

MASTERVOLT

APPENDIX

ALPHA ALTERNATOR

DIMENSIONS, INSTALLATION DRAWINGS AND CHARACTERISTICS

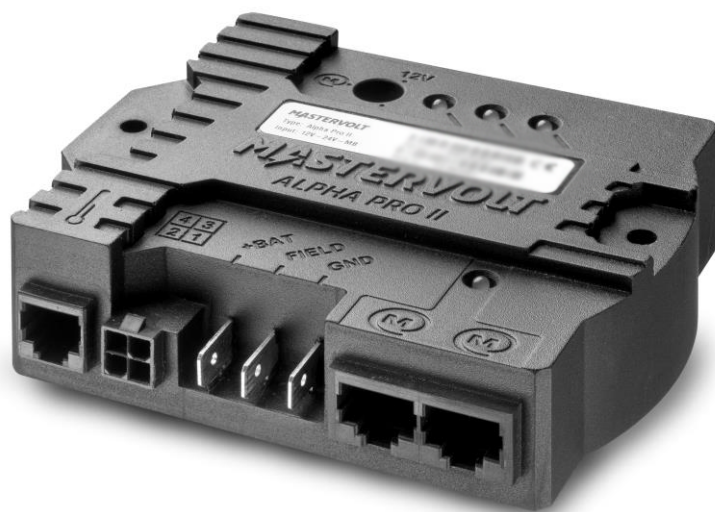


TABLE OF CONTENTS:

10000003207/03

1	DIMENSIONS	3
1.1	Dimensions Alpha alternator model 12/90	3
1.2	Dimensions Alpha alternator models 12/130, 24/75 and 24/110	4
1.3	Dimensions Alpha alternator model 24/150	5
1.4	Dimensions Alpha Pro III regulator	6
2	INSTALLATION DRAWINGS AND INSTRUCTIONS	7
2.1	Alpha Alternator model 12/90	7
2.2	Alpha Alternator models 12/130, 24/75 and 24/110	8
2.3	Alpha Alternator model 24/150	9
2.4	Standard Bosch alternator	10
2.5	Instruction for modification of standard Bosch alternators	11
2.6	Installation examples for Alpha alternator model 12/90	12
2.7	Installation examples for Alpha alternator models 12/130, 24/75 and 24/110	14
3	CHARACTERISTICS	15
3.1	Charge current versus RPM	15
4	ORDERING INFORMATION	16
4.1	Accessoires	16
4.2	Spare parts	16

1 DIMENSIONS

1.1 DIMENSIONS ALPHA ALTERNATOR MODEL 12/90

MASTERVOLT

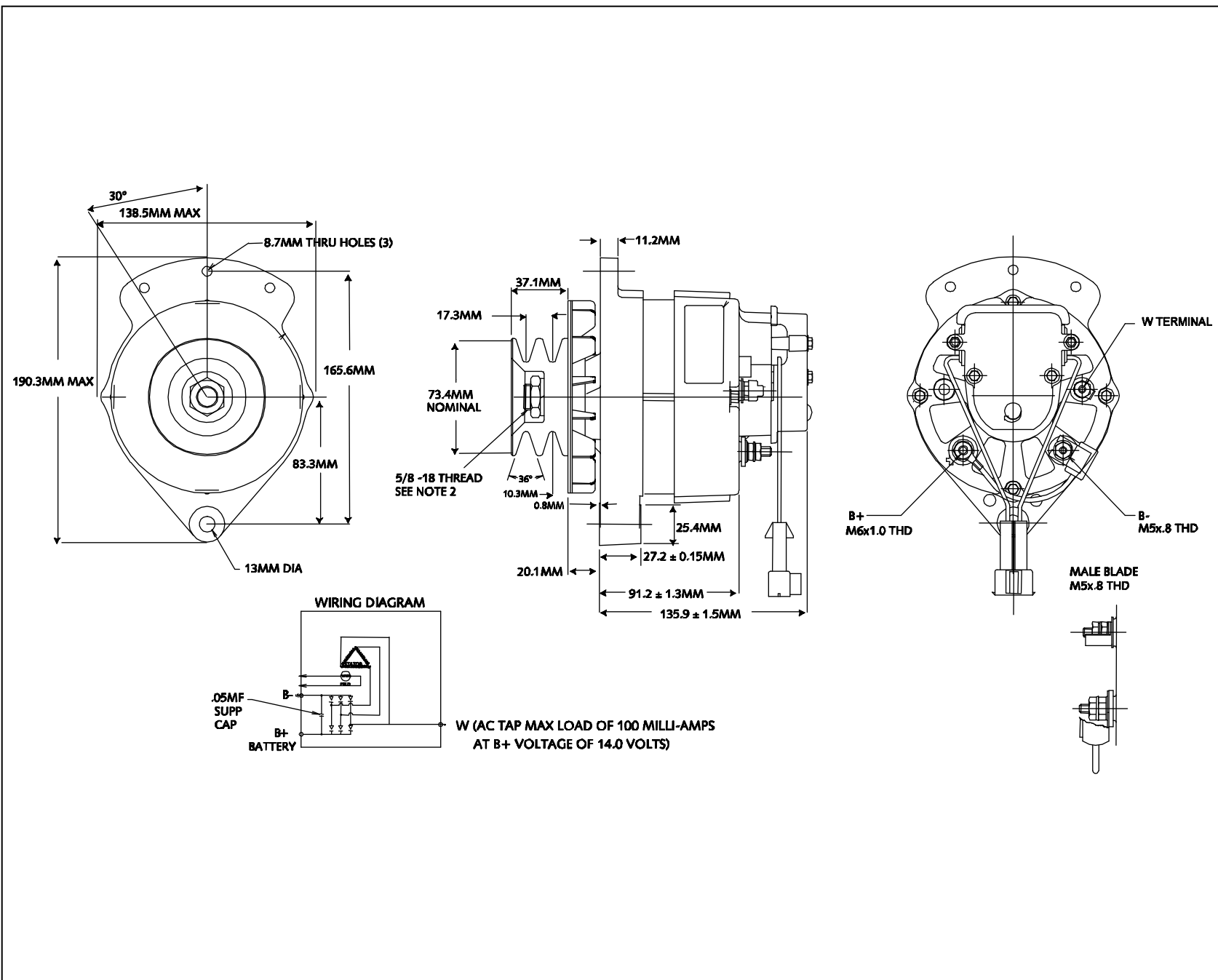
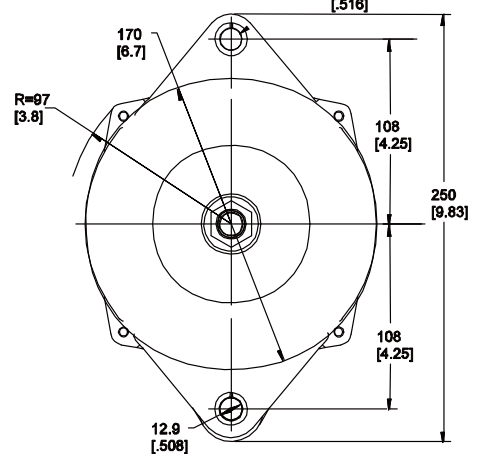
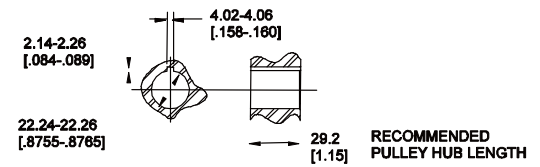


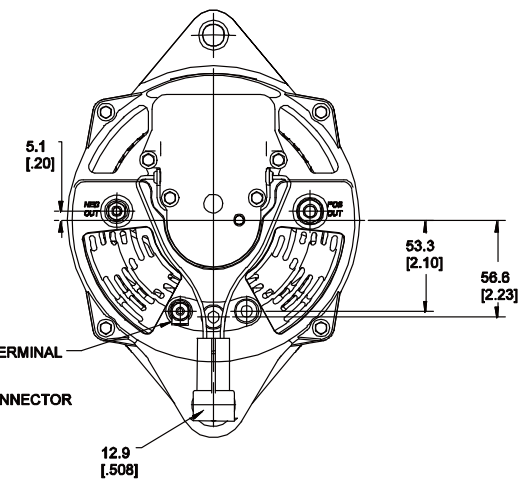
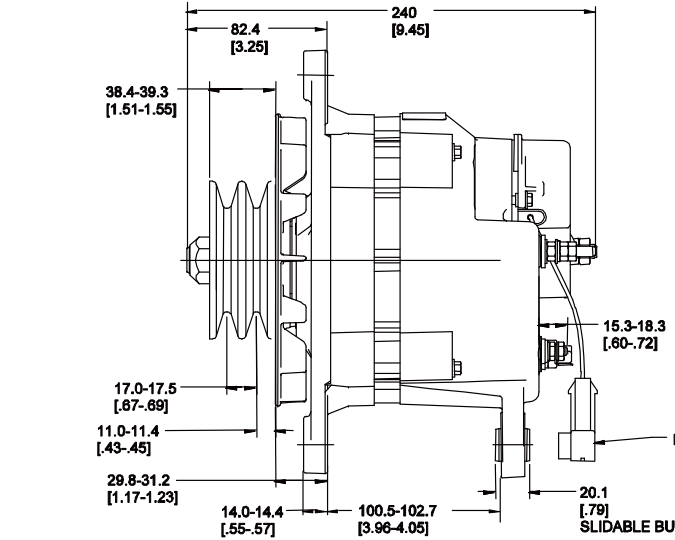
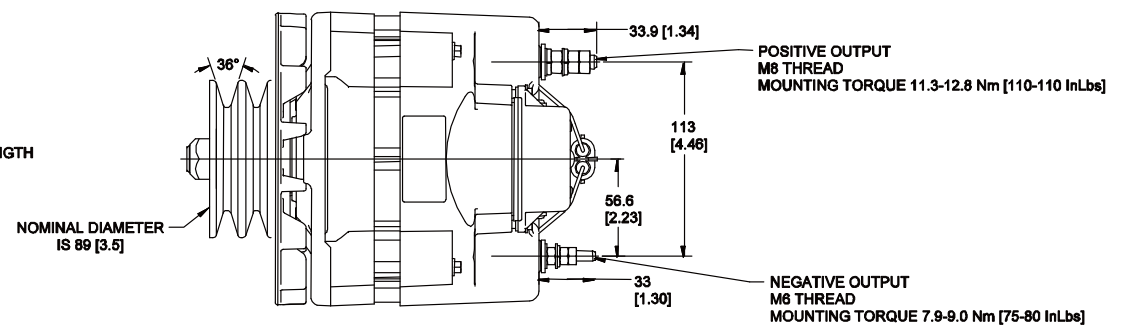
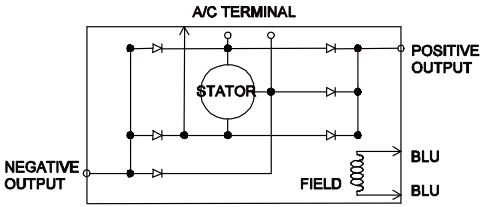
Figure A-1: Dimensions Alpha alternator model 12/90 (enclosure A)

Figure A-2: Dimensions Alpha alternator models 12/130, 24/75, 24/110 and 24/150 (enclosure B)

PULLEY HUB DETAIL

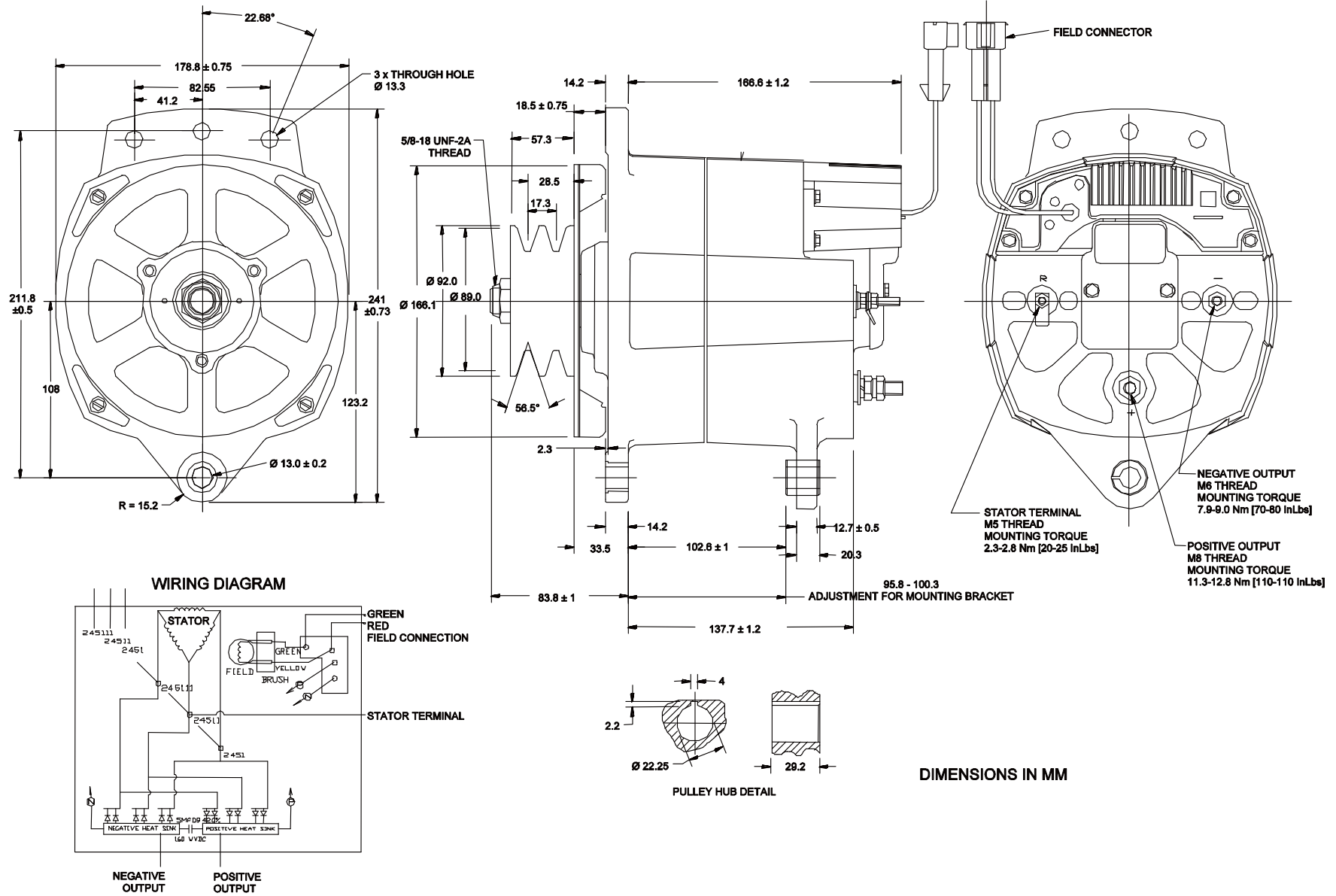


WIRING DIAGRAM



DIMENSIONS IN MM [INCH]

Figure A-3: Dimensions Alpha alternator model 24/150 (enclosure C)



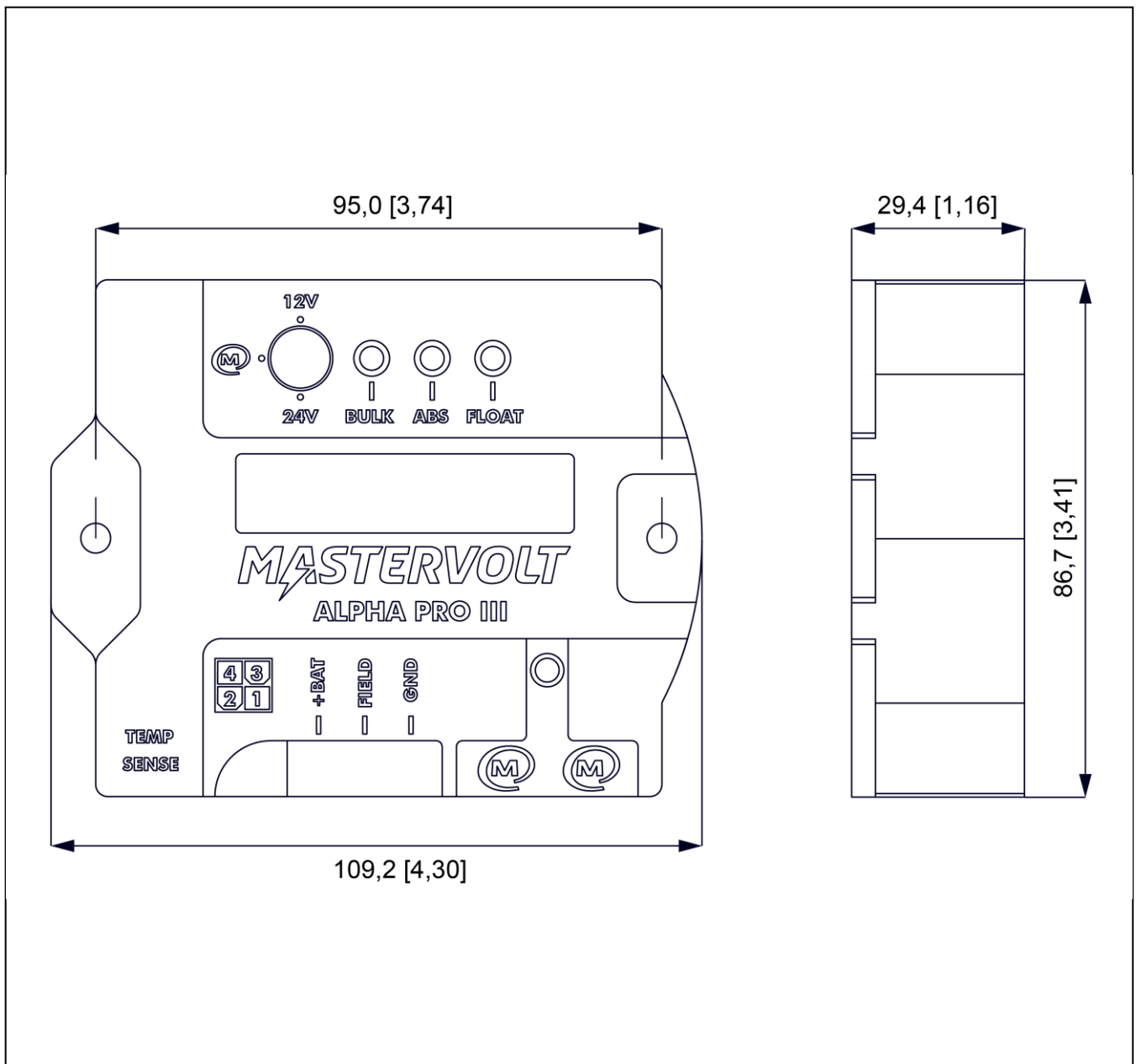
1.4 DIMENSIONS ALPHA PRO III REGULATOR

Figure A-5: Dimensions of the Alpha Pro III regulator (all models)

2 INSTALLATION DRAWINGS AND INSTRUCTIONS

2.1 ALPHA ALTERNATOR MODEL 12/90

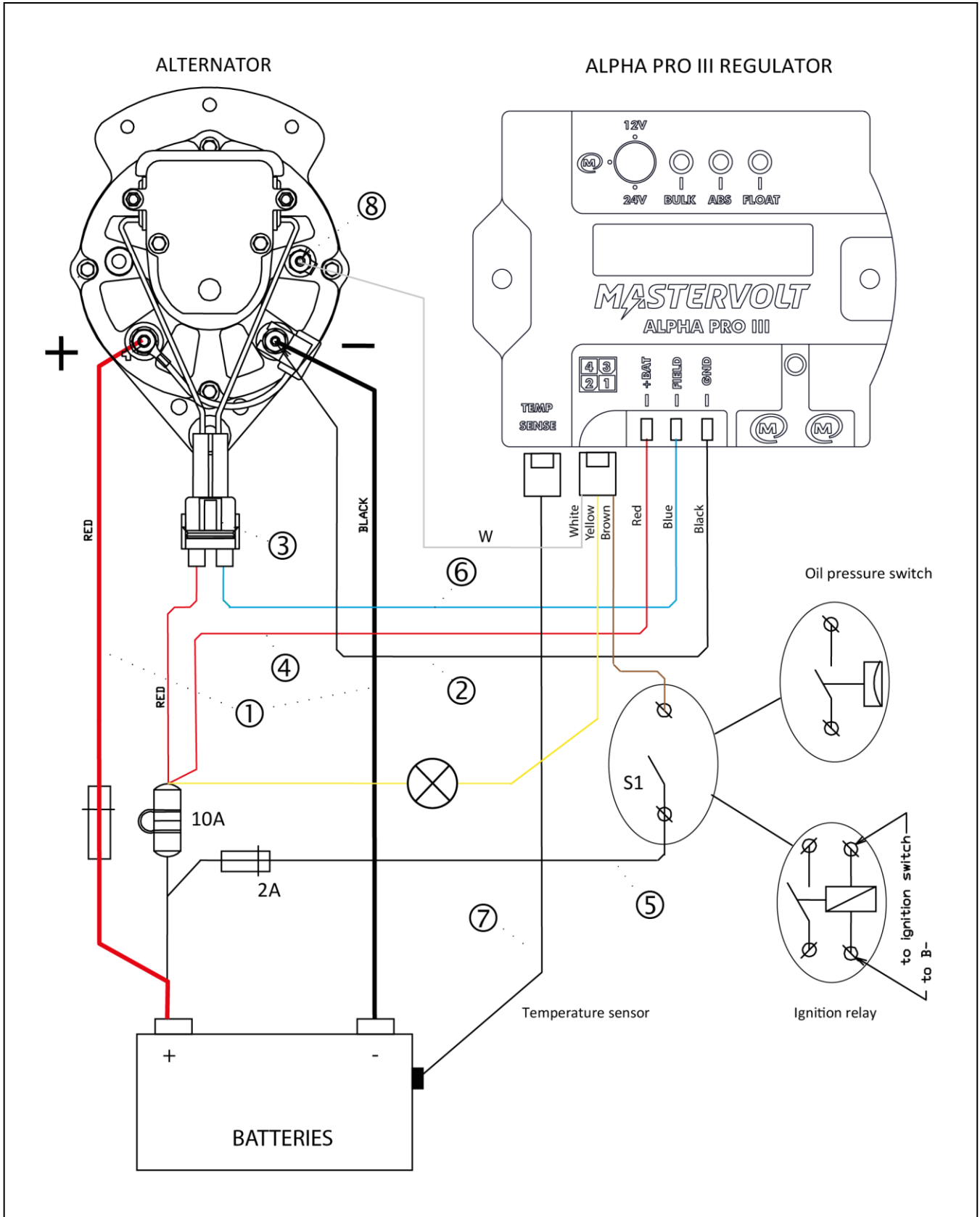


Figure A-6: Installation drawing Alpha alternator model 12/90

2.2 ALPHA ALTERNATOR MODELS 12/130, 24/75 AND 24/110

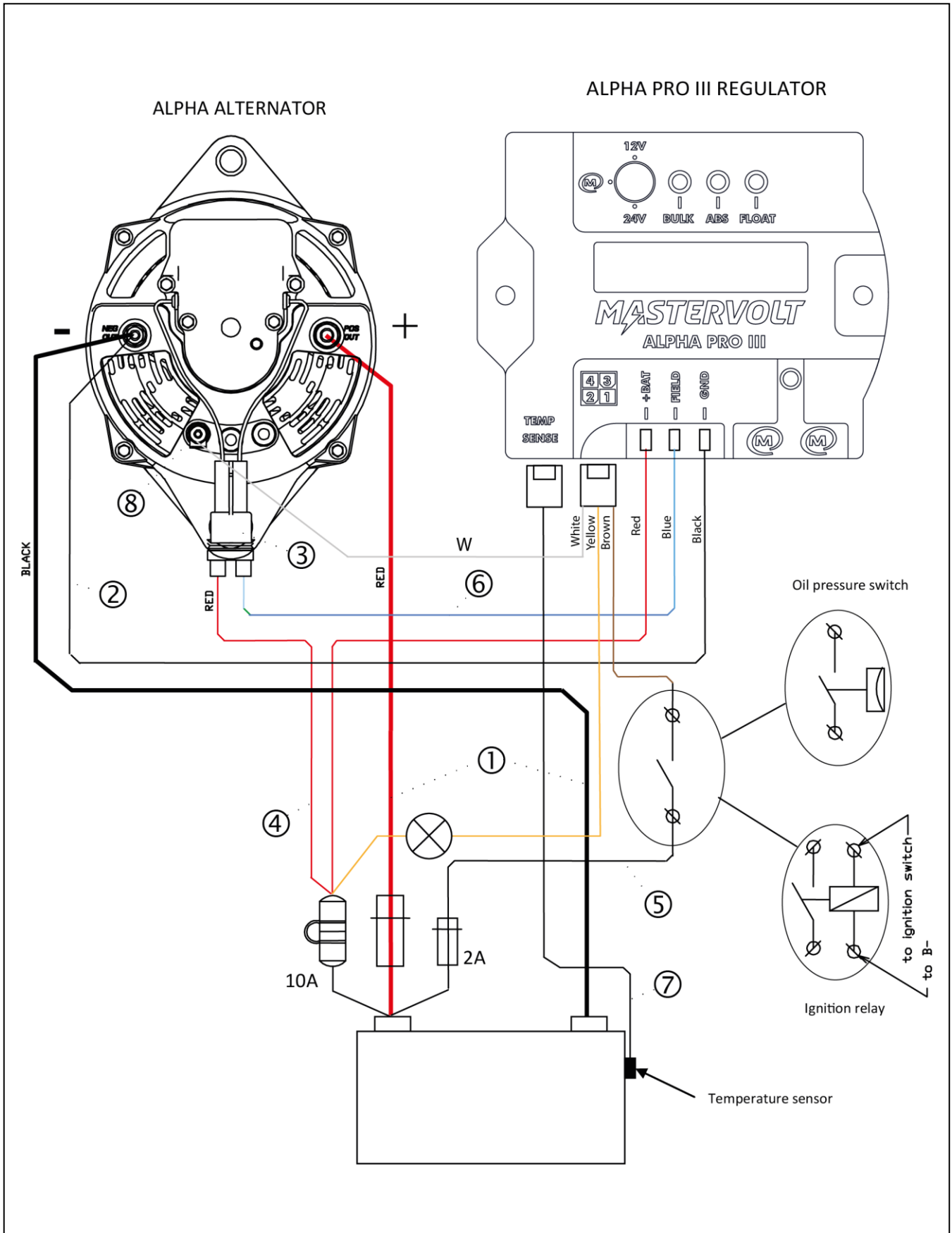


Figure A-7: Installation drawing Alpha alternator models 12/130, 24/75 and 24/110

2.3 ALPHA ALTERNATOR MODEL 24/150

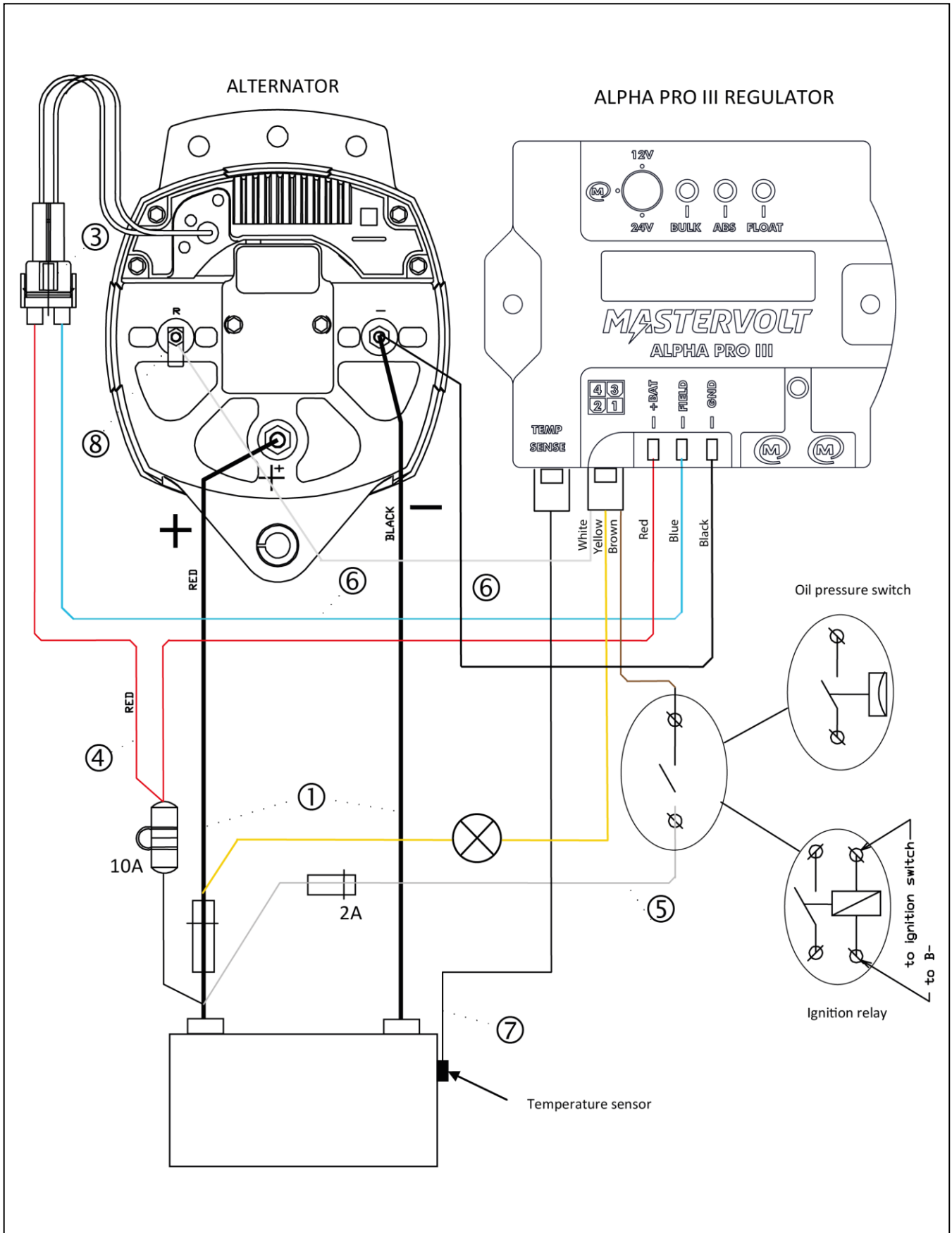


Figure A-8: Installation drawing Alpha alternator model 24/150

2.4 STANDARD BOSCH ALTERNATOR

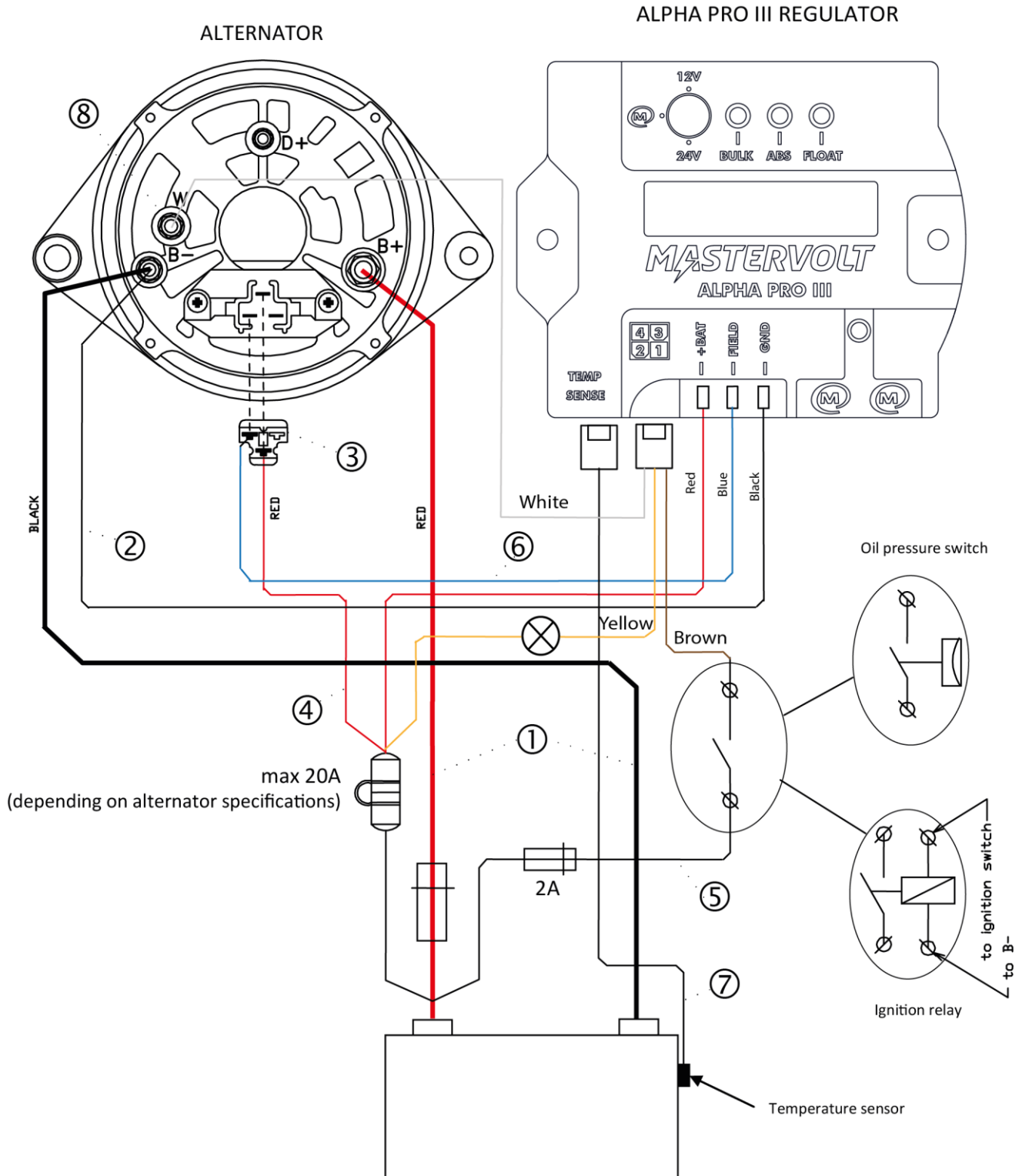
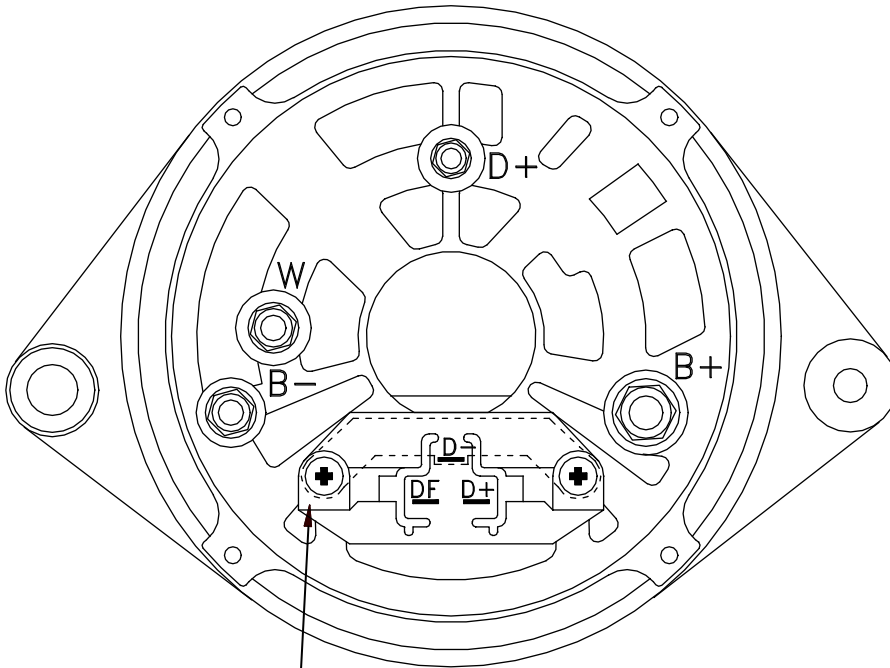


Figure A-9: Installation drawing standard Bosch alternator

2.5 INSTRUCTION FOR MODIFICATION OF STANDARD BOSCH ALTERNATORS

- Typical rear view of a Bosch alternator



- Remove the by-pass on the back side of the brush holder between ground and D-

- Warning: Remove connection between D- and housing with standard Bosch brushholders. After reinstallation of the brush holder, check with a multimeter if D- has no connection between the alternating housing and D-

Figure A-10: Standard Bosch alternator (not applicable for Mastervolt alternators)

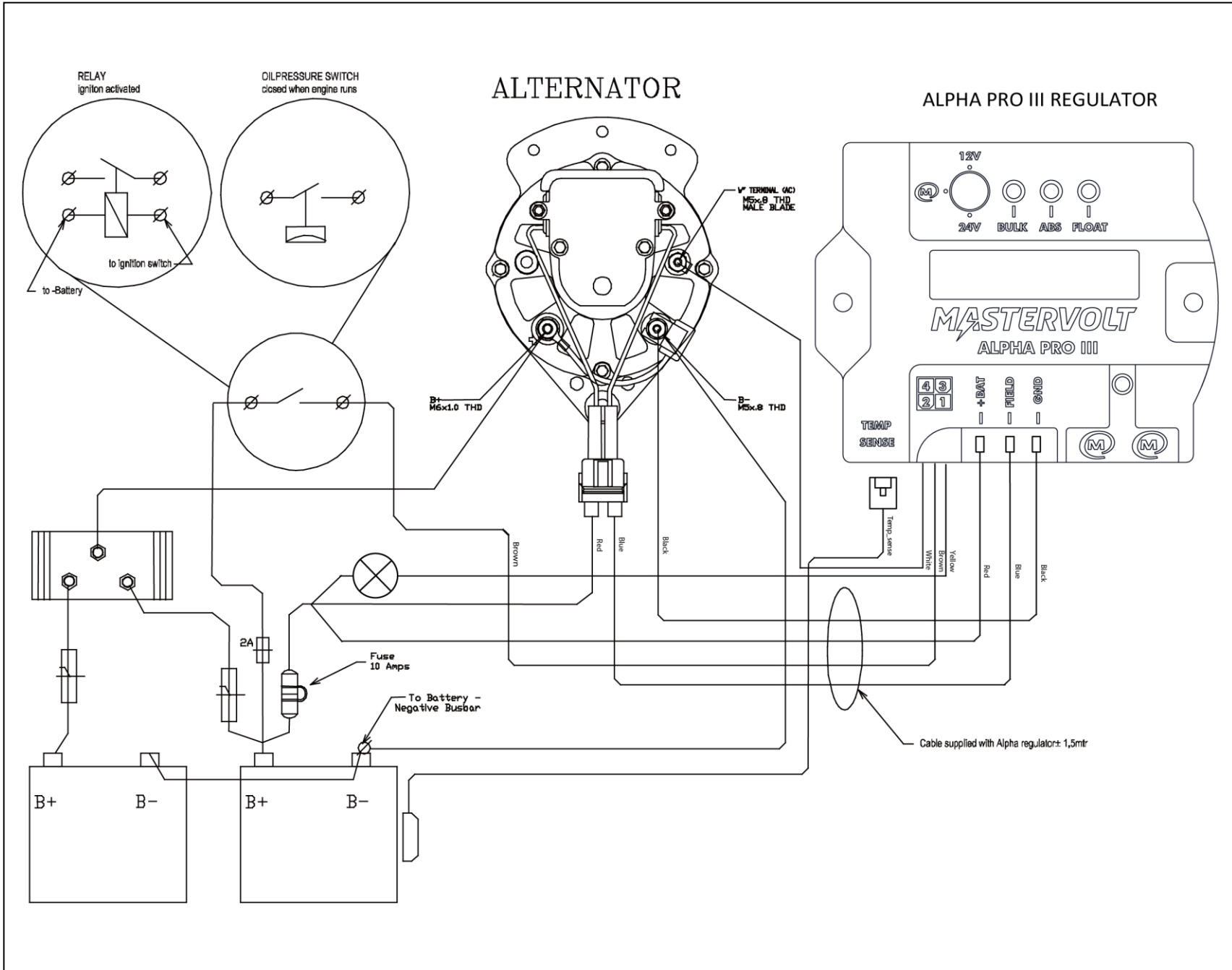
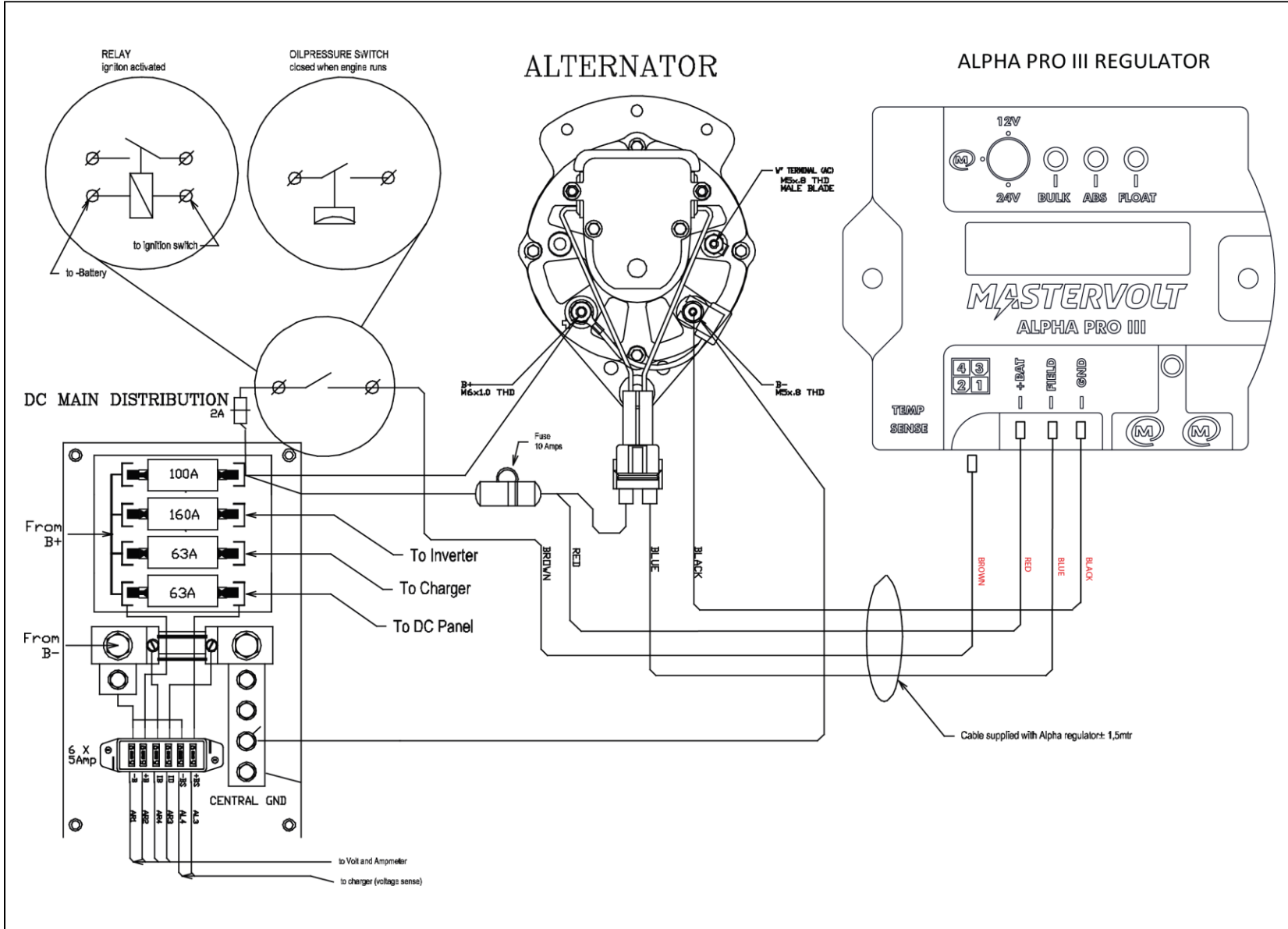


Figure A-11: This drawing shows the installation of the Alpha alternator 12/90 in combination with a battery isolator to charge two battery banks simultaneously

Figure A-12: Here the installation of the Alpha alternator 12/90 in combination with a Mastervolt DC distribution system is shown. The Mastervolt DC distribution systems are easy-to-install installation kits for central connection of the DC-sources (such as the alternator and the battery charger), the batteries and the DC loads (such as the inverter, the anchor winch or the bowthruster). These DC-distribution systems are standard pre-wired for connection of a battery monitor.



2.7 INSTALLATION EXAMPLES FOR ALPHA ALTERNATOR MODELS 12/130, 24/75 AND 24/110

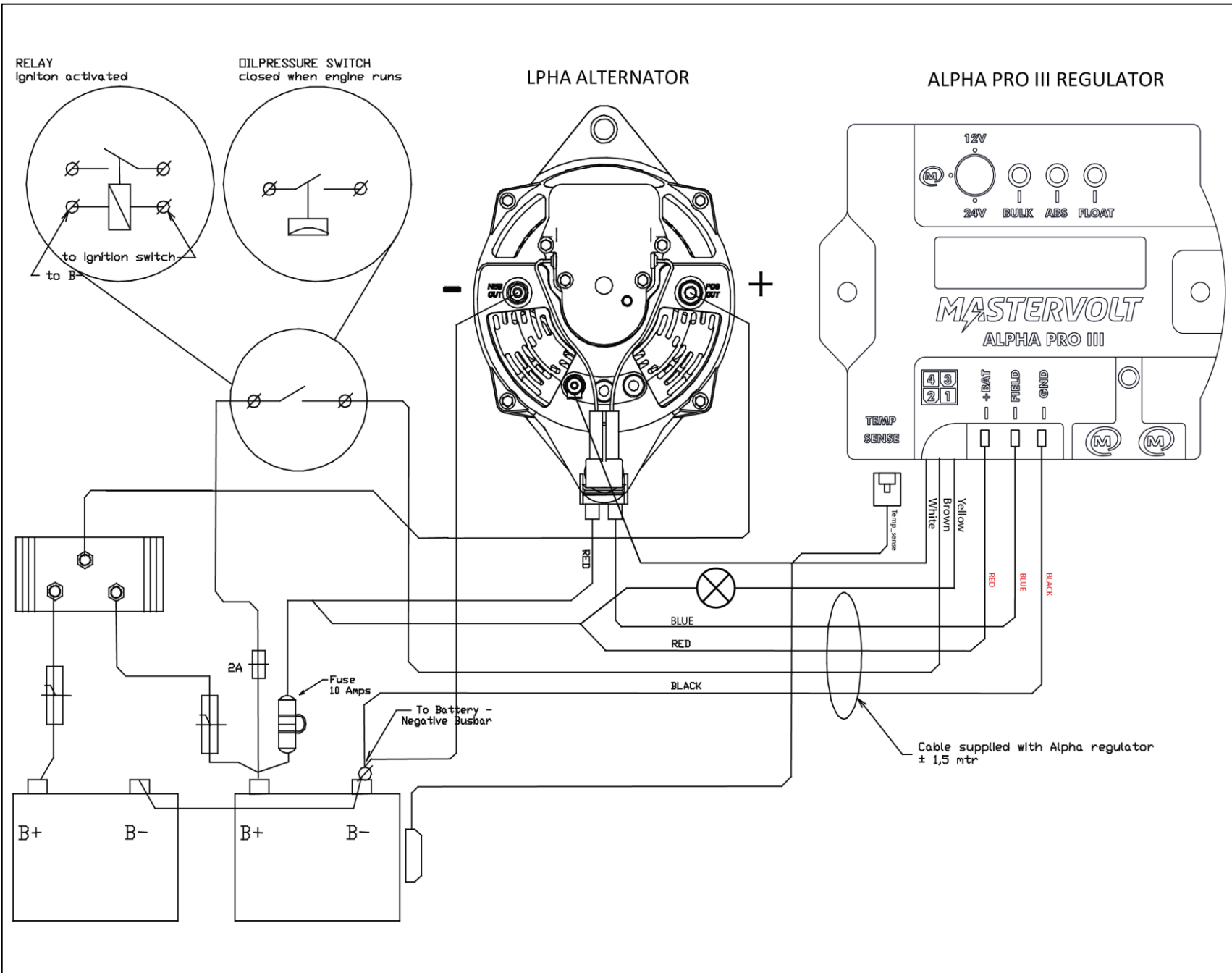
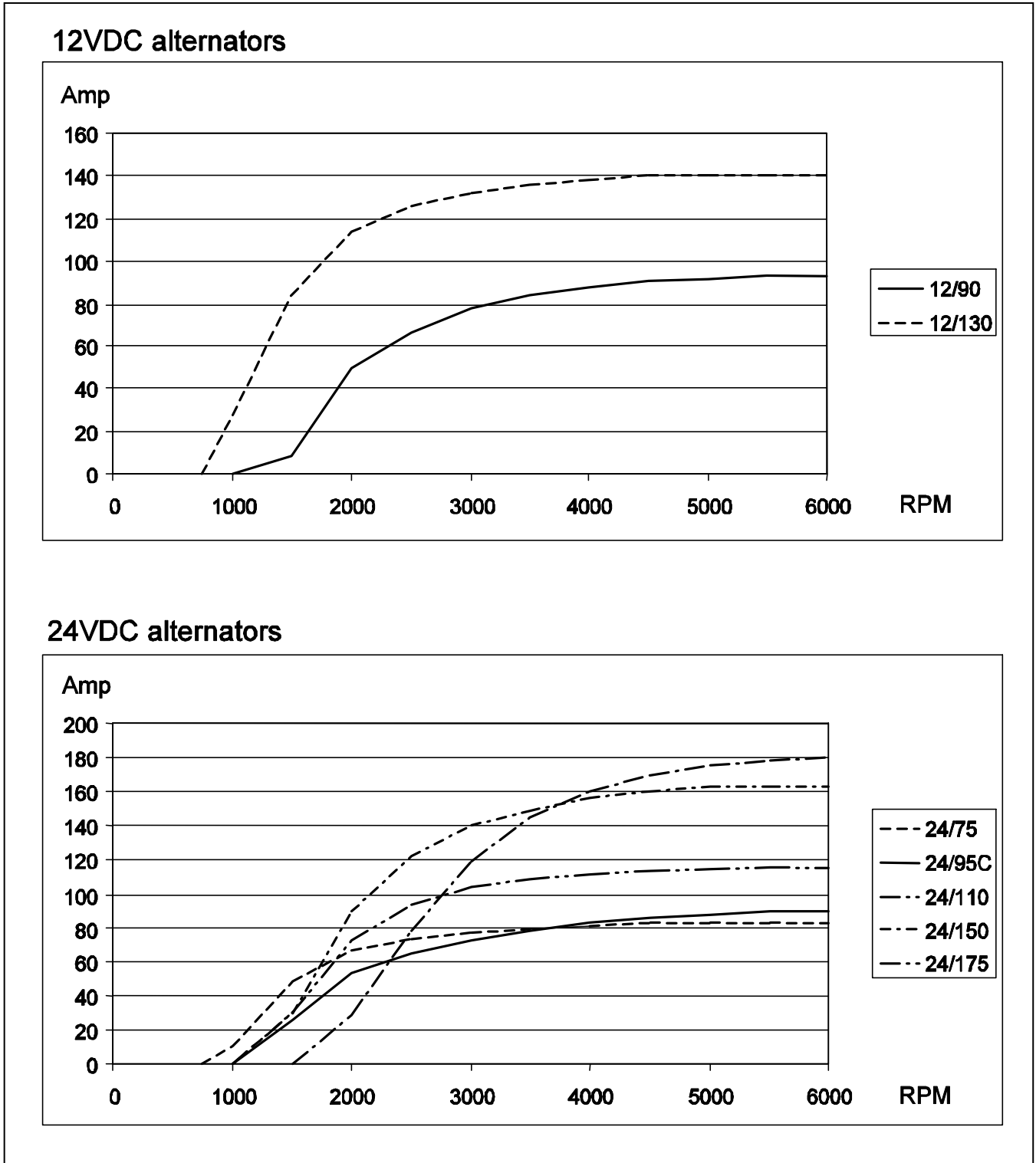


Figure A-13: This drawing shows the installation of the Alpha alternator models 12/130, 24/75 and 24/110 in combination with a battery isolator to charge two battery banks simultaneously.

3 CHARACTERISTICS

3.1 CHARGE CURRENT VERSUS RPM



Output power is measured in combination with Alpha Pro III regulator at nominal voltage (25°C)

Figure A-15: Characteristics for Mastervolt alternators: charge current versus RPM

4 ORDERING INFORMATION

4.1 ACCESSOIRES

Part number	Description
83007021	Battery isolator BI 702 for two battery banks. For alternators up to 70 Amps,
83007030	Battery isolator BI 703 for three battery banks. For alternators up to 70 Amps,
83012021	Battery isolator BI 1202 for two battery banks. For alternators up to 120 Amps,
83012031	Battery isolator BI 1203 for three battery banks. For alternators up to 120 Amps,
83116025	Battery Mate 1602-IG, low voltage drop battery isolator for two battery banks. For alternators up to 160 Amps
83116035	Battery Mate 1603-IG, low voltage drop battery isolator for three battery banks. For alternators up to 160 Amps
6384010000	Industrial DC fuse 100A DIN 00
6384012500	Industrial DC fuse 125A DIN 00
6384016000	Industrial DC fuse 160A DIN 00
6384510000	Industrial DC fuse 100A DIN 1
6384512500	Industrial DC fuse 125A DIN 1
6384516000	Industrial DC fuse 160A DIN 1
6384520000	Industrial DC fuse 200A DIN 1
6381001000	Fuse base DIN 0 (max. 160A)
6381002000	Fuse base DIN 1 (max. 250A)

4.2 SPARE PARTS

These parts are for after-sales applications only:

Part number	Description
45512000	Alpha Pro II regulator
45513000	Alpha Pro III regulator
41500400	Alternator temperature sensor cable (2m)
41500500	Battery temperature sensor
45510500	Bosch adapter cable
48400110	Brush holder for alternator models 12/90 12/130, 24/75 and 24/110
48400150	Brush holder for alternator model 24/150
48400010	Pulley for two belts, for alternators model 12/90
48400020	Pulley for two belts, for alternators models 12/130, 24/75and 24/110

