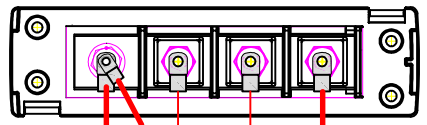
Note: Failure to follow the recommendations in the design notes could void the battery manufacturer's warranty.

MRBF SURFACE MOUNT FUSE BLOCK

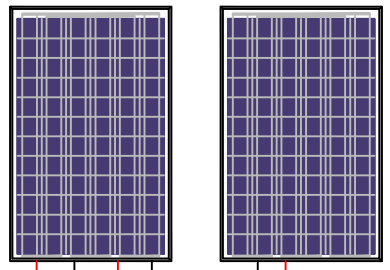


MRBF Terminal Fuse - 50A
MRBF Terminal Fuse - 40A
MRBF Terminal Fuse - 80A

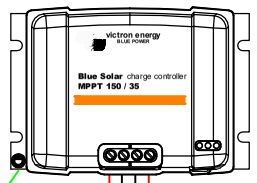
50A 40A 80A

TO HOUSE LOADS

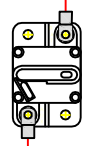
PV ARRAY



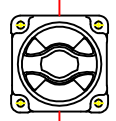
MPPT SOLAR CHARGER



SOLAR CIRCUIT BREAKER



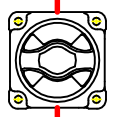
SOLAR ISOLATION SWITCH



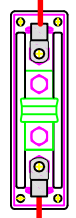
STERLING BB1230 OR 1260 CHARGER

1C–2/0AWG

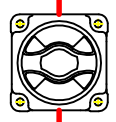
MAIN ISOLATION SWITCH



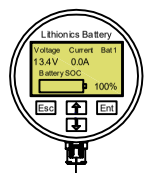
250A FUSE



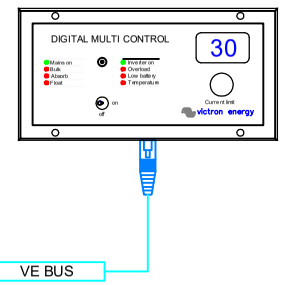
INVERTER ISOLATION SWITCH



LITHIONICS IonGage

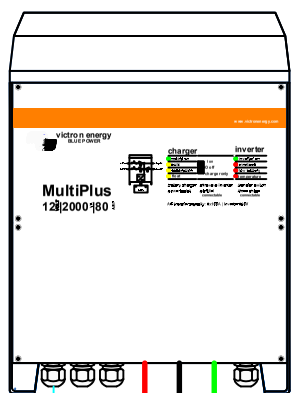


VICTRON DIGITAL CONTROLLER



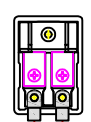
VE BUS

VICTRON MULTIPLUS INVERTER



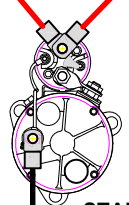
1C–10AWG

B2B Fuse

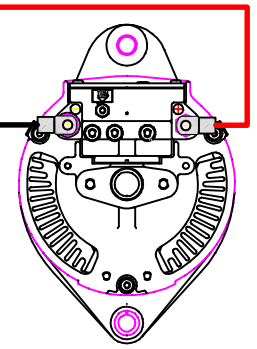


MAXI Fuse Block

Start Battery



STARTER



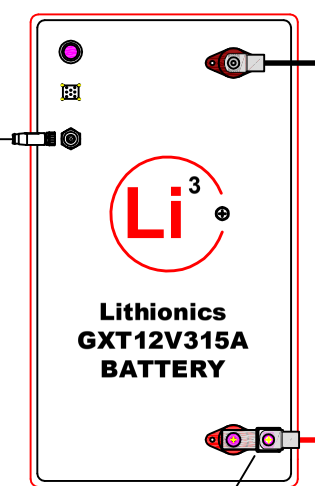
ALTERNATOR
(regenerative braking type)

1C–1/0AWG

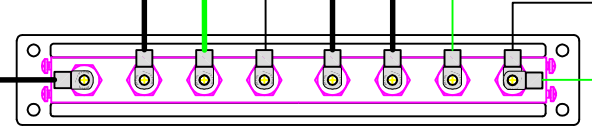
1C–2/0AWG

1C–2/0AWG

1C–2/0AWG



MRBF 300A FUSE



NEGATIVE DISTRIBUTION BUS

CHASSIS GROUND

1. Cable and fuse size dependent on Battery to Battery charger used. See Sterling diagram for details.
2. Minimum run from the battery to the positive distribution bus to be 2 ft or greater, to provide extra resistance for the inverter inrush management.
3. Minimum run from the positive distribution bus to the inverter to be 2 ft or greater, to provide extra resistance for the inverter inrush management. If the run is longer than 8 ft the cable size can be increased to 4/0.
4. A class "T" fuse is preferred but a MEGA fuse may be substituted. Mount the inverter fuse as close to the positive distribution buss as possible.
5. Switch is required for inverter Isolation and inrush management when first turning on the system.
6. Chassis DC grounding conductor should be sized not less than one size smaller than the DC positive conductor and have a capacity such that the DC positive fuse has an amperage rating not greater than 135% of the current rating of this grounding wire.
7. Remote control is done with the Multi Control panel, it has a simple rotary knob with which the maximum current of the AC input can be set. The switch on the front is used to turn the system on, off or to charger only operation.
8. The Lithionics IonGage monitors battery voltage ,current, power, amp-hours consumed and state of charge.
9. Regenerative braking compatible. See Sterling diagram for wiring details.
10. See Solar diagram for wiring details.
11. See Inverter diagram for AC wiring details.

NO.	DATE	REVISION	BY

DWG TITLE

Li 3

ENGINEER	CHECKED BY
JOB NO	DRAWN BY James Turnbull
SCALE No Scale	DATE
DWG NO	Lithionics 315 Rev.05 (Main diagram)
SHEET NO	OF

CAD DWG FILE