—— MUST ENERGY (GUANGDONG) TECHNOLOGY CO., LTD ——

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Must Energy Group

PRODUCT CATALOGUE

PV SERIES + PH SERIES + EP SERIES + PI SERIES + PC SERIES

—— MUST ENERGY (GUANGDONG) TECHNOLOGY CO., LTD ——

COMPANY PROFILE

MUST ENERGY Established in Shenzhen, China in 1998. Which is a leading manufacturer of power protection products and service solutions including Uninterruptible Power Supplies (UPS), Power Inverters, Solar Inverters, Charge Controllers, Batteries and Automatic Voltage Regulators(AVR).

MUST has two R&D centers in Shenzhen and Foshan. It has more than 100 patents and can provide customers with advanced product development and design, comprehensive product development and testing, and automated information production. Branches and UNPROFOR, distributed around the world, provide users with professional logistics support for solutions, technical training and service support, which can serve customers more conveniently and quickly.

MUST has established an enviable reputation based on passion, quality, innovation, reliability and integrity for power protection technology, service excellence, complete customer satisfaction and confidence unmatched within the industry.

Certificate

ISO9001, CE, IEC ,SAA, SONCAP, SGS, TLC, etc.

1998

Founded in 1998

28000 m²

Factory covers an area of 28,000 square meters with automatic production technology

60000 +

Monthly Production 60000 pcs

100 +

Must serves more than 100 countries and regions around the world

High Frequency Off Grid Solar Inverter

PV1300 Series (1KVA-1.5KVA)

Features

- Simulated sine wave inverter
- Built-in 50A PWM Solar Charge Controller
- MFD (multi-function display)
- 20A standard charging current from utility
- AC/solar priority for output via MFD
- 3 steps charging algorithm
- Overload & short-circuit protection
- Battery reverse polarity protection
- Deep discharge protection
- Auto restart while AC/solar is recovering

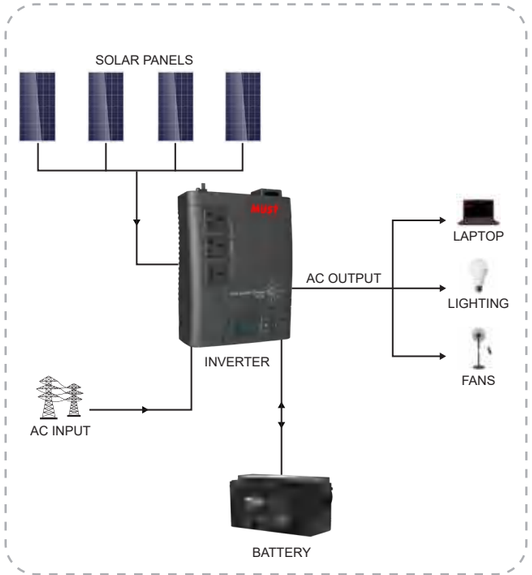
Introduction

PV1300 is a cost effective , intelligent hybrid off grid solar inverter with power range 1000VA 1500VA. The LCD display offers friendly user-configurable button adjustment such as input voltage setting, AC/solar charger priority , mute setting. When battery voltage is low, it's will automatically switch to AC grid to supply continuous power to the loads. It suitable for personal home use.

Back panel printing description

1. Output Receptacle (s)
2. LCD display
3. Status indicators
4. Setting button
5. Power switch
6. External battery connectors
7. FAN
8. Solar panel terminal
9. Input circuit breaker (plastic case)
10. AC input

Solar system connection



Specification

MODEL			PV13-1012	PV13-1512	PV13-1024	PV13-1524
Nominal Battery System Voltage			12VDC	12VDC	24VDC	24VDC
NVERTER OUTPUT	Rated Power		1000VA/600W	1500VA/1000W	1000VA/600W	1500VA/1000W
	Waveform		Simulated Sine-wave			
	Nominal Output Voltage RMS		230V			
	Output Voltage Regulation		+10/-18%			
	Output Frequency		50Hz/60Hz ±1 Hz			
	Inverter Efficiency(Peak)		>80%			
	Line Mode Efficiency		>98%			
	Typical Transfer Time		Typical 6~8ms 10ms max			
AC INPUT	Voltage		230VAC			
	Selectable Voltage Range	Narrow	175~260VAC			
		Wide	140~270VAC			
	Frequency Range		40Hz-70Hz (Auto sensing)			
BATTERY	Nominal Input Voltage		12VDC		24VDC	
	Minimum Start Voltage		10.5VDC		21.0VDC	
	Low Battery Alarm		10.5VDC		21VDC	
	Low Battery Cutoff		10.0VDC		20.0VDC	
	High Voltage Cutoff		15.5VDC (max)		31.0VDC (max)	
SOLAR CHARGER & AC CHARGER	Maximum PV Charge Current		50A (max)			
	Maximum PV Array Power		450W/750W		900W/1500W	
	PWM Range @ Operating Voltage		16~55VDC			
	Maximum PV Array Open Circuit Voltage		55VDC			
	Maximum Efficiency		>95%			
	Standby Power Consumption		<2W			
	AC Charger Voltage		14.4V(max)		28.8V(max)	
	AC Charging Current		10A / 20A			
BYPASS & PROTECTION	Nominal Input Frequency		40Hz – 70Hz			
	Overload Protection (SMPS Load)		FUSE			
	Output Short Circuit Protection		FUSE			
	Bypass Fuse Rating		10A			
	Max Bypass Current		10Amp			
MECHANICAL SPECIFICATIONS	Machine Dimensions (W*H*D)		231*290*92mm			
	Package Dimensions (W*H*D)		595*375*315mm			
	Net Weight (kg)		2.8		4	
	Gross Weight (kg)		3.5		4.7	
OTHER	Operation Temperature Range		0°C~50°C			
	Audible Noise		50dB MAX			
	Display		LED+LCD			
	Loading(20GP/40GP/40HQ)		1700pcs / 4100pcs			

The technical specifications of this document are subject to change without any notice

High Frequency Off Grid Solar Inverter

PV1500 Series (1KVA-2KVA)

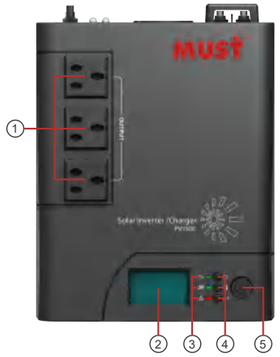
Features

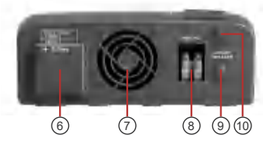
- Built-in 30A MPPT Solar Charge Controller
- 10A or 15A standard charging current from utility AC
- AC/solar priority for charging via MFD
- Different charging mode for different kinds of batteries
- Overload & short-circuit protection, Battery reverse polarity protection, Deep discharge protection
- Auto restart while AC/solar is recovering Adjustable solar and utility charging current
- Support two kinds of batteries include LiFePO4 Lithium Battery Pack and Lead-acid Battery.
- Support fast max charging current setting
- Automatic activate lithium battery pack which is be over discharged no output when AC input is OK

Introduction

It is a cost effective, intelligent solar inverter which accepts Solar & Utility input at the same time. The comprehensive LCD display offers user-configurable and easy-accessible button adjustment such as battery charging current, AC/solar charger priority and DC priority.When battery voltage is low,it will automatically switch to AC grid to supply continuous power to the loads.

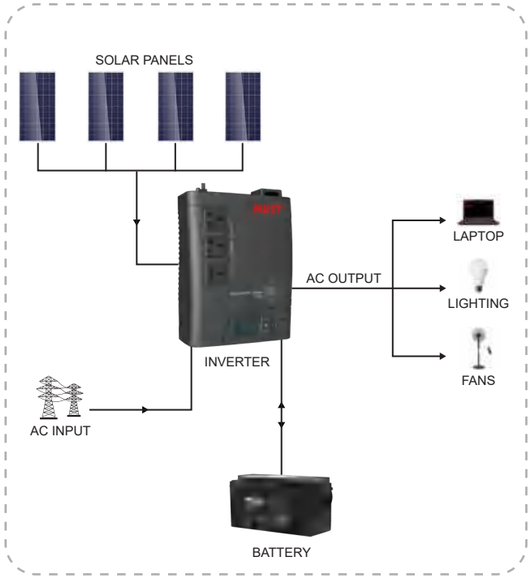
Back panel printing description





1. Output Receptacle (s)
2. LCD display
3. Status indicators
4. Setting button
5. Power switch
6. External battery connectors
7. FAN
8. Solar panel terminal
9. Input circuit breaker (plastic case)
10. AC input

Solar system connection



MUST®
Solar Power System

Specification

MODEL		PV15-1012		PV15-2024	
Nominal Battery System Voltage		12VDC		24VDC	
NVERTER OUTPUT	Rated Power	1000VA / 600W		2000VA / 1200W	
	Waveform	Pure Sine Wave			
	Nominal Output Voltage RMS	230V			
	Output Voltage Regulation	+10/-18%			
	Output Frequency	50Hz / 60Hz ± 1Hz			
	Inverter Efficiency (Peak)	>90%			
	Line Mode Efficiency	>95%			
	Typical Transfer Time	Typical < 10ms , 15ms max			
AC INPUT	Voltage	230VAC			
	Voltage Range	184 ~ 278VAC ± 3%			
	Frequency Range	45 ~ 65Hz ± 2Hz			
BATTERY	**Note: Below Parameters (PB) Lead-acid Battery / (LI) LiFePO4 Lithium Battery Pack - 12V(4 Series) 24V(8 Series)**				
	Nominal Input Voltage	12VDC		24VDC	
	Low Battery Cutoff	10.5VDC(PB)	11.5VDC(LI)	21.0VDC(PB)	23.0VDC(LI)
	Low Battery Alarm	11.0VDC(PB)	12.0VDC(LI)	22.0VDC(PB)	24.0VDC(LI)
	Low Battery Voltage Recover	12.5VDC(PB)	12.8VDC(LI)	25.0VDC(PB)	25.6VDC(LI)
	High Battery Voltage Recover	14.5VDC(PB)	14.3VDC(LI)	29.0VDC(PB)	28.6VDC(LI)
	High Battery Voltage Cutoff	15.0VDC(PB)	14.8VDC(LI)	30.0VDC(PB)	29.6VDC(LI)
SOLAR CHARGER & AC CHARGER	Charger Voltage boost	14.4VDC(PB)	14.4VDC(LI)	28.8VDC(PB)	28.8VDC(LI)
	Charger Voltage float	13.8VDC(PB)	14.4VDC(LI)	27.6VDC(PB)	28.8VDC(LI)
	Maximum PV Charge Current	30A (max)			
	Maximum PV Array Power	420W		840W	
	MPPT Operating Voltage Range	14 ~ 75VDC		28 ~ 75VDC	
	Maximum PV Array Open Voltage	100VDC			
	Maximum Efficiency	> 95%			
	Standby Power Consumption	< 2W			
	AC Charging Current	3A / 10A / 15A (Can be set)		3A / 7A / 10A (Can be set)	
	Maximum Charge Current AC+PV	10 ~ 45A (Can be set)		10 ~ 40A (Can be set)	
BYPASS & PROTECTION	Overload Protection (SMPS Load)	FUSE			
	Output Short Circuit Protection	FUSE			
	Bypass Fuse Rating	6.3A		10A	
	Max Bypass Current	6.3A		10A	
	PV Charge Fuse Current	50A			
MECHANICAL SPECIFICATIONS	Machine Dimensions (W*H*D)	235 x 290 x 92			
	Package Dimensions (W*H*D)	595 x 375 x 315			
	Net Weight (kg)	2.8		3.0	
	Gross Weight (kg)	3.5		3.7	
OTHER	Operation Temperature Range	0℃ to 40℃			
	Audible Noise	50dB MAX			
	Display	LED+LCD			

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High Frequency Off Grid Solar Inverter

PV1800 Series (8KW-10KW)

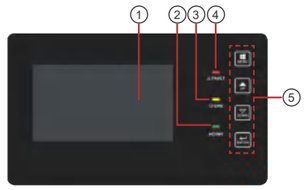
Features

- Pure sine wave inverter
- Configurable input voltage range for home appliances and personal computers via LCD setting
- Configurable battery charging current based on applications via LCD setting
- Configurable AC/Solar Charger priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload/ Over temperature/ short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function
- WiFi remote monitoring (optional)

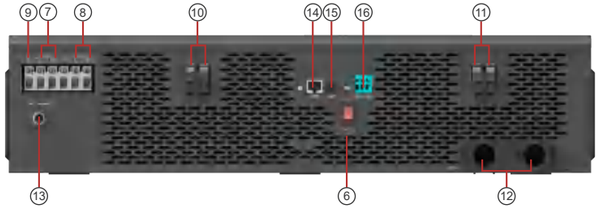
Introduction

This is a multi-function inverter/charger, combining functions of inverter, solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

Back panel printing description

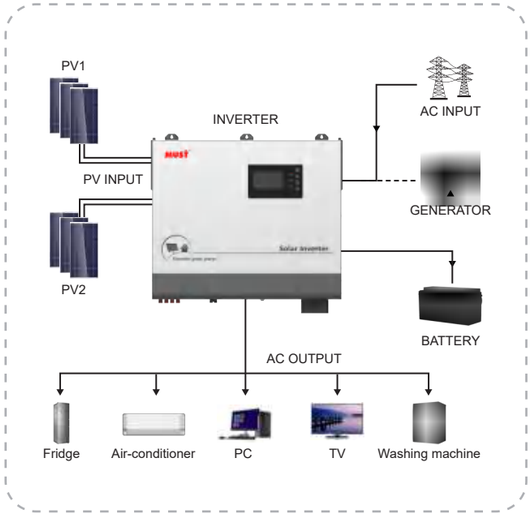


1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons



6. Power On/Off Switch
7. AC Input
8. AC Output
9. Ground
10. PV1 Input
11. PV2 Input
12. Battery Input
13. Circuit breaker
14. RS-485 Communication port
15. USB
16. Dry Contact
17. WiFi port (optional)

Solar system connection



MUST®
Solar Power System

Specification

MODEL		PV18-8048	PV18-10048
Nominal Battery System Voltage		48VDC	
INVERTER OUTPUT	Rated Power	8000W	10000W
	Surge Power	16000W	20000W
	Waveform	Pure Sine Wave	
	AC Voltage Regulation (Batt.Mode)	230VAC±5%	
	Output Frequency	60Hz or 50Hz	
	Inverter Efficiency(Peak)	93%	
	Transfer Time	10ms (UPS) 20ms (APL)	
AC INPUT	Nominal Input Voltage	230VAC	
	Max AC Input Voltage	300VAC	
	Selectable Voltage Range	170~280VAC (UPS) / 90~280VAC (APL) / 184~253VAC(VDE4105)	
	Frequency Range	50Hz / 60Hz(Auto detection)	
BATTERY	Normal Voltage	48VDC	
SOLAR CHARGER & AC CHARGER	AC Charging Current	2-120A	
	Maximum PV Array Open Circuit Voltage	145VDC	
	PV Array Open Circuit Voltage	60-130VDC	
	Cold Start Voltage	46VDC	
	Solar Charging Current	160A	
	Default Charging Current	160A	
	Maximum Charge Current	280A	
	Charging Algorithm	3-step (Flooded Battery / AGM / GEL/ LEAD Battery), 4-step(LI)	
MECHANICAL SPECIFICATIONS	Machine Dimensions(W*H*D)(mm)	503*600*141.2	
	Net Weight(kg)	21.0	
OTHER	Safety Certification	CE	
	Operating Temperature	0°C~50°C	
	Storage Temperature	-15°C ~60°C	

Pure Sine wave High Frequency solar Inverter(450V)

PV1800 PRO Series (3KW-5.5KW)

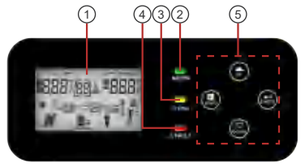
Features

- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc).
- Built-in MPPT solar charge controller
- MAX PV Array Open Circuit Voltage: 450V
- Can provide the power to the load without battery
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Support USB, RS485 monitoring function
- Parallel operation with up to 3 units
- WIFI remote monitoring (optional)

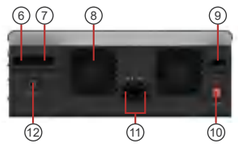
Introduction

PV1800 PRO is a multi-function inverter/charger, combining functions of inverter, MPPT solar charger and battery charger to offer uninterruptible power support in portable size. PV1800 PRO Series can run without battery. The Maximum PV array open circuit voltage can reach 450V and MPPT voltage is 150~430Vdc, which Can help customers make full use of solar energy.

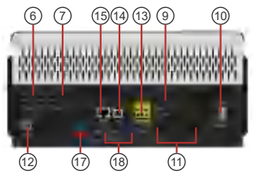
Back panel printing description

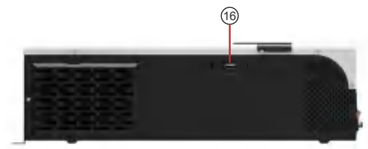


1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons



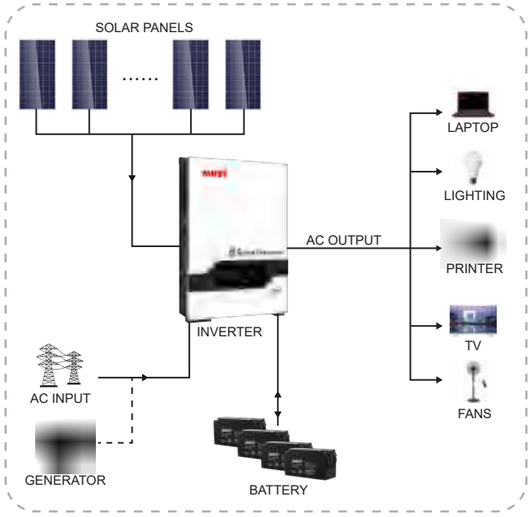
[PV1800 PRO 3K]





[PV1800 PRO 5K]

Solar system connection



6. AC Input
7. AC Output
8. FAN
9. PV Input
10. Power On/Off Switch
11. Battery Input
12. Circuit breaker
13. Dry Contact
14. USB
15. RS-485/CAN Communication port
16. USB WiFi
17. Parallel switch (only for parallel model)
18. Parallel communication port (only for parallel model)

MUST®
Solar Power System

Specification

MODEL		PV18-3024 PRO	PV18-3524 PRO	PV18-5248 PRO	PV18-5548 PRO
Nominal Battery System Voltage		24VDC		48VDC	
INVERTER OUTPUT	Rated Power	3000VA / 3000W	3500VA / 3500W	5200VA / 5200W	5500VA / 5500W
	Surge Power	6000W	7000W	10400W	11000W
	Waveform	Pure sine wave			
	AC Voltage Regulation (Batt.Mode)	230VAC±5%(Setting)			
	Inverter Efficiency(Peak)	90%			
	Transfer Time	10ms (UPS / VDE4105) / 20ms (APL)			
AC INPUT	Voltage	230VAC±5%			
	Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VED4105)			
	Frequency Range	50Hz / 60Hz(Auto sensing)			
BATTERY	Normal voltage	24VDC		48VDC	
	Floating Charge Voltage	27.4VDC		54.8VDC	
	Overcharge Protection	30VDC		60VDC	
SOLAR CHARGER & AC CHARGER	Maximum PV Array Open Circuit Voltage	450VDC			
	Charging Algorithm	3-Step (Flooded Battery, AGM / GEL / LEAD Battery), 4-Step (Li)			
	Maximum PV Array Power	4000W	4000W	5000W	6000W	6000W
	PV Array MPPT Voltage Range	150~430 VDC			
	Maximum Solar Charge Current	80A	100A	100A	80A	100A	120A
	Maximum AC Charge Current	60A	80A	80A	60A	80A	100A
	Maximum Charge Current	80A	100A	100A	80A	100A	120A
MECHANICAL SPECIFICATIONS	Machine Dimensions (W*H*D)(mm)	322*486*134		322*486*134	309*505*147	309*505*147
	Package Dimensions (W*H*D)(mm)	426*560*260.5		426*560*260.5	375*655*269	375*655*269
	Net Weight(kg)	8		10	14	14.4
	Gross Weight(kg)	9.5		11.5	16.4	16.8
OTHER	Humidity	5% to 95% Relative humidity (Non-condensing)			
	Operating Temperature	0°C~50°C			
	Storage Temperature	-15°C ~60°C			

The technical specifications of this document are subject to change without any notice

High Frequency Solar Inverter

PV1800 VPK Series (1KW-5KW)

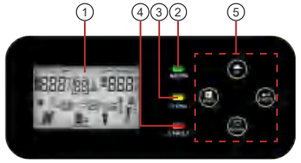
Features

- Pure sine wave output
- Smart LCD setting(Working modes, Charge Current, Charge Voltage, etc.)
- Built-in PWM 50A/60A solar charge controller
- New SUB working mode(Solar-Utility-Battery working mode)
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and deep discharge protection
- Parallel operation with up to 3 units (Available for 4KW/5KW only)
- Cold start function
- Support USB, RS485 monitoring function
- WIFI remote monitoring (optional)
- Compatible to generator

Introduction

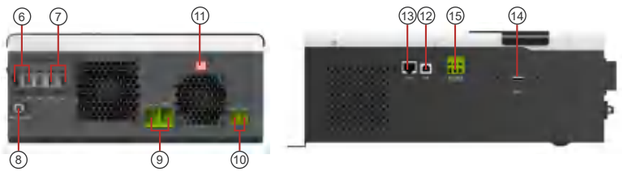
PV1800 VPK is a multi-function inverter/charger, combining functions of inverter, PWM solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

Back panel printing description



1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons

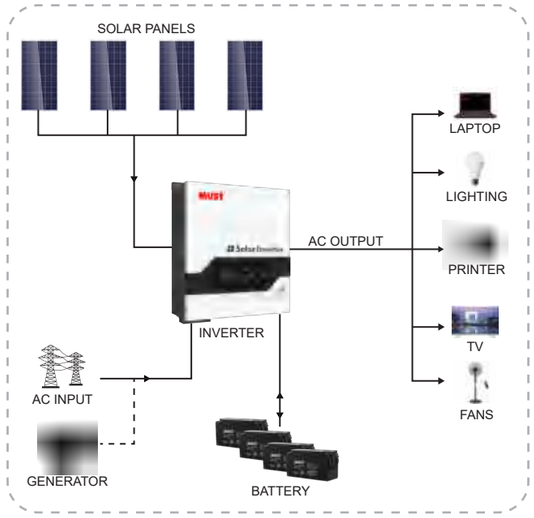
[PV1800 VPK 1K]



[PV1800 VPK 2-3K]

6. AC Input
7. AC Output
8. Circuit breaker
9. Battery Input
10. PV Input
11. Power On/Off Switch
12. USB
13. RS-485 Communication port
14. USB WiFi
15. Dry Contact

Solar system connection



Specification

MODEL		PV18-1012 VPK	PV18-2024 VPK	PV18-3024 VPK	PV18-4048 VPK	PV18-5048 VPK
Nominal Battery System Voltage		12VDC	24VDC		48VDC	
INVERTER OUTPUT	Rated Power	1000W	2000W	3000W	4000W	5000W
	Surge Power	2000W	4000W	6000W	8000W	10000W
	Waveform	Pure sine wave				
	AC Voltage Regulation (Batt.Mode)	(220VAC~240VAC)±5%				
	Inverter Efficiency(Peak)	93%				
	Transfer Time	10ms (UPS / VDE4105) 20ms (APL)				
AC INPUT	Voltage	230VAC				
	Selectable Voltage Range	170~280VAC(For personal computer) / 90~280VAC(For home appliances) / 184~253VAC(VED4105)				
	Frequency Range	50Hz / 60Hz(Auto sensing)				
BATTERY	Normal voltage	12VDC	24VDC		48VDC	
	Floating Charge Voltage	13.7VDC	27.4VDC		54.8VDC	
	Overcharge Protection	15.5VDC	30VDC		60VDC	
SOLAR CHARGER & AC CHARGER	Maximum PV Array Open Circuit Voltage	55VDC	75VDC	80VDC	105VDC	
	Standby Power Consumption	2W	2W		2W	
	(PWM)Maximum Solar Charge Current	50A	50A	60A	60A	
	Maximum AC Charge Current	10A or 20A	10A or 20A	20A or 30A	60A	
	Maximum ChargeCurrent	70A	70A	80A	120A	
MECHANICAL SPECIFICATIONS	Machine Dimensions (W*H*D)(mm)	224*337*98	290*342*125		297.5*468*125	
	Package Dimensions (W*H*D)(mm)	372*387*211	438*400*256		618*415*261	
	Net Weight(kg)	5.0	5.5	7.8	12	
	Gross Weight(kg)	6.0	6.5	10.3	13.5	
OTHER	Humidity	5% to 95% Relative humidity (Non-condensing)				
	Operating Temperature	0°C~50°C				
	Storage Temperature	-15˚C ~60˚C				

High Frequency Off Grid Solar Inverter

PV1800 VHM Series (2KW-5.5KW/145V)

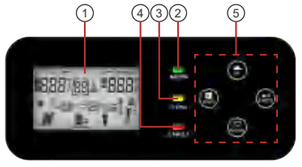
Features

- Rated power : 2KW -5.5KW
- Pure sine wave solar inverter
- Output power factor 1
- Built-in 80A MPPT solar charger
- Built-in anti-dust kit for harsh environment
- Support parallel operation up to 3 units (available for 3KW-5.5KW 48V)
- WIFI remote monitoring (optional)
- Compatible to generator

Introduction

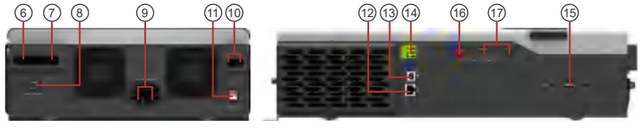
PV1800 VHM is a multi-functional inverter/charger, combining functions of inverter, solar charger and battery charger to offer uninterruptible power support in portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

Back panel printing description



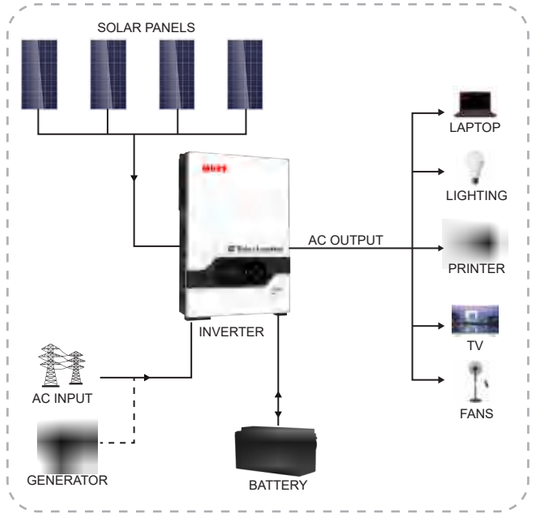
1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons

[PV1800 VHM 3K]



[PV1800 VHM 5K]

Solar system connection



6. AC input
7. AC output
8. Circuit breaker
9. Battery input
10. PV input
11. Power on/off switch
12. RS-485 Communication port
13. USB
14. Dry contact
15. USB wifi
16. Parallel switch (only for parallel model)
17. Parallel communication port (only for parallel model)

MUST®
Solar Power System

Specification

MODEL		PV18-2024 VHM	PV18-3024 VHM	PV18-3048 VHM	PV18-4048 VHM	PV18-5048 VHM	PV18-5548 VHM
Nominal Battery System Voltage		24VDC		48VDC			
INVERTER OUTPUT	Rated Power	2000W	3000W	3000W	4000W	5000W	5500W
	Surge Power	4000W	6000W	6000W	8000W	10000W	11000W
	Waveform	Pure Sine Wave					
	AC Voltage Regulation (Batt.Mode)	(220VAC~240VAC)±5%					
	Inverter Efficiency(Peak)	93%					
	Transfer Time	10ms (UPS / VDE4105) 20ms (APL)					
AC INPUT	Voltage	230VAC					
	Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VDE4105)					
	Frequency Range	50Hz / 60Hz(Auto sensing)					
BATTERY	Normal Voltage	24VDC		48VDC			
	Floating Charge Voltage	27.4VDC		54.8VDC			
	Overcharge Protection	30VDC		60VDC			
SOLAR CHARGER & AC CHARGER	Maximum PV Array Open Circuit Voltage	145VDC					
	PV Array MPPT Voltage Range	30~130VDC		60~130VDC			
	Standby Power Consumption	2W					
	PV Input Power	2000W		4000W			
	Maximum Solar Charge Current	80A					
	Maximum Effciency	98%					
	Maximum AC Charge Current	20A/30A		60A			
	Maximum Charge Current	80A		140A			
MECHANICAL SPECIFICATIONS	Machine Dimensions(W*H*D)	300*414*116mm		329*485*134mm			
	Package Dimensions(W*H*D)	400*486*210mm		425*575*229mm			
	Net Weight(kg)	8.5		12			
	Gross Weight(kg)	10		13.5			
OTHER	Humidity	5% to 95% Relatiy Humidity (Non-condensing)					
	Operating Temperature	0°C~50°C					
	Storage Temperature	-15°C ~60°C					

High Frequency Off Grid Solar Inverter

PV1800 VHM Series (3KW-5.5KW/250V)

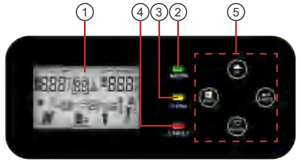
Features

- Rated power : 3KW -5.5KW
- Pure sine wave solar inverter
- Max PV Array Open Circuit Voltage: 250V
- Output power factor 1
- Built-in 80A MPPT solar charger
- Support parallel operation up to 3 units
- Communication CAN/485 port for BMS (optional)
- PV lithium battery activation function
- WIFI remote monitoring (optional)
- Compatible to generator

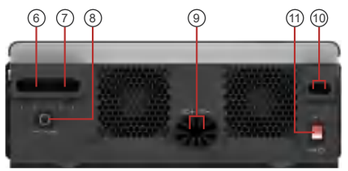
Introduction

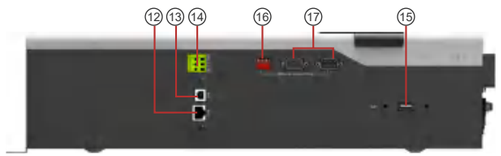
PV1800 VHM is a multi-functional inverter/charger, combining functions of inverter, solar charger and battery charger to offer uninterruptible power support in portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

Back panel printing description



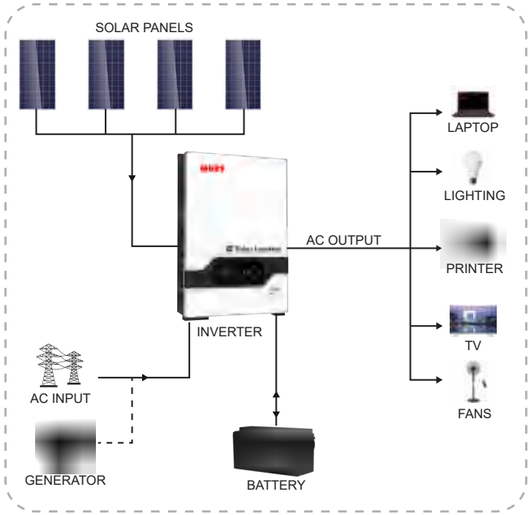
1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons





6. AC input
7. AC output
8. Circuit breaker
9. Battery input
10. PV input
11. Power on/off switch
12. RS-485 Communication port
13. USB
14. Dry contact
15. USB wifi
16. Parallel switch (only for parallel model)
17. Parallel communication port (only for parallel model)

Solar system connection



MUST®
Solar Power System

Specification

MODEL		PV18-3048 VHM	PV18-4048 VHM	PV18-5048 VHM	PV18-5548 VHM
Nominal Battery System Voltage		48VDC			
INVERTER OUTPUT	Rated Power	3000W	4000W	5000W	5500W
	Surge Power	6000W	8000W	10000W	11000W
	Waveform	Pure Sine Wave			
	AC Voltage Regulation (Batt.Mode)	(220VAC~240VAC)±5%			
	Inverter Efficiency(Peak)	93%			
	Transfer Time	10ms (UPS / VDE4105) 20ms (APL)			
AC INPUT	Voltage	230VAC			
	Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VDE4105)			
	Frequency Range	50Hz / 60Hz(Auto sensing)			
BATTERY	Normal Voltage	48VDC			
	Floating Charge Voltage	54.8VDC			
	Overcharge Protection	60VDC			
SOLAR CHARGER & AC CHARGER	Maximum PV Array Open Circuit Voltage	250VDC			
	PV Array MPPT Voltage Range	60~200VDC			
	Standby Power Consumption	2W			
	PV Input Power (STC)	4500W			
	Maximum Solar Charge Current	80A			
	Maximum Effciency	98%			
	Maximum AC Charge Current	60A			
	Maximum Charge Current	140A			
MECHANICAL SPECIFICATIONS	Machine Dimensions(W*H*D)	329*485*134mm			
	Package Dimensions(W*H*D)	425*575*229mm			
	Net Weight(kg)	12			
	Gross Weight(kg)	13.5			
OTHER	Humidity	5% to 95% Relatiy Humidity (Non-condensing)			
	Operating Temperature	0°C~50°C			
	Storage Temperature	-15°C ~60°C			

High frequency solar inverter

PV1800 VPM Series (1KW-5KW)

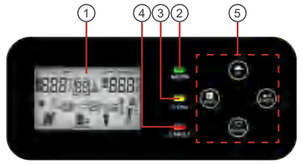
Features

- Rated power: 1-5KW
- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc).
- Bult in MPPT 60A/80A solar charge controller
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Support USB, RS485 monitoring function
- WIFI remote monitoring (optional)
- Compatible to generator
- Support parallel operation up to 3 units (available for 3KW-5KW 48V)

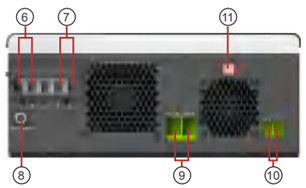
Introduction

This is a multi-function inverter/charger, combining functions of inverter, MPPT 60A/80A solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

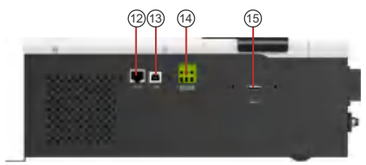
Back panel printing description



1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons

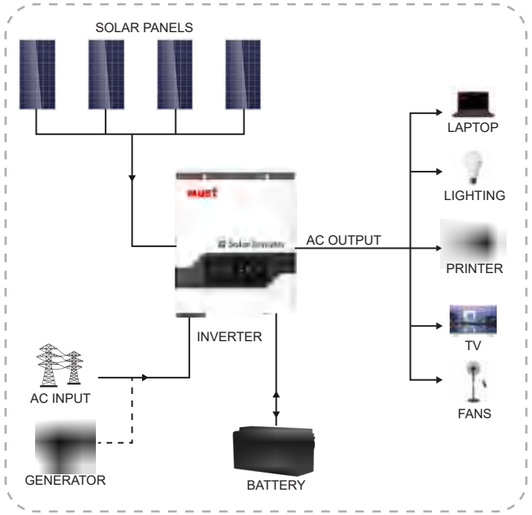


6. AC input
7. AC output
8. Circuit breaker
9. Battery input
10. PV input
11. Power on/off switch
12. RS-485 Communication port
13. USB
14. Dry contact
15. USB wifi



[PV1800 VPM 2-3K]

Solar system connection



MUST
Solar Power System

Specification

MODEL		PV18-1012 VPM	PV18-2024 VPM	PV18-3024 VPM	PV18-3048 VPM	PV18-4048 VPM	PV18-5048 VPM
Default Battery System Voltage		12VDC	24VDC		48VDC		
INVERTER OUTPUT	Rated Power	1000VA / 1000W	2000VA / 2000W	3000VA / 3000W	3000VA / 3000W	4000VA / 4000W	5000VA / 5000W
	Surge Power	2000VA	4000VA	6000VA	6000VA	8000VA	10000VA
	Waveform	Pure sine wave					
	AC Voltage Regulation (Batt.Mode)	220VAC~240VAC(Setting)					
	Inverter Efficiency(Peak)	90%~93%					
	Transfer Time	10ms(UPS / VDE4105) / 20ms(APL)					
AC INPUT	Voltage	230VAC					
	Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VDE)					
	Frequency Range	50Hz / 60Hz (Auto sensing)					
BATTERY	Normal voltage	12VDC	24VDC		48VDC		
	Floating Charge Voltage	13.7VDC	27.4VDC		54.8VDC		
	Overcharge Protection	15VDC	30VDC		60VDC		
SOLAR CHARGER & AC CHARGER"	Maximum PV Array Open Circuit Voltage	105VDC	145VDC		145VDC		
	PV Array MPPT Voltage Range	15~105VDC	30~120VDC		60~130VDC		
	Standby Power Consumption	2W					
	Maximum PV Array Power	720W	1500W		4000W		
	Maximum Solar Charge Current	60A			80A		
	Maximum Efficiency	98%					
	Maximum AC Charge Current	10A or 20A	20A or 30A		60A		
	Maximum Charge Current	70A	80A		140A		
MECHANICAL SPECIFICATIONS	Machine Dimensions (W*H*D)(mm)	224*337*98	290*342*125		297.5*468*125		
	Package Dimensions (W*H*D)(mm)	299*392*184	408*412*240		638*395*241		
	Net Weight(kg)	5	7.4		12		
	Gross Weight(kg)	5.5	9.5		13.5		
OTHER	Humidity	5% to 95% Relativ Humidity (Non-condensing)					
	Operating Temperature	0°C~50°C					
	Storage Temperature	-15°C -60°C					

High Frequency Solar Inverter

PV1800 VPM II Series (1KW-3KW)

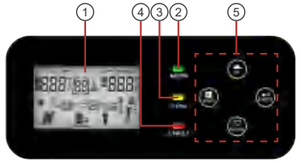
Features

- Rated power: 1-3KW
- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc).
- Bult in MPPT 60A solar charge controller
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Support USB, RS485, CAN monitoring function
- WIFI remote monitoring (optional)
- Compatible to generator

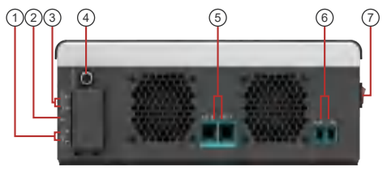
Introduction

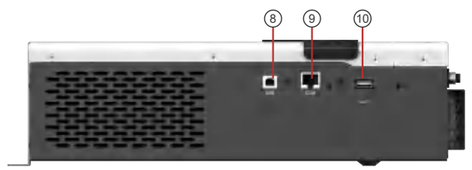
This is a multi-function inverter/charger, combining functions of inverter, MPPT 60A solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

Back panel printing description



1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons

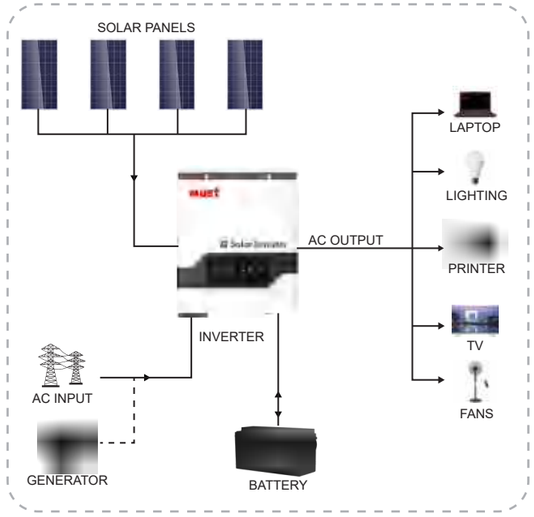




[PV1800 2-3K VPM II]

1. AC input
2. Ground
3. AC output
4. Circuit breaker
5. Battery input
6. PV input
7. Power on/off switch
8. USB Communication port
9. RS-485,CAN Communication port
10. USB WiFi port (optional)

Solar system connection



MUST
Solar Power System

Specification

MODEL		PV18-1024 VPM II	PV18-2024 VPM II	PV18-3024 VPM II
Default Battery System Voltage		24VDC		
INVERTER OUTPUT	Rated Power	1000VA / 1000W	2000VA / 2000W	3000VA / 3000W
	Surge Power	2000VA	4000VA	6000VA
	Waveform	Pure sine wave		
	AC Voltage Regulation (Batt.Mode)	220VAC~240VAC(Setting)		
	Inverter Efficiency(Peak)	90%~93%		
	Transfer Time	10ms(UPS / VDE4105) / 20ms(APL)		
AC INPUT	Voltage	230VAC		
	Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VDE)		
	Frequency Range	50Hz / 60Hz (Auto sensing)		
BATTERY	Normal voltage	24VDC		
	Floating Charge Voltage	27.4VDC		
	Overcharge Protection	30VDC		
SOLAR CHARGER & AC CHARGER"	Maximum PV Array Open Circuit Voltage	145VDC		
	PV Array MPPT Voltage Range	30~120VDC		
	Standby Power Consumption	2W		
	Maximum PV Array Power	1000W	1500W	
	Maximum Solar Charge Current	40A	60A	
	Maximum Efficiency	98%		
	Maximum AC Charge Current	30A	40A	60A
	Maximum Charge Current	70A	100A	120A
MECHANICAL SPECIFICATIONS	Machine Dimensions (W*H*D)(mm)	224*337*98	367.4*254.5*103	
	Package Dimensions (W*H*D)(mm)	299*392*184	445.5*341.5*190	
	Net Weight(kg)	4.7	5.5	
	Gross Weight(kg)	5.5	7.5	
OTHER	Humidity	5% to 95% Relativ Humidity (Non-condensing)		
	Operating Temperature	0°C~50°C		
	Storage Temperature	-15°C -60°C		

High frequency solar inverter

PV1800 VM Series

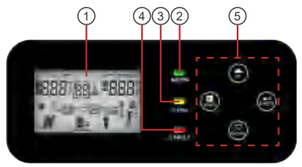
Features

- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc).
- Bult in MPPT 60Asolar charge controller
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Support USB, RS485 monitoring function
- WIFI remote monitoring (optional)
- Compatible to generator

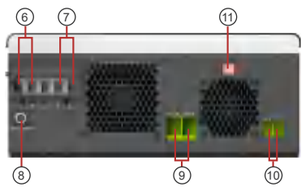
Introduction

This is a multi-function inverter/charger, combining functions of inverter, MPPT 60A solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

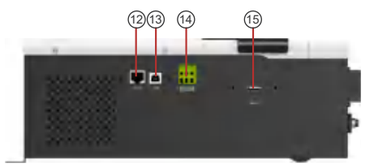
Back panel printing description



1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons

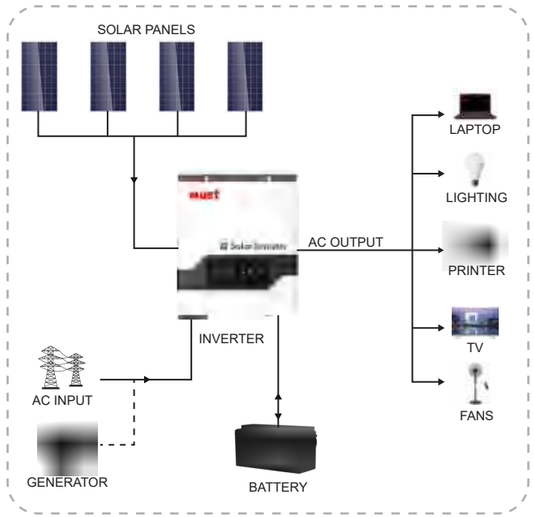


6. AC input
7. AC output
8. Circuit breaker
9. Battery input
10. PV input
11. Power on/off switch
12. RS-485 Communication port
13. USB
14. Dry contact
15. USB wifi



[PV1800 VM 3K]

Solar system connection



Specification

MODEL		PV18-2524 VM	PV18-3024 VM
Default Battery System Voltage		24VDC	
INVERTER OUTPUT	Rated Power	2500VA / 2000W	3000VA / 2500W
	Surge Power	5000VA	6000VA
	Waveform	Pure sine wave	
	AC Voltage Regulation (Batt.Mode)	220VAC~240VAC(Setting)	
	Inverter Efficiency(Peak)	90%~93%	
	Transfer Time	10ms(UPS / VDE4105) / 20ms(APL)	
AC INPUT	Voltage	230VAC	
	Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VDE)	
	Frequency Range	50Hz / 60Hz (Auto sensing)	
BATTERY	Normal voltage	24VDC	
	Floating Charge Voltage	27.4VDC	
	Overcharge Protection	30VDC	
SOLAR CHARGER & AC CHARGER"	Maximum PV Array Open Circuit Voltage	145VDC	
	PV Array MPPT Voltage Range	30~120VDC	
	Standby Power Consumption	2W	
	Maximum PV Array Power	1500W	
	Maximum Solar Charge Current	60A	
	Maximum Efficiency	98%	
	Maximum AC Charge Current	10A or 20A	
	Maximum Charge Current	70A	
MECHANICAL SPECIFICATIONS	Machine Dimensions (W*H*D)(mm)	225*355*92	290*342*125
	Package Dimensions (W*H*D)(mm)	410*300*178	425*390*215
	Net Weight(kg)	5	7.4
	Gross Weight(kg)	5.5	9.5
OTHER	Humidity	5% to 95% Relativ Humidity (Non-condensing)	
	Operating Temperature	0°C~50°C	
	Storage Temperature	-15°C -60°C	

The technical specifications of this document are subject to change without any notice

High Frequency Off Grid Solar Inverter

PV1800 LHM Series (AC120V: 3KW)

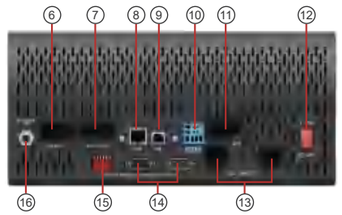
Features

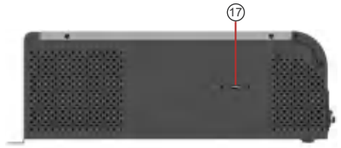
- Rated power : 3KW
- Pure sine wave solar inverter
- Output power factor 1
- Built-in 80A MPPT solar charger
- Built-in anti-dusk kit for harsh environment
- Support parallel operation up to 3 units (Parallel in single phase)
- WIFI remote monitoring (optional)
- Compatible to generator

Introduction

PV1800 LHM Series is a multi-function inverter/charger, combining functions of inverter, MPPT solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

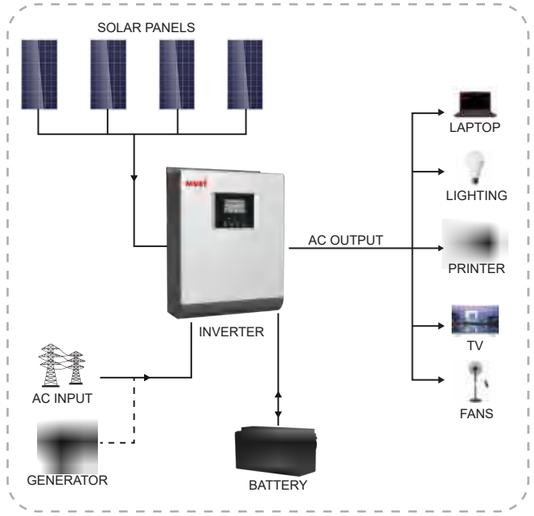
Back panel printing description





1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons
6. AC Input
7. AC Output
8. RS-485 Communication port
9. USB
10. Dry Contact
11. PV Input
12. Power On/Off Switch
13. Battery Input
14. Parallel communication port
15. Parallel switch
16. Circuit breaker
17. WiFi port (optional)

Solar system connection



Specification

MODEL		PV18-3048 LHM
Nominal Battery System Voltage		48VDC
INVERTER OUTPUT	Rated Power	3000W
	Surge Power	6000W
	Waveform	Pure sine wave
	AC Voltage Regulation (Batt.Mode)	(100VAC ~ 120VAC)±5%
	Inverter Efficiency(Peak)	93%
	Transfer Time	10ms (UPS / UL) 20ms (APL)
AC INPUT	Voltage	120VAC
	Selectable Voltage Range	90~145VAC(UPS), 60~145VAC(APL), 107~132VAC(VDE4105)
	Frequency Range	50Hz / 60Hz(Auto sensing)
BATTERY	Normal voltage	48VDC
	Floating Charge Voltage	54VDC
	Overcharge Protection	60VDC
SOLAR CHARGER & AC CHARGER	Maximum PV Array Open Circuit Voltage	145VDC
	PV Array MPPT Voltage Range	60-130VDC
	Standby Power Consumption	2W
	PV Input Power	2880W/3840W
	Maximum Solar Charge Current	80A
	Maximum Efficiency	98%
	Maximum AC Charge Current	60A
	Maximum Charge Current	140A
MECHANICAL SPECIFICATIONS	Machine Dimensions (W*H*D)	309*505*147mm
	Package Dimensions (W*H*D)	618*415*261mm
	Net Weight(kg)	13.3kg
	Gross Weight(kg)	16.4kg
OTHER	Humidity	5% to 95% Relative humidity (Non-condensing)
	Operating Temperature	0°C~50°C
	Storage Temperature	-15°C ~60°C

Low Frequency Off Grid Solar Inverter

PV2000 PK Series (1KVA-2KVA)

Features

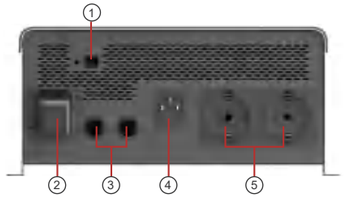
- Pure sine wave output
- Built-in 50A PWM solar charge controller
- Smart LCD setting (frequency , charge voltage, charge current, etc).
- Overload and short-circuit protection
- Deep discharge protection
- Cold start function
- Support USB/RS232 monitoring function

Introduction

PV2000 PK built-in high efficiency solar controller. AC input voltage range for 140VAC-280VAC with regulated output (AVR) features, PV, AC function, A tracking feature such as power frequency. The output frequency can be set using the keys, AC /PV charging voltage, charge current, AC or PV priority mode, Battery under voltage shut-down point, and so many other functions.

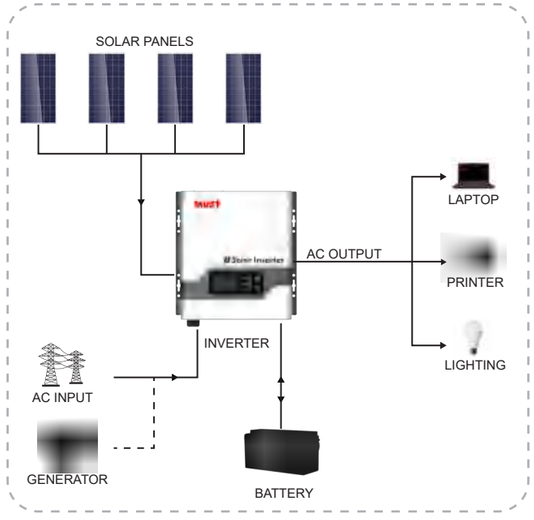
Back panel printing description

1. LCD display
2. Fault LED
3. Charge LED
4. AC/Inverter LED
5. ESC
6. SEL
7. ENTER
8. POWER ON
9. POWER OFF



1. USB
2. PV Input
3. Battery Input
4. AC Input
5. AC Output

Solar system connection



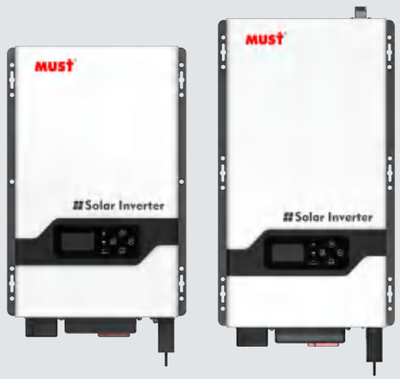
Specification

MODEL		PV20-1012 PK	PV20-1512 PK	PV20-2024 PK
Battery Input Voltage Rating		12VDC		24VDC
INVERTER OUTPUT	Rated Power	1000VA	1500VA	2000VA
		700W	900W	1200W
	Instantaneous Power Drawn	2100VA	2700VA	3600VA
	Output Waveform	Pure sine wave		
	Output Voltage	Inverter mode: 230VAC(±5% RMS), AVR mode: 200VAC-240VAC 220VAC(±5% RMS)		
	Output Power Factor	0.7	0.6	
	Output Frequency	50Hz/60Hz ±0.2 Hz		
	Inverting Efficiency (peak)	>85%		
	Mains Mode Efficiency	> 95%		
	Transfer Time	Typical 2~6ms 10ms(max)		
AC INPUT	Input Voltage	220/230VAC		
	Input Voltage Range	140~280VAC±5%		
	Low Pressure Shutdown	140VAC±5%		
	High Pressure Shutdown	280VAC±5%		
	Low Frequency Shutdown	45±0.2Hz(50Hz)		
		55±0.2Hz(60Hz)		
	High Frequency Shutdown	55±0.2Hz(50Hz)		
		65±0.2Hz(60Hz)		
	Frequency Range	50Hz/60Hz ±0.2HZ		
BATTERY	Minimum Start Voltage	Battery under voltage shut-down point +0.5V		Battery under voltage shut-down point +1.0V
	Low Battery Alarm	Battery under voltage shut-down point +0.5V		Battery under voltage shut-down point +1.0V
	Low Battery Shutdown	(0.1V / 10-12.0VDC mode) User set		(0.2V / 20.0-24.0VDC mode) User set
	Battery High Voltage Alarm	Average Charge Voltage+1V		Average Charge Voltage +2V
AC CHARGER	Float Voltage	13.5 / 13.6 / 13.7VDC to set		27.0 27.2 27.4VDC to set
	Average Charge Voltage	(0.1V each click ,13.8~14.5V mode) User set		(0.2V each click , 27.6~29V mode) User set
	Maximum Charge Current	20A±2A	25A±2A	15A±2A
BYPASS & PROTECTION	Input Frequency	50Hz / 60Hz		
	Low Frequency Switching	45±1Hz		
	High Frequency Switching	65±1Hz		
	Overload Protection	110%~125%R load fault after 60s 125% ~150%R load fault after 3s >150%R load fault after 500ms		
	Output Short Circuit Protection	Yes		
	Bypass Circuit Breaker Insurance	10A		
	Maximum Current Bypass	10A	10A	
SOLAR CHARGER	Maximum PV Charge Current	50A±5A		
	Battery Voltage	12VDC		24VDC
	Maximum PV Array Power	150W*5 solar panels		150W*10 solar panels
	Maximum PV Array Open Circuit Voltage	55Vdc		70Vdc
	Maximum Efficiency	> 95%		
	Standby Consumption	<2W		
MECHANICAL SPECIFICATIONS	Assembly	Wall mount		
	Dimension (W*H*D) (mm)	300.5*319*132.2		
	Net Weight KG	9.0	10.0	10.5
	Shipping Dimensions (mm)	380.5*354*192.2		
	Transport Weight KG	10.0	11.0	11.5
OTHER	Working Environment	0°C~40°C 0~90% Relative humidity (non-condensing)		
	Noise	Less than 60db		
	Display	LED + LCD		

The technical specifications of this document are subject to change without any notice

Low Frequency Solar Inverter/Charger

PV3000 VHM Series (1KW-6KW)



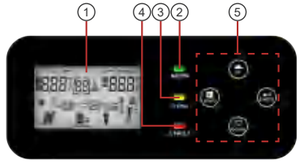
Features

- Pure sine wave output
- 3 Steps charging
- Overload and short-circuit protection
- Set charging voltage/charging current
- Battery low voltage shutdown point can be set to 10/10.5/11V/11.5V
- Power-save mode
- Set utility priority /battery priority
- Set utility input wide/narrow voltage range
- Inverter voltage can be set to 220V/230V/240V
- Inverter frequency can be set to 50Hz/60Hz
- Set utility charging on/off switch
- Inbuilt 80A MPPT Solar Charge Controller
- Acid or Lithium Select
- WiFi port

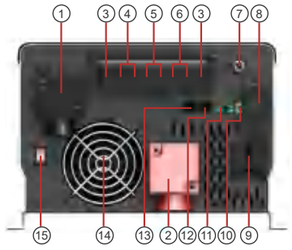
Introduction

PV3000 VHM series is very economical pure sine wave solar inverter, Inbuilt with 80A MPPT charger; Solar/AC priority is configurable, when setting solar priority, solar will charge batteries as first priority, and AC can also charge batteries when solar charger current is too lower, in this way system charge is optimazed best. it enables inverter to operate with all kinds of home appliances.

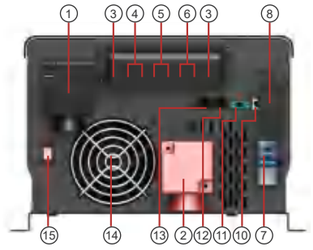
Back panel printing description



1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons



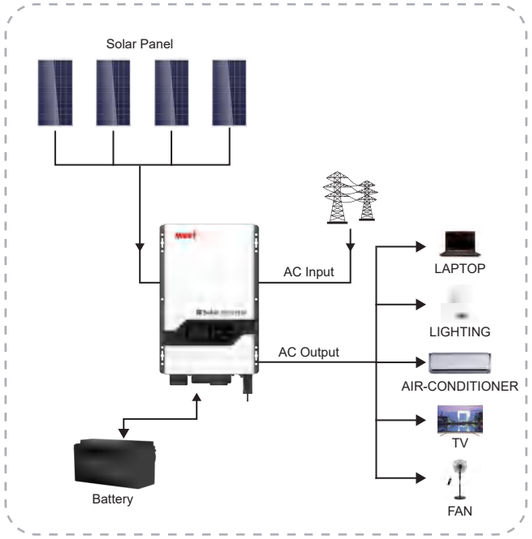
[PV3000 VHM 1-3K]



[PV3000 VHM 4-6K]

1. BAT -
2. BAT +
3. GND
4. AC Input
5. AC Output
6. PV Input
7. AC Input protect
8. Wifi (optional)
9. AC Output 10A(MAX)
10. USB
11. AGS
12. Remote port
13. BTS
14. FAN
15. Power on/off switch

Solar system connection



Specification

MODEL		PV30-1KW VHM		PV30-1.5KW VHM		PV30-2KW VHM		PV30-3KW VHM		PV30-4KW VHM		PV30-5KW VHM	PV30-6KW VHM
Nominal Battery System Voltage		12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	24VDC	48VDC	24VDC	48VDC	48VDC	48VDC
INVERTER OUTPUT	Rated Power	1 KW		1.5 KW		2 KW		3 KW		4 KW		5 KW	6 KW
	Surge Rating	3000VA		4500VA		6000VA		9000VA		12000VA		15000VA	18000VA
	Capable Of Starting Electric Motor	1HP		1HP		1HP		2HP				3HP	
	Waveform	Pure sine wave / same as input (bypass mode)											
	Nominal Output Voltage RMS	220V / 230V / 240VAC (±10% RMS)											
	Output Frequency	50Hz / 60Hz ±0.3Hz											
	Inverter Efficiency (Peak)	>88%											
	Line Mode Efficiency	>95%											
	Power Factor	1.0											
	Typical Transfer Time	10ms(max)											
AC INPUT	Voltage	230VAC											
	Selectable Voltage Range	150~265VAC(For personal computers)											
	Frequency Range	50Hz / 60Hz(Auto sensing) 40~80Hz											
BATTERY	Minimum Start Voltage	(10V / 10.5V / 11V / 11.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)											
	Low Battery Alarm	(10V / 10.5V / 11V / 11.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)											
	Low Battery Cut Off	10V / 10.5V / 11V / 11.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)											
	High Voltage Alarm	(13.8-14.5V)+1V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)											
	High Battery Voltage Recover	(13.8-14.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)											
	Idie Consumption-Search Mode	Load ≤50±20W(120V)/100±20W(220V)											
CHARGER	Output Voltage	Depends on battery type											
	Overcharge Protection S.D.	15.7VDC for 12VDC mode (*2 for 24VDC mode, *4 for 48VDC mode)											
	Maximum Charge Current	30A	20A	45A	25A	60A	30A	40A	20A	60A	30A	35A	40A
BYPASS & PROTECTION	Input Voltage Waveform	Sine wave (grid or generator)											
	Nominal Input Frequency	50Hz or 60Hz											
	Overload Protection (SMPS Load)	Circuit breaker											
	Output Short Circuit Protection	Circuit breaker											
	AC Input Breaker	1-3K/30A								4-6K/50A			
SOLAR CHARGER	Maximum PV Array Power	1250W	2500W	1250W	2500W	1250W	2500W	2500W	5000W	2500W	5000W	5000W	5000W
	Maximum PV Charge Current	80A±4A											
	DC Voltage	12V / 24V auto work								24V / 48V auto work			
	MPPT Range @ Operating Voltage	16~100VDC @ 12V/32~145VDC @ 24V								32~145VDC @ 24V/64~145VDC @ 48V			
	Maximum PV Array Open Circuit Voltage	145VDC											
	Standby Power Consumption	<2W											
MECHANICAL SPECIFICATIONS	Mounting	Wall Mount											
	Dimensions (W*H*D)	302.8*460*199.8mm								305.4*531*200.3mm			
	Net Weight (Solar CHG)(kg)	17.2		17.7		21.8	20.7	25.2	25.5	38.9	36.5	45.7	45.7
	Shipping Dimensions (W*H*D)	400*319*615mm								400*317*686mm			
	Shipping Weight (Solar CHG)(kg)	20		20.7		24.8	23.5	28.2	28.2	43	40.7	50	50
OTHER	Operation Temperature Range	0℃ to 40℃											
	Storage Temperature	-15℃ to 60℃											
	Audible Noise	60dB MAX											
	Display	LED+LCD											
	Standard Warranty	1 year											

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Low Frequency Solar Inverter/Charger

PV3000 VPM Series (1000VA-3000VA)

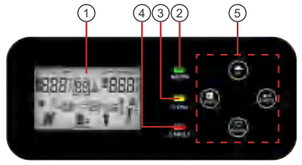
Features

- Pure sine wave output
- 3 Steps charging
- Overload and short-circuit protection
- Set charging voltage/charging current
- Battery low voltage shutdown point can be set to 10 / 10.5 / 11 / 11.5V
- Power-save mode
- Set utility priority/battery priority
- Set utility input wide/narrow range
- Inverter voltage can be set to 110V/115V/120V or 220V/230V/240V
- Inverter frequency can be set to 50Hz/60Hz
- Set utility charging on/off switch
- Inbuilt with 60A MPPT Solar Charge Controller
- Acid or Lithium Select
- WiFi port (optional)

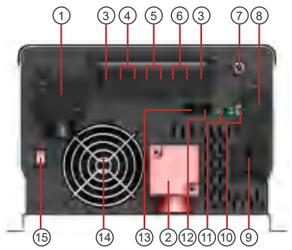
Introduction

PV3000 VPM series is very economical pure sine wave solar inverter, inbuilt with 60A MPPT Charger and AC Charger from 20A to 60A; Solar/AC priority is configurable, when setting solar priority, solar will charge batteries as first priority, and AC can also charge batteries when solar charger current is too lower, in this way system charge is optimazed best. It enables inverter to operate with all kinds of home appliances.

Back panel printing description



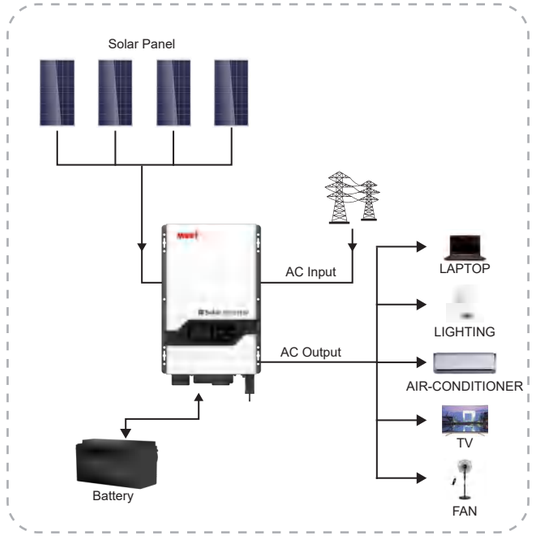
1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons



[PV3000 VHM 1-3K]

1. BAT -
2. BAT +
3. GND
4. AC Input
5. AC Output
6. PV Input
7. AC Input protect
8. Wifi (optional)
9. AC Output 10A(MAX)
10. USB
11. AGS
12. Remote port
13. BTS
14. FAN
15. Power on/off switch

Solar system connection



MUST®
Solar Power System

Specification

MODEL			PV30-1K VPM		PV30-1.5K VPM		PV30-2K VPM		PV30-3K VPM
Nominal Battery System Voltage			12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	24VDC
INVERTER OUTPUT	Rated Power		1000VA		1500VA		2000VA		3000VA
	Surge Rating		3000VA		4500VA		6000VA		9000VA
	Capable Of Starting Electric Motor		1HP		1HP		1HP		2HP
	Waveform		Pure sine wave / same as input (bypass mode)						
	Nominal Output Voltage RMS		110V /115V / 120V / 220V / 230V / 240VAC (±10% RMS)						
	Output Frequency		50Hz / 60Hz ±0.3Hz						
	Inverter Efficiency (Peak)		>88%						
	Line Mode Efficiency		>95%						
	Power Factor		0.7						
	Typical Transfer Time		10ms(max)						
AC INPUT	Voltage		230VAC						
	Selectable Voltage Range		96~132VAC 155~280VAC(For personal computers)						
	Frequency Range		50Hz / 60Hz(Auto sensing) 40~80Hz						
BATTERY	Minimum Start Voltage		(10V / 10.5V / 11V / 11.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Low Battery Alarm		(10V / 10.5V / 11V / 11.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Low Battery Cut Off		10V / 10.5V / 11V / 11.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	High Voltage Alarm		(13.8-14.5V)+1V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	High Battery Voltage Recover		(13.8-14.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Idie Consumption-Search Mode		Load ≤50±20W(120V)/100±20W(220V)						
CHARGER	Output Voltage		Depends on battery type						
	Charge AC Input Breaker Rating	120V	1K/12A		1.5K/16A		2K/30A		3K/40A
		230V	1-1.5K/10A				2-3K/30A		
	Overcharge Protection S.D.		15.7VDC for 12VDC mode (*2 for 24VDC mode)						
	Maximum Charge Current		30A	20A	45A	25A	60A	30A	40A
BYPASS & PROTECTION	Input Voltage Waveform		Sine wave (grid or generator)						
	Nominal Input Frequency		50Hz or 60Hz						
	Overload Protection (SMPS Load)		Circuit breaker						
	Output Short Circuit Protection		Circuit breaker						
	AC Input Breaker		1-3K/30A						
SOLAR CHARGER	Maximum PV Array Power		1000W	2000W	1000W	2000W	1000W	2000W	2000W
	Maximum PV Charge Current		60A						
	DC Voltage		12V / 24V auto work						
	MPPT Range @ Operating Voltage		12V: 16~75VDC; 24V: 32-100VDC						
	Maximum PV Array Open Circuit Voltage		12V:75VDC; 24V:100VDC						
	Standby Power Consumption		<2W						
MECHANICAL SPECIFICATIONS	Mounting		Wall Mount						
	Dimensions (W*H*D)		302.8*460*199.8mm						
	Net Weight (Solar CHG)(kg)		16.5		17		21.1	20	24.5
	Shipping Dimensions (W*H*D)		400*319*615mm						
	Shipping Weight (Solar CHG)(kg)		19.3		20		24.1	22.8	29.1
OTHER	Operation Temperature Range		0℃ to 40℃						
	Storage Temperature		-15℃ to 60℃						
	Audible Noise		60dB MAX						
	Display		LED+LCD						
	Standard Warranty		1 year						

The technical specifications of this document are subject to change without any notice

Low Frequency Solar Inverter

PV3000 LVHM Series (AC120V: 1KW-6KW)

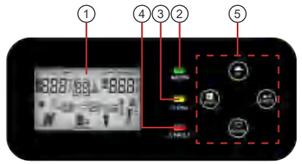
Features

- Pure sine wave output
- 3 Steps charging
- Overload and short-circuit protection
- Set charging voltage/charging current.
- Battery low voltage shutdown point can be set to 10/10.5/11V/11.5V
- Power-save mode
- Set utility priority/ Battery priority
- Set utility input wide/narrow range
- Inverter voltage can be set to 120V:110V/115V/120V
- Inverter frequency can be set to 50/60Hz
- Set utility charging on/off switch
- 80A MPPT charger
- Acid or Lithium Select
- WiFi port (optional)

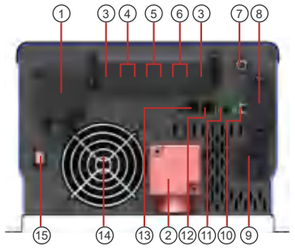
Introduction

PV3000 LVHM series is very economical pure sine wave solar inverter, AC voltage 110V/120V, AC charger inbuilt, from 20A to 60A; MPPT solar charger 80A inbuilt; Solar/AC priority is configurable, when setting solar priority, solar will charge batteries as first priority, and AC can also charge batteries when solar charger current is not enough, it enables inverter to operate with all kinds of home appliances, widely selling to Latin America.

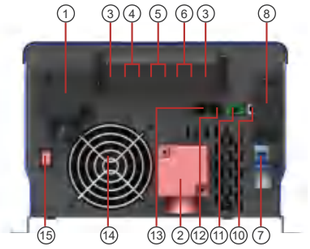
Back panel printing description



1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons



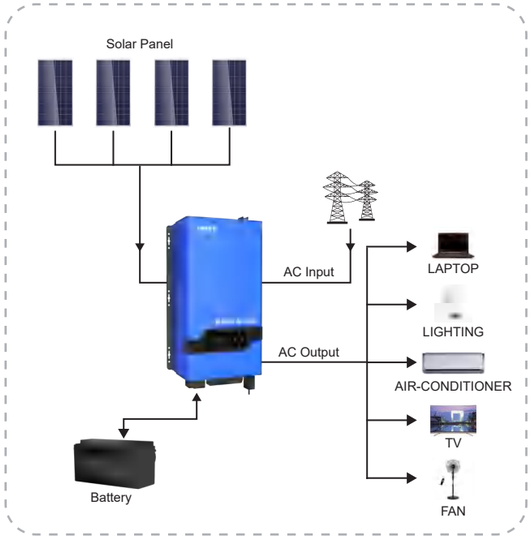
[PV3000 VHM 1-3K]



[PV3000 VHM 4-6K]

1. BAT -
2. BAT +
3. GND
4. AC Input
5. AC Output
6. PV Input
7. AC Input protect
8. Wifi (optional)
9. AC Output 10A(MAX)
10. USB
11. AGS
12. Remote port
13. BTS
14. FAN
15. Power on/off switch

Solar system connection



Specification

MODEL		PV30-1KW LVHM	PV30-1.5KW LVHM	PV30-2KW LVHM	PV30-3KW LVHM	PV30-4KW LVHM	PV30-5KW LVHM	PV30-6KW LVHM
Nominal Battery System Voltage		12VDC | 24VDC	12VDC | 24VDC	12VDC | 24VDC	24VDC | 48VDC	24VDC | 48VDC	48VDC	48VDC
INVERTER OUTPUT	Rated Power	1 KW	1.5 KW	2 KW	3 KW	4 KW	5 KW	6 KW
	Surge Rating	3000VA	4500VA	6000VA	9000VA	12000VA	15000VA	18000VA
	Capable Of Starting Electric Motor	1HP	1HP	1.5HP	1.5HP	2HP	3HP	
	Waveform	Pure sine wave / same as input (bypass mode)						
	Nominal Output Voltage RMS	110V / 115V / 120VAC(±10% RMS)						
	Output Frequency	50Hz / 60Hz ±0.3Hz						
	Inverter Efficiency (Peak)	>88%						
	Line Mode Efficiency	>95%						
	Power Factor	1.0						
	Typical Transfer Time	10ms(max)						
AC INPUT	Voltage	110/120VAC						
	Selectable Voltage Range	75~135VAC (For personal computers)						
	Frequency Range	50Hz / 60Hz(Auto sensing) 40~80Hz						
BATTERY	Minimum Start Voltage	(10V / 10.5V / 11V / 11.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Low Battery Alarm	(10V / 10.5V / 11V / 11.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Low Battery Cut Off	10V / 10.5V / 11V / 11.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	High Voltage Alarm	(13.8-14.5V)+1V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	High Battery Voltage Recover	(13.8-14.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Idie Consumption-Search Mode	Load ≤50±20W(120V)						
CHARGER	Output Voltage	Depends on battery type						
	Overcharge Protection S.D.	15.7VDC for 12VDC mode (*2 for 24VDC mode, *4 for 48VDC mode)						
	Maximum Charge Current	30A | 20A	45A | 25A	60A | 30A	40A | 20A	60A | 30A	35A	40A
BYPASS & PROTECTION	Input Voltage Waveform	Sine wave (grid or generator)						
	Nominal Input Frequency	50Hz or 60Hz						
	Overload Protection (SMPS Load)	Circuit breaker						
	Output Short Circuit Protection	Circuit breaker						
	AC input breaker	1-3K/30A			3K/40A	4-6K/63A		
SOLAR CHARGER	Maximum PV Array Power	1250W | 2500W	1250W | 2500W	1250W | 2500W	2500W | 5000W	2500W | 5000W	5000W	5000W
	Maximum PV Charge Current	80A±4A						
	DC Voltage	12V / 24V auto work				24V / 48V auto work		
	MPPT Range @ Operating Voltage	16~95VDC @ 12V / 30~130VDC @ 24V			30~130VDC @ 24V / 60~130VDC @48V		60~130VDC @48V	
	Maximum PV Array Open Circuit Voltage	145VDC						
	Standby Power Consumption	<2W						
MECHANICAL SPECIFICATIONS	Mounting	Wall Mount						
	Dimensions (W*H*D)	302.8*460*199.8mm				305.4*531*200.3mm		
	Net Weight (Solar CHG)(kg)	17.2	17.7	21.8	20.7	25.2	25.5	38.9 | 36.5 | 42.5
	Shipping Dimensions (W*H*D)	400*39*615mm				400*319*686mm		
	Shipping Weight (Solar CHG)(kg)	20	20.7	24.8	23.5	28.2	28.2	43 | 40.7 | 45
OTHER	Operation Temperature Range	0℃ to 40℃						
	Storage Temperature	-15℃ to 60℃						
	Audible Noise	60dB MAX						
	Display	LED+LCD						
	Standard Warranty	1 year						

The technical specifications of this document are subject to change without any notice

Low Frequency Split Phase Solar Inverter

PV3300 TLV Series (AC110V/220V: 1KW-6KW)

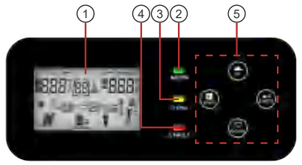
Features

- Pure sine wave output
- Friendly user interface; MFD (multi-function display)
- 3 Steps charging
- Overload and short-circuit protection
- Set charging voltage/charging current.
- Battery low voltage shutdown point can be set to 10/10.5/11/11.5V
- Set utility priority/ Battery priority
- Set utility input wide/narrow range
- Inverter voltage can be set to 100/110/120; frequency can be set to 50/60Hz
- Set utility charging on/off switch
- Built-in 80A MPPT charger
- Acid or Lithium Select
- WiFi port (optional)

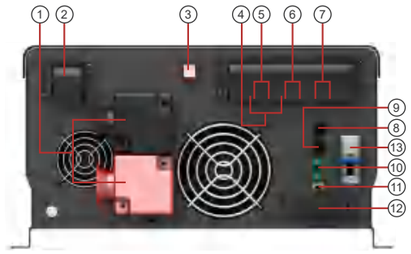
Introduction

This split phase solar inverter PV3300 TLV series, capacity range from 1KW-6KW, DC 12V/24V/48V, it's applicable to 110VAC/120VAC markets demands, which has AC output of single phase 110VAC/120V, split phase 220V/240V; In LCD display, you can set output voltage, frequency, charging voltage, charging current to design best use based on different loads applications; meanwhile, it has built-in MPPT solar charge controller 80A, you can take use of sunshine freely and save electricity bills.

Back panel printing description

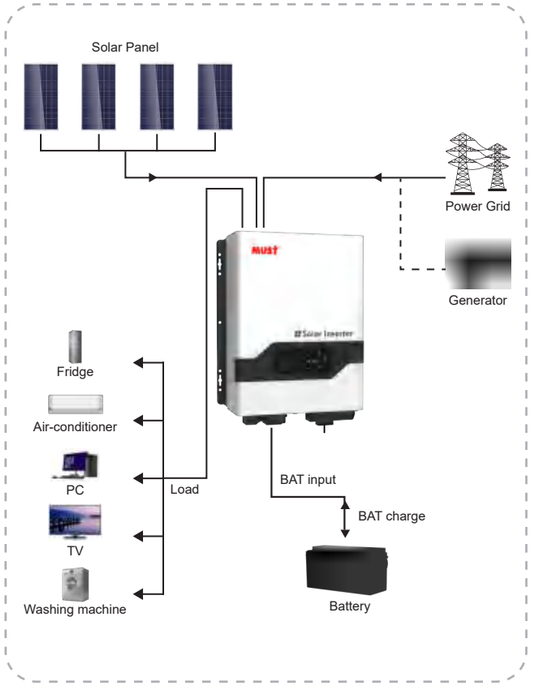


1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons



1. Battery -/+
2. PV -/+
3. Switch on/off
4. AC Output: HOT1-HOT2 200VAC/220VAC/240VAC
5. AC Output: HOT1-N 100VAC/110VAC/120VAC
6. AC Output: HOT2-N 100VAC/110VAC/120VAC
7. AC Input: HOT1-HOT2 200VAC/220VAC/240VAC
8. BTS
9. Remote Port
10. AGS
11. USB
12. WiFi (optional)
13. AC Input breaker

Solar system connection



MUST®
Solar Power System

Specification

MODEL		PV33-1012 TLV	PV33-1512 TLV	PV33-1524 TLV	PV33-2012 TLV	PV33-2024 TLV	PV33-3024 TLV	PV33-3048 TLV	PV33-4024 TLV	PV33-4048 TLV	PV33-5048 TLV	PV33-6048 TLV
Inverter Output	Rated power	1KW	1.5KW		2KW		3KW		4KW		5KW	6KW
	Power factor	1										
	Wave form	Pure sine wave										
	Output voltage RMS	100V / 110V / 120VAC (200V / 220V / 240VAC) ±10%										
	Output frequency	50Hz or 60Hz (±0.3Hz)										
	Inverter efficiency (peak)	>80%										
	Line mode efficiency	>95%										
	Overload	100%<Load<110% (alarm 5min then stop outputand fault code 07) 110%<Load<125% (alarm 60s then stop output and fault code 07) Load > 125% (alarm 10s then stop output and fault code 07)										
	Surge rating	3000VA	4500VA		6000VA		9000VA		12000VA		15000VA	18000VA
	Capable of starting electric motor	1P	1P		1.5P		1.5P		2P		3P	
Battery	Battery voltage	12VDC/24VDC					24VDC/48VDC				48VDC	
	Minimum start voltage	11VDC / 22VDC / 44VDC										
	Low battery cut off	low voltage fault code 04 (10 / 10.5 / 11 / 11.5V) for 12V model (21 / 21 / 22 / 23V) for 24V model (40 / 42 / 44 / 46V) for 48V model										
	Low battery alarm	Add 0.5/battery: (low battery alarm one second one time) (10 / 10.5 / 11 / 11.5V) +0.5VDC for 12V model (21 / 21 / 22 / 23V) +1VDC for 24V model (40 / 42 / 44 / 46V) +2VDC for 48V model										
	High voltage alarm	Add +1V/battery: (high voltage one second one time / after 30s fault 03) (13.8-14.5V) +1VDC for 12V model (27.6-29V) +2VDC for 24V model (55.2-58V) +4VDC for 48V model										
	Save mode	Load ≤40W(110V) / 80W(220V)										
AC Input Mode	Input waveform	Pure sine wave										
	Nominal input voltage	200Vac / 220Vac / 240Vac										
	Max input voltage	270Vac MAX										
	Input frequency	50Hz / 60Hz (auto sensing)										
	Efficiency (AC mode)	>95% (load, full battery)										
	Transfer time AC to DC	15ms(typical)										
Solar Charger	Maximum PV Array Power	1250W	1250W	2500W	1250W	2500W	2500W	5000W	2500W	5000W	5000W	5000W
	Maximum PV Charge Current	80A±4A										
	DC Voltage	12V / 24V					24V / 48V				24V / 48V	
	MPPT Range @ Operating Voltage	16~95VDC @ 12V / 30~130VDC @ 24V					30~130VDC @ 24V / 60~130VDC @48V				60~130VDC @48V	
	Maximum Solar Input Voltage	100±2Vdc / 145±2Vdc					145±2Vdc				145±2Vdc	
	Maximum Efficiency	>98%										
	Standby Power Consumption	<2W										
Charge Mode	Max charge current (±5A) 12V	30A	45A		60A		/		/		/	/
	Max charge current (±5A) 24V	20A	25A		30A		40A		60A		/	/
	Max charge current (±5A) 48V	/	/		/		20A		30A		35A	40A
	Min charge current 10A. Change by every 5A											
Dimensions	Dimensions (W*H*D)	359.2*443*188mm							361.8*543.5*188.5mm			
	Ship Dimensions (W*H*D)	457*598*308mm							457*698*308mm			
	Net Weight (Solar CHG)(kg)	17.2	17.7		21.8	20.7	25.2	25.5	38.9	36.5	38	39
	Shipping Weight (Solar CHG)(kg)	20	20.7		24.8	23.5	28.2	28.2	43	40.7	39.2	40.2
	Warranty	1year										

The technical specifications of this document are subject to change without any notice

Low Frequency Solar Inverter

PV3500 PRO Series (4KW-12KW)

Features

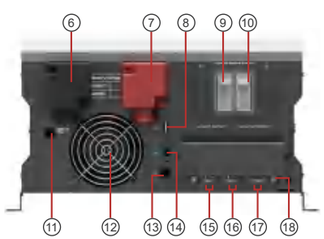
- Smart LCD setting(Working modes, Charge Current, Charge voltage, etc.)
- Built-in MPPT solar charge controller 80A/100A/200A
- MPPT efficiency max 98%
- Powerful charge rate up to 140Amp
- DC start &Automatic Self-Diagnostic Function
- WIFI / USB monitoring function (wi-fi optional)
- Supporting AGS, BTS port
- Compatible to generator

Introduction

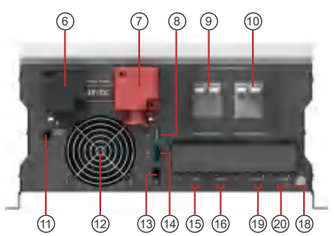
PV3500 PRO series is a multi-function inverter ,combining functions of inverter and MPPT solar charger controller, solar charger and battery charger to offer uninterruptible power support. The comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and selectable input voltage based on different applications.

Back panel printing description

1. Switch ON/OFF
2. LCD display
3. AC/Inverter indicator
4. Charging indicator
5. Fault indicator
6. BAT-
7. BAT+
8. WIFI/USB communication port
9. AC input/Bypass breaker
10. AC output breaker
11. Remote control port
12. Fan
13. BTS
14. AGS
15. AC input
16. AC outputr
17. PV input
18. Ground
19. PV2 input (optional)
20. PV1 input

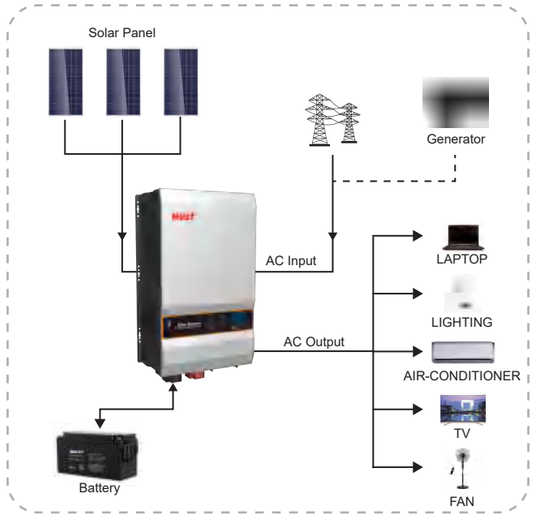


[4KW-6KW]



[8KW-12KW]

Solar system connection



MUST
Solar Power System

Specification

MODEL		PV35 PRO-4K		PV35 PRO-5K		PV35 PRO-6K	PV35 PRO-8K	PV35 PRO-10K	PV35 PRO-12K
Nominal Battery System Voltage		24V	48V	24V	48V	48V	48VDC	48VDC	48VDC
INVERTER OUTPUT	Rated power	4KW		5KW		6KW	8.0KW	10.0KW	12.0KW
	Surge rating	12000VA		15000VA		18000VA	24000VA	30000VA	36000VA
	Capable of starting electric motor	2HP		2HP		3HP	4HP	5HP	6HP
	Waveform	Pure sine wave / same as input (bypass mode)							
	Nominal output voltage RMS	220V / 230V / 240VAC (±10%RMS)							
	Output frequency	50Hz / 60Hz ± 0.3Hz							
	Inverter effciency(peak)	>85%					>88%		
	Line mode efficiency	>95%							
	Power factor	1.0							
	Typical transfer time	20ms(max)							
AC INPUT	Voltage	230VAC							
	Selectable voltage range	90-280 VAC (APL)							
	Frequency range	50Hz / 60Hz							
BATTERY	Low battery voltage cutoff	20-24VDC for 24VDC mode (40-48VDC for 48VDC mode)							
	Low battery voltage recover	21-25VDC for 24VDC mode (42-50VDC for 48VDC mode)							
	High battery voltage cutoff	30VDC for 24VDC mode (60VDC for 48VDC mode)							
	High battery voltage recover	28.5VDC for 24VDC mode (57VDC for 48VDC mode)							
	Idle consumption-search mode	<30W when power saver on					<80W when power saver on		
AC CHARGER	Output voltage	Depends on battery type							
	Charger AC input breaker rating	40A		40A		50A	80A	80A	80A
	Overcharge protection S.D.	31.4VDC for 24VDC mode (62.8VDC for 48VDC mode)							
	Maximum charge current	80A	60A	100A	70A	80A	100A	120A	140A
BTS	Continuous output power	Yes Variances in charging voltage & S.D. voltage base on the battery temperature							
BYPASS & PROTECTION	Input voltage waveform	Sine wave (grid or generator)							
	Nominal input frequency	50Hz or 60Hz							
	Overload protection (SMPS Load)	Circuit breaker							
	Output short circuit protection	Circuit breaker							
	Bypass breaker rating	40A					63A	63A	63A
	Max bypass current	40Amp					80Amp		
SOLAR CHARGER	Maximum PV charge current	80A					100A(200A optional)		
	DC voltage	24V / 48V Auto work					48V		
	Maximim PV array power	2000W	4000W	2000W	4000W	4000W	5000W(10000W for 200A optional)		
	MPPT range @ operating voltage(VDC)	32-145VDC for 24V mode,64-145V for 48V mode					64~145VDC		
	Maximum PV array open circuit voltage	145VDC							
	Maximum effciency	>98%							
	Standby power consumption	<2W							
MECHANICAL SPECIFICATIONS	Mounting	Wall mount							
	Dimensions (W*H*D)	620*385*215mm					670*410*215mm		
	Net weight (solar CHG) (kg)	36		41		41	69+2.5	75.75+2.5	75.75+2.5
	Shipping dimensions (W*H*D)	755*515*455mm					884*618*443mm		
	Shipping weight (Solar CHG) (kg)	56		61		64	82.5+2.5	89+2.5	92+2.5
OTHER	Operation temperature range	0°C to 40°C							
	Storage temperature	-15°C to 60°C							
	Audible noise	60dB MAX							
	Display	LED+LCD							
	Loading (20GP/40GP/40HQ)	140pcs / 280pcs / 320pcs							

The technical specifications of this document are subject to change without any notice

Low Frequency Solar Inverter

PV3500 TLV Series (8KW-12KW)

Features

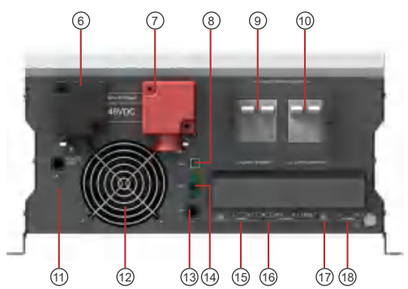
- Smart LCD setting(Working modes, Charge Current, Charge voltage, etc.)
- Built-in MPPT solar charge controller 100A
- MPPT efficiency max 98%
- Powerful charge rate up to 80Amp
- DC start &Automatic Self-Diagnostic Function
- USB monitoring function
- Supporting AGS, BTS port
- Compatible to generator

Introduction

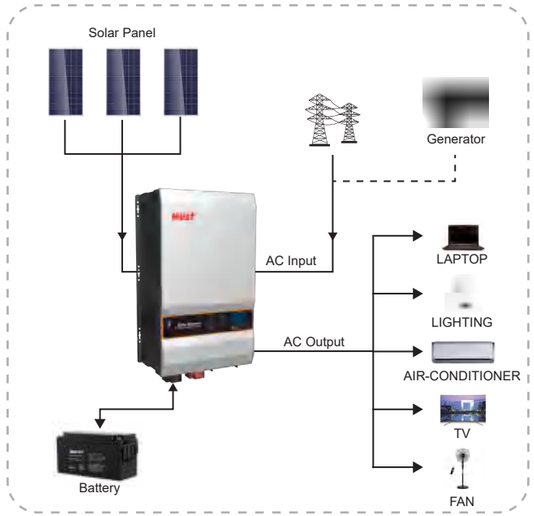
PV3500 TLV series is a multi-function inverter ,combining functions of inverter and MPPT solar charger controller, solar charger and battery charger to offer uninterruptible power support. The comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and selectable input voltage based on different applications.

Back panel printing description

1. Switch ON/OFF
2. LCD display
3. AC/Inverter indicator
4. Charging indicator
5. Fault indicator
6. BAT-
7. BAT+
8. USB communication port
9. AC input/Bypass breaker
10. AC output breaker
11. Remote control port
12. Fan
13. BTS
14. AGS
15. AC input
16. AC outputr
17. Ground
18. PV input



Solar system connection



MUST
Solar Power System

Specification

MODEL		PV35-8048 TLV	PV35-10048 TLV	PV35-12048 TLV
Nominal Battery System Voltage		48VDC	48VDC	48VDC
INVERTER OUTPUT	Rated power	8.0KW	10.0KW	12.0KW
	Surge rating	24000VA	30000VA	36000VA
	Capable of starting electric motor	4HP	5HP	6HP
	Waveform	Pure sine wave / same as input (bypass mode)		
	Nominal output voltage RMS	100V/110V/120V/200V/220V/240V		
	Output frequency	50Hz / 60Hz ± 0.3Hz		
	Inverter effciency(peak)	>88%		
	Line mode efficiency	>95%		
	Power factor	1.0		
	Typical transfer time	20ms(max)		
AC INPUT	Voltage	220V/230V/240V		
	Selectable voltage range	90-280 VAC (APL)		
	Frequency range	50Hz / 60Hz		
BATTERY	Low battery voltage cutoff	40-48VDC for 48VDC mode		
	Low battery voltage recover	42-50VDC for 48VDC mode		
	High battery voltage cutoff	60VDC for 48VDC mode		
	High battery voltage recover	57VDC for 48VDC mode		
	Idle consumption-search mode	< 60W when power saver on		
AC CHARGER	Output voltage	Depends on battery type		
	Charger AC input breaker rating	80A	80A	80A
	Overcharge protection S.D.	31.4VDC for 24VDC mode (62.8VDC for 48VDC mode)		
	Maximum charge current	60A	70A	80A
BTS	Continuous output power	Yes Variances in charging voltage & S.D. voltage base on the battery temperature		
BYPASS & PROTECTION	Input voltage waveform	Sine wave (grid or generator)		
	Nominal input frequency	50Hz or 60Hz		
	Overload protection (SMPS Load)	Circuit breaker		
	Output short circuit protection	Circuit breaker		
	Bypass breaker rating	63A	63A	63A
	Max bypass current	80Amp		
SOLAR CHARGER	Maximum PV charge current	100A		
	DC voltage	48V		
	Maximim PV array power	5000W(10000W for 200A optional)		
	MPPT range @ operating voltage(VDC)	64~145VDC		
	Maximum PV array open circuit voltage	145VDC		
	Maximum effciency	>98%		
	Standby power consumption	<2W		
MECHANICAL SPECIFICATIONS	Mounting	Wall mount		
	Dimensions (W*H*D)	670*410*215mm		
	Net weight (solar CHG) (kg)	69+2.5	75.75+2.5	75.75+2.5
	Shipping dimensions (W*H*D)	884*618*443mm		
	Shipping weight (Solar CHG) (kg)	82.5+2.5	89+2.5	92+2.5
OTHER	Operation temperature range	0°C to 40°C		
	Storage temperature	-15°C to 60°C		
	Audible noise	60dB MAX		
	Display	LED+LCD		
	Loading (20GP/40GP/40HQ)	140pcs / 280pcs / 320pcs		

The technical specifications of this document are subject to change without any notice

Pure Sine Wave Solar Inverter

PV5000 Series (3KW-5KW)

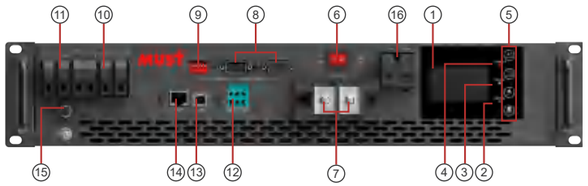
Features

- Pure sine wave inverter
- Configurable input voltage range for home appliances and personal computers via LCD setting
- Configurable battery charging current based on applications via LCD setting
- Configurable AC/Solar Charger priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload/ Over temperature/ short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function
- Built-in MPPT solar charge controller 80A

Introduction

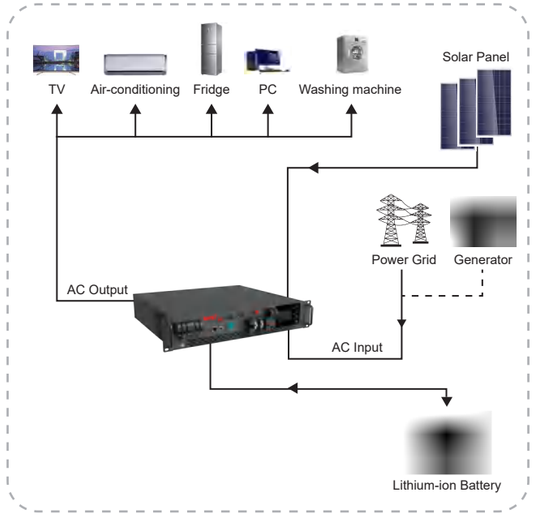
This is a multi-function inverter/charger, combining functions of inverter, solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

Back panel printing description



1. LCD display
2. Status indicator
3. Charging indicator
4. Fault indicator
5. Function buttons
6. Power on/off switch
7. Battery input
8. Parallel communication port (only for parallel mode)
9. Parallel switch
10. AC output
11. AC input
12. Dry contact
13. USB
14. RS485 communication port
15. Circuit breaker
16. PV Input

Solar system connection



Specification

MODEL		PV50-3K	PV50-4K	PV50-5K
Nominal Battery System Voltage		48V		
INVERTER OUTPUT	Rated Output Power	3KW	4KW	5KW
	Surge Power	6KW	8KW	10KW
	Waveform	Pure Sine Wave		
	Power factor	1		
	Output Voltage Regulation	230Vac±5%		
	Inverter Efficiency(Peak)	90%		
	Transfer Time	10ms typical (UPS / VDE4105) 20ms typical (APL)		
AC INPUT	Nominal Input Voltage	230VAC		
	Selectable voltage range	170~280VAC（UPS）, 90~280VAC（APL）), 184~253VAC(VDE4105)		
	Input Voltage Waveform	Sinusoidal (utility or generator)		
	Frequency Range	50Hz / 60Hz		
SOLAR CHARGER & AC CHARGER	Maximum PV Array Open Circuit Voltage	145VDC		
	MPPT Range @ Operating Voltage	60~130VDC		
	Standby Power Consumption	2W		
	Maximum PV Array Power	4000W		
	Maximum PV Charge Current:	80A		
	Maximum Efficiency	98%		
	Maximum AC Charge Current	60A		
	Maximum Charge Current(PC+AC)	80A		
MECHANICAL SPECIFICATIONS	Dimension (D*W*H), mm	400 x 468 x 86.3		
	Net Weight (kg)	10.0		
OTHER	Safety Certification	CE		
	Operating Temperature Range	-10°C to 40°C		
	Storage temperature	-15°C~ 60°C		

ON/OFF Grid High frequency Hybrid Solar Inverter

PH1000 PRO Series (5KW)

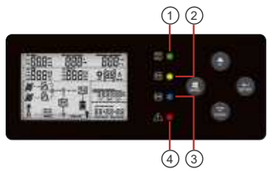
Features

- Wide range of MPPT voltage:120-550V
- Multiple operation modes: Grid-tie,off grid and grid-tie with back up
- Support LCD display&Smart LCD setting
- Available Export control CT sensor function
- Multiple communications:USB,RS485,GPRS and wifi etc
- Monitoring inverters freely via computers or mobile phones
- Full protection function:Over-voltage,over-frequency, over-current, over-temperature,and AC short-circuit automatic protection
- Intelligent BMS battery management function
- Fanless low-noise design
- IP65 Dust-proof and water-proof

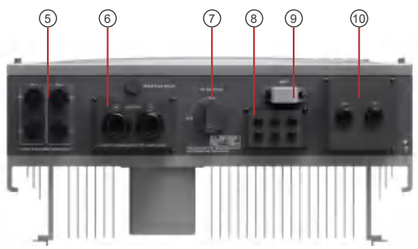
Introduction

This is a flexible and intelligent energy storage solar inverter with a wide range of MPPT Voltage.
Combining functions of off grid and on grid. This hybrid solar inverter can power all kinds of appliances in home or office, and can also be used in power stations.

Back panel printing description

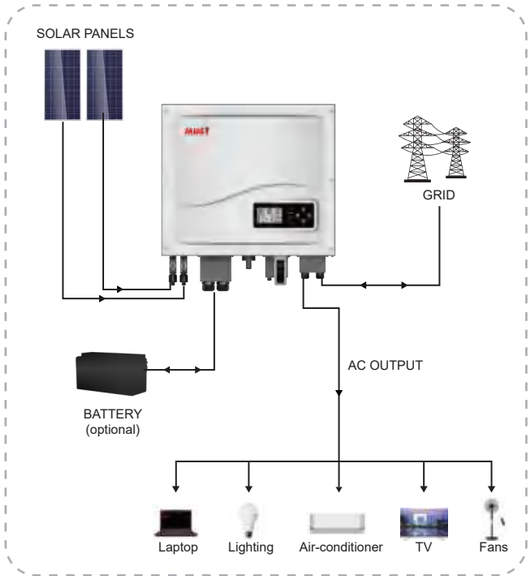


1. The inverter operation status indicator
2. Battery indicator
3. WiFi status indicator
4. Fault indicator



5. PV input terminals
6. Battery input terminals and cover
7. PV input switch
8. BTS terminals, BMS terminals, load monitor terminals, dry contact terminals, CAN communication terminals, USB terminal and cover
9. Wi-Fi commodule
10. AC output terminals and cover

Solar system connection



Specification

MODEL		PH10-5048PRO
RATED POWER(W)		5000
Nominal Battery System Voltage		48
PV INPUT(DC)	Maximum recommended DC power(W)	7000
	Nominal DC operating voltage(V)	360
	Maximum DC voltage(V)	550
	MPPT voltage range(V)	120~550
	Maximum input current(A)	13 / 13
	Maximum short circuit current(A)	15 / 15
	No.of MPP tracker	2
	Strings per MPP tracker	1
INVERTER OUTPUT(AC)	Nominal AC output power(W)	5000
	Nominal output voltage(V);range(V)	220/230/240;180-280
	AC grid frequency(Hz);range(Hz)	50/60;45~55/55-65
	Nominal output current(A)	21.8
	Maximum output current(A)	22.8
	Total harmonic distortion i(THDi)	<3%
	Power factor at rated power	1
	Displacement power factor	0.8leading ～ 0.8lagging
BATTERY MODE OUTPUT(AC)	Output Rated Power	3000
	Nominal output voltage(V);accuracy range	230±1%
	Output ferequency(Hz);accuracy range	50/60(optional)±0.2%
	Output rated current(A)	15
	Output waveform	Pure sine wave
	Total harmonic distortion v (linear load)	<3%
BATTERY & CHARGER	Battery type	Lead-acid battery / Lithium battery
	Battery voltage(V)	48
	Battery voltage range(V)	40~60
	Charging curve	adaptive battery charging
	Over-current protection / Over-temperature protection	Yes / Yes
	Maximum charging/discharging power(W)	4000
	Maximum charging/discharging currernt(A)	80 / 80
EFFICIENCY	Maximum efficiency	97.3%
	Euro-efficiency	96.8%
	MPPT efficiency	99.9%
PROTECTION DEVICES	DC switch rating for each MPPT	Yes
	Grid monitoring	Yes
	Output over current protection	Yes
	Output overvoltage protection-varistor	Yes
	Ground fault monitoring	Yes
	Integrated all-pole sensitive leakage current	Yes
GENERAL	Dimension(W/H/D)(mm)	480*420*215
	Net weight (kg)	27
	DC connection	H4 / MC4
	AC connection	Terminal Block
	Display	LED+LCD
	Communication interfaces	Wi-Fi / USB / GPRS / RS485
	Ingress protection rating	IP65
	Humidity	0~95% RH(No codensing)
	Operating temperature range	-20℃ +60℃ With derating above 45℃
	Cooling concept	Natural
	Altitude	<3000m

The technical specifications of this document are subject to change without any notice

ON/OFF Grid High Frequency Hybrid Solar Inverter

PH1100 PRO Series (5KW)

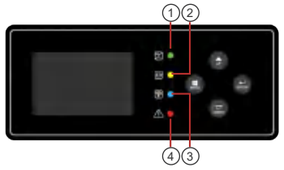
Features

- Wide range of MPPT voltage:120-500V
- Multiple operation modes: Grid-tie,off grid with storage backup
- Support LCD display&Smart LCD setting
- Available Export control CT sensor function
- Multiple communications:USB,RS485,GPRS and wifi etc
- Monitoring inverters freely via computers or mobile phones
- Full protection function:Over-voltage,over-frequency, over-current, over-temperature,and AC short-circuit automatic protection
- Intelligent BMS battery management function
- Fanless low-noise design
- IP65 Dust-proof and water-proof

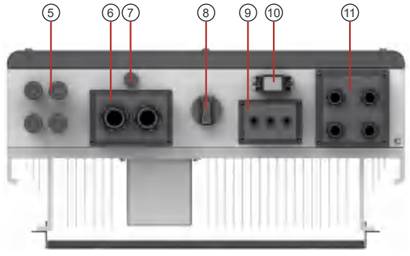
Introduction

This is a flexible and intelligent energy storage solar inverter with a wide range of MPPT Voltage.
Combining functions of off grid and on grid. This hybrid solar inverter can power all kinds of appliances in home or office, and can also be used in power stations.

Back panel printing description

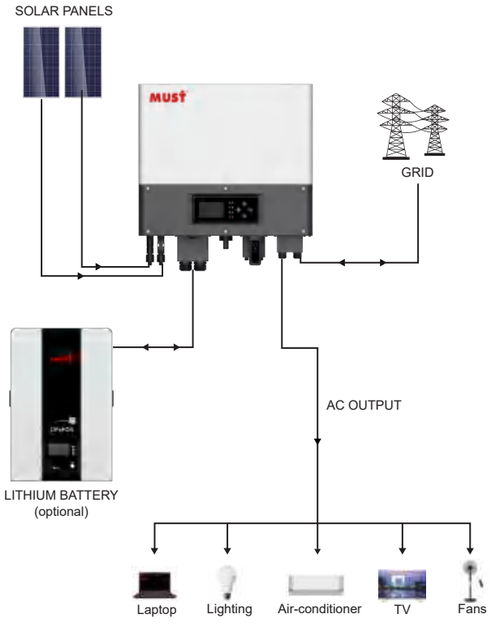


1. The inverter operation status indicator
2. Battery indicator
3. WiFi status indicator
4. Fault indicator



5. PV input terminals
6. Battery input terminals and cover
7. Breather valve
8. PV input switch
9. BTS terminals, BMS terminals, load monitor terminals, dry contact terminals, CAN communication terminals, USB terminal and cover
10. Wi-Fi commodule
11. AC output terminals and cover

Solar system connection



MUST®
Solar Power System

Specification

MODEL		PH11-4048 PRO	PH11-5048PRO	PH11-6048 PRO
RATED POWER(W)		4000	5000	6000
Nominal Battery System Voltage(V)		48		
PV INPUT(DC)	Maximum recommended DC power(W)	5000	6000	7000
	Nominal DC operating voltage(V)	360		
	Maximum DC voltage(V)	500		
	MPPT voltage range(V)	168~500	200~500	235~500
	Maximum input current(A)	15 / 15		
	No.of MPP tracker		2	
	Strings per MPP tracker		1	
INVERTER OUTPUT(AC)	Nominal AC output power(W)	4000	5000	6000
	Nominal output voltage(V);range(V)	220/230/240;180-280		
	AC grid frequency(Hz);range(Hz)	50/60;45~55/55-65		
	Nominal output current(A)	17.5	21.7	26
	Maximum output current(A)	18.1	22.7	27.2
	Inrush current (spike/duration)	57.5A/5.2us		
	Total harmonic distortion i(THDi)	<3%		
	Power factor at rated power	1		
	Displacement power factor	0.8leading ~ 0.8lagging		
	Grid type	Single phase		
BATTERY MODE OUTPUT(AC)	Output Rated Power	4000	5000	6000
	Nominal output voltage(V);accuracy range	230±1%		
	Output ferequency(Hz);accuracy range	50/60(optional)±0.2%		
	Output rated current(A)	17.5	21.7	26
	Output waveform	Pure sine wave		
	Peak power(W)	6000,10s	7500,10s	9000,10s
	Total harmonic distortion v (linear load)		<3%	
BATTERY & CHARGER	Battery type	Lead-acid battery / Lithium battery		
	Battery voltage(V)	48		
	Battery voltage range(V)	40~60		
	Charging curve	adaptive battery charging		
	Over-current protection / Over-temperature protection	Yes / Yes		
	Maximum charging power(W)	4000	5000	6000
	Maximum charging currernt(A)	85	100	125
EFFICIENCY	Maximum efficiency	97.1%		
	Euro-efficiency	96.5%		
	MPPT efficiency	99.8%		
PROTECTION DEVICES	DC switch rating for each MPPT	Yes		
	Grid monitoring	Yes		
	Output over current protection	Yes		
	Output overvoltage protection-varistor	Yes		
	Ground fault monitoring	Yes		
	Integrated all-pole sensitive leakage current	Yes		
GENERAL	Dimension(W/H/D)(mm)	480*420*215		
	Net weight (kg)	27		
	DC connection	H4 / MC4		
	AC connection	Terminal Block		
	Display	LED+LCD		
	Communication interfaces	Wi-Fi / USB / GPRS / RS485		
	Ingress protection rating	IP65		
	Humidity	0~95% RH(No codensing)		
	Operating temperature range	-20℃ +60℃ With derating above 45℃		
	Cooling concept	Natural		
	Altitude	<3000m		

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High Frequency On Grid Solar Inverter

PH5000 Series (2.5KW-6KW)

Features

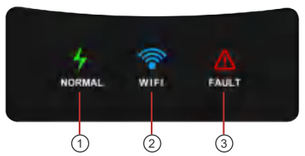
- High Frequency On Grid Solar Inverter
- Rate power: 2.5-6KW
- MPPT efficiency up to 99.50%
- Multiple communications: USB,WIFI etc
- Monitoring inverters freely via mobile phonese APP
- Fanless low-noise design
- IP65 water-proof and dust-proof

Introduction

PH5000 series PV inverters take full account of the needs of end customers, with excellent performance at the same time, use LED as inverter status display, effectively improve product life. Using DSP digital control,could afford wide grid voltage range, have a full range of protection features; to maximize the benefits at the same time, greatly enhance the reliability of the product.

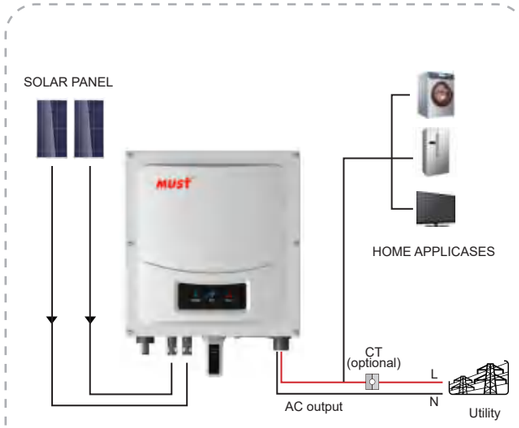
Back panel printing description

Green LED	Continuous light	Normal status
	Flicker	Waiting status
Blue LED	Flicker	Wifi normal communication
Red LED	Continuous light	Fault status
	Flicker	Program of procedure or give an alarm



1. Operation normal (Green)
2. WIFI communication (Blue)
3. Error display (Red)
4. DC switch
5. PV input
6. WIFI connector
7. PC USB connector / RS-485
8. AC output

Solar system connection



MUST®
Solar Power System

Specification

MODEL		PH50-2500	PH50-3000	PH50-3600M	PH50-4200M	PH50-4600M	PH50-5000M	PH50-6000M
RATED POWER(W)		2500	3000	3600	4200	4600	5000	6000
PV INPUT(DC)	Maximum recommended DC power(W)	2875	3450	4100	4800	5300	5750	7000
	Nominal DC operating voltage(V)	360						
	Maximum DC voltage(V)	550						
	Start voltage(V)	100						
	MPPT voltage range(V)	80~550						
	Maximum input current(A)	13	13	15/15	15/15	15/15	15/15	15/15
	No.of MPP tracker	1		2				
	Strings per MPP tracker	1						
GRID OUTPUT(AC)	Nominal AC output power(W)	2500	3000	3600	4200	4600	5000	6000
	Maximum AC output power(VA)	2500	3000	3600	4200	4600	5000	6000
	Nominal output voltage(V);range(V)	220 / 230 / 240;180-280						
	AC grid frequency(Hz);range(Hz)	50/60;45~55/55-65						
	Nominal output current(A)	10.9	13	15.7	18.3	20.0	21.8	26.1
	Maximum output current(A)	11.4	13.7	16.4	19.1	21.0	22.8	27.3
	Total harmonic distortion (THDi)	<3% @Full load & THDI<1%						
	Power factor at rated power	1						
	Displacement power factor	0.8leading ~ 0.8lagging						
	AC connection	Single phase						
EFFICIENCY	Maximum efficiency	97.2%	97.2%	97.4%	97.4%	97.4%	97.4%	97.4%
	Euro-efficiency	96.8%	96.8%	97.0%	97.0%	97.0%	97.0%	97.0%
	MPPT efficiency	99.5%						
	Self-Consumption night(W)	<1						
PROTECTION DEVICES	DC reverse polarity protection	Yes						
	DC switch rating for each MPPT	Yes						
	Output over current protection	Yes						
	Output overvoltage protection-varistor	Yes						
	Ground fault monitoring	Yes						
	Grid monitoring	Yes						
	Integrated all-pole sensitive leakage current	Yes						
PHYSICAL	Dimension(W/H/D)(mm)	262*368*155	262*368*155	355*412*153	355*412*153	355*412*173	355*412*173	355*412*201
	Net weight (kg)	10	10	13.5	13.5	14.5	14.5	16.5
INTERFACE	DC connection	H4/MC4						
	AC connection	Connector						
	Display	LED						
	Communication interfaces	Wi-Fi / USB / GPRS						
ENVIRONMENT	Ingress protection rating	IP65						
	Humidity	0-100%						
	Operating temperature range	-25℃ ~+60℃ With derating above 45℃						
	Cooling concept	Natural						
	Noise emission(typical)[dB]	≤25						
	Altitude	<4000m						
OTHERS	Topology	transformerless						
	Warranty	Standard 5years/10 years(opt.)						
	Certificatesand approvals	CE / IEC62109 / EN50549-1		CE / IEC62109 / CQC / EN50549-1				

The technical specifications of this document are subject to change without any notice

High Frequency On Grid Solar Inverter

PH5000TM Series (4KW-15KW)

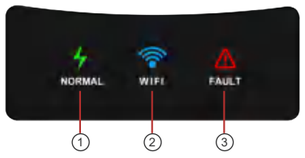
Features

- Wide input voltage range from 160V-1000Vdc
- IP65 protection degree
- Integrated DC switch
- DSP controller
- The maximum efficiency is 98.4%
- Multi MPPT controller
- WIFI monitoring standard
- Easy installation

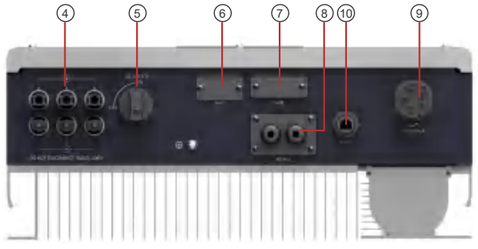
Introduction

PH5000TM series PV inverters take full account of the needs of end customers, It is used to convert the DC generated by photovoltaic panels into AC and send it to the grid in a three-phase manner.with excellent performance at the same time, use LED as inverter status display, effectively improve product life.
Using DSP digital control,could afford wide grid voltage range, have a full range of protection features; to maximize the benefits at the same time, greatly enhance the reliability of the product.

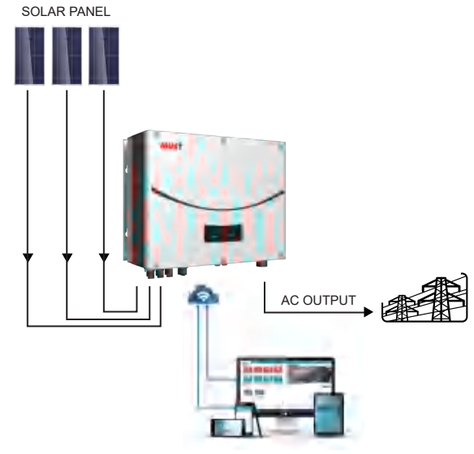
Back panel printing description



1. Operation normal (Green)
2. WIFI communication (Blue)
3. Error display (Red)
4. PV input
5. DC switch
6. WIFI connector
7. USB
8. RS485
9. AC output
10. Meter



Solar system connection



Specification --- 4-6KW

MODEL		PH50-4000TM	PH50-5000TM	PH50-6000TM
OUTPUT (AC)	Rated AC output power	4000W	5000W	6000W
	Max.AC apparent power	4400VA	5500VA	6600VA
	Max.output current	6.4A	8A	9.6A
	Nominal AC Voltage	230V / 400V		
	AC Voltage range	320-478V		
	AC grid frequency range	50±5Hz		
		60±5Hz		
	Power factor at Rated power	1		
	Adjustable displacement power factor	0.8leading...0.8lagging		
	Total harmonic distortion (THDi)	< 3%		
	AC grid connection type	3W+N+PE		
INPUT DATA	Max.recommended PV power	4800W	6000W	7200W
	Max.DC voltage	1000V		
	Start voltage	160V		
	Nominal voltage	600V		
	MPPT voltage range	200V-1000V		
	Max.input current	12.5A / 12.5A		
	Number of independent MPP trackers / strings per MPP tracker	2/1		
	DC connection	H4 / MC4		
EFFICIENCY	Max.efficiency	98.4%		
	Euro weighted efficiency	97.6%		
	MPPT efficiency	99.5%		
	Protection devices	DC reverse polarity protection , Output over current protection, Output overvoltage protection-varistor, Integrated DC switch, Ground fault monitoring, Integrated all-pole sensitive leakage current monitoring unit		
GENERAL DATA FEATURES	Dimension(W/H/D)(mm)	500*428*200		
	Weight (kg)	21		
	Operation temperature range	-25℃ - +60℃ with derating above 45℃		
	Noise emission(typical)	≤35dB(A)		
	Altitude	3000m		
	Self-consumption (night)	< 1W		
	Topology	Transformerless		
	Cooling concept	Natural		
	Environmental protection Rating	Ip65		
	Relative humidity	0-100%		
FEATURES	AC connection	Connector		
	Display	LED		
	Interfaces:USB/WI-FI/RS485/GPRS	Yes/Yes/Yes/Opt		
	Warranty	Standard 5 years / 10 years (opt.)		
	Certificates and approvals	CE / IEC62109 / EN50549-1		

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Specification --- 7-11KW

MODEL		PH50-7000TM	PH50-8000TM	PH50-9000TM	PH50-10000TM	PH50-11000TM
OUTPUT (AC)	Rated AC output power	7000W	8000W	9000W	10000W	11000W
	Max.AC apparent power	7700VA	8800VA	9900VA	11000VA	12100VA
	Max.output current	11.1A	12.7A	14.3A	15.9A	17.5A
	Nominal AC Voltage	230V / 400V				
	AC Voltage range	320-478V				
	AC grid frequency range	50±5Hz				
		60±5Hz				
	Power factor at Rated power	1				
	Adjustable displacement power factor	0.8leading...0.8lagging				
	Total harmonic distortion (THDi)	< 3%				
	AC grid connection type	3W+N+PE				
INPUT DATA	Max.recommended PV power	8400W	9600W	10800W	12000W	13200W
	Max.DC voltage	1000V				
	Start voltage	160V				
	Nominal voltage	600V				
	MPPT voltage range	200V-1000V				
	Max.input current	12.5A / 12.5A				
	Number of independent MPP trackers / strings per MPP tracker	2/1				
	DC connection	H4 / MC4				
EFFICIENCY	Max.efficiency	98.4%				
	Euro weighted efficiency	98%				
	MPPT efficiency	99.5%				
	Protection devices	DC reverse polarity protection , Output over current protection, Output overvoltage protection-varistor, Integrated DC switch, Ground fault monitoring, Integrated all-pole sensitive leakage current monitoring unit				
GENERAL DATA FEATURES	Dimension(W/H/D)(mm)	500*428*200				
	Weight (kg)	23.2				
	Operation temperature range	-25℃ - +60℃ with derating above 45℃				
	Noise emission(typical)	≤35dB(A)				
	Altitude	3000m				
	Self-consumption (night)	< 1W				
	Topology	Transformerless				
	Cooling concept	Natural				
	Environmental protection Rating	Ip65				
	Relative humidity	0-100%				
FEATURES	AC connection	connector				
	Display	LED				
	Interfaces:USB/WI-FI/RS485/GPRS	yes/yes/yes/opt				
	Warranty	Standard 5 years / 10 years (opt.)				
	Certificates and approvals	CE / IEC62109 / EN50549-1				

Specification --- 12-15KW

MODEL		PH50-12000TM	PH50-13000TM	PH50-15000TM
OUTPUT (AC)	Rated AC output power	12000W	13000W	15000W
	Max.AC apparent power	13200VA	14300VA	16500VA
	Max.output current	19A	20.6A	23.8A
	Nominal AC Voltage	230V / 400V		
	AC Voltage range	320-478V		
	AC grid frequency range	50±5Hz		
		60±5Hz		
	Power factor at Rated power	1		
	Adjustable displacement power factor	0.8leading...0.8lagging		
	Total harmonic distortion (THDi)	< 3%		
	AC grid connection type	3W+N+PE		
INPUT DATA	Max.recommended PV power	14400W	15600W	18000W
	Max.DC voltage	1000V		
	Start voltage	160V		
	Nominal voltage	600V		
	MPPT voltage range	200V-1000V		
	Max.input current	21A / 11A		
	Number of independent MPP trackers / strings per MPP tracker	2/2+1		
	DC connection	H4 / MC4		
EFFICIENCY	Max.efficiency	98.4%		
	Euro weighted efficiency	98%		
	MPPT efficiency	99.5%		
	Protection devices	DC reverse polarity protection , Output over current protection, Output overvoltage protection-varistor, Integrated DC switch, Ground fault monitoring, Integrated all-pole sensitive leakage current monitoring unit		
GENERAL DATA FEATURES	Dimension(W/H/D)(mm)	500*428*200		
	Weight (kg)	24.8		
	Operation temperature range	-25℃ - +60℃ with derating above 45℃		
	Noise emission(typical)	≤35dB(A)		
	Altitude	3000m		
	Self-consumption (night)	< 1W		
	Topology	Transformerless		
	Cooling concept	Natural		
	Environmental protection Rating	Ip65		
	Relative humidity	0-100%		
FEATURES	AC connection	connector		
	Display	LED		
	Interfaces:USB/WI-FI/RS485/GPRS	yes/yes/yes/opt		
	Warranty	Standard 5 years / 10 years (opt.)		
	Certificates and approvals	CE / IEC62109 / EN50549-1		

High Frequency On/Off Hybrid Solar Inverter

PH1800 Series (8KW-10KW)

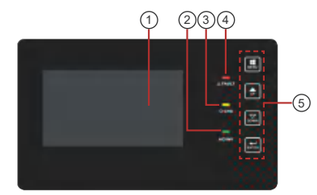
Features

- Pure sine wave inverter
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Configurable input voltage range for home appliances and personal computers via LCD setting
- Configurable battery charging current based on applications via LCD setting
- Configurable AC/Solar Charger priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload/ Over temperature/ short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function
- Wifi remote monitoring (optional)

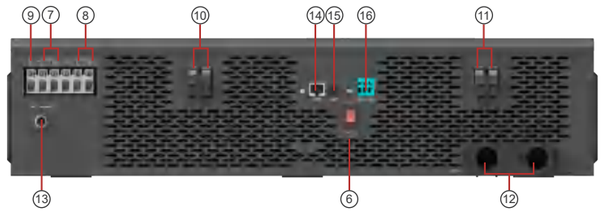
Introduction

This is a multi-function inverter/charger, combining functions of inverter, solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

Back panel printing description

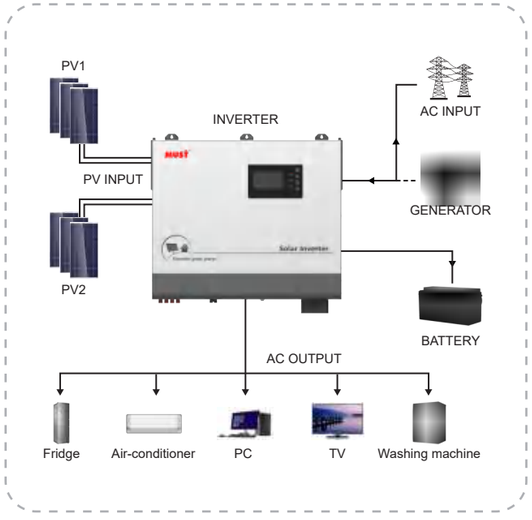


1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons



6. Power On/Off Switch
7. AC Input
8. AC Output
9. Ground
10. PV1 Input
11. PV2 Input
12. Battery Input
13. Circuit breaker
14. RS-485 Communication port
15. USB
16. Dry Contact
17. WiFi port (optional)

Solar system connection



Specification

MODEL		PH18-8048	PH18-10048
Nominal Battery System Voltage		48VDC	
INVERTER OUTPUT	Rated Power	8000W	10000W
	Surge Power	16000W	20000W
	Waveform	Pure Sine Wave	
	AC Voltage Regulation (Batt.Mode)	230VAC±5%	
	Output Frequency	60Hz or 50Hz	
	Inverter Efficiency(Peak)	93%	
	Transfer Time	10ms (UPS) 20ms (APL)	
AC INPUT	Nominal Input Voltage	230VAC	
	Max AC Input Voltage	300VAC	
	Selectable Voltage Range	170~280VAC (UPS) / 90~280VAC (APL) / 184~253VAC(VDE4105)	
	Frequency Range	50Hz / 60Hz(Auto detection)	
BATTERY	Normal Voltage	48VDC	
SOLAR CHARGER & AC CHARGER	AC Charging Current	2-120A	
	Maximum PV Array Open Circuit Voltage	145VDC	
	PV Array Open Circuit Voltage	60-130VDC	
	Cold Start Voltage	46VDC	
	Solar Charging Current	160A	
	Default Charging Current	160A	
	Maximum Charge Current	280A	
	Charging Algorithm	3-step (Flooded Battery / AGM / GEL/ LEAD Battery), 4-step(LI)	
MECHANICAL SPECIFICATIONS	Machine Dimensions(W*H*D)(mm)	503*600*141.2	
	Net Weight(kg)	21.0	
OTHER	Safety Certification	CE	
	Operating Temperature	0°C~50°C	
	Storage Temperature	-15°C ~60°C	

High Frequency On/Off Hybrid Solar Inverter

PH1800 Plus Series (2KW-5.5KW)

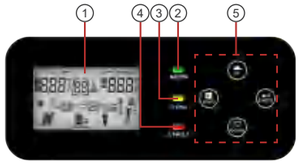
Features

- Rated Power 2KW-5.5KW
- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable battery charging current suits different types of batteries
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Monitoring software & Wifi Kit for real-time status display and control
- Support parallel operation up to 3 units

Introduction

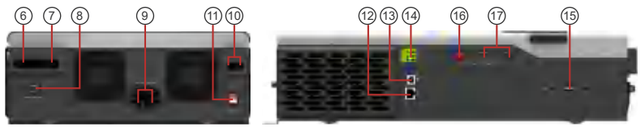
PH1800 Plus series hybrid solar inverter, it can realize self-consumption and feed-in to the grid from solar energy with best solution according to your setting. During the daytime solar power can run your home appliances and if there is extra solar power it will feed-in to the grid or you can choose to save them on the battery to backup when power failure or nighttime.

Back panel printing description



1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons

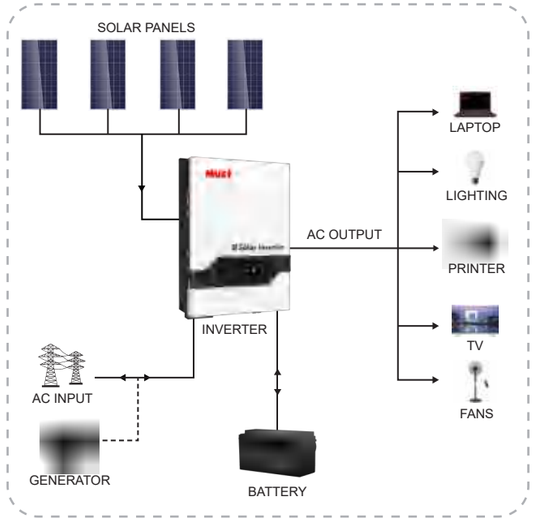
[PH1800 PLUS 3K]



[PH1800 PLUS 5K]

6. AC Input
7. AC Output
8. Circuit breaker
9. Battery Input
10. PV Input
11. Power On/Off Switch
12. RS-485 Communication port
13. USB
14. Dry Contact
15. USB WIFI
16. Parallel Switch (only for parallel model)
17. Parallel Connection Port (only for parallel model)

Solar system connection



MUST®
Solar Power System

Specification

MODEL		PH18-2024 Plus	PH18-3024 Plus	PH18-3048 Plus	PH18-4048 Plus	PH18-5048 Plus	PH18-5548 Plus
Nominal Battery System Voltage		24VDC		48VDC			
INVERTER OUTPUT	Rated Power	2000W	3000W	3000W	4000W	5000W	5500W
	Surge Power	4000W	6000W	6000W	8000W	10000W	11000W
	Waveform	Pure Sine Wave					
	AC Voltage Regulation (Batt.Mode)	220VAC~240VAC(setting)					
	Electric Current	8.7A	13A		17.4A	21.7A	23.9A
	Inverter Efficiency(Peak)	93%					
	Transfer Time	10ms(UPS /VDE4105) 20ms(APL)					
AC INPUT	Voltage	230VAC					
	Selectable Voltage Range	170~280VAC(UPS), 90~280VAC(APL), 184~253VAC(VDE4105)					
	Frequency Range	50Hz / 60Hz (Auto Sensing)					
BATTERY	Normal Voltage	24VDC		48VDC			
	Floating Charge Voltage	27.4VDC		54.8VDC			
	Overcharge Protection	30VDC		60VDC			
SOLAR CHARGER & AC CHARGER	Maximum PV Array Open Circuit Voltage	145VDC					
	PV Array MPPT Voltage Range	30~130VDC		64~130VDC			
	Standby Power Consumption	2W					
	Maximum PV Array Power	2000W		4000W			
	Maximum Solar Charge Current	80A					
	Maximum Efficiency	98%					
	Maximum AC Charge Current	60A					
	Maximum Charge Current	140A					
MECHANICAL SPECIFICATIONS	Machine Dimensions (W*H*D)	290*431*132mm		329*485*134mm			
	Net Weight(KG)	8.5		12			
	Package Dimensions(W*H*D)	395*515*220mm		425*575*229mm			
	Gross Weight(KG)	10		13.5			
OTHER	Humidity	5% to 95% Relative Humidity (Non-condensing)					
	Operating Temperature	0°C ~50°C					
	Storage Temperature	-15°C ~60°C					

Pure Sine wave High Frequency solar Inverter(450V)

PH1800 PRO Series (3KW-5.5KW)

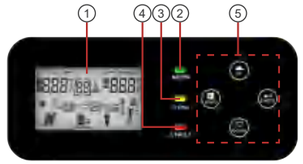
Features

- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc).
- MAX PV Array Open Circuit Voltage: 450V
- Can provide the power to the load without battery
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Support USB, RS485 monitoring function
- WIFI remote monitoring (optional)
- Parallel operation with up to 3 units

Introduction

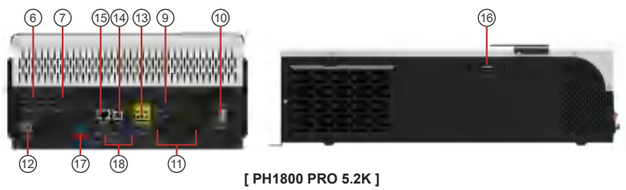
PH1800 PRO is a multi-function inverter/charger, combining functions of inverter, MPPT solar charger and battery charger to offer uninterruptible power support in portable size. PH1800 PRO Series can run without battery. The Maximum PV array open circuit voltage can reach 450V and MPPT voltage is 150~430V, which can help customers make full use of solar energy.

Back panel printing description



1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons

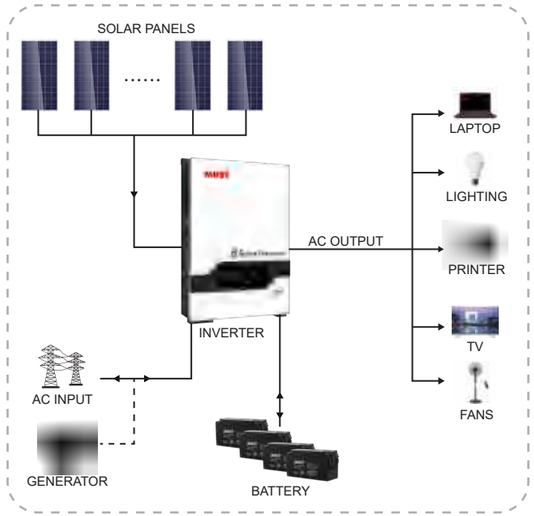
[PH1800 PRO 3K]



[PH1800 PRO 5.2K]

6. AC Input
7. AC Output
8. FAN
9. PV Input
10. Power On/Off Switch
11. Battery Input
12. Circuit breaker
13. Dry Contact
14. USB
15. RS-485 Communication port
16. USB WiFi
17. Parallel switch (only for parallel model)
18. Parallel communication port (only for parallel model)

Solar system connection



MUST
Solar Power System

Specification

Model	PH18-3024 PRO	PH18-3524 PRO	PH18-5248 PRO	PH18-5548 PRO
Nominal Battery System Voltage	24VDC		48VDC	
INVERTER OUTPUT				
Rated Power	3000VA / 3000W	3500VA / 3500W	5200VA / 5200W	5500VA / 5500W
Surge Power	6000W	7000W	10400W	11000W
Waveform	Pure sine wave			
AC Voltage Regulation (Batt.Mode)	230VAC±5%(Setting)			
Inverter Efficiency(Peak)	90%~93%			
Transfer Time	10ms (UPS / VDE4105) 20ms (APL)			
AC INPUT				
Voltage	230VAC±5%			
Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL)			
Frequency Range	50Hz/60Hz(Auto sensing)			
BATTERY				
Normal voltage	24VDC		48VDC	
Floating Charge Voltage	27.4VDC		54.8VDC	
Overcharge Protection	30VDC		60VDC	
SOLAR CHARGER & AC CHARGER				
Maximum PV Array Open Circuit Voltage	450VDC			
Maximum PV Array Power	4000W	4000W	5000W	6000W / 6000W
PV Array MPPT Voltage Range	150~430 VDC			
Maximum Solar Charge Current	80A / 100A	100A	80A / 100A	120A
Maximum AC Charge Current	60A / 80A	80A	60A / 80A	100A
Maximum Charge Current	80A / 100A	100A	80A / 100A	120A
MECHANICAL SPECIFICATIONS				
Machine Dimensions (W*H*D)(mm)	322*486*134	322*486*134	309*505*147	309*505*147
Package Dimensions (W*H*D)(mm)	426*560*260.5	426*560*260.5	375*655*269	375*655*269
Net Weight(kg)	8	8	14	14
Gross Weight(kg)	9.5	9.5	16.4	16.4
OTHER				
Humidity	5% to 95% Relative humidity (Non-condensing)			
Operating Temperature	0℃ ~50℃			
Storage Temperature	-15℃ ~60℃			

The technical specifications of this document are subject to change without any notice

Low Frequency On/Off Grid Hybrid Solar Inverter

PH3000 Series (3KW-4KW)

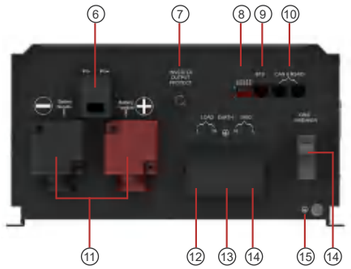
Features

- Rated power 3KW to 4KW
- Smart LCD setting(Working modes, Charge Current, Charge Voltage, etc.)
- MPPT Efficiency max 98%
- Combining solar system, AC utility, and battery power source to supply continuous power
- Multiple operations: basic Grid-tie, Off-Grid, Grid-Interactive
- Parallel operation with up to 3 units
- Support CAN, RS485 monitoring function

Introduction

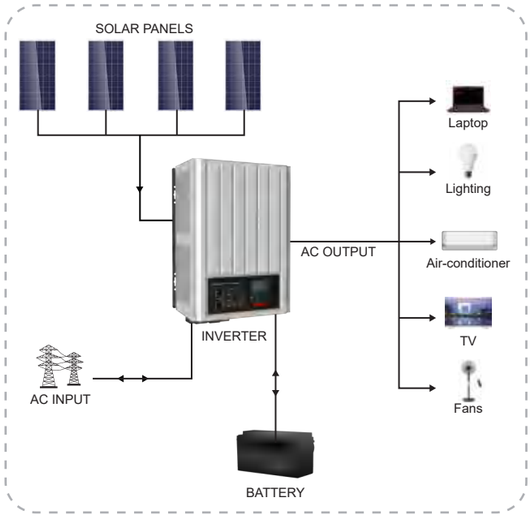
PH3000 series Energy Storage Inverter has capacity of 3KW and 4KW, it is multi-functional, combining functions of inverter, On-Grid, MPPT solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

Back panel printing description



1. Funtion Buttons
2. Fault Indicator
3. Charging Indicator
4. Status Indicator
5. LCD Display
6. PV input
7. Inverter output protect
8. Switch
9. BTS
10. CAN&RS485 communication port
11. Battery input
12. Load
13. Earth
14. Grid
15. Earth

Solar system connection



Specification

MODEL		PH30-3048	PH30-4048
Nominal Battery System Voltage		48VDC	
INVERTER OUTPUT	Rated capacity	3750VA	5000VA
	Rated output power	3000W	4000W
	Rated output voltage and frequency	230Vac / 50Hz or 60Hz	
	Rated output current	13A	17.4A
	Output voltage precision	230Vac ± 1%	
	Output frequency precision	50Hz ± 0.1%	
	THD (Linwar loads)	Off grid ≤ 2%	
		Grid discharge ≤ 3%	
		Grid charge ≤ 3%	
	Dynamic response speed	20ms	
	Power factor	Grid discharge 99.9% & Grid charge 99.9%	
	Overload capability	30 minutes @ 100%<load≤110%	
		1 minutes @ 100%<load≤125%	
		30 seconds @ 125%<load≤150%	
		10 seconds @ 150%<load≤200%	
		5 seconds @ load>200%	
		5 seconds @ short circuit	
	Grid / Off grid change time	< 10ms	
	Output wave	Sine wave	
	Inverting efficiency 80% resistive loads	≥93%	≥93%
AC INPUT	AC input maximum current	26A	34.8A
	Acceptable input voltage range	Defaults 186Vac ~253Vac; Narrow 174Vac ~272Vac; Wide 95Vac ~272Vac	
	AC Input frequency	47.5Hz ~ 51.5Hz	
BATTERY	Rated input voltage	48VDC	
	Allowed input DC voltage range	40VDC~62VDC	
	Low voltage alarm	42VDC	
	High voltage alarm	60VDC	
SOLAR CHARGER & AC CHARGER	PV Open Circuit Voltage	145VDC	
	Max Solar Charging Current	60A	60A
	Max AC Charging Current	60A	80A
DISPLAY & PROTECTION FUNCTION	LED indication	Systematic operation, indication of charge and discharge, indication of fault	
	LCD display	output voltage, output current, grid voltage, grid current, voltage of storage battery, load power, chart of capacity	
	Protection Function	Input LV protection	
		Input OV protection	
		Output overload protection	
		Output short circuit Protection	
MECHANICAL SPECIFICATIONS	Mounting	Wall mounted	
	Machine Dimensions (W*H*D)(mm)	337*462*183mm	370*462*183
	Package Dimensions (W*H*D)(mm)	476*602*325mm	476*602*325mm
	Net Weight (kg)	29.5	35
	Gross Weight (kg)	33	38.5
OTHER	Communication terminal	RS485 / CAN bus	
	Operation Temperature Range	0℃～ +50℃	
	Environmental Protection Rating	Indoor(IP20)	
	Ambient humidity	0~90% relative humididity (non-condensing)	
	Altitude	≤3000m	

The technical specifications of this document are subject to change without any notice

Low Frequency On/Off Grid Hybrid Solar Inverter

PH3000 Series (10-12KW)

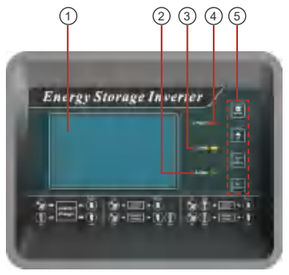
Features

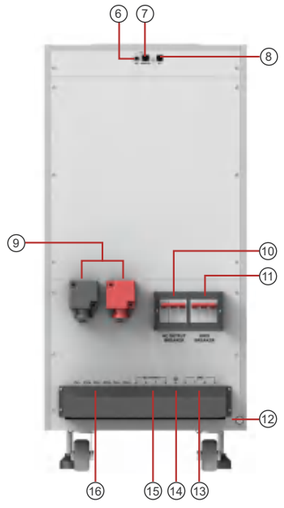
- Rated power 10KW to 12KW
- Smart LCD setting(Working modes, Charge Current, Charge Voltage, etc.)
- Built-in MPPT 180A solar charge controller
- MPPT Efficiency max 98%
- Combining solar system, AC utility, and battery power source to supply continuous power
- Multiple operations: basic Grid-tie, Off-Grid, Grid-Interactive
- Support CAN, RS485 monitoring function

Introduction

This model PH3000 Three-phase is a flexible and intelligent energy storage inverter which utilizes solar power, utility power, and battery power source to supply continuous power. This is a multi-functional hybrid inverter which can power all kinds of appliances in home or office environment, including motor-type appliances such as tube light, fan, refrigerator and air conditioner. The system generates electricity when it has sufficient sunshine, supplying power to your home and feeding any surplus power back to the Grid.

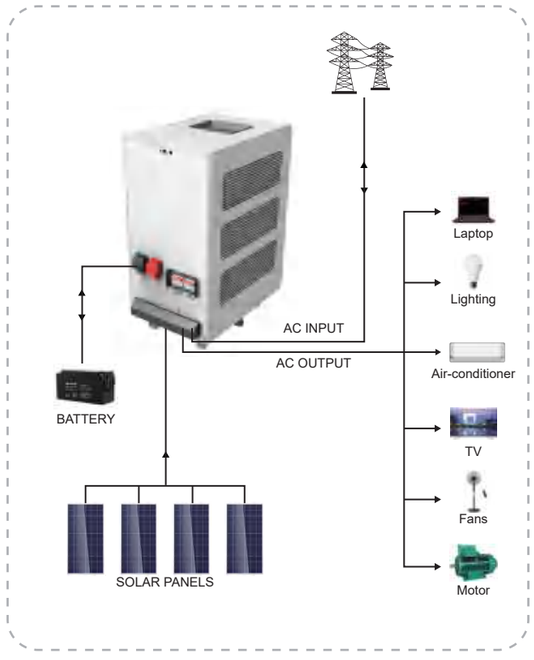
Back panel printing description





1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons
6. USB commnuication port
7. CAN/RS485 communication
8. BTS
9. Battery input
10. AC output breaker
11. Grid breaker
12. Grounding
13. Grid
14. Grounding
15. AC output
16. PV input

Solar system connection



Type of Battery

PH3000 series can be used with lithium battery pack or lead-acid battery, to keep your appliances running for days.

Wall-mounted lithium battery

Rack-mounted lithium battery

Specification

MODEL		PH30-10048-T	PH30-12048-T
Nominal Battery System Voltage		48VDC	
INVERTER OUTPUT	Rated output power	10000W	12000W
	Output wave	Pure sine wave	
	Nominal output voltage	230 VAC (P-N) / 400 VAC (P-P)	
	Nominal output current	14.3A per phase	17.4A per phase
	Nominal output frequency	50 Hz / 60 Hz	
	Rate of wave distortion(THD)(Linearity loads)	Off grid≤2%; Grid discharge ≤3%; Grid charge ≤3%	
	Peak efficiency	≥93%	
	Overload capability	100%<load≤110%,30 minutes; 110%<load≤125%,1 minutes; 125%<load≤150%,30 seconds; load<150%,10 seconds; Short circuit,5 seconds	
AC INPUT	AC input maximum current	26.0A per phase	34.8A per phase
	Nominal frequency	50Hz / 60Hz	
	Acceptable input voltage range	Defaults 186Vac ~253Vac per phase;Narrow 174Vac ~272Vac per phase; Wide 95Vac ~272Vac per phase	
BATTERY	Type of Battery	Lithium battery or lead-acid battery	
	Nominal Voltage	48VDC	
	Low Voltage Protection Point	Charger 34.0VDC; Inverter 40.0VDC	
	Absorption Voltage	50.0VDC	
	Refloat Voltage	54.8VDC	
	Float Voltage	57.2VDC	
SOLAR CHARGER & AC CHARGER	PV Open Circuit Voltage	145VDC	
	Max Solar Charging Current	60A per channel	
	Max AC Charging Current	60A per phase	80A per phase
	Max Charging Current	120A per phase	140A per phase
MECHANICAL SPECIFICATIONS	Mounting	Vertical	
	Machine Dimension, W*H*D(mm)	392*828*629	
	Package Dimensions (W*H*D)(mm)	513*1031*700	
	Net Weight (kg)	133	140
	Gross Weight (kg)	128	160
OTHER	Communication terminal	RS485 / CAN bus	
	Operation Temperature Range	0℃ ~ +50℃	
	Environmental Protection Rating	IP20	
	Ambient humidity	0 -- 90% relative humidity (non-condensing)	
	Altitude	≤2000m	

The technical specifications of this document are subject to change without any notice

High Frequency Power Inverter/Charger

EP1100 Pro Series (1200VA 2400VA)

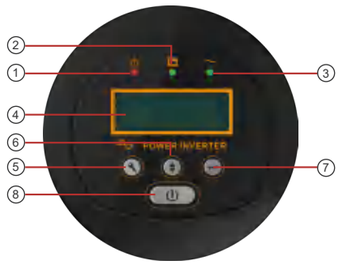
Features

- Rated power 1.2KVA to 2.4KVA
- Modified sine wave inverter
- Double layers PCB board.
- Configurable input voltage ranges（90-280VAC/170-280VAC) via LCD setting
- Display accumulated working time
- 3 steps charging algorithm
- Auto restart while AC recovery
- Overload & short-circuit protection, Battery reverse polarity protection, Deep discharge protection
- Advanced technology optimizes battery life
- Automatic line-to-battery switchover

Introduction

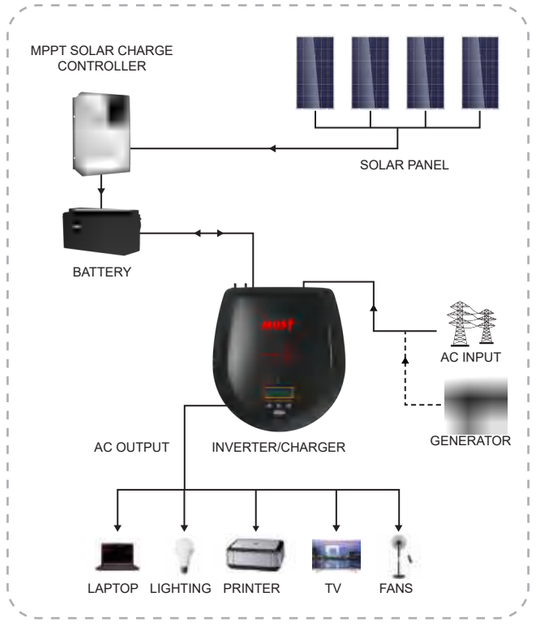
EP1100 Pro 1200VA/2400VA is a modified sine wave inverter applied to TV, stereos, laptops, and desktop computers and other home appliances. It will automatically switch to inverter and provide power when AC is interrupted unexpectedly.It's perfect for the user who need a simple and economical inverter,with user-friendly installnation and setting.

Back panel printing description



1. Fault LED
2. Inverter Mode LED
3. Line Mode LED
4. LCD Display
5. Set Key
6. Flip Key
7. Enter Key
8. ON / OFF
9. AC Input
10. Output Receptacle(s)
11. Fan
12. DC Input Connector (Battery Terminal)

Solar system connection



MUST®
Solar Power System

Specification

MODEL			EP11-1200 PRO	EP11-2400 PRO
Nominal Battery System Voltage			12VDC	24VDC
INVERTER OUTPUT	Rated Power		1200VA / 720W	2400VA / 1440W
	Waveform		Modified Sine Wave	
	Nominal Output Voltage RMS		230V	
	Output Voltage Regulation		+10/-18%	
	Output Frequency		50Hz / 60Hz±0.5Hz	
	Inverter Efficiency (Peak)		>80%	
	Line Mode Efficiency		>95%	
	Power Factor		0.6	
	Typical Transfer Time		Typical 15~20ms 40ms max	
AC INPUT	Voltage		220 / 230 / 240VAC	
	Selectable Voltage Range	Narrow	170~280VAC	
		Wide	90~280VAC	
	Frequency Range		50Hz / 60Hz(Auto sensing)	
BATTERY	Nominal Input Voltage		12VDC	24VDC
	Minimum Start Voltage		10.5VDC	21.0VDC
	Low Battery Alarm		10.5VDC±0.2V	21.0VDC±0.4V
	Low Battery Cutoff		10.0VDC±0.2V	20.0VDC±0.4V
	High Voltage Alarm		16.0VDC±0.2V	32.0VDC±0.4V
	High Battery Voltage Recover		15.0VDC±0.2V	30.0VDC±0.4V
CHARGER	Boost Voltage (Vbat<12.5V)		14.4VDC±0.2V	28.8VDC±0.4V
	Float Voltage (Vbat>12.5V)		13.7VDC±0.2V	27.4VDC±0.4V
	Charging Current 10A		10A±2A	
	Charging Current 20A		20A±2A	
	Overcharge Protection S.D.		15.5VDC±0.4A	31VDC±0.8A
BYPASS & PROTECTION	Nominal Input Frequency		50Hz or 60Hz	
	Overload Protection (SMPS Load)		FUSE	
	Output Short Circuit Protection		10A	
	Bypass Fuse Rating		10A	
	Max Bypass Current		10A	
MECHANICAL SPECIFICATIONS	Dimensions (W*H*D) (mm)		246*253*87	
	Shipping Dimensions (W*H*D) (mm)		315*368*145	
	Shipping Weight (kg)		2.9	3.1
OTHER	Operation Temperature Range		0°C to 40°C	
	Audible Noise		60dB MAX	
	Display		LED+LCD	
	Standard Warranty		1 year	

The technical specifications of this document are subject to change without any notice

High Frequency Power Inverter/Charger

EP1500 Series (1000VA 2000VA)

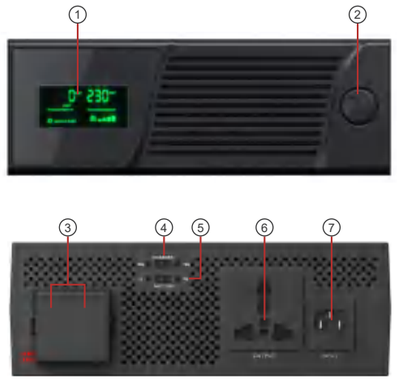
Features

- Pure sine wave inverter
- Double layers PCB board.
- Support two kinds of batteries: Lithium Battery Pack and Lead-acid Battery
- Support fast max charging current setting
- Different charging mode for different kinds of batteries
- Auto restart while AC recovery
- Overload & short-circuit protection, Battery reverse polarity protection, Deep discharge protection
- Advanced technology optimizes battery life
- Automatic line-to-battery switch over
- Automatic activate lithium battery pack which is be over discharged no output when AC input is OK

Introduction

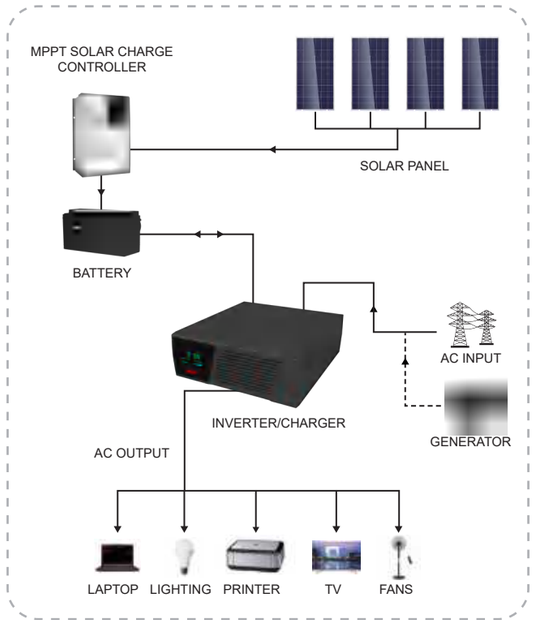
EP1500 series is a pure sine wave inverter applied to TV, stereos, laptops, and desktop computers and other home appliances. It will automatically switch to inverter and provide power when AC is interrupted unexpectedly.It's perfect for the user who need a simple and economical inverter,with user-friendly installation and setting.

Back panel printing description



1. ON / OFF
2. LCD Screen
3. DC Input Connector (Battery Terminal)
4. Charging max current setting switch
5. Battery kind setting switch
6. Output Receptacle(s)
7. AC Input with fuse box

Solar system connection



MUST®
Solar Power System

Specification

MODEL		EP15-1012		EP15-2024	
Nominal Battery System Voltage		12VDC		24VDC	
INVERTER OUTPUT	Rated Power	1000VA / 600W		2000VA / 1200W	
	Waveform	Pure Sine Wave			
	Nominal Output Voltage RMS	230V			
	Output Voltage Regulation	+10/-18%			
	Output Frequency	50Hz / 60Hz ±1Hz			
	Inverter Efficiency (Peak)	>90%			
	Line Mode Efficiency	>95%			
	Typical Transfer Time	<10ms typical, 15ms max			
AC INPUT	Voltage	230VAC			
	Voltage Range	184 ~ 278VAC ± 3%			
	Frequency Range	45 ~ 65Hz ± 2Hz			
BATTERY	**Note: Below Parameters (PB) Lead-acid Battery / (LI) LiFePO4 Lithium Battery Pack - 12V(4 Series) 24V(8 Series)**				
	Nominal Input Voltage	12VDC		24VDC	
	Low Battery Cutoff	10.5VDC(PB)	11.5VDC(LI)	21.0VDC(PB)	23.0VDC(LI)
	Low Battery Alarm	11.0VDC(PB)	12.0VDC(LI)	22.0VDC(PB)	24.0VDC(LI)
	Low Battery Voltage Recover	12.5VDC(PB)	12.8VDC(LI)	25.0VDC(PB)	25.6VDC(LI)
	High Voltage Alarm	14.5VDC(PB)	14.3VDC(LI)	29.0VDC(PB)	28.6VDC(LI)
	High Battery Voltage Recover	15.0VDC(PB)	14.8VDC(LI)	30.0VDC(PB)	29.6VDC(LI)
CHARGER	Boost Voltage	14.4VDC(PB)	14.4VDC(LI)	28.8VDC(PB)	28.8VDC(LI)
	Float Voltage	13.8VDC(PB)	14.4VDC(LI)	27.6VDC(PB)	28.8VDC(LI)
	Charging Current	10A±2A @ 12V		7A±2A @ 24V	
	Charging Current	15A±2A @ 12V		10A±2A @ 24V	
	Overcharge Protection S.D.	15.5VDC		31VDC	
BYPASS & PROTECTION	Nominal Input Frequency	50Hz / 60Hz (Auto sensing)			
	Overload Protection (SMPS Load)	FUSE			
	Output Short Circuit Protection	6.3A		10A	
	Bypass Fuse Rating	6.3A		10A	
	Max Bypass Current	6.3A		10A	
MECHANICAL SPECIFICATIONS	Dimensions (W*H*D) (mm)	255 x 224 x 80			
	Shipping Dimensions (W*H*D) (mm)	332 x 288 x 127			
	Shipping Weight (kg)	2.4			
OTHER	Operation Temperature Range	0℃ to 40℃			
	Audible Noise	60dB MAX			
	Display	LED+LCD			
	Standard Warranty	1 year			

High Frequency Power Inverter/Charger

EP1500 PLUS Series (600W)

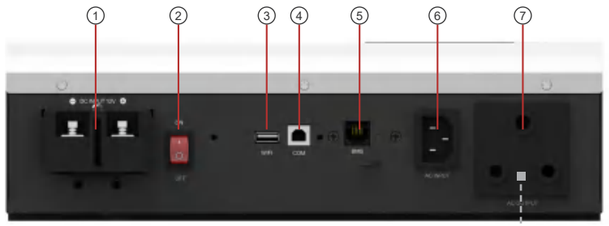
Features

- Rated power 600W
- Pure sine wave inverter
- Double layers PCB board.
- Support two kinds of batteries include 4 series LiFePO4 Lithium Battery Pack and Lead-acid Battery.
- Auto restart while AC recovery
- Differernt charging mode for differen kinds of batteries
- Overload & short-circuit protection, Battery Low Voltage Protection& Over Voltage Protection, Deep discharge protection
- Advanced technology optimizes battery life
- Automatic line-to-battery switch over
- Automatic activate lithium battery pack which is be over discharged no output when AC input is OK

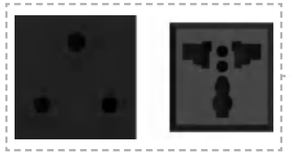
Introduction

EP1500 PLUS Series is a pure sine wave inverter applied to TV, stereos, laptops, and desktop computers and other home appliances. It will automatically switch to inverter and provide power when AC is interrupted unexpectedly.It's perfect for the user who need a simple and economical inverter,with user-friendly installation and setting.

Back panel printing description

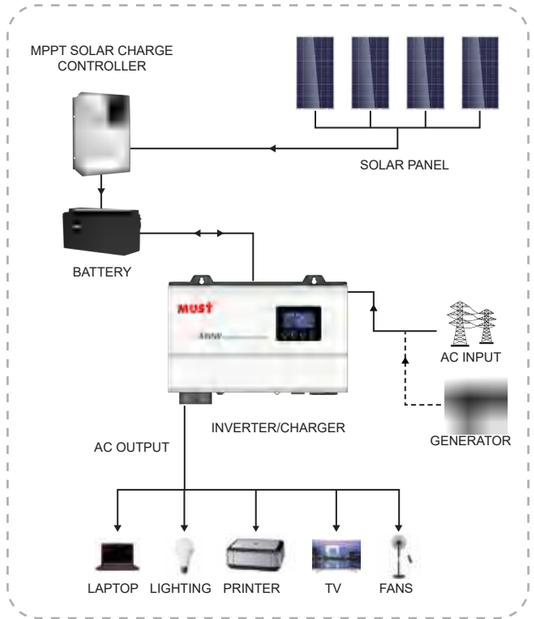


1. DC Input
2. ON / OFF
3. USB-A WIFI communication
4. USB-B PC communication
5. RJ11 BMS Li battery Pack communication (optional)
6. AC Input
7. Output Socket (s)



AC Output Socket types

Solar system connection



MUST® Solar Power System

Specification

MODEL		EP15-0612 PLUS	
Nominal Battery System Voltage		12VDC	
INVERTER OUTPUT	Rated Power	600VA / 600W	
	Waveform	Pure Sine Wave	
	Nominal Output Voltage RMS	230VAC	
	Output Voltage Regulation	+10/-18%	
	Output Frequency	50Hz/60Hz ±1Hz	
	Inverter Efficiency (Peak)	>90%	
	Line Mode Efficiency	>95%	
	Typical Transfer Time	Typical <10ms, 15ms max	
AC INPUT	Voltage	230VAC	
	Voltage Range	184~278VAC ±3%	
	Frequency Range	45-65Hz ±2Hz	
BATTERY	**Note: Below Parameters (PB) Lead-acid Battery / (LI) 4 series LiFePO4 Lithium Battery Pack**		
	Nominal Input Voltage	12VDC	
	Low Battery Cutoff	10.5VDC(PB)	11.5VDC(LI)
	Low Battery Alarm	11.0VDC(PB)	12.0VDC(LI)
	Low Battery Voltage Recover	12.5VDC(PB)	12.8VDC(LI)
	High Voltage Alarm	14.5VDC(PB)	14.3VDC(LI)
	High Battery Voltage Recover	15.0VDC(PB)	14.8VDC(LI)
CHARGER	Charger Voltage Boost	14.4VDC(PB)	14.4VDC(LI)
	Charger Voltage Standby	13.8VDC(PB)	14.4VDC(LI)
	Charging Current	10A/15A ±2A @ 12V	
	Overcharge Protection S.D.	15.5VDC	
BYPASS & PROTECTION	Nominal Input Frequency	50Hz/60Hz (auto detection)	
	Overload Protection (SMPS Load)	FUSE	
	Output Short Circuit Protection	7A	
	Bypass Fuse Rating	7A	
	Max Bypass Current	7A	
MECHANICAL SPECIFICATIONS	Dimensions (W*H*D) (mm)	320 x 231 x 96	
	Shipping Dimensions (W*H*D) (mm)	415 x 280 x 166	
	Shipping Weight (kg)	3.4	
OTHER	Operation Temperature Range	0℃ to 40℃	
	Audible Noise	60dB MAX	
	Display	LED Screen	
	Standard Warranty	1 year	
	Communication	PC \ WIFI \ BMS (BMS optional)	

The technical specifications of this document are subject to change without any notice

High Frequency Power Inverter/Charger

EP1800 Series (1KW-5KW)

Features

- Pure sine wave inverter
- Configurable input voltage range for home appliances and personal computers via LCD setting
- Configurable battery charging current based on applications via LCD setting
- Configurable AC Charger via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload/ Over temperature/ short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function

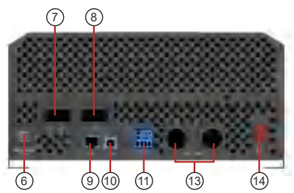
Introduction

This is a multi-function inverter/charger, combining functions of inverter, solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

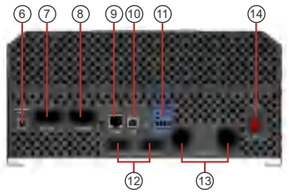
Back panel printing description

1. LCD display
2. Status indicator
3. Charging indicator
4. Fault indicator
5. Function button

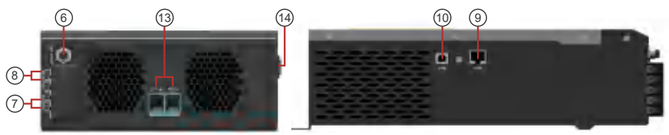
6. Circuit breaker
7. AC input
8. AC output
9. RS485 communication port
10. USB
11. Dry contact
12. Parallel communication port (only for parallel model)
13. Battery input
14. Power on/off switch



2KW-3KW

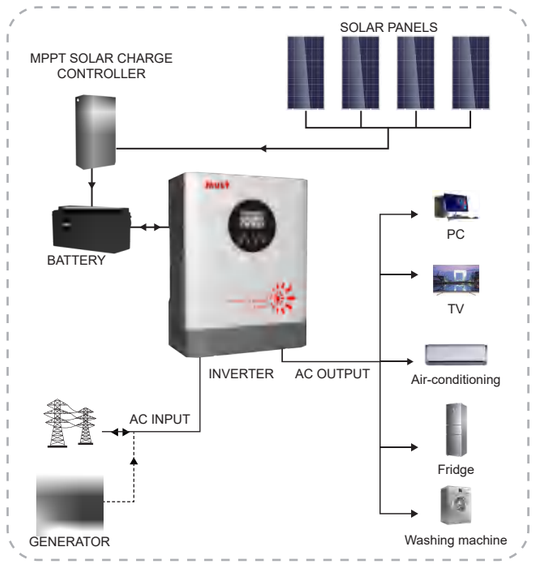


4KW-5KW



1KW single model

Solar system connection



MUST
Solar Power System

Specification

MODEL		EP18-1012	EP18-2024	EP18-3024	EP18-4048	EP18-5048
Nominal Battery System Voltage		12VDC	24VDC		48VDC	
INVERTER OUTPUT	Rated Power	1000W	2000W	3000W	4000W	5000W
	Surge Power	2000W	4000W	6000W	8000W	10000W
	Waveform	Pure sine wave				
	Output Voltage Regulation	230Vac±5%				
	Output Frequency	60Hz or 50Hz				
	Inverter Efficiency (Peak)	90%				
	Transfer Time	10ms typical (UPS,VDE); 20ms typical (APL)				
AC INPUT	Nominal Input Voltage	230VAC				
	Selectable Voltage Range	170~280VAC(UPS), 90~280VAC(APL), 184~253VAX(VDE)				
	Frequency Range	50Hz/60Hz (Auto sensing)				
BATTERY	Nominal voltage	12VDC	24VDC		48VDC	
	Floating Charge Voltage	13.7VDC	27.4VDC		54.8VDC	
	Overcharge Protection	15VDC	30VDC		60VDC	
CHARGER	Charging Current @ Nominal Input Voltage	10/20A	20/30A	20/30A	1~60A	
	Charging Algorithm	3-Step(Flooded Battery, AGM/Gel/LEAD Battery),4-Step(LI)				
	Max Charging Current	20A	30A	30A	60A	
	Default Charging Current	10A	20A	20A	30A	
PROTECTION	Nominal Input Frequency	50Hz / 60Hz (Auto detection)				
	Output Short Circuit Protection	Line mode: Circuit Breaker; Battery mode: Electronic Circuits				
MECHANICAL SPECIFICATIONS	Dimensions (W*H*D) (mm)	240*316*95	272*355*100		297.5*468*125	
	Net Weight (kg)	5	6	6.8	11.5	12
	Shipping Dimensions (W*H*D) (mm)	410*300*178	356*272*135		488*295*141	
	Shipping Weight (kg)	6	7	8.0	10.0	10.5
OTHER	Operation Temperature Range	-10℃ to 50℃				
	Storage temperature	-15°C~ 60°C				
	Audible Noise	60dB MAX				
	Display	LED+LCD				
	Standard Warranty	1 year				

The technical specifications of this document are subject to change without any notice

Low Frequency Power Inverter/Charger

EP2000 Pro Series (300W-1000W)

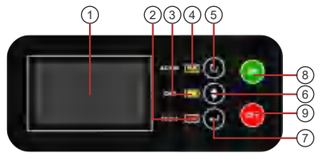
Features

- Rated power 300W to 1000W
- Pure sine wave output
- Smart LCD setting (frequency , charge voltage,charge current, etc).
- 3 steps charging algorithm
- Built in AVR function
- Overload and short-circuit protection
- Battery reverse polarity protection (Optional)
- Deep discharge protection
- Cold start function

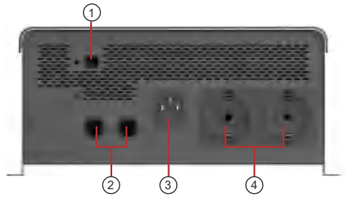
Introduction

EP2000 PRO series inverter is a cost effective, intelligent with UPS function. The comprehensive LCD offers user-configurable and easy-accessible button adjustment such as battery charge current, battery charge voltage, frequency, buzzer etc. It's perfect for the user who need a simple and economical inverter,with user-friendly installnation and setting.Tower and rack design available for different choices.

Back panel printing description

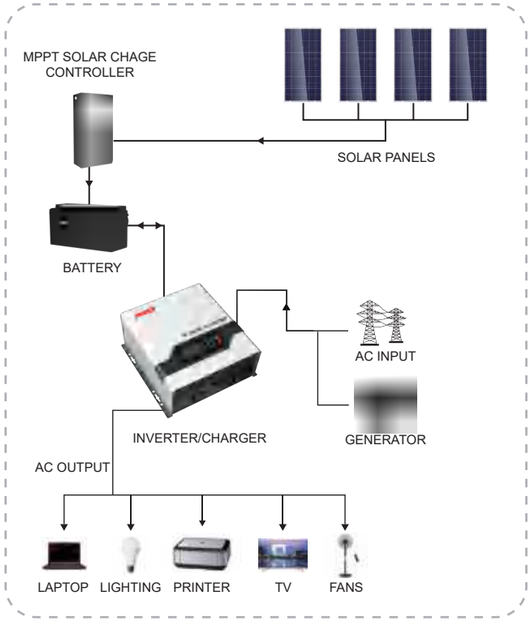


1. LCD display
2. Fault LED
3. Charge LED
4. AC/Inverter LED
5. ESC
6. SEL
7. Enter
8. Power on
9. Power off



1. USB
2. Battery input
3. AC input
4. AC output

Solar system connection



MUST®
Solar Power System

Specification

MODEL		EP20-0312 PRO	EP20-0412 PRO	EP20-0512 PRO	EP20-0612 PRO	EP20-0812 PRO	EP20-1012 PRO	EP20-0624 PRO	EP20-0824 PRO	EP20-1024 PRO
Default Battery System Voltage		12VDC						24VDC		
INVERTER OUTPUT	Rated Power	300W	400W	500W	600W	800W	1000W	600W	800W	1000W
	Surge Rating	900VA	1200VA	1500VA	1800VA	2400VA	3000VA	1800VA	2400VA	3000VA
	Waveform	Pure sine wave								
	Voltage Regulation	Battery mode: 220 or 230VAC Line mode: 220~240VAC								
	Output Frequency	50Hz / 60Hz								
	Invertert Frequency (Peak)	>75%						>81%		
	Bypass Efficiency	>95%								
	Output Transfer Time	Typical:6ms 10ms(max)								
AC INPUT	Voltage	220 / 230 / 240VAC								
	Selectable Voltage Range	140~280VAC ±5%								
	Low Battery Alarm	140VAC ±5%								
	Low Voltage Recover	150VAC ±5%								
	High Battery Alarm	280VAC ±5%								
	High Voltage Recover	270VAC ±5%								
	Low Frequency Alarm	45 ±5Hz								
	Low Frequency Recover	46 ±5Hz								
	High Frequency Alarm	65 ±5Hz								
	High Frequncy Recover	64 ±5Hz								
	Nominal Input Range	50Hz / 60Hz ±5Hz								
	AC Auto Restart	YES								
BATTERY	Minimum Start Voltage	Low Battery Voltage Cutoff+0.5V						Low Battery Voltage Cutoff+0.5V		
	Low Battery Alarm	Low Battery Voltage Cutoff+0.5V						Low Battery Voltage Cutoff+1.0V		
	Min battery voltage for power on	Shutdown voltage +0.5V						Shutdown voltage +1V		
	Low Battery Cutoff	10-12.0VDC						20.0-24.0VDC		
	High Battery Alarm	(13.8-14.5V)+1V for 12VDC mode (*2 for 24VDC)								
AC CHARGE	Floating Voltage	13.5-14.5VDC						27-29VDC		
	Boost Voltage	13.8~14.5V						27.6~29V		
	Maximum Charge Current	300W	400W	500W	600W	800W	1000W	600W	800W	1000W
		10A	10A	15A	20A	25A	30A	10A	15A	15A
BYPASS & PROTECTION	Input Waveform	Pure sine wave								
	Input Frequency	50Hz or 60Hz								
	Overload Protection	>110%~125% Load foult affter 60s; >125%~150% Load foult affter 3s; >150% Load fault after 500ms								
	Over Temperature Protection	≥90°C								
	Bypass Output Protection	10A 250VAC								
	Output Circuit Protection	YES								
	Battery Reverse Protection	Optional								
	Battery Low Voltage Protection	YES								
	Battery High Voltage Protection	YES								
	Bypass Breaker Rating	10A								
	Maximum Bypass Current	10A								
MECHANICAL SPECIFICATION	Dimensions(W*H*D) (mm)	300.5*319*132.2								
	(N.W)kg	300W	400W	500W	600W	800W	1000W	600W	800W	1000W
		6.0	8.2	9.5	10.6	12.6	13.2	10.6	12.6	13.2
OTHER	Operating Temperature	0°C ~40°C 0~90% relative humidity (non-condensing)								
	Storage Temperature	-15°C to 55°C								
	Altitude	≤1000M								
	Audible Noise	≤60dB								
	Display	LED+LCD								
	Cooling Mode	Fan cooling								
	Fan Starting	>45°C starting, <30°C Closing								
	Communication	USB								

The technical specifications of this document are subject to change without any notice

Low Frequency Pure Sine Wave Inverter

EP3000 PRO Series (8KW/10KW/12KW)

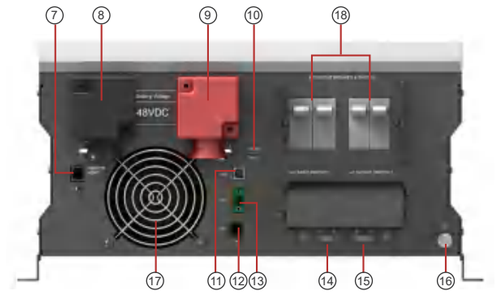
Features

- Rated power 8KW to 12KW
- Pure sine wave output
- Max 140A automatic 3-stage battery charger
- Charger current is Adjustable (0-100%)
- Automatically send signal to start generator
- Supporting USB communication and BTS & AGS port
- Battery/AC priority

Introduction

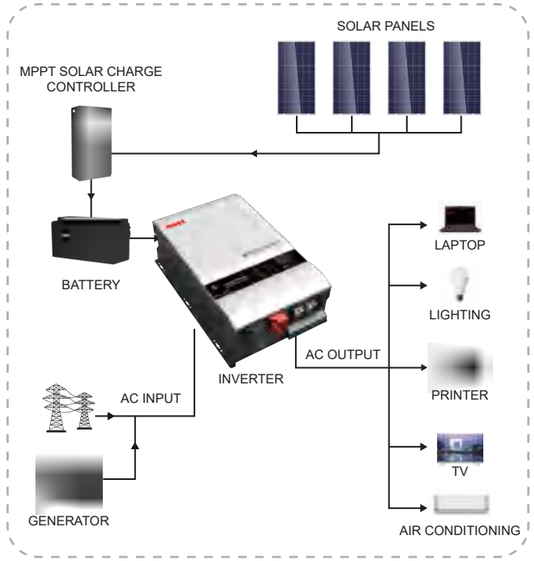
Low frequency pure sine wave combined inverter&A/C charger EP3000 PRO Series 8 -12kw; Quiet,high efficiency operation front panel LED+LCD indicators and adjustable switch selectors selectable settings for flooded lead acid,Gel,or absorbed glass mat(AGM) batteries. Mainly for home and office applicances such as TV, refrigerator, fans lights and computers etc.

Back panel printing description



1. Power saver on/off switch
2. Inverter indicator
3. Grid indicator
4. Fault indicator
5. Function
6. LCD display
7. Remote panel
8. BAT-
9. BAT+
10. WIFI Communication port
11. USB Communication port
12. BTS Communication port
13. AGS Communication port
14. AC input
15. AC output
16. Ground
17. FAN
18. AC input/output breaker

Solar system connection



MUST Solar Power System

Specification

MODEL		EP30-8KW PRO	EP30-10KW PRO	EP30-12KW PRO
Nominal Battery System Voltage		48VDC	48VDC	48VDC
INVERTER OUTPUT	Continuous output power	8.0KW	10.0KW	12.0KW
	Surge rating	24000VA	30000VA	36000VA
	Capable Of Starting Electric Motor	4HP	5HP	6HP
	Output waveform	Pure sine wave / same as input (bypass mode)		
	Inverter Efficiency(Peak)	>88%		
	Line mode efficiency	>95%		
	Power factor	1.0		
	Nominal output voltage RMS	220V / 230V / 240VAC ±10% (RMS)		
	Output frequency	50Hz		
	Short circuit protection	Yes (1sec after fault)		
	Typical transfer time	10ms(max)		
AC INPUT	Voltage	90-280VAC		
	Selectable Voltage Range	170-280VAC(For Personal Computers)		
	Frequency Range	50Hz / 60Hz		
BATTERY	Minimum start voltage	40.0V±0.6 / 42.0V±0.6		
	Low battery alarm	42-50VDC		
	Low battery Cutoff	40.0V±0.6 / 42.0V±0.6		
	High voltage alarm	60VDC		
	High battery voltage recover	57VDC		
	Idle consumption-search mode	<60W when power saver on		
CHARGER	Output voltage	Depends on battery type		
	Charger AC input breaker rating	80A		
	Max charge power rate	1/3 Rating power		
	Overcharge protection S.D.	62.8VDC		
	Maximum Charge Current	100A	120A	140A
BTS	Temperature rate @25°C	4mv charging voltage descent, per 1°C rise		
BYPASS & PROTECTION	Input voltage waveform	Sine wave (grid or generator)		
	Nominal voltage	220V / 230V / 240VAC		
	Max input AC voltage	300VAC for 230VAC HV mode		
	Nominal input frequency	50Hz or 60Hz		
	Overload protection (SMPS load)	Circuit breaker		
	Output short circuit protection	Circuit breaker		
	Bypass breaker rating	63A		
	Max bypass current	63Amp		
MECHANICAL SPECIFICATIONS	Mounting	Wall mount		
	Inverter dimensions (W*H*D) (mm)	670*410*215		
	Inverter weight (solar chg) (kg)	67.5	74	74
	Shipping dimensions (W*H*D) (mm)	802*533*429.5		
	Shipping weight (solar chg) (kg)	87	93.5	93.5
OTHER	Operation Temperature Range	0°C to 40°C		
	Storage Temperature	-15°C to 60°C		
	Audible Noise	60bB MAX		
	Display	LED+LCD		
	Loading(20GP/40GP/40HQ)	200pcs / 400pcs / 500pcs		

The technical specifications of this document are subject to change without any notice

Low Frequency Power Inverter/Charger

EP3000 LV2 Series (1KW-6KW)

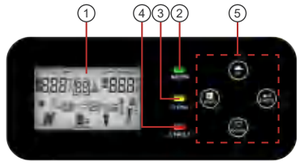
Features

- Pure sine wave output
- 3 Steps charging
- MFD (multi-function display)
- Overload and short-circuit protection
- Set charging voltage/charging current.
- Battery low voltage shutdown point can be set to 10/10.5/11/11.5V
- Power-save mode
- Set utility priority/ Battery priority
- Set utility input wide/narrow range
- Inverter voltage can be set to 110V/115V/120V
- Inverter frequency can be set to 50/60Hz
- Set utility charging on/off switch
- Acid or Lithium Select
- WiFi port (optional)

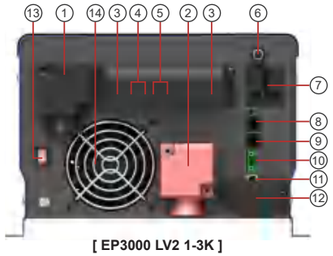
Introduction

EP3000 LV2 series is very economical pure sine wave inverter, special in north & south america market, and AC charger from 35A to 70A .Solar/AC priority configurable . When solar priority , in case its charge current lower than inverter's charger from AC , AC will supplement to charge the batteries , to optimize charging. With low frequency transformer ,it enable the inverter to operate with all kinds of home appliances.

Back panel printing description

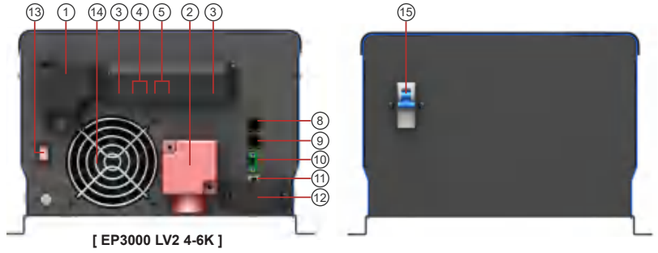


1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons



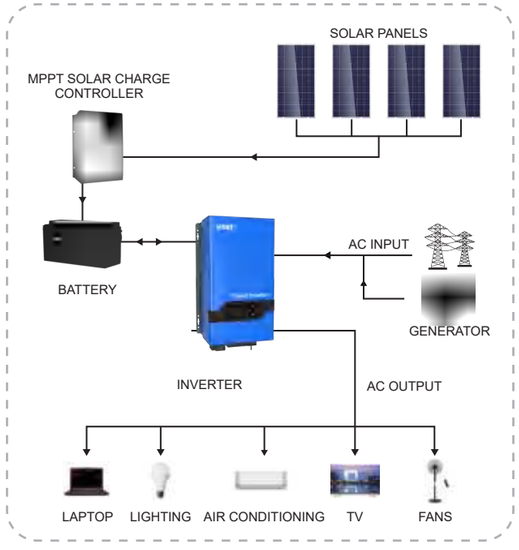
[EP3000 LV2 1-3K]

1. BAT -
2. BAT +
3. GND
4. AC input
5. AC output
6. Charger input protect
7. AC Output 10A(MAX)
8. BTS
9. Remote port
10. AGS
11. USB
12. WiFi
13. Power on/off switch
14. FAN
15. AC input breaker



[EP3000 LV2 4-6K]

Solar system connection



MUST®
Solar Power System

Specification

MODEL		EP30-1KW LV2	EP30-1.5KW LV2	EP30-2KW LV2	EP30-3KW LV2	EP30-4KW LV2	EP30-5KW LV2	EP30-6KW LV2
Nominal Battery System Voltage		12VDC 24VDC	12VDC 24VDC	12VDC 24VDC	24VDC 48VDC	24VDC 48VDC	48VDC	48VDC
INVERTER OUTPUT	Reted Power	1.0KW	1.5KW	2KW	3KW	4KW	5KW	6KW
	Surge Rating	3000VA	4500VA	6000VA	9000VA	12000VA	15000VA	18000VA
	Capable Of Starting Electric Motor	1HP			2HP		3HP	
	Waveform	Pure sine wave/ same as input (bypass mode)						
	Nominal Output Voltage RMS	110V/115V/120VAC ±10% (RMS)						
	Output Frequency	50Hz / 60Hz±0.3 Hz						
	Inverter Efficiency(Peak)	>88%						
	Line Mode Efficiency	>95%						
	Power Factor	1.0						
	Typical Transfer Time	10ms(max)						
AC INPUT	Voltage	120VAC						
	Selectable Voltage Range	80~135VAC(For Personal Computers)						
	Frequency Range	50Hz/60Hz (Auto sensing) 40~80Hz						
BATTERY	Minimum Start Voltage	(10V / 10.5V / 11V / 11.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Low Battery Alarm	(10V / 10.5V / 11V / 11.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Low Battery Cut off	10V / 10.5V / 11V / 11.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	High Voltage Alarm	(13.8-14.5V)+1V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	High Battery Voltage Recover	(13.8-14.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Idle Consumption-Search Mode	Load ≤50±20W(120V)						
CHARGER	Output Voltage	Depends on battery type						
	Charger AC Input Breaker Rating	1K/12A	1.5K/16A	2K/30A	3K/40A	4-6KW/63A		
	Overcharge Protection S.D.	15.7VDC for 12VDC mode (*2 for 24VDC mode, *4 for 48VDC mode)						
	Maximum Charge Current	30A 20A	45A 25A	60A 30A	40A 20A	60A 30A	35A	40A
BYPASS & PROTECTION	Input Voltage Waveform	Sine wave (grid or generator)						
	Nominal Input Frequency	50Hz or 60Hz						
	Overload Protection (SMPS Load)	Circuit breaker						
	Output Short Circuit Protection	Circuit breaker						
	AC Input Breaker	30A			40A	50A / 63A		
MECHANICAL SPECIFICATIONS	Mounting	Wall Mount						
	Dimensions (W*H*D) (mm)	302.8*460*199.8				305.4*531*200.3		
	Net Weight (Solar CHG) (kg)	16.5	17	21.1	20 24.5	24.8 38.2	35.8	45
	Shipping Dimensions(W*H*D) (mm)	400*319*615				400*319*686		
	Shipping Weight (Solar CHG) (kg)	19.3	20	24.1	22.8 27.5	27.5 42.3	40	49.3
OTHER	Operation Temperature Range	0°C to 40°C						
	Storage Temperature	-15°C to 60°C						
	Audible Noise	60dB MAX						
	Display	LED+LCD						
	Standard Warranty	1 year						

The technical specifications of this document are subject to change without any notice

Low Frequency Power Inverter/Charger

EP3000 PLUS Series (1KW-6KW)

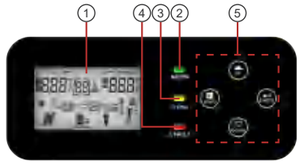
Features

- Pure sine wave output
- 3 Steps charging
- MFD (multi-function display)
- Overload and short-circuit protection
- Set charging voltage/charging current.
- Battery low voltage shutdown point can be set to 10/10.5/11/11.5V
- Power-save mode
- Set utility priority/ Battery priority
- Set utility input wide/narrow range
- Inverter voltage can be set to 220V:220V/230V/240V
- Inverter frequency can be set to 50/60Hz
- Set utility charging on/off switch
- Acid or Lituium select
- WiFi port (optional)

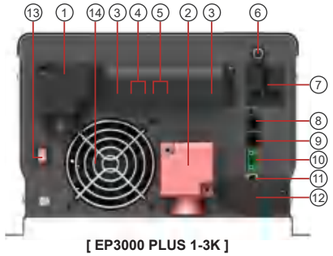
Introduction

EP3000 PLUS series is a very economical pure sine wave inverter, with AC charger from 20A to 60A; Solar/AC priority is configurable, when setting solar priority, solar will charge batteries as first priority, and AC can also charge batteries when solar charger current is too lower . With pure copper transformer, it enables inverter to operate with all kinds of home appliances.

Back panel printing description

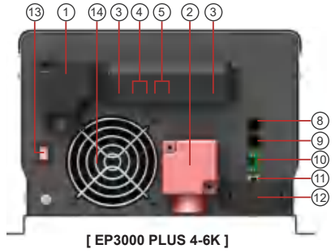


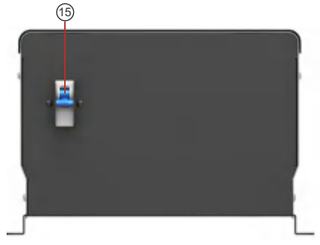
1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons



[EP3000 PLUS 1-3K]

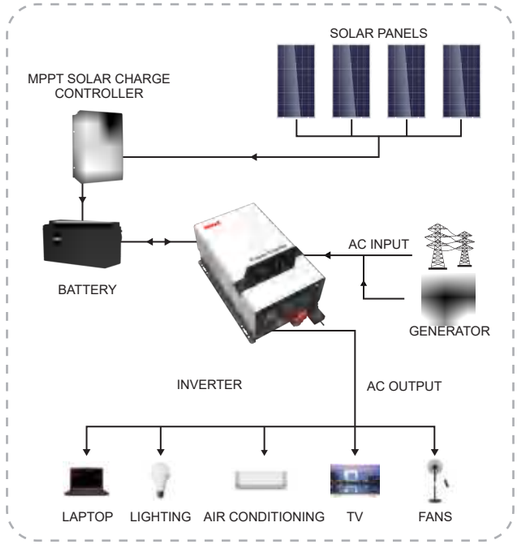
1. BAT -
2. BAT +
3. GND
4. AC input
5. AC output
6. Charger input protect
7. AC Output 10A(MAX)
8. BTS
9. Remote port
10. AGS
11. USB
12. WiFi
13. Power on/off switch
14. FAN
15. AC input breaker





[EP3000 PLUS 4-6K]

Solar system connection



MUST
Solar Power System

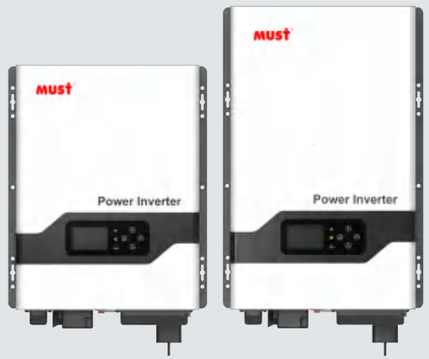
Specification

MODEL		EP30-1KW PLUS	EP30-1.5KW PLUS	EP30-2KW PLUS	EP30-3KW PLUS	EP30-4KW PLUS	EP30-5KW PLUS	EP30-6KW PLUS
Nominal Battery System Voltage		12VDC 24VDC	12VDC 24VDC	12VDC 24VDC	24VDC 48VDC	24VDC 48VDC	48VDC	48VDC
INVERTER OUTPUT	Rated Power	1KW	1.5KW	2KW	3KW	4KW	5KW	6KW
	Surge Rating	3000VA	4500VA	6000VA	9000VA	12000VA	15000VA	18000VA
	Capable Of Starting Electric Motor	1HP	1HP	1HP	2HP		3HP	
	Waveform	Pure sine wave / same as input (bypass mode)						
	Nominal Output Voltage RMS	220V / 230V / 240VAC ±10% (RMS)						
	Output Frequency	50Hz / 60Hz ±0.3Hz						
	Inverter Efficiency (Peak)	>88%						
	Line Mode Efficiency	>95%						
	Power Factor	1.0						
	Typical Transfer Time	10ms(max)						
AC INPUT	Voltage	230VAC						
	Selectable Voltage Range	96~132VAC 155~280VAC(For personal computers)						
	Frequency Range	50Hz / 60Hz(Auto sensing) 40~80Hz						
BATTERY	Minimum Start Voltage	(10V / 10.5V / 11V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Low Battery Alarm	(10V / 10.5V / 11V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Low Battery Cut Off	10V / 10.5V / 11V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	High Voltage Alarm	(13.8-14.5V)+1V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	High Battery Voltage Recover	(13.8-14.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)						
	Idie Consumption-Search Mode	Load ≤100±20W(220V)						
CHARGER	Output Voltage	Depends on battery type						
	Charge AC Input Breaker Rating 230V	1-1.5K/10A		2-3K/30A		4-6K/40A		
	Overcharge Protection S.D.	15.7VDC for 12VDC mode (*2 for 24VDC mode, *4 for 48VDC mode)						
	Maximum Charge Current	30A 20A	45A 25A	60A 30A	40A 20A	60A 30A	35A	40A
BYPASS & PROTECTION	Input Voltage Waveform	Sine wave (grid or generator)						
	Nominal Input Frequency	50Hz or 60Hz						
	Overload Protection (SMPS Load)	Circuit breaker						
	Output Short Circuit Protection	Circuit breaker						
	AC Input Breaker	1-3K/30A				4-6K/50A		
MECHANICAL SPECIFICATIONS	Mounting	Wall Mount						
	Dimensions (W*H*D) (mm)	302.8*460*199.8				305.4*531*200.3		
	Net Weight (Solar CHG)(kg)	16.5	17	21.1 20	24.5 24.8	38.2 35.8	45	45
	Shipping Dimensions (W*H*D) (mm)	400*319*615				400*319*686		
	Shipping Weight (Solar CHG)(kg)	19.3	20	24.1 22.8	27.5 27.5	42.3 40	49.3	49.3
OTHER	Operation Temperature Range	0℃ to 40℃						
	Storage Temperature	-15℃ to 60℃						
	Audible Noise	60dB MAX						
	Display	LED+LCD						
	Standard Warranty	1 year, 2 or 3 years optional (IP20)						

The technical specifications of this document are subject to change without any notice

Low Frequency Pure Sine Wave Split Phase Inverter Charger

EP3300 TLV Series (1KW-6KW)



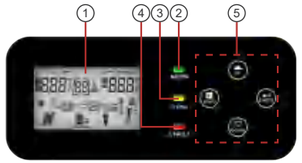
Features

- Pure sine wave output
- 3 steps charging
- Overlord and short- circuit protection
- Set charging voltage/charging current
- Power-save mode
- Battery low voltage shutdown point can be set to 10/10.5/11/11.5V
- Inverter voltage can be set to 100/110/120
- Inverter frequency can be set to 50/60Hz
- Acid or Lithium select
- Wifi port (optional)

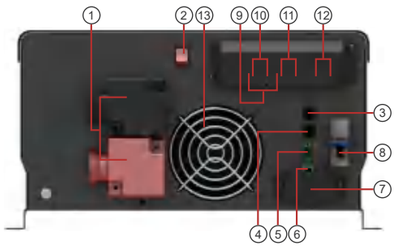
Introduction

This split phase inverter EP3300 TLV series, capacity from 1KW-6KW, DC 12V/24V/48V, it's applicable to 110VAC/120VAC markets demands, which matches AC 110VAC/120V single phase, or two phase 220V/240V; In LCD display, you can set output voltage, frequency, charging voltage, charging current to design best use based on different loads applications; meanwhile, you can also connect extra solar charge controller to build a solar home system, take use of sunshine freely and save electricity bills.

Back panel printing description



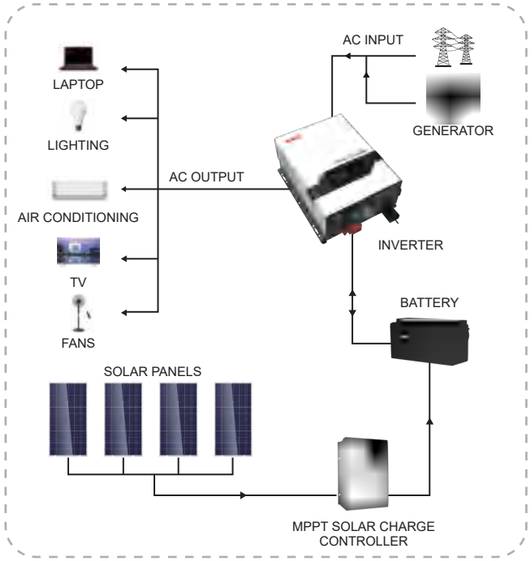
1. LCD Display
2. Status Indicator
3. Charging Indicator
4. Fault Indicator
5. Function Buttons



[EP3300 TLV 4-6K]

1. Battery -/+
2. Switch on/off
3. BTS
4. Remote port
5. AGS
6. USB
7. WiFi port
8. AC Input protect: Input protect breaker
9. AC Output: HOT1 - HOT2 200VAC/220 VAC/240VAC
10. AC Output: HOT1 - N 100VAC/110 VAC/120VAC
11. AC Output: HOT2 - N 100VAC/110 VAC/120VAC
12. AC Input:HOT1 - HOT2 200VAC/220 VAC/240VAC
13. Fan

Solar system connection



MUST®
Solar Power System

Specification

MODEL		EP33-1012 TLV	EP33-1024 TLV	EP33-1512 TLV	EP33-1524 TLV	EP33-2012 TLV	EP33-2024 TLV	EP33-3024 TLV	EP33-3048 TLV	EP33-4024 TLV	EP33-4048 TLV	EP33-5048 TLV	EP33-6048 TLV
Inverter Output	Rated power	1KW		1.5KW		2KW		3KW		4KW		5KW	6KW
	Surge rating	3000VA		4500VA		6000VA		9000VA		12000VA		15000VA	18000VA
	Capable of starting electric motor	1P		1P		1.5P		1.5P		2P		3P	
	Power factor	1											
	Wave form	Pure sine wave / Same as input wave form (bypass mode)											
	Output voltage RMS	100V / 110V / 120VAC (200V / 220V / 240VAC) ±10%											
	Output frequency	50Hz or 60Hz (±0.3Hz) (can be set)											
	Overload protection	Breaker + software protection											
	Output short circuit	Breaker + software protection											
	Inverter efficiency (peak)	>80%											
	Overload	100% < Load < 110% (alarm 5min then stop output and fault code 07) 110% < Load < 125% (alarm 60s then stop output and fault code 07) Load > 125% (alarm 10s then stop output and fault code 07)											
Battery	Battery voltage	12VDC / 24VDC						24VDC / 48VDC				48VDC	
	Minimum start voltage	(10V / 10.5V / 11V / 11.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)											
	Low battery voltage cut off	10V / 10.5V / 11V 11.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)											
	Low battery voltage alarm	(10V / 10.5V / 11V / 11.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)											
	High battery voltage alarm	(13.8-14.5V)+1V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)											
	High Battery Voltage Recover	(13.8-14.5V)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC)											
	Save mode	Load ≤50±20W(120V)/100±20W(220V)											
AC Input Mode	Input waveform	Pure sine wave											
	Nominal input voltage	200Vac / 220Vac / 240Vac											
	Max input voltage	270Vac MAX											
	Input frequency	50Hz / 60Hz (auto sensing)											
	Efficiency (AC mode)	>95% (load, full battery)											
	Transfer time AC to DC	15ms(max)											
	Transfer time DC to AC	15ms(max)											
Charge Mode	Boost voltage	14.1V(Default) Range of adjustment 13.8-14.5V / *2 for 24VDC / *4 for 48VDC (Regulation step 0.1V)											
	Float voltage	13.5V(Default) Range of adjustment 13.5-14.5V / *2 for 24VDC / *4 for 48VDC (Regulation step 0.1V)											
	12V	30A		45A		60A		/		/		/	/
	24V	20A		25A		30A		40A		60A		/	/
	48V	/		/		/		20A		30A		35A	40A
	Min charge current 10A. Change by every 5A												
Dimensions	Dimensions (W*H*D)	359.2*443*188mm								361.8*543.5*188.5mm			
	Ship Dimensions (W*H*D)	457*598*308mm								457*698*308mm			
	Warranty	One year (standard), 2 years optional (IP20)											

The technical specifications of this document are subject to change without any notice

High Frequency Pure sine Wave Power inverter

EP5000 Series (3KW-5KW)

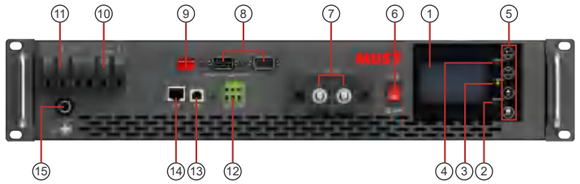
Features

- Pure sine wave inverter
- Configurable input voltage range For home appliances and personal computers via LCD setting Configurable battery charging current based on applications via LCD setting
- Configurable AC Charger via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload/Over temperature/short circuit protection
- Smart battery charger design For optimized battery performance
- Cold start Function

Introduction

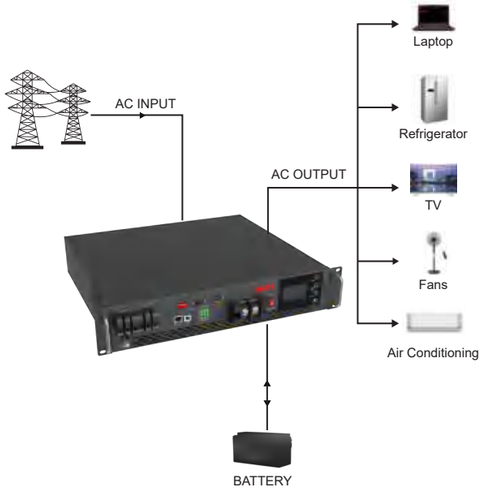
This is a multi-function inve inverter/charger ,combining Functions of inverter, battery charger to offfer uninte uninterruptible power with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC charger, and acceptable input voltage based on different applications.

Back panel printing description



1. LCD display
2. Status indicator
3. Charging indicator
4. Fault indicator
5. Function buttons
6. Power on/off switch
7. Battery input
8. Parallel communication port (only for parallel model)
9. Parallel switch
10. AC output
11. AC input
12. Dry contact
13. USB
14. RS485 communication port
15. Circuit Breaker

Solar system connection



Specification

MODEL			EP50-3KW	EP50-4KW	EP50-5KW
Rated output power			3000W	4000W	5000W
AC INPUT	Nominal Input Voltage		220Vac		
	Selectable Voltage range		AC 185V~270V		
	Frequency Range		50Hz/60Hz (Auto sensing)		
	Inverter Efficiency(Peak)		97%		
INVERTER OUTPUT	Output voltage waveform		Pure sine wave		
	Output Voltage Regulation		220Vac ± 5%		
	Output Frequency		50Hz		
	Power Factor		1		
	Transfer Time		10ms typical		
	Peak Efficiency		92%		
	Nominal DC Input Voltage		48VDC		
	Cold Start Voltage		46VDC		
	Output Short Circuit Protection	Line mode	Circuit Breaker		
		Battery mode	Electronic Circuits		
BATTERY	Battery voltage		48VDC (±0.5)		
	Floating voltage		54V		
CHARGER	Charging Current(UPS) @Nominal Input Voltage		Default:30A; MAX:60A		
	Bulk Charging Voltage		56.4Vdc		
	Floating Charging Voltage		54Vdc		
	Charging Algorithm		3-Step		
GENERAL	Mounting		Rack mount		
	Display		LED+LCD		
	Safety Certification		CE		
	Operation Temperature Range		0°C to 40°C		
	Storage Temperature		-15°C to 60°C		
	Dimensions (W*H*D)(mm)		400×468×86.3		
	Net Weight (kg)		10.0		

Pure Sine Wave Inverter

PI1500 Series (300W)

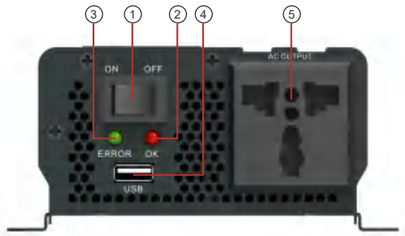
Features

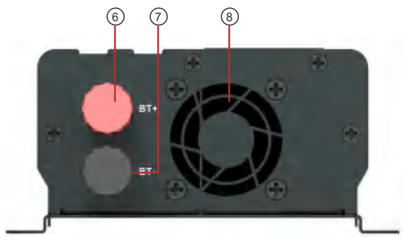
- Input Voltage 12V / 24V DC optional
- Output Voltage 120V / 230V AC optional
- Portable power for AC products, AC outlets for connecting multiple loads
- High efficiency converts virtually all of the battery's power to AC
- Mounting brackets for convenient installation
- Overload and over temperature shut down
- Low voltage and over voltage alarm/cut off
- Input reverse protection
- Short circuit protection

Introduction

PI15 series is a pure sine wave inverter, high frequency machine solution, the product is small size, the solution is reliable and stable, the main function is to invert the DC 12VDC battery or 24VDC battery to AC 230VAC or AC 115VAC output, mainly used for emergency use Electricity, car inverter, outdoor electricity and other occasions.

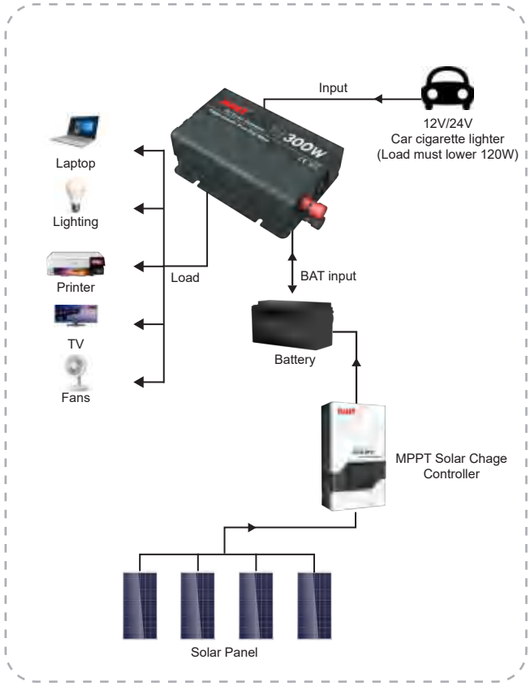
Back panel printing description





1. Power Switch
2. Error Red LED
3. OK Green LED
4. USB Output
5. AC Output
6. Battery Input +
7. Battery Input -
8. Fan

Solar system connection



MUST
Solar Power System

Specification

MODEL		PI15-0312	PI15-0324	PI15-0312LV	PI15-0324LV
Battery DC Input	Input Voltage	12VDC	24VDC	12VDC	24VDC
	Low Voltage Warning	11.5V	23.0V	11.5V	23.0V
	Low Voltage Protect	10.5V	21.0V	10.5V	21.0V
	Low Voltage Protect Delay	2 seconds			
	Low Voltage Restoring	12.5V	25.0V	12.5V	25.0V
	Over Voltage Protect	15.5V	31.0V	15.5V	31.0V
	Over Voltage Restoring	15.0V	30.0V	15.0V	30.0V
Inverter AC Output	Default Power	300W			
	Peak Power	600W			
	Output AC Voltage	230V		120V	
	Output AC Frequency	50Hz		60Hz	
	Output Wave	Pure Sine Wave			
	Output Wave THD	< 3%			
USB	USB Output	USB A type - 5V 1.5A			
Protection	Battery Input Protection	Battery Input Reverse, Low Voltage Protection, Over Voltage Protection			
	Inverter Output Protection	Output Overload, Short-Circuit, Over Temperature Protection			
Display	LED Display	Red: Error ; Green: System OK			
Efficiency	Peak Conversion efficiency	91%			
Environment	Protection Degree	IP32			
	Working Environment	Indoor Fan cooling			
	Environmental temperature	0~45°C			
	Ambient humidity	20%--90%, No condensation			
	Altitude	≤3000m			
Dimensions	Size (L*W*H)	132*177.5*59 mm			
	Weight (KG)	1kg			

The technical specifications of this document are subject to change without any notice

Pure Sine Wave Inverter

PI1500 Series (600W)

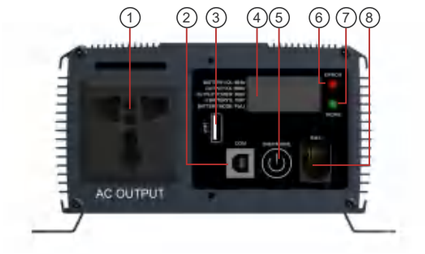
Features

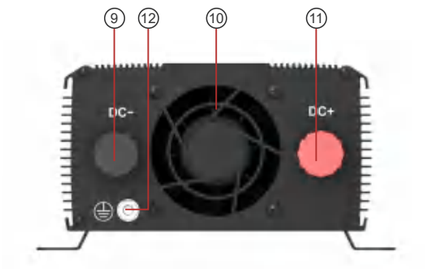
- Input Voltage 12V / 24V DC optional
- Output Voltage 120V / 230V AC optional
- Portable power for AC products, AC outlets for connecting multiple loads
- High efficiency converts virtually all of the battery's power to AC
- Mounting brackets for convenient installation
- WIFI/BMS Optional
- Overload and over temperature shut down
- Low voltage and over voltage alarm/cut off
- Input reverse protection
- Short circuit protection

Introduction

PI15 series is a pure sine wave inverter, high frequency machine solution, the product is small size, the solution is reliable and stable, the main function is to invert the DC 12VDC battery or 24VDC battery to AC 230VAC or AC 120VAC output, mainly used for emergency use Electricity, car inverter, outdoor electricity and other occasions.

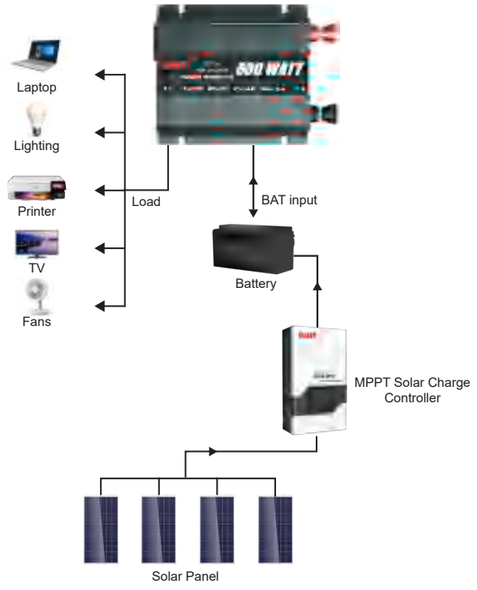
Back panel printing description





1. AC Output
2. Communication port
3. USB WIFI
4. LED Screen
5. Power Switch
6. OK Green LED
7. Error Red LED
8. BMS port
9. Battery Input +
10. Fan
11. Battery Input -
12. Ground

Solar system connection



Specification

MODEL		PI15-0612	PI15-0612LV	PI15-0624	PI15-0624LV
Battery DC Input	Input Voltage	12VDC		24VDC	
	Low Voltage Protect Delay	2 seconds			
	Low Voltage Protect	10.5VDC(PB)	11.6VDC(LI)	21.0VDC(PB)	23.2VDC(LI)
	Low Voltage Warning	11.5VDC(PB)	12.0VDC(LI)	23.0VDC(PB)	24.0VDC(LI)
	Low Voltage Restoring	12.5VDC(PB)	12.8VDC(LI)	25.0VDC(PB)	25.6VDC(LI)
	Over Voltage Restoring	14.7VDC(PB)	14.5VDC(LI)	29.4VDC(PB)	29.0VDC(LI)
	Over Voltage Protect	15.0VDC(PB)	14.8VDC(LI)	30.0VDC(PB)	29.6VDC(LI)
Note: Parameters (PB) Lead-acid Battery / (Li) LiFePO4 Lithium Battery Pack-12V(4 Series) 24V(8 Series)					
Inverter AC Output	Default Power	600W			
	Peak Power	1200W			
	Output AC Voltage	230V	120V	230V	120V
	Output AC Frequency	50Hz	60Hz	50Hz	60Hz
	Output Wave	Pure Sine Wave			
	Output Wave THD	< 3%			
USB	USB Output	USB A type - 5V 1.5A			
Protection	Battery Input Protection	Low Voltage Protection, Over Voltage Protection, Reverse Protection			
	Inverter Output Protection	Output Overload, Short-Circuit, Over Temperature Protection			
Display	LED Display	Red: Error ; Green: System OK			
	LED Digital Display	Display Battery Voltage, Output Power, Output Voltage, Error Numbers			
Communication	PC(Default)	USB B type Socket			
	WIFI(Optional)	USB A type Socket			
	BMS to Li Battery(Optional)	RJ11 type Socket			
Efficiency	Peak Conversion efficiency	91%			
Environment	Protection Degree	IP20			
	Working Environment	Indoor Fan cooling			
	Environmental temperature	0~45°C			
	Ambient humidity	20%--90%, No condensation			
	Altitude	≤3000m			

The technical specifications of this document are subject to change without any notice

Pure Sine Wave Inverter

PI1500 Series (1000W)

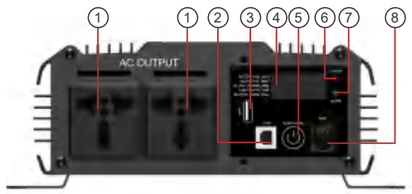
Features

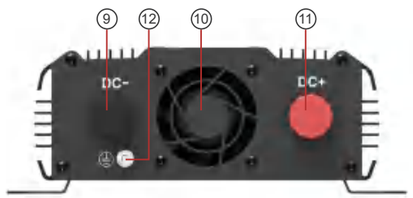
- Input Voltage 12V / 24V DC optional
- Output Voltage 120V / 230V AC optional
- Portable power for AC products, AC outlets for connecting multiple loads
- High efficiency converts virtually all of the battery's power to AC
- Mounting brackets for convenient installation
- WIFI/BMS Optional
- Overload and over temperature shut down
- Low voltage and over voltage alarm/cut off
- Short circuit protection

Introduction

PI15 series is a pure sine wave inverter, high frequency machine solution, the product is small size, the solution is reliable and stable, the main function is to invert the DC 12VDC battery or 24VDC battery to AC 230VAC or AC 120VAC output, mainly used for emergency use Electricity, car inverter, outdoor electricity and other occasions.

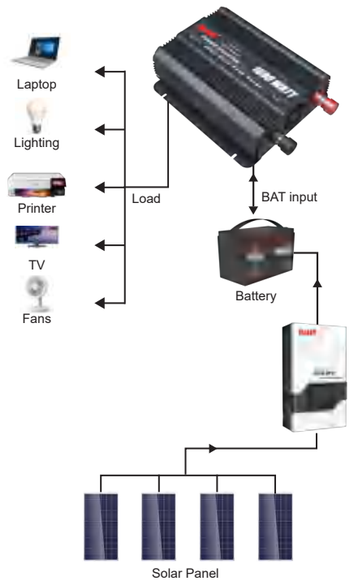
Back panel printing description





1. AC Output
2. Communication port
3. USB WIFI
4. LED Display
5. Power Switch
6. OK Green LED
7. Error Red LED
8. BMS port
9. Battery Input +
10. Fan
11. Battery Input -
12. Circuit breaker

Solar system connection



Specification

MODEL		PI15-1012	PI15-1012LV	PI15-1024	PI15-1024LV
Battery DC Input	Input Voltage	12VDC	12VDC	24VDC	24VDC
	Low Voltage Protect Delay	2 seconds			
	Low Voltage Warning	10.5VDC(PB)	11.6VDC(LI)	21.0VDC(PB)	23.2VDC(LI)
	Low Voltage Protect	11.5VDC(PB)	12.0VDC(LI)	23.0VDC(PB)	24.0VDC(LI)
	Low Voltage Restoring	12.5VDC(PB)	12.8VDC(LI)	25.0VDC(PB)	25.6VDC(LI)
	Over Voltage Protect	14.7VDC(PB)	14.5VDC(LI)	29.4VDC(PB)	29.0VDC(LI)
	Over Voltage Restoring	15.0VDC(PB)	14.8VDC(LI)	30.0VDC(PB)	29.6VDC(LI)
Note: Parameters (PB) Lead-acid Battery / (Li) LiFePO4 Lithium Battery Pack-12V(4 Series) 24V(8 Series)					
Inverter AC Output	Default Power	1000W			
	Peak Power	2000W			
	Output AC Voltage	230V		120V	
	Output AC Frequency	50Hz		60Hz	
	Output Wave	Pure Sine Wave			
	Output Wave THD	< 3%			
USB	USB Output	USB A type - 5V 1.5A			
Protection	Battery Input Protection	Low Voltage Protection, Over Voltage Protection			
	Inverter Output Protection	Output Overload, Short-Circuit, Over Temperature Protection			
Display	LED Display	Red: Error ; Green: System OK			
	LED Digital Display	Display Battery Voltage, Output Power, Output Voltage, Error Numbers			
Communication	PC(Default)	USB B type Socket			
	WIFI(Optional)	USB A type Socket			
	BMS to Li Battery(Optional)	RJ11 type Socket			
Efficiency	Peak Conversion efficiency	90%			
Environment	Protection Degree	IP32			
	Working Environment	Indoor Fan cooling			
	Environmental temperature	0~45°C			
	Ambient humidity	20%--90%, No condensation			
	Altitude	≤3000m			
Dimensions	Size (L*W*H)	220*253*80 mm			

The technical specifications of this document are subject to change without any notice

Pure Sine Wave Inverter

PI1500 Series (1.5KW-2KW)

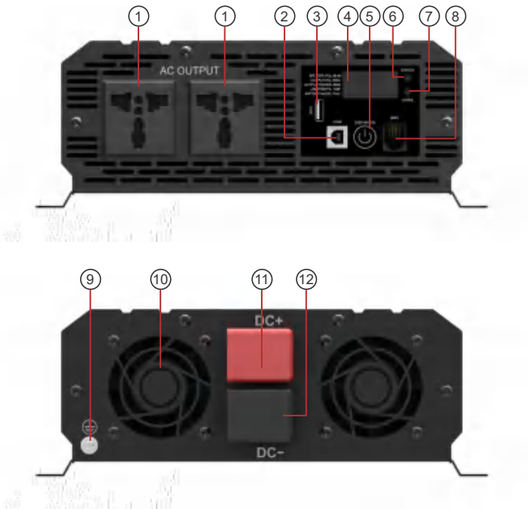
Features

- Input Voltage 12V / 24V DC optional
- Output Voltage 120V / 230V AC optional
- Portable power for AC products, AC outlets for connecting multiple loads
- High efficiency converts virtually all of the battery's power to AC
- Mounting brackets for convenient installation
- WIFI/BMS Optional
- Overload and over temperature shut down
- Low voltage and over voltage alarm/cut off
- Short circuit protection

Introduction

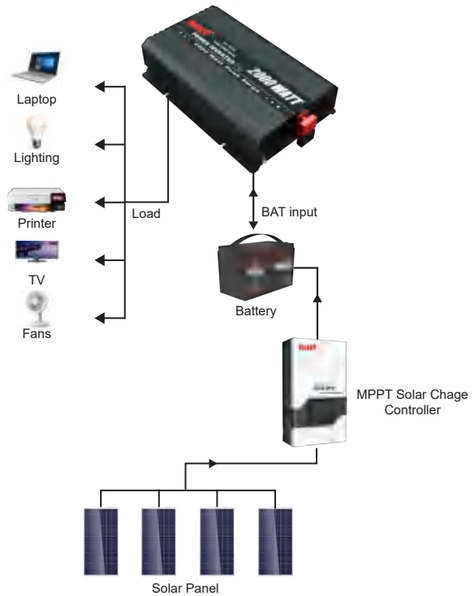
PI15 series is a pure sine wave inverter, high frequency machine solution, the product is small size, the solution is reliable and stable, the main function is to invert the DC 12VDC battery or 24VDC battery to AC 230VAC or AC 120VAC output, mainly used for emergency use Electricity, car inverter, outdoor electricity and other occasions.

Back panel printing description



1. AC Output
2. Communication port
3. USB WIFI
4. LED Display
5. Power Switch
6. OK Green LED
7. Error Red LED
8. BMS port
9. Circuit breaker
10. Fan
11. Battery Input +
12. Battery Input -

Solar system connection



MUST
Solar Power System

Specification

MODEL		PI15-1524	PI15-1524LV	PI15-2024	PI15-2024LV
Battery DC Input	Input Voltage	24VDC			
	Low Voltage Protect Delay	2 seconds			
	Low Voltage Warning	21.0VDC(PB)	23.2VDC(LI)	21.0VDC(PB)	23.2VDC(LI)
	Low Voltage Protect	23.0VDC(PB)	24.0VDC(LI)	23.0VDC(PB)	24.0VDC(LI)
	Low Voltage Restoring	25.0VDC(PB)	25.6VDC(LI)	25.0VDC(PB)	25.6VDC(LI)
	Over Voltage Protect	29.4VDC(PB)	29.0VDC(LI)	29.4VDC(PB)	29.0VDC(LI)
	Over Voltage Restoring	30.0VDC(PB)	29.6VDC(LI)	30.0VDC(PB)	29.6VDC(LI)
Note: Parameters (PB) Lead-acid Battery / (Li) LiFePO4 Lithium Battery Pack-12V(4 Series) 24V(8 Series)					
Inverter AC Output	Default Power	1500W		2000W	
	Peak Power	3000W		4000W	
	Output AC Voltage	230V	120V	230V	120V
	Output AC Frequency	50Hz	60Hz	50Hz	60Hz
	Output Wave	Pure Sine Wave			
	Output Wave THD	< 3%			
USB	USB Output	USB A type - 5V 1.5A			
Protection	Battery Input Protection	Low Voltage Protection, Over Voltage Protection			
	Inverter Output Protection	Output Overload, Short-Circuit, Over Temperature Protection			
Display	LED Display	Red: Error ; Green: System OK			
	LED Digital Display	Display Battery Voltage, Output Power, Output Voltage, Error Numbers			
Communication	PC(Default)	USB B type Socket			
	WIFI(Optional)	USB A type Socket			
	BMS to Li Battery(Optional)	RJ11 type Socket			
Efficiency	Peak Conversion efficiency	90%			
Environment	Protection Degree	IP20			
	Working Environment	Indoor Fan cooling			
	Environmental temperature	0~45°C			
	Ambient humidity	20%--90%, No condensation			
	Altitude	≤3000m			
Dimensions	Size (L*W*H)	380.8*248*90 mm			

The technical specifications of this document are subject to change without any notice

PC1800A Series (30A/40A)

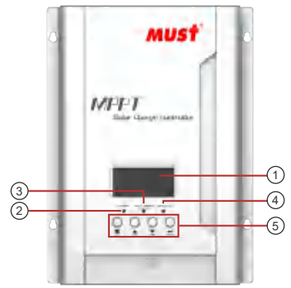
Features

- Intelligent Maximum Power Point Tracking technology increases efficiency 25%~30%
- Compatible for PV systems in 12V,or24V
- Three-stage charging optizes battery performance
- Maximum charging current up to 30A/40A
- Advanced MPPT technology,with efficienQf no less than 99%
- Maximum DC- DC conversion efficiency of 98%
- Battery temperature sensor(BTS) automatically provides temperature compensation Automatic battery voltage detection
- Integrated intelligent slot compatible with 485 communication

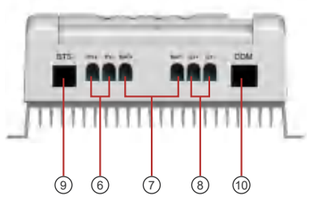
Introduction

This solar charge controller is an advanced solar charger with maximum power point tracking. Applying intelligent MPPT algorithm, it allows solar charge controller to extract maximum power from solar arrays by finding the maximum power point of the array.
The MPPT battery charging process has been optimized for long battery life and improved system performance. Self-diagnostics and electronic error protections prevent damage when installation errors or system faults occur.

Back panel printing description

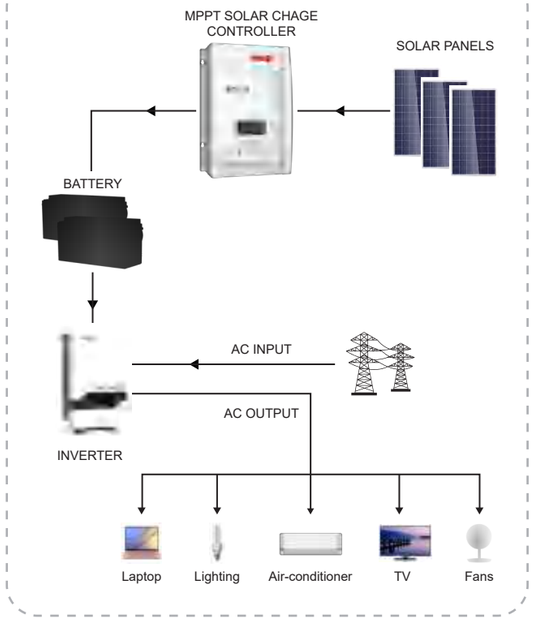


1. LCD Display
2. Charging Indicator
3. Fault and waming indicator
4. Wiring fault indicator
5. Operation button



6. PV connectors
7. Battery connectors
8. Load connectors
9. Battery temperature sensor terminal
10. RS485 communication port

Solar system connection



Specification

MODEL		PC18-3015A	PC18-4015A
Nominal Battery System Voltage		12V / 24V (Auto detection)	
CONTROLLER INPUT	Battery Voltage	12V	24V
	Maximum Solar Input Voltage	150V	
	PV Array MPPT Voltage Range	≤145V	
	Maximum Input Power	12 Volt-432W 24 Volt-864W	12 Volt-576W 24 Volt-1152W
BATTERY	Charging Set Points	Absorption, Float	
	Flooded Battery	14.2V/28.4V	13.7V/27.4V
	AGM/GEL/LEAD (Default)	14.4V/28.8V	13.7V/27.4V
	Over-charging Voltage	15.5V / 30.0V	
	Over-charging Comeback Voltage	14.5V / 29.5V	
	Battery Defect Voltage	10.0V / 17.0V	
	Temperature Compensation Conefficient	-5mv / ˚C /cell (25˚C vef)	
	Peak Conversion Efficiency	98% (MPPT Efficiency 99%)	
	Maximum Battery Current	30A	40A
	Max Charging Current	30amps continuous @ 40˚C ambient	40amps continuous @ 40˚C ambient
GENERAL SPECIFICATION	Radiating Mode	Fan cooling	
DISPLAY & PROTECTION	Protections	Solar high voltage disconnect Solar high voltage reconnect Battery high voltage disconnect Battery high voltage reconnect High temperature disconnect High temperature reconnect	
MECHANICAL SPECIFICATIONS	Mounting	Wall mount	
	Machine Dimension (W*H*D)(mm)	187*255*72 (per pcs)	
	G.W (kg)	2.65	
OTHER	Environmental Rating	Indoor	
	Enclosure	IP30	
	Operation Temperature Range	-10~50˚C	
	Ambient Humidity	0~90% relative humidity (non-condensing)	
	Altiude	≤3000m	

MPPT Solar Charge Controller

PC1800F Series (60A/80A/100A)

Features

- LCD display , easy to operate on LCD screen
- Multi stage charging
  (3-stage charging , parallel charging and equalized charging function)
- BTS – Battery remote temperature sensor terminal
- Enable to charge Li-thium, Gel , lead-acid battery
- With RS485 & USB communication port
- Protection: PV array short circuit, PV reverse polarity,
  Battery reverse polarity, Over charging, Output short circuit

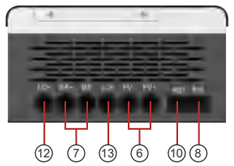
Introduction

MPPT (Maximum Power Point Tracking)Solar Charge Controller offer an efficient, safe, multi-stage recharging process that prolongs battery life and assures peak performance from a solar array. Each Charge Controller allows customized battery recharging.

Back panel printing description

1. LCD display
2. Power ON/Charging indicator
3. Fault and warning indicator
4. Wiring fault indicator
5. Operation button

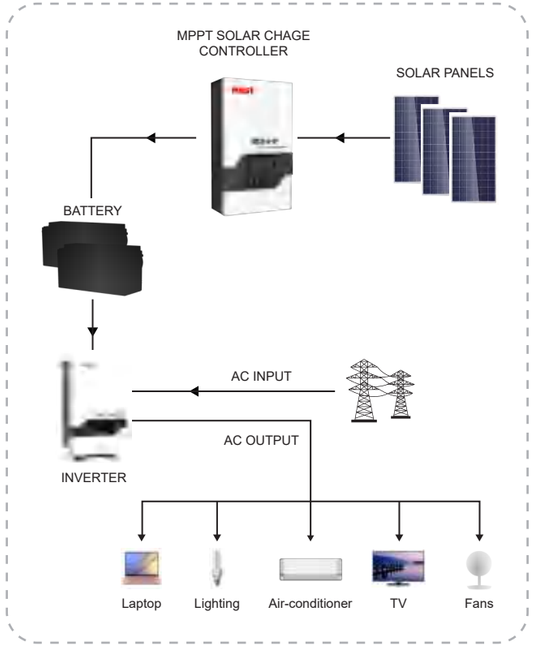
[PC18-8015F]



[PC18-10015F]

6. PV connectors
7. Battery connectors
8. Battery temperature sensor terminal
9. Wiring box cover
10. RS485 communication port
11. USB
12. The load positive terminal
13. The load negative terminal

Solar system connection



Specification

MODEL		PC18-6015F		PC18-8015F		PC18-10015F
Nominal Battery System Voltage		12V / 24V / 48VDC (Auto detection); 36V (Setting)				
CONTROLLER INPUT	Battery Voltage	12V	24V	36V	48V	48V
	Maximum Solar Input Voltage	100V	145V			
	PV Array MPPT Voltage Range	15~95V	30~130V	45~130V	60~130V	60~130V
	Maximum Input Power	12 Volt-940W 24 Volt-1880W 36 Volt-2820W 48 Volt-3760W		12 Volt-1250W 24 Volt-2500W 36 Volt-3750W 48 Volt-5000W		12 Volt-1560W 24 Volt-3120W 36 Volt-4680W 48 Volt-6250W
BATTERY	Charging Set Points	Absorption Stage			Float Stage	
	Flooded Battery	14.2V / 28.4V / 42.6V / 56.8V			13.7V / 27.4V / 41.1V / 54.8V	
	AGM (Default)	14.4V / 28.8V / 43.2V / 57.6V			13.7V / 27.4V / 41.1V / 54.8V	
	Over-charging Voltage	15.5V / 30.0V / 45.0V / 60.0V				
	Over-charging Comeback Voltage	14.5V / 29.5V / 44.5V / 59.0V				
	Battery Defect Voltage	10.0V / 17.0V / 25.5V / 34.0V				
	Temperature Compensation Conefficient	-5mv / ℃ /cell (25℃ vef)				
	Peak Conversion Efficiency	98% (MPPT Efficiency 99%)				
	Maximum Battery Current	60Amps		80Amps		100Amps
	Max Charging Current	60amps continuous @ 40℃ ambient		80amps continuous @ 40℃ ambient		100amps continuous @ 40℃ ambient
DISPLAY & PROTECTION	Protections	Solar high voltage disconnect Solar high voltage reconnect Battery high voltage disconnect Battery high voltage reconnect High temperature disconnect High temperature reconnect				
MECHANICAL SPECIFICATIONS	Mounting	Wall mount				
	Machine Dimension (W*H*D)(mm)	165*285*87 (per pcs)				
	G.W (kg)	/				
	Package Dimension (W*H*D)(mm)	/				
	Gross Weight (kg)	/				
OTHER	Environmental Rating	Indoor				
	Radiating Mode	Fan cooling				
	Operation Temperature Range	-10~55℃				
	Ambient Humidity	0~90% relative humidity (non-condensing)				
	Altiude	≤3000m				

MPPT Solar Charge Controller

PC1600A Series (20A/30A/40A)

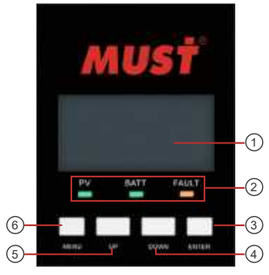
Features

- LCD display , easy to operate on LCD screen
- Multi stage charging
  (3-stage charging , parallel charging and equalized charging function)
- BTS – Battery remote temperature sensor terminal
- Enable to charge Li-thium, Gel , lead-acid battery
- With RS485 & USB communication port
- Protection: PV array short circuit, PV reverse polarity,
  Battery reverse polarity, Over charging, Output short circuit

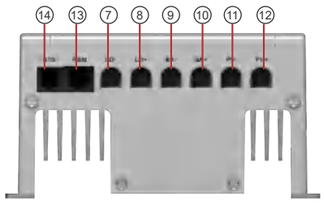
Introduction

MPPT (Maximum Power Point Tracking)Solar Charge Controller offer an efficient, safe, multi-stage recharging process that prolongs battery life and assures peak performance from a solar array. Each Charge Controller allows customized battery recharging.

Back panel printing description

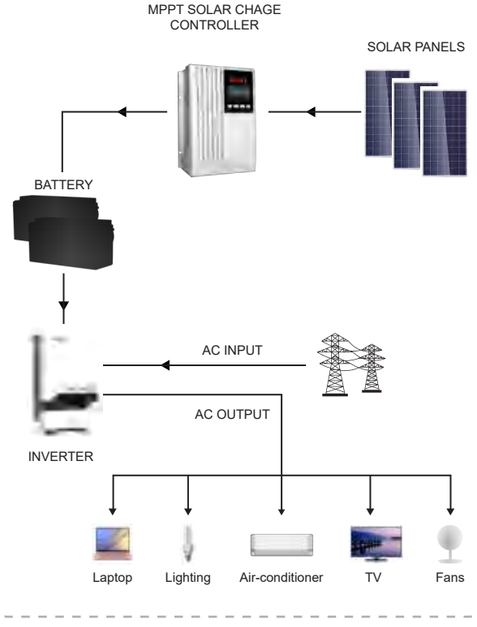


1. LCD Display
2. LED Indicator
3. Confirm the selection in setting mode
4. Decrease the setting data
5. Increase the setting data
6. Enter or exit setting mode



7. The load negative terminal
8. The load positive terminal
9. The battery negative terminal
10. The battery positive terminal
11. PV array negative terminal
12. PV array positive terminal
13. Communication network terminal
14. Remote external temerature terminal

Solar system connection



MUST Solar Power System

Specification

MODEL		PC16-2015A	PC16-3015A	PC16-4015A
Nominal Battery System Voltage		12VDC / 24VDC (Auto Detection)		
CONTROLLER INPUT	PV Open Circuit Voltage	100VDC@12V / 145VDC @24V		
	PV Array MPPT Voltage Range	16VDC~100VDC@12VDC/32VDC~130VDC@24VDC		
	Max PV Input Power(12V)	300W	450W	600W
	Max PV Input Power(24V)	600W	900W	1200W
BATTERY	Absorption Voltage	12.5VDC / 25.0VDC		
	Refloat Voltage	13.7VDC / 27.4VDC		
	Float Voltage	14.3VDC / 28.6VDC		
	Low Voltage Protection Point	10.0VDC / 20.0VDC		
DC OUTPUT	Output Voltage	10.0~14.5VDC / 20.0~29.0VDC		
	Peak Conversion Efficiency	98%(MPPT Efficiency 99%)		
	Max Charging Current	20 amps continuous	30 amps continuous	40 amps continuous
	Max Output Current	20 amps continuous	20 amps continuous	20 amps continuous
	Low Voltage alarm	10.25VDC / 20.5VDC		
	Low Voltage cut off	10.0VDC / 20.0 VDC		
	Low Voltage Recovery	11.0VDC / 22.0VDC		
DISPLAY & PROTECTION	LED Indication	Systematic operation, LV indication, LV protection, Over charge protection Loads protection, Short circuit protection		
	LED Display	Charge Voltage, Charge Current, Voltage of storage battery, Capacity of storage battery, Output current		
	Alarm Protections	PV array short circuit, PV reverse polarity		
		Battery reverse polarity, Over charging protrction		
		Output short circuit protection		
		Low voltage protection for storage battery		
MECHANICAL SPECIFICATIONS	Mounting	Wall mount		
	Machine Dimension (W*H*D)(mm)	154*236*88mm (color box / pcs)		
	Gross Wight (kg)(per pcs)	2.2kg	2.65kg	2.65kg
	Package Dimension (W*H*D)(mm)	610*308*230mm (4pcs / Carton)		
	Gross Weight (kg)(per carton)	10.8kg	13.4kg	13.4kg
OTHER	Environmental Rating	Indoor		
	Radiating Mode	Automatic cooling		
	Operation Temperature Range	0℃ ~ 55℃		
	Loading (20GP/40GP/40HQ)	2500pcs / 5000pcs / 5800pcs		

The technical specifications of this document are subject to change without any notice

MPPT Solar Charge Controller

PC1800A Series (60A/80A)

Features

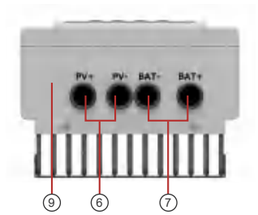
- LCD display , easy to operate on LCD screen
- Multi stage charging
  (3-stage charging , parallel charging and equalized charging function)
- BTS – Battery remote temperature sensor terminal
- Enable to charge Li-thium, Gel , lead-acid battery
- With RS485 & USB communication port
- Protection: PV array short circuit, PV reverse polarity,
  Battery reverse polarity, Over charging, Output short circuit

Introduction

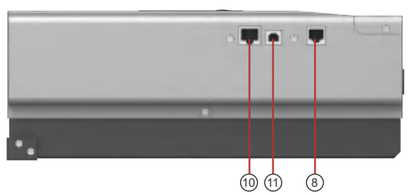
MPPT (Maximum Power Point Tracking)Solar Charge Controller offer an efficient, safe, multi-stage recharging process that prolongs battery life and assures peak performance from a solar array. Each Charge Controller allows customized battery recharging.

Back panel printing description

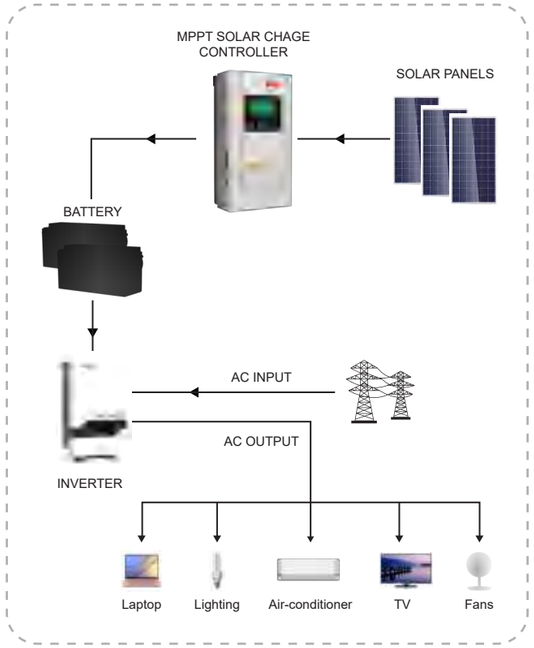
1. LCD display
2. Power ON/Charging indicator
3. Fault and warning indicator
4. Wiring fault indicator
5. Operation button



6. PV connextors
7. Battery connectors
8. Battery temperature sensor terminal
9. Wiring box cover
10. RS485 communication port
11. USB



Solar system connection



Specification

MODEL		PC18-6015A		PC18-8015A	
Nominal Battery System Voltage		12V / 24V / 48VDC (Auto detection); 36V (Setting)			
ELECTRICAL SPECIFICATIONS	Maximum Battery Current	60Amps		80Amps	
	Battery Voltage	12V	24V	36V	48V
	Maximum Solar Input Voltage	100V	145V		
	PV Array MPPT Voltage Range	15~95V	30~130V	45~130V	60~130V
	Maximum Input Power	12 Volt-940W 24 Volt-1880W 36 Volt-2820W 48 Volt-3760W		12 Volt-1250W 24 Volt-2500W 36 Volt-3750W 48 Volt-5000W	
	Protections	Solar high voltage disconnect; Solar high voltage reconnect; Battery high voltage disconnect; Battery high voltage reconnect; High temperature disconnect;High temperature reconnect			
BATTERY CHARGING	Charging Algorithm	3-Step or 4-Step (Li)			
	Temperature Compensation Coefficient	-5mV / ℃ / cell (25℃ ref.)			
	Temperature Compensation Set Points	Absorption, Float			
	Charging Set Points	Absorption Stage		Float Stage	
	Flooded Battery	14.2V / 28.4V / 42.6V / 56.8V		13.7V / 27.4V / 41.1V / 54.8V	
	AGM / GEL / LEAD Battery (Default)	14.4V / 28.8V / 43.2V / 57.6V		13.7V / 27.4V / 41.1V / 54.8V	
	Over-charging Voltage	15.5V / 30.0V / 45.0V / 60.0V			
	Over-charging Comeback Voltage	14.5V / 29.5V / 44.5V / 59.0V			
	Battery Defect Voltage	10.0V / 17.0V / 25.5V / 34.0V			
MECHANICAL AND ENVIRONMENT	Product Size (W*H*D)(mm)	315*160*135			
	Product Weight (kg)	4.7kg			
	Ambient Temperature Range	-10℃ to 55℃			
	Storage Temperature	-40℃ to 75℃			
	Humidity	0%~90% RH (No condensing)			
	Enclosure	IP20			

The technical specifications of this document are subject to change without any notice