



OPERATING MANUAL 2-30DS Global

VERSION 2.0

**EC DECLARATION OF CONFORMITY**

in accordance with Appendix II sub A of Directive 2006/42/EC

BLASTRAC B.V.

Utrechthaven 12
NL - 3433 PN NIEUWEGEIN
Tel: 0031 (0)30 601 88 66
Fax: 0031 (0)30 601 83 33
Info@Blastrac.nl
The Netherlands

Declare under our sole responsibility that the machine as described below conforms with the Health and Safety requirements of the European Directive of the machine Safety.

In case of changes to the machine without our written authorization this declaration loses its validity.

Model: **BLASTRAC 2-30DS** **Serial number:**

1. satisfies the conditions set out in the Machine Directive (Directive 2006/42/EC); Low voltage directive (2006/95/EC, as last amended; EMC directive 2004/108/EC, as last amended)
2. satisfies the following harmonized standards:
NEN-EN 349, NEN-EN 418, NEN-EN 294 and NEN-EN 60204

Nieuwegein


Michiel Kallsvaart



Table of contents

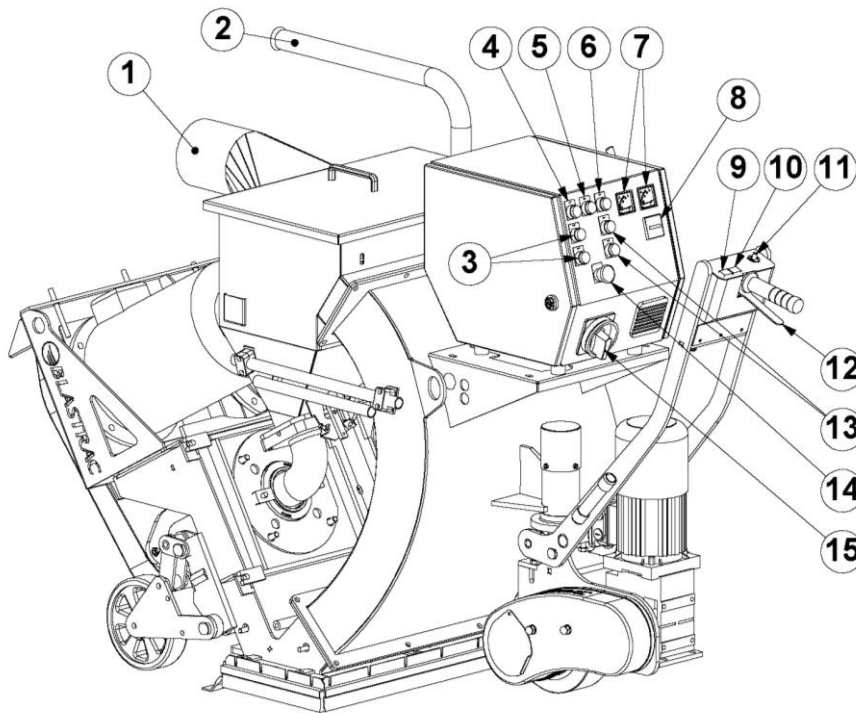
EC Declaration of Conformity	02
1. Introduction	04
2. Machine description	04
3. Safety	05
Safety precautions	
Safety regulations	
Safety instructions	
4. Initial operation	07
Checkpoints power supply	
Checkpoints of machine	
5. Operating	08
6. Maintenance	09
7. Selection of abrasive	10
8. Technical data	11
Contact	12

1. Introduction

It is important that all persons who are working with or maintaining this machine must read the manual carefully and understand it fully. Keep this manual near to the machine, to enable it be referred to at any time. Only authorized and trained personnel may operate this machine.

2. Machine description

The **Blastrac** blast cleaning machine 2-30DS Global is a downward blasting machine with a closed abrasive circuit designed for the pre-treatment of horizontal surfaces. The bouncing impact of metallic abrasive onto the surface to be treated thoroughly removes surface contaminants, coats of paint, sealants and thin coatings. A suitable filter unit must be connected to the machine in order to separate the dust from the abrasive. A specially designed dust collection system ensures dust-free operation of the machine and clean air at the workspace.



1	Connection pipe for dusthose	6	Control lamp BLASTMOTORS ON	11	Speed control
2	Cable guide	7	Ammeters left & right blast motor	12	Travel switch
3	Drive control ON and OFF	8	Hour counter	13	Blast motors ON and OFF
4	Control lamp CONTROL VOLTAGE ON	9	Overdrive	14	Emergency shutdown
5	Control lamp FAULT	10	Move forwards	15	Main switch



3. Safety

Before operating the machine, the personnel must be familiar with the safety instructions given in this manual. Keep this manual near to the machine, so it can always be consulted.

Safety precautions

- The surface to be treated must be swept clean to remove stones, screws etc.
- Never use the machine when the surface is not clear and if there is a risk of tripping.
- Make sure there is not any water on the surface to be treated.
- Don't get disturbed during the activities.
- Remove any trailing electrical cables and or dust hoses from the surface to be treated.
- Always switch on the dust collector.

Safety regulations

- Persons who do not operate the machine are not permitted to stay in the surrounding of the machine. Don't leave children anyway.
- Keep the machine original; Use cables who are approved and not damaged. Never remove the earth connecting of the supply cable and machine. Use only cables with earth wire and connectors with a earth connecting.
- Connect main power supply cable to a installation with a earth leakage circuit breaker.
- Inspect and test the electrical components of the machine regularly. This electrical components have to satisfy to the requirements EN60204-1.
- Always call a skilled electrician when you have questions about the safety of the electrical components.
- Work on electrical equipment or operating materials may only be undertaken by a skilled electrician or by trained persons under the guidance and supervision of a skilled electrician as well as in accordance with the electrical engineering regulations.
- Pull out the main plug during inspections and repairing on the machine.
- Never operate the machine when workplace is wet.
- Never stay in the rain with the machine.

The following sticker is placed on the machine.



Meanings of these symbols are:

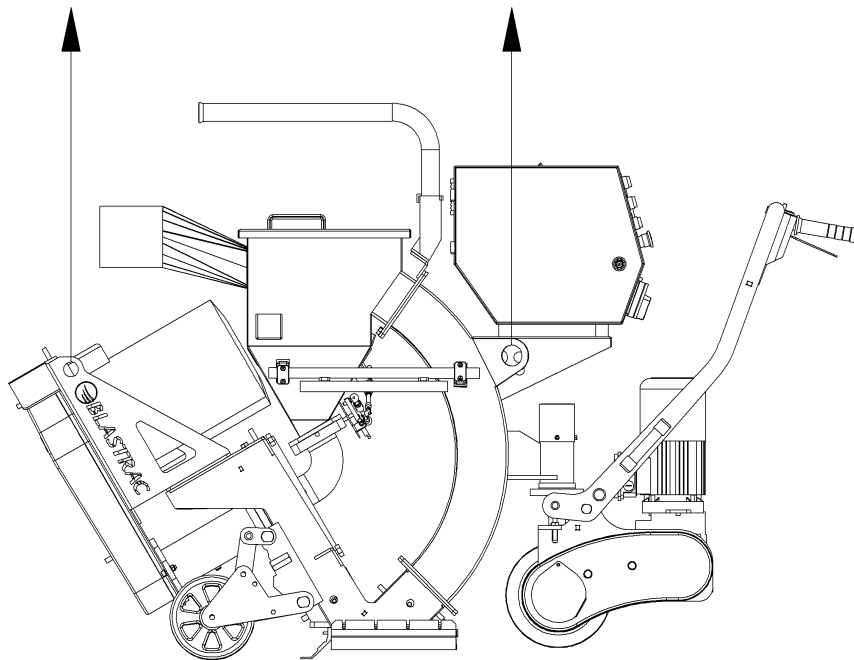
- Ear protection is obliged
- Safety glasses with lateral protection are obliged
- CE-mark on this machine
- Safety shoes obliged
- Consult the manual before operating the machine

Personnel must tie back long hair and not wear loose clothing or jewellery including rings. Wear gloves and dust mask during operating the machine.



Safety instructions

- Abrasive can escape from the sides of the blast head at high speed. Wear safety glasses with lateral protection and close-fitting protective clothing.
- Be very careful with inserting the quick release pin
- The machine, specially the handle grip must be free of fats and has to be dry.
- The dust container / bag of the filter unit must be emptied regularly. Comply with the local waste treatment regulations considering the removed material.
- The weight of the 2-30DS Global is 750 kg. By transport the machine with a crane or lift, use the lifting eyes of the machine.
- Pay attention that the drive unit do not turn away during lifting the machine.





4. Initial operation

Before using the machine it is of great importance to inspect the machine.
It is not permitted to use the machine if the machine safety is not according the checkpoints below.

Checkpoints powersupply

- Use only extension cables for extending the main cable that are sized and marked in accordance with the overall power consumption of the machine.
- Electrical cables must be fully unwind of them reels.
- No damage is permitted for electrical cables.
- Use a electrical power supply connection with earth connecting.

Checkpoints of machine

- Safety functions and operating functions must work correct.
- Check the following parts for damage and wear: blastwheel, feedspout, liners, magnet- and brush sealing.
- No loose bolts and nuts permitted
- No any damage of electrical components permitted.
- Dust hose must be undamaged and the connection must be reliable.
- Check de parts of the separator on wear and defects. Remove foreign bodies and dust deposits.



5. Operating

During operating the 2-30DS Global, the following additional safety instructions must be followed closely.

Before switch on

- Check if the distance from magnet to the floor is 10-12mm. Check this height with aluminium strips.
- Check the distance from brush sealing to the floor. This may be max. 1 mm.
- Fill the separator equally with the selected abrasive up to the bottom of the separator tray. The magnetic valve must be closed whilst doing this.
- Connect the blast machine and filter unit with the dust hose. This connection must be reliable.
- Connect the power supply cable of the filter unit with the generator. Be sure that electrical power supply is correct.

Switch on the machine

- Before switch on the blast machine, switch on the filter unit.
- Press the green push button "Blast wheels ON" and check the rotating direction of the blast motor. The correct direction is given with a arrow on the housing of the motor.
- Select the speed using the speed control knob. (item 11 of machine description)
- When the machine is traveling pull the abrasive control cable to open the magnetic valve. Observe the ammeter. It may indicate the full load amperage. After having blasted aprox. 2 m, close the abrasive valve, stop the machine and check the blasted surface.
- If the 'hotspot' is too much on the right, turn clockwise the cage a little bit. Never adjust the cage during blasting.

Switch off the machine

- Close the abrasive valve
- Press the red button "Blast wheels OFF"
- Switch the main switch to position "OFF"
- Pull out the connector of the main power supply of the machine.
- Switch off the filter unit.
- Wait for standstill of all drives before any inspection or maintenance works are started.



6. Maintenance

Changing the liners

- Unscrew the housing front covers and remove them
- Loose the press bolts of the top liners and take the top liners out
- Loosen the nuts of the side liners and plenum liners. Take them out of the housing.

To mount the liners, keep on the following sequence:

- First place the plenum liners and fix them with the nuts.
- Place the side liners inside the housing. The sideliners may stick out the body for max. 1mm. Tighten the nuts.
- Place the top liners in the housing and make sure that the top liner sits close to the edges of the side liners.
- Place the front covers and tighten the nuts.
- Tighten the pressure bolt of the top liner slightly and press the top liner against the side liners.

Changing the tune-up kit

The tune-up kit consists of the blastwheel, the cage and a bolt.

- Remove the feed spout
- Remove the cage clamps
- Remove the cage and blastwheel cover plate
- Block the blastwheel and remove the central fixing bolt
- Take the blastwheel out of the housing

Use a new central fixing bolt when mounting a new blastwheel

- Place the blastwheel on the hub and tighten the central fixing bolt.
- Fix the blastwheel cover plate with 4 nuts
- Insert the control cage in the center and clamp the cage with the control clamps so that the blastwheel can rotate freely
- Turn the blastwheel manually. It must rotate freely.
- Place the feed spout between the abrasive valve and the cage.

Clean the machine every day with air and non-aggressive materials. Never use a high pressure water cleaner to clean the machine.

Store the cleaned machine in a dry room. Protect the electrical motor from moisture, heat dust and shocks. Remove the abrasive out of the abrasive storage hopper.

All repair work has to be done by qualified Blastrac personnel, this guarantees a safe and reliable machine.

Any guarantee on the machine is expired when:

- By not using original Blastrac spareparts and abrasive.
- When repair work is not done by qualified Blastrac personnel.
- When changes, add ons or conversions are undertaken without written permission of Blastrac BV.

7. Selection of abrasive

Media nr. 2

Is often used when the surface is only subsequently sealed.

- creates fine profiles, e.g. on vacuum concrete and non-glazed tiles
- removes thin layers of rust on steel surfaces
- removes thin layers of paint

Media nr. 3

- creates a fine to medium texture on concrete.

- removes glazing from tiles prior to subsequently coating with antiskid floor sealings
- removes old impregnations and coatings about 1 mm thick

Media nr. 4

Standard abrasive, suitable for about 50-60 % of all applications. Creates a medium profile on concrete. Fulfils the same purpose as Media No. 3 when a higher speed of the machine is required, e.g. on asphalt, in order to keep the thermal load low.

- removes laitance from new concrete
- roughening of smooth concrete or natural stone
- removes coatings with a thickness of 1-3 mm
- cleaning of steel surfaces

Media nr. 5

This media is used to create a coarse profile or to increase the work speed in the case of surfaces hard to treat.

- removes sediments on concrete prior to coating
- removes thick paint coatings or rust from steel surfaces, bridges, tanks, etc.
- removes flexible coatings on parking house decks
- removes road markings and retexturing of asphalt and concrete roads

Media nr. 8

Only as an addition to Media No. 3, No. 4 and No. 5 with maximum 30% content.

Media No. 8 should never be used without blending since otherwise the wear in the machine as a whole would increase disproportionately.

- removes polyurethane coatings
- removes adhesive remnants
- removes rubber deposits
- penetrates coatings hard to remove
- also suitable to be used on steel for extraordinary roughness

8. Technical data

	2-30DS Global
Power consumption blast motor	30KW
Electrical connection (voltage is given on the control box)	400V / 50Hz 400V / 60Hz
Blast width	800 mm
Drive speed	0 – 33 m/min
Length	1850 mm
Width	980 mm
Height	1150 mm
Weight	750 kg
Noise level (under load)	83dBa
Vibration level	1.9 RMS Allows 13,9 hrs. of working with the mentioned equipment without having to use anti vibration precaution measures.
Dust hose connection	Ø150 mm

The electrical diagrams of the electrical system are placed inside of the control panel.

Design and specifications are subject to change without notice by Blastrac BV



SERVICE MANUAL 2-30DS Global

VERSION 3.1

**EC DECLARATION OF CONFORMITY**

in accordance with Appendix II sub A of Directive 2006/42/EC

BLASTRAC B.V.

Utrechthaven 12
NL - 3433 PN NIEUWEGEIN
Tel: 0031 (0)30 601 88 66
Fax: 0031 (0)30 601 83 33
Info@Blastrac.nl
The Netherlands

Declare under our sole responsibility that the machine as described below conforms with the Health and Safety requirements of the European Directive of the machine Safety.

In case of changes to the machine without our written authorization this declaration loses its validity.

Model: **BLASTRAC 2-30DS Global** **Serial number:**

1. satisfies the conditions set out in the Machine Directive (Directive 2006/42/EC); Low voltage directive (2006/95/EC, as last amended; EMC directive 2004/108/EC, as last amended)
2. satisfies the following harmonized standards:
NEN-EN 349, NEN-EN 418, NEN-EN 294 and NEN-EN 60204

Nieuwegein


Michiel Kallsvaart





Index

1. Spare parts	04
2. Maintenance box	12
Contact	13



1. Spare parts

Fig. 01

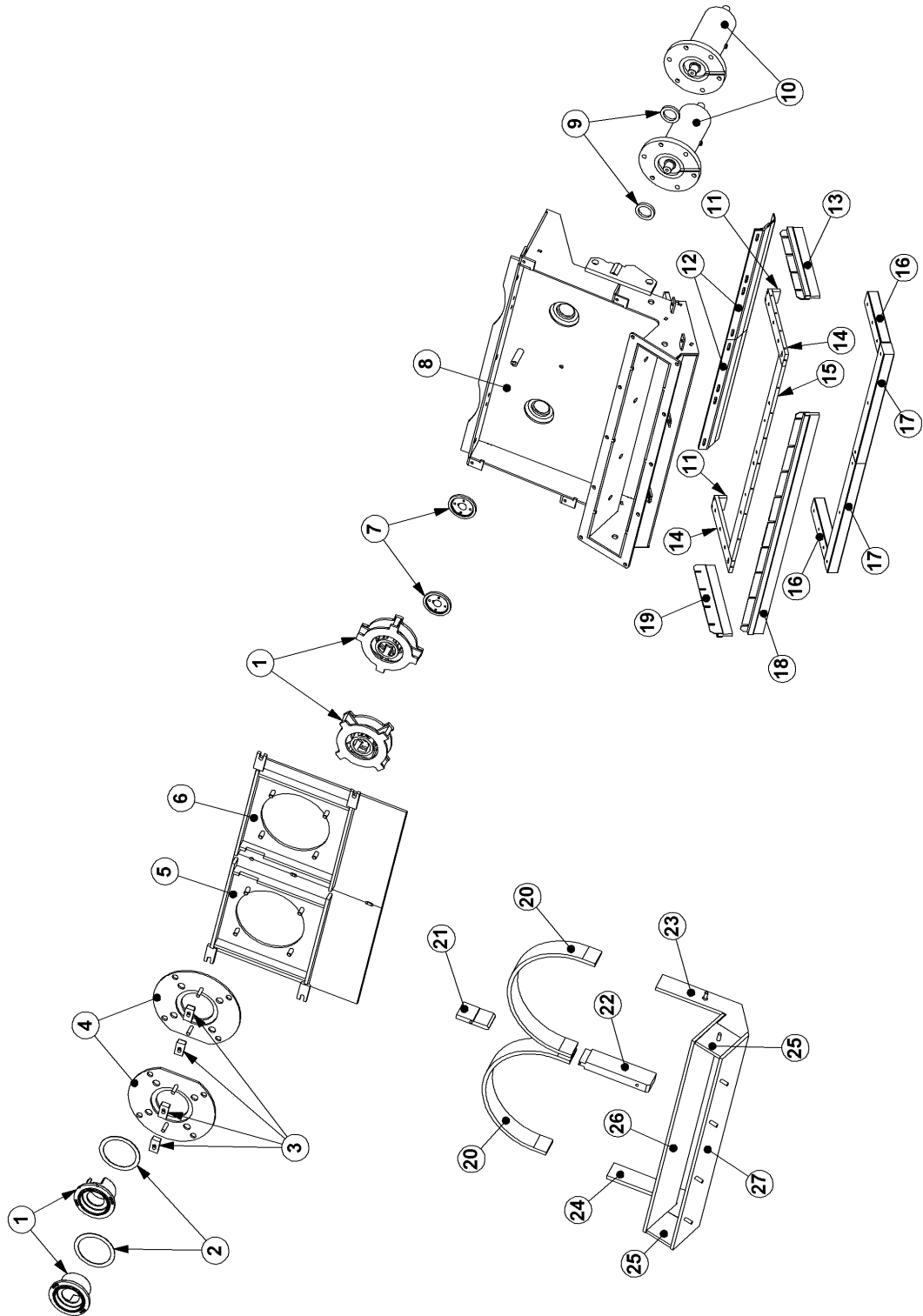


Fig. 01

Item	Part number	Description	Qty.
1	B20536K	Tune up kit	2
2	972781	Control cage shim	2
3	969803	Control cage clamp	4
4	979644	Blastwheel cover plate	2
5	B22009	Front plate LH	1
6	B22010	Front plate RH	1
7	B20397	Hub	2
8	E07038	Blast housing	1
8+5+6	E08757	Blast housing incl. front plates	1
9	B20295	Felt seal Ø60x8	2
10	E00842	Bearing unit complete	2
11	481350	Spacer side magnet rear	2
12	E07577	Skid seal UNI	2
13	E00457	Side brush RH	1
14	489945	Insulator side	2
15	B20806	Insulator front	1
16	490047	Magnet side	2
17	B20804	Magnet front	2
18	B20816	Front brush	1
19	E00458	Side brush LH	1
20	B20907	Top liner	2
21	B21068-2	Center liner top part	1
22	B21068-1	Center liner bottom part	1
23	B20395	Side liner right hand	1
24	B20394	Side liner left hand	1
25	970153	Plenum bottom side liner	2
26	B20815	Plenum liner top	1
27	B20814	Plenum liner bottom	1

Fig. 02

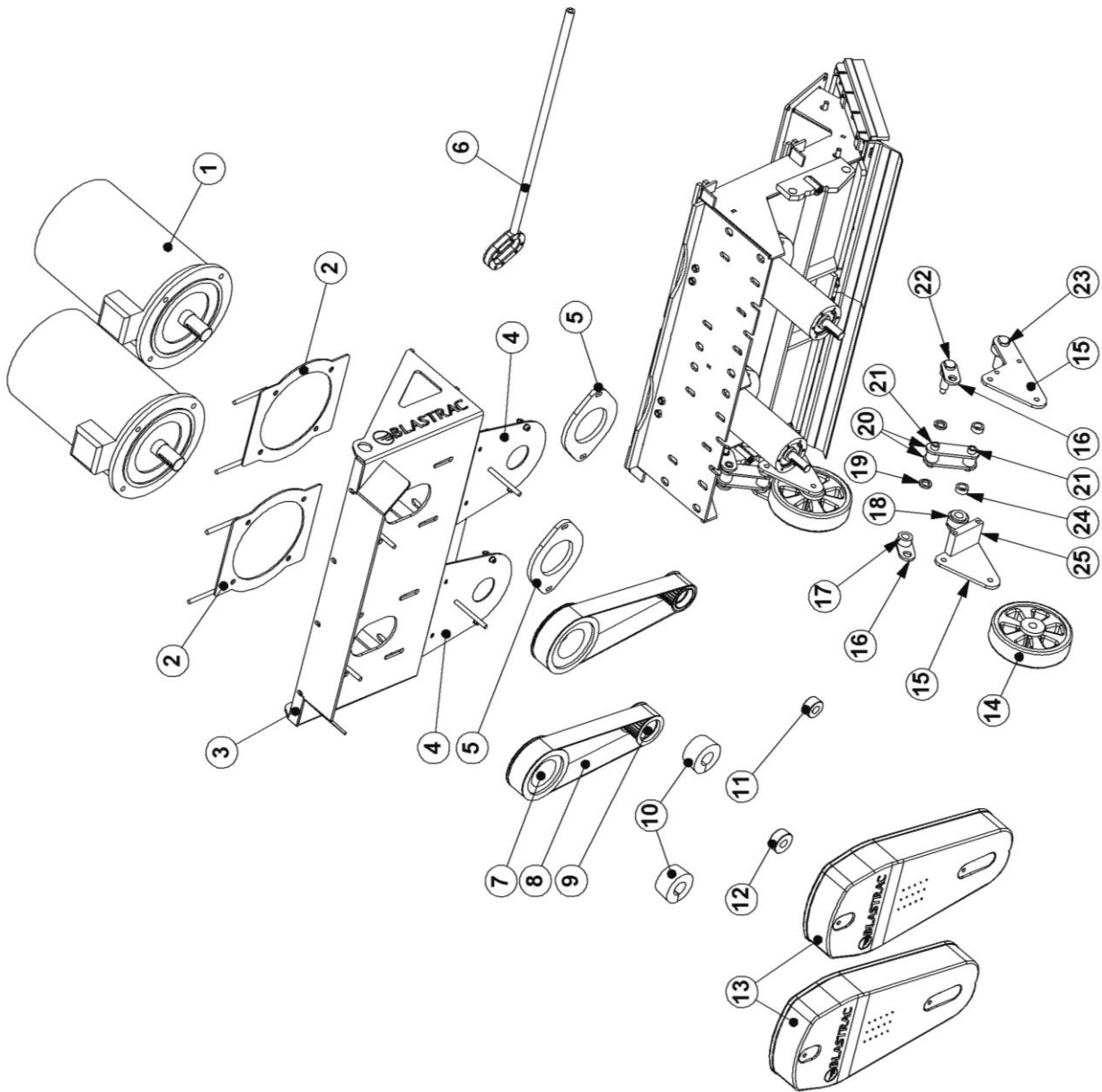


Fig. 02

Item	Part number	Description	Remarks	Qty.
1	E06511-IE2	Blastmotor 15 kW		2
2	E06513	Fill up plate blastmotor		2
3	E07015	Motor bracket		1
4	E07037	Back plate		2
5	E06940	Dust plate		2
6	B21917	Lever		1
7	B20429-1	Pulley	50Hz	2
	B21340	Pulley	60Hz	2
8	B20428	Belt	50Hz	2
	E04009	Belt	60Hz	2
9	B20430-1	Pulley	50Hz	2
	B21341	Pulley	60Hz	2
10	E00425	Taperlock	50/60Hz	2
11	222-2172-V	Taper lock	50Hz	2
12	B21342	Taper lock	60Hz	2
13	B20224	Belt guard		2
14	B20842	wheel		2
15	E06465	Wheel bracket side plate		4
16	E06467	Top lever		4
17	E06474	Lever bush top		4
18	E06472	Wheel bracket bush		4
19	E06855	Lever bush middle		4
20	E06466	Bottom lever		4
21	E06471	Lever shaft		4
22	E06469	Top bolt		2
23	E06468	Bottom bolt		2
24	E06473	Lever bush bottom		4
25	E06475	Distance plate		2

Fig. 03

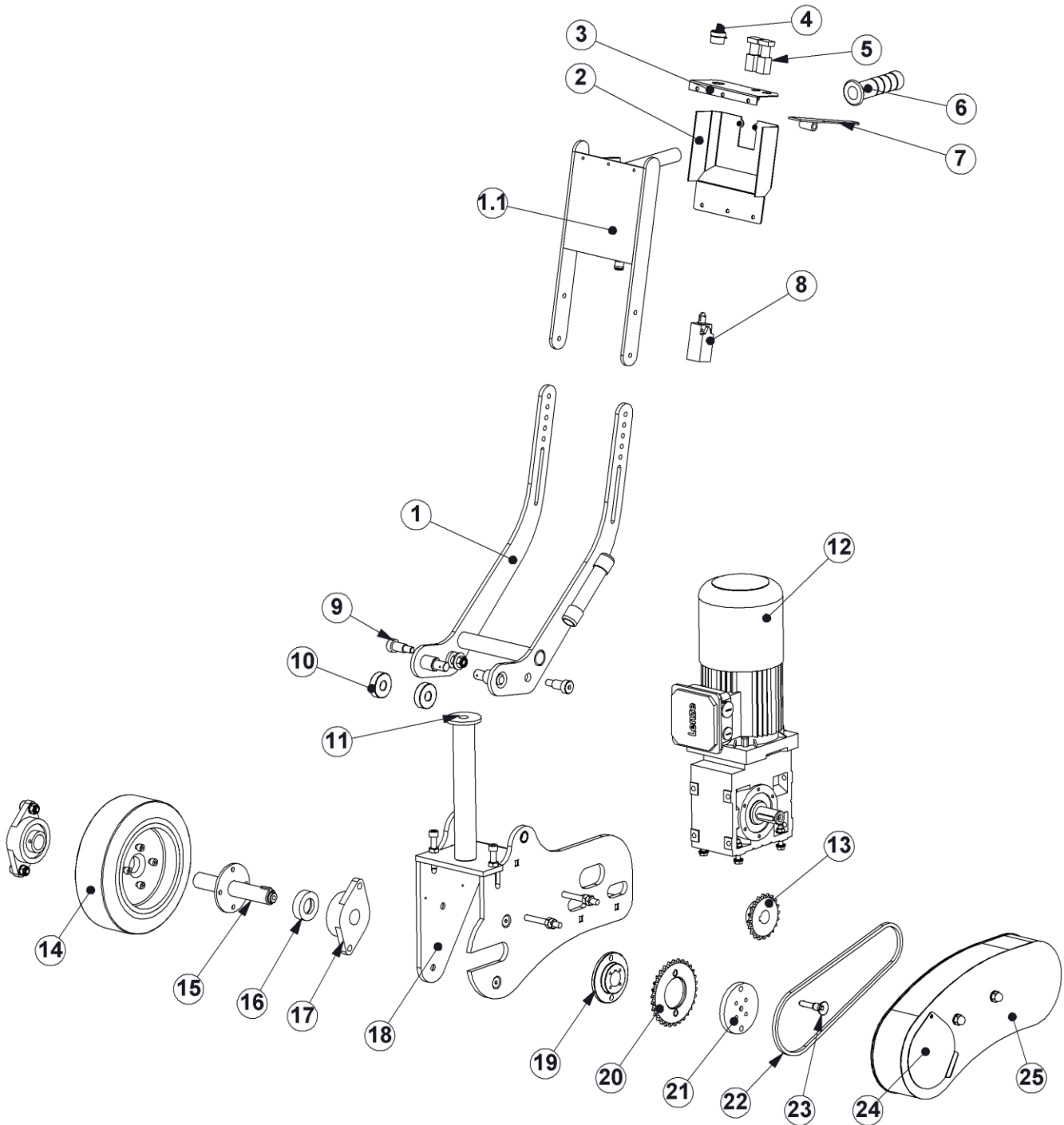


Fig. 03

Item	Part number	Description	Remarks	Qty.
1	E10579	Handle lower part		1
1.1	E06143	Handle top part		1
2	E00740	Control box		1
3	E00741	Control box top plate		1
4	E00866	Potention meter complete (consists out of item 4.1 & 4.2)		1
4.1	E00866/1	Potmeter only with soldered contact block		1
4.2	E00866/2	Potmeter holder		1
5	E00867	Switch		2
6	453290	Handle grip		1
7	E00743	Switch lever		1
8	454796	Limit switch		1
9	E00738	Handle pin		2
10	B20517	Bearing		2
11	971860	Washer for yoke shaft		1
12	E00664-1	Drive motor 1,1 kW		1
	E00664/1	Brake complete for drive motor		
	E00646/2	Fan cover complete for drive motor		
	E00664/2	Cooling fan for drive motor		
13	E00641	Sprocket		1
14	476405-1	Traction wheel		1
15	E00742	Drive wheel shaft		1
16	E07293	Distance bush drive wheel		1
17	009324	Bearing drive wheel		2
18	E00739	Drive wheel bracket		1
19	488551	Hub		1
20	477631	Idler sprocket		1
21	477630	Sprocket retainer		1
22	E00237	Chain		0.9m
22.1	E00238	Chain link		1
23	478198	Quick release pin		1
24	979971	Cover plate chain guard		1
25	E00744	Chain guard		1

Fig. 04

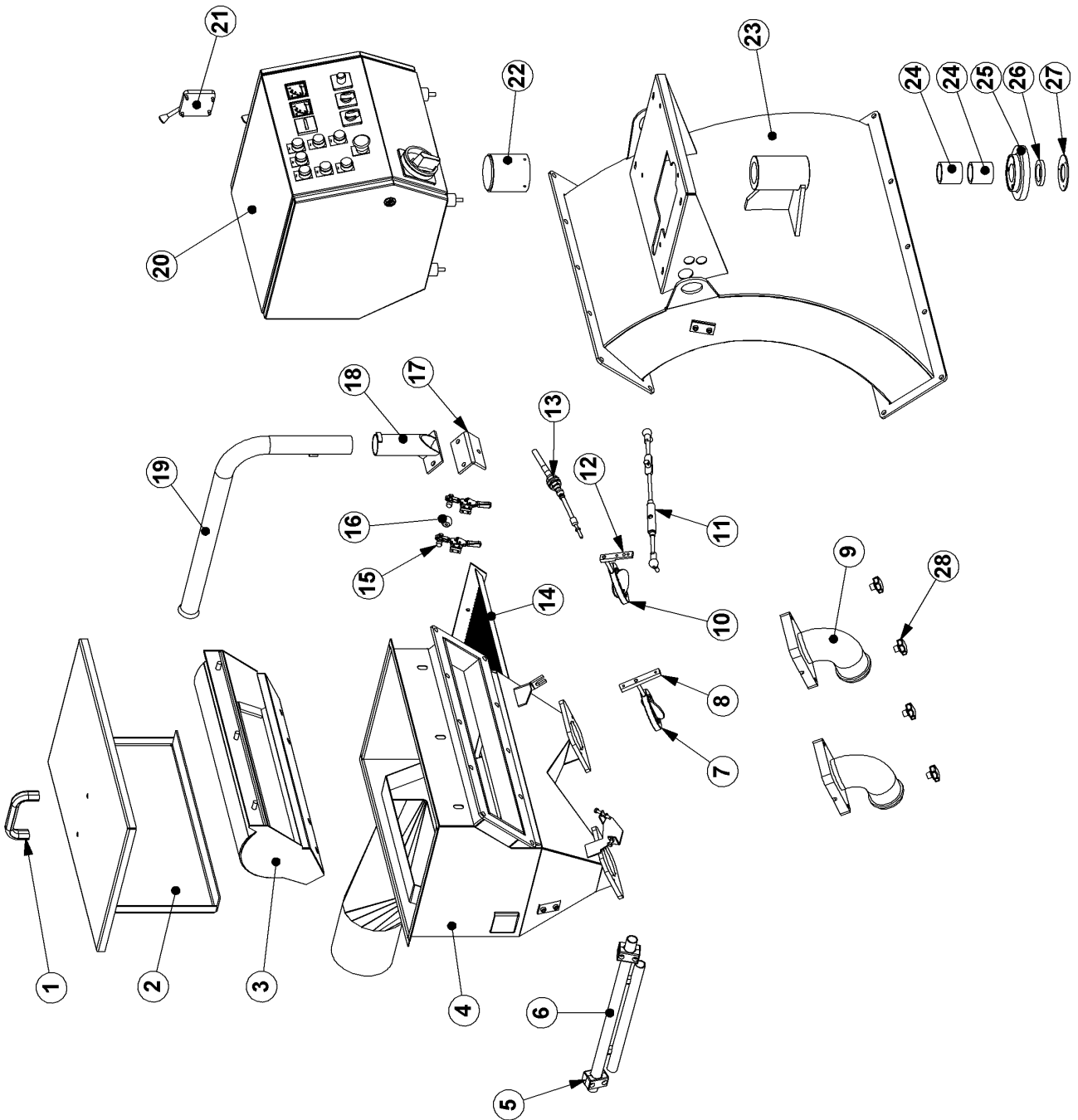


Fig. 04

Item	Part number	Description	Qty.
1	970385	Handle	1
2	B20793	Separator cover	1
3	B20821	Deflector	1
4	B20819	Separator	1
5	DG39	Pipe clamp Ø25	2
6	E00914	Cable tube	1
7	B21295	Magnetic valve assembly	1
8	B21326	Lever magnetic valve long	1
9	970192	Feed spout	2
10	B21295R	Magnetic valve assembly	1
11	B20862	Turnbuckle	1
12	B21296	Lever magnetic valve	1
13	B20520	Control cable	1
14	B20820	Separator tray	1
15	001084	Clamp for separator tray	2
16	B21325	Ball head for separator	1
17	B21384	Cable pillar bracket	1
18	B20426	Cable guide support	1
19	B20425	Cable guide	1
20	E00124-1	Elektro box 2-30	1
21	B20519	Cable control unit	1
22	B20515	Shaft cover	1
23	B20818	Rebound plenum	1
24	971341	Oilite bush	2
25	B20511	Lifting plate	1
26	B20295	Felt seal	1
27	B20512	Seal retainer	1
28	000213	Clamp knob M8	4



2. Maintenance box complete 000153 2-30DS 50Hz

Item	Part number	Description	Qty.
1	001071	Metal box	1
2	B20394	Side liner LH	1
3	B20395	Side liner RH	1
4	B21068	Center liner	1
5	B20907	Top liner	2
6	B20536K	Tune up kit	6
7	B20520	Control cable	1
8	E07577	Skid seal UNI	2
9	E00457	Side strip brush RH	1
10	E00458	Side strip brush LH	1
11	B20816	Front strip brush	1
12	B20428	HTD belt	2
13	001017	Open-end spanner 10 x 11	1
14	001018	Open-end spanner 13 x 15	1
15	001019	Open-end spanner 17 x 19	1
16	B21334	Open-end spanner 24 x 30	1
17	000114	Ratchet spanner 1/2"	1
18	000146	Box spanner 13	1
19	000147	Box spanner 17	1
20	000148	Box spanner 19	1
21	B21335	Box spanner 30	1
22	B21336	Extension piece 250mm	1
23	000150	Box spanner SW 8mm 120lg	1
24	001033	Allenkey 3	1
25	001016	Allenkey 6	1
26	001015	Allenkey 8	1
27	001032	Screwdriver 5,5x100	1
28	001035	Insulated screwdriver	1
29	001056	Water pump pliers	1
30	000151	Hammer	1
31	001031	Safety glasses	1



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

Project description	2-30DS Soft Start.		
Drawing number	PJ11.1098.04		
Blastrac number	E-00124-2		
Power supply	400VAC 50Hz		
Input lead			
Control Voltage	24VAC / 24VDC		
Year of Manufacturing	2011		
Remarks	As Built		
Created on	16-11-2011	by	hvandenbrink
Edit date	18-9-2014	by	HvdB
			Number of pages 17

Table of contents

Page	Page description	Revision	Date	Edited by
1	Titelblad / voorblad		19-12-2011	
2	Table of Contents		19-12-2011	
2.a	Revision sheet		19-12-2011	
3	Legend		17-11-2011	
4	Cable set		19-12-2011	
5	Panel layout		19-12-2011	
6	Panel layout2		19-12-2011	
10	Main Current		19-12-2011	
11	Main Current		19-12-2011	
12	Main Current		19-12-2011	
13	Control Current		19-12-2011	
20	Terminal strip		19-12-2011	
21	Terminal strip		19-12-2011	
22	Terminal strip		19-12-2011	
30	Partlist		19-12-2011	
31	Partlist		19-12-2011	
32	Partlist		19-12-2011	

1

2.a

Revision	Date	Discription	Remark	Editor
01	19-12-2011	As Built	Engineering ART4	HvdB
02	05-01-2012	Tag numbers added in lay-out drawing	Engineering ART4	HvdB
03	31-01-2012	Parametersettings lenze drive changed acc rmarks RK Blastrac	Engeneering ART4	HvdB
04	18-09-2014	Update with wire dimensions	Engeneering ART4	HvdB

2

3

WIRE COLOR

Main Voltage 400V

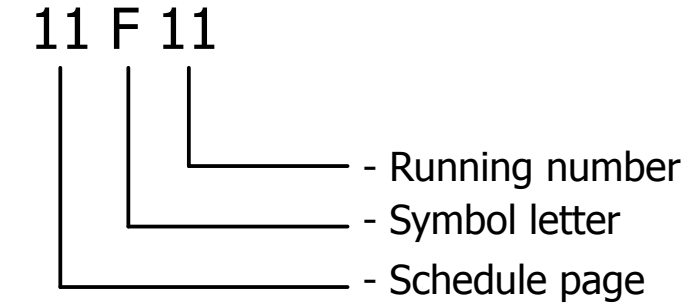
<u>Phase</u>	<u>Colors</u>
L1	- Black
L2	- Black
L3	- Black
N	- Light Blue
Earth / PE	- Yellow/Green

Control Voltage

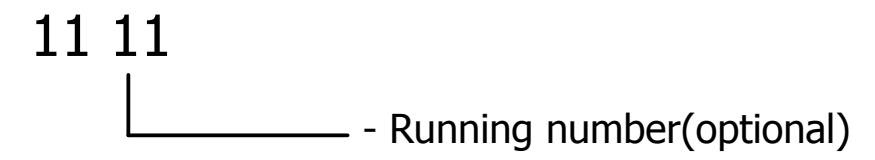
Phase (24VAC)	- Red
Hook-up wire	- Red
Neutral (24VAC)	- Red

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

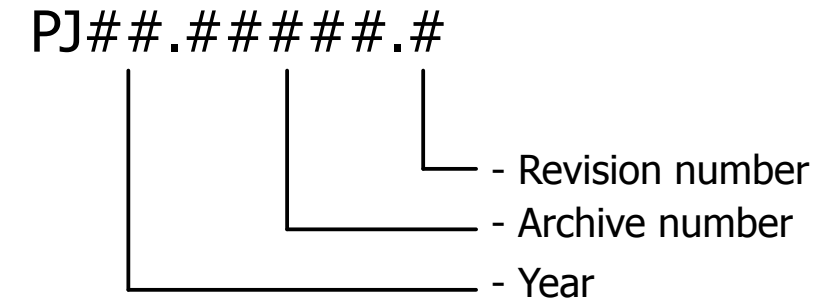
SYMBOL CODE

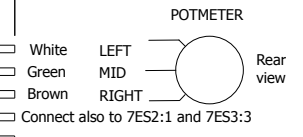
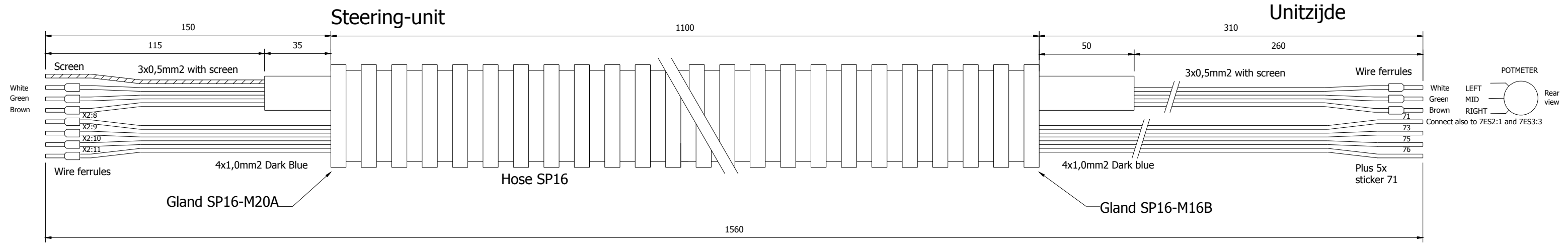
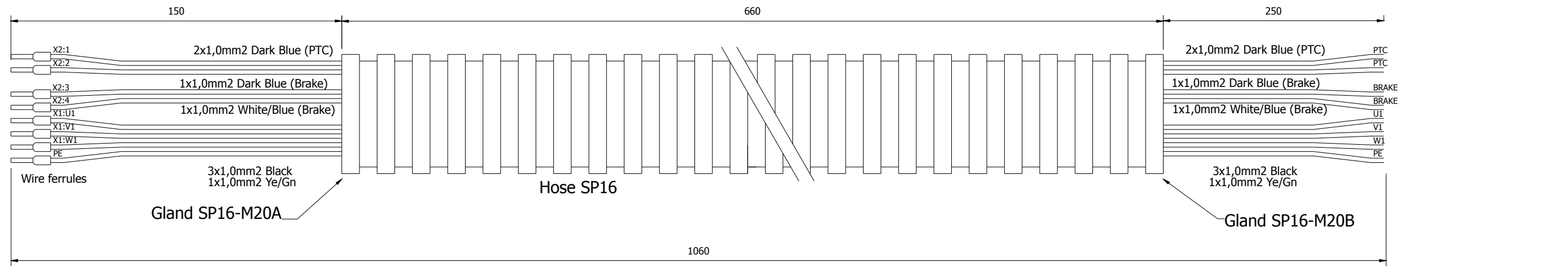
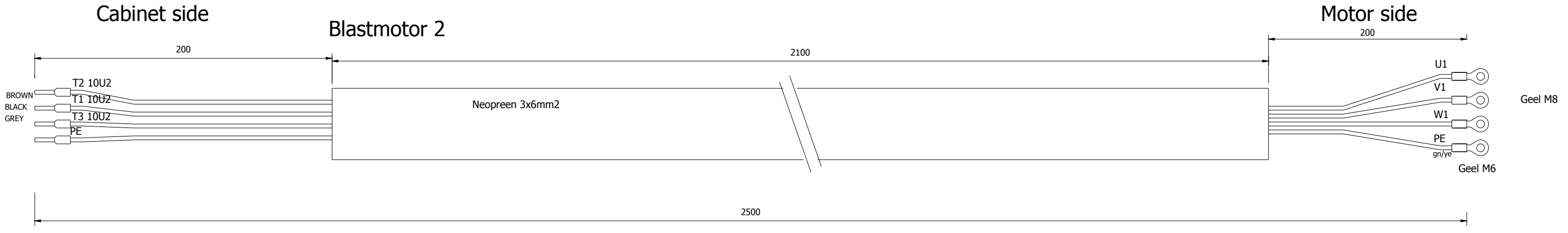
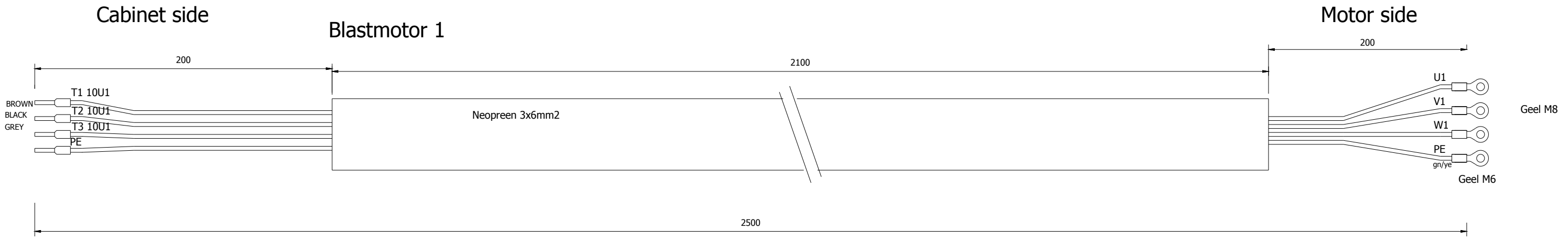


CORE CODE

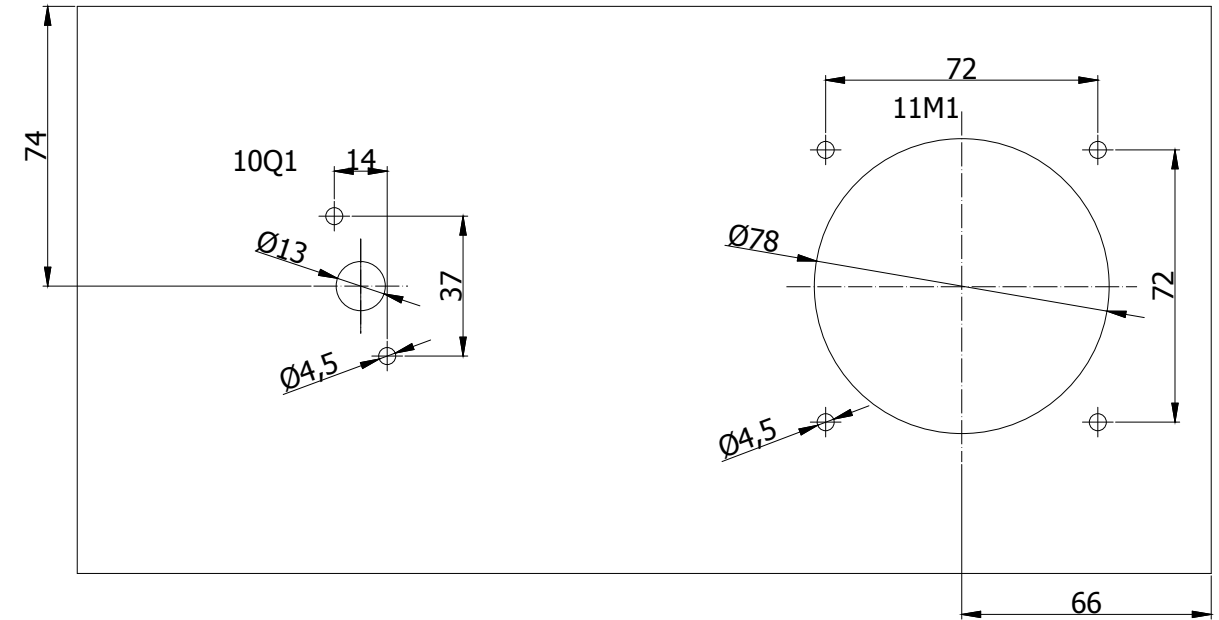
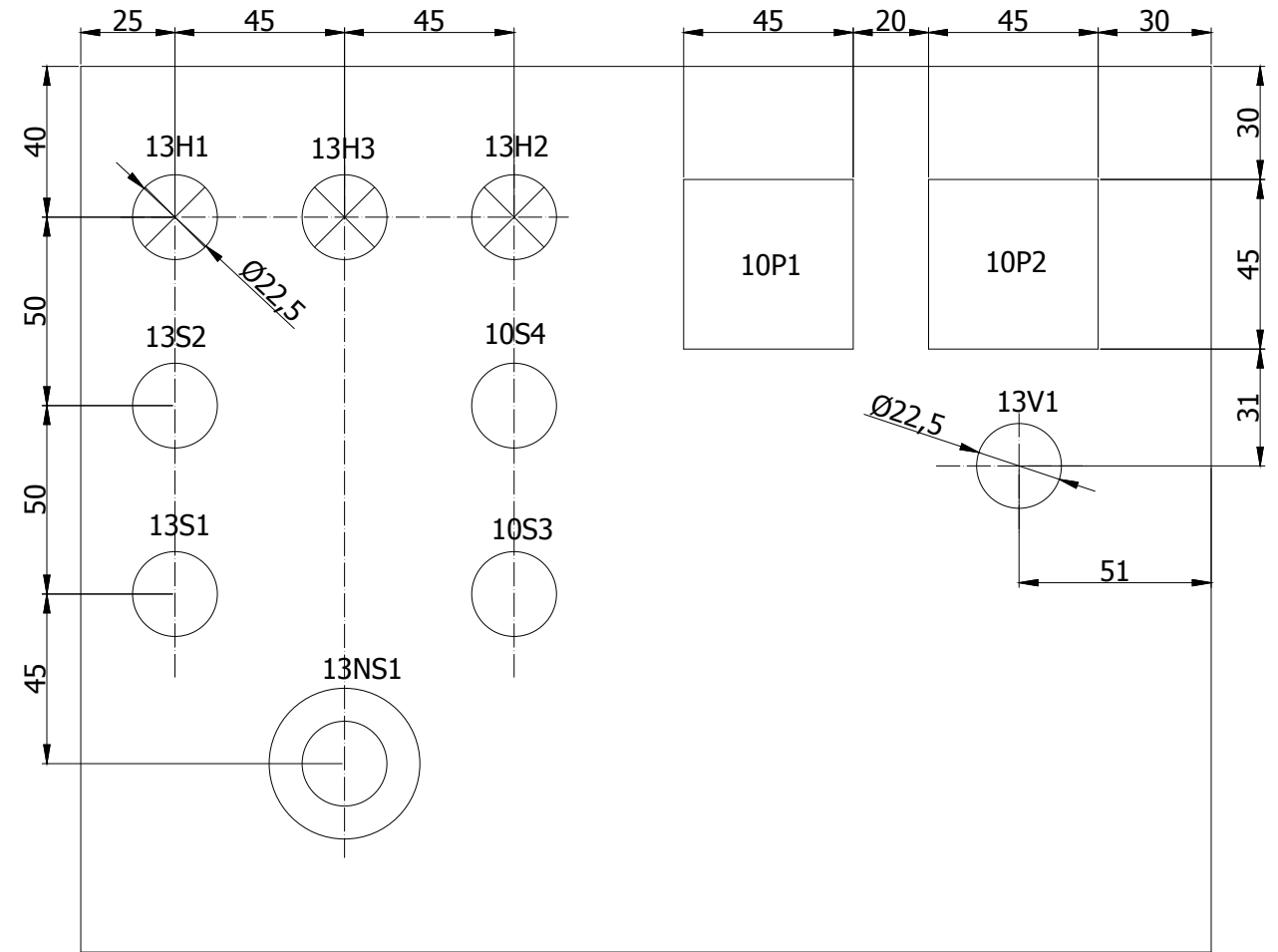
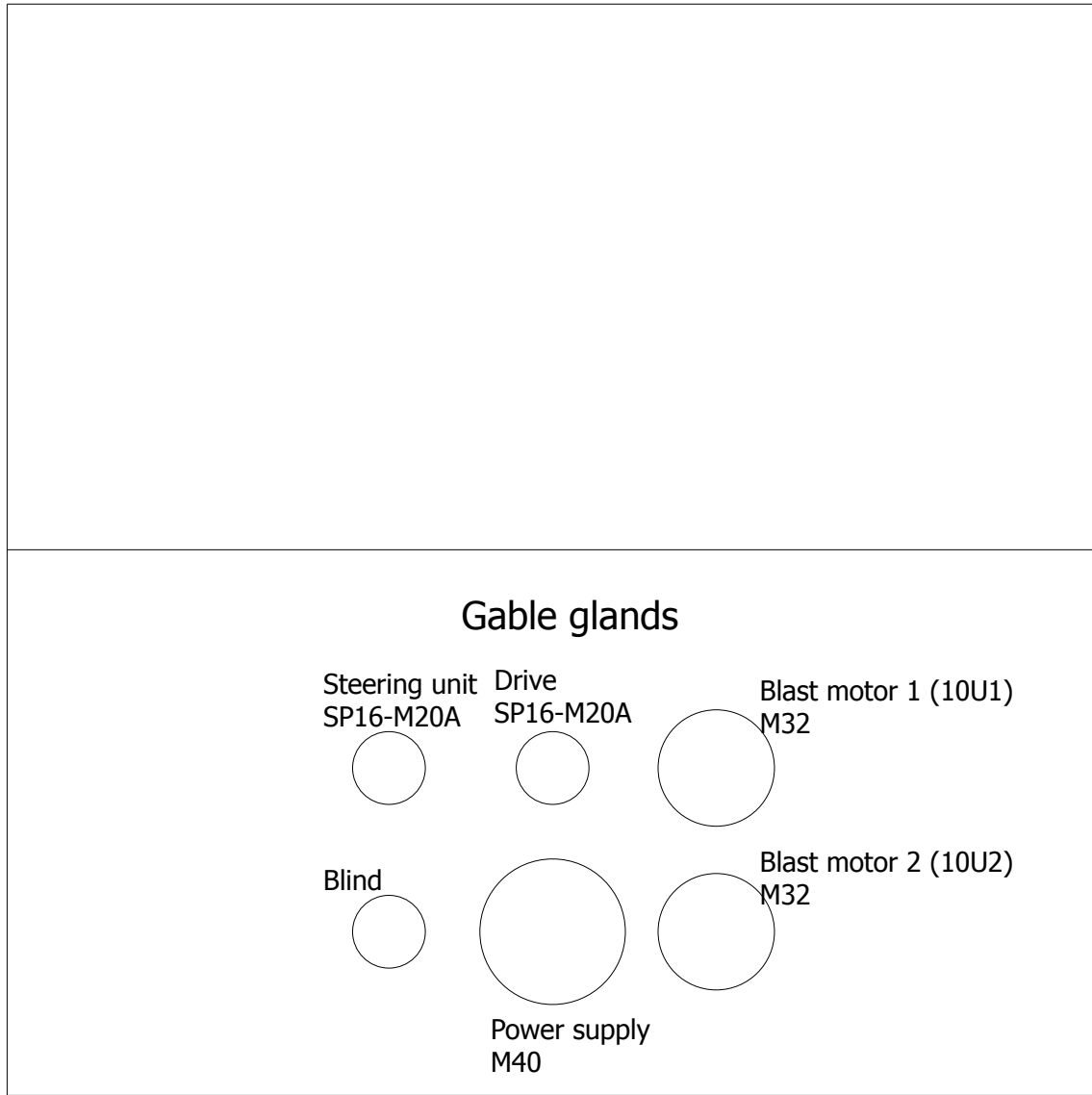


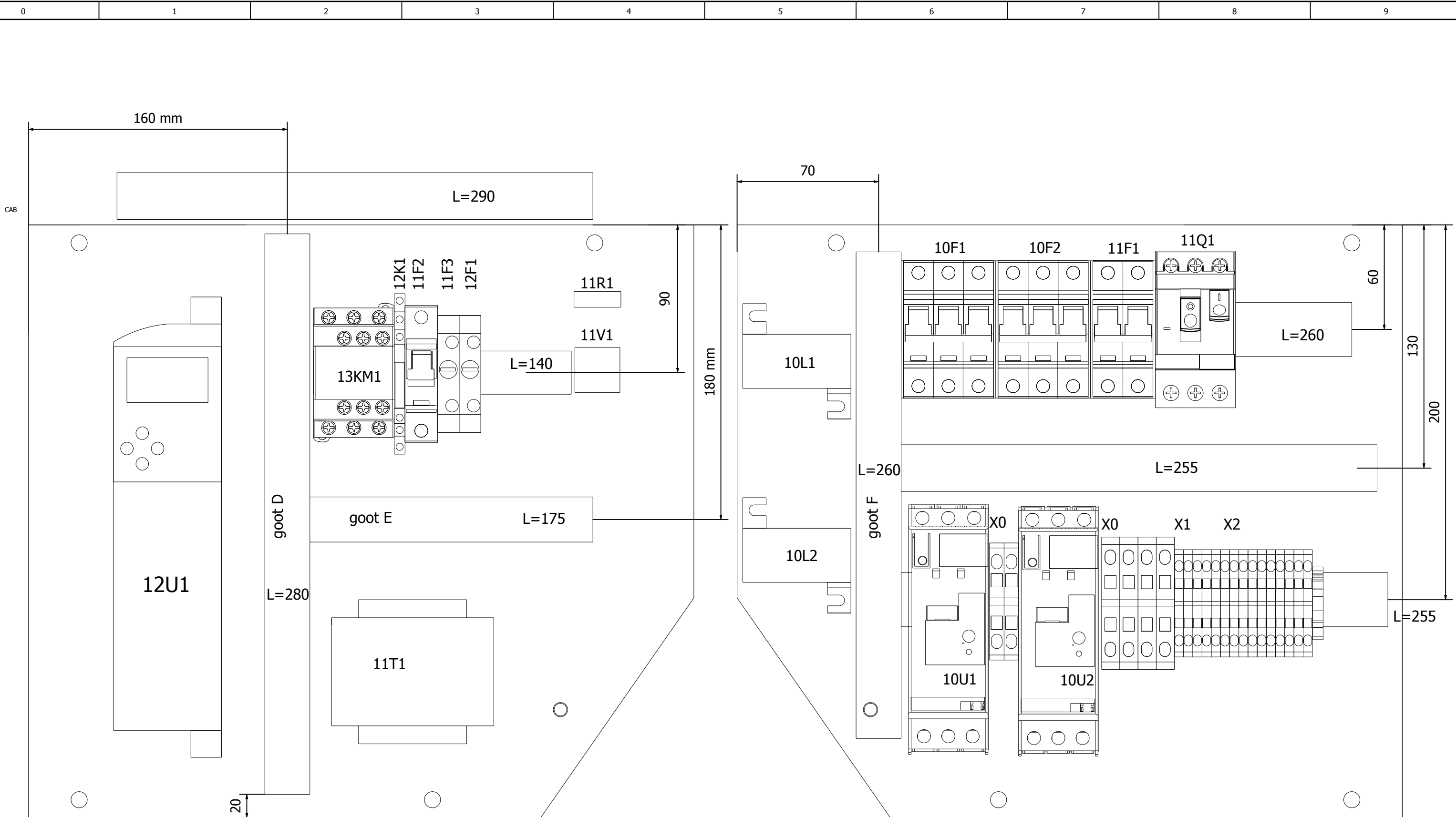
DRAWING NUMBER



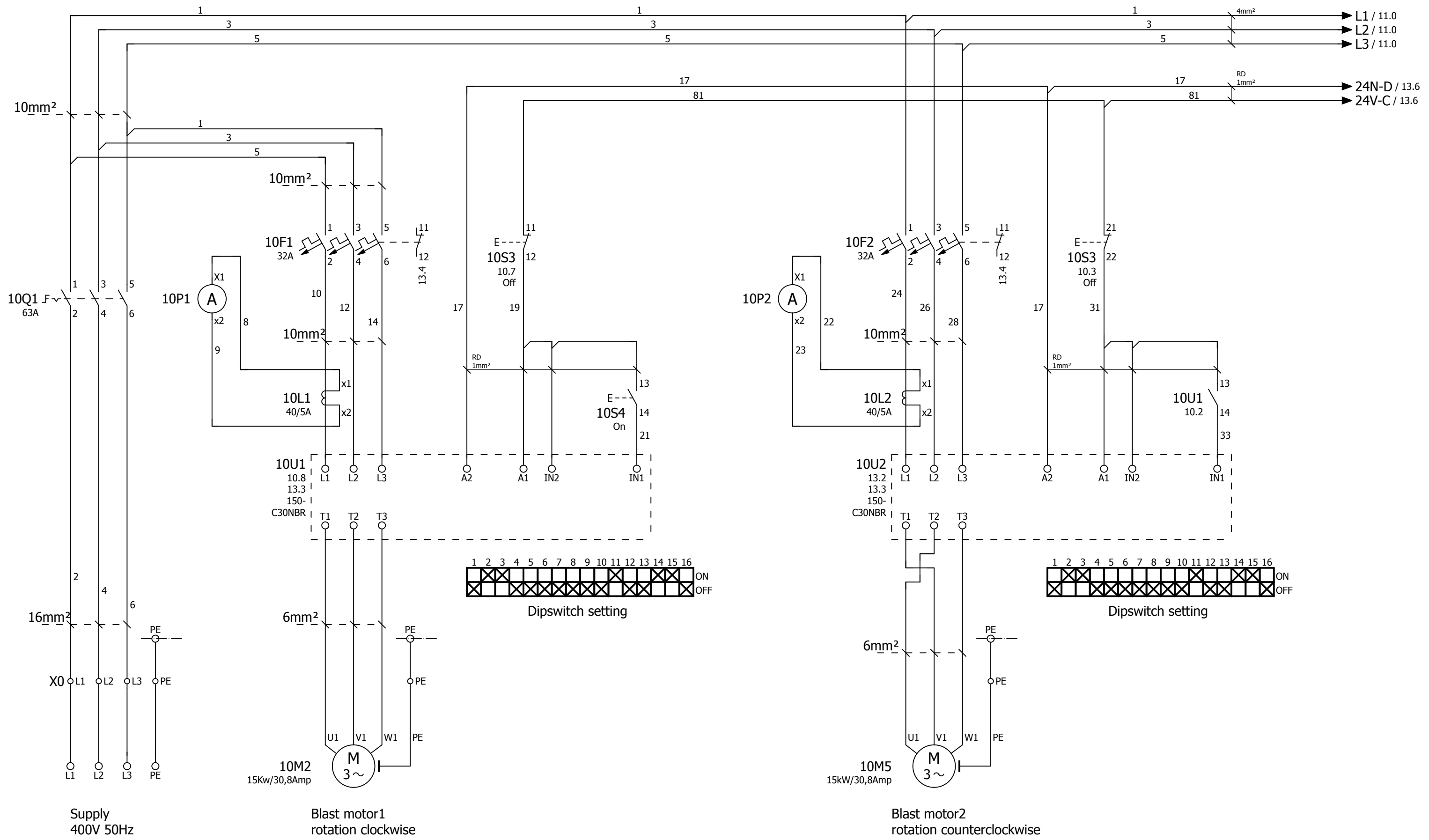


BOTTOM VIEW

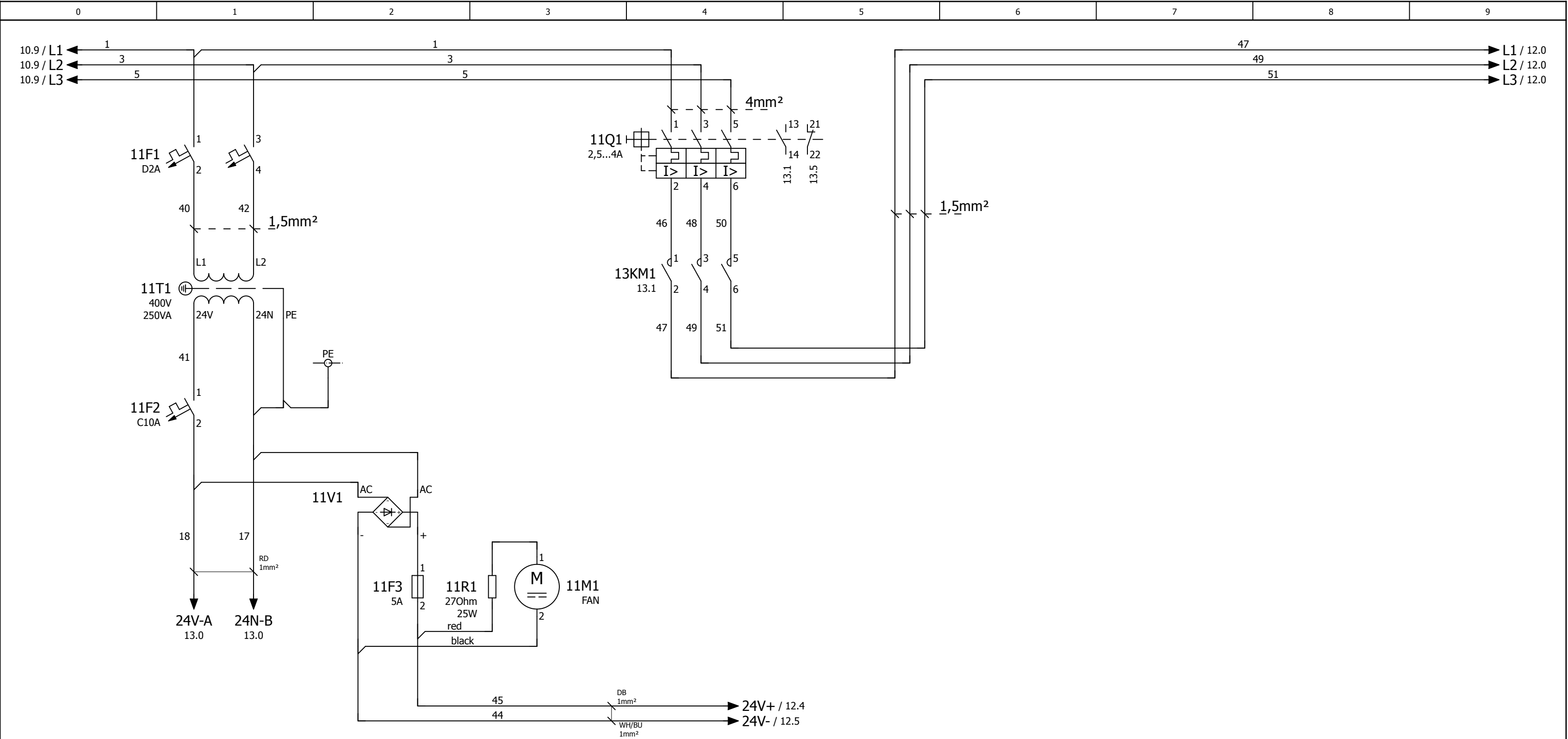




			Date	18-9-2014	Project name:	2-30DS Soft Start.		Page description:	Panel layout2	Customer:	Blastrac BV	=	
			Ed.	HvdB							Drawing number:	PJ11.1098.04	+
Modification	Date	Name	Last print	18-9-2014									Page



			Date	19-12-2011	Project name:		2-30DS Soft Start.		Page description:		Customer:		Blastrac BV		=	
			Ed.												+	
			Appr													
Modification	Date	Name	Last print	18-9-2014	E-00124-2				Main Current		Drawing number:		PJ11.1098.04		Page 10	



Date	18-9-2014	
Ed.	HvdB	
Appr		
Last print	18-9-2014	
Modification	Date	Name

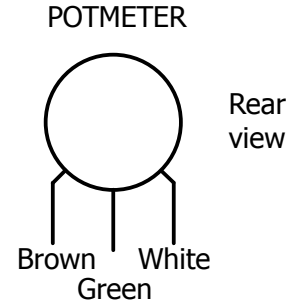
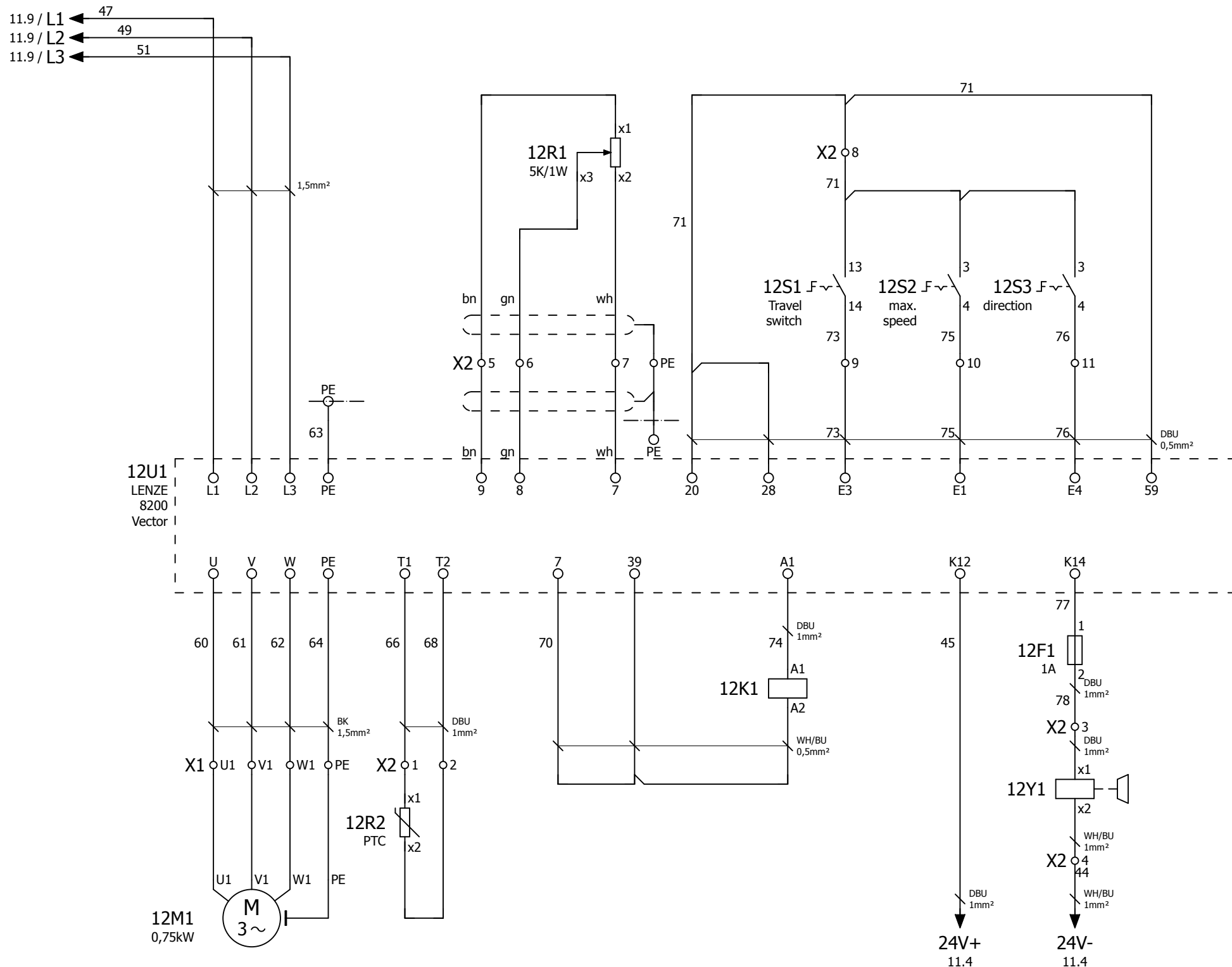
Project name:	2-30DS Soft Start.
	E-00124-2



Page description:	Main Current
-------------------	--------------

Customer:	Blastrac BV
Drawing number:	PJ11.1098.04

=	
+	
Page	11



Drive parameters	2-20DT
C0007/000	-2-
C0008/000	-7-
C0010/000	0 Hz
C0011/000	50 Hz
C0012/000	1 sec.
C0013/000	0,5 sec.
C0015/000	50 Hz
C0016/000	5 %
C0017/000	0 Hz
C0037/000	50 Hz
C0087/000	1490 rpm
C0088/000	2,80 A
C0089/000	50 Hz
C0090/000	400 V
C0091/000	0,8
C0105/000	0,9 sec.
C0119/000	-1-
C0142/000	-3-
C0148/000	-1- (*)
C0410/001	-1-
C0415/001	-6-
C0415/002	-25-
C0416/000	-2-
C0417/001	-1-

(*) Motor identification will be 0 after applying

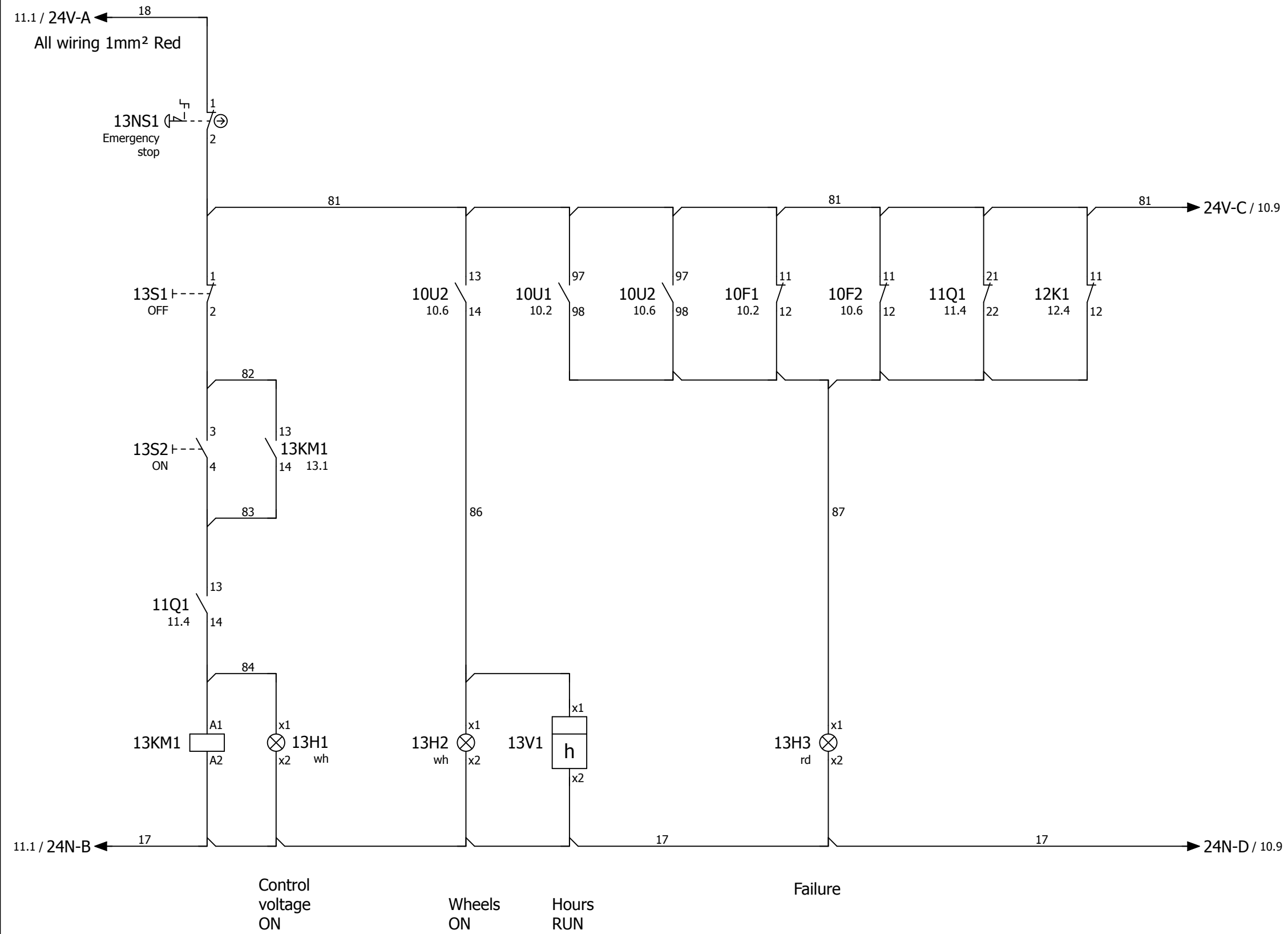
Date	18-9-2014
Ed.	HvdB
Appr	
Last print	18-9-2014

Project name:	2-30DS Soft Start.
	E-00124-2



Page description:	Main Current
-------------------	--------------

Customer:	Blastrac BV	=
Drawing number:	PJ11.1098.04	+
		Page 12



Terminal diagram

F13_001

function text	Cable name	Cable name	Strip X0					Cable name	Cable name	Page / column
			cable type	Target designation	Connection point	terminal	jumper			
Supply 400V 50Hz			10Q1	2	L1	.		L1	10.0	
=			10Q1	4	L2	.		L2	10.0	
=			10Q1	6	L3	.		L3	10.0	
=			PE		PE	.		PE	10.1	
Blast motor1 rotation clockwise			PE		PE	.	10M2	PE	10.2	
Blast motor2 rotation counterclockwise			PE		PE	.	10M5	PE	10.6	

Terminal diagram

function text	Cable name	Cable name	Strip X1					Cable name	Cable name	Page / column
			Target designation	Connection point	terminal	Jumper	Target designation			
Drive motor			12U1	PE	PE	.	12M1	PE	12.1	
=			12U1	U	U1	.	12M1	U1	12.1	
=			12U1	V	V1	.	12M1	V1	12.1	
=			12U1	W	W1	.	12M1	W1	12.1	

Date	19-12-2011			
Ed.				
Appr				
Modification	Date	Name	Last print	18-9-2014

Project name: 2-30DS Soft Start.
E-00124-2



Page description: Terminal strip

Customer: Blastrac BV
Drawing number: PJ11.1098.04

© ART4 Technical Systems, Soest NL

Terminal diagram

F13_001

function text	Cable name						Strip X2						Cable name						Page / column
	cable type						Target designation	Connection point	terminal	jumper	Target designation	Connection point	cable type						
Thermistor							12U1	T1	1	.	12R2	x1							12.2
=							12U1	T2	2	.	12R2	x2							12.2
Brake							12F1	2	3	.	12Y1	x1							12.5
=							11V1	-	4	.	12Y1	x2							12.5
							11M1	2											
Speed setting							12U1	9	5	.	12R1	x1							12.2
=							12U1	8	6	.	12R1	x3							12.2
=							12U1	7	7	.	12R1	x2							12.3
Screen							PE		PE	.									12.3
Power supply from Drive							12U1	20	8	.	12S1	13							12.4
							12U1	59											
Travel switch							12U1	E3	9	.	12S1	14							12.4
max. speed							12U1	E1	10	.	12S2	4							12.4
direction							12U1	E4	11	.	12S3	4							12.5

Date	19-12-2011
Ed.	
Appr	
Modification	Date
	18-9-2014

Project name:	2-30DS Soft Start.
	E-00124-2



Page description:	Terminal strip
-------------------	----------------

Customer:	Blastrac BV
Drawing number:	PJ11.1098.04

Parts list

device tag	Quantity	designation	Type number	Brand	Blastrac number
CAB	1	1-10/15/20/20D univesel empty	1-10DS EMPTY	Haewa	E07833
CAB	2	Cable gland M32*1.5 (PG21/29) brass, nickel-plated	WARTEL M32*1.5	Jacob	E00408
CAB	2	Cable gland nut M32*1.5 brass, nickel-plated	WARTELMOER M32*1.5	Jacob	E00408_1
CAB	1	Cable gland M40*1.5 (PG29/36) brass, nickel-plated	WARTEL M40*1.5	Jacob	E00409
CAB	1	Cable gland nut M40*1.5 brass, nickel-plated	WARTELMOER M40*1.5	Jacob	E00409_1
CAB	2	Mont.goot BxH 25x80 MM vpp=56	T1-E 25X80 MONT.GOOT	Generic	E07834
CAB	1	M.rail galvanized,7,5x35MM 2M	TS35 MONT.RAIL SLEUF	Generic	E07835
CAB	1	overdrive-forward zelfkl.60*10 witte pl/zw letter	RESOPAL 2-20DT/1	Generic	E07836
CAB	1	speed control zelfkl.45*10 witte pl/zw letter	RESOPAL 2-20DT/2	Generic	E07837
CAB	220	Label for ader 12*12 Brady 7000pcs. p/r	BPT-305-427	Brady	E07893
CAB	1	2-30 DS ,incl.kleine stickers	STICKER 2-30DS	Generic	E08216
CAB	5	Internal wire 0.5mm2 blue/white	MONTAGESNOER 0.5MM BL/WIT	LAPP	E08214
CAB	5	Internal wire 0.5mm2 darkblue	MONTAGESNOER 0.5MM D.BL	LAPP	E08215
CAB	5	Internal wire 1mm2 darkblue	MONTAGESNOER 1MM D. BL.	LAPP	E08184
CAB	5	Internal wire 1mm2 yellow/green	MONTAGESNOER 1MM GG	LAPP	E08163
CAB	30	Internal wire 1,0mm2 red	MONTAGESNOER 1MM R	LAPP	E08135
CAB	2	Internal wire 1.0mm2 white/blue	MONTAGESNOER 1MM WT/BL	LAPP	E08185
CAB	1;2	Internal wire 10mm2 yellow/green	MONTAGESNOER 10MM GG	LAPP	E08217
CAB	6	Internal wire 10mm2 black	MONTAGESNOER 10MM ZW	LAPP	E08186
CAB	3	Internal wire 16mm2 black	MONTAGESNOER 16MM ZW	LAPP	E08218
CAB	20	Ferrule 0.5mm2 white insulated	G 488 MONT.ADERHULS	Calpe	E07848
CAB	10	Ferrule 0.5mm2 white insulated	G 488 TWIN	Calpe	E08219
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	20	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	8	Ferrule 6mm2 green insulated	G 494 MONT.A.H.	Calpe	E07865
CAB	15	Ferrule 10mm2 brown insulated	G 495 MONT.ADERH.	Calpe	E07855
CAB	6	Ferrule 2x10mm2 brown insulated	G 495-TWIN MONT.A.H.	Calpe	E08157
CAB	6	Ferrule 1*16mm2 ivory insulated	G 496-N ADERHULS 16	Calpe	9999-0001
CAB	3	Internal wire 1.5mm2 yellow/green	MONTAGESNOER 1.5MM GG	LAPP	E08133
CAB	9	Internal wire 1.5mm2 black	MONTAGESNOER 1.5MM Z	LAPP	E08134
CAB	1	FITTING @16*M16 DRAAIBAAR	SP16/M16/B	Adaptaflex	E05178
CAB	2	FITTING @16*M20	SP16/M20/A	Adaptaflex	E07839
CAB	1	FITTING @16*M20 DRAAIBAAR	SP16/M20/B	Adaptaflex	E03508
CAB	2	Bescherm slang metaal + pvc 16*13 zwart	SP16/ZWART	Adaptaflex	E00559
CAB	2	PVC 3*0.5 wit bruin groen	STUURSTROOMKAB.3*0.5	Eszet Electro	E08183
CAB	5	Ozoflex neopreenkabel 4*6 mm	H07RN-F 4*6 MM	Eszet Electro	E08220
CAB	17	Terminal marker for weidmuller terminals blanc	WEID DEK5/5MC	Weidmuller	E07949
CAB	1	Cable gland plug M20*1.5 brass, nickel-plated	WARTEL BLINDSTOP M20	Jacob	E07842
CAB	3	Cable gland nut M20*1.5 brass, nickel-plated	WARTELMOER M20*1.5	Jacob	E00406_1
X0	1	End plate Beige for ZDU 16	WEID ZAP/TW ZDU16	Weidmuller	E08221
X0	3	Tension clamp terminal 2*16mm	WEID ZDU 16	Weidmuller	E08223
X0	1	Earth terminal for ZDU 16 2*16mm	WEID ZPE 16	Weidmuller	E08224
X0	2	Earth terminal for ZDU 6 2*6(10)mm	WEID ZPE 6	Weidmuller	E08225
X0	1	End plate Beige for ZDU 6	WEID ZAP/TW 5 DB	Weidmuller	E08222
X0	2	End bracket for weidmuller terminals	WEID ZEW 35	Weidmuller	E05177
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	End bracket for weidmuller terminals	WEID ZEW 35	Weidmuller	E05177
X1	1	Earth terminal for ZDU 2.5 2*2.5(4)mm	WEID ZPE 2.5	Weidmuller	E05167
X2	1	End plate Beige for ZDU 2.5	WEID ZAP/TW 1	Weidmuller	E05168
X2	11	Tension clamp terminal 2*2.5 beige	WEID ZDU 2.5	Weidmuller	E05166
X2	1	End bracket for weidmuller terminals	WEID ZEW 35	Weidmuller	E05177
X2	1	Earth terminal for ZDU 2.5 2*2.5(4)mm	WEID ZPE 2.5	Weidmuller	E05167
10F1	1	Circuit breaker AB 3P 32A D-kar	C60N-1492-SP3D320	Allen Bradley	E08226

Date	19-12-2011	Project name:	2-30DS Soft Start.	Page description:	Partlist	Customer:	Blastrac BV	=
Ed.								+
Appr								
Modification	Date	Name	Last print	18-9-2014	E-00124-2	Drawing number:	PJ11.1098.04	Page 30

Parts list

device tag	Quantity	designation	Type number	Brand	Blastrac number
10F1	1	Aux. contacr 1m/1v 1492 serie	C60N-1492-ASPH3	Allen Bradley	E01559
10F2	1	Circuit breaker AB 3P 32A D-kar	C60N-1492-SP3D320	Allen Bradley	E08226
10F2	1	Aux. contacr 1m/1v 1492 serie	C60N-1492-ASPH3	Allen Bradley	E01559
10L1	1	Tr.str.prim.40A,sec.5A	IBA 40/5A		E01566
10L2	1	Tr.str.prim.40A,sec.5A	IBA 40/5A		E01566
10P1	1	Amperemeter 0..40/80/5A 48vk Celsa	IQ/EQ48 40/80/5A	Cromton	009316
10P2	1	Amperemeter 0..40/80/5A 48vk Celsa	IQ/EQ48 40/80/5A	Cromton	009316
10Q1	1	3-P RODE KNOP OP GELE PLAAT	P3-63/EA/SVB BED.LS	Kraus Naimer	E00475
10S3	1	Pushbutton head Ø22 spring return without cap	ZB5-AA0	Schneider Electric	E01318
10S3	1	Single contact block with body/fixing collar 2NC screw clamp	ZB5-AZ104	Schneider Electric	E01544
10S3	1	Red cap marked STOP for circular pushbutton Ø22	ZBA-434	Schneider Electric	E01353
10S3	1	tekstpl.houder 27*13 h=45 elfi	F6300	Schneider Electric	E07831
10S4	1	Pushbutton head Ø22 spring return without cap	ZB5-AA0	Schneider Electric	E01318
10S4	1	Single contact block with body/fixing collar 1NO screw clamp	ZB5-AZ101	Schneider Electric	333-3224
10S4	1	Green cap marked START for circular pushbutton Ø22	ZBA-333	Schneider Electric	E05078
10S4	1	tekstpl.houder 27*13 h=45 elfi	F6300	Schneider Electric	E07831
10U1	1	Softst.3-f 30A 200-480V/24 AC/DC (15kW)	150-C30NBR	Allen Bradley	E05185
10U2	1	Softst.3-f 30A 200-480V/24 AC/DC (15kW)	150-C30NBR	Allen Bradley	E05185
11F1	1	Circuit breaker AB 2P 2A D-kar	C60N-1492-SP2D020	Allen Bradley	E08227
11F2	1	Circuit breaker AB 1P 10A C-kar	C60N-1492-SP1C100	Allen Bradley	E05077
11F3	1	VOOR VUSI 4-10	VASI 4-10 C.SCHOT	Wieland	E05154
11F3	1	ZEK.KLEM 10MM2 GRIJS 5*20MM	VUSI 4-10M C.ZEK.KLM	Wieland	E01321
11F3	1	ZEK.SMELTV. glas 5*20MM SLOW 5A	ZEK.GLAS TRAAAG 5A	Generic	E08228
11M1	2	UITL.FILT.MONT.UITSP. 80*80MM	221-336 KAST KL.BEH.	PABST	E00283
11M1	1	Finger Guard 80mm.	250-1612 KAST KL.BEH	PABST	E00283
11M1	1	Ventilator 80*80*32mm. 24VDC nr.8314	FAN 80*80*32 24 VDC	PABST	E06930
11Q1	1	Motor protection switch 2,4 4,0A	GV2-ME08	Schneider Electric	E01456
11Q1	1	Plug in aux. front for GV2-ME 1xNO +1xNC	GV-AE11	Schneider Electric	333-3455
11R1	1	Resistor 27 ohm/ 25 Watt	WEERSTAND 27/25	Generic	E05156
11T1	1	Transf.voed.1-F SEC.24V-320VA	STEP 10/3 230/400>24	Jahns Müller GmbH	E05165
11V1	1	Brugcel 400V-35A 28.5*28.5*22mm.	F400C35A	Generic	E01332
12F1	1	VOOR VUSI 4-10	VASI 4-10 C.SCHOT	Wieland	E05154
12F1	1	ZEK.KLEM 10MM2 GRIJS 5*20MM	VUSI 4-10M C.ZEK.KLM	Wieland	E01321
12F1	1	ZEK.SMELTV. 5*20MM SLOW 1A	ZEK.GLAS TRAAAG 1 A	Generic	E07815
12K1	1	Interface relais with socket 1CO 6A 24Vdc	38.51.7.024.0050	FINDER	E05007
12R1	1	Head Ø22 + mounting base for potentiometer	ZB4-BD912	Schneider Electric	E00866/2
12R1	1	Potm. 10KOhm. 4W-500V	POTMETER 10 K OHM	Generic	454795
12R1	1	Schroef aansluiting potmeter	POTMETER PRINT KLEM	Wieland	E05088
12S1	1	Limit switch XCKP - steel roller plunger - 1NO+1NC - snap -	XCK-P2102P16	Schneider Electric	454796
12S2	1	White square flush complete pushbutton Ø16 spring return 1NO	XB6-CA11B	Schneider Electric	E00867
12S3	1	White square flush complete pushbutton Ø16 spring return 1NO	XB6-CA11B	Schneider Electric	E00867
12U1	1	E82EV152K4C200 3f 320..550VAC	FREQ.REG 1.5 KW	Lenze	E01523
12U1	1	E82ZBC bed. display	FREQ.REG BED.DISPLAY	Lenze BV	E00415
12U1	1	E82ZAFS standaard I/O inbouw	FREQ.REG I/O	Lenze	E00482
13H1	1	White complete pilot light Ø22 plain lens with integral LED	XB5-AVB1	Schneider Electric	E08229
13H1	1	tekstpl.houder 27*13 h=45 elfi	F6300	Schneider Electric	E07831
13H2	1	White complete pilot light Ø22 plain lens with integral LED	XB5-AVB1	Schneider Electric	E08229
13H2	1	tekstpl.houder 27*13 h=45 elfi	F6300	Schneider Electric	E07831
13H3	1	Red complete pilot light Ø22 plain lens with integral LED 24	XB5-AVB4	Schneider Electric	E05161
13H3	1	tekstpl.houder 27*13 h=45 elfi	F6300	Schneider Electric	E07831
13KM1	1	Contactoor 4,0kW 400VAC coil 24VAC 1NO/1NC	LC1-D09-B7	Schneider Electric	333-3580
13NS1	1	Red Ø40 Emergency stop pushbutton head Ø22 trigger and latch	ZB5-AS844	Schneider Electric	E01543
13NS1	1	Single contact block with body/fixing collar 1NC screw clamp	ZB5-AZ102	Schneider Electric	E00357
13S1	1	Pushbutton head Ø22 spring return without cap	ZB5-AA0	Schneider Electric	E01318
13S1	1	Single contact block with body/fixing collar 1NC screw clamp	ZB5-AZ102	Schneider Electric	E00357
13S1	1	Red cap marked STOP for circular pushbutton Ø22	ZBA-434	Schneider Electric	E01353

Date	19-12-2011	Project name:	2-30DS Soft Start.	Page description:	Partlist	Customer:	Blastrac BV	=	
Ed.								+	
Appr									
Modification	Date	Name	Last print	18-9-2014	E-00124-2		Drawing number:	PJ11.1098.04	Page 31



13201 North Santa Fe Avenue • Oklahoma City, OK 73114 • Ph: 800-256-3440 • F: 405-478-8608 blastrac.com

Product Warranty

Standard Equipment Products:

Blastrac warrants its Blastrac Standard Equipment Products against defects in quality of material and workmanship, under normal and proper use for a period of **1 Year** from the date of delivery, as noted on the returned warranty registration card, or, in the case of **Rental Fleet Machines, 180 Days** from the date of assignment to Rental Fleet. This warranty is non-transferable and is extended to machines purchased and entered into the normal service of surface preparation by a recognized professional or qualified contractor. Blastrac makes this warranty only to the buyer who purchases the products directly from Blastrac or its Authorized Distributor. This warranty does not include expendable parts such as, but not limited to, blades, blast wheels, wear plates, liners, seals, and electrical components. All purchased parts utilized in the manufacture will be honored to the original manufacturer's specified warranty.

If the buyer does not return the warranty card or register the product online at www.blastrac.com within 30 days after taking delivery of Blastrac Standard Equipment Products, the warranty period is limited to 6 months from the date of delivery noted on shipping receipt.

Hand Tool Products:

Blastrac warrants its BLASTRAC Hand Tool Products, including hand grinders and accessories, against defects in material and workmanship under normal and proper use for a period of **90 days** from the date of delivery or, in the case of Rental Fleet Machines, from the date of assignment to a Rental Fleet. Blastrac makes this warranty only to the buyer who purchases the products directly from Blastrac or its authorized distributor. This warranty does not include expendable parts such as blades.

If the buyer does not return the warranty card, or register online at www.blastrac.com within 15 days after taking delivery of Blastrac Hand Tool Products, the warranty period is limited to 30 days from the date of delivery noted on shipping receipt.

WARRANTY TERMS AND CONDITIONS:

1. Blastrac's obligation under this warranty is limited to the replacement or repair, at Blastrac's option, of products and does not include, labor, the cost of transportation, loss of operating time, or normal maintenance services.
2. This warranty does not apply to failure occurring as a result of abuse, misuse, negligence, corrosion, erosion, normal wear and tear, alterations or modifications made to products without the express written consent of Blastrac.
3. The buyer must submit all warranty claims no later than thirty (30) days after buyer becomes aware of the basis for any such claim, or should have become aware of the basis for any such claim in the exercise of reasonable diligence.

To return parts for warranty consideration, please call Blastrac Customer Service at **800-256-3440**. Your customer service representative will obtain the necessary information to complete the Blastrac Returned Merchandise Authorization (RMA) Form. Blastrac will then send the RMA form to the customer authorizing the return of the parts for warranty evaluation. The parts must be received within sixty (60) days following the RMA origination date or the warranty claim will be denied. Once the parts are received they will be evaluated for warranty.

If the customer cannot wait for the evaluation/replacement of the parts during this process, the customer must issue a new purchase order to Blastrac for the replacement parts before they can be shipped. Once the evaluation process is complete and parts are deemed a valid warranty claim, a credit will be issued against this invoice.

4. The buyer may not return Blastrac products without written authorization to do so through a Blastrac RMA.

5. Blastrac reserves the right to inspect and determine the scope of its warranty responsibilities for any returned Blastrac products.

6. Blastrac makes no warranty with respect to accessories it does not manufacture, including but not limited to, engines, motors, batteries, tires and all other parts. See component manufacture warranty.

7. Blastrac reserves the right to make product changes or improvements without prior notice and without undertaking any obligation for such changes or improvements on previously sold products.

8. The above warranty conditions can only be altered by Blastrac. Blastrac must confirm alterations in writing for each specific transaction.

9. Blastrac reserves the right to modify this warranty for used or demo products on an individual transaction basis. Blastrac will include warranty modifications on its invoices for used or demo products.

10. BLASTRAC DOES NOT AUTHORIZE ANY PERSON, REPRESENTATIVE, SERVICE OR SALES OUTLET TO MAKE ANY WARRANTY DIFFERENT FROM THIS PRODUCT WARRANTY.

11. EXCEPT FOR ITS PRODUCT REPAIR OR REPLACEMENT OBLGATIONS DESCRIBED IN THIS PRODUCT WARRANTY, UNDER NO CIRCUMSTANCES SHALL BLASTRAC BE LIABLE TO THE BUYER, OR ANY OTHER PERSON, FOR ANY DIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE BLASTRAC PRODUCT, OR FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER, INCLUDING WITHOUT LIMITATIONS, DAMAGES FOR ANY LOSS OF GOODWILL, WORK STOPPAGE, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES.

12. BLASTRAC MAKES NO OTHER PRODUCT WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



IMPORTANT!

TO THE DELIVERING DISTRIBUTOR OR END USER

To ensure the proper warranty coverage is extended to the owner of this machine, fill in the necessary information below **COMPLETELY** and **ACCURATELY** and retain for your records. **Go to www.blastrac.com and register online.** Click on the Register icon in the left column of the homepage, and fill out the product registration form with the same information that will be recorded here.

The warranty period will start upon the delivery date of the machine.

The distributor or the end user must provide the machine warranty information when the machine is delivered. Registration of the machine will extend the warranty period from the recorded delivery date entered with product registration. **Failure to comply will make any and all warranties on the equipment void after 6 months.**

OWNER/END USER'S REFERENCE INFORMATION

Delivery Date _____	Machine Model No. _____
Delivering Distributor's Name and Address _____	Machine Serial No. _____
_____	Modifications _____
_____	_____
_____	_____
_____	_____
_____	_____

Signature of Delivering Distributor's Representative

Blastrac is a registered trademark of Blastrac,NA
Fold and Detach Here if Mailing

Warranty Registration

IMPORTANT! To ensure that your Blastrac® machine is covered under warranty, please provide the information recorded here by registering online at blastrac.com, or complete this page and fax to 866-485-1046, or if you prefer, detach and mail to:

Blastrac, 13201 North Santa Fe Avenue, Oklahoma City, OK 73114-9901

(Please print legibly)

Company _____

Address _____

City, State, & Zip _____

Telephone No. _____ Contact Person _____

Date of Purchase _____ Date Received _____

Machine Model No. _____ Serial No. _____

Distributor Name _____

End User Name _____

End User E-mail _____



Contact

Blastrac NA
13201 North Santa Fe Avenue
Oklahoma City, OK 73114
Tel: 800-256-3440
Fax: 405-478-8608
www.blastrac.com

