

# THREE PHASE HYBRID SOLAR INVERTER PH1100 EU Series

20~50KW | High Voltage | IP66



## High Voltage Compatibility

- Supports 150~800V high-voltage battery systems
- Compatible with 280AH / 315AH large-capacity batteries

## Flexible PV Integration

- Supports 1.5 Times PV Oversize
- Supports string current up to 40A

## Powerful Load Capability

- Support 100% Unbalance Load
- Supports 2 times AC Oversize (50kw)

## Fast Switching & Generator Support

- <10ms fast transfer to ensure continuous power
- Supports generator input, compatible with multiple power sources

## Smart Control & Optimization

- Supports configurable operation modes
- Supports time-of-use optimization for efficient energy use

## Safety Monitoring & Remote Upgrade

- Optional AFCI & rapid shutdown ready
- Smart monitoring and remote firmware upgrade



## MAIN PARAMETER

MODEL	PH11-20KL3-EU-HV	PH11-30KL3-EU-HV	PH11-50KL3-EU-HV
Rated power	20000W	30000W	50000W
<b>PV INPUT</b>			
Max. Dc Input Power	30KW	45KW	75KW
Max. PV Voltage		1000V	
Rated DC input Voltage		620V	
DC Input Voltage Range		150-1000V	
MPPT Voltage Range		150-850V	
Full MPPT Range		500-850V	
Start-up Voltage		160V	
Max.DC input Current	32A*2	40A*2	40A*4
Max.Short Current	48A*2	60A*2	48A*4
No. of MPPT Tracker/Strings	2/4	2/4	4/8
<b>BATTERY PORT</b>			
Battery Nominal Voltage	500V	550V	500V
Battery Voltage Range		150-800V	
Max. Charge/Discharge Current	50A	60A	120A
Max. Charge/Discharge Power	20KW	30KW	50KW
Charging Curve		3 Stages	
Compatible Battery Type		Li-ion / Lead-acid / Sodium metal chloride battery	
<b>AC GRID</b>			
Nominal AC Output Power	20KW	30KW	50KW
Max. AC Input/Output Power	30KVA/22KVA	45KVA/33KVA	100KVA/55KVA
Max. AC Output Current	32A	48A	83.38A
Nominal AC Voltage		230V/400V	
Nominal AC Frequency		50Hz/60Hz	
Power Factor		1(-0.8-0.8) adjustable	
Current THD		<3%	
<b>AC LOAD OUTPUT (BACK-UP)</b>			
Nominal Output Power	20000VA	30000VA	55000VA
Nominal Output Voltage		230V/400V	
Nominal Output Frequency		50Hz/60Hz	
Nominal Output Current	29A	43.5A	72.5A
Peak Output Power	22000VA, 60s	33000VA, 60s	55000VA, 60s
THDV (with linear load)		3%	
Switching Time		<10ms	
<b>EFFICIENCY</b>			
Europe Efficiency	97.80%	98.10%	98.30%
Max. Efficiency	98.30%	98.50%	98.60%
Battery Charge/Discharge Efficiency	98.00%	98.00%	99.00%

## OTHER PARAMETER

MODEL	PH11-20KL3-EU-HV	PH11-30KL3-EU-HV	PH11-50KL3-EU-HV
<b>PROTECTION</b>			
Integrated	Reverse Polarity Protection, Over Current/ Voltage Protection, Anti-islanding Protection AC Short-circuit Protection, Leakage Current Detection, Ground Fault Monitoring, Grid Monitoring		
Enclosure Protect Level	IP65	IP65	IP65
AC/DC surge protection		Type II	
<b>GENERAL DATA</b>			
Dimensions (W x H x D, mm)	558*535*260		979*610*310
Weight (kg)	29	36	70
Topology	Transformerless		
Cooling Concept	Intelligent Fan		
Relative Humidity	0-100%		
Operating Temperature Range (°C)	-25°C to 60°C		
Operating Altitude (m)	<4000m		
Standby Consumption (W)	<100W		
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G		
<b>CERTIFICATION &amp; STANDARDS</b>			
EN50549-1, IEC62109-1, IEC62109-2, EN61000-6-3			