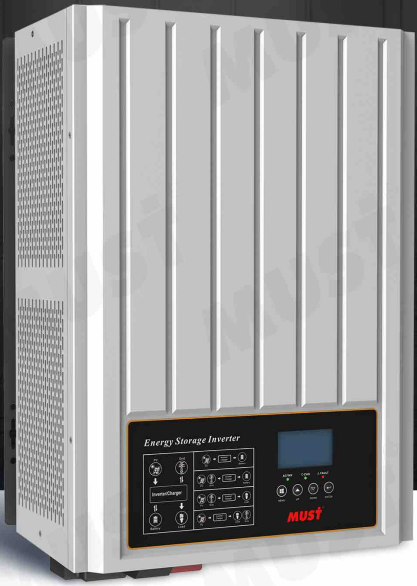
Low Frequency On/Off Grid Hybrid Solar Inverter

PH3000 SERIES SINGLE-PHASE (2-4KW)


Energy Storage Inverter
PV
Grid
Inverter/Charger
Battery
Load
AC/INV
CHG
FAULT
MENU
UP
DOWN
ENTER
MUST

THREE COLORS OPTION

🔴 RED

⚪ SILVER

🟢 GREEN

PH3000 series Energy Storage Inverter has capacity of 2KW, 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.

Features

- Rated power 2KW to 4KW
- Smart LCD setting(Working modes, Charge Current, Charge Voltage, etc.)
- Built-in MPPT 60A 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 Parallel operation with up to 3 units
- Support CAN, RS485 monitoring function with free CD
- WIFI remote monitoring (optional)

Pure sine wave

Wifi Monitoring

High effciency

Hybrid Mode

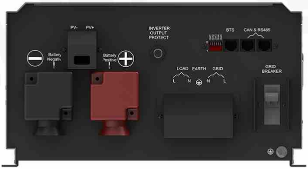
Smart LCD setting

Programmable

MUST

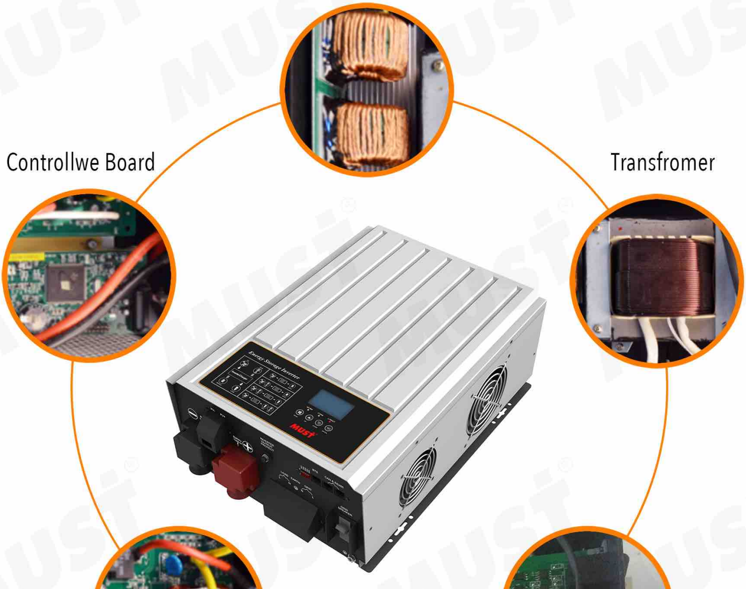
Appearance

SOLAR
MUST
Energy Storage Inverter


PV-
PV+
Battery Negativ
Battery Positive
INVERTER OUTPUT PROTECT
BTS
CAN & RS485
LOAD
EARTH
GRID
L
N
N
L
GRID BREAKER

MUST

Inside Structures


Energy Storage Inverter
MUST

PV Control

Controllwe Board

Transfromer

MUST

Power Board
Underneath

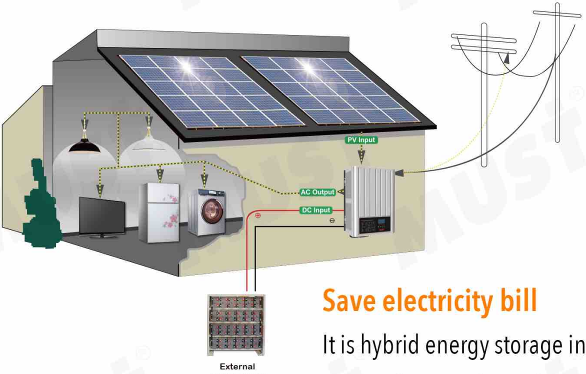
Communication

PRODUCT FEATURES

SMART & INTELLIGENT FEATURES

Suitable for charging lithium battery

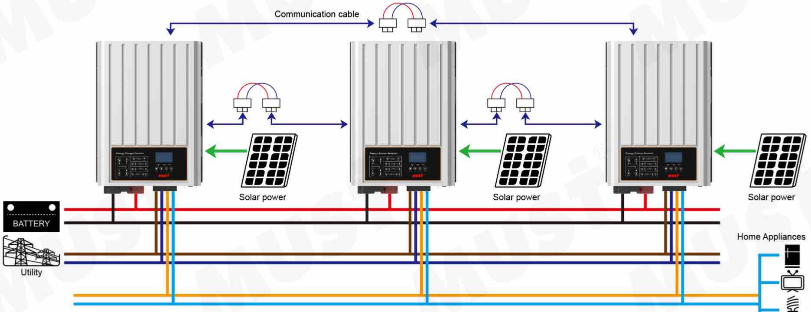
Energy Storage Inverter
MUST


PV Input
AC Output
DC Input
⊕
⊖
External
Battery packs

Save electricity bill

It is hybrid energy storage inverter, can feed power into grid, to use free solar power help you save electricity bill.

Parallel function up to 3 units


Communication cable
Solar power
Solar power
Solar power
BATTERY
Utility
Home Appliances

MUST

Built-in MPPT Solar Charge Controller

By maximizing solar energy harvesting under a wider variety of environmental conditions, MPPT technology helps the system extract as much electricity as possible for more effective energy storage. It is ideal for use in a wide-range of residential, light commercial, agricultural, community and other applications that can benefit from better yields through more advanced charge controller technology.

MUST

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Energy Storage Inverter
PH 3000
MUST

We make you an excellent shell

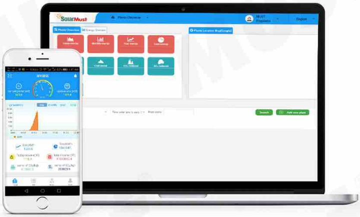
This inverter is also built to withstand reasonable heat and temperature fluctuations because of its over-temperature protection and dual thermally-controlled fans. And it's protected from humidity or airborne dust and dirt by virtue of its marine-coated (or "conformal-coated") boards. This inverter provides the reliability needed in any business or residential emergency backup power applications.

Active Cooling System

2 large cooling fans are adapted to ensure the inverter is additionally ventilated. As soon as the device produces more heat than can be dissipated through the enclosure, internal fans are switched on creating an air flow through the cooling ducts of the enclosure. The fans are RPM controlled, i.e. it increases its speed with increasing temperature.

PV- PV+
Energy Storage Inverter
MUST

WiFi-RTU
8000-10633-00
PN:B1417310199145
PWR
LINK
TXD
RXD
Wi-Fi RTU
RS-232


SolarMust
Plants Overview
English

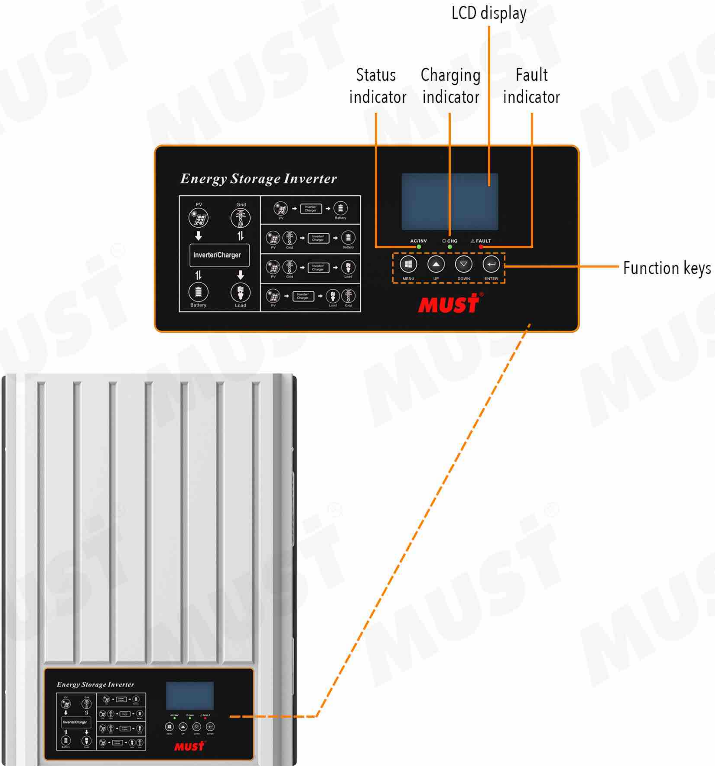
Wifi communication

you can download this app on your cellphone and monitor the whole system, you will know how much electricity the system generate and sell to utility.

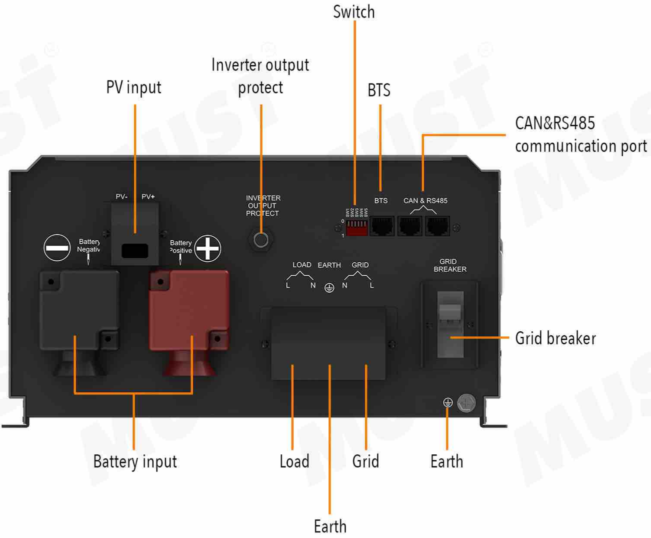
PRODUCT DETAILS

MUST HELP YOU CONTROL EVERY DETAIL

Details reflect quality


LCD display
Status indicator
Charging indicator
Fault indicator
Function keys
Energy Storage Inverter
PV
Grid
Inverter/Charger
Battery
Load
AC/INV
CHG
FAULT
MENU
UP
DOWN
ENTER
MUST

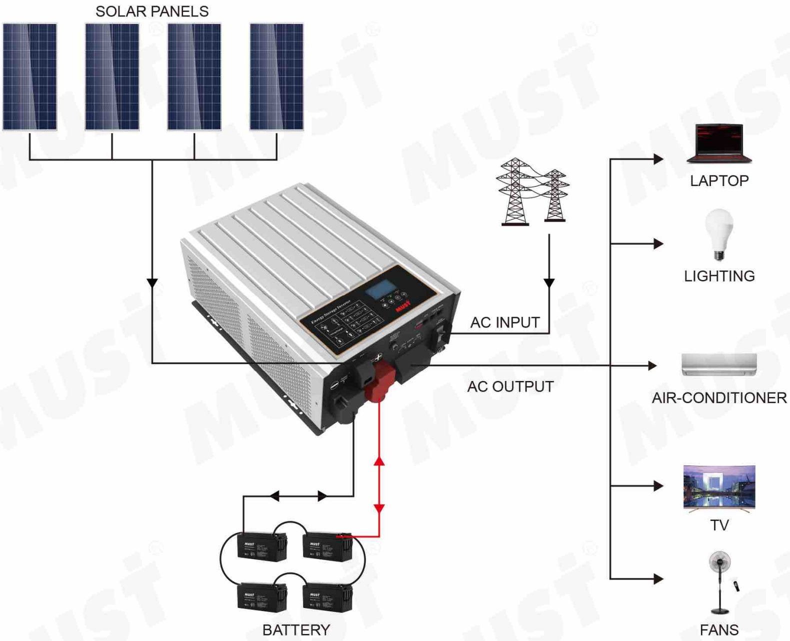
MUST


Switch
Inverter output protect
PV input
BTS
CAN&RS485 communication port
PV-
PV+
INVERTER OUTPUT PROTECT
BTS
CAN & RS485
Battery Negativ
Battery Positive
LOAD
EARTH
GRID
L
N
N
L
GRID BREAKER
Grid breaker
Battery input
Load
Grid
Earth
Earth

INVERTER SYSTEM CONNECTION

MUST

INVERTER + SOLAR PANELS + GRID + APPLICATION LOADS


SOLAR PANELS
LAPTOP
LIGHTING
AC INPUT
AIR-CONDITIONER
AC OUTPUT
TV
FANS
BATTERY

In comparision with pure on-grid solar inverter, PH3000 model can not only feed-in power to grid, but also store PV power to battery, and power loads directly. Combining the function of inverter, on-grid, MPPT solar charger, and battery charger to offer uninterruptible power support. Its comprehensive LCD display offers user configurable and easy accessible button operation, such as battery charging current, AC/solar charging priority, and acceptable input voltage based on different appications.

PRODUCT PARAMETERS

MAKE SURE EACH PARAMETER IS TRUE

Learn more about the product

MODEL		PH30-2048	PH30-3048	PH30-4048
Nominal Battery System Voltage		48VDC		
INVERTER OUTPUT	Rated output power	2000W	3000W	4000W
	Rated output voltage and frequency	230Vac / 50Hz		
	Rated output current	8.7A	13A	17.4A
	Output voltage precision	230Vac± 1%		
	Output frequency precision	50Hz± 0.1%		
	THD (Linear loads)	Off grid≤ 2%		
		Grid discharge ≤ 3%		
		Grid charge ≤ 3%		
	Dynamic response speed (0←100%)	20ms		
	Power factor	Grid discharge 99.9% & Grid charge 99.9%		
	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		
	Grid / Off grid change time	< 10ms		
	Output wave	sine wave		
	Inverting efficiency 80% resistive loads	≥ 92%	≥ 93%	
AC INPUT	AC input maximum current	17.4A	26A	34.8A
	Acceptable input voltage range	Defaults 186Vac ~253Vac; Narrow 174Vac ~272Vac; Wide 95Vac ~272Vac		
	Nominal frequency	50Hz / 60 Hz		
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	40A	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	337*462*183mm	370*462*183mm
	Package Dimensions (W*H*D)(mm)	476*602*325mm	476*602*325mm	476*602*325mm
	Net Weight (kg)	25	29.5	35
	Gross Weight (kg)	30.3	33	38.5
OTHER	Communication terminal	RS485 / CAN bus		
	Operation Temperature Range	0 ℃ ~ +50℃		
	Environmental Protection Rating	Indoor(IP20)		
	Ambient humidity	0 ~ 90% relative humidity(non- condensing)		
	Altitude	≤ 2000m		

*** Product specifications are subject to change without further notice.**

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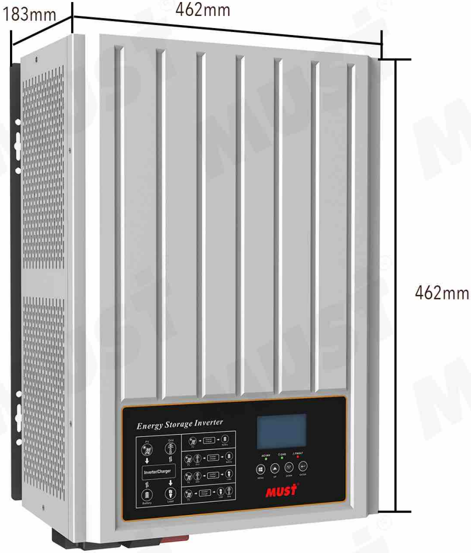
Size


183mm
462mm
462mm
Energy Storage Inverter
Inverter/Charger
MUST

Package

Accessories

- BTS cable
- Communication cable(RS485)*1
- User manual*1
- Software CD*1
- Battery cable*2(optional)

MUST

COLOR BOX DIMENSION
476*602*325MM

MUST-NANCY
MODEL:
SERIAL NO.:
QTY: 1 PCS
SIZE: 466 X 592 X 315 (mm)
Energy Storage Inverter
THE EXPERT FOR POWER
Wendy

Packaging

Applicable appliances

ELECTRONIC PRODUCT	12V/24V	QUANTITY AVAILABLE	ELECTRONIC PRODUCT	12V/24V	QUANTITY AVAILABLE
LED LIGHT	✓	10	WASHING MACHINE	✓	1

MUST

 INCANDESCENT LAMP	✓	10	 HAND MILL	✓	1
 FAN	✓	5 【Start separately】	 HAND DRILL	✓	1
 DESKTOP PC	✓	2 【Start separately】	 IMPACT DRILL	✓	1
 LAPTOP	✓	6	 SUBMERSIBLE PUMP	✓	1
 ELECTIRC COOKER	✓	1	 AIR-CONDITIONING FAN	✓	1
 TV	✓	1	 CRT TV	✓	1
 REFRIGERATOR	✓	2 【Start separately】	 SOYMILK MACHINE	✓	1
 AIR DUCT	✓	1	 ELECTRIC IRON	✓	1
 PRINTER	✓	1	 HOT WATER BOTTLE	✓	1

MUST

VACUUM CLEANER	✓	1
DIGITAL PRODUCT	✓	10
SPEAKER	✓	1

DRYER	✓	1
PROJECTOR	✓	1
ELECTRIC OVEN	✓	1

PRACTICAL APPLICATION

APPLICABLE PLACE

USE IN HOME SOLAR SYSTEM

MUST

Energy Storage Inverter
MUST

USE IN RESTAURANT POWER SYSTEMS

Energy Storage Inverter
MUST

USE IN POWER STATION

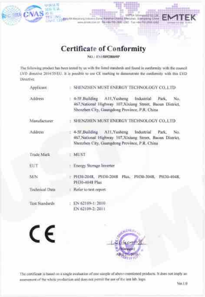
PROJECT REFERENCE

MUST

PROFESSIONAL CERTIFICATION

CE ICE ISO9001

High quality and high standard



EMTEK

Certificate of Conformity

NO.: ES150928009P

The following product has been tested by us with the listed standards and found in conformity with the council LVD directive 2014/35/EU. It is possible to use CE marking to demonstrate the conformity with this LVD Directive.

Applicant : SHENZHEN MUST ENERGY TECHNOLOGY CO.,LTD

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

Manufacturer : SHENZHEN MUST ENERGY TECHNOLOGY CO.,LTD

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

Trade Mark : MUST

EUT : Energy Storage Inverter

M/N : PH30-2048, PH30-2048 Plus, PH30-3048, PH30-4048, PH30-4048 Plus

Technical Data : Refer to test report

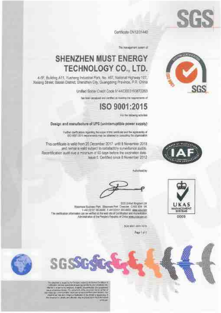
Test Standards : EN 62109-1: 2010
EN 62109-2: 2011

CE

(Manager)

The certificate is based on a single evaluation of one sample of above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab. logo.

Ver.1.0



SGS

Certificate CN12/31440

The management system of

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 [illegible]

has been assessed and certified as meeting the requirements of

ISO 9001:2015

For the following activities

Design and manufacture of UPS (uninterruptible power supply)

Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2015 requirements may be obtained by consulting the organisation.

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

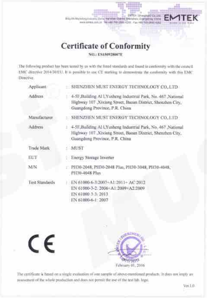
Authorised by

SGS United Kingdom Ltd
Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN, UK
t +44 (0)151 350-6666 f +44 (0)151 350-6600 www.sgs.com

The certification information can be verified on the web site of Certification and Accreditation Administration of the People's Republic of China www.cnca.gov.cn

Page 1 of 1

UKAS MANAGEMENT SYSTEMS
0005



EMTEK

Certificate of Conformity

NO.: ES150928007E

The following product has been tested by us with the listed standards and found in conformity with the council EMC directive 2014/30/EU. It is possible to use CE marking to demonstrate the conformity with this EMC Directive.

Applicant : SHENZHEN MUST ENERGY TECHNOLOGY CO.,LTD

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

Manufacturer : SHENZHEN MUST ENERGY TECHNOLOGY CO.,LTD

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

Trade Mark : MUST

EUT : Energy Storage Inverter

M/N : PH30-2048, PH30-2048 Plus, PH30-3048, PH30-4048, PH30-4048 Plus

Test Standards : EN 61000-6-3:2007+A1:2011+ AC:2012
EN 61000-3-2: 2006+A1:2009+A2:2009
EN 61000-3-3: 2013
EN 61000-6-1: 2007

CE

(Manager)
February 01, 2016

The certificate is based on a single evaluation of one sample of above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab. logo.

Ver.1.0

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