

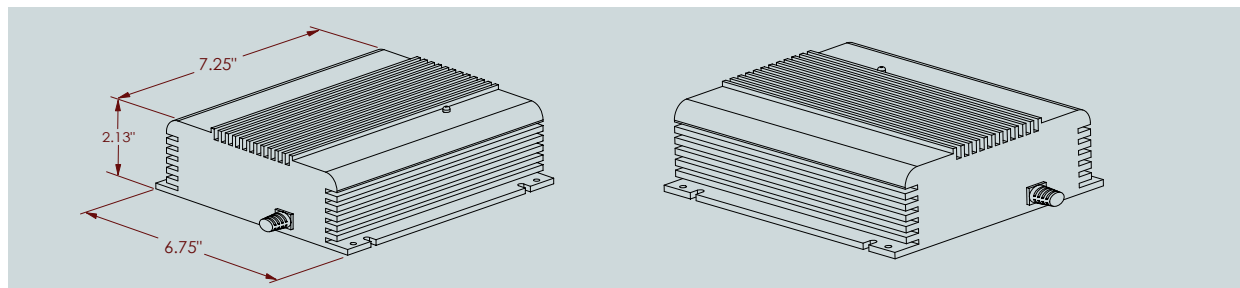
Switch mode lead acid chargers are designed to effectively charge sealed lead acid batteries while protecting the batteries from over-charging. All charger ratings are based on a nominal input of 110-120 VAC/ 50-60Hz. The output current ranges from 2.5A to 10A.



LEAD ACID CHARGER, 10A

Features:

- Medically certified (EN60601)
- 3 step charge control with timer
- Switch mode charger
- Available in 12V, 24V, 36V and 48V versions
- LED status indicator
- Protected against reverse polarity and short circuit
- Custom specifications on request
- Waterproof version available



Category	Specification (12V version)
Model number	459740-SB
Input rating	Nominal 110-120VAC/50-60Hz
Nominal voltage rating	12V
Maximum output power	120W
Input surge current limitation	<30A
Switch frequency	63 kHz
Leakage current from battery	2.5 mA (12V battery voltage)
Temperature range	-25°C to +40°C
Ripple	<100 mV p-p
Efficiency (at 100% load)	83%
Current limit	yes
Insulation voltage	Primary-ground: 1250VAC, Primary-secondary: 3750VAC, Secondary-ground: 500VAC
Insulation class	Class I
Electrical safety	EN 60601-1, EN 60335-2-29
EMC standards	EN 60601-1-2 (Medical), EN 61000-6-3 (Emission), EN 61000-6-1, EN55014 (Immunity)
Timer	4hr +/-30 min. (also available with other values)
Input connection	Grounded US blades
Output connection	Battery clips*
Dimensions / weight	7.25" x 6.75" x 2.13" (184 x 171 x 54mm)/ 3.3 lbs. (1.5 kg)
Recommended battery capacity	40 - 400Ah

*other output connection options available upon request



Functionality:

Once the charger is attached to a sealed lead acid battery and plugged in, the charging process will begin. The charger will subject the lead acid battery to three steps of charging.

In the first step, the charger will enter into 'boost' mode. During this step, the charger is in constant current mode with the current rate remaining at its maximum value (note- the battery voltage is lower than the switching level of the timer).

In step two, the battery will be nominally 80-95% charged, and the charger will switch into time controlled/ constant voltage mode (current is no longer being provided at its maximum rate). The charger will continue to provide a constant voltage until the time interval is completed.

The third and final step will place the charger in float/standby mode as the battery will be fully charged. Because the charge voltage is at a standby level, the charger can continue to be connected to the battery. Should the battery be used, the charger can return to rapid charging (step 1).

Charge control values:

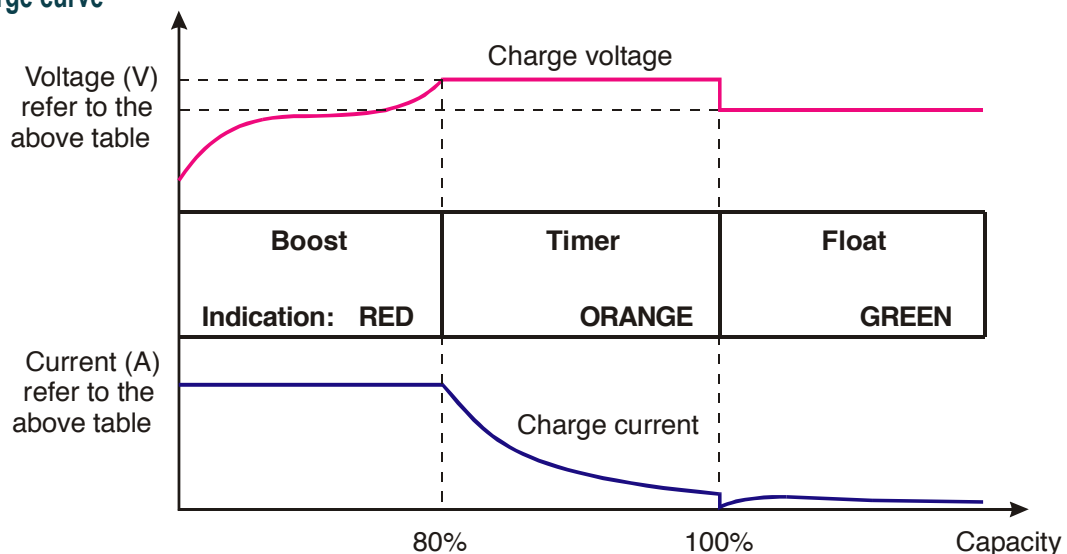
Model number	459740-SB	459740-SC	459740-SD	459740-SE
Charger voltage rating	12V	24V	36V	48V
Step 1: Boost/ constant current	10A	5A	3.3A	2.5A
Step 2: Timer*/ constant voltage	4 hr. +/- 30 min. / 14.7V	4hr. +/- 30 min. / 29.4V	4hr. +/- 30 min. / 44.1V	4hr. +/- 30 min. / 58.8V
Step 3: Float/ constant voltage	13.7V	27.4V	40.8V	54.8V

*Timer is available with other values

LED status indicator:

The lead acid charger has an LED status indicator to inform the user of its status. During step 1, the LED appears red. In step 2, the LED appears orange. During the third step, the LED appears green.

Charge curve



*When specifying product, please consult with Cell-Con to verify that the specifications identified on this data sheet are current.

