

Battery Charger Specifications & Details

Smart Battery Chargers provide an accurate and fast charge through a 3-Stage charging system. The Bulk Stage of charging provides up to full rated output current to charge a battery to 60% of capacity. The Absorption Stage charges the battery to 95% of capacity by decreasing the output current as required by the battery. The Float Stage completes the charging cycle and continues to provide a very low output current to prevent the battery from internally discharging. This output current is as low as 40 mA allowing continuous connection of the Smart Battery Charger without the risk of overcharging or boiling the battery.



Smart Battery Chargers are fully automatic. The Smart Battery Charger will sense the condition of the battery and automatically select the correct stage of charging. The stage of charging is shown on the LED display. Smart Battery Chargers have a Battery Type Selector to choose between charging a gel or flooded battery. The Flooded position will provide a higher output voltage in the Bulk and Absorption stages of charging. This feature is essential to correctly charge a flooded or gel battery.

Smart Battery Charger Advantages

1. 3-Stage Charging System - the Bulk Stage of charging provides a high output current together with a higher charging voltage which the battery requires to be charged correctly. Two stage chargers do not have this function and therefore cannot adequately charge the battery.

2. Faster Charge - Smart Battery Chargers provide higher amounts of current in the first and second stages of charging than other chargers (see graph). This enables a faster charge.

3. Low Trickle Charge - in the Float Stage of charging Smart Battery Chargers will provide a very low output current compared to other chargers. This low output current will ensure that internal discharging is prevented without the risk of overcharging or boiling the battery.

4. Fully Automatic - Smart Battery Chargers are fully automatic, not relying on timers or a manual operation. The fully automatic function provides a correct charge and dispenses with the need of continually monitoring the battery.

5. Small & Lightweight - due to the switch mode design Smart Battery Chargers are small in size and light in weight compared to transformer based chargers which are customarily heavy and large.

6. Multiple Battery Charging - Smart Battery Chargers have multiple positive output terminals which are fully isolated from each other to enable the charging of multiple batteries or battery banks.



Part No.	BC-012-15A	BC-012-20A	BC-012-30A	BC-012-40A	BC-012-50A
Output Current	15A	20A	30A	40A	50A

(max)					
Bulk Stage Voltage	14.2~14.6V DC (current limited)				
Absorption Stage Voltage	14.2V DC in Gel Position 14.6V DC in Flooded Position				
Float Stage Voltage	13.2V / 13.5V / 13.8V DC Selectable				
Input Voltage	170~270V AC 50Hz				
Efficiency	Over 85%				
Battery Connection	Terminal Blocks				
DC(+) Outputs	2	2	2	2	3
Recommended Battery Size	50Ah~300Ah 12V lead acid	50Ah~400Ah 12V lead acid	100Ah~600Ah 12V lead acid	150Ah~800Ah 12V lead acid	200Ah~950Ah 12V lead acid
Size (mm) LxWxH	200x215x80	200x215x80	240x235x80	240x235x80	280x235x80
Weight (kg)	1.7	1.9	2.5	2.8	3.0

Part No.	BC-024-8A	BC-024-15A	BC-024-25A
Output Current (max)	8A	15A	25A
Bulk Stage Voltage	28.4~29.2V DC (current limited)		
Absorption Stage Voltage	28.4V DC in Gel Position 29.2V DC in Flooded Position		
Float Stage Voltage	26.4V / 27.0V / 27.6V / DC Selectable		
Input Voltage	170~270V AC 50Hz		
Efficiency	Over 85%		
Battery Connection	Terminal Blocks		
DC(+) Outputs	2	2	3
Recommended Battery Size	20Ah~100Ah 24V lead acid	25Ah~300Ah 24V lead acid	100Ah~500Ah 24V lead acid
Size (mm) LxWxH	200x215x80	240x235x80	280x235x80
Weight (kg)	1.7	2.5	3.0