COPIA-TH

Three-Phase Hybrid Inverter

Product Introduction

Copia-TH, a three-phase hybrid inverter. This series has a power output range of 5-12kW, compatible with single-phase load and three-phase load, supports 110% unbalanced load, and is suitable for various home application environments.

Compelling

1.5 DC/AC Ratio,
Max 16A DC input current per string
Up to 110% three-phase unbalanced output

Compatible

160-700V wide battery voltage range,
Compatible with various brands of batteries

Capable

High charge/discharge effciency, up to 98.5%/97.5%,
Less energy loss on battery and inverter interaction

Stable

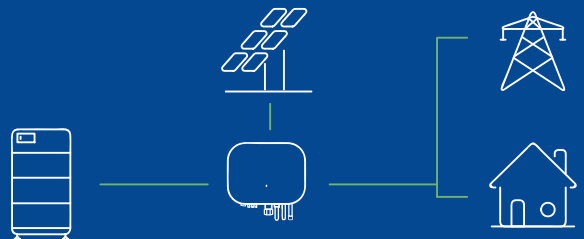
IP65 protection level,
Uninterrupted power supply, and off-grid switching time is less than 10ms

Smart

VPP and IOT ready,
Support remote update and control via ECOS

Secured

10 years warranty, 24-hour service response



- Equipped with a high-voltage battery, it helps users maximize self-use of energy, while effectively ensuring household energy supply during power outages.

Copia-TH Series

Technical parameters

Model	WH-THA502	WH-THA602	WH-THA802	WH-THA103	WH-THA123
PV Input					
Absolute max Voltage (d.c.V)			1000		
MPPT Voltage Range (d.c.V)			180...980		
Max. DC Input Power (W)	7500	9000	12000	15000	20000
Start-up Voltage (d.c.V)			145		
Rated Operating Voltage (d.c.V)			620		
Max. Input Current (d.c.A)			16/16		
Max. inverter backfeed current to array (d.c.A)			0		
Isc PV (d.c.A)			20/20		
NO. of MPP Trackers			2		
NO. of Strings per MPP Tracker			1		
Battery			Li-ion		
Battery Voltage Range (d.c.V)			160...700		
Max. Charge/Discharge Current (d.c.A)			25/25		
AC Input/Output					
Rated output Power (W)	5000	6000	8000	10000	12000
Rated Apparent Power to Grid (VA)	5000	6000	8000	10000	12000
Max. Apparent Power to Grid (VA)	5500	6600	8800	11000	13200
Max. Apparent Power from Grid (VA)	10000	12000	16000	16000	16000
Rated Voltage (a.c.V)			400/380, 3L/N/PE		
Rated Frequency (Hz)			50/60		
Rated AC Current to Grid (a.c.A)	7.6	9.1	12.2	15.2	18.2
Max. AC Current to Grid (a.c.A)	8.4	10.0	13.4	16.7	20.1
Rated AC Current from Grid (a.c.A)	15.2	18.2	24.3	24.3	24.3
Max. AC Current from Grid (a.c.A)	16.7	20.0	26.7	26.7	26.7
Inrush current (a.c.A)			16 a.c.A (peak), 11.3 us (duration)		
Max. output fault current (a.c.A)			52 (peak), 37 (rms)		
AC output Maximum output overcurrent protection (a.c.A)			37		
AC input power factor			-0.8...+0.8		
AC output power factor			1(-0.8...+0.8 adjustable)		
THDi			<3%		
EPS Output					
Rated Output Power (W)	5000	6000	8000	10000	12000
Peak Output Apparent Power (VA) @60 sec	10000	12000	16000	16000	16000
Rated Voltage (a.c.V)			400/380, 3L/N/PE		
Norminal Frequency (Hz)			50/60 (±0.2%)		
Rated Output Current (a.c.A)	7.6	9.1	12.2	15.2	18.2
Inrush current (a.c.A)			16 a.c.A (peak), 11.3 us (duration)		
Max. output fault current (a.c.A)			57 (peak), 36 (rms)		
EPS output Maximum output overcurrent protection (a.c.A)			37		
Switch time (ms)			<10		
THDv @Linear Load (%)			<2		
Power Factor			-0.8...+0.8		
Efficiency					
PV Max. Efficiency (%)			98		
PV Europe Efficiency (%)			97		
PV Max. MPPT Efficiency (%)			99.9		
Battery Charge by PV Max. Efficiency (%)			98.5		
Battery Discharge Efficiency (%)			97.7		
Protection					
Over/Under voltage protection			Yes		
DC isolation protection			Yes		
DC injection monitoring			Yes		
Residual current detection			Yes		
Anti-islanding protection			Yes		
Over load protection			Yes		
Battery Input reverse polarity protection			Yes		
PV reverse polarity protection			Yes		
Surge protection			Yes		
Over heat protection			Yes		
General Data					
Dimension (W/D/H)(mm)			510*205*460		
Dimension of Packing (W/D/H)(mm)			655*250*550		
Net weight (kg)			26-28		
Gross weight (kg)			22		
Operation Temp (°C)			-25...+60		
Relative Humidity (%)			0...95		
Altitude (m)			≤3000		
Ingress Protection			IP65		
Cooling			Natural		
Inverter Topology			Non-isolated		
Over voltage category			III(AC), II (DC)		
Protective class			Class I		
Active anti-islanding method			frequency shift		
Human Interface			LED/APP		
BMS Communication Interface			RS485/CAN		
Meter Communication Interface			RS485		
Noise Emission (dB)			<25		
Standby Power Consumption (W)			<10		
Safety and Approvals					
Safety			IEC62040.1:2019 IEC62109-1&-2		
EMC			EN IEC 61000-6-2:2019 EN IEC 61000-6-3:2021		
Grid Regulation					