Low Frequency Solar Inverter

PV3500 SERIES (4KW-12KW)

MUST
Solar Inverter/Charger
100% PURE SINE WAVE SOLAR INVERTER

PV3500 series is a multi-function inverter ,combining functions of inverter and mppt solar charger controller, solar charger and battery charger to offer uninterruptible power support with portable size. The comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and selectable input voltage based on different applications.

Rated Power
4KW-12KW

Battery DC voltage
24V, 48V

Wide AC input range
154-272Vac

MPPT solar charge
controller:
60A / 120A

3 times surge power
based on
capacity 4KW-12KW

Pure copper
UI transformer

Battery smart
charge design

Multi protection

Appearance

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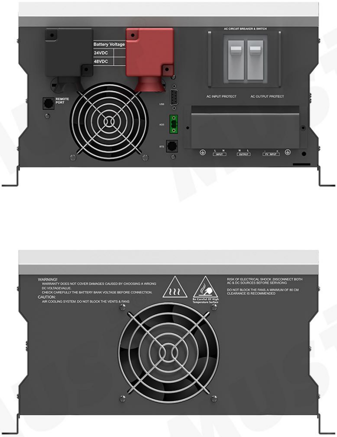
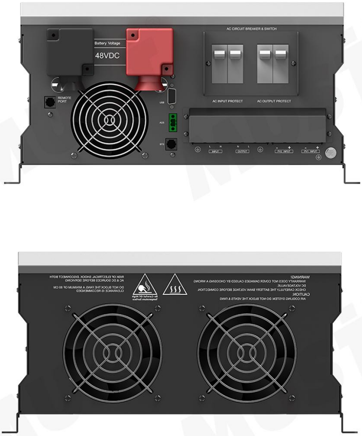
Solar Inverter/Charger
100% PURE SINE WAVE SOLAR INVERTER


Battery Voltage
24VDC
48VDC
AC CIRCUIT BREAKER & SWITCH
AC INPUT PROTECT
AC OUTPUT PROTECT
REMOTE PORT
WARNING!
WARRANTY DOES NOT COVER DAMAGES CAUSED BY CHOOSING A WRONG DC VOLTAGEVALUE.
CHECK CAREFULLY THE BATTERY BANK VOLTAGE BEFORE CONNECTION.
CAUTION:
AIR COOLING SYSTEM. DO NOT BLOCK THE VENTS & FANS
RISK OF ELECTRICAL SHOCK. DISCONNECT BOTH AC & DC SOURCES BEFORE SERVICING
DO NOT BLOCK THE FANS. A MINIMUM OF 80 CM CLEARANCE IS RECOMMENDED
Be Careful Of High Temperature Surface

(4-6KW)


Battery Voltage
48VDC
AC CIRCUIT BREAKER & SWITCH
AC INPUT PROTECT
AC OUTPUT PROTECT
REMOTE PORT

(8-12KW)

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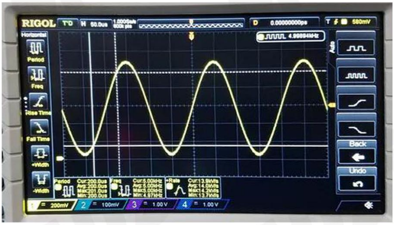
PRODUCT FEATURES

SMART & INTELLIGENT FEATURES

- Smart LCD setting(Working modes, Charge Current, Charge voltage, etc.)
- Built-in MPPT solar charge controller 60A/120A
- MPPT efficiency max 98%
- Powerful charge rate up to 100Amp
- Built-in pure copper UI transformer
- DC start &Automatic Self-Diagnostic Function
- RS485/USB monitoring function with free CD
- Supporting AGS, BTS port
- Compatible to generator

Pure sine wave output

Perfectly driving inductive load current


RIGOL
Horizontal
Period
Freq
Rise Time
Fall Time
+Width
-Width
Back
Undo
200mV
100mV
1.00 V
1.00 V
580mV

Monitoring system

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With USB can connect with computer monitoring the working stage and the data of PV, AC and battery. LCD setting is also available in computer.

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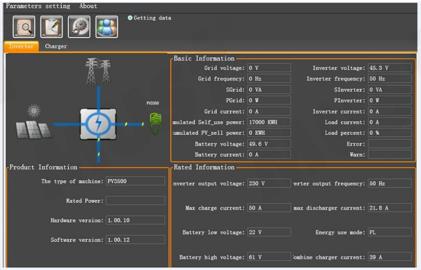
100% PURE SINE WAVE SOLAR INVERTER


Parameters setting
About
Getting data
Inverter
Charger
PV3500

Basic Information

Grid voltage: 0 V
Grid frequency: 0 Hz
SGrid: 0 VA
PGrid: 0 W
Grid current: 0 A
mulated Self_use power: 17000 KWH
umulated PV_sell power: 0 KWH
Battery voltage: 49.6 V
Battery current: 0 A
Inverter voltage: 45.3 V
Inverter frequency: 50 Hz
SInverter: 0 VA
PInverter: 0 W
Inverter current: 0 A
Load current: 0 A
Load percent: 0 %
Error:
Warn:

Product Information

The type of machine: PV3500
Rated Power:
Hardware version: 1.00.10
Software version: 1.00.12

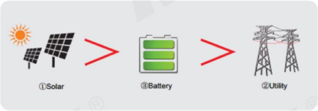
Rated Information

nverter output voltage: 230 V
erter output frequency: 50 Hz
Max charge current: 50 A
max discharger current: 21.8 A
Battery low voltage: 22 V
Energy use mode: PL
Battery high voltage: 61 V
ombine charger current: 39 A

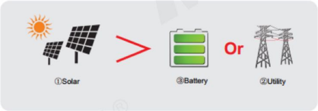
Different working modes (the sequence that the load get power from)

You can choose different working mode based on your need.

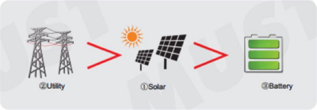
- SBU


①Solar
>
③Battery
>
②Utility

- SOL


①Solar
>
③Battery
Or
②Utility

- UTI

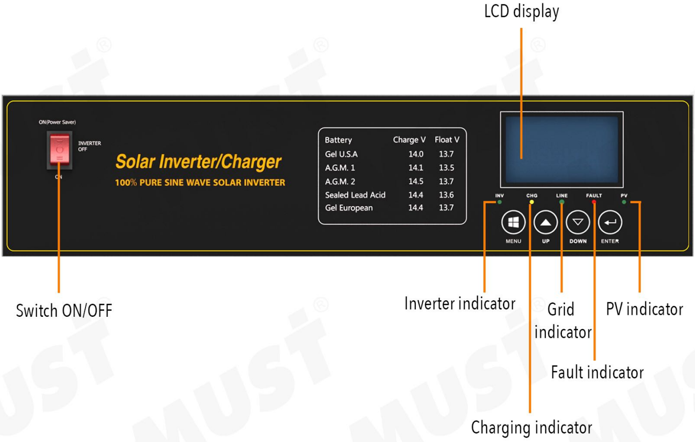

②Utility
>
①Solar
>
③Battery

MUST

PRODUCT DETAILS

MUST HELP YOU CONTROL EVERY DETAIL

Details reflect quality


LCD display
ON(Power Saver)
INVERTER
OFF
ON
Solar Inverter/Charger
100% PURE SINE WAVE SOLAR INVERTER
INV
CHG
LINE
FAULT
PV
MENU
UP
DOWN
ENTER
Switch ON/OFF
Inverter indicator
Grid indicator
PV indicator
Fault indicator
Charging indicator

Battery	Charge V	Float V
Gel U.S.A	14.0	13.7
A.G.M. 1	14.1	13.5
A.G.M. 2	14.5	13.7
Sealed Lead Acid	14.4	13.6
Gel European	14.4	13.7

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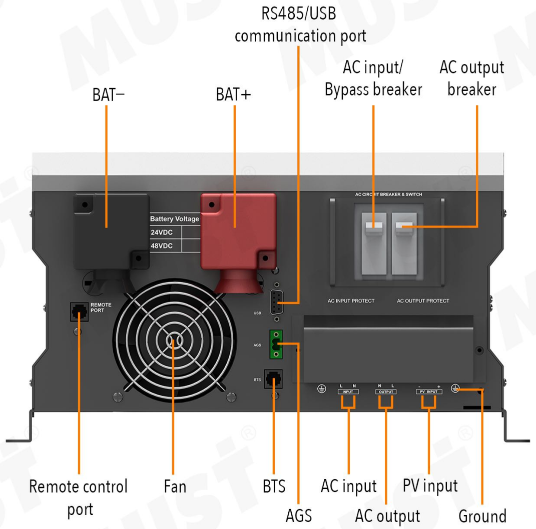
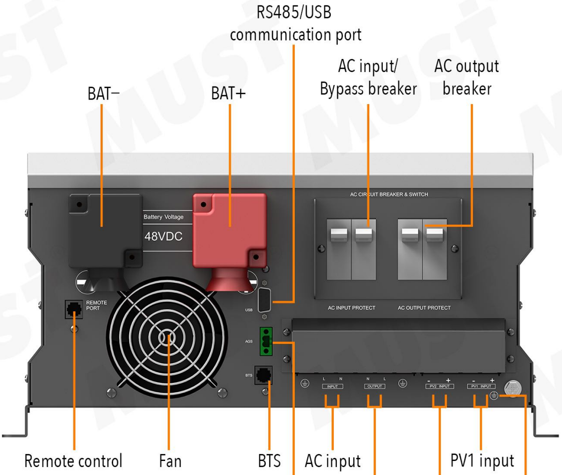

RS485/USB communication port
AC input/ Bypass breaker
AC output breaker
BAT−
BAT+
Battery Voltage
24VDC
48VDC
AC CIRCUIT BREAKER & SWITCH
AC INPUT PROTECT
AC OUTPUT PROTECT
REMOTE PORT
USB
AGS
BTS
L N INPUT
N L OUTPUT
- + PV INPUT
Remote control port
Fan
BTS
AGS
AC input
AC output
PV input
Ground

(4-6KW)

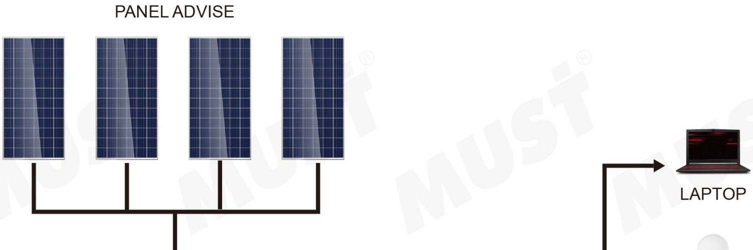

RS485/USB communication port
AC input/ Bypass breaker
AC output breaker
BAT−
BAT+
Battery Voltage
48VDC
AC CIRCUIT BREAKER & SWITCH
AC INPUT PROTECT
AC OUTPUT PROTECT
REMOTE PORT
USB
AGS
BTS
L N INPUT
N L OUTPUT
- + PV2 INPUT
- + PV1 INPUT
Remote control
Fan
BTS
AC input
PV1 input

port
AGS
AC output
PV2 input (optional)
Ground

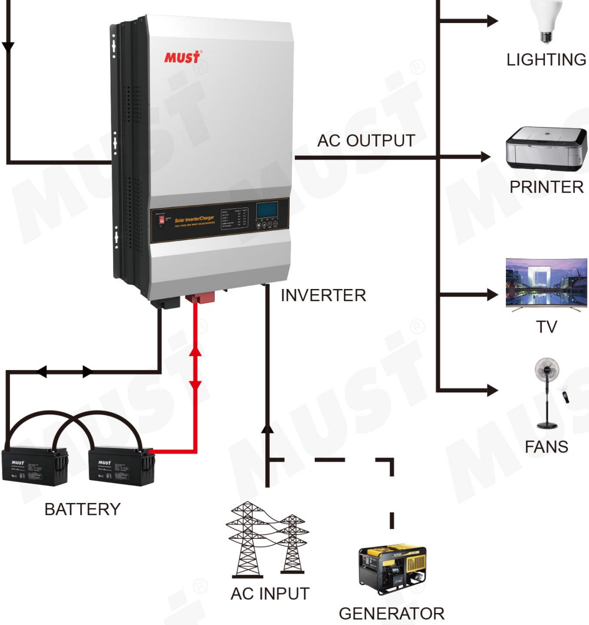
(8-12KW)

INVERTER SYSTEM CONNECTION

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


PANEL ADVISE
LAPTOP

MUST®


MUST
Solar Inverter/Charger
LIGHTING
AC OUTPUT
PRINTER
INVERTER
TV
FANS
BATTERY
AC INPUT
GENERATOR

PRODUCT PARAMETERS

MAKE SURE EACH PARAMETER IS TRUE

MUST

Learn more about the product

MODEL		PV35-4K		PV35-5K	PV35-6K	PV35-8K	PV35-10K	PV35-12K
Nominal Battery System Voltage		24V	48V	48V	48V	48VDC	48VDC	48VDC
INVERTER OUTPUT	Rated power	4KW		5KW	6KW	8.0KW	10.0KW	12.0KW
	Surge rating(20ms)	12KW		15KW	18KW	24KW	30KW	36KW
	Capable of starting electric motor	2HP		2HP	3HP	4HP	5HP	6HP
	Waveform	Pure sine wave / same as input (bypass mode)						
	Nominal output voltage RMS	220V / 230V / 240VAC (+/-10%RMS)						
	Output frequency	50Hz / 60Hz +/- 0.3Hz						
	Inverter effciency(peak)	>85%				>88%		
	Line mode efficiency	>95%						
	Power factor	0.8						
	Typical transfer time	10ma(max)						
AC INPUT	Voltage	230VAC						
	Selectable voltage range	154~272 VAC (For personal computrts)						
	Frequency range	50Hz / 60Hz (auto sensing)						
BATTERY	Minimum start voltage	20.0VDC/21.0VDC for24VDC mode (40.0VDC/42.0VDC for 48VDC mode)						
	Low battery alarm	21.0VDC+/-0.3V for 24VDC mode (42.0VDC+/-0.6V for 48VDC mode)						
	Low battery cutoff	20.0VDC+/-0.3V for 24VDC mode (40.0VDC+/-0.6V for 48VDC mode)						
	High voltage alarm	32.0VDC+/-0.3V for 24VDC mode (64.0VDC+/-0.6V for 48VDC mode)						
	High battery voltage recover	31.0VDC+/-0.3V for 24VDC mode (62.0VDC+/-0.6V for 48VDC mode)						
	Idle consumption-search mode	<25W when power saver on				<25W when power saver on		
AC CHARGER	Output voltage	Depends on battery type						
	Charger AC input breaker rating	40A		40A	50A	80A	80A	80A
	Overcharge protection S.D.	31.4VDC for 24VDC mode (62.8VDC for 48VDC mode)						
	Maximum charge current	65A	40A	50A	60A	70A	80A	100A
BTS	Continuous output power	Yes Variances in charging voltage & S.D. voltage base on the battery temperature						
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	40A				63A	63A	63A
	Max bypass current	40Amp				80Amp		
SOLAR CHARGER	Maximum PV charge current	60A				60A(120A optional)		
	DC voltage	24V/48V Auto work				48V		
	Maximim PV array power	1600W	3200W	3200W	3200W	3200W(6400W for 120A Optional)		
	MPPT range @ operating voltage(VDC)	32-145VDC for 24V mode,64-147V for 48V mode				64~147VDC		
	Maximum PV array open circuit voltage	147VDC						
	Maximum effciency	>98%						
	Standby power consumption	<2W						
MECHANICAL SPECIFICATIONS	Mounting	Wall mount						
	Dimensions (W*H*D)	620*385*215mm				670*410*215mm		
	Net weight (solar CHG) (kg)	36		41	41	69+2.5	75.75+2.5	75.75+2.5
	Shipping dimensions (W*H*D)	755*515*455mm				884*618*443mm		
	Shipping weight (Solar CHG) (kg)	56		61	64	89+2.5	95.5+2.5	95.5+2.5
OTHER	Operation temperature range	0°C to 40°C						
	Storage temperature	-15°C to 60°C						
	Audible noise	60dB MAX						
	Display	LED+LCD						
	Loading (20GP/40GP/40HQ)	140pcs / 280pcs / 320pcs						

Size

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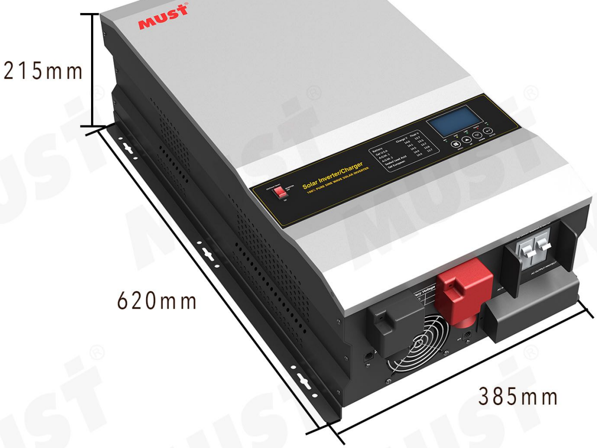
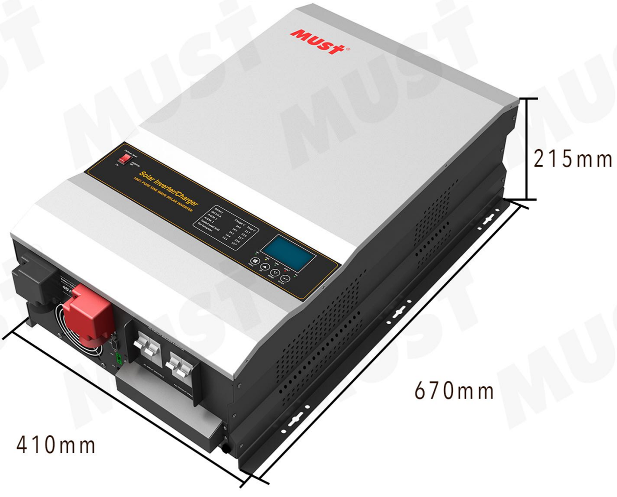

MUST
215mm
620mm
385mm
Solar Inverter/Charger
100% PURE SINE WAVE SOLAR INVERTER

4KW-6KW


MUST
215mm
670mm
410mm
Solar Inverter/Charger
100% PURE SINE WAVE SOLAR INVERTER

MUST®

8KW-12KW

MUST

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	✓
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

CCTV

Shop / Supermarket

Office

Solar power system

Industrial intellectual control system

Ventilation systems

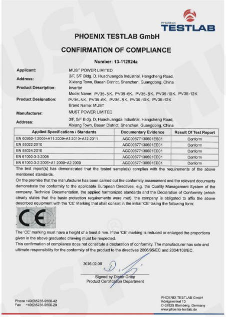
ACTUAL CASE

MUST®

PROFESSIONAL CERTIFICATION

CE ISO9001

High quality and high standard



PHOENIX TESTLAB

PHOENIX TESTLAB GmbH

CONFIRMATION OF COMPLIANCE

Number: 13-112924a

Applicant: MUST POWER LIMITED

Address: 3/F, 5/F Bldg. D, Huachuangda Industrial, Hangcheng Road, Xixiang Town, Baoan District, Shenzhen, Guangdong, China

Product Description: Inverter

Product Designation: Model Name: PV35-5K, PV35-6K, PV35-8K, PV35-10K, PV35-12K
PV35-5K, PV35-6K, PV35-8K, PV35-10K, PV35-12K
Brand Name: MUST

Manufacturer: MUST POWER LIMITED

Address: 3/F, 5/F Bldg. D, Huachuangda Industrial, Hangcheng Road, Xixiang Town, Baoan District, Shenzhen, Guangdong, China

Applied Specifications / Standards	Documentary Evidence	Result Of Test Report
EN 60950-1:2006+A11:2009+A1:2010+A12:2011	AGC00677130601ES01	Conform
EN 55022:2010	AGC00677130601EE01	Conform
EN 55024:2010	AGC00677130601EE01	Conform
EN 61000-3-3:2008	AGC00677130601EE01	Conform
EN 61000-3-2:2006+A1:2009+A2:2009	AGC00677130601EE01	Conform

The test report(s) has demonstrated that the tested sample(s) complies with the requirements of the above mentioned standards.

On the premise that the manufacturer has been carried out the conformity assessment and the relevant documents demonstrate the conformity to the applicable European Directives, e.g. the Quality Management System of the company, Technical Documentation, the applied harmonized standards and the Declaration of Conformity (which clearly states that the basic protection requirements were met), the company is obligated to affix the above described equipment with the 'CE' Marking that shall consist in the initial 'CE' taking the following form:

CE

The 'CE' marking must have a height of a least 5 mm. If the 'CE' marking is reduced or enlarged the proportions given in the above graduated drawing must be respected.

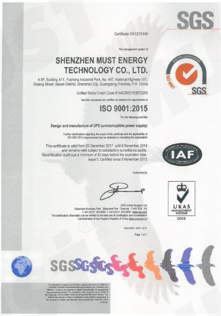
This confirmation of compliance does not constitute a declaration of conformity. The manufacturer has sole and ultimate responsibility for the conformity of the product to the directives 2006/95/EC and 2004/108/EC.

2016-02-08

Signed by Dieter Griep
Product Certification Department

Phone +49(0)5235-9500-42
Fax +49(0)5235-9500-28

PHOENIX TESTLAB GmbH
Königswinkel 10
D-32825 Blomberg, Germany
www.phoenix-testlab.de



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 91440300319367226З

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

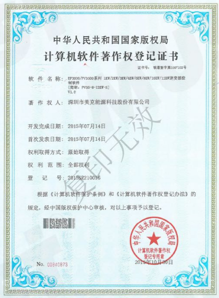
Authorised by

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



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计算机软件著作权登记证书

证书号： 软著登字第1097102号

软件名称： EP3000/PV3500系列 1KW/2KW/3KW/4KW/6KW/8KW/10KW/12KW逆变器控制软件
[简称：PV35-8-12KW-S]
V1.0

著作权人： 深圳市美克能源科技股份有限公司

开发完成日期： 2015年07月14日

首次发表日期： 2015年07月14日

权利取得方式： 原始取得

权利范围： 全部权利

登记号： 2015SR210016

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复印无效

No. 00840873

2015年10月30日

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