

SBH500 Series 500W Battery Charger



- Float Battery Chargers
- Typical Voltages: 12V 24V 48V 96V 108V
- Power Level: 500W
- Convection cooled: No fans
- Isolated input – output
- Over voltage protection
- Overload and short circuit protection
- MTBF > 150,000hrs
- AC Fail Alarm and Battery Low Alarm



Model Selection Table

Model Number	Description
SBH500-24	AC/DC Battery Charger Input: 230VAC 50Hz Output: 27.6 VDC 19A Isolation Diode AC fail alarm Battery low alarm
SBH500-48	AC/DC Battery Charger Input: 230VAC 50Hz Output: 55.2 VDC 9A Isolation Diode AC fail alarm Battery low alarm
SBH500-96	AC/DC Battery Charger Input: 230VAC 50Hz Output:108 VDC 4A Isolation Diode AC fail alarm Battery low alarm
SBH500-108	AC/DC Battery Charger Input: 230VAC 50Hz Output:124 VDC 4A Isolation Diode AC fail alarm Battery low alarm

Description

The SBH500 is a compact, industrial quality float battery charger suitable for DC backup applications with the use of an external battery. The unit provides 500W total power to be shared between the battery and load. Two built in alarms provide AC fail and Battery low, the alarms are through voltage free form C contacts. The battery input is protected against accidental reverse battery connection by a crossbar diode and internal Safety fuse. An external safety fuse must be connected directly at the battery. The SBH500 has a high MTBF of 150 Khours , this is achieved through the use of low component count and a high design margin and through strict quality control.

Specifications

Input Voltage	230VAC (190 ~ 264)
Input Frequency	47 ~ 63Hz
Input Current	4.7A
Input Protection	Inrush current limiting Transient protection / Varistors Internal safety fuse
Isolation	Input - Output: 4300vdc Input - Chassis 2250vdc Output - Chassis 500vdc
Efficiency Typically	Typically 80%
Output voltage	See selection table
Output Power	500 watts
Voltage adjustment	24V: 24-28V 48v: 48-56V 108V: 108-127V
EMC	Radiated to EN55022 Class A Immunity to EN 61000-4-2 (ESD) EN 61000-4-3 (RF Immunity) EN 61000-4-4 (Fast Transients) EN 61000-4-6 (Conducted Immunity)
Switching Freq.	Typically 55KHz
Output Diode	Internally fitted output isolation diode
Parallel operation	Yes
Regulation Line:	Line: ±1% Load: ±1.5%

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Output Ripple/Noise	Typically less than 1% of output voltage
Protection	Overload Protection Constant current limiting with short circuit protection. Battery must be externally fused.
	Thermal Protection Thermal shutdown with auto recovery when unit cools down.
	Overvoltage Protection Recycle mains input to reset
Operating Temp.	0°C to +50°C at full load. Derate 2.5% per °C to +70°C.
Temperature Drift	0.03% per °C over operating range

SBH500 Mechanical Drawing

