

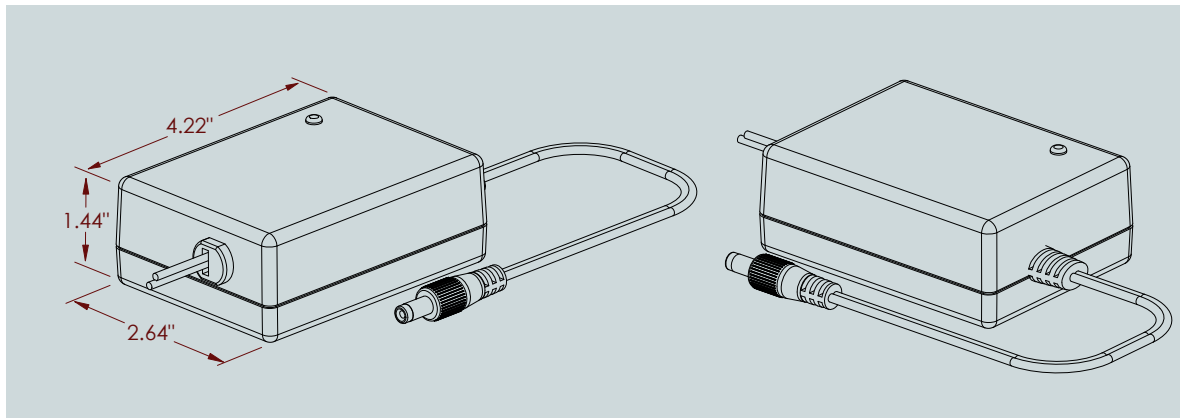
Switch mode lithium ion chargers are designed to effectively charge lithium ion batteries while protecting the batteries from over-charging. All charger ratings are based on a nominal input of 10-30VDC. The output current ranges from 1.0A to 3.0A.



LITHIUM ION CHARGER, 3.0A

Features:

- 3 step charge control with current detection as charge termination
- Switch mode charger with universal input voltage
- Protected against reverse polarity and short circuit
- Charges 3-8 cell battery packs
- Waterproof (IP67) version available
- LED status indicator
- Custom specifications on request



Category	Specification
Model number	452544-L Series
Input rating	Nominal 10-30VDC
Maximum output power	35W
Cell count	1-8 cells
Switch frequency	≈ 40kHz
Leakage current from battery	<1 mA
Operating/storage temperature	-20°C - +40°C / -25°C - +85°C
Ripple	< 100 mV p-p
EMC standards	61204-3, 61000-6-1, 61000-63
Input connection	Stripped & tinned leads
Output connection	2.5mm x 5.5mm x 9mm barrel plug, center positive*
Dimensions/weight	4.22" x 2.64" x 1.44" (107 x 67 x 36.5mm) / .55 lbs. (250g)

*other output connection options available upon request



Functionality:

Once the charger is attached to a lithium ion battery and then plugged in, the charging process will begin. The charger will subject the lithium ion 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 charger is in constant voltage mode (current is no longer being delivered at its maximum rate). The battery is nominally 80-95% charged when the LED indicator changes to orange. The charger stays in this mode 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.

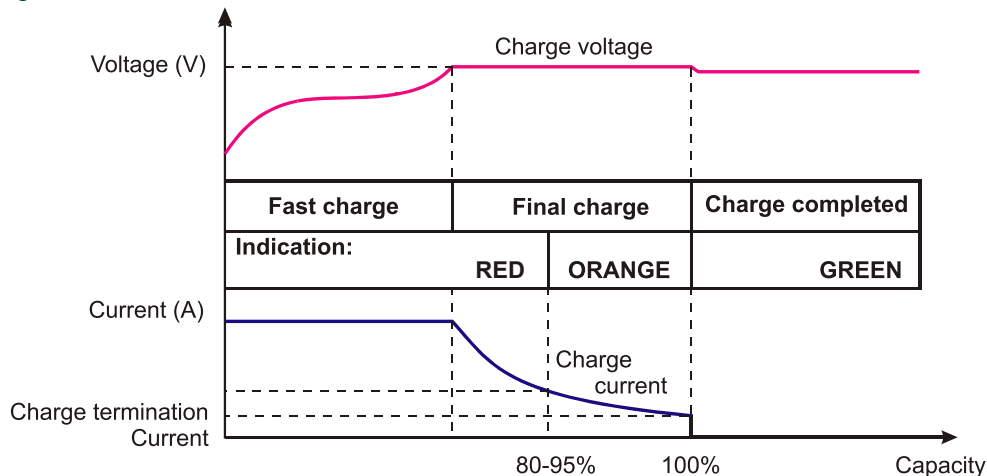
Versions:

Model #	Cell count	Max. output power(w)	Charge Current	Charge voltage	Changes to orange when current is:	Charge term when current is:	Charge start Vbat< (or mains turned on)
452544-LA	1	13	3A +/- .25A	4.2V +/- .1V	<1.15A +/-25%	<100mA +/- 25%	4.1V +/- .2V
452544-LB	2	23	2.7A +/- .2A	8.4V +/- .1V	<1.15A +/-25%	<100mA +/- 25%	8.2V +/- .2V
452544-LC	3	29	2.3A +/- .2A	12.6V +/- .1V	<0.9A +/-25%	<100mA +/- 25%	12.3V +/- .15V
452544-LD	4	33	2.0A +/- .15A	16.8V +/- .1V	<0.85A +/-25%	<100mA +/- 25%	16.4V +/- .15V
452544-LE	5	33	1.6A +/- .1A	21V +/- .1V	<0.7A +/-25%	<100mA +/- 25%	20.5V +/- .2V
452544-LF	6	35	1.4A +/- .1A	25.2V +/- .1V	<0.6A +/-25%	<100mA +/- 25%	24.6V +/- .2V
452544-LG	7	35	1.2A +/- .1A	29.4V +/- .1V	<0.5A +/-25%	<100mA +/- 25%	28.6V +/- .2V
452544-LH	8	33	1.0A +/- .1A	33.6V +/- .1V	<0.4A +/-25%	<100mA +/- 25%	32.8V +/- .3V

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 red in color, and then switch to 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.

