

PIP-HSE PF1.0 PWM SERIES

Off-Grid Solar Inverter



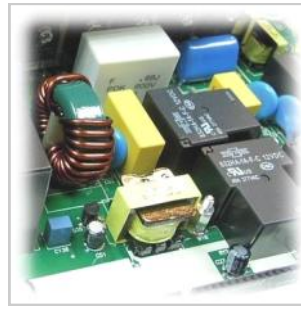
1012HSE
2024HSE

3024HSE

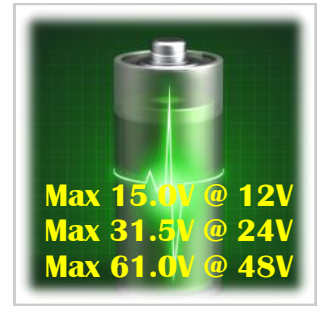
5048HSE

MAIN FEATURES

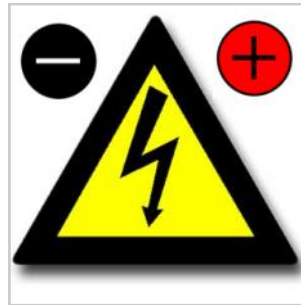
- **NEW! energy-efficient power factor 1.0 design**
- **Special designed for price sensitive consumers**
- **Lighter in weight, 1-5KW available**
- **Equalization charging available**
- **Increased DC limit up to 63V max**
- **Increased bulk/float voltage 61V max**
- **Fuse protection against reverse battery**
- High frequency pure sine wave design
- 3-stage 50A PWM built-in solar charger
- 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



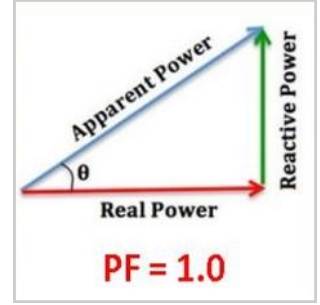
HIGH DC VOLT 16V/33/63V



EQUALIZATION CHARGING



FUSE PROTECTION (DC REVERSE POLARITY)



PF 1.0 Efficient Design

PIP-HSE SERIES 1012HSE 2024HSE 3024HSE 5048HSE

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 SPECIFICATIONS

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

ENVIRONMENTAL / MECHANICAL SPECIFICATIONS

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 PF1.0 MPPT SERIES

Off-Grid Solar Inverter



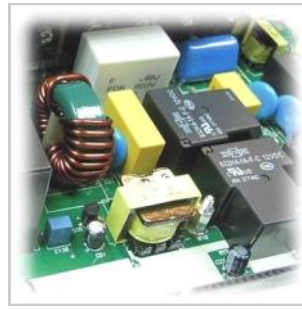
1012MSE
2024MSE

3024MSE

3024MSXE
5048MSE

MAIN FEATURES

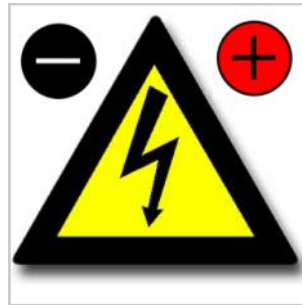
- **NEW! energy-efficient power factor 1.0 design**
- **Special designed for price sensitive consumers**
- **Lighter in weight, 1-5KW available**
- **Equalization charging available**
- **Increased DC limit up to 63V max**
- **Increased bulk/float voltage 61V max**
- **Fuse protection against reverse battery**
- High frequency pure sine wave design
- Max up to 80A MPPT built-in solar charger
- 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

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 SPECIFICATIONS

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 SPECIFICATIONS

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	400*300*100mm	400*300*100mm
Net Weight	5.0Kg	5.1Kg	6.5Kg	9.5Kg	10Kg

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