



SERVICE MANUAL BMG-580PRO

VERSION 2.3

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1. Tools & Accessories



<p>E07185-1 DIAMAG ADAPTER PLATE Ø185 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>E10691 DIAMAG ADAPTER PLATE WINGS PCD Ø185 MM</p>	<p>BG200997-1/SET PCD GRINDING WING BG200999-1/SET PCD GRINDING WING 2 X 1/4 BG200995-1/SET PCD GRINDING WING 1 X 1</p>	<p>E07459 ROTARY PLATE ONLY Ø185 MM</p> <p>E07460 PLATE Ø185 MM COMPLETE WITH BUSH HAMMER ROLLERS</p> <p>BG300118-1 PLATE Ø185 MM COMPLETE WITH STAR WHEELS</p>	<p>E09119-1 BUSH HAMMER ROLLER Ø50 MM BG300109 CUTTER WHEEL Ø50 MM</p>
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<p>E09399/FINE VELCRO PLATE Ø185 MM For Polishing pads</p> <p>E09399/COARSE VELCRO PLATE Ø185 MM For Maintenance pads</p>	<p>BG185001 #40 #1 - orange BG185002 #100 #2 - Black BG185003 #200 #3 - Blue BG185004 #400 #4 - Red BG185005 #800 #5 - White BG185006 #1500 #6 - Yellow BG185007 #3000 #7 - Green</p> <p>POLISHING PADS Ø185 MM</p>	<p>BG185M004 #400 #4 BG185M005 #800 #5 BG185M006 #1500 #6 BG185M007 #3000 #7</p> <p>MAINTENANCE PADS Ø185 MM</p>	<p>005014 10 M SUCTION HOSE Ø76 MM</p>
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See the service manual for all spare parts and visit our website for the complete list of all accessories, grinding tools, polishing pads and bush hammers.



Blastrac PN	HQV PN
E07185-1	531458101
BG707321	534949001
BG707322	534949101
BG707311	534950301
BG707312	534950101
BG707313	534950201
BG707314	534950001
BG707301	534951801
BG707302	534951901
BG707303	534952001
BG707304	534951701
BG707341-2	534948701
E10691	533290801
BG200997-1/SET	534951001
BG200999-1/SET	534950801
BG200995-1/SET	534950601
E07459	533491001
E07460	533076101
BG300118-1	533113701
E09119-1	-
BG300109	533606501
E09399/FINE	534244701
E09399/COARSE	534244601
BG185001	534447001
BG185002	534447101
BG185003	534447401
BG185004	534447501
BG185005	534447601
BG185006	534447701
BG185007	534448001
BG185M004	534441801
BG185M005	534441901
BG185M006	534442001
BG185M007	534442101
005014	534066201

2. Spare parts

Fig1. Frame complete

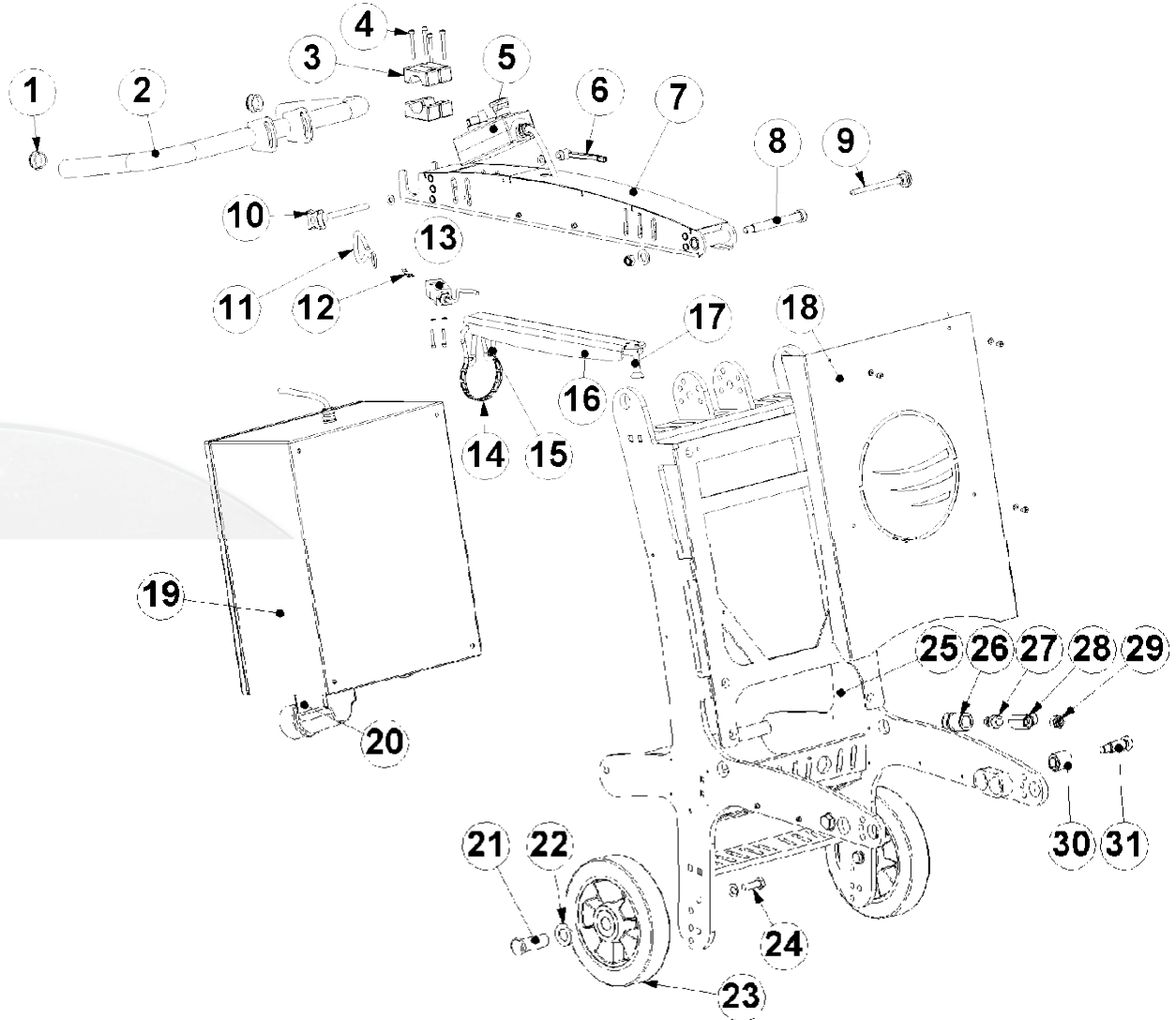


Fig. 01

Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
1	BE0643	533407601	Tube cap round		2
2	BG005845/BL	535190601	Handle for steer		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	Speed control	1
	E06861	533810701	Operating box complete	Star/delta	1
	E01543	533749201	Emergency stop		
	E01318	533377401	Start button		
	E01351/1	533829401	Potential meter (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	-	Steer handle		1
8	BE0640	533714101	M12 hexagon shoulder screw		1
9	BE0674	533885801	Handle locking pin		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 (11links)		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	BG11915	-	Electrobox 7,5kW complete		1
	BG11915/UL	-	Electrobox 7,5kW complete 230UL		1
20	E05135	533967201	Electrical inlet 3x400V 32A		1
	E05136	533518401	Electrical inlet 3x230V 32A		1
21	BG11765	533474901	Bolt for wheel		2
22	BE0645	-	M24 plain washer		2
23	E01491	533007501	Wheel		2
24	BE0036	533855701	M12x40 hexagon head bolt		2
25	BG005825	533062101	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
	E06891_BL	534253701	580PRO logo blue		2
	E06819	534337901	Blastrac logo		4

Fig. 02 Machine complete

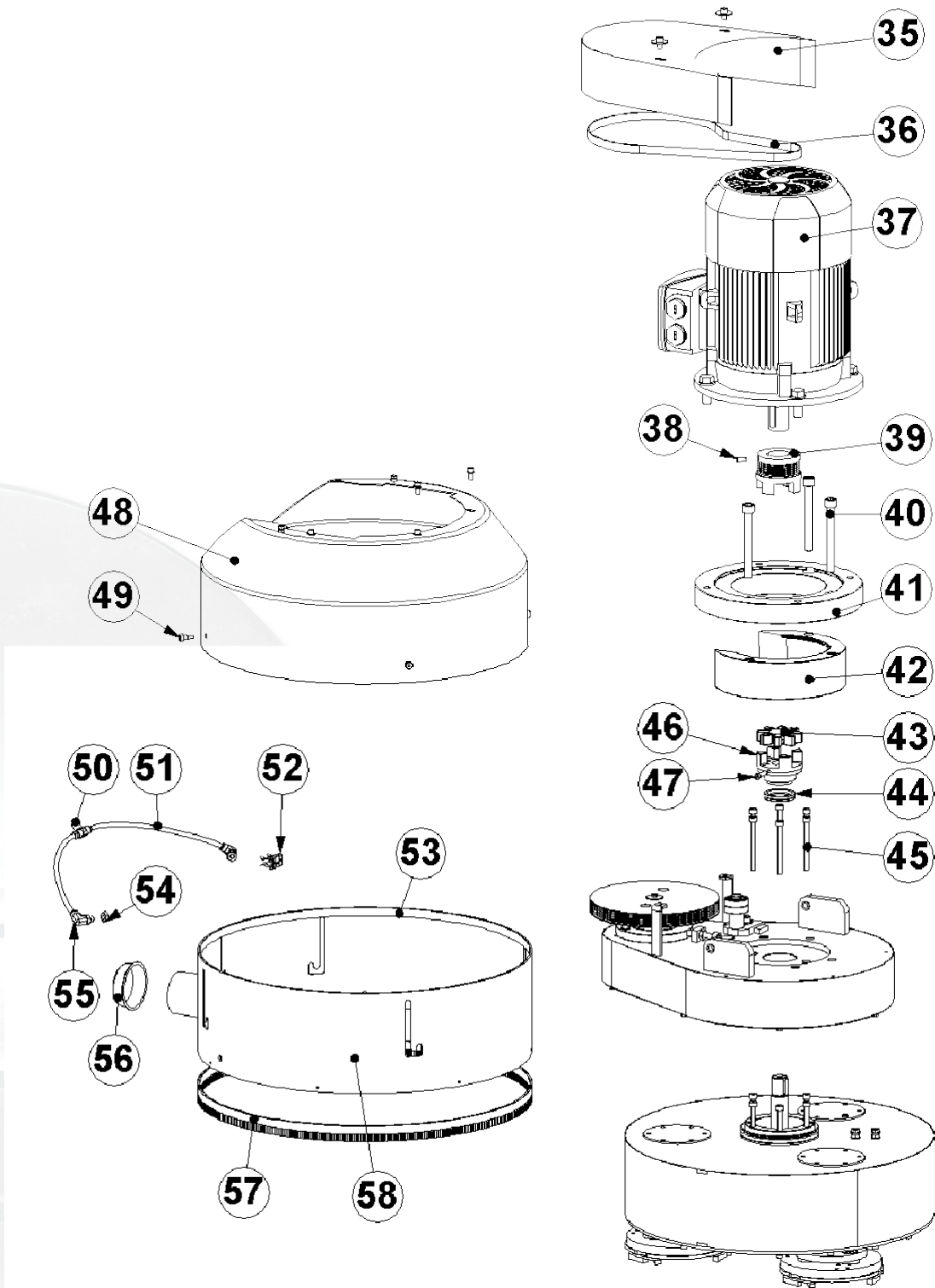


Fig. 02

Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
35	BG005847	533719101	Protection cap		1
36	BG11924	533861001	Upper belt		1
37	BG11960	535786001	Motor 400V/690V		1
	BG11960-1	-	Motor 230V/400V		1
38	BE0654	533470001	M8x16 set screw	DIN 916	4
39	BG005808_2	533491501	Coupling upper part		1
40	BE0646	533654901	M14x120 hexagon socket head bolt	DIN 912	3
41	BG005810	533454601	Flange motor seat		1
42	BG005811	533170301	Motor seat		1
43	BG005844	533620801	Coupling plastic star		1
44	BG11829	533558701	V-seal		1
45	BE0647	533830201	M8x90 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	BG005839-1	535228801	Protection cover		1
49	BE0655	533402401	M6x12 hexagon shoulder screw		4
50	E06281	533375401	Water T-coupling		1
51	E06278	533259501	Waterhose		1,5m
52	E06276	533199501	Pipe clamp		2
53	E06897	533970001	Slide strip		2m
54	E06293	533279501	Nut for knee coupling		2
55	E06280	533266701	Water knee coupling		2
56	E04551	533226101	Plastic cap		1
57	BG005849	533749001	Brush for floating shroud		1
58	BG005855	533361401	Floating shroud		1

Fig. 03 Upper drive

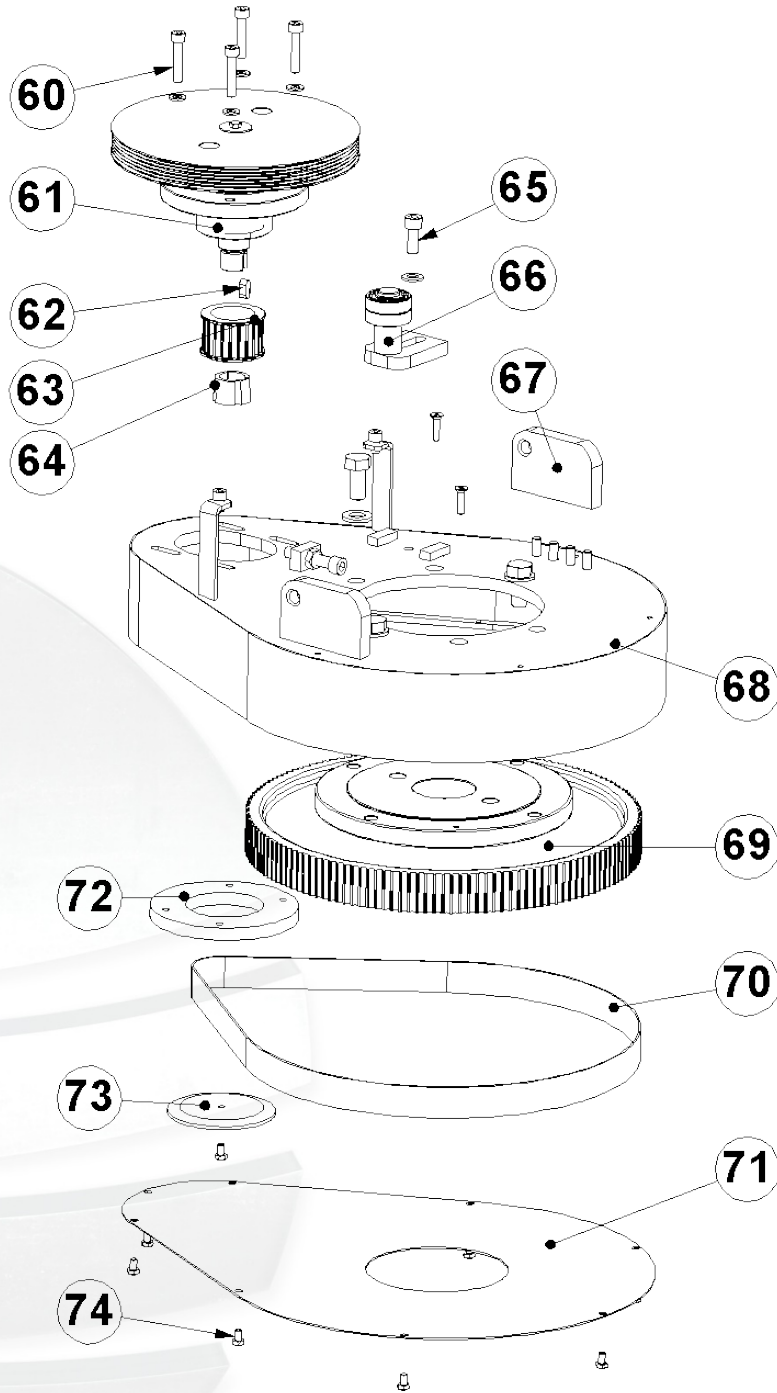


Fig. 03

Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
60	BE0631	533654801	M8x40 hexagon socket head bolt	DIN 7984	4
61	BG005856	533236901	Contra pulley		1
62	BE0648	533233401	Key 8x7x18	DIN 6885A	1
63	BG005805-1	533216101	Pulley		1
64	E01560	533130801	Taperlock		1
65	BE0443	533763201	M10x25 hexagon socket head bolt		
66	BG005860	533281401	Upper tensioner		1
67	BG005813	533216601	Holder		2
68	BG005809	533226201	Motorplate complete		1
69	BG005857	533237401	Centre pulley		1
70	BG11904	533876801	Middle belt		1
71	BG005834	533293301	Lower plate upper drive		1
72	BG005807	533213401	Ring		1
73	BG007804	531494101	Flange		1
74	BE0350	534691801	M6x10 hexagon head screw		8

Fig. 04 Lower drive

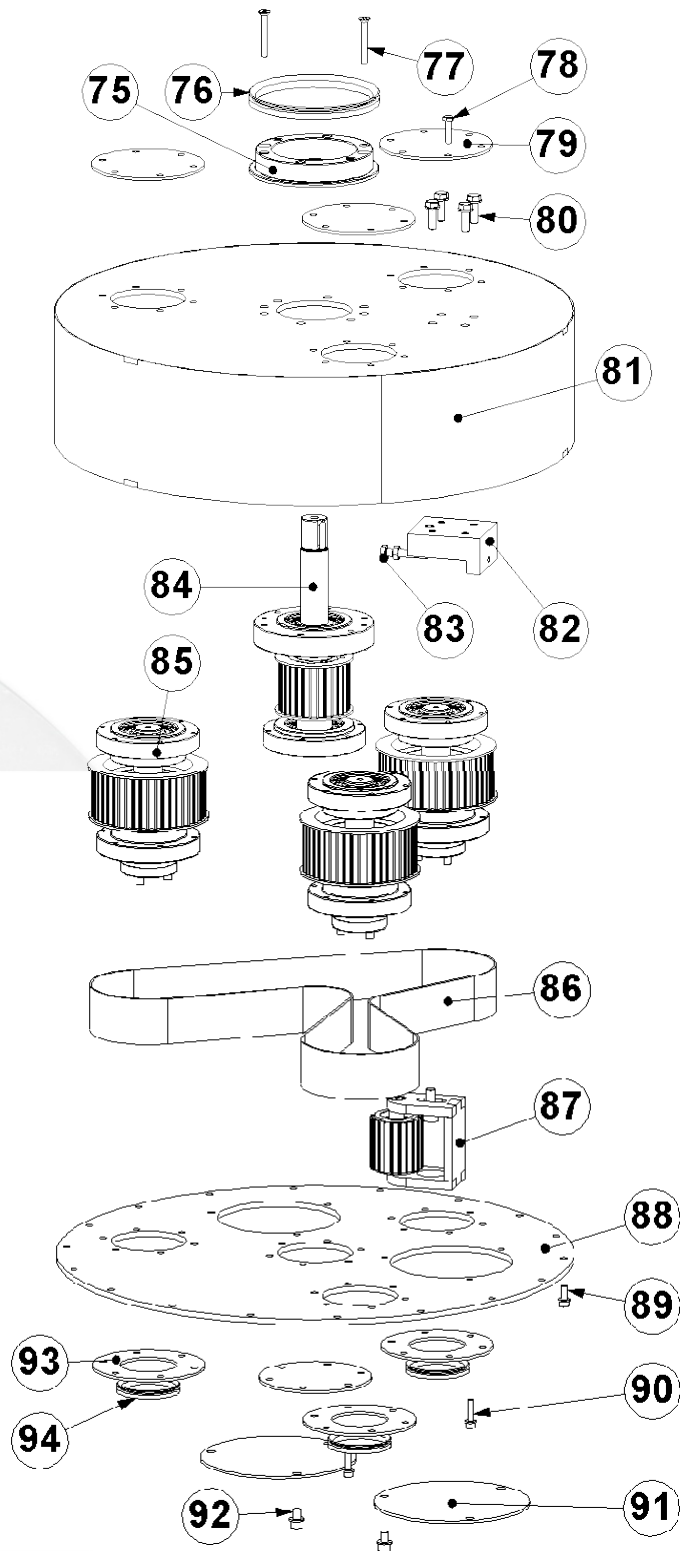
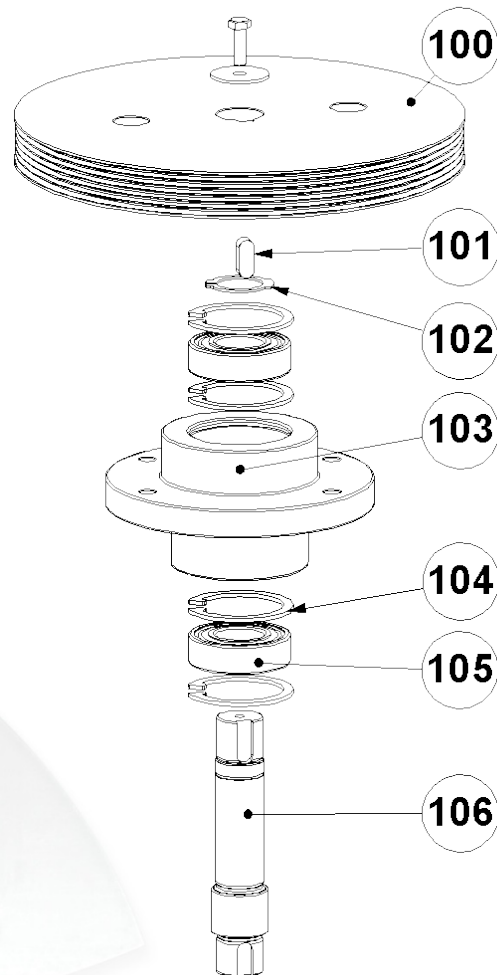


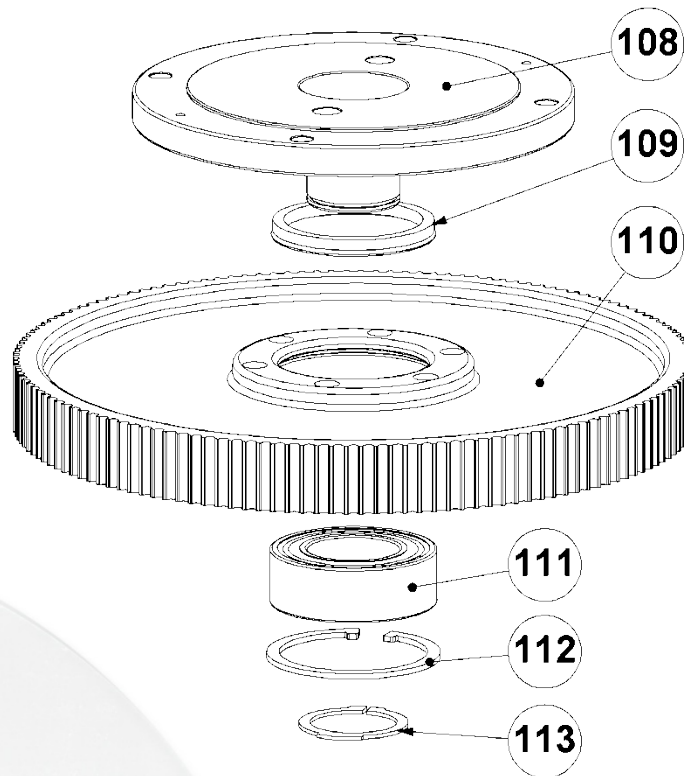
Fig. 04

Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
75	BG005814	534815801	Ring		1
76	BG11849	533587401	V-seal		1
77	BE0617	534073001	M6x50 countersunk screw	DIN 7991	2
78	BE0051	533262801	M6x25 hexagon head bolt	DIN 933	18
79	BG005827	535154401	Cover		4
80	BE0030	533356201	M8x25 hexagon head bolt	DIN 933	4
81	BG005822-1	534635101	Housing complete		1
82	BG005832-1	533297401	Holder		1
83	BE0090	533125901	M8x40 hexagon head bolt	DIN 933	1
84	BG005858	533209001	Drive pulley		1
85	BG005859	533535201	Pulley		3
86	BG11905	534069301	Lower belt		1
87	BG005861	534675901	Lower tensioner		1
88	BG005824	534675801	Lower plate 580PRO		1
89	BE0035	533367201	M6x16 hexagon socket head bolt	DIN 912	18
90	BE0188	533766501	M6x25 hexagon socket head bolt	DIN 912	24
91	BG007850	533459601	Inspection cover		2
92	BE0082	533616401	M8x12 hexagon socket head bolt	DIN 912	6
93	BG0005826	533213701	Ring		3
94	BG11797	533706901	V-seal		3

Fig. 05 Contra pulley BG005856


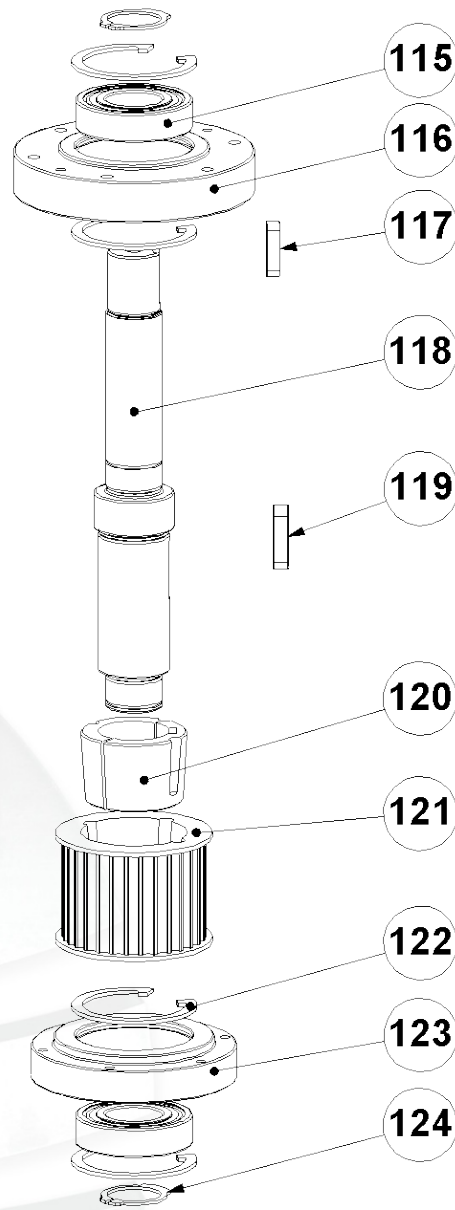
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
100	BG005803	533099101	Belt pulley		1
101	BE0109	533293401	Key 8x7x20	DIN 6885A	1
102	BE0076	533914201	Retaining ring for shaft Ø25	DIN 471	1
103	BG005802	533237601	Bearing house		1
104	BE0077	533218301	Retaining ring for bore Ø52	DIN 472	4
105	222-2331-E	533838201	Bearing		2
106	BG005801	533061301	Axle		1

Fig. 06 Centre pulley BG005857



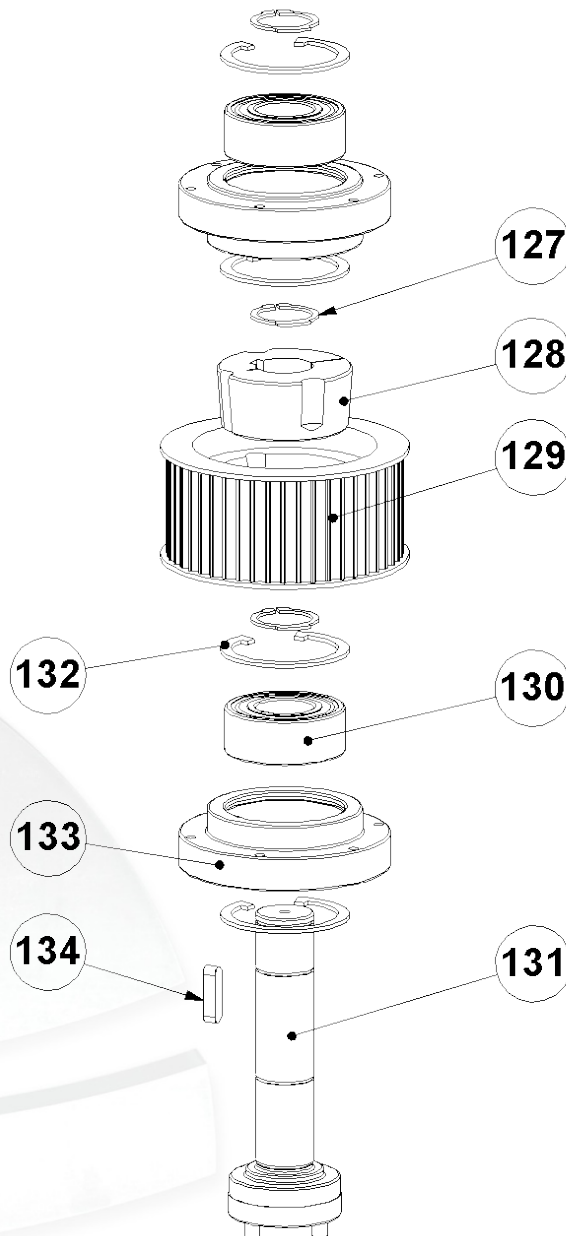
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
108	BG005812	533219401	Sprocket		1
109	E03703	533216001	V-seal		1
110	BG005806	533216201	Pulley		1
111	E01490	533600701	Bearing		1
112	E03993	533371101	Retaining ring for bore $\varnothing 90$	DIN 472	1
113	BE0126	533220501	Retaining ring for shaft $\varnothing 50$	DIN 471	1

Fig. 07 Drive pulley BG005858



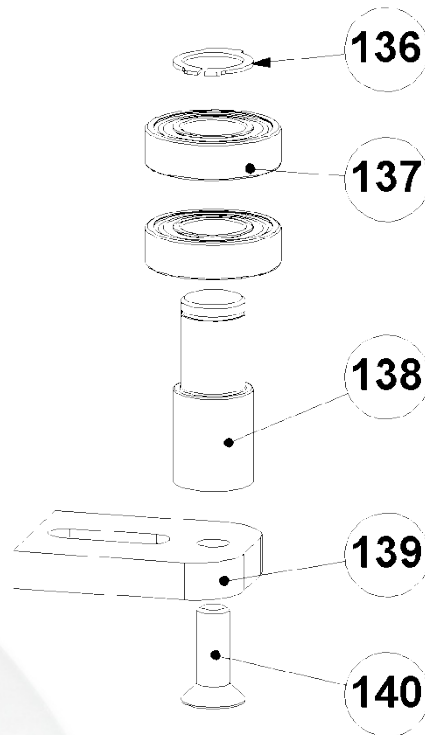
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
115	B20404	533703701	Bearing		2
116	BG005815	533370601	Bearing house		1
117	BE0256	533905401	Key 8x7x30	DIN 6885A	1
118	BG005818	533777201	Axle		1
119	BE0269	533173301	Key 10x8x32	DIN 6885A	1
120	E00718	533259701	Taperlock		1
121	BG005820	533216301	Pulley		1
122	E00951	533292201	Retaining ring for bore Ø62	DIN 472	4
123	BG005821	533237701	Bearing house		1
124	B21631	533332801	Retaining ring for shaft Ø30	DIN 471	2

Fig. 08 Pulley (3x) BG005859



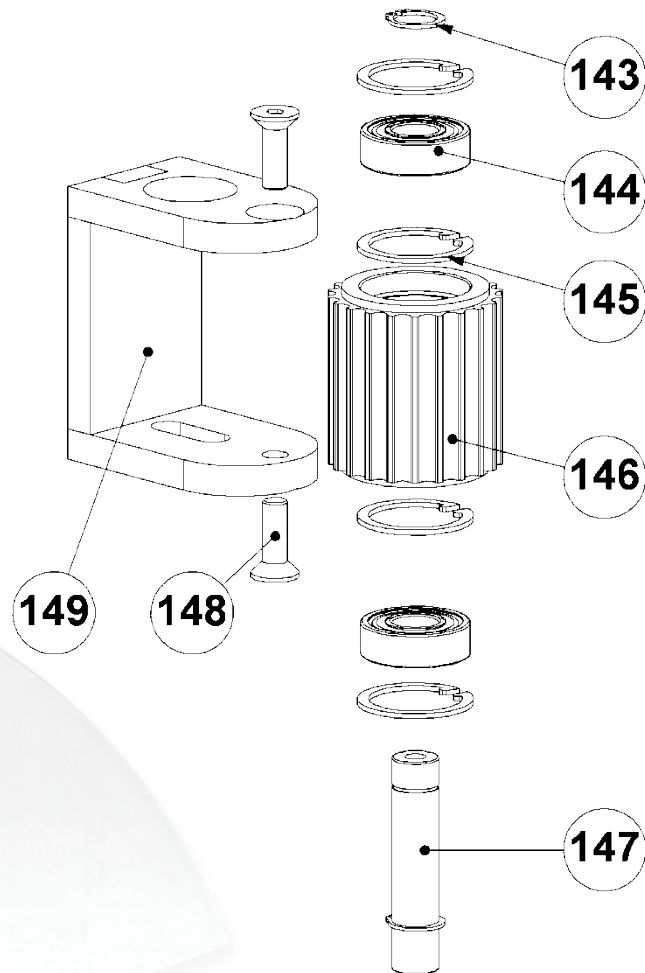
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
127	B21631	533332801	Retaining ring for shaft Ø30	DIN 471	3
128	RB100A3/350	534891501	Taperlock		1
129	RB165/2	533287501	Pulley		1
130	BG11817	533794401	Bearing		2
131	BG005816	533228301	Axle		1
132	E00951	533292201	Retaining ring for bore Ø62	DIN 472	4
133	BG005817	533247801	Bearing house		2
134	BE0256	533905401	Key 8x7x30	DIN 6885A	1

Fig. 09 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

Fig. 10 Lower tensioner BG005861



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
143	BE0070	534806801	Retaining ring for shaft Ø15	DIN 471	2
144	BG11792	533766101	Bearing		2
145	BE0618	533351001	Retaining ring for bore Ø35	DIN 472	4
146	BG005836	533216401	Pulley		1
147	BG005837	533242501	Axle tensioner		1
148	BE0458	533802401	M8x25 countersunk screw	DIN 7991	2
149	BG005833	533213001	Tensioner		1

Fig. 11 Buffer plate for surface preparation (3x)

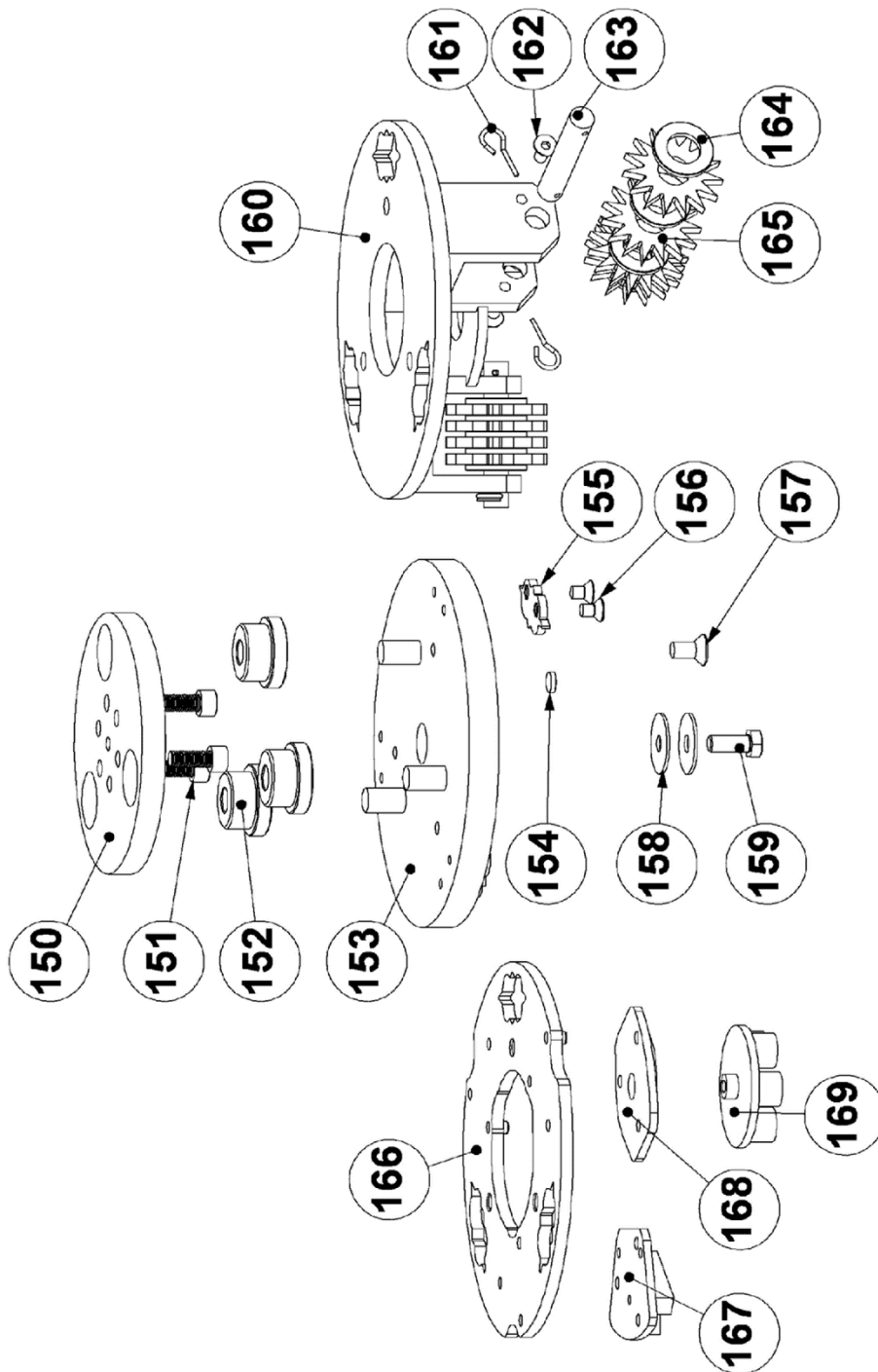
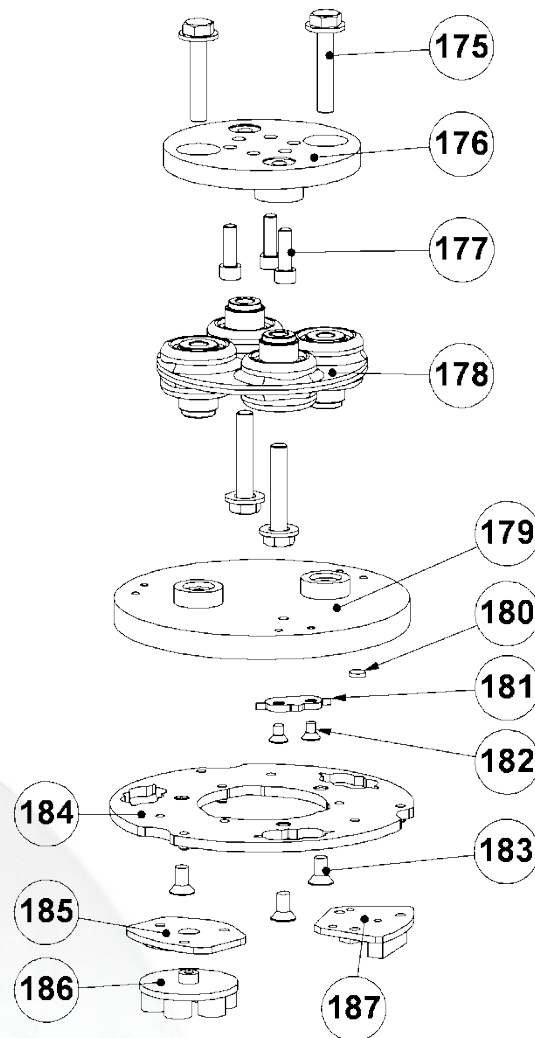


Fig. 11

Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
150-159	BG18550007-1	533067701	185mm diamond holder complete		1
153-157	BG185500071-1	533388401	185mm diamond holder		1
150	BG11805	533386501	Buffer plate		1
151	BE0012 + BE0584	533615001+ 533319201	M8x25 hexagon socket head bolt small + M8 spring washer small	DIN 7984 DIN 7980	3
152	BG11806	534371401	Buffer soft		3
153	BG11809-1	535718201	185mm diamond holder only		1
154	E06446	533511501	Magnet		3
155	BG11811	533547401	Centering star		3
156	BG11810	533807701	M6x10 countersunk screw	DIN 7991	6
157	BE0456	533784401	M8x16 countersunk screw	DIN 7991	3
158	BE0314	533244401	M8x30x1,5 washer		2
159	BE0030	533356201	M8x25 hexagon head bolt	DIN 933	1
160-165	BG300118	533593601	185mm cutter housing complete		1
160	BG300505-1	-	185mm cutter housing		1
161+162	BG300133	533563001	Locking pin & screw		6
163	BG300130	533214601	Axle		3
164	MPL48	533124301	Washer		15
165	BG300109	533606501	Cutter		12
166	E07185	533068401	DIAMAG 185mm adapter plate		1
	BG200994	533107901	Plate for wings 185mm		1
	BG200989	534538901	Dry polish dot holder 185mm		1
167			DIAMAG grinding wings		3
168	E06447	533106401	DIAMAG adapter plate for dots		3
169			Dry polish dots		3
	E07460	533076101	Cutterplate c.w. bush hammer 185		3



Fig. 12 Buffer plate for polishing (3x)



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
175	BE0589	534254401	7/16 x 2 1/2 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	BG1852002-1	533938301	Flexplate 185mm diamond side		1
179	BG18520021-1	533357401	Flexplate 185mm only		1
180	E06446	533511501	Magnet		3
181	BG11811	533547401	Centering star		3
182	BG11810	533807701	M6x10 countersunk screw		6
183	BE0456	533784401	M8x16 countersunk screw	DIN 7991	3
184	E07185	533068401	DIAMAG 185mm adapter plate		1
	BG200994	533107901	Plate for wings 185mm		1
	BG200989	534538901	Dry polish dot holder 185mm		1
185	E06447	533106401	DIAMAG adapter plate for dots		3
186			Dry polish dots		3
187			DIAMAG grinding wings		3



3. Electric schedules

E06863 - 3x 400V - 7,5kW - frequency drive

Project description	BMG-580Pro SC (E06863)
Drawing number	PJ09.01029.15
Arch. number	
Power supply	380-440Vac
Input lead	
Control Voltage	24Vdc
Year of Manufacturing	2009
Remarks	As built
Created on	22-6-2009
Edit date	17-11-2015

WIRE COLOR

Main Voltage 400V

<u>Phase</u>	<u>Colors</u>
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

SYMBOL CODE

11 F 11

- Running number
- Symbol letter
- Schedule page

CORE CODE

11 11

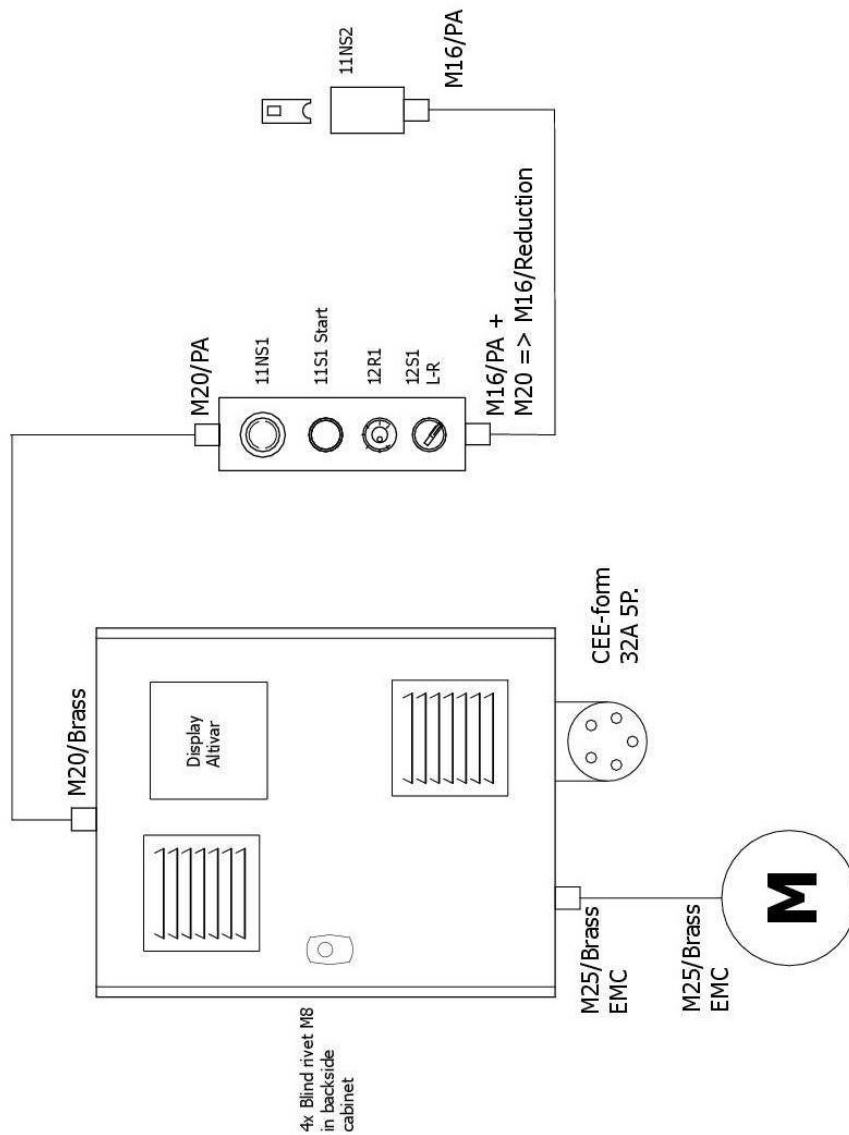
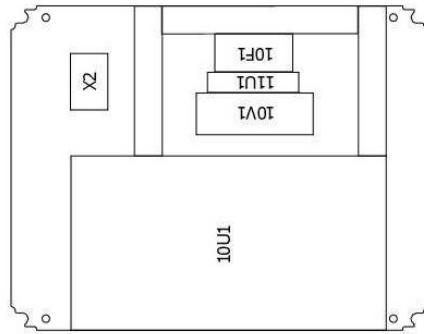
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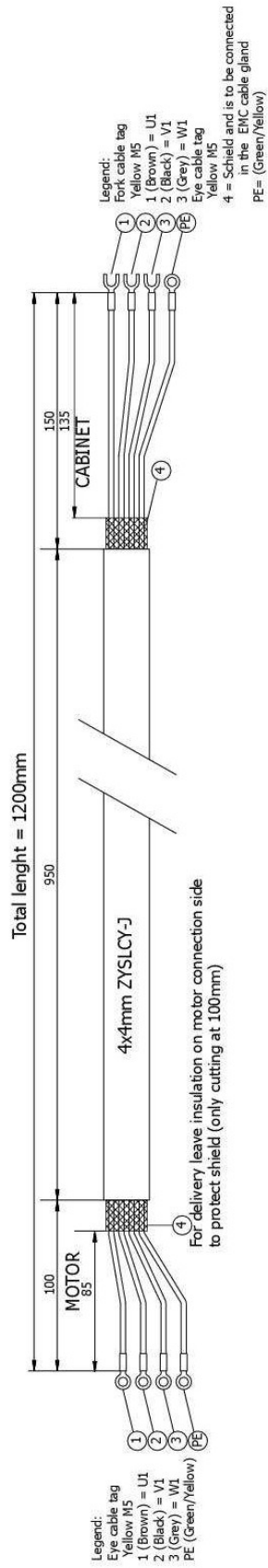
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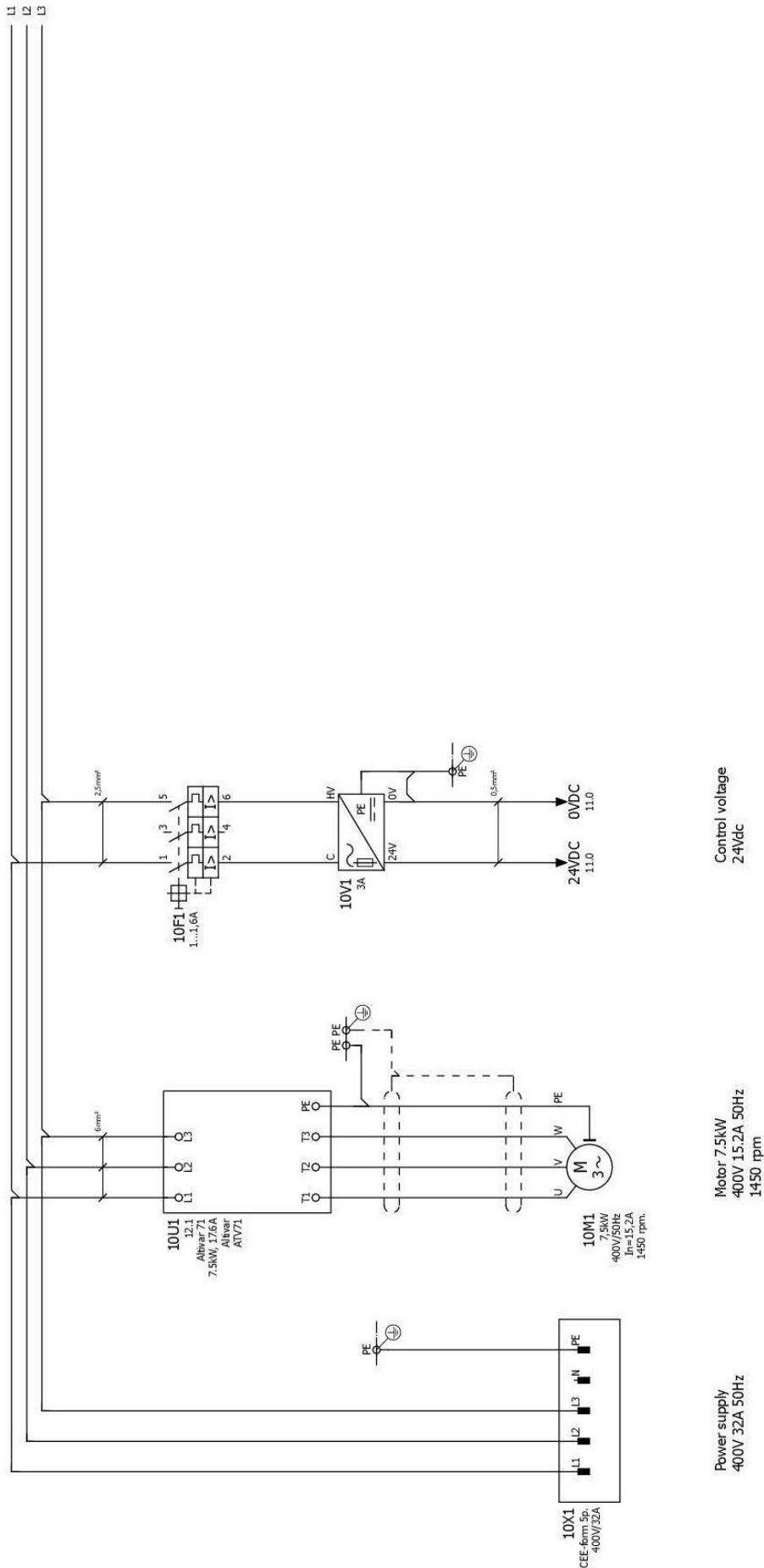
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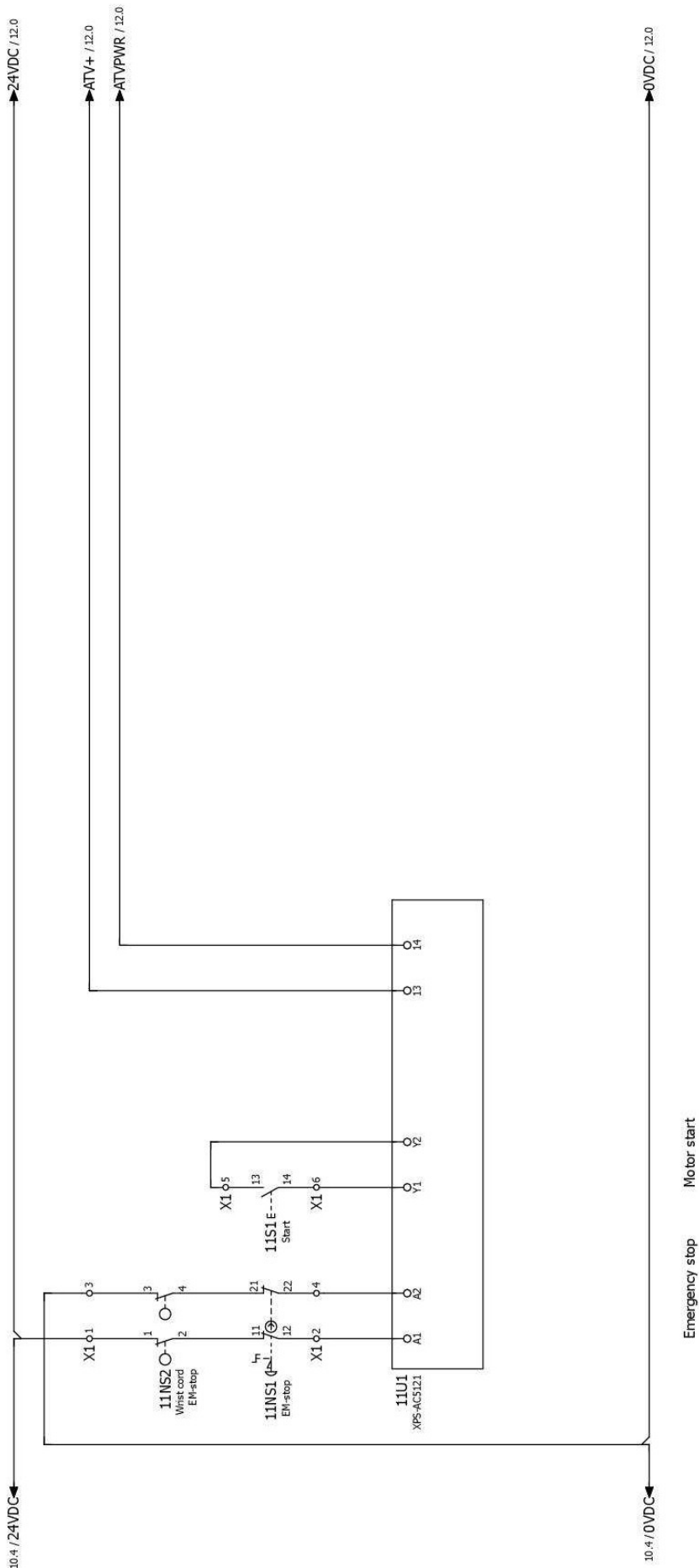
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- Year

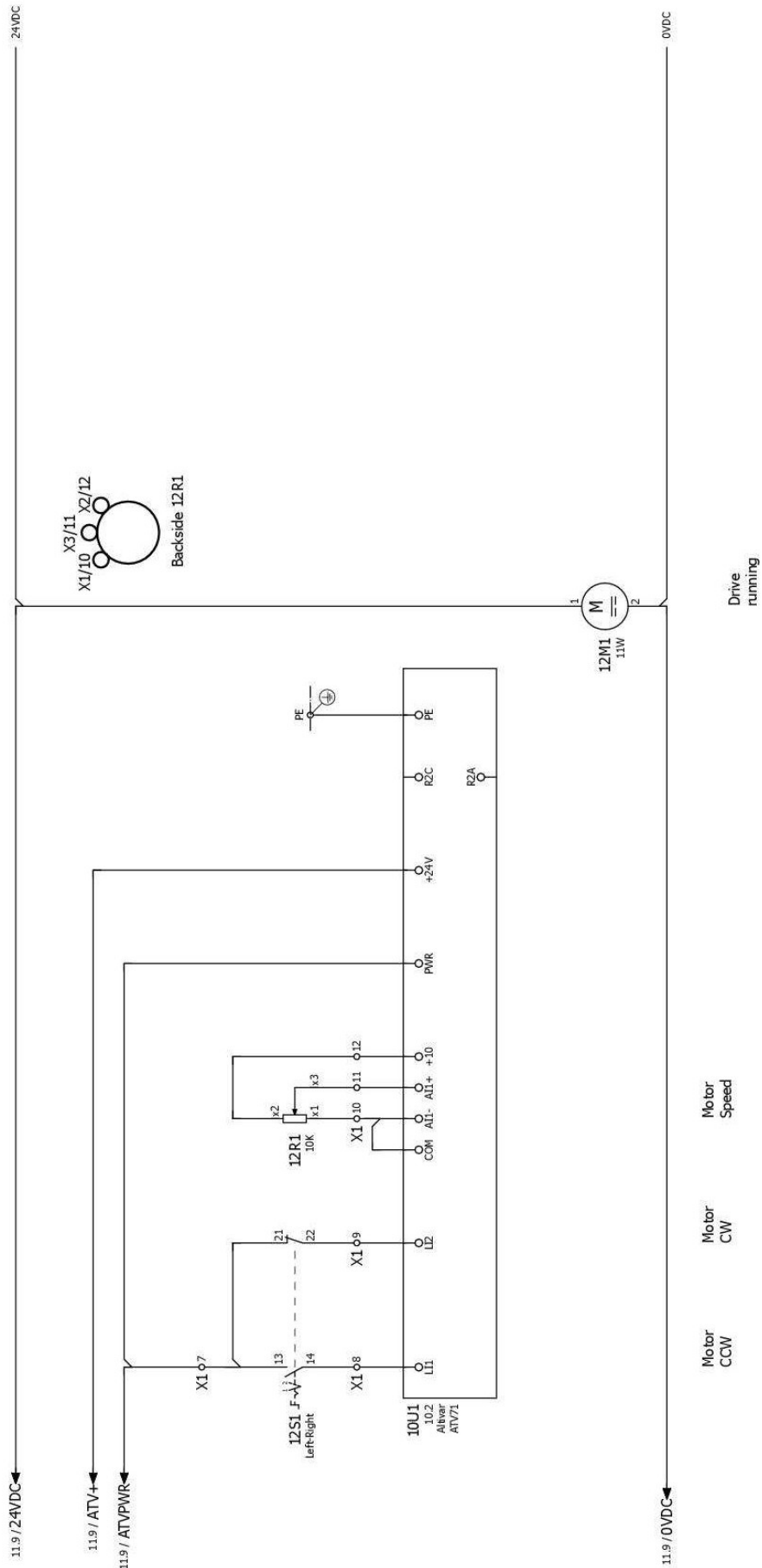
	auxiliary contact	hulpcontact	signal lamp	Safety fuse	smeltveiligheid
	Power contact	vermogenscontact	hoorn	Fused switch, three-pole	schakelbare scheidert
	NO contact, opens with time delay	maakcontact, vertraagd open	apm.meter	Fused disconnect, three-pole	scheidert "klopak"
	NO contact, closes with 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	installeerautomaat 1-polig
	NC contact, closes with time delay	verbrekcontact, vertraagd sluitend	Contactor coil relay coil	Circuit breaker, two-pole	installeerautomaat 2-polig
	Pushbutton rebound	duikknop terugveerend	Contactor/relay coil, with pick-up delay	Circuit breaker, three-pole	installeerautomaat 3-polig
	Pushbutton locking	duikknop blijvend	Contactor/relay coil, with drop-out delay	Power circuit breaker motor overload switch with switch mechanism	motorbeveiligingsschakelaar
	Rotary switch rebound	tp draaeschakelaar	Contactor pulse coil relay pulse coil	Valve	elektrisch bediende klep
	Rotary switch locking	draaeschakelaar	Tube light	Resistor with movable contact	regelbare weerstand
	Emergency stop rotary unlock	noodstop met draibare vrijgave	Resistor / Heating	Terminal	rijgkleem
	Thermostatic switch	thermostaat hydrostaat	Socket	Terminal with fuse	rijgkleem met zekering
	Pressure switch	duikschakelaar	Current transformer	Rectifier	geijkrichter
	Limit switch	eindschakelaar			
	Proximity switch	naedringsschakelaar			













Parts list

device tag	Quantity	designation	Type number	part number
CAB	1	Steel enclosure 500x400x250 with mounting plate 450x350	83324 STEEL	83324
CAB	1	Blind meet M8x16	Blindlinkmoer M8	POBPC M8x16 et verankt
PG	2	Cable Gland M25*1.5 Nickel-plated EMC	50.625 M/EPOT	50.625 M/EPOT
PG	2	Locknut M25*1.5 Nickel-plated EMC	50.225 M/POT	50.225 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	WARTELMOER 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	WARTELMOER M20	50.220 PA7035
PG	2	Cable Gland M16*1.5	WARTEL PA M16*1.5	50.616 PA7035
PG	1	Locknut M16*1.5	WARTELMOER M16	50.216 PA7035
PG	1	Reduction M20 -> M16*1.5	Reduction PA M20->M16*1.5	M20M16PA
CRB	1	Enclosure RAL7035/7016 for 4 buttons	XAL D04	XAL D04
10X1	1	32A CEE-form male wall outlet socket 6h	G52530 6h	G52530
10U1	1	Altrair 71 Variable Speed Drive	ATV71HU75M4	ATV71HU75M4
10F1	1	Transformer circuit breaker 1..1.6A	G2Z RT06	G2Z RT06
11U1	1	Emergency stop relay	XPS-ACS121	XPS-ACS121
11NS2	1	Safety switch + Pn	XCS-PA792 + XCS-Z11	XCS-PA792 + XCS-Z11
11NS1	1	Emergency stop	ZBS AS844	ZBS AS844
11NS1	2	element NC XAL	ZEN L1121	ZEN L1121
11S1	1	Pushbutton GREEN 'START'	ZBS AN333	08.01.0237
12S1	1	element NO XAL	ZEN L1111	ZEN L1111
12R1	1	Switch handle	ZBS AD2	ZBS AD2
12S1	1	element NC XAL	ZEN L1121	ZEN L1121
12R1	1	Trim-pot 10K	ZEN L1111	ZEN L1111
12M1	1	Potmeter	Potmeter set 10K ZB4	Potmeter set 10K ZB4
12M1	1	VENTILATOR119*119*38MM 24Vdc 2.50W3/H 4184RXHH	ZBS AD912	ZBS AD912
12M1	1	Outlet grid cut-out 125X125MM Rat 7035		
12M1	2	Finger guard fan ventilator 119*119*38		
X1	1	End bracket	WEID ZEW 35	954000000
X1	1	2 Wire PE terminal 2.5mm²	WEID ZPE 2.5/	1608640000
X1	12	2 Wire terminal 2.5mm²	WEID ZDU 2.5	1608510000
X1	1	End plate ZDU 2.5	WEID ZAP/TW 1	1608740000



E06863/UL230 - 3x 230V - 7,5kW - frequency drive

Project description	BMG-580 SC UL 3 x 230V
Drawing number	PJ10.1051.08
Blastrac number	
Power supply	230V 60Hz
Input lead	
Control Voltage	24Vdc
Year of Manufacturing	2010
Remarks	As built
Created on	12-8-2010
Edit date	17-11-2015

WIRE COLOR

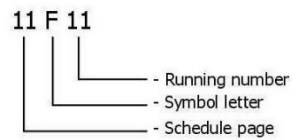
Main Voltage 400V

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

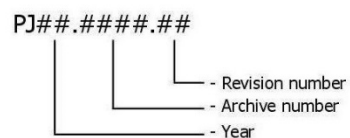
SYMBOL CODE



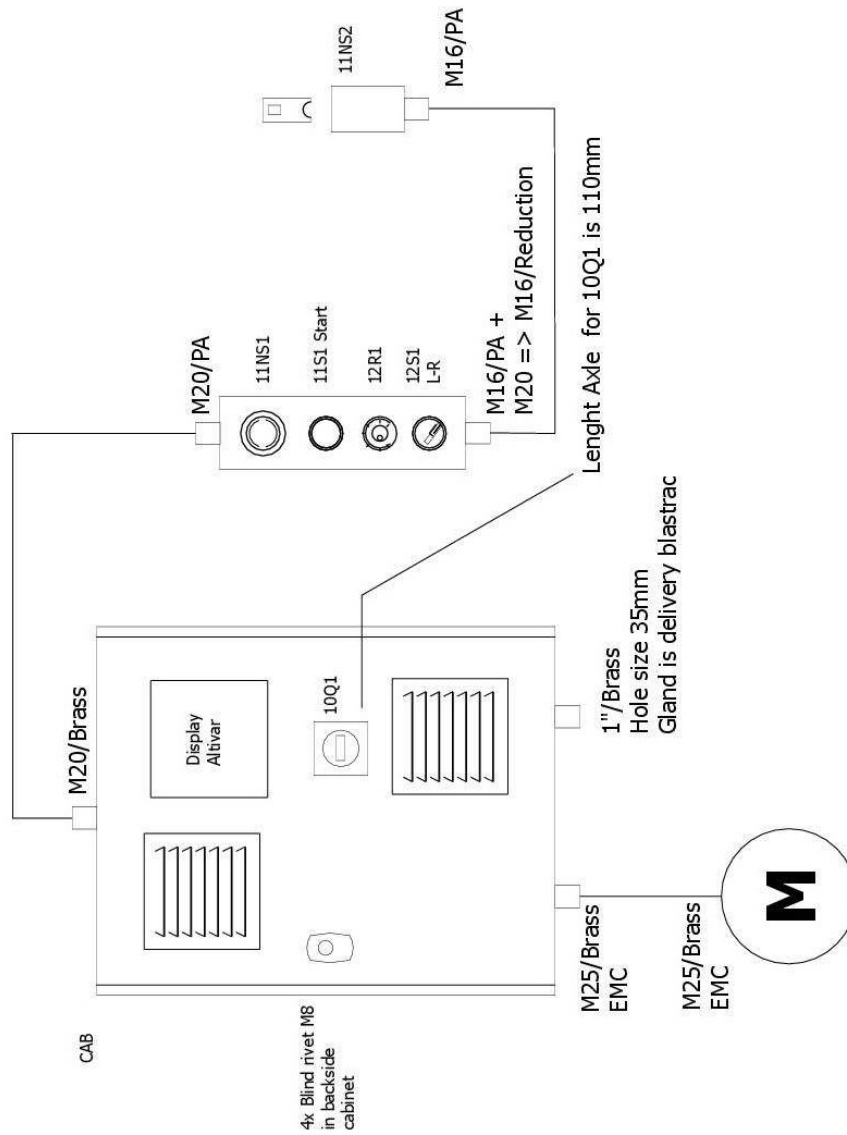
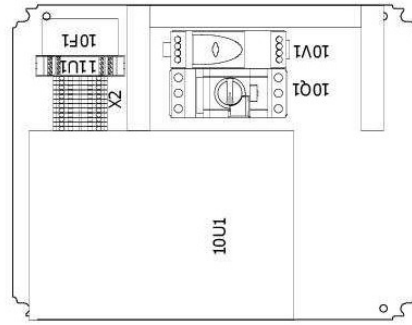
CORE CODE

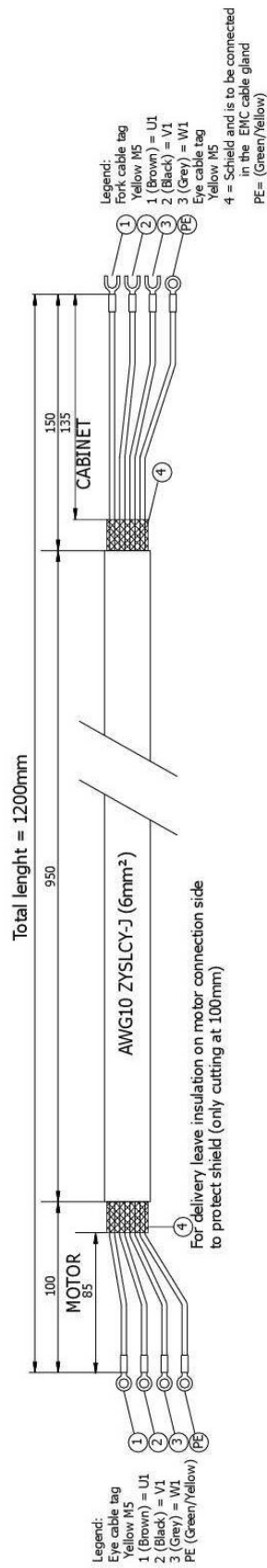


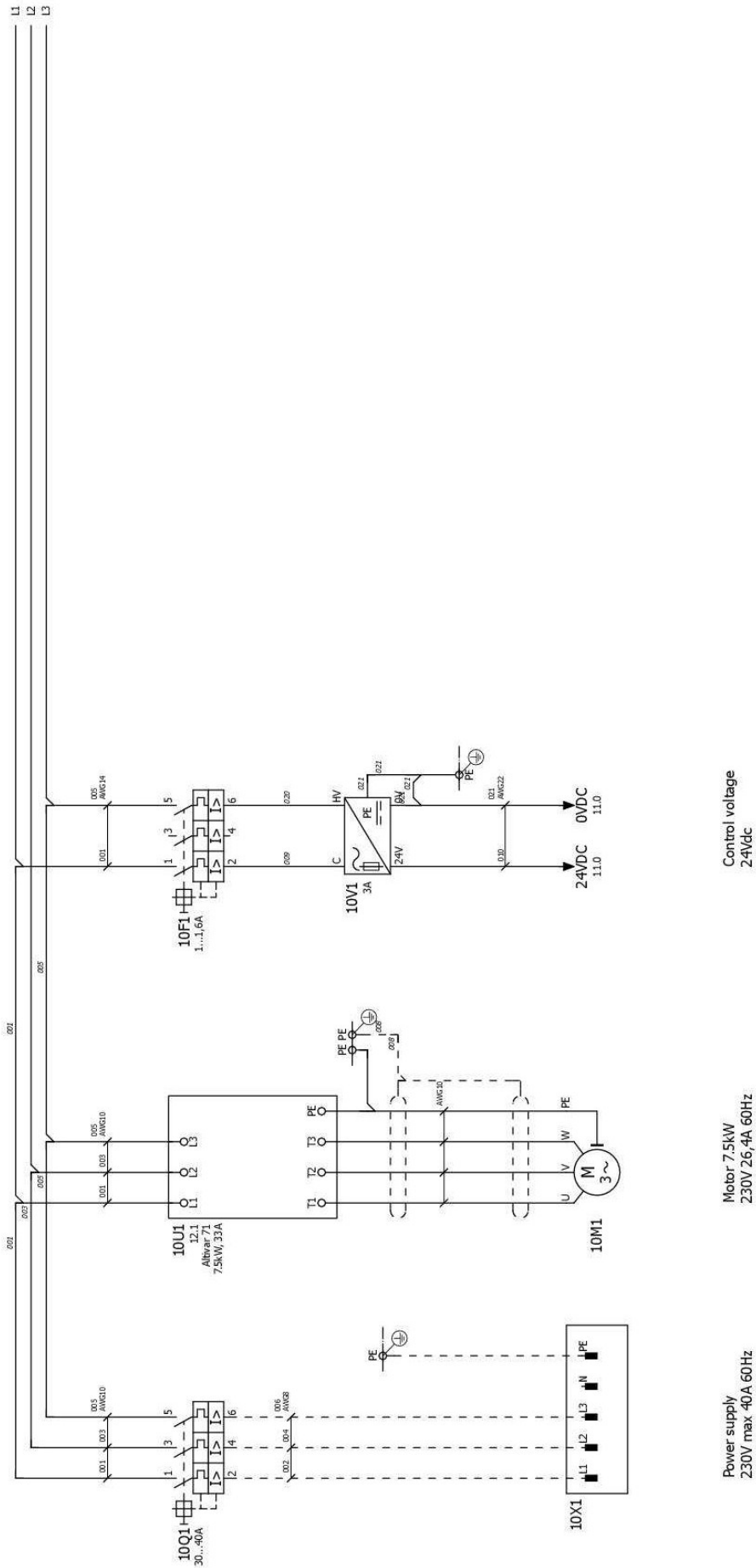
DRAWING NUMBER

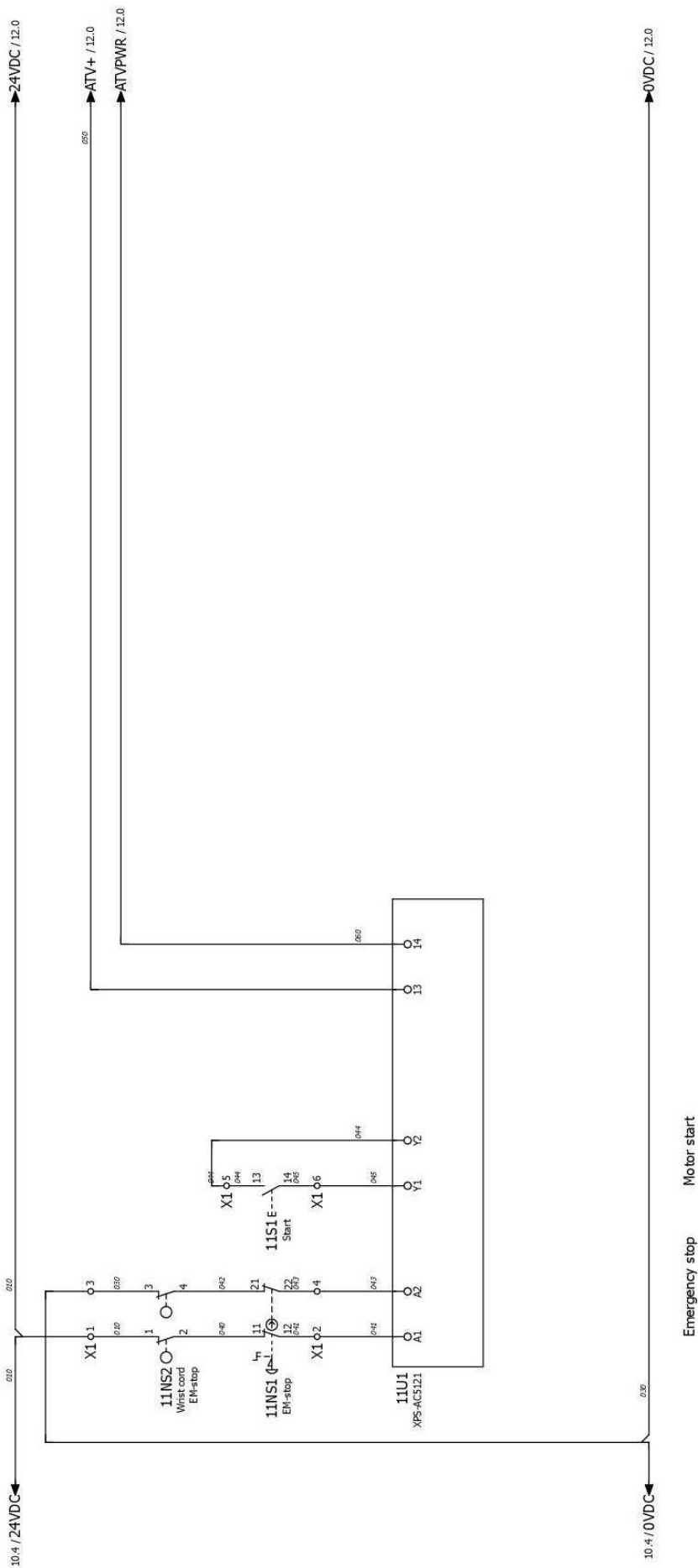


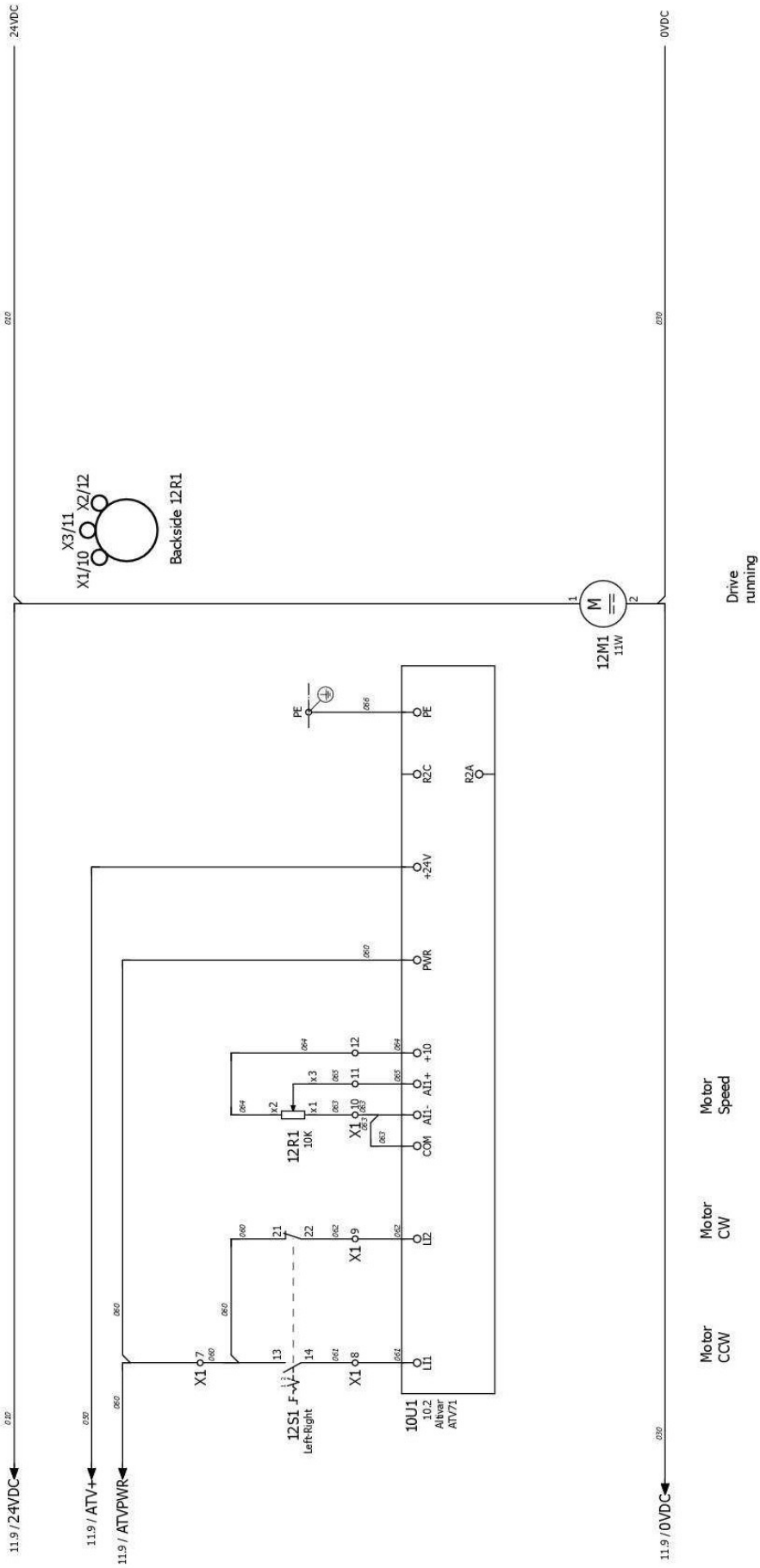
	hulpcontact	signaallamp	Safety fuse	smeltveiligheid
	vermogenscontact	hoorn	Fused switch, three-pole	schakelbare scheidert
	maakcontact, vertraagd open	ampere-meter	Fused disconnect, three-pole	scheidert "klapbak"
	maakcontact, vertraagd sluitend	uren-teller	Main switch	hoofdschakelaar
	verbrekcontact, vertraagd open	transformator	Circuit breaker, single-pole	installatieautomaat 1-polig
	verbrekcontact, vertraagd sluitend	spoel	Circuit breaker, two-pole	installatieautomaat 2-polig
	drukknoop terugverend	spoel met opkloververtraging	Circuit breaker, three-pole	installatieautomaat 3-polig
	drukknoop bijrend	spoel met afvalvertraging	Power circuit breaker motor overload switch with switch mechanism	motorbeveiligingsschakelaar
	tip draaischakelaar	spoel puls	Valve	elektrisch bediende klep
	draaischakelaar	TL verlichting	Resistor with movable contact	regelbare weerstand
	noodstop met draaibare vrijgave	weerstand verwarming	Terminal	rijgklem
	thermostaat hygrostaat	wandcontactdoos	Terminal with fuse	rijgklem met zekering
	drukschakelaar	stroomtransformator	Rectifier	geijkrichter
	eindschakelaar			
	naderingsschakelaar			













Parts list

device tag	Quantity	designation	Type number	part number
CAB	1	Blind rivet M6x16	Blindlinkmoer M6	POPBC M6x16 st verzinkt
CAB	1	Steel enclosure 500x400x250 with mounting plate 450x350	87244 STEEL	87234
CAB	1	Locknut M16*1,5	WAARTELMOER M16	50.216 RA/7035
CAB	2	Cable Gland M16*1,5	WAARTEL PA M16*1,5	50.616 RA/7035
CAB	1	Locknut M20*1,5 Nickel-plated	WAARTELMOER M20	50.220 N
CAB	2	Locknut M20*1,5	WAARTELMOER M20	50.220 RA/7035
CAB	1	Cable Gland M20*1,5 Nickel-plated	WAARTEL L-M20*1,5	50.620 M4
CAB	1	Cable Gland M20*1,5	WAARTEL PA M20*1,5	50.620 RA/7035
CAB	1	Reduction M20 -> M16*1,5	Reduction PA M20->M16*1,5	M20M16PA
CAB	2	Locknut M25*1,5 Nickel-plated EMC	50.225 NPOT	50.225 NPOT
CAB	2	Cable Gland M25*1,5 Nickel-plated EMC	50.625 M/ERV	50.625 M/ERV
10Q1	1	Motor circuit breaker 40A 3p	TELE GV2-P40	GV3 P40
10F1	1	Large spacing UL	TELE GV2-G66	GV3 G66
10U1	1	Frequency controller 7,5kW	ATV71 HU75 M3	ATV71 HU75 M3
10V1	1	Transformer circuit breaker 1..1.6A	GV2 RT06	GV2RT06
11U1	1	Power Supply 400/24V 3A	ABL8P524030	ABL8P524030
11NS2	1	Emergency stop relay	XPS-ACS121	XPS-ACS121
11NS1	1	Emergency stop	XCS-RA792 + XCS-Z11	XCS-RA792 + XCS-Z11
11S1	2	Spring return contact block - 1 NC - rear box mounting	ZB5 A5844	ZB5 A5844
12S1	1	Pushbutton GREEN 'START'	ZB5 AA333	08.01.0237
12R1	1	element NO XAL	ZEN L1111	ZEN L1111
12S1	1	Switch handle	ZB5 A02	ZB5 A02
12S1	1	element MC XAL	ZEN LI121	ZEN LI121
12R1	1	element NO XAL	ZEN L1111	ZEN L1111
12R1	1	Trim-pot 10K	Potmetreset 10K ZB4	Potmetreset 10K ZB4
12M1	1	Pot-meter	ZB5 A0912	ZB5 A0912
12M1	1	VENTILATOR119*119*38MM 24Vdc 2.50M3/H 4184HXHH		
X1	1	Outlet grid cut-out 12.5X12.5MM Ral 7035		
12M1	1	Finger guard for ventilator 119*119*38		
X1	2	End bracket	WEID ZEW 35	954000000
X1	1	2 Wire PE terminal 2.5mm²	WEID ZPE 2.5/	1608540000
X1	12	2 Wire terminal 2.5mm²	WEID ZDU 2.5	1608510000
X1	1	End plate ZDU 2.5	WEID ZAP/TW 1	1608740000

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
R 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
R 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
H d F	[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
IL F	[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
Inf 1	[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
Inf 2	[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
Inf 3	[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
Inf 4	[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)
Inf 5	[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
Inf 7	[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
Inf 8	[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
Inf 9	[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
Inf A	[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
Inf b	[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
Inf C	[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
Inf E	[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
OC F	[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
SC F 1	[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
SC F 2	[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
SC F 3	[Ground short circuit]		
SD F	[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
SP F	[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
APPF	[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)
CONF	[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
COF	[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
DBF	[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] (JFr), 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
CFF	[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)
CFI	[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
HCF	[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
PHF	[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)
USF	[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 205 Replace the pre-charge resistor Inspect/repair the drive



Inspection comments

Inspection before initial operation on: _____

By: _____

Date of initial operation: _____

Serial number & Year of manufacture: _____

Recurring inspections / maintenance log

Date	Findings	Repairs / Cleaning	Test on	By*

*competent person



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