ON/OFF grid high frequency hybrid solar inverter

PH1000 SERIES (3.6-5KW)

This is a flexibly and intelligent energy storage solar inverter with 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, also can use in power station.

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

Hybrid mode

LCD display

High effciency

IP65 Dust-Proof&water Proof

MPPT Voltage

APP

Quiet

Lithium battery optional

Inverter Main Component Brands

IGBT	FAIRCHILD SEMICONDUCTOR	United States

MUST

IC	ON Semiconductor ON Texas Instruments	United States
Semiconductor	ST	Italy / France
Capacitor	nichicon	Japan
Current Ttansducer	TAMURA	Japan
Relay	Panasonic SONG CHUAN	Japan / Taiwan
Diode	IXYS	United States
MCU	Texas Instruments	United States

Appearance

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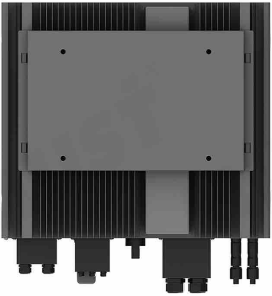
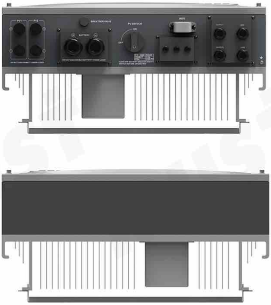
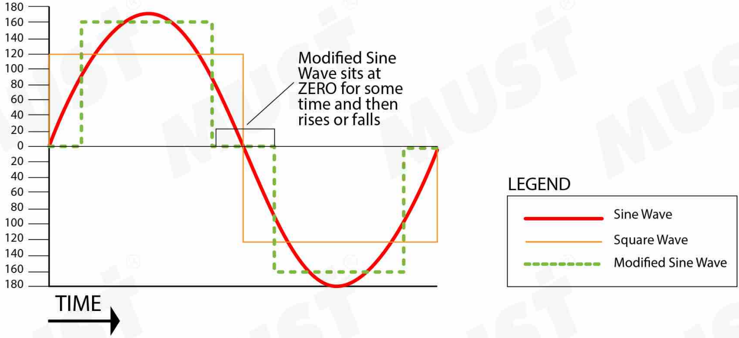



PV1
PV2
BREATHER VALVE
BATTERY
PV SWITCH
ON
OFF
WIFI

PRODUCT FEATURES

SMART & INTELLIGENT FEATURES

MUST®



Pure Sine Wave Output

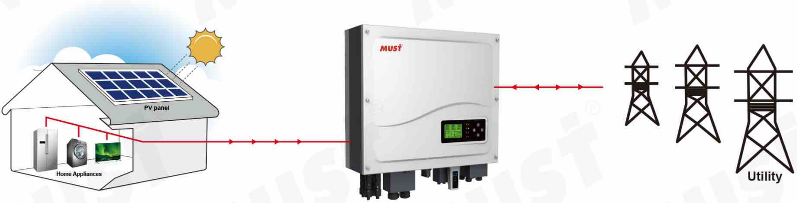
The electrical waveform output of PH1000 is a pure sine wave, which has the same quality as utility and/or domestic power. This type of waveform is suitable for most all electrical devices, appliances and tools. This pure sine wave unit provides more capabilities than modified sine wave inverters, because it is a cleaner form of power. The pure sine wave also effectively reduces the noise produced while using appliances.

Suitable for charging lithium battery

(battery connection: Optional)

Save electricity bill

It is hybrid energy storage inverter, can feed power into grid, to use free solar power help you save electricity bill. Besides, this inverter has the Export control CT sensor function,which makes more easier for inverter to limit the power to sell when in on grid mode.


PV panel
Home Appliances
MUST
Utility

Reset
Net
Data
SolarMust

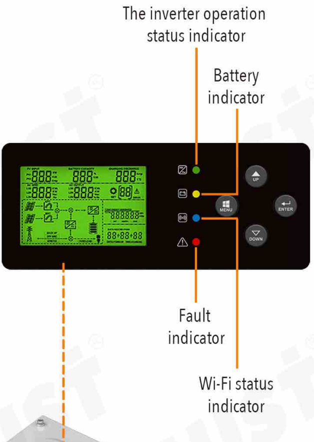
Wifi communication

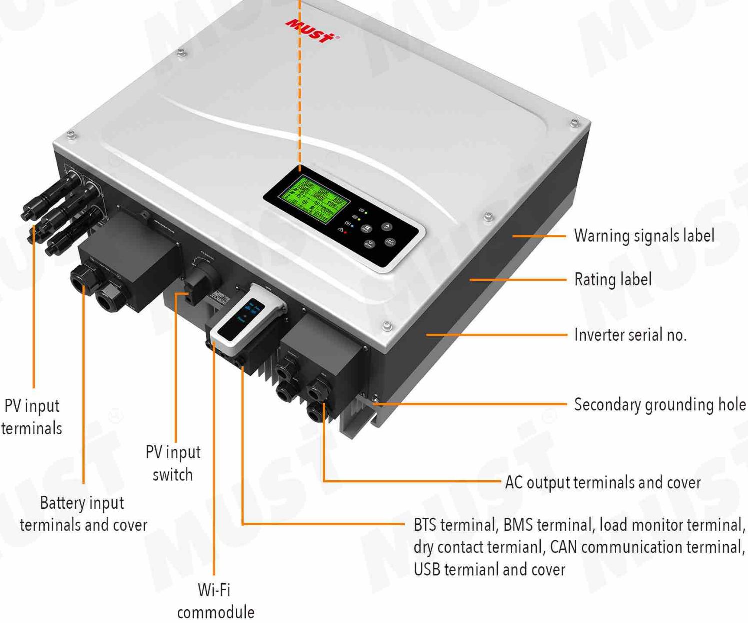
you can download this app on your cellphone and monitor the whole system, you will know know how much electricity the system generate and sell to utility.

PRODUCT DETAILS

MUST HELP YOU CONTROL EVERY DETAIL

Details reflect quality


The inverter operation status indicator
Battery indicator
UP
MENU
ENTER
DOWN
Fault indicator
Wi-Fi status indicator

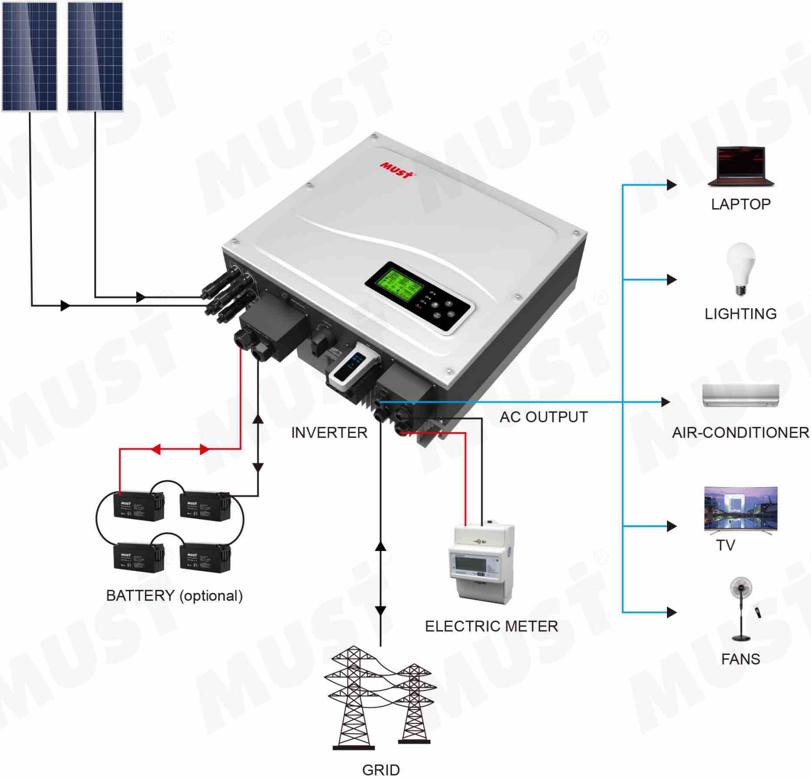

MUST
Warning signals label
Rating label
Inverter serial no.
Secondary grounding hole
PV input terminals
PV input switch
Battery input terminals and cover
AC output terminals and cover
BTS terminal, BMS terminal, load monitor terminal, dry contact termianl, CAN communication terminal, USB termianl and cover
Wi-Fi commodule

MUST

INVERTER SYSTEM CONNECTION

INVERTER + SOLAR PANELS + GRID + APPLICAITON LOADS

SOLAR PANELS


LAPTOP
LIGHTING
INVERTER
AC OUTPUT
AIR-CONDITIONER
TV
BATTERY (optional)
ELECTRIC METER
FANS
GRID

MUST

PRODUCT PARAMETERS

MAKE SURE EACH PARAMETER IS TRUE

Learn more about the product

MODEL		PH10-3648A	PH10-4248A	PH10-4648A	PH10-5048A
RATED POWER(W)		3600	4200	4600	5000
Nominal Battery System Voltage		48	48	48	48
PV INPUT(DC)	Maximum recommended DC power(W)	4100	4800	5300	5750
	Nominal DC operating voltage(V)	360			
	Maximum DC voltage(V)	580			
	MPPT voltage range(V)	120～550			
	Maximum input current(A)	11/11			
	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)	3600	4200	4600	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)	15.7	18.3	20.0	21.8
	Maximum output current(A)	16.4	19.1	21.0	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(VA)	2300			
	Nominal output voltage(V);accuracy range	230;±1%			
	Output frequency(Hz);accuracy range	50/60(optional);±0.2%			
	Output rated current(A)	10			
	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	3-stage adaptive with maintenance			
	Over-current protection/Over-temperature protection	YES/YES			
	Maximum charging/discharging power(W)	2500/2500			
	Maximum charging/discharging Current(A)	50/50			
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 (kgs)	25	25	27	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 condensing)			
	Operating temperature range	-20℃～+60℃ With derating above 45℃			
	Cooling concept	Natural			
	Altitude	＜2000m			

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

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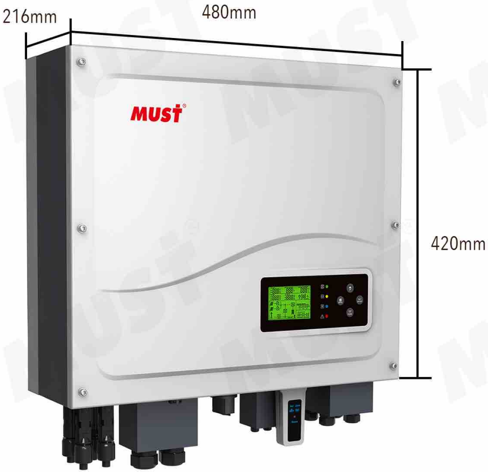
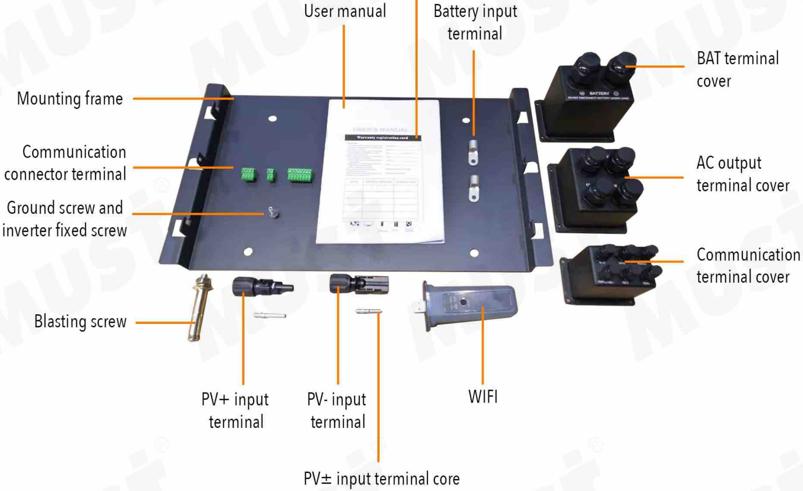
Size


216mm
480mm
420mm
MUST

Package

Warranty
card


User manual
Battery input terminal
BAT terminal cover
Mounting frame
Communication connector terminal
AC output terminal cover
Ground screw and inverter fixed screw
Communication terminal cover
Blasting screw
PV+ input terminal
PV- input terminal
WIFI
PV± input terminal core

Applicable appliances

ELECTRONIC PRODUCT	APPLIANCE	ELECTRONIC PRODUCT	APPLIANCE	ELECTRONIC PRODUCT	APPLIANCE
 LED LIGHT	✓	 WASHING MACHINE	✓	 ELECTRIC IRON	✓
 INCANDESCENT LAMP	✓	 HAND MILL	○ [need to double check]	 HOT WATER BOTTLE	✓
 FAN	✓	 HAND DRILL	○ [need to double check]	 DRYER	✓

DESKTOP PC	✓	IMPACT DRILL	○ [need to double check]	PROJECTOR	✓
LAPTOP	✓	SUBMERSIBLE PUMP	○ [need to double check]	AIR DUCT	✓
ELECTIRC COOKER	✓	AIR-CONDITIONING FAN	✓	PRINTER	✓
TV	✓	CRT TV	✓	VACUUM CLEANER	✓
REFRIGERATOR	✓	SOYMILK MACHINE	✓	DIGITAL PRODUCT	✓

PRACTICAL APPLICATION

APPLICABLE PLACE

MUST

USE IN HOME SOLAR SYSTEM

USE IN RESTAURANT POWER SYSTEMS

USE IN POWER STATION

PROFESSIONAL CERTIFICATION

CE IEC ISO9001 SAA

High quality and high standard

ISO 9001

EN 61000-6-3:2007+A1:2011+AC:2012
EN 61000-6-1:2007

IEC 62109-1:2010
IEC 62109-2:2011
IEC 62040-1-1:2002

AS/NZS 4777.2:2015

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