

Hybrid Inverter (COPIA-TH)

WHES

Three-Phase Hybrid Inverter
5-13kW

18 A
Max. PV Input
Current Per String

Max. **16** kW
EPS Peak Output
Apparent Power

110 %
Unbalanced Output

< **10** ms
EPS Switching Time

Powered by
ECOS
ECOS Smart Home
From WHES



Powerful

- Max. 18A DC input current per string, compatible with 182/210 PV modules.
- Ultra-wide MPPT voltage range captures every ray of light from dawn to dusk, maximizing energy collection.

Flexible

- Up to 110% three-phase unbalanced output, increasing self-use ratio and optimizing solar production.
- Max. 5 units in parallel, offering a cost-effective commercial solution.

Efficient

- High charge/discharge efficiency, up to 98.5%/97.7%.
- Reduced energy loss between battery and inverter interaction.

Friendly

- < 25dB, no noise pollution.
- IP65, indoor or outdoor application.

Contact Us

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Technical Specifications

Model	WH-THA502	WH-THA602	WH-THA802	WH-THA103	WH-THA123	WH-THA133
PV Input						
Max. PV Input Power	7500 Wp	9000 Wp	12000 Wp	15000 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	36 A (18 A * 2)					
Max. Input Short Circuit Current	44 A (22 A * 2)					
No. of MPPT	2					
No. of PV Strings per MPPT	1					
Battery Input						
Battery Voltage Range	160..700 V					
Max. Charging/Discharging Current	25 A / 25 A					
No. of Battery Input	1					
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
Max. Output Fault Current	52 A (peak), 37 A (rms)					
AC Output Max. Output Overcurrent Protection	37 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%					
PV Europe Efficiency	97%					
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)	510*205*480 mm					
Weight	30.8 kg					
Operating Temperature Range	-25°C..60°C					
Relative Humidity	0%..95%					
Altitude	≤3000 m					
Cooling	Natural Convection					
Noise	< 25 dB					
Standby Power Consumption	< 10 W					
Ingress Protection	IP 65					
Display	LED / APP					
Communication	RS485 / CAN					
Installation	Wall-mounted					
Standard ²	IEC 62109, IEC 61000, AS/NZS 4777.2, EN 50549-1, C 10/11, VDE 4105, VDE 0124, XP C 15-712-3, VDE 0126, EN50549-1/RfG/PTPIREE, CEI 0-21, EIFS					

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

² 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.