CORE Solar Power Systems 25-200W

August 2026

Plug and Play Power Systems for Remote IoT Devices

Features

- Fast mounting
- Waterproof LiFePO4 battery
- Integrated MPPT charge controller
- High efficiency solar panel
- 5V, 12V and PoE output options
- Multiple data monitoring options

Applications

- Cellular Router
- Repeater Networks
- Air Quality Monitors
- Security Cameras
- Irrigation Systems
- LoRa Gateway
- Methane Sensors
- Edge Computing
- Traffic Systems
- Seismic Sensors

Description

Voltaic's CORE Solar Power Systems are easy to install, long-lasting and lower cost than traditional lead-acid AGM systems. CORE systems are pre-assembled and include mounting hardware.

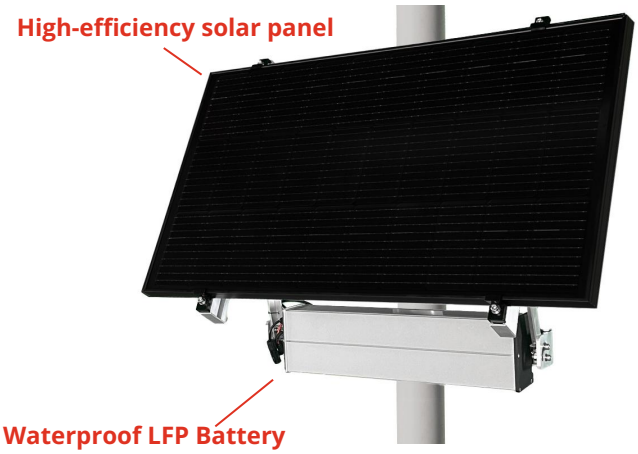
The waterproof battery uses long life LiFePO4 (LFP) cells and has an integrated MPPT charge controller. This design eliminates the need for a large enclosure and further reduces weight and complexity.

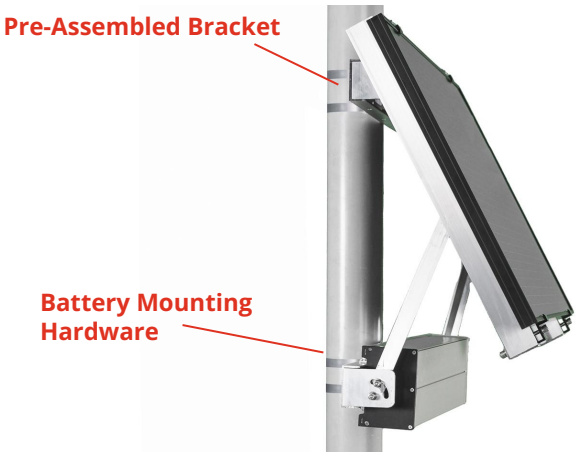
Solar panel and battery size can be adjusted to match the available power to the system load.

Battery health can be monitored from raw battery voltage, an optional RS feed or Voltaic IoT module.

System Options Summary

SKU	Panel Power (W)	Battery Capacity (Ah)	Battery Voltage Options	Mass (kg)
K-P152-V102	25	18	12V Unregulated, 5V	7
K-P150-V102	50	18	12V Unregulated, 5V	9
K-P150-V107	50	60	12V Unregulated, 5V, PoE+	15
K-P151-V107	100	60	12V Unregulated, 5V, PoE+	22
K-P151-V112	100	100	12V Unregulated, 5V, PoE+	32
K-P151X2-V107	200	60	12V Unregulated, 5V, PoE+	28
K-P151X2-V112	200	100	12V Unregulated, 5V, PoE+	37

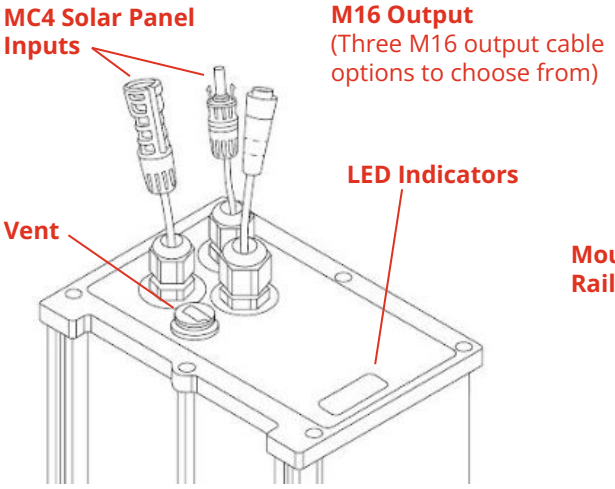


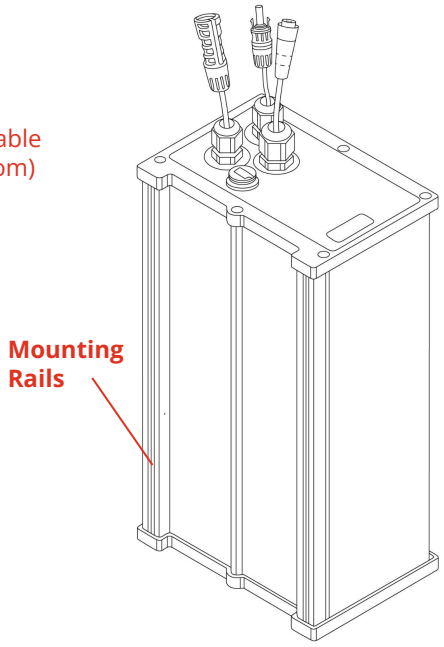


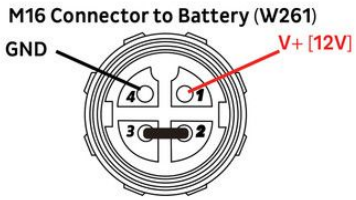
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Battery Inputs and Outputs







Battery Specifications

Battery	V102	V107	V112
Nominal Capacity	18Ah / 230Wh	60Ah / 768 Wh	96Ah / 1229Wh
Max Input/Output Current	10A	15A	15A
Maximum Solar Panel	100 Watt	200 Watt	200 Watt
Dimensions	104 x 147 x 237mm	104 x 147 x 538mm	104 x 147 x 736mm
Cell Configuration	4S 3P LFP 32700	4S 10P LFP 32700	4S 16P LFP 32700
Mass	4kg	9kg	16kg
Charge Controller	Maximum Power Point Tracking (MPPT) - 6mA self consumption, up to 97% efficient		
Input Connectors	MC4		
Standard Output Connector	LLT M16 4-Pin Cable		
Input Voltage Range	14.5V - 25V		
Output Temperature Range	-20 - 60°C		
Input Temperature Range	0 - 60°C		
Standard Output Voltage Range	Nominal 12.4V - 14.6V, Maximum 19V		
Output Wire Options	**W356** M16 to M16 Extension - 1.5m **W262** M16 to Bare Leads - 1.5m **W276** M16 5521 Barrel Jack- 1.5m		
Optional Output SKU	**C304** 5V Regulator	**C304** 5V Regulator **C403** 48V PoE Injector	**C304** 5V Regulator **C403** 48V PoE Injector
Protections	Short Circuit, Reverse Polarity, Over Current, Over / Under Temperature, Under Voltage		

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Solar Panel Specifications

Panel	P152	P150	P151
Compatible Bracket	BK108	BK108	BK110 (or BK111 for x 2)
Wp - Maximum Power	25.8W	57.4W	99W
Vp - Voltage at Max Power	16.8V	17.7V	17V
Voc - Open-Circuit Voltage	19.6V	20.7V	19.6V
Ip - Current at Max Power	1.54A	3.25A	5.8A
Isc - Short-Circuit Current	1.66A	3.43A	6.7A
Solar Cell Efficiency	23.1%	23.1%	22.8%
Number of Cell Pieces	30	30	30
Dimensions	307 x 507 x 30mm	586 x 507 x 30mm	586 x 980 x 30mm
Mass	1.9kg	3.2kg	6.2kg
Wire Length (Including Connectors)	710mm	710mm	1000mm
Connector Type	MC4		
Temperature Range	-40 - 80°C		

Data Monitoring

Option	Unregulated Voltage	RS 485 Feed	IoT Module
SKU		**W310** M8 to Bare Leads Wire	**C408** External Cat-1 NA **C409** External Cat-1 G
Physical Connection	LLT M16 4-Pin	LLT M8 4-Pin	LLT M8 4-Pin
Incremental Self Consumption	0mA	0mA	<3Wh per day
Data Available	Battery Voltage	Battery voltage, battery current, load voltage, load current, solar voltage, solar current, temperature, daily charging capacity	Battery voltage, battery current, load voltage, load current, solar voltage, solar current, temperature, daily charging capacity

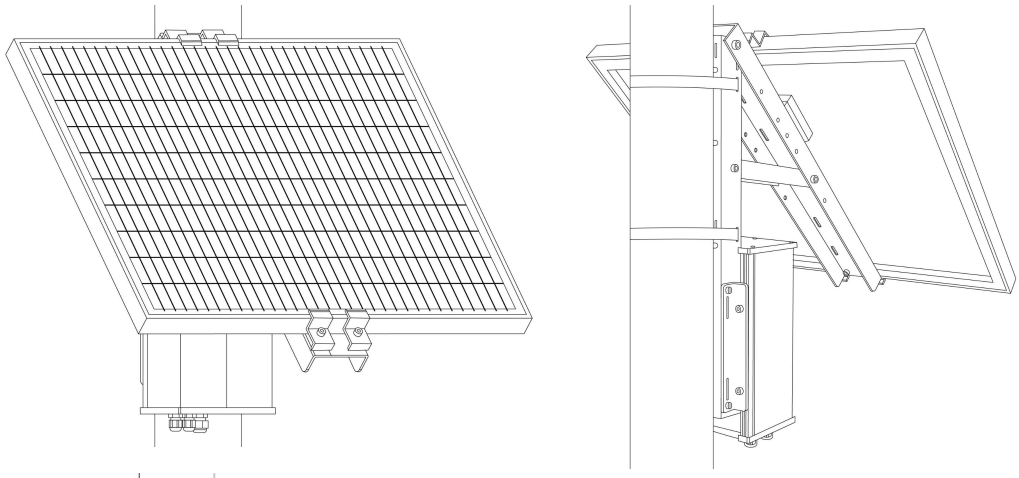
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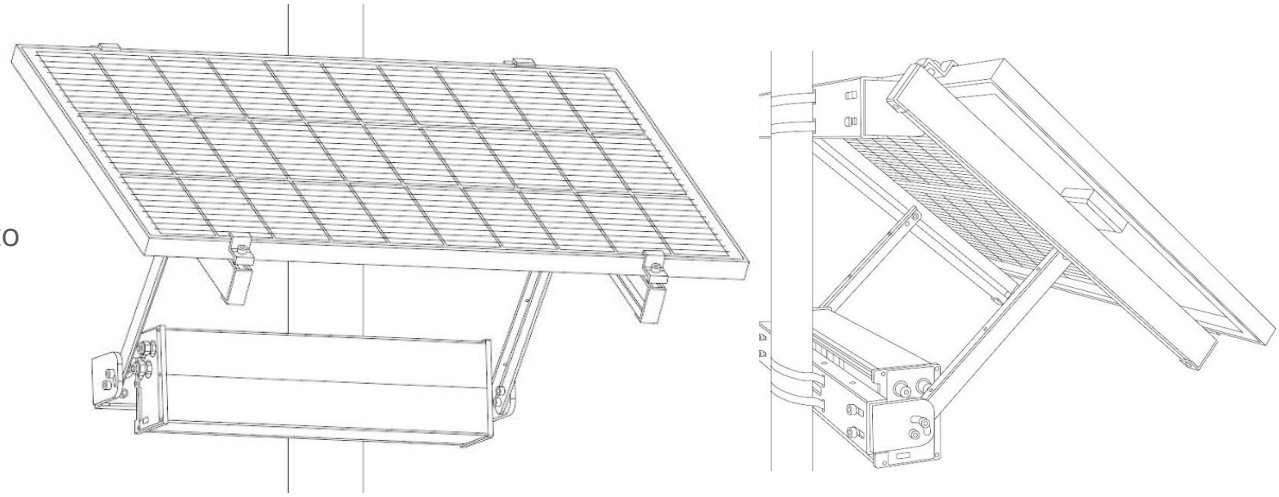
Mounting Configurations

¾" steel straps are recommended for pole mounts. Steel anchors are recommended for most wall mounts. This hardware is not included.

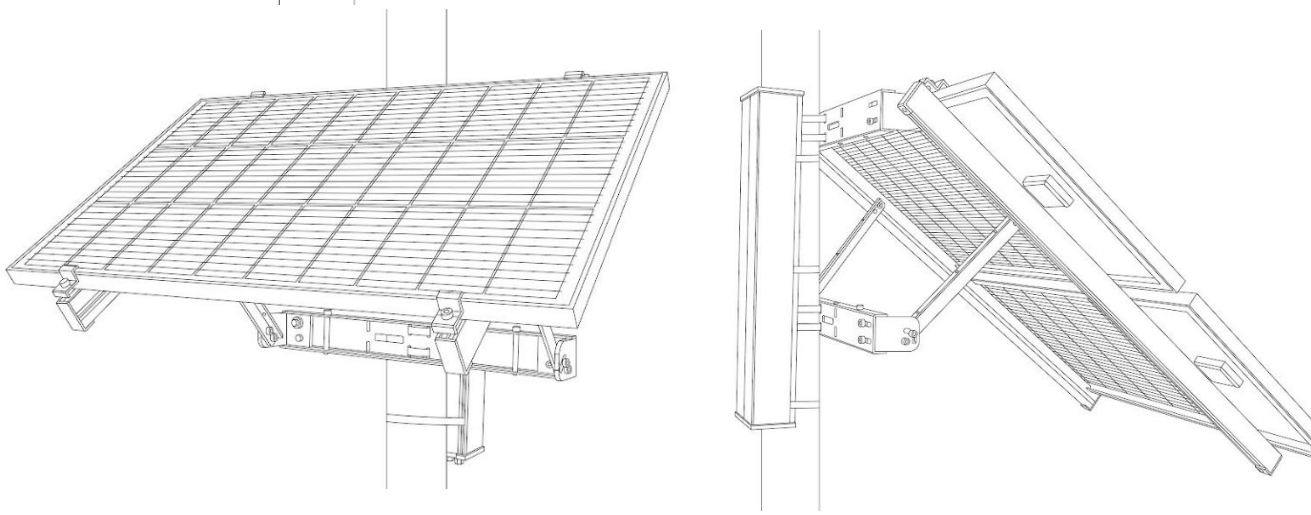
K-P152-V102
K-P150-V102
K-P150-V107
Battery mounts to Bracket.



K-P151-V107
K-P151X2-V107
Battery mounts to bracket.



K-P151-V112
K-P151X2-V112
Battery mounts to pole or wall.



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