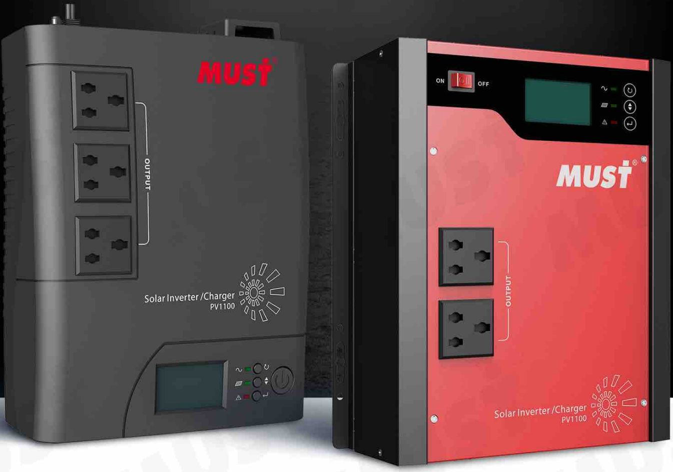
High Frequency Simulated Sine Wave solar inverter

PV1100 PLUS SERIES (1.2KVA-2.4KVA)


MUST
OUTPUT
Solar Inverter /Charger
PV1100
ON
OFF
MUST
OUTPUT
Solar Inverter /Charger
PV1100

THREE COLORS OPTION

🔴 RED

⚫ BLACK

PV1100Plus is a cost effective , intelligent hybrid off grid solar inverter. The LCD display offers friendly user-configurable 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. It suitable for personal home use.

Features

- Simulated sine wave inverter
- Built-in 50A PWM Solar Charge Controller
- MFD (multi-function display)
- 10A or 20A standard charging current from utility
- AC/solar priority for output via MFD
- AC/solar priority for charging via MFD
- 3 steps charging algorithm
- Overload & short-circuit protection
- Battery reverse polarity protection
- Deep discharge protection
- Auto restart while AC/solar is recovering
- Adjustable solar and utility charging current

Rated power
1.2KVA-2.4KVA

Battery Voltage
12V/24V

Wide AC input range
170-280Vac/90-280Vac

Wide Frequency
40Hz-70Hz
(Auto Sensing)

MUST

MFD Function
(Multi-function Display)

3 Steps smart
battery charging

Multi protection

Appearance

PLASTIC
CASE
OUTPUT
MUST
Solar Inverter/Charger
PV1100

MUST

ON
OFF
MUST
OUTPUT
Solar Inverter /Charger
PV1100
BAT
INPUT
PV+ PV-

METAL CASE

PRODUCT FEATURES

SMART & INTELLIGENT FEATURES

MUST

MUST
OUTPUT
INPUT
55.2
OUTPUT
230
Solar Inverter /Charger
PV1100

Bigger Size LCD display

1. MFD (multi-function display) setting
2. AC+Solar charging biggest current 50A
3. Display PV information

Over-temperature protection

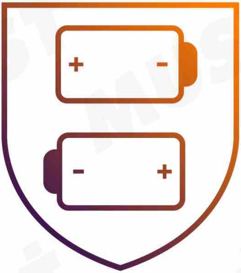
This inverter is equipped with an effective cooling fan and over-temperature protection that keeps it from overheating.

PV1100
OUTPUT
PV+ PV-

MUST

Battery reverse polarity protection

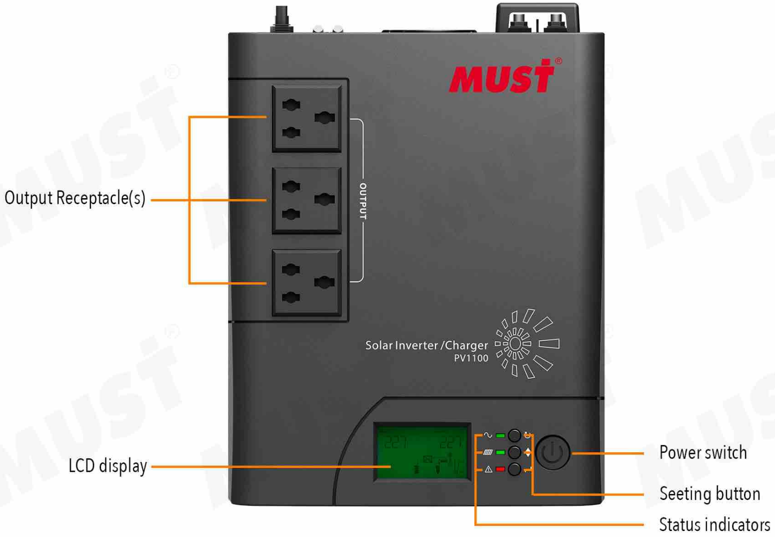
There's a battery reverse protection function in the board, then the controller will be perfectly protected even installer or user connect the battery in reverse pole accidentally

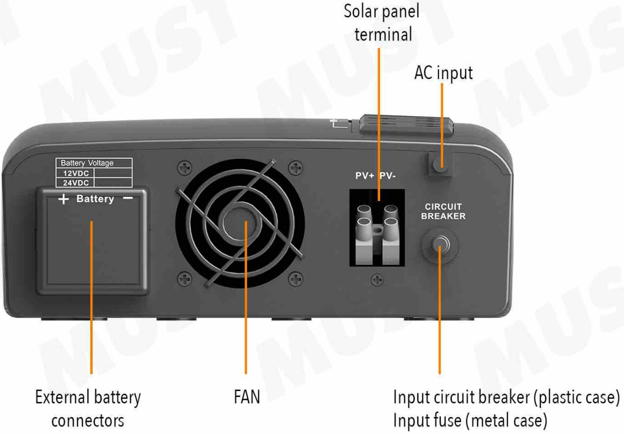


PRODUCT DETAILS

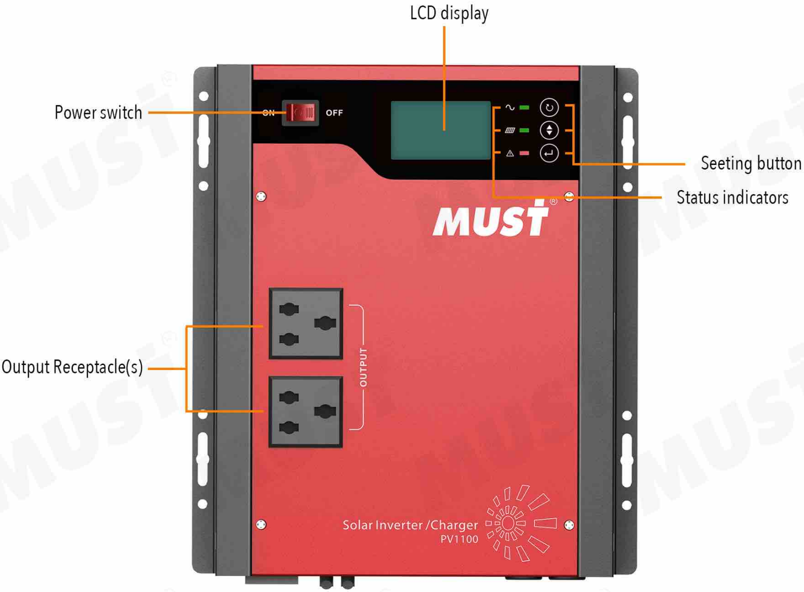
MUST HELP YOU CONTROL EVERY DETAIL

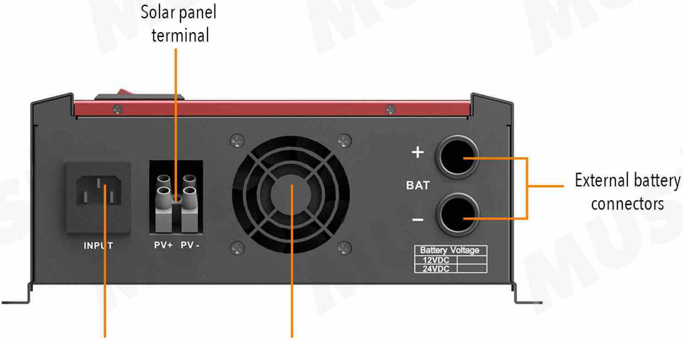
Details reflect quality


MUST®
OUTPUT
Solar Inverter /Charger
PV1100
Output Receptacle(s)
LCD display
Power switch
Seeting button
Status indicators


Solar panel terminal
AC input
Battery Voltage
12VDC
24VDC
+ Battery −
PV+ PV-
CIRCUIT BREAKER
External battery connectors
FAN
Input circuit breaker (plastic case)
Input fuse (metal case)

MUST

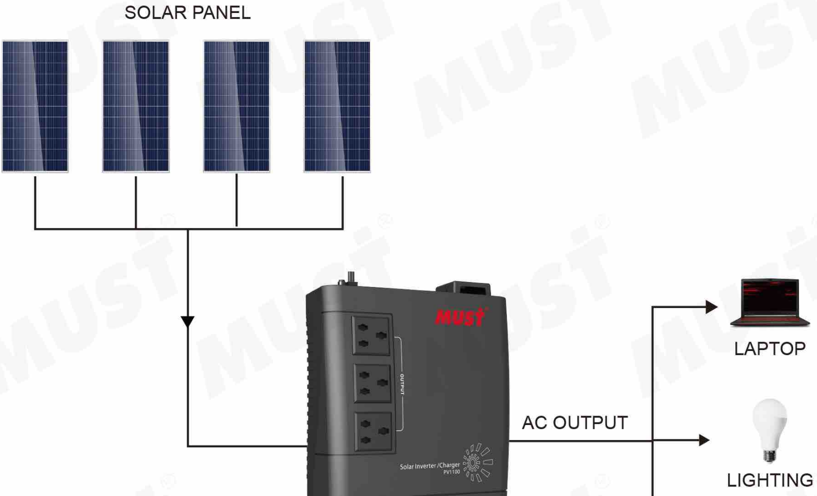

LCD display
Power switch
ON
OFF
Seeting button
Status indicators
MUST®
Output Receptacle(s)
OUTPUT
Solar Inverter /Charger
PV1100

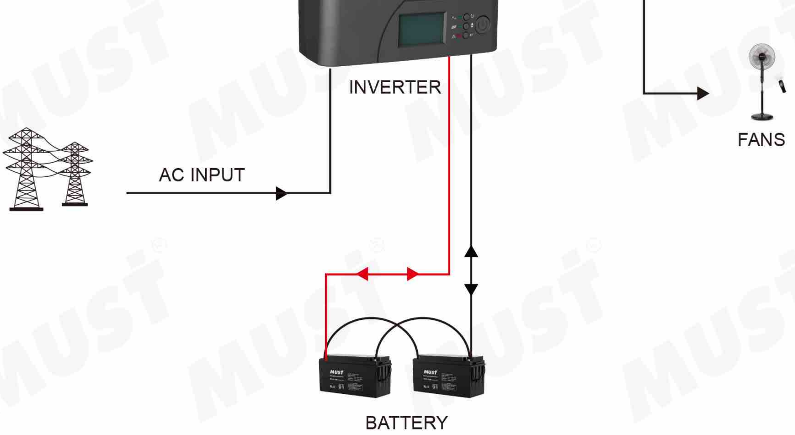

Solar panel terminal
INPUT
PV+ PV-
+
BAT
−
Battery Voltage
12VDC
24VDC
External battery connectors

AC input FAN

INVERTER SYSTEM CONNECTION

INVERTER + SOLAR PANELS + GRID + APPLICATION LOADS


SOLAR PANEL
MUST
OUTPUT
Solar Inverter / Charger
PV1100
AC OUTPUT
LAPTOP
LIGHTING


INVERTER
AC INPUT
FANS
BATTERY

MUST

PRODUCT PARAMETERS

MAKE SURE EACH PARAMETER IS TRUE

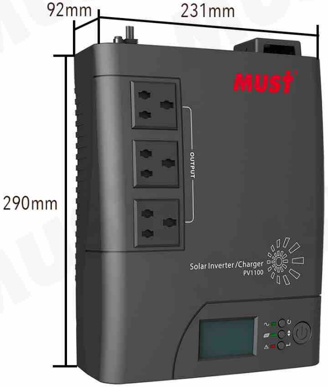
Learn more about the product

MODEL		PV11-1200 Plus	PV11-1800 Plus	PV11-2400 Plus
Nominal Battery System Voltage		12VDC	12VDC	24VDC
NVERTER OUTPUT	Rated Power	1200VA/720W	1800VA/1000W	2400VA/1440W
	Waveform	Simulated Sine-wave		
	Nominal Output Voltage RMS	230V		
	Output Voltage Regulation	+10/-18%		
	Output Frequency	50Hz/60Hz +/-1 Hz		
	Inverter Efficiency(Peak)	>80%		

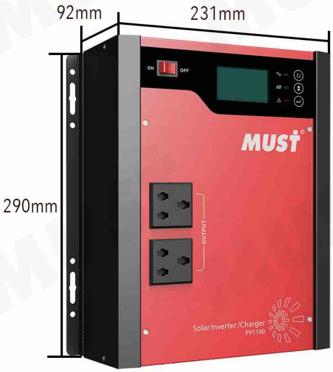
	Line Mode Efficiency		>98%	
	Typical Transfer Time		Typical 15~20ms 40ms max	
AC INPUT	Voltage		230VAC	
	Selectable Voltage Range	Narrow	170~280VAC	
		Wide	90~280VAC	
	Frequency Range		40Hz-70Hz (Auto sensing)	
BATTERY	Nominal Input Voltage		12VDC	24VDC
	Minimum Start Voltage		10.5VDC	21.0VDC
	Low Battery Alarm		10.4VDC (min)	20.8VDC (min)
	Low Battery Cutoff		9.9~12VDC (Can be set)	19.8~24VDC (Can be set)
	High Voltage Cutoff		15.0VDC (max)	30.0VDC (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 (Can be set)	
	Maximum Charge Current		10-50A (Can be set)	
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	4.0
	Gross Weight (kg)		3.5	4.7
OTHER	Operation Temperature Range		0°C to 50°C	
	Audible Noise		50dB MAX	
	Display		LED+LCD	
	Loading(20GP/40GP/40HQ)		1700pcs / 3400pcs / 4100pcs	

Size

MUST


92mm
231mm
290mm
MUST
OUTPUT
Solar Inverter/Charger
PV1100

(Plastic case)


92mm
231mm
290mm
ON
OFF
MUST
OUTPUT
Solar Inverter/Charger
PV1100

(Metal case)

Package

USER'S MANUAL
HYBRID SOLAR INVERTER
MPPT 1KVA-5KVA

User Manual

Warranty registration card
Warning
DATE
SERVICE RECORD
TRANSACTOR

Warranty card

Battery cables

MUST

PROJECT REFERENCE

D SOLAR INVERTER FOR
E & OFFICES
FREE
Economical Power Solutions
Modified Sine Wave Inverter with Charger
Backup for Solar Home System
Economical P
SOLAR INVERTER/CHARGER
MODEL: PV11-1200 plus
INPUT:220VAC, 60Hz
OUTPUT:220V, 60Hz,1200VA
DC INPUT:12V
PV INPUT: 55V MAX
Modified Sine Wave Inverter With Charger
L NO.:
: 4 PCS
ZE: 595 x 375 x 315 (mm)
G.W. :14KG

Applicable appliances

ELECTRONIC PRODUCT	APPLIANCE	ELECTRONIC PRODUCT	APPLIANCE	ELECTRONIC PRODUCT	APPLIANCE
LED LIGHT	✓	LAPTOP	✓	AIR DUCT	✓
INCANDESCENT LAMP	✓	ELECTIRC COOKER	✓	PRINTER	✓

MUST

FAN	✓	TV	✓	VACUUM CLEANER	✓
DESKTOP PC	✓	REFRIGERATOR	✓	DIGITAL PRODUCT	✓

PRACTICAL APPLICATION

APPLICABLE PLACE

CCTV

MARIVAN
MARIVAN
Shop / Supermarket

Office

Solar power system

Industrial intellectual control system

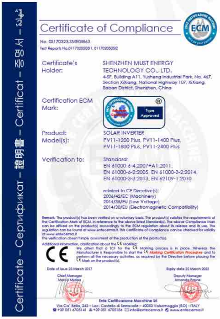
Ventilation systems

MUST

PROFESSIONAL CERTIFICATION

CE SAA ISO9001

High quality and high standard



Certificate – Сертификат – 證明書 – Certificat – 증명서 – شهادة

Certificate of Compliance

No. 0S170323.SME0W63
Test Reports No.01170205081I, 01170205082

Certificate's Holder:	SHENZHEN MUST ENERGY TECHNOLOGY CO., LTD. 4-5F, Building A11, Yusheng Industrial Park, No. 467, Section XiXiang, National Highway 107, XiXiang, Baoan District, Shenzhen, China
Certification ECM Mark:	Type Approved
Product:	SOLAR INVERTER
Model(s):	PV11-1200 Plus, PV11-1400 Plus, PV11-1800 Plus, PV11-2400 Plus
Verification to:	Standard: EN 61000-6-4:2007+A1:2011, EN 61000-6-2:2005, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 62109-1:2010 related to CE Directive(s): 2006/42/EC (Machinery) 2014/35/EU (Low Voltage) 2014/30/EU (Electromagnetic Compatibility)

Remark: The product(s) has been verified on a voluntary basis. The product(s) satisfies the requirements of the Certification Mark of ECM, in reference to the above listed Standard(s). The above Compliance Mark can be affixed on the product(s) accordingly to the ECM regulation about its release and its use. The regulation can be found at www.entecerma.it. This Certificate of Compliance can be checked for validity at www.entecerma.it

This verification doesn't imply assessment of the production of the product(s).

Additional information, clarification about the CE Marking:

CE We attest that a TCF for the CE Marking process is in place. Whereas the Manufacturer is Responsible to start the CE *Marking Certification Procedure* and to perform all the necessary activities, as required by the Directive before placing the CE Mark on the product(s).

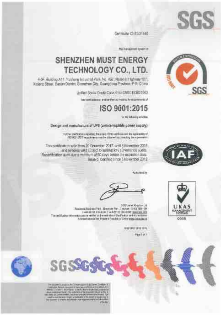
Date of issue 23 March 2017

Expiry date 22 March 2022

Chief Manager
Marco Moreo

Deputy Manager
Amanda Payne

Ente Certificazione Macchine Srl
Via Ca' Bella, 243 – Loc. Castello di Serravalle – 40053 Valsamoggia (BO) - ITALY
☎ +39 051 6705141 ☎ +39 051 6705156 ✉ info@entecerma.it www.entecerma.it



SGS

Certificate CN12/31440

SHENZHEN MUST ENERGY TECHNOLOGY CO., LTD.

4-5F, Building A11, Yusheng Industrial Park, No. 467, National Highway 107, Xixiang Street, Baoan District, Shenzhen City, Guangdong Province, P.R. China

Unified Social Credit Code 914403003193872253

ISO 9001:2015

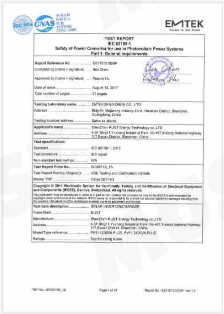
Design and manufacture of UPS (uninterruptible power supply)

This certificate is valid from 20 December 2017 until 8 November 2018 and remains valid subject to satisfactory surveillance audits. Recertification audit due a minimum of 60 days before the expiration date. Issue 5. Certified since 8 November 2012

SGS United Kingdom Ltd

Page 1 of 1

UKAS MANAGEMENT SYSTEMS 0005



CNAS TESTING CNAS L2291

EMTEK

TEST REPORT
IEC 62109-1
Safety of Power Converter for use in Photovoltaic Power Systems
Part 1: General requirements

Report Reference No.	ES170721020P
Compiled by (name + signature)	Ben Chen
Approved by (name + signature)	Paladin Hu
Date of issue	August 18, 2017
Total number of pages	87 pages
Testing Laboratory name	EMTEK(SHENZHEN) CO., LTD.
Address	Bldg 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China
Testing location/ address	Same as above
Applicant's name	ShenZhen MUST Energy Technology co.,LTD
Address	4-5F Bldg11,Yusheng Industrial Park, No #67,Xixiang,National Highway 107,Baoan District, Shenzhen, China
Test specification:	
Standard	IEC 62109-1: 2010
Test procedure	IEC report
Non-standard test method	N/A
Test Report Form No.	IEC62109_1A
Test Report Form(s) Originator	VDE Testing and Certification Institute
Master TRF	Dated 2011-03

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Test item description	SOLAR INVERTER/CHARGER
Trade Mark	MUST
Manufacturer	ShenZhen MUST Energy Technology co.,LTD
Address	4-5F Bldg11,Yusheng Industrial Park, No 467,Xixiang,National Highway 107,Baoan District, Shenzhen, China
Model/Type reference	PV11 1200VA PLUS, PV11 2400VA PLUS
Ratings	See the rating labels

TRF No.: IEC62109_1A Page 1 of 87 Report No.: ES170721020P Ver.1.0

MUST®

SHENZHEN MUST ENERGY TECHNOLOGY CO.,LTD.