

CL8.4VDC-2.5A



▪ automatic charger for 8.4 V lithium-ion battery packs

FEATURES:

- standard charging mode: first charging with constant current (CC), then keeping constant voltage (CV)
- reliable and efficient
- compliance with standards
- fully protected
- high efficiency and low standby power

APPLICATIONS:

- DC power backup systems
- uninterruptable power systems
- emergency lighting systems
- mobile and transportation devices
- automotive



The **CL8.4VDC-2.5A** is a high-performance and efficient 2.5 A charger for lithium-ion batteries in a small desktop enclosure. It supports 2S packets (two cells connected in series) and is designed to be charged at normal speed and to keep the batteries ready. Its design is based on high-quality electronic components that allow for continuous, long-term operation in all conditions. The range of supported battery capacities for standard charging is 18 Wh (1C) – 36 Wh (0,5C).

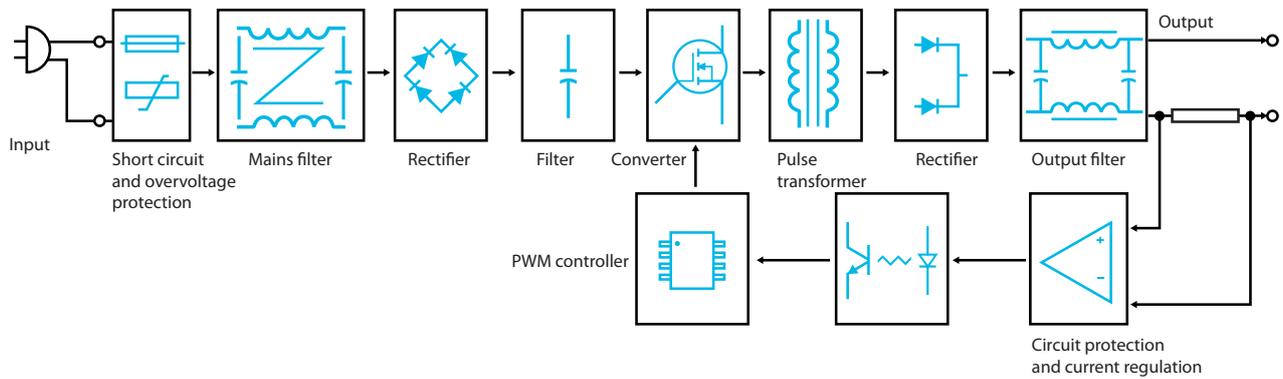
TECHNICAL CHARACTERISTICS

| Group | Parameter | Value | Conditions |
|---------------------------|------------------------------------|---------------------------|----------------------------|
| Input | Rated input voltage | 230 VAC | |
| | Input voltage range | 100-240 VAC | |
| | Mains frequency range | 50-60 Hz | |
| | AC current (max.) | 0.6 A | At 240 VAC and full load |
| | Inrush current (max.) | 50 A | At 240 VAC and full load |
| | Input leakage current (max.) | Max. 0.25 mA | At 264 VAC |
| | No-load power consumption | Max. 0.1 W | |
| | Efficiency (typ.) | 81% | |
| Output | Charging method | CC/CV | |
| | Rated output voltage | 8.4 V | With no load |
| | Minimum CV mode output voltage | 8.2 V | With no load |
| | Maximum CV mode output voltage | 8.5 V | With no load |
| | Rated output current | 2.5 A | |
| | Lowest CC mode current | 2.15 A | |
| | Highest CC mode current | 2.6 A | |
| | Rated output power | 18 W | |
| | DC voltage rise time (max.) | Up to 40 ms | At 100 VAC and full load |
| | Hold up time (max.) | 5 ms | At 100 VAC and full load |
| Turn on delay time (max.) | Up to 3 s | At 100 VAC and full load | |
| Environmental | Working temperature | 0°C to +50°C | |
| | Working humidity | 5% to 90% RH | Without condensation |
| | Storage temperature | -10°C to +80°C | |
| | Cooling method | Free air circulation | |
| Protection | Short circuit | Yes | |
| | Overcurrent | Yes | Rectangular characteristic |
| | Automatic recovery on fault remove | Yes | |
| Safety and EMC | Withstand isolation voltage | 3 kVAC (input to output) | 5 mA, 1 min |
| | Isolation class | 2 | Grounding is not required |
| | Safety compliance | EN60950, EN60335 | |
| | EMC compliance | EN55022, class B | |
| | Marking | RoHS, CE | |
| Mechanical | Dimension | 78 × 46 × 31 mm | L × W × H |
| | Enclosure | Black ABS plastic | Plug type |
| | Weight | 132 g | |
| | Input connector | EU plug | |
| | Output connector | DC Jack 2.1 × 5.5 × 11 mm | Plus in the middle |
| | Output cable | 1.5 m | 0.52 mm ² |
| | Single package | 100 × 58 × 72 mm | |
| | Packing | 525 × 310 × 310 mm | 100 pieces |
| | Country of manufacturing | China | |

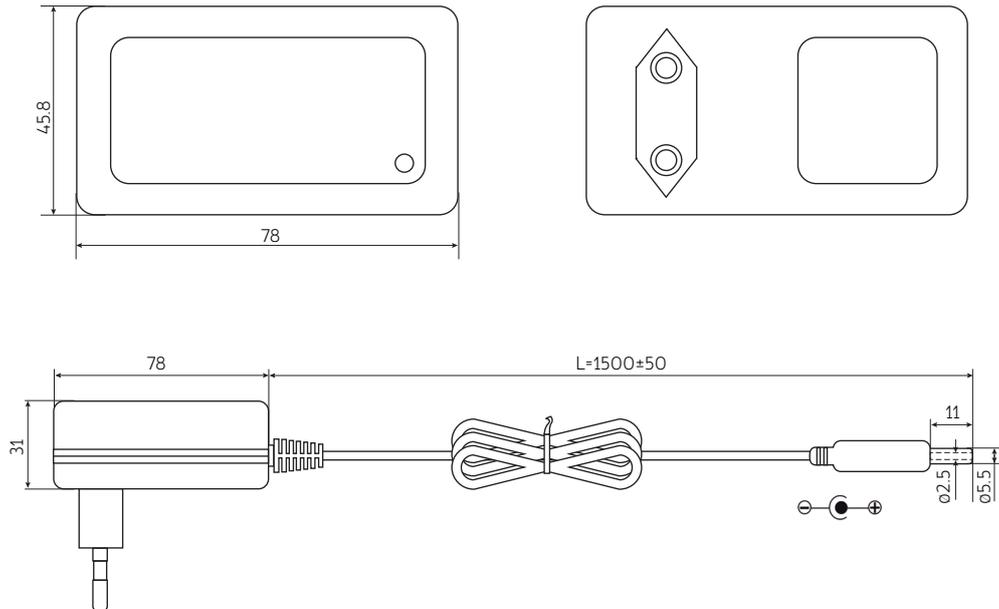
Notes:

Unless otherwise stated, all parameters are specified at 230 VAC input voltage, 50 Hz, ambient temperature 25°C and relative humidity 70% for rated load output. The values of parameters related to the output voltage regulation is measured from low to high line or for load changes from 0 to 100%, respectively. The power supply (charger) is considered as an independent unit, but the final equipment still need to reconfirm that the whole system complies with the EMC directives. If the PSU is installed in the final device as a subassembly, the tests should be repeated to verify that the system has been met compliance. Detailed technical data are available on request.

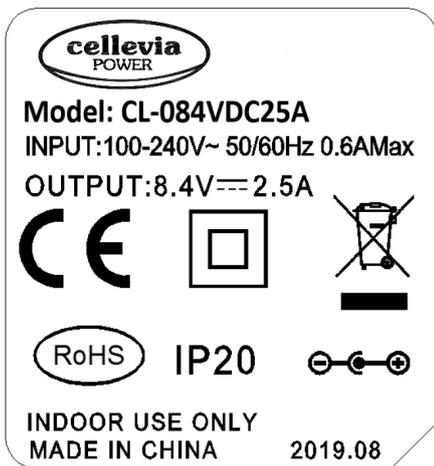
BLOCK DIAGRAM



MECHANICAL SPECIFICATION



PRODUCT LABEL



Attention. The charger is designed to work with a lithium-ion battery pack with a built-in balancer system. Its use for charging packages without a balancing system is only possible if the cell manufacturer allows such a possibility, e.g. for cells of the same type and from the same batch, and for charging with low current. If in doubt, please check the cell manufacturer's recommendations (datasheet) and follow the recommendations contained therein.

Legend to the label icons:

- - II safety class: no grounding is required, no dangerous voltage even in an emergency situation will appear on output
- ⊖ ⊕ - polarization: plus in the middle, minus outside
- ♻️ - the product must not be disposed of in normal waste containers

LED STATUS INDICATORS

| State | Conditions | LED red | LED green |
|-----------------|--|---------|-----------|
| No battery | No battery connected to charger | ○ | ● |
| Charging | Output current over 2150 mA | ● | ○ |
| Battery charged | Output current below 250 mA and battery voltage over 8 V | ○ | ● |

MARKING SYSTEM

CL8.4VDC-2.5A

- Charging current **2,5 A**
- Rated voltage **8,4 V**
- Series **CL**