



Blastrac bv
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Project description BDC-99 UL

Drawing number PJ13.1139.06
Blastrac number E09229/460ULCSA

Power supply 480V/60Hz
Input lead Input lead
Control Voltage 24Vac

Year of Manufacturing 2013

Remarks As built

Created on 4-11-2013 by hvandenbrink
Edit date 17-7-2014 by HvdB

Number of pages 16

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			Ed.					Drawing number:	PJ13.1139.06	+
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2.a

Revision	Date	Discription	Remark	Editor
01	25-11-2013	As built	Engineering ART4	hv
02	18-03-2014	Update	Engineering Art4	HvdB
03	04-04-2014	Update	Engineering Art4	PH
04	07-04-2014	Update	Engineering Art4	PH
05	25-06-2014	Cables fan and compressor deleted from partlist and out of scope of ART4 delivery	Engineering Art4	HvdB
06	17-07-2014	Update with new circuit breaker type	Engineering Art4	HvdB

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Project name:
BDC 99 UL
 E09229/460ULCSA



Page description:
 Revision sheet

Customer: **Blastrac bv**
 Drawing number: **PJ13.1139.06**

WIRE COLOR

Main Voltage

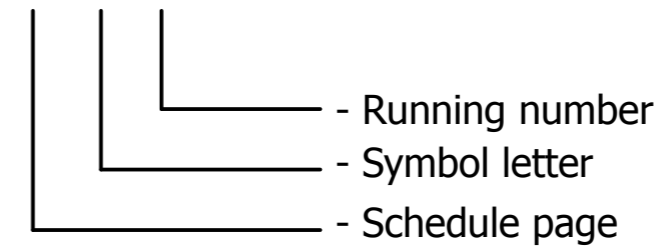
<u>Phase</u>	<u>Colors</u>
L1	- Black
L2	- Black
L3	- Black
N	- Light Blue
Earth / PE	- Yellow/Green

Control Voltage

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

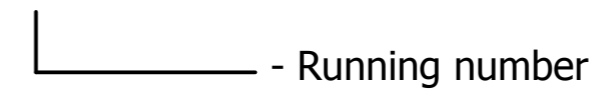
SYMBOL CODE

11 F 11



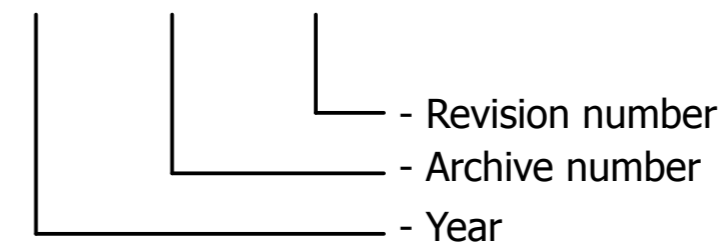
CORE CODE

11 11



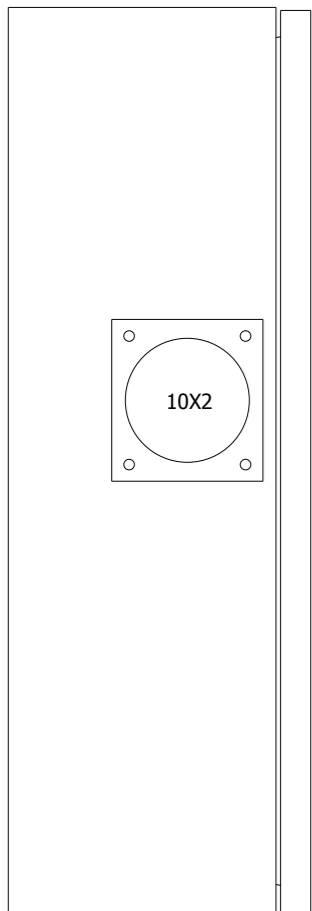
DRAWING NUMBER

PJ##.####.##

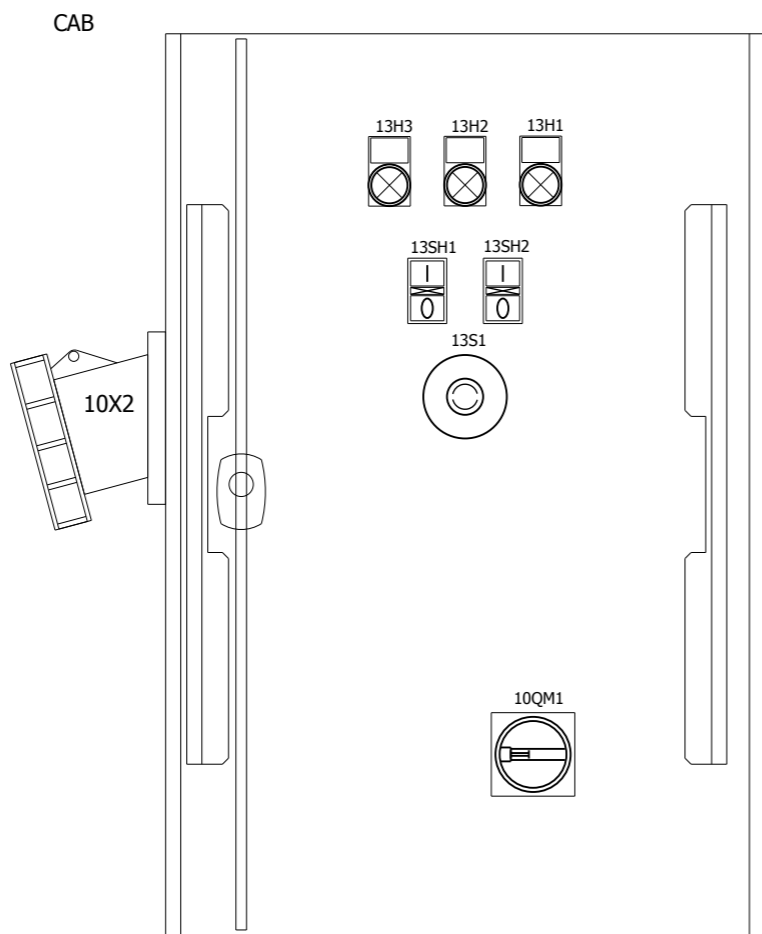


0	1	2	3	4	5	6	7	8	9
	auxiliary contact	hulpcontact		signal light	signaallamp		Safety fuse	smeltveiligheid	
	Power contact	vermogenscontact		horn	hoorn		Fused switch, three-pole	schakelbare scheid	
	NO contact, opens with time delay	maakcontact, vertraagd open		apm.meter	amperemeter		Fused disconnect, three-pole	scheid	"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		Rectifier	gelijkrichter	
	Limit switch	eindschakelaar							
	Proximity switch	naderingsschakelaar							

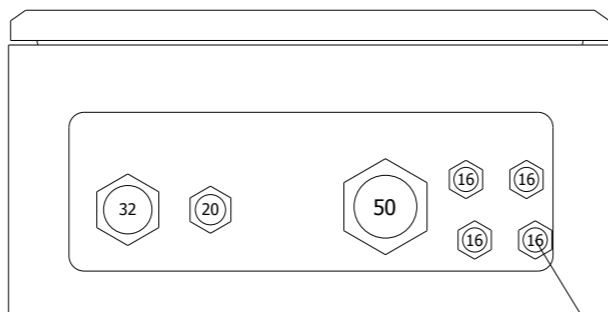
CABINET
LEFT HAND VIEW



CABINET
FRONT VIEW



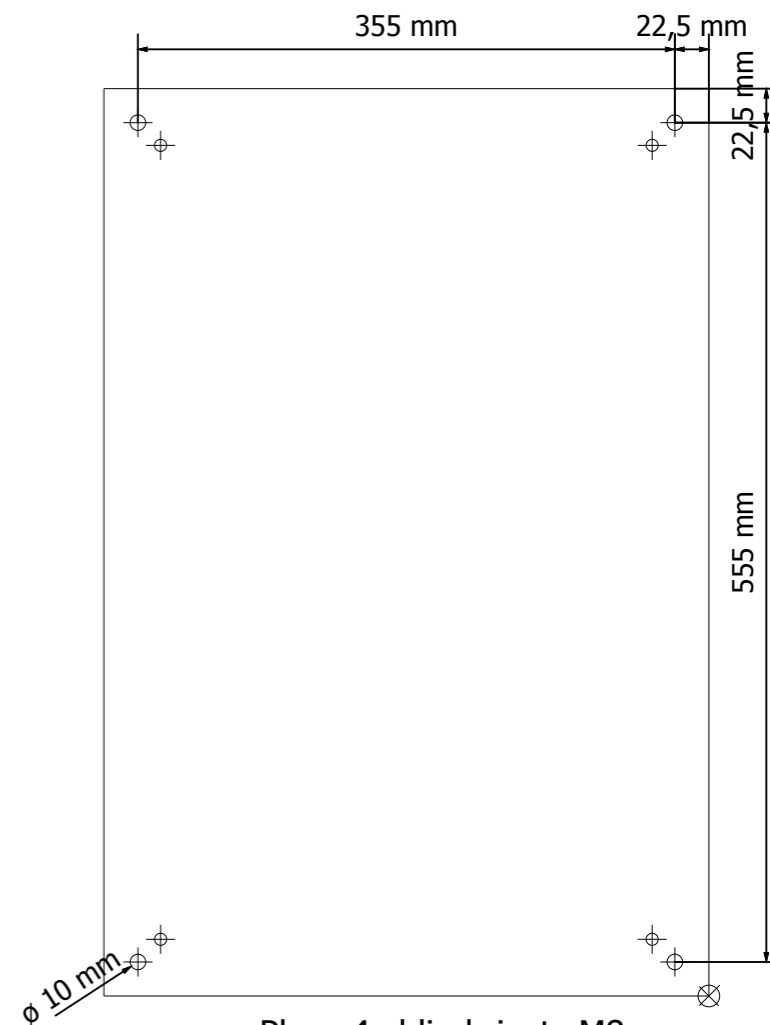
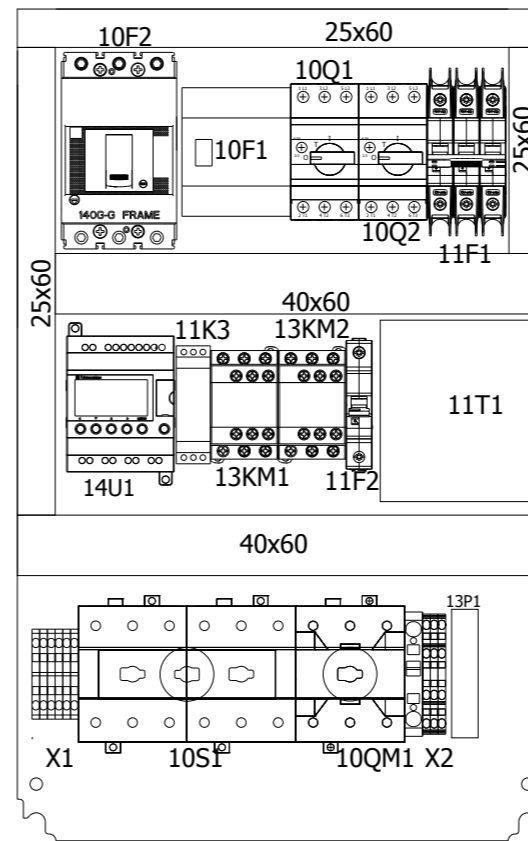
Axle length 95mm



CABINET
BOTTOM VIEW

M16 for PE to Frame

MOUNTING PLATE



CABINET DATA
SCHNEIDER
NSYS3D64020P
(HxBxD) 600x400x200

- (*): With cable
- M16 - Pulse system 3x0.75mm² length 3,0 mtr.
- M20 - Compressor
- M32 - Fan
- M50 - Power supply

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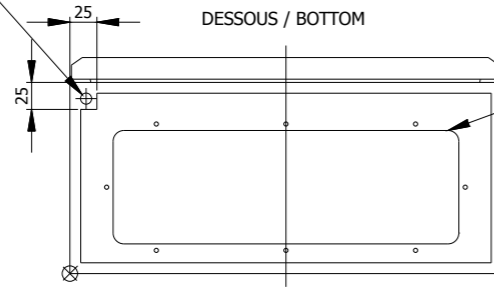
Project name:	BDC 99 UL E09229/460ULCSA
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Page description:	Panel Layout
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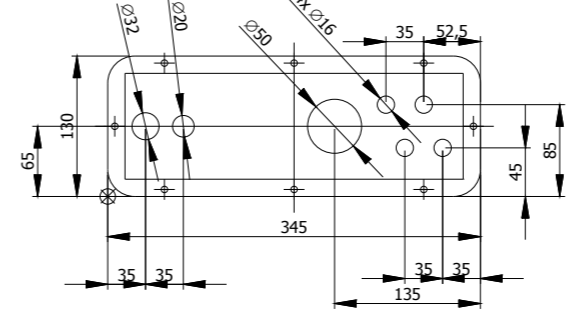
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TROU D'ECOULEMENT / FLOW HOLE

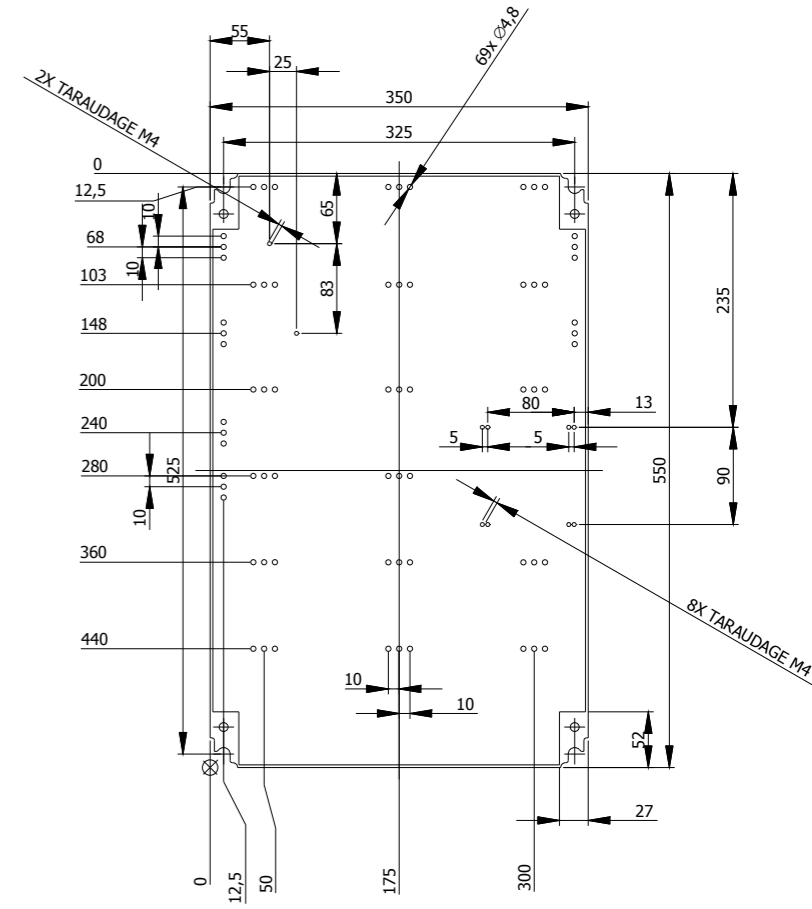


TROU PLAQUE PASSE CÂBLE / CABLE GLAND PLATE HOLE

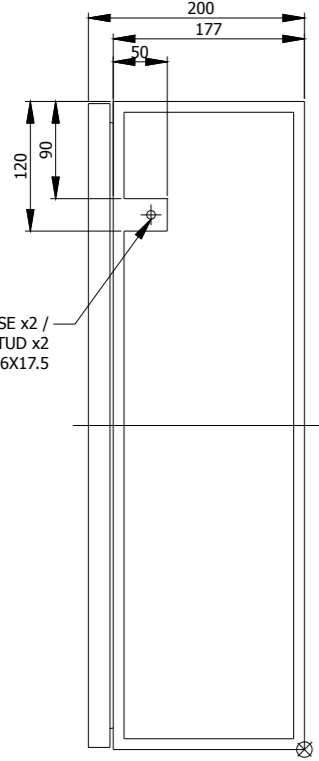
PLAQUE PASSE CÂBLE / CABLE GLAND PLATE EP 1.5 mm



CHASSIS (FACE AVANT) / CHASSIS (FRONT VIEW)

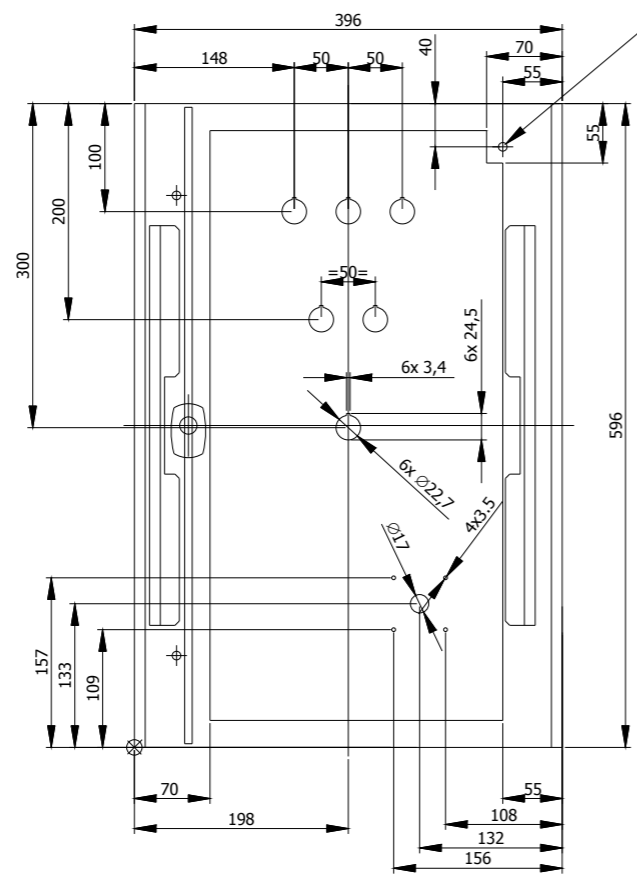


DROITE / RIGHT



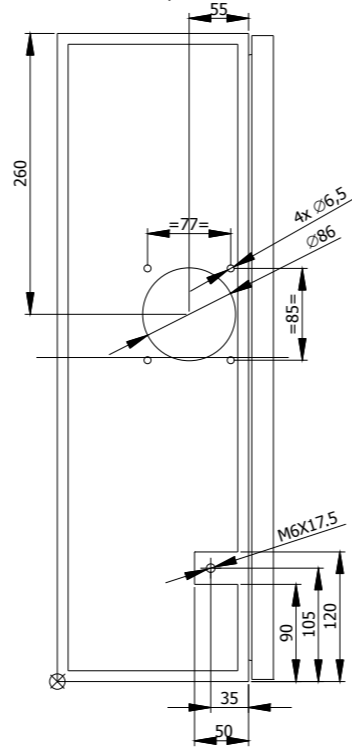
GOUJON DE MASSE x2 / GROUND STUD x2 M6X17.5

AVANT (PORTE) / FRONT (DOOR) EP 1.2 mm

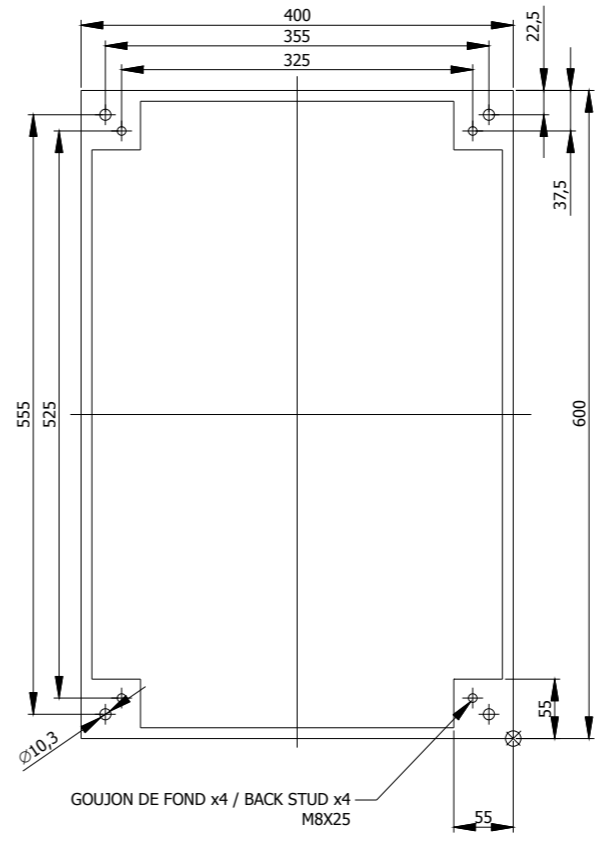


GOUJON DE MASSE / EARTH STUD M6X17.5

GAUCHE / LEFT

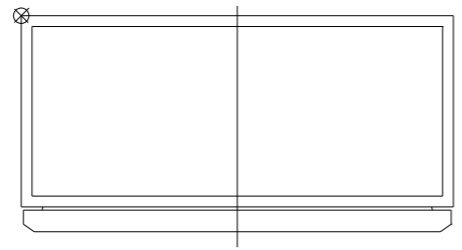


ARRIERE / BACK EP 1.2 mm



GOUJON DE FOND x4 / BACK STUD x4 M8X25

DESSUS / TOP



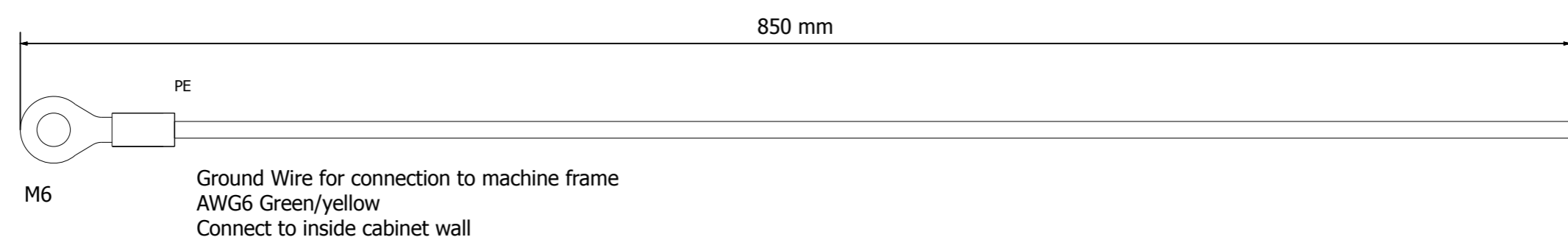
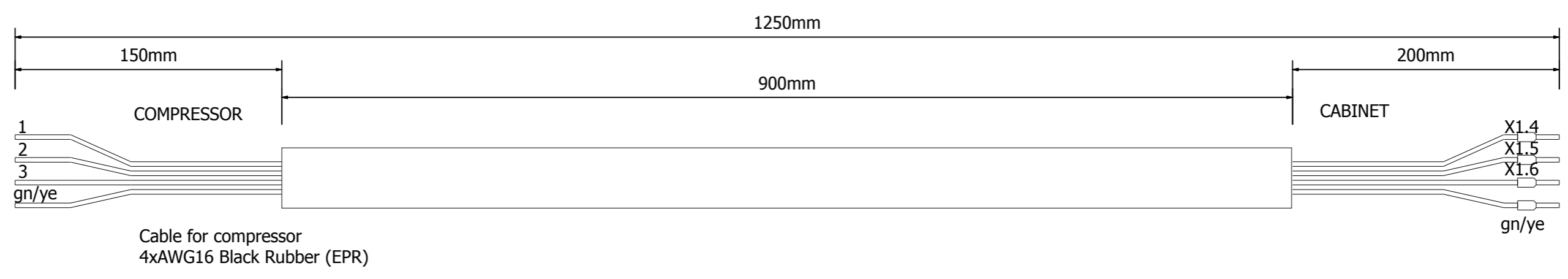
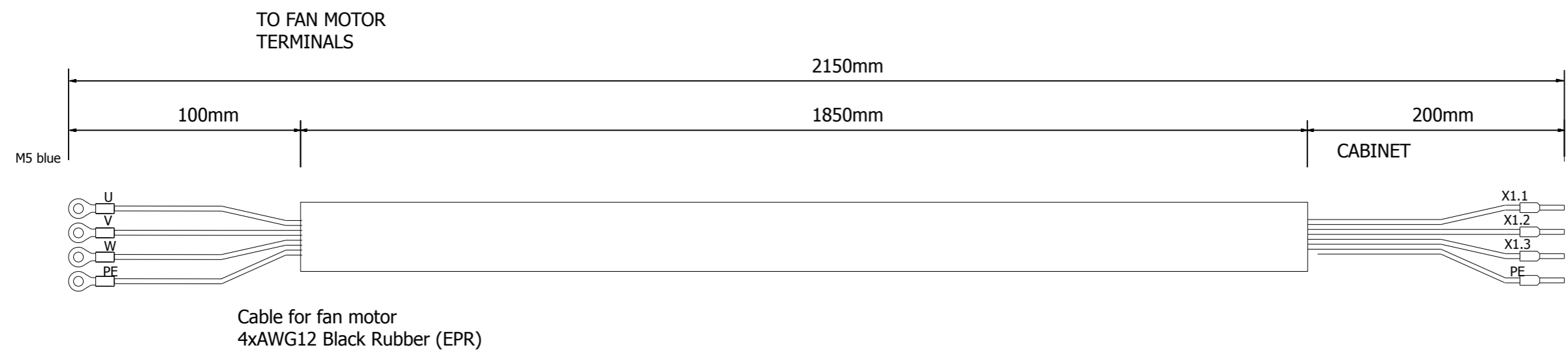
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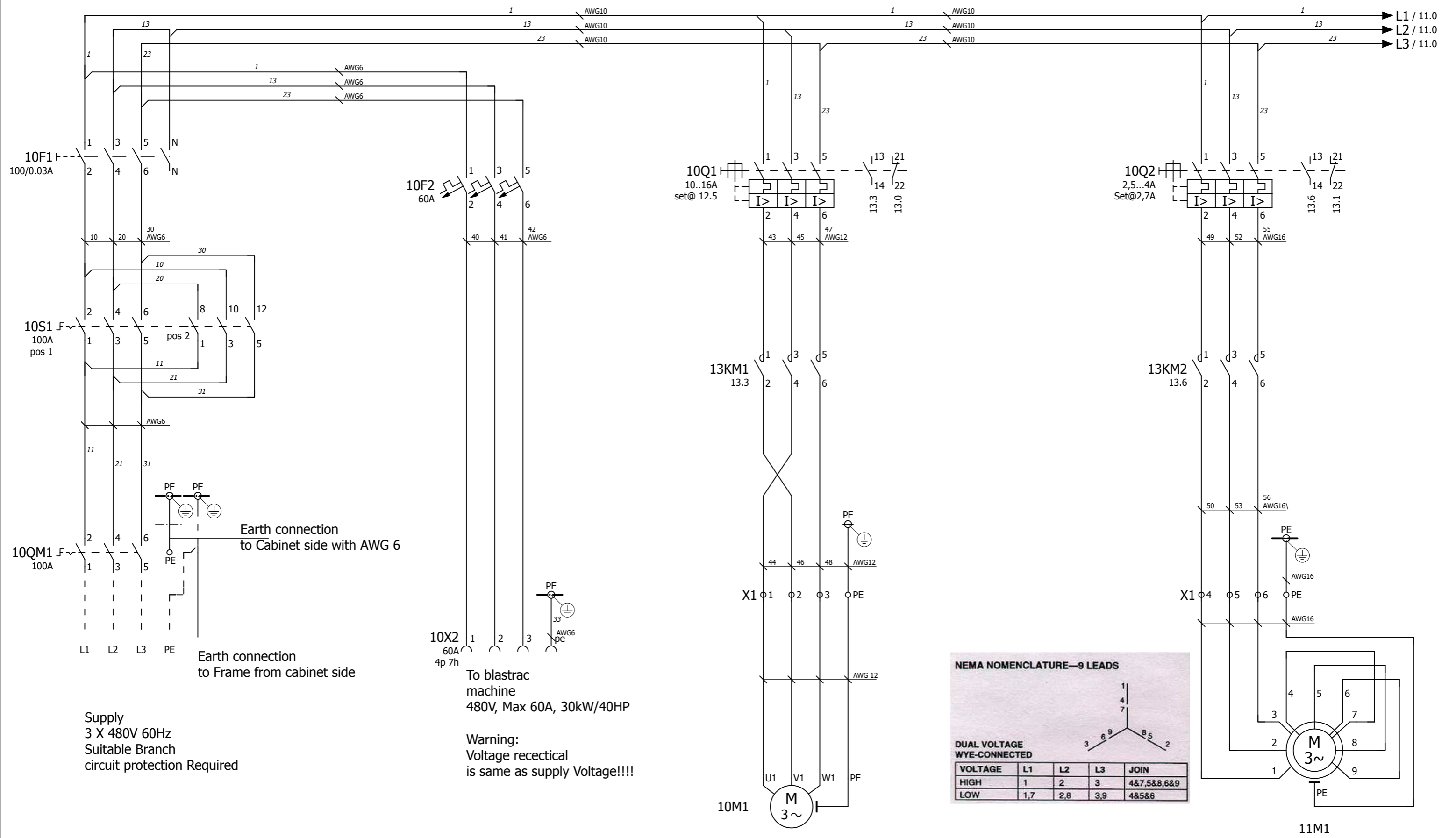


Page description:	Panel dimensions
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CABLE IS PART OF DELIVERY BLASTRAC



Supply
3 X 480V 60Hz
Suitable Branch
circuit protection Required

To blastrac
machine
480V, Max 60A, 30kW/40HP

Warning:
Voltage recetical
is same as supply Voltage!!!!

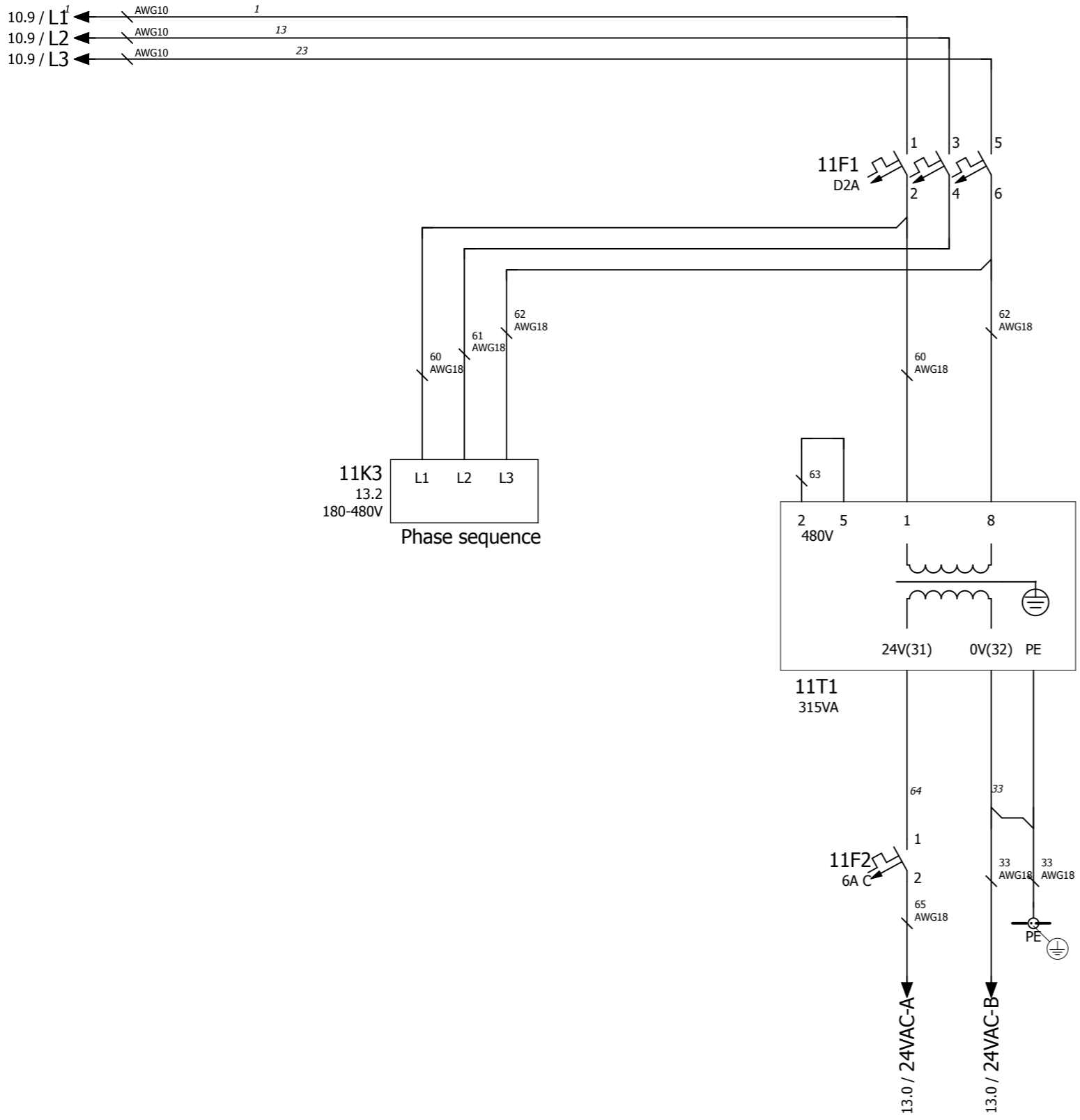
NEMA NOMENCLATURE—9 LEADS

DUAL VOLTAGE WYE-CONNECTED

VOLTAGE	L1	L2	L3	JOIN
HIGH	1	2	3	4&7,5&8,6&9
LOW	1,7	2,8	3,9	4&5&6



			Date	17-7-2014	Project name:	BDC 99 UL E09229/460ULCSA		Page description:		Customer:		=
			Ed.	HvdB				Main Current		Blastrac bv		
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			Date	17-7-2014
			Ed.	HvdB
			Appr	
Modification	Date	Name	Last print	17-7-2014

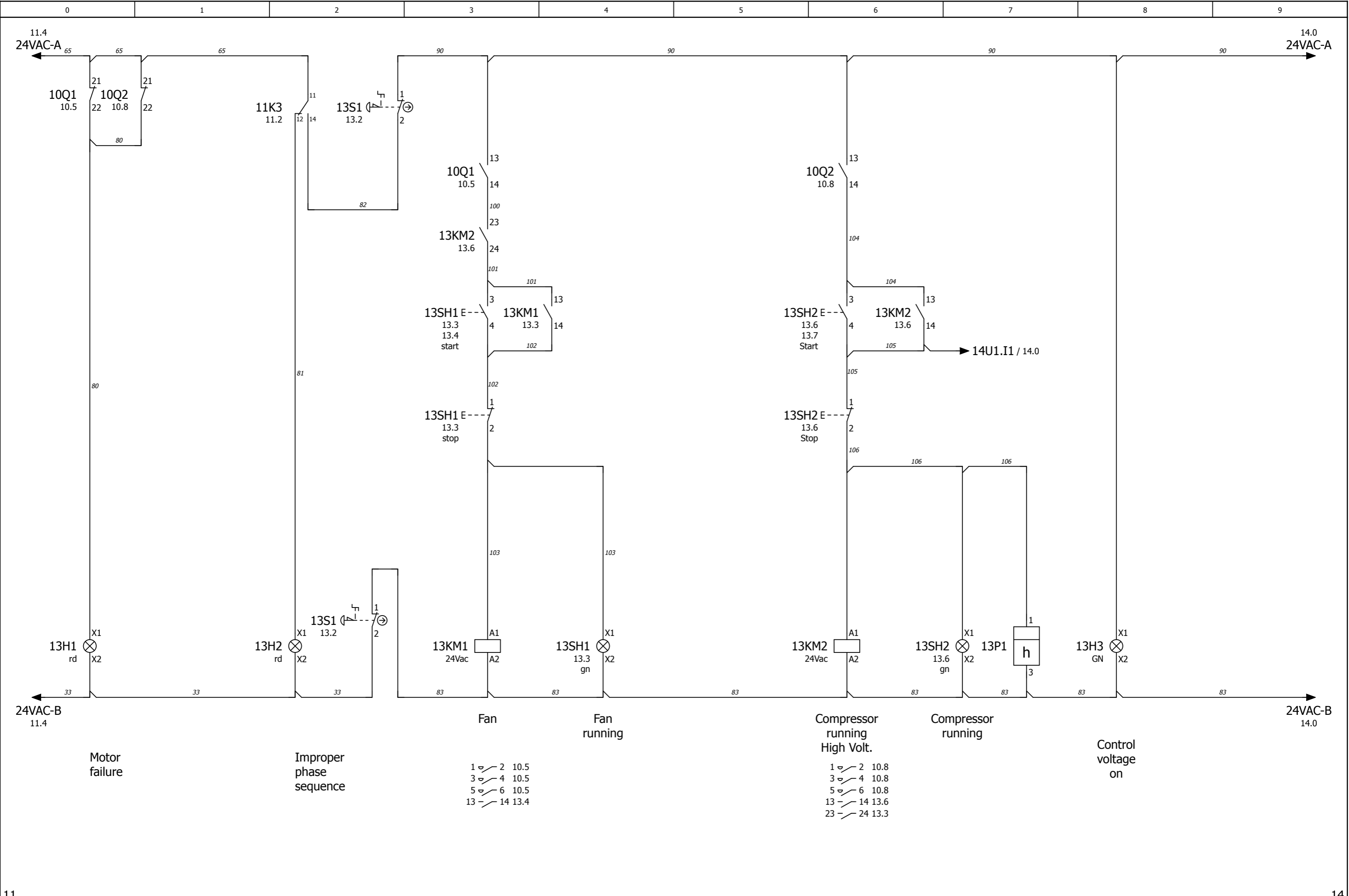
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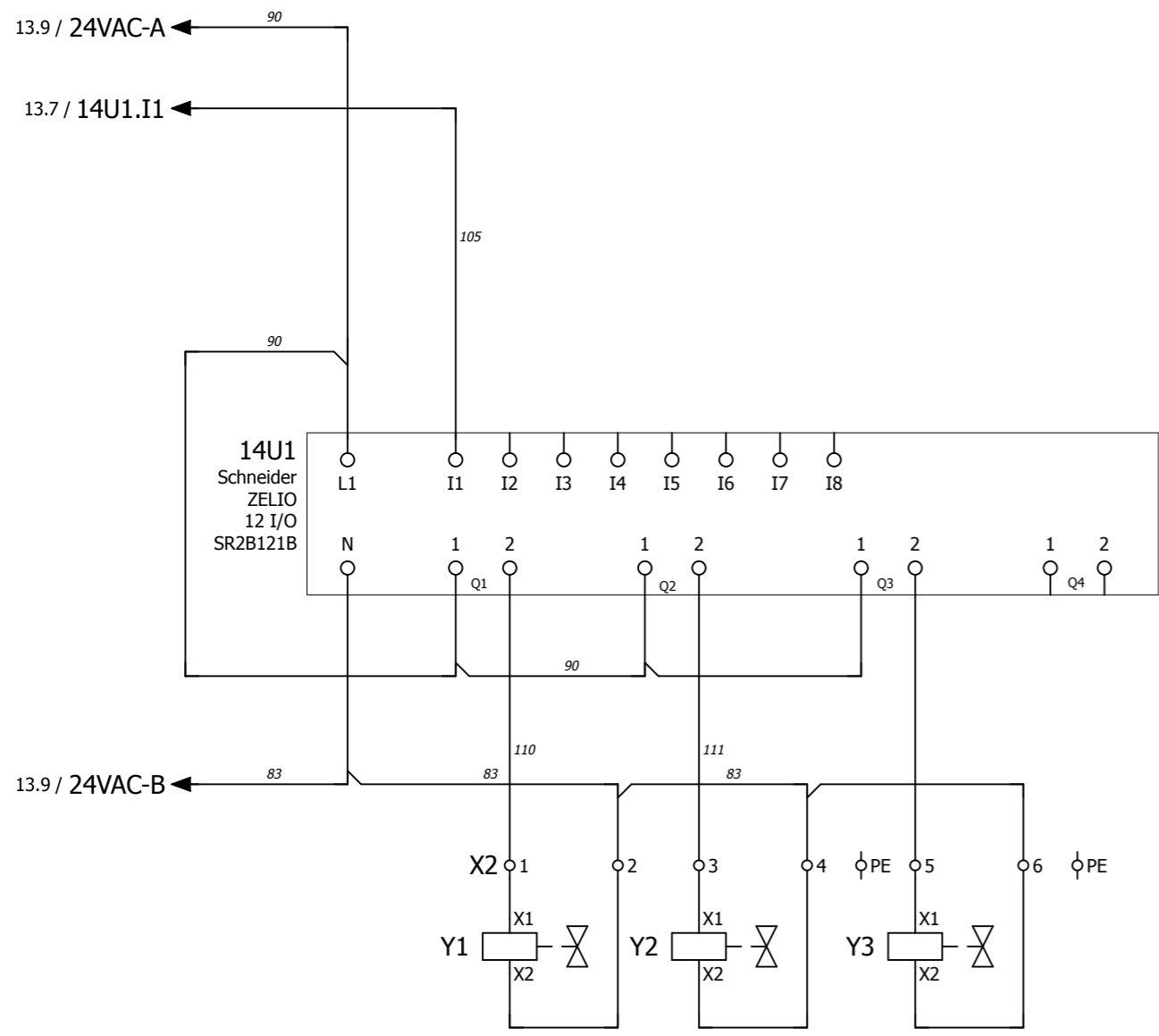
Page description:	Main Current
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	+
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I1 = start signal
 I2, I3, I4 = spare start signal
 I5 = Timer setting (when not connected than in UL mode)
 I6 = Spare timer setting
 I7 = 2 pulses for 2 valves system (when not connected 3 valves system)
 I8 = spare pulse setting

Air Pulse system

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Page description:	Control Current Zelio PLC
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Customer:	Blastrac bv
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Terminal diagram

F13_001

function text	Cable name	Strip X1				Cable name	Page / column
		cable type	Target designation	Connection point	terminal		
Fan 7,5kW/10HP 12,5A @ 460V							10.5
=							10.5
=							10.5
=		10M1	PE	PE	.	PE	10.5
Compressor 0.75kW/1HP 2,7A@460V							10.8
=							10.8
=							10.8
=		11M1	PE	PE	.	PE	10.8

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Terminal diagram

F13_001

function text	Cable name	Cable name	Strip X2						Cable name	Cable name	Page / column
			cable type	Target designation	Connection point	terminal	jumper	Target designation			
Air Pulse system				14U1	2	1		Y1	X1	14.2	
=				14U1	N	2		Y1	X2	14.2	
=				14U1	2	3		Y2	X1	14.2	
=						PE		.			14.3
=						PE	.			14.4	
=						4		Y2	X2	14.3	
=				14U1	2	5		Y3	X1	14.3	
=						6		Y3	X2	14.3	

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Appr			
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Project name: **BDC 99 UL**
E09229/460ULCSA



Page description: **Terminalstrip**

Customer: **Blastrac bv**
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Parts list

device tag	Quantity	designation	Type number	Brand	Blastrac number
CAB	1	Enclosure H600xW400xD200 IP66 RAL7035 with mount.plate.	NSYS3D6420P	Eldon	E08395
CAB	4	Blindklinkmoer cilinderkop M8x16 staal elvz	POPBC-1Z-M8X16 CK16	Generic	E07968
CAB	1	Mount.drain BxH 25x60 MM vpp=60	T1-E 25X60 MOUNT.DRAIN	Generic	E07972
CAB	1	Mont.goot BXH 40X60 MM vpp=48	T1-E 40X60 MONT.GOOT	Generic	E08396
CAB	1	M.rail galvanized,7,5x35MM 2M	TS35 MOUNT.RAIL GROOVE	Generic	E07835
CAB	2	Internal wire yellow/green AWG16 1.5 mm2 UL-CSA	AWG 16 GN/GE	LAPP	E07975
CAB	5	Internal wire black AWG16 1.5mm2 UL-CSA	AWG 16 ZWART	LAPP	E07947
CAB	3	MSUD valve form BI 11mm+cable PUR/PVC-JZ 3x0,75 black 3m	7000-11021-6260300	Murrelektronik B.V.	E08397
CAB	6	Internal wire black AWG12 4mm2 UL-CSA	AWG 12 ZW	LAPP	E08110
CAB	6	Internal wire black AWG6 16mm2 UL-CSA	AWG 6 ZWART	LAPP	E07948
CAB	2	Internal wire black AWG10 6mm2 UL-CSA	AWG 10 ZW	LAPP	E07891
CAB	1	Internal wire black AWG18 1.0mm2 UL-CSA	AWG 18 ZWART	LAPP	E07845
CAB	50	Internal wire red AWG18 1.0mm2 UL-CSA	AWG 18 ROOD	LAPP	E07894
CAB	20	Ferrule 1*16mm2 ivory insulated	G 496-N ADERHULS 16	Calpe	9999-0001
CAB	6	Ferrule 2*16mm2 blue insulated	G 496-TWIN	Calpe	E08159
CAB	15	Ferrule 6mm2 green insulated	G 494 MONT.A.H.	Calpe	E07865
CAB	10	Ferrule 2x6mm2 yellow insulated	G 494-TWIN MONT.A.H.	Calpe	E08140
CAB	50	Ferrule 1mm2 red insulated	G 490	Calpe	E07849
CAB	20	Ferrule 2x1mm2 red insulated	G 490-TWIN MONT.A.H.	Calpe	E07850
CAB	10	Ferrule 1,5mm2 black insulated	G 491 MONT.A.H.	Calpe	E07851
CAB	6	Ferrule 2x1,5mm2 zwart insulated	G 491-TWIN MONT.A.H.	Calpe	E08013
CAB	22	Label for components Brady 2500pcs. p/r	BPT-1-8423-2 5T	Brady	E07896
CAB	100	Label for ader 12*12 Brady 7000pcs. p/r	BPT-305-427	Brady	E07893
CAB	1	Cabel gland M20*1.5 (PG11/13.5/16) brass, nickel-plated	WARTEL M20*1.5	Jacob	E00406
CAB	1	Cable gland M32*1.5 (PG21/29) brass, nickel-plated	WARTEL M32*1.5	Jacob	E00408
CAB	4	Cabel gland M16*1.5 (PG9/11) IP68 brass, nickel-plated 50616	WARTEL M16*1.5	Jacob	E00405
CAB	5	Cable gland nut M16*1.5 brass, nickel-plated	WARTELMOER M16*1.5	Jacob	E00405_1
CAB	6	Ferrule 4mm2 orange insulated	G 493 MONT.AD.HULS	Calpe	E07854
CAB	1	Cable gland nut M20*1.5 brass, nickel-plated	WARTELMOER M20*1.5	Jacob	E00406_1
CAB	1	Cable gland nut M32*1.5 brass, nickel-plated	WARTELMOER M32*1.5	Jacob	E00408_1
CAB	1	Cable gland M50*1.5 brass, nickel-plated 50650ml	WARTEL M50*1.5	Jacob	E00410
CAB	1	Cable gland nut M50*1.5 brass, nickel-plated	WARTELMOER M50*1.5	Jacob	E00410_1
10F1	1	Aardlek 100A 4-P 30mA UL/CSA ABB	F204-A100/0.03	Allen Bradley	E07951
10F2	1	Molded Case Circuit Breaker 3P C60A UL489	AB 140G-G2C3-C60	Allen Bradley	E07952
11F1	1	Circuit breaker 2P 2A D-kar 480/277V UL489	C60N-1489-M2D020	Allen Bradley	E07953
11F2	1	Circuit breaker AB 1P 6A C-kar	C60N-1492-SPM1C060	Allen Bradley	E05160
13H1	1	Red complete pilot light Ø22 plain lens with integral LED 24	XB5-AVB4	Schneider Electric	E05161
13H1	1	Legend holder 30 x 50 mm for legend 18 x 27 mm unmarked	ZBZ-35	Schneider Electric	E05080
13H2	1	Red complete pilot light Ø22 plain lens with integral LED 24	XB5-AVB4	Schneider Electric	E05161
13H2	1	Legend holder 30 x 50 mm for legend 18 x 27 mm unmarked	ZBZ-35	Schneider Electric	E05080
13H3	1	Green complete pilot light Ø22 plain lens with integral LED	XB5-AVB3	Schneider Electric	E08279
13H3	1	Legend holder 30 x 50 mm for legend 18 x 27 mm unmarked	ZBZ-35	Schneider Electric	E05080
11K3	1	3-phase monitoring relays	DPA 01 C M44	Carlo Gavazzi	E07955
13KM1	1	Relais 11KW	100-C23KJ10	Allen Bradley	E08450
13KM2	1	Relais 11KW	100-C23KJ10	Allen Bradley	E08450
13KM2	1	Auxiliary Contact NO/NC	100-FC11	Allen Bradley	E08403
13P1	1	Hour counter rail mount ABB 24V/60hz	E233-24/60HZ	ABB	E08451
10Q1	1	Motor Circuit Breaker 16Amp	140M-C2E-C16	Allen Bradley	E08438
10Q1	1	Auxiliary Contact NC/NO Allan Br.	140M-C-AFA11	Allen Bradley	E08405
10Q1	1	3 Phase busbar 2 conn.	140M-C W542N	Allen Bradley	E08406
10Q2	1	Motor Circuit Breaker 4Amp 2.5..4Amp	140M-C2E-B40	Allen Bradley	E08408
10Q2	1	Auxiliary Contact NC/NO Allan Br.	140M-C-AFA11	Allen Bradley	E08405
10QM1	1	Conn.aardkl. 35mm2 ge/gr.	VUPE 5-35 CON.AARDKL	Wieland	E08111
10QM1	1	3P 100A, dinr.mot UL489	194E-A100-1753	Allen Bradley	E07957
10QM1	1	Bed. draaisch. rood/geel voor 194L-E (64*64) UL489	194L-HE6I-175	Allen Bradley	E07958
10QM1	1	Operating shaft	194L-G3393	Allen Bradley	E08382

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Parts list

device tag	Quantity	designation	Type number	Brand	Blastrac number
10S1	1	Faseomkeerschakelaar 6P 100A, bodem montage omkeerbaar UL489	194E-A100-3753	Allen Bradley	E07960
10S1	1	Bed. draaisch. grijs/zwart voor 194L-E (64*64) UL489	194L-HE6A-375	Allen Bradley	E07959
13S1	1	Red Ø40 Emergency switching off pushbutton head Ø22 latching	ZB4-BS844	Schneider Electric	E08437
13S1	1	Body for control button - Ø 22 - 2NC	ZB4-BZ104	Schneider Electric	E01333
13S1	1	Marked legend 60 for emergency stop - EMERGENCY STOP/logo I	ZBY-9330	Schneider Electric	E00361
13SH1	1	Green light block with body/fixing collar integral LED 24V	ZB5-AVB3	Schneider Electric	333-3496
13SH1	1	Green flush/red flush illuminated double-headed pushbutton Ø	ZB5-AW7A3741	Schneider Electric	E07804
13SH1	1	Transparent boot for rectangular multiple-headed pushbutton	ZBA-710	Schneider Electric	E05070
13SH1	1	Single contact block for head Ø22 1NO screw clamp terminal	ZBE-101	Schneider Electric	E05091
13SH1	1	Single contact block for head Ø22 1NC screw clamp terminal	ZBE-102	Schneider Electric	E05092
13SH2	1	Green light block with body/fixing collar integral LED 24V	ZB5-AVB3	Schneider Electric	333-3496
13SH2	1	Green flush/red flush illuminated double-headed pushbutton Ø	ZB5-AW7A3741	Schneider Electric	E07804
13SH2	1	Transparent boot for rectangular multiple-headed pushbutton	ZBA-710	Schneider Electric	E05070
13SH2	1	Single contact block for head Ø22 1NO screw clamp terminal	ZBE-101	Schneider Electric	E05091
13SH2	1	Single contact block for head Ø22 1NC screw clamp terminal	ZBE-102	Schneider Electric	E05092
11T1	1	Transformer Sitas 315VA 480V 550..208V/24V UL/CSA	SIEM 4AM4342-8DN00-0EA0	Siemens	E08128
14U1	1	Compact smart relay Zelio Logic - 12 I O - 24 V AC - clock -	SR2B121B	Schneider Electric	E08171
14U1	1	Memory cartridge - for smart relay Zelio Logic firmware - fo	SR2MEM02	Schneider Electric	E08172
X1	3	Tension clamp terminal 2*4(6)mm	WEID ZDU 4	Weidmuller	E08409
X1	1	Earth terminal for ZDU 4 2*4(6)mm	WEID ZPE 4	Weidmuller	E08410
X1	2	Eindsteun V4 klein 9708/2S35	EINDSTEUN V4 CON.ACC	Wieland	E07828
X1	1	End plate Beige for ZDU 2.5	WEID ZAP/TW 1	Weidmuller	E05168
X1	3	Tension clamp terminal 2*2.5 beige	WEID ZDU 2.5	Weidmuller	E05166
X1	1	Earth terminal for ZDU 2.5 2*2.5(4)mm	WEID ZPE 2.5	Weidmuller	E05167
X1	1	End plate Beige for ZDU 4	WEID ZAP/TW 4 DB	Weidmuller	E08411
X2	3	tension clamp terminal multi level 2*2.5	WEID ZDK 2.5	Weidmuller	E05169
X2	2	Earth terminal for ZDK 2*2.5	WEID ZDK 2.5PE	Weidmuller	E05170
10X2	1	Walther UL receptical CEE 4x60A 480V	569419	Walther	E08441

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