

BVSMP

Operating Instructions

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BALDWIN BOX▲LL
COMMUNICATIONS

BVSMP- Power Supply/Charger Unit

BVSMP is physically compatible with existing range. Switch mode techniques improves efficiency, reducing unwanted heat dissipation and weight.

Each unit provides 2 off independent power converters with current and over Voltage protection circuits, improved monitoring of charger and all DC outputs (24-31V) to ensure reliability.

The power supply provides two individually fused outputs at 24V to feed 2 x BV220, 2 x BV120 Or 1 BV440 power output modules. In the event of mains failure the DC is maintained using an external standby battery which is continuously float charged by the charger section of the PSU unit.

The unit has built in deep battery discharge cut off; this prevents total discharge that can destroy the standby batteries in the event of AC power failure for any long periods.

A third fused output is provided to power a mixer or auxiliary circuits. All these outputs together with a fault volt free changeover contact are provided by a 9 way crimp connector plug and socket.

The charger section is totally monitored and indicators for AC Supply Healthy, fuse failure, charger fail, battery voltage high, and battery voltage lows are incorporated.

Should any of the above fault conditions occur an internal relay releases providing a changeover contact, signalling to the fire detection panel. The charger incorporated is of the constant voltage type set for the recommended float charge.

Should the battery be below this float charge it will charge in a constant current mode at the rate of 3 amps and progressively reduces once the battery has achieved its nominal float level. Several chargers may be paralleled when used for larger systems and must be synchronised.

BVSMP Specification

AC supply input Voltage 200V – 250V 50 – 60Hz

Maximum power consumption: 700VA

Maximum inrush current @ 230V: 18A

DC output 1 to amplifier 1: 31V @ 12A

DC output 2 to amplifier 2: 31V @ 12A

DC output 3 auxiliary mixers etc: 31V @ 2A

Battery charger output:

Voltage @ 20 °C: 27.1V

Temperature compensation: -66mV/C

Maximum current: 3A

Battery low fault Voltage: 21V

Battery high fault Voltage: 29V

Battery deep discharge cut off Voltage: 16V

Volt free fault relay output contacts: 100V @ 1A max

Fuse protection:

2 off AC supply 5 x 20mm: 3.15A(T)

2 off battery automotive blade type: 20A

1 off charger input self-resetable type: 4A

2 off charger output self-resetable type: 2.5A

2 off aux output self-resetable type: 1.1A

Front panel indicators:

AC supply AC supply 'ON'

OK No fault

Fuse Fuse fault

Charger Charger fault

High Battery Voltage high fault

Low Battery Voltage low fault

Lamp test for the above indicators

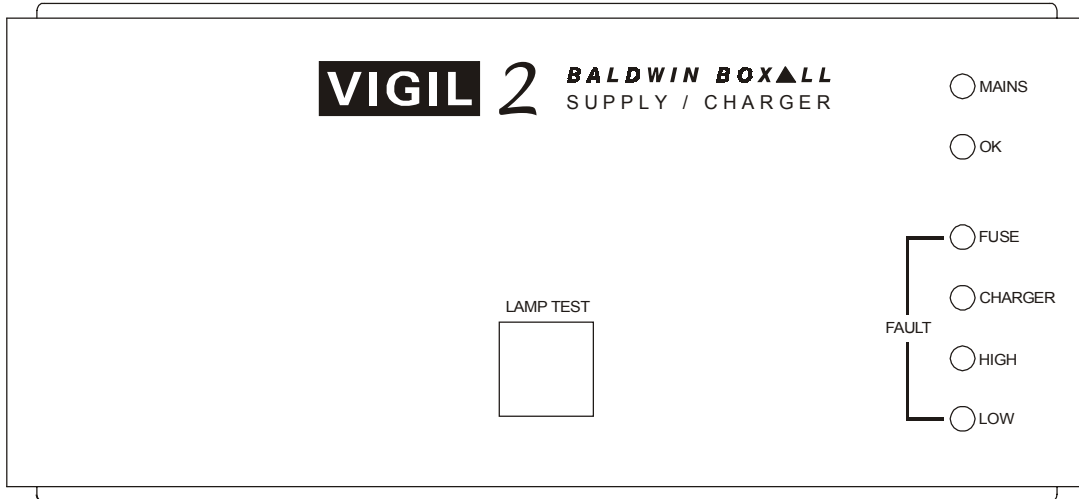
Terminations:

AC supply input: IEC 6A filtered connector

24V battery input: 3-pin screw terminated connector

DC outputs & fault relay contacts: 9-pin crimp terminated connector

Front Panel View



Rear Panel View

