ALVOLTA
BUILT FOR POWER



ALVOLTA LUNA-HL 100V 10A MPPT WITH LOAD CONTROL

ALV-10010L

Key Features:

- 98% MPPT Conversion Efficiency
- Supports Various Battery Chemistries
- Panel Shading Compensation
- 4-Stage Charging Algorithm
- Advanced Safety Features

Suitable for:

3 YEAR WARRANTY

ALVOLTA
BUILT FOR POWER

ALVOLTA LUNA-HL 100V 10A MPPT WITH LOAD CONTROL

ALV-10010L

Specifications:

System Voltage	12 / 24 V
Rated Charging Current	10A
Battery Voltage Range	8 - 32V DC
Maximum PV Open Circuit Voltage	100V
Charging Mode	Trace MPPT at maximum power
Maximum Solar Panel Power	130W at 12V, 260W at 24V
No-Load Loss	≤ 10mA
Connection Type	TR Screw Terminal
Maximum Cable Size	10mm² (8AWG)
Charging Conversion Efficiency	≤ 98%
MPPT Tracking Efficiency	> 99%
Rated Load Current	10A
Overload Protection	1.25x of 10s protection, 1.5x of 5s protection, 2x of 1s protection
Load Working Mode	Pure optical control, light & time control, manual mode, debugging mode, constant-on mode
Optical Control Voltage	Optical control on: 5V, Optical control off: 6V
Optical Control Delay	Optical control on: 5 min, Optical control off: 1 min
Internal Over-temperature Protection	Linear power reduction operation triggered by temperature over +60°C
Grounding Mode	Common negative grounding
Operating Temperature Range	-35°C - +65°C
Ingress Protection	IP64
Altitude	≤ 3000m
Colour	Black
Dimensions (w x h x d)	143 x 71 x 37.4mm
Weight	0.43kg
Warranty	3 Years
Protection Features	PV Over-voltage, PV Reverse-connection, Input Over-power, Internal Over-temperature, Over-load, Battery Over-voltage, Battery Over-discharge, Battery Reverse-connection, Charge PV Short-circuit, Load Short-circuit, TVS Lightning Protection, and Reverse Charge Protection at Night

*All data and specifications provided in this datasheet are tested under standard test conditions, and may deviate marginally from actual values. Alvolta and its associates reserve the right to make modifications to the provided information without notice. Alvolta maintains the goal to supply customers with the most recent information regarding its products.

ALVOLTA LUNA-HL 100V 10A MPPT WITH LOAD CONTROL

ALV-10010L

Module Diagrams:

