



Blastrac bv

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Project description 900 DC 3X400V 50-60HZ

Drawing number PJ14.1160.05.0

Blastrac number E10282

Power supply 400V....480 50-60Hz
Input lead Input lead
Control Voltage 24Vac
Status AS BUILT after SAT
Year of Manufacturing 2014

PROJECT STATE

STATUS	DATE	INITIALS
Preliminary	29-10-2014	HvdB
Checked	06-11-2014	HvdB
For Approval	06-11-2014	HvdB
Approved	06-11-2014	BvE
Release for Production	07-11-2014	HvdB
As Built after FAT	02-12-2014	HvdB
As Built after SAT	04-12-2014	HvdB

Created on 29-10-2014 by HvdB

Edit date 19-2-2015 by KG

Number of pages 18

Modification	Date	Name	Last print	Project name:	Page description:	Customer:	Page
	19-2-2015		19-2-2015	900 DC 3X400V 50-60HZ	Titlepage /Cover sheet	ART4	1
				E10282			

WIRE COLOR

Main Voltage 400...480V

Phase	Colors
L1	- Black
L2	- Black
L3	- Black
N	- Light Blue (ral 5015)
Earth / PE	- Yellow/Green

Control Voltage

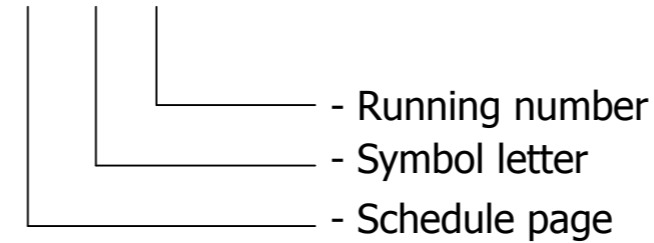
Phase (24VAC)	- Red
Hook-up wire	- Red
Neutral (24VAC)	- Red
Plus (24VDC)	- Dark blue (ral 5010)
Hook-up wire	- Dark blue (ral 5010)
Minus / Ground (24VDC)	- White blue

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

Potential free - Orange

SYMBOL CODE

11 F 11

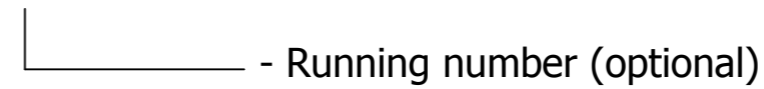


Symbol abbreviations

A	Controller (PLC I/O)
B	Sensor
E	Lighting/heating
ES	Emergency stop
F	Fuse/Circuitbreaker
H	Display device / Pilot light
JB	Junctionbox
K	Contactor/Relay coil
M	Motor
Q	Thermal overload / motor protection
QM	Main switch
R	Resistor/Potentiometer
S	Switch/Pushbutton/
SH	Illuminated switch
T	Transformer
U	Controller/DC supply
V	Power supply
W	Cable
X	Terminal strip/Plug/Socket
Y	Solenoid valve

CORE CODE

11 11

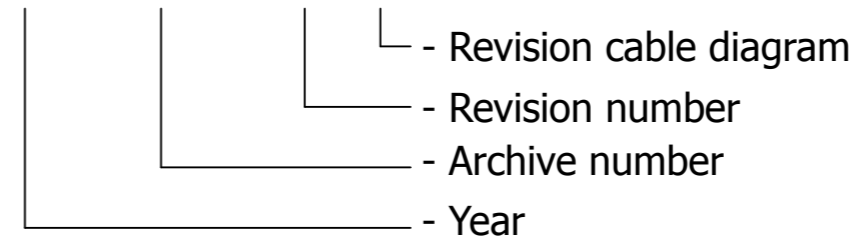


Colour abbreviations
Conform IEC 60757

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

DRAWING NUMBER

PJ##.#####.##.#

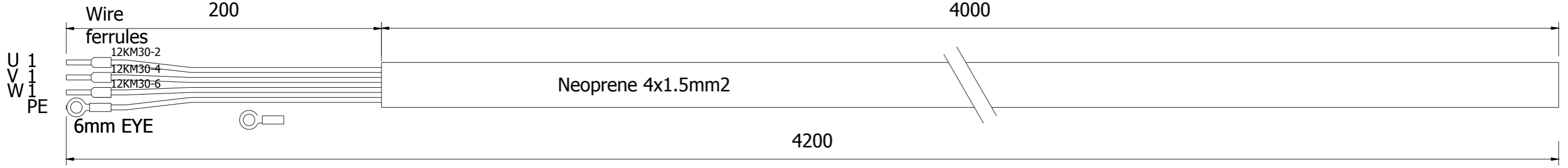


PWR = Power cable
INSTR = Instrument cable
SC = screened cable (screen is also PE)

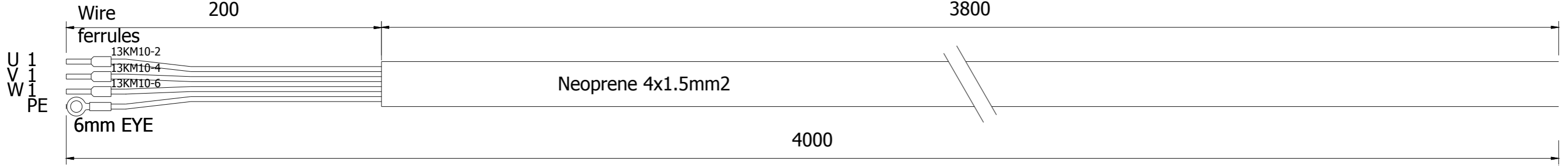
The wire cross sections in this diagram are referring to a maximum length of 30m at an ambient temperature of 25°C they are only a recommendation, any change in length and ambient temperature will result in cable core size change.

	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		runninghour 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				

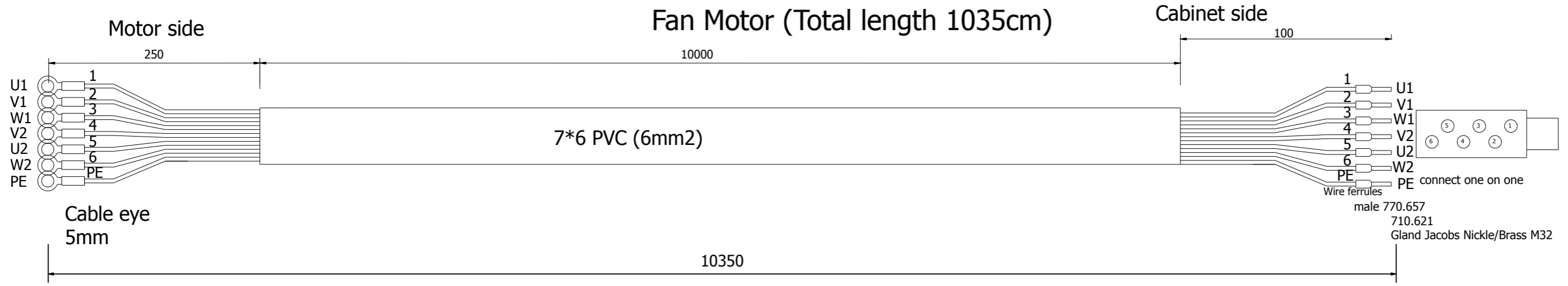
Compressor (total length 420cm)



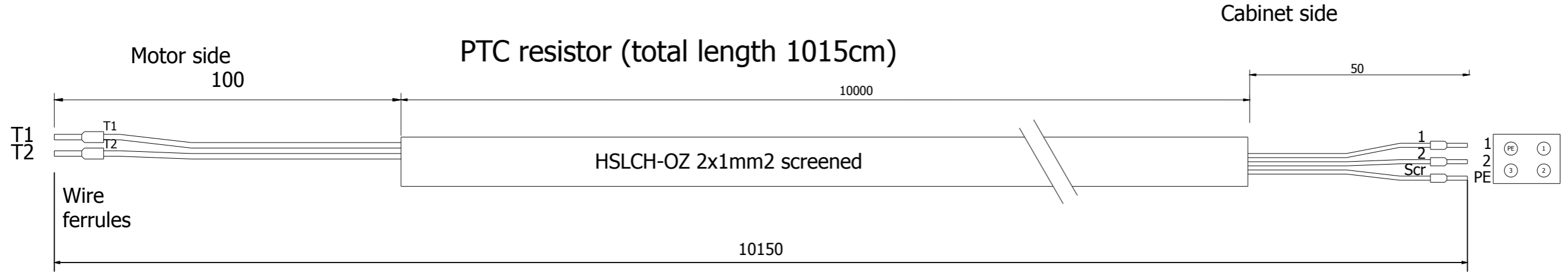
Rotary Valve (total length 400cm)



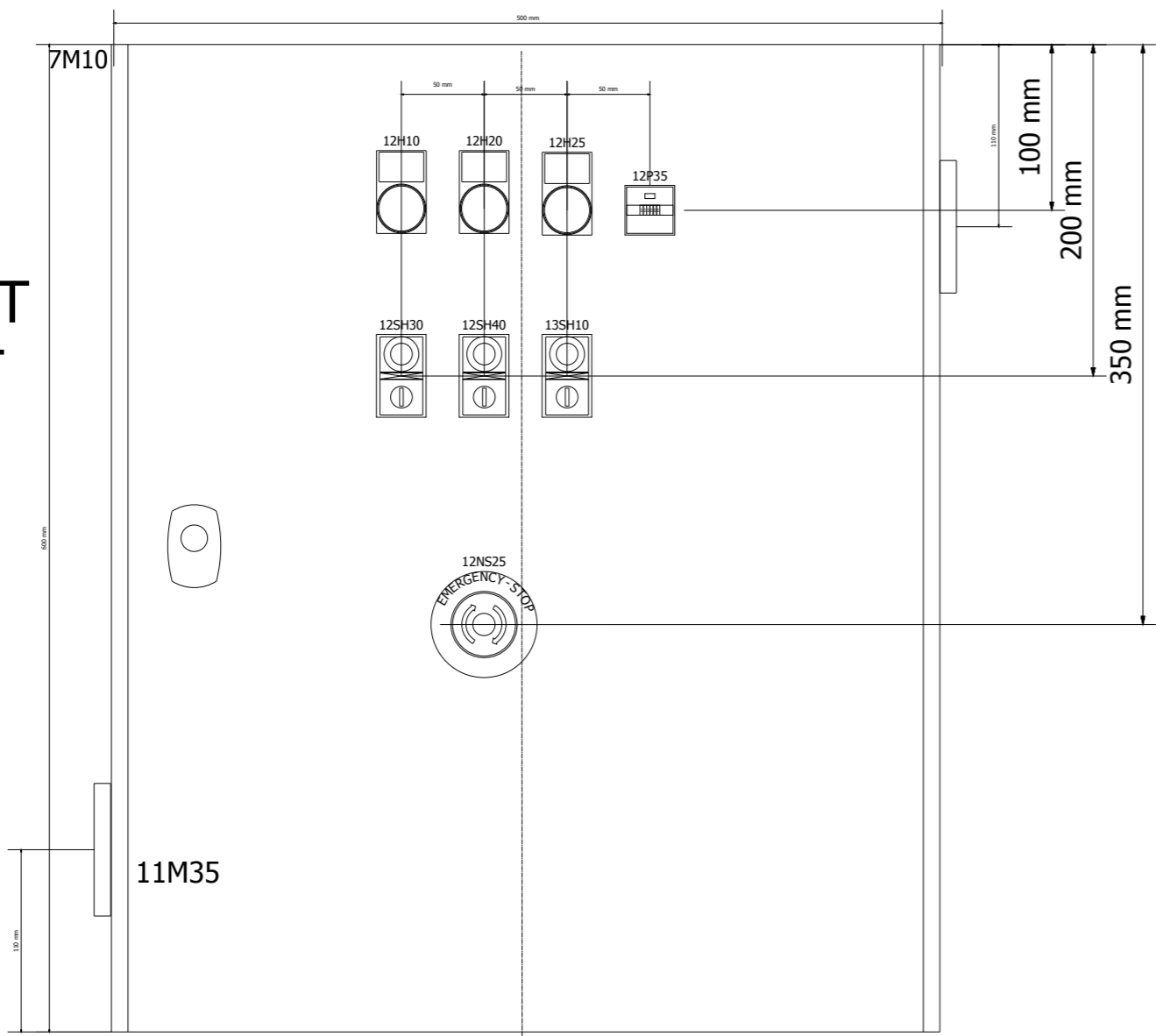
Fan Motor (Total length 1035cm)



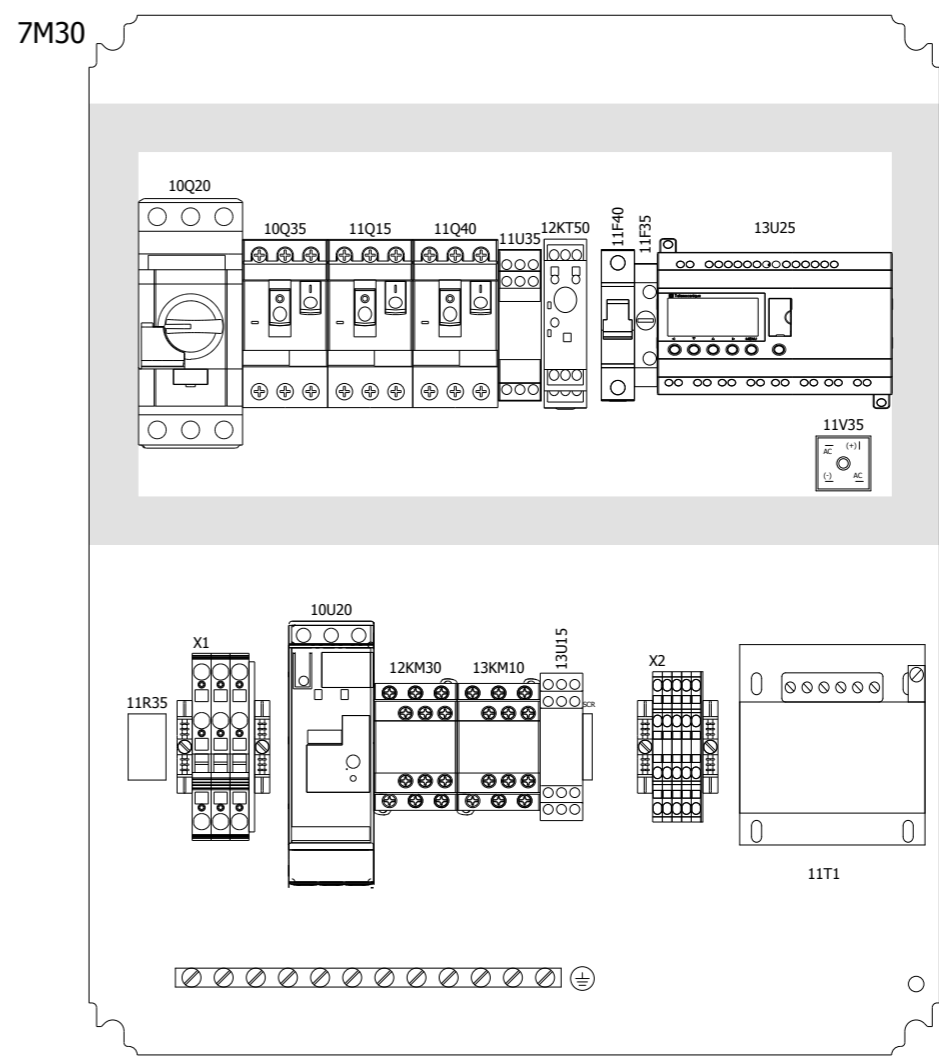
PTC resistor (total length 1015cm)



CABINET FRONT VIEW

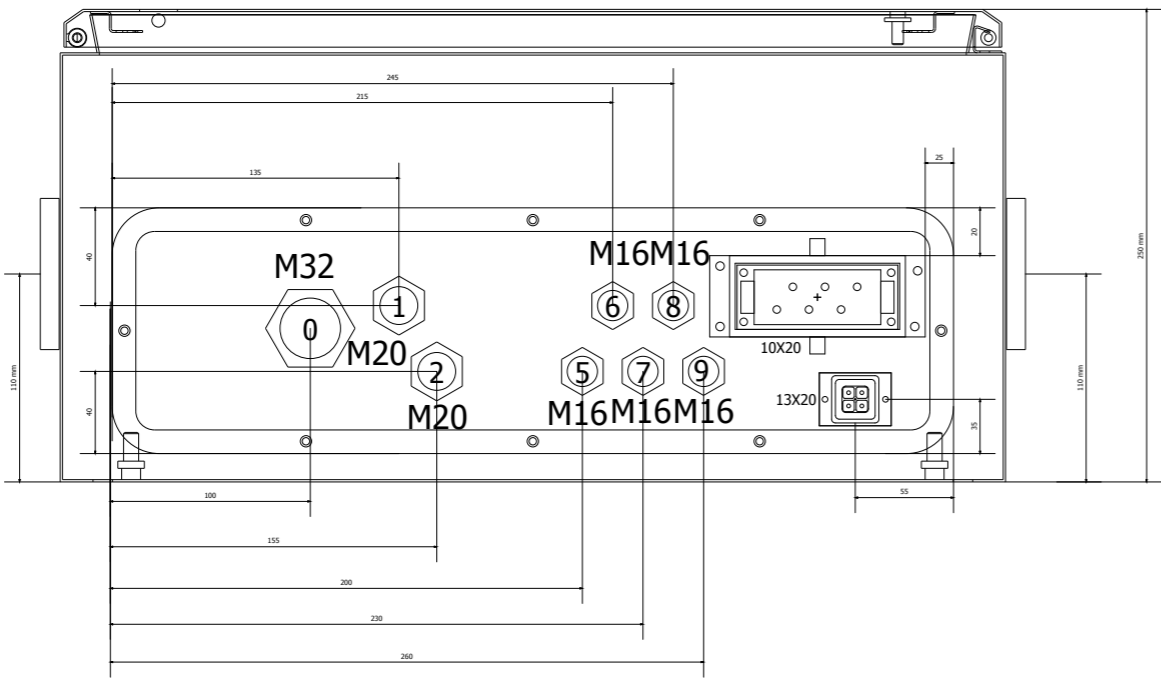


MOUNTING PLATE



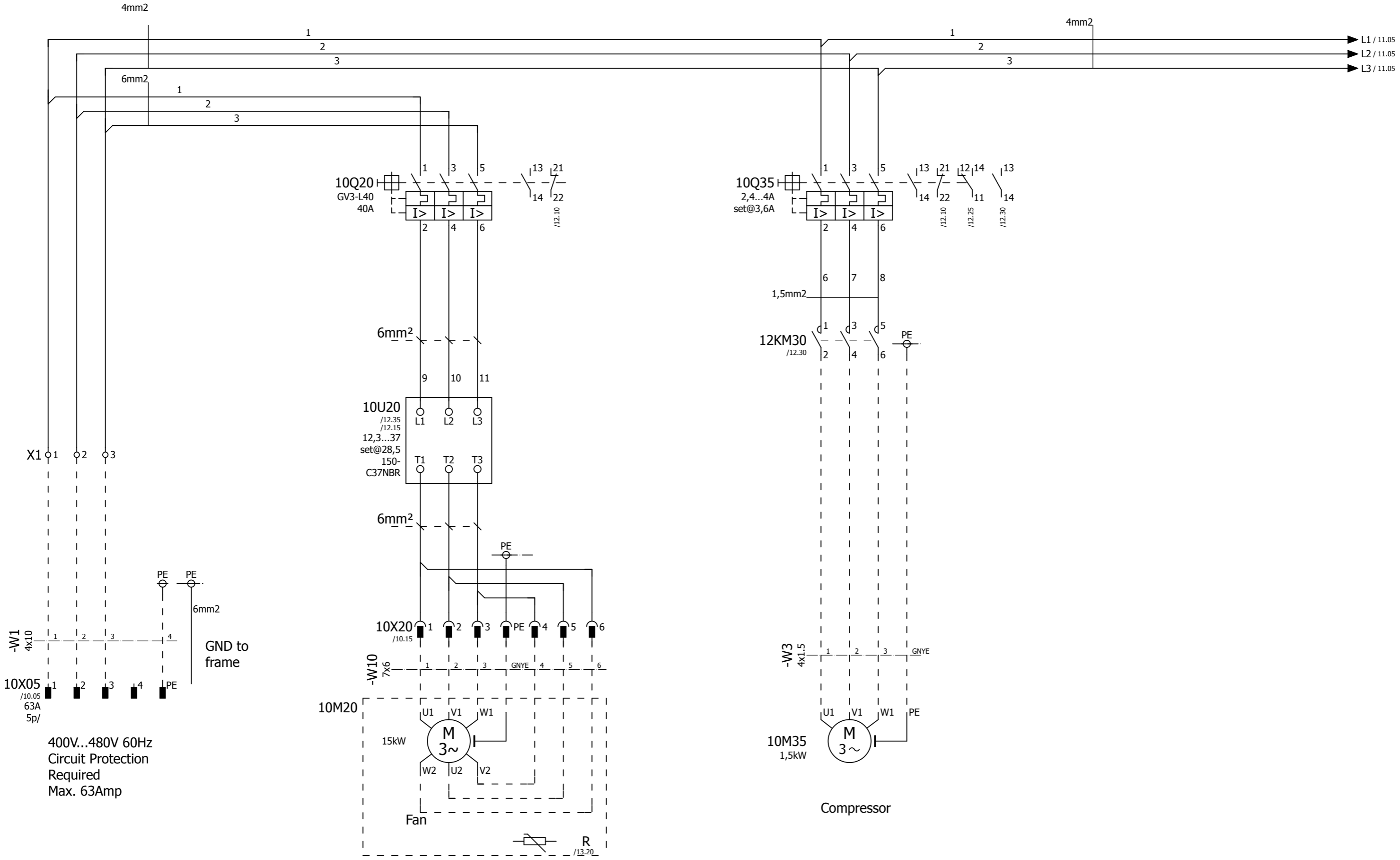
INCL. 4x vibration Silencer 30x15 2xM8 male

CABINET BOTTOM VIEW



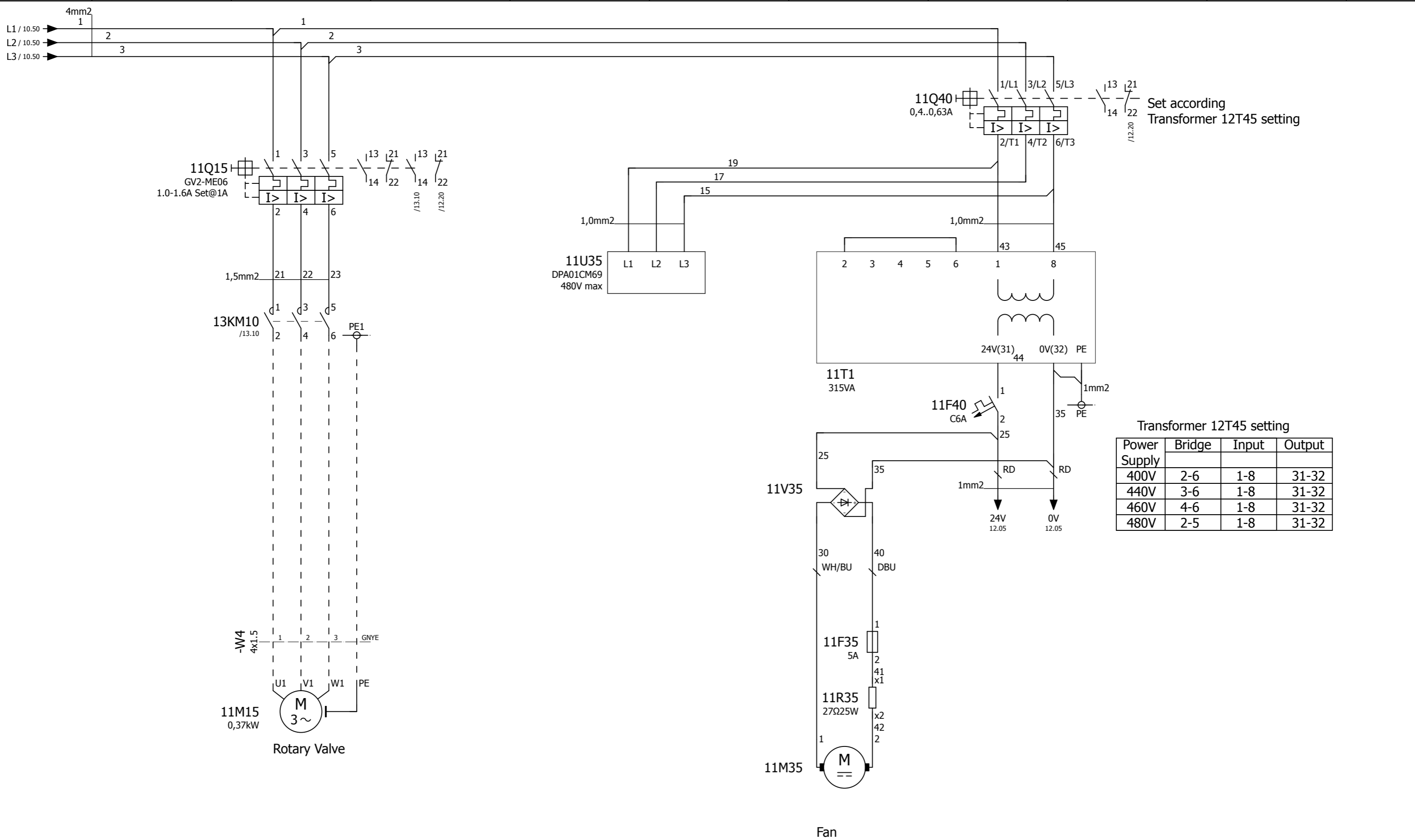
- 0 Supply
- 1 Compressor
- 2 Rotaryvalve
- 5-9 Air Pulse Cables
- 10X20 Motor cable
- 13x20 Motor PTC

			Date	19-2-2015	Project name: 900 DC 3X400V 50-60HZ E10282		Page description:		Customer:	ART4	= E1		
			Ed.	KG			Panel layout		Drawing number:		PJ14.1160.05.0	+	
			Appr	--								Page	7
Modification	Date	Name	Last print	19-2-2015									



400V...480V 60Hz
Circuit Protection
Required
Max. 63Amp

Compressor

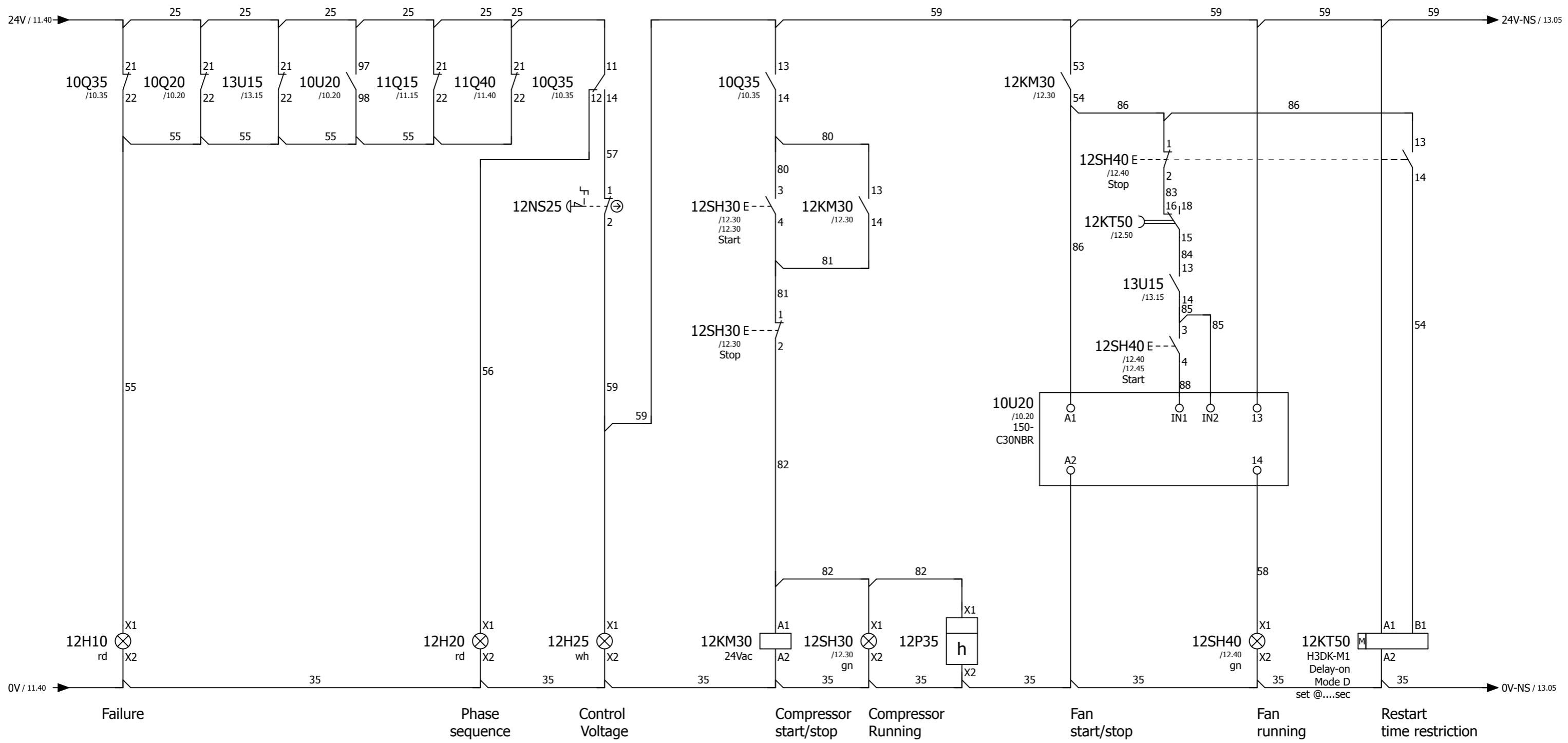


Set according
Transformer 12T45 setting

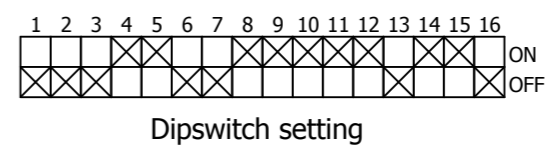
Transformer 12T45 setting

Power Supply	Bridge	Input	Output
400V	2-6	1-8	31-32
440V	3-6	1-8	31-32
460V	4-6	1-8	31-32
480V	2-5	1-8	31-32

400V Δ	60Hz	0,37kW	1,06A
460V Δ	60Hz	0,37kW	1,06A

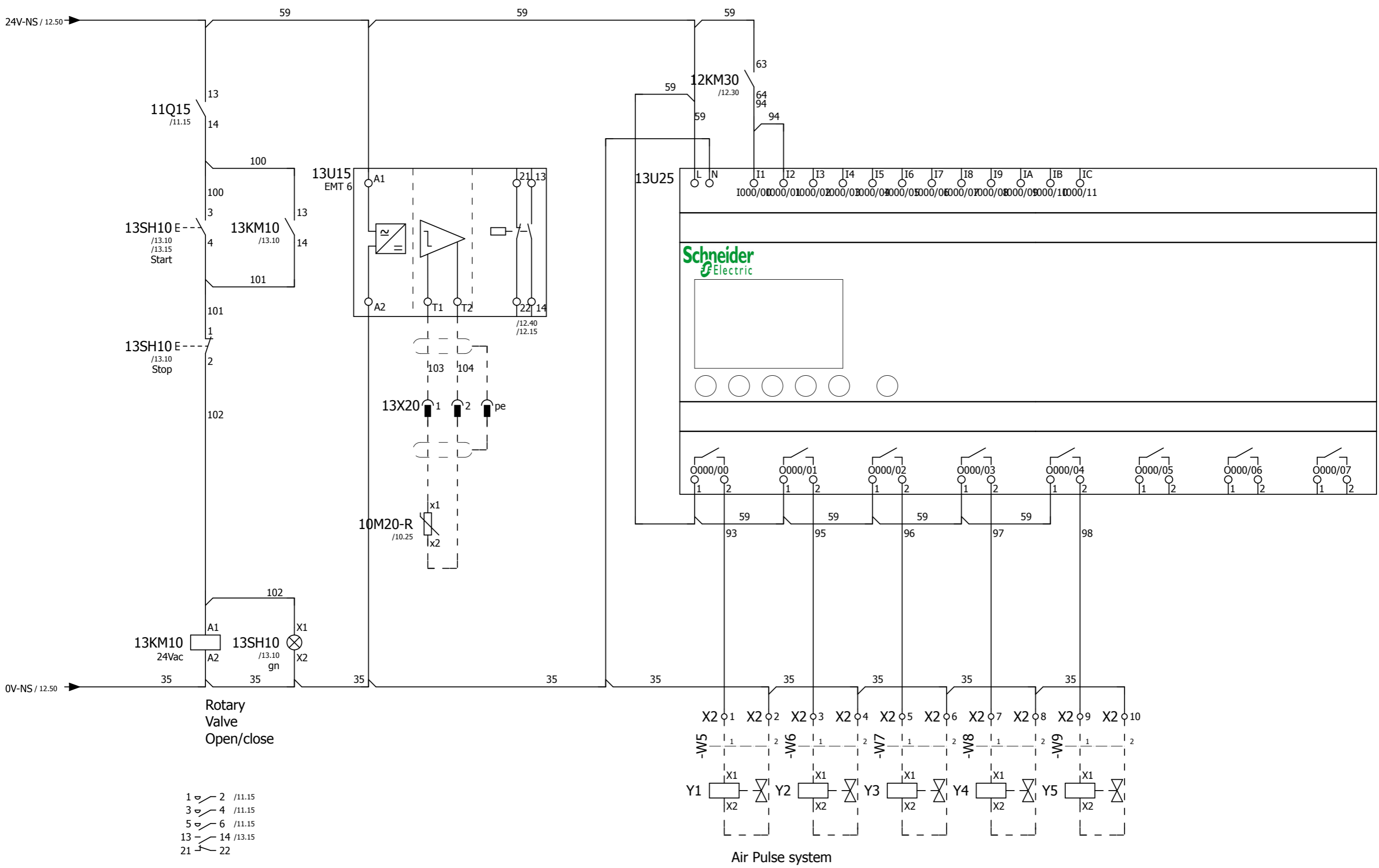


- 53 - 54 /12.40
- 63 - 64 /13.30
- 1 - 2 /10.35
- 3 - 4 /10.35
- 5 - 6 /10.35
- 13 - 14 /12.30
- 21 - 22



- 18 - 15
- 16 - 15 /12.40

			Date	4-12-2014	Project name:		900 DC 3X400V 50-60HZ		Page description:		Customer:		ART4		= E1	
			Ed.	HVDB			E10282		BLASTRAC		Drawing number:		PJ14.1160.05.0		+	
Modification			Date	19-2-2015	Name				Control current						Page	
			Last print	19-2-2015											12	



Date	2-12-2014
Ed.	HVDB
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Last print	19-2-2015

Project name:	900 DC 3X400V 50-60HZ
	E10282



Page description:	Control current
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Customer:	ART4
Drawing number:	PJ14.1160.05.0

= E1
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Page 13

Terminal diagram

Page / column	Cable name					Strip =E1+-X2					Cable name					function text			
	cable type					Connection point	Target designation	jumper	terminal	Connection point	Target designation	cable type							
/13.30						2	-13U25		1	X1	-Y1	1							Rotary Valve Open/close
/13.30						N	-13U25		2	X2	-Y1	2							Air Pulse system
/13.30						Q2:2	-13U25		3	X1	-Y2		1						=
/13.35									4	X2	-Y2		2						=
/13.35						Q3:2	-13U25		5	X1	-Y3			1					=
/13.35									6	X2	-Y3			2					=
/13.40						Q4:2	-13U25		7	X1	-Y4				1				=
/13.40									8	X2	-Y4				2				=
/13.40						Q1:2	-13U25		9	X1	-Y5					1			=
/13.40									10	X2	-Y5					2			=

Parts list

device tag	Quantity	designation	Type number	Brand	Blastrac number
-X1	2	Eindsteun V4 klein 9708/2S35	EINDSTEUN V4 CON.ACC	Wieland	E07828
-X1	3	Feed trough terminal 10mm	WEID ZDU 10/3AN	Weidmuller	
-X1	1	End plate	WEID ZAP/TW 10/16	Weidmuller	
-X2	2	Eindsteun V4 klein 9708/2S35	EINDSTEUN V4 CON.ACC	Wieland	E07828
-X2	5	tension clamp terminal multi level 2*2.5	WEID ZDK 2.5	Weidmuller	E05169
-X2	1	End plate Beige for ZDK 2.5 multi level	WEID ZAP/TW ZDK2.5 DB	Weidmuller	E05171
-7M10	1	Enclosure H600xW500xD250 IP66 RAL7035 with mount.plate.	NSYS3D6525P	Schneider Electric	
-7M10	8	Label for ZBY-5102 Brady 150pcs. p/r	PTLEP-04-7593-WT	Brady	E08113
-7M10	1	Internal wire 6mm2 yellow/green	MONTAGESNOER 6MM GG	LAPP	E08139
-7M10	8	Internal wire 4,0mm2 black	MONTAGESNOER 4MM ZW	LAPP	E08321
-7M10	5	Internal wire 2.5mm2 black	MONTAGESNOER 2.5MM Z	LAPP	E08137
-7M10	1	Internal wire 1.5mm2 yellow/green	MONTAGESNOER 1.5MM GG	LAPP	E08133
-7M10	6	Internal wire 1.5mm2 black	MONTAGESNOER 1.5MM Z	LAPP	E08134
-7M10	1	Internal wire 1mm2 yellow/green	MONTAGESNOER 1MM GG	LAPP	E08163
-7M10	25	Internal wire 1,0mm2 red	MONTAGESNOER 1MM R	LAPP	E08135
-7M10	1	Reducer M20*1.5 ext. M16*1.5 int. brass nickel plated	REDUCTIERING M20M16	Jacob	E08095
-7M10	5	Cabel gland M16*1.5 (PG9/11) IP68 brass, nickel-plated 50616	WARTEL M16*1.5	Jacob	E00405
-7M10	2	Cabel gland M20*1.5 (PG11/13.5/16) brass, nickel-plated	WARTEL M20*1.5	Jacob	E00406
-7M10	1	Cable gland M32*1.5 (PG21/29) brass, nickel-plated	WARTEL M32*1.5	Jacob	E00408
-7M10	5	Cable gland nut M16*1.5 brass, nickel-plated	WARTELMOER M16*1.5	Jacob	E00405_1
-7M10	3	Cable gland nut M20*1.5 brass, nickel-plated	WARTELMOER M20*1.5	Jacob	E00406_1
-7M10	1	Cable gland nut M32*1.5 brass, nickel-plated	WARTELMOER M32*1.5	Jacob	E00408_1
-7M10	18	Ferrule 4mm2 orange insulated	G 493 MONT.AD.HULS	Calpe	E07854
-7M10	4	Ferrule 2x4mm2 grey insulated	G 493 TWIN MONT.AD.HULS	Calpe	E07897
-7M10	6	Ferrule 2,5mm2 grey insulated	G 492 MONT.ADERHULS	Calpe	E07852
-7M10	6	Ferrule 2x2,5mm2 blue insulated	G 492-TWIN MONT.A.H.	Calpe	E07853
-7M10	20	Ferrule 1,5mm2 black insulated	G 491 MONT.A.H.	Calpe	E07851
-7M10	3	Ferrule 2x1,5mm2 zwart insulated	G 491-TWIN MONT.A.H.	Calpe	E08013
-7M10	100	Ferrule 1mm2 red insulated	G 490	Calpe	E07849
-7M10	20	Ferrule 2x1mm2 red insulated	G 490-TWIN MONT.A.H.	Calpe	E07850
-7M10	2	Mont.goot BxH 25x80 MM vpp=56	T1-E 25X80 MONT.GOOT	Generic	E07834
-7M10	2	M.rail galvanized,7,5x35MM 2M	TS35 MOUNT.RAIL GROOVE	Generic	E07835
-7M10	27	Label for components Brady 2500pcs. p/r	BPT-1-8423-2 5T	Brady	E07896
-7M10	5	DIN-A Connectioncable led+suppr 24Vac/dc 3M Bk	MURR 7000-18021-636-300	Murrelektronik B.V.	E07945
-7M10	11	Ozoflex neopreenkabel 4*6 mm	H07RN-F 4*6 MM		E08220
-7M10	8	Ozoflex neopreenkabel 4*1.5	H07-F 4*1.5 MM		E08361
-7M10	4	Silencer @30*15 2xM8 male	@30*15*M8-M8 M-M		E07884
-7M10	200	Label for ader 12*12 Brady 7000pcs. p/r	BPT-305-427	Brady	E07893
-7M10	11	HSLCH-OZ AFgescherm. 2*1mm	STUURSTROOMKA 2*1		
-10Q20	1	Magnetic circuit-breaker. Rating 40A	GV3-L40	Schneider Electric B.V.	
-10Q20	1	Plug in aux. front for GV2-ME 1xNO +1xNC	GV-AE11	Schneider Electric	333-3455
-10Q35	1	Plug in aux. front for GV2-ME 1xNO +1xNC	GV-AE11	Schneider Electric	333-3455
-10Q35	1	Motor protection switch 2,4 4,0A	GV2-ME08	Schneider Electric	E01456
-10U20	1	Softst.3-f 37A 200-480V/24 AC/DC (18.5kW)	150-C37NBR	Allen Bradley	E01565
-10X05	1	3P+N+aardeIP67 63A contactstop	ABL S53S35	ABL	500-3195
-10X20	1	Busbinnenwerk serie BA 6p+A 32A 7306.6041.0 Westec	710.620	Walther	E01598
-10X20	1	Penbinnenwerk serie BA 6p+A 32A 7306.6141.0 Westec	710.621	Westec	E01599
-10X20	1	Aanbouw wand c.huis 6P+A spec. 35A 7816.5272.0 Westec	770.655	Walther	E01601
-10X20	1	Stekker huis 6P+A spec. 7816.5310.5 Westec	770.657	Westec	E01600
-11F35	1	VOOR VUSI 4-10	VASI 4-10 C.SCHOT	Wieland	E05154
-11F35	2	ZEK.KLEM 10MM2 GRIJS 5*20MM	VUSI 4-10M C.ZEK.KLM	Wieland	E01321
-11F35	1	ZEK.SMELTV. glas 5*20MM SLOW 5A	ZEK.GLAS TRAAG 5A	Generic	E08228
-11F40	1	Circuit breaker AB 1P 6A C-kar	C60N-1492-SP1C060	Allen Bradley	E05160
-11M35	1	Ventilator 80*80*20mm. 24VDC	FAN 80*80*20MM 24 VDC/ NMB	PABST	E06930
-11M35	2	UITL.FILT.MONT.UITSP. 80*80MM	221-336 KAST KL.BEH.	PABST	E00283
-11M35	1	Finger Guard 80mm.	250-1612 KAST KL.BEH	PABST	E00283

			Date	4-12-2014	Project name: 900 DC 3X400V 50-60HZ E10282		Page description: Parts list	Customer: ART4		= E1
			Ed.	HVDB				Drawing number: PJ14.1160.05.0		+
Modification	Date	Name	Last print	19-2-2015						Page

Parts list

device tag	Quantity	designation	Type number	Brand	Blastrac number
-11Q15	1	Plug in aux. front for GV2-ME 1xNO +1xNC	GV-AE11	Schneider Electric	333-3455
-11Q15	1	Motor protection switch 1,0 1,6A	GV2-ME06	Schneider Electric	E07956
-11Q40	1	Motor circuit breaker 0.4-0.63A thermomagnet	GV2-RT04	Schneider Electric	
-11Q40	1	Plug in aux. front for GV2-ME 1xNO +1xNC	GV-AE11	Schneider Electric	333-3455
-11R35	1	Resistor 27 ohm/ 25 Watt	WEERSTAND 27/25	Generic	E05156
-11T1	1	Transformer Sitas 250VA 480V 550..208V/24V UL/CSA	4AM4042-8DN00-0EAO	Siemens	
-11U35	1	3-phase monitoring relays	DPA 01 C M44	Carlo Gavazzi	E07955
-11V35	1	Brugcel 400V-35A 28.5*28.5*22mm.	F400C35A	Generic	E01332
-12H10	1	Red pilot light head Ø22 plain lens for integral LED	ZB5-AV043	Schneider Electric	E00360
-12H10	1	Red light block with body/fixing collar integral LED 24V	ZB5-AVB4	Schneider Electric	E05072
-12H10	1	Legend holder 30 x 50 mm for legend 18 x 27 mm unmarked	ZBZ-35	Schneider Electric	E05080
-12H20	1	Red pilot light head Ø22 plain lens for integral LED	ZB5-AV043	Schneider Electric	E00360
-12H20	1	Red light block with body/fixing collar integral LED 24V	ZB5-AVB4	Schneider Electric	E05072
-12H20	1	Legend holder 30 x 50 mm for legend 18 x 27 mm unmarked	ZBZ-35	Schneider Electric	E05080
-12H25	1	White pilot light head Ø22 plain lens for integral LED	ZB5-AV013	Schneider Electric	333-3454
-12H25	1	White light block with body/fixing collar integral LED 24V	ZB5-AVB1	Schneider Electric	333-3226
-12H25	1	Legend holder 30 x 50 mm for legend 18 x 27 mm unmarked	ZBZ-35	Schneider Electric	E05080
-12KM30	1	Auxiliary contact block - 2 NO - screw-clamps terminals	LAD-N20	Schneider Electric	500-3394
-12KM30	1	Contacteur 4,0kW 400VAC coil 24VAC 1NO/1NC	LC1-D09-B7	Schneider Electric	333-3580
-12KT50	1	Timerelay 1W multif. 24-240VAC/DC OMRON	OMRON H3DK-M1	Omron	E07801
-12NS25	1	Red Ø40 Emergency stop pushbutton head Ø22 trigger and latch	ZB5-AS844	Schneider Electric	E01543
-12NS25	1	Single contact block with body/fixing collar 1NC screw clamp	ZB5-AZ102	Schneider Electric	E00357
-12NS25	1	Sticker emergency stop yellow/red	EMERGENCY STOP STICKER	De Vries	E07832
-12NS25	1	Red padlockable guard for Ø40 mushroom head	ZBZ-1604	Schneider Electric	
-12P35	1	Hour counter - mechanical 5 digit display - 12.24 V AC/DC	XB5-DSB	Schneider Electric	E00366
-12SH30	1	Green light block with body/fixing collar integral LED 24V	ZB5-AVB3	Schneider Electric	333-3496
-12SH30	1	Green flush/red flush illuminated double-headed pushbutton Ø	ZB5-AW7A3741	Schneider Electric	E07804
-12SH30	1	Transparent boot for rectangular multiple-headed pushbutton	ZBA-710	Schneider Electric	E05070
-12SH30	1	Single contact block for head Ø22 1NO screw clamp terminal	ZBE-101	Schneider Electric	E05091
-12SH30	1	Single contact block for head Ø22 1NC screw clamp terminal	ZBE-102	Schneider Electric	E05092
-12SH40	1	Green light block with body/fixing collar integral LED 24V	ZB5-AVB3	Schneider Electric	333-3496
-12SH40	1	Green flush/red flush illuminated double-headed pushbutton Ø	ZB5-AW7A3741	Schneider Electric	E07804
-12SH40	1	Transparent boot for rectangular multiple-headed pushbutton	ZBA-710	Schneider Electric	E05070
-12SH40	2	Single contact block for head Ø22 1NO screw clamp terminal	ZBE-101	Schneider Electric	E05091
-12SH40	1	Single contact block for head Ø22 1NC screw clamp terminal	ZBE-102	Schneider Electric	E05092
-13KM10	1	Contacteur 4,0kW 400VAC coil 24VAC 1NO/1NC	LC1-D09-B7	Schneider Electric	333-3580
-13SH10	1	Green light block with body/fixing collar integral LED 24V	ZB5-AVB3	Schneider Electric	333-3496
-13SH10	1	Green flush/red flush illuminated double-headed pushbutton Ø	ZB5-AW7A3741	Schneider Electric	E07804
-13SH10	1	Transparent boot for rectangular multiple-headed pushbutton	ZBA-710	Schneider Electric	E05070
-13SH10	1	Single contact block for head Ø22 1NO screw clamp terminal	ZBE-101	Schneider Electric	E05091
-13SH10	1	Single contact block for head Ø22 1NC screw clamp terminal	ZBE-102	Schneider Electric	E05092
-13U15	1	ptc overload relay 2W 24-240V AC-DC	EMT 6	Moeller	
-13U15	1	Aardkl. 4MM2 ge/gr WK4SL/u	VUPE 4-4 CONN.AARDKL	Wieland	E01197
-13U25	1	Compact smart relay Zelio Logic - 20 I O - 24 V AC - clock -	SR2B201B	Schneider Electric	
-13U25	1	Memory cartridge - for smart relay Zelio Logic firmware - fo	SR2MEM02	Schneider Electric	E08172
-13X20	1	aanbouw wcd 4P+kladek.serieA	704.403	Westec	
-13X20	1	busbinnenwerk ser.A 3P+A 10A 250V 7203.6001.0	700.103	Westec	
-13X20	1	penbinnenwerk ser.A 3P+A 10A 250V 7203.6101.0	700.203	Westec	
-13X20	1	stand.stekerhuis ALU 1 xM20 7803.6228.0	702.803	Westec	