

# LOW-VOLTAGE

## Integrated PV -Storage-Charging-Diesel ESS

Model:MESS-10-16K  
10kW/ 16kWh



- Fast Transfer: Grid/off-grid in 10ms
- Large & Scalable: Support 10 units in parallel to 160kWh.
- Plug & Play: Wheeled, easy to move.EV Charging: Integrated 32A port
- Dual MPPT: Up to 12kW PV input。 Wide Temperature: -10° C to 55° C

### Battery Data

Cell Chemistry	LFP 314Ah
Rated Energy (kWh)	16kWh
Expandable Capacity	16-160 kWh (1-10 Battery Packs)
Pack Configuration	16S1P Per Pack
Standard Charge and Discharge Current	50-100A
Max. Output Current (A)	200A
Rated Voltage (V)	51.2V
Operating Voltage Range (VDC)	44.8V-57.6V

### PV Input

Max. PV Input Power (W)	6,000W + 6,000W (Dual MPPT)
MPPT Voltage Range (V)	90-450 VDC
Number of MPPTs (Pcs)	2
Max. PV Input Current per MPPT (A)	22A

### AC Input & Output

Rated Input/ Output Power (kW)	10 kW
Expandable Capacity (kW)	10-60kW (1-6 Inverters)
Rated Input/ Output Voltage (V)	220V/ 230V/ 240V (Adjustable)
Rated AC Frequency (Hz)	50Hz/ 60Hz
Grid Transfer Time (ms)	10ms
Grid Connection	Single Phase
EV Charging Port (A)	32A Max
Max Charging Current (Configurable)	150A

### General Data

Display	LCD Display
IP Rating	IP20
Altitude (m)	4,000m (Derating above 2,000m)
Operating Temperature (°C )	-10° C to 55° C (Derating above 45° C)
Relative Humidity	5% to 95% (Conformal Coating Protection)
Cycle Life	6,000 Cycles
Safety Protection	Reverse Polarity, PV Night Reverse-Current, Over/Under Voltage, Short Circuit, Overload, Over Current, Over Temperature, Parallel Connection Error, Synchronization Signal Fault Protection.
BMS Communication	USB/RS485(/WiFi/GPRS)/Dry Contact
Installation Method	Plug & Play
Inverter Dimensions (mm)	L695 × W270 × H400
Battery Pack Dimensions (mm)	L695 × W270 × H495
Wheel Height (mm)	85mm
Weight (kg)	~148kg
Certifications	CE, RoHS, UN38.3

This wheeled, low-voltage integrated unit combines solar, storage, and EV charging, with 16kWh per unit expandable by connecting up to 10 in parallel. Its wheels and plug-and-play design enable quick deployment to provide clean mobile power and charging for homes, outdoor events, or pop-up shops.