



FOCUS ON **SOLAR INVERTER**
ZERO CARBON/GREEN ENERGY



“SPECIALLY DESIGNED FOR PAKISTANI GRID”

“MAKE ENERGY CLEANER AND MORE EFFICIENT”

SINGLE PHASE HYBRID INVERTER

Alpha 6KW

FEATURES

- 

COLORFUL TOUCH LCD, IP65 PROTECTION DEGREE
- 

AC COUPLING TO RETROFIT EXISTING SOLAR SYSTEM Double output
- 

MAX. 16 PCS PARALLEL FOR ON-GRID AND Off-GRID OPERATION;SUPPORT MULTIPLE BATTERIES PARALLEL
- 

MAX. CHARGING/DISCHARGING CURRENT OF 135A
- 

6 TIME PERIODS FOR BATTERY CHARGING/DISCHARGING
- 

SUPPORT STORING ENERGY FROM DIESEL GENERATOR
- 

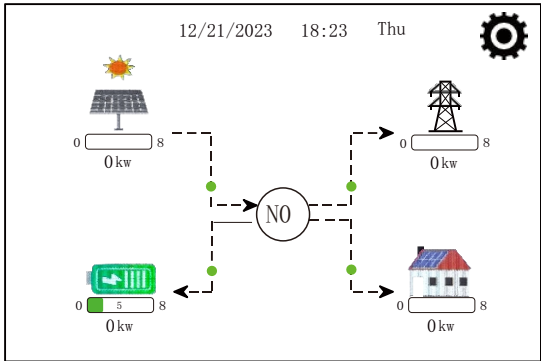
SMART LOAD



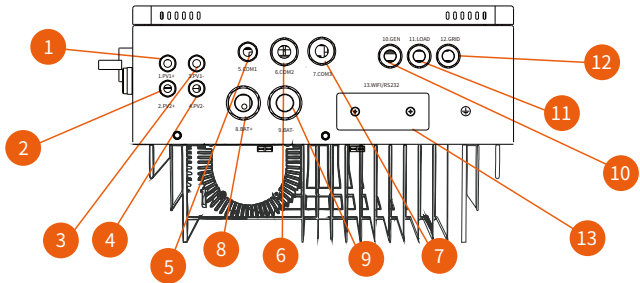
CERTIFICATIONS



LCD DISPLAY ICONS

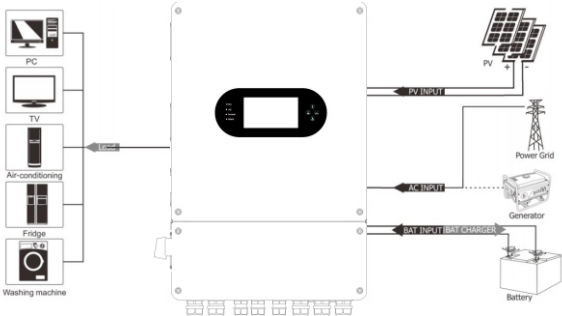


PRODUCT CHARACTERISTICS



- 1.PV1+ 3.PV1- 5.COM1 7.COM3 9.BAT- 11.LOAD
- 2.PV2+ 4.PV2- 6.COM2 8.BAT+ 10.GEN/Smart 12.GRID
- 13.WIFI

BASIC SYSTEM ARCHITECTURE



Data Sheet

Model	Alpha 6KW
PV String Input Data	
Max. DC Input Power (W)	7800
Rated PV Input Voltage (V)	370 (125~500)
Start-up Voltage (V)	125
MPPT Voltage Range (V)	150-430
Full Load MPPT Voltage Range (V)	300-430
Max. DC Input Current(A)	20+20
Max. DC Short Circuit Current(A)	22+22
No.of MPPT Trackers	2
No.of Strings per MPPT Tracker	1+1
AC Output Data	
Rated AC Output Power (W)	6000
Max AC Output Power (W)	6600
AC Output Rated Current (A)	27.3
Max AC Output Current (A)	30
Max.Continuous AC Passthrough (A)	40
Peak Power (off grid)	2 times of rated power, 10 S
Power Factor	0.8 leading - 0.8 lagging
AC Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac
Grid Type	Single Phase
Total Harmonic Distortion (THDi)	<3% (of nominal power)
DC Current Injection	<0.5% (Rated Current)
Battery Input Data	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range (V)	40~60
Max. Charging Current (A)	135
Max. Discharging Current (A)	135
External Temperature Sensor	Yes
Charging Curve	3 Stages / Equalization
Charging Strategy for Li-Ion Battery	Self-adaption to BMS
Efficiency	
Max. Efficiency	97.60%
Euro Efficiency	96.50%
MPPT Efficiency	99.90%
Protection	
Anti-islanding Protection	Yes
PV String Input Reverse Polarity Protection	Yes
Insulation Resistor Detection	Yes
Residual Current Monitoring Unit	Yes
Output Over Current Protection	Yes
Output Shorted Protection	Yes
Surge Protection	DC Type II/AC Type III
Over Voltage Protection	Yes
Certifications and Standards	
Grid Regulation	IEC61727/EN50549-1
Safety EMC / Standard	IEC/EN 61000-6/2/4, IEC/EN 62109-1, IEC/EN 62109-2
General Data	
Operating Temperature Range (℃)	-40~60℃, >45℃ Derating
Cooling	Smart Cooling
Noise (dB)	≤50 dB
Communication with BMS	RS485; CAN
Monitoring mode	WIFI, APP
Weight (kg)	24
Size (W x H x D mm)	580x330x252mm
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 Years (10Years Optional)

SINGLE PHASE HYBRID INVERTER

Alpha 8KW

FEATURES

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COLORFUL TOUCH LCD, IP65 PROTECTION DEGREE
- 

AC COUPLING TO RETROFIT EXISTING SOLAR SYSTEM Double output
- 

MAX. 16 PCS PARALLEL FOR ON-GRID AND OFF-GRID OPERATION;SUPPORT MULTIPLE BATTERIES PARALLEL
- 

MAX. CHARGING/DISCHARGING CURRENT OF 190A
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6 TIME PERIODS FOR BATTERY CHARGING/DISCHARGING SMART LOAD
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SUPPORT STORING ENERGY FROM DIESEL GENERATOR
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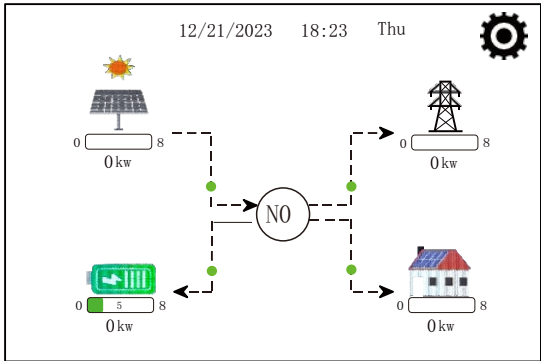
SMART LOAD



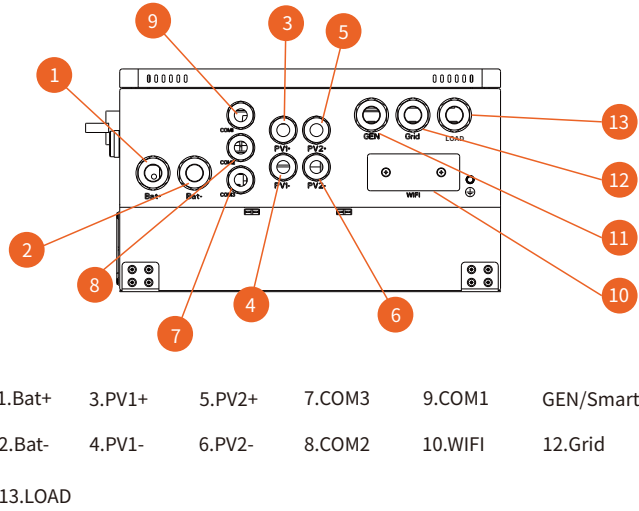
CERTIFICATIONS



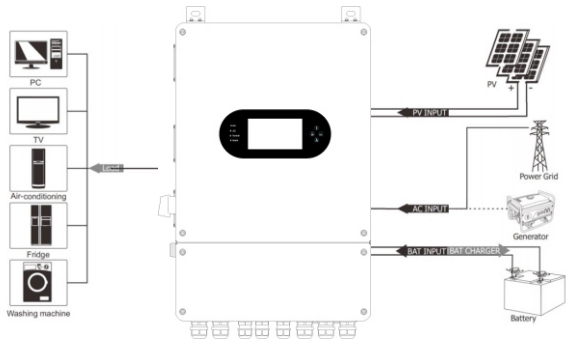
LCD DISPLAY ICONS



PRODUCT CHARACTERISTICS



BASIC SYSTEM ARCHITECTURE



Data Sheet

Model	Alpha 8KW
PV String Input Data	
Max. DC Input Power (W)	10400
Rated PV Input Voltage (V)	370 (125~500)
Start-up Voltage (V)	125
MPPT Voltage Range (V)	150-430
Full Load MPPT Voltage Range (V)	200-430
Max. DC Input Current(A)	26+26
Max. DC Short Circuit Current(A)	34+34
No.of MPPT Trackers	2
No.of Strings per MPPT Tracker	2+2
AC Output Data	
Rated AC Output Power (W)	8000
Max AC Output Power (W)	8800
AC Output Rated Current (A)	36.4
Max AC Output Current (A)	40
Max Continuous AC Passthrough (A)	50
Peak Power (off grid)	2 times of rated power, 10 S
Power Factor	0.8 leading - 0.8 lagging
AC Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac
Grid Type	Single Phase
Total Harmonic Distortion (THDi)	<3% (of nominal power)
DC Current Injection	<0.5% (Rated Current)
Battery Input Data	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range (V)	40~60
Max. Charging Current (A)	190
Max. Discharging Current (A)	190
External Temperature Sensor	Yes
Charging Curve	3 Stages / Equalization
Charging Strategy for Li-Ion Battery	Self-adaption to BMS
Efficiency	
Max. Efficiency	97.60%
Euro Efficiency	96.50%
MPPT Efficiency	99.90%
Protection	
Anti-islanding Protection	Yes
PV String Input Reverse Polarity Protection	Yes
Insulation Resistor Detection	Yes
Residual Current Monitoring Unit	Yes
Output Over Current Protection	Yes
Output Shorted Protection	Yes
Surge Protection	DC Type II/AC Type III
Over Voltage Protection	Yes
Certifications and Standards	
Grid Regulation	IEC61727/,EN50549-1
Safety EMC / Standard	IEC/EN 61000-6/2/4, IEC/EN 62109-1, IEC/EN 62109-2
General Data	
Operating Temperature Range (℃)	-40~60℃, >45℃ Derating
Cooling	Smart Cooling
Noise (dB)	≤50 dB
Communication with BMS	RS485; CAN
Monitoring mode	WIFI, APP
Weight (kg)	29
Size (W x H x D mm)	630x413x258mm
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 Years (10Years Optional)

SINGLE PHASE HYBRID INVERTER

Alpha 10KW

FEATURES

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COLORFUL TOUCH LCD, IP65 PROTECTION DEGREE
- 

AC COUPLING TO RETROFIT EXISTING SOLAR SYSTEM Double output
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MAX. 16 PCS PARALLEL FOR ON-GRID AND Off-GRID OPERATION;SUPPORT MULTIPLE BATTERIES PARALLEL
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MAX. CHARGING/DISCHARGING CURRENT OF 250A
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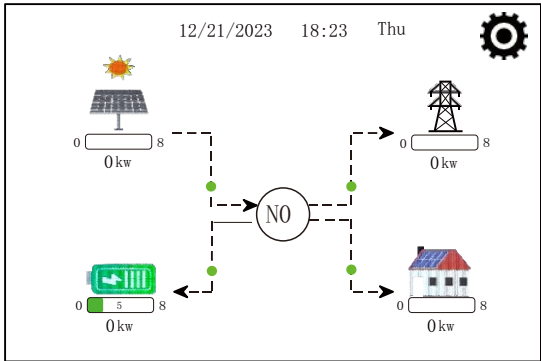
6 TIME PERIODS FOR BATTERY CHARGING/DISCHARGING SMART LOAD
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SUPPORT STORING ENERGY FROM DIESEL GENERATOR
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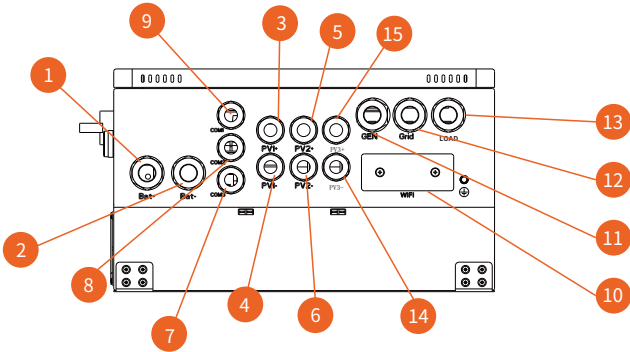
SMART LOAD



LCD DISPLAY ICONS

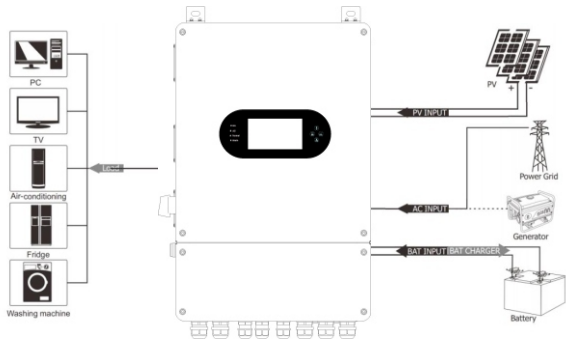


PRODUCT CHARACTERISTICS



- 1.Bat+ 3.PV1+ 5.PV2+ 7.COM3 9.COM1 11.GEN/Smart
- 2.Bat- 4.PV1- 6.PV2- 8.COM2 10.WIFI 12.Grid
- 13.LOAD 14.PV3+ 15.PV3-

BASIC SYSTEM ARCHITECTURE



Data Sheet

Model	Alpha 10KW
Battery Input Data	
Battery Type	Lead-acid or Li-Ion
Battery Voltage Range(V)	40-60
Max. Charging Current(A)	220
Max. Discharging Current(A)	220
Charging Curve	3 Stages / Equalization
External Temperature Sensor	yes
Charging Strategy for Li-Ion Battery	Self-adaption to BMS
PV String Input Data	
Max. DC Input Power(W)	13000
PV Input Voltage(V)	370V (125V~500V)
MPPT Range(V)	150~425V
Full Load DC Voltage Range	200~425V
Start-up Voltage(V)	125V
PV Input Current(A)	26+26+26
No. of MPPT Trackers	3
No. of Strings Per MPPT Tracker	2+2+2
AC Output Data	
Rated AC Output and UPS Power(W)	10000
Max. AC Output Power(W)	11000
Peak Power(o ffggrid)	2 times of rated power, 10 S
AC Output Rated Current(A)	43.5
Max. AC Current(A)	47.8
Max. Continuous AC Passthrough(A)	60
Power Factor	0.8 leading - 0.8 lagging
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230V (single phase)
Grid Type	Single Phase
Total Harmonic Distortion (THD)	<3% (of nominal power)
DC current injection	<0.5% In
Efficiency	
Max. Efficiency	97.60%
Euro Efficiency	96.50%
MPPT Efficiency	>99%
Protection	
PV Arc Fault Detection	Integrated
PV Input Lightning Protection	Integrated
Anti-islanding Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
Insulation Resistor Detection	Integrated
Residual Current Monitoring Unit	Integrated
Output Over Current Protection	Integrated
Output Shorted Protection	Integrated
Over Voltage Category	Integrated
Surge Protection	DC Type II / AC Type II
Certifications and Standards	
Grid Regulation	IEC61727/EN50549-1
EMC/Safety Regulation	IEC/EN 61000-6/2/4, IEC/EN 62109-1, IEC/EN 62109-2
General Data	
Operating Temperature Range(℃)	-40~60℃, >45℃ Derating
Cooling	Smart cooling
Noise(dB)	<30 dB
Communication with BMS	Rs485; CAN
Weight(kg)	31
Cabinet size(mm)	330W×580H×232D (Excluding connectors and brackets)
Protection Degree	Ip65
Installation Style	Wall-mounted
Warranty	5 Years (10 Years Optional)

THREE PHASE HYBRID INVERTER

Alpha 12KW

FEATURES

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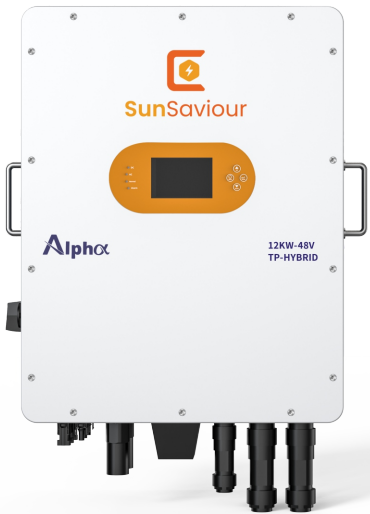
MAX. CHARGING/DISCHARGING CURRENT OF 240A
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48V LOW VOLTAGE BATTERY, TRANSFORMERLESS DESIGN
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6 TIME PERIODS FOR BATTERY CHARGING/DISCHARGING SMART LOAD
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SUPPORT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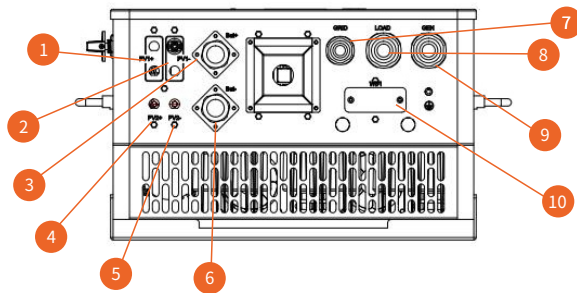
SMART LOAD



CERTIFICATIONS

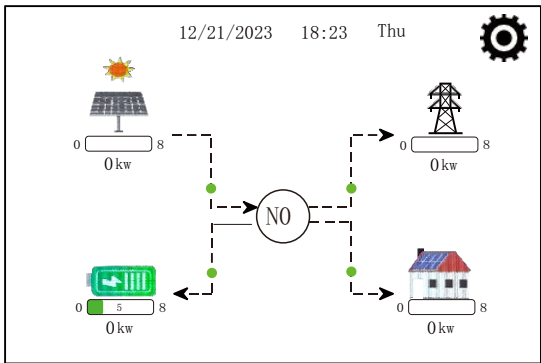


PRODUCT CHARACTERISTICS

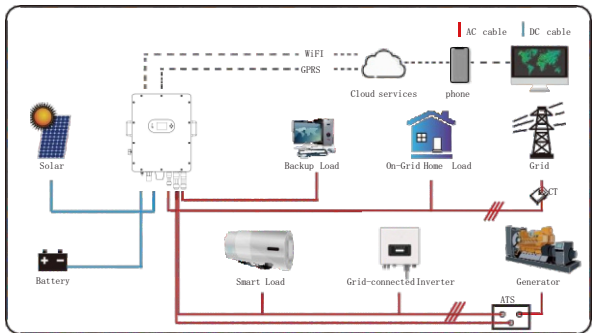


- 1.PV1+ 3.Bat+ 5.PV2- 7.Grid 9.GEN/Smart
- 2.PV1- 4.PV2+ 6.Bat- 8.LOAD 10.WiFi Interface

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% In
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)	702×422×281 (Excluding Connectors and Brackets)
Ingress Protection	Ip65
Installation Style	Wall-mounted
Warranty	5 Years (10 Years Optional)