

# SMART BATTERY CHARGER

Install the **SMART** battery charger and rest assured that your batteries system are always quickly and completely charged in the optimum performance, whether you are at home, on the road or at sea moored in marinas with low shore power or limited supply.



## MULTI-STAGE SWITCH MODE

The SMART Multi-stage battery charger provides a fast, safe and accurate charging for SLA / GEL / AGM / WET / Calcium lead-acid batteries on your Mobile Home, Caravan, Boat or Trucks at any time and anywhere.

## FEATURES:

- Switch mode design
- Auto-run operation
- High efficiency
- Isolated output terminals
- Compact aluminum chassis
- Four stage charging
- Boost charging mode
- Power supply mode
- Battery type selector
- Equalize voltage choice
- Short circuit protection
- Over charging protection
- Spike and surge suppression
- Reverse polarity protection



12V from 10A - 40A



24V from 10A - 20A



# SMART Battery Charger

## Switch Mode with Multi-Stage

**Motormate**<sup>®</sup>  
MOBILE DC POWER SOURCE

### What will SMART Charger attract you?

SMART Charger can charge up your batteries faster than many other chargers with high efficiency. Its compact size let you easy to place and install in your caravan, boat, mobile-home, truck or anywhere at anytime. It allows you to charge SLA / GEL / AGM / WET / Calcium lead-acid batteries. The user-friendly LED display lets you clearly understand the charging status. The time control with limited charging current protects the battery from over charging. The input and output of the charger are completely isolated; it can be used as a power supply to run electronic device constantly.

### Boost Charging plus Multi-stage charging sequence:

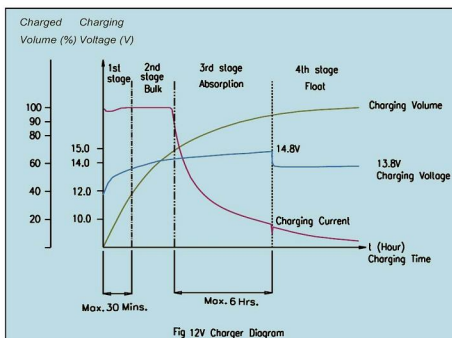
**Boost charging mode** – The device can be set by the charging mode select for Boost charging. It is help to wake up a low voltage battery to a suitable recharging level.

**1st stage** – Boost Charging: This is to boost up the charging cycle and wake up a weak battery to absorb energy. Ensure the battery is always charged at the maximum charging condition. The 1st stage charging is limited to 30 mins.

**2nd stage** – Bulk: The battery is charged at the maximum current to the charger until the battery reaches the absorption voltage. There is no time limited at this stage.

**3rd stage** – Absorption: The charging current fall steadily as the battery is getting full gradually. The absorption charging is limited to 6 hours to protect the battery is overcharged. Charging voltage can be adjusted for AGM/GEL/WET batteries.

**4th stage** – Float: The battery is charged at about 90% of its rated capacity. The charging current is decreased and the charging voltage is held at a constant voltage. This constant voltage can be adjusted for different type of batteries.



### Specification 12V Charger

Model	BC-01210SCT	BC-01215SCT	BC-01220SCT	BC-01225SCT	BC-01230SCT	BC-01240SCT
Input voltage	220VAC ~ 240VAC 50Hz					
Bulk/Absorption	14.2VDC / 14.6VDC / 14.8VDC					
Float charging	13.2VDC / 13.5VDC / 13.8VDC					
Output DC current (max)	10A	15A	20A	25A	30A	40A
Advantage boost charging	Yes, boost up charging for low voltage battery					
Efficiency	Up to 88%					
Line regulation	0.1% @ input voltage range					
Load regulation	1.5% @ output current: no load to full load					
Over charging protected	Yes, max absorption time 6 hours					
Output short circuit protected	Yes, with current limiting					
LED Display	Green – Charger On, Green – Float, Yellow – Absorption, Red - Bulk					
Operating temperature	0 - 40°C					
Isolated battery connection	2	2	2	2	2	2
Ventilation	Natural Thermal controlled cooling fan; auto start on overheated					
Dimensions (mm)	180x145x80	180x145x80	210x145x80	210x145x80	250x145x80	280x145x80
Weight (kg)	0.9	1.0	1.1	1.2	1.4	1.7

### Specification 24V Charger

Model	BC-02410SCT	BC-02415SCT	BC-02420SCT
Input voltage	220VAC ~ 240VAC 50Hz		
Bulk/Absorption	28.4VDC / 29.2VDC / 29.6VDC		
Float charging	26.4VDC / 27.0VDC / 27.6VDC		
Output DC current (max)	10A	15A	20A
Advantage boost charging	Yes, boost up charging for low voltage battery		
Efficiency	Up to 88%		
Line regulation	0.1% @ input voltage range		
Load regulation	1.5% @ output current: no load to full load		
Over charging protected	Yes, max absorption time 6 hours		
Output short circuit protected	Yes, with current limiting		
LED Display	Green – Charger On, Green – Float, Yellow – Absorption, Red - Bulk		
Operating temperature	0 - 40°C		
Isolated battery connection	2	2	2
Ventilation	Thermal controlled cooling fan; auto start on overheated		
Dimensions (mm)	210x145x80	250x145x80	280x145x80
Weight (kg)	1.2	1.4	1.7

**Suitable for marine use**  
**Ignition Protected**  
**Isolated Output**



Specifications subject to be changed without notice.

