Pure Sine wave High Frequency solar Inverter(500V)

PV1800 PRO SERIES (3KW, 5KW)

MUST
AC/INV
CHG
FAULT
MENU
UP
DOWN
ENTER

PV1800PRO 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 500V, and MPP voltage is 150~450V, which Can help customers make full use of solar energy

Features

- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc).
- Built-in MPPT 80A solar charge controller
- MAX PV Array Open Circuit Voltage: 500V
- 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 with free CD
- WIFI remote monitoring (optional)
- Compatible to generator
- Can Run Without Battery

Rated power
3KW / 5KW

Battery Voltage
24VDC/48VDC

MAX PV Array
Open Circuit Voltage
500V

WIFI remote
monitoring

Multi Protection

High frequency above
93% high efficiency

MPPT Voltage Range
150-450VDC

Battery Optional

MUST

Appearance

MUST
AC/INV
CHG
FAULT
DSP
TMS320
F28335PGFA
G4A-71ADQVW

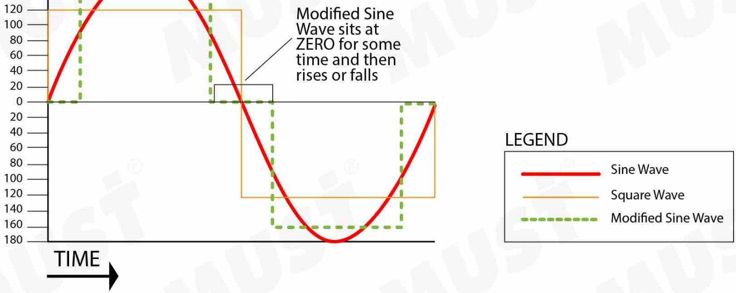
MUST

INPUT BREAKER
DC +
DC −
PV+
PV−
ON
OFF

PRODUCT FEATURES

SMART & INTELLIGENT FEATURES

MUST®



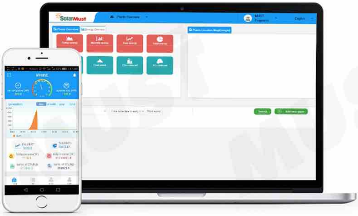
Pure Sine Wave Output

The electrical waveform output of PV1800 PRO 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.

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.

WiFi-RTU
Wi-Fi RTU
RS-232



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Smart client

Mobile photovoltaic monitoring experts to help you easily manage power plants

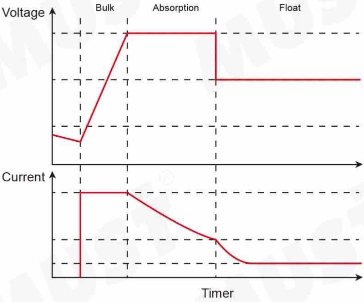
iOS

Android

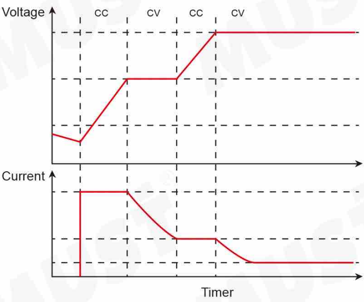
Charging algorithm

3-Step (Flooded Battery, AGM/Gel/Lithium Battery),4-Step(LI)

Charging algorithm for lead acid battery



Charging algorithm for Lithium battery

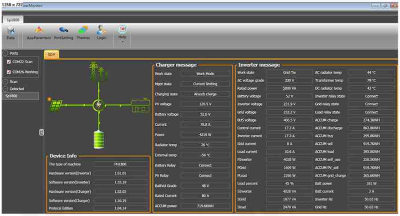


Monitoring system

With USB can connect with computer monitoring the working stage and the data of

MUST

PV, AC and battery. LCD setting is also available in computer.



☑ COM22-Scan
☑ COM26-Working

Device Info

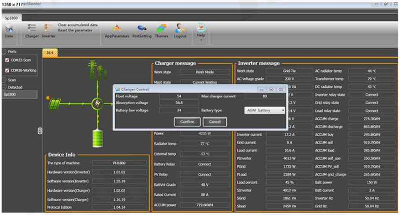
The type of machine	PH1800
Hardware version(Inverter)	1.01.01
Software version(Inverter)	1.55.19
Hardware version(Charger)	1.02.02
Software version(Charger)	1.16.19
Protocal Edition	1.04.14

Charger message

Work state	Work Mode
Mppt state	Current limiting
Charging state	Absorb charge
PV voltage	120.5 V
Battery voltage	52.6 V
Current	78.8 A
Power	4219 W
Radiator temp	76 °C
External temp	-54 °C
Battery Relay	Connect
PV Relay	Connect
BattVol Grade	48 V
Rated Current	80 A
ACCUM power	719.6KWH

Inverter message

Work state	Grid-Tie	AC radiator temp	44 °C
AC voltage grade	230 V	Transformer temp	79 °C
Rated power	5000 VA	DC radiator temp	43 °C
Battery voltage	52 V	Inverter relay state	Connect
Inverter voltage	231.9 V	Grid relay state	Connect
Grid voltage	232.2 V	Load relay state	Connect
BUS voltage	406.5 V	ACCUM charge	274.3KWH
Control current	17.3 A	ACCUM discharge	863.8KWH
Inverter current	17.3 A	ACCUM buy	295.8KWH
Grid current	8 A	ACCUM sell	919.7KWH
Load current	10.6 A	ACCUM load	285.8KWH
PInverter	4028 W	ACCUM self_use	250.5KWH
PGrid	1699 W	ACCUM PV_sell	919.7KWH
PLoad	2286 W	ACCUM grid_charge	265.6KWH
Load percent	45 %	Batt power	181 W
SInverter	4028 VA	Batt current	3 A
SGrid	1877 VA	Inverter Hz	50.03 Hz
Sload	2470 VA	Grid Hz	50.03 Hz



☑ COM22-Scan
☑ COM26-Working

Charger Control

Float voltage	54	Max charger current	80
Absorption voltage	56.4		
Battery low voltage	34	Battery type	AGM battery

Device Info

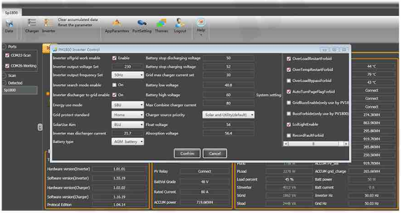
The type of machine	PH1800
Hardware version(Inverter)	1.01.01
Software version(Inverter)	1.55.19
Hardware version(Charger)	1.02.02
Software version(Charger)	1.16.19
Protocal Edition	1.04.14

Charger message

Work state	Work Mode
Mppt state	Current limiting
Power	4205 W
Radiator temp	77 °C
External temp	-53 °C
Battery Relay	Connect
PV Relay	Connect
BattVol Grade	48 V
Rated Current	80 A
ACCUM power	719.6KWH

Inverter message

Work state	Grid-Tie	AC radiator temp	44 °C
AC voltage grade	230 V	Transformer temp	79 °C
		DC radiator temp	43 °C
		Inverter relay state	Connect
		Grid relay state	Connect
		Load relay state	Connect
		ACCUM charge	274.3KWH
		ACCUM discharge	863.8KWH
Inverter current	17.2 A	ACCUM buy	295.8KWH
Grid current	8 A	ACCUM sell	919.7KWH
Load current	10.6 A	ACCUM load	285.8KWH
PInverter	4013 W	ACCUM self_use	250.5KWH
PGrid	1735 W	ACCUM PV_sell	919.7KWH
PLoad	2289 W	ACCUM grid_charge	265.6KWH
Load percent	45 %	Batt power	150 W
SInverter	4013 VA	Batt current	2 A
SGrid	1861 VA	Inverter Hz	50.04 Hz
Sload	2459 VA	Grid Hz	50.04 Hz



☑ COM22-Scan
☑ COM26-Working

PH1800 Inverter Control

Inverter offgrid work enable	☑ Enable	Battery stop discharging voltage	50
Inverter output voltage Set	230	Battery stop charging voltage	52
Inverter output frequency Set	50Hz	Grid max charger current set	30
Inverter search mode enable	☐ On	Battery low voltage	40.8
Inverter discharger to grid enable	☑ On	Battery high voltage	60
Energy use mode	SBU	Max Combine charger current	80
Grid protect standard	Home	Charger source priority	Solar and Utility(default)
SolarUse Aim	BLU	Float voltage	54
Inverter max discharger current	21.7	Absorption voltage	56.4
Battery type	AGM battery		

System setting

☑ OverLoadRestartForbid
☑ OverTempRestartForbid
☐ OverLoadBypassForbid
☑ AutoTurnPageFlagForbid
☐ GridBuzzEnable(only use by PV18
☐ BuzzForbide(only use by PV1800)
☑ LcdLightEnable
☐ RecordFaultForbid

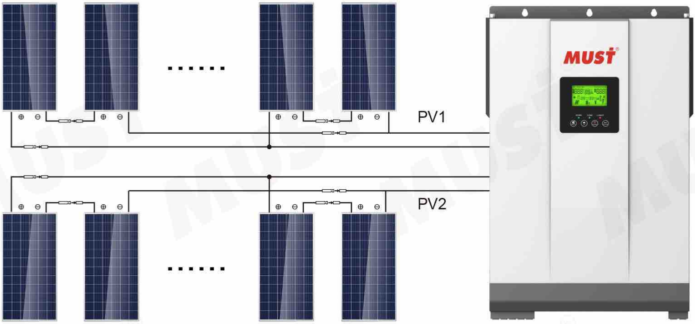
Hardware version(Inverter)	1.01.01
Software version(Inverter)	1.55.19
Hardware version(Charger)	1.02.02
Software version(Charger)	1.16.19
Protocal Edition	1.04.14

PV Relay	Connect
BattVol Grade	48 V
Rated Current	80 A
ACCUM power	719.6KWH

			44 °C
			79 °C
			43 °C
			Connect
			Connect
			Connect
			274.3KWH
			863.9KWH
			295.8KWH
			919.7KWH
			285.8KWH
			250.5KWH
			919.7KWH
PLoad	2276 W	ACCUM grid_charge	265.6KWH
Load percent	45 %	Batt power	50 W
SInverter	4012 VA	Batt current	0 A
SGrid	1862 VA	Inverter Hz	50.03 Hz
Sload	2448 VA	Grid Hz	50.03 Hz

High PV Voltage

Maximum PV Array Open Circuit Voltage can reach to 500V, PV Array MPPT Voltage Range is 150-450Vac,which help use more solar energy and save electricity.



Can Run Without Battery

PV1800 PRO series can provide power to the load without battery.

MUST

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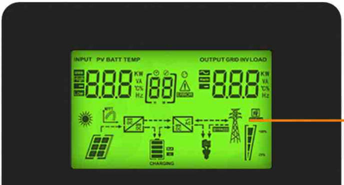
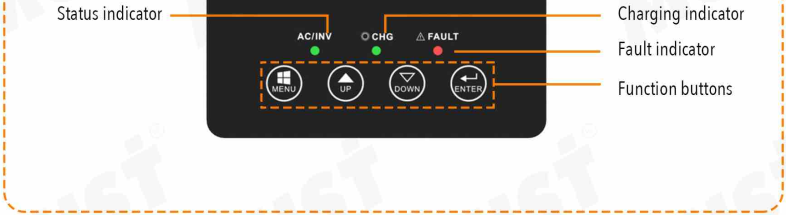
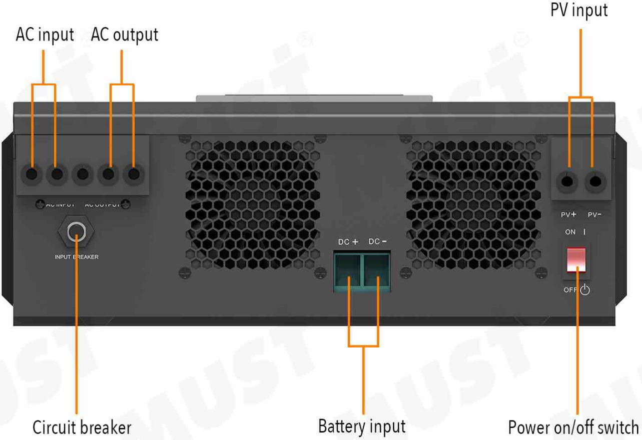
PRODUCT DETAILS

MUST HELP YOU CONTROL EVERY DETAIL

Details reflect quality







RS485
communication port

USB

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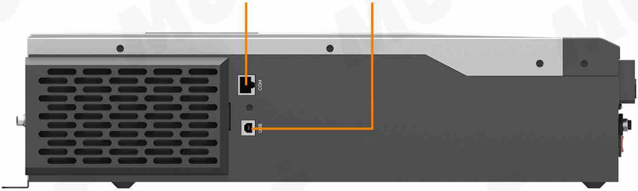

PRODUCT PARAMETERS

MAKE SURE EACH PARAMETER IS TRUE

Learn more about the product

MODEL		PV18-3024 PRO	PV18-5048 PRO
Default Battery System Voltage		24VDC	48VDC
INVERTER OUTPUT	Rated Power	3000VA / 3000W	5000VA / 5000W
	Surge Power	6KVA	10KVA
	Waveform	Pure sine wave	
	AC Voltage Regulation (Batt.Mode)	230VAC±5%(Setting)	
	Inverter Efficiency(Peak)	90%~93%	
	Transfer Time	10ms(For Personal Computers),20ms(For Home Appliances)	
AC INPUT	Voltage	230VAC±5%	
	Selectable Voltage Range	170~280VAC(For Personal Computers), 90~280VAC(For Home Appliances), 184~253VAC(VDE)	
	Frequency Range	50Hz/60Hz (Auto sensing)	

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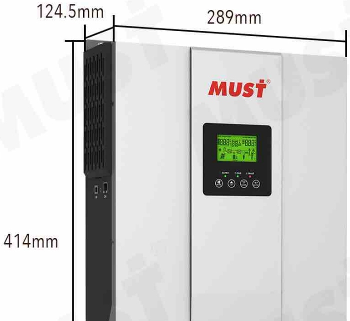
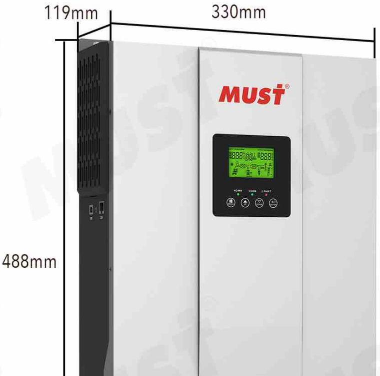
BATTERY	Normal voltage	24VDC	48VDC
	Floating Charge Voltage	27.4VDC	54.8VDC
	Overcharge Protection	30VDC	60VDC
SOLAR CHARGER & AC CHARGER	Maximum PV Array Open Circuit Voltage	500VDC	
	Maximum PV Array Power	4000W	
	PV Array MPPT Voltage Range	150~450Vdc	
	Maximum Solar Charge Current	80Amp	
	Maximum AC Charge Current	60Amp	
	Maximum Charge Current	80Amp	
MECHANICAL SPECIFICATIONS	Machine Dimensions (W*H*D)(mm)	289*414*124.5	330*488*119
	Package Dimensions (W*H*D)(mm)	488*393*251	396*638*241
	Net Weight(kg)	8	14
	Gross Weight(kg)	9.5	16.4
OTHER	Humidity	5% to 95% Relativ Humidity (Non-condensing)	
	Operating Temperature	-10°C -50°C	
	Storage Temperature	-15°C -60°C	

Size





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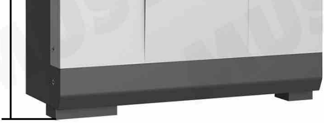
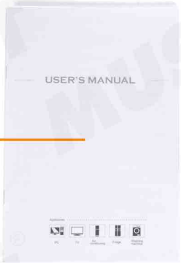
(3KW)



(5KW)

Package



User Manual

Warranty registration card
Warning
DATE
SERVICE RECORD
TRANSACTOR

Warranty card

Solar Charger

Solar power monitor software

Monitor software
comunication cable

Fuse

MUST

MUST
Green Energy Advocates
100% PURE SINE WAVE SOLAR INVERTER
MUST
100% PURE SINE WAVE SOLAR INVERTER
Hybrid Solar Inverter
Features:
All Products Made by ISO 9001 Certified Company

Packaging

Applicable appliances

ELECTRONIC PRODUCT	APPLIANCE	ELECTRONIC PRODUCT	APPLIANCE	ELECTRONIC PRODUCT	APPLIANCE
LED LIGHT	✓	WASHING MACHINE	✓	ELECTRIC IRON	✓
INCANDESCENT LAMP	✓	HAND MILL	✓	HOT WATER BOTTLE	✓
FAN	✓	HAND DRILL	✓	DRYER	✓

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DESKTOP PC	✓	IMPACT DRILL	✓	PROJECTOR	✓
LAPTOP	✓	SUBMERSIBLE PUMP	✓	AIR DUCT	✓
ELECTIRC COOKER	✓	AIR-CONDITIONING FAN	✓	PRINTER	✓
TV	✓	CRT TV	✓	VACUUM CLEANER	✓
REFRIGERATOR	✓	SOYMILK MACHINE	✓	DIGITAL PRODUCT	✓

PRACTICAL APPLICATION

APPLICABLE PLACE

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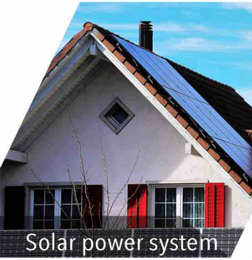
CCTV

Shop / Supermarket

Office


Solar power system

Industrial intellectual control system

Ventilation systems

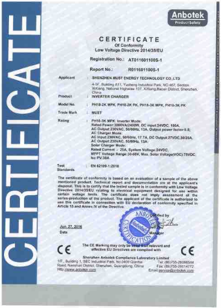
MUST MUST MUST MUST

PROFESSIONAL CERTIFICATION

CE SAA ISO9001

High quality and high standard

MUST MUST MUST MUST



CERTIFICATE

CERTIFICATE
Of Conformity
Low Voltage Directive 2014/35/EU

Registration No.: AT011601100S-1

Report No.: R011601100S-1

Applicant : SHENZHEN MUST ENERGY TECHNOLOGY CO.,LTD
4-5F, Building A11, Yusheng Industrial Park, NO.467, Section XiXiang, National Highwaw 107, XiXiang,Baoan District, Shenzhen, China

Product : INVERTER CHARGER

Model No. : PH18-2K MPK, PH18-2K PK, PH18-3K MPK, PH18-3K PK

Trade Mark : MUST

Rating : PH18-3K MPK: Inverter Mode:
Rated Power:3000VA/2400W, DC input:24VDC, 180A,
AC Output:230VAC, 50/60Hz, 13A, Output power factor:0.8;
AC Charger Mode:
AC Input:230VAC, 50/60Hz, 17.7A, DC Output:27VDC,30/20A,
AC Output:230VAC, 50/60Hz, 13A;
Solar Charger Mode:
Rated Current : 25A, System Voltage:24VDC,
MPPT Voltage Range:30-66V, Max. Solar Voltage(VOC):75VDC
Isc PV:30A

Test Standards : EN 62109-1:2010

The certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical report and documentation are at the applicant's disposal. This is to certify that the tested sample is in conformity with Low Voltage Directive 2014/35/EU relating to electrical equipment designed for use within certain voltage limits. The certificate does not imply assessment of the series-production of the product. The applicant of the certificate is authorized to use this certificate in connection with EU declaration of conformity specified in Article 15 and Annex IV of the Directive.

Jun. 27, 2016
Date

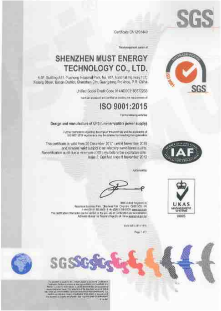
Certified by
Jeff Zhu
Manager

CE

The CE Marking may only be used if all relevant and effective EU Directives are complied with

CE

Shenzhen Anbotek Compliance Laboratory Limited
1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China
Http://www.anbotek.com
Tel: (86)755-26066544
Fax: (86)755-26014772
Email:service@anbotek.com



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 914403003193672263

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)

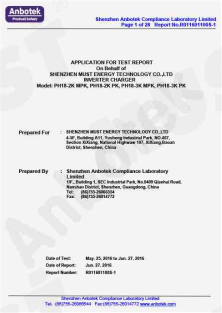
This certificate is valid from 20 December 2017 until 8 November 2018 and remains valid subject to satisfactory surveillance audits. Recertification audit due a minimum of 60 days before the expiration date. Issue 6. Certified since 8 November 2012

Authorised by

SGS United Kingdom Ltd

Page 1 of 1

UKAS
MANAGEMENT SYSTEMS
0005



Anbotek
Product Safety

Shenzhen Anbotek Compliance Laboratory Limited
Page 1 of 28 Report No.R011601100S-1

APPLICATION FOR TEST REPORT
On Behalf of
SHENZHEN MUST ENERGY TECHNOLOGY CO.,LTD
INVERTER CHARGER
Model: PH18-2K MPK, PH18-2K PK, PH18-3K MPK, PH18-3K PK

Prepared For : SHENZHEN MUST ENERGY TECHNOLOGY CO.,LTD
4-5F, Building A11, Yusheng Industrial Park, NO.467, Section XiXiang, National Highwaw 107, XiXiang,Baoan District, Shenzhen, China

Prepared By : Shenzhen Anbotek Compliance Laboratory Limited
1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China
Tel: (86)755-26066554
Fax: (86)755-26014772

Date of Test: May. 25, 2016 to Jun. 27, 2016
Date of Report: Jun. 27, 2016
Report Number: R011601100S-1

Shenzhen Anbotek Compliance Laboratory Limited
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