



沃田新能源(广东)有限公司

Woteam New Energy (Guangdong) Co., Ltd.

公司专注于动力储能电池的研发与销售，产品涵盖：家庭储能、铅酸替换类锂电池、UPS储能电池、电动自行车电池、智能机器人系列以及其他定制类电池。

Woteam focuses on the research and development and sales of power energy storage batteries. The products include: home energy storage battery, lead-acid replacement with lithium batteries, UPS energy storage batteries, E-bike battery, intelligent robot series and other customized batteries.



企业官网
Enterprise's Official Website



阿里国际
Ali International Station



🔧 应用场景

家庭备电、太阳能系统备电、小型企业、基站等不间断电源备电系统。

Application scenarios: Home backup, solar system backup, small enterprises, base stations and other uninterruptible power supply backup system.

壁挂式储能电池

Wall mounted energy storage battery



稳压输出
A stable voltage



安全性能高
Good safety



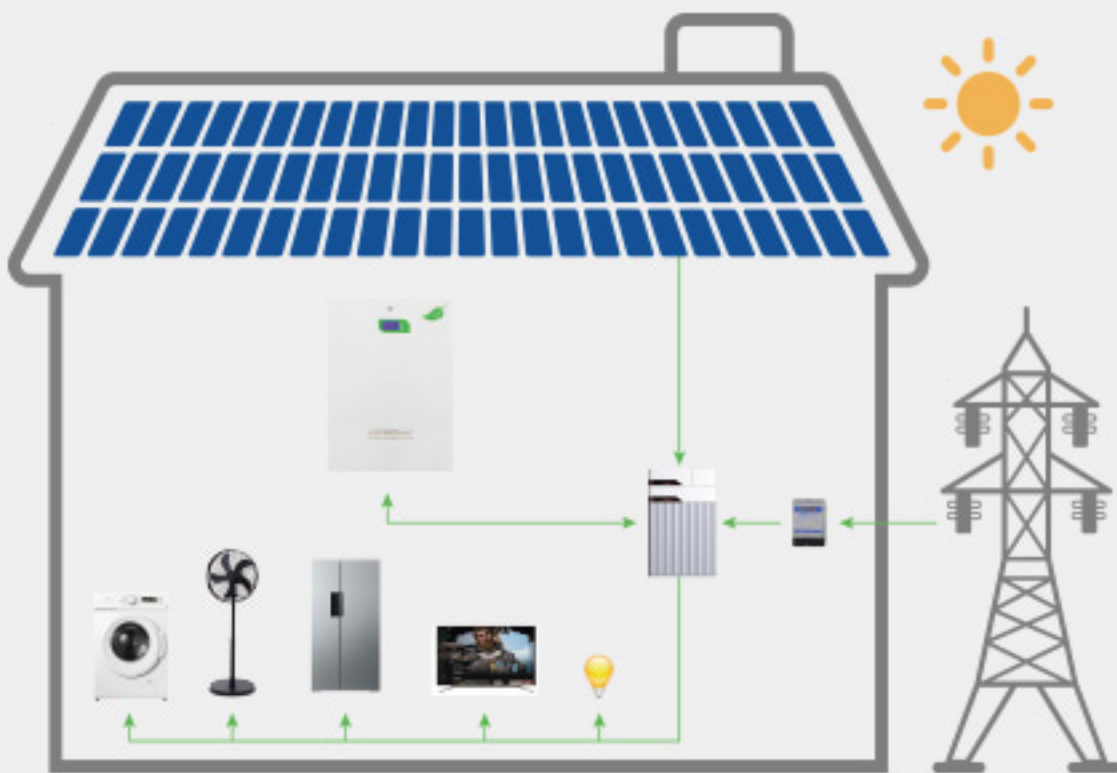
循环寿命长
Cycle life is long

功能特点：

独家外观设计，内置平衡模块与BMS保护板，支持远程监控，便捷一键开/关机，支持不同品牌PCS协议切换和OTA升级，同时支持CAN、RS232和RS485通讯。

Functional Features:

Exclusive appearance design, built-in balance module and BMS protection board, support remote monitoring, convenient one-button on/off, support different brands of PCS protocol exchange and OTA upgrade, and support CAN, RS232 and RS485 communication.



型号/Model	RAYS01(电鳐一号)
电池类型/Battery Type	磷酸铁锂/LiFePO4
功率/Power	9420Wh
额定容量/Rated Capacity	184Ah
额定电压/Rated Voltage	51.2V
电芯/Battery Cell	磷酸铁锂/3.2V 184Ah Prismatic Battery Cell
配置/Configuration (*S*P)	16S1P
放电截止电压/Discharge Cut-off Voltage	43.2V
充电截止电压/Charge Cut-off Voltage	58.4V
充电电流/Max. Charge Current	200A
放电电流/Max. Discharge Current	200A
通信端口/Communication Port	CAN, RS485, RS232
通讯协议/Communication protocol	SMA, Victron,Growatt, Solax, Solis,DEYE,Sungrow, Sofar, Voltronic, Goodwe, EPEVER, SRNE, etc
串并/Parallel	最多15个并联141.30kwh. / Max. 15P to get 141.30kwh.
循环寿命/Cycle life	>2500次
产品尺寸/Size of product(mm)	740*540*170
产品净重/Weight of product(KG)	82.3KG
包装尺寸/Size of package(mm)	850*650*380
包装重量/Weight of package	115KG
包装方式/Method of packing	UN木箱带卡板底托/Wooden case with card base
证书/Certificate	CE、UN38.3、MSDS

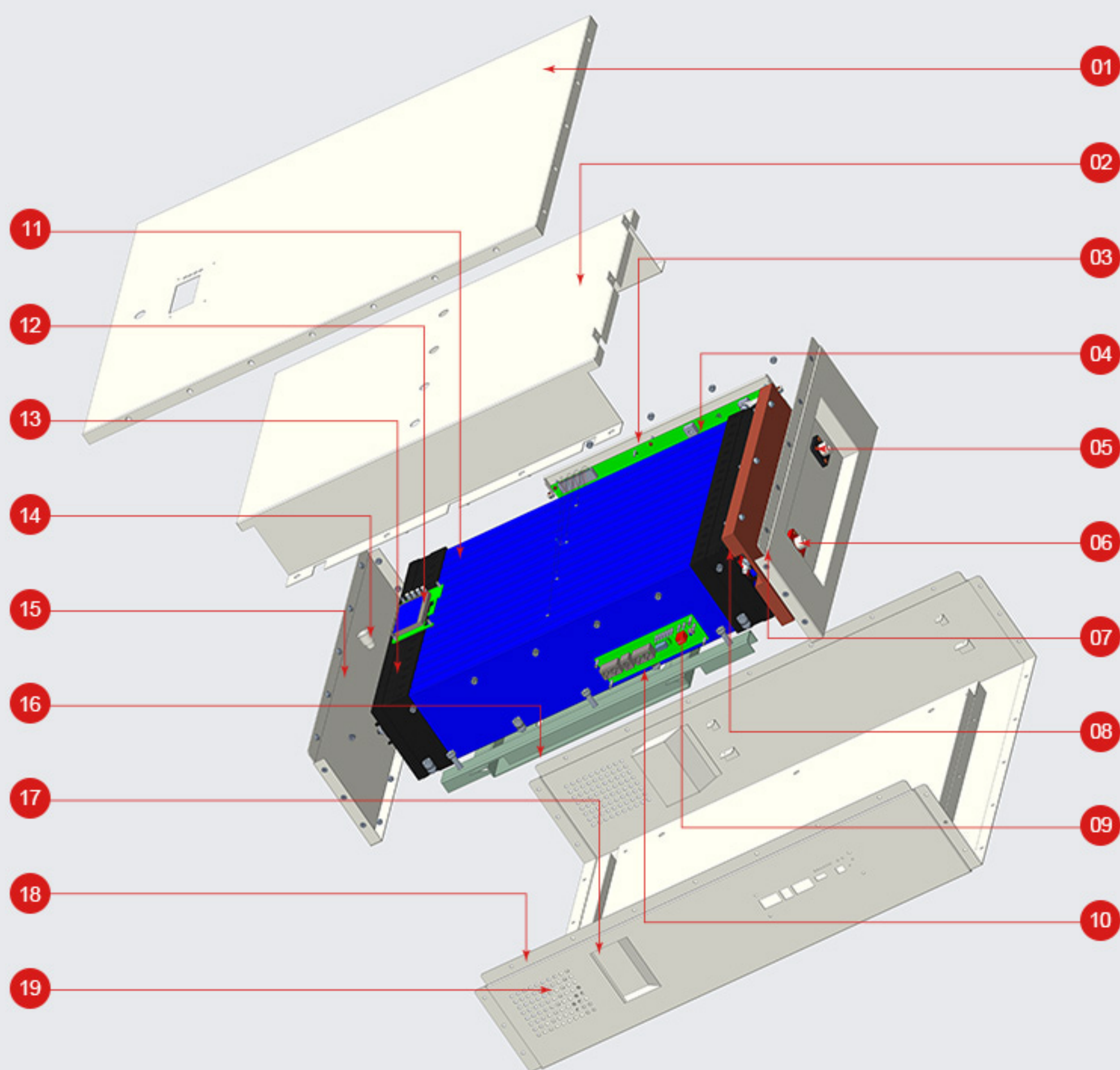
产品出厂时默认储存以上多种通讯协议，如需其它的通讯协议，客户可以下单时注明由我司预装该协议或由客户远程上传通讯协议。

The above communication protocols are stored by default when the product leaves the factory. If other communication protocols are needed, the customer can indicate that our company will pre-install the protocol or the customer will upload the communication protocol remotely when placing the order.

产品分解图

Product breakdown diagram

- | | | |
|---------------------------|----------------------------|---------------------------|
| 01. 面板 / Front panel | 02. 电芯固定架 / Cells frame | 03. BMS 固定架 / BMS fixture |
| 04. BMS | 05. 充放电负极 / Negative | 06. 充放电正极 / Positive |
| 07. 下壳 / Lower shell | 08. 电木板 / Insulation board | 09. 螺丝 / Screw |
| 10. 接口电路板 / Interface PCB | 11. 电芯 / Cell | 12. 显示屏 / Display screen |
| 13. 支架 / Frame | 14. 开关 / Switch | 15. 上壳 / Upper shell |
| 16. 壁挂 / Wall-mounted | 17. 提手 / Handling | 18. 底壳 / Bottom shell |
| 19. 散热孔 / Ventilation | | |



多久可以充满电？

Charging time calculation ?

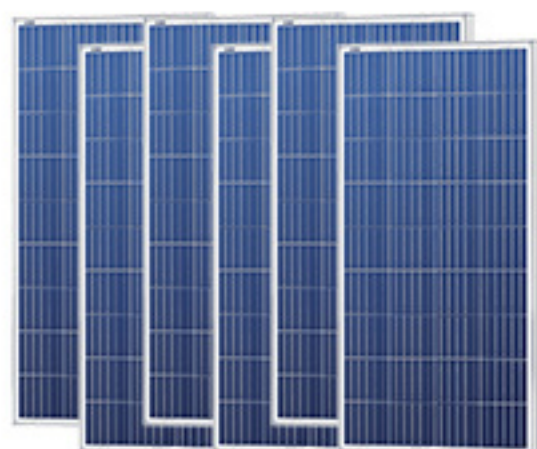


太阳能电池板

Solar Panel **450W*4=1800W**

充满大约需要 5.2 小时

$9420W \div 1800w = \mathbf{5.2 \text{ hours}}$

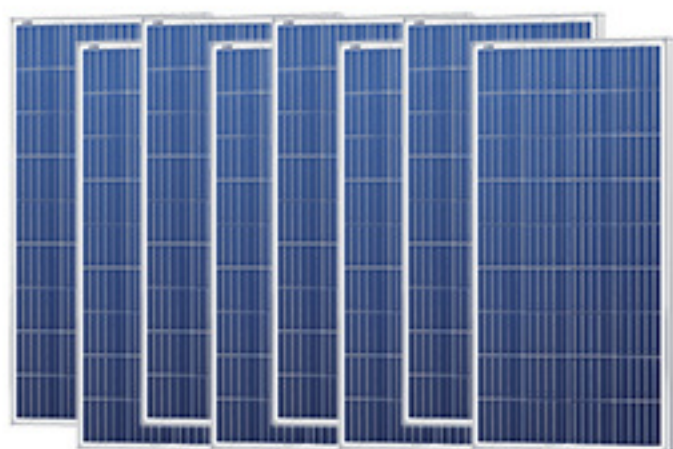


太阳能电池板

Solar Panel **450W*6=2700W**

充满大约需要 3.5 小时

$9420W \div 2700w = \mathbf{3.5 \text{ hours}}$



太阳能电池板

Solar Panel **450W*8=3600W**

充满大约需要 2.6 小时

$9420W \div 3600w = \mathbf{2.6 \text{ hours}}$

如何选择逆变器？

How to choose the inverter brand and model?



以 RAYS01(电鳐一号) 举例：

如果负载为 5000W

选择逆变器为 5000W（不限品牌）

大约可以使用 1.8 小时

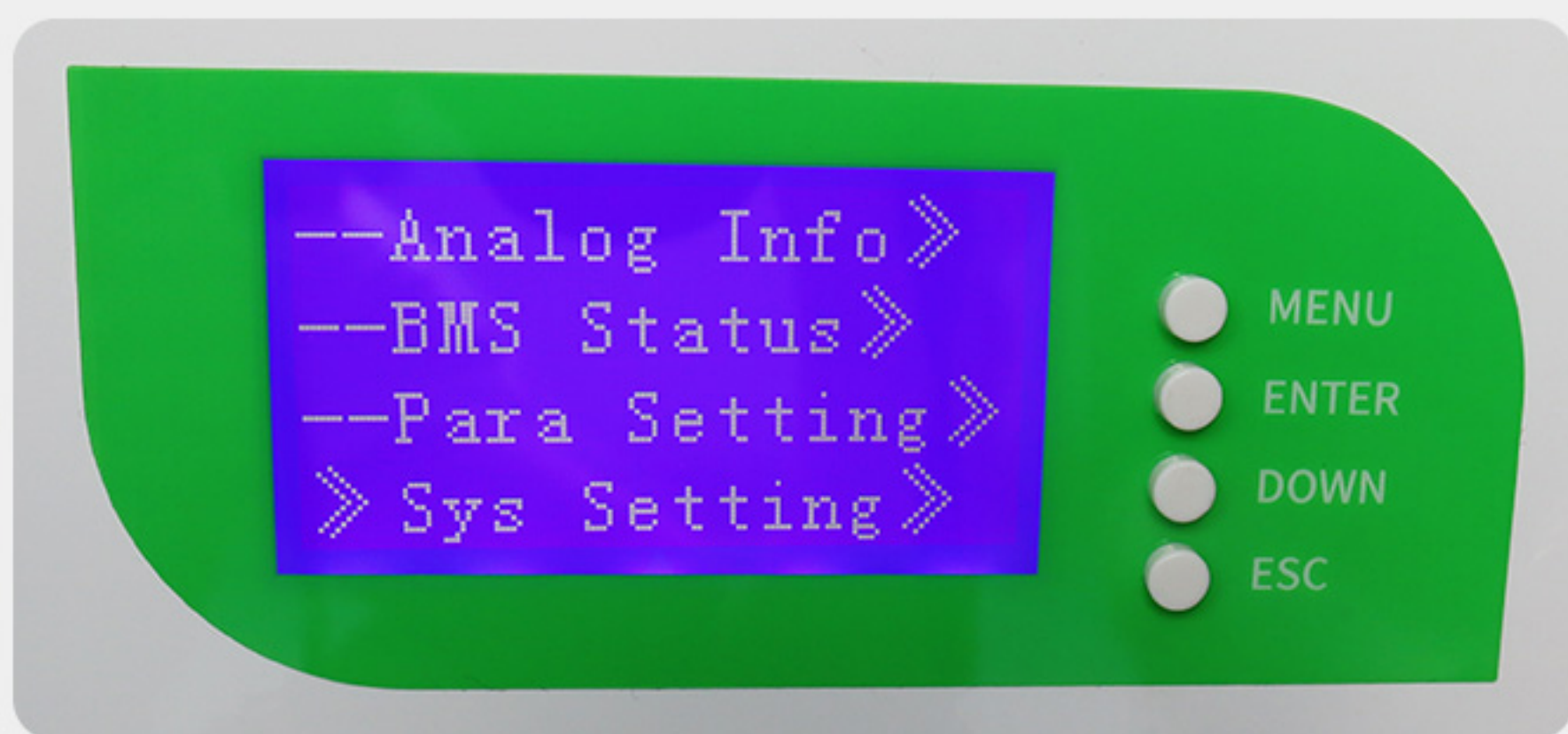
For example:

If the load is 5000W

Select 5000W inverter

(No restrictions on brands)

It lasts about 1.8 hours



屏显

The screen show

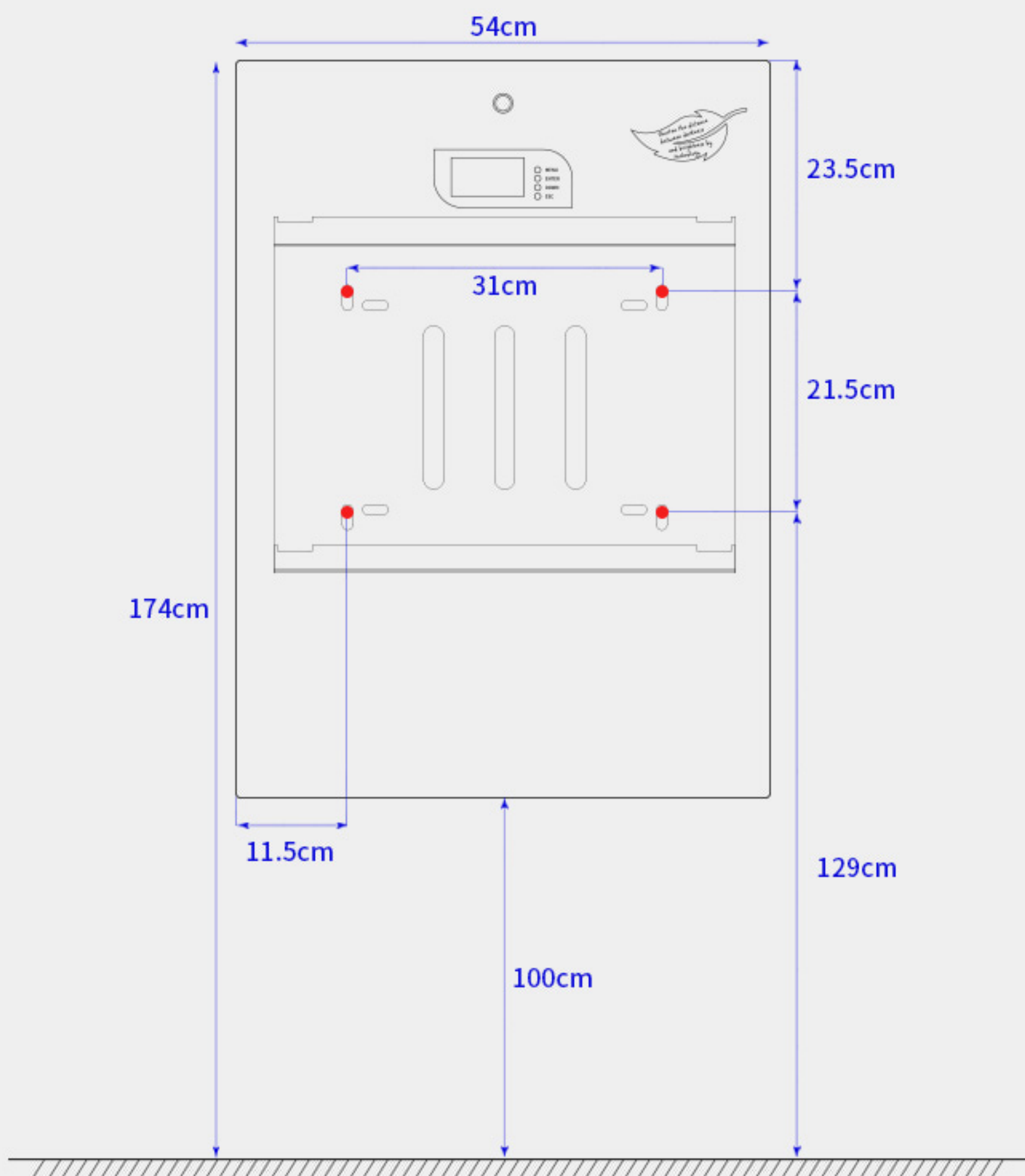
--Analog Info>>
--BMS Status>>
--Para Setting>>
>> Sys Setting>>

>> PackV: 54.49 V
--Im: 0.00 A
--Temperature>>
--Cell Voltage>>

>> Status: Idle
--Record>>
--BMS Status>>

--Non-production
manufacturer can
not use.

--Baud rate:9600



权威认证证书

Product Certification Certificate

TCT 通测检测
TESTING CENTRE TECHNOLOGY

Material Safety Data Sheet

MSDS Report

MSDS 报告

Applicant's name 委托方名称	Woteam New Energy (Guangdong) Co., Ltd. 沃田新能源（广东）有限公司
Applicant's Address 委托方地址	2F, Zhi Rong Park, No.33 Xiang Rong Rd Dalang Town, Dongguan, Guangdong, China 东莞市大朗镇松木山祥荣路 33 号智荣园区 2 楼
Name of Sample 样品名称	Li-ion Battery Pack 锂离子电池组
Model 型号	RAYS01
Nominal Voltage 标称电压	51.2V
Rated Capacity 额定容量	184Ah, 9420Wh
Weight 重量	81.10kg
Size 尺寸 (L×W×T)	(740.0×540.0×170.0)mm
Prepared By 编制单位	Shenzhen TCT Testing Technology Co., Ltd. 深圳市通测检测技术有限公司 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China 广东省深圳市宝安区福海街道桥头社区稔山工业区振昌胶粘制品厂 2101、2201
Report No. 报告编号	TCT221103M032-1

Written by 编写: Abby Luo 罗商花

Approved by 批准: Tomsin 冯瑞香

Inspected by 审核: Cherry Huang 黄懿玲

Date 日期: 2022. 11. 11





Certificate No.: BTF-SZ221031E-003

Certificate of Conformity

Issued date: 2022-11-02

Certificate Holder: Woteam New Energy (Guangdong) Co., Ltd.
Address: 2F, Zhi Rong Park, No. 33 Xiang Rong RdDalang Town, Dongguan, Guangdong, China
Manufacturer: Woteam New Energy (Guangdong) Co., Ltd.
Address: 2F, Zhi Rong Park, No. 33 Xiang Rong RdDalang Town, Dongguan, Guangdong, China
Product Description: Lithium iron phosphate solar cells
Model Number: RAYS01
Brand Name: N/A

Test standards:	Report(s) Number	Issued By	Result
EN IEC 61000-6-3:2021 EN IEC 61000-6-1:2019	BTF-SZ221031E-003	BTF	Conform

The above products have been tested by us with listed standards and found in compliance with the council EMC 2014/30/EU. It is possible to use CE marking to demonstrate the compliance with this EMC.
The statement 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.



Authorized by: David Gou
Position: General Manager



BTF Testing Lab (Shenzhen) Co., Ltd.

F101,201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China

Tel : +86-755-23146130

Website:www.btf-lab.com

E-mail: info@btf-lab.com



EMC Test Report

For

Applicant Name: Woteam New Energy (Guangdong) Co., Ltd.
Address: 2F, Zhi Rong Park, No. 33 Xiang Rong RdDalang Town, Dongguan, Guangdong, China

EUT Name: Lithium iron phosphate solar cells
Brand Name: N/A
Model Number: RAYS01

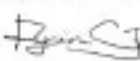
Issued By

Company Name: BTF Testing Lab (Shenzhen) Co., Ltd.
F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park,
Address: Tantou Community, Songgang Street, Bao'an District, Shenzhen,
China

Report Number: BTF-SZ221031E-003
Test Standards: EN IEC 61000-6-3:2021
EN IEC 61000-6-1:2019

Test Conclusion: Pass
Test Date: 2022-10-31 to 2022-11-02
Date of Issue: 2022-11-02

Prepared By: 
Nightfall Wen / Project Engineer
Date: 2022-11-02

Approved By: 
Ryan.CJ / EMC Manager
Date: 2022-11-02



Note: All the test results in this report only related to the testing samples. Which can be duplicated completely for the legal use with approval of applicant; it shall not be reproduced except in full without the written approval of BTF Testing Lab (Shenzhen) Co., Ltd., All the objections should be raised within thirty days from the date of issue. To validate the report, you can contact us.

Total or partial reproduction of this document without permission of the Laboratory is not allowed.
BTF Testing Lab (Shenzhen) Co., Ltd.
F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China

Page 1 of 29

TCT 通测检测
TESTING CENTRE TECHNOLOGY

Shenzhen TCT Testing Technology Co., Ltd.
2101 & 2201, Zhenchang Factory, Renshan Industrial Zone,
Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong,
China

危险物品

DANGEROUS GOODS

Report for Safe Transport of Goods

货物运输条件鉴定报告书

此报告本年度有效

有效期至 2022 年 12 月 31 日

Name of Goods: Li-ion Battery Pack RAYS01 51.2V 184Ah 9420Wh

货物名称: 锂离子电池组 RAYS01 51.2V 184Ah 9420Wh

Applicant's name: Woteam New Energy (Guangdong) Co., Ltd.

委托方名称: 沃田新能源（广东）有限公司

Transportation: By Sea

运输方式：海运

Shenzhen TCT Testing Technology Co., Ltd.
深圳市通测检测技术有限公司



UN38.3 Test Summary
UN38.3 试验概要

UN38.3 Report No. UN38.3 报告编号	TCT221103B032-1				
Applicant's name 委托方名称	Woteam New Energy (Guangdong) Co., Ltd. 沃田新能源（广东）有限公司				
Applicant's Address 委托方地址	2F, Zhi Rong Park, No.33 Xiang Rong Rd Dalang Town, Dongguan, Guangdong, China 东莞市大朗镇松木山祥荣路 33 号智荣园区 2 楼				
Manufacturer's name 制造商名称	Woteam New Energy (Guangdong) Co., Ltd. 沃田新能源（广东）有限公司				
Manufacturer's Address 制造商地址	2F, Zhi Rong Park, No.33 Xiang Rong Rd Dalang Town, Dongguan, Guangdong, China 东莞市大朗镇松木山祥荣路 33 号智荣园区 2 楼				
Manufacturer's Contact Telephone 制造商联系电话	+86-769-3884 6686	E-mail 邮箱	wt004@woteampower.com	Web 网址	www.woteampower.com
Name of Sample 样品名称	Li-ion Battery Pack 锂离子电池组		Model 型号	RAYS01	
Trade Mark 商标	---		Shape 形状	Prismatic 棱柱形	
Watt-hour 瓦时	9420Wh		Sample Mass 样品重量	81.10kg	
Description 描述	Lithium ion Batteries 锂离子电池组		Date of Test Report 测试报告签发日期	2022. 11. 11	

Test Standard 检测标准:

UN "Manual of Tests and Criteria" ST/SG/AC.10/11/Rev.7/Amend.1/Subsection 38.3.
联合国《试验和标准手册》（第七修订版修正 1）38.3 节。

Testing Laboratory 测试实验室:

Shenzhen TCT Testing Technology Co., Ltd. 深圳市通测检测技术有限公司

2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

广东省深圳市宝安区福海街道桥头社区稔山工业区振昌胶粘制品厂 2101、2201

400-6611-140

86-755-27673339

tom@tct-lab.com

<http://www.tct-lab.com>

Page 1 of 2

TCT 通测检测
TESTING CENTRE TECHNOLOGY



中国认可
国际互认
检测
TESTING
CNAS L6165

Version: V1.0

UN38.3 Test Report

UN38.3 检测报告

Applicant's name 委托方名称	Woteam New Energy (Guangdong) Co., Ltd. 沃田新能源（广东）有限公司
Applicant's Address 委托方地址	2F, Zhi Rong Park, No.33 Xiang Rong Rd Dalang Town, Dongguan, Guangdong, China 东莞市大朗镇松木山祥荣路 33 号智荣园区 2 楼
Name of Sample 样品名称	Li-ion Battery Pack 锂离子电池组
Model 型号	RAYS01
Testing Laboratory 测试实验室	Shenzhen TCT Testing Technology Co., Ltd. 深圳市通测检测技术有限公司 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China 广东省深圳市宝安区福海街道桥头社区稔山工业区振昌胶粘制品厂 2101、2201
Report No. 报告编号	TCT221103B032-1
Date of Issue 签发日期	2022. 11. 11
Test Conclusion 测试结论: The test results are qualified. 测试结果为合格。	

Tested by 主检人: Abby Mo 周高花

Approved by 批准人: Tomsin 杨瑞森

Inspected by 审核人: Cherry Huang 黄姝玲

Seal of TCT 报告单位（盖章）:



Report No. 报告编号: TCT221103B032-1

Hotline: 400-6611-140

Tel: 86-755-27673339

E-mail: tom@tct-lab.com

<http://www.tct-lab.com>

Page 1 第 1 页

产品与配件

Products and Accessories



Battery pack X1
电池组



The fixed frame X1
固定架



M8*80 SCREW X4
承重螺丝



M8*12 SCREW X2
正 / 负极螺丝



Level gauge X1
水平尺



Ethernet cable X1
水晶头网线



RJ11 232 Tieline X1
通讯线

包装图

Product packaging drawing



包装尺寸: 85*65*38cm
产品重量: 82.3KG
包装重量: 115KG

Package size: 85*65*38cm
Product weight: 82.3KG
Packing weight: 115KG

物流与运输

Logistics and Transportation



5-7 working days
WWW.FEDEX.COM



5-7 working days
WWW.DHL.COM



5-7 working days
WWW.UPS.COM



5-7 working days
WWW.TNT.COM



5-7 working days
WWW.EMS.COM.CN



姓名：牛学辉

手机：135 5685 5364

电话：+86-769-3884 6686

传真：+86-769-3884 6687

网址：www.woteampower.com

邮箱：niuge@woteampower.com

地址：广东省东莞市大朗镇松木山村祥荣路33号A栋2楼

