



Blastrac bv

Utrechthaven 12
3433 PN Nieuwegein
Netherlands
+31(0)30-6018866
+31(0)30-6018333

Project description 900 VMB RS FREQ MKII

Drawing number PJ14.1159.02

Blastrac number E09296-RC

Power supply 400...480V 60 Hz

Input lead Input lead

Control Voltage 24Vdc

Status FOR APPROVAL

Year of Manufacturing 2014

ISSUE FOR APPROVAL
StampDate

CLIENT SIGNATURE _____ DATE _____
DRAWINGS MUST BE RETURNED WITHIN **10** WORKING
DAYS OF RECEIPT. IF DRAWINGS ARE NOT RETURNED
WITHIN **10** WORKING DAYS, THEY WILL BE CONSIDERED
APPROVED AND DESIGN WILL PROCEED.

Created on 10-1-2014 by HvdB

Edit date 12-11-2014 by HVDB

Number of pages 40

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			Appr	--								
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WIRE COLOR

Main Voltage 400/460V

<u>Phase</u>	<u>Colors</u>
L1	- Black
L2	- Black
L3	- Black
N	- Light Blue
Earth / PE	- Yellow/Green

Control Voltage

Phase (230VAC)	- Red
Hook-up wire	- Red
Neutral (230VAC)	- Red

Phase (24VAC)	- Violet
Hook-up wire	- Violet
Neutral (24VAC)	- Violet

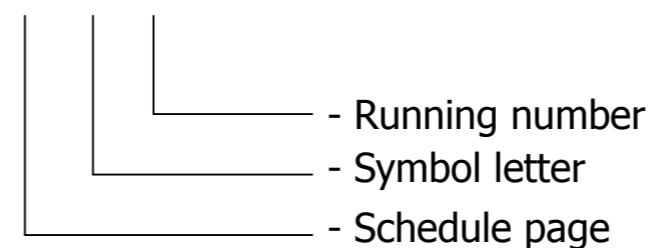
Plus (24VDC)	- Dark blue
Hook-up wire	- Dark blue
Minus / Ground (24VDC)	- White blue

Phase (42VAC)	- Brown
Hook-up wire	- Brown
Neutral (42VAC)	- Brown

Potential free	- Orange
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SYMBOL CODE

11 F 11



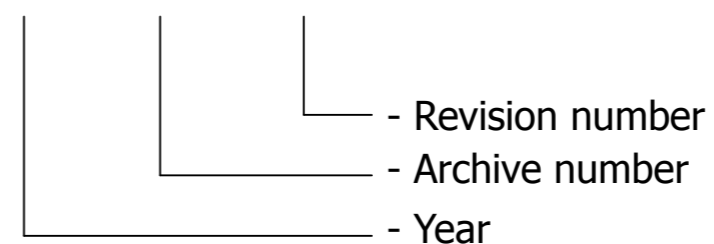
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DRAWING NUMBER

PJ##.####.##

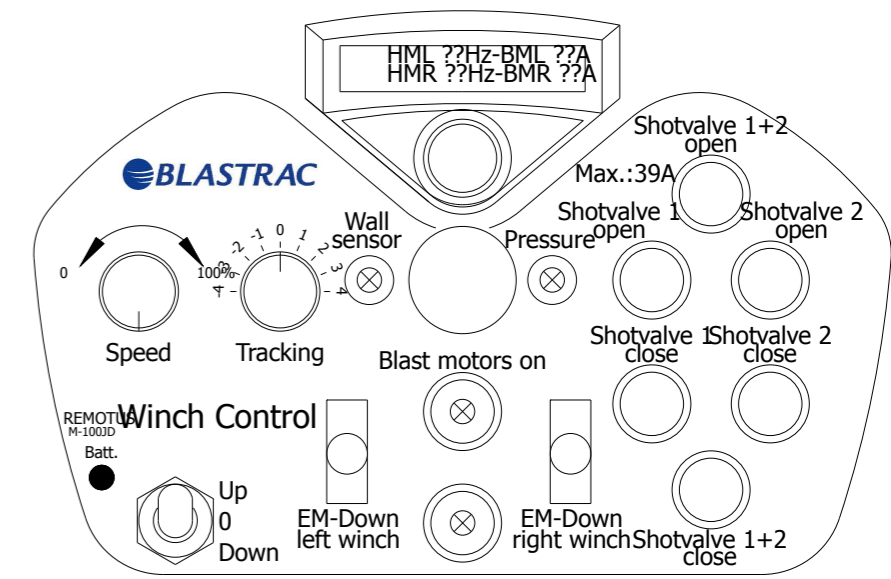
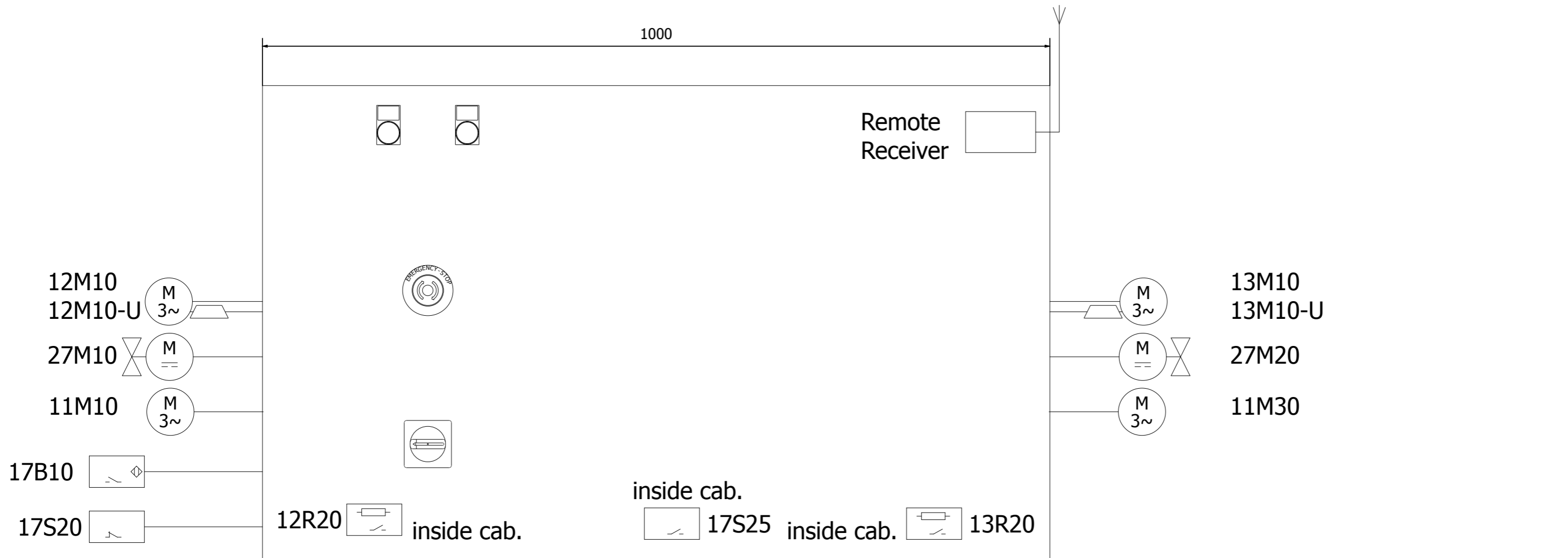


Colour abbreviations
Conform IEC 60757

BK	Black
BN	Brown
BU	Blue
GD	Gold
GN	Green
GNYE	Green/Yellow
GY	Grey
OG	Orange
PK	Pink
RD	Red
SR	Silver
TQ	Turquoise
VT	Violet
WH	White
YE	Yellow

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	auxiliary contact	hulpcontact		signal light	signaallamp		Safety fuse	smeltveiligheid
	Power contact	vermogenscontact		horn	hoorn		Fused switch, three-pole	schakelbare scheid
	NO contact, opens with time delay	maakcontact, vertraagd open		apm. meter	amperemeter		Fused disconnect, three-pole	scheider "klapbak"
	NO contact, closes with time delay	maakcontact, vertraagd sluitend		running hour counter	urenteller		Main switch	hoofdschakelaar
	NC contact, opens with time delay	verbreekcontact, vertraagd open		transformer	transformator		Circuit breaker, single-pole	installatieautomaat 1-polig
	NC contact, closes with time delay	verbreekcontact, vertraagd sluitend		Contactor coil relay coil	spoel		Circuit breaker, two-pole	installatieautomaat 2-polig
	Pushbutton rebound	drukknop terugverend		Contactor/relay coil with pick-up delay	Spoel met opkomvertraging		Circuit breaker, three-pole	installatieautomaat 3-polig
	Pushbutton locking	drukknop blijvend		Contactor/relay coil with drop-out delay	spoel met afvalvertraging		Power circuit breaker motor overload switch with switch mechanism	motorbeveiligingsschakelaar
	Rotary switch rebound	tip draaischakelaar		Contactor pulse coil relay pulse coil,	spoel puls		Valve	elektrisch bediende klep
	Rotary switch locking	draaischakelaar		Tube light	TL verlichting		Resistor with movable contact	regelbare weerstand
	Emergency stop rotary unlock	noodstop met draaibare vrijgave		Resistor / Heating	weerstand verwarming		Terminal	rijgklem
	Thermostatic switch	thermostaat hygrostaat		Socket	wandcontactdoos		Terminal with fuse	rijgklem met zekering
	Pressure switch	drukschakelaar		Current transformer	stroomtransformator		Busbar connection	Verzamelrail
	Limit switch	eindschakelaar		Wire termination Not connected			Rectifier	gelijkrichter
	Proximity switch	naderingsschakelaar		Wire termination Insulated				



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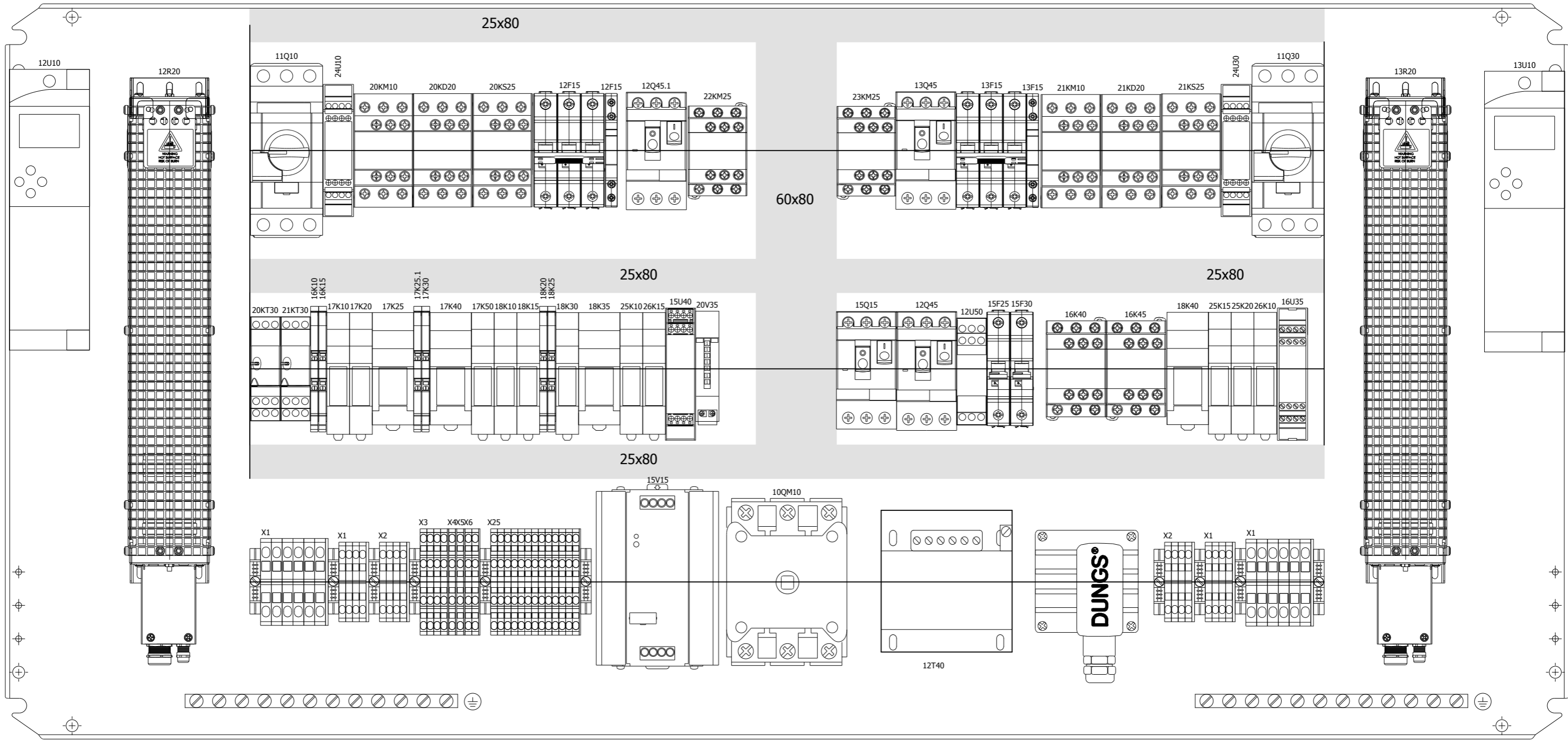


Page description:	Cable diagram
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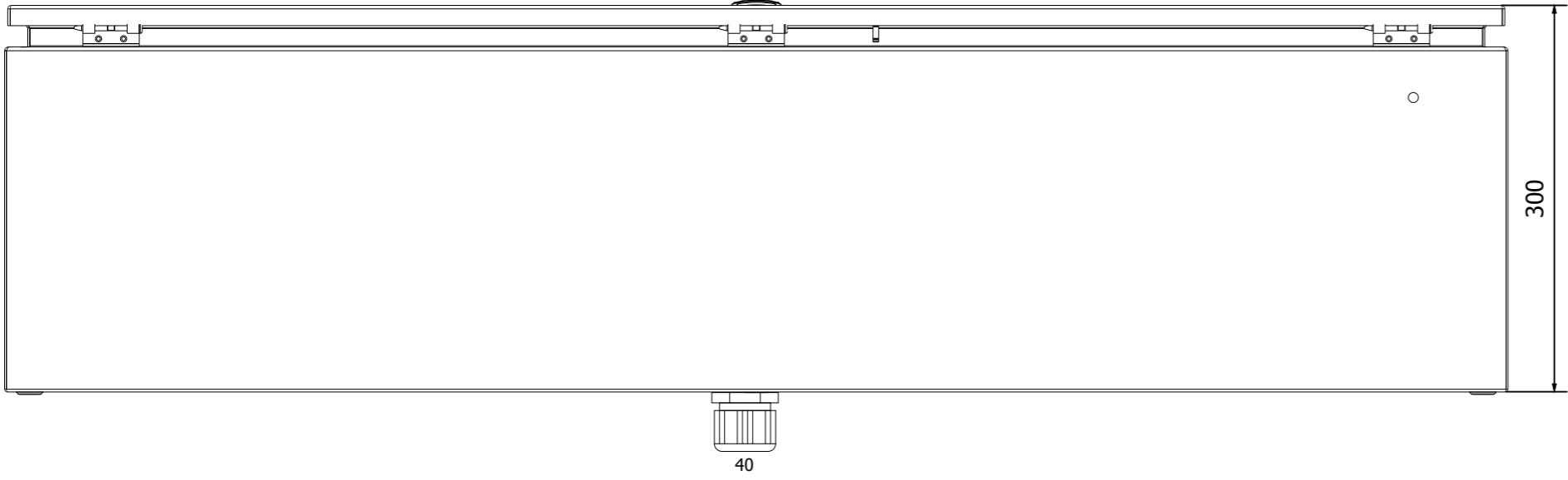
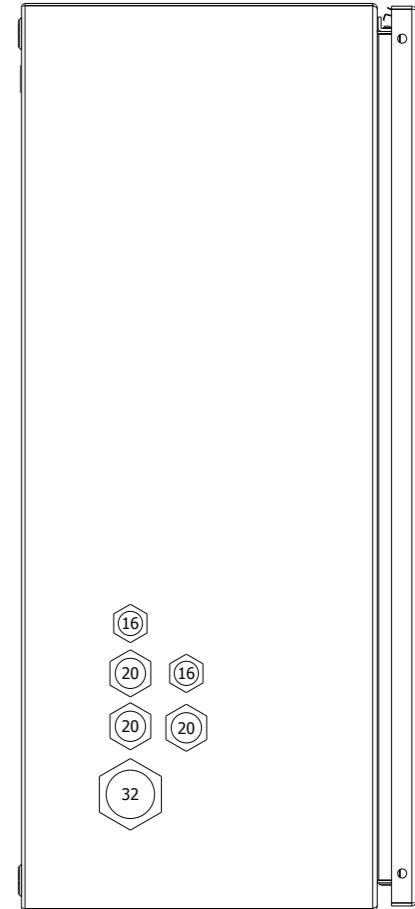
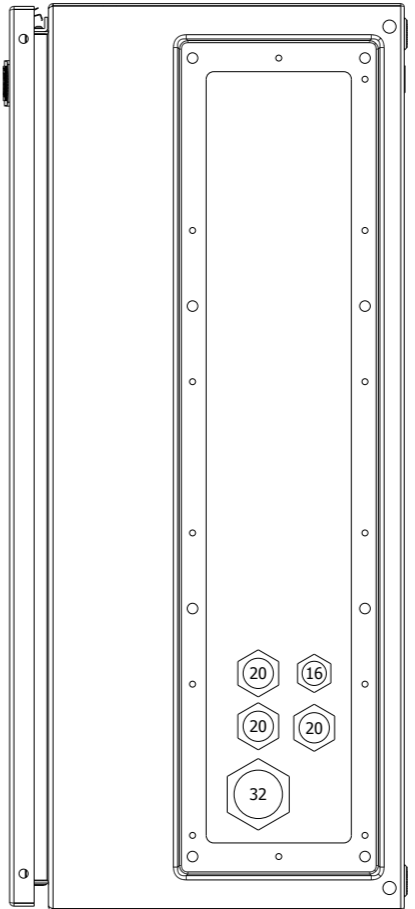
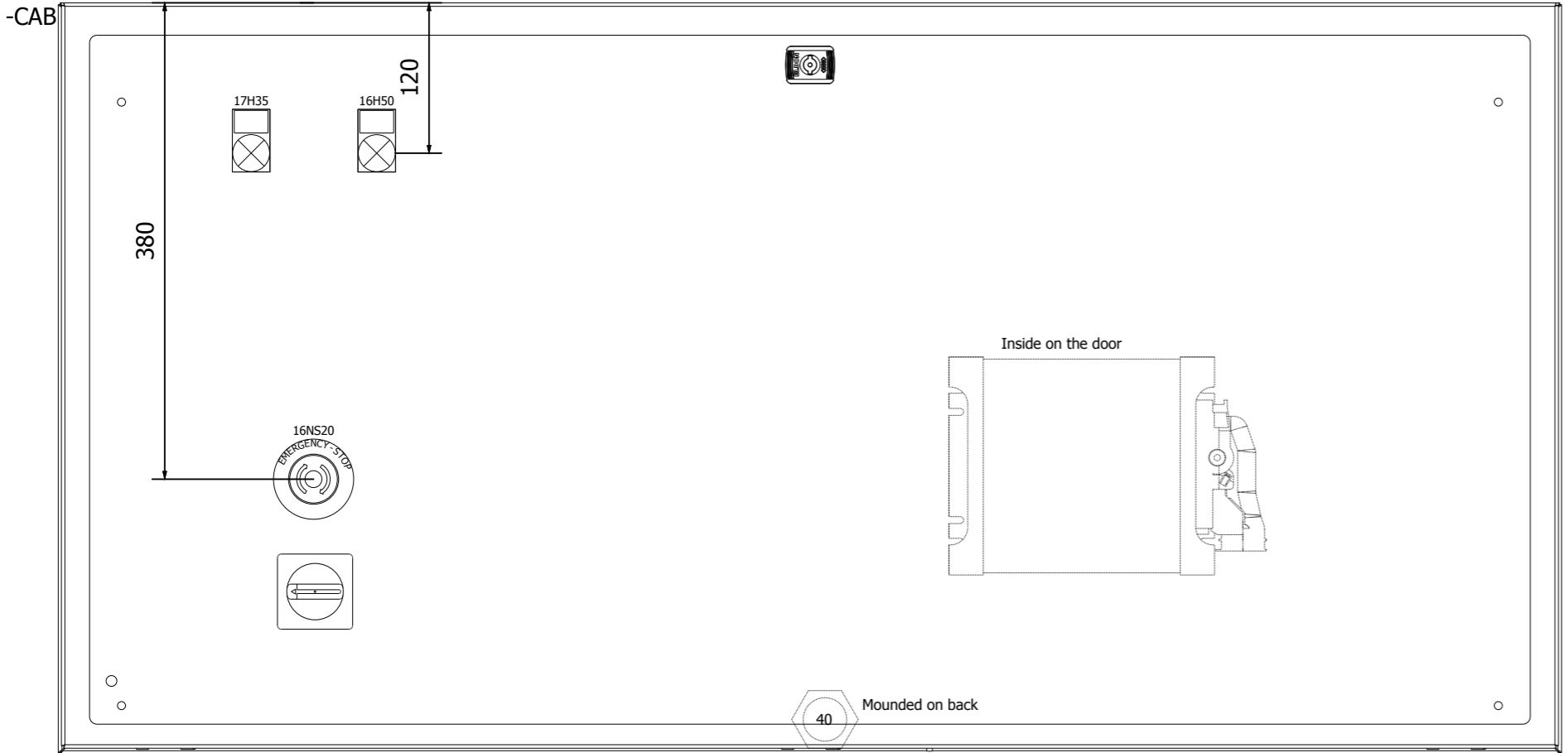
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Panel layout

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Blastrac

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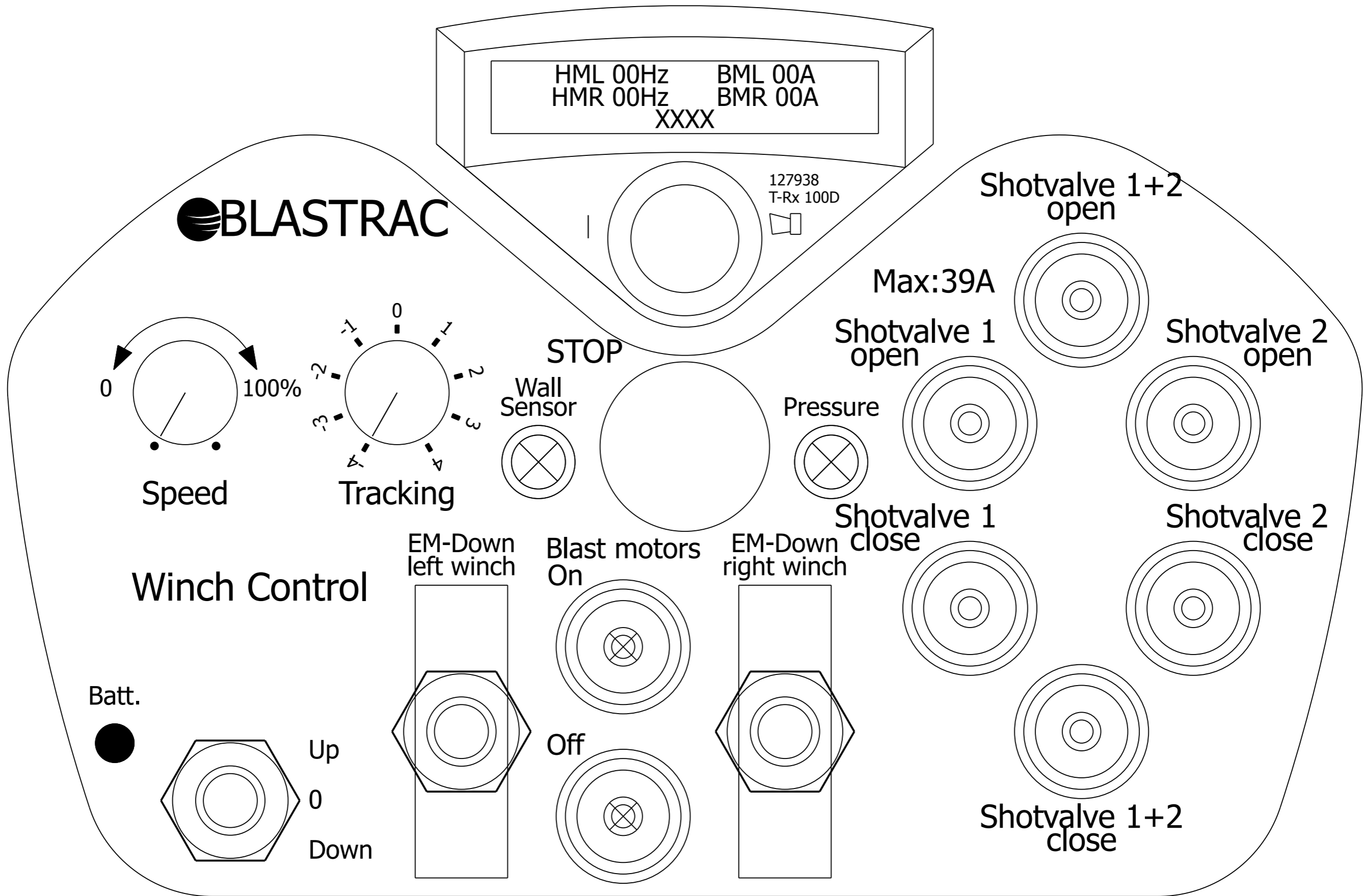


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Blastrac

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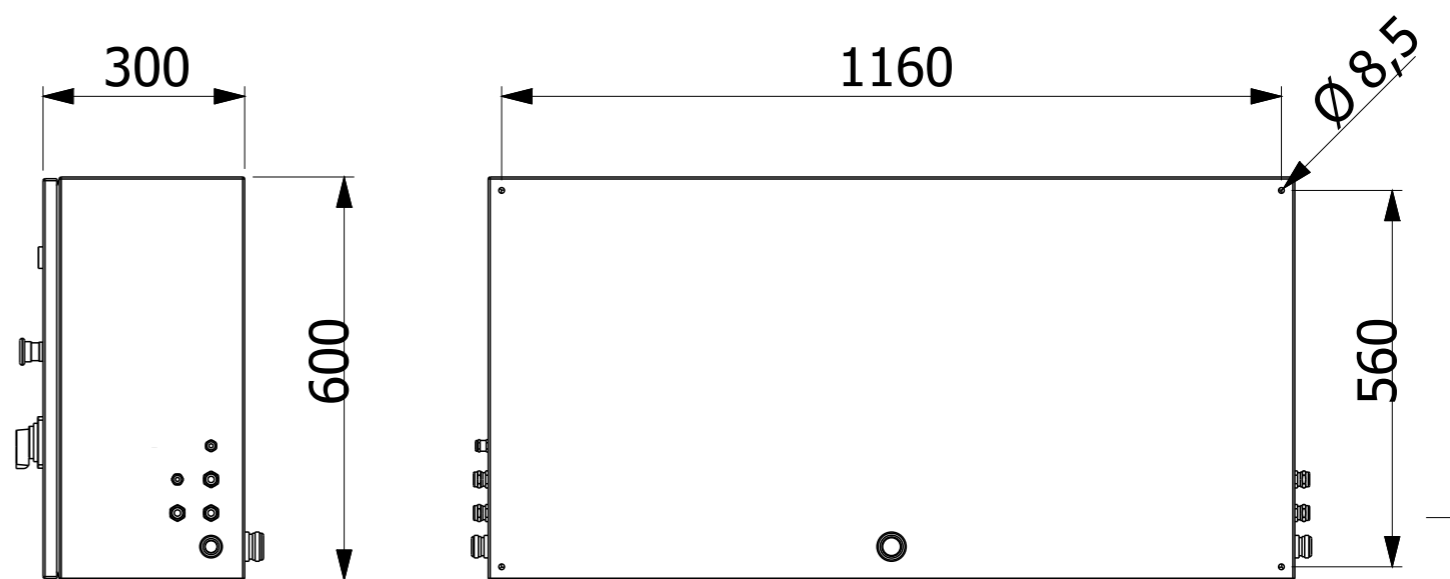
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Customer:	Blastrac
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Mounting holes supply with M8 blind rivet

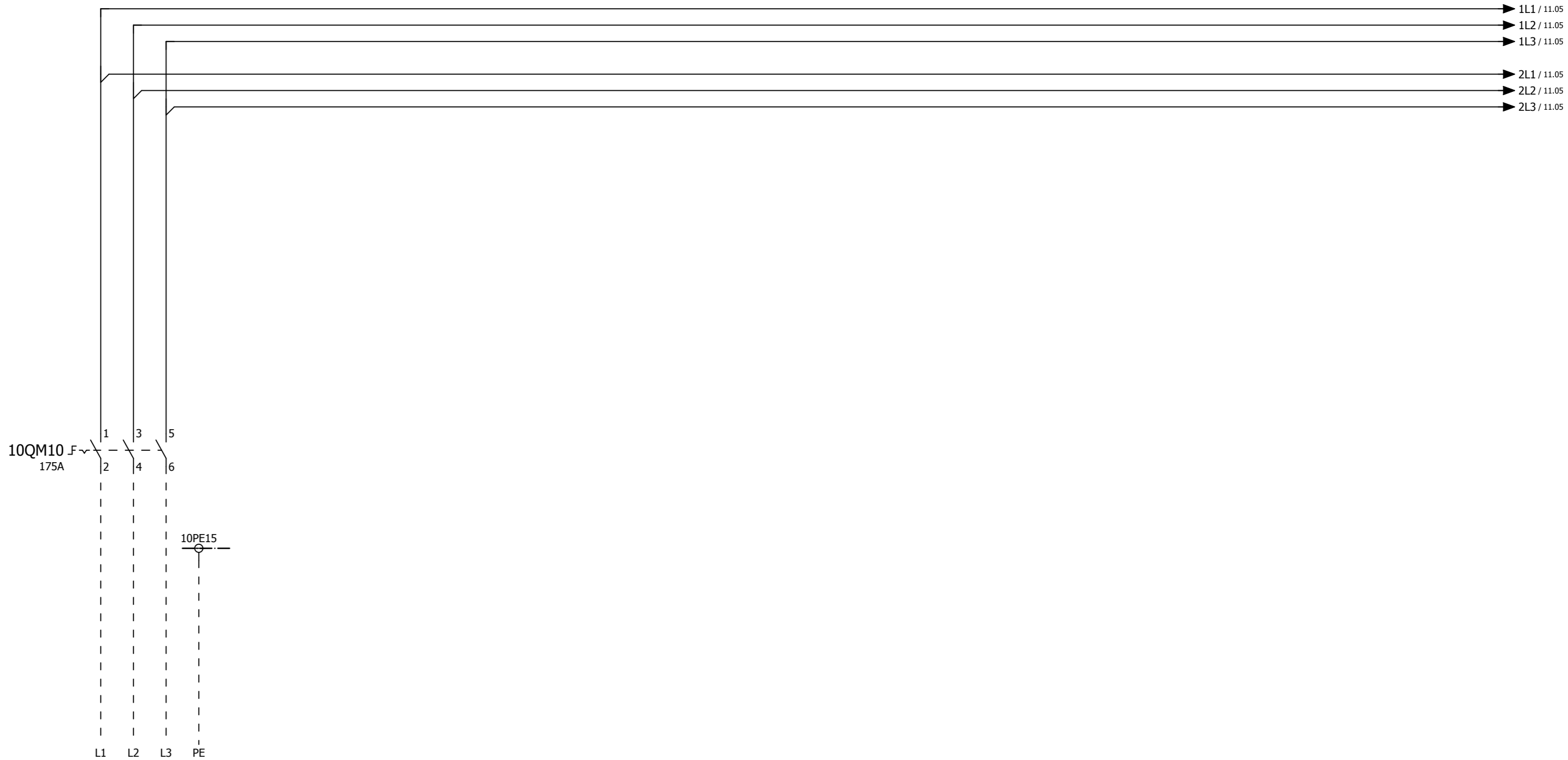
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Project name:
900 VMB RS FREQ MKII
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Page description:
 Panel layout

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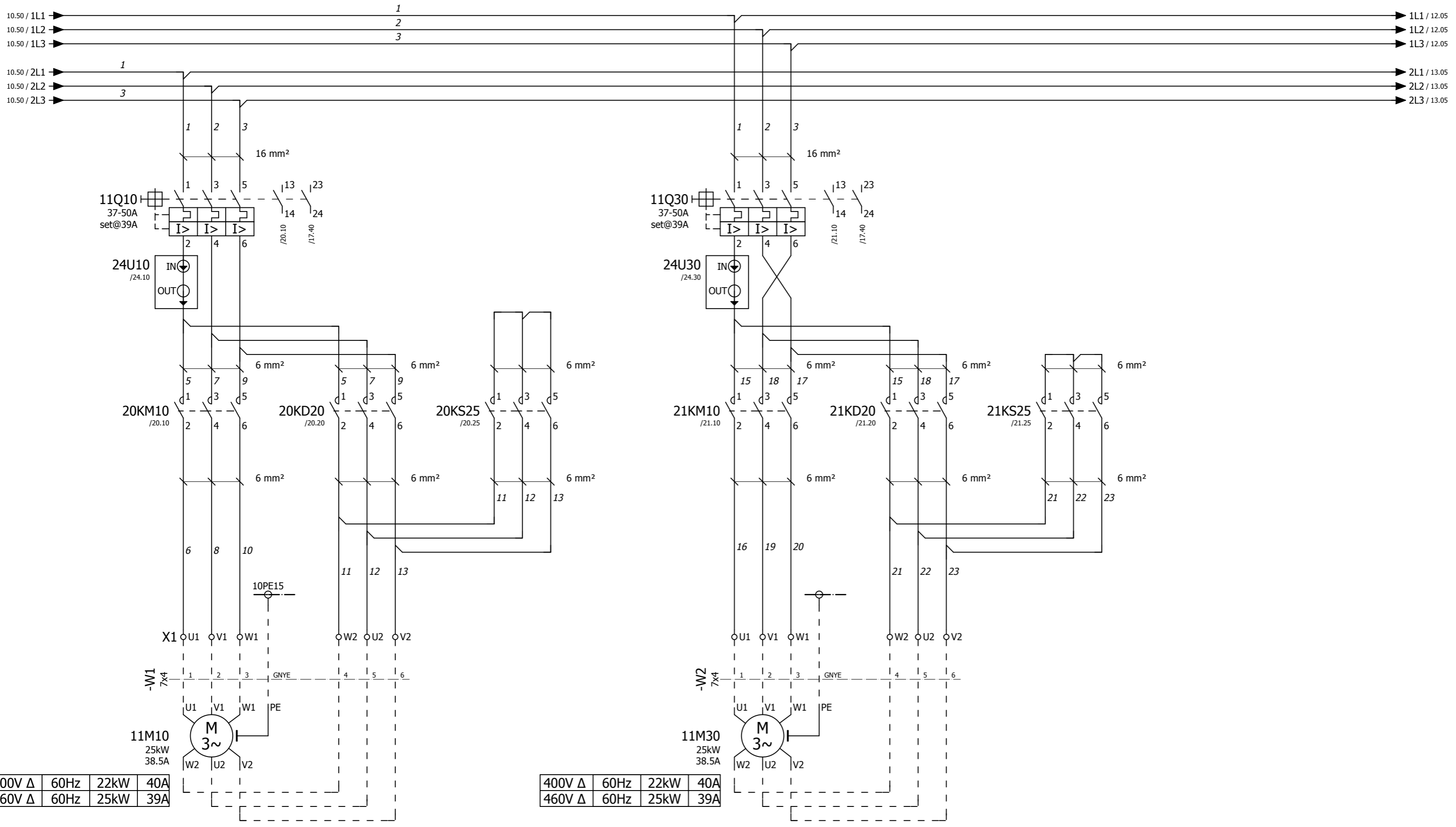
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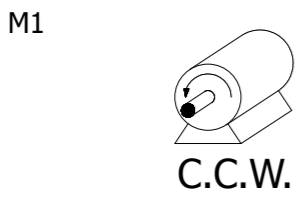
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Main switch

Customer:
Blastrac

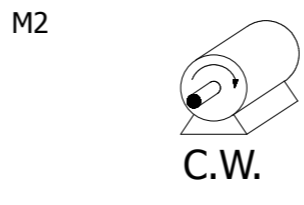
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400V Δ	60Hz	22kW	40A
460V Δ	60Hz	25kW	39A



400V Δ	60Hz	22kW	40A
460V Δ	60Hz	25kW	39A



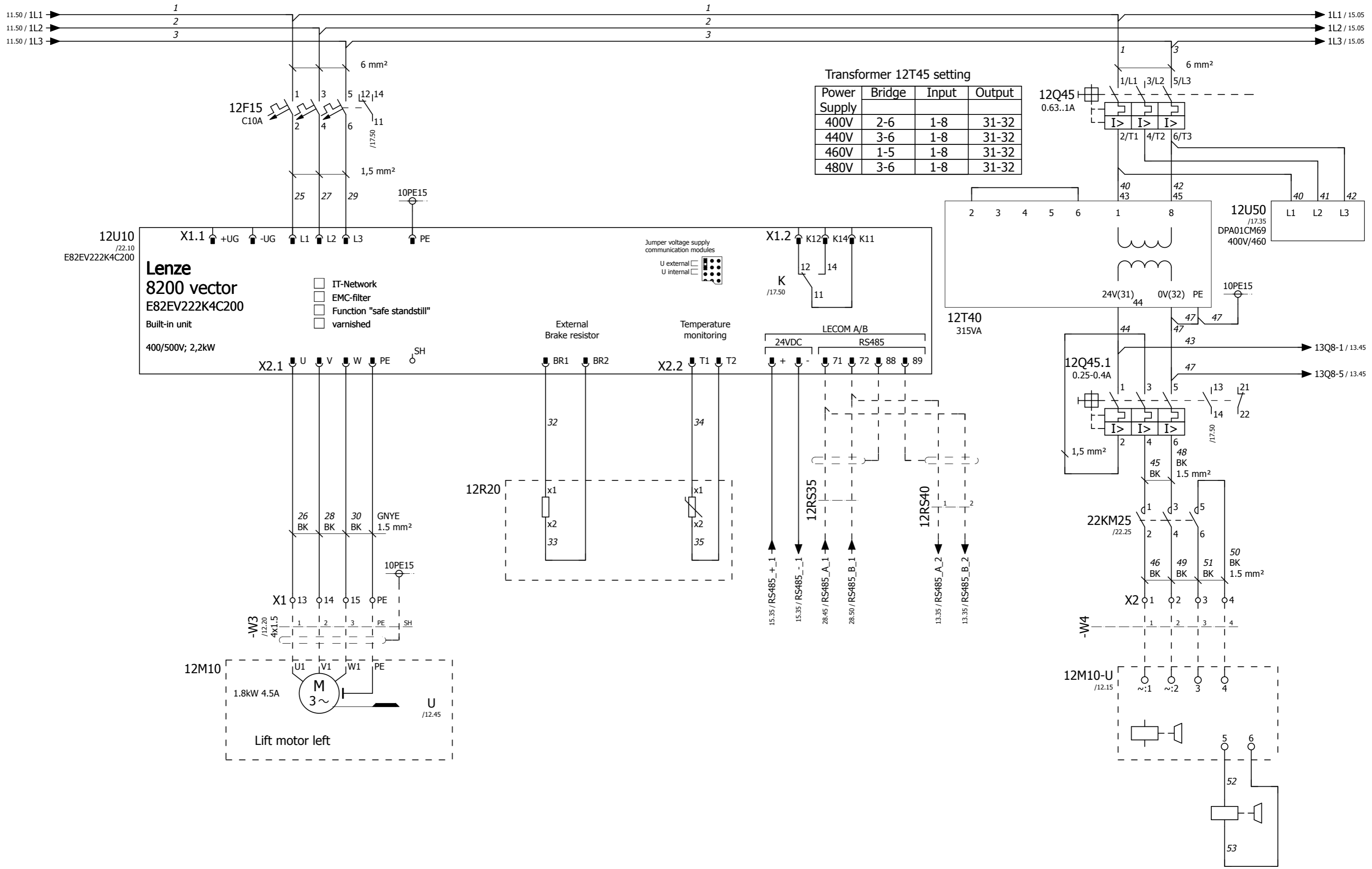
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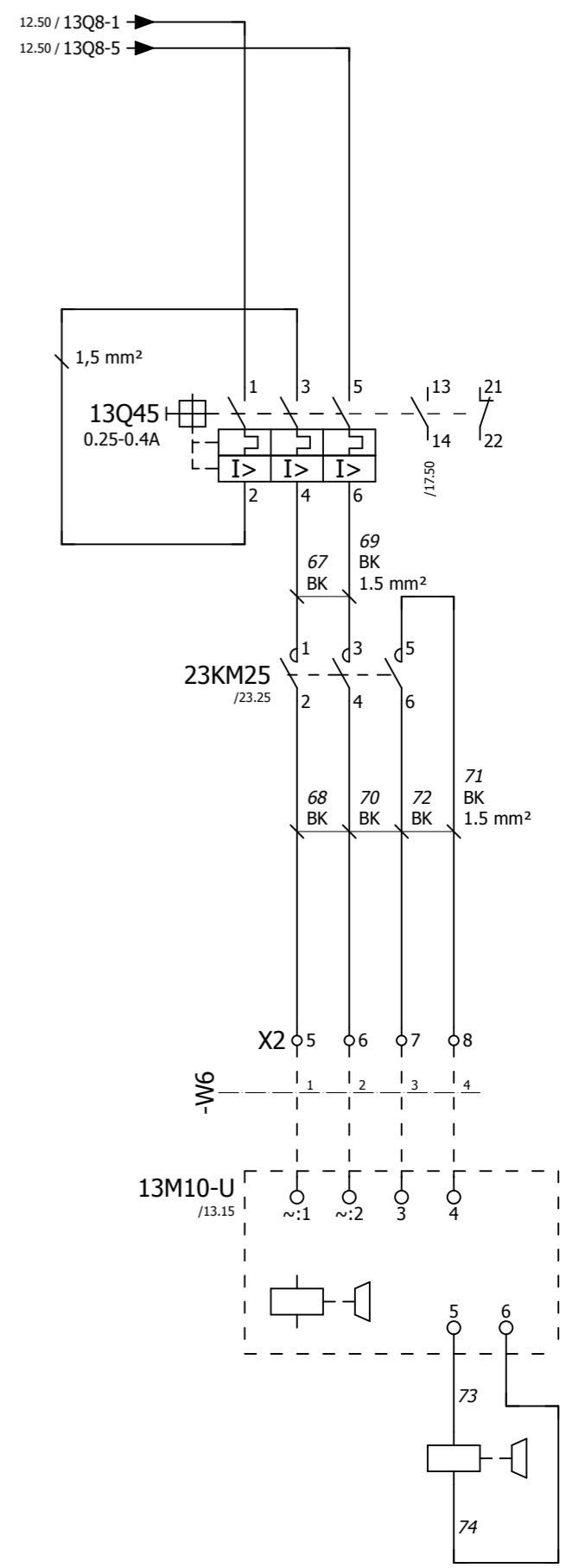
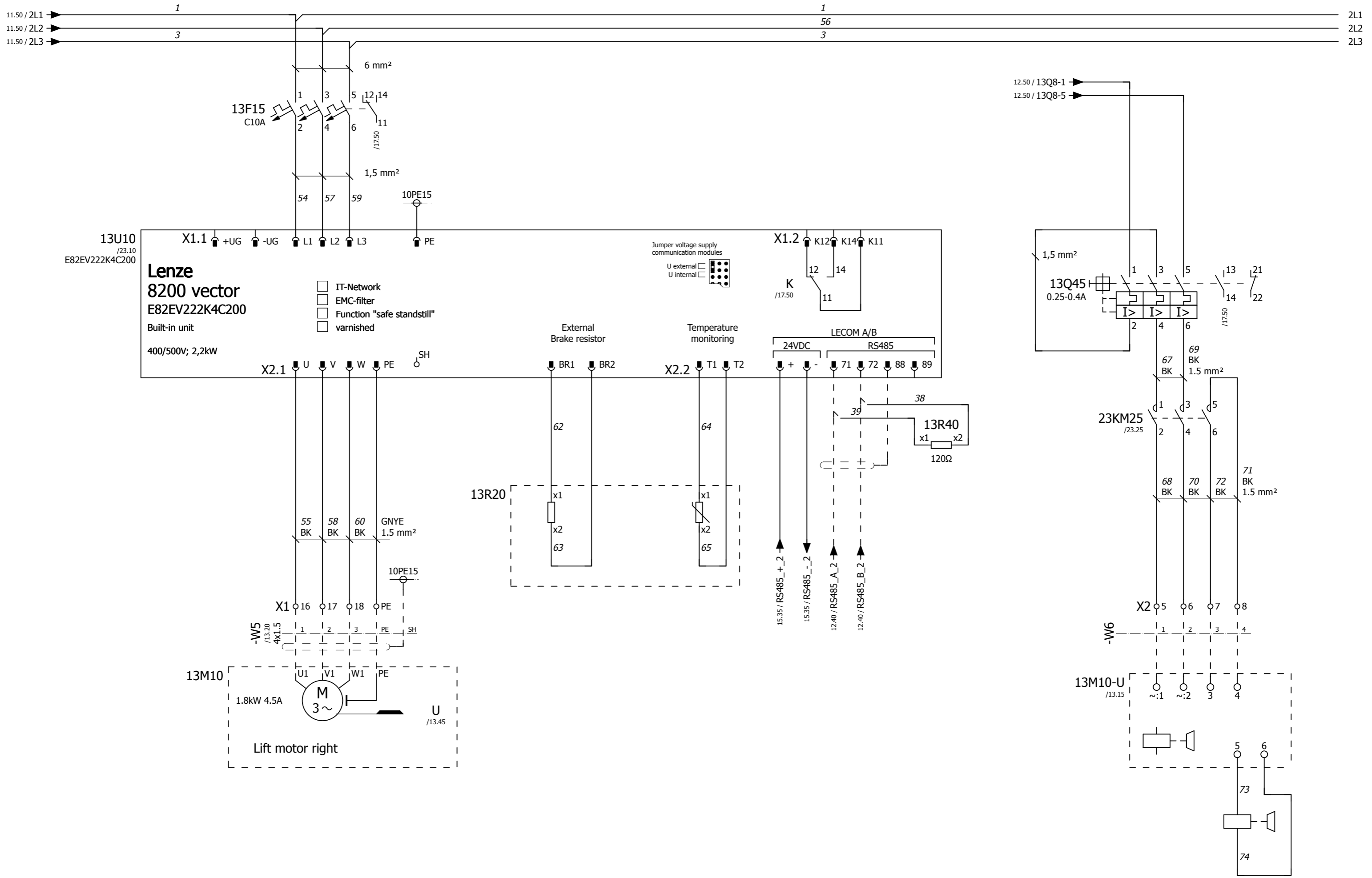
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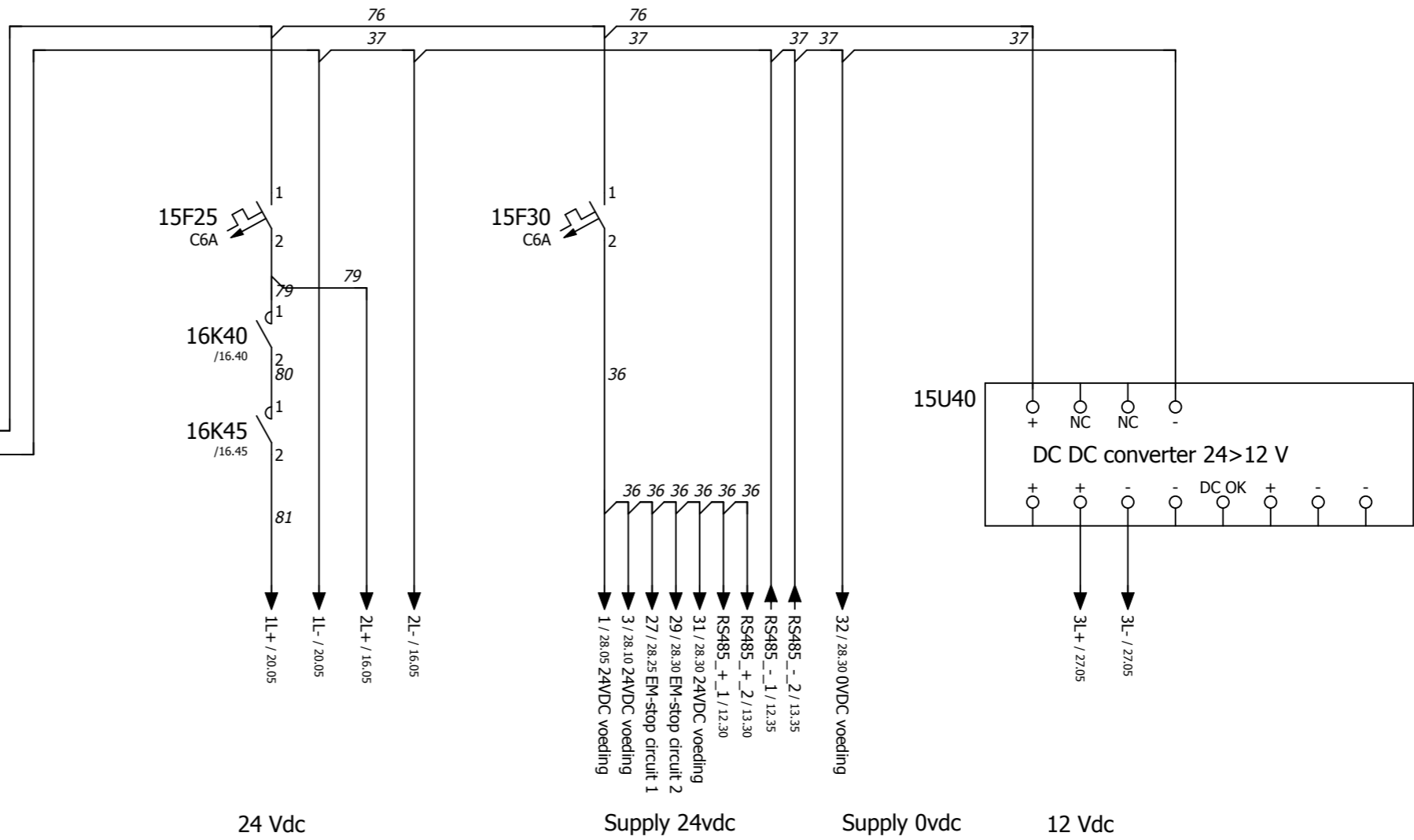
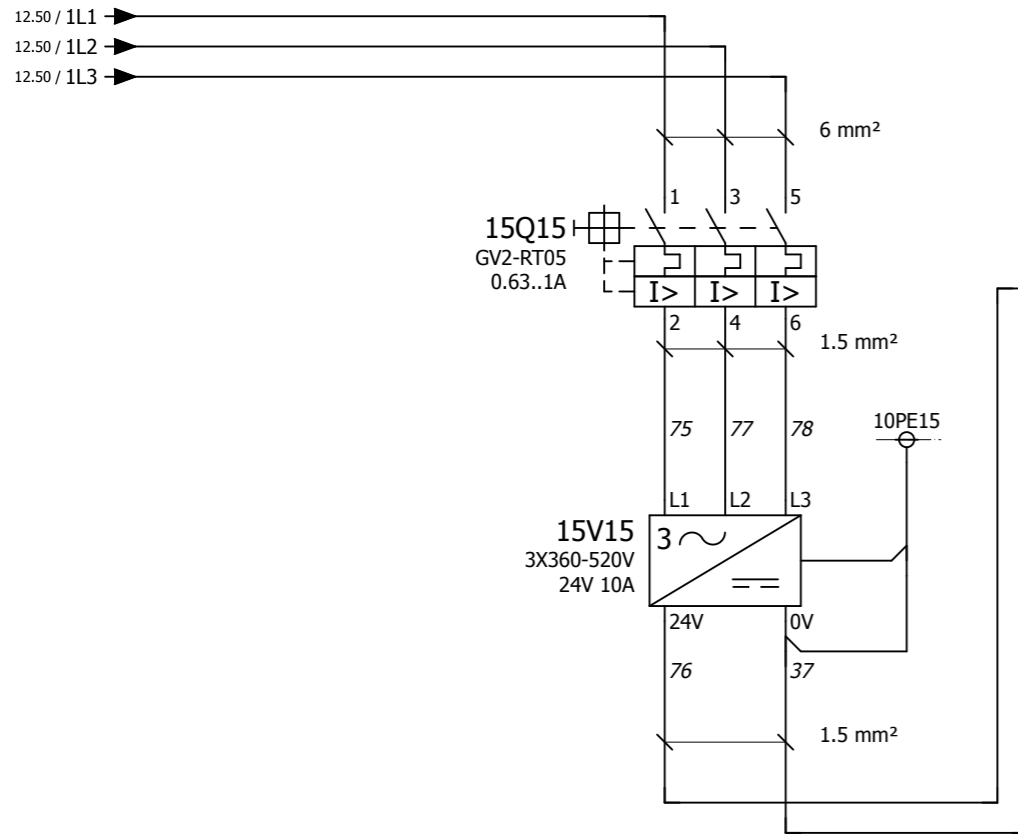


Transformer 12T45 setting

Power Supply	Bridge	Input	Output
400V	2-6	1-8	31-32
440V	3-6	1-8	31-32
460V	1-5	1-8	31-32
480V	3-6	1-8	31-32



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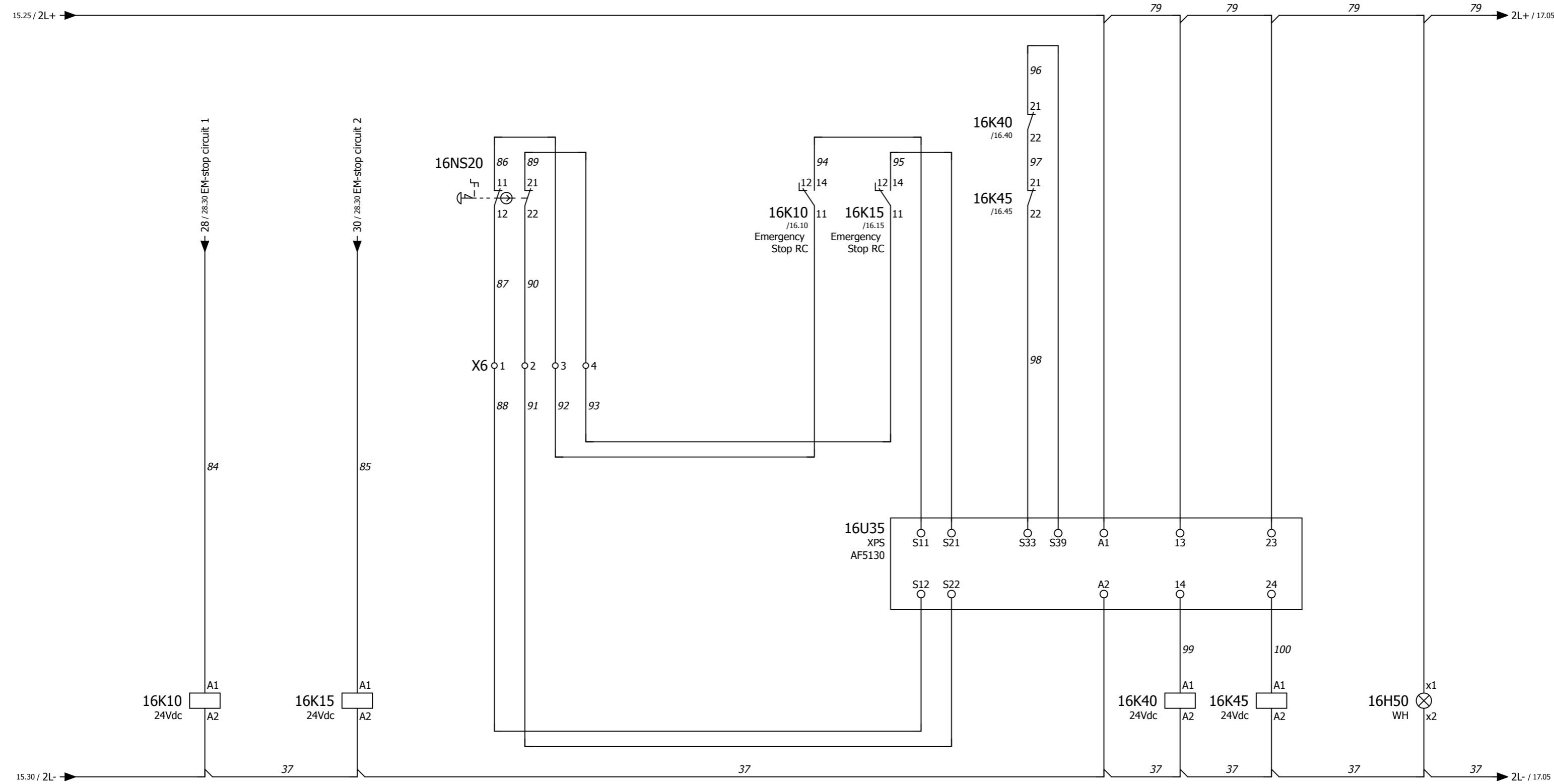
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Page description:	Internal supply
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Emergency Stop RC

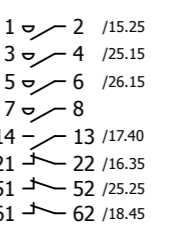
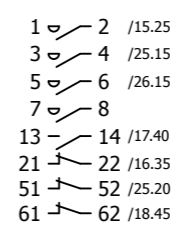
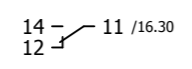
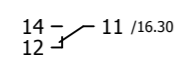
Emergency Stop RC

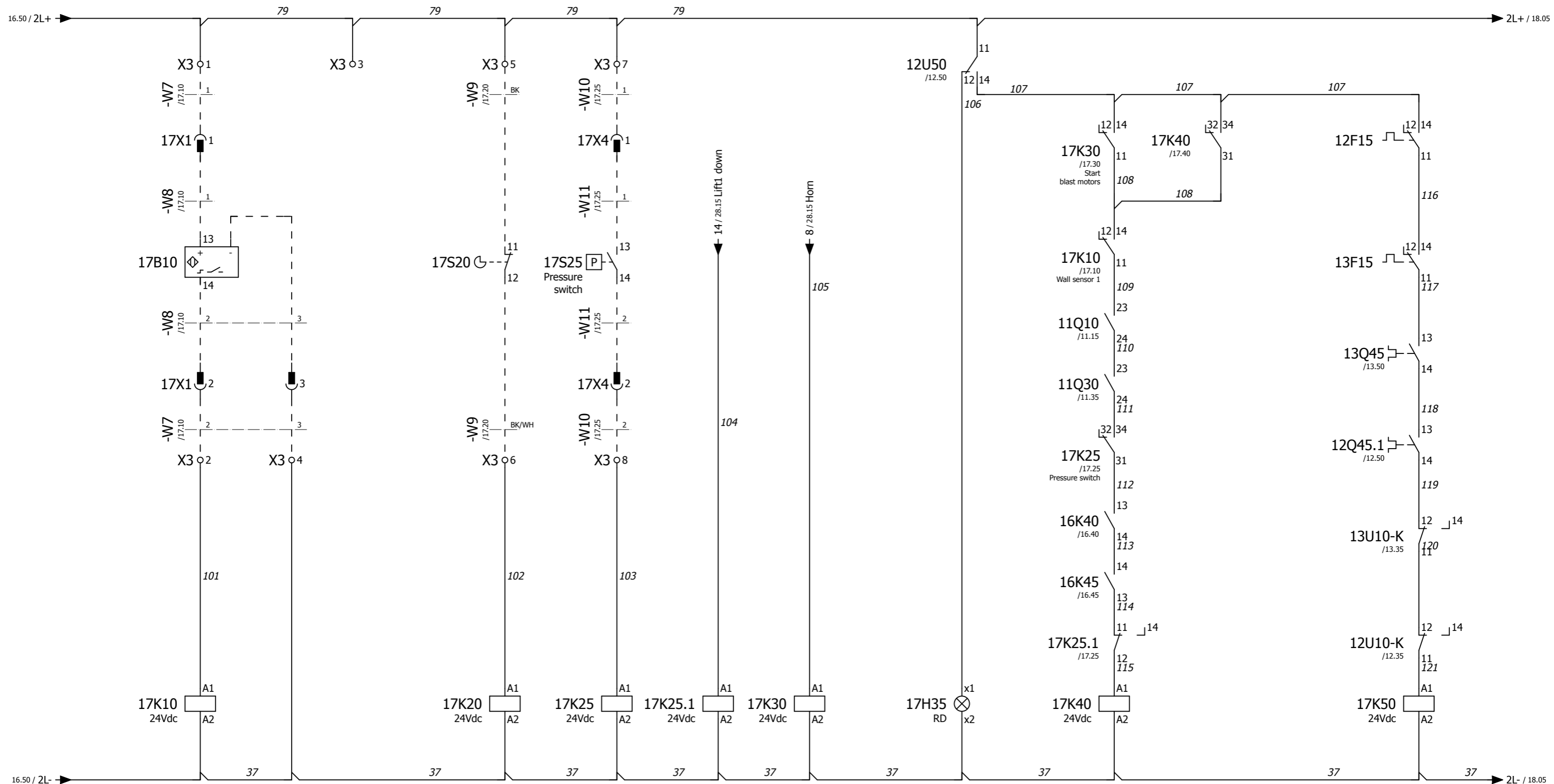
Emergency Stop on panel

Emergency stop K1

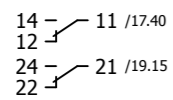
Emergency stop K2

Power Available

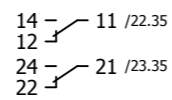




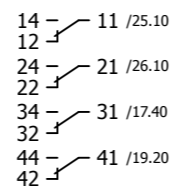
Wall sensor 1



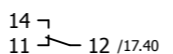
Winch max. up



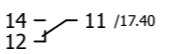
Pressure switch



Stop blast motors



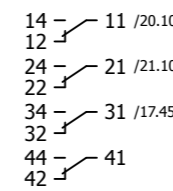
Start blast motors



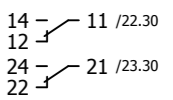
Phase Sequence



Start conditions blast motors



No failure Lift motors



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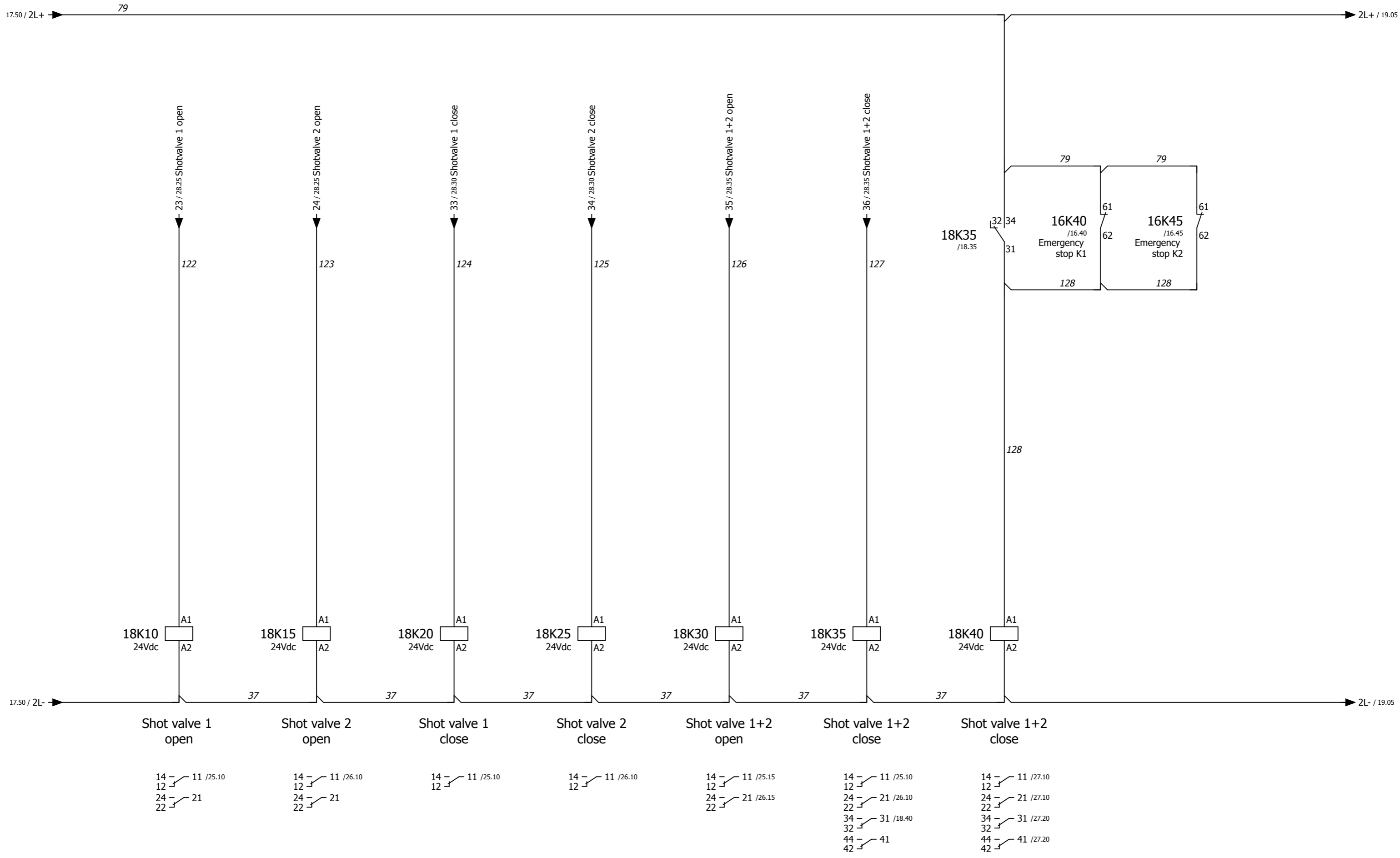
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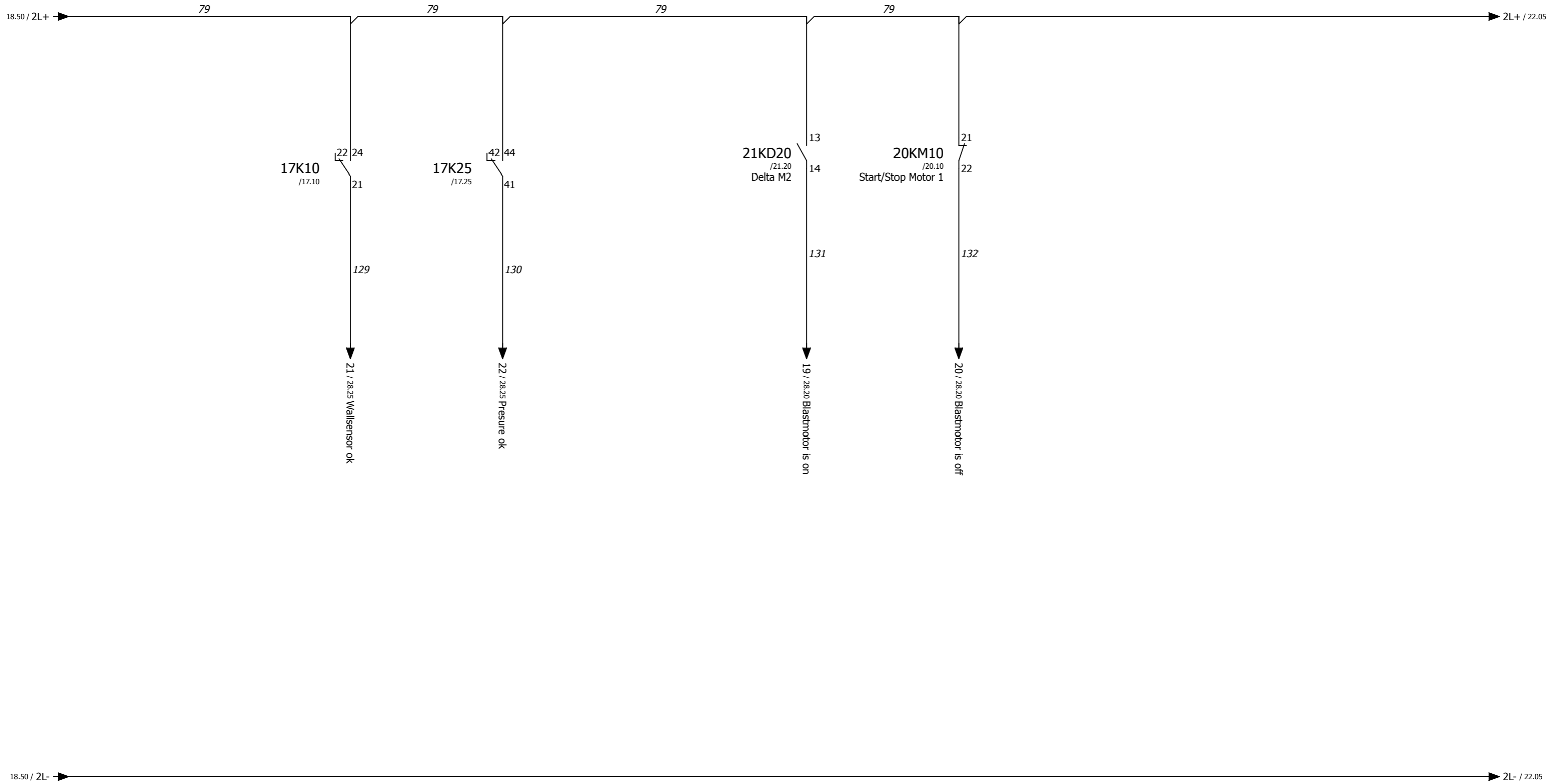
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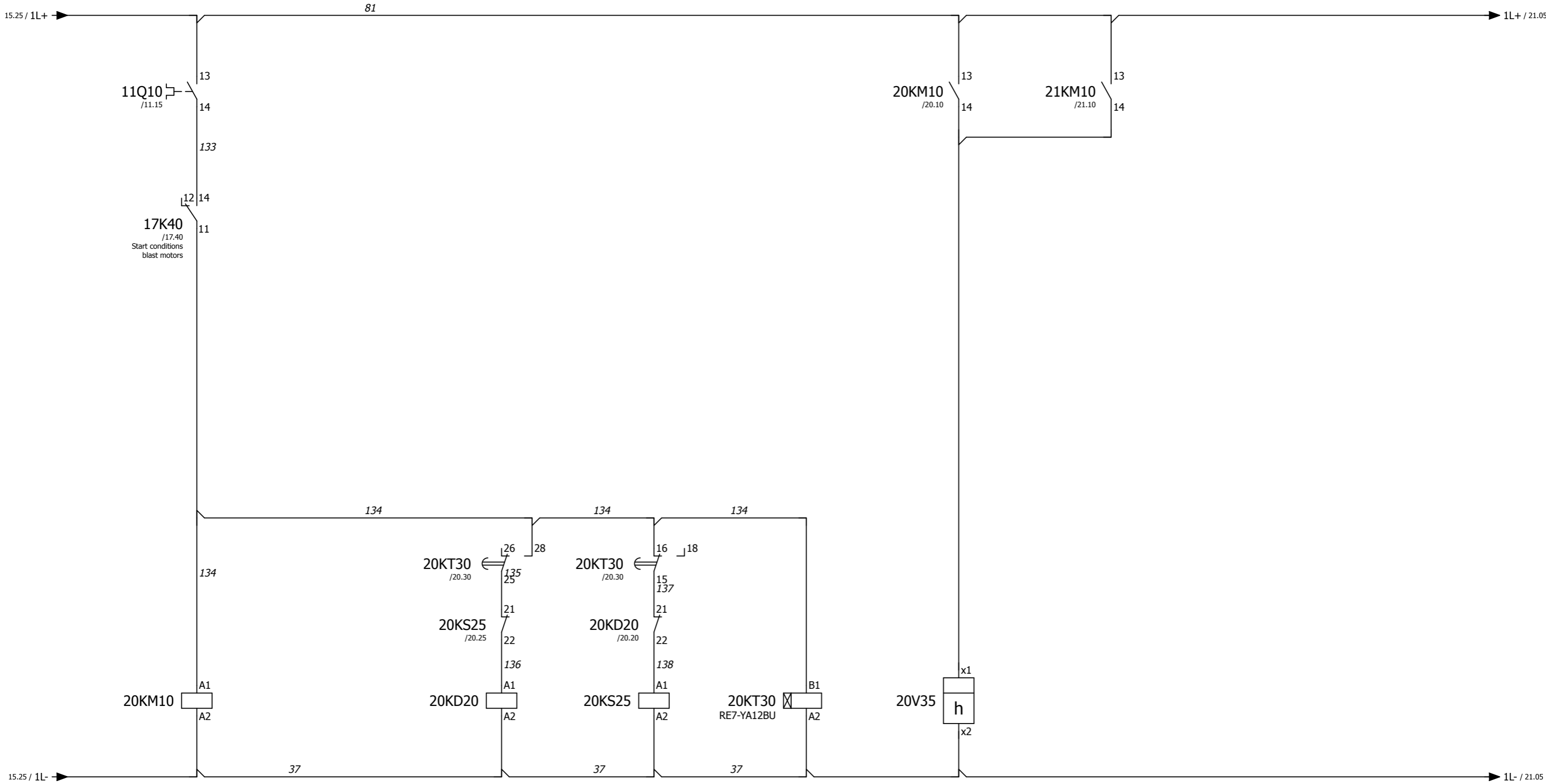
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Page description:
Controls

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Start/Stop Motor 1

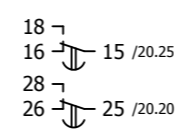
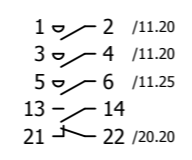
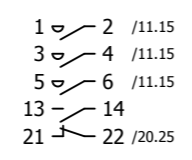
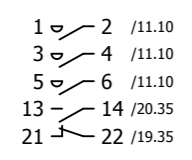
Running Hours M1

Delta M1

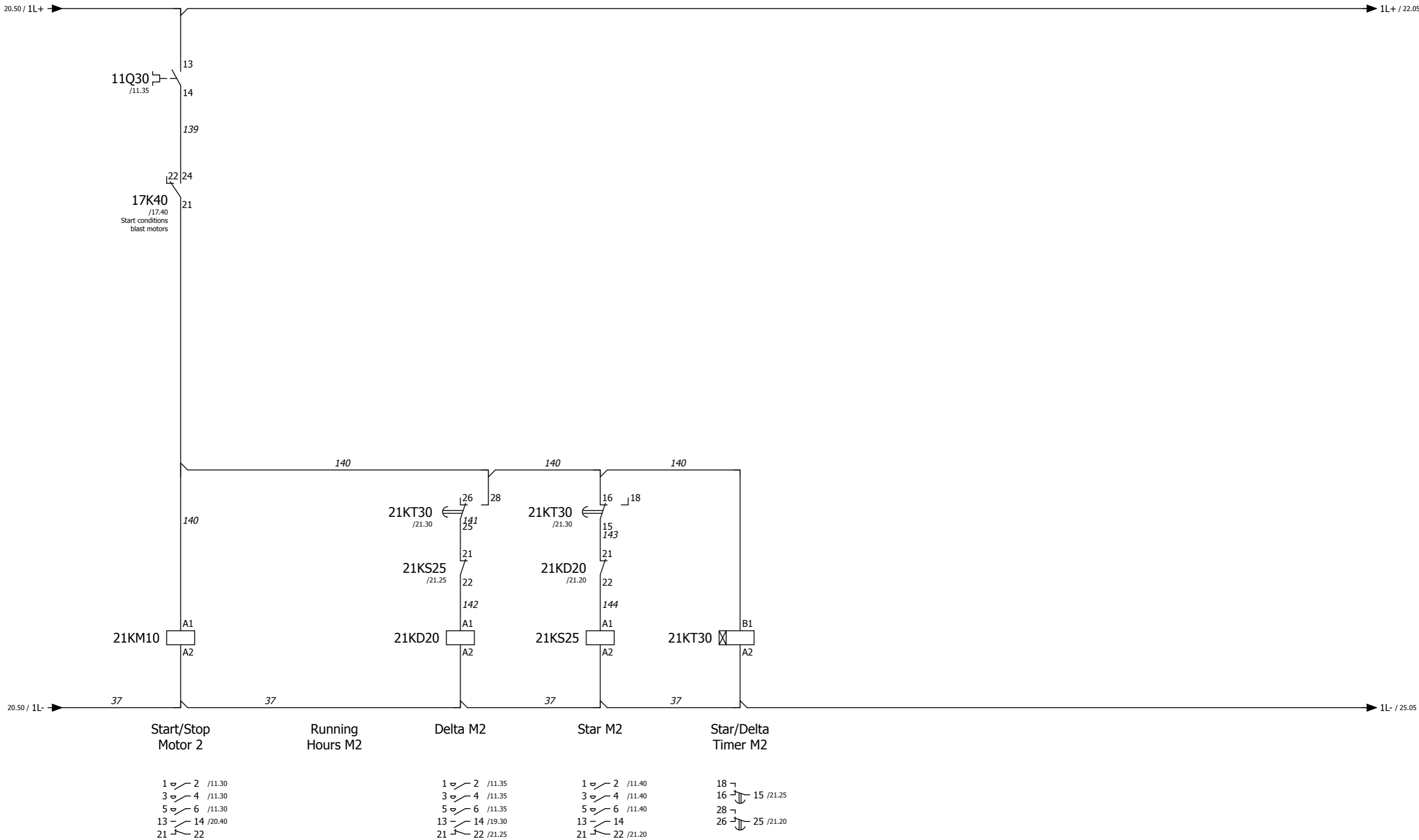
Star M1

Star/Delta Timer M1

Running hours



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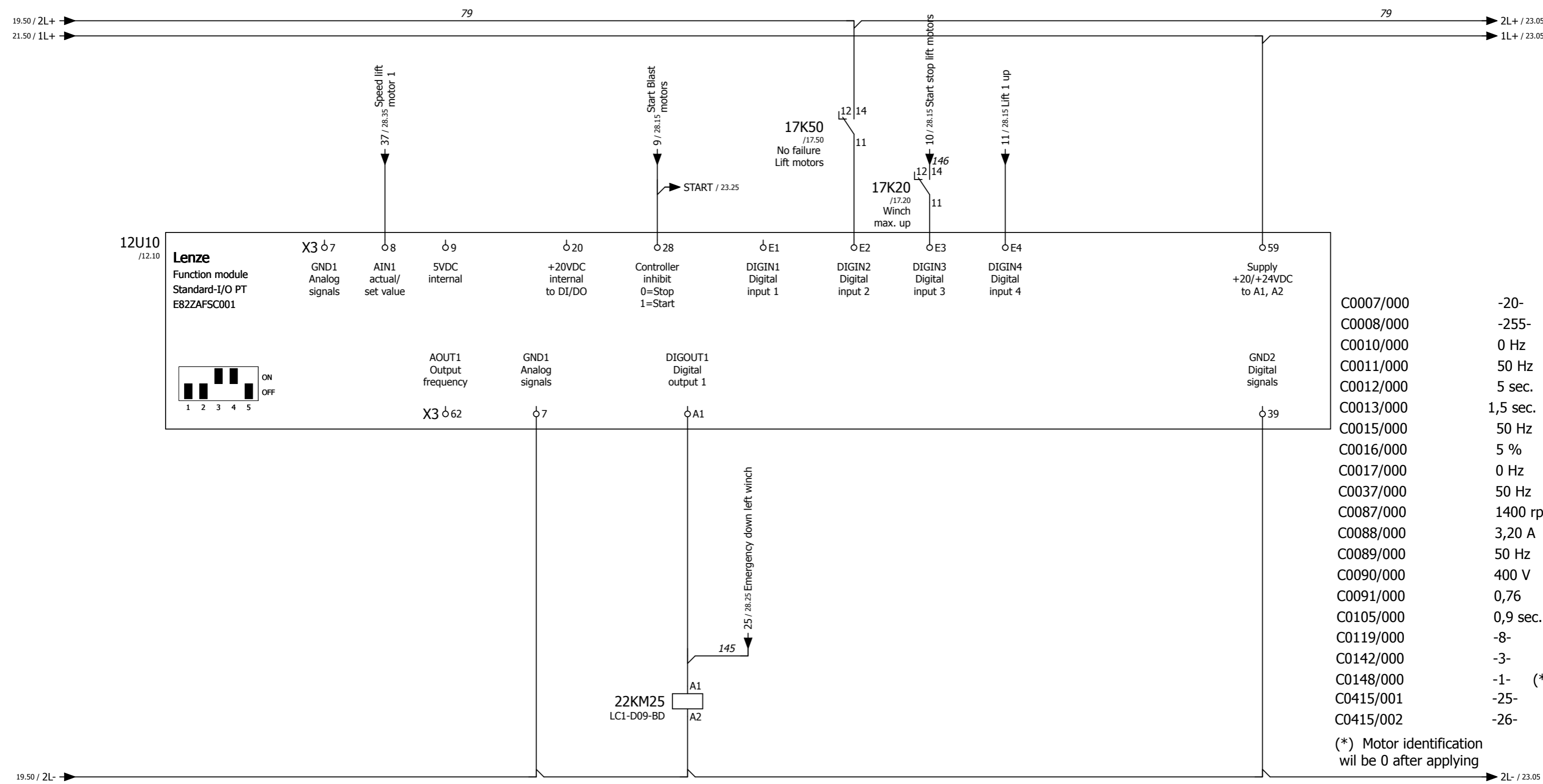
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Page description:
Motor control blast motor 2

Customer: **Blastrac**

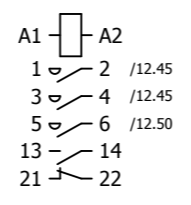
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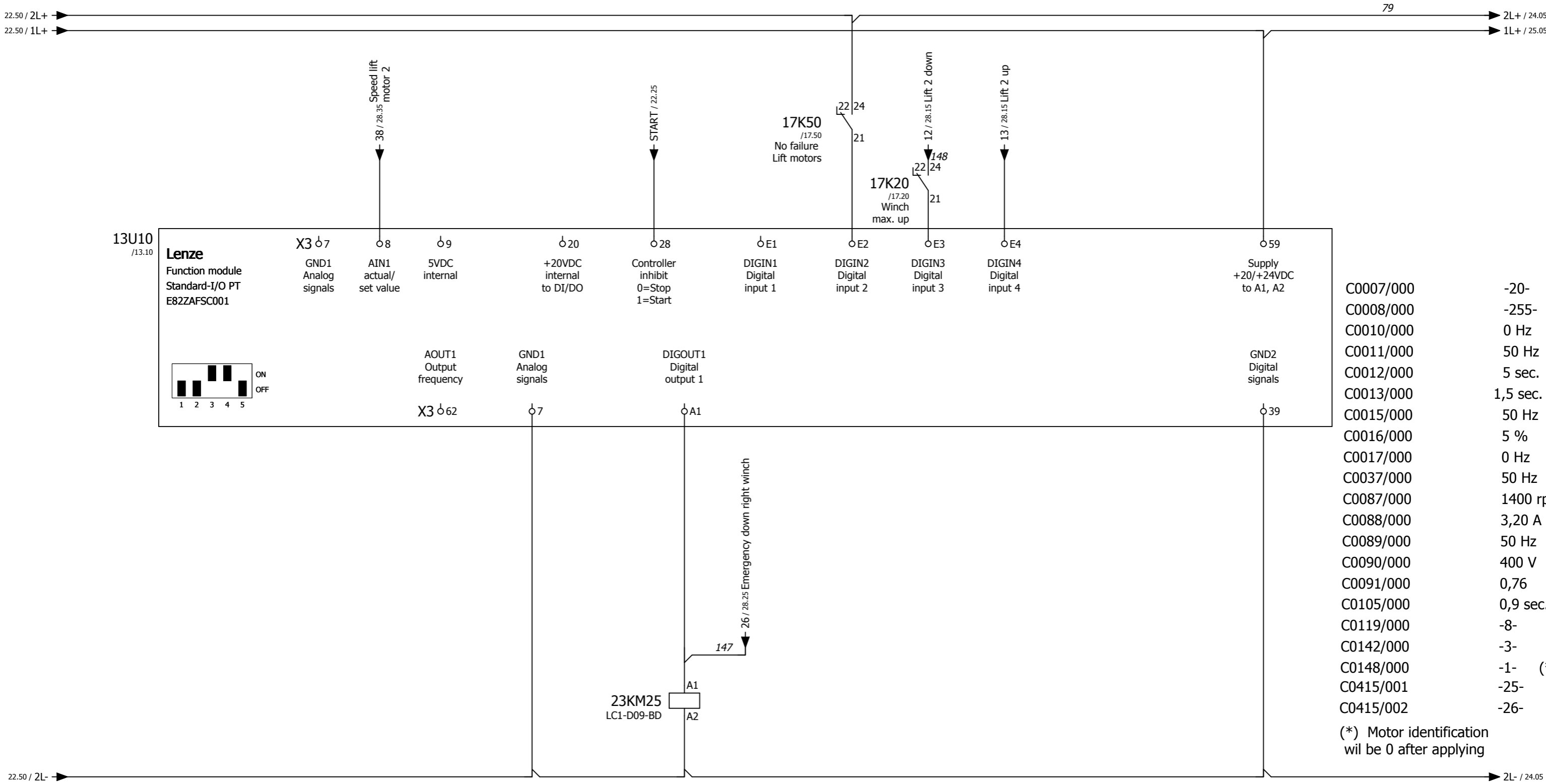


C0007/000	-20-
C0008/000	-255-
C0010/000	0 Hz
C0011/000	50 Hz
C0012/000	5 sec.
C0013/000	1,5 sec.
C0015/000	50 Hz
C0016/000	5 %
C0017/000	0 Hz
C0037/000	50 Hz
C0087/000	1400 rpm
C0088/000	3,20 A
C0089/000	50 Hz
C0090/000	400 V
C0091/000	0,76
C0105/000	0,9 sec.
C0119/000	-8-
C0142/000	-3-
C0148/000	-1- (*)
C0415/001	-25-
C0415/002	-26-

(*) Motor identification will be 0 after applying

Brake liftmotor 1

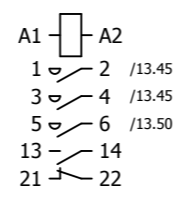


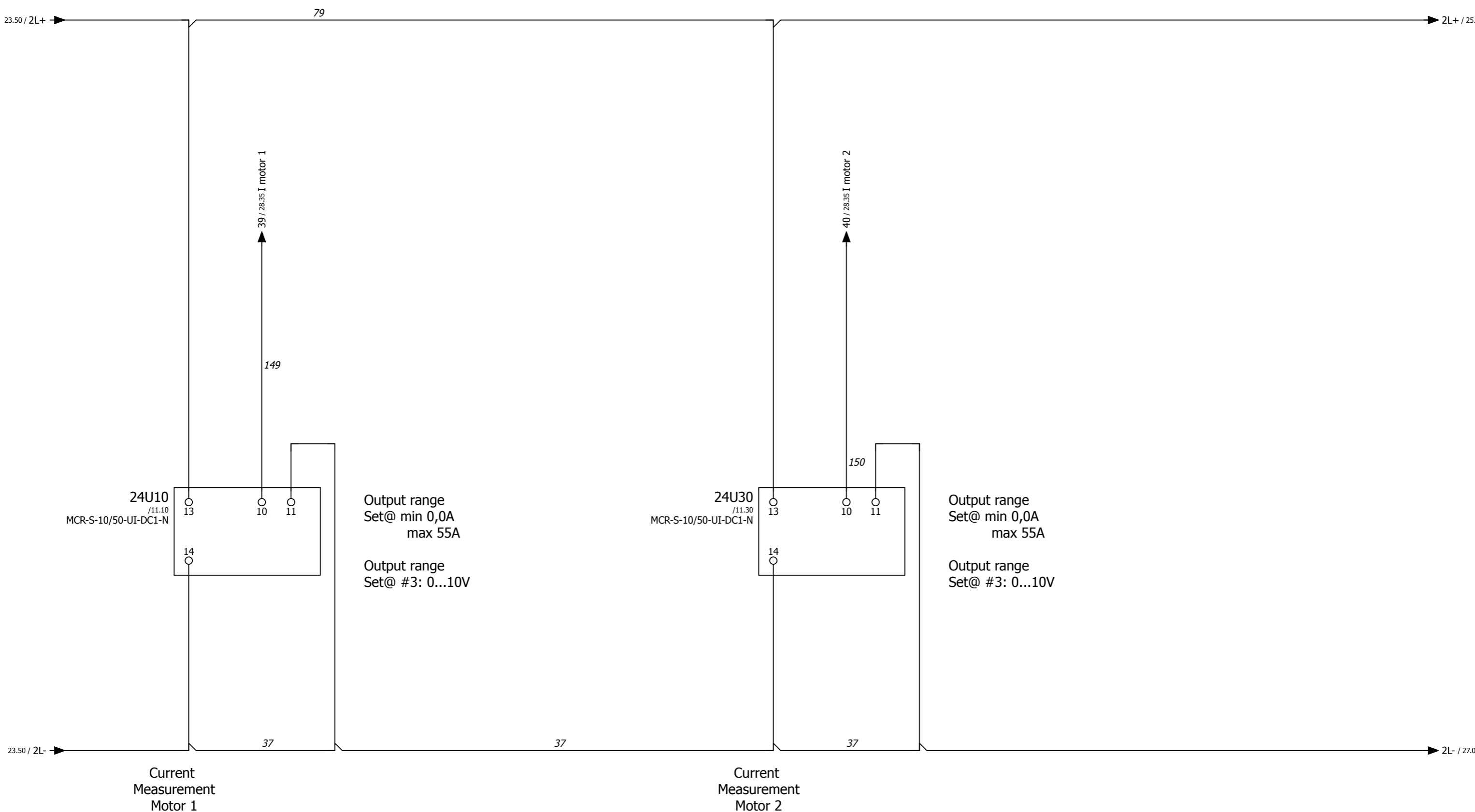


C0007/000	-20-
C0008/000	-255-
C0010/000	0 Hz
C0011/000	50 Hz
C0012/000	5 sec.
C0013/000	1,5 sec.
C0015/000	50 Hz
C0016/000	5 %
C0017/000	0 Hz
C0037/000	50 Hz
C0087/000	1400 rpm
C0088/000	3,20 A
C0089/000	50 Hz
C0090/000	400 V
C0091/000	0,76
C0105/000	0,9 sec.
C0119/000	-8-
C0142/000	-3-
C0148/000	-1- (*)
C0415/001	-25-
C0415/002	-26-

(*) Motor identification will be 0 after applying

Brake liftmotor 2





Date	22-10-2014	
Ed.	HVDB	
Appr	--	
Last print	12-11-2014	
Modification	Date	Name

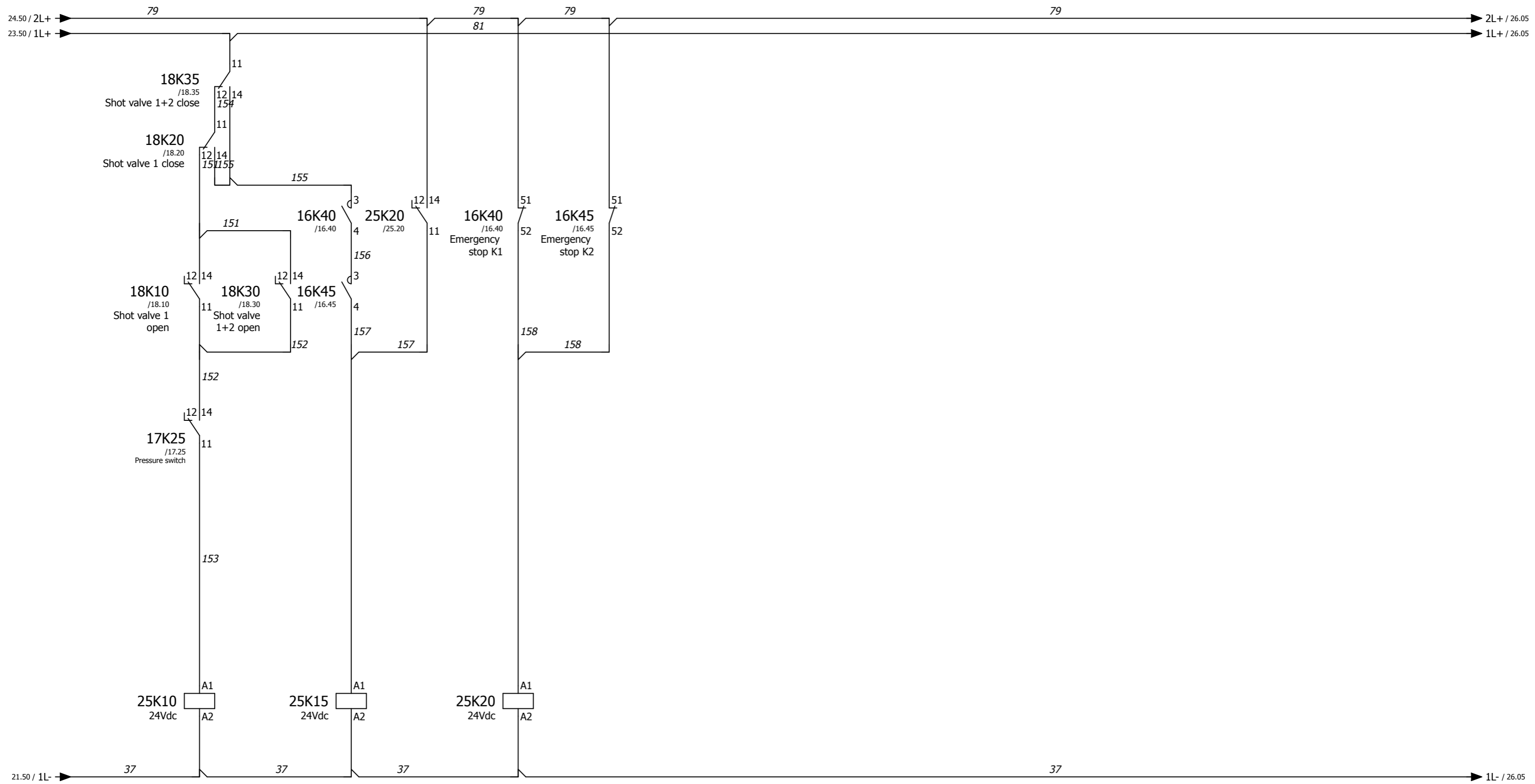
Project name:
900 VMB RS FREQ MKII
E09296-RC



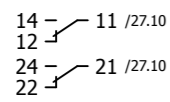
Page description:
Current measurement

Customer: **Blastrac**

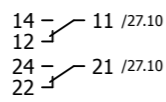
Drawing number: **PJ14.1159.02**



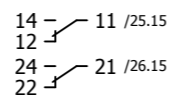
Open Valve 1
(close actuator)

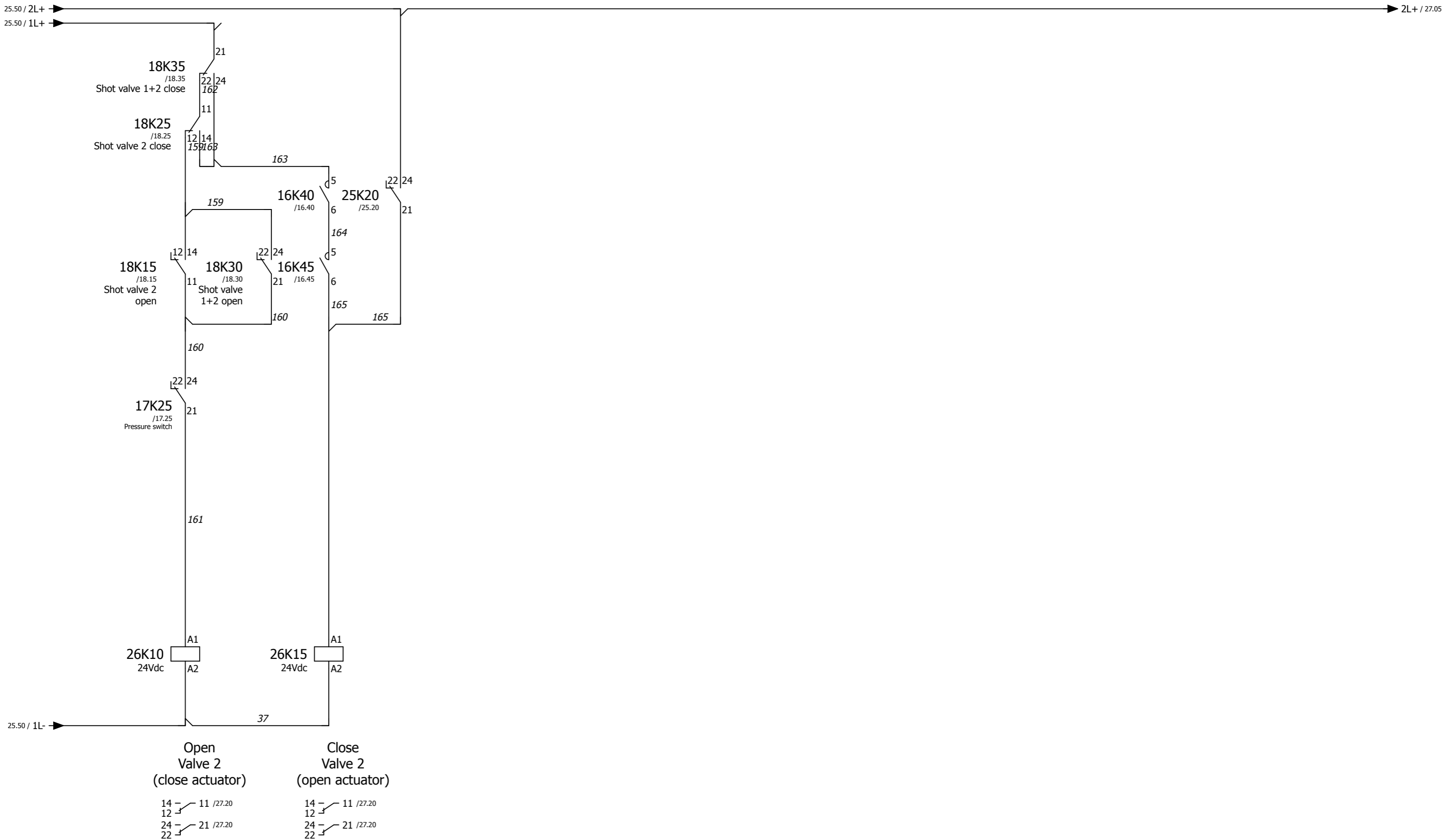


Close Valve 1
(open actuator)

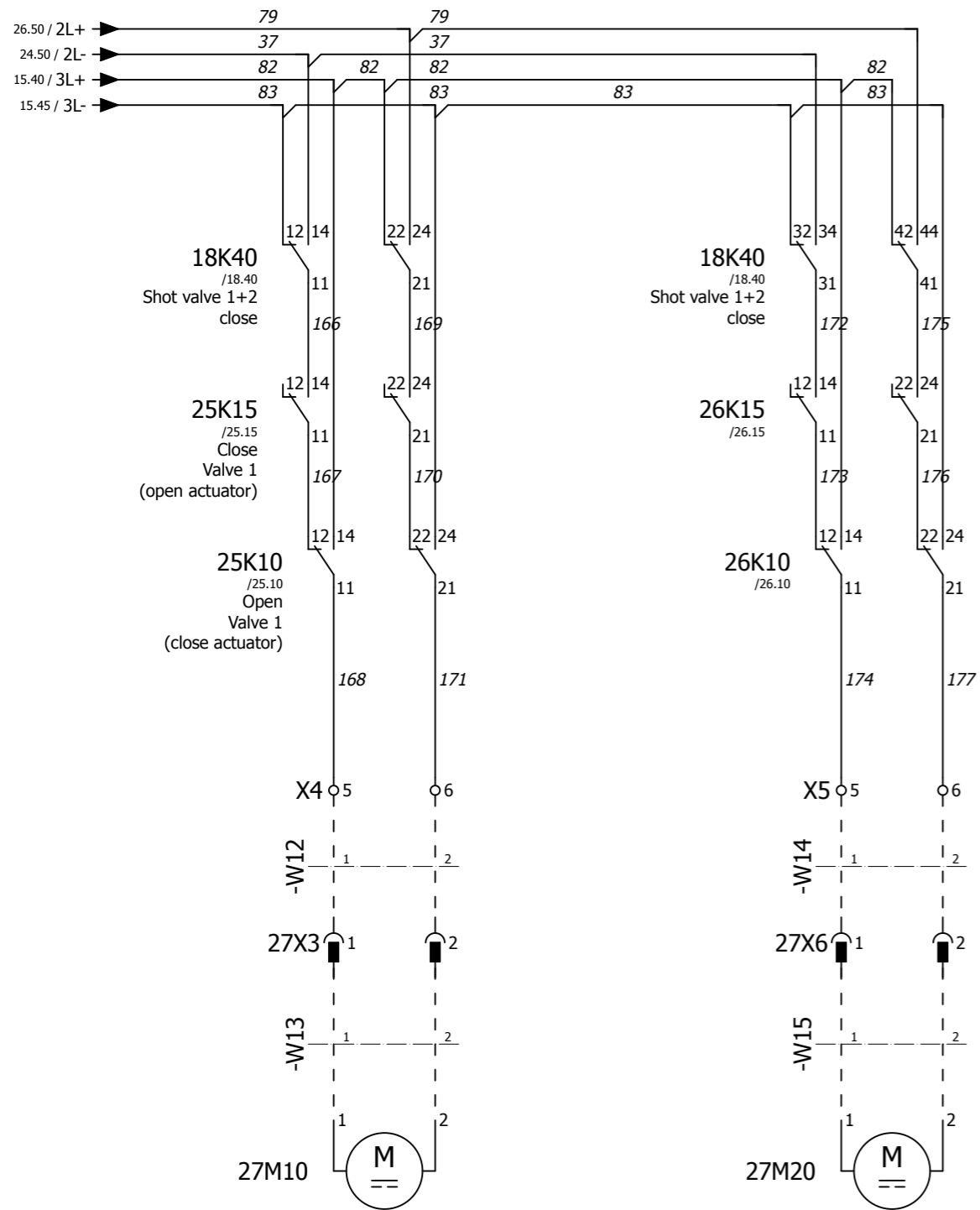


Shot valve 1+2
Close e-stop





			Date	22-10-2014	Project name: 900 VMB RS FREQ MKII E09296-RC		Page description:	Grit valve 2	Customer:	Blastrac	= E1		
			Ed.	HVDB							+		
			Appr	--						Drawing number:	PJ14.1159.02	Page	26
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Ed.	HVDB	
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Last print	12-11-2014	
Modification	Date	Name

Project name:
900 VMB RS FREQ MKII
E09296-RC



Page description:
Grit valves

Customer:	Blastrac	= E1
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Terminal diagram

Page / column	Cable name				Strip =E1+-X1				Cable name				function text
	Connection point	Target designation	jumper	terminal	Connection point	Target designation	cable type	-W1	-W2	-W3	-W5		
/11.10	2	-20KM10		U1	U1	-11M10	1					M1	
/11.10	4	-20KM10		V1	V1	-11M10	2					=	
/11.10	6	-20KM10		W1	W1	-11M10	3					=	
/11.15	2	-20KD20		W2	W2	-11M10	4					=	
/11.15	4	-20KD20		U2	U2	-11M10	5					=	
/11.15	6	-20KD20		V2	V2	-11M10	6					=	
/11.30	2	-21KM10		U1	U1	-11M30		1				M2	
/11.30	4	-21KM10		V1	V1	-11M30		2				=	
/11.30	6	-21KM10		W1	W1	-11M30		3				=	
/11.35	2	-21KD20		W2	W2	-11M30		4				=	
/11.35	4	-21KD20		U2	U2	-11M30		5				=	
/11.35	6	-21KD20		V2	V2	-11M30		6				=	
/12.15		-12U10-X2.1		13	U1	-12M10			1			Lift motor left	
/12.15		-12U10-X2.1		14	V1	-12M10			2			=	
/12.15		-12U10-X2.1		15	W1	-12M10			3			=	
/12.15		-12U10-X2.1		PE	PE	-12M10			PE			=	
/13.15		-13U10-X2.1		16	U1	-13M10				1		Lift motor right	
/13.15		-13U10-X2.1		17	V1	-13M10				2		=	
/13.15		-13U10-X2.1		18	W1	-13M10				3		=	
/13.15		-13U10-X2.1		PE	PE	-13M10				PE		=	

Terminal diagram

Page / column	Cable name				Strip =E1+-X3				Cable name				function text			
	cable type				Connection point	Target designation	jumper	terminal	Connection point	Target designation	cable type					
/17.10					x1	-16H50		1	1	-17X1						Wall sensor 1
/17.10					A1	-17K10		2	2	-17X1						=
/17.15								3								=
/17.15					A2	-17K10		4	3	-17X1						=
					A2	-17K20										
/17.20								5	11	-17S20						Winch max. up
/17.20					A1	-17K20		6	12	-17S20		BK				=
/17.25					11	-12U50		7	1	-17X4		BK/WH				Pressure switch
/17.25					A1	-17K25	8	2	-17X4			1			=	
												2				

Terminal diagram

Page / column	Cable name					Strip =E1+-X25					Cable name					function text
	Connection point	Target designation	jumper	terminal	Connection point	Target designation	cable type	-W16								
/28.05	2	-15F30		1	59	-X10	1							24VDC voeding		
/28.05				2	61	-X10	2							=		
/28.10				3	57	-X10	3							=		
/28.10				4	16	-X10	4							NC		
/28.10				5	20	-X10	5							=		
/28.10				6	23	-X10	6							=		
/28.10				7	52	-X10	7							Horn		
/28.15	A1	-17K30		8	56	-X10	8							=		
/28.15	28	-12U10-X3		9	51	-X10	9							Start Blast motors		
/28.15	14	-17K20		10	54	-X10	10							Start stop lift motors		
/28.15	E4	-12U10-X3		11	53	-X10	11							Lift 1 up		
/28.15	24	-17K20		12	50	-X10	12							Lift 2 down		
/28.15	E4	-13U10-X3		13	49	-X10	13							Lift 2 up		
/28.15	A1	-17K25.1		14	45	-X10	14							Lift1 down		
/28.20				15	41	-X10	15							=		
/28.20				16	37	-X10	16							=		
/28.20				17	33	-X10	17							=		
/28.20				18	29	-X10	18							=		
/28.20	14	-21KD20		19	25	-X10	19							Blastmotor is on		
/28.20	22	-20KM10		20	26	-X10	20							Blastmotor is off		
/28.25	21	-17K10		21	22	-X10	21							Wallsensor ok		
/28.25	41	-17K25		22	18	-X10	22							Pressure ok		
/28.25	A1	-18K10		23	14	-X10	23							Shotvalve 1 open		
/28.25	A1	-18K15		24	10	-X10	24							Shotvalve 2 open		
/28.25	A1	-22KM25		25	6	-X10	25							Emergency down left winch		
/28.25	A1	-23KM25		26	2	-X10	26							Emergency down right winch		
/28.25				27	9	-X10	27							EM-stop circuit 1		
/28.30	A1	-16K10		28	13	-X10	28							=		
/28.30				29	17	-X10	29							EM-stop circuit 2		
/28.30	A1	-16K15		30	21	-X10	30							=		
/28.30		-12U10-X2.2		31	1	-X10	31							24VDC voeding		
/28.30		-13U10-X2.2		32	5	-X10	32							0VDC voeding		
/28.30	-	-15U40														
/28.30	A1	-18K20		33	3	-X10	33							Shotvalve 1 close		
/28.30	A1	-18K25		34	7	-X10	34							Shotvalve 2 close		

Terminal diagram

Page / column	Cable name					Strip =E1+-X25					Cable name					function text									
	cable type					Connection point	Target designation	jumper	terminal	Connection point	Target designation	cable type													
/28.35						A1	-18K30		35	4	-X10							35							Shotvalve 1+2 open
/28.35						A1	-18K35		36	8	-X10							36							Shotvalve 1+2 close
/28.35						8	-12U10-X3		37	39	-X10							37							Speed lift motor 1
/28.35						8	-13U10-X3		38	35	-X10							38							Speed lift motor 2
/28.35						10	-24U10		39	43	-X10							39							I motor 1
/28.35						10	-24U30		40	47	-X10							40							I motor 2
/28.40									41	11	-X10							41							NC

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Project name:
900 VMB RS FREQ MKII
 E09296-RC



Page description:
 Terminal Diagram =E1+-X25

Customer:
Blastrac
 Drawing number:
PJ14.1159.02

Parts list

device tag	Quantity	designation	Type number	Brand	Blastrac number
-X1	5	Eindsteun V4 klein 9708/2S35	EINDSTEUN V4 CON.ACC	Wieland	E07828
-X1	12	Tension clamp terminal 2*6(10)mm	WEID ZDU 6	Weidmuller	
-X1	2	End plate Beige for ZDU 6	WEID ZAP/TW 5 DB	Weidmuller	E08222
-X1	6	Tension clamp terminal 2*2.5 beige	WEID ZDU 2.5	Weidmuller	E05166
-X1	2	Earth terminal for ZDU 2.5 2*2.5(4)mm	WEID ZPE 2.5	Weidmuller	E05167
-X1	2	End plate Beige for ZDU 2.5	WEID ZAP/TW 1	Weidmuller	E05168
-X2	8	Tension clamp terminal 2*2.5 beige	WEID ZDU 2.5	Weidmuller	E05166
-X2	2	End plate Beige for ZDU 2.5	WEID ZAP/TW 1	Weidmuller	E05168
-X2	3	Eindsteun V4 klein 9708/2S35	EINDSTEUN V4 CON.ACC	Wieland	E07828
-X3	4	tension clamp terminal multi level 2*2.5	WEID ZDK 2.5	Weidmuller	E05169
-X3	1	End plate Beige for ZDK 2.5 multi level	WEID ZAP/TW ZDK2.5 DB	Weidmuller	E05171
-X4	1	tension clamp terminal multi level 2*2.5	WEID ZDK 2.5	Weidmuller	E05169
-X4	1	End plate Beige for ZDK 2.5 multi level	WEID ZAP/TW ZDK2.5 DB	Weidmuller	E05171
-X5	1	tension clamp terminal multi level 2*2.5	WEID ZDK 2.5	Weidmuller	E05169
-X5	1	End plate Beige for ZDK 2.5 multi level	WEID ZAP/TW ZDK2.5 DB	Weidmuller	E05171
-X6	2	tension clamp terminal multi level 2*2.5	WEID ZDK 2.5	Weidmuller	E05169
-X6	1	End plate Beige for ZDK 2.5 multi level	WEID ZAP/TW ZDK2.5 DB	Weidmuller	E05171
-X6	1	Eindsteun V4 klein 9708/2S35	EINDSTEUN V4 CON.ACC	Wieland	E07828
-X25	13	tension clamp terminal multi level 2*2.5	WEID ZDK 2.5	Weidmuller	E05169
-X25	1	End plate Beige for ZDK 2.5 multi level	WEID ZAP/TW ZDK2.5 DB	Weidmuller	E05171
-X25	1	Eindsteun V4 klein 9708/2S35	EINDSTEUN V4 CON.ACC	Wieland	E07828
-7M05	1	Wall mount encl 1200*600*300 IP66	MAS 1206030R5		
-7M05	1	M.rail galvanized,7,5x35MM 2M	TS35 MOUNT.RAIL GROOVE	Generic	E07835
-7M05	1	Mount.drain BxH 25x60 MM vpp=60	T1-E 25X60 MOUNT.DRAIN	Generic	E07972
-7M05	3	Internal wire 1.5mm2 black	MONTAGESNOER 1.5MM Z	LAPP	E08134
-7M05	6	Internal wire 16mm2 black	MONTAGESNOER 16MM ZW	LAPP	E08218
-7M05	6	Internal wire 6mm2 black	MONTAGESNOER 6MM ZW	LAPP	E08138
-7M05	5	Internal wire 1.5 mm2 darkblue	MONTAGESNOER 1.5 MM D. BL.	LAPP	
-7M05	3	Internal wire 1.5mm2 white/blue	MONTAGESNOER 1.5MM WT/BL	LAPP	
-7M05	50	Internal wire 1mm2 darkblue	MONTAGESNOER 1MM D. BL.	LAPP	E08184
-7M05	10	Internal wire 1.0mm2 white/Dark blue	MONTAGESNOER 1MM WT/D.BL	LAPP	E08320
-7M05	200	Ferrule 1mm2 red insulated	G 490	Calpe	E07849
-7M05	100	Ferrule 2x1mm2 red insulated	G 490-TWIN MONT.A.H.	Calpe	E07850
-7M05	6	Ferrule 1,5mm2 black insulated	G 491 MONT.A.H.	Calpe	E07851
-7M05	3	Ferrule 2x1,5mm2 zwart insulated	G 491-TWIN MONT.A.H.	Calpe	E08013
-7M05	24	Ferrule 6mm2 green insulated	G 494 MONT.A.H.	Calpe	E07865
-7M05	12	Ferrule 2x6mm2 yellow insulated	G 494-TWIN MONT.A.H.	Calpe	E08140
-7M05	26	Ferrule 1*16mm2 ivory insulated	G 496-N ADERHULS 16	Calpe	9999-0001
-7M05	12	Ferrule 2*16mm2 blue insulated	G 496-TWIN	Calpe	E08159
-7M05	1	ground rail M6 63A 12x3 /m	GROUNDRAIL 1264/56		E07903
-7M05	1	Mont.goot BXH 60X80 MM vpp=36	T1-E 60X80 MONT.GOOT	Generic	
-7M05	1	Deurarretering voor MAS	ADO201	Eldon	
-10QM10	1	Main switch complete 175A	VCCF6	Schneider Electric	
-11Q10	1	Motor protection switch 37-50A	GV3-P50	Schneider Electric	E07907
-11Q10	1	Hulpcont. front voor GV2-ME 2xNO	GV2-AE20	Schneider Electric	333-3208
-11Q30	1	Motor protection switch 37-50A	GV3-P50	Schneider Electric	E07907
-11Q30	1	Hulpcont. front voor GV2-ME 2xNO	GV2-AE20	Schneider Electric	333-3208
-12F15	1	Circuit breaker AB 3P 10A C-kar	C60N-1492-SPM3C100	Allen Bradley	E05111
-12F15	1	Aux. contacr 1m/1v 1492 serie	189-AR11		E01559
-12Q45	1	Motor circuit breaker 0.63...1 A thermomagnet	GV2-RT05	Schneider Electric	
-12Q45.1	1	Motor circuit breaker 0.25-0.4A thermomagnet	GV2-RT03	Schneider Electric	
-12Q45.1	1	Plug in aux. front for GV2-ME 1xNO +1xNC	GV-AE11	Schneider Electric	333-3455
-12R20	1	Brakeresistor 180 OHM 300W 100%ed	LENZ ERBD180R300W	Lenze	
-12T40	1	Transformer Sitas 250VA 480V 550..208V/24V UL/CSA	4AM4042-8DN00-0EA0	Siemens	
-12U10	1	E82EV222K4C200 3f 320..550VAC	FREQ.REG 2.2 KW	Lenze BV	
-12U10	1	E82ZAFS standaard I/O inbouw	FREQ.REG I/O	Lenze	E00482

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Parts list

device tag	Quantity	designation	Type number	Brand	Blastrac number
-12U10	1	EMF2102IBC001/LECOM-A/B for RS485 or RS323	13111809		
-12U50	1	3-phase monitoring relays	DPA 01 C M44	Carlo Gavazzi	E07955
-13F15	1	Circuit breaker AB 3P 10A C-kar	C60N-1492-SPM3C100	Allen Bradley	E05111
-13F15	1	Aux. contac 1m/1v 1492 serie	189-AR11		E01559
-13Q45	1	Motor circuit breaker 0.25-0.4A thermomagnet	GV2-RT03	Schneider Electric	
-13Q45	1	Plug in aux. front for GV2-ME 1xNO +1xNC	GV-AE11	Schneider Electric	333-3455
-13R20	1	Brakeresistor 180 OHM 300W 100%ed	LENZ ERBD180R300W	Lenze	
-13U10	1	E82EV222K4C200 3f 320..550VAC	FREQ.REG 2.2 KW	Lenze BV	
-13U10	1	E82ZAFS standaard I/O inbouw	FREQ.REG I/O	Lenze	E00482
-13U10	1	EMF2102IBC001/LECOM-A/B for RS485 or RS323	13111809		
-15F25	1	Circuit breaker AB 1P 6A C-kar	C60N-1492-SPM1C060	Allen Bradley	E05160
-15F30	1	Circuit breaker AB 1P 6A C-kar	C60N-1492-SPM1C060	Allen Bradley	E05160
-15Q15	1	Motor circuit breaker 0.63...1 A thermomagnet	GV2-RT05	Schneider Electric	
-15U40	1	DC-DC-converter;ingang 12-24V DC, uitgang:5-15V DC/2A	MINI-PS-12-24DC/ 5-15DC/2	Phoenix Contact	
-15V15	1	Powersupply 360-520Vac->24Vdc 10A	MURR EVOLUTION 10-3X360-520/24	Murrelektronik B.V.	E08311
-16H50	1	White complete pilot light Ø22 plain lens with integral LED	XB5-AVB1	Schneider Electric	E08229
-16H50	1	Legend holder 30 x 50 mm for legend 18 x 27 mm unmarked	ZBZ-35	Schneider Electric	E05080
-16K10	1	Interface relay 1CO 6A@220VAC	WEID MRZ 24VDC 1CO	Weidmuller	
-16K15	1	Interface relay 1CO 6A@220VAC	WEID MRZ 24VDC 1CO	Weidmuller	
-16K40	1	Contacto 4P 20A 400VAC coil 24VDC 1NO/1NC	LC1-DT20-BD	Schneider Electric	E08314
-16K40	1	Auxiliary contact block - 2 NC - screw-clamps terminals	LAD-N02	Schneider Electric	E07818
-16K45	1	Contacto 4P 20A 400VAC coil 24VDC 1NO/1NC	LC1-DT20-BD	Schneider Electric	E08314
-16K45	1	Auxiliary contact block - 2 NC - screw-clamps terminals	LAD-N02	Schneider Electric	E07818
-16NS20	1	Red Ø40 Emergency switching off pushbutton head Ø22 latching	ZB4-BS844	Schneider Electric	E08437
-16NS20	1	Body for control button - Ø 22 - 2NC	ZB4-BZ104	Schneider Electric	E01333
-16NS20	1	Sticker emergency stop yellow/red	EMERGENCY STOP STICKER	De Vries	E07832
-16NS20	1	Red padlockable guard for Ø40 mushroom head	ZBZ-1604	Schneider Electric	
-16U35	1	Module XPSAF - Emergency stop - 24 V AC DC	XPS-AF5130	Schneider Electric	E01328
-17H35	1	Red complete pilot light Ø22 plain lens with integral LED 24	XB5-AVB4	Schneider Electric	E05161
-17H35	1	Legend holder 30 x 50 mm for legend 18 x 27 mm unmarked	ZBZ-35	Schneider Electric	E05080
-17K10	1	relay 2P,+LED+testbut.+diode 24VDC/5A	OMRON G2R-2-SNDI 24DC	Omron	E05187
-17K10	1	Clip for socket P2RF-08S	OMRON P2CM-S	Omron	E05188
-17K10	1	Screwless clamp terminal socket for G2R-2	OMRON P2RF-08-S	Omron	E07986
-17K20	1	relay 2P,+LED+testbut.+diode 24VDC/5A	OMRON G2R-2-SNDI 24DC	Omron	E05187
-17K20	1	Clip for socket P2RF-08S	OMRON P2CM-S	Omron	E05188
-17K20	1	Screwless clamp terminal socket for G2R-2	OMRON P2RF-08-S	Omron	E07986
-17K25	1	Interface relay 4W 24Vdc	OMRON MY4IN1D2 24VDC	Omron	E05194
-17K25	1	Clip for socket PYF14S	OMRON PYCM-14S	Omron	E08270
-17K25	1	Srewless clamp terminal socket MY4 serie	OMRON PYF14S	Omron	E08271
-17K25.1	1	Interface relay 1CO 6A@220VAC	WEID MRZ 24VDC 1CO	Weidmuller	
-17K30	1	Interface relay 1CO 6A@220VAC	WEID MRZ 24VDC 1CO	Weidmuller	
-17K40	1	Interface relay 4W 24Vdc	OMRON MY4IN1D2 24VDC	Omron	E05194
-17K40	1	Clip for socket PYF14S	OMRON PYCM-14S	Omron	E08270
-17K40	1	Srewless clamp terminal socket MY4 serie	OMRON PYF14S	Omron	E08271
-17K50	1	relay 2P,+LED+testbut.+diode 24VDC/5A	OMRON G2R-2-SNDI 24DC	Omron	E05187
-17K50	1	Clip for socket P2RF-08S	OMRON P2CM-S	Omron	E05188
-17K50	1	Screwless clamp terminal socket for G2R-2	OMRON P2RF-08-S	Omron	E07986
-17X1	1	Coupler hoods, height 60.5mm	T 700 623 MS	Hemmink B.V.	
-17X1	1	Hoods, height 57mm	T 700 625 MS	Hemmink B.V.	
-17X1	1	busbinnenwerk ser.A 4P+A 10A 250V	700.104		
-17X1	1	penbinnenwerk ser.A 4P+A 10A 250V	700.204		
-17X4	1	Coupler hoods, height 60.5mm	T 700 623 MS	Hemmink B.V.	
-17X4	1	Hoods, height 57mm	T 700 625 MS	Hemmink B.V.	
-17X4	1	busbinnenwerk ser.A 4P+A 10A 250V	700.104		
-17X4	1	penbinnenwerk ser.A 4P+A 10A 250V	700.204		
-18K10	1	relay 2P,+LED+testbut.+diode 24VDC/5A	OMRON G2R-2-SNDI 24DC	Omron	E05187

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Modification		Date		Name		Last print		12-11-2014							

Parts list

device tag	Quantity	designation	Type number	Brand	Blastrac number
-18K10	1	Clip for socket P2RF-08S	OMRON P2CM-S	Omron	E05188
-18K10	1	Screwless clamp terminal socket for G2R-2	OMRON P2RF-08-S	Omron	E07986
-18K15	1	relay 2P,+LED+testbut.+diode 24VDC/5A	OMRON G2R-2-SNDI 24DC	Omron	E05187
-18K15	1	Clip for socket P2RF-08S	OMRON P2CM-S	Omron	E05188
-18K15	1	Screwless clamp terminal socket for G2R-2	OMRON P2RF-08-S	Omron	E07986
-18K20	1	Interface relay 1CO 6A@220VAC	WEID MRZ 24VDC 1CO	Weidmuller	
-18K25	1	Interface relay 1CO 6A@220VAC	WEID MRZ 24VDC 1CO	Weidmuller	
-18K30	1	relay 2P,+LED+testbut.+diode 24VDC/5A	OMRON G2R-2-SNDI 24DC	Omron	E05187
-18K30	1	Clip for socket P2RF-08S	OMRON P2CM-S	Omron	E05188
-18K30	1	Screwless clamp terminal socket for G2R-2	OMRON P2RF-08-S	Omron	E07986
-18K35	1	Interface relay 4W 24Vdc	OMRON MY4IN1D2 24VDC	Omron	E05194
-18K35	1	Clip for socket PYF14S	OMRON PYCM-14S	Omron	E08270
-18K35	1	Screwless clamp terminal socket MY4 serie	OMRON PYF14S	Omron	E08271
-18K40	1	Interface relay 4W 24Vdc	OMRON MY4IN1D2 24VDC	Omron	E05194
-18K40	1	Clip for socket PYF14S	OMRON PYCM-14S	Omron	E08270
-18K40	1	Screwless clamp terminal socket MY4 serie	OMRON PYF14S	Omron	E08271
-20KD20	1	Contactactor 15kw 400VAC coil 24VDC 1NO/1NC	LC1-D32-BD	Schneider Electric	
-20KM10	1	Contactactor 15kw 400VAC coil 24VDC 1NO/1NC	LC1-D32-BD	Schneider Electric	
-20KS25	1	Contactactor 15kw 400VAC coil 24VDC 1NO/1NC	LC1-D32-BD	Schneider Electric	
-20KT30	1	Time delay relay for star-delta starter - 0.05.1 s - coil 24/42..48 Vac/Vdc or 110...240 VAC	VE7-YA12BU	Schneider Electric	E01310
-20V35	1	urenteller railmontage ABB 12/48Vdc	E233-12/48 VDC	ABB	
-21KD20	1	Contactactor 15kw 400VAC coil 24VDC 1NO/1NC	LC1-D32-BD	Schneider Electric	
-21KM10	1	Contactactor 15kw 400VAC coil 24VDC 1NO/1NC	LC1-D32-BD	Schneider Electric	
-21KS25	1	Contactactor 15kw 400VAC coil 24VDC 1NO/1NC	LC1-D32-BD	Schneider Electric	
-21KT30	1	Time delay relay for star-delta starter - 0.05.1 s - coil 24/42..48 Vac/Vdc or 110...240 VAC	VE7-YA12BU	Schneider Electric	E01310
-22KM25	1	Contactactor 4,0kW 400VAC coil 24VDC 1NO/1NC	LC1-D09-BD	Schneider Electric	333-3210
-23KM25	1	Contactactor 4,0kW 400VAC coil 24VDC 1NO/1NC	LC1-D09-BD	Schneider Electric	333-3210
-24U10	1	progr.stroomomvorm 0-55A UL	MCR-S-10/50-UI-DC1-N	Phoenix Contact	E08029
-24U30	1	progr.stroomomvorm 0-55A UL	MCR-S-10/50-UI-DC1-N	Phoenix Contact	E08029
-25K10	1	relay 2P,+LED+testbut.+diode 24VDC/5A	OMRON G2R-2-SNDI 24DC	Omron	E05187
-25K10	1	Clip for socket P2RF-08S	OMRON P2CM-S	Omron	E05188
-25K10	1	Screwless clamp terminal socket for G2R-2	OMRON P2RF-08-S	Omron	E07986
-25K15	1	relay 2P,+LED+testbut.+diode 24VDC/5A	OMRON G2R-2-SNDI 24DC	Omron	E05187
-25K15	1	Clip for socket P2RF-08S	OMRON P2CM-S	Omron	E05188
-25K15	1	Screwless clamp terminal socket for G2R-2	OMRON P2RF-08-S	Omron	E07986
-25K20	1	relay 2P,+LED+testbut.+diode 24VDC/5A	OMRON G2R-2-SNDI 24DC	Omron	E05187
-25K20	1	Clip for socket P2RF-08S	OMRON P2CM-S	Omron	E05188
-25K20	1	Screwless clamp terminal socket for G2R-2	OMRON P2RF-08-S	Omron	E07986
-26K10	1	relay 2P,+LED+testbut.+diode 24VDC/5A	OMRON G2R-2-SNDI 24DC	Omron	E05187
-26K10	1	Clip for socket P2RF-08S	OMRON P2CM-S	Omron	E05188
-26K10	1	Screwless clamp terminal socket for G2R-2	OMRON P2RF-08-S	Omron	E07986
-26K15	1	relay 2P,+LED+testbut.+diode 24VDC/5A	OMRON G2R-2-SNDI 24DC	Omron	E05187
-26K15	1	Clip for socket P2RF-08S	OMRON P2CM-S	Omron	E05188
-26K15	1	Screwless clamp terminal socket for G2R-2	OMRON P2RF-08-S	Omron	E07986
-27X3	1	Coupler hoods, height 60.5mm	T 700 623 MS	Hemmink B.V.	
-27X3	1	Hoods, height 57mm	T 700 625 MS	Hemmink B.V.	
-27X3	1	busbinnenwerk ser.A 4P+A 10A 250V	700.104		
-27X3	1	penbinnenwerk ser.A 4P+A 10A 250V	700.204		
-27X6	1	Coupler hoods, height 60.5mm	T 700 623 MS	Hemmink B.V.	
-27X6	1	Hoods, height 57mm	T 700 625 MS	Hemmink B.V.	
-27X6	1	busbinnenwerk ser.A 4P+A 10A 250V	700.104		
-27X6	1	penbinnenwerk ser.A 4P+A 10A 250V	700.204		
-28R50	1	Resistor 120 Ohm 500mW	GEN RES 120 OHM 500MW	Generic	E08319
-28U05	1	Radio remote set 900vmb	AK BLASTRAC 900VMB	Akerströms	