

Hybrid Inverter

Single-Phase Hybrid Inverter
3.6-6kW

WHES

21 A

Max. PV Input
Current Per MPPT

Max. **2** times

Rated EPS Output
Power for 10s

IP66

Protection
Designed for Any Environment

Support **AFCI&RSD**
Advanced Safety

Powered by
ECOS
ECOS Smart Home
From WHES



Powerful

- Supports 2 times PV over-sizing access.
- Ultra-wide MPPT voltage range captures every ray of light from dawn to dusk, maximizing energy collection.
- Supports 2 times rated output power @10s when off-grid.

Safe

- Supports AFCI and RSD for enhanced system safety.

Smart

- Optimizes battery usage based on dynamic tariffs, maximizing self-consumption and energy cost savings.
- Enable seamless integration with VPP operators across the world.
- Work within HEMS ecosystems, coordinating with EV chargers, heat pumps, diesel generators and other distributed energy assets.
- Supports DRM, Ripple Control, and §14a EnWG.

Friendly

- IP66, indoor or outdoor application.
- < 25dB, no noise pollution.

Contact Us

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Technical Specifications

Model	SHE-3.6kW	SHE-4.6kW	SHE-5kW	SHE-6kW
PV Input				
Max. PV Input Power	7360 Wp	9200 Wp	10000 Wp	12000 Wp
Max. Input Voltage			600 V	
Rated Input Voltage			360 V	
Start-up Voltage ¹			50 V	
MPPT Voltage Range			40...560 V	
Max. Input Current			42 A (21 A * 2)	
Max. Input Short Circuit Current			52 A (26 A * 2)	
No. of MPPT			2	
No. of PV Strings per MPPT			1	
Battery				
Battery Type			LFP	
Battery Voltage Range			80...500 V	
Max. Charging/Discharging Current			35 A / 35 A	
No. of Battery Input			1	
AC Input/Output				
Rated Input/Output Power	7.36 kW / 3.68 kW	9.2 kW / 4.6 kW	10 kW / 5 kW	12 kW / 6 kW
Max. Apparent Input/Output Power	7.36 kVA / 3.68 kVA	9.2 kVA / 4.6 kVA	10 kVA / 5 kVA	12 kVA / 6 kVA
Rated Input / Output Current	32 A / 16 A	40 A / 20 A	43.5 A / 21.8 A	52.2 A / 26.1 A
Max. Input / Output Current	32 A / 16 A	40 A / 20 A	43.5 A / 21.8 A	52.2 A / 26.1 A
Rated Output Voltage		220 V/230 V/240 V, L/N/PE		
Rated Frequency		50/60 Hz		
Power Factor		1 (-0.8...+0.8 adjustable)		
Total Harmonic Distortion (THDi)		<3%		
EPS Output				
Rated Output Power ²	3.68 kW	4.6 kW	5 kW	6 kW
Peak Apparent Output Power		2times @10s		
Rated Output Voltage		220 V/230 V/240 V, L/N/PE		
Rated Output Current	16 A	20 A	21.8 A	26.1 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		97.30%		
Protection				
AFCI (optional), RSD (optional), 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)	440*177*360 mm			
Weight	18 kg			
Operating Temperature Range	-35°C...+60°C			
Relative Humidity	0%...100%			
Altitude	4000 m (derating @ 3000 m)			
Cooling	Natural Convection			
Noise	< 25 dB			
Standby Power Consumption	< 10 W			
Ingress Protection	IP 66			
Display	LED / APP			
Communication	RS485, CAN, DI/DO, Dry Contact			
Installation	Wall-mounted			
Standard ³	IEC 62019, IEC 61000, AS/NZS 4777.2, EN 50549-1/-10, G98/G99, CEI 0-21			

¹ With battery.

² Depends on the input power of the photovoltaic and batteries.

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