

# PP-S1



## Residential Single-Phase All-In-One Energy Storage System 3.6-6kW / 5.12-10.24kWh

**89** Wh/kg  
Power Density  
Over-configuration

**10** years / **30** MWh  
Warranty

**2** Hours  
Installation Time

**25** dB  
Noise

IP **65**  
Protection Level

**< 10** ms  
Switching Time

Powered by  
  
ECOS Smart Home  
From WHES



### Convenient

- Pre-installed battery for easy installation.
- Fully integrated all-in-one, no extra modules or inverters required.

### Flexible

- IP65, indoor or outdoor application.
- Self-power, backup, and load shifting modes.

### Quiet

- < 25 dB, no noise pollution.

### Smart

- Compatible with VPP and IOT.
- Remote updates & self-diagnosis.

### Contact Us

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# PP-S1

## Technical Specifications

Model	WH-SPHA3.6H-5.12kWh WH-SPHA3.6H-10.24kWh	WH-SPHA4.6H-5.12kWh <sup>1</sup> WH-SPHA4.6H-10.24kWh <sup>1</sup>	WH-SPHA5.0H-5.12kWh WH-SPHA5.0H-10.24kWh	WH-SPHA6.0H-5.12kWh WH-SPHA6.0H-10.24kWh
<b>PV Input</b>				
Max. PV Input Power	4800 Wp	6200 Wp	6650 Wp	8000 Wp
Max. Input Voltage	600 V			
Rated Input Voltage	360 V			
Start-up Voltage	90 V			
MPPT Voltage Range	100...550 V			
Max. Input Current	25 A (12.5 A * 2)			
Max. Input Short Circuit Current	36 A (18 A * 2)			
No. of MPPT	2			
No. of PV Strings per MPPT	1			
<b>Battery</b>				
Battery Type	LFP, 3.2 V / 25 Ah			
Battery PACK Configuration	1P*64S, 5.12 kWh			
Battery Capacity	5.12...10.24 kWh			
Voltage Range	80...500 V			
Max. Charging / Discharging Current	25 A / 25 A			
<b>AC Input/Output</b>				
Rated Input/Output Power	7200 W / 3600 W	9200 W / 4600 W	10000 W / 5000 W	12000 W / 6000 W
Max. Apparent Input/Output Power	7200 VA / 3600 VA	9200 VA / 4600 VA	10000 VA / 5000 VA	12000 VA / 6000 VA
Rated Input / Output Current	31.2 A / 15.7 A	40 A / 20 A	43.4 A / 21.8 A	52.2 A / 26.1 A
Max. Input / Output Current	31.2 A / 17.2 A	40 A / 22 A	43.4 A / 23.9 A	52.2 A / 28.7 A
Rated Output Voltage	1/N/PE, 220 V / 230 V / 240 V			
Rated Frequency	50/60 Hz			
Power Factor	1 (-0.8...+0.8 adjustable)			
Total Harmonic Distortion (THDi)	< 3%			
<b>EPS Output</b>				
Rated Output Power <sup>2</sup>	3600 W	4600 W	5000 W	6000 W
Rated Output Voltage	1/N/PE, 220 V / 230 V / 240 V			
Rated Output Current	18.8 A	24 A	26.1 A	31.3 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%			
<b>Efficiency</b>				
PV Max. Efficiency	97.6%			
PV Europe Efficiency	97%			
<b>Protection</b>				
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				
<b>General Data</b>				
Topology	Non-isolated			
Dimensions (W*D*H)	550*233*500 mm (Inverter module), 550*233*625 mm (Battery module)			
Weight	21 kg (Inverter module), 47 kg (Battery module)			
Operating Temperature Range	-10°C...+55°C			
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 <sup>3</sup>	UN 38.3, IEC 61000, IEC 62619, IEC 62109, IEC 62477, AS/NZS 4777.2, EN 50549-1, C 10/11, VDE 4105, VDE 0124, MEA/PEA, XP C 15-712-3, VDE 0126, PDC, EN50549-1/RfG/PTPIRE, G98/G99, RD 1699, CEI 0-21, EIFS, PPDS, NRS 097			

<sup>1</sup> Only for Germany.

<sup>2</sup> Depends on the input power of the photovoltaic and batteries.

<sup>3</sup> For all standards refer to the certificates category on the WHES website.