

Split Phase Hybrid Solar Inverter

GNA-LV Series 5000W - 16kW



Key Features

- **Split Phase Capability**

The split phase design allows for efficient energy distribution across multiple circuits, ensuring that your appliances receive the power they need without overloading the system.

- **Grid Compliance**

Meet local grid standards, ensuring seamless integration into the grid while maintaining safety protocols.

- **4 MPPT Inputs**

It is equipped with 4 MPPT technology, allowing it to optimize energy harvest from multiple solar panel strings.

- **Programmable Settings**

Users can customize the inverter's settings to suit their specific energy needs, including charging priorities, battery discharge limits, and operational

modes, providing greater flexibility and control.

- **Max. Grid Passthrough Current**

It is designed to handle a maximum grid passthrough current of 100A/200A, ensuring that it can support high power loads without compromising performance.

- **100% Unbalanced Load Capacity**

The inverter is designed to support 100% unbalanced load capacity, meaning it can efficiently manage loads that are not evenly distributed across phases.

- **Parallel Operation in 208V 3 Phase Output**

It can configure to operate in parallel, supports a three-phase 208VAC output, making it suitable for commercial applications that require three-phase power.



Specification 5000W-16KW

Model	GNA5K-LV	GNA6K-LV	GNA8K-LV	GNA10K-LV	GNA12K-LV	GNA16K-LV
Max. PV INPUT POWER	7500W	9000W	12000W	15000W	18000W	24000W
Rated Output Power	5000W	6000W	8000W	10KW	12KW	16KW
Dimension, D x W x H (mm)	240x450x820				260x495x900	
Net weight (kgs)	50				55	
PV INPUT (DC)						
Max. DC Voltage	500VDC					
MPPT Voltage Range	120VDC~500VDC					
Max. DC INPUT Current	14A				16A	20A
Max. DC Short-circuit Current	22A				22A	25A
No. of MPPT Trackers	4					
No. of String per MPPT Tracker	1/1					
AC OUTPUT (ON-GRID)						
Rated Output Power	5000W	6000W	8000W	10KW	12KW	16KW
Max. AC Output Power	5500W	6600W	8800W	11KW	13.2KW	16KW
Nominal Output Voltage	split phase: 110V/220V, 120V/240V; single phase: 240V					
Output Frequency	60Hz (55 - 65Hz)					
Rated Output Current	20.8A	25A	33.3A	41.7A	50A	66.7A
Max. AC Output Current to Grid	22.9A	27.5A	36.7A	45.8A	55A	73.3A
Max. Grid Passthrough Current	100A				200A	
Total Harmonic Distortion(THDi)	< 3%					
AC OUTPUT (Backup)						
Rated Output Power	5000W	6000W	8000W	10KW	12KW	13KW
Max. Apparent Power	5500VA	6600VA	8800VA	11KVA	13.2KVA	13.2KVA
Nominal Output Voltage	120V(L-N) / 240V(L1-L2)					
Output Frequency	60Hz					
Rated Output Current	20.8A	25A	33.3A	41.7A	50A	54.2A
Transfer Time	< 20ms					
Output Power Factor	0.8 leading~0.8 lagging					
Total Harmonic Distortion(THDu)	<2%					
EFFICIENCY						
Battery to Load Efficiency	95.2%				94.6%	
PV to Grid Efficiency	97.2%				96.5%	
Euro Efficiency	96.5%				96.2%	
MPPT Efficiency	99.9%				99.9%	
PV to Battery Charging Efficiency	96.1%				95.8%	
Grid to Battery Charging Efficiency	95.0%				94.5%	
BATTERY & CHARGER						
Battery Type	Lead-acid or Lithium-ion					
Nominal DC Voltage	40VDC - 60VDC					
Max. Charging Voltage	58V					

Max. Charging / Discharging Current	120A/120A	135A/135A	190A/190A	190A/210A	250A/260A	260A/280A
Charging Curve	3 Stages / Equalization					
Charging Strategy for Li-battery	Self-adaption to BMS					
PROTECTION						
Grounding Detection	Yes					
Arc Fault Protection	Yes					
Anti-island Protection	Yes					
Insulation Resistor Detection	Yes					
Output Over Current Protection	Yes					
Back-up Output Short-circuit Protection	Yes					
Output Over Voltage Protection	Yes					
Output Under Voltage Protection	Yes					
INTERFACE						
Communication Port	RS485, WLAN, WiFi / 4G (option)					
BMS	RS485, CAN					
EMS	RS485, CAN					
Meter	RS485, CAN					
ENVIRONMENT						
Operating Temperature	-25°C to 60°C					
Relative Humidity	0 ~95% (non-condensing)					
Altitude	2,000m (>2000m derating)					
Cooling	Fan					
Noise	< 38dB					
Self-consumption	< 25W					
Protection Degree	IP65 / NEMA 3R					
CERTIFICATION STANDARDS						
Grid Regulation	IEEE 1547, IEEE 2030.5, HECO Rule 14H, CA Rule 21 Phase I,II,III,CEC,CSIP,SRD2.0, SGIP, OGPe, NOM, California Prob65					
Safety EMC / Standard	FCC part 15 class B, UL1741, UL1741SA&SB all options, UL1699B, CSA -C22.2 NO.107.1-01,RSD(NEC690.5,11,12)					

* Product specifications are subject to change without further notice.