



# SERVICE MANUAL BMG-435 WD & SC

VERSION 3.3

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## 1. Tools



Blastrac PN	HQV PN	
<b>BG300212</b>	<b>531458001</b>	For standard grinding wings - screws
<b>E07155-1</b>	<b>533102601</b>	For standard grinding wings - pins + magnets
<b>E12343</b>	<b>534242601</b>	For standard grinding wings - embedded
<b>E10690</b>	<b>534243101</b>	For PCD grinding wings - embedded



<p><b>BG707321</b> #18 - 20  <b>BG707322</b> #30 - 40                      BLUE GRINDING WING</p>	<p><b>BG707311</b> #18 - 20  <b>BG707312</b> #30 - 40  <b>BG707313</b> #60 - 80  <b>BG707314</b> #120 - 150                      GREEN GRINDING WING</p>	<p><b>BG707301</b> #18 - 20  <b>BG707302</b> #30 - 40  <b>BG707303</b> #60 - 80  <b>BG707304</b> #120 - 150                      RED GRINDING WING</p>	<p><b>BG707341-2</b> #30 - 40                      BLACK GRINDING WING</p>
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<p><b>BG200997-1/SET</b>                      PCD GRINDING WING</p>	<p><b>BG200999-1/SET</b>                      PCD GRINDING WING                      2 X 1/4</p>	<p><b>E07443</b>                      ROTARY PLATE ONLY</p> <p><b>E07454</b></p>	<p><b>E07444-2</b>                      BUSH HAMMER ROLLER                      Ø50 MM</p>
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Ø155 MM PLATE WITH  
BUSH HAMMER TOOLS



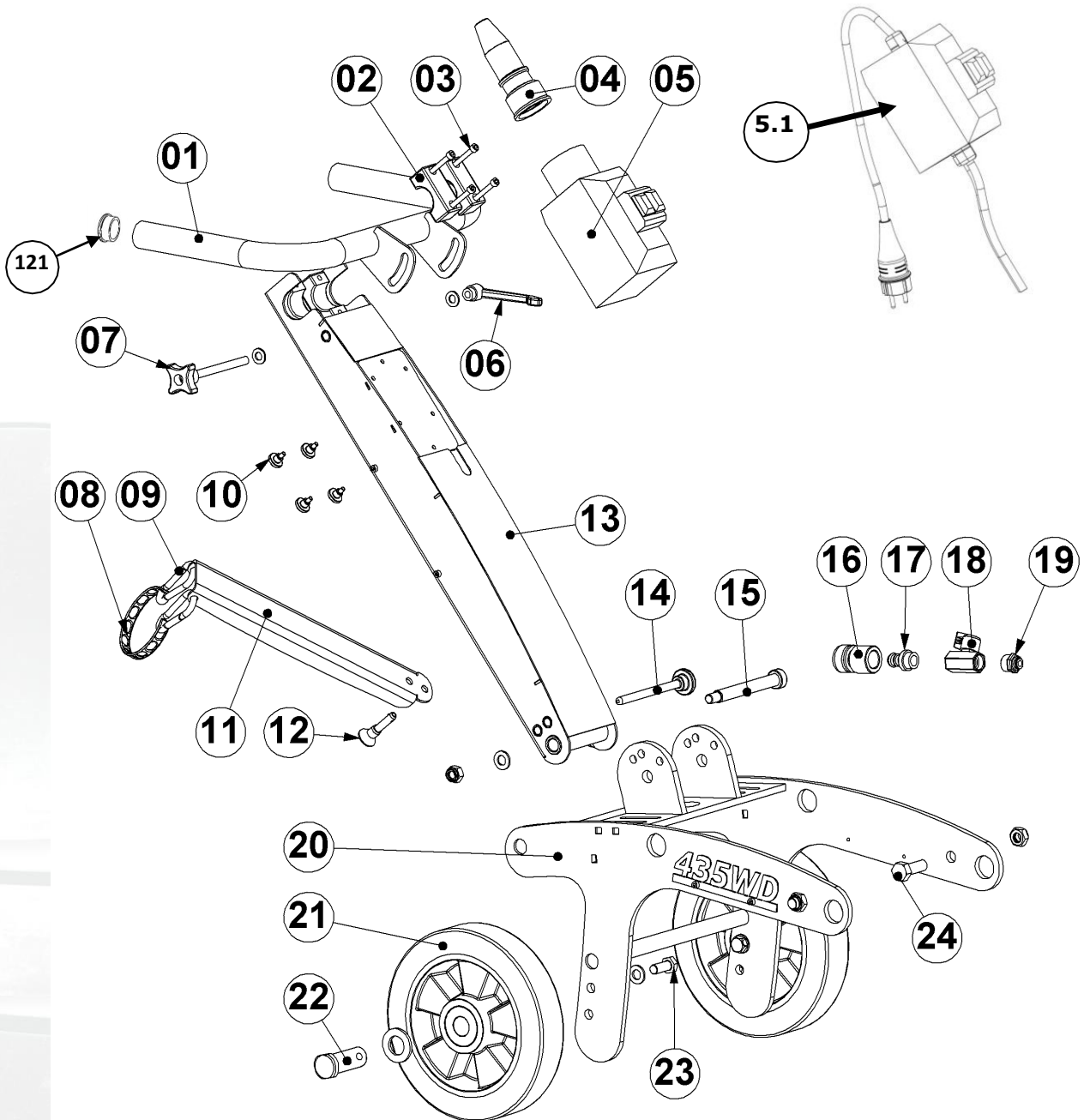
<p><b>E09402/FINE</b>                      Velcro plate Ø155 mm                      For polishing pads</p> <p><b>E09402/COARSE</b>                      Velcro plate Ø155 mm                      For maintenance pads</p>	<p><b>BG155001</b> #40 #1 - orange  <b>BG155002</b> #100 #2 - Black  <b>BG155003</b> #200 #3 - Blue  <b>BG155004</b> #400 #4 - Red  <b>BG155005</b> #800 #5 - White  <b>BG155006</b> #1500 #6 - Yellow  <b>BG155007</b> #3000 #7 - Green</p> <p>POLISHING PADS Ø155 MM</p>	<p><b>BG155M004</b> #400  <b>BG155M005</b> #800  <b>BG155M006</b> #1500  <b>BG155M007</b> #3000</p> <p>MAINTENANCE PADS                      Ø155 MM</p>	<p><b>E07341</b>                      WATERTANK                      FOR BMG-435WD</p> <p><b>E10697</b>                      WATERTANK                      FOR BMG-435SC</p>	<p><b>004583</b>                      SUCTION HOSE Ø51 MM</p>
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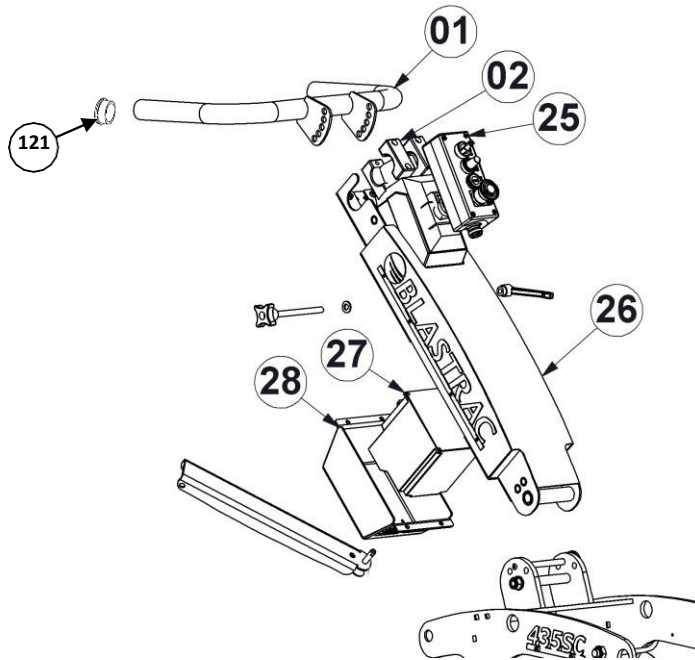
Blastrac PN	HQV PN
BG707321	534949001
BG707322	534949101
BG707311	534950301
BG707312	534950101
BG707313	534950201
BG707314	534950001
BG707301	534951801
BG707302	534951901
BG707303	534952001
BG707304	534951701
BG707341-2	534948701
BG200997-1/SET	534951001
BG200999-1/SET	534950801
E07443	534421201
E07454	533661801
E07444-2	534372701
E09402/FINE	534244101
E09402/COARSE	534243901
BG155001	534893101
BG155002	535346601
BG155003	534893201
BG155004	534446001
BG155005	534893401
BG155006	534446601
BG155007	534446801
BG155M004	534440601
BG155M005	534441101
BG155M006	534441201
BG155M007	534441301
E07341	534934101
E10697	534934201
4583	533882601

## 2. Spare parts

Frame complete

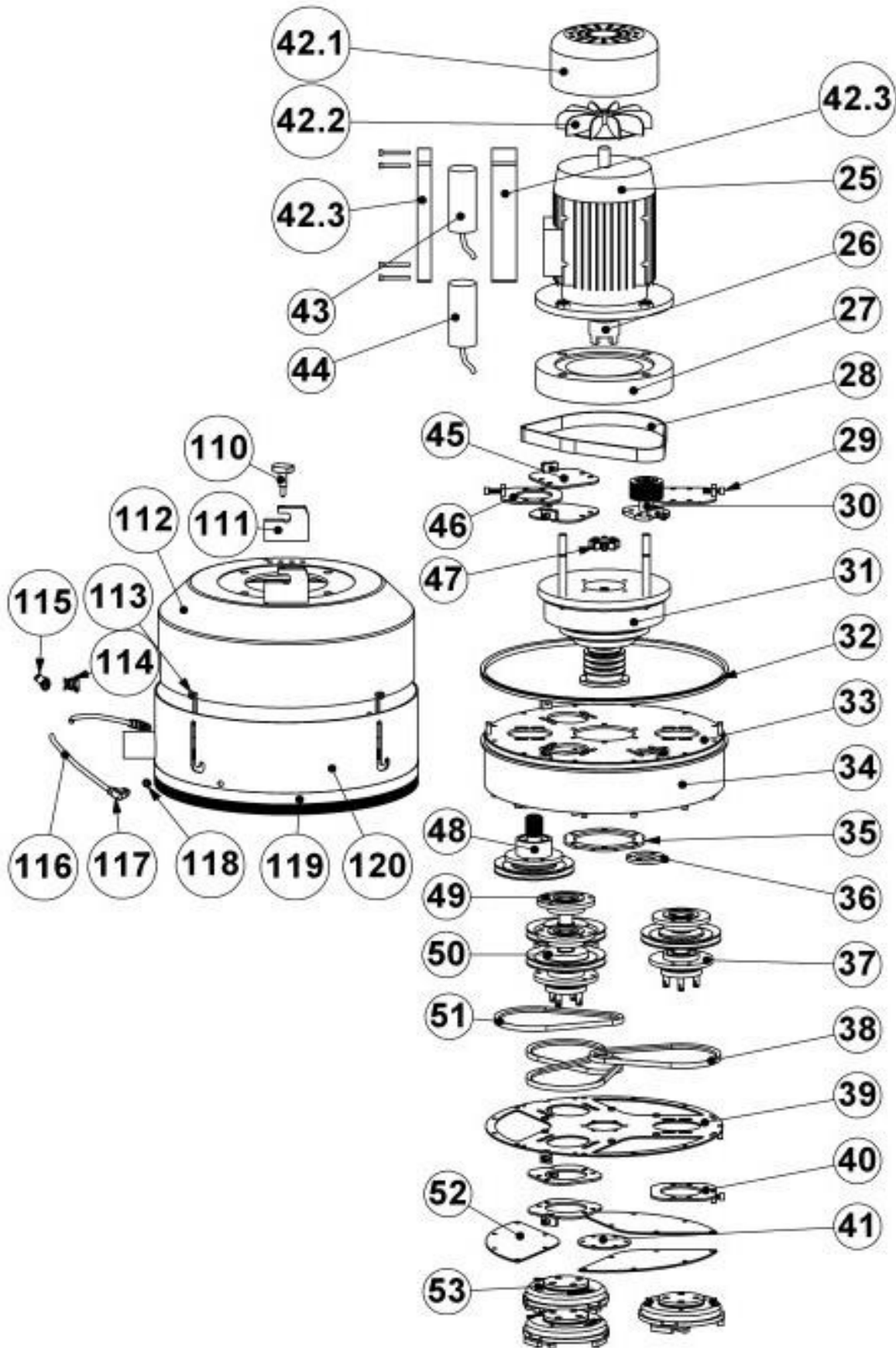






Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
1	E01514-2	533249601	Steer		1
2	999-9156	533767701	Pipe clamp (set)		2
3	BE0191	533397801	M6x50 hexagon socket head screw	DIN 912	4
4	E01499	533681501	Connector 230V / 50hz		1
5	E00587-1	533762101	Electro kit 230V / 50Hz		1
	E00587-1/AU	534500801	Electro kit 230V / 50Hz	Australia	1
	E01521	533940501	Electro kit 230V / 60Hz		1
	E01532	533660201	Electro kit 110V / 50Hz		1
	E03951	534549501	Electro kit 3x400V / 50Hz		1
5.1	E00587-2	534879901	Electro kit 230V / 50Hz incl. cable		1
6	BE0641	533512101	M10 clamp lever		1
7	E06860	534394401	Clamping pin steer		1
8	E07008	533088801	Chain (11links)		1
9	BE0653	533214001	Hook		2
10	E06386	533364201	Disc knob M5		4
11	E07019	535251601	Swing arm		1
12	478198	533256401	Quick release pin		1
13	E01515-2	533548501	Steer handle		1
14	BE0674	533885801	Handle locking pin		1
15	BE0640	533714101	M12 hexagon shoulder screw		1
16	E06286	533238401	Water coupling		1
17	E06285	533278101	Water hose connection		1
18	E06282	533252301	Ball valve mini		1
19	E06279	533500701	Water reducing coupling		1
20	E01513-2	534939801	Frame 435		1
21	E01491	533007501	Wheel		2
22	BG11765	533474901	Bolt for wheel		2
23	BE0037	533073501	M12x30 hexagon bolt	DIN 933	2
24	BE0379	534916001	M14x40 hexagon bolt	DIN 933	2
25	E09387	534735501	Operating box compl. for BMG-435 SC		1
26	E09389	534360801	Bottom handle		1
27	E09404	534587301	Frequency box		1
28	E09457	534590801	Frequency drive cover		1
121	BE0643	533407601	Tube cap round 35mm		2

Planetary system

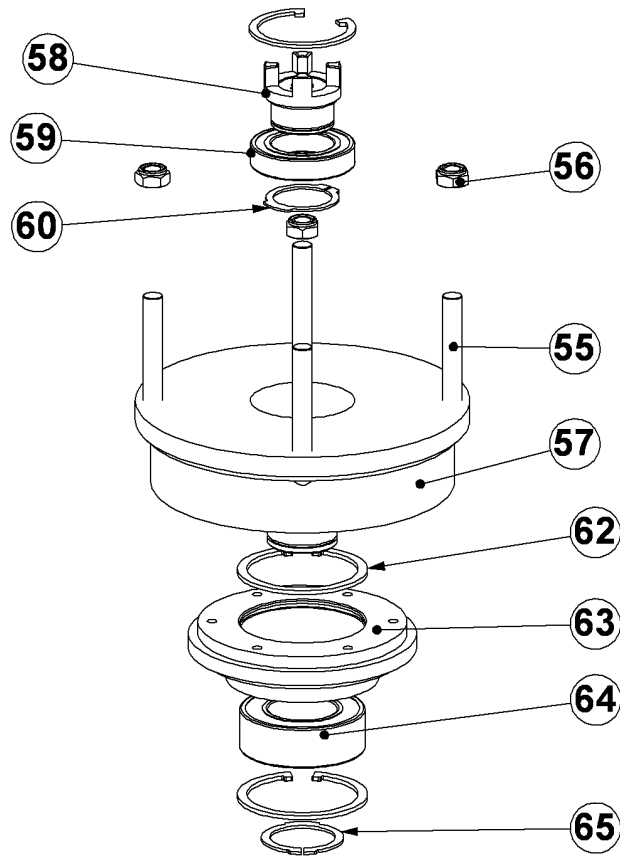




Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
25	E10354/BL	534712101	Motor 230V / 50Hz		1
	E01522	533536801	Motor 230V / 60Hz		1
	E01525-IE2	-	Motor 3x400V / 50Hz		1
	E01518	534713101	Motor 110V / 50Hz		1
	E09590	534712801	Motor 230/400V for 435SC		1
26	E01483_1	533640801	Upper coupling		1
27	E01465	533678601	Fill-up block		1
28	E06195	533144601	Upper belt		1
29	BE0123	-	M8x35 hexagon head cap scr.	DIN912	8
30	E07028	533650001	Tension pulley		1
31	E06977	-	Centre axle 435		1
32	E01494	533285401	V-ring seal		1
33	E04451	-	Housing top plate		1
34	E01509	-	Housing scroll		1
35	E01503	533062201	Centre ring		1
36	E01512	533670701	Tension pulley mount ring		1
37	E07026	533167001	Pulley III		1
38	E01485	533161301	V-belt long		3
39	E01510	534950801	Housing bottom plate		1
40	E01505	534417601	Cover plate bottom		3
41	E01502	534386601	Centre axle bottom cover		1
42.1	E10354/2	534572901	Fan cover (50 Hz)		1
	E01522/4	533065301	Fan cover (60 Hz)		1
	E01525-IE2/1	534567401	Fan Cover IE2 motor		1
42.2	E10354/3	534572001	Fan (50 Hz)		1
	E01522/3	533942101	Motor Fan (60 Hz)		1
	E01525/2	-	Fan IE2 motor		1
42.3	E10354/1	534362701	Box for Capacitors		1
43	E10354/4	534867301	Start-up Capacitor (50 Hz)		1
	E01493/1	534867401	Start-up Capacitor (60 Hz)		1
44	E10354/5	534735601	Operating Capacitor (50 Hz)		1
	E01522/2	533590301	Operating Capacitor (60 Hz)		1
45	E01507	534417001	Cover plate		3
46	E01506	-	Cover plate contra pulley		1
47	E01483/1	534414501	Coupling star yellow		1
48	E07027	533681201	Contra pulley		1
49	E07024	533066501	Pulley I		1
50	E07025	533067101	Pulley II		1
51	E01484	533555101	V-belt short		1
52	E01504	533131601	Check cover		3
53		-	Diamond plate holder		3
110	E07360	533219301	Disc knob		2
111	E01473	533226801	Hinge plate		2
112	E01516-2	534416001	Protection cover		1
113	BE0655	533402401	Slide bolt		4
114	E06276	533199501	Pipe clamp		2
115	E06281	533375401	Water T-coupling		1
116	E06278	533259501	Water hose		1m
117	E06280	533266701	Water knee coupling		2
118	E06293	533279501	Nut for knee coupling		2
119	BG-BRUSH 20MM	534888501	Brush		1.55 m
120	E07016	533393901	Floating shroud		1

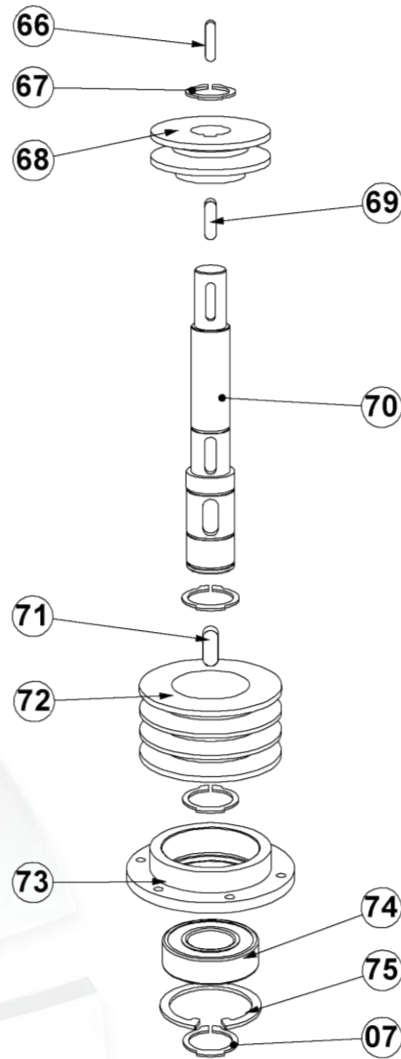


Drive mechanism – E07029



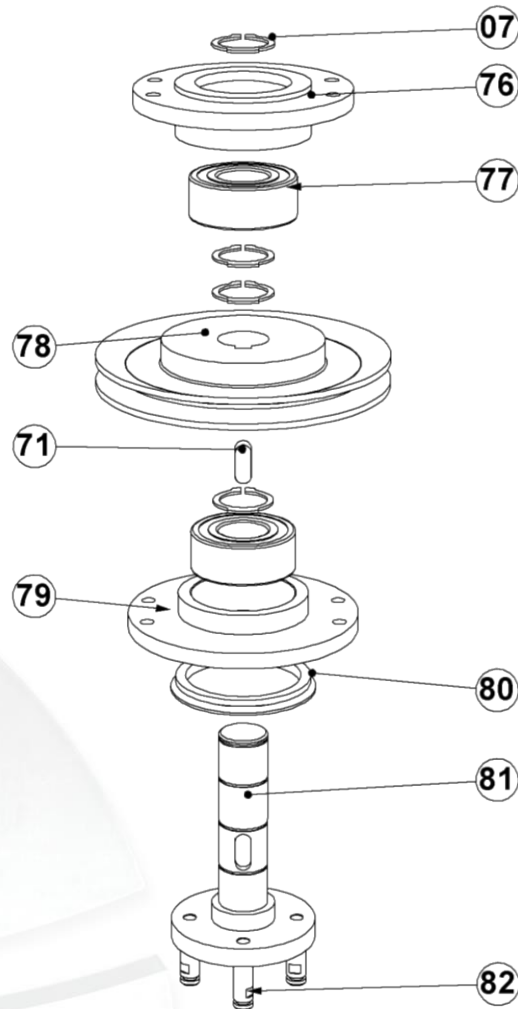
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
55	E03504	533557001	M14x100mm Stud bolt		4
	E06181	-	M14x71mm Stud bolt (USA)		4
56	BE0120	-	M14 lock nut	DIN985	4
57	E04450	-	Pulley		1
58	E01483_2	533426901	Bottom coupling		1
59	E01477	533921501	Bearing		1
60	BE0124	533239101	Retaining ring Ø45	DIN471	1
62	BE0125	-	Retaining ring Ø90	DIN472	2
63	E06048	534386301	Central bearing house top		1
64	E01490	533600701	Bearing		1
65	BE0126	533220501	Retaining ring Ø50	DIN471	1

**Centre axle – E07030**



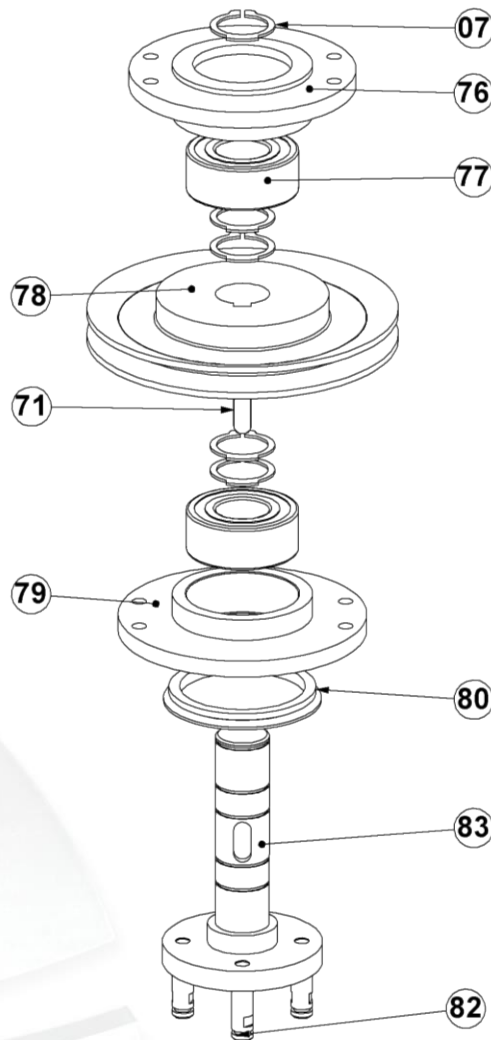
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
07	BE0076	533914201	Retaining ring Ø25	DIN471	3
66	BE0108	533270101	Key 5x5x20	DIN6885A	1
67	BE0074	533218201	Retaining ring Ø20	DIN471	1
68	E01487	533554901	V-pulley		1
69	BE0110	533483901	Key 6x6x20	DIN6885A	1
70	E01463	533642101	Centre axle		1
71	BE0109	533293401	Key 8x7x20	DIN6885A	1
72	E01488	533555001	V-pulley		1
73	E01461	533492701	Central bearing house bottom		1
74	222-2331-E	533838201	Bearing		1
75	BE0077	533218301	Retaining ring Ø52	DIN472	1

**Pulley I – E07024**



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
07	BE0076	533914201	Retaining ring Ø25	DIN471	4
71	BE0109	533293401	Key 8x7x20	DIN6885A	1
76	E01460	533683701	Bearing house top		1
77	E03245	533132601	Bearing		2
78	E01486	533529601	V-pulley		1
79	E01458	533623901	Bearing house bottom		1
80	E01489	533224101	V-ring seal		1
81	E01468	533062601	Pulley axle I		1
82	E01474	533207301	Flex pin		4

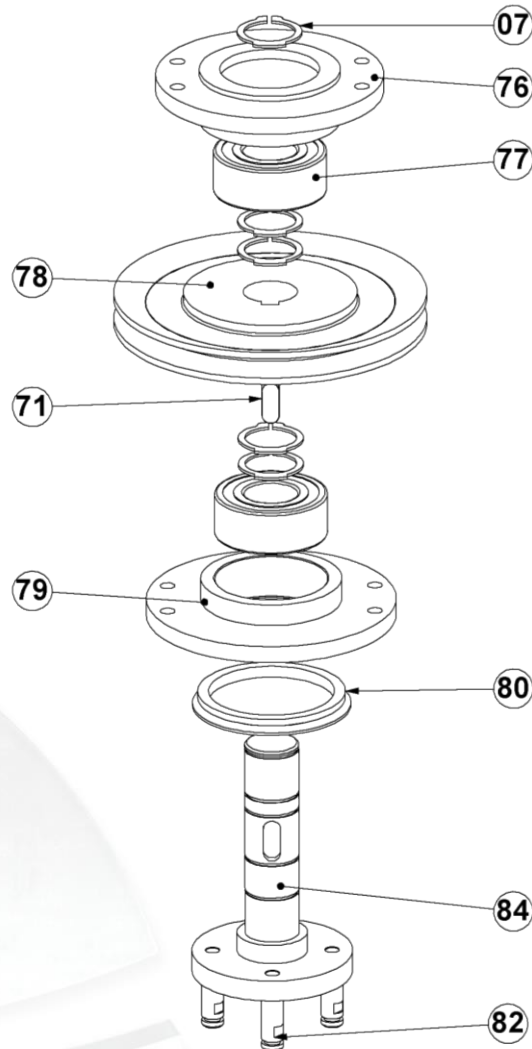
**Pulley II – E07025**



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
07	BE0076	533914201	Retaining ring Ø25	DIN471	4
71	BE0109	533293401	Key 8x7x20	DIN6885A	1
76	E01460	533683701	Bearing house top		1
77	E03245	533132601	Bearing		2
78	E01486	533529601	V-pulley		1
79	E01458	533623901	Bearing house bottom		1
80	E01489	533224101	V-ring seal		1
83	E01469	533064001	Pulley axle II		1
82	E01474	533207301	Flex pin		4

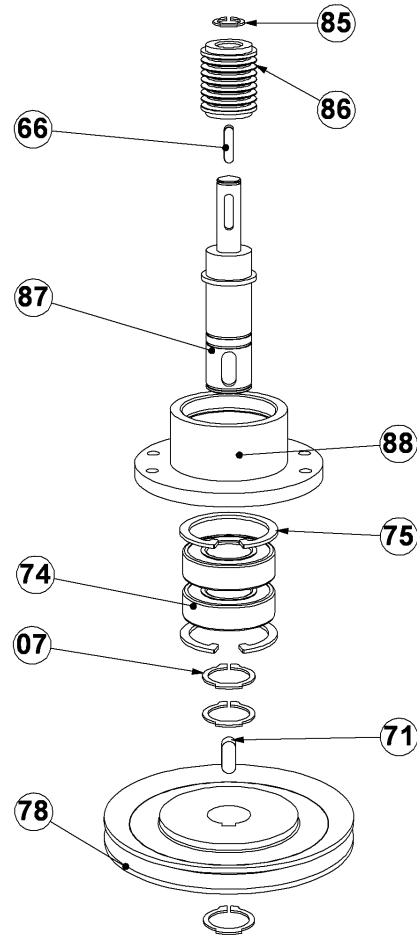


### Pulley III – E07026



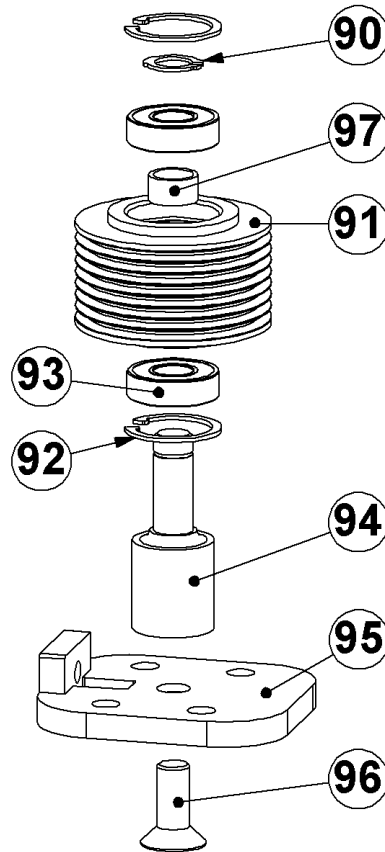
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
07	BE0076	533914201	Retaining ring Ø25	DIN471	4
71	BE0109	533293401	Key 8x7x20	DIN6885A	1
76	E01460	533683701	Bearing house top		1
77	E03245	533132601	Bearing		2
78	E01486	533529601	V-pulley		1
79	E01458	533623901	Bearing house bottom		1
80	E01489	533224101	V-ring seal		1
84	E01470	533064401	Pulley axle III		1
82	E01474	533207301	Flex pin		4

### Contra pulley - E07027



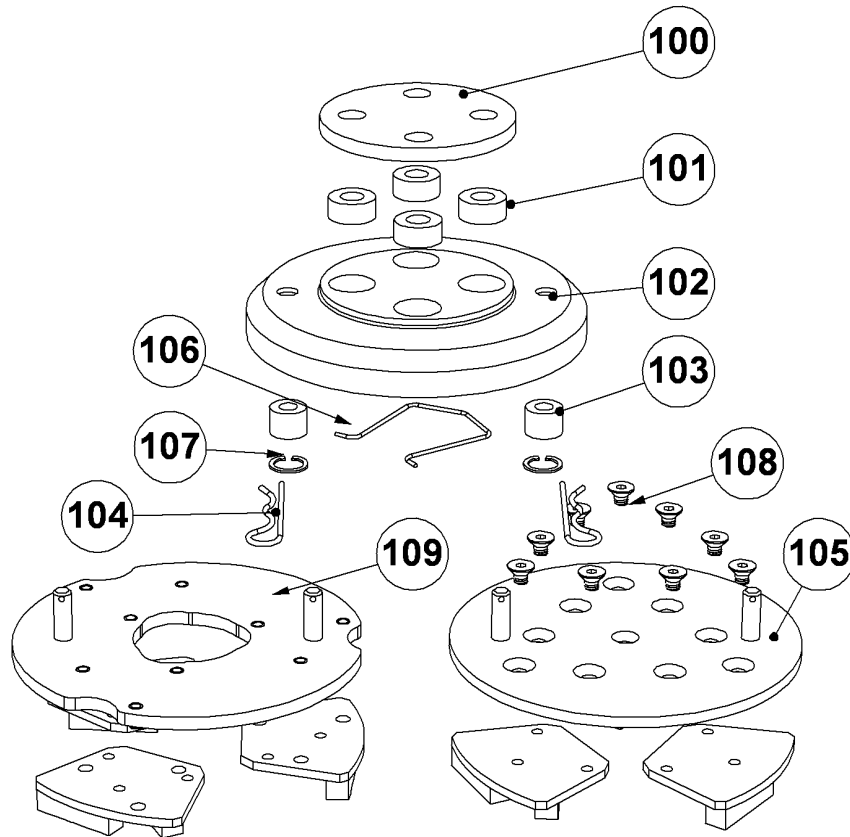
Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
07	BE0076	533914201	Retaining ring Ø25	DIN471	3
66	BE0108	533270101	Key 5x5x20	DIN6885A	1
71	BE0109	533293401	Key 8x7x20	DIN6885A	1
74	222-2331-E	533838201	Bearing		2
75	BE0077	533218301	Retaining ring Ø52	DIN472	2
78	E01486	533529601	V-pulley		1
85	BE0127	534806701	Retaining ring Ø13	DIN471	1
86	E06050	533063501	Pulley		1
87	E01464	534408701	Contra pulley axle		1
88	E01459	534317901	Bearing house contra pulley		1

### Tension pulley – E07028



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
90	BE0129	533722901	Retaining ring Ø12	DIN471	1
91	E06051	533119701	Pulley		1
92	BE0128	533722801	Retaining ring Ø28	DIN472	2
93	E06203	533111101	Bearing		2
94	E06054	534894001	Tension pulley axle		1
95	E01508	533701101	Cover plate tension pulley		1
96	BE0130	533930501	M10x25 Countersunk head scr.	DIN7991	1
97	E06421	533108401	Bush		1

**Diamond plate holder (3x)**



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
100	E01476	533561201	Flex disc rubber plate		1
101	E03292	533487201	Flex disc rubber		4
102	E01472	533220101	Flex disc		1
103	E03293	533546001	Diamond disc rubber		2
104	BE0072	533531801	Spring cotter		2
105	BG300212	531458001	Adapter plate for wings		1
	BG300213	533104701	Adapter plate for polish dots		1
106	E03749	533449501	Locking spring		1
107	BE0103	533267901	Retaining ring Ø16	DIN472	2
108	BE0131	534451701	M6x8 Countersunk head scr.	DIN7991	9
109	E07155-1	533102601	DIAMAG 155 adapter plate		1





### Wings

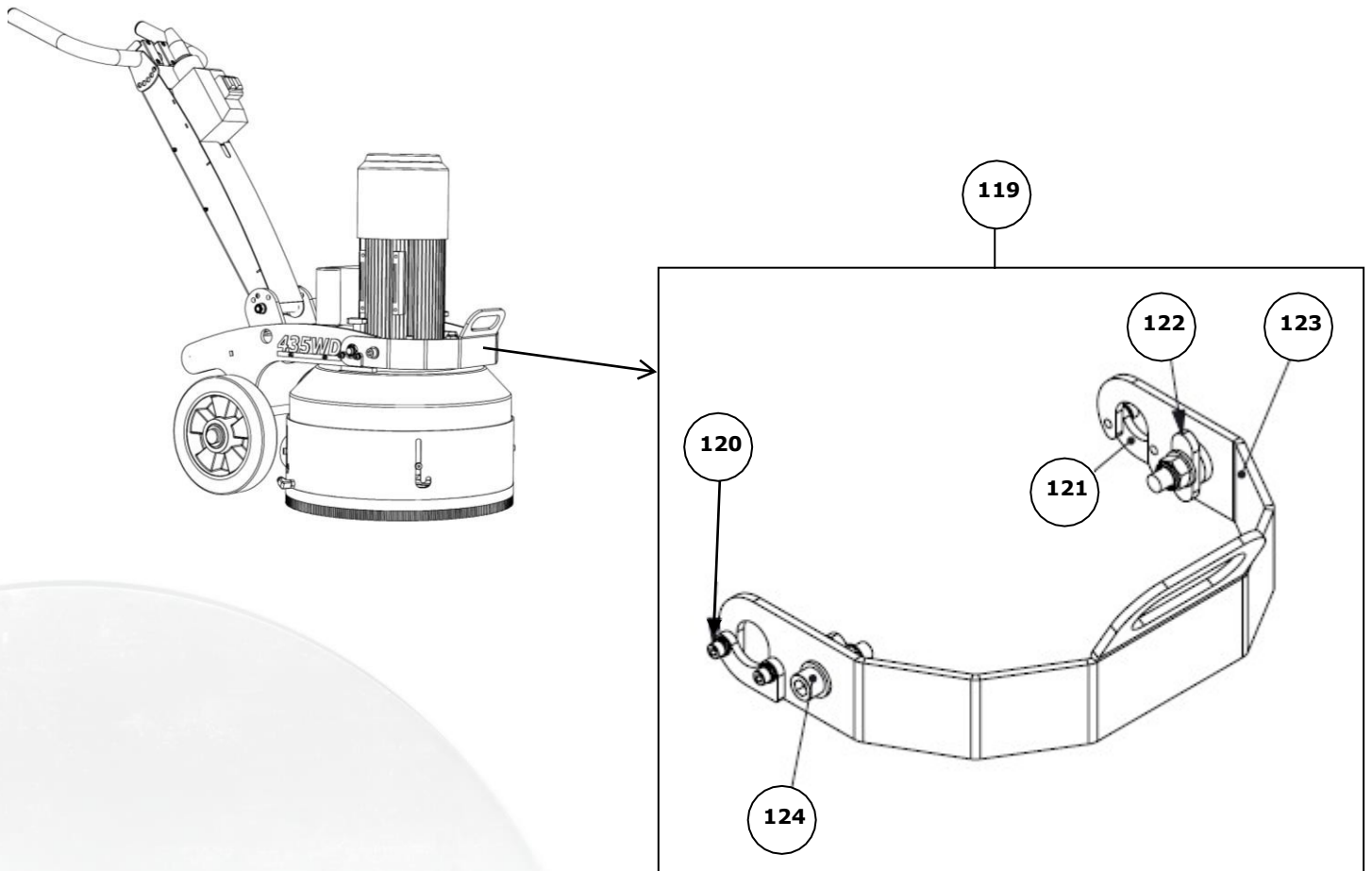
Blastrac PN	HQV PN	Description	Remarks	Qty.
BG707301	534951801	Wing red box 9 pieces 18/20		1
BG707302	534951901	Wing red box 9 pieces 30/40		1
BG707303	534952001	Wing red box 9 pieces 60/80		1
BG707304	534951701	Wing red box 9 pieces 120/150		1
BG707311	534950301	Wing green box 9 pieces 18/20		1
BG707312	534950101	Wing green box 9 pieces 30/40		1
BG707313	534950201	Wing green box 9 pieces 60/80		1
BG707314	534950001	Wing green box 9 pieces 120/150		1
BG707321	534949001	Wing blue box 9 pieces 18/20		1
BG707322	534949101	Wing blue box 9 pieces 30/40		1
BG200997/SET	535367101	Wing PCD split	Set of 9	1
BG200999/SET	534950801	Wing PCD 2 x ¼	Set of 9	1

### Polishing dots

Blastrac PN	HQV PN	Description	Remarks	Qty.
BG200982	535786101	Dry polish dot black #100		9
BG200983	533445601	Dry polish dot blue #220		9
BG200984	533445501	Dry polish dot red #400		9
BG200985	533293201	Dry polish dot white #800		9
BG200986	535348801	Dry polish dot yellow #1500		9
BG200987	535348701	Dry polish dot green #3000		9
BG7110050	535718801	Diamag wet polish dot orange #50	Set of 9	1
BG7110100	533473501	Diamag wet polish dot black #100	Set of 9	1
BG7110200	535718901	Diamag dry polish dot blue #200	Set of 9	1
BG7110400	535719001	Diamag dry polish dot red #400	Set of 9	1
BG7110800	535719101	Diamag wet polish dot white #800	Set of 9	1
BG7111800	535719201	Diamag wet polish dot yellow #1800	Set of 9	1
BG7113000	-	Diamag wet polish dot green #3000	Set of 9	1



**Front handle (option)**



Item	Blastrac PN	HQV PN	Description	Remarks	Qty.
119	E09191	534593001	Front handle complete 435WD	#120 - #124	1
120	BE0035	533367201	M6x16 Hex. sockethead cap s		4
	BE0017	534691501	M6 Spring lock washer		4
	BE0016	533481901	M6 washer		4
121	E08731	535206401	Locking plate		2
122	E08723	534673001	Locking bush		2
123	E09192	534592901	Front handle bracket		1
124	BE0196	-	M10x40 Hex. socket head cap s		2
	BE0004	533268701	M10 washer (2x)		4
	BE0023	533292901	M10 hexagon locking nut		2



### 3. Electric schedules

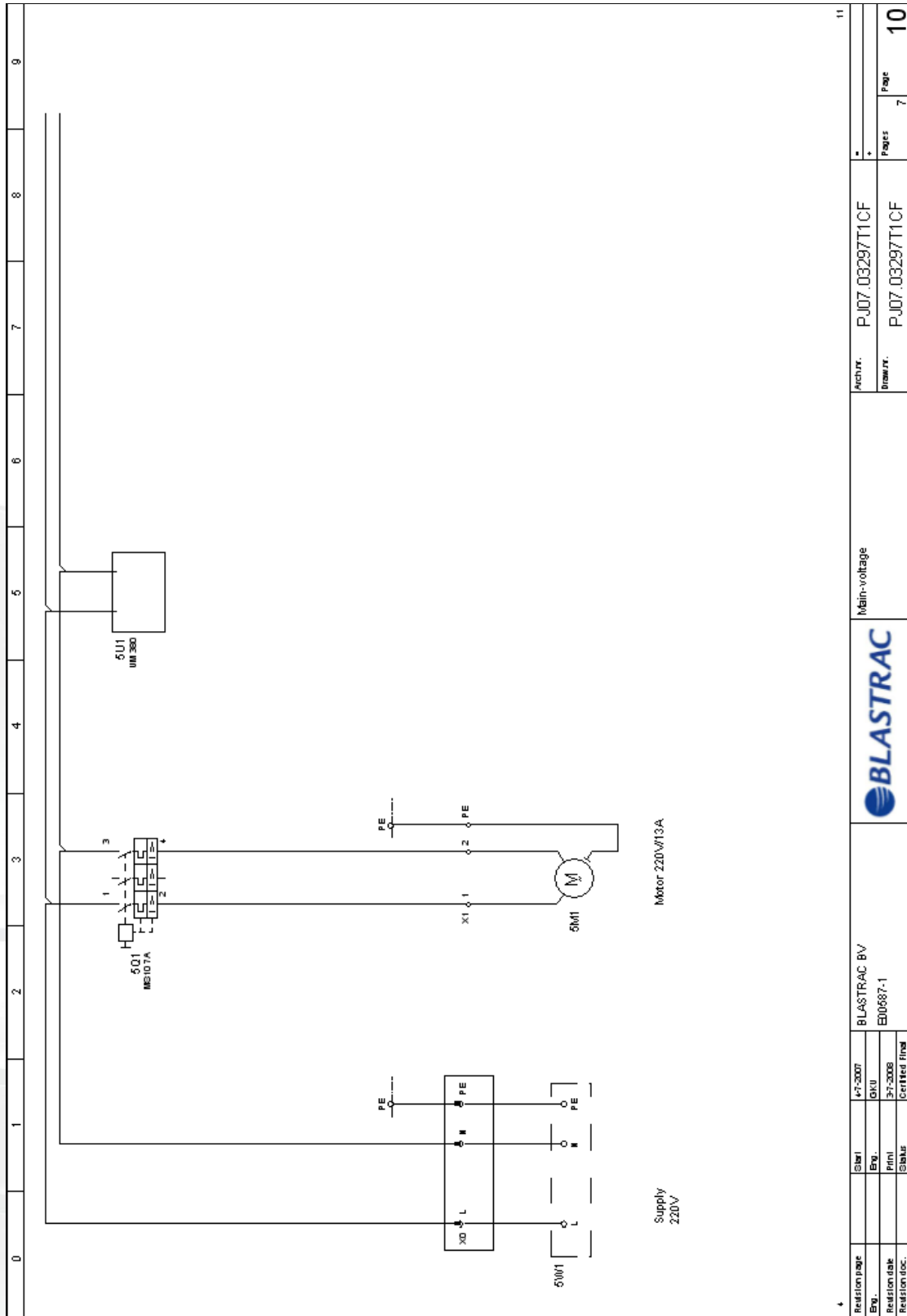
Electric circuit diagram E00587-1      230V - 50Hz

0	1	2	3	4	5	6	7	8	9
<b>PROJECT</b> Client : <b>BLASTRAC BV</b> Name : <b>E00587-1</b>									
<b>SUPPLIER</b> Order number :  Supplier : <b>BLASTRAC BV</b> Contact : Telephone : <b>+31 (0)30-6018886</b> Telefax : <b>+31 (0)30-6018333</b> Email :									
<b>DATA</b> Arch.number : <b>PJ07.03297T1CF</b> Calc.number : Status : <b>Certified Final</b>  Start of project : <b>4-7-2007</b> Highest page number : <b>12</b> Latest change : <b>3-7-2008</b> Number of pages : <b>7</b> ( <b>kosterman</b> )									
Revision no.:		47-2007		BLASTRAC BV		Arch. No.:		PJ07.03297T1CF	
Rev.:		B.A.D.		E00687-1		Draw. No.:		PJ07.03297T1CF	
Revision date:		21-3-2008				Pages:		7	
Revision loc.:		SBAU		Center / R/S				Page:	
								<b>1</b>	

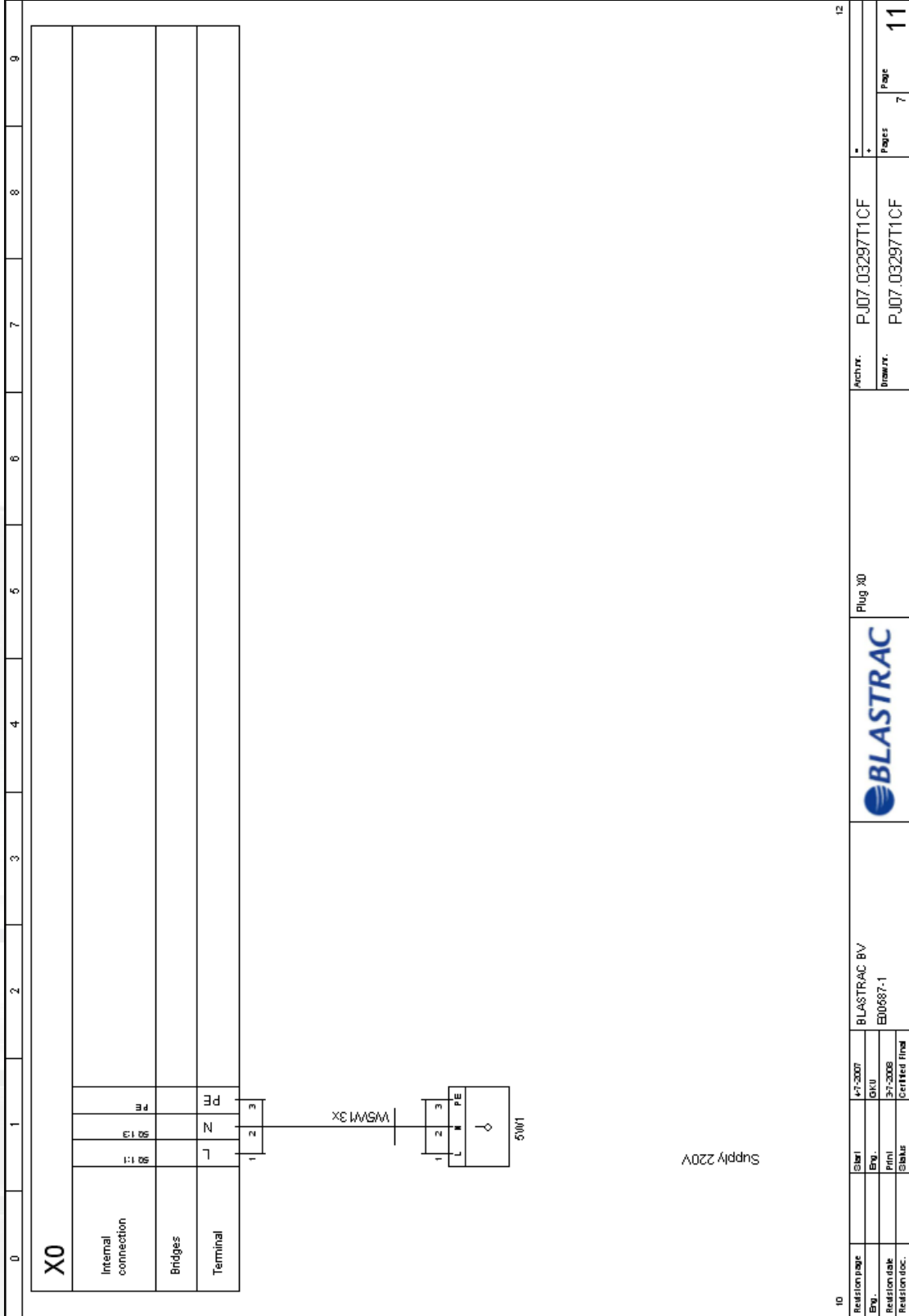


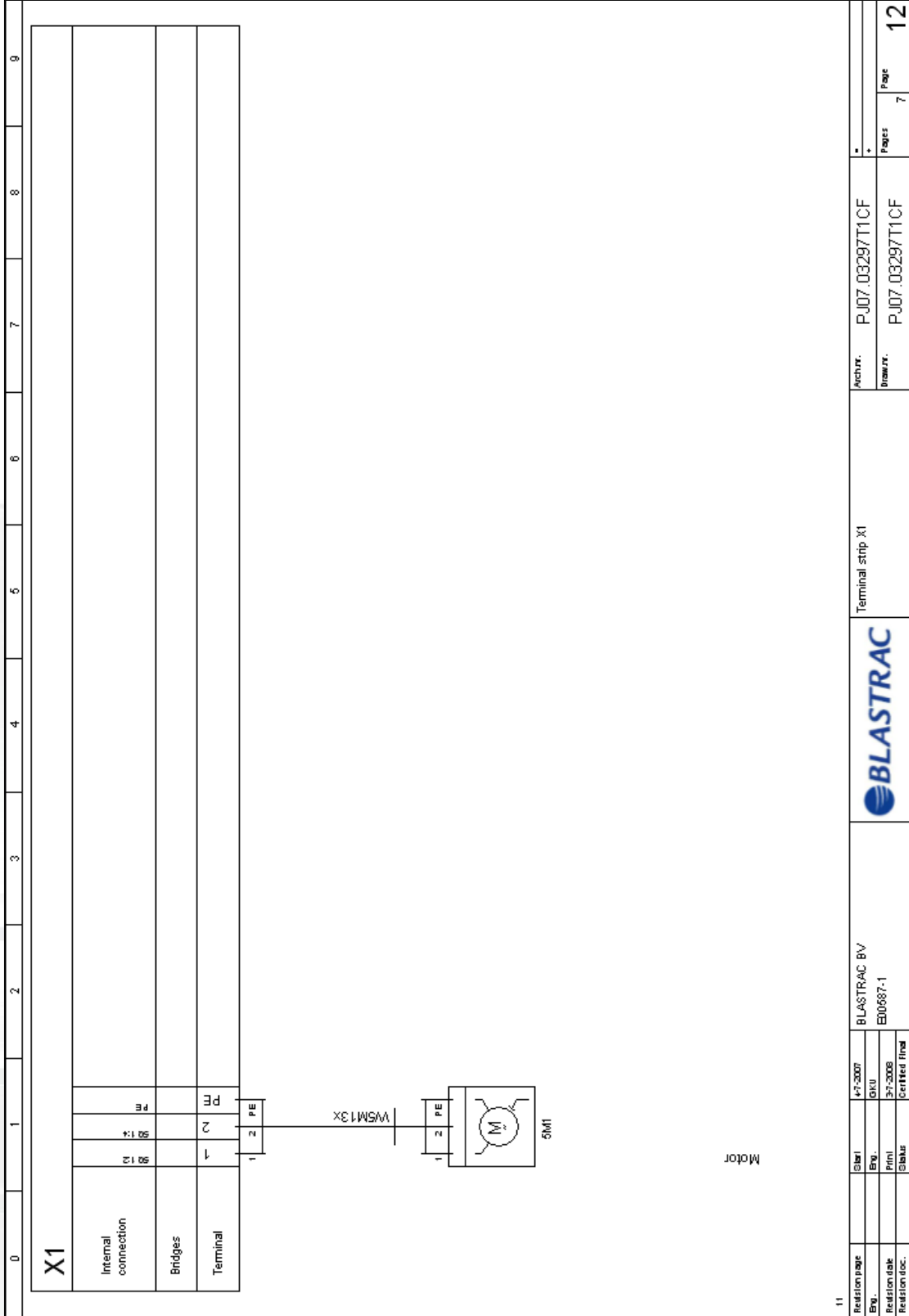
0	1	2	3	4	5	6	7	8	9												
<p><b>Wire color:</b></p> <p>Main-voltage:</p> <p>L1 -Black</p> <p>L2 -Black</p> <p>L3 -Black</p> <p>PE / PE -Yellow / Green</p>																					
<p><b>Symbol code explanation:</b></p> <p>DP 5 Q 1</p> <p>DP: Consecutive numbering</p> <p>5: Symbol letter</p> <p>Q: Page number</p> <p>1: Group (in case used)</p>																					
<p><b>Archive number explanation:</b></p> <p>PJ01.01234T1DR</p> <p>PJ: Status</p> <p>01: DR: Draft</p> <p>23: FA: For approval</p> <p>4: CF: Certified final</p> <p>T: Serial number</p> <p>1: Archive number</p>																					
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PJ07.03297T1CF			7																		





Revision page	47-3007	BLASTRAC BV	Archiv.	P-007.03297T1CF	11
Eng.	BKU	E00687-1	Drawing	P-007.03297T1CF	7
Revision date	31-3006				10
Revision doc.	Certified final				





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Revision page	47-2007	BLASTRAC BV	Terminal strip X1	Archiv.	P:J07.03297T1CF	Pages	7
Eng.	BKJ	E00687-1		Drawn.	P:J07.03297T1CF	Page	12
Revision date	31-2008						
Revision no.	01	Certified final					



Electric circuit diagram E00587-1-AU

230V - 50Hz

**Blastrac bv**  
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 Netherlands  
 +31(0)30-6018866  
 +31(0)30-6018333



<b>Project description</b>	BMG-435-180EC AU	
<b>Drawing number</b>	PJ15.1173.02.0	
<b>Blastrac number</b>	E00587-1/AU	
<b>Power supply</b>	230V 50Hz	
<b>Input lead</b>		
<b>Control Voltage</b>	For approval	
<b>Status</b>	2015	
<b>Year of Manufacturing</b>		
<b>Created on</b>	3-7-2015	by HvdB
<b>Edit date</b>		by HvdB
		<b>Number of pages</b> 7

**PROJECT STATE**

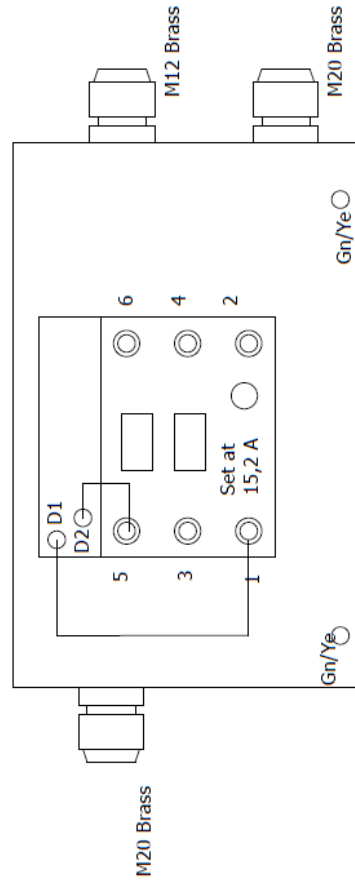
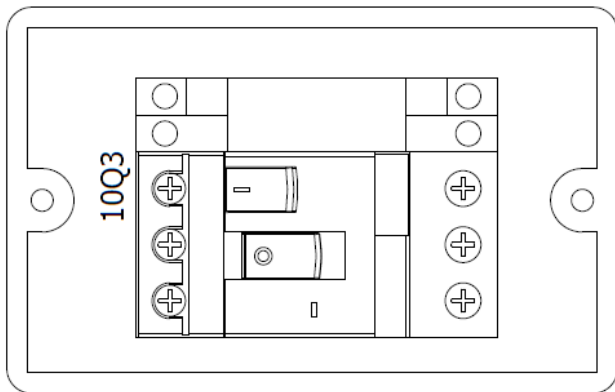
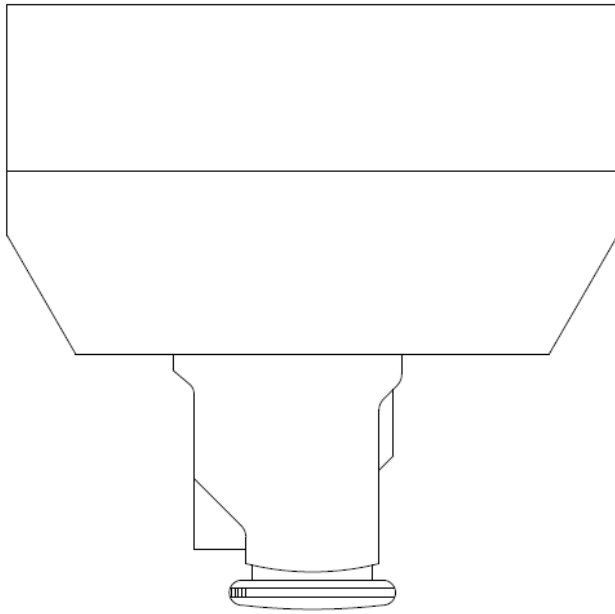
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For Approval	15-05-2015	HvdB
Approved	16-06-2015	BvE
Release for Production	16-06-2015	HvdB
As Built after FAT	03-07-2015	HvdB
As Built after SAT		

	Date 3-7-2015	Ecl. HvdB	Appr. 3-7-2015	Last print 3-7-2015			
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Page description:	Front page / Cover sheet						Page <b>1</b>
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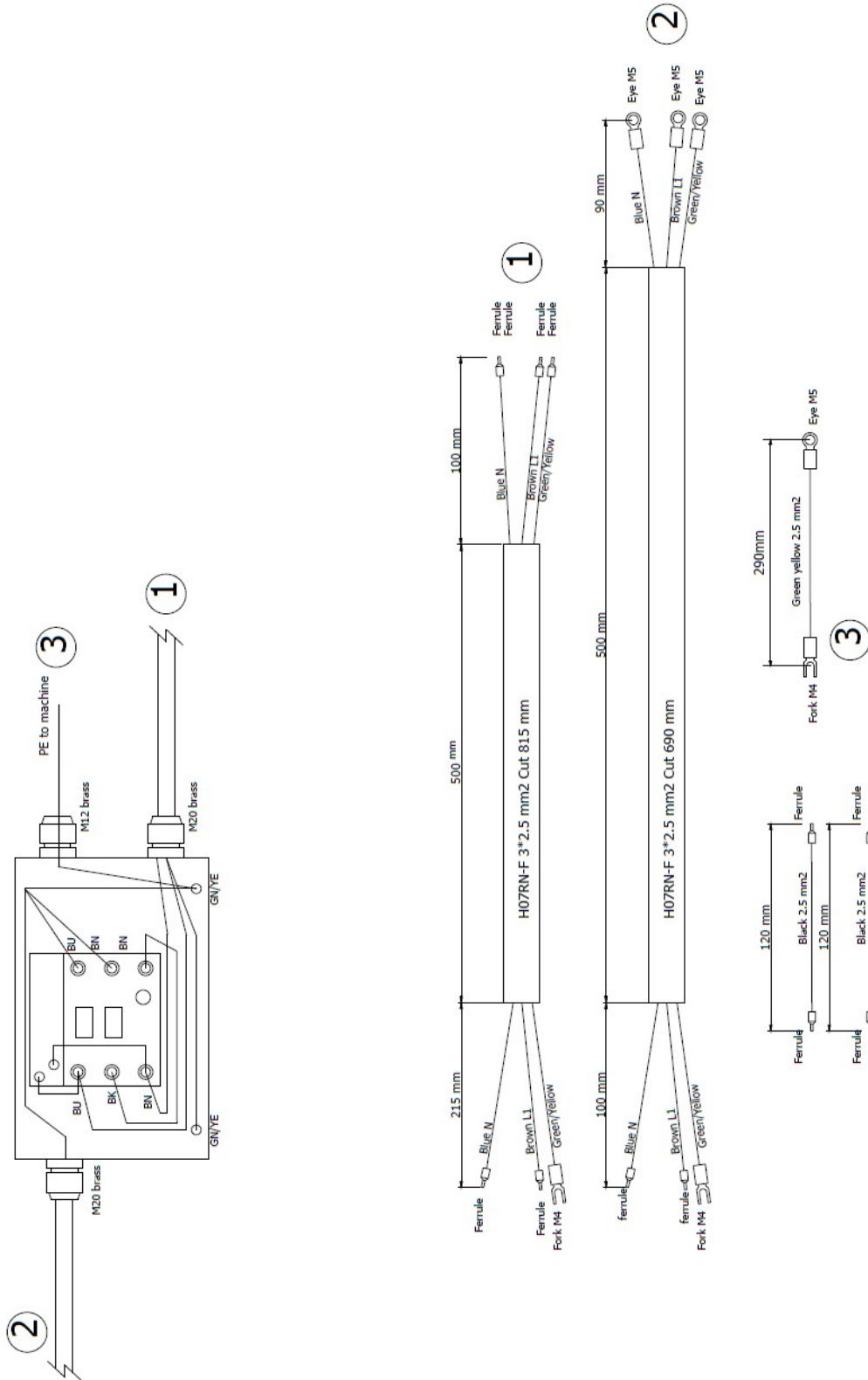


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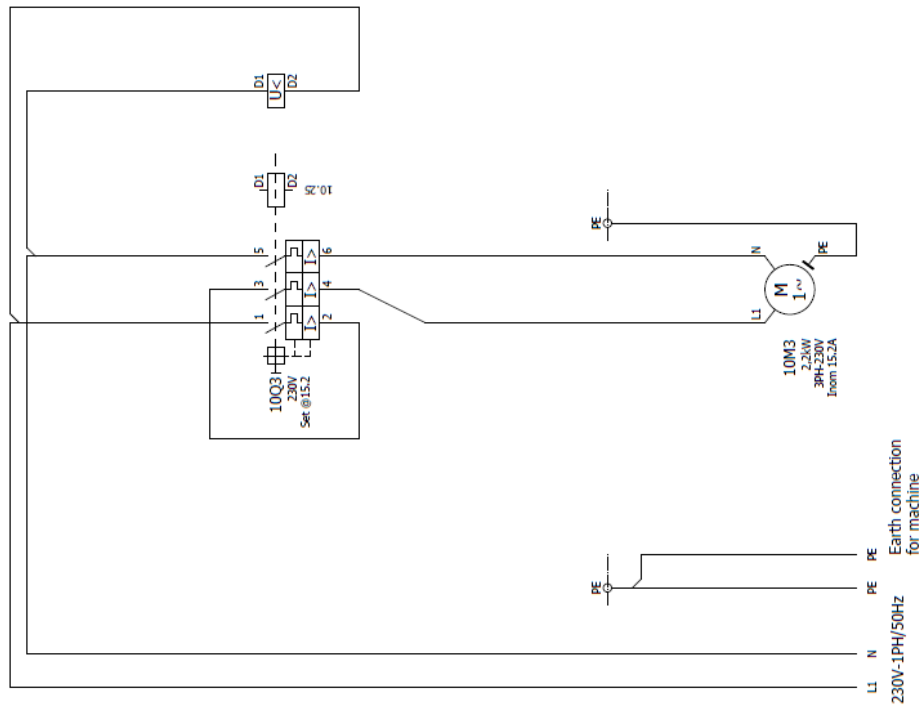
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	Appr.:						
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Modification	Date	Name					5



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	EC	Hv/B						
Modification	Date		Name				Drawing number:	PJ15.1173.02.0
							Page	6





## Parts list

Device tag	Quantity	Designation	Type number	Brand	Blastrac PN	HQV PN
BOX	2	Cabel gland M20*1.5 PG11/13.5/16) brass, nickel-plated	WARTEL M20*1.5	Jacob	E00406	533977301
BOX	2	Cable gland nut M20*1.5 brass, nickel-plated	WARTELMOER M20*1.5	Jacob	E00406 1	434027401
BOX	1	Internal wire 2.5mm2 black, 90 degr.	30-309002501	Helukabel	E08137	-
BOX	2	Ozoflex neopreenkabel 3*2.5	H07RN-F3*25			
BOX	20	Label for ader 12*12 Brady 7000pcs. pr	BPT-305-427	Brady	E07893	533947001
BOX	1	Cable gland M12*1.5 IP68 brass, nickel-plated	WARTEL M12*1.5	Jacob	E08359	-
BOX	1	Cable gland nut M12*1.5 brass, nickel-plated	WARTELMOER M12*1.5	Jacob	E00404_1	-
BOX	1	Internal wire 2.5mm2 yelow/green, 90 degc	30-309002502	Helukabel	E08136	-
10Q3	1	Motor protection switch 13,0 18,0A	GV2-ME20	Schneider Electric	E00553	534720901
10Q3	1	vustslagknop rood tbv GV2-MC02	GV2-K031	Schneider Electric	DG25	534560601
10Q3	1	Opbouwkast IP55 tbv GV2	GV2-MC02	Schneider Electric	DG22	534879201
10Q3	1	Under voltage trip 220V-50Hz	GV-AU225	Schneider Electric	E05109	534914101



**Electric circuit diagram E01532**

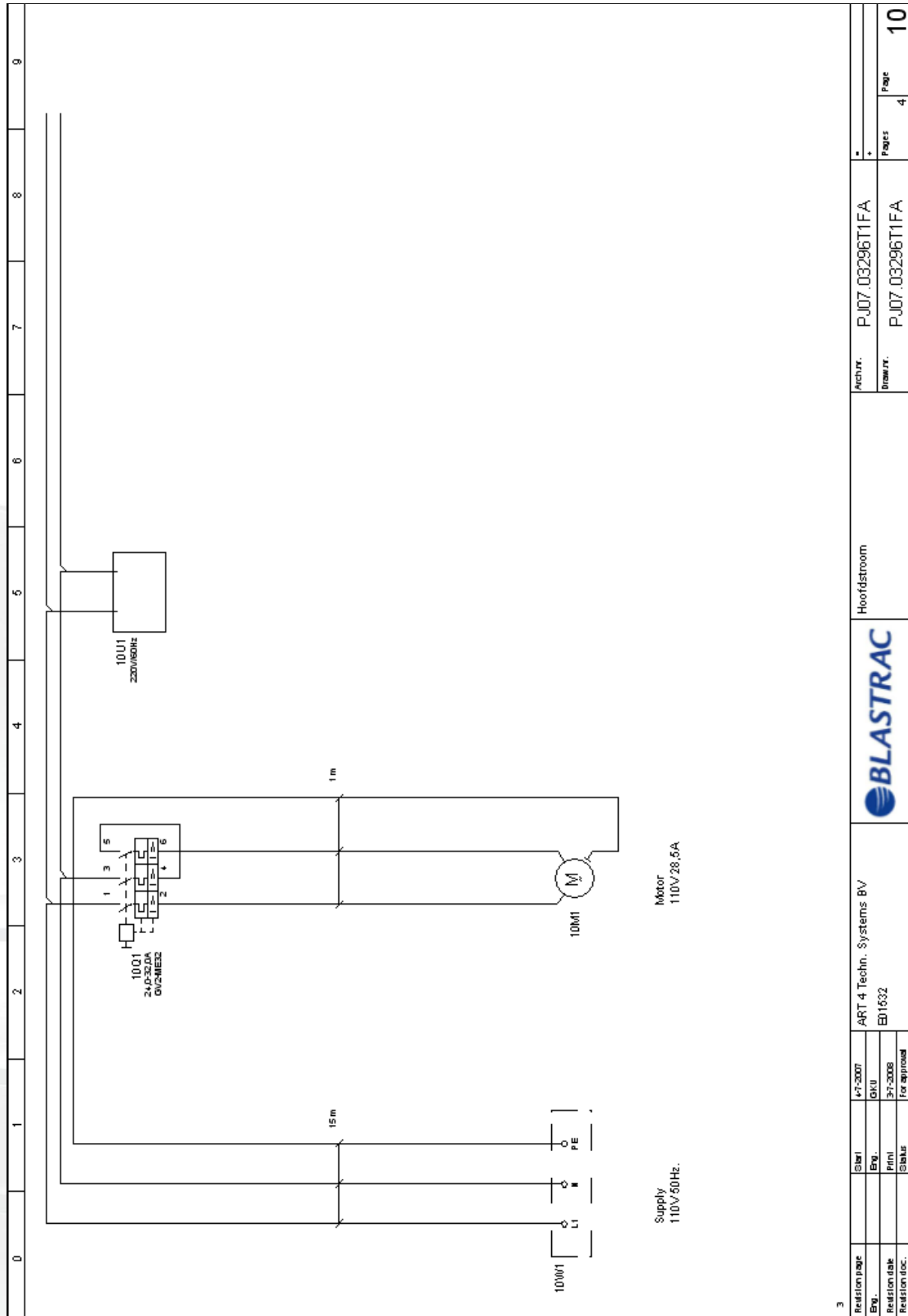
**110V - 50Hz**

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<p><b>SUPPLIER</b> Supplier : ART 4 Techn. Systems BV Contact : Mr. R vd Grint Telephone : +31 (0)35-5822468 Telefax : +31 (0)35-6424860 Email : rvdgrint@art4.nl</p>																																		
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Page	4	Page	1																															





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<p><b>Wire color:</b></p> <p>Main-voltage:</p> <p>L1 -Black                  L2 -Black                  L3 -Black                  N -Light blue                  PE / PE -Yellow / Green</p> <p>Control-voltage alternating-voltage (AC)</p> <p>Phase                  Hook-up wire -Red                  Zero -Red                  -Violet</p> <p>Control-voltage direct-voltage (DC)</p> <p>(+) -Dark blue                  Hook-up wire -Dark blue                  (-) -Grey</p> <p>Potential free and stranger-voltage:</p> <p>Potential free -Orange                  Test lead -White</p>																	
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3

Relation page	Start	47-2007
Eng.	Eng.	BK11
Relation date	Print	21-2008
Relation loc.	Status	For approval

ART 4 Techn. Systems BV  
E01632



Hoofdstroom

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Draaht. P:07.03296T1FA

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Page	10

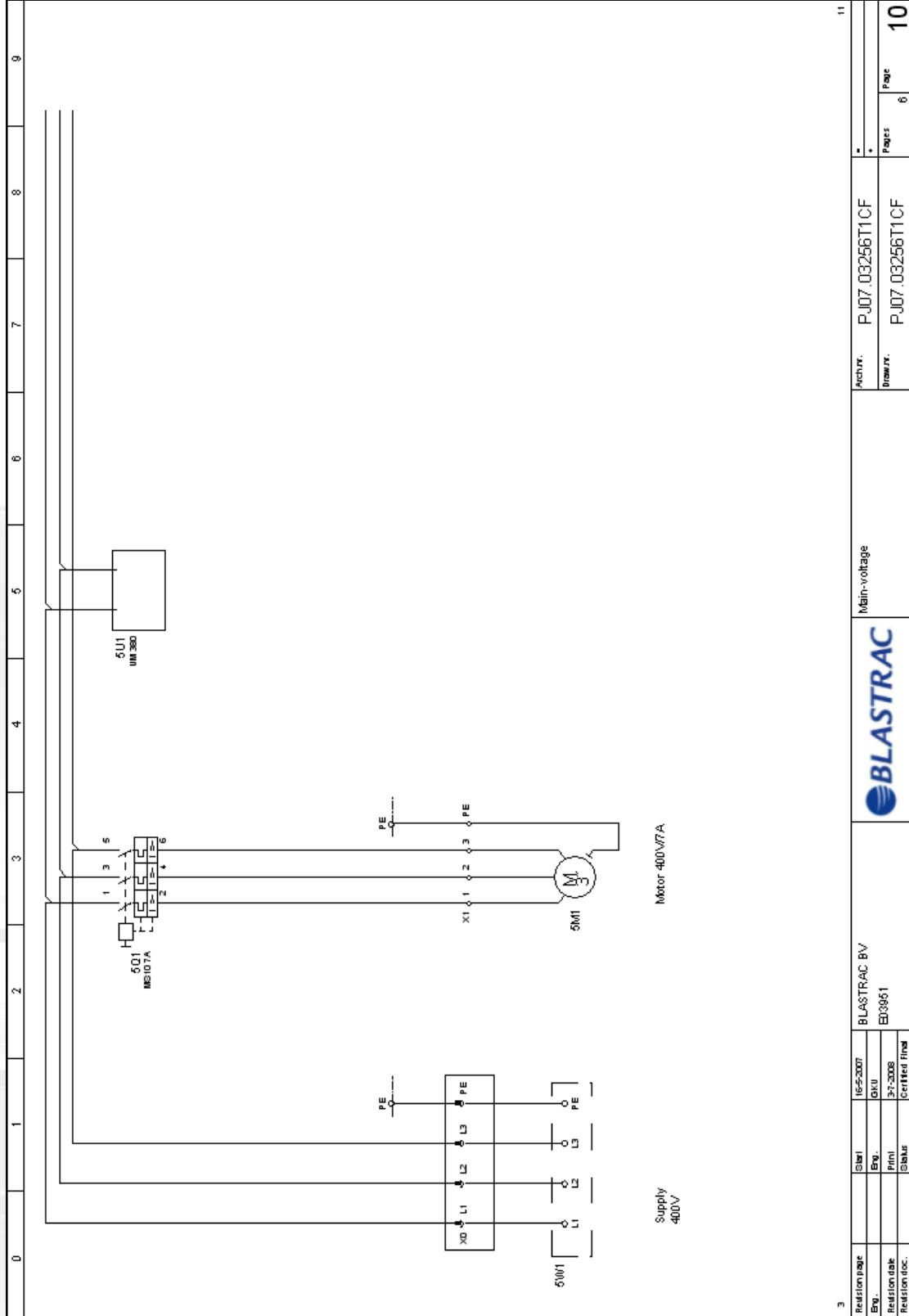


Electric circuit diagram E03951

400V – 50Hz

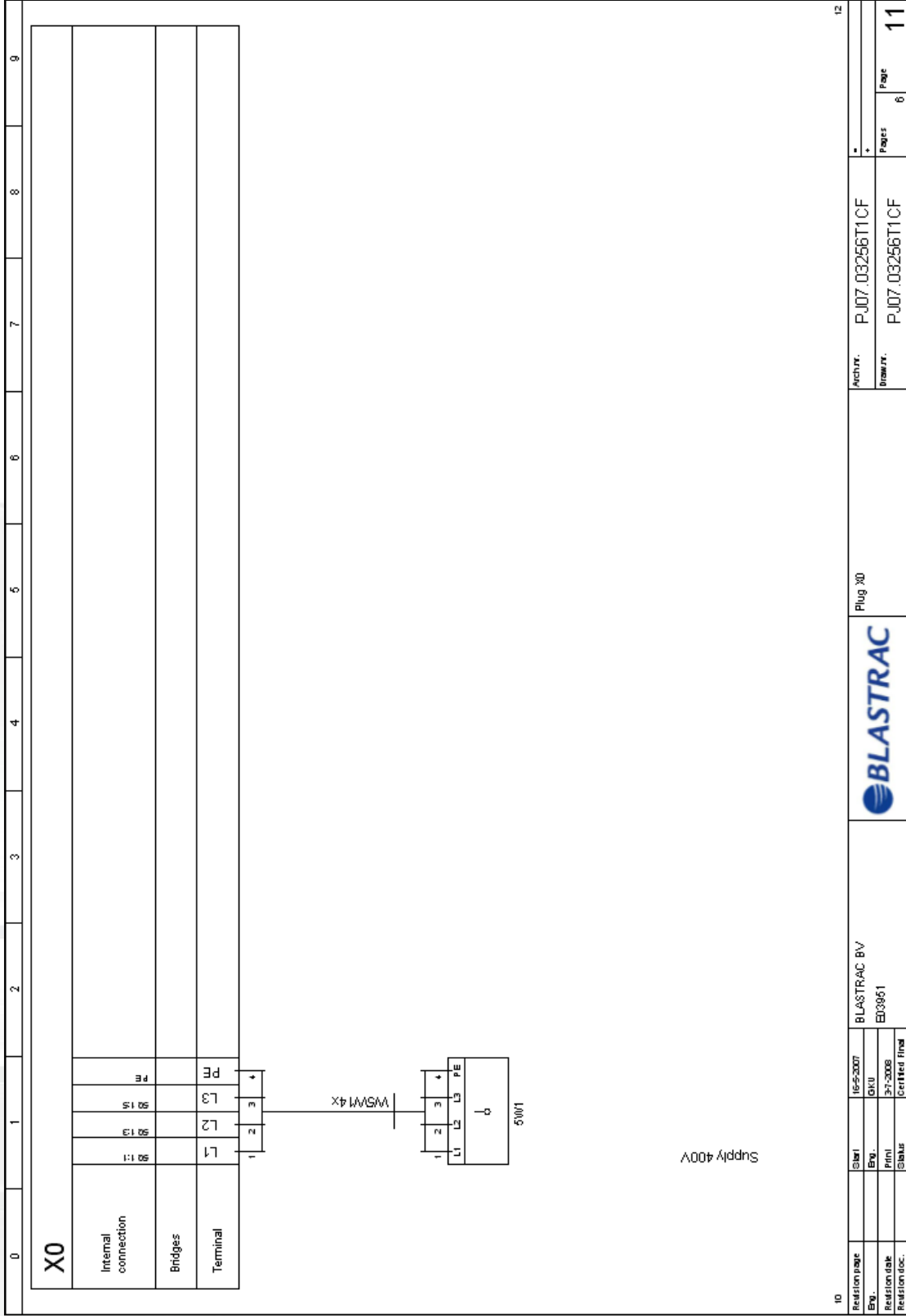
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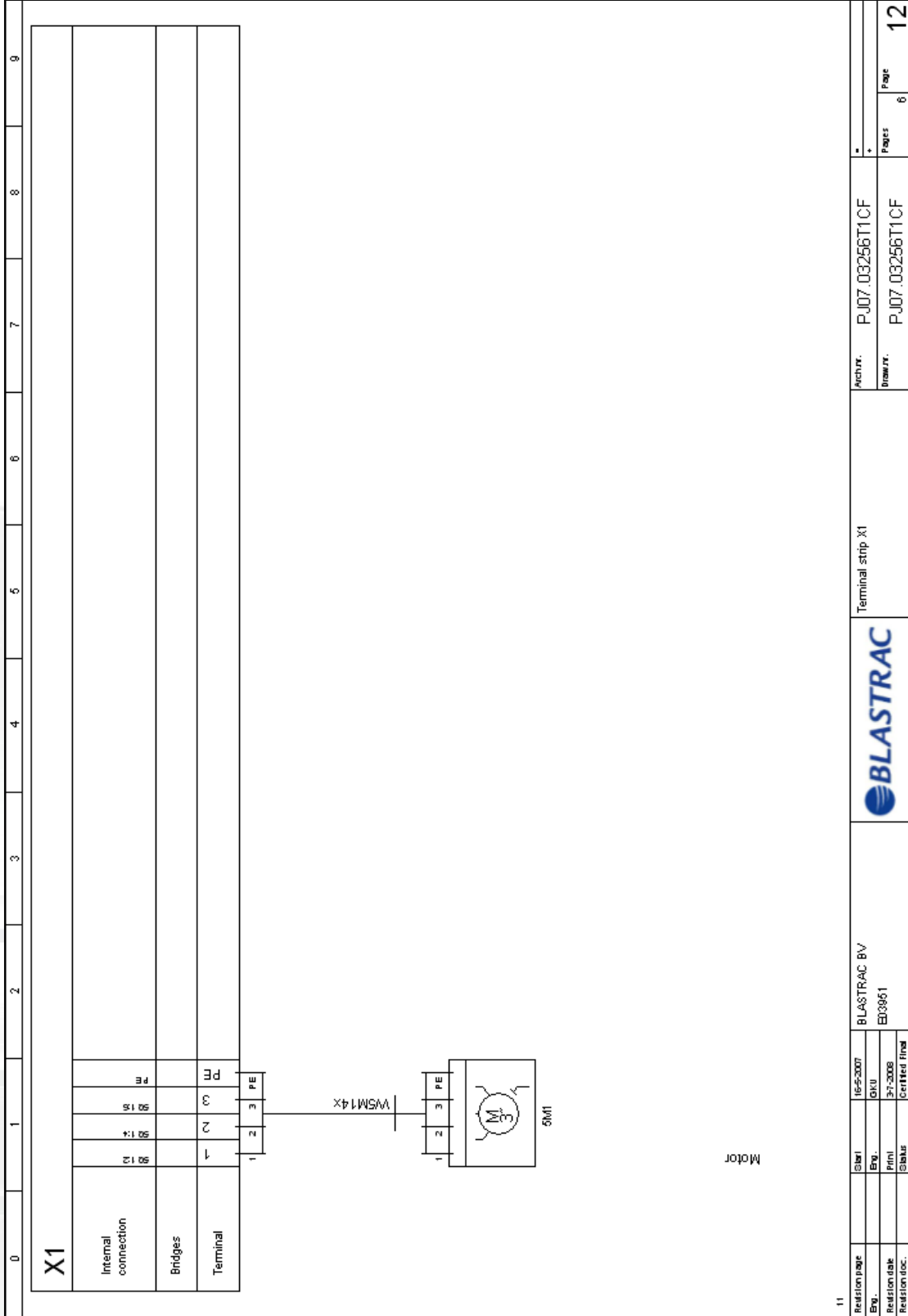
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Revision loc.	Status	Certified final			Pages		6		3



3	11
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Author.	P:J07.03256T1CF
Drawn.	P:J07.03256T1CF
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Relation date	31-3-2008						
Relation doc.	Certified final						



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