

Specification of Smart Li-ion Charger (Model RL07-16P3 Charger)

Description

RL07-16P3 is a smart charger specially designed for Li-ion battery packs composed of 7 cells in series.

Electrical Specifications:

1. Input : 100~240VAC, 50/60 Hz, Output : 29.4V 1.6A DC.
2. Charger output : The charger is preset by factory for charging 7 cells Li-ion battery pack. Its charging mode :
 - (1) Constant current (CC) mode : At beginning of charging, an 1.6A_{dc} (I_{ave}) constant charging current to charge the pack until the pack voltage reaches to 29.4V.
 - (2) Constant Voltage (CV) mode : The output will keep 29.4V constant through the end of charging.
 - (3) In addition, the charger also terminates the charging process when the pack temperature Temp(max) > 45°C or < 0°C
 - (4) Pre-charge state : When battery voltage is between 12~18V, will start the pre-charge first. After battery voltage reaches 18V, will change to CC mode. If the battery voltage can't reach 18V in 15 minutes, the charger will stop charging.
3. LED Signals :
 - (1) One "Power" LED (RED) : It will light up whenever the power is applied.
 - (2) One "Status" LED (dual color – RED/ GREEN) :
 - ✧ Quick charge : "Status" LED turns "RED"
 - ✧ Charge complete : "Status" LED turns "GREEN"
 - ✧ It flashes "GREEN" means the battery's temperature is higher than 45°C or the battery voltage can't reach 18V.
 - ✧ Pre-Charge state : "RED" flashes.

Mechanical Specification

1. Dimension : 120*60*35 mm.
2. Weight : 230g approx.
3. The charger is designed to use together with the battery pack built in the 10K Ω (resistor data measured on 25 °C) thermistor .

4. Charger output cable : 3-pin connector, Pin(1) for "+" 、 Pin(2) for "-" & T2" 、 Pin(3) for "T1", Cable length : 120cm \pm 10cm .
5. AC socket : Standard 3-p oblong
6. AC cable : Option

Operation procedures:

1. Plugs the AC input plug into the charger input socket, and then plug the AC plug into the AC power outlet. The "Power" LED (RED) indicator will light up .
2. Connect the Li-ion battery to the charger output cable. The LED indicator will turn to constant red, and the charging starts. If the LED is still flashing red, please check the battery connection, and repeat the step.
3. The "Status" indicator will stay RED until battery pack is fully charged and when complete the "Status" indicator will turn "GREEN".
4. In order to maintain a proper "Abnormal Stopping" function of the charger, it is recommended to reset the timer of the charger's microprocessor by unplug-replug the AC power when a new set of battery is going to be charged.
5. In case of problems, please check battery and connects, then repeat above steps. If problem persist, please contact METCO for assistance.

Check before Proceeding:

1. Make sure battery pack is compatible with RL07 before connecting to battery pack.
2. The 3wires and the 3-pin connector of the output cable are pre-set at the factory. Do not swap their connections which may cause serious hazards.
3. RL07 charger is designed for use only with METCO battery packs that is built-in the 10K Ω thermistor and is not recommended for use with other battery packs. Battery packs from other manufactures must be approved by METCO before using this charger to charge.
4. RL07 is designed for use only in temperatures of 45degree C.
5. RL07 is a precise tool and should be kept away from high power EMI radiating devices.
6. If RL07 is removed from power source you must wait 15 seconds for charger to reset before charger is reconnected and charging can continue.