Low Frequency Power Inverter/Charger

EP3000 PRO SERIES (1KW-6KW)

POWER SYSTEM
SELECT
Sine Wave Combined Inverter & Charger
CHARGE
LINE
INVERTER
FAULT
MUST
Inverter/Charger

THREE COLORS OPTION

● RED
● SILVER
● GREEN

EP3000 PRO series is very economical pure sine wave inverter, AC charger inbuilt, from 35A to 70A; Solar/AC priority is configurable, when setting solar priotiry, solar will charge batteries as first priority, and AC can also charge batteries when solar charger current too lower, in this way system charge is optimazed best. With pure copper transformer, it enables inverter to operate with all kinds of home appliances.

Rated Power
1KW-6KW

Battery DC voltage
12V, 24V, 48V

Wide AC input range
155-280Vac / 96-132Vac

Wide frequency
40HZ-80HZ

3 times surge power
based on
capacity 1KW-6KW

Pure copper
UI transformer

Battery smart
charge design

Multi protection

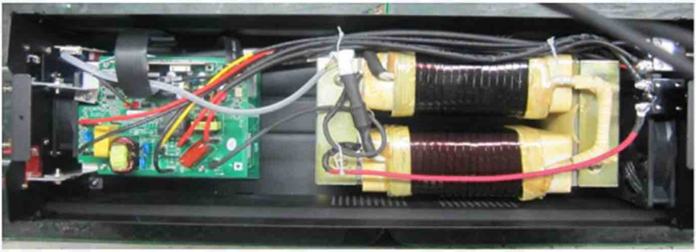
Appearance

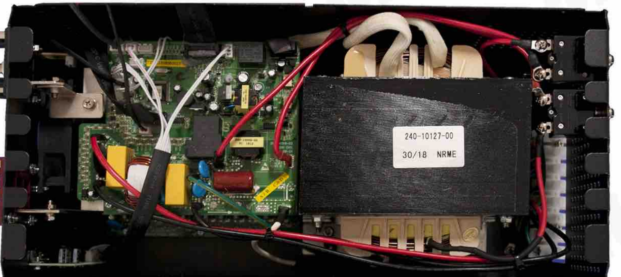
MUST

MUST
Inverter/Charger
Sine Wave Combined Inverter & Charger
POWER SYSTEM

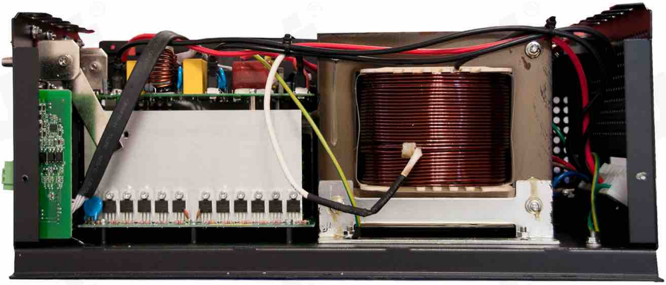
Sine Wave Combined Inverter & Charger

Inside Structures




240-10127-00
30/18 NRME

MUST



PRODUCT FEATURES

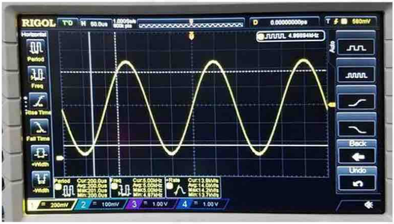
SMART & INTELLIGENT FEATURES

- LCD display ,easy to read how inverter operates on LCD screen
- Compatible to generator
- 5 -levels DIP switch ,offering customized performance
- 9 - levels battery selector ,Enable to charge Li-thium, Gel , lead-acid battery
- DC(Solar)/AC prority optional
- 4 levels charge current adjustable
- With RS232 communication port
- With BTS & GTS , optimazing battery performance & start generator automatically
- Power saver Switch , Enable to minimize standby consumption

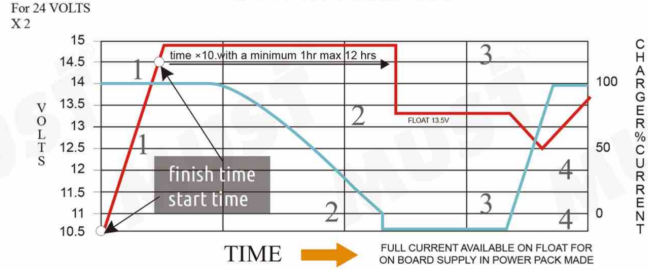
MUST

Pure sine wave output

Perfectly driving inductive load current


RIGOL
Horizontal
Period
Freq
Rise Time
Fall Time
+Width
-Width
Back
Undo

ADJUSTABLE TIME DEPENDING ON BATTERY BANK SIZE



FULL CURRENT AVAILABLE ON FLOAT FOR ON BOARD SUPPLY IN POWER PACK MADE

THE NEW BATTERY CHARGERS AND BOOTSTERS OFFER THE FASTEST CHARGE RATE CURRENTLY AVAILABLE

STEP 1 = CONSTANT CURRENT CHARGE

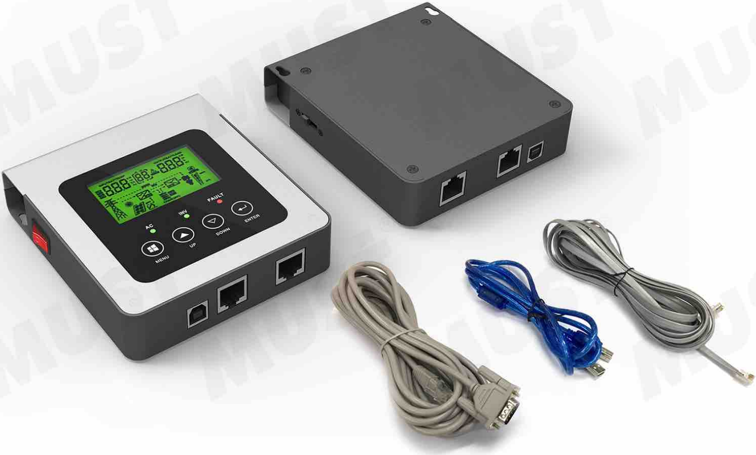
STEP 2 = ABSORPTION CHARGE AT 14.4/14.8 V

STEP 3 = CONSTANT VOLTAGE AT 13.5 VOLTS

STEP 4 = LOW VOLTAGE RESETTO STEP 1

Smart Battery Chargers

Smart battery charger design for optimized battery performance.


FAULT
INV
AC
MENU
UP
DOWN
ENTER

Remote control

Control with a wired remote control panel

The remote control is particularly suitable when the power-source manager is installed behind a casing or in a place that prevents you from accessing the device. The remote control allows you to switch the power saving mode on/off easily. Please note that remote control panel is not optional, not included in inverter package.

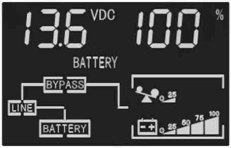
LCD display, easy to read how inverter operates on LCD screen

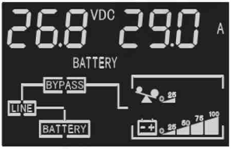
MUST

POWER INVERTER
CHARGE
LINE
INVERTER
FAULT
Battery type selector
SELECT
INPUT
VAC
Hz
BATTERY
Sine Wave Combined Inverter & Charger
must

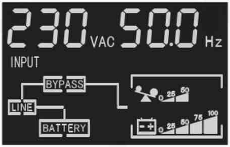
Line Mode

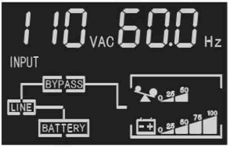
When utility is the unit the battery from the utility,LCD indicate charge current.


13.6 VDC
100 %
BATTERY
BYPASS
LINE
BATTERY
0 25
0 25 50 75 100


26.8 VDC
29.0 A
BATTERY
BYPASS
LINE
BATTERY
0 25
0 25 50 75 100

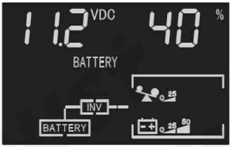
In utility mode the unit provide output power from the utility, the indication and displays are following figures:

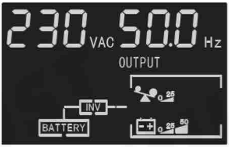

230 VAC
50.0 Hz
INPUT
BYPASS
LINE
BATTERY
0 25 50
0 25 50 75 100

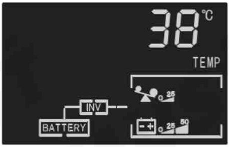

110 VAC
60.0 Hz
INPUT
BYPASS
LINE
BATTERY
0 25 50
0 25 50 75 100

Battery Mode

In battery mode the unit will provide output power from battery or PV, LCD indicate battery capacity


11.2 VDC
40 %
BATTERY
INV
BATTERY
25
25
50


230 VAC
50.0 Hz
OUTPUT
INV
BATTERY
25
25
50


38 °C
TEMP
INV
BATTERY
25
25
50

Fault Mode

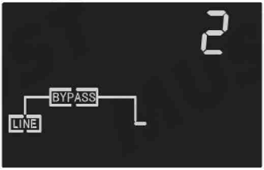
When inverter fault, the indication and displays are as following figures:

2 ------- fan jam / overload

3/6/7 ------- output short circuit

4 ------- over temperature

8/9 ------- battery over voltage.


2
BYPASS
LINE

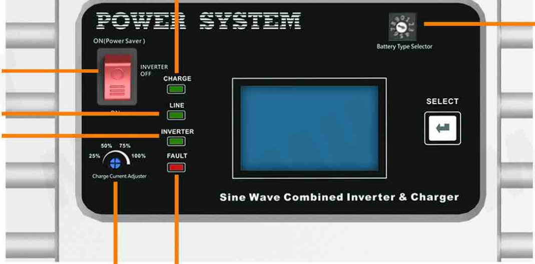
MUST

PRODUCT DETAILS

MUST HELP YOU CONTROL EVERY DETAIL

Details reflect quality

AC Charge Indicator
Battery Type Selector


POWER SYSTEM
ON(Power Saver)
INVERTER OFF
CHARGE
LINE
INVERTER
FAULT
50%
75%
25%
100%
Charge Current Adjuster
Battery Type Selector
SELECT
Sine Wave Combined Inverter & Charger

Battery type selector

Switch(Reference form)

AC power Indicator

Inverter Indicator

Check inverter

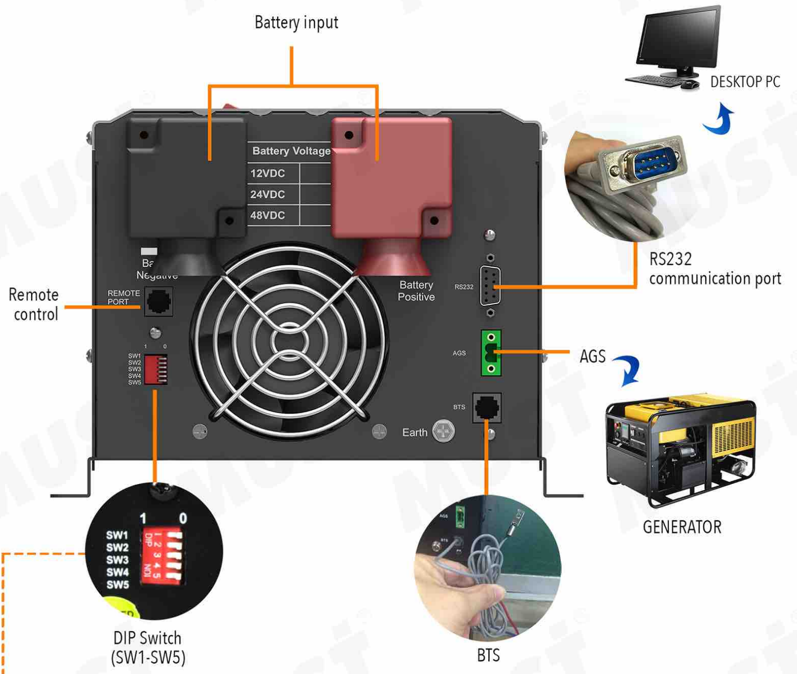
Charge current adjustable:25%,50%, 75%,100%.(Optional)

Switch	**Power saver auto:** Power on with saver mode(power saver 25W)
	Unit Off: Power totally off(If there is AC power,inverter have charger function)
	Power saver off: Power on without saver mode

	Switch setting	Description	Boost			Float		
			Voltage			Voltage		
			12V	24V	48V	12V	24V	48V
Battery Type Setting	0	Battery prefer mode	Low trip to battery 11.5V/23V/46V			Low trip to battery 14V/28V/56V		
	1	Gel USA	14.0	28.0	56.0	13.7	27.4	54.8
	2	AGM 1	14.1	28.2	56.4	13.4	26.8	53.6
	3	AGM 2	14.6	29.2	58.4	13.7	27.4	54.8
	4	Sealed lead acid	14.4	28.8	57.6	13.6	27.2	54.4
	5	Gel EURO	14.4	28.8	57.6	13.8	27.6	55.2
	6	Open lead acid	14.8	29..6	58.2	13.3	26.6	53.2
	7	Calcuim	15.1	30.2	60.4	13.6	27.2	54.4
	8	De sulphation	15.5	31.0	62.0	4 hours then off		
	9	Not used	--		--	--		

Battery Priority

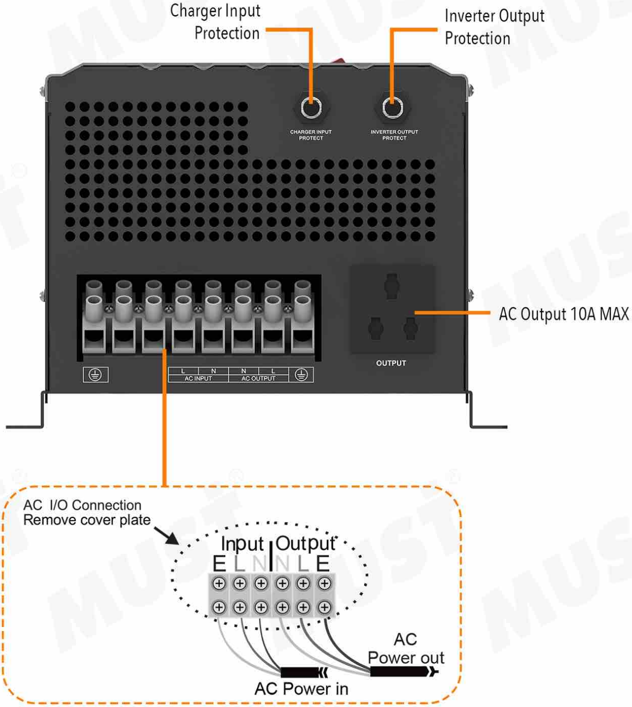
MUST®


Battery input
DESKTOP PC
Battery Voltage
12VDC
24VDC
48VDC
Battery Negative
Battery Positive
RS232
RS232 communication port
Remote control
REMOTE PORT
1
0
SW1
SW2
SW3
SW4
SW5
AGS
BTS
Earth
GENERATOR
DIP Switch (SW1-SW5)
BTS

DIP switch NO.	Switch function	Position:1	Position:0
SW1	Low battery trip volt	10.0VDC	10.5VDC
		*2 for 24VDC, *4 for 48VDC	
SW2	AC input range/ (AVR) 230VAC	154-272VAC	185-272VAC
SW3	Power saver auto setting	Detect load per 5ecs	Detect load per 30ecs
SW4	O/P frequency setting	50Hz	60Hz
SW5	Low battery trip volt	Utility priority	Solar priority

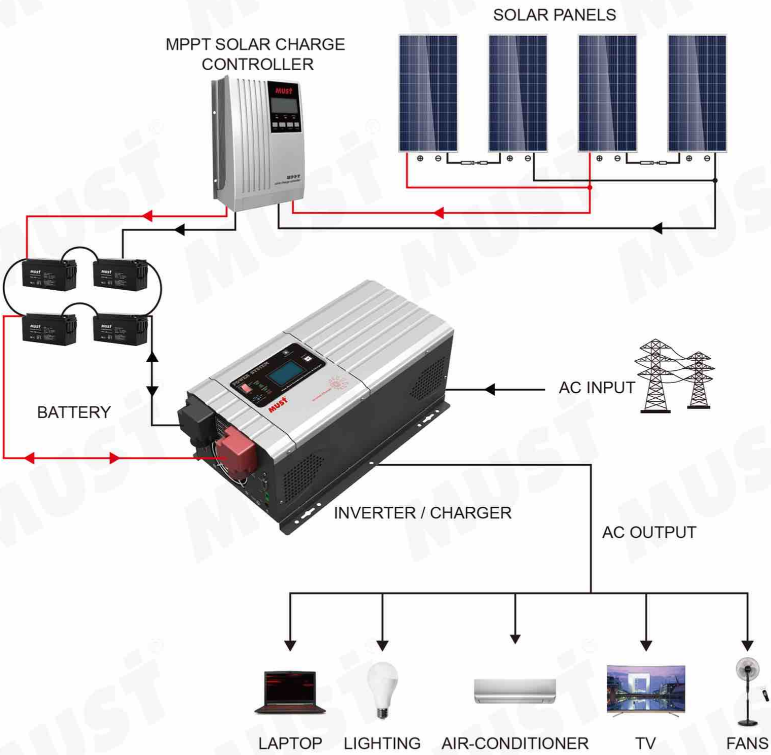
Tabledip switch function setting

MUST


Charger Input Protection
Inverter Output Protection
CHARGER INPUT PROTECT
INVERTER OUTPUT PROTECT
AC Output 10A MAX
OUTPUT
L
N
AC INPUT
N
L
AC OUTPUT
AC I/O Connection
Remove cover plate
Input
Output
E L N N L E
AC Power out
AC Power in

INVERTER SYSTEM CONNECTION

INVERTER + SOLAR CHARGE CONTROLLER + BATTERY +
SOLAR PANELS + GRID + APPLICATION LOADS


SOLAR PANELS
MPPT SOLAR CHARGE CONTROLLER
BATTERY
AC INPUT
INVERTER / CHARGER
AC OUTPUT
LAPTOP
LIGHTING
AIR-CONDITIONER
TV
FANS

EP3000 PRO inverter system, it can work with battery as back up power for normal home power demands; meanwhile, you can also connect extra solar charge controllers and solar panels, as a complete solar system, which take use of sunshine freely and save lots electricity bill for you. This kindly of solar inverter systems are widely used in home, farm, school, shops etc

MUST

PRODUCT PARAMETERS

MAKE SURE EACH PARAMETER IS TRUE

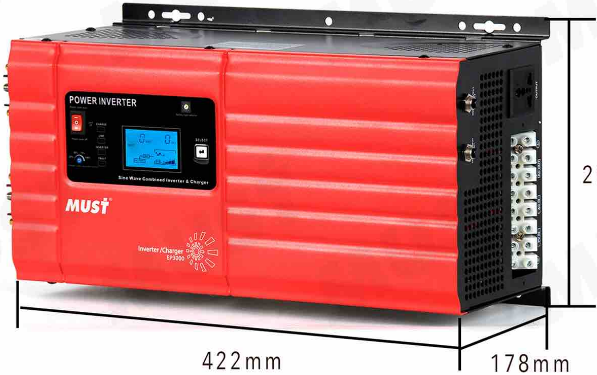
Learn more about the product

MODEL		EP30-1KW PRO		EP30-1.5KW PRO		EP30-2KW PRO		EP30-3KW PRO			EP30-4KW PRO		EP30-5KW PRO		EP30-6KW PRO	
Nominal Battery System Voltage		12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	48VDC	24VDC	48VDC	24VDC	48VDC	24VDC	48VDC
INVERTER OUTPUT	Reted Power	1.0KW		1.5KW		2KW		3KW			4KW		5KW		6KW	
	Surge Rating (20ms)	3.0KW		4.5KW		6.0KW		9.0KW			12KW		15KVA		18KW	
	Capable Of Starting Electric Motor	1HP		1HP		1HP		2HP					3HP			
	Waveform	Pure sine wave/ same as input (bypass mode)														
	Nominal Output Voltage RMS	100V/110V/120VAC 220V/230V/240VAC(±10% RMS)											220V/230V/240VAC(±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	230VAC														
	Selectable Voltage Range	96~132VAC 155~280VAC(For Personal Computers)														
	Frequency Range	50Hz/60Hz (Auto sensing) 40~80Hz														
BATTERY	Minimum Start Voltage	10.0VDC /10.5VDC for12VDC mode (*2 for 24VDC, *4 for 48VDC)														
	Low Battery Alarm	10.5VDC ±0.3V for12VDC mode (*2 for 24VDC, *4 for 48VDC)														
	Low Battery Cut off	10.0VDC ±0.3V for12VDC mode (*2 for 24VDC, *4 for 48VDC)														
	High Voltage Alarm	16.0VDC ±0.3V for12VDC mode (*2 for 24VDC, *4 for 48VDC)														
	High Battery Voltage Recover	15.5VDC ±0.3V for12VDC mode V														
	Idle Consumption-Search Mode	<25W when power saver on														
CHARGER	Output Voltage	Depends on battery type														
	Charger AC Input Breaker Rrating	10A		30A		30A		30A			40A					
	Overcharge Protection S.D.	15.7VDC for 12VDC mode (*2 for 24VDC mode, *4 for 48VDC mode)														
	Maximum Charge Current	35A	20A	45A	25A	65A	35A	75A	45A	30A	65A	35A	70A	40A	75A	50A
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	10A		30A		30A		30A		30A	40A					
	Max Bypass Current	30Amp														
MECHANICAL SPECIFICATIONS	Mounting	Wall Mount														
	Dimensions (W*H*D)	426*206*178 mm									601*206*178mm					
	Net Weight (Solar CHG) kg	16.5		17		21.1	20	26	24.5	24.8	38.2	35.8	45.2	45	45.2	45
	Shipping Dimensions(W*H*D)	570*335*300mm									750*335*300mm					
	Shipping Weight (Solar CHG) kg	19.3		20		24.1	22.8	29.1	27.5	27.5	42.3	40	49.5	49.3	49.5	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 yea, 2 or 3 years optional (IP20)														

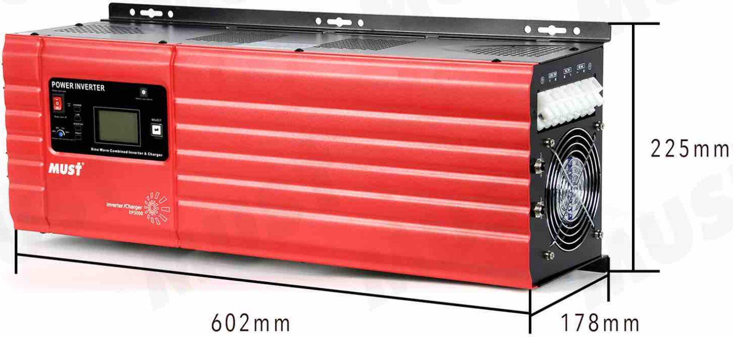
*** Product specifications are subject to change without further notice.**

Size

MUST


POWER INVERTER
SELECT
Sine Wave Combined Inverter & Charger
MUST
Inverter/Charger
EP3000
206mm
422mm
178mm

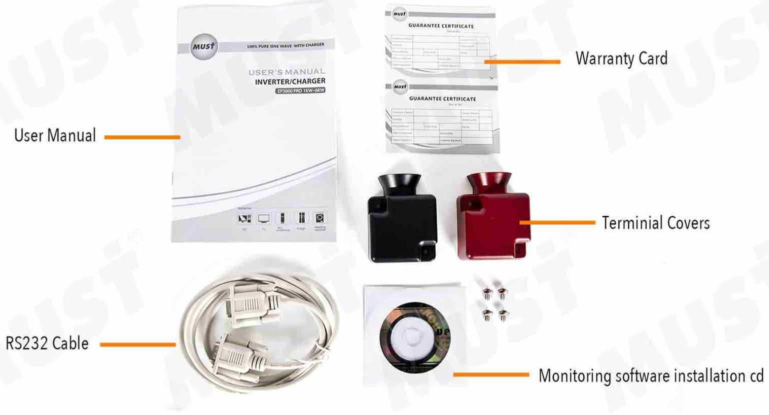
1KW-3KW


POWER INVERTER
SELECT
Sine Wave Combined Inverter & Charger
MUST
Inverter/Charger
EP3000
225mm
602mm
178mm

4KW-6KW

Package

MUST


User Manual
Warranty Card
Terminial Covers
RS232 Cable
Monitoring software installation cd

COLOR BOX DIMENSION	
1KW-3KW：570*335*300MM	4KW-6KW：755*335*300MM

LOADING		
20GP	40GP	40HQ
450pcs	900pcs	1100pcs

Green Energy Advocates
100% PURE SINE WAVE INVERTER WITH CHARGER
POWER INVERTER
Inverter/Charger EP3000

Packaging

Applicable appliances

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

MUST

REFRIGERATOR	✓	2 【Start separately】
AIR DUCT	✓	1
PRINTER	✓	1
VACUUM CLEANER	✓	1
DIGITAL PRODUCT	✓	10
SPEAKER	✓	1
SOYMILK MACHINE	✓	1
ELECTRIC IRON	✓	1
HOT WATER BOTTLE	✓	1
DRYER	✓	1
PROJECTOR	✓	1
ELECTRIC OVEN	✓	1

PRACTICAL APPLICATION

APPLICABLE PLACE

MUST

MARIVAN
Shop / Supermarket

Solar power system

Industrial intellectual control system

Ventilation systems

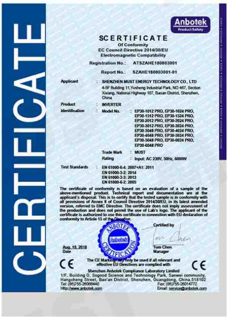
ACTUAL CASE

MUST

PROFESSIONAL CERTIFICATION

CE FCC ROHS MSDS ISO9001

High quality and high standard



CERTIFICATE

Anbotek
Product Safety

SCERTIFICATE
Of Conformity
EC Council Directive 2014/30/EU
Electromagnetic Compatibility

Registration No.: ATSZAHE180803001

Report No.: SZAHE180803001-01

Applicant : SHENZHEN MUST ENERGY TECHNOLOGY CO., LTD
4-5F Building 11,Yusheng Industrial Park, NO 467, Section Xixiang, National Highway 107, Baoan District, Shenzhen, China

Product : INVERTER

Identification : Model No. : EP30-1012 PRO, EP30-1024 PRO, EP30-1512 PRO, EP30-1524 PRO, EP30-2012 PRO, EP30-2024 PRO, EP30-3012 PRO, EP30-3024 PRO, EP30-3048 PRO, EP30-4024 PRO, EP30-4048 PRO, EP30-5024 PRO, EP30-5048 PRO, EP30-6024 PRO, EP30-6048 PRO

Trade Mark : MUST
Rating : Input: AC 230V, 50Hz, 6000W

Test Standards : EN 61000-6-4: 2007+A1: 2011
EN 61000-3-2: 2014
EN 61000-3-3: 2013
EN 61000-6-2: 2005

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 all provisions of Annex II of Council Directive 2014/30/EU, in its latest amended version, referred to EMC Directive. The certificate does not imply assessment of the production and does not permit the use of Lab's logo. The applicant of the certificate is authorized to use this certificate in connection with EU declaration of conformity to Article 15 of the Directive.

Aug. 10, 2018
Date

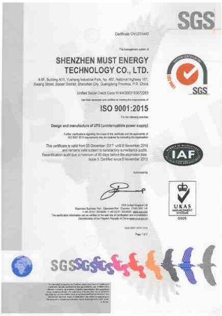
Certified by
Tom Chen
Tom Chen
Manager

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 D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518102
Tel: (86)755-26066440 Fax: (86)755-26014772
Http://www.anbotek.com Email: service@anbotek.com



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 914403003150072263

ISO 9001:2015

Design and manufacture of UPS (uninterruptible power supply)

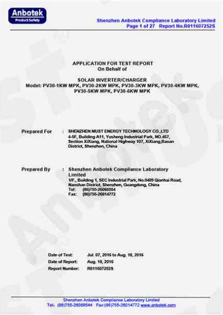
This certificate is valid from 20 December 2017 until 8 November 2018 and remains valid subject to satisfactory surveillance audits. Recertification audit due a minimum of 60 days before the expiration date. Issue 5. Certified since 8 November 2012

SGS United Kingdom Ltd

IAF

UKAS
MANAGEMENT
SYSTEMS
0005

Page 1 of 1



Anbotek
Product Safety

Shenzhen Anbotek Compliance Laboratory Limited
Page 1 of 27 Report No.R011607252S

APPLICATION FOR TEST REPORT
On Behalf of

SOLAR INVERTER/CHARGER
Model: PV30-1KW MPK, PV30-2KW MPK, PV30-3KW MPK, PV30-4KW MPK, PV30-5KW MPK, PV30-6KW MPK

Prepared For : 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

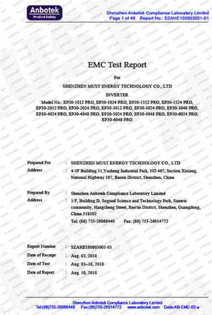
Prepared By : Shenzhen Anbotek Compliance Laboratory Limited
1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China
Tel: (86)755-26066554
Fax: (86)755-26014772

Date of Test: Jul. 07, 2016 to Aug. 18, 2016
Date of Report: Aug. 18, 2016
Report Number: R011607252S

Shenzhen Anbotek Compliance Laboratory Limited
Tel: (86)755-26066544 Fax:(86)755-26014772 www.anbotek.com

TEST REPORT

Have quality inspection to use with confidence



Anbotek
Product Safety

Shenzhen Anbotek Compliance Laboratory Limited
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EMC Test Report

For

SHENZHEN MUST ENERGY TECHNOLOGY CO., LTD

INVERTER

Model No.: EP30-1012 PRO, EP30-1024 PRO, EP30-1512 PRO, EP30-1524 PRO, EP30-2012 PRO, EP30-2024 PRO, EP30-3012 PRO, EP30-3024 PRO, EP30-3048 PRO, EP30-4024 PRO, EP30-4048 PRO, EP30-5024 PRO, EP30-5048 PRO, EP30-6024 PRO, EP30-6048 PRO

Prepared For : SHENZHEN MUST ENERGY TECHNOLOGY CO., LTD
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Report Number : SZAHE180803001-01
Date of Receipt : Aug. 03, 2018
Date of Test : Aug. 03~10, 2018
Date of Report : Aug. 10, 2018

Shenzhen Anbotek Compliance Laboratory Limited
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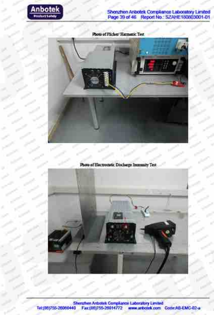

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Photo of Flicker/ Harmonic Test

Photo of Electrostatic Discharge Immunity Test

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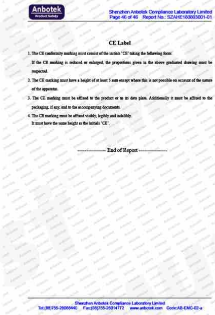

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CE Label

1. The CE conformity marking must consist of the initials "CE" taking the following form:
   If the CE marking is reduced or enlarged, the proportions given in the above graduated drawing must be respected.
2. The CE marking must have a height of at least 5 mm except where this is not possible on account of the nature of the apparatus.
3. The CE marking must be affixed to the product or to its data plate. Additionally it must be affixed to the packaging, if any, and to the accompanying documents.
4. The CE marking must be affixed visibly, legibly and indelibly.
   It must have the same height as the initials "CE".

--------------- End of Report ---------------

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