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WEIHENG eCACTUS

HYBRID INVERTER - support for energy storage system

Compatibility
with energy storage Myrtillo
from AVIA Solar eCactus

10 years
Guarantees

IP65



The COPIA series hybrid inverters are a key component of photovoltaic installations integrated with energy storage systems. They ensure optimal energy usage and enable off-grid operation through the EPS circuit. Intelligent load management, a wide voltage range, and compatibility with various battery types allow for flexible system adaptation to individual needs. For maximum efficiency and safety, pairing with MYRTILLO series energy storage systems is recommended.

Key benefits

Intelligent energy management
Remote control and automatic updates via ECOS, available via mobile app and web interface.

Efficient cooling without a fan Quiet operation and reduced risk of breakdowns.

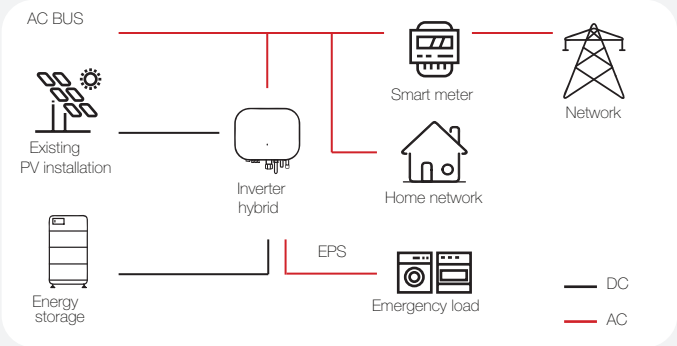
Reliable emergency power supply
Lightning-fast switch in less than 10 ms to off-grid mode on the EPS connector.

Shorter charging times, less energy loss
Greater charge and discharge current.

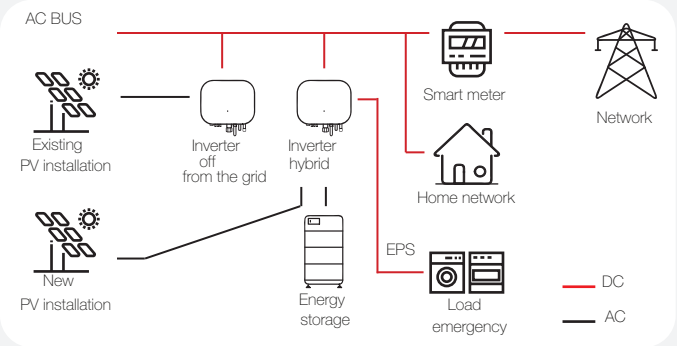
Compatibility
easy integration with grid-tied inverters and energy storage devices (160-700 V), including the high-voltage MYRTILLO storage devices from AVIA Solar eCcactus (expansion 4.99–29.9 kWh).

Possible applications

New PV installation



Existing PV installation



AVIA SOLAR

Data sheet

Technical specification

AVIA SOLAR

Copia-SH Series - Single Phase

Model	WH-SHC362	WH-SHC462	WH-SHC502	WH-SHC602
PV input				
Maximum voltage (V)	600			
MPPT voltage range(V)	100...550			
Max. DC input power (W)	4800	6200	6650	8000
Starting voltage (V)	90			
Nominal operating voltage (V)	360			
Max. input current (A)	12.5/12.5			
Max. inverter reverse current to switchboard (A)	0			
PV short circuit current (A)	18/18			
Number of MPPT points	2			
Battery				
Battery voltage range (V)	80...500			
Max. charge/discharge current (A)	25			
AC Input/Output				
Nominal output power (W)	3600	4600	5000	6000
Nominal apparent power to the grid (VA)	3600	4600	5000	6000
Max. apparent power to grid (VA)	3600	4600	5000	6000
Max. apparent power from mains (VA)	7200	9200	10000	12000
Nominal operating voltage (V)	220/230/240			
Frequency (Hz)	50/60			
Nominal AC current to mains (A)	16	20	21.7	26.1
Nominal AC current from mains (A)	32	40	43.4	52.2
Max. output short circuit current (A)	57 (peak), 40 (rms)			
AC Input Power Factor	-0.8...+0.8			
THDi - at linear load	<3%			
Emergency power supply (EPS output)				
Max. output power (W)	3600	4600	5000	6000
Nominal apparent power (VA)	4320	5520	6000	7200
Max. apparent power (VA)	4320	5520	6000	7200
Nominal voltage (V)	220/230/240			
Frequency (Hz)	50/60 (±0.2%)			
Nominal output current (A)	18.8	24	26.1	31.3
Max. output short circuit current (A)	57 (peak), 40 (rms)			
Max. EPS output overload protection (A)	40			
Switching time (ms)	<10			
THDv with linear load	<2%			
Power factor	-0.8...+0.8			
Efficiency				
Max PV efficiency	97.6%			
PV Efficiency in Poland	97%			
Max. MPPT PV efficiency	99.9%			
Max. PV battery charging efficiency	98%			
Battery discharge efficiency	96.7%			
Security				
EPS Overload Protection	Yes			
DC circuit insulation protection	Yes			
Leakage current detection	Yes			
Overload protection	Yes			
Battery reverse polarity protection	Yes			
PV reverse current protection	Yes			
Overvoltage protection	Yes			
Overheating protection	Yes			
General data				
Dimensions (width*depth*height) (mm)	500*170*425			
Net weight (kg)	19.8			
Operating temperature(°C)	-25...+60			
Relative humidity	0...95%			
Degree of protection (IP)	IP65			
Cooling	Passive			
User interface	LED/Mobile App			
BMS communication interface	RS485/CAN			
Meter communication interface	RS485			
Noise emission (dB)	<25			
Power consumption in standby mode (W)	<3			
Security and certificates				
Safety standards	IEC62109, IEC62040			
Compliance with standards and certificates	EN 50549-1, C 10/11, VDE 4105, VDE 0124, G 98/G 99, RD 1699, CEI 0-21, NRS 097			

AVIA SOLAR

Data sheet

Technical specification

AVIA SOLAR

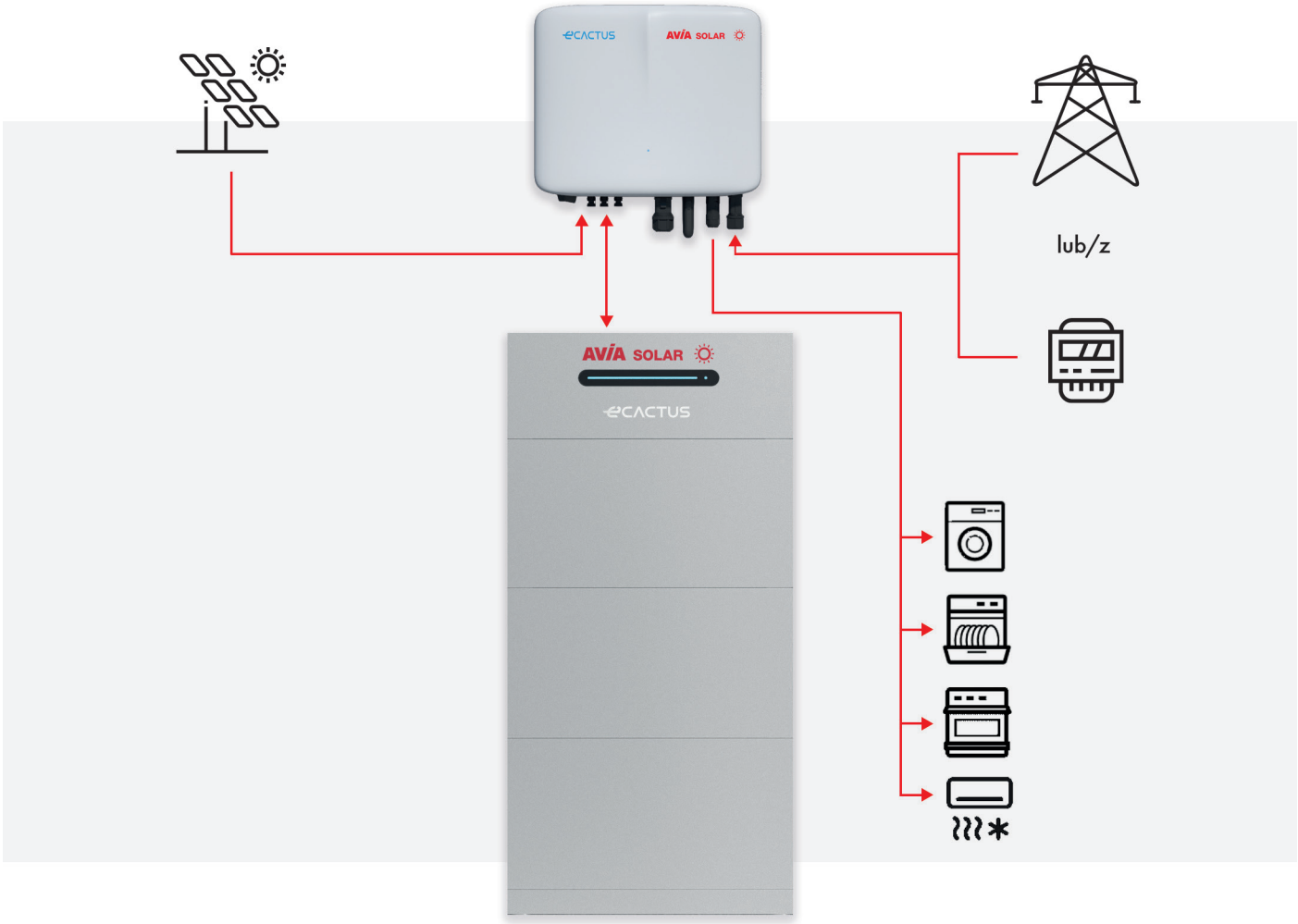
Copia-TH Series - Three Phase

Model	WH-THA502	WH-THA602	WH-THA802	WH-THA103	WH-THA123	WH-THA133
PV input						
Maximum voltage (V)	1000					
MPPT voltage range(V)	180…980					
Max. DC input power (W)	7500	9000	12000	15000	20000	20000
Starting voltage (V)	145					
Nominal operating voltage (V)	620					
Max. input current (A)	18/18					
Max. inverter reverse current to switchboard (A)	0					
PV short circuit current (A)	22/22					
Number of MPPT points	2					
Battery						
Battery voltage range (V)	160...700					
Max. charge/discharge current (A)	25/25					
AC Input/Output						
Nominal output power (W)	5000	6000	8000	10000	12000	13000
Max. apparent power to grid (VA)	5000	6000	8000	10000	12000	13000
Max. apparent power from mains (VA)	10000	12000	16000	17900	17900	17900
Operating voltage (V)	3/N/PE;220/380 3/N/PE;230/400 3/N/PE;240/415					
Frequency (Hz)	50/60					
Max. AC current to mains (A)	8.1	9.6	12.8	16.0	19.2	20.8
Max. AC current from mains (A)	16.2	19.2	25.6	26.0	26.0	26.0
Max. output short circuit current (A)	52 (peak), 37 (rms)					
THDi - at linear load	<3%					
Emergency power supply (EPS output)						
Nominal output power (W)	5000	6000	8000	10000	12000	13000
Max. output power (VA) (60s)	10000	12000	16000	16000	16000	16000
Operating voltage (V)	3/N/PE;220/380 3/N/PE;230/400 3/N/PE;240/415					
Frequency (Hz)	50/60 (±0.2%)					
Max. output current (A)	8.1	9.6	12.8	16	19.2	20.8
Max. output short circuit current (A)	52 (peak), 37 (rms)					
Max. EPS output overload protection (A)	37					
Switching time (ms)	< 10					
THDv with linear load	<2%					
Power factor	-0.8...+0.8					
Efficiency						
Max PV efficiency	98%					
PV Efficiency in Poland	97%					
Max. MPPT PV efficiency	99.9%					
Max. PV battery charging efficiency	98.5%					
Battery discharge efficiency	97.7%					
Security						
EPS Overload Protection	Yes					
DC circuit insulation protection	Yes					
Leakage current detection	Yes					
Overload protection	Yes					
Battery reverse polarity protection	Yes					
PV reverse current protection	Yes					
Overvoltage protection	Yes					
Overheating protection	Yes					
General data						
Dimensions (width*depth*height) (mm)	510*205*480					
Net weight (kg)	30.8					
Operating temperature(°C)	-25...+60					
Relative humidity	0...95%					
Degree of protection (IP)	IP65					
Cooling	Passive					
User interface	LED/APP					
BMS communication interface	RS485/CAN					
Meter communication interface	RS485					
Noise emission (dB)	<25					
Power consumption in standby mode (W)	< 10					
Security and certificates						
Safety standards	IEC62109, IEC62040					
Compliance with standards and certificates	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					

AVIA SOLAR

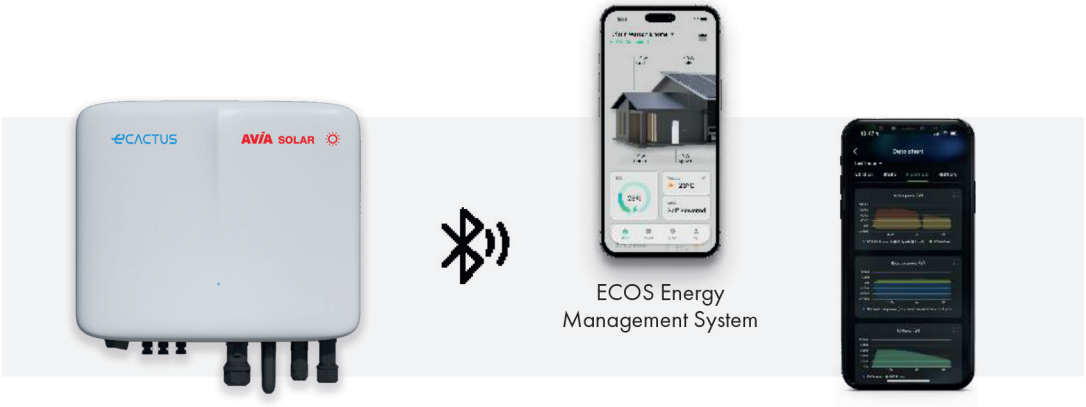
EPS system with 16 kW peak output power – ready for any power outage

Our device is able to power most home appliances with high induction power, such as refrigerators, air conditioners, during a power outage.



Built-in Bluetooth, supports real-time data transfer

Even without an Internet connection, users can configure the Wi-Fi adapter and change settings using their phones.



ECOS Energy Management System

ECOS Hub Energy Management System

https://aviasolar.pl/

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