



SERVICE MANUAL BMG-780PRO

VERSION 2.7

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1. Tools

Diamag grinding wings & Accessories



<p>E07240-2 DIAMAG ADAPTER PLATE Ø240 MM</p>	<p>BG707321 #18 - 20 BG707322 #30 - 40 BLUE GRINDING WING</p>	<p>BG707311 #18 - 20 BG707312 #30 - 40 BG707313 #60 - 80 BG707314 #120 - 150 GREEN GRINDING WING</p>	<p>BG707301 #18 - 20 BG707302 #30 - 40 BG707303 #60 - 80 BG707304 #120 - 150 RED GRINDING WING</p>	<p>BG707341-2 #30 - 40 BLACK GRINDING WING</p>
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<p>E10692 DIAMAG ADAPTER PLATE WINGS PCD Ø240 MM</p>	<p>BG200997-1/SET PCD SPLIT WING BG200995-1/SET PCD 1x1 WING</p>	<p>E09580 ROTARY PLATE ONLY Ø240 MM E10240 PLATE Ø240 MM COMPLETE WITH BUSH HAMMER ROLLERS E10240/SW PLATE Ø240 MM COMPLETE WITH STAR WHEELS</p>	<p>E09119-2H BUSH HAMMER ROLLER Ø50 MM BG300109 CUTTER WHEEL Ø50 MM</p>	<p>E09368/FINE VELCRO PLATE Ø240 MM For Polishing pads E09368/COARSE VELCRO PLATE Ø240 MM For Maintenance pads</p>
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<p>BG240001 #40 BG240002 #100 BG240003 #200 BG240004 #400 BG240005 #800 BG240006 #1500 BG240007 #3000</p> <p>POLISHING PADS Ø240 MM</p>	<p>#1 - orange #2 - Black #3 - Blue #4 - Red #5 - White #6 - Yellow #7 - Green</p>
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<p>BG240M004 #400 BG240M005 #800 BG240M006 #1500 BG240M007 #3000</p> <p>MAINTENANCE PADS Ø240 MM</p>	<p>#4 #5 #6 #7</p>
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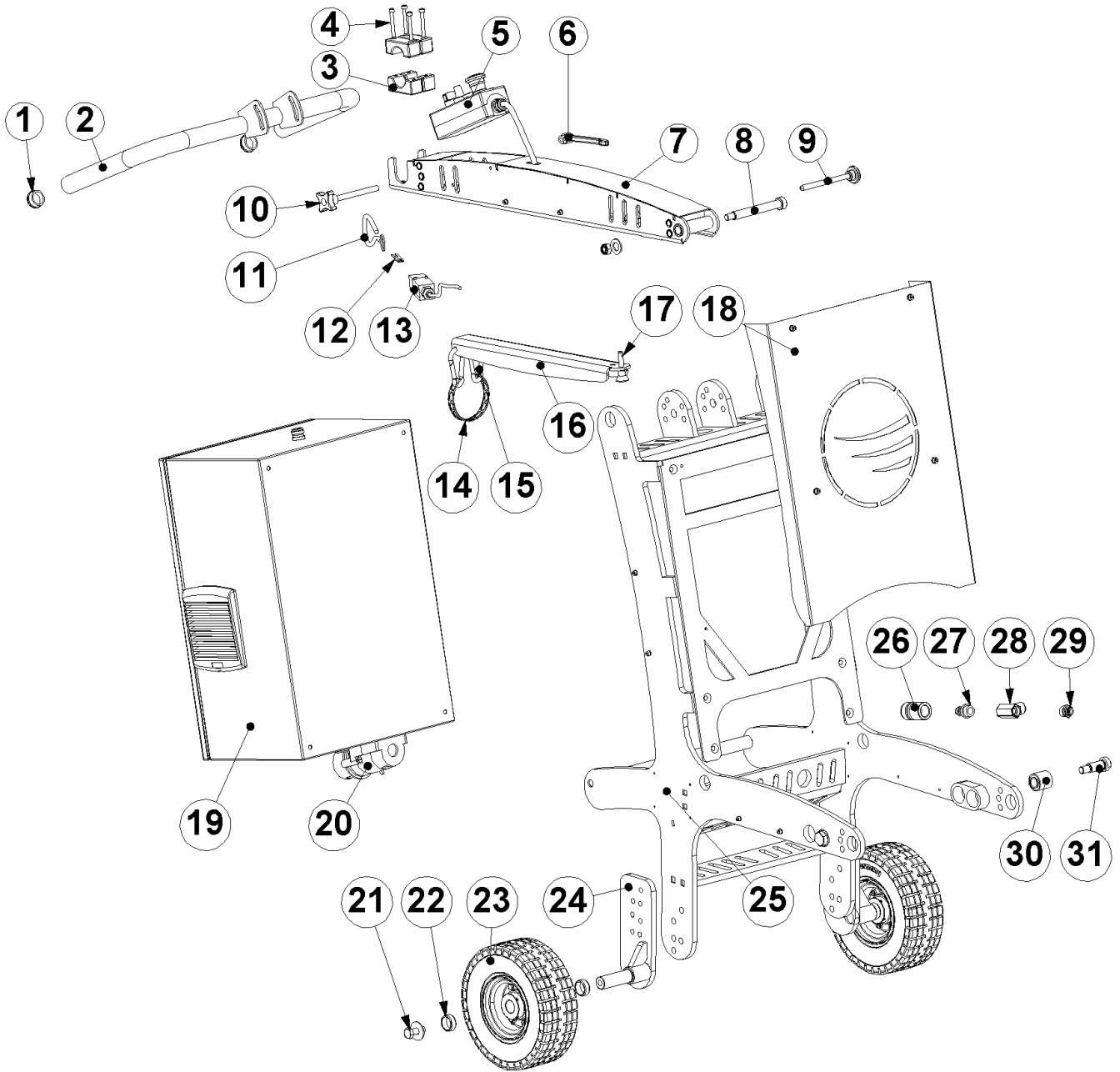
<p>005014SR 10 M SUCTION HOSE Ø76 MM</p>



Blastrac PN	HQV PN
E07240-2	533113401
BG707321	534949001
BG707322	534949101
BG707311	534950301
BG707312	534950101
BG707313	534950201
BG707314	534950001
BG707301	534951801
BG707302	534951901
BG707303	534952001
BG707304	534951701
BG707341-2	534948701
E10692	533290701
BG200997-1/SET	534951001
BG200995-1/SET	534950601
E09580	533792701
E10240	533108501
E10240/SW	533107001
E09119-2H	534372401
BG300109	533606501
E09368/FINE	534247301
E09368/COARSE	534247201
BG240001	534448101
BG240002	534448801
BG240003	534449001
BG240004	534449301
BG240005	534449501
BG240006	534449901
BG240007	534450601
BG240M004	534442801
BG240M005	534442901
BG240M006	534443001
BG240M007	534443101
005014SR	534783801

2. Spare parts

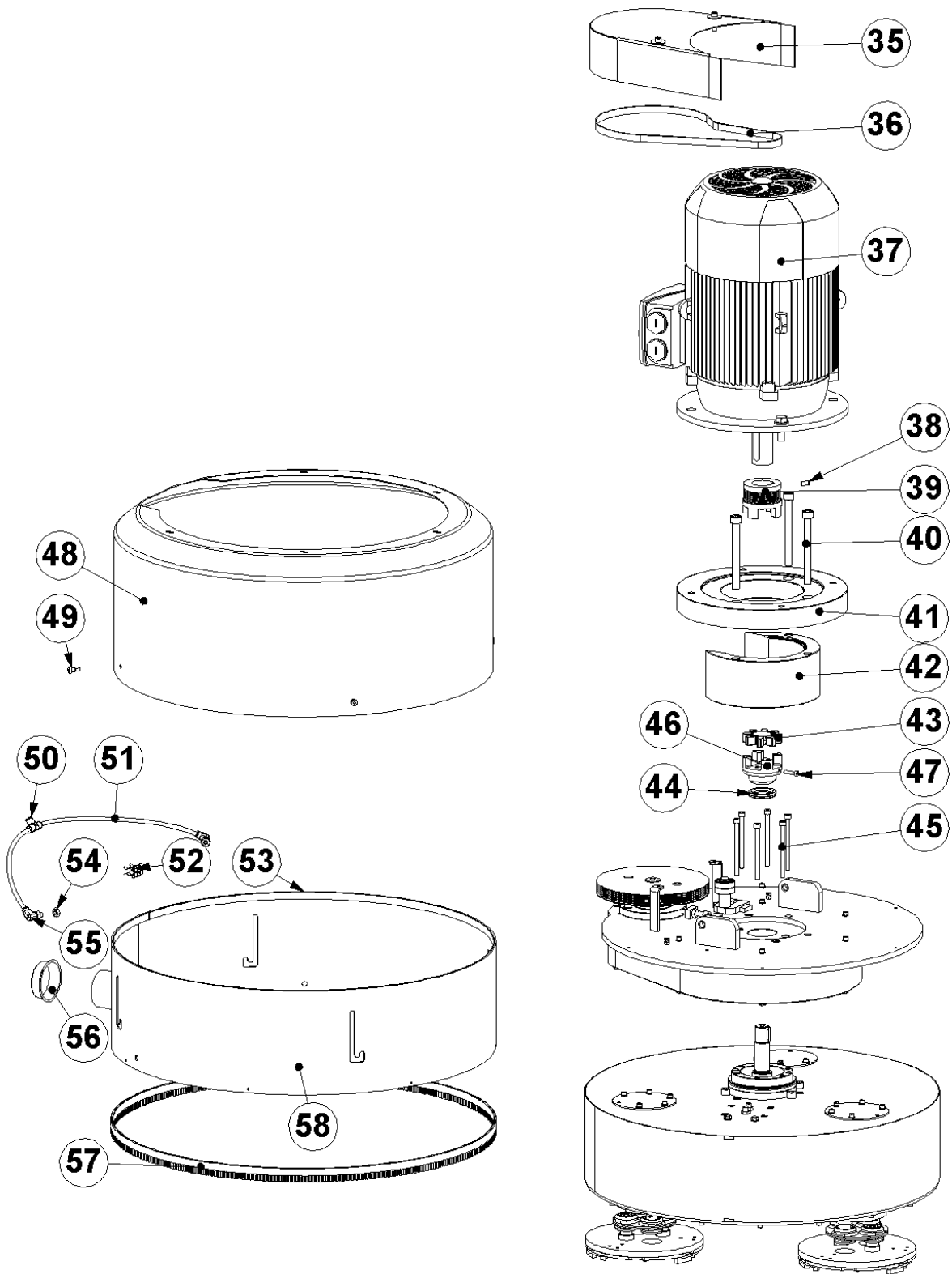
Frame complete





Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
1	BE0643	533407601	Tube cap round		2
2	E07032/BL	534870601	Handle for steer long		1
	BG005845_BL	535190601	Handle for steer short		1
3	999-9156	533767701	Pipe clamp (set)		2
4	BE0191	533397801	M6x50 hexagon socket head bolt	DIN 912	4
5	E07882	534082201	Operating box complete		1
	E01543	533749201	Emergency stop		
	E01318	533377401	Start button		
	E01351	533734601	Potential meter complete (speed switch)		
	E01323	533403101	Left / right switch		
	E05130	533217901	Make contact (green)		
	E05131	533218001	Brake contact (red)		
6	BE0641	533512101	M10 clamp lever		1
7	BG005835	533531701	Steer handle		1
8	BE0640	533714101	M12 hexagon shoulder screw		1
9	BE0674	533885801	Handle locking pin	M8 10x120	1
10	E06860	534394401	Clamping pin steer		1
11	BG11758	533810801	Cord for deadman switch		1
12	BG11759	533289101	Key for deadman switch		1
13	BG11760	533387401	Deadman switch		1
14	E07008	533088801	Chain (13 links)		1
15	BE0653	533214001	Hook		2
16	E06883	533670801	Swing arm for dusthose		1
17	478198	533256401	Quick release pin		1
18	BG005838	535158101	Cover plate electro box		1
19	E06867	533748501	Electrobox 15kW complete		1
	E06867/UL230	533748501	Electrobox 15kW complete 230UL		1
	E06867/UL480	533748901	Electrobox 15kW complete 480UL		1
20	E05135	533967201	Electrical inlet 3x400V 32A		1
	E05134	533518101	Electrical inlet 3x230V 63A		1
	E05132	533591401	Electrical inlet 3x480V 63A		1
21	BE0037	533073501	M12x30 hexagon head bolt		2
22	BG11850-1/1	533267101	Wheel spacers		4
23	BG11850-1	531466401	Wheel		2
24	E06915	533076501	Wheel axle left		1
	E06916	533092501	Wheel axle right		1
25	E07035	533739701	Frame		1
26	E06286	533238401	Water coupling		1
27	E06285	533278101	Waterhose connection		1
28	E06282	533252301	Ball valve mini		1
29	E06279	533500701	Water reducing coupling		1
30	E01492	533643001	Megi bush		2
31	BG11752	533725301	Hinge bolt		2
	E06893_BL	534255501	780PRO logo blue		2
	E06819	534337901	Blastrac logo		4
	E07400	533437101	Weight set complete		1

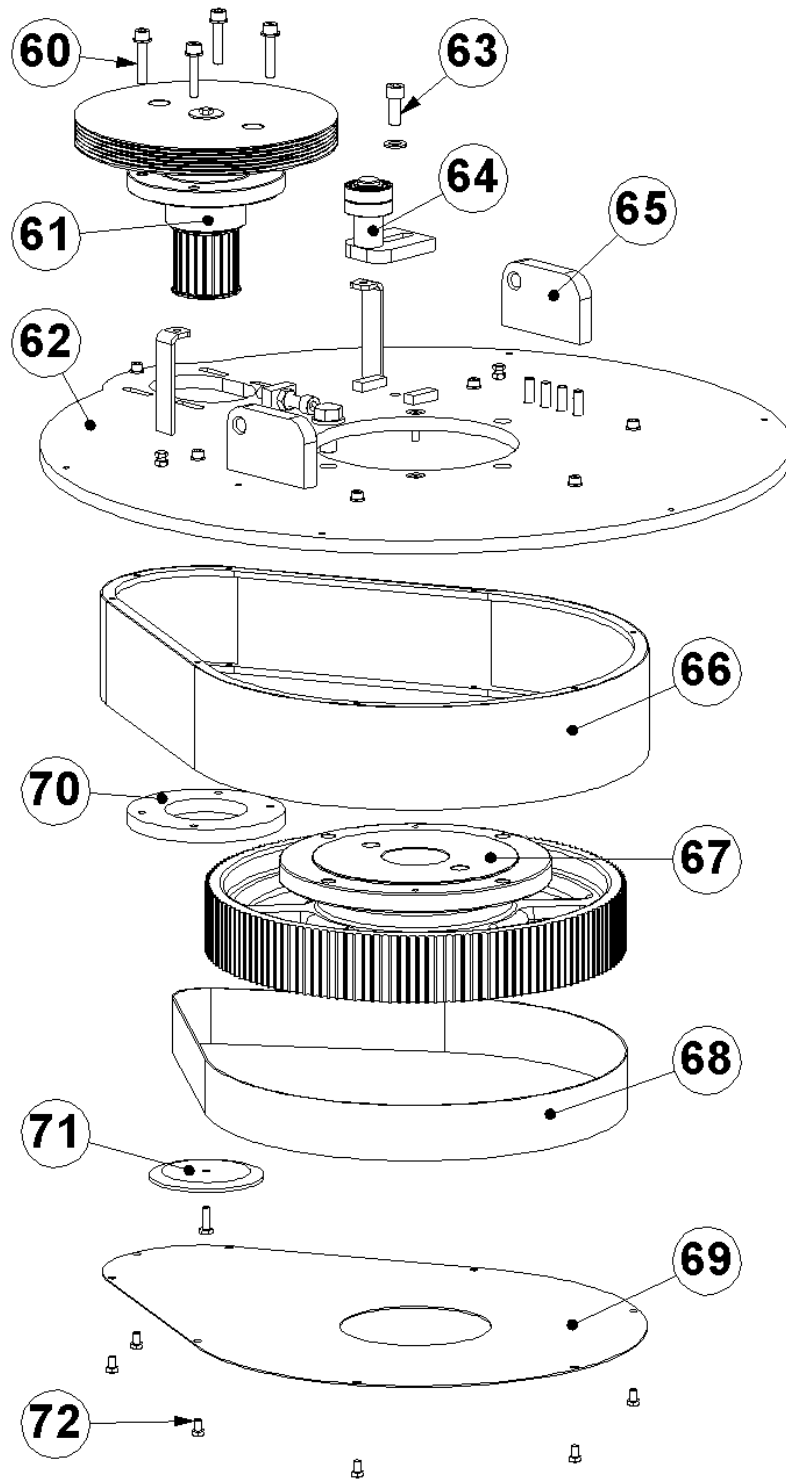
Machine complete





Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
35	BG005847	533719101	Protection cap		1
36	BG11924	533861001	Upper belt		1
37	BG11899-1IE2/BL	534715301	Motor 230V/480V		1
38	BE0654	533470001	M8x16 set screw	DIN 916	4
39	BG007808_2	533272301	Coupling upper part		1
40	BE0656	533695301	M14x140 hexagon socket head bolt	DIN 912	3
41	BG007810	533594701	Flange motor seat		1
42	BG007811	-	Motor seat		1
43	BG005844	533620801	Coupling plastic star		1
44	BG11829	533558701	V-seal		1
45	BE0635	533368201	M8x110 hexagon socket head bolt	DIN 912	6
46	BG007808_1	533520701	Coupling under part		1
47	BE0188	533766501	M6x25 hexagon socket head bolt	DIN 912	1
48	BG007839-2	533657101	Protection cover		1
49	BE0655	533402401	M6x12 hexagon shoulder screw		4
50	E06281	533375401	Water T-coupling		1
51	E06278	533259501	Water hose		2,0m
52	E06276	533199501	Pipe clamp		2
53	E06897	533970001	Slide strip		3,0m
54	E06293	533279501	Nut for knee coupling		2
55	E06280	533266701	Water knee coupling		2
56	E04551	533226101	Plastic cap		1
57	BG-BRUSH 20MM	534888501	Brush for floating shroud		2.5m
58	BG007855	535179401	Floating shroud		1

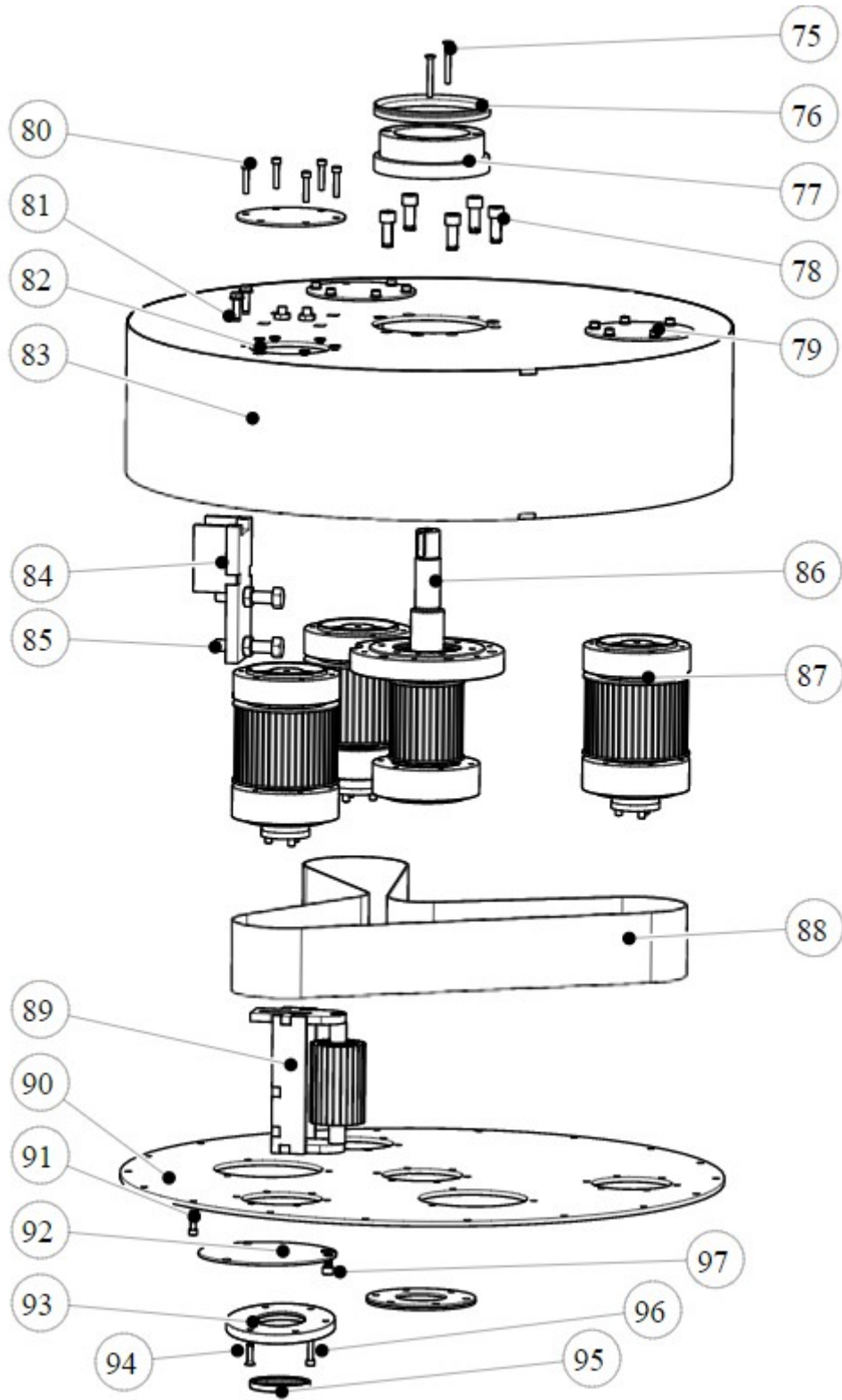
Upper drive





Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
60	BE0631	533654801	M8x40 hexagon socket head bolt	DIN 7984	4
61	BG007866	533327901	Contra pulley		1
62	BG007809-1	535213901	Motor plate complete		1
63	BE0443	533763201	M10x25 hexagon socket head bolt		1
64	BG005860	533281401	Upper tensioner		1
65	BG005813	533216601	Holder		2
66	BG007838	533614401	Motor housing		1
67	BG007867	533237301	Centre pulley		1
68	BG11980	533184801	Middle belt		1
69	BG005834	533293301	Lower plate upper drive		1
70	BG005807	533213401	Ring		1
71	BG007804	531494101	Flange		1
72	BE0350	534691801	M6x10 hexagon head screw		8

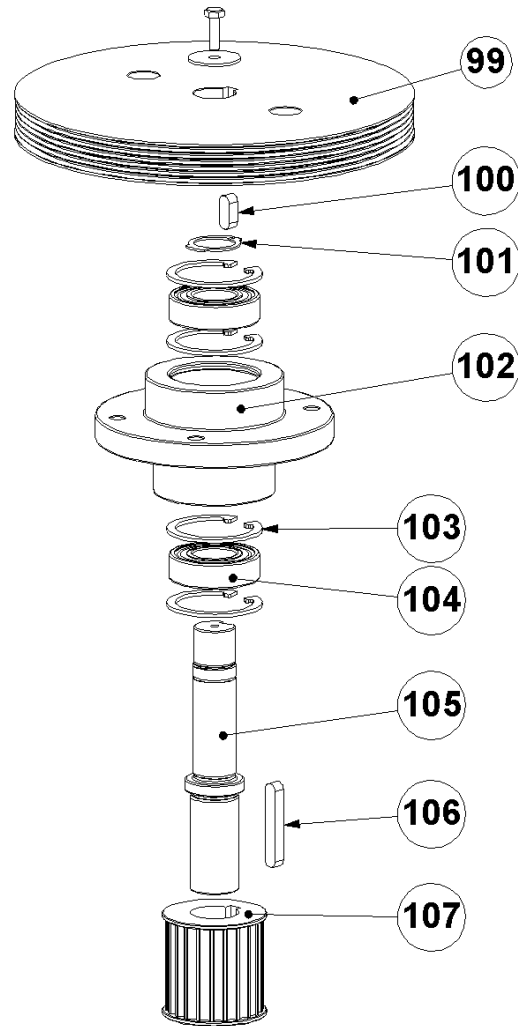
Lower drive





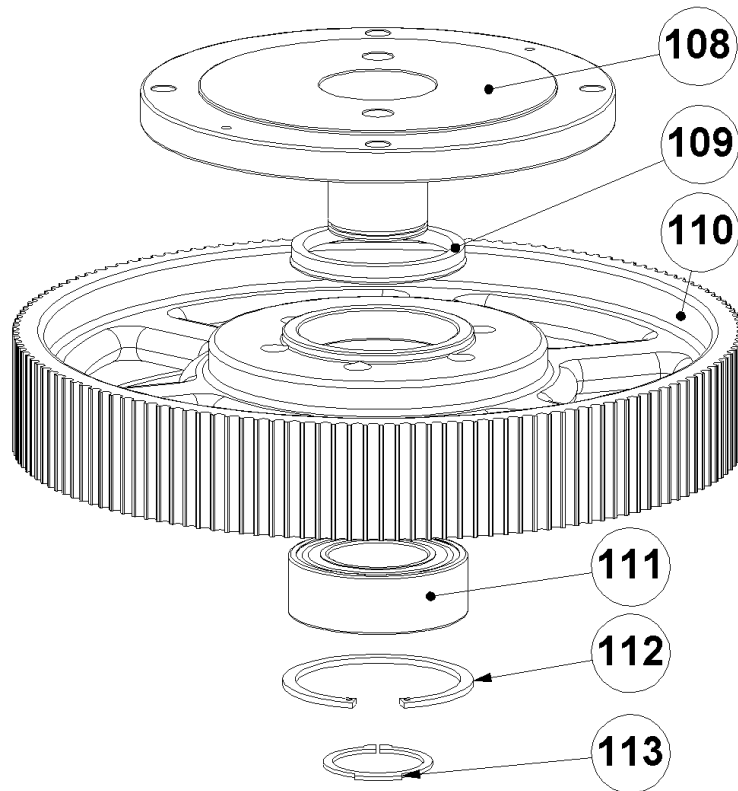
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
75	BE0617	534073001	M6x50 countersunk screw	DIN 7991	2
76	BG11849	533587401	V-seal		1
77	BG007814	533560001	Ring		1
78	BE0198	533655001	M12x30 hexagon socket head bolt	DIN 912	5
79	BG007827	533620701	Cover		4
80	BE0189	533695101	M6x30 hexagon head bolt	DIN 933	15
81	BE0502	533341801	M6x25 countersunk screw	DIN 7991	6
82	BE0030	533356201	M8x25 hexagon head bolt	DIN 933	2
83	BG007822-1	533419901	Housing complete		1
84	BG007832	533242801	Tensioner plate		1
85	BE0122	533263001	M14x75 hexagon head bolt	DIN 933	2
86	BG007868	533298601	Drive pulley		1
87	BG007869	533243501	Pulley		3
88	BG11866	533770301	Lower belt	50-55 Hz tension	1
89	BG007865	533294001	Lower tensioner		1
90	BG007824	533386401	Lower plate		1
91	BE0045	534692301	M6x16 hexagon head bolt	DIN 933	18
92	BG007850	533459601	Inspection cover		2
93	E15638	535225801	Plate for seal spacer		3
94	BE0189	533695101	M6x25 counter sunk screw	DIN 7991	4
95	E13891	534792401	Radial shaft seal		3
96	BE0502	533341801	M6x30 hexagon head bolts	DIN 933	20
97	BE0049	534694301	M8x16 hexagon head bolt	DIN 933	6

Contra pulley BG007866



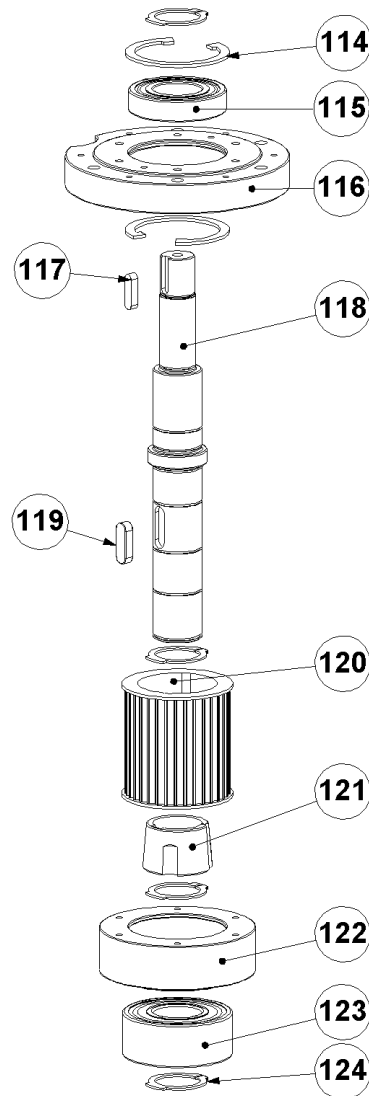
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
99	BG005803	533099101	Belt pulley		1
100	BE0109	533293401	Key 8x7x20	DIN 6885A	1
101	BE0076	533914201	Retaining ring for shaft Ø25	DIN 471	1
102	BG005802	533237601	Bearing house		1
103	BE0077	533218301	Retaining ring for bore Ø52	DIN 472	4
104	222-2331-E	533838201	Bearing		2
105	BG007801	533575801	Axle		1
106	BE0657	533250901	Key 8x7x50	DIN 6885A	1
107	BG007805	533861801	Pulley		1

Centre pulley BG007867



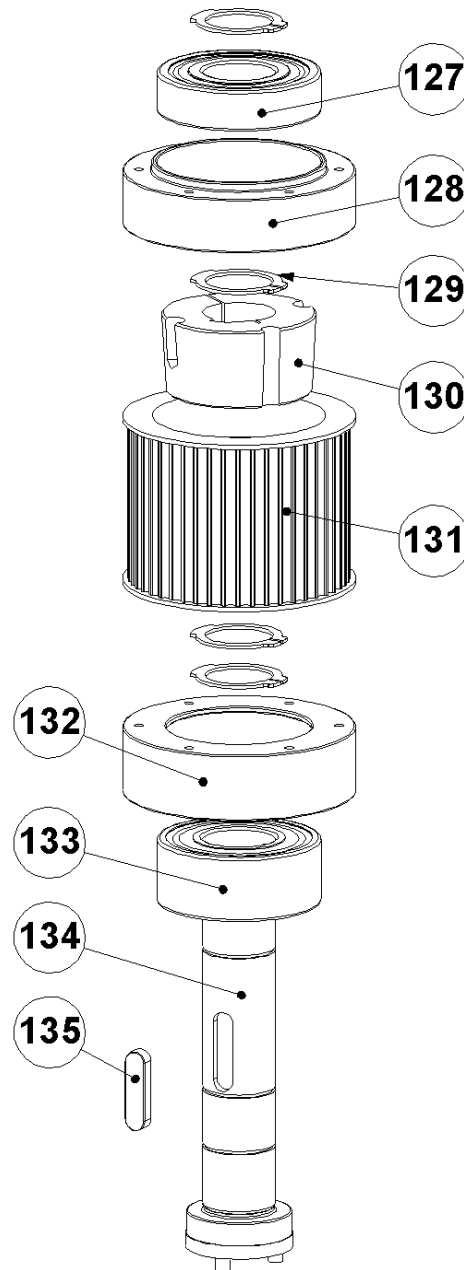
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
108	BG007812	533557201	Sprocket		1
109	E03703	533216001	V-seal		1
110	BG007806-1	533031001	Pulley		1
111	E01490	533600701	Bearing		1
112	E03993	533371101	Retaining ring for bore Ø90	DIN 472	1
113	BE0126	533220501	Retaining ring for shaft Ø50	DIN 471	1

Drive pulley BG007868



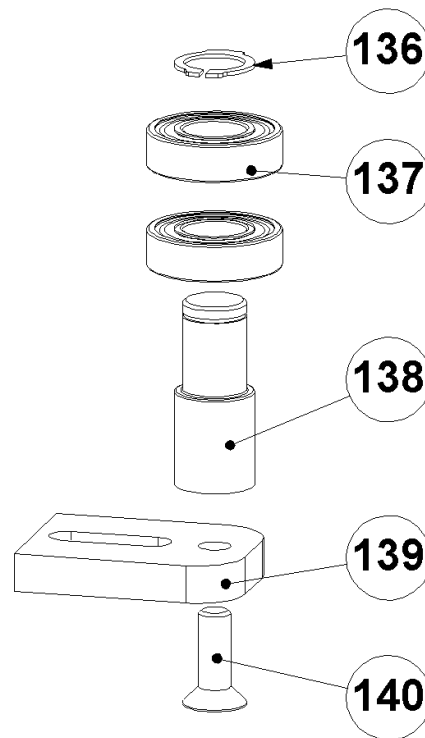
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
114	BE0107	533344001	Retaining ring for bore Ø80	DIN 472	2
115	BG11933	533624201	Bearing		1
116	BG007815	533574801	Bearing house		1
117	BE0256	533905401	Key 8x7x30	DIN 6885A	1
118	BG007818	533054301	Axle		1
119	BE0658	533173201	Key 12x8x35	DIN 6885A	1
120	BG11867	533612201	Pulley		1
121	BG11868	533735601	Taperlock		1
122	BG007817	533574601	Bearing house		1
123	BG11871	533624001	Bearing		1
124	BE0607	533659901	Retaining ring for shaft Ø40	DIN 471	4

Pulley (3x) BG007869



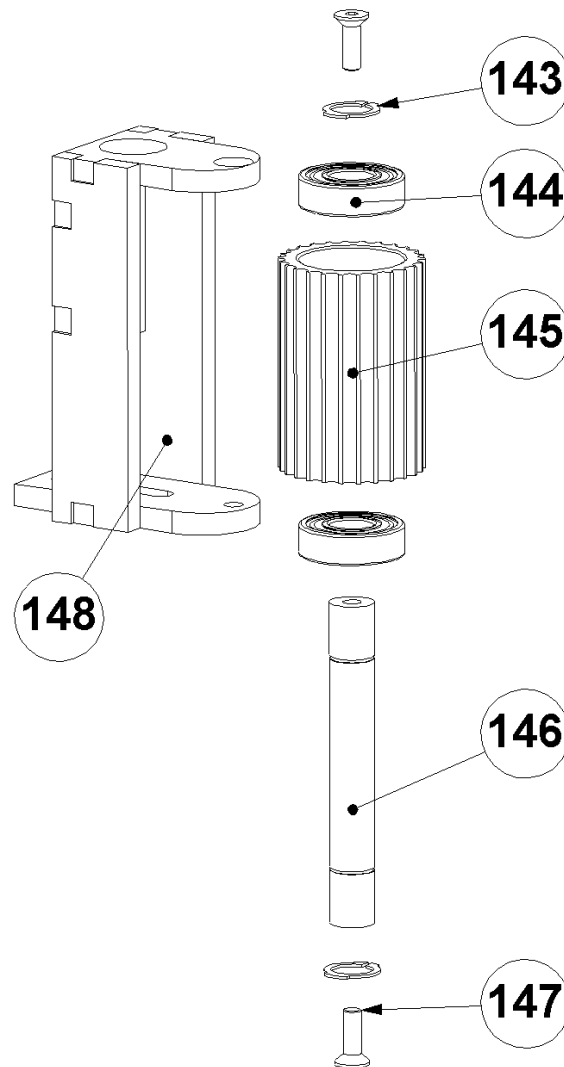
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
127	BG11887	533624101	Bearing		1
128	BG007819	533574701	Bearing house		1
129	BE0607	533659901	Retaining ring for shaft Ø40	DIN 471	4
130	RB270A/11	534892301	Taper lock		1
131	BG11888	533216501	Pulley		1
132	BG007817	533574601	Bearing house		1
133	BG11871	533624001	Bearing		1
134	BG007816	533133401	Axle		1
135	BE0659	533173101	Key 12x8x45	DIN 6885A	1

Upper tensioner BG005860



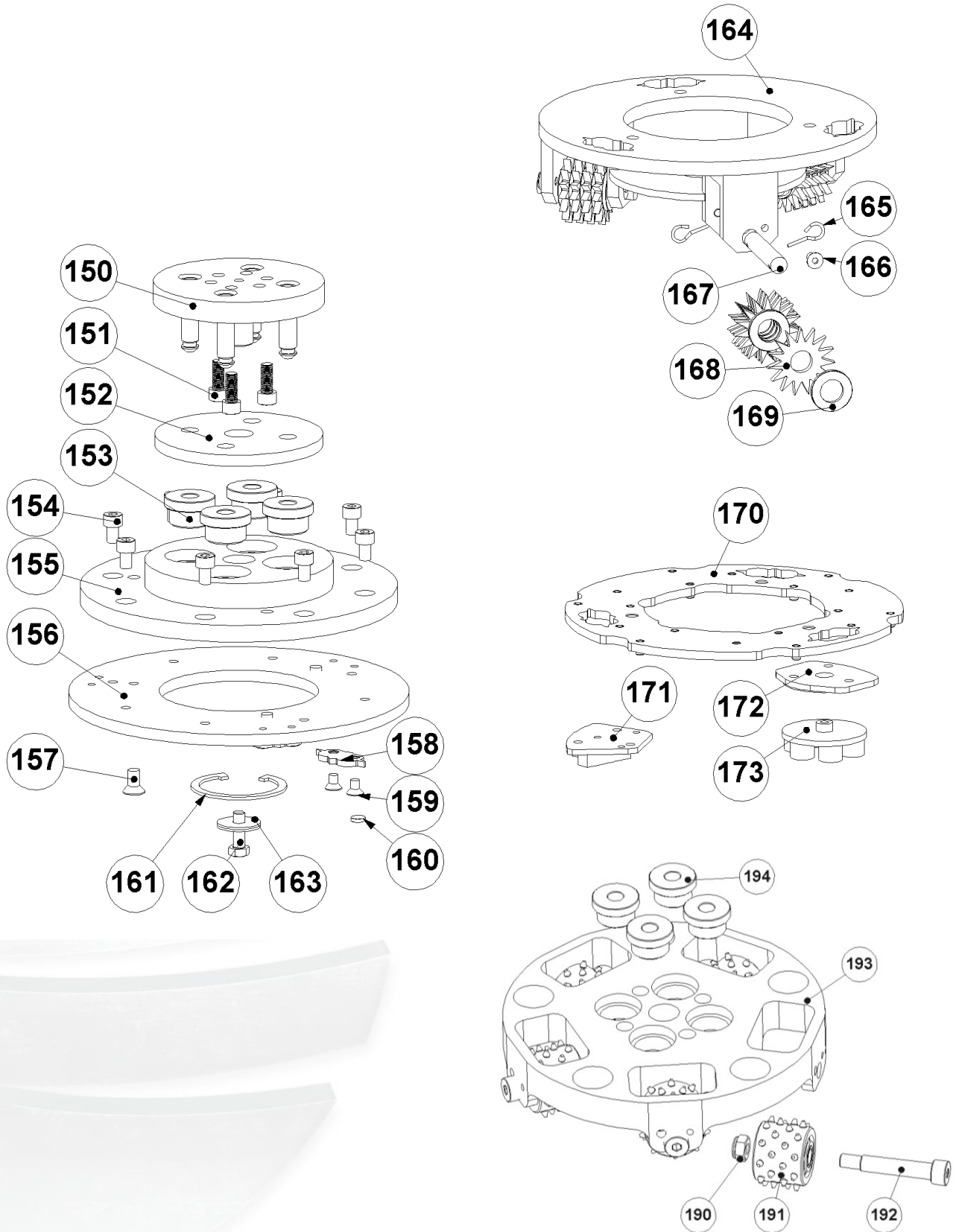
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
136	BE0074	533218201	Retaining ring for shaft Ø20	DIN 471	1
137	222-2245	533779401	Bearing		2
138	BG005830	534303701	Axle for tensioner		1
139	BG005831	534893901	Tension plate		1
140	BE0130	533930501	M10x25 countersunk screw	DIN 7991	1

Lower tensioner BG007865



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
143	BE0074	533218201	Retaining ring for shaft Ø20	DIN 471	2
144	BG11884	533399001	Bearing		2
145	BG007836	-	Pulley		1
146	BG007837	-	Axle tensioner		1
147	BE0458	533802401	M8x25 countersunk screw	DIN 7991	2
148	BG007833-1	-	Tensioner		1

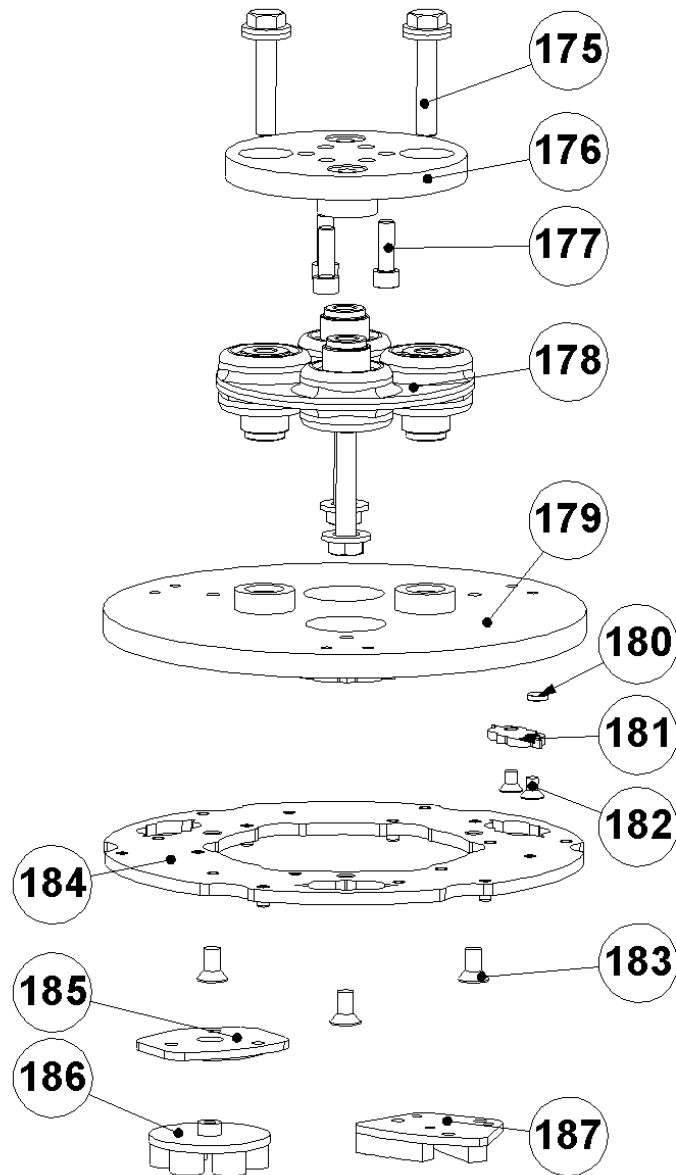
Buffer plate for surface preparation (3x)





Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
153-160	BG240190-1	533286201	240mm diamond holder complete		1
156-160	BG2401901-1	533388801	240mm diamond holder		1
150	BG11880-HD	534619401	Fork		1
151	BE0204 + BE0584	533676101+ 533319201	M8x25 hexagon socket head bolt small + M8 spring washer small	DIN 7984 DIN 7980	3
152	BG11879	533228101	Buffer disc		1
153	BG11878	533371201	Buffer hard		4
154	BE0082	533616401	M8x12 hexagon socket head bolt	DIN 912	8
155	BG11877	533341501	Magnet plate holder 240mm		1
156	BG2401901-1	533388801	Only complete with parts 157 - 160		1
157	BE0456	533784401	M8x16 countersunk screw	DIN 7991	3
158	BG11811	533547401	Centering star		3
159	BE0453	534086601	M6x10 countersunk screw	DIN 7991	6
160	E06446	533511501	Magnet		3
161	BE0608	533882301	Retaining ring for bore Ø58	DIN 472	1
162	BE0030	533356201	M8x25 hexagon head bolt	DIN 933	1
163	BE0314	533244401	M8x30x1,5 washer		2
164-169	BG300117	-	240mm cutter housing complete		1
164	BG300501-1	-	240mm cutter housing		1
165+166	BG300133	533563001	Locking pin & screw		6
167	BG300130	533214601	Axle		3
168	BG300109	533606501	Cutter		12
169	MPL48	533124301	Washer		15
170	E07240	533113401	DIAMAG 240mm adapter plate		1
	BG200993-1	533576901	Plate for wings 240mm		1
	BG200988-1	535026901	Dry polish dot holder 240mm		1
171			DIAMAG grinding wings		3
172	E06447	533106401	DIAMAG adapter plate for dots		3
173			Dry polish dots		3
190	BE0023	533292901	M10 locking nut	DIN 985	5
191	E09119-1	-	Bush hammer tool heavy only		5
192	BE0723	-	M10 12x55 hexagon shoulder bolt		5
193	E09580	533792701	Cutter plate 240mm for 5 tools		1
194	BG11878	533371201	Buffer hard		4
190-193	E09119-1/SET15	533113301	Bush hammer set of 15 heavy compl.		1
190-194	E10240	533108501	Cutter plate 240 complete with bush hammer tools		1

Buffer plate for polishing (3x)





Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
175	BE0589	534254401	7/16 x 2"½ hexagon UNC bolt		4
176	BG2402001	533347001	Flexplate adapter for axle		1
177	BE0012	533615001	M8x25 hexagon socket head bolt	DIN 912	3
178	BG400310	535375401	Morflex coupling		1
179-182	BG2402002-1	533324201	Flexplate diamond holder		1
179	BG24020021-1	535226601	Flexplate diamond holder only		1
180	E06446	533511501	Magnet		3
181	BG11811	533547401	Centering star		3
182	BE0453	534086601	M6x10 countersunk screw		6
183	BE0456	533784401	M8x16 countersunk screw	DIN 7991	3
184	E07240	533113401	DIAMAG 240mm adapter plate		1
	BG200993-1	533576901	Plate for wings 240mm		1
	BG200988-1	535026901	Dry polish dot holder 240mm		1
185	E06447	533106401	DIAMAG adapter plate for dots		3
186			Dry polish dots		3
187			DIAMAG grinding wings		3

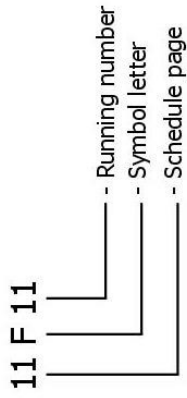




3. Electric schedules

E06867 / 3x 400V / 15kW / frequency drive

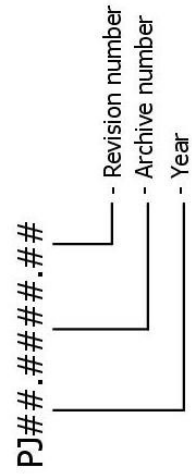
SYMBOL CODE



CORE CODE



DRAWING NUMBER



WIRE COLOR

Main Voltage 400V

Phase	Colors
L1	- Black
L2	- Black
L3	- Black
Earth / PE	- Yellow/Green

Control Voltage

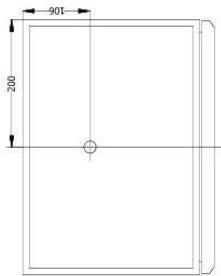
Plus (24VDC)	- Dark Blue
Hook-up wire	- Dark Blue
Minus / Ground (24VDC)	- White/Blue



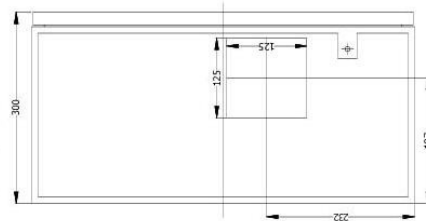
	hulpcontact		signaallamp		smeltveiligheid
	vermogenscontact		hoorn		schakelbare scheid
	maakcontact, vertraagd open		ampere-meter		scheider "klapbak"
	maakcontact, vertraagd sluitend		urenteller		hoofdschakelaar
	verbrekcontact, vertraagd open		transformator		installeerautomaat 1-poolig
	verbrekcontact, vertraagd sluitend		spoel		installeerautomaat 2-poolig
	drukknop terugverend		spoel met opkomvertraging		installeerautomaat 3-poolig
	drukknop blijvend		spoel met afvalvertraging		motorbeveiligingsschakelaar
	toe draaischakelaar		spoel puls		elektrisch bediende klep
	draaischakelaar		TL-verlichting		regelbare weerstand
	noodstop met draaibare vrijgave		weerstand verwarming		ringklem
	thermostaat hygrostaat		wandcontactdoos		ringklem met zekering
	drukschakelaar		stroomtransformator		geïjlijchter
	eindschakelaar				
	naderingsschakelaar				



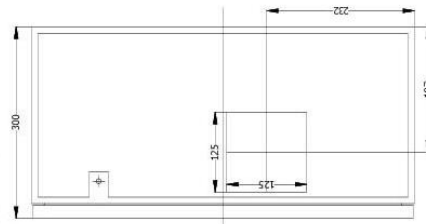
TOP VIEW



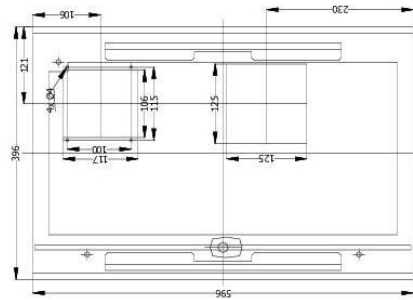
LEFTHAND VIEW
(Fan)



RIGHTHAND VIEW
(Filter)

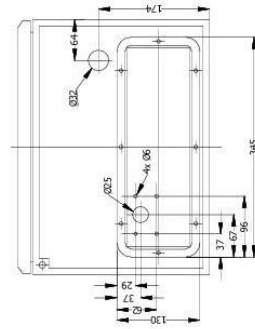


FRONT VIEW



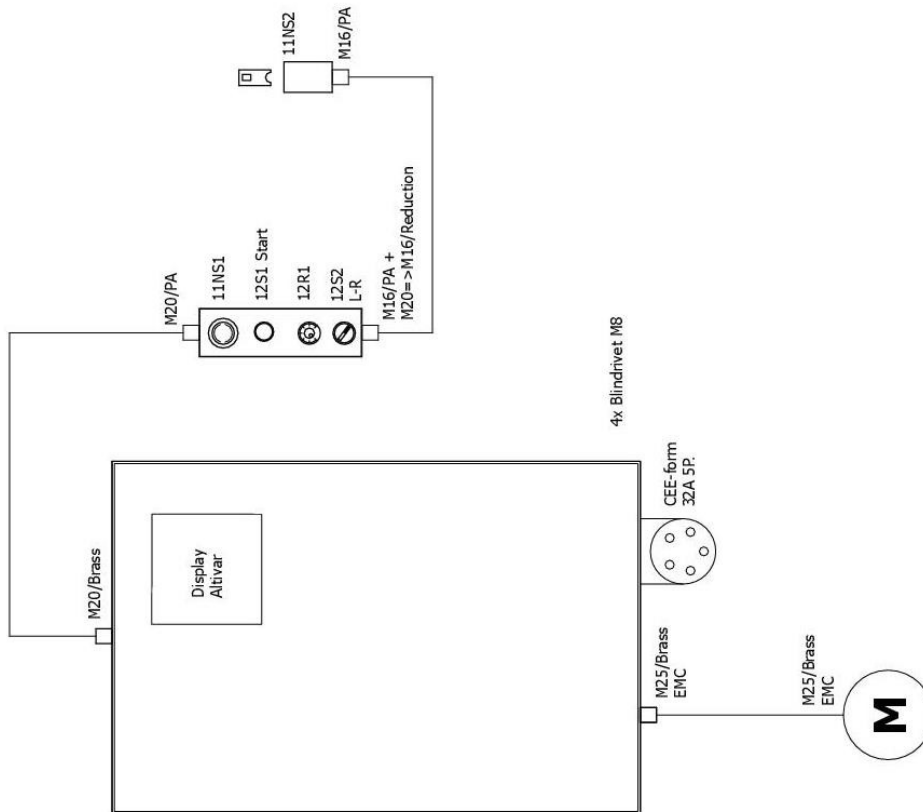
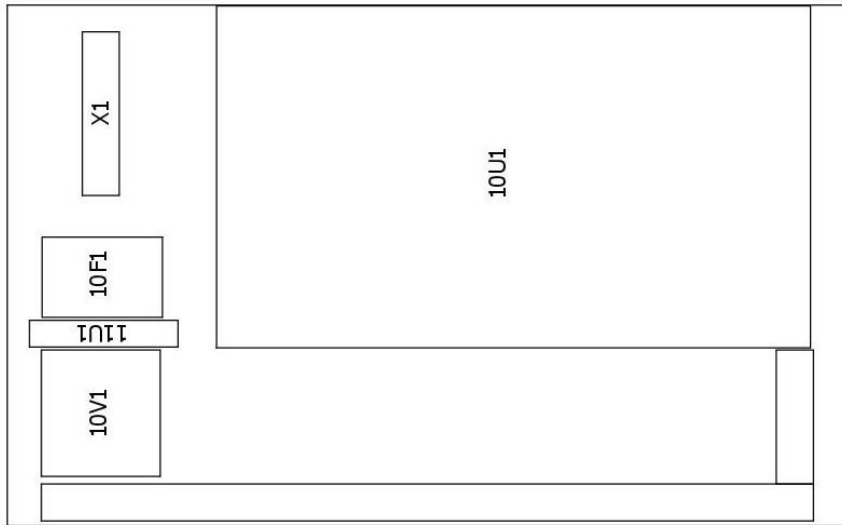
4x Blindhvet M8

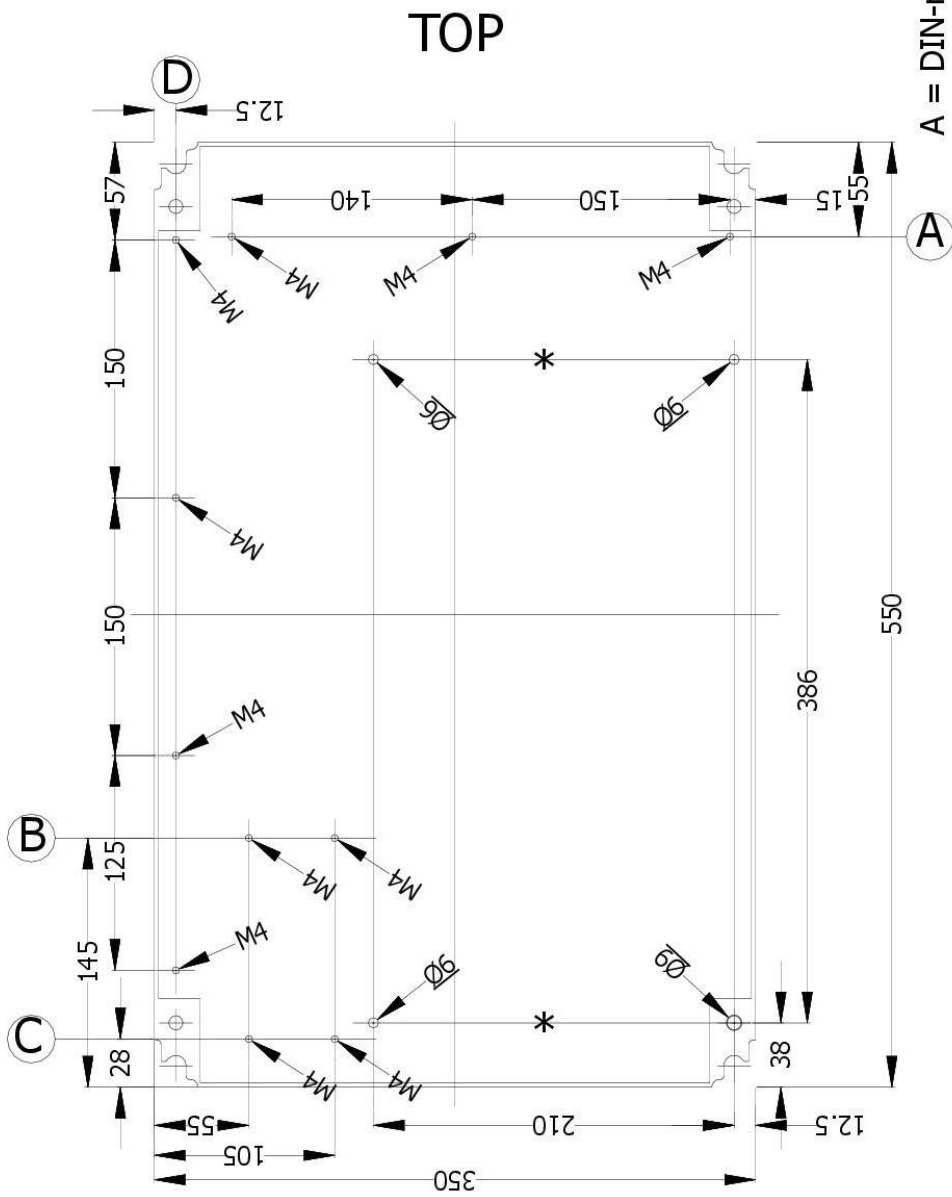
BOTTOM VIEW



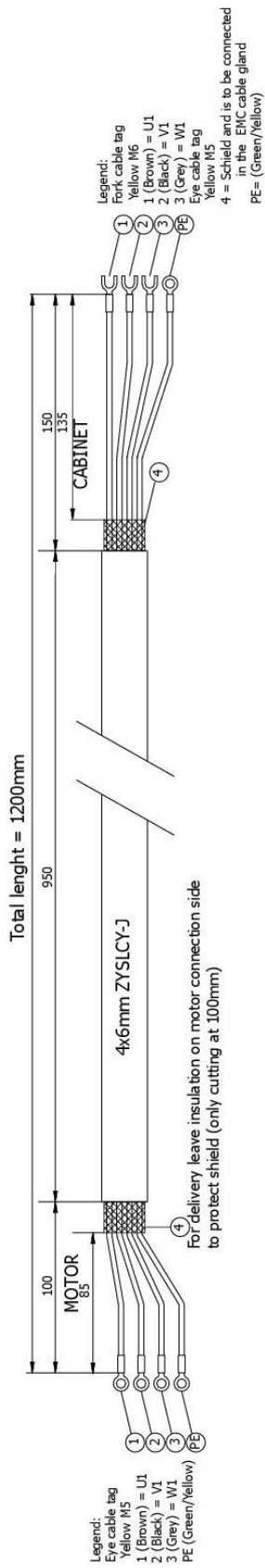


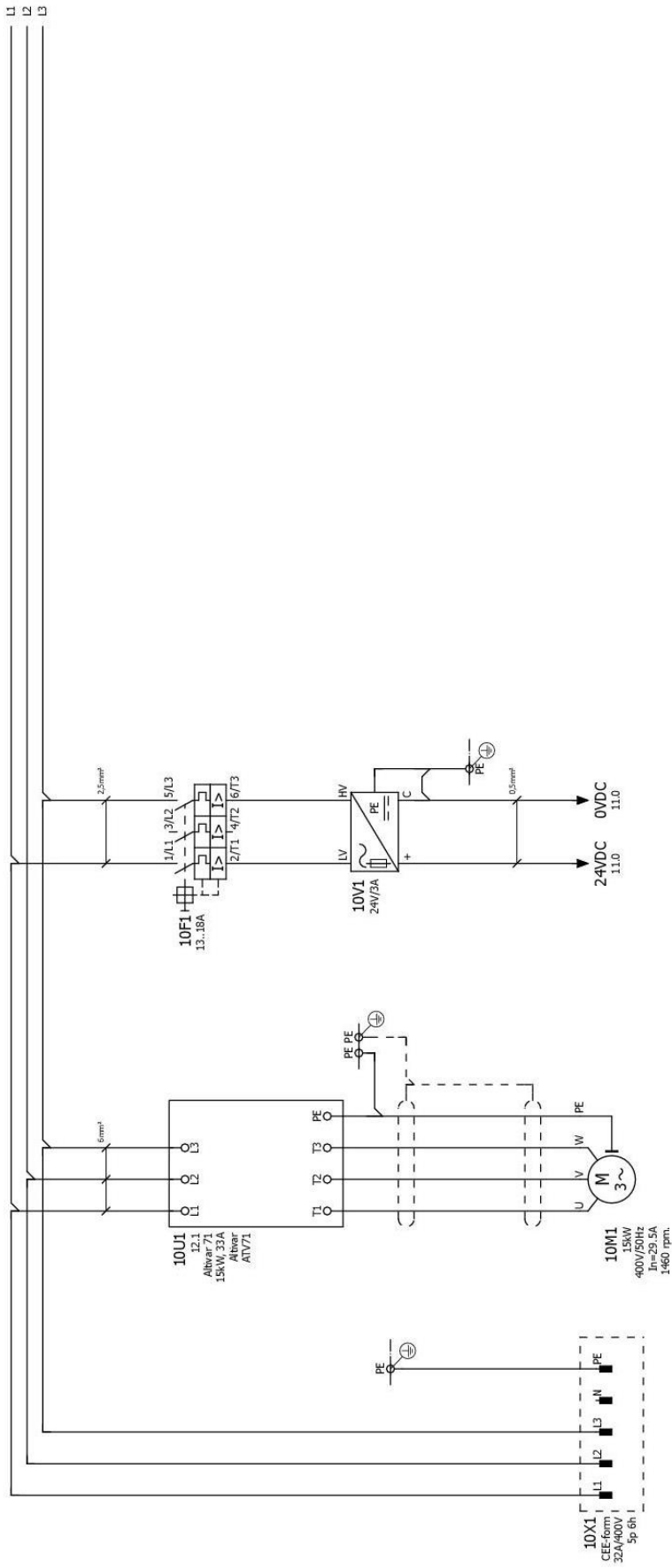
Mounting plate





- A = DIN-rail L=320mm
- B = DIN-rail L=90mm (optional)
- C = Cable conduit 25x60mm L=90mm
- D = Cable conduit 25x60mm L=520mm

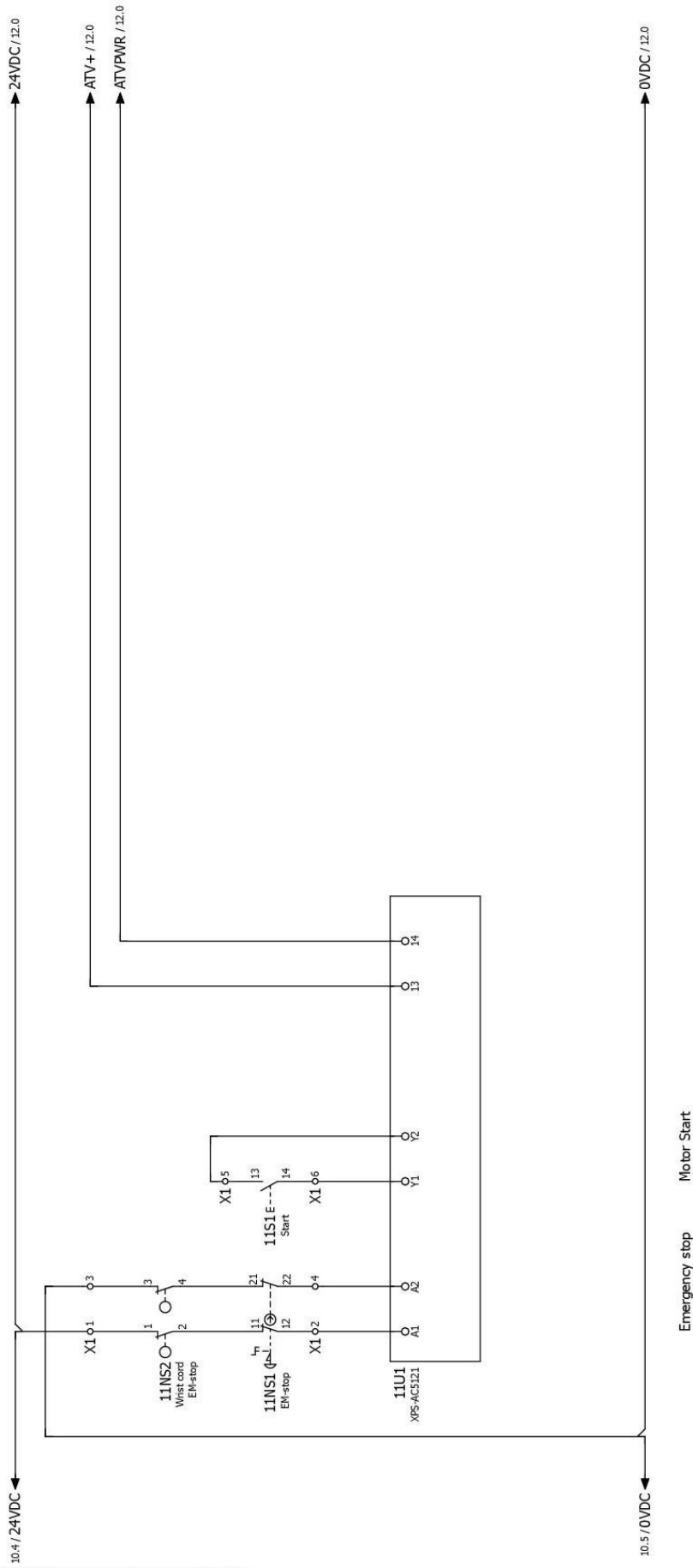


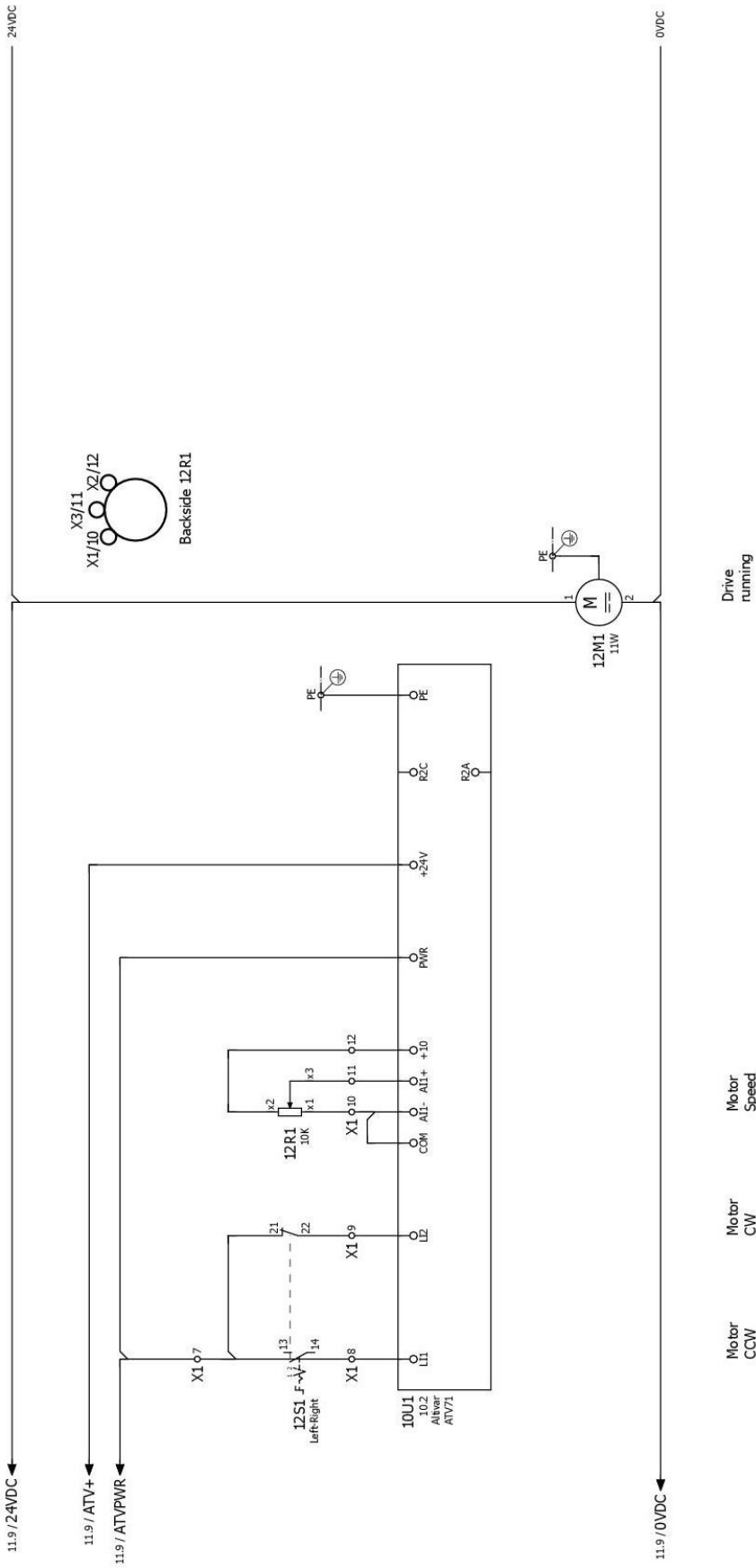


Power supply
400V 32A 50Hz

Motor 15kW
400V 29.5A 50Hz
1460 rpm

Control voltage
24Vdc







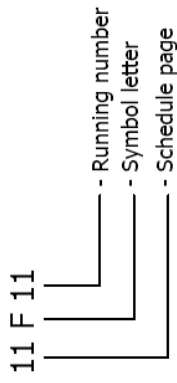
Parts list

device tag	Quantity	designation	Type number	Brand	Blastrac number
CAB	1	Kastwand 600x400x300MM Ral 7035 met galen BMG-780	MSW091.20029GH/BO	Schneider Electric	ED 7874
CAB	1	M rail galvanized 7,5x35MM 2M	TES5 MOUNT/RAIL GROOVE	Generic	ED 7835
CAB	1	Mount/drain BKH 25x60 MM vpp=60	T1-E 25x60 MOUNT/DRAIN	Generic	ED 7972
CAB	1	Spiralkl. wit 15x80MM P4 per mt.	SPIRAALSLANG 15-80MM	Generic	ED 7901
CAB	1	spiral hose white 12-50 mm P3 25m	SPIRAL HOSE 12-50MM	Generic	ED 8123
CAB	60	Internal wire 0.5mm2 white	30-309000506	Helikabel	ED 8133
CAB	2	Internal wire 1.5mm2 yellow/green 90 degr.	30-309001502	Helikabel	ED 8137
CAB	2	Internal wire 2.5mm2 black, 90 degr.	30-309003501	Helikabel	ED 8138
CAB	16	Internal wire 6mm2 black, 90 degr.	30-309006001	Helikabel	ED 8139
CAB	8	Internal wire 6mm2 yellow/green, 90 degr.	30-309006002	Helikabel	ED 7882
CAB	1	controlbox voor bmg speed control kast compleet	BMG CONTROLBOX SC	ATM Technical Systems	
CAB	6	2x5SLCYJ 0.6 4*6 EMC AWG10	MOTORKABEL EMV 4*6 MM	Weidmüller	ED 7949
CAB	52	Terminal marker for weidmuller terminals blanc	WEID DEK5/BMC	Weidmüller	ED 7949
PG	1	Cable gland M20*1.5 (PG11/13.5/16) brass, nickel-plated	WARTEL M20*1.5	Jacob	ED 0406
PG	1	Cable gland nut M16*1.5 brass, nickel-plated	WARTELMÖDER M16*1.5	Jacob	ED 0405_1
PG	1	Cable gland nut M25 BMC/EMV brass, nickel-plated	JACO 50.225 POT	Jacob	ED 8121
PG	1	Reducer M32*1.5 ext. M25*1.5 int. brass, nickel plated	REDUCTIERING M32-M25	Jacob	E10142
PG	1	Cable gland nut M32 BMC/EMV brass, nickel-plated	JACO 50.232 POT	Jacob	ED 8150
CRB	1	Enclosure RAL 7035/7016 for 4 buttons	TELVAL D04-grny	Télémeanique	
10X1	1	32A.CEE-form male wall outlet socket 6h	CEE 32A 4P+PE 400V MALE		
10U1	1	Frequency drive 15KW 480V with graphic terminal	ATV71HD15H4	Schneider Electric	ED 8260
10U1	1	Door mountingset for programdisplay for altivar 71	W9A1102	Schneider Electric	ED 7875
10U1	1	Door IP 65 for display for altivar 71	W9A1103	Schneider Electric	ED 7876
10U1	1	cabie for altivar 71	W9A1104R10	Schneider Electric	ED 7877
10F1	1	Motor circuit breaker G12-RT - 1.1.6 A - 3 3d - thermomagniet	G12-RT06	Schneider Electric	ED 7878
10V1	1	Power supply 2.4Vdc 3A 200-520Vdc	ABL8-RPS5-030	Schneider Electric	ED 5193
11U1	1	Module XPSAC - Emergency stop - 24 V AC DC	XPS-ACS121	Schneider Electric	ED 8060
12M1	1	VENTILATOR119*119*38MM 2.4Vdc 2.50M3/H 4184HK/HH	PAN 119*119*38 2.4VDC 250M3/H	PABST	ED 7879
12M1	1	Outlet grid cut-out 125x125xMM Ral 7035	NSVCA6135LPP	Schneider Electric	ED 7881
X1	1	Finger guard 4bv ventilator 119*119*38	LZ30-4	PABST	ED 7880
X1	2	Eindsteen V4 klein 9708/2535	EINDSTEUN V4 CONLACC	Weiland	ED 7828
X1	1	Earth terminal for ZDU12.5.2*2.5(4)mm	WEID ZPE 2.5	Weidmüller	ED 5167
X1	12	Tension clamp terminal 2*2.5 beige	WEID ZDU 2.5	Weidmüller	ED 5166
X1	1	End plate beige for ZDU 2.5	WEID ZAP/TW 1	Weidmüller	ED 5168

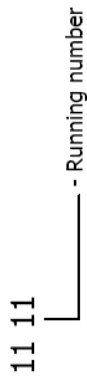


E06867/UL230 / 3x 230V / 15kW / frequency drive

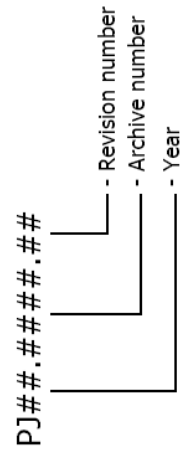
SYMBOL CODE



CORE CODE



DRAWING NUMBER



WIRE COLOR All wiring AWG

Main Voltage 230V

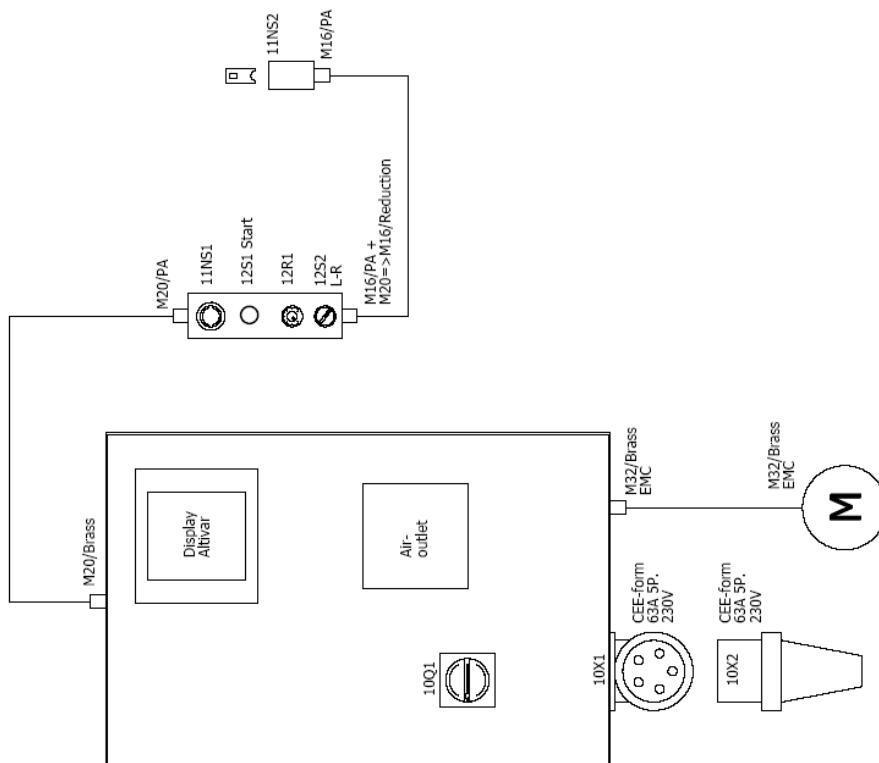
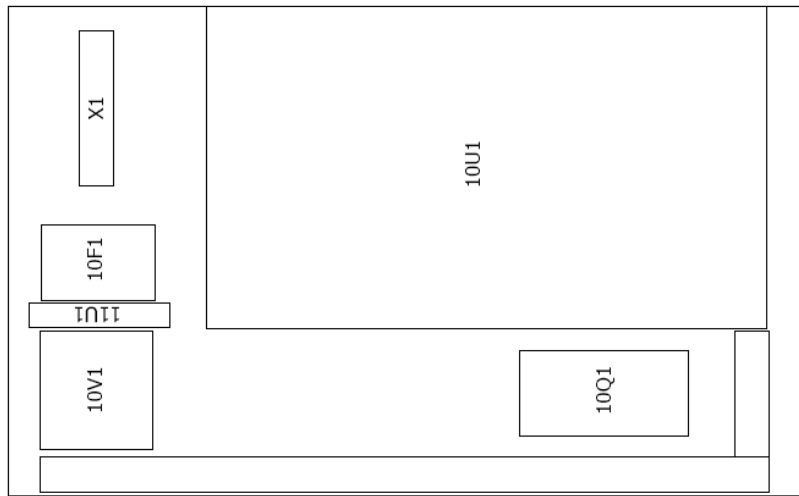
<u>Phase</u>	<u>Colors</u>
L1	- Black
L2	- Black
L3	- Black
Earth / PE	- Yellow/Green

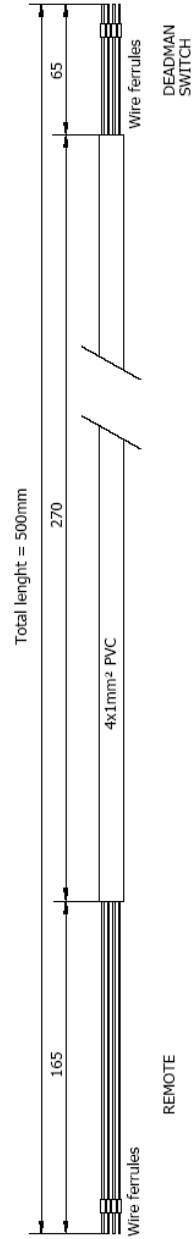
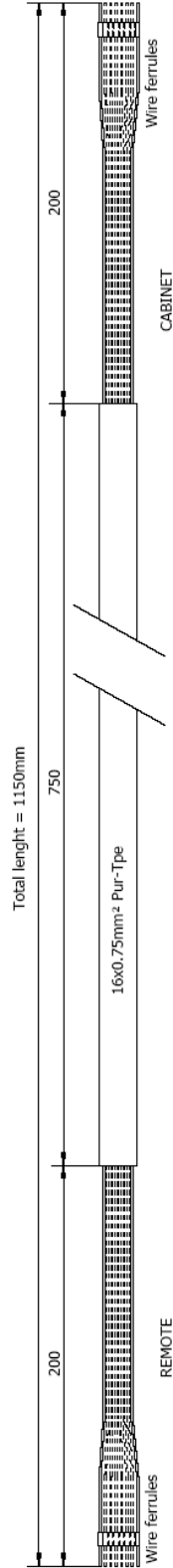
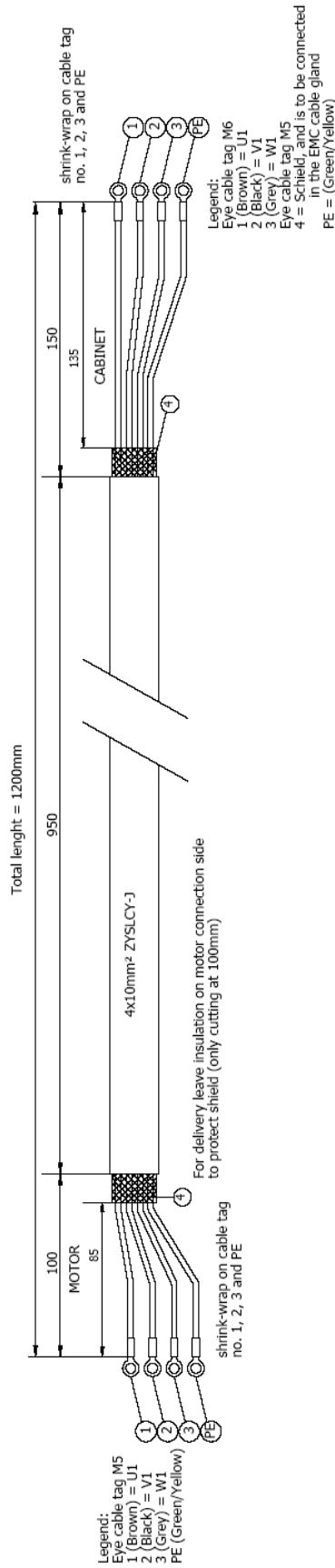
Control Voltage

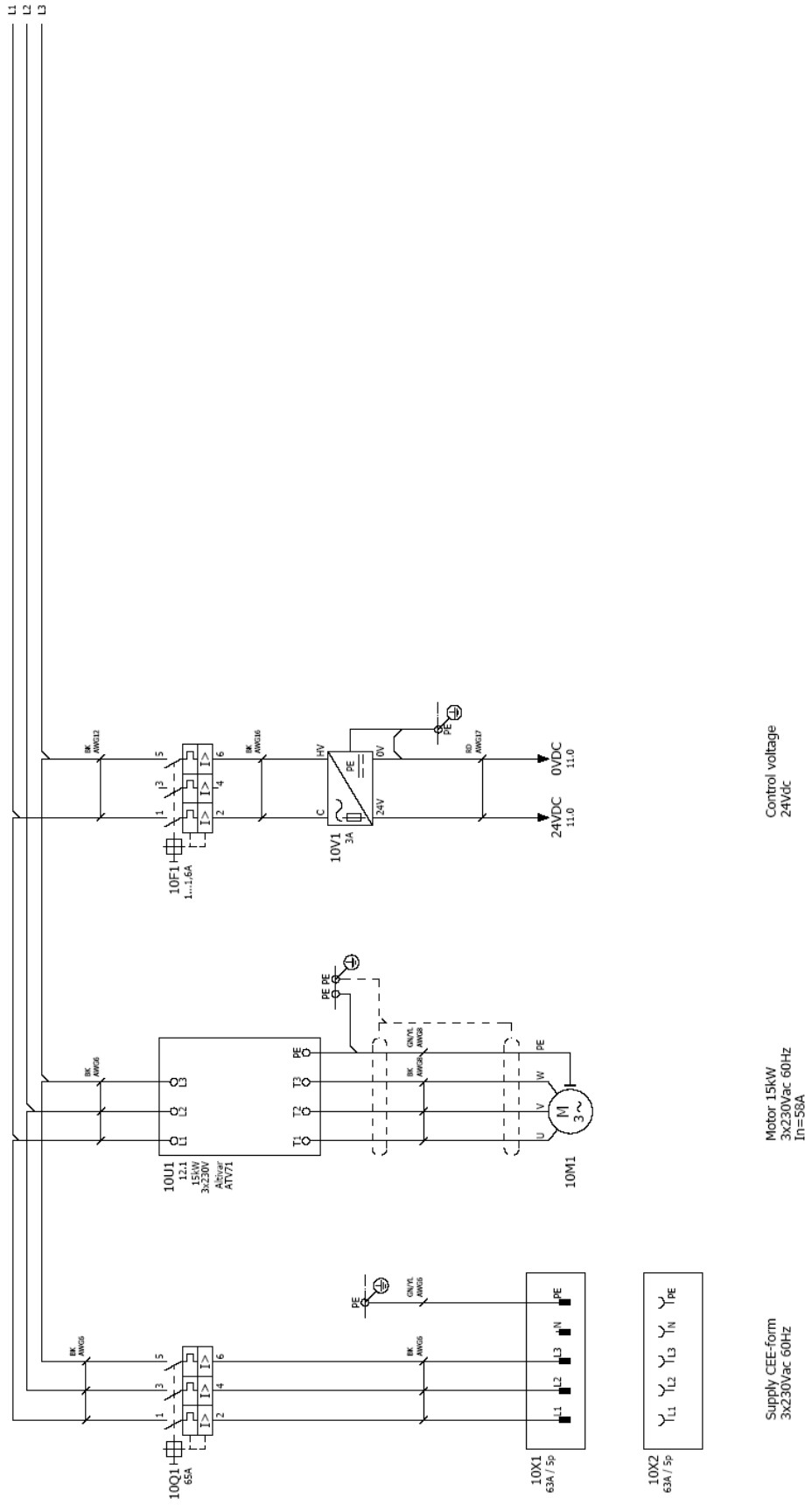
Plus (24VDC)	- White
Hook-up wire	- White
Minus / Ground (24VDC)	- White

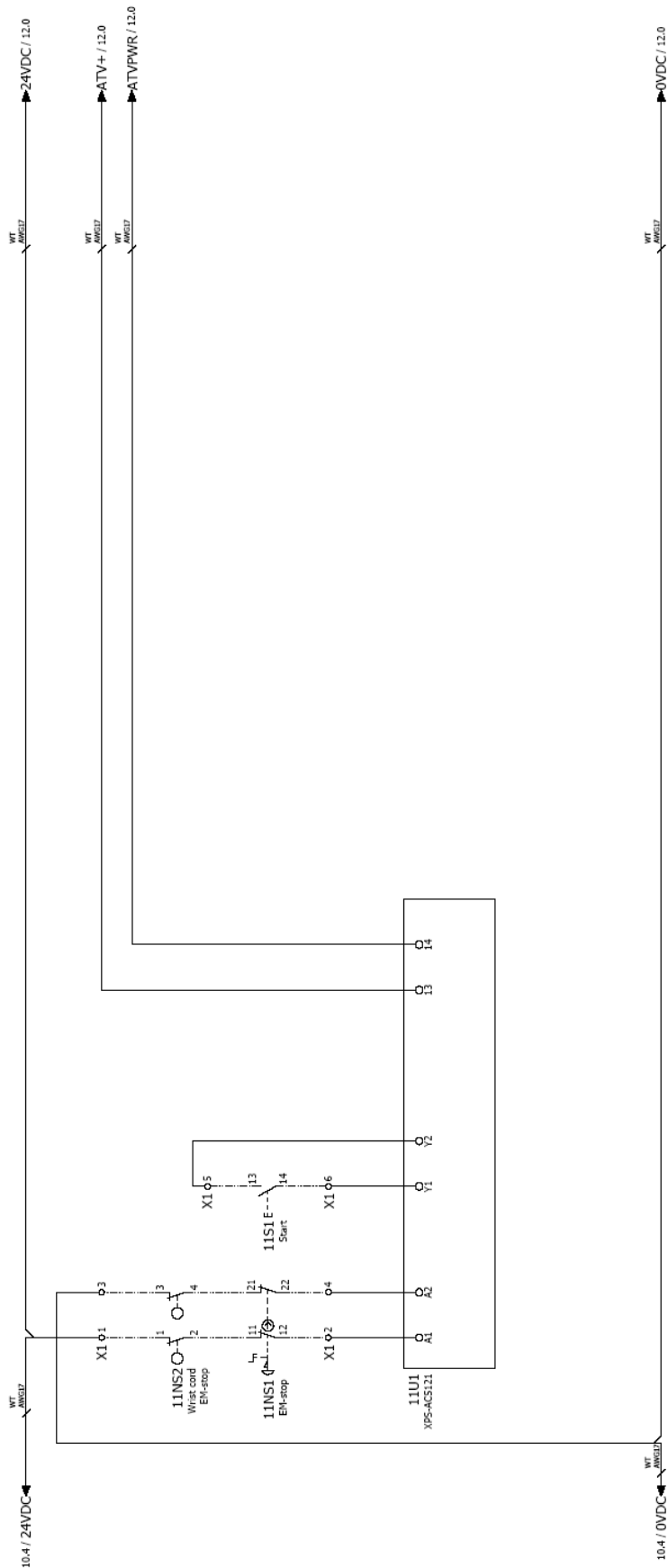
	auxiliary contact	hulpcontact		signaallamp		Safety fuse	smeltveiligheid
	Power contact	vermogenscontact		hoorn		Fused switch, three-pole	schakelbare scheider
	NO contact, opens with time delay	maakcontact, vertraagd open		apm.meter		Fused disconnect, three-pole	scheider "Kupbak"
	NO contact, closes with time delay	maakcontact, vertraagd sluitend		runninghour counter		Main switch	hoofdschakelaar
	NC contact, opens with time delay	webreikcontact, vertraagd open		transformer		Circuit breaker, single-pole	installeerautomat 1-poolig
	NC contact, closes with time delay	webreikcontact, vertraagd sluitend		Contactor coil relay coil		Circuit breaker, two-pole	installeerautomat 2-poolig
	Pushbutton rebound	drukknop terugveerd		spoel		Circuit breaker, three-pole	installeerautomat 3-poolig
	Pushbutton locking	drukknop blijvend		Coilactor/relay coil, with pick-up delay		Power circuit breaker motor overload switch with switch mechanism	motorbeveiligingsschakelaar
	Rotary switch rebound	tip draaischakelaar		Coilactor/relay coil, with drop-out delay		Valve	elektrisch bedienls klep
	Rotary switch locking	draaischakelaar		Contactor pulse coil relay pulse coil,		Resistor with movable contact	regelbare weerstand
	Emergency stop rotary unlock	noedstop met draaisure vrijgave		Tube light		Terminal	rijgkleem
	Thermostatic switch	thermostaat hygrostaat		Resistor / Heating		Terminal with fuse	rijgkleem met zekering
	Pressure switch	drukschakelaar		Socket		Rectifier	geleijkrichter
	Limit switch	eindschakelaar		Current transformer			
	Proximity switch	naderingsschakelaar					

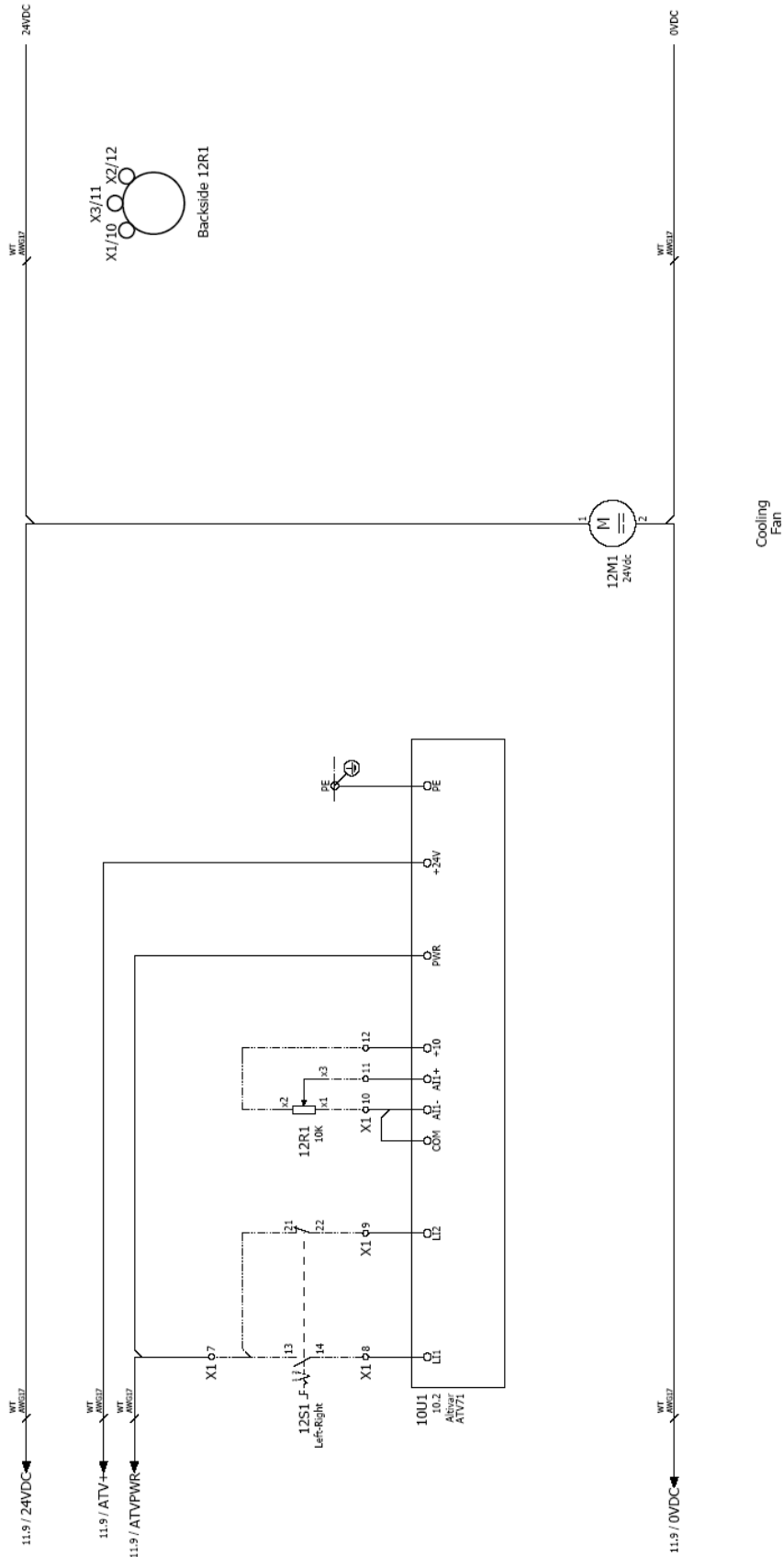
Mounting plate













Terminal diagram

function text	Strip X1 Terminals 24Vdc										Cable name	cable type	Page / column												
	Target designation		Connection point		terminal		jumper		Target designation					Connection point											
	1	2	3	4	5	6	7	8	9	10				11	12	13	14	15	16	17	18	19	20	21	22
	11N62	1	10V1;12M1	24V1																					11.1
	11N61	2	11U1	A1																					11.1
	11N62	3	10V1;12M1	0V;PE;2																					11.1
	11N61	4	11U1	A2																					11.1
	11S1	5	11U1	Y2																					11.2
	11S1	6	11U1	Y1																					11.2
	12S1	7	11U1;10U1	14-PWR																					12.1
	12S1	8	10U1	L11																					12.1
		9	10U1	L12																					12.2
	12R1	10	10U1	A1-																					12.2
	12R1	11	10U1	A1+																					12.3
	12R1	12	10U1	*10																					12.3



Parts list

device tag	Quantity	designation	Type number	part number
CAB	1	Enclosure 400x600x300 with mounting plate 350x530	84002 - ENNV09120029	84002 - ENNV09120029
PG	1	Cable Gland M32*1,5 Nickel-plated EMC	50.632 M/ENV	50.632 M/ENV
PG	1	Locknut M32*1,5 Nickel-plated EMC	50.232 M/POT	50.232 M/POT
PG	1	Cable Gland M20*1,5 Nickel-plated	WARTEL-LH20*1,5	50.620 M-L
PG	1	Locknut M20*1,5 Nickel-plated	WARTELMOER M20	50.630 PA7035
PG	2	Cable Gland M16*1,5	WARTEL PA M16*1,5	50.616 PA7035
PG	2	Locknut M16*1,5	WARTELMOER M16	50.216 PA7035
PG	1	Reduction M20 >> M16 1,5	Reduction PA M20->M16 1,5	W20M16PA
PG	1	Locknut M25*1,5 Nickel-plated EMC	50.225 M/POT	50.225 M/POT
PG	1	Cable Gland M25*1,5 Nickel-plated EMC	XAL D04	XAL D04
CRB	1	Enclosure RA270557016 for 4 buttons	ABL K53525	K53525
10K1	1	63A CEE-Norm Wall outlet socket 9h IP67	ABL K53525	K53525
10Q1	1	63A CEE-Norm Socket 9h IP67	ABL K53525	K53525
10Q1	1	Motor circuit breaker 63A 3p	TELE GV2-P65	GV2 P65
10Q1	1	Large spacing UL	TELE GV2-G66	GV2 G66
10Q1	1	Axle + black ON/OFF handle	TELE GV2AP03	GV2AP03
10F1	1	Frequency controller 15kW 3x230V	ATV71 HD15 M3X 3*230V	ATV71 HD15 M3X
11U1	1	Transformer circuit breaker 1..1.6A	GV2 RT06	GV2RT06
11U1	1	Power Supply 400/24V 3A	ABL8R95-4030	ABL8R95-4030
11W52	1	Emergency stop relay	XPS-AC5131	XPS-AC5121
11W52	1	Safety switch + pin	XCS-PA792 + XCS-Z11	XCS-PA792 + XCS-Z11
11W52	1	Emergency stop	2B6 K5844	2B6 K5844
11S1	2	element NC XAL	ZEN L1131	ZEN L1131
11S1	1	Pushbutton GREEN "START"	2B6 K4333	2B6 K4333
12S1	1	element NO XAL	ZEN L1111	ZEN L1111
12S1	1	Switch handle	ZB5 A02	ZB5 A02
12R1	1	element NO XAL	ZEN L1121	ZEN L1121
12R1	1	Trim-soc LOK	ZEN L1111	ZEN L1111
12M1	1	Pos-meter	Pommeset 10K ZB4	Pommeset LOK ZB4
12M1	1	Fan 24Vdc	ZB5 A0912	ZB5 A0912
12M1	1	Fan finger guard	FAN 119*119*38 24VDC	4414 N
			FG L230-4	L230-4



E06867/UL480 / 3x 480V / 15kW / frequency drive

WIRE COLOR All wiring AWG

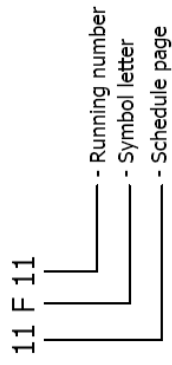
Main Voltage 480Vac

Phase	Colors
L1	- Black
L2	- Black
L3	- Black
Earth / PE	- Yellow/Green

Control Voltage

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

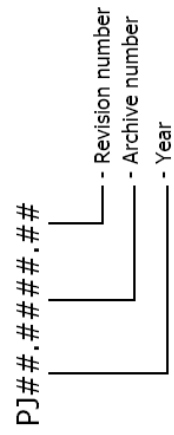
SYMBOL CODE



CORE CODE

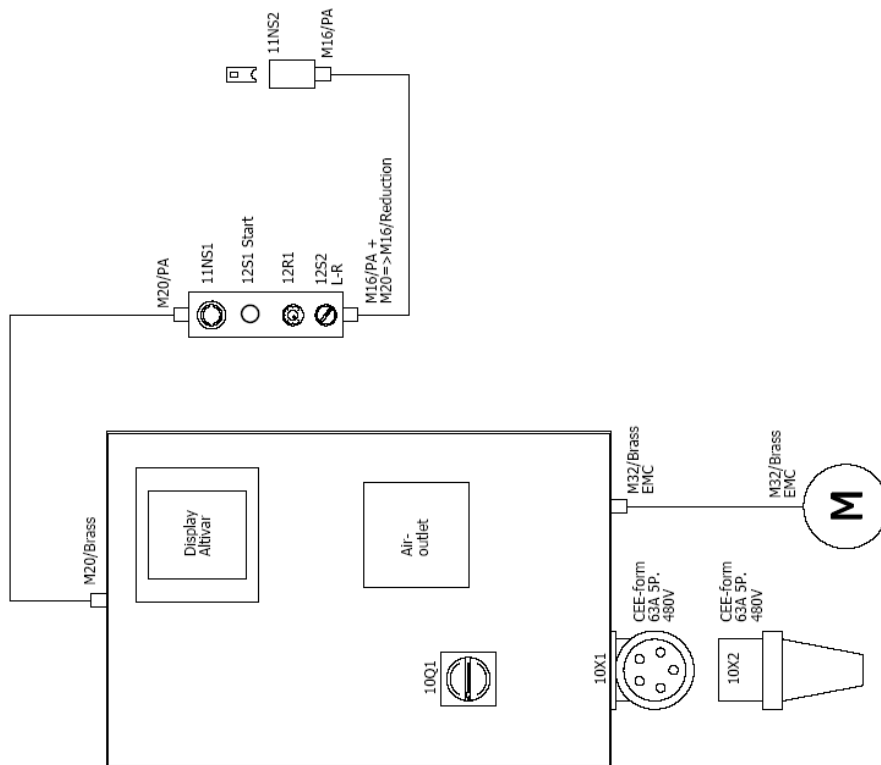
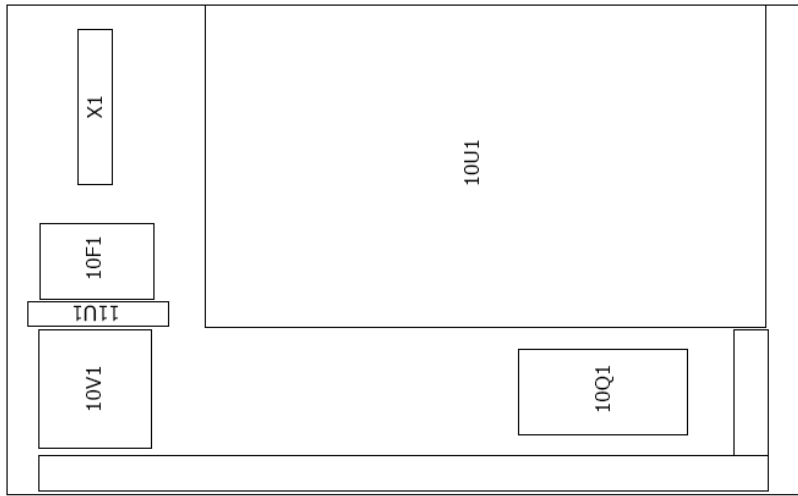


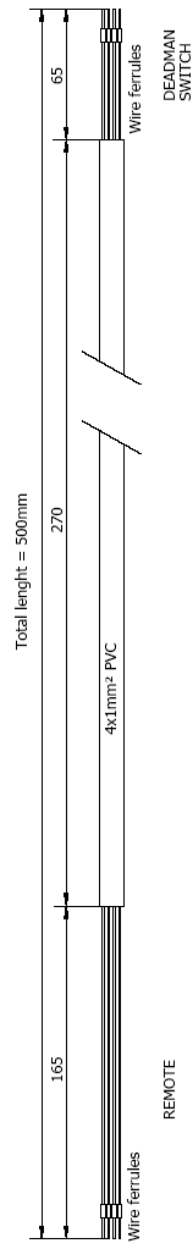
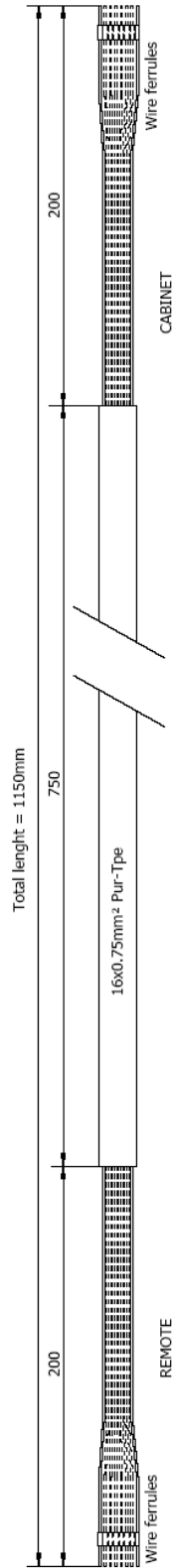
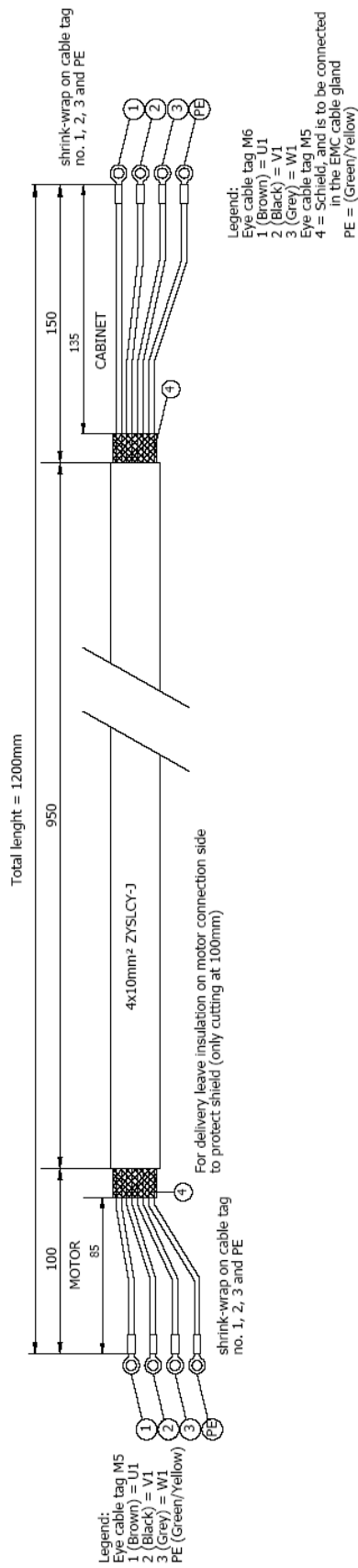
DRAWING NUMBER

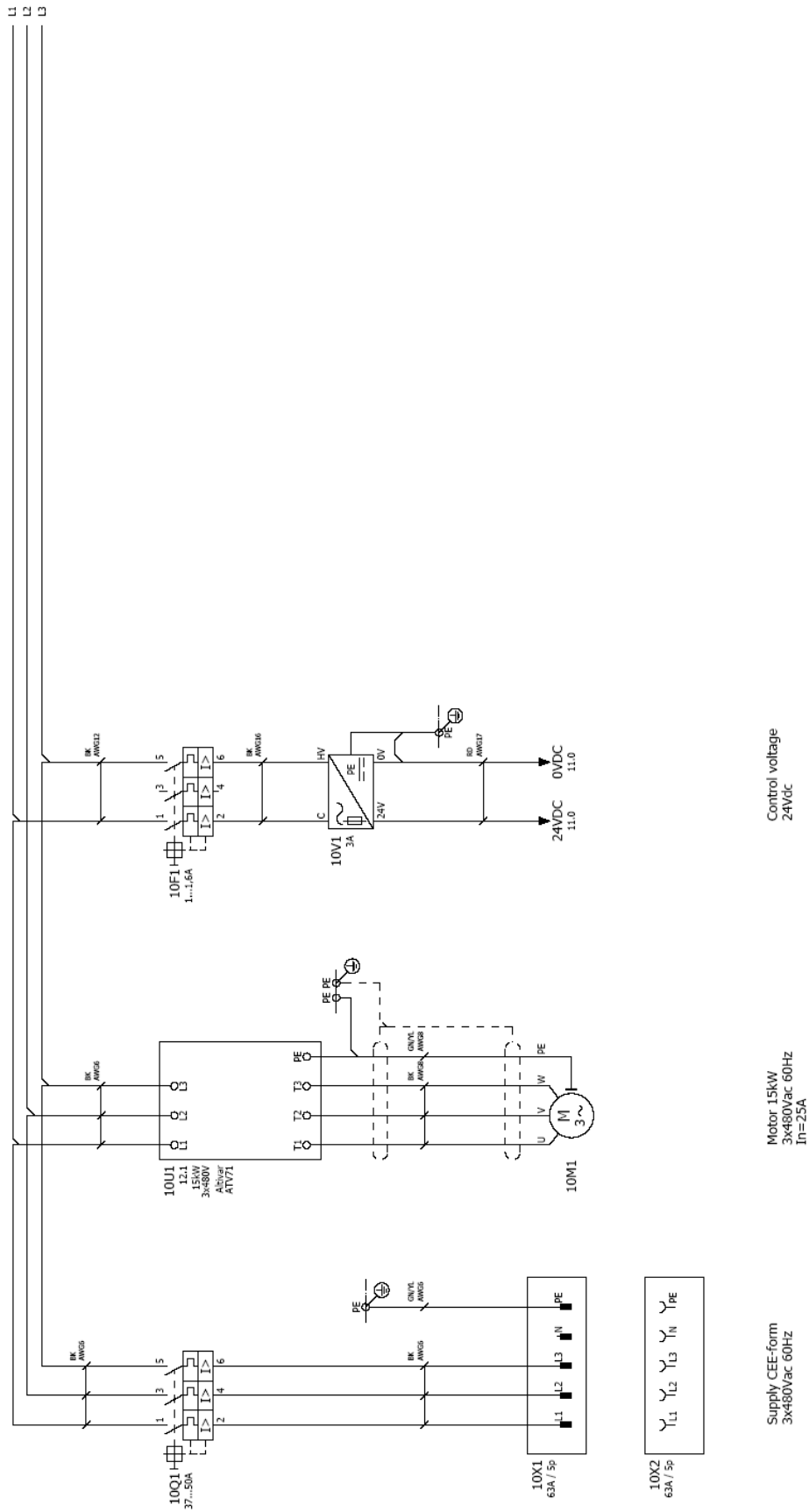


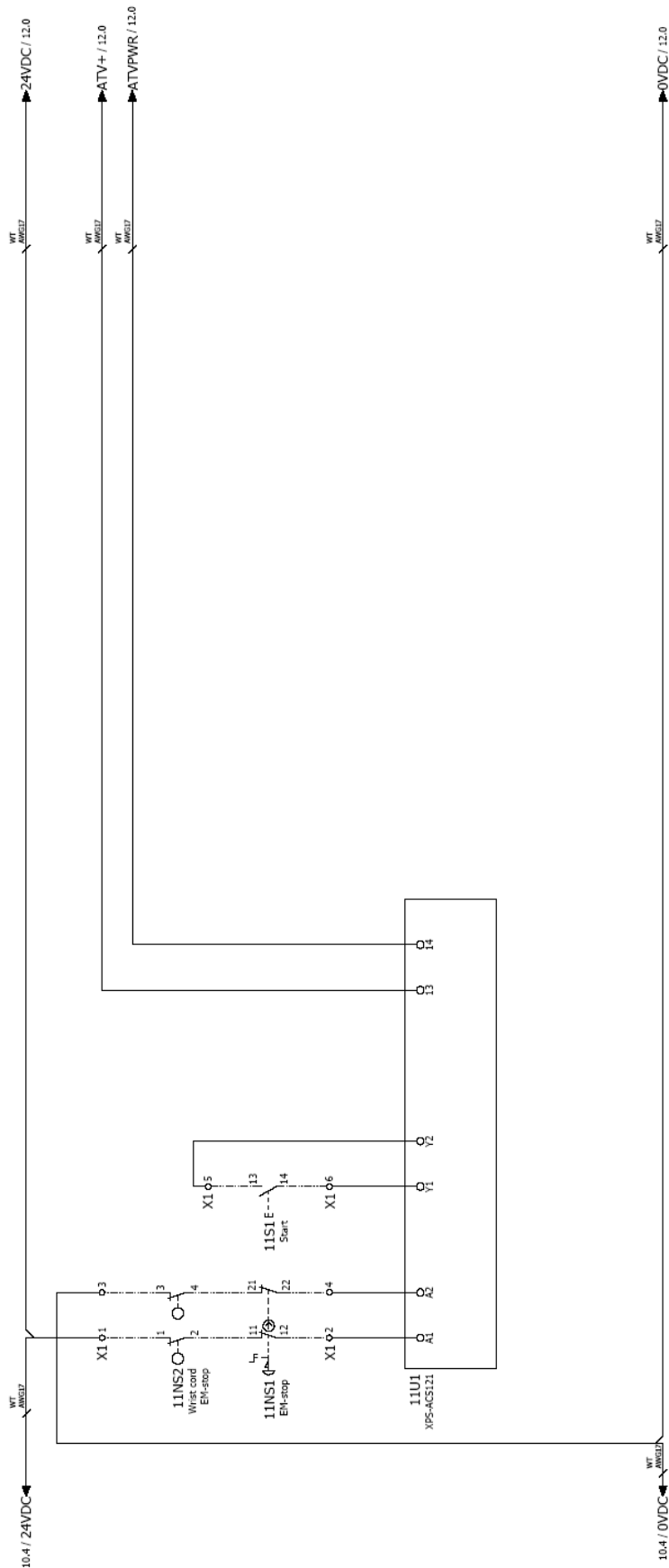
	auxiliary contact	hulpcontact	signaal lamp	Safety fuse	smeltveiligheid
	Power contact	vermogenscontact	hoorn	Fused switch, three-pole	schakelbare scheid
	NO contact, opens with time delay	maakcontact, vertraagd open	apm. meter	Fused disconnect, three-pole	scheid "hulpbak"
	NO contact, closes with time delay	maakcontact, vertraagd sluitend	running hour counter	Main switch	hoofdschakelaar
	NC contact, opens with time delay	verbrekcontact, vertraagd open	transformer	Circuit breaker, single-pole	installatieautomaat 1-poolig
	NC contact, closes with time delay	verbrekcontact, vertraagd sluitend	transformer	Circuit breaker, two-pole	installatieautomaat 2-poolig
	Pushbutton rebound	drukknop terugrend	spoel	Circuit breaker, three-pole	installatieautomaat 3-poolig
	Pushbutton locking	drukknop blijvend	spoel met opkomveringing	Power circuit breaker motor overload switch with switch mechanism	motor beveiligingsschakelaar
	Rotary switch rebound	tip draaischakelaar	spoel met afvalveringing	Valve	elektrisch bediende klep
	Rotary switch locking	draaischakelaar	spoel puls	Resistor with movable contact	regelbare weerstand
	Emergency stop rotary unlock	nodstop met draaibare vrijgave	TL verlichting	Terminal	rijghlem
	Thermostatic switch	thermostaat hygrosaat	weerstand verwarming	Terminal with fuse	rijghlem met zekering
	Pressure switch	druckschakelaar	wandcontactdoos	Rectifier	geïjkrichter
	Limit switch	eindschakelaar	stroomtransfoormator		
	Proximity switch	naderingsschakelaar			

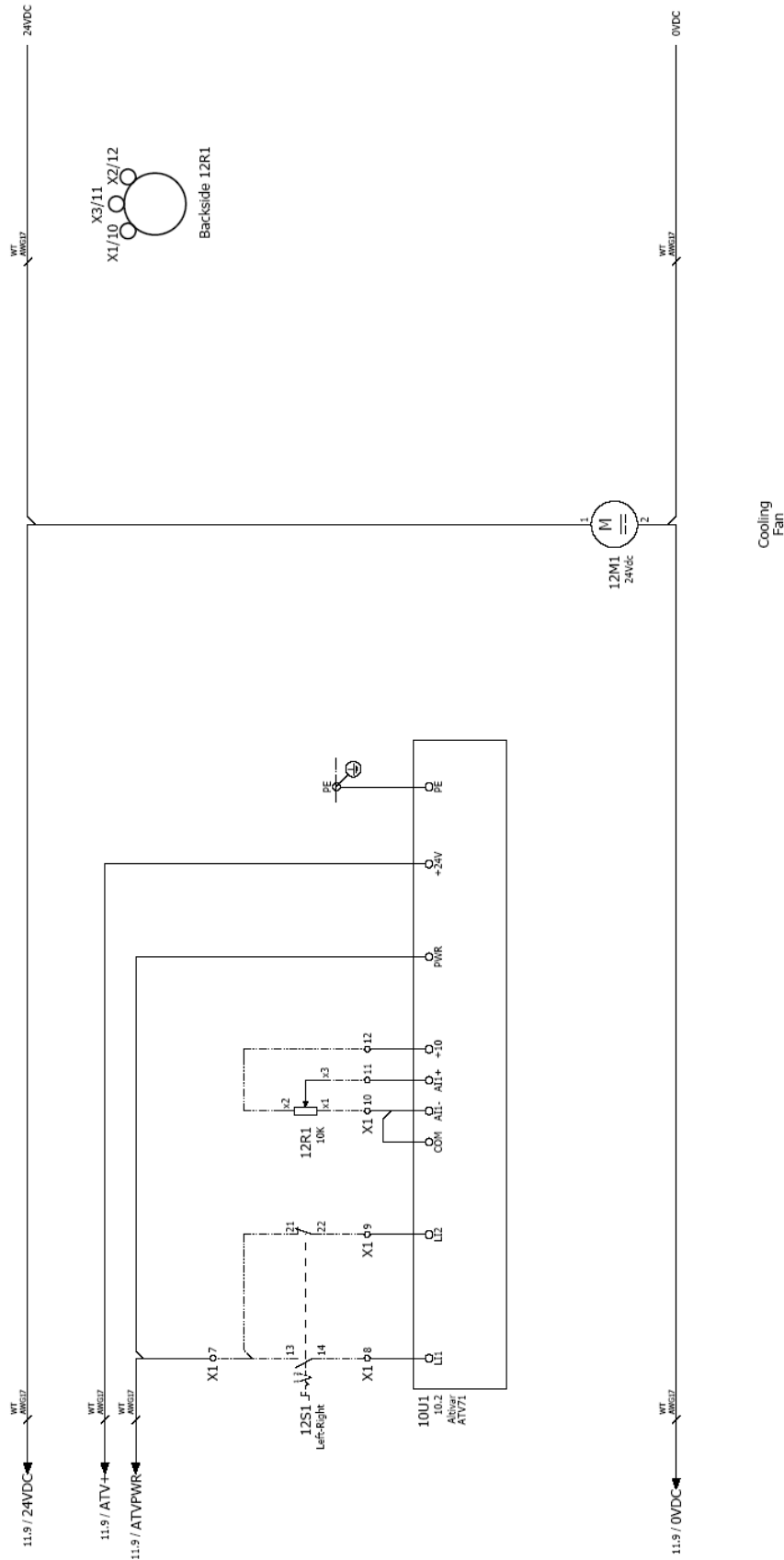
Mounting plate











Cooling Fan



Terminal diagram

function text	Cable name	cable type	Strip X1 Terminals 24Vdc						Cable name	cable type	Page / column
			Target designation	Connection point	terminal	jumper	Target designation	Connection point			
	11N62		10V1:12M1	24V1	1					11.1	
	11N61		11U1	A1	2					11.1	
	11N62		10V1:12M1	0VPE2	3					11.1	
	11N61		11U1	A2	4					11.1	
	11S1		11U1	Y2	5					11.2	
	11S1		11U1	Y1	6					11.2	
	12S1		11U1	14	7					12.1	
	12S1		10U1	11	8					12.1	
	12R1		10U1	12	9					12.2	
	12R1		10U1	A1-	10					12.2	
	12R1		10U1	A1+	11					12.3	
	12R1		10U1	+10	12					12.3	



Parts list

device tag	Quantity	designation	Type number	part number
CAB	1	Enclosure 400x600x300 with mounting plate 350x550	84002 - ENW09120029	84002 - ENW09120029
PG	1	Cable Gland M32*1.5 Nickel-plated EHC	50.232 M/POT	50.632 M/EHV
PG	1	Locknut M32*1.5 Nickel-plated EHC	50.232 M/POT	50.232 M/POT
PG	1	Cable Gland M20*1.5 Nickel-plated	WARTEL L M20*1.5	50.620 M-L
PG	1	Locknut M20*1.5 Nickel-plated	WARTEL M20	50.220 M
PG	1	Cable Gland M20*1.5	WARTEL PA M20*1.5	50.620 PA7035
PG	2	Locknut M20*1.5	WARTEL M20	50.220 PA7035
PG	2	Cable Gland M16*1.5	WARTEL PA M16*1.5	50.614 PA7035
PG	1	Reduction M20 - M16*1.5	WARTEL M20	50.215 PA7035
PG	1	Cable Gland M25*1.5 Nickel-plated EHC	WARTEL M16	M20M16PA
PG	1	Locknut M25*1.5 Nickel-plated EHC	Backstop PA M25-M16 1.5	50.625 M/EHV
CRB	1	Enclosure RAL7035/7016 for 4 buttons	XAL D04	50.225 M/POT
1001	1	63A CEE-Form Wall outlet socket 7h IP67	ABL G53555	XAL D04
1002	1	63A CEE-Form Socket 7h IP67	ABL G53555	G53555
1001	1	Motor circuit breaker 50A 3p	TELE GV3-4F50	K53555
1001	1	Large spacing UL	TELE GV3-666	GV3 P50
1001	1	Axle - Black ON/OFF handle	TELE GV3AR03	GV3 666
1001	1	Frequency controller 15kW	ATV71 HD15 N4	GV3AR03
10F1	1	Transformer circuit breaker 1...1.6A	GV2 RT06	ATV71 HD15 N4
11U1	1	Power Supply 100...120Vac -200...500Vdc/24Vdc 3A	ABLRP524030	GV2RT06
11U2	1	Emergency stop relay	XPS-AC3121	ABLRP524030
11NS1	1	Safety switch - 4 Pin	XCS-PA792 + XCS-Z11	XPS-AC3121
11NS1	1	Emergency stop	Z85 A5844	XCS-PA792 + XCS-Z11
11S1	2	element NC XAL	Z85 A5844	Z85 A5844
11S1	1	Pushbutton GREEN 'START'	ZEN L1121	ZEN L1121
11S1	1	element NO XAL	Z85 A4333	08.01.0237
12S1	1	Switch handle	ZEN L1111	ZEN L1111
12S1	1	element NC XAL	Z85 A02	Z85 A02
12S1	1	element NO XAL	ZEN L1121	ZEN L1121
12R1	1	Trim-pot 10K	ZEN L1111	ZEN L1111
12M1	1	Pot. meter	Pometiser 10K Z84	Pometiser 10K Z84
12M1	1	Fan 24Vdc	Z85 AD912	Z85 AD912
12M1	1	Fan finger guard	FAN 119*119*38 24VDC	4414 N
			FG LZ30-4	LZ30-4

4. Fault diagnose frequency drive

For a complete overview of faults and how to resolve them, check the operating manual of the frequency drive or the CD, which are delivered with the machine.

If you put the CD in the computer, it will automatically go to the manuals.

Does the inverter shows an "INF" fault, reset the machine.

If the machine does not work after that, call you distributor.

To reset the machine, put out the power supply and wait 5 minutes.

Then start up the machine again. Call a technician if the machine still not works.

Fault	Name	Probable cause	Remedy
A I 2 F	[AI2 input]	<ul style="list-style-type: none"> Non-conforming signal on analog input AI2 	<ul style="list-style-type: none"> Check the wiring of analog input AI2 and the value of the signal
A n F	[Load slipping]	<ul style="list-style-type: none"> The encoder speed feedback does not match the reference 	<ul style="list-style-type: none"> Check the motor, gain and stability parameters Add a braking resistor Check the size of the motor/drive/load Check the encoder's mechanical coupling and its wiring
b D F	[DBR overload]	<ul style="list-style-type: none"> The braking resistor is under excessive stress 	<ul style="list-style-type: none"> Check the size of the resistor and wait for it to cool down Check the [DB Resistor Power] (brP) and [DB Resistor value] (brU) parameters, page 211
b r F	[Brake feedback]	<ul style="list-style-type: none"> The brake feedback contact does not match the brake logic control 	<ul style="list-style-type: none"> Check the feedback circuit and the brake logic control circuit Check the mechanical state of the brake
b U F	[DB unit sh. Circuit]	<ul style="list-style-type: none"> Short-circuit output from braking unit 	<ul style="list-style-type: none"> Check the wiring of the braking unit and the resistor Check the braking resistor
C r F 1	[Precharge]	<ul style="list-style-type: none"> Load relay control fault or charging resistor damaged 	<ul style="list-style-type: none"> Switch the drive off and then back on again Check the internal connections
C r F 2	[Thyr. soft charge]	<ul style="list-style-type: none"> DC bus charging fault (thyristors) 	<ul style="list-style-type: none"> Inspect/repair the drive
E C F	[Encoder coupling]	<ul style="list-style-type: none"> Break in encoder's mechanical coupling 	<ul style="list-style-type: none"> Check the encoder's mechanical coupling
E E F 1	[Control Eeprom]	<ul style="list-style-type: none"> Internal memory fault, control card 	<ul style="list-style-type: none"> Check the environment (electromagnetic compatibility) Turn off, reset, return to factory settings
E E F 2	[Power Eeprom]	<ul style="list-style-type: none"> Internal memory fault, power card 	<ul style="list-style-type: none"> Inspect/repair the drive
E n F	[Encoder]	<ul style="list-style-type: none"> Encoder feedback fault 	<ul style="list-style-type: none"> Check [Number of pulses] (PGI) and [Encoder type] (EnS), page 72 Check that the encoder's mechanical and electrical operation, its power supply and connections are all correct If necessary, reverse the direction of rotation of the motor ([Output Ph rotation] (PHr) parameter, page 88) or the encoder signals
F C F 1	[Out. contact. stuck]	<ul style="list-style-type: none"> The output contactor remains closed although the opening conditions have been met 	<ul style="list-style-type: none"> Check the contactor and its wiring Check the feedback circuit



Fault	Name	Probable cause	Remedy
HdF	[IGBT desaturation]	<ul style="list-style-type: none"> Short-circuit or grounding at the drive output 	<ul style="list-style-type: none"> Check the cables connecting the drive to the motor, and the insulation of the motor Perform the diagnostic tests via the [1.10 DIAGNOSTICS] menu
ILF	[internal com. link]	<ul style="list-style-type: none"> Communication fault between option card and drive 	<ul style="list-style-type: none"> Check the environment (electromagnetic compatibility) Check the connections Check that no more than 2 option cards (max. permitted) have been installed on the drive Replace the option card Inspect/repair the drive
Inf1	[Rating error]	<ul style="list-style-type: none"> The power card is different from the card stored 	<ul style="list-style-type: none"> Check the reference of the power card
Inf2	[Incompatible PB]	<ul style="list-style-type: none"> The power card is incompatible with the control card 	<ul style="list-style-type: none"> Check the reference of the power card and its compatibility
Inf3	[Internal serial link]	<ul style="list-style-type: none"> Communication fault between the internal cards 	<ul style="list-style-type: none"> Check the internal connections Inspect/repair the drive
Inf4	[Internal MFG area]	<ul style="list-style-type: none"> Internal data inconsistent 	<ul style="list-style-type: none"> Recalibrate the drive (performed by Schneider Electric Product Support)
Inf5	[Internal-option]	<ul style="list-style-type: none"> The option installed in the drive is not recognized 	<ul style="list-style-type: none"> Check the reference and compatibility of the option
Inf7	[Internal-hard init.]	<ul style="list-style-type: none"> Initialization of the drive is incomplete 	<ul style="list-style-type: none"> Turn off and reset
Inf8	[Internal-ctrl supply]	<ul style="list-style-type: none"> The control power supply is incorrect 	<ul style="list-style-type: none"> Check the control power supply
Inf9	[Internal- I measure]	<ul style="list-style-type: none"> The current measurements are incorrect 	<ul style="list-style-type: none"> Replace the current sensors or the power card Inspect/repair the drive
InfA	[Internal-mains circuit]	<ul style="list-style-type: none"> The input stage is not operating correctly 	<ul style="list-style-type: none"> Perform the diagnostic tests via the [1.10 DIAGNOSTICS] menu Inspect/repair the drive
Infb	[Internal- th. sensor]	<ul style="list-style-type: none"> The drive temperature sensor is not operating correctly 	<ul style="list-style-type: none"> Replace the temperature sensor Inspect/repair the drive
InfC	[Internal-time meas.]	<ul style="list-style-type: none"> Fault on the electronic time measurement component 	<ul style="list-style-type: none"> Inspect/repair the drive
InfE	[internal- CPU]	<ul style="list-style-type: none"> Internal microprocessor fault 	<ul style="list-style-type: none"> Turn off and reset. Inspect/repair the drive
OCF	[Overcurrent]	<ul style="list-style-type: none"> Parameters in the [SETTINGS] (SEt-) and [1.4 MOTOR CONTROL] (drC-) menus are not correct Inertia or load too high Mechanical locking 	<ul style="list-style-type: none"> Check the parameters Check the size of the motor/drive/load Check the state of the mechanism
P r F	[Power removal]	<ul style="list-style-type: none"> Fault with the drive's "Power removal" safety function 	<ul style="list-style-type: none"> Inspect/repair the drive
SCF1	[Motor short circuit]	<ul style="list-style-type: none"> Short-circuit or grounding at the drive output 	<ul style="list-style-type: none"> Check the cables connecting the drive to the motor, and the insulation of the motor Perform the diagnostic tests via the [1.10 DIAGNOSTICS] menu
SCF2	[Impedant sh. circuit]	<ul style="list-style-type: none"> Significant earth leakage current at the drive output if several motors are connected in parallel 	<ul style="list-style-type: none"> Reduce the switching frequency Connect chokes in series with the motor
SCF3	[Ground short circuit]		
SDF	[Overspeed]	<ul style="list-style-type: none"> Instability or driving load too high 	<ul style="list-style-type: none"> Check the motor, gain and stability parameters Add a braking resistor Check the size of the motor/drive/load
SPF	[Speed fedback loss]	<ul style="list-style-type: none"> Encoder feedback signal missing 	<ul style="list-style-type: none"> Check the wiring between the encoder and the drive Check the encoder
t n F	[Auto-tuning]	<ul style="list-style-type: none"> Special motor or motor whose power is not suitable for the drive Motor not connected to the drive 	<ul style="list-style-type: none"> Check that the motor/drive are compatible Check that the motor is present during auto-tuning If an output contactor is being used, close it during auto-tuning

Fault	Name	Probable cause	Remedy
APF	[Application fault]	<ul style="list-style-type: none"> Controller Inside card fault 	<ul style="list-style-type: none"> Please refer to the card documentation
BLF	[Brake control]	<ul style="list-style-type: none"> Brake release current not reached Brake engage frequency threshold [Brake engage freq] (bEn) only regulated when brake logic control is assigned 	<ul style="list-style-type: none"> Check the drive/motor connection Check the motor windings Check the [Brake release I FW] (lbr) and [Brake release I Rev] (lrd) settings, page 148. Apply the recommended settings for [Brake engage freq] (bEn)
cnF	[Com. network]	<ul style="list-style-type: none"> Communication fault on communication card 	<ul style="list-style-type: none"> Check the environment (electromagnetic compatibility) Check the wiring Check the time-out Replace the option card Inspect/repair the drive
cdF	[CAN com.]	<ul style="list-style-type: none"> Interruption in communication on the CANopen bus 	<ul style="list-style-type: none"> Check the communication bus Check the time-out Refer to the CANopen user's manual
EPF1	[External flt-LI/Bit]	<ul style="list-style-type: none"> Fault triggered by an external device, depending on user 	<ul style="list-style-type: none"> Check the device, which caused the fault, and reset
EPF2	[External fault com.]	<ul style="list-style-type: none"> Fault triggered by a communication network 	<ul style="list-style-type: none"> Check for the cause of the fault and reset
FCF2	[Out. contact. open.]	<ul style="list-style-type: none"> The output contactor remains open although the closing conditions have been met 	<ul style="list-style-type: none"> Check the contactor and its wiring Check the feedback circuit
LCF	[input contactor]	<ul style="list-style-type: none"> The drive is not turned on even though [Mains V. time out] (LCt) has elapsed 	<ul style="list-style-type: none"> Check the contactor and its wiring Check the time-out Check the line/contactor/drive connection
LFF2 LFF3 LFF4	[AI2 4-20mA loss] [AI3 4-20mA loss] [AI4 4-20mA loss]	<ul style="list-style-type: none"> Loss of the 4-20 mA reference on analog input AI2, AI3 or AI4 	<ul style="list-style-type: none"> Check the connection on the analog inputs
ObF	[Overbraking]	<ul style="list-style-type: none"> Braking too sudden or driving load 	<ul style="list-style-type: none"> Increase the deceleration time Install a braking resistor if necessary Activate the [Dec ramp adapt.] (brA) function, page 127, if it is compatible with the application
DHF	[Drive overheat]	<ul style="list-style-type: none"> Drive temperature too high 	<ul style="list-style-type: none"> Check the motor load, the drive ventilation and the ambient temperature. Wait for the drive to cool down before restarting
DLF	[Motor overload]	<ul style="list-style-type: none"> Triggered by excessive motor current 	<ul style="list-style-type: none"> Check the setting of the motor thermal protection, check the motor load. Wait for the drive to cool down before restarting
DPF1	[1 output phase loss]	<ul style="list-style-type: none"> Loss of one phase at drive output 	<ul style="list-style-type: none"> Check the connections from the drive to the motor



Fault	Name	Probable cause	Remedy
D P F 2	[3 output phase loss]	<ul style="list-style-type: none"> • Motor not connected or motor power too low • Output contactor open • Instantaneous instability in the motor current 	<ul style="list-style-type: none"> • Check the connections from the drive to the motor • If an output contactor is being used, parameterize [Output Phase Loss] (OPL) = [Output out] (OAC), page 201 • Test on a low power motor or without a motor: In factory settings mode, motor phase loss detection is active [Output Phase Loss] (OPL) = [Yes] (YES). To check the drive in a test or maintenance environment, without having to use a motor with the same rating as the drive (in particular for high power drives), deactivate motor phase loss detection [Output Phase Loss] (OPL) = [No] (nO) • Check and optimize the following parameters: [IR compensation] (UFR), page 70, [Rated motor volt.] (UnS) and [Rated mot. current] (nCr), page 85, and perform [Auto tuning] (tUn), page 88
D S F	[Mains overvoltage]	<ul style="list-style-type: none"> • Mains voltage too high • Disturbed mains supply 	<ul style="list-style-type: none"> • Check the mains voltage
D t F 1	[PTC1 overheat]	<ul style="list-style-type: none"> • Overheating of the PTC1 probes detected 	<ul style="list-style-type: none"> • Check the motor load and motor size • Check the motor ventilation • Wait for the motor to cool before restarting • Check the type and state of the PTC probes
D t F 2	[PTC2 overheat]	<ul style="list-style-type: none"> • Overheating of the PTC2 probes detected 	
D t F L	[LI6=PTC overheat]	<ul style="list-style-type: none"> • Overheating of PTC probes detected on input LI6 	
P t F 1	[PTC1 probe]	<ul style="list-style-type: none"> • PTC1 probes open or short-circuited 	<ul style="list-style-type: none"> • Check the PTC probes and the wiring between them and the motor/drive
P t F 2	[PTC2 probe]	<ul style="list-style-type: none"> • PTC2 probes open or short-circuited 	
P t F L	[LI6=PTC probe]	<ul style="list-style-type: none"> • PTC probes on input LI6 open or short-circuited 	
S C F 4	[IGBT short circuit]	<ul style="list-style-type: none"> • Power component fault 	<ul style="list-style-type: none"> • Perform a diagnostic test via the [1.10 DIAGNOSTICS] menu • Inspect/repair the drive
S C F 5	[Motor short circuit]	<ul style="list-style-type: none"> • Short-circuit at drive output 	<ul style="list-style-type: none"> • Check the cables connecting the drive to the motor, and the motor's insulation • Perform diagnostic tests via the [1.10 DIAGNOSTICS] menu • Inspect/repair the drive
S L F 1	[Modbus com.]	<ul style="list-style-type: none"> • Interruption in communication on the Modbus bus 	<ul style="list-style-type: none"> • Check the communication bus • Check the time-out • Refer to the Modbus user's manual
S L F 2	[PowerSuite com.]	<ul style="list-style-type: none"> • Fault communicating with PowerSuite 	<ul style="list-style-type: none"> • Check the PowerSuite connecting cable • Check the time-out
S L F 3	[HMI com.]	<ul style="list-style-type: none"> • Fault communicating with the graphic display terminal 	<ul style="list-style-type: none"> • Check the terminal connection • Check the time-out
S r F	[Torque time-out]	<ul style="list-style-type: none"> • The time-out of the torque control function is attained 	<ul style="list-style-type: none"> • Check the function's settings • Check the state of the mechanism
S S F	[Torque/current lim]	<ul style="list-style-type: none"> • Switch to torque limitation 	<ul style="list-style-type: none"> • Check if there are any mechanical problems • Check the parameters of [TORQUE LIMITATION] (tLA-) page 171 and the parameters of fault [TORQUE OR I LIM. DETECT.] (tld-), page 210
t J F	[IGBT overheat]	<ul style="list-style-type: none"> • Drive overheated 	<ul style="list-style-type: none"> • Check the size of the load/motor/drive • Reduce the switching frequency • Wait for the motor to cool before restarting

Fault	Name	Probable cause	Remedy
C F F	[Incorrect config.]	<ul style="list-style-type: none"> Option card changed or removed Control card replaced by a control card configured on a drive with a different rating The current configuration is inconsistent 	<ul style="list-style-type: none"> Check that there are no card errors In the event of the option card being changed/removed deliberately, see the remarks below Check that there are no card errors In the event of the control card being changed deliberately, see the remarks below Return to factory settings or retrieve the backup configuration, if it is valid (see page 223)
C F I	[Invalid config.]	<ul style="list-style-type: none"> Invalid configuration <p>The configuration loaded in the drive via the bus or communication network is inconsistent</p>	<ul style="list-style-type: none"> Check the configuration loaded previously Load a compatible configuration
H C F	[Cards pairing]	<ul style="list-style-type: none"> The [CARDS PAIRING] (PPI-) function, page 212, has been configured and a drive card has been changed 	<ul style="list-style-type: none"> In the event of a card error, reinsert the original card Confirm the configuration by entering the [Pairing password] (PPI) if the card was changed deliberately
P H F	[Input phase loss]	<ul style="list-style-type: none"> Drive incorrectly supplied or a fuse blown Failure of one phase 3-phase ATV71 used on a single-phase line supply Unbalanced load <p>This protection only operates with the drive on load</p>	<ul style="list-style-type: none"> Check the power connection and the fuses Use a 3-phase mains supply Disable the fault by [Input phase loss] (IPL) = [No] (nO) (page 202)
U S F	[Undervoltage]	<ul style="list-style-type: none"> Line supply too low Transient voltage dip Damaged pre-charge resistor 	<ul style="list-style-type: none"> Check the voltage and the parameters of [UNDERVOLTAGE MGT] (USb-), page 206 Replace the pre-charge resistor Inspect/repair the drive



Headquarter

Blastrac The Netherlands

Utrechthaven 12
 NL – 3433 PN Nieuwegein
 Tel – 0031 30 601 88 66
 Fax – 0031 30 601 83 33
 Info@blastrac.nl

Blastrac Poland

Golina, Dworcowa 47a
 PL – 63-200 Jarocin
 Tel – 0048 627 40 41 50
 Fax – 0048 627 40 41 51
 Info@blastrac.pl

Blastrac Italy

S.S. 10 Padana Inferiore, 41
 IT – 29012 Caorso (PC)
 Tel – 0039 0523 81 42 41
 Fax – 0039 0523 81 42 45
 Info@blastrac.it

Blastrac United Kingdom

Unit 2, Outgang Lane, Dinnington
 Sheffield, South Yorkshire
 GB – S25 3QY, England
 Tel – 0044 1909 56 91 18
 Fax – 0044 1909 56 75 70
 Info@blastrac.co.uk

Blastrac Germany

Richard Byrd Straße 15
 D – 50829 Köln (Ossendorf)
 Tel – 0049 221 70 90 32 0
 Fax – 0049 221 70 90 32 22
 Info@blastrac.de

Blastrac Spain

Calle Copernico, 16
 Nave 2
 E – 28820 Coslada
 Tel – 0034 91 660 10 65
 Fax – 0034 91 672 72 11
 Info@blastrac.com.es

Blastrac France (ZI)

29, Avenue des Temps Modernes
 F – 86360 Chasseneuil du Poitou
 Tel – 0033 549 00 49 20
 Fax – 0033 549 00 49 21
 Info@blastrac.fr

Blastrac Ukraine

Nezalezhnosti 14, of. 21
 UA – 07400 Brovary
 Tel – 0038 44 222 51 28
 Fax – 0038 44 277 98 29
 Info@blastrac.com.ua