HYBRID SOLAR INVERTER

PH1100 EU Series

5~16KW | Three Phase | 380VAC | IP66



All-Scenario Hybrid Power

- Max. 16pcs parallel for on-grid and off-grid operation
- AC coupling upgrade for existing solar systems

Powerful Three-Phase Output

- 100% unbalanced three-phase output for stable loads
- 320A high-current charge/discharge for instant power demand

Flexible Multi-Energy Input

- Supports diesel generator storage for uninterrupted power
- CT connection enables anti-backflow protection

High-Level Safety Design

- 48V low-voltage battery with transformer isolation
- IP66 waterproof and dustproof for outdoor use

Smart Energy Management

- 6 configurable charge/discharge time segments for peak shaving
- Built-in WiFi monitoring for real-time system control

MUST × ENERGYFY

MAIN PARAMETER

MODEL	PH11-5KL3-EU	PH11-6.5KL3-EU	PH11-8KL3-EU	PH11-10KL3-EU	PH11-12KL3-EU	PH11-13KL3-EU	PH11-14.2KL3-EU	PH11-15KL3-EU	PH11-16KL3-EU
Rated power	5000W	6500W	8000W	10000W	12000W	13000W	14200W	15000W	16000W
BATTERY INPUT DATA									
Battery type	Lead-acid battery / Lithium battery								
Battery voltage	48V								
Charging curve	4-stage adaptive with maintenance/Equalization								
Max. Charging/Discharging Power	5000W	6500W	8000W	10000W	12000W	13000W	14200W	15000W	16000W
Max. Charge/Discharge Current	120A	150A	190A	210A	240A	260A	280A	300A	320A
PV STRING INPUT DATA									
Max. DC Input Power	10000W	13000W	16000W	20000W	24000W	26000W	28400W	30000W	32000W
Maximum DC voltage	800V								
Minimum voltage for grid connection	160V								
Full Load DC Voltage Range	278-650V	361-650V	400-650V	357-650V	429-650V	464-650V	507-650V	536-650V	571-650V
MPPT voltage range	200~650V								
Maximum input current	18A+18A		20A+20A	36A+20A					
No.of MPPT tracker	2								
Strings per MPPT tracker	1/1			2/1					
AC INPUT/OUTPUT DATA									
Rated AC Input/ Output Power	5000W	6500W	8000W	10000W	12000W	13000W	14200W	15000W	16000W
Max AC Input/ Output Power	5500VA	7150VA	8800VA	11000VA	13200VA	14300VA	15620VA	16500VA	17600VA
Max. AC Input Power (grid to load)	10000W	13000W	16000W	20000W	24000W	26000W	28400W	30000W	32000W
Power Factor Adjustment Range	0.8 leading to 0.8 lagging								
Rated Input/Output Voltage	220/380,230/400Vac								
Rated Input/Output Grid Frequency	60Hz±5Hz/50Hz±5Hz								
Grid Type	Three Phase								
DC Current Injection	0.5%								
EFFICIENCY									
Max. Efficiency	97.6%					97.5%			
Euro Efficiency	97.0%					96.5%			
MPPT Efficiency	99.5%								
PROTECTION									
Integrated	Islanding protection, Output overcurrent protection, Output overvoltage protection, DC switch rating for each MPPT, Grid monitoring, Output over current protection, Gird overvoltage protection-varistor, Integrated all-pole sensitive leakage current, ISO monitoring, over temperature protection.								

OTHER PARAMETER

MODEL	PH11-5KL3-EU	PH11-6.5KL3-EU	PH11-8KL3-EU	PH11-10KL3-EU	PH11-12KL3-EU	PH11-13KL3-EU	PH11-14.2KL3-EU	PH11-15KL3-EU	PH11-16KL3-EU
GENERAL DATA									
Operating Temperature Range	-25°C to +60°C, >45°C Derating								
Cooling	Intelligent Fan								
Noise	≤55dB								
Communication with BMS	RS485/CAN								
Machine Dimension (W*H*D)(mm)	472*684*311 (excluding connectors and racks)								
Package Dimension (W*H*D)(mm)	567*816*424								
N.W(kg)	38 (Excluding Connectors and Brackets)								
G.W(kg)	42								
Protection Degree	IP66								
Installation Style	Wall-mounted								
Warranty	10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy								

CERTIFICATION & STANDARDS

CE-EMC+LVD (EN6100-6-3, EN6100-6-1+EN IEC 62109-1, EN IEC 62109-2); CE-LVD(EN 62477-1) ; IEC 60529; EN50549-1; Poland Type A, (NC RfG:2016, PSE:2018, PTPiREE:2021)C10/C11; UNE217001-2020; UNE217002-2020, NTS-631 (Type A); G98+G99

*The technical specifications of this document are subject to change without any notice



HYBRID SOLAR INVERTER

PH1100 EU Series

18~25KW | Three Phase | 380VAC | IP66 | WiFi

Homeload: Superior Load Capacity

Effortlessly powers pumps, motors, and other high-wattage appliances with stable and reliable continuous output.

High-Power Energy Support

400A continuous charge/discharge, up to 50kW PV input

Intelligent Power Management

Supports 6 Programmable Time-of-Use (ToU) Periods.

Powerful Parallel Scalability

Parallel up to 16 units in off-grid mode, scale system capacity as needed to handle heavy loads with ease.

IP66-Rated Robust Protection

Defies water and dust, ensuring stable operation in the harshest environments.

Large Touchscreen Display

Intuitive operation with versatile connectivity (GPRS, Wi-Fi, Bluetooth, RS485) for smart, centralized system control.

MUST × ENERGYFY

MAIN PARAMETER

MODEL	PH11-18KL3-EU	PH11-20KL3-EU	PH11-25KL3-EU
Rated power	18000W	20000W	25000W
BATTERY INPUT DATA			
Battery type	Lead-acid battery / Lithium battery		
Battery voltage	48V		
Charging curve	4-stage adaptive with maintenance/Equalization		
Max. Charging/ Discharging Power	18000W	20000W	25000W
Max. Charge/ Discharge Current	330A	350A	400A
PV STRING INPUT DATA			
Max. DC Input Power	36000W	40000W	50000W
Maximum DC voltage	800V		
Minimum voltage for grid connection	160V		
Full Load DC Voltage Range	500V~650V	555V~650V	625V~650V
MPPT voltage range	200~650V		
Maximum input current	36A+36A	36A+36A	40A+40A
No.of MPPT tracker	2		
Strings per MPPT tracker	2		
AC INPUT/OUTPUT DATA			
Rated AC Input/ Output Power	18000W	20000W	25000W
Max AC Input/ Output Power	19800VA	22000VA	27500VA
Max. AC Input Power (grid to load)	36000W	40000W	50000W
Power Factor Adjustment Range	0.8 leading to 0.8 lagging		
Rated Input/Output Voltage	220/380,230/400Vac		
Rated Input/Output Grid Frequency	60Hz±5Hz/50Hz±5Hz		
Grid Type	Three Phase		
DC Current Injection	0.5%		
EFFICIENCY			
Max. Efficiency	97.5%		
Euro Efficiency	96.5%		
MPPT Efficiency	99.5%		
PROTECTION			
Integrated	Anti-islanding Protection, Output Overcurrent Protection, Output Overvoltage Protection, PV Reverse Polarity Protection, PV Reverse Polarity Protection (Optional), Grounding Fault Detection, Integrated Residual Current Monitoring Unit (RCMU)		

OTHER PARAMETER

MODEL	PH11-18KL3-EU	PH11-20KL3-EU	PH11-25KL3-EU
GENERAL DATA			
Operating Temperature Range	-25°C to +60°C, >45°C Derating		
Cooling	Intelligent Fan Cooling		
Noise	≤60dB		
Communication	USB/ WI-FI/ Ethernet (optional)		
Communication with BMS	RS485/CAN		
Machine Dimension (W*H*D)(mm)	446*740*261 (excluding connectors and racks)		
Package Dimension (W*H*D)(mm)	/		
N.W(kg)	50		
G.W(kg)	/		
Protection Degree	IP66		
Installation Style	Wall-mounted		
Warranty	10 Years the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy		
CERTIFICATION & STANDARDS			
NBT32004-2013			

*The technical specifications of this document are subject to change without any notice