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Specification & Instruction of Smart Charger CH-L5183/KP6003SL



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The **CH-L5183 / KP6003SL** is a smart charger specifically designed for the automated charging and maintenance of the following Lithium-ion or Polymer battery packs.

- Nominal Voltage: 50.4 or 51.8V and Maximum Voltage: 58.8V

Electrical Input & Output

- **Rating AC Input:** 90VAC – 264VAC, 47 – 63 Hz.
- **Rating Frequency:** 50/60Hz.
- **Maximum Input Power:** 180W.
- **Rating Output:** 58.8V at 3A.
- **Efficiency:** >90%.

Battery Compatibility

- **Battery Type:** Li-ion/Polymer battery packs only.
- **Battery Voltage:** Must be matched with the 50.4 or 51.8V nominal Voltage Battery.
- **Battery Capacity:** Suitable for 3 – 30 Ah batteries.
- **Connector:** Requires proper positive (+) and negative (-) connectors.

Charging Characteristics

- **Charging Stages:**
  - LED1: Red, Power On
  - LED2: Red, Charging
  - LED2: Green, Charged.
- **Trickle Mode Entry:** The device enters trickle mode when the charging current drops below 1/10 of the standard charging current or reaches the high-level constant voltage stage.
- **Charging Time:** Typically 2 to 9 hours, depending on the energy remaining in the battery.

Environmental & Safety Features

- **Operating Temperature:** -10°C to +40°C.
- **Humidity:** <90%.
- **Usage Environment:** Indoor use only; do not expose to rain, snow, or splashing.
- **Protections:** Includes output short-circuit protection and overload protection.

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- **Ventilation:** Requires good ventilation during operation; do not place near heat sources or radiators.

Critical Safety Warnings

Failure to follow these warnings may result in battery damage, property damage, or personal injury.

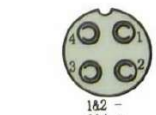
- **Battery Compatibility:** Use only with **Li-ion/Polymer** battery packs. Never use with NiMH, NiCd, or Lead-acid batteries.
- **Voltage Match:** Ensure your battery's maximum voltage is 58.8V, nominal voltage is 50.4 or 51.8V.
- **Environment:** For **indoor use only**. Never expose the unit to rain, snow, or splashing liquids.
- **Ventilation:** Always provide good ventilation during operation and keep the unit away from radiators or heat registers.
- **No User Serviceable Parts:** Do not open the cover due to high-voltage danger.
- **Damage Protocol:** Unplug the unit immediately if the cord is frayed, if liquid is spilled inside, or if the casing is dropped.

Step-by-Step Operating Instructions

Charging typically takes between **2 to 9 hours**, depending on the battery's current energy level.

1. **Initial Power Connection:** Connect the AC power plug into a wall outlet. The LED1 indicator will turn **RED**.
2. **Connect Battery:** Connect the DC battery plug to your battery pack. Ensure you are using the proper positive (+) and negative (-) connectors.
3. **Charging Phase:** The LED2 will turn **Red**, indicating the main charging stage is active.
4. **Completion:** The LED2 will automatically change to **Green** when charging is finished.
5. **Maintenance Mode:** Once green, the charger enters a maintenance (trickle charging) stage.
6. **Disconnect:** Remove both the AC plug and the DC battery plug to end the session.

Pin assignment



Pin assignment for charging terminal

Pin #1,2 = negative

Pin #3,4 = positive

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