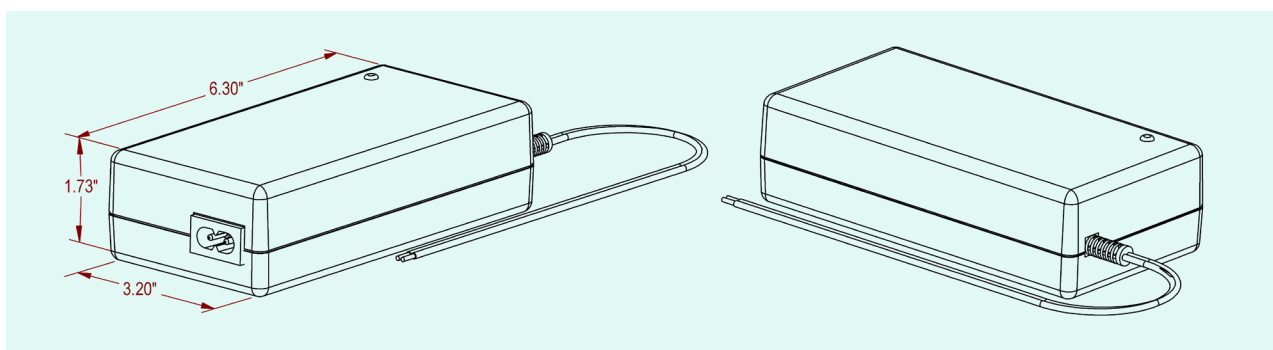




Switch mode Lithium Ion chargers are designed to effectively charge Lithium Ion batteries while protecting the batteries from overcharging. All charger ratings are based on a nominal auto-detected input of 115/230 VAC. The output current ranges from 3.5A to 7.0A.

**Features:**

- 3 step charge control with current detection as charge termination
- Switch mode charger with auto-detected input voltage
- Protected against reverse polarity and short circuit
- Charges 12 or 24V Lead Acid batteries
- Complies with medical standard (EN 60601) pending
- LED status indicator
- Custom specifications on request
- With NTC upon request



Category	Specifications
Model number	453240-SB 453240-SC
Input rating	Nominal 95-130VAC and 198-264VAC
Nominal voltage rating	12 VDC / 24VDC
Maximum output power	103W
Recommended batt. capacity	35-120AH / 17-60Ah
Switch frequency	≈ 65kHz
Leakage current from battery	<0.6mA / <1.0mA
Operating/storage temperature	-25°C - +40°C / -25°C - +85°C
Ripple	<100 mV p-p
Insulation class	Class II
Electrical safety approvals	EN 60601-1 pending, EN60335-2-29
EMC standards	EN 60601-1-2 (Medical), EN 61000-6-3 (Emission), EN 61000-6-1 (Immunity)
Termination	Current detection as charge terminator <1.6A +/- 0.24 / <0.8A +/- 0.24
Input connection	2 pin IEC 60320 connector
Output connection	Battery clips
Dimensions/weight	6.30" x 3.20" x 1.73" (160 x 81 x 44mm) / 1.2 lbs. (540g)

\* Other output connections available upon request



**Functionality:**

Once the charger is attached to a Lead Acid battery and then plugged, the charging process will begin. The charger will subject the Lead Acid battery to three steps of charging.

During the first step, the charger enters into 'fast charge' mode. During this step, the charger is in constant current mode with the current rate remaining at its maximum rating.

In step two, the battery will be nominally 80-95% charged (LED changes to orange), and the charger switches into constant voltage mode (current is no longer being provided at its maximum rate). The charger will continue to provide a constant voltage until the charge current decreases to the charge termination level.

In the third step, the charge process has stopped. Charging has ceased as no current flows to the battery.

Versions			Charge control				
			Step 1 (red)	Step 2a (red)	Step 2b (orange)	Step 3 (green)	
Model #	Charger voltage rating	Max output power (W)	Charge current	Charge voltage	To yellow when current is:	Charge start Vbat	Standby voltage
453240-SB	12V	103W	7.4A +/- 0.4A	14.7V +/- 0.15V	3.5A +/- 0.24	1.6A +/- 0.24	13.7V +/- 0.15V
453240-SC	24V	103W	3.5A +/- 0.3A	29.4V +/- 0.2V	1.74A +/- 0.24	8.2A +/- 0.24	27.4V +/- 0.3V

charge termination when current is: 300mA +/- 30%

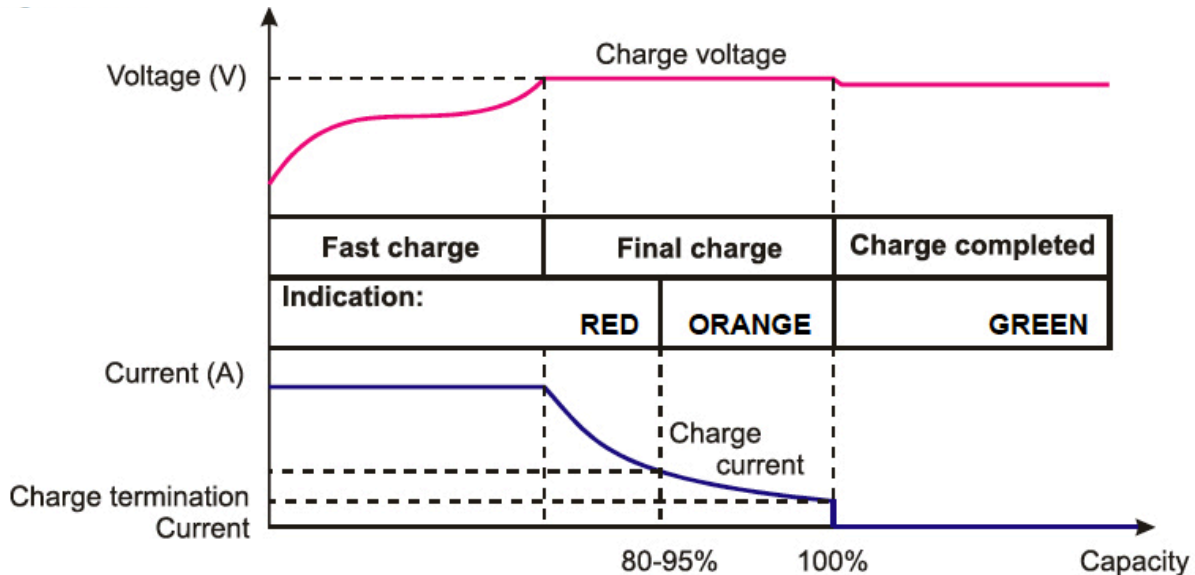
**LED status indicator:**

The Lithium Ion charger has an LED status indicator to inform the user of its status.

During step 1, the LED will appear red in color. While in step 2, the LED will appear orange in color.

During step 3, the LED will appear green in color.

**Charge curve:**



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

