

Energy Storage Inverter

MF-RHO-12K-SP



Low Voltage Split-Phase
120v / 240v Hybrid Solar Inverter



100% unbalanced output for each phase



DC & AC coupling - retrofit existing solar systems easily



Seamless on/off-grid switching



Supports parallel (on/off-grid) function;
And Single-phase units can be paralleled to three-phase



7 intelligent working modes for flexible applications



IP66 protection level for reliable outdoor performance



Smart Wi-Fi monitoring for real-time system control



Color touch screen with user-friendly interface



Wide BMS compatibility

Input DC (PV side)

Max. PV access power	24kW
Max. PV input power	19.2kW
Max. PV input voltage	600V
Nominal input voltage	360V
MPPT working voltage range	80V-500V
Number of independent MPPT/strings per MPPT	4/1
MPPT max. current	4*20A
Start-up voltage	100V

Output/Input AC (Grid side)

Nominal apparent power	12kVA
Max. apparent power	13.2kVA
Nominal voltage	120V/240V
Nominal frequency	60Hz
Rated current	50A
Max. current	55A
Power factor	-0.8- +0.8 (adjustable)
THDi	<3%(Nominal Output)
Grid system pattern	Split phase,2/3 phase, Single phase
Max. AC current from utility grid	100A

Output AC (Back-up)

Nominal output power	12kW
Max. output apparent power	13.2kVA
Nominal output voltage	120V/240V
Nominal output frequency	60Hz
Output THDV	<3%
Automatic switch time	<10ms

Battery

Battery type	Li-ion/Lead-acid
Battery voltage range	40V-60V
Max. charging/discharging current	240A
Charging strategy for Li-ion battery	Self-adaption to BMS
Charging strategy for Lead-acid battery	Three-stage

Efficiency

Max. MPPT efficiency	99.9%
Europe efficiency	97.5%
Max. battery to load efficiency	94.5%

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	425/290/660
Weight	40kg
Operation temperature range	-25°C~60°C
Heat dissipation mode	Smart cooling
IP Class	IP 66
Maximum altitude	4000m
Self-Consumption night	<3W
Topology	Transformerless

Features

LCD display	Yes
Communication interface	WiFi/4G/USB/CAN/RS485
Standards	UL 1741,IEEE 1547.1,SRD V2.0,FCC,RETIE