

PowerCore

C&I Energy Storage System
50kW / 100kWh



Your Energy Guardian, Anytime, Anywhere. III

200%
PV Oversizing

Max. **20 A**
PV Input Current
Per String

Up to **6 pcs**
On/off Grid Parallel
Operation

< **65 dB**
Suitable for Diverse
Environments

280 Ah
Battery Cells

< **10 ms**
EPS Switching Time

100%
Unbalanced Loads

0.86 m²
Footprint

Powered by

PANGU OS
From WHES



Superb

- Max. 20A PV input current per string, compatible with all PV modules.
- 4 MPPTs and 200% PV oversizing ensure maximum utilization of solar energy.
- 280Ah long-life cells with 8000 cycles.

Flexible

- Parallel connection of up to 6 PCS for on/off-grid expansion.
- < 10 ms EPS switching time for continuous power.
- Supports 100% unbalanced output, half-wave and surge loads.

User-Friendly

- High energy density, with a footprint of only 0.86m².
- No foundation required, simplifying setup.
- < 65dB, suitable for diverse environments.

Safe

- IP55 (Battery) / IP66 (Inverter) rating for dust and water resistance.
- Four-level active and passive fire protection ensures comprehensive safety.
- AFCI optional.

Applications

Shopping Mall

Factory

Farm

Community

Contact Us

www.whes.com
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PowerCore

Technical Specifications

Model	IA-29.9kW/100kWh-EC10	IA-30kW/100kWh-EC10	IA-40kW/100kWh-EC10	IA-50kW/100kWh-EC10
PV Input				
Max. PV Input Power	59.8 kW	60 kW	80 kW	96 kW
Max. Input Voltage	1000 V			
Rated Operating Voltage	600 V			
Start-up Voltage	180 V			
MPPT Voltage Range	150..850 V			
Max. Input Current	3×40 A		4×40 A	
Max. Short Circuit Current	3×60 A		4×60 A	
MPPT No. / Max. Input Strings No.	3/6		4/8	
Battery Parameters				
Cell Specification	280 Ah			
Pack Configuration	1P16S			
Rated Current	140 A			
Pack Number	4..7			
System Capacity	57.34..100.35 kWh			
AC Input / Output (Grid)				
Rated Output Power	29.9 kW	30 kW	40 kW	50 kW
Max. Apparent Output Power	29.9 kVA	30 kVA	40 kVA	50 kVA
Rated Grid Voltage	3/N/PE, 220/380 V, 230/400 V			
Grid Voltage Range	304..460 V			
Rated Grid Frequency	50/60 Hz			
AC Grid Frequency Range	45..55/55..65 Hz			
Rated Grid Output Current	45.4/43.2 A	45.6/43.3 A	60.8/57.7 A	76.0/72.2 A
Max. Output Current	45.4/43.2 A	45.6/43.3 A	60.8/57.7 A	76.0/72.2 A
Max. AC Input Current	90.8/86.4 A	91.2/86.6 A	121.6/115.4 A	152/144.4 A
Power Factor	> 0.99 (0.8 leading..0.8 lagging)			
THDi	< 3%			
AC Output (Back-up)				
Rated Output Power	29.9 kW	30 kW	40 kW	50 kW
Max. Apparent Output Power @2 sec	47.8 kVA	48 kVA	64 kVA	80 kVA
Back-up Switch Time	< 10 ms			
Rated Output Voltage	3/N/PE, 220/380 V, 230/400 V			
Rated Frequency	50/60 Hz			
Rated. Output Current	45.4/43.2 A	45.6/43.3 A	60.8/57.7 A	76.0/72.2 A
Max. Imbalance Power per Phase	33% rated power			
THDv (@linear load)	< 2%			
AC Input (Generator)				
Max. Input Power	29.9 kW	30 kW	40 kW	50 kW
Rated Input Current	45.4/43.2 A	45.6/43.3 A	60.8/57.7 A	76.0/72.2 A
Rated Input Voltage	3/N/PE, 220V/380 V, 230V/400 V			
Rated Input Frequency	50/60 Hz			
General Data				
Dimensions (W*D*H)	750*1150*2250 mm (without inverter); 1070*1150*2250 mm (with inverter)			
Weight	-113 t (without inverter); -1.2 t (with inverter)			
Protection Level	Battery Cabinet IP55, Inverter IP66			
Operating Temperature Range	-20°C..55°C			
Cooling Method	Air-cooling			
Fire Suppression System	Smoke detector, Heat detector, Alarm sounder, Aersol, Sprinkler Optional: Flammable gas detector, Vent plate			
Altitude	2000 m			
Standard ¹	IEC 62109-1/-2, IEC 61000-6-2/-4, EN 50549-1/EN 50549-10, G99, VDE-AR-N 4105 / VDE V 0124, CEI 0-21, C10/11, NRS 097-2-1, UN 38.3, IEC 62477, IEC 63056			
Order Options				
Consisting of	THA-29.9kW DC-100kWh-EC00	THA-30kW DC-100kWh-EC00	THA-40kW DC-100kWh-EC00	THA-50kW DC-100kWh-EC00

¹ For all standards refer to the certificates category on the WHES website.