

Specification of automatic battery charger type BCM1215

Introduction

the BCM1215 battery charger is a 12 volt 15 amp switch-mode battery charger for use with lead-acid batteries. A three-stage charging characteristic is employed with current-sensing changeover from boost to float mode. Maximum time in boost mode is limited by an independent timer circuit.

Input

Input voltage	180 VAC - 270 VAC
Input frequency	47Hz to 63Hz
Input current	1.7 amps. maximum
Efficiency	>80% @ full load

Output

Float voltage	13.8V +/-0.01V DC
Boost voltage	14.4V +/-0.1V DC
Boost-float changeover	when charging current drops to 3 amps +/- 0.75 amps
Load regulation	<0.4% (0 to full load)
Line regulation	<0.1% (180 - 270 VAC)
Charging current	15 amps +/-0.8 amps @ 12 volts O/P
Number of outputs	2 (built-in diode splitters, sensing off one output)
100Hz ripple	<0.6% RMS
High freq. ripple	<1% pk-pk (100kHz)
High freq. noise	<3% pk-pk (10MHz bandwidth)

General

Ambient temp. range	-10C to +45C
Cooling	convection cooled
Size	170mm high x 155mm wide x 65mm deep
Weight	1.2kg
Input connections	2m. 3-core mains cable
Output connections	3-way screw terminal block for 4mm ² maximum cable

Protection

Reversed battery	blows an internal fuse
Over-temperature	unit shuts down if internal heatsink temperature exceeds the normal maximum level. Automatic re-start.
Over-voltage	unit shuts down if the output voltage exceeds the normal maximum level. Automatic re-start.
Under-voltage	if the battery voltage is less than 5 volts, the average output current reduces to approx. 4 amps.
Over-charge	after 4 hours above the float voltage, the output is switched to the float voltage regardless of charging current.