE		NEXT			
EPLAN® electric 8 V2.7.3	ESS		7			

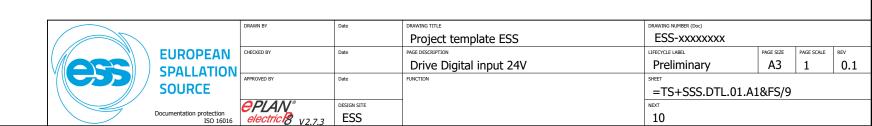


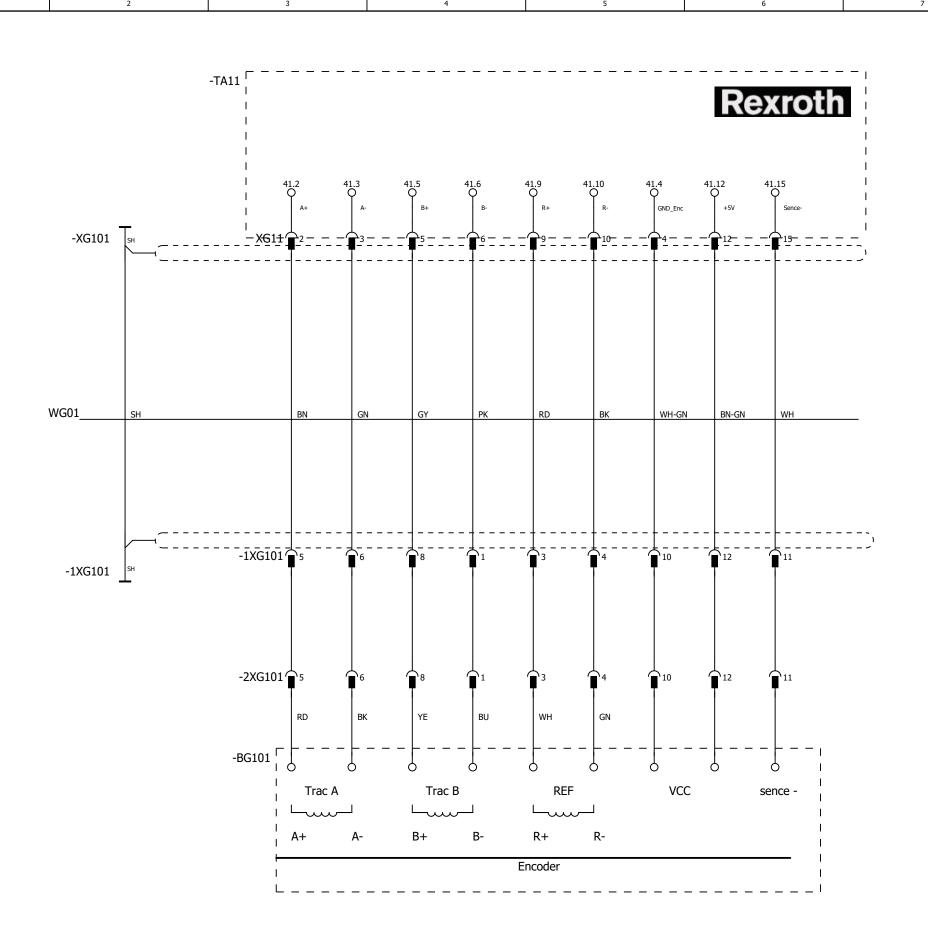




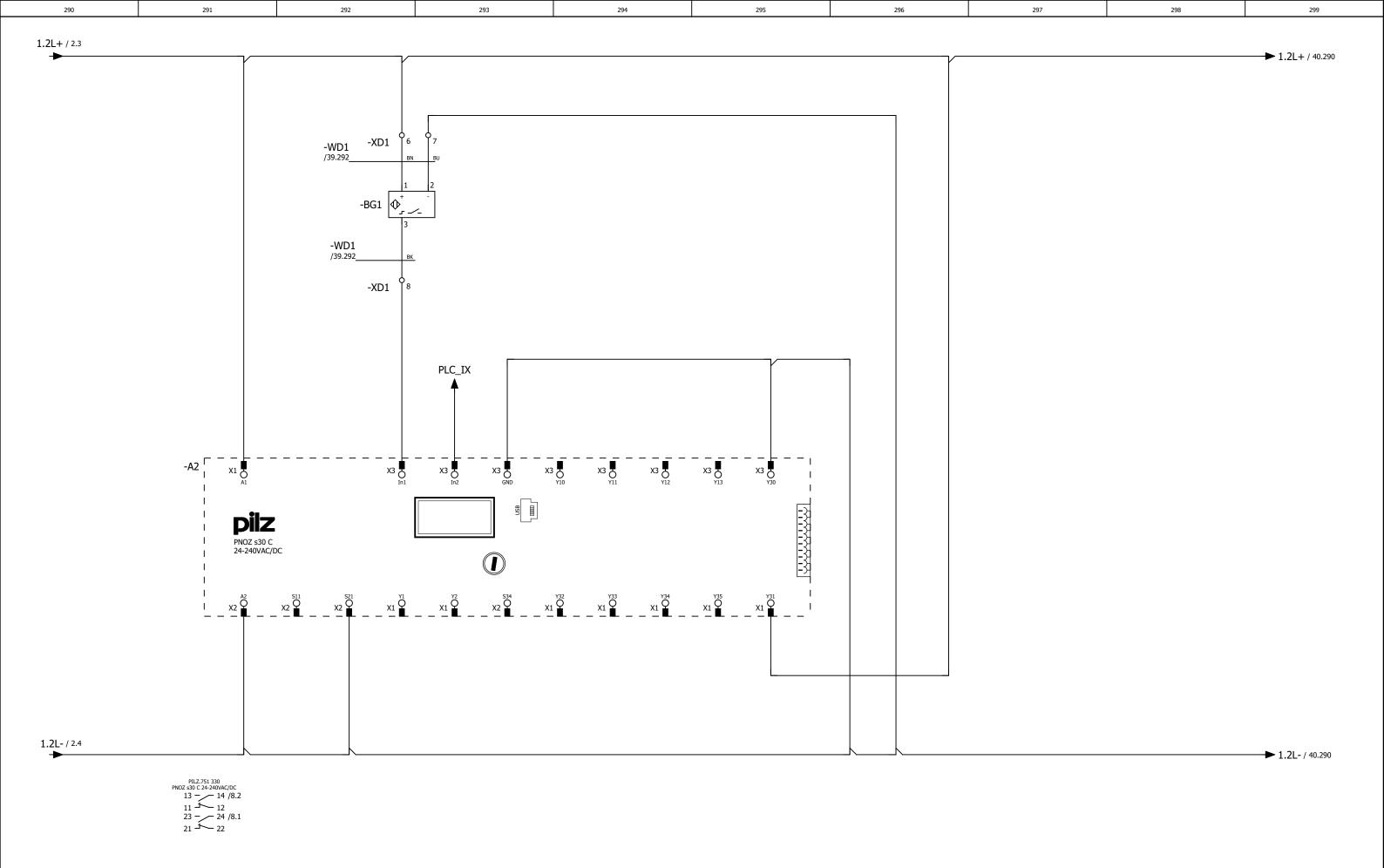
DRAWN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
ML	20170503	Project template ESS	ESS-xxxxxxxx			
CHECKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
		Drive Controller safety	Preliminary	A3	1	0.1
APPROVED BY	Date	FUNCTION	SHEET			
		Digital outputs	=TS+SSS.DTL.01.A1	.&FS/8		
<i>QPIAN</i> °	DESIGN SITE	Start/Stop pump 1-3	NEXT			
EPLAN® electric® V2.7.3	ESS	,	9			





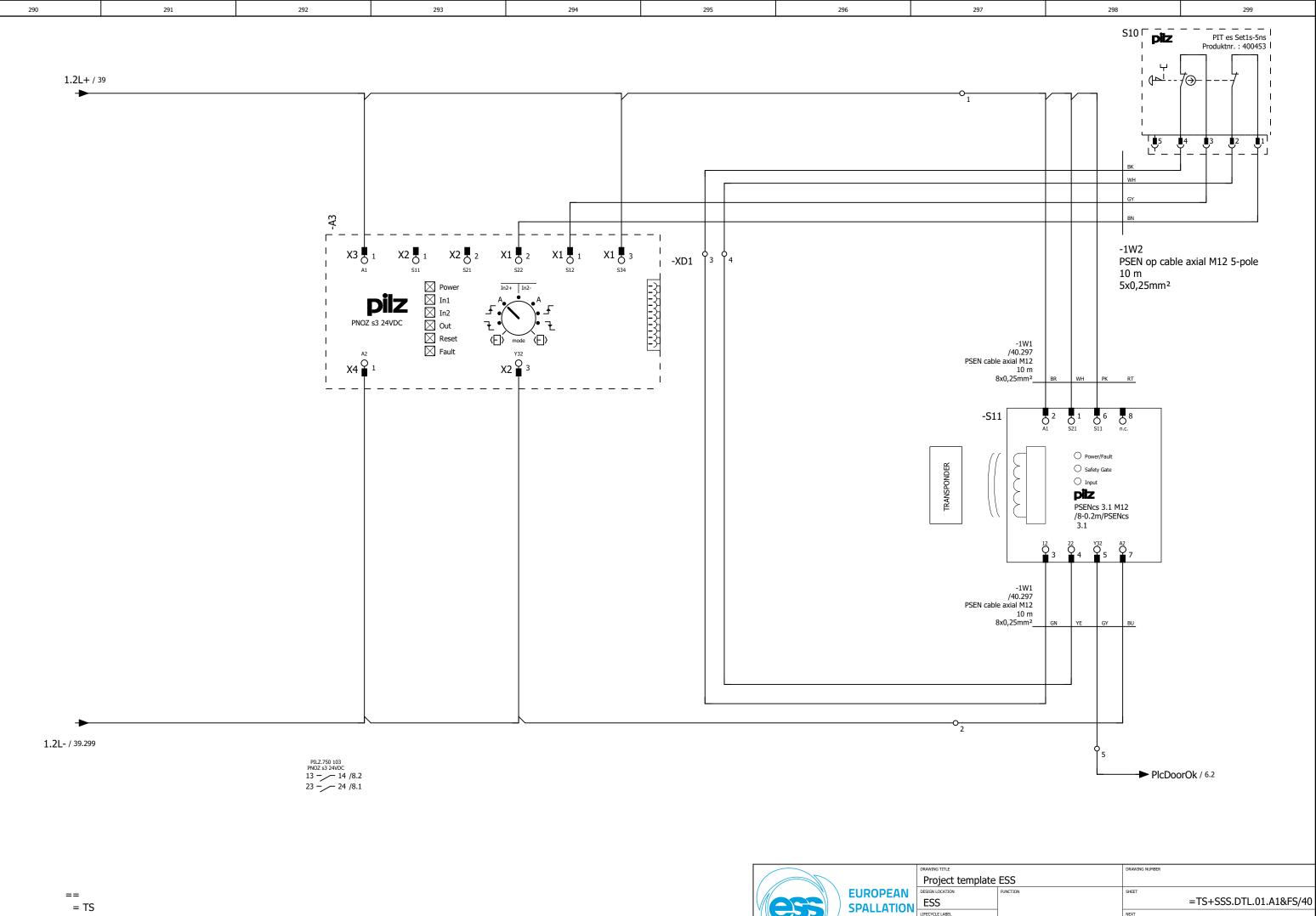


		DRAWN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
Ι.		ML	2017-06-14	Project template ESS	ESS-xxxxxxxx			
- 1/	EUROPEAN	CHECKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
	SPALLATION			Encoder Sin Con	Preliminary	A3	1	0.1
- 1 '		APPROVED BY	Date	FUNCTION	SHEET			
	SOURCE				=TS+SSS.DTL.01.A1	L&FS/10	0	
		<i>eplan</i> °	DESIGN SITE		NEXT			
	Documentation protection ISO 16016	electric 8 V2.7.3	ESS		39			



== = TS ++ + SSS.DTL.01.A1

		Project template	ESS	DRAWING NUMBER			
	EUROPEAN SPALLATION	DESIGN LOCATION ESS	FUNCTION	SHEET =TS-	SSS.D	ΓL.01.Α1&F	-S/39
	SOURCE	Preliminary		NEXT			40
	Documentation protection ISO 16016	electric 8 V2.7.3	PAGE DESCRIPTION Safety overspeed	Markuslarsson	0.1	11/15/2018	



SOURCE

Preliminary

electric 8 V2.7.3

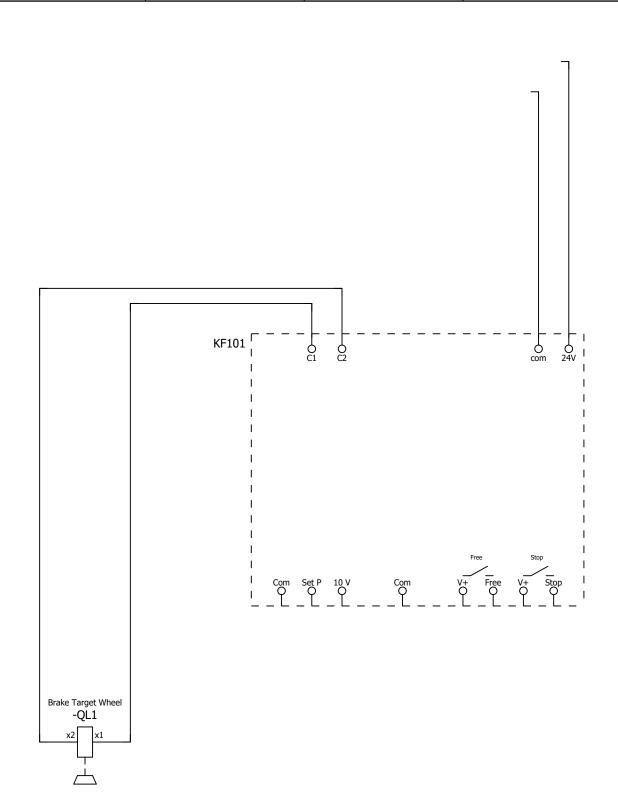
Safety Estop +Door

LAST CHANGE

1/21/2020

0.1

+ SSS.DTL.01.A1





	DRAWN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)						
	ML	20180615	Project template ESS	ESS-xxxxxxxx						
	CHECKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV			
ı			Brake Target Wheel	Preliminary	A3	1	0.1			
	APPROVED BY	Date	FUNCTION	SHEET						
				=TS+SSS.DTL.01.A1&FS/41						
	<i>epian°</i>	DESIGN SITE		NEXT						
	EPLAN® electric 8 V2.7.3	ESS		&FQ/1						

Fuse Table

ESS_Fuse_table_ver1

Device tag	Function	Technical characteristics	Type number	Designation	Sheet
-F2	Spare	C, 6A, 1p, 15kA, 230V	C, 6A, 1p, 15kAF &Z 6 0 6/1	MCB, C-Curve, 6A, 1p	&FS/1.7
-F3	=	C, 6A, 1p, 15kA, 230V	C, 6A, 1p, 15kAF &Z60 6/1	MCB, C-Curve, 6A, 1p	&FS/1.8
-F4	24V source	C, 6A, 1p, 15kA, 230V	C, 6A, 1p, 15kAF &Z 606/1	MCB, C-Curve, 6A, 1p	&FS/2.3
-F11	Power supply CPU		FAZ-C6/1	MCB, C-Curve, 6A, 1p	&FS/2.2
-F12	Power supply Digital in.		FAZ-C6/1	MCB, C-Curve, 6A, 1p	&FS/2.3
-FB1		16A, 30mA, Typ AC	FI-16/2/003	RCCB, type AC, 16A, 2p, 30mA	&FS/1.8

Terminal diagram

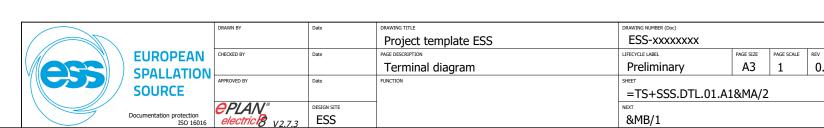
ESS_Treminal_diagram	_ver1
----------------------	-------

		Strip =TS+SSS.DTL.01.A1-X01							Cable name					
Function text							구 한 전 한 Target designation	Connection point	Jumper Terminal	Target designation	Connection point	Cable type		Page / column
Path function text Row 01 Path function text Row 02 Path function text Row	03 Path funct	ion text Rov	04 Path	function	n text Row	05 Path	function3€2t Row 06 Path function text Row 07 Path function	textPIEow 08	Path2function text Row 09	-ST2	8			&FS/4.9
												1		
												1		
												-		
												-		
						\dashv						1		
												-		
												-		
						\dashv						1		
												1		
												-		
						-						-		
												-		
												_		
												-		
						-						+		
						\dashv						1		
												1		

Terminal diagram

ESS_Treminal_diagram_ve	er
-------------------------	----

Function text PSEN cable axial M12 PSEN cable axial M12 Function text PSEN cable axial M12 Final Jumper Target designation Target designation Target designation		Page / column
GN -S11 3 3 -?S1 4 BK		&FS/40.295
YE -S11 4 4 4 -?S1 2 WH		&FS/40.295
BN -BG1 1 6 -A2 X1		&FS/39.292
-A2 X1		
BU -BG1 2 7 -A2 X3		&FS/39.293
-A3 X4.1		
Path function text Row 01 Path function text Row 02 Path function text Row 03 Path function text Row 04 Path function text Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08 Path9function text Row 09 -D01 1	BK	&FS/39.292 &FS/5.2
Path function text Row 02 Path function text Row 03 Path function text Row 04 Path function text Row 05 Path function text Row 06 Path function text Row 09 Path function text		&FS/5.2
Path function text Row 01 Path function text Row 02 Path function text Row 03 Path function text Row 05 Path function text Row 06 Path function text Row 09 -BG2 3	BK	&FS/5.2
		+
		-



Cable overview

ESS_Cable_overview_ver1

Cable designation	from	to	Cable type	Condctrs/ Diameters	Used Condctrs	Length	Function text
=TS+SSS.DTL.01.A1-1W1	=+	=TS+SSS.DTL.01.A1-S11	PSEN cable axial M12 8x	x0,25mm² mm²	7	10	
	=TS+SSS.DTL.01.A1-S11						
	=TS+SSS.DTL.01.A1-XD1						
=TS+SSS.DTL.01.A1-1W2	=TS+SSS.DTL.01.A1-?S1	=TS+SSS.DTL.01.A1-XD1	PSEN op cable axial M12 5-pole 5x	x0,25mm² mm²	4	10	
		=TS+SSS.DTL.01.A1-A3					
=TS+SSS.DTL.01.A1-WD1	=TS+SSS.DTL.01.A1-XD1	=TS+SSS.DTL.01.A1-BG1			3		
=TS+SSS.DTL.01.A1-WD2	=TS+SSS.DTL.01.A1-XD1	=TS+SSS.DTL.01.A1-BG2			3		
=TS+SSS.DTL.01.A1-WG01	=TS+SSS.DTL.01.A1-1XG101	=TS+SSS.DTL.01.A1-TA11-XG11			3		
		=TS+SSS.DTL.01.A1-XG101					

0 1 2 3 4 5 6 7

ESS_Cable_diagram_ver1

Cable name: =TS+SSS.DTL.01.A1	-1W1		Cable type		PSEN cable axial M12			
Function text:			No. of cond	uctors	8	Cross-secti	on 0,25mm²	Cable length 10
Function text	Page / column	Target designation from	Connection point	Conductor	Target designation to	Connection point	Page / column	Function text
				WS				
				BR				
				GN				
				GE				
				GR				
				RS				
				BL				
				RT				
	&FS/40.297		1	BR	-S11	2	&FS/40.298	
	&FS/40.298	-S11	1	BR	-S11	2	&FS/40.298	
	&FS/40.297		2	BU	-S11	7	&FS/40.298	
	&FS/40.295	-XD1	3	GN	-S11	3	&FS/40.298	
	&FS/40.298		5	GY	-S11	5	&FS/40.298	
	&FS/40.298	-S11	1	WH	-S11	6	&FS/40.298	
	&FS/40.295	-XD1	4	YE	-S11	4	&FS/40.298	

Cable name: =TS+SSS.DTL.01.A1-1	W2		Cable type		PSEN op cable axial M12	.2 5-pole					
Function text:	nction text:				5	Cross-section	on 0,25mm²	Cable length 10			
Function text	Page / column	Target designation from	Connection point	Conductor	Target designation to	Connection point	Page / column	Function text			
				BR							
				WS							
				BL							
				SW							
				GR							
	&FS/40.299	-?S1	4	BK	-XD1	3	&FS/40.295				
	&FS/40.299	-?S1	1	BN	-A3	X1.2	&FS/40.294				
	&FS/40.299	-?S1	3	GY	-A3	X1.1	&FS/40.294				

EUROPEAN CHECKED BY SPALLATION APPROVED BY

EPLAN® electric® V2.7.3

DESIGN SITE

SOURCE

Project template ESS

Cable diagram

ESS-xxxxxxxx

=TS+SSS.DTL.01.A1&MB/10

Preliminary

10.1

Cable diagram

Cable diagram

ESS Cable diagram ver1

PAGE SIZE PAGE SCALE REV
A3 1 0.1

Preliminary

10.2

=TS+SSS.DTL.01.A1&MB/10.1

Cable name: =TS+SSS.DTL.01.A1-1W	2		Cable type		PSEN op cable axial M12	5-pole		
Function text:			No. of cond	uctors	5	Cross-section	on 0,25mm²	Cable length 10
Function text	Page / column	Target designation from	Connection point	Conductor	Target designation to	Connection point	Page / column	Function text
	&FS/40.299	-?S1	2	WH	-XD1	4	&FS/40.295	
Cable name: =TS+SSS.DTL.01.A1-WD	21		Cable type					
Function text:			No. of cond	uctors		Cross-section	on	Cable length
Function text	Page / column	Target designation from	Connection point	Conductor	Target designation to	Connection point	Page / column	Function text
	&FS/39.292	-XD1	8	ВК	-BG1	3	&FS/39.292	
	&FS/39.292	-XD1	6	BN	-BG1	1	&FS/39.292	
	&FS/39.293	-XD1	7	BU	-BG1	2	&FS/39.292	
Cable name: =TS+SSS.DTL.01.A1-WD)2		Cable type					
Function text: Path function	n text Row 01 Path funct	ion text Row 02 Path function te	ext Rislow Out Recentled	ufatraction text	Row 04 Path function text Row	05 Rardsstusectiid	om text Row 06 Path fun	nctionCtable RevogttD7 Path function text Rov
Function text	Page / column	Target designation from	Connection	Conductor	Target designation to	Connection	Page / column	Function text
			point	00.10000		point	rage / column	Tunction text
Path function text Row 01 Path function text Row 02 Path function text Row 03 Path function ext Row 04 Path function text Row 05 Path unction text Row 06 Path function text Row 07 Path function text Row 08 Path function text Row 09	&FS/5.2	-XD1	point 11	BK	-BG2	point 3	&FS/5.2	Path function text Row 01 Path function text Row 02 Path function text Row 03 Path function text Row 04 Path function text Row 05 Path function text Row 06 Path function
Row 02 Path function text Row 03 Path function ext Row 04 Path function text Row 05 Path unction text Row 06 Path function text Row 07 Path function text Row 08 Path function text	&FS/5.2 &FS/5.2	-XD1					_	Path function text Row 01 Path function text Row 02 Path function text Row 03 Path function text Row 04 Path function text Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08 Path
Now 02 Path function text Row 03 Path function ext Row 04 Path function text Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08 Path function text Row 09	&FS/5.2		11	BK	-BG2	3	&FS/5.2	Path function text Row 01 Path function text Row 02 Path function text Row 03 Path function text Row 04 Path function text Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08 Path function text Row 09
Row 02 Path function text Row 03 Path function ext Row 04 Path function text Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08 Path function text Row 09 Path function text Row 08 Path function text Row 09 Path function text Row 02 Path function text Row 03 Path function text Row 04 Path function ext Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08	&FS/5.2 &FS/5.2	-XD1	9	BK BN	-BG2	1	&FS/5.2 &FS/5.2	Path function text Row 01 Path function text Row 02 Path function text Row 03 Path function text Row 04 Path function text Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08 Path function text Row 09
Row 02 Path function text Row 03 Path function ext Row 04 Path function text Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08 Path function text Row 09 Path function text Row 02 Path function text Row 03 Path function text Row 04 Path function ext Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08 Path function text Row 08 Path function text Row 09	&FS/5.2 &FS/5.2	-XD1	9 10	BN BU	-BG2	1	&FS/5.2 &FS/5.2	Path function text Row 01 Path function text Row 02 Path function text Row 03 Path function text Row 04 Path function text Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08 Path function text Row 09
Row 02 Path function text Row 03 Path function ext Row 04 Path function text Row 05 Path function text Row 07 Path function text Row 07 Path function text Row 08 Path function text Row 09 Path function text Row 02 Path function text Row 03 Path function text Row 04 Path function ext Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08 Path function text Row 09 Cable name: =TS+SSS.DTL.01.A1-WG	&FS/5.2 &FS/5.2	-XD1	9 10 Cable type	BN BU	-BG2	1 2	&FS/5.2 &FS/5.2	Path function text Row 01 Path function text Row 02 Path function text Row 03 Path function text Row 04 Path function text Row 05 Path function text Row 06 Path function text Row 07 Path function text Row 08 Path function text Row 09

EUROPEAN CHECKED BY SPALLATION APPROVED BY

Documentation protection ISO 16016

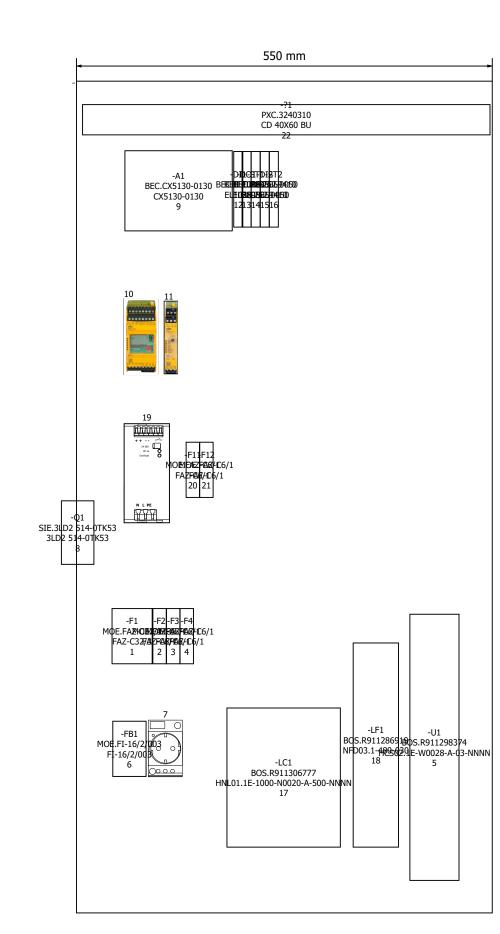
Cable diagram

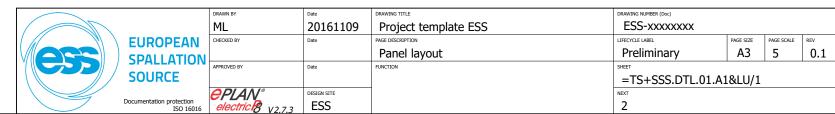
DESIGN SITE

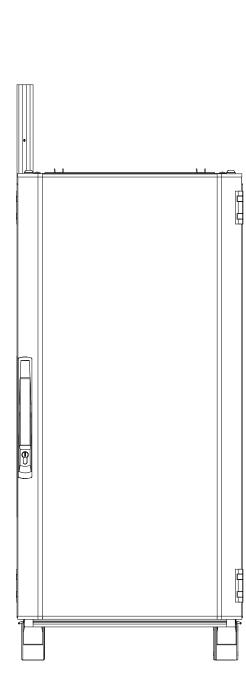
Cable diagram

ESS_Cable_diagram_ver1

Cable name: =TS+SSS.DTL.01.A1-V	WG01	Cable type								
Function text:		No. of cond	uctors		Cross-sectio	n	Cable length			
Function text	Function text Page / column			Conductor	Target designation to	Connection point	Page / column	Function text		
	&FS/10.6	-1XG101	11	WH	-TA11-XG11	15	&FS/10.6			
&FS/10.5 -1XG101			10	WH-GN	-TA11-XG11	4	&FS/10.5			







DRAWN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)						
ML	20161109	Project template ESS	ESS-xxxxxxxx						
CHECKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV			
		Panel layout	Preliminary	A3	5	0.1			
APPROVED BY	Date	FUNCTION	SHEET						
			=TS+SSS.DTL.01.A1&LU/2						
<i>epian</i> °	DESIGN SITE		NEXT						
EPLAN ® electric R V2.7.3	ESS		&PC/1						

Device tag	Quantity	Designation	Type number	Supplier	Part number	ESS-Part number
-?1	1	Cable duct	CD 40X60 BU	PXC	PXC.3240310	3240310
-A1	1	CX5130 Embedded PC with Intel® Atom™ processor	CX5130-0130	BEC	BEC.CX5130-0130	
-A2	1	PNOZsigma speed monitor 2n/o 2n/c	PNOZ s30 C 24-240VAC/DC	PILZ	PILZ.751 330	
A3	1	PNOZsigma Safety relay 2n/o	PNOZ s3 24VDC	PILZ	PILZ.750 103	
BC1	1				BEC.EK1110	
·BG1	1	Infrared LED Digital Fiber Amplifier Unit, Standard model, Pre	EBNed(241)AM-S≥12M output	OMR	OMR.E3X-DA41AN-S-2M	
·BG2	1	Infrared LED Digital Fiber Amplifier Unit, Standard model, Pre		OMR	OMR.E3X-DA41AN-S-2M	
·DI1	1	8-channel digital input terminal 24 V DC, filter 10 µs, 1-wire s		BEC	BEC.EL1018	
·DI2	1	2-channel digital input terminal 5 V DC, filter 1 μs, with time		BEC	BEC.EL1252-0050	
-DI3	1	2-channel digital input terminal with time stamp	EL1252	BEC	BEC.EL1252	
-DO1	1	8-channel digital output terminal 24 V DC, 0.5 A polarity prot		BEC	BEC.EL2808	
-DO2	1	o charmer digital output terminal 21 v De, 0.5 A polarity prot		BEC	BEC.EL4002	
-502 -F1	1	MCB, C-Curve, 32A, 3p	FAZ-C32/3	MOE	MOE.FAZ-C32/3	
	1	MCB, C-Curve, 6A, 1p	FAZ-C52/3 FAZ-C6/1	MOE	MOE.FAZ-C32/3 MOE.FAZ-C6/1	
	1					
-F3	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
F4	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
F11	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
-F12	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
-FB1	1	RCCB, type AC, 16A, 2p, 30mA	FI-16/2/003	MOE	MOE.FI-16/2/003	
-K100	1	IndraDrive, Single-axis control unit	CSB02.1A-**	BOS	BOS.CSB02.1A-**	
-KF1	1				BEC.EL3214	
-LC1	1	Mains choke	HNL01.1E-1000-N0020-A-500-NNNN	BOS	BOS.R911306777	
-LF1	1	Mains filter	NFD03.1-480-030	BOS	BOS.R911286919	
-Q1	1	Rotary actuator for switch 3LD2	3LD9 284-3B	SIEMEN	SIE.3LD9 284-3B	
-Q1		Main / Emergency stop switch	3LD2 514-0TK53	SIEMEN	SIE.3LD2 514-0TK53	
-S10	1	Trum / Emergency stop switch	317 01K33	SILITER	PILZ.400 620	
-S11	1	non contact, coded safety switch	PSENcs 3.1 M12/8-0.2m/PSENcs 3.1	PILZ	PILZ.541009	
-ST1	1	Power supply unit terminal 24 V DC, output 5 V DC, 0.5 A	EL9505	BEC	BEC.EL9505	
-511 -ST2	1			BEC	BEC.EL9303	
	1	Power supply terminal for E-bus, 24 V DC, 2 A with diagnostic				
-T1	1	Power Supply, 1AC, Output 24V 10A	QS10.241	PULS	PULS.QS10.241	
-U1	1	Compact converter HCS02	HCS02.1E-W0028-A-03-NNNN	BOS	BOS.R911298374	
-1W1	1	PSEN cable unshielded M12 female connector, straight	PSEN cable axial M12 8-pole 10m	PILZ	PILZ.540321	
-1W2	1	PSEN op Cable axial 5-p.unshielded 10m	PSEN op cable axial M12 5-pole 10m	PILZ	PILZ.630312	
-X01		Ground modular terminal block USLKG 5	USLKG 5	PXC	PXC.0441504	
-XG1	1	SZ Socket for mounting on support rails, Schuko, CEE 7/4	SZ.2506100	RIT	RIT.2506100	
					1	
		1		1	·	•

		DRAWN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
				Project template ESS	ESS-xxxxxxxx			
	EUROPEAN	CHECKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
- [(SPALLATION			Part List	Preliminary	A3	1	0.1
		APPROVED BY	Date	FUNCTION	SHEET			
	SOURCE				=TS+SSS.DTL.01.A1&PC/1			
		<i>epian</i> °	DESIGN SITE		NEXT			
	Documentation protection ISO 16016	electric 8 V2.7.3	ESS		2			

ESS_Parts_list_ver1

Device tag	Quantity	Designation	Type number	Supplier	Part number	ESS-Part number
	1	Cable duct	CD 40X60 BU	PXC	PXC.3240310	3240310
	1	CX5130 Embedded PC with Intel® Atom™ processor	CX5130-0130	BEC	BEC.CX5130-0130	
	1	PNOZsigma speed monitor 2n/o 2n/c	PNOZ s30 C 24-240VAC/DC	PILZ	PILZ.751 330	
	1	PNOZsigma Safety relay 2n/o	PNOZ s3 24VDC	PILZ	PILZ.750 103	
1	1	1 NO25igina Safety Felay 211/0	TNOZ 33 ZTVDC	I ILZ	BEC.EK1110	
1	1	Infrared LED Digital Fiber Amplifier Unit, Standard model, Pr	CO ETINOSTY MARS DAM OUTS UT	OMR	OMR.E3X-DA41AN-S-2M	
	1					
2	1	Infrared LED Digital Fiber Amplifier Unit, Standard model, Pr		OMR	OMR.E3X-DA41AN-S-2M	
1	1	8-channel digital input terminal 24 V DC, filter 10 μs, 1-wire		BEC	BEC.EL1018	
2	1	2-channel digital input terminal 5 V DC, filter 1 μ s, with time		BEC	BEC.EL1252-0050	
3	1	2-channel digital input terminal with time stamp	EL1252	BEC	BEC.EL1252	
01	1	8-channel digital output terminal 24 V DC, 0.5 A polarity pro	t eEti@6 08	BEC	BEC.EL2808	
)2	1				BEC.EL4002	
	1	MCB, C-Curve, 32A, 3p	FAZ-C32/3	MOE	MOE.FAZ-C32/3	
	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
1	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
2	1	MCB, C-Curve, 6A, 1p	FAZ-C6/1	MOE	MOE.FAZ-C6/1	
1	1			MOE		
	1	RCCB, type AC, 16A, 2p, 30mA	FI-16/2/003		MOE.FI-16/2/003	
00	1	IndraDrive, Single-axis control unit	CSB02.1A-**	BOS	BOS.CSB02.1A-**	
1	1				BEC.EL3214	
1	1	Mains choke	HNL01.1E-1000-N0020-A-500-NNNN	BOS	BOS.R911306777	
L	1	Mains filter	NFD03.1-480-030	BOS	BOS.R911286919	
	1	Rotary actuator for switch 3LD2	3LD9 284-3B	SIEMEN	SIE.3LD9 284-3B	
	1	Main / Emergency stop switch	3LD2 514-0TK53	SIEMEN	SIE.3LD2 514-0TK53	
0	1				PILZ.400 620	
.1	1	non contact, coded safety switch	PSENcs 3.1 M12/8-0.2m/PSENcs 3.1	PILZ	PILZ.541009	
1	1	Power supply unit terminal 24 V DC, output 5 V DC, 0.5 A	EL9505	BEC	BEC.EL9505	
2	1	Power supply terminal for E-bus, 24 V DC, 2 A with diagnost		BEC	BEC.EL9410	
	1			PULS		
	1	Power Supply, 1AC, Output 24V 10A	QS10.241		PULS.QS10.241	
	1	Compact converter HCS02	HCS02.1E-W0028-A-03-NNNN	BOS	BOS.R911298374	
V1	1	PSEN cable unshielded M12 female connector, straight	PSEN cable axial M12 8-pole 10m	PILZ	PILZ.540321	
V2	1	PSEN op Cable axial 5-p.unshielded 10m	PSEN op cable axial M12 5-pole 10m	PILZ	PILZ.630312	
1	1	Ground modular terminal block USLKG 5	USLKG 5	PXC	PXC.0441504	
1	1	SZ Socket for mounting on support rails, Schuko, CEE 7/4	SZ.2506100	RIT	RIT.2506100	
						

_									
			DRAWN BY	Date	DRAWING TITLE	DRAWING NUMBER (Doc)			
					Project template ESS	ESS-xxxxxxxx			
		EUROPEAN	CHECKED BY	Date	PAGE DESCRIPTION	LIFECYCLE LABEL	PAGE SIZE	PAGE SCALE	REV
		SPALLATION			Part List	Preliminary	A3	1	0.1
			APPROVED BY	Date	FUNCTION	SHEET			
		SOURCE				=TS+SSS.DTL.01.A1	&PC/2		
			<i>eplan</i> °	DESIGN SITE		NEXT			
		Documentation protection ISO 16016	electric 8 V2.7.3	ESS					

ESS_Parts_list_ver1

