

## ON/OFF GRID HYBRID SOLAR INVERTER

# PH1100 EU Series

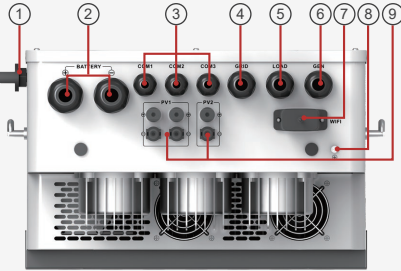
5~12KW | Three Phase | 380VAC

The PH1100 EU series is a three-phase on/off-grid bidirectional energy storage inverter with a compact design and high power density. It supports lithium and lead-acid batteries, provides a stable 380V/400V three-phase output, and features remote monitoring and multiple safety protections. It is widely used in home energy storage, small commercial energy storage, smart microgrids, and off-grid power supply in remote areas.



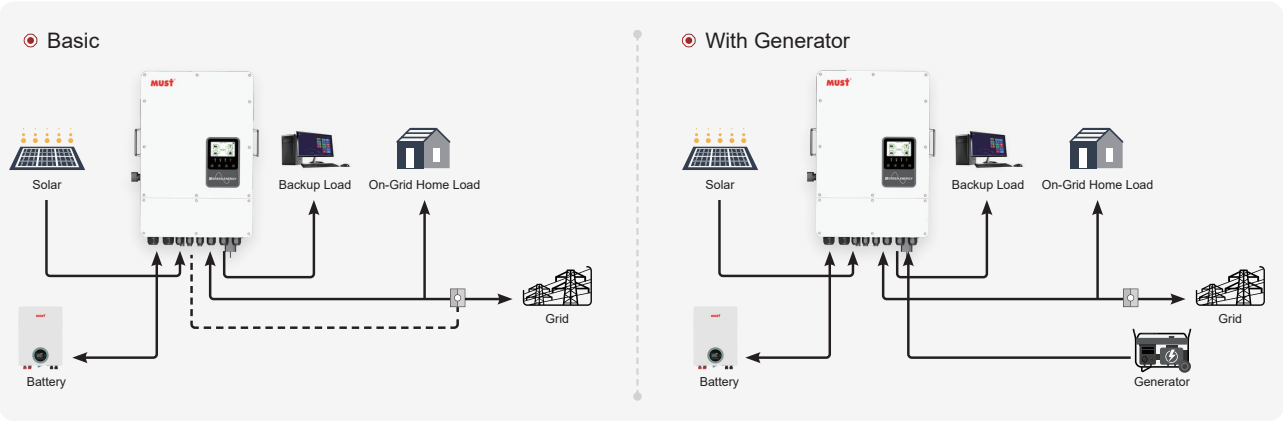
- 100% unbalanced output
- Max. 6 pcs parallel for on-grid and off-grid operation
- AC couple to retrofit existing solar system
- Support multiple batteries parallel
- Max. charging/discharging current of 240A
- Support storing energy from diesel generator
- 48V low voltage battery, transformer isolation design
- IP66 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. CAN communication terminals×2, RS485 communication terminals×2 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-EU                                                                                                                                                                                                                              | PH11-6.5KL3-EU | PH11-8KL3-EU | PH11-10KL3-EU | PH11-12KL3-EU |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|---------------|---------------|
| Rated power                                          | 5000W                                                                                                                                                                                                                                     | 6500W          | 8000W        | 10000W        | 12000W        |
| BATTERY INPUT DATA                                   |                                                                                                                                                                                                                                           |                |              |               |               |
| Battery type                                         | Lead-acid battery / Lithium battery                                                                                                                                                                                                       |                |              |               |               |
| Battery voltage                                      | 48V                                                                                                                                                                                                                                       |                |              |               |               |
| Battery voltage range                                | 40~64V                                                                                                                                                                                                                                    |                |              |               |               |
| Charging curve                                       | 4-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                                                                                                                                                                                                                                     | 6500W          | 8000W        | 10000W        | 12000W        |
| Maximum charging/discharging current                 | 120A                                                                                                                                                                                                                                      | 150A           | 190A         | 210A          | 240A          |
| PV STRING INPUT DATA                                 |                                                                                                                                                                                                                                           |                |              |               |               |
| Max. DC Input Power                                  | 6500W                                                                                                                                                                                                                                     | 8450W          | 10400W       | 13000W        | 15600W        |
| Rated PV Input Voltage                               | 550V                                                                                                                                                                                                                                      |                |              |               |               |
| Maximum DC voltage                                   | 800V                                                                                                                                                                                                                                      |                |              |               |               |
| Start-up Voltage                                     | 160V                                                                                                                                                                                                                                      |                |              |               |               |
| Minimum voltage for grid connection                  | 310V                                                                                                                                                                                                                                      |                |              |               |               |
| Full Load DC Voltage Range                           | 350-650V                                                                                                                                                                                                                                  |                |              |               |               |
| Enter high voltage error recovery point              | 800V                                                                                                                                                                                                                                      |                |              |               |               |
| MPPT voltage range                                   | 200~650V                                                                                                                                                                                                                                  |                |              |               |               |
| Maximum input current                                | 15A+15A                                                                                                                                                                                                                                   |                |              | 13A+26A       |               |
| 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                                                                                                                                                                                                                                     | 6500W          | 8000W        | 10000W        | 12000W        |
| Max AC Input/ Output Power                           | 5500W                                                                                                                                                                                                                                     | 7150W          | 8800W        | 11000W        | 13200W        |
| AC Input/ Output Rated Current                       | 7.6/7.2A                                                                                                                                                                                                                                  | 9.8/9.42A      | 12.1/11.6A   | 15.2/14.5A    | 18.2/17.4A    |
| Max AC Input/ Output Current                         | 8.4/8A                                                                                                                                                                                                                                    | 10.8/10.4A     | 13.4/12.8A   | 16.7/15.9A    | 20/19.1A      |
| Max. Three-phase Unbalanced Output Current           | 11.4/10.9A                                                                                                                                                                                                                                | 14.7/14.1A     | 18.2/17.4A   | 22.7/21.7A    | 27.3/26.1A    |
| Power Factor Adjustment Range                        | 0.8 leading to 0.8 lagging                                                                                                                                                                                                                |                |              |               |               |
| Rated Input/Output Voltage                           | 220/380,230/400Vac                                                                                                                                                                                                                        |                |              |               |               |
| Rated Input/Output Grid Frequency/Range              | 50/60;45~55/55-65                                                                                                                                                                                                                         |                |              |               |               |
| Grid Type                                            | Three Phase                                                                                                                                                                                                                               |                |              |               |               |
| Total Harmonics Current Distortion (THDi)            | <3% (of nominal power)                                                                                                                                                                                                                    |                |              |               |               |
| DC Current Injection                                 | <0.5% In                                                                                                                                                                                                                                  |                |              |               |               |
| EFFICIENCY                                           |                                                                                                                                                                                                                                           |                |              |               |               |
| Max. Efficiency                                      | ≥97.6%                                                                                                                                                                                                                                    |                |              |               |               |
| Euro Efficiency                                      | 97.0%                                                                                                                                                                                                                                     |                |              |               |               |
| PROTECTION                                           |                                                                                                                                                                                                                                           |                |              |               |               |
| Integrated                                           | Islanding protection, PV input polarity reverse protection, insulationresistance detection, surge protection,leakage current monitoringprotection,output current protection, output short circuit protectionoutput overvoltage protection |                |              |               |               |
| Surge Protection                                     | DC Type III/AC Type III                                                                                                                                                                                                                   |                |              |               |               |
| Overvoltage Category                                 | DC Type II/AC Type III                                                                                                                                                                                                                    |                |              |               |               |
| GENERAL DATA                                         |                                                                                                                                                                                                                                           |                |              |               |               |
| Operating Temperature Range (°C)                     | -25°C to +60°C, >45°C Derating                                                                                                                                                                                                            |                |              |               |               |
| Cooling                                              | Fan cooling                                                                                                                                                                                                                               |                |              |               |               |
| Noise (dB)                                           | ≤55dB                                                                                                                                                                                                                                     |                |              |               |               |
| Communication with BMS                               | RS485/CAN                                                                                                                                                                                                                                 |                |              |               |               |
| Machine Dimension (W*H*D)(mm)                        | 446*692*260<br>(excluding connectors and racks)                                                                                                                                                                                           |                |              |               |               |
| Package Dimension (W*H*D)(mm)                        | 567*816*404                                                                                                                                                                                                                               |                |              |               |               |
| N.W(kg)                                              | 38<br>(Excluding Connectors and Brackets)                                                                                                                                                                                                 |                |              |               |               |
| G.W(kg)                                              | 42                                                                                                                                                                                                                                        |                |              |               |               |
| Protection Degree                                    | IP66                                                                                                                                                                                                                                      |                |              |               |               |
| Installation Style                                   | Wall-mounted                                                                                                                                                                                                                              |                |              |               |               |
| Warranty                                             | 5 Years<br>the Warranty Period Depends the Final Installation Site of Inverter, More Info Please Refer to Warranty Policy                                                                                                                 |                |              |               |               |
| CERTIFICATION & STANDARDS                            |                                                                                                                                                                                                                                           |                |              |               |               |

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