

# PIP-MS/MG "PF1" SERIES

## Off-Grid Solar Inverter

**MPPT**

**Batteryless support\***

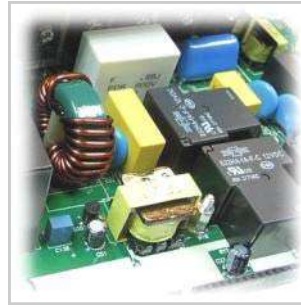


\*available on 5048MG only

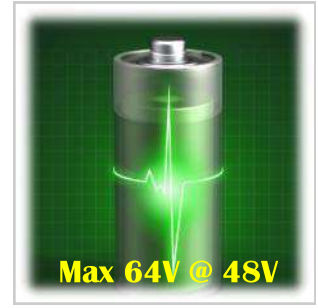
### MAIN FEATURES

- NEW! energy-efficient power factor 1.0 design
- Parallel-ready up to 9 units\* (MS 4-5K, MG only)
- Equalization up to 64V (MS 4-5K, MG only)
- Max DC limit up to 66V (MS 4-5k, MG only)
- High PV 450V input + Batteryless Operation (MG 5k only)
- Bulk charge (C.V.) setting time
- Built-in MPPT solar charger up to 80A
- High frequency pure sine wave design
- Suitable for with or without grid input
- Programmable parameters
- Max up to 80A utility charging
- Adjustable bulk/float voltage
- Wide AC input range
- Lightweight, easy to install
- FREE monitoring software
- LCD Display + LED indicators
- USB/RS232 communication interface
- (optional) remote display available

\*Important: batteries **MUST** be connected when configuring in parallel operation!



**HIGH DC INPUT 66V**

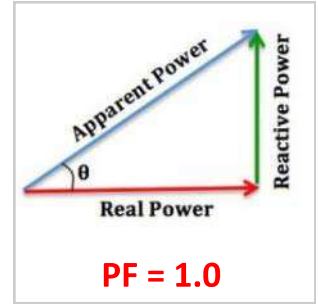


**EQUALIZATION CHARGING**



**Max 9 units**

**PARALLEL SUPPORT**



**PF = 1.0**

**ENERGY EFFICIENT**

PIP-MS/MG *PF1* SERIES	1012MS	2024MS	3024MS	4048MS(1)	5048MS	5048MG
<b>ELECTRICAL SPECIFICATIONS</b>						
Continuous Output	1000W	2000W	3000W	4000W	5000W	5000W
Parallel-ready	NO		YES, MAX 9 UNITS			
Batteryless Operation	NO			YES		
Input Power Factor	<b>1</b>					
Input Voltage Range	90~280VAC (Appliance mode), 170~280VAC (UPS mode)					
Input/Output Frequency	50Hz / 60Hz					
Output Voltage	230VAC±5%					
Output Waveform	Pure Sine Wave					
Output Regulation	< 3% RMS for battery voltage range					
Output Short Circuit	Circuit Breaker					
Peak Efficiency	95% (line mode) / 91% (inverter mode)					
Transfer Time	<10ms (UPS mode), <20ms (Appliance mode) **					
Charging Mode	3-stage					
Nominal DC Voltage	12V	24V	48V			
Bulk Volt (Flooded, AGM)	14.6, 14.1V	29.2, 28.2V	58.4, 56.4V			
Float Volt	13.5V	27.0V	54.0V	54.0V		
Max DC Volt	15.5V	31.0V	66.0V	66.0V		
Max AC Charging Current	20Amp	30Amp	60Amp	80A		
No Load Consumption	<15W	<25W	<50W	<50W		
Power Saving Mode	<5W	<10W	<15W	<15W		
<b>Solar Charger</b>						
Algorithm	MPPT					
System DC Voltage	12V	24V	48V	48V		
Max PV Input Voc	102V	75V	145V	450V		
MPPT Range	15 - 80V	30 - 66V	60 - 115V	120 - 430V		
Max Charging Current/Power	40A, 500W	25A, 600W	80A, 4000W	80A, 4500W		
<b>ENVIRONMENTAL / MECHANICAL SPECIFICATIONS</b>						
Certification	CE					
Operating/Storage Temp.	0°C ~ 55°C / -15°C ~ 60°C					
Operating Humidity	20~90%RH Non-Condensing					
Dimension	355*272*100mm			468*295*120mm		
Net Weight	7.0Kg	7.0Kg	7.5Kg	12.5Kg	13.5Kg	11Kg

\*MPP Solar Inc. reserves the right to change product specification without notice. MPP Solar is a registered trademark.

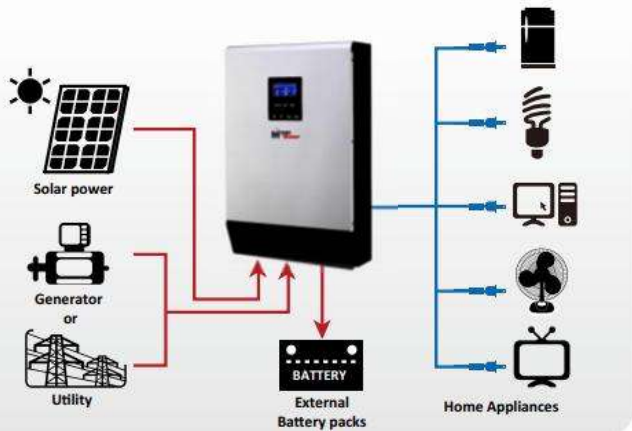


# Special Features

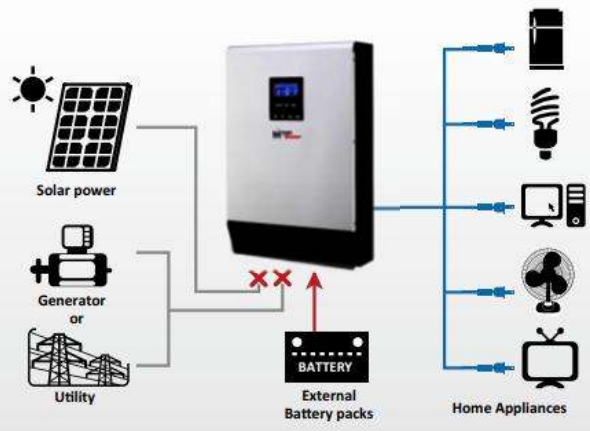


## Operation with Battery connected

Solar Power and AC Power available



Solar Power and AC Power not available

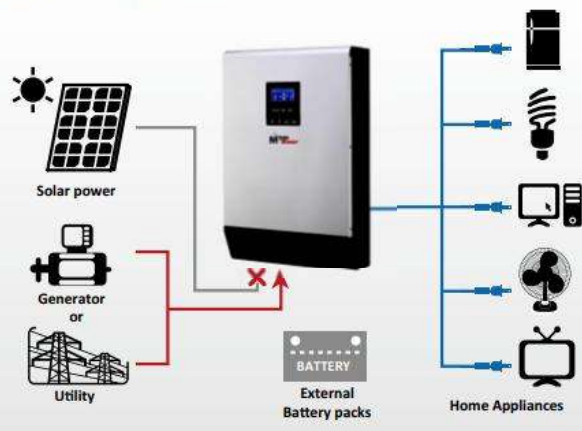


## Operation without Battery connected

Solar Power available



AC Power available





# PARALLEL KIT



This accessory is applicable to select 48VDC models of HS and MS series inverters. It is a required component to be installed in every unit of a parallel system. A parallel kit includes:

- 1 X PARALLEL BOARD
- 1 X PARALLEL COMM CABLE
- 1 X CURRENT SHARING CABLE

**\*IMPORTANT:** please do not attempt to parallel non-parallel-ready inverters together, as this will result instant damage of all units!

# REMOTE CONTROL DISPLAY MODULE



This device is an extension of the HS/MS inverter's LCD module and allows user to implement control on settings and monitoring from a distance away, one unit at a time.

This remote module can coexist with the built-in LCD display and is compatible with most models in the HS/MS inverter series. Default operating distance: 15m via RJ45 network cable (fixed length cable included)

\*For more details on pricing, availability and installation guide, please contact us directly.