

THREE PHASE HYBRID INVERTER

Alpha 12KW

FEATURES

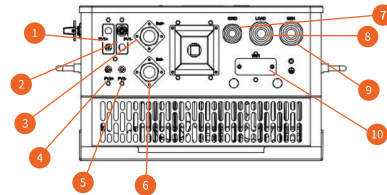
- 100% THREE-PHASE UNBALANCED OUTPUT, WITH EACH PHASE CAPABLE OF DELIVERING UP TO 50% OF THE RATED POWER
- AC COUPLING TO RETROFIT EXISTING SOLAR SYSTEM
- MAX. 10 PCS PARALLEL FOR ON-GRID AND OFF-GRID OPERATION; SUPPORT MULTIPLE BATTERIES PARALLEL DOUBLE OUTPUT
- MAX. CHARGING/DISCHARGING CURRENT OF 240A
- 48V LOW VOLTAGE BATTERY, TRANSFORMER ISOLATION DESIGN
- 6 TIME PERIODS FOR BATTERY CHARGING/DISCHARGING SMART LOAD
- SUPPORT STORING ENERGY FROM DIESEL GENERATOR
- SMART LOAD



CERTIFICATIONS

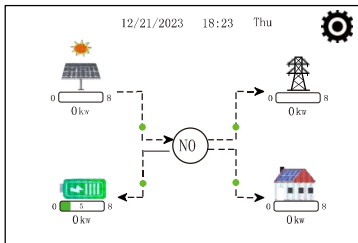


PRODUCT CHARACTERISTICS

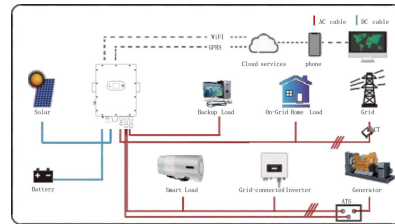


- 1.PV1+ 3.Bat+ 5.PV2- 7.Grid 9.GEN/Smart
- 2.PV1- 4.PV2+ 6.Bat- 8.LOAD 10.WiFi Interface

LCD DISPLAY ICONS



BASIC SYSTEM ARCHITECTURE



Data Sheet

Model	Alpha 12KW
PV String Input	
Max. DC Input Power (W)	15600
Rated PV Input Voltage (V)	550 (160-800)
Start-up Voltage (V)	160
MPPT Voltage Range (V)	200-650
Full Load MPPT Voltage Range (V)	350-650
Max. DC Input Current(A)	26+13
Max. DC Short Circuit Current(A)	34+17
No.of MPPT Trackers	2
No.of Strings per MPPT Tracker	2+1
AC Output	
Rated AC Output Power (W)	12000
Max AC Output Power (W)	13200
AC Output Rated Current (A)	18.2
Max AC Output Current (A)	20
Max Output short circuit current (A)	75
Max. Continuous AC Passthrough(A)	45
Peak Power (off grid)	2 times of rated power, 10 S
Power Factor	0.8 leading - 0.8 lagging
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380Vac, 230/400Vac
Grid Type	Three Phase
Total Harmonic Distortion (THDi)	<3% (of nominal power)
DC Current Injection	<0.5% I _n
Battery	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range (V)	40-60
Max. Charging Current (A)	240
Max. Discharging Current (A)	240
External Temperature Sensor	Yes
Charging Curve	3 Stages / Equalization
Charging Strategy for Li-Ion Battery	Self-adaption to BMS
Efficiency	
Max. Efficiency	97.6%
Euro Efficiency	97.0%
MPPT Efficiency	99.0%
Protection	
Anti-islanding Protection	Yes
PV String Input Reverse Polarity	Yes
Insulation Resistor Detection	Yes
Residual Current Monitoring Unit	Yes
Output Over Current Protection	Yes
Output Shorted Protection	Yes
Output overvoltage protection	Yes
Photovoltaic input lightning	Yes
Surge Protection	DC Type III / AC Type III
Over Voltage Category	DC Type II/AC Type III
Certifications and Standards	
Grid Regulation	IEC61727/62116, EN50549-1
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
General Data	
Operating Temperature Range (°C)	-40~60°C, ≥45°C Derating
Cooling	Smart Cooling
Noise (dB)	≤ 50 dB
Communication to BMS	RS485; CAN
Monitoring mode	Wi-Fi+APP
Weight (kg)	37.5
Size (W x H x D mm)	702x422x281 (Excluding Connectors and Brackets)
Ingress Protection	Ip65
Installation Style	Wall-mounted
Warranty	5 Years (10 Years Optional)