

PV MPPT Controller

HEXMPPT-6 / HEXMPPT-12



Smart Power Tracking Technology

Real-Time Dynamic Optimization: Continuously monitors the solar panel's voltage and current, automatically locking onto the Maximum Power Point (MPP) for peak performance.

Adaptive Algorithm: Intelligently adjusts the operating point in response to varying light intensity and temperature, increasing energy harvest by 15-30%.



High-Efficiency DC Coupled System

Direct Charging Architecture: Solar panels charge the battery directly, minimizing AC-DC conversion losses (efficiency loss <3%).

Flexible Array Configuration: Supports hybrid connection of panels with different orientations and tilt angles, ideal for complex installation environments.



Precise Charging Management

Charging Precision: Utilizes voltage threshold control and a dynamic MPP tracking algorithm for accuracy.

Battery Protection: Safeguards against overcharge and over-discharge, with an optimized three-stage charging curve (Bulk, Absorption, Float).

Temperature Compensation: Features baseline compensation with adaptive adjustment across the entire operating temperature range.



Scenario Adaptability & Reliability

Robust Performance in Complex Environments: Rapidly tracks MPP fluctuations on cloudy days and operates reliably across a wide temperature range of -25°C to 60°C.

Scalable System Design: A modular architecture allows for the parallel connection of multiple controllers for expanded capacity.

Model	HEXMPPT-6
Input	
Maximum photo voltaic array voltage	No more than 900V and no more than the maximum withstand voltage of the rear cell
MPPT voltage range	200V-900V
Full-load MPPT voltage range	560V-900V
Maximum branch current	20A
Enter the number of PV branches	6
MPPT quantity	2
Each MPPT current	55A
Output	
Voltage range	600-950V
Rated voltage	Default 71.68V, adjustable
Rated output current	84A
Rated output power	60kW
Maximum output current	120A
System	
European efficiency	99.4%
IP grade	IP65
Cooling method	Air-cooling
Dimensions	610(W)*480(D)*257(H)mm
Weight	25kg
Operating temperature	-30~55°C
Power supply mode	Self-powered (no power consumption at night)
Communication interface	RS485
Model	HEXMPPT-12
Input	
Maximum photo voltaic array voltage	No more than 900V and no higher than the maximum tolerance voltage of the rear battery
MPPT voltage range	200V-900V
Rated MPPT voltage range	560V-900V
Maximum branch current	20A
PV input strings number	12
Number of MPPT	4
Current per MPPT	55A
Output	
Voltage range	600-950V
Rated voltage	Default 71.68V, adjustable
Rated output current	168A
Rated output power	120kW
Maximum output current	240A
System	
European efficiency	99.4%
IP grade	IP65
Cooling method	Air-cooling
Dimensions	610(W)*480(D)*257(H)mm
Weight	30kg
Operating temperature	-30~55°C
Power supply mode	Self-powered (no power consumption at night)
Communication interface	RS485