

## Battery Charger Assemblies



The battery charger assemblies consist of a nominal 238Ah battery and appropriate charger.

The battery chargers provide a high quality output of 27V (float) or 28.5V (Boost) at 24A.

The battery box (either remote or integral) contains twenty Ni-cd cells that are charged by the battery charger.

The Battery Charger Assembly has been tested to a shock level of 15g. Above this suitable shock mounts can be used. Access for maintenance and repair is via removable top or bottom panels giving access to the power electronics and control. The unit front contains panel meters, indicating lamps and the main power ON/OFF switch.

Louvers pressed outwards on the sides provide for fan assisted cooling during normal operation.

Electrical connections to and from the charger are made via the appropriate connectors on the rear of the charger enclosure. An M10 external earth stud is provided adjacent to the connectors.

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## ELECTRICAL CHARACTERISTICS

### Input

115 volts 3 phase 3 wire 60Hz in accordance with STANAG 1008 Edition 8

Input Power	850W
Input Rated Voltage	115V
Input Rated Current	5A/phase
Internal fuses	8A
Power Factor	0.8
Inrush Current	<I <sub>nom</sub>

### Charger

27.0V +/- 0.2V Float Charge  
28.5V +/- 0.2V Boost Charge  
Ripple < 2.5V  
Charger 23.8A, (0.1C) Current limited.  
Overvoltage Trip 32V +/- 0.2V

### Battery

20 off Ni-Cd cells connected in series.  
Discharge current 158A for 30min to 22V  
20-year life (20°C)

### Output

Three output ways each fused with a 125A HRC fuse.

### Local Controls and Indications

Supply ON/OFF rotary switch  
115V available LED  
Fast Charge LED  
O/P1 Available  
O/P2 Available  
O/P3 Available  
Panel mounted voltmeter (DC output)  
Panel mounted ammeter (Charger)  
Panel mounted ammeter (DC output)  
Lamp test button  
Reset Button

Alarm: Battery Voltage Low, Abnormal Charge Current, Input Absence, Insulation Defect

Fault: Final Battery Voltage, Loss of 28V DC, Charger Overvoltage, Charger and Battery Over-temperature, Hydrogen High, Battery Imbalance

### Battery monitoring

Extensive battery monitoring including individual cell monitoring for short circuit cells

### Remote Indications

Volt free contacts

On/Off Switch Closed  
On/Off Switch Open  
Alarm  
Fault



## MECHANICAL FEATURES

### Enclosure

Charger and battery combined or separate assemblies.

### Cooling

Vents on the sides of the chargers to allow air from the internal fan to exit and enter.

Ingress Protection IP 33

### Internal wiring

Low fire hazard cross-linked polyolefin RADOX 125.

### Cable entry

User connections are made via marine connectors.

### Earthing

M10 stud

### Dimensions and Weights

Unit	Height (O/A) mm	Width (O/A) mm	Depth (O/A) mm	Weight kg
Combined assembly	700	566	1032	465.5
Charger	210	510	641	53.5
Battery Box	495	764	1067	432.0

Note A clearance of at least 100 mm should be allowed around the unit to allow proper ventilation



## ENVIRONMENTAL CHARACTERISTICS

### Shock

10g. Equipment is required to be mounted on shock mounts for shock levels above this.

### Vibration

1 to 5 Hz, acceleration = 0.1g (frequency steps of 1Hz)  
5 to 22Hz, amplitude = 1mm (2mm peak to peak) (frequency steps of 1Hz)  
22 to 50 Hz, acceleration = 2g (frequency steps of 2Hz)

### Audible Noise

< 60dba

### Electromagnetic Compatibility

GAM EG 13C

### Ambient Temperature

10°C to + 55°C

### Relative Humidity

10% to 90% non-condensing

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