



WALL-MOUNTED SERIES

6.5KW 48V Hybrid Solar Inverter

LD-WHFCI-6500W-48V

LD-WHFCI-6500W-48V is a high frequency pure sine wave hybrid solar inverter designed for residential solar energy storage systems. Supports MPPT solar charging, lithium / lead-acid batteries, optional WiFi monitoring and RS485 / CAN / RS232 communication. With 27A / 9000W PV input capacity and up to 120A charging current, it delivers stable, flexible, and efficient power for home backup and off-grid solar applications.



Rated Power
6.5kW



Battery
48VDC



PV Input
9000W



Charge Current
120A

Leading Features



120A Max Charging
PV + AC charging supports up to 120A charge current



Max. PV Input
27A / 9000W PV input capacity for residential systems



Wide MPPT Range
60–450VDC operating range for flexible PV array matching



Pure Sine Wave Output
Stable AC output for home backup and energy storage



Battery Compatible
Supports lithium and lead-acid battery systems



Optional WiFi Monitoring
Built-in / external WiFi options for remote monitoring
RS485 / CAN / RS232 communication

Certification & Downloads



CE EMC
Electromagnetic Compatibility
Directive 2014/30/EU



CE LVD
Low Voltage Directive
2014/35/EU



IEC 61683
Photovoltaic Systems – Inverters –
Procedures for Measuring Efficiency



Guangzhou Leed Power Co., Ltd



www.leedpower.com | Residential Solar Energy Storage Solutions



PRODUCT SPECIFICATIONS

LD-WHFCI-6500W-48V

AC INPUT	
Rated Input Voltage (VAC)	208/220/230/240, L + N + PE
Voltage Range (VAC)	90-280 (APP/GEN mode); 170-264 (UPS mode)
Frequency (Hz)	50/60 (Auto Adaptive)
AC OUTPUT	
Rated Capacity	6.5kVA / 6.5kW
Surge Power	12kVA
Voltage (VAC)	208/220/230/240
Power Factor (PF)	1
Frequency (Hz)	50/60
Switch Time (ms)	10 (APP/UPS mode) / 20 (GEN mode)
Wave Form	Pure Sine Wave
Overload Capacity (Battery Mode)	1min @102%-110% load, 10s @110%-200% load
Max. Efficiency (Battery Mode)	94% @48VDC
Parallel Quantity	N/A
CHARGER (PV / AC)	
Solar Charger Type	MPPT
Max. PV Input Current (A) / Input Power (W)	27 / 9000
MPPT Range @ Operating Voltage (VDC)	60-450
Max. PV Open Circuit Voltage (VDC)	500
Max. PV Charge Current (A)	120
Max. AC Charge Current (A)	120
Max. Charge Current (PV + AC) (A)	120
BATTERY	
Rated Voltage (VDC)	48
Max. Charging Current (A)	120
Max. Discharging Current (A)	140
Battery Type	Lithium / Lead-acid
INTERFACE	
HMI	5 inch LCD
Interface	RS485 / CAN / RS232
Monitoring	WiFi (optional / built-in / external)
GENERAL DATA	
Ingress Protection	IP21
Operating Temperature (°C)	-10 to 60
Relative Humidity	5% - 95% (Non-condensing)
Storage Temperature (°C)	-15 to 60
Net Weight (kg)	8.4
Gross Weight (kg)	9.5
Dimensions (H*W*D) (mm)	410 * 336 * 110 (without bracket)
Package Dimensions (H*W*D) (mm)	490 * 394 * 176
Max. Operating Altitude (m)	4000 (Derating above 2000)



**RELIABLE
PERFORMANCE**



**CLEAN
ENERGY**



**GLOBAL
SERVICE**

Specifications are subject to change without prior notice.
Please refer to the latest official datasheet for final confirmation.