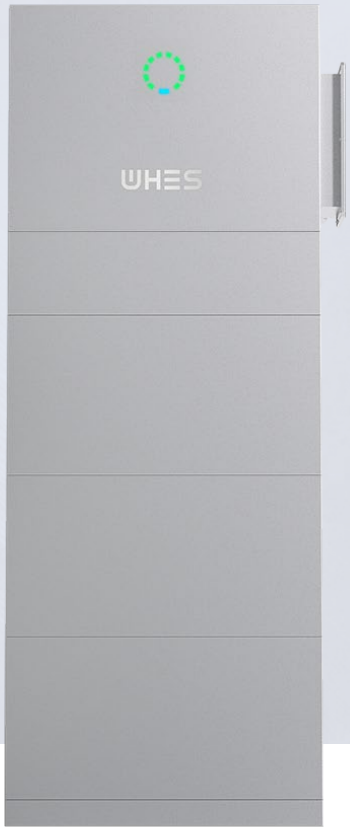
PP-T1

Residential Three-Phase All-In-One Energy Storage System
5-13kW / 9.98-29.9kWh



Max. **2** times
Photovoltaic Oversizing

Build-in FSS
Built-in Aerosol Fire Suppression System

< 10 ms
EPS Switching Time

110 %
Unbalanced Output

Powered by
ECOS Smart Home
From WHES

Battery Heating Technology

Superb
- Max. 16/26A DC input current per string, compatible with 182/210 PV modules.
- Max. 5 units in parallel, covering a capacity range up to 149.76kWh.

Friendly
- Integrated plug-in terminal replaces manual wiring, saving 75% installation time between modules.
- IP65, indoor or outdoor application.
- <25dB, no noise pollution.

Safe
- Four-layer protection design, including built-in fire suppression system.
- Long life cell, meeting the most stringent safety standards – UL9540A.

Smart
- Compatible with VPP, EV, and diesel generators.
- Remote updates & self-diagnosis.

Contact Us
www.whes.com
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PP-T1

Technical Specifications

Model	WH-TIA502	WH-TIA602	WH-TIA802	WH-TIA103	WH-TIA123	WH-TIA133
PV Input						
Max. PV Input Power	10000 Wp	12000 Wp	16000 Wp	20000 Wp	20000 Wp	20000 Wp
Max. Input Voltage	1000 V					
Rated Input Voltage	620 V					
Start-up Voltage	145 V					
MPPT Voltage Range	180...980 V					
Max. Input Current	42 A (16 A * 1, 26 A * 1)					
Max. Input Short Circuit Current	56 A (20 A * 1, 36 A * 1)					
No. of MPPT	2					
No. of PV Strings per MPPT	1/2					
Battery						
Battery Type	LFP , 3.2 V / 52 Ah					
Battery PACK Configuration	1P*30S, 4.992 kWh					
Battery Capacity	9.98...29.8 kWh					
Voltage Range	160...700 V					
Max. Charging/Discharging Current	30 / 30 A					
AC Input/Output						
Rated Input/Output Power	10000 W / 5000 W	12000 W / 6000 W	16000 W / 8000 W	17900 W / 10000 W	17900 W / 12000 W	17900 W / 13000 W
Max. Apparent Input/Output Power	10000 VA / 5000 VA	12000 VA / 6000 VA	16000 VA / 8000 VA	17900 VA / 10000 VA	17900 VA / 12000 VA	17900 VA / 13000 VA
Rated Input / Output Current	16.2 A / 8.1 A	19.2 A / 9.6 A	25.6 A / 12.8 A	26 A / 16 A	26 A / 19.2 A	26 A / 20.8 A
Max. Input / Output Current	16.2 A / 8.1 A	19.2 A / 9.6 A	25.6 A / 12.8 A	26 A / 16 A	26 A / 19.2 A	26 A / 20.8 A
Rated Output Voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V, 240 V / 415 V					
Rated Frequency	50/60 Hz					
Power Factor	1 (-0.8...+0.8 adjustable)					
Total Harmonic Distortion (THDi)	< 3%					
EPS Output						
Rated Output Power [1]	5000 W	6000 W	8000 W	10000 W	12000 W	13000 W
Peak Apparent Output Power	2 times of rated power, 10s	2 times of rated power, 10s	2 times of rated power, 10s	1.6 times of rated power, 10s	1.33 times of rated power, 10s	1.23 times of rated power, 10s
Rated Output Voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V, 240 V / 415 V					
Rated Output Current	8.1 A	9.6 A	12.8 A	16 A	19.2 A	20.8 A
Rated Frequency	50/60 Hz					
Back-up Switch Time	< 10 ms					
Power Factor	1 (-0.8...+0.8 adjustable)					
Total Harmonic Distortion (THDi)	< 2%					
Efficiency						
PV Max. Efficiency	98.00%					
PV Europe Efficiency	97.00%					
Protection						
Over/Under Voltage Protection, DC Isolation Protection, DC Injection Monitoring, Residual Current Detection, Anti-islanding Protection, Over Load Protection, Battery Input Reverse Polarity Protection, PV Reverse Polarity Protection, Surge Protection, Over Heat Protection						
General Data						
Topology	Non-isolated					
Dimensions (W*D*H)	600*350*450 mm (Inverter module), 600*350*210 mm (High Voltage Box and Base), 600*350*305 mm (Battery module)					
Weight	33 kg (Inverter module), 11 kg (High Voltage Box and Base), 57 kg (Battery module)					
Operating Temperature Range	-20°C...+55°C [2]					
Relative Humidity	0%...95%					
Altitude	≤3000 m					
Cooling	Natural Convection					
Noise	< 25 dB					
Ingress Protection	IP 65					
Display	LED / APP					
Communication	RS485 / CAN					
Installation	Floor-standing					
Standard [3]	UN 38.3, IEC 61000, IEC 62619, IEC 63056, IEC 62109, IEC 62040, EN 50549-1/-10, C10/11, EIFS 2018:2, VDE-AR-N 4105, RfG:2015, NC RfG:2018, PTPiREE:2021, AS/NZS 4777.2, G98/G99, CEI 0-21					

[1] Depends on the input power of the photovoltaic and batteries.

[2] This is the operating temperature when the intelligent heating module is built-in, if not, the operating temperature is Charge: 0°C...50°C, Discharge: -20°C...+55°C.

[3] For all standards refer to the certificates category on the WHES website.

* The product features a shiny silver color design with a mirror-like logo, which exhibits subtle color variations under different lighting conditions.

* All information reflects the current state of technology at the time of printing and is subject to change. Despite careful editing, no liability is assumed.