

# PIP-HSE SERIES - PWM

OFF-GRID SOLAR INVERTER



1012HSE  
2024HSE

3024HSE

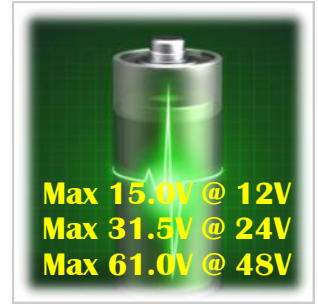
5048HSE

## MAIN FEATURES

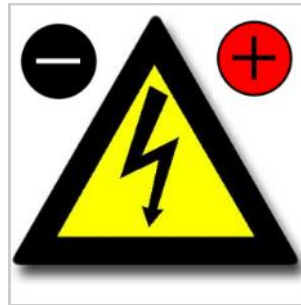
- 3-stage 50A PWM built-in solar charger
- Energy-efficient power factor 1.0 design
- Special designed for price sensitive consumers
- Lighter in weight, 1-5KW available
- Equalization charging available
- Increased DC limit up to 63V max
- Increased bulk/float voltage 61V max
- Fuse protection against reverse battery
- High frequency pure sine wave design
- Suitable for Off-Grid or with Grid
- Programmable parameters
- Max up to 60A utility charging
- Adjustable charging voltage
- Wide AC input range
- Lightweight, easy to install
- FREE monitoring software
- LCD Display + LED indicators
- USB / RS232 communication interface



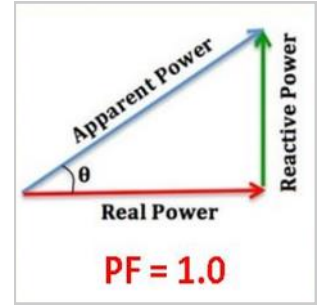
HIGH DC VOLT 16V/33/63V



EQUALIZATION CHARGING



FUSE PROTECTION (DC REVERSE POLARITY)



PF 1.0 Efficient Design

PIP-HSE SERIES	1012HSE	2024HSE	3024HSE	5048HSE
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### ELECTRICAL SPECIFICATION

Continuous Output	1000W	2000W	3000W	5000W
Surge Rating	2X			
Input Power Factor	1			
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 Short Circuit	Circuit Breaker			
Peak Efficiency	93%			
Nominal DC Voltage	12V		24V	48V
Max DC Input	16V	31V	33V	63V
Transfer Time	<10ms (UPS mode), <20ms (Appliance mode)			
Charging Mode	3-stage			
Max AC Charging Current	20A	20A	25A	60A
Max Equalization Charge	15V	30V	31.5V	61V
No Load consumption	<25W			<55W

### SOLAR CHARGER SPECIFICATION

Charging Algorithm	PWM			
Max Charging Current	50A			
Max PV Input Voc	55V	80V	80V	105V

### ENVIRONMENTAL / MECHANICAL SPECIFICATION

Certification	CE			
Operating/Storage Temp.	0°C ~ 55°C / -15°C ~ 60°C			
Operating Humidity	20~90%RH Non-Condensing			
Dimension	320*225*88mm	334*285*100mm	440*300*100mm	
Net Weight	5.0Kg	5.8Kg	6.5Kg	9.0Kg

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

# PIP-MSE SERIES - MPPT

## OFF-GRID SOLAR INVERTER



1012MSE  
2024MSE

3024MSE

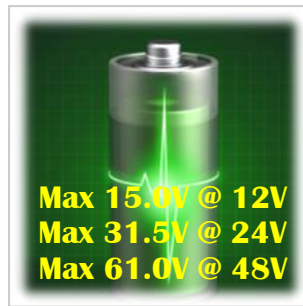
3024MSXE  
5048MSE

### MAIN FEATURES

- Max up to 80A MPPT built-in solar charger
- Energy-efficient power factor 1.0 design
- Special designed for price sensitive consumers
- Lighter in weight, 1-5KW available
- Equalization charging available
- Increased DC limit up to 63V max
- Increased bulk/float voltage 61V max
- Fuse protection against reverse battery
- High frequency pure sine wave design
- Suitable for Off-Grid or with Grid
- Programmable parameters
- Max up to 60A utility charging
- Adjustable charging voltage
- Wide AC input range
- Lightweight, easy to install
- FREE monitoring software
- LCD Display + LED indicators
- USB / RS232 communication interface



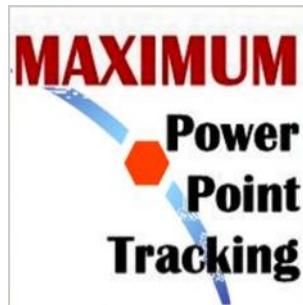
HIGH DC VOLT 16V/33/63V



EQUALIZATION CHARGING



FUSE PROTECTION (DC REVERSE POLARITY)



MPPT TECHNOLOGY

PIP-MSE/MSXE SERIES	1012MSE	2024MSE	3024MSE	3024MSXE	5048MSE
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#### ELECTRICAL SPECIFICATION

Continuous Output	1000W	2000W	3000W	3000W	5000W
Surge Rating	2X				
Input Power Factor	1				
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 Short Circuit	Circuit Breaker				
Peak Efficiency	93%				
Nominal DC Voltage	12V	24V	24V	24V	48V
Max DC Input	16V	31V	33V	33V	63V
Transfer Time	<10ms (UPS mode), <20ms (Appliance mode)				
Charging Mode	3-stage				
Max AC Charging Current	20A	25A	25A	60A	60A
Max Equalization Charge	15V	30V	31.5V	31.5V	61V
No Load consumption	<25W				<55W

#### SOLAR CHARGER SPECIFICATION

Charging Algorithm	MPPT				
Max Charging Current	40A	40A	40A	60A	60A
Max PV Input Voc	105V	105V	105V	145V	145V
MPPT Range	15 ~ 80V	30 ~ 80V	30 ~ 80V	30 ~ 115V	60 ~ 115V

#### ENVIRONMENTAL / MECHANICAL SPECIFICATION

Certification	CE				
Operating/Storage Temp.	0°C ~ 55°C / -15°C ~ 60°C				
Operating Humidity	20~90%RH Non-Condensing				
Dimension	320*225*88mm	334*285*100mm	334*285*100mm	440*300*100mm	440*300*100mm
Net Weight	5.0Kg	5.1Kg	6.5Kg	9.5Kg	10Kg

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