

SPLIT-PHASE HYBRID SOLAR INVERTER PH1100 US Series

5~8KW | Split Phase | AC 240V/ 120V

PH1100 US is brand new split phase hybrid inverter with low battery voltage 48V, ensuring system safe and reliable. With compact design and high-power density, this series supports 1.3 DC/AC ratio, saving device investment. It's applicable to 110VAC/120VAC markets demands, which matches AC 110VAC/120V single phase, or two phase 220V/240V; Equipped with CAN port (x2) BMS and parallel, x1 RS485 port for BMS, x1 RS232 port for remotely control, x1 DRM port, which makes the system smart and flexible.

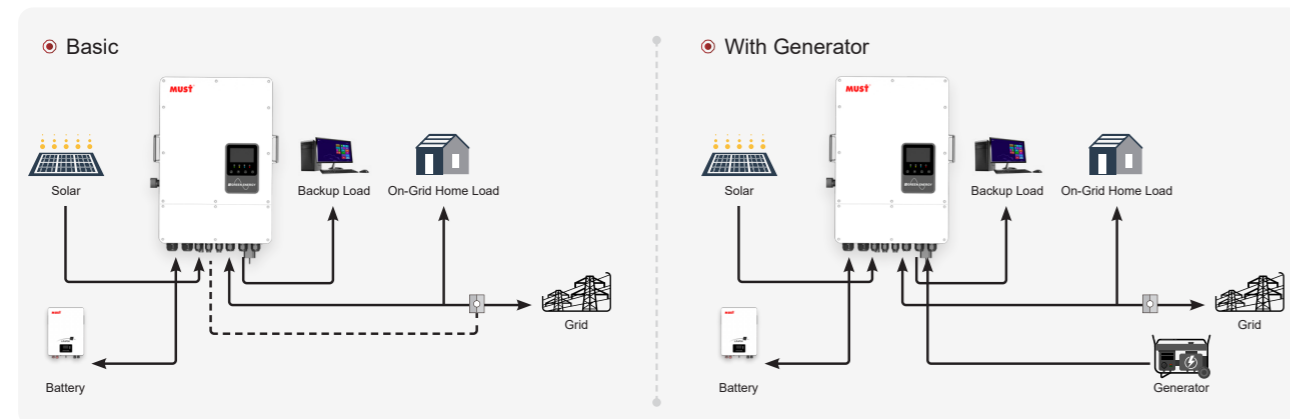


- 100% unbalanced output, each phase max. output up to 50% rated power
- Max. 6 pcs parallel for on-grid and off-grid operation
- AC couple to retrofit existing solar system
- Support multiple batteries parallel
- Max. charging/discharging current of 180A
- Support storing energy from diesel generator
- 48V low voltage battery, transformer isolation design
- IP65 water-proof and dust-proof
- "Time of use" function: a maximum of 6 time segments can be set
- Wifi monitoring

Back panel description

1. DC switch
2. Battery input connectors
3. BTS terminals, BMS terminals, load monitor terminals, dry contact terminals, CAN communication terminals, USB terminal and cover
4. Circuit breaker of Grid
5. Load
6. Generator input
7. WiFi Interface
8. Ground
9. PV input with two MPPT

Solar system connection



| MODEL | PH11-5KL3-US | PH11-6KL3-US | PH11-7KL3-US | PH11-8KL3-US |
|--|--|--------------|--------------|--------------|
| Rated power | 5000W | 6000W | 7000W | 8000W |
| BATTERY INPUT DATA | | | | |
| Battery type | Lead-acid battery / Lithium battery | | | |
| Battery voltage | 48V | | | |
| Battery voltage range | 40~60V | | | |
| Charging curve | 3-stage adaptive with maintenance/Equalization | | | |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS | | | |
| Over-current protection/ Over-temperature protection | Yes / Yes | | | |
| Maximum charging/discharging power | 5000W | 6000W | 7000W | 8000W |
| Maximum charging/discharging current | 120A | 130A | 160A | 180A |
| PV STRING INPUT DATA | | | | |
| Max. DC Input Power | 6500W | 7800W | 9100W | 10400W |
| Rated PV Input Voltage | 550V | | | |
| Maximum DC voltage | 550V | | | |
| Start-up Voltage | 160V | | | |
| Minimum voltage for grid connection | 210V | | | |
| Full Load DC Voltage Range | 350-550V | | | |
| Enter high voltage error recovery point | 600V | | | |
| MPPT voltage range | 200~550V | | | |
| Maximum input current | 15A/15A | | 26A/13A | |
| No.of MPP Trackers | 2 | | | |
| No.of Strings per MPP Tracker | 1+1 | | 2+1 | |
| AC INPUT/OUTPUT DATA | | | | |
| Rated AC Input/ Output Power | 5000W | 6000W | 7000W | 8000W |
| Max AC Input/ Output Power | 5500W | 6600W | 7700W | 8800W |
| AC Input/ Output Rated Current | 20.8/22.7 | 25/27.2 | 29.1/31.8 | 33.3/36.3 |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | | |
| Rated Input/Output Voltage | 240Vac/ 120Vac | | | |
| Rated Input/Output Grid Frequency/Range | 50/60;45~55/55-65 | | | |
| Grid Type | Split Phase | | | |
| Total Harmonics Current Distortion (THDi) | <3% (of nominal power) | | | |
| DC Current Injection | <0.5% In | | | |
| EFFICIENCY | | | | |
| Max. Efficiency | ≥97.5% | | | |
| Euro Efficiency | 97.0% | | | |
| PROTECTION | | | | |
| Integrated | PV Arc Fault Detection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection | | | |
| Surge Protection | DC Type III/AC Type III | | | |
| Overvoltage Category | DC Type II/AC Type III | | | |
| GENERAL DATA | | | | |
| Operating Temperature Range (°C) | -20°C to +60°C, >45°C Derating | | | |
| Cooling | Smart cooling | | | |
| Noise (dB) | ≤55dB | | | |
| Communication with BMS | Wi-Fi/USB/GPRS/RS485/CAN | | | |
| Machine Dimension (W*H*D)(mm) | 444*654.2*259.2 | | | |
| Package Dimension (W*H*D)(mm) | 816*404*567 | | | |
| N.W(kg) | 35 | | | |
| G.W(kg) | 37 | | | |
| Protection Degree | IP65 | | | |
| Installation Style | Wall-mounted | | | |
| Warranty | 5 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