

Alpha Series WP 10kW

THREE PHASE ON-GRID INVERTER
WITH ENERGY STORAGE



Main Features

- IP65 waterproof and dustproof makes the inverter available for various working conditions.
- Built-in Wi-Fi for mobile monitoring (App is available).
- 150% unbalanced load support.
- Dual outputs selected as either programmable output or generator input.
- Built-in AC coupled function.
- User-adjustable charging current and voltage.
- Reserved communication port for BMS (RS485).
- 5 years warranty.
- Parallel operation up to 6 units.

Technical Specifications

Maximum PV Input Power	14500 W
Rated Output Power	10000 W
Maximum Charging Power	10000 W
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage	720 VDC
Maximum DC Voltage	1000 VDC
Start-up Voltage/Initial Feeding Voltage	320 VDC / 350 VDC
MPP Voltage Range	350 VDC ~ 950 VDC
No. of MPP Trackers / Max. Input Current	2 / A: 26 A, B: 13 A
Number of Strings Per MPP Tracker	A: 2, B: 1
GRID 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	14.5 A 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 Power	14500 VDC
Maximum DC Voltage	1000 VDC
MPP Voltage Range	350 VDC ~ 950 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26 A, B: 13 A
Number of Strings Per MPP Tracker	A: 2, B: 1
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)	91%
HYBRID OPERATION	
PV INPUT (DC)	
Maximum DC Power	14500 VDC
Nominal DC Voltage	720 VDC
Maximum DC Voltage	1000 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC
MPP Voltage Range	350 VDC ~ 950 VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26 A, B: 13 A
Number of Strings Per MPP Tracker	A: 2, B: 1
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	14.5 A per phase
Power Factor Range	0.9 lag ~ 0.9 lead
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
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)	91%

HYBRIDS

Alpha WP 10kW

MasterPower
Unlimited power

BATTERY & CHARGER	
Battery Voltage Range	40 ~ 62 VDC
Maximum Charging Current	220 A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	247 x 500 x 650
Net Weight (kgs)	42
IP Protection	IP 65
INTERFACE	
Communication Port	RS-232, RS-485, USB, CAN and Wi-Fi
Intelligent Slot	Optional for SNMP and Modbus cards
ENVIRONMENT	
Humidity	0 ~ 100% RH (Non-condensing)
Operating Temperature	-25°C to 60°C, > 45°C power derating
Altitude	0 ~ 1000 m**

*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

** Power derating 1% every 100 m when altitude is over 1000m.

Product specifications are subject to change without further notice.



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