

Model SLA900MPCB Battery Charger

General Specification

The SLA900MPCB automatic managed constant-current constant-voltage chargers for sealed lead acid batteries are suitable for standby, cyclic and deep discharge applications. The output is preset for use with 12V, 24V or 30V batteries. At switch on, a deep discharged battery is reformed by a limited charge current until the cells accept maximum bulk charge. This process frequently recovers old batteries to a working state. When the battery voltage approaches the preset end point potential the bulk charge decays and the constant standby voltage ensures the current stabilises at a safe maintenance level where it may be left indefinitely. The output voltage is factory preset for float/trickle charging. There is some small adjustment of the charge termination voltage available via variable resistor R18.

Current limited constant voltage charger

- Input: 230Vac $\pm 10\%$ 50Hz 25VA max. rising clamp screw terminals. (Can be configured for 115V operation at the factory*)
- Output: Via soldered wire termination at BATNEG and either Vout (unfused) or Vout1 (fused). Suitable for charging 12V, 24V or 30V SLA batteries from 2.2Ah capacity upwards.
- Bulk current limit 1200mA (12V), 800mA (24V) or 600mA (30V).
- Reverse polarity protected (with output fusing fitted*).
- Charge termination voltage set for the top end of float charge (13.8V, 27.6V or 34.5V)
- Fully short circuit protected.
- Has a thermal cut-out to prevent thermal run-away in cases of component failure or extremes of use.
- Custom specials available- please contact the factory.
- Ambient Temperature range in operation: -10°C to +50°C; in storage: -20°C to +60°C.
- Mass 0.8kg.

LED Indicators:-

- Yellow LED1 Trickle Charge
- Red LED2 Bulk Charge

The RED led on indicates bulk charging is in progress. It goes off when the charge current drops below about 100mA, an indication that the battery is charged. Once LED2 has gone out completely leaving LED1 on, the battery can be considered charged. The battery can be left connected in this trickle charge state to regain the final 10% of charge.

Status	LED1 Yellow	LED2 Red
Battery disconnected	Off	Off
Battery charged, in trickle charge. The battery can be left connected indefinitely.	On	Off
Battery charging, bulk charge	On	On
Possible battery fault or output wiring fault or short circuit	Initially On. After a short time, going Off or occasional flashing	Initially On. After a short time, going Off or occasional flashing

Connection:

Ensure correct input voltage. Observe output polarity when making battery connection. All models have mains fuse (160mA AS for 230Vac), reverse polarity and short circuit protection. These open pcb's are designed for indoor use. Output fuse rating is 2A AS.

Mounting:

PCB size 142mm x 102mm with mounting centres at 55mm x 44mm (4 x M4 threaded mounting pillars). Maximum component height above pcb: 50mm, below pcb: 15mm (isolation gaps must be added).

Note: The card must be mounted to provide adequate insulation requirements for the application.

Attention should be paid to allowing sufficient cooling/ ventilation around the pcb in all eventualities of operation. The heatsink can get very hot.

It is the responsibility of the system integrator to meet all safety and functional requirements.

Protective Earth Operation (Recommended):

Transformer laminations and one mounting point connected to protective earth terminal via pcb tracking.

Non-Earthed Operation:

Unit provides suitable creepage/ clearance for non-earthed 'double insulated' application if mounted in a suitable housing with suitable mounting insulation. Transformer laminations must be left floating.

Input/Output pcb creepage $\geq$ 8mm, clearance $\geq$ 5mm. Mains/Earth pcb creepage & clearance $\geq$ 3mm.

Refer to applicable standards for your product type (e.g. EN60950).

