

Three Phase Hybrid Inverter with Grid Feeding & IP66 Protection

Zapher 12kW



Models:

XZ-12kW-18000pV.3P

Dual Input **GEN/AC**

Dual **MPPT**

IP66 Protection



In Built Wifi



HMI
Touchscreen



Dual MPPT



Dual Input
(GEN/AC)



Intelligent Load
Management



Dual Output



Grid Feeding



IP66
Protection



BMS



Parallel
upto 6 Units



Easy-to-install

- IP66 waterproof & dustproof makes the inverter available for various working conditions.
- HMI touchscreen
- Dual outputs, for smart load management
- Reserved communication port for BMS (RS485)
- Built-in WiFi for mobile monitoring (App is available)
- User-adjustable charging current



Reliable

- Replaceable fan design for ease of maintenance
- 150% unbalanced load support
- Configurable AC/PV output usage timer and prioritization
- Two independent AC power sources connected and switched automatically
- 3-Phase unbalanced output: Increase the self-use rate of solar energy



User-Friendly

- Selectable input voltage range for home appliances and personal computers
- Compatible to Utility Mains or generator input
- Parallel operation with 6 units
- Dual Input (GEN/AC) for flexible power source connectivity and automatic switching between generator and AC input.

Technical Datasheet

MODEL	XZ-12kW-18000pV.3P
Maximum Pv Input Power	18000W
Rated Output Power	12000W
Maximum Charging Power	12000W
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage	720 VDC
Maximum DC Voltage	900 VDC
Start-up Voltage / Initial Feeding Voltage	150 VDC / 150 VDC
MPP Voltage Range	150 VDC ~ 850 VDC
Full MPP Voltage Range	400 VDC ~ 850 VDC
Number of MPP Trackers / Maxium Input Current	2 / A: 27A, B: 18A
Number of Strings Per MPP Tracker	A: 2, B: 2
GRID/UTILITY OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC* per phase
Output Frequency Range	47.5 ~ 51.5 Hz or 59.3 ~ 60.5 Hz
Nominal Output Current	17.4A per phase
Power Factor range	0.9 lag ~ 0.9 lead
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	>96%
European Efficiency@ Vnominal	>95%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage	120 - 140 VAC per phase
Auto Restart Voltage	180 VAC per phase
Acceptable Input Voltage Range	170 - 290 VAC per phase
Maximum AC Input Current	40 A
PV INPUT (DC)	
Maximum DC Voltage	900 VDC
MPP Voltage Range	150 VDC ~ 850 VDC
Full MPP Voltage Range	400 VDC ~ 850 VDC
Number of MPP Trackers / Maxium Input Current	2 / A: 27A, B: 18A
Number of Strings Per MPP Tracker	A: 2, B: 2
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Frequency	50 Hz / 60 Hz (auto sensing)
Output Waveform	Pure sine wave
Efficiency (DC to AC)	>93%
HYBRID OPERATION	
PV INPUT (DC)	
Nominal DC Voltage	720 VDC
Maximum DC Voltage	900 VDC
Start-up Voltage / Initial Feeding Voltage	150 VDC / 150VDC
MPP Voltage Range	150 VDC ~ 850 VDC
Full MPP Voltage Range	400 VDC ~ 850 VDC
Number of MPP Trackers / Maxium Input Current	2 / A: 18A, B: 18A
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BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Frequency	50 Hz / 60 Hz (auto sensing)
Output Waveform	Pure sine wave
Maximum Discharging Current	250A
Efficiency (DC to AC)	>93%
BATTERY & CHARGER	
Battery Voltage Range	40 ~ 60 VDC
Maximum Charging Current	240A
GENERAL	
PHYSICAL	
Dimension, D X W X H (mm)	247 x 500 x 650
Net Weight (kgs)	54
INTERACE	
Communication Port	RS-232, RS-485, USB, CAN and Wi-Fi
Intelligent Slot	Optional for SNMP and Modbus cards
Intelligent Slot	7-inch HMI
ENVIRONMENT	
Humidity	0 ~ 100% RH (Non-condensing)
Operating Temperature	-25 to 60°C > 45°C power derating
PROTECTION & CERTIFICATE	
Safety	IEC 62116, IEC 62727, IEC 61683, IEC 62109, IEC 61000-6-2:2019, IEC 61000-6-4:2019, IEC 61000-3-11:2019, EN 61000-3-12: 2011