Open Energy For All

All-in-One Hybrid Energy Storage System Cabinet

HESS-128-2h



Features

Efficient and Flexible

- *Supports up to 200% PV oversizing to maximize energy yield*
- *Supports on-grid, off-grid, and backup operating modes*
- *High power condensing technology, making it space-saving*

Intelligent and User-friendly

- *AI-based battery health monitoring for early fault detection*
- *Supports three-phase unbalance management*
- *Supports remote alarm notifications and active safety interface*

Fast Delivery and Easy Setup

- *All-in-one design for simple plug-and-play setup*
- *Modular battery and hybrid inverter design minimize maintenance time and reduce fault loss*
- *No additional engineering design required, reducing civil construction effort and cost*

Safe and Reliable

- *Liquid cooling system maintains a stable temperature and extends the system service life*
- *Anti-corrosion base, pressure relief design, and explosion protection improve safety*
- *Waterproof and dustproof IP55-rated enclosure, suitable for outdoor use*

Technical Specifications

Model	HESS-128-2h
PV Side	
Maximum input power	100 kWp
Maximum input voltage	1000 V
Rated DC input voltage	720 V
Start-up voltage	180 V
MPPT voltage range	150-900 V
Number of MPPTs	4
Number of strings per MPPT	2
Maximum input current per MPPT	40 A
Maximum short circuit current per MPPT	50 A
Grid Side	
Rated voltage	220/380 V, 230/400 V, 3L/N/PE
Rated power	50 kW
Maximum apparent power	55 kVA
Rated current	75.8 A / 72.5 A
Rated frequency	50 Hz
Maximum input power	100 kW
Maximum input current	144 A
Power factor (@rated output)	>0.99 (0.8 leading ... 0.8 lagging)
THDi (@rated output)	<3%
Backup	
Rated output power	50 kVA
Maximum output power	55 kVA (long-term); 60 kVA (2 min)
Rated output voltage	400 V (-15% to 10%), 3L/N/PE
Rated frequency	50 Hz
Back-up switch time	<10 ms
THDv (@linear load)	<2%
Protection	
Anti-islanding protection	Integrated
PV string input reverse polarity protection	Integrated
Insulation resistor detection	Integrated
Residual current monitoring unit	Integrated
AC overcurrent protection	Integrated
AC short current protection	Integrated
AC overvoltage and undervoltage protection	Integrated
AFCI	Optional
Surge protection	DC Type II/AC Type II
System Data	
Cell type	LFP (Lithium iron phosphate), 3.2 V / 314 Ah
Configuration	128S1P
Nameplate capacity	128 kWh
Depth of discharge (DoD)	100%
Communication interface	LAN
Life cycles	≥7000 Cycles
Dimensions (W × H × D)	1000 × 2270 × 1000 mm
Total weight	1600 kg
Protection class	IP55 (Battery Cabinet)
Anti-corrosion class	C5
Operating temperature range	-35°C to 55°C (≥45°C, derating)
Relative humidity	0-95%RH (Non-condensing)
Altitude	≤2000 m
Thermal management method	Liquid Cooling (Battery + PCS)
Certification	UL 9540A, IEC 61000, IEC 61727, IEC 62116, IEC 62477, IEC 62619, IEC 63056 EN 50549, UN 38.3

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service@hoymiles.com