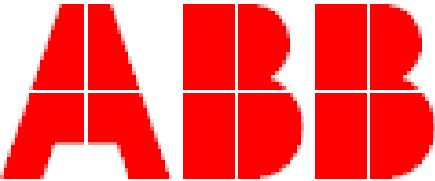






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A	<div><div></div><div><div>ABB AS</div><div>Amtm. Aallsgate 73</div><div>Skien, N-3701, NORWAY</div></div></div> <div>ANEXO II - PROJETO</div>							A																																																												
B								B																																																												
C	<div><div>CUSTOMER</div><div>ABB Ltda. -</div></div> <div><div>CUSTOMER REF.</div><div>4700068182</div></div> <div><div>SALES ORDER</div><div>461557</div></div> <div><div>ITEM NUMBER</div><div>0010</div></div>							C																																																												
D	<div><div>TYPE</div><div>SafePlus D V V V V</div></div> <div><div>RATING</div><div>15kV 630A 21kA BIL 95</div></div> <div><div>FREQUENCY</div><div>60Hz</div></div> <div><div>RATED CURRENT BUSBAR</div><div>600A; DERATED VALUE OF 630A</div></div> <div><div>REVISION</div><div></div></div>							D																																																												
E	<div><div>ISSUED FOR APPROVAL</div><div>27.11.2018</div></div> <div></div>							E																																																												
F	<div>During the installation, commissioning period and the time of operation, client is obliged to follow all instructions and recommendation given by manufacturers of individual instruments installed inside supplied equipment.</div> <table><tr><td></td><td></td><td></td><td></td><td>Prepared</td><td>SA</td><td>Project name</td><td>Customer</td><td>ABB Ltda. -</td><td>Based on</td><td>Ref. designation</td><td>=</td><td>+</td><td>Lang.</td><td>Scale</td></tr><tr><td></td><td></td><td></td><td></td><td>Checked</td><td>GL</td><td>Switchgear name</td><td>End customer</td><td>ABB Ltda. -</td><td>Document name</td><td>External doc. id</td><td></td><td></td><td>EN</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td>Approved</td><td>OWS</td><td>SafePlus D V V V V</td><td></td><td>Resp. (division/department)</td><td>Title</td><td>Document id.</td><td>DCC</td><td>Page</td><td>Cont. page</td><td></td></tr><tr><td>Rev.</td><td>Description</td><td>Date</td><td>Name</td><td>Date prep.</td><td>28.11.2018</td><td>Work order id</td><td>4700068182</td><td> ABB AS EPDS Skien</td><td>CIRCUIT DIAGRAM COVER SHEET</td><td>1VDW461557 A0010</td><td></td><td>01</td><td></td><td>02</td></tr></table>											Prepared	SA	Project name	Customer	ABB Ltda. -	Based on	Ref. designation	=	+	Lang.	Scale					Checked	GL	Switchgear name	End customer	ABB Ltda. -	Document name	External doc. id			EN						Approved	OWS	SafePlus D V V V V		Resp. (division/department)	Title	Document id.	DCC	Page	Cont. page		Rev.	Description	Date	Name	Date prep.	28.11.2018	Work order id	4700068182	 ABB AS EPDS Skien	CIRCUIT DIAGRAM COVER SHEET	1VDW461557 A0010		01		02	F
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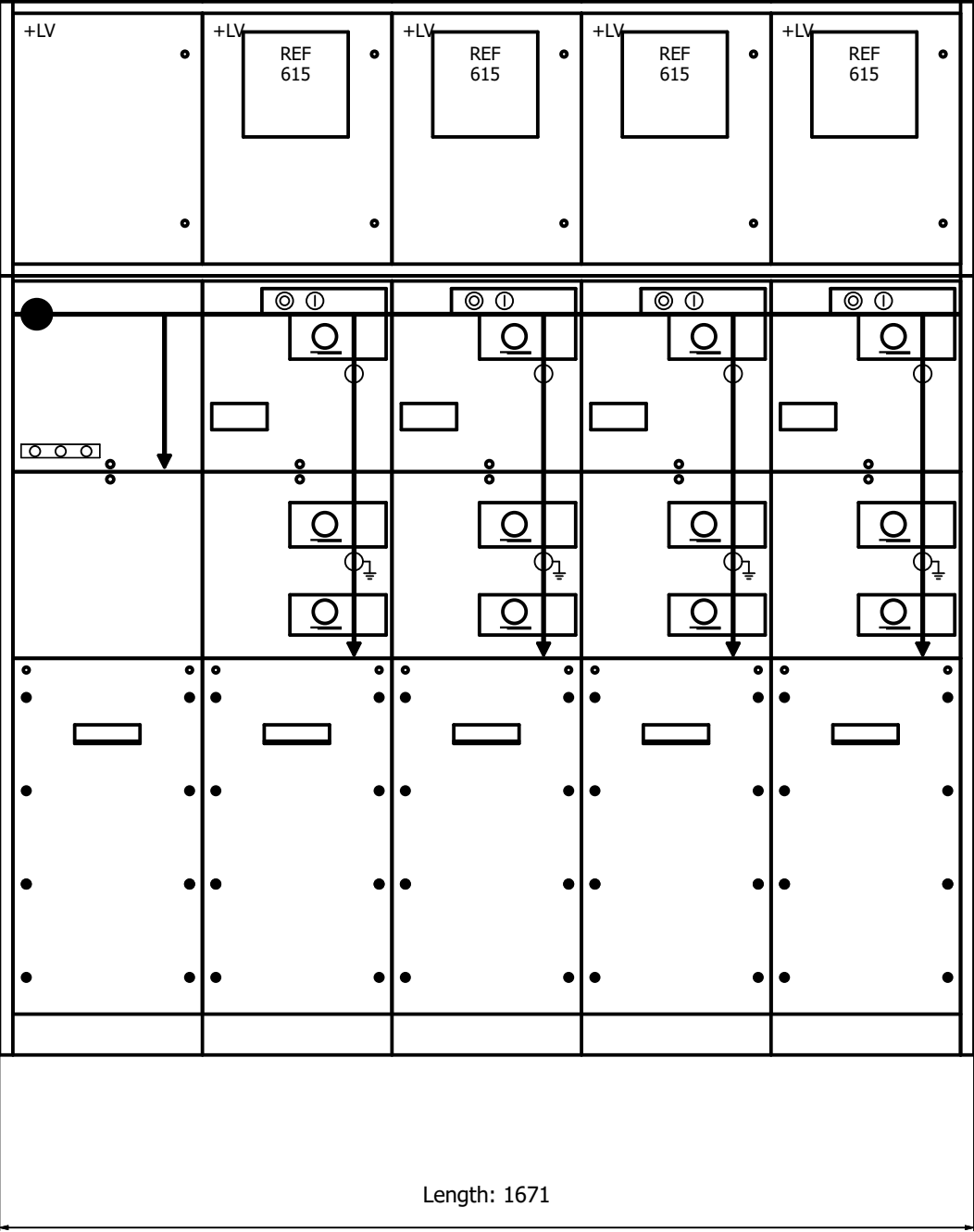
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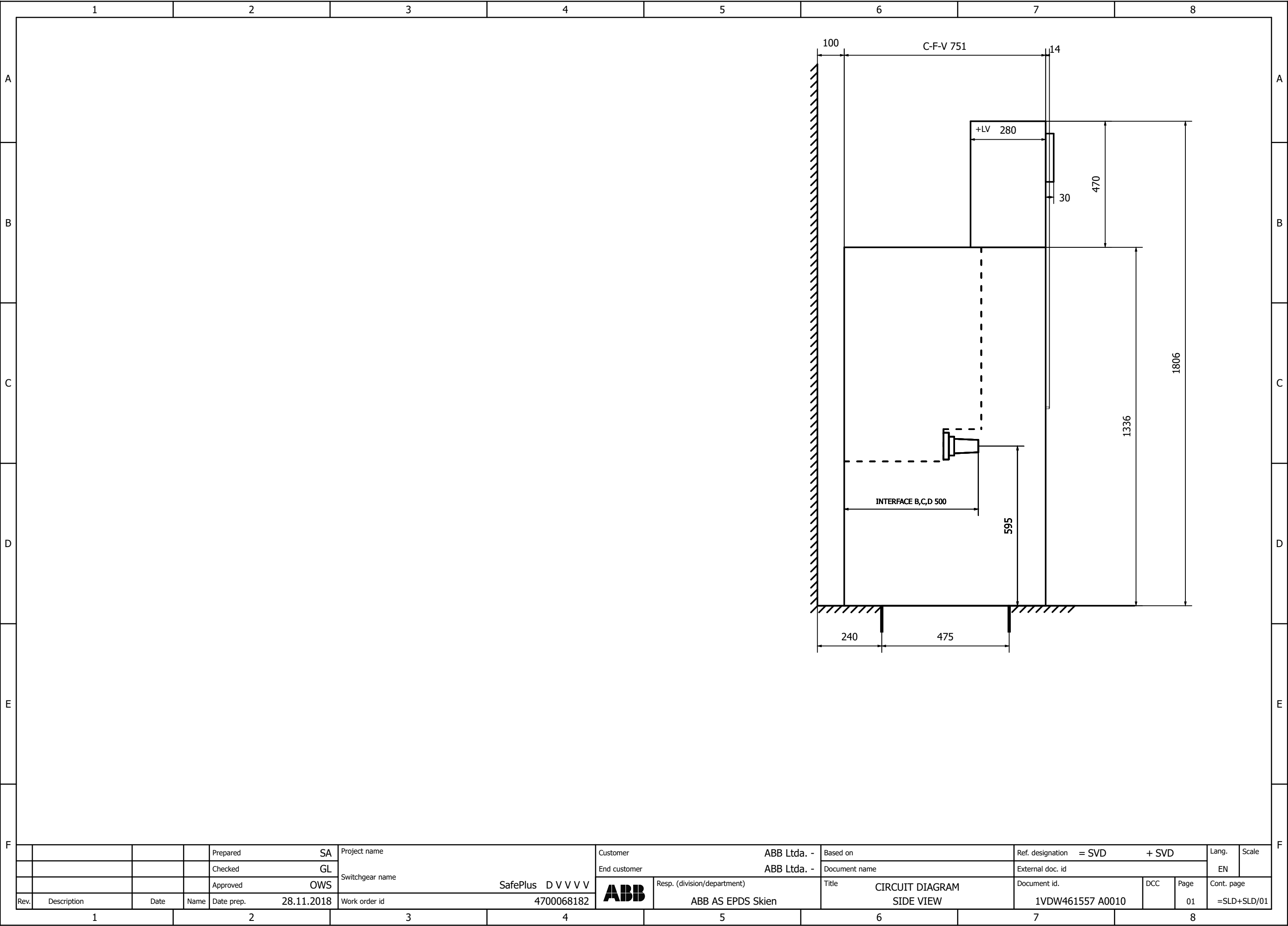
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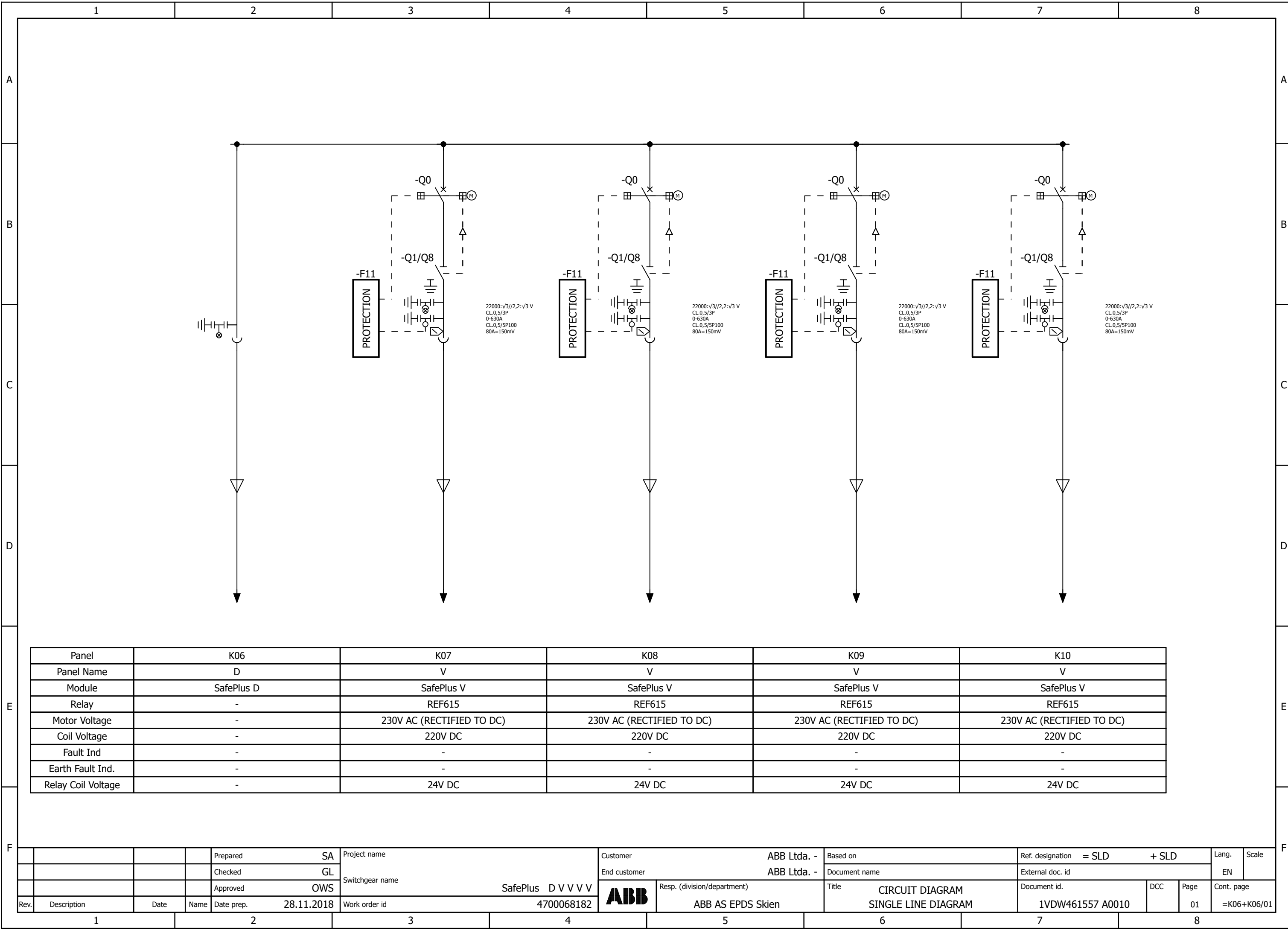
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Panel Name	D	V	V	V	V

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Panel	K06	K07	K08	K09	K10
Panel Name	D	V	V	V	V
Module	SafePlus D	SafePlus V	SafePlus V	SafePlus V	SafePlus V
Relay	-	REF615	REF615	REF615	REF615
Motor Voltage	-	230V AC (RECTIFIED TO DC)	230V AC (RECTIFIED TO DC)	230V AC (RECTIFIED TO DC)	230V AC (RECTIFIED TO DC)
Coil Voltage	-	220V DC	220V DC	220V DC	220V DC
Fault Ind	-	-	-	-	-
Earth Fault Ind.	-	-	-	-	-
Relay Coil Voltage	-	24V DC	24V DC	24V DC	24V DC

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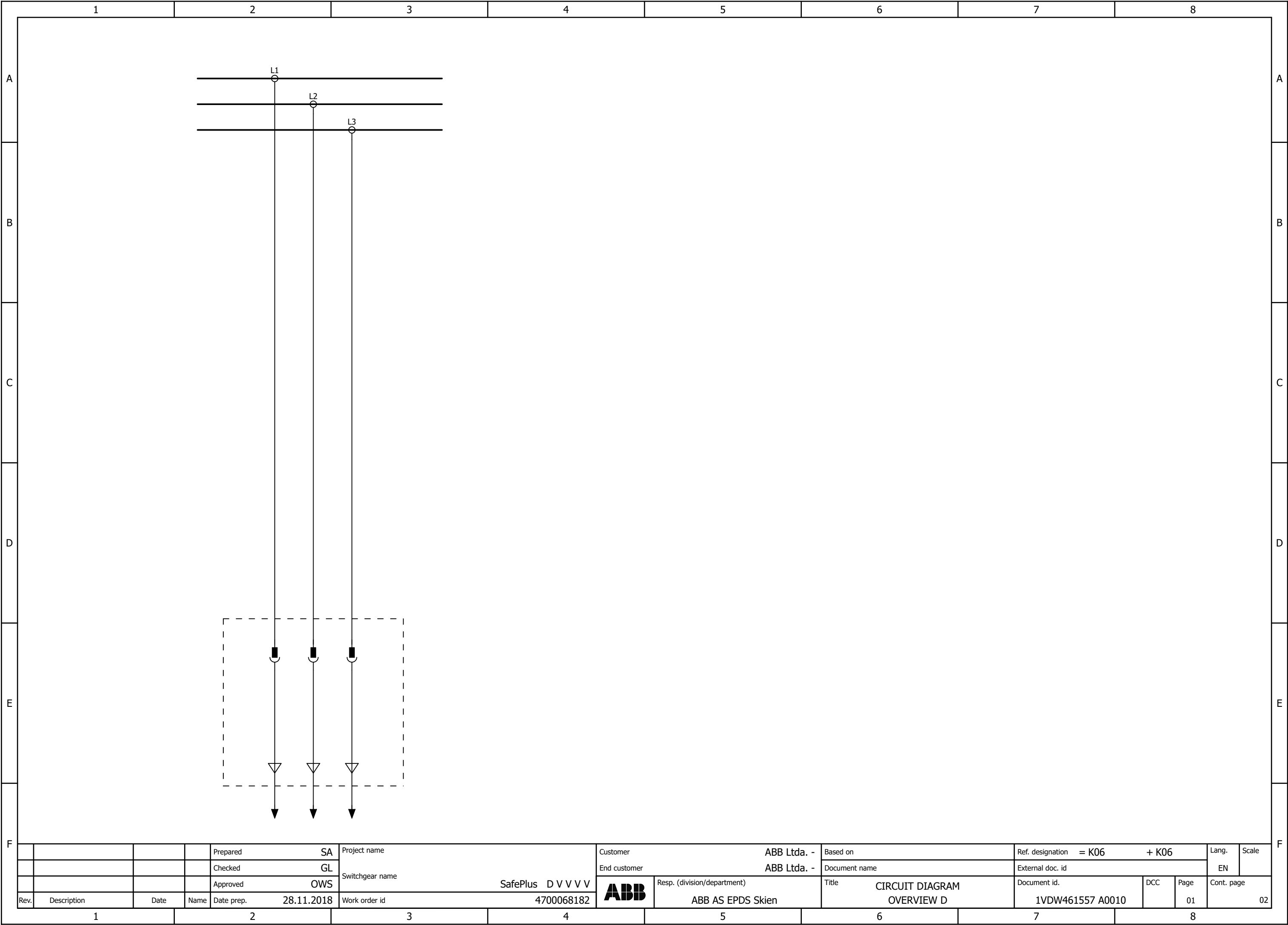
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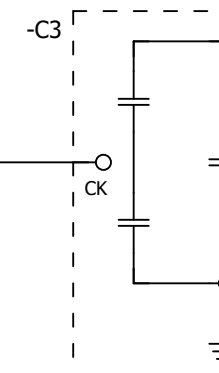
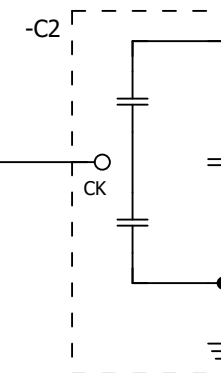
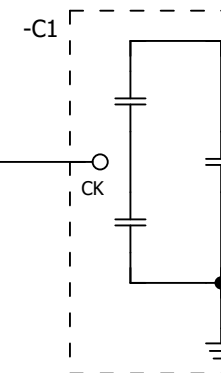
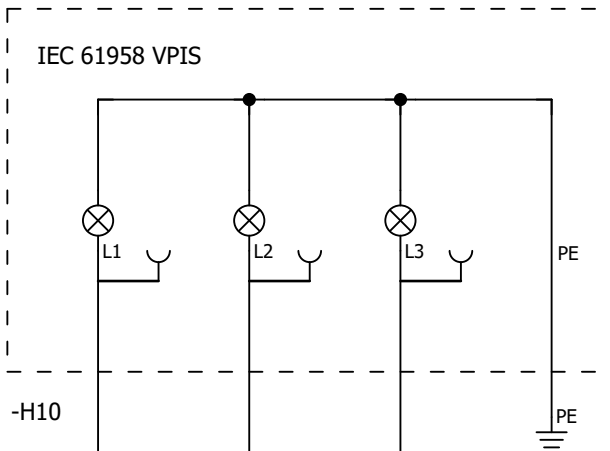
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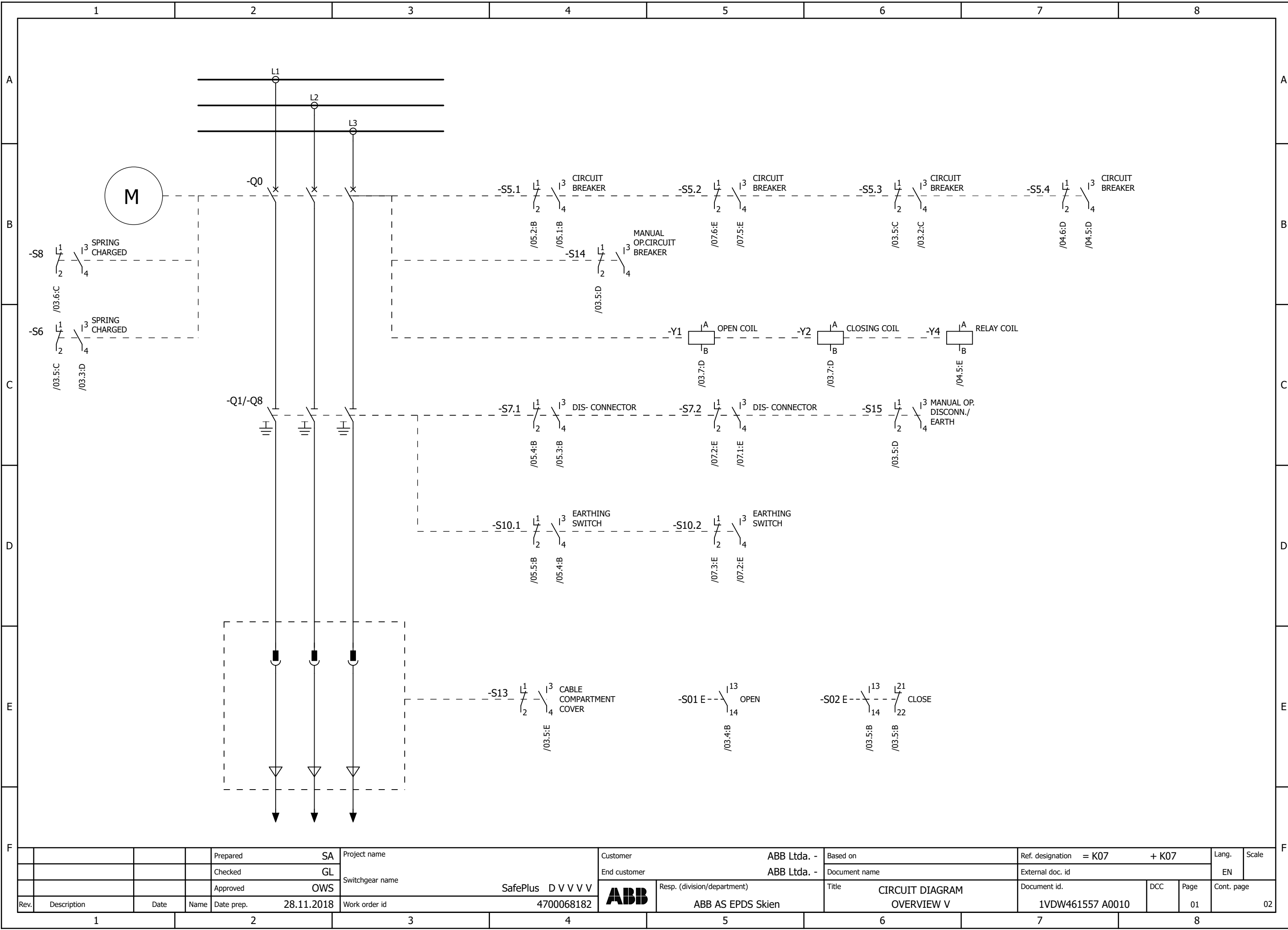


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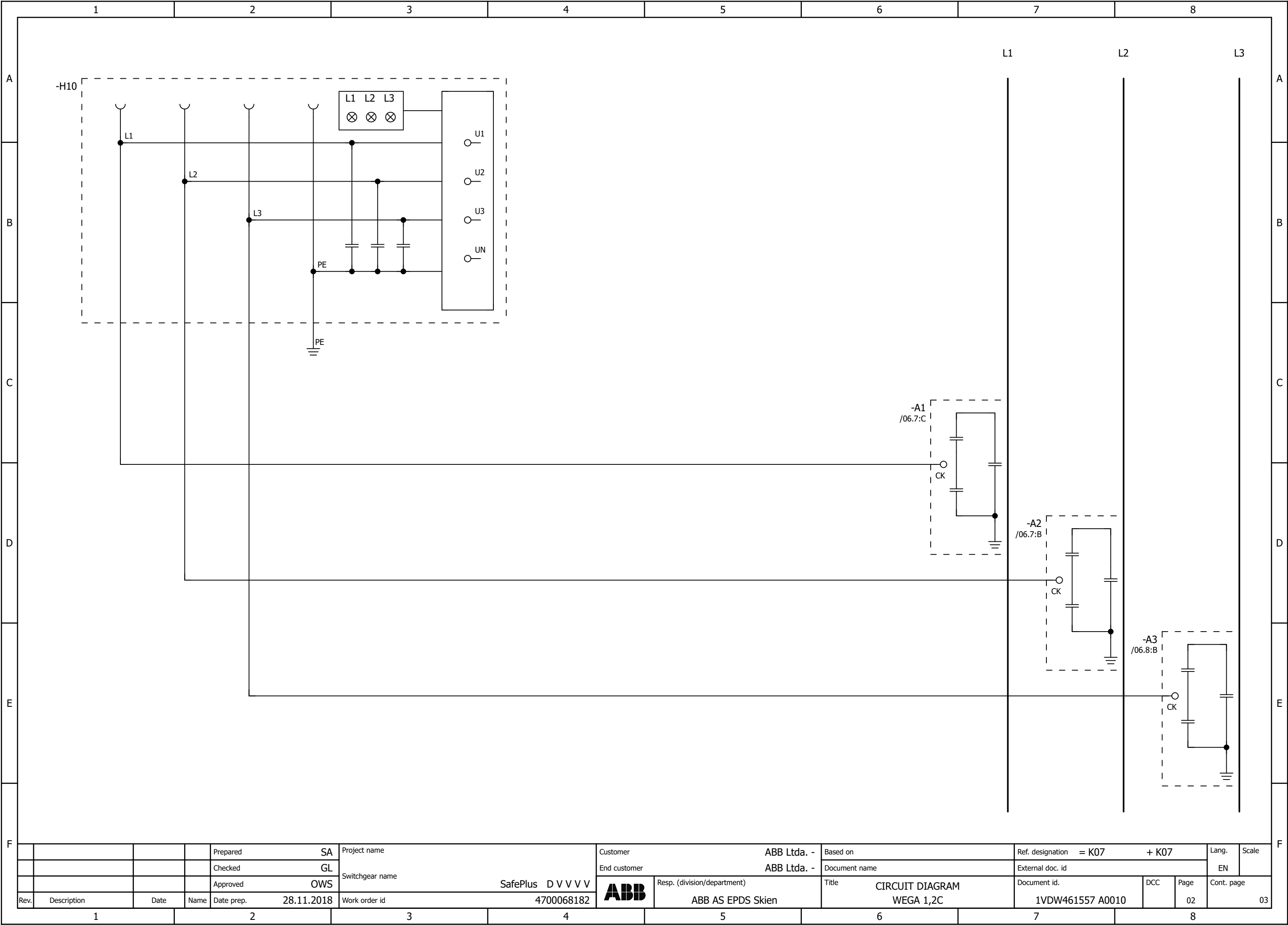
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	-C2		NHP 201699R0001				BUSHING WITH CAP. VOLTAGE IND 400 BOLT INTERFACE C				/02.7:D		ABB			
	-C3		NHP 201699R0001				BUSHING WITH CAP. VOLTAGE IND 400 BOLT INTERFACE C				/02.8:E		ABB			
C	-H10		3WAA008111P1024				VPIS INDICATOR DXN5-T 10-24KV DXN5-T 10-24kV				/02.1:A		NANPING ANDA EL.MAN.			
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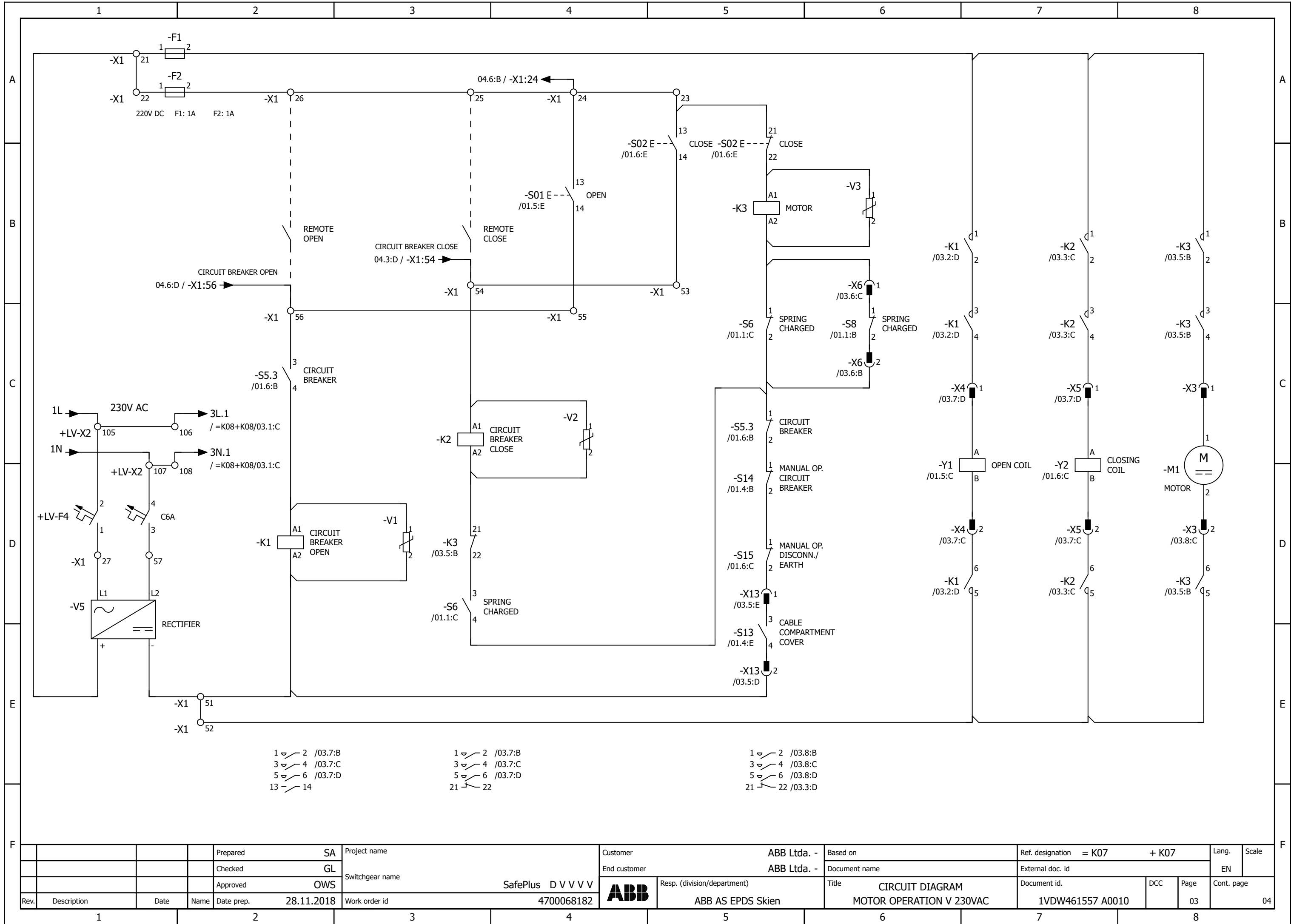
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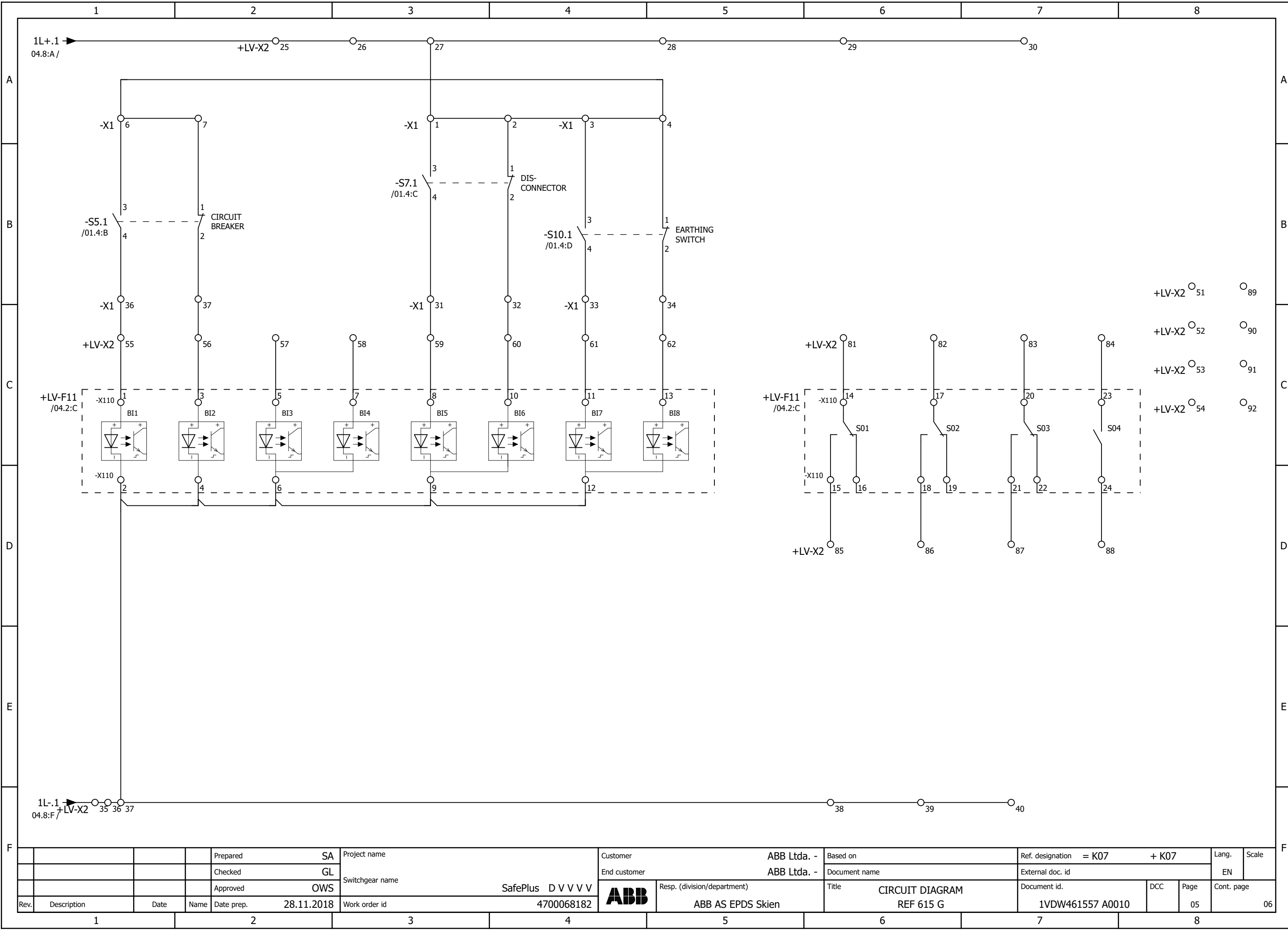


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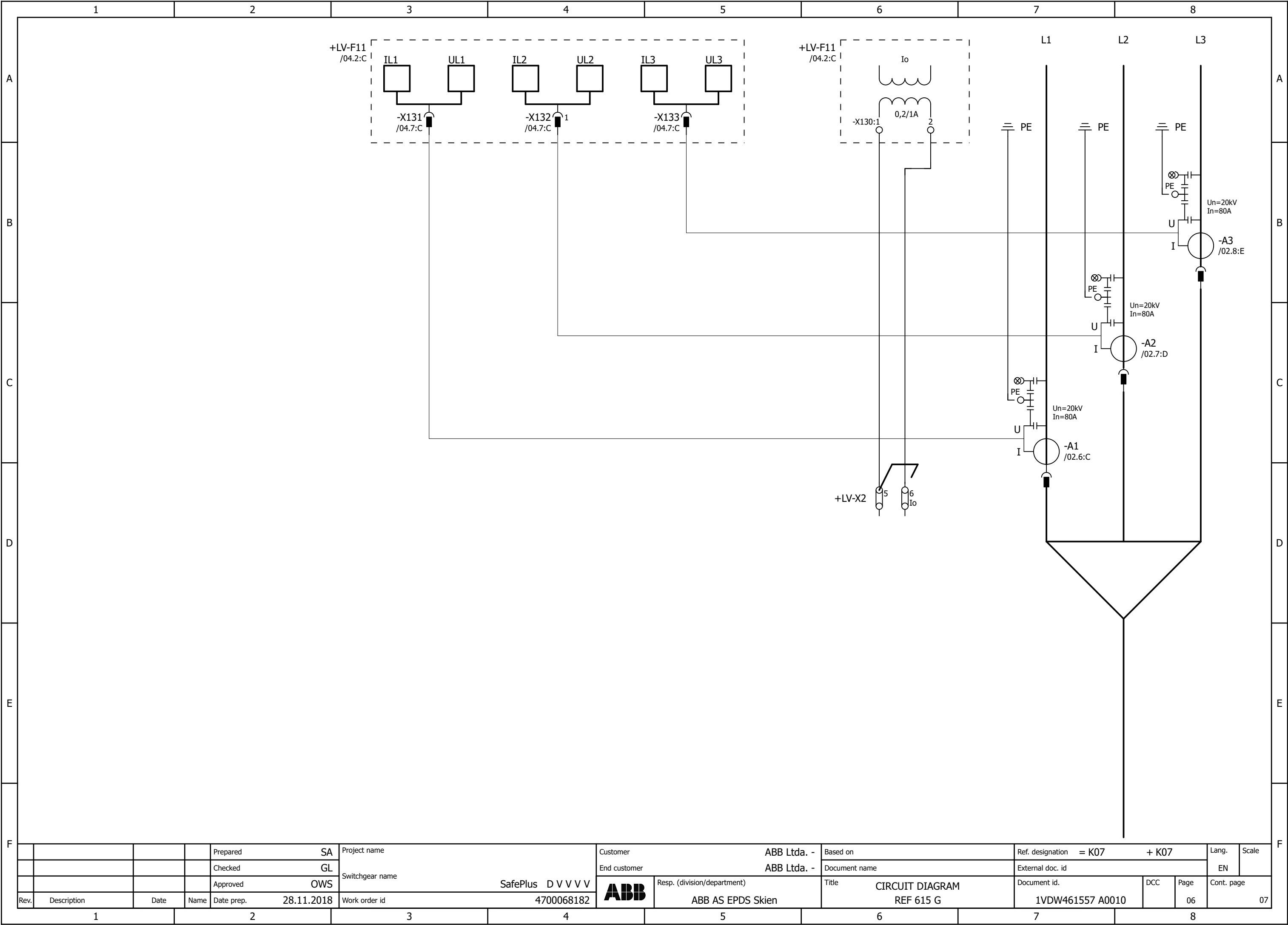


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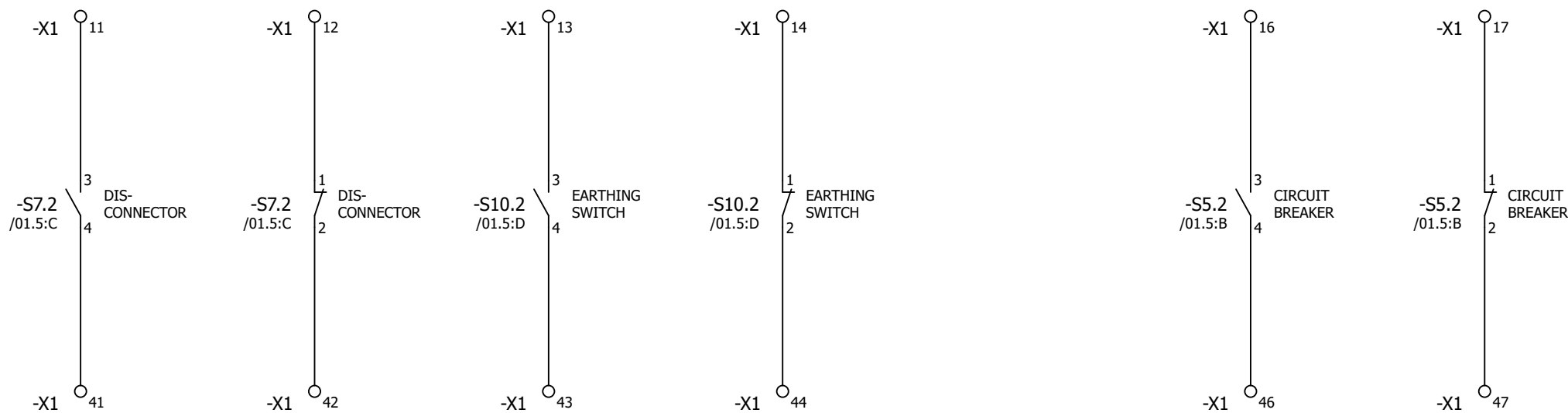



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				Approved	OWS			SafePlus D V V V V		Resp. (division/department)		Title		Document id.		DCC	Page
Rev.	Description	Date	Name	Date prep.	28.11.2018	Work order id	4700068182			ABB AS EPDS Skien		CIRCUIT DIAGRAM AUXILIARY SWITCH		1VDW461557 A0010			07

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Parts list																																																																																					
=K07 +K07																																																																																					
<table><tr><td>Device tag</td><td>Part number</td><td>Function text</td><td>Designation</td><td>Placement</td><td>Manufacturer</td><td>Pos</td></tr><tr><td>-X3</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/03.8:C</td><td>MOLEX</td><td></td></tr><tr><td>-X4</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/03.7:C</td><td>MOLEX</td><td></td></tr><tr><td>-X5</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/03.7:C</td><td>MOLEX</td><td></td></tr><tr><td>-X6</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/03.6:B</td><td>MOLEX</td><td></td></tr><tr><td>-X8</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/04.5:E</td><td>MOLEX</td><td></td></tr><tr><td>-X13</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/03.5:D</td><td>MOLEX</td><td></td></tr><tr><td>-Y1</td><td>NHSN711000P0006</td><td>OPEN COIL</td><td>COIL 220V DC</td><td>/01.5:C</td><td>SAHAT</td><td></td></tr><tr><td>-Y2</td><td>NHSN711000P0006</td><td>CLOSING COIL</td><td>COIL 220V DC</td><td>/01.6:C</td><td>SAHAT</td><td></td></tr><tr><td>-Y4</td><td>NHSN711000P0001</td><td>RELAY COIL</td><td>COIL 24V DC</td><td>/01.6:C</td><td>SAHAT</td><td></td></tr></table>																Device tag	Part number	Function text	Designation	Placement	Manufacturer	Pos	-X3	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/03.8:C	MOLEX		-X4	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/03.7:C	MOLEX		-X5	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/03.7:C	MOLEX		-X6	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/03.6:B	MOLEX		-X8	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/04.5:E	MOLEX		-X13	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/03.5:D	MOLEX		-Y1	NHSN711000P0006	OPEN COIL	COIL 220V DC	/01.5:C	SAHAT		-Y2	NHSN711000P0006	CLOSING COIL	COIL 220V DC	/01.6:C	SAHAT		-Y4	NHSN711000P0001	RELAY COIL	COIL 24V DC	/01.6:C	SAHAT	
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-X3	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/03.8:C	MOLEX																																																																																
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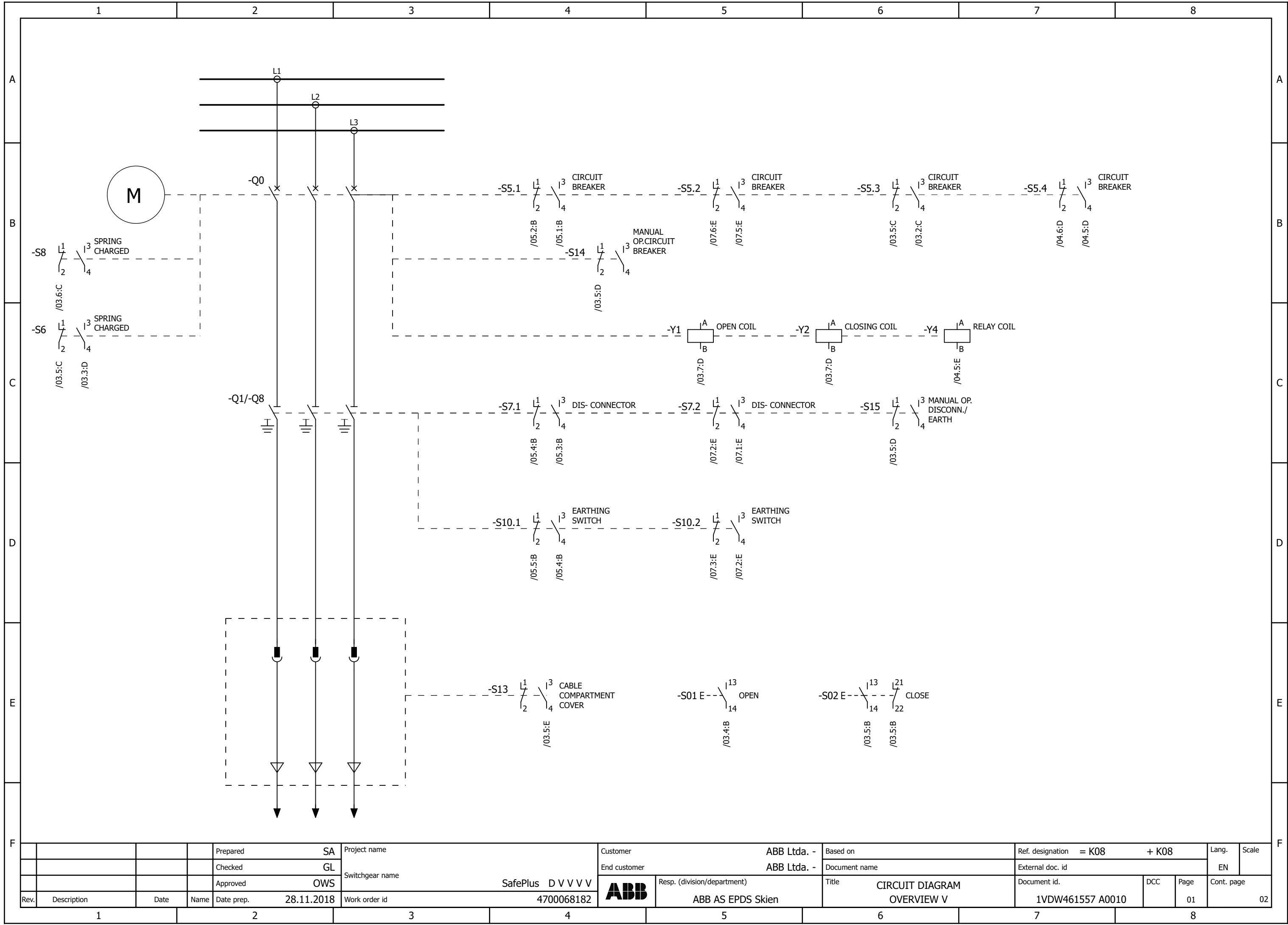
1				2			3			4			5			6			7			8		
A				B			C			D			E			F			A			B		
F				F			F			F			F			F			F			F		
TERMINAL LIST				=K07 +K07 -X1																				
DEVICE DESIGNATION				POTENTIAL/ COLOR			WIRE JUMPER			SADDLE JUMPER			POTENTIAL/ COLOR			POTENTIAL/ COLOR			POTENTIAL/ COLOR			POTENTIAL/ COLOR		
DEVICE PIN.				DEVICE DESIGNATION			DEVICE PIN.			DEVICE DESIGNATION			DEVICE PIN.			DEVICE DESIGNATION			DEVICE PIN.			DEVICE DESIGNATION		
TERMINAL TYPE:				PAGE			TERMINAL TYPE:			PAGE			TERMINAL TYPE:			PAGE			TERMINAL TYPE:			PAGE		
27	+LV-X2	1	27	-S7.1	3	-S7.1	3	MBKKB 2,5	/05.3:A	MBKKB 2,5	/05.3:A	3	MBKKB 2,5	/05.3:A	3	MBKKB 2,5	/05.3:A	3	MBKKB 2,5	/05.3:A	3	MBKKB 2,5	/05.3:A	3
		2		-S7.1	1	-S7.1	1	MBKKB 2,5	/05.4:A	MBKKB 2,5	/05.4:A	1	MBKKB 2,5	/05.4:A	1	MBKKB 2,5	/05.4:A	1	MBKKB 2,5	/05.4:A	1	MBKKB 2,5	/05.4:A	1
		3		-S10.1	3	-S10.1	3	MBKKB 2,5	/05.4:A	MBKKB 2,5	/05.4:A	3	MBKKB 2,5	/05.4:A	3	MBKKB 2,5	/05.4:A	3	MBKKB 2,5	/05.4:A	3	MBKKB 2,5	/05.4:A	3
		4		-S10.1	1	-S10.1	1	MBKKB 2,5	/05.5:A	MBKKB 2,5	/05.5:A	1	MBKKB 2,5	/05.5:A	1	MBKKB 2,5	/05.5:A	1	MBKKB 2,5	/05.5:A	1	MBKKB 2,5	/05.5:A	1
		6		-S5.1	3	-S5.1	3	MBKKB 2,5	/05.1:A	MBKKB 2,5	/05.1:A	3	MBKKB 2,5	/05.1:A	3	MBKKB 2,5	/05.1:A	3	MBKKB 2,5	/05.1:A	3	MBKKB 2,5	/05.1:A	3
		7		-S5.1	1	-S5.1	1	MBKKB 2,5	/05.2:A	MBKKB 2,5	/05.2:A	1	MBKKB 2,5	/05.2:A	1	MBKKB 2,5	/05.2:A	1	MBKKB 2,5	/05.2:A	1	MBKKB 2,5	/05.2:A	1
		11		-S7.2	3	-S7.2	3	MBKKB 2,5	/07.1:D	MBKKB 2,5	/07.1:D	3	MBKKB 2,5	/07.1:D	3	MBKKB 2,5	/07.1:D	3	MBKKB 2,5	/07.1:D	3	MBKKB 2,5	/07.1:D	3
		12		-S7.2	1	-S7.2	1	MBKKB 2,5	/07.2:D	MBKKB 2,5	/07.2:D	1	MBKKB 2,5	/07.2:D	1	MBKKB 2,5	/07.2:D	1	MBKKB 2,5	/07.2:D	1	MBKKB 2,5	/07.2:D	1
		13		-S10.2	3	-S10.2	3	MBKKB 2,5	/07.2:D	MBKKB 2,5	/07.2:D	3	MBKKB 2,5	/07.2:D	3	MBKKB 2,5	/07.2:D	3	MBKKB 2,5	/07.2:D	3	MBKKB 2,5	/07.2:D	3
		14		-S10.2	1	-S10.2	1	MBKKB 2,5	/07.3:D	MBKKB 2,5	/07.3:D	1	MBKKB 2,5	/07.3:D	1	MBKKB 2,5	/07.3:D	1	MBKKB 2,5	/07.3:D	1	MBKKB 2,5	/07.3:D	1
		16		-S5.2	3	-S5.2	3	MBKKB 2,5	/07.5:D	MBKKB 2,5	/07.5:D	3	MBKKB 2,5	/07.5:D	3	MBKKB 2,5	/07.5:D	3	MBKKB 2,5	/07.5:D	3	MBKKB 2,5	/07.5:D	3
		17		-S5.2	1	-S5.2	1	MBKKB 2,5	/07.6:D	MBKKB 2,5	/07.6:D	1	MBKKB 2,5	/07.6:D	1	MBKKB 2,5	/07.6:D	1	MBKKB 2,5	/07.6:D	1	MBKKB 2,5	/07.6:D	1
+	-V5	21	+	-F1	1	-F1	1	MBKKB 2,5	/03.1:A	MBKKB 2,5	/03.1:A	1	MBKKB 2,5	/03.1:A	1	MBKKB 2,5	/03.1:A	1	MBKKB 2,5	/03.1:A	1	MBKKB 2,5	/03.1:A	1
		22		-F2	1	-F2	1	MBKKB 2,5	/03.1:A	MBKKB 2,5	/03.1:A	1	MBKKB 2,5	/03.1:A	1	MBKKB 2,5	/03.1:A	1	MBKKB 2,5	/03.1:A	1	MBKKB 2,5	/03.1:A	1
		23		-S02	13	-S02	13	MBKKB 2,5	/03.5:A	MBKKB 2,5	/03.5:A	13	MBKKB 2,5	/03.5:A	13	MBKKB 2,5	/03.5:A	13	MBKKB 2,5	/03.5:A	13	MBKKB 2,5	/03.5:A	13
47	+LV-X2	24	47	-S01	13	-S01	13	MBKKB 2,5	/03.4:A	MBKKB 2,5	/03.4:A	13	MBKKB 2,5	/03.4:A	13	MBKKB 2,5	/03.4:A	13	MBKKB 2,5	/03.4:A	13	MBKKB 2,5	/03.4:A	13
		25		-F2		-F2		MBKKB 2,5	/03.3:A	MBKKB 2,5	/03.3:A		MBKKB 2,5	/03.3:A		MBKKB 2,5	/03.3:A		MBKKB 2,5	/03.3:A		MBKKB 2,5	/03.3:A	
1	+LV-F4	27	1	-V5	L1	-V5	L1	MBKKB 2,5	/03.1:D	MBKKB 2,5	/03.1:D	L1	MBKKB 2,5	/03.1:D	L1	MBKKB 2,5	/03.1:D	L1	MBKKB 2,5	/03.1:D	L1	MBKKB 2,5	/03.1:D	L1
71	+LV-X2	28	71	-S5.4	3	-S5.4	3	MBKKB 2,5	/04.5:D	MBKKB 2,5	/04.5:D	3	MBKKB 2,5	/04.5:D	3	MBKKB 2,5	/04.5:D	3	MBKKB 2,5	/04.5:D	3	MBKKB 2,5	/04.5:D	3
		29		-S5.4	1	-S5.4	1	MBKKB 2,5	/04.6:D	MBKKB 2,5	/04.6:D	1	MBKKB 2,5	/04.6:D	1	MBKKB 2,5	/04.6:D	1	MBKKB 2,5	/04.6:D	1	MBKKB 2,5	/04.6:D	1
59	+LV-X2	31	59	-S7.1	4	-S7.1	4	MBKKB 2,5	/05.3:B	MBKKB 2,5	/05.3:B	4	MBKKB 2,5	/05.3:B	4	MBKKB 2,5	/05.3:B	4	MBKKB 2,5	/05.3:B	4	MBKKB 2,5	/05.3:B	4
60	+LV-X2	32	60	-S7.1	2	-S7.1	2	MBKKB 2,5	/05.4:B	MBKKB 2,5	/05.4:B	2	MBKKB 2,5	/05.4:B	2	MBKKB 2,5	/05.4:B	2	MBKKB 2,5	/05.4:B	2	MBKKB 2,5	/05.4:B	2
61	+LV-X2	33	61	-S10.1	4	-S10.1	4	MBKKB 2,5	/05.4:B	MBKKB 2,5	/05.4:B	4	MBKKB 2,5	/05.4:B	4	MBKKB 2,5	/05.4:B	4	MBKKB 2,5	/05.4:B	4	MBKKB 2,5	/05.4:B	4
62	+LV-X2	34	62	-S10.1	2	-S10.1	2	MBKKB 2,5	/05.5:B	MBKKB 2,5	/05.5:B	2	MBKKB 2,5	/05.5:B	2	MBKKB 2,5	/05.5:B	2	MBKKB 2,5	/05.5:B	2	MBKKB 2,5	/05.5:B	2
55	+LV-X2	36	55	-S5.1	4	-S5.1	4	MBKKB 2,5	/05.1:B	MBKKB 2,5	/05.1:B	4	MBKKB 2,5	/05.1:B	4	MBKKB 2,5	/05.1:B	4	MBKKB 2,5	/05.1:B	4	MBKKB 2,5	/05.1:B	4
56	+LV-X2	37	56	-S5.1	2	-S5.1	2	MBKKB 2,5	/05.2:B	MBKKB 2,5	/05.2:B	2	MBKKB 2,5	/05.2:B	2	MBKKB 2,5	/05.2:B	2	MBKKB 2,5	/05.2:B	2	MBKKB 2,5	/05.2:B	2
		41		-S7.2	4	-S7.2	4	MBKKB 2,5	/07.1:E	MBKKB 2,5	/07.1:E	4	MBKKB 2,5	/07.1:E	4	MBKKB 2,5	/07.1:E	4	MBKKB 2,5	/07.1:E	4	MBKKB 2,5	/07.1:E	4
		42		-S7.2	2	-S7.2	2	MBKKB 2,5	/07.2:E	MBKKB 2,5	/07.2:E	2	MBKKB 2,5	/07.2:E	2	MBKKB 2,5	/07.2:E	2	MBKKB 2,5	/07.2:E	2	MBKKB 2,5	/07.2:E	2
		43		-S10.2	4	-S10.2	4	MBKKB 2,5	/07.2:E	MBKKB 2,5	/07.2:E	4	MBKKB 2,5	/07.2:E	4	MBKKB 2,5	/07.2:E	4	MBKKB 2,5	/07.2:E	4	MBKKB 2,5	/07.2:E	4
		44		-S10.2	2	-S10.2	2	MBKKB 2,5	/07.3:E	MBKKB 2,5	/07.3:E	2	MBKKB 2,5	/07.3:E	2	MBKKB 2,5	/07.3:E	2	MBKKB 2,5	/07.3:E	2	MBKKB 2,5	/07.3:E	2
		46		-S5.2	4	-S5.2	4	MBKKB 2,5	/07.5:E	MBKKB 2,5	/07.5:E	4	MBKKB 2,5	/07.5:E	4	MBKKB 2,5	/07.5:E	4	MBKKB 2,5	/07.5:E	4	MBKKB 2,5	/07.5:E	4
		47		-S5.2	2	-S5.2	2	MBKKB 2,5	/07.6:E	MBKKB 2,5	/07.6:E	2	MBKKB 2,5	/07.6:E	2	MBKKB 2,5	/07.6:E	2	MBKKB 2,5	/07.6:E	2	MBKKB 2,5	/07.6:E	2
-	-V5	51	-	-K1	A2	-K1	A2	MBKKB 2,5	/03.2:E	MBKKB 2,5	/03.2:E	A2	MBKKB 2,5	/03.2:E	A2	MBKKB 2,5	/03.2:E	A2	MBKKB 2,5	/03.2:E	A2	MBKKB 2,5	/03.2:E	A2
		52		-K1	5	-K1	5	MBKKB 2,5	/03.2:E	MBKKB 2,5	/03.2:E	5	MBKKB 2,5	/03.2:E	5	MBKKB 2,5	/03.2:E	5	MBKKB 2,5	/03.2:E	5	MBKKB 2,5	/03.2:E	5
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Rev.				Description			Date			Name			Date prep.			28.11.2018			Work order id			4700068182		
Prepared				SA			Project name			Customer			ABB Ltda. -			Based on			Ref. designation = K07 + K07			Lang.		
Checked				GL			Switchgear name			End customer			ABB Ltda. -			Document name			External doc. id			EN		
Approved				OWS			SafePlus D V V V V			Resp. (division/department)			ABB AS EPDS Skien			Title			Document id.			DCC		
Date				28.11.2018			4700068182			CIRCUIT DIAGRAM			TERMINAL DIAGRAM			1VDW461557 A0010			12			13		

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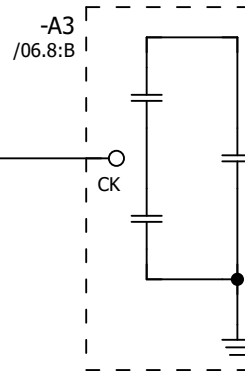
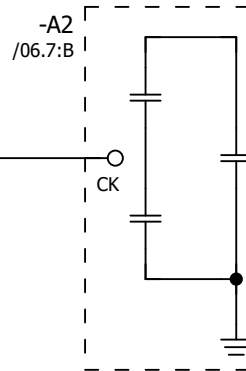
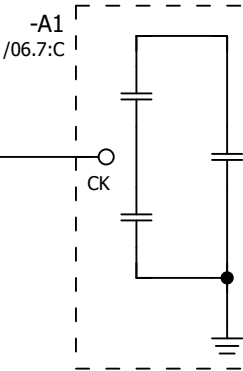
1	2	3	4	5	6	7	8									
A	Parts list							A								
	=K07 +LV															
	Device tag	Part number	Function text	Designation	Placement	Manufacturer	Pos									
	-F3	2CDS272001R0064	C6A	MCB S202M-C6 6A	+K07/04.1:A	ABB										
	-F4	2CDS272001R0064	C6A	MCB S202M-C6 6A	+K07/03.1:D	ABB										
	-F11	4560807745		PROTECTION RELAY REF615 G RELAY CODE: HBFGDAAHNFH8BAA21G	+K07/04.2:C	ABB										
	-X2	NHSN722028P0001		MBKKB 2,5 TERMINAL	+K07/04.1:D;+K07/04.1:F +K07/04.2:D;+K07/04.2:F +K07/04.3:A;+K07/04.3:B	Phoenix										
	-X2	GZN 590055R0001	Io	URTK/S TERMINAL 6mm²	+K07/06.6:D	Phoenix										
	-X2	GZN 590045R0001		UK 5N TERMINAL 4mm²	+K07/03.1:C;+K07/03.1:D +K07/04.1:A;+K07/04.2:A	Phoenix										
	B								B							
C								C								
D								D								
E								E								
F								F								
					Prepared	SA	Project name		Customer	ABB Ltda. -	Based on	Ref. designation	= K07	+ LV	Lang.	Scale
					Checked	GL	Switchgear name		End customer	ABB Ltda. -	Document name	External doc. id	EN			
					Approved	OWS	SafePlus D V V V V			Resp. (division/department)	Title	CIRCUIT DIAGRAM	Document id.	DCC	Page	Cont. page
	Rev.	Description	Date	Name	Date prep.	28.11.2018	Work order id			4700068182	ABB AS EPDS Skien	PARTS LIST	1VDW461557 A0010		1	2
	1	2	3	4	5	6	7		8							


TERMINAL LIST																					
=K07 +LV -X2																					
F		E		D		C		B		A											
DEVICE PIN.		DEVICE DESIGNATION		POTENTIAL/ COLOR		WIRE JUMPER		POTENTIAL/ COLOR		SADDLE JUMPER		POTENTIAL/ COLOR		DEVICE DESIGNATION		DEVICE PIN.		PAGE		TERMINAL TYPE:	
	36	+K07-X1																			
	37	+K07-X1																			
	31	+K07-X1																			
	32	+K07-X1																			
	33	+K07-X1																			
	34	+K07-X1																			
	28	+K07-X1																			
	54	+K07-X1																			
	56	+K07-X1																			
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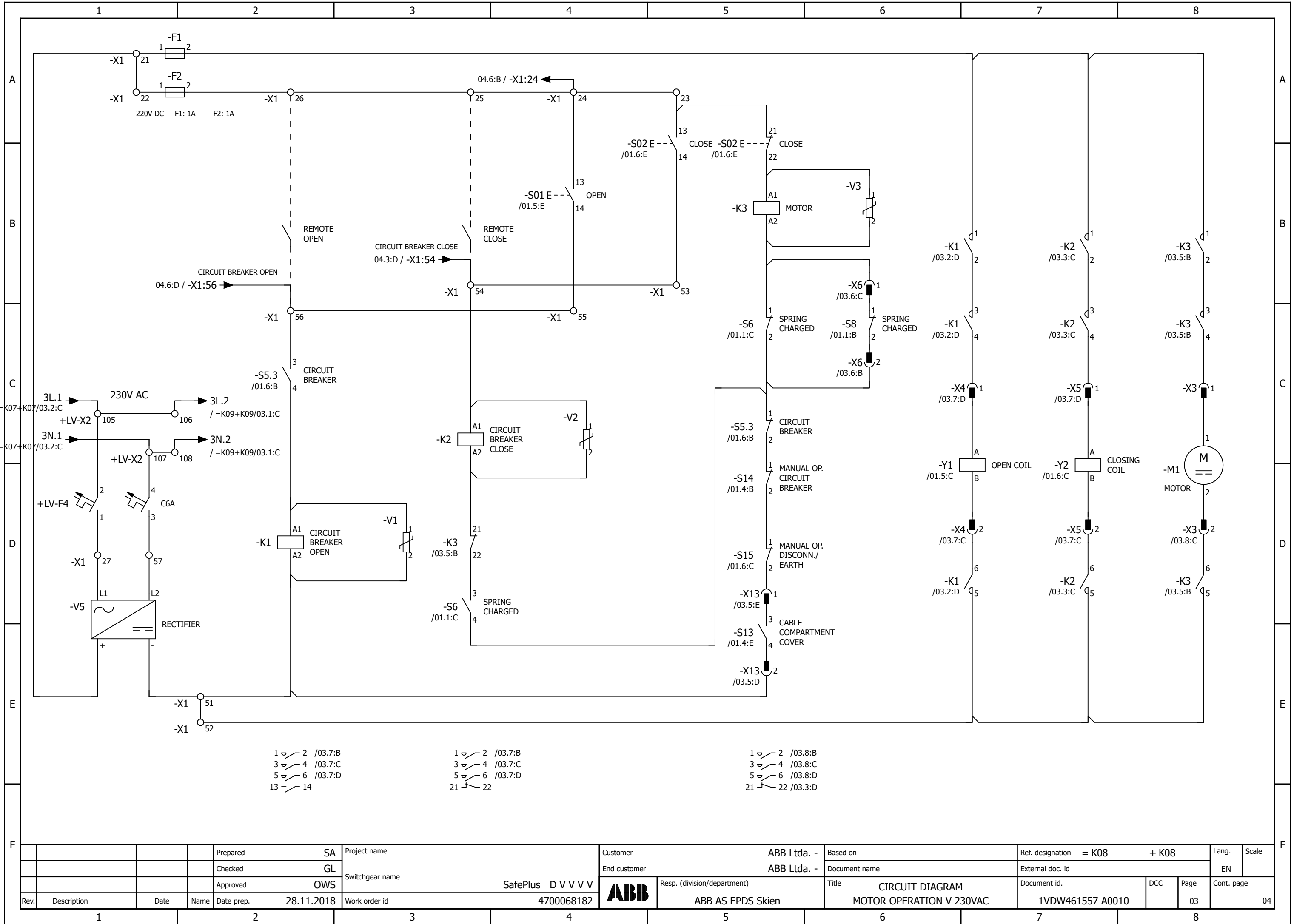


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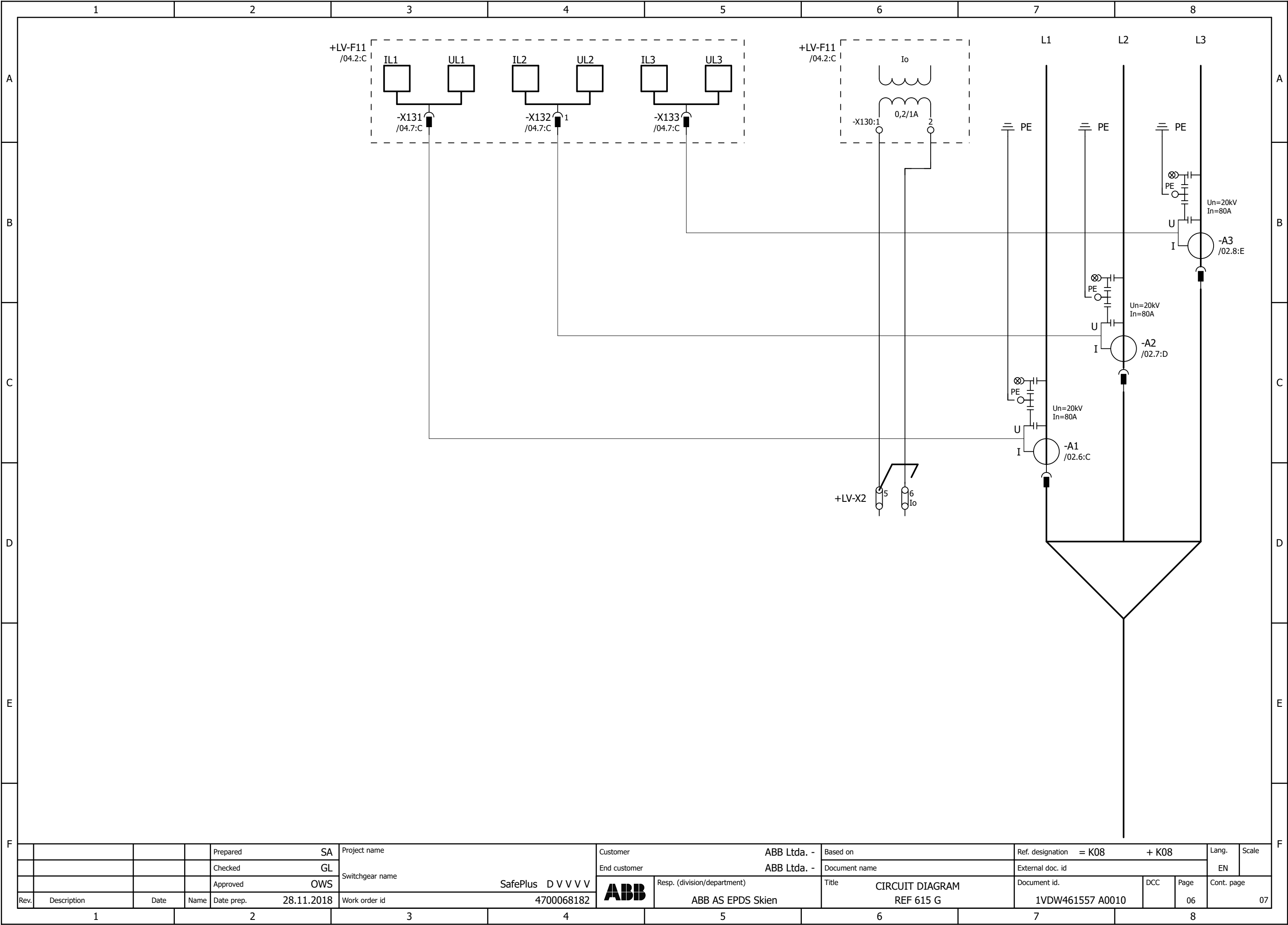


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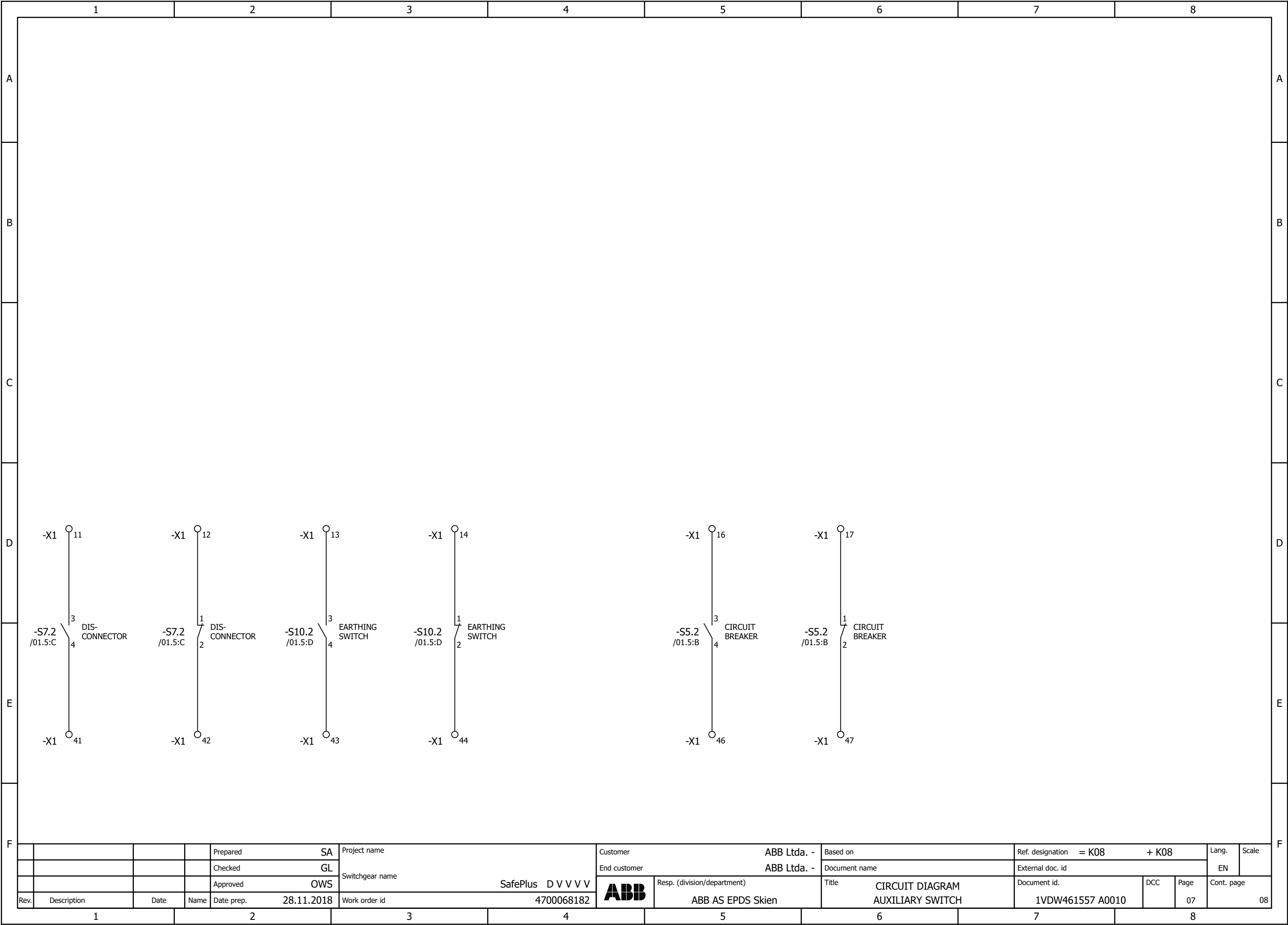
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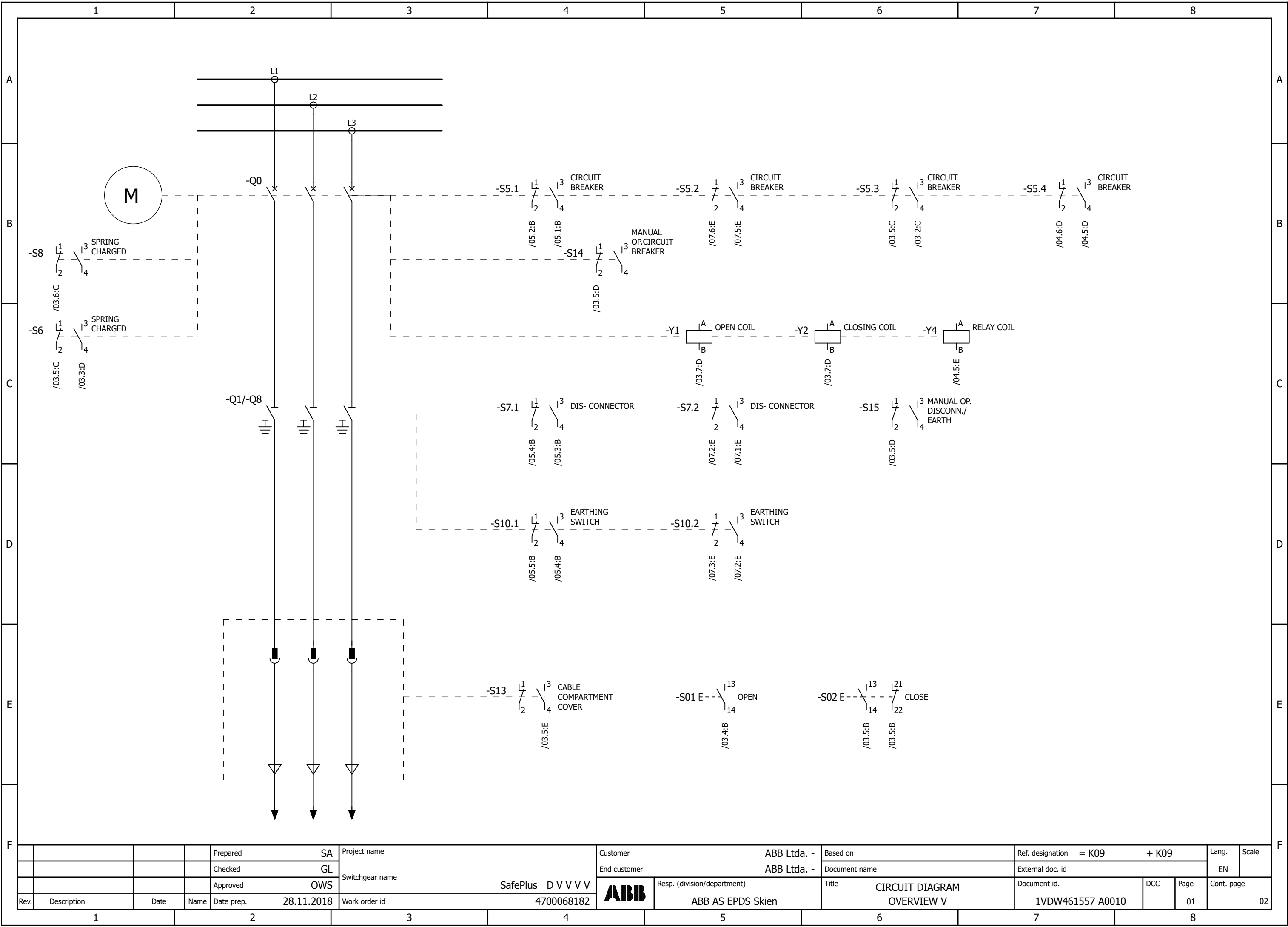
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<table><tr><td>Device tag</td><td>Part number</td><td>Function text</td><td>Designation</td><td>Placement</td><td>Manufacturer</td><td>Pos</td></tr><tr><td>-X3</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/03.8:C</td><td>MOLEX</td><td></td></tr><tr><td>-X4</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/03.7:C</td><td>MOLEX</td><td></td></tr><tr><td>-X5</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/03.7:C</td><td>MOLEX</td><td></td></tr><tr><td>-X6</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/03.6:B</td><td>MOLEX</td><td></td></tr><tr><td>-X8</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/04.5:E</td><td>MOLEX</td><td></td></tr><tr><td>-X13</td><td>NHSN620018P0022/32/02/12</td><td></td><td>MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE</td><td>/03.5:D</td><td>MOLEX</td><td></td></tr><tr><td>-Y1</td><td>NHSN711000P0006</td><td>OPEN COIL</td><td>COIL 220V DC</td><td>/01.5:C</td><td>SAHAT</td><td></td></tr><tr><td>-Y2</td><td>NHSN711000P0006</td><td>CLOSING COIL</td><td>COIL 220V DC</td><td>/01.6:C</td><td>SAHAT</td><td></td></tr><tr><td>-Y4</td><td>NHSN711000P0001</td><td>RELAY COIL</td><td>COIL 24V DC</td><td>/01.6:C</td><td>SAHAT</td><td></td></tr></table>																Device tag	Part number	Function text	Designation	Placement	Manufacturer	Pos	-X3	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/03.8:C	MOLEX		-X4	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/03.7:C	MOLEX		-X5	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/03.7:C	MOLEX		-X6	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/03.6:B	MOLEX		-X8	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/04.5:E	MOLEX		-X13	NHSN620018P0022/32/02/12		MINI-FIT MOLEX PLUG 2P MINI-FIT HOUSE MALE/FEMALE 2P MINI-FIT TERMINAL FEMALE/MALE	/03.5:D	MOLEX		-Y1	NHSN711000P0006	OPEN COIL	COIL 220V DC	/01.5:C	SAHAT		-Y2	NHSN711000P0006	CLOSING COIL	COIL 220V DC	/01.6:C	SAHAT		-Y4	NHSN711000P0001	RELAY COIL	COIL 24V DC	/01.6:C	SAHAT	
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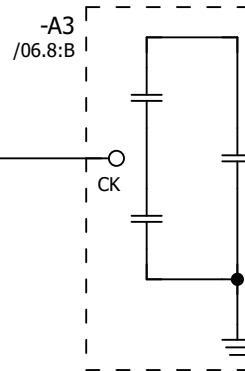
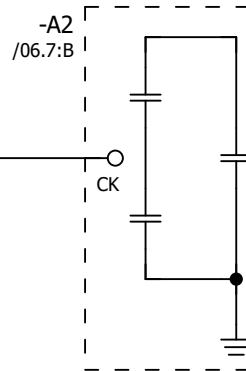
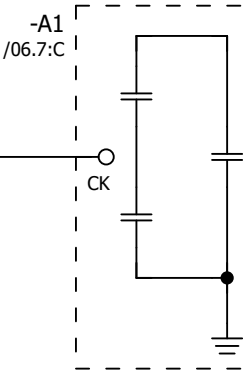
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<div><div>TERMINAL LIST</div><div>=K08 +LV -X2</div><table><thead><tr><th colspan="4">DEVICE DESIGNATION</th><th colspan="2">POTENTIAL/ COLOR</th><th colspan="2">WIRE JUMPER</th><th colspan="2">POTENTIAL/ COLOR</th><th colspan="2">SADDLE JUMPER</th><th colspan="2">POTENTIAL/ COLOR</th><th colspan="2">DEVICE DESIGNATION</th><th colspan="2">DEVICE PIN.</th><th colspan="2">PAGE</th><th colspan="2">TERMINAL TYPE:</th></tr><tr><th colspan="4">DEVICE DESIGNATION</th><th colspan="2">POTENTIAL/ COLOR</th><th colspan="2">WIRE JUMPER</th><th colspan="2">POTENTIAL/ COLOR</th><th colspan="2">SADDLE JUMPER</th><th colspan="2">POTENTIAL/ COLOR</th><th colspan="2">DEVICE DESIGNATION</th><th colspan="2">DEVICE PIN.</th><th colspan="2">PAGE</th><th colspan="2">TERMINAL TYPE:</th></tr></thead><tbody><tr><td colspan="4">=K07-X2</td><td colspan="2">106</td><td colspan="2"></td><td colspan="2">105</td><td colspan="2"></td><td colspan="2">105</td><td colspan="2">-F4</td><td colspan="2">2</td><td colspan="2">+K08/03.1:C</td><td colspan="2">UK 5N</td></tr><tr><td colspan="4">=K09-X2</td><td colspan="2">105</td><td colspan="2"></td><td colspan="2">106</td><td colspan="2"></td><td colspan="2">106</td><td colspan="2"></td><td colspan="2"></td><td colspan="2">+K08/03.1:C</td><td colspan="2">UK 5N</td></tr><tr><td colspan="4">=K07-X2</td><td colspan="2">108</td><td colspan="2"></td><td colspan="2">107</td><td colspan="2"></td><td colspan="2">107</td><td colspan="2">-F4</td><td colspan="2">4</td><td colspan="2">+K08/03.1:C</td><td colspan="2">UK 5N</td></tr><tr><td colspan="4">=K09-X2</td><td colspan="2">107</td><td colspan="2"></td><td colspan="2">108</td><td colspan="2"></td><td colspan="2">108</td><td colspan="2"></td><td colspan="2"></td><td colspan="2">+K08/03.1:C</td><td colspan="2">UK 5N</td></tr></tbody></table></div>																								DEVICE DESIGNATION				POTENTIAL/ COLOR		WIRE JUMPER		POTENTIAL/ COLOR		SADDLE JUMPER		POTENTIAL/ COLOR		DEVICE DESIGNATION		DEVICE PIN.		PAGE		TERMINAL TYPE:		DEVICE DESIGNATION				POTENTIAL/ COLOR		WIRE JUMPER		POTENTIAL/ COLOR		SADDLE JUMPER		POTENTIAL/ COLOR		DEVICE DESIGNATION		DEVICE PIN.		PAGE		TERMINAL TYPE:		=K07-X2				106				105				105		-F4		2		+K08/03.1:C		UK 5N		=K09-X2				105				106				106						+K08/03.1:C		UK 5N		=K07-X2				108				107				107		-F4		4		+K08/03.1:C		UK 5N		=K09-X2				107				108				108						+K08/03.1:C		UK 5N	
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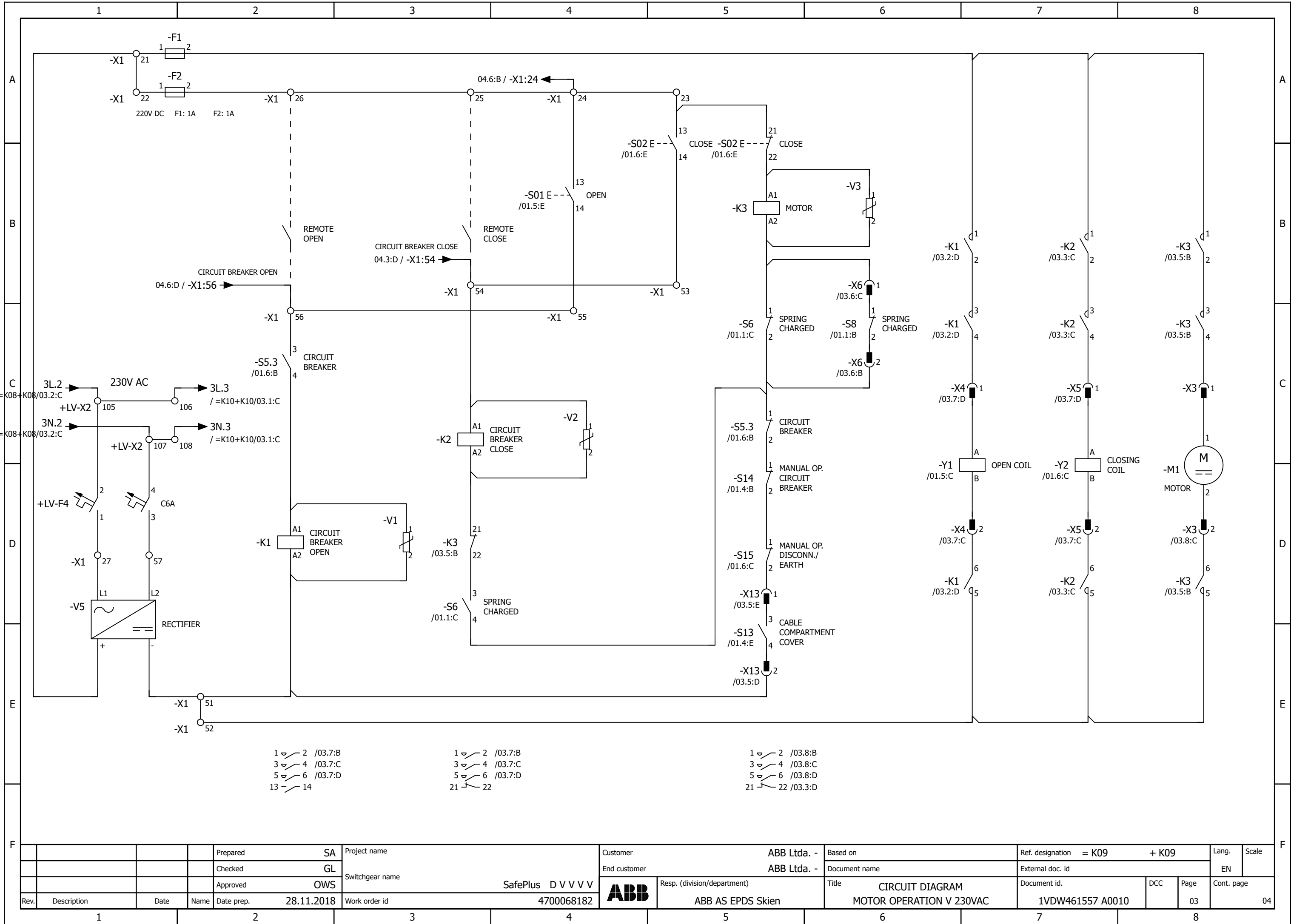



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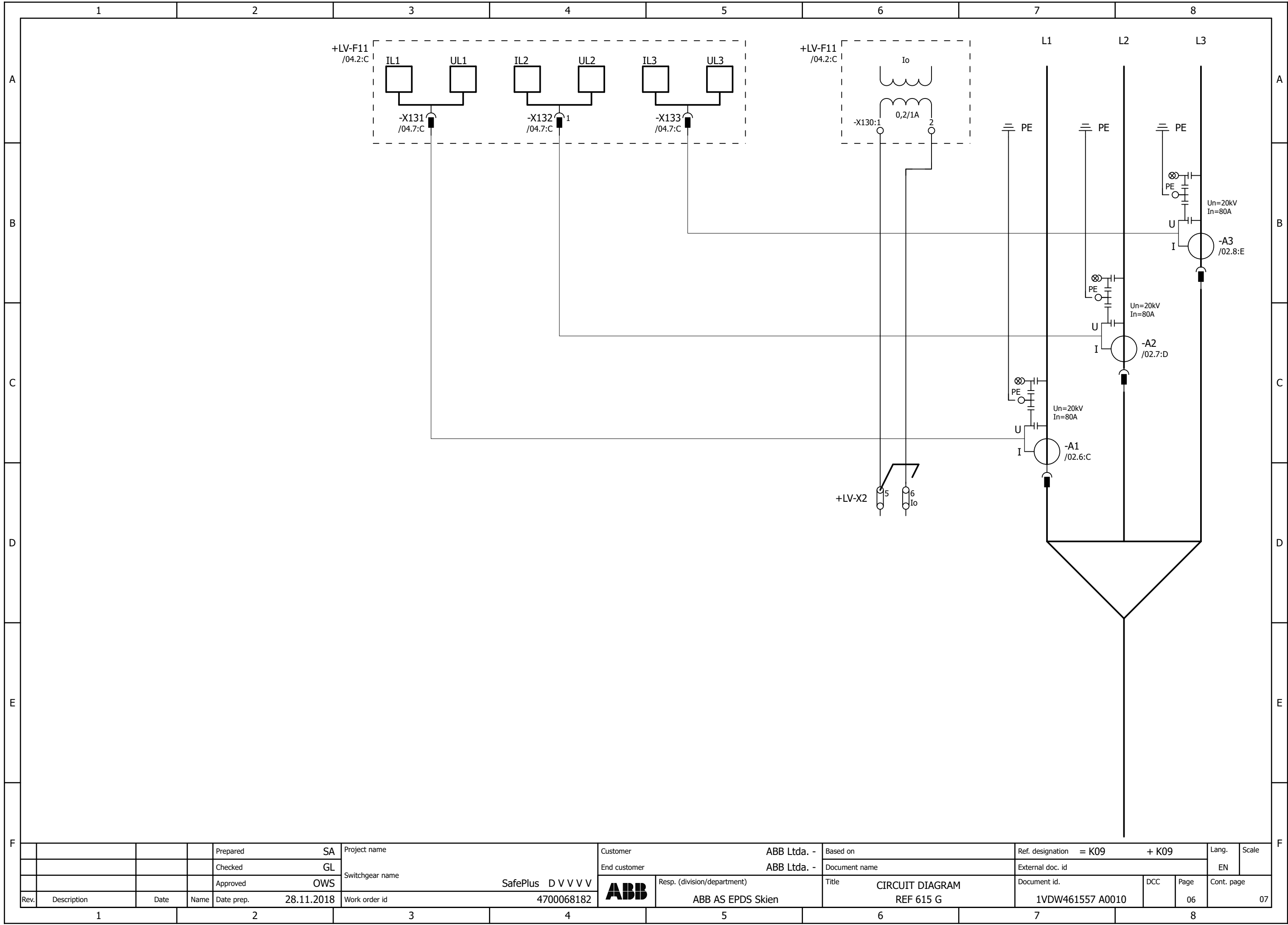


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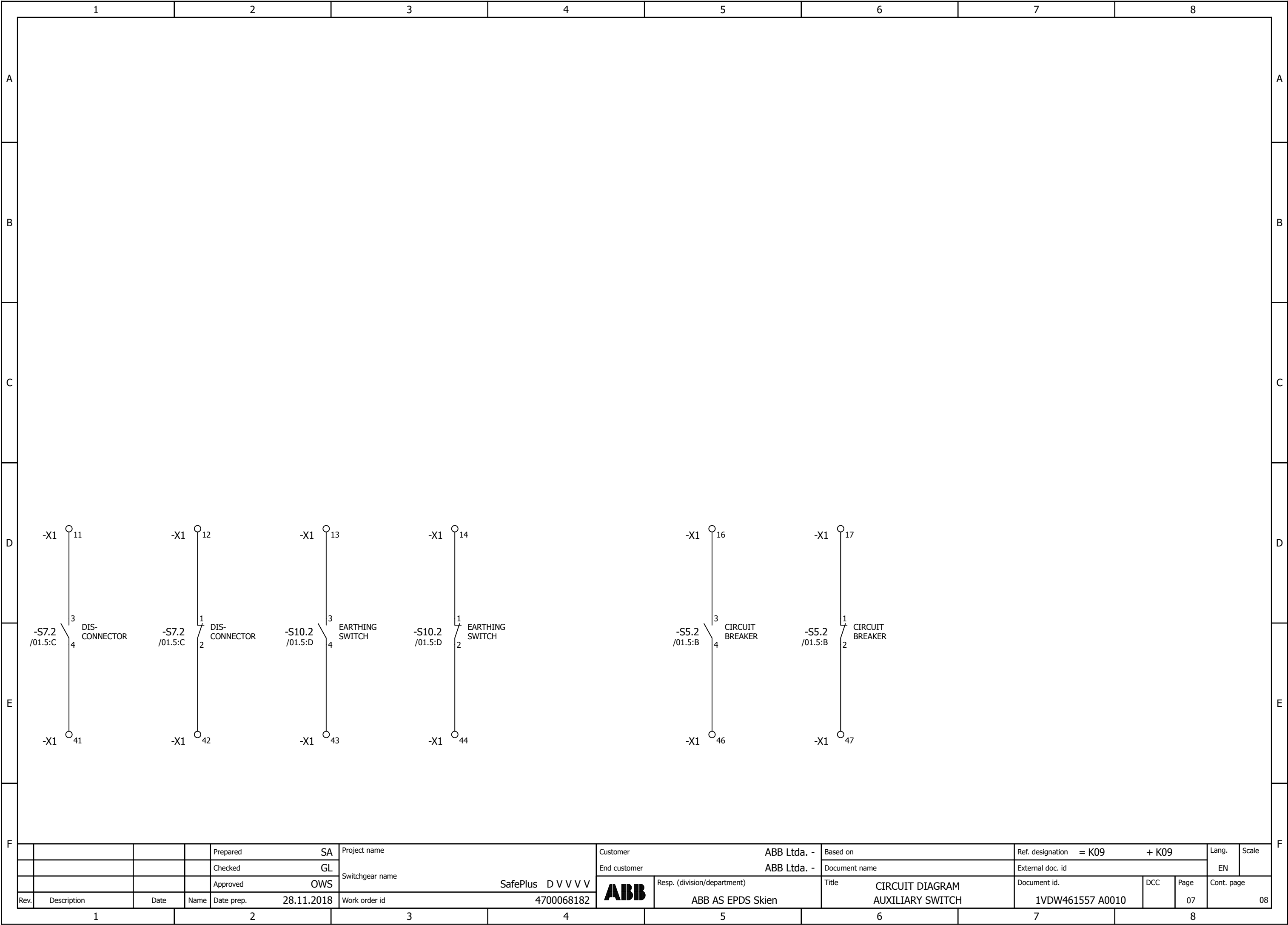
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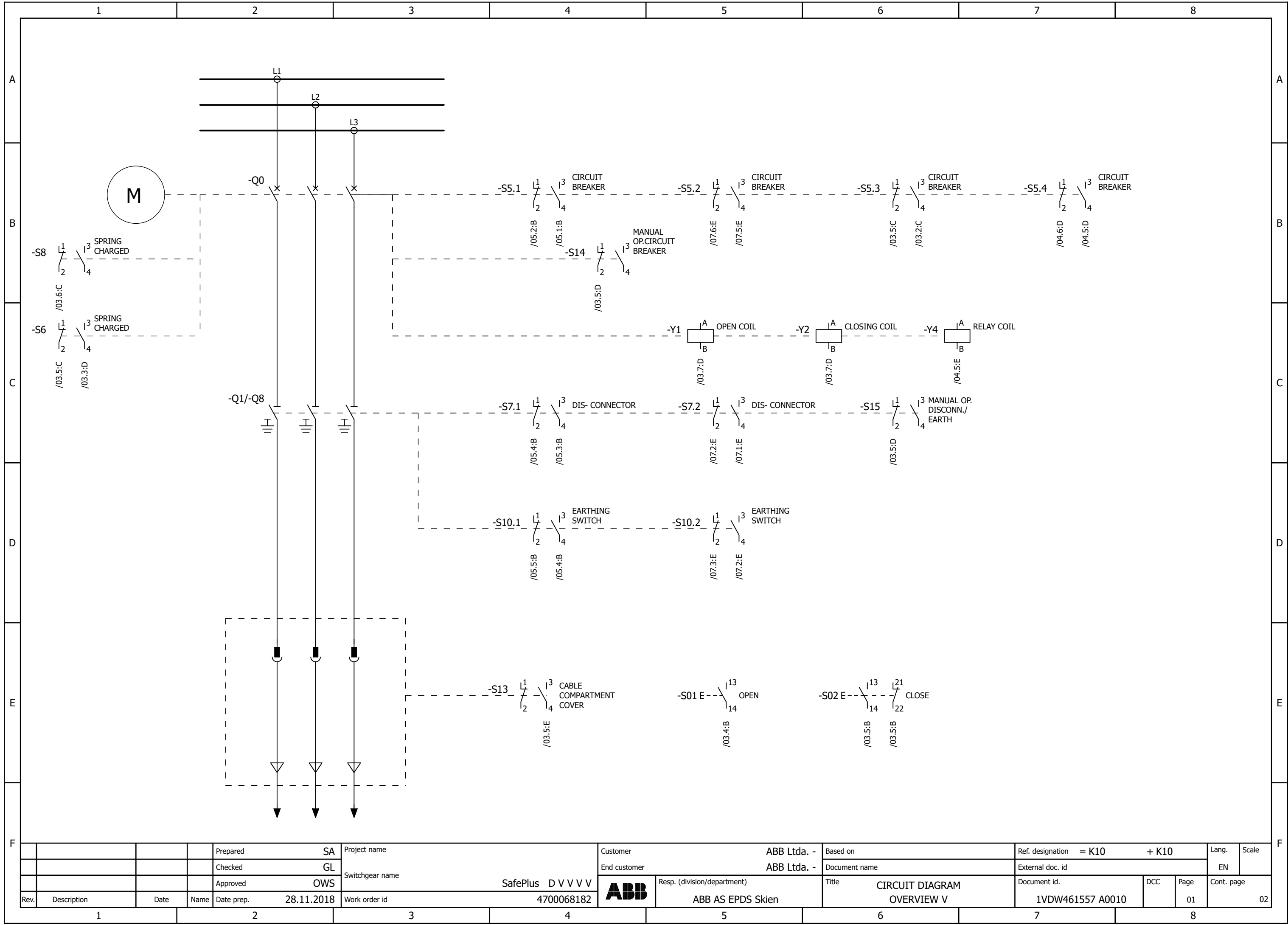
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	=K09 +LV																				
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	-F11		4560807745				PROTECTION RELAY REF615 G RELAY CODE: HBFGDAAHNFH8BAA21G				+K09/04.2:C		ABB								
	-X2		NHSN722028P0001				MBKKB 2,5 TERMINAL				+K09/04.1:D;+K09/04.1:F +K09/04.2:D;+K09/04.2:F +K09/04.3:A;+K09/04.3:B		Phoenix								
	-X2		GZN 590055R0001		Io		URTK/S TERMINAL 6mm²				+K09/06.6:D		Phoenix								
C	-X2		GZN 590045R0001				UK 5N TERMINAL 4mm²				+K09/03.1:C;+K09/04.1:A +K09/04.2:A		Phoenix								
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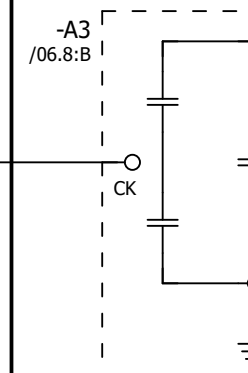
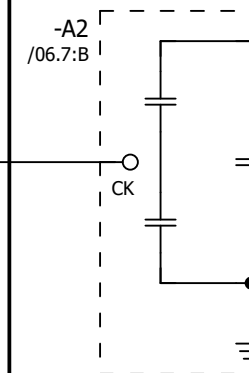
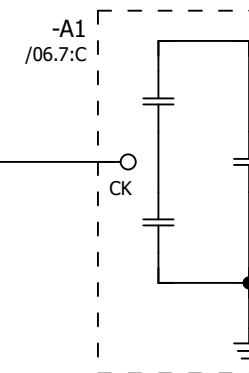
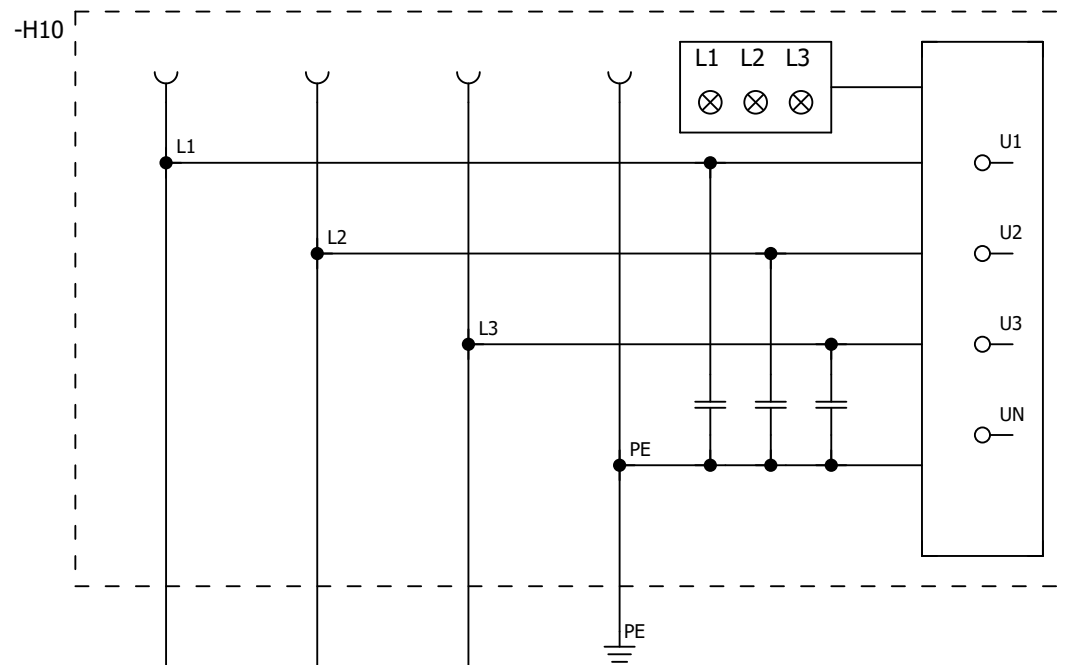
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<div><div>TERMINAL LIST</div><div>=K09 +LV -X2</div><table><thead><tr><th colspan="2">DEVICE DESIGNATION</th><th colspan="2">POTENTIAL/ COLOR</th><th colspan="2">WIRE JUMPER</th><th colspan="2">SADDLE JUMPER</th><th colspan="2">POTENTIAL/ COLOR</th><th colspan="2">DEVICE DESIGNATION</th><th colspan="2">DEVICE PIN.</th><th colspan="2">TERMINAL TYPE:</th></tr><tr><th colspan="2">DEVICE DESIGNATION</th><th colspan="2">POTENTIAL/ COLOR</th><th colspan="2">WIRE JUMPER</th><th colspan="2">SADDLE JUMPER</th><th colspan="2">POTENTIAL/ COLOR</th><th colspan="2">DEVICE DESIGNATION</th><th colspan="2">DEVICE PIN.</th><th colspan="2">TERMINAL TYPE:</th></tr></thead><tbody><tr><td>106</td><td>=K08-X2</td><td>105</td><td>106</td><td>107</td><td>108</td><td>-F4</td><td>2</td><td>+K09/03.1:C</td><td>UK 5N</td></tr><tr><td>105</td><td>=K10-X2</td><td>106</td><td>107</td><td>108</td><td>-F4</td><td>4</td><td>+K09/03.1:C</td><td>UK 5N</td></tr><tr><td>108</td><td>=K08-X2</td><td>107</td><td>108</td><td>-F4</td><td>4</td><td>+K09/03.1:C</td><td>UK 5N</td></tr><tr><td>107</td><td>=K10-X2</td><td>108</td><td>-F4</td><td>4</td><td>+K09/03.1:C</td><td>UK 5N</td></tr></tbody></table></div>																								DEVICE DESIGNATION		POTENTIAL/ COLOR		WIRE JUMPER		SADDLE JUMPER		POTENTIAL/ COLOR		DEVICE DESIGNATION		DEVICE PIN.		TERMINAL TYPE:		DEVICE DESIGNATION		POTENTIAL/ COLOR		WIRE JUMPER		SADDLE JUMPER		POTENTIAL/ COLOR		DEVICE DESIGNATION		DEVICE PIN.		TERMINAL TYPE:		106	=K08-X2	105	106	107	108	-F4	2	+K09/03.1:C	UK 5N	105	=K10-X2	106	107	108	-F4	4	+K09/03.1:C	UK 5N	108	=K08-X2	107	108	-F4	4	+K09/03.1:C	UK 5N	107	=K10-X2	108	-F4	4	+K09/03.1:C	UK 5N
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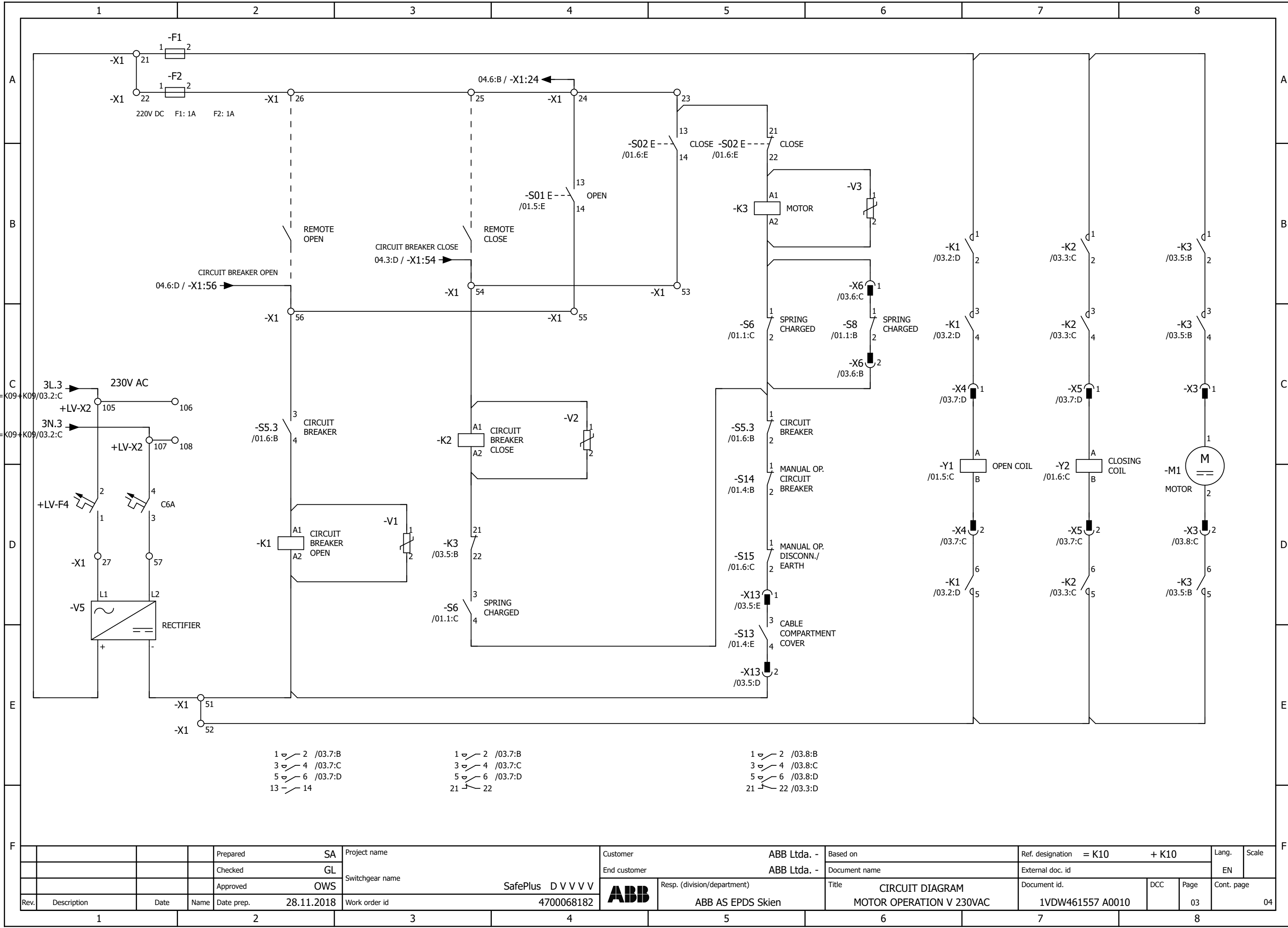


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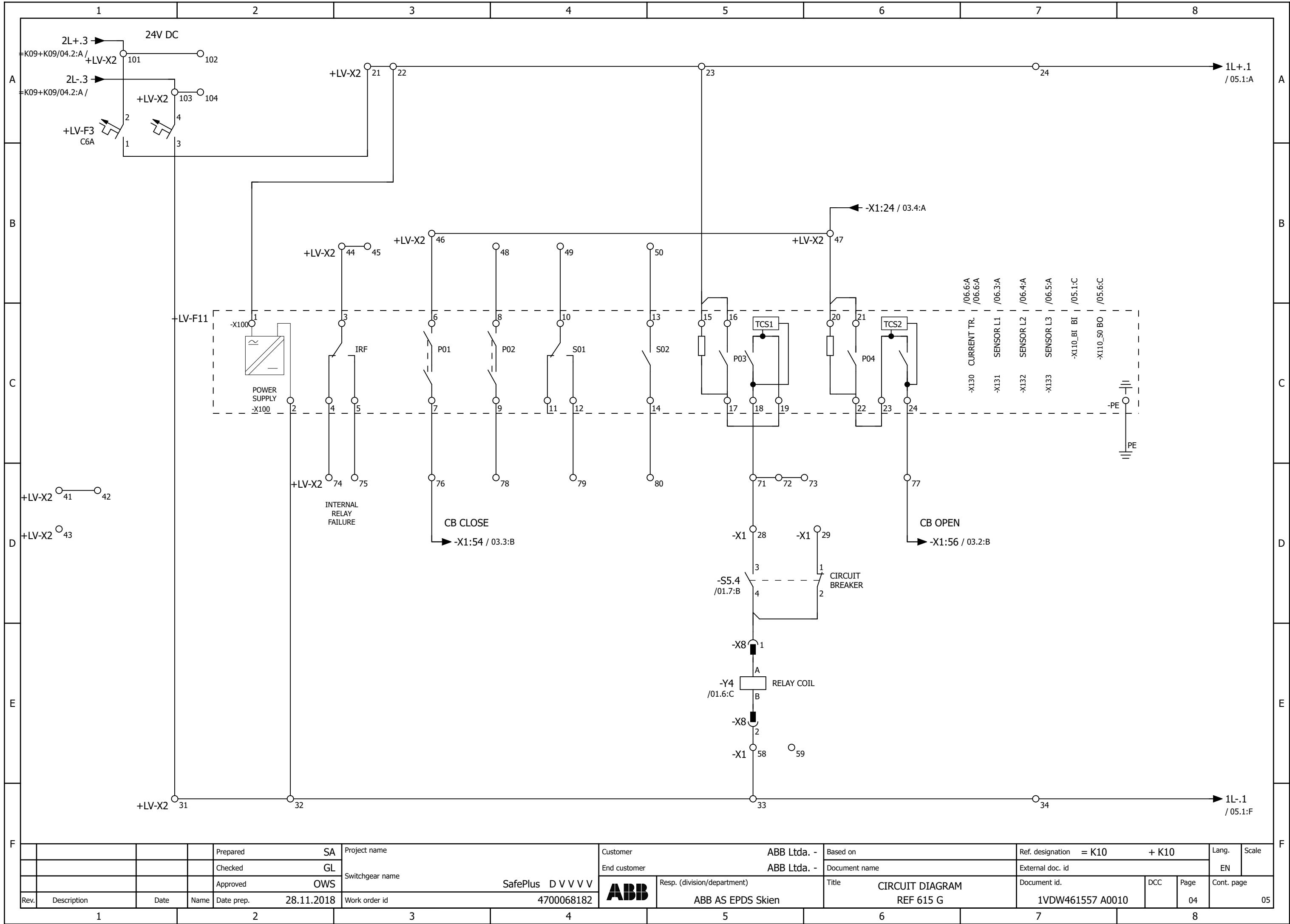
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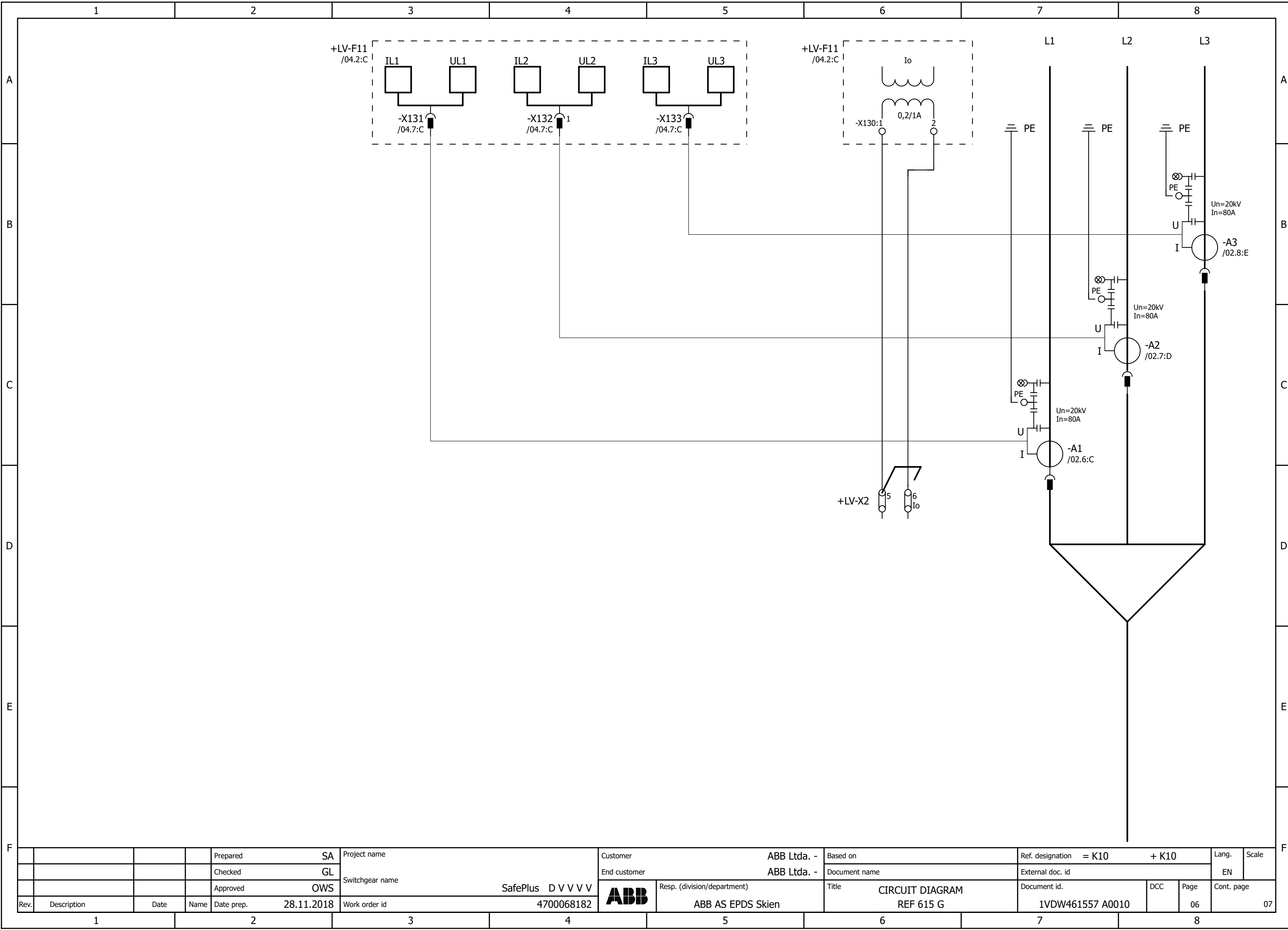


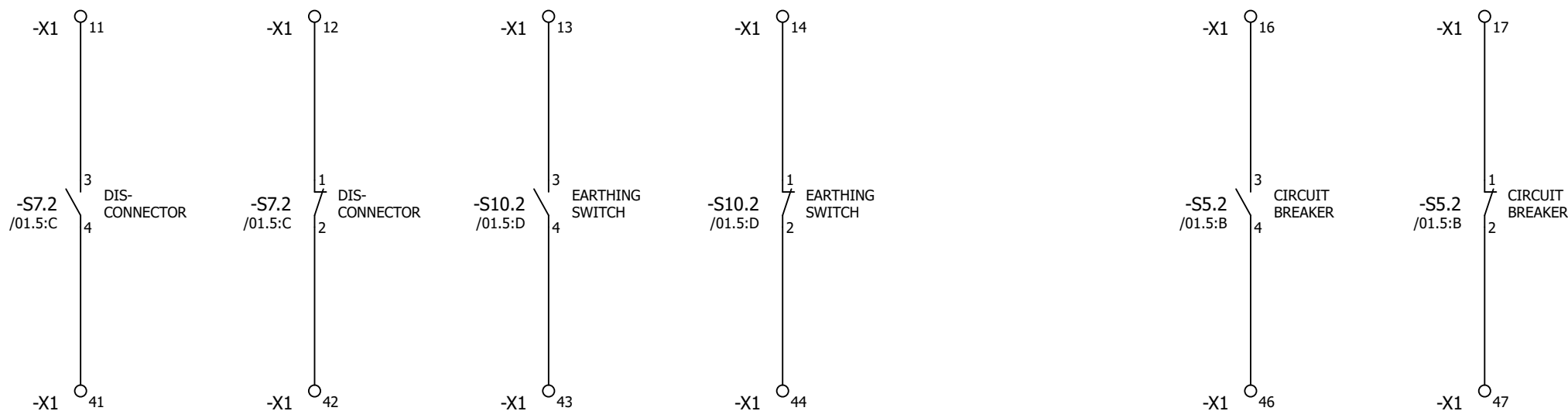
Diagram illustrating the circuit configuration for a switchgear assembly, showing connections between various components and busbars.


The diagram is organized into columns (1 to 8) and rows (A to F).

Key Components and Connections:


- Busbars:** L1, L2, L3 (Main busbars).
- Switchgear Components:** IL1, UL1, IL2, UL2, IL3, UL3 (Circuit breakers).
- Terminals:** -X131, -X132, -X133 (Terminals for circuit breakers).
- Current Transformer (CT):** -X130:1, 0,2/1A, 2 (CT for current measurement).
- PE (Protective Earth) Connections:** PE connections for L1, L2, and L3 busbars.
- Un=20kV In=80A:** Voltage and current ratings for the busbars.
- Grounding:** -A1, -A2, -A3 (Grounding points for L1, L2, and L3).
- LV-X2:** LV (Low Voltage) connection point.

The diagram shows the interconnections between these components, including the main busbars, circuit breakers, CTs, and grounding points.



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A	Parts list														A						
	=K10 +LV																				
B	Device tag		Part number		Function text		Designation				Placement		Manufacturer		Pos						
	-F3		2CDS272001R0064		C6A		MCB S202M-C6 6A				+K10/04.1:A		ABB								
	-F4		2CDS272001R0064		C6A		MCB S202M-C6 6A				+K10/03.1:D		ABB								
	-F11		4560807745				PROTECTION RELAY REF615 G RELAY CODE: HBFGDAAHNFH8BAA21G				+K10/04.2:C		ABB								
	-X2		NHSN722028P0001				MBKKB 2,5 TERMINAL				+K10/04.1:D;+K10/04.1:F +K10/04.2:D;+K10/04.2:F +K10/04.3:A;+K10/04.3:B		Phoenix								
	-X2		GZN 590055R0001		Io		URTK/S TERMINAL 6mm²				+K10/06.6:D		Phoenix								
C	-X2		GZN 590045R0001				UK 5N TERMINAL 4mm²				+K10/03.1:C;+K10/04.1:A +K10/04.2:A		Phoenix								
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