# MasterPower®

# Energy Storage Inverter

## MF-RHO-6K-LV



Supports up to 10-unit parallel operation in both on-grid and off-grid modes, featuring scalable capacity.

Equipped with GEN port，compatible with diesel generators, smart loads, and AC coupling.

IP66 rated enclosure, designed for both indoor and outdoor deployment in harsh environments.

Supports setting 9 periods, including three periods each for self-consumption, battery charge, and battery discharge.

Supports 7 intelligent working modes and automatically switch within 10ms.

Silent fanless design with zero-maintenance reliability.

## Input DC (PV side)

| | |
|---|---|
| Max. PV access power | 12kW |
| Max. PV input power | 9.6kW |
| Max. PV input voltage | 550V |
| Nominal input voltage | 360V |
| MPPT working voltage range | 80V-500V |
| Number of independent MPPT/strings per MPPT | 2/1 |
| MPPT max. current | 20A/20A |
| Start-up voltage | 100V |

## Output/Input AC (Grid side)

| | |
|---|---|
| Nominal apparent power | 6kW |
| Max. apparent power | 6.6kVA |
| Nominal voltage | 220V/230V |
| Nominal frequency | 50Hz/60Hz |
| Rated current | 27.3A/26A |
| Max. current | 30A |
| Power factor | -0.8~+0.8 (adjustable) |
| THDi | <3%(Nominal Output) |
| Grid system pattern | L+N+PE |
| Max. AC current from utility grid | 50A |

## Output AC (Back-up)

| | |
|---|---|
| Nominal output power | 6kW |
| Max. output apparent power | 6.6kVA |
| Nominal output voltage | 220V/230V |
| Nominal ouput frequency | 50Hz/60Hz |
| Output THDV | <3% |
| Automatic switch time | <10ms |

## Battery

| | |
|---|---|
| Battery type | Li-ion/Lead-acid |
| Battery voltage range | 40V~60V |
| Max. charging/discharging current | 100A |
| Charging strategy for Li-ion battery | Self-adaption to BMS |

## Efficiency

| | |
|---|---|
| Max. MPPT efficiency | 99.9% |
| Europe efficiency | 97.5% |
| Max. battery to load efficiency | 94% |

## Protection

| | |
|---|---|
| Anti islanding protection | Yes |
| Insulation impedance protection | Yes |
| RCD detection | Yes |
| PV reverse polarity protection | Yes |
| Output over voltage protection | Yes |
| Output over current protection | Yes |

## General Data

| | |
|---|---|
| Dimensions(L/W/H)in mm | 375/250/363 |
| Weight | 20kg |
| Operation temperature range | -25℃~60℃ |
| Heat dissipation mode | Natural |
| IP Class | IP 66 |
| Maximum altitude | 4000m |
| Self-Consumption night | <3W |

## Features

| | |
|---|---|
| LCD display | Yes |
| Communication interface | WiFi/4G/USB/CAN/RS485 |
| Standards | EN 62109/EN 62477/EN IEC 61000/CEI 0-21/NTS-631/RD647/UNE 217001/ UNE 217002/VDE 4105/IEC 61727/IEC 62116/IEC 61683/EN 50549/G98/ G99/NRS 097/UTE C 15/VDE V 0126 |

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