

USER MANUAL 使用说明书

DUAL BATTERY

BIDIRECTIONAL CHARGER

双电池双向充电器



BC900M SERIES
BC900M系列

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IMPORTANT SAFETY INSTRUCTIONS 重要安全需知

Save these Instructions – Danger: Please read the user manual and safety instructions carefully before using the appliance. 危险警示：使用本产品前，请务必仔细阅读使用说明书及安全操作规范。

- ◆ Ensure good VENTILATION around the unit 务必保证设备周边通风顺畅。
- ◆ The BC900M series is designed to charge 12V, 24V, 36V and 48V lithium/AGM batteries. Do not attempt to use with batteries with voltages not matching the charger's specified voltage. **BC900M 系列充电器仅适配 12V, 24V, 36V, 48V 锂电池/AGM 电池充电，严禁搭配电压规格不符的电池使用。**
- ◆ Disconnect the BATTERY supply and take care when installing power cables 连接电源线前先断开电池电源，请务必小心操作。
- ◆ Do not probe the charger with conductive materials. 禁止用导电材质探触充电器内部。
- ◆ Do not use this product in an enclosure containing lead-acid batteries. These batteries vent explosive hydrogen gas, which can be ignited by sparks from electrical connections. 切勿在存放铅酸蓄电池的密闭空间内使用本产品；铅酸电池会释放易爆氢气，电路火花易引发爆炸。
- ◆ Do not use this product where there are flammable fumes or gases. 禁止在存在易燃烟雾、可燃气体的场所使用。
- ◆ Do not try to use the charger for any other purpose than what is presented in this manual. 仅限说明书标注用途使用，严禁私自挪作他用。
- ◆ Unplug the charger before cleaning and when there is no battery pack in the charger. 清洁设备或充电器内无电池时，务必断开电源。
- ◆ Do not try to connect two chargers together. 严禁将两台充电器相互对接连接。
- ◆ Do not use the charger in the circumstances that the input/output Polarity does not match the load polarity. 输入、输出正负极与负载极性不匹配时，禁止开机使用。
- ◆ The cover may under no circumstances be opened. If the cover is damaged, then the charger may no longer be used. 严禁私自拆卸设备外壳，外壳出现破损后立即停止使用。
- ◆ Do not recharge non-rechargeable batteries. 严禁对一次性不可充电电池进行充电。
- ◆ Do not connect output DC clamps to the carburetor, fuel lines, or sheet metal body parts. 切勿将直流输出接线夹接在化油器、燃油管路及车身钣金件上。
- ◆ Never attempt to charge a frozen battery. 绝对不可对冻住结冰的电池进行充电。

WARNING 警示

To avoid the risk of fire, electrical shock, or electrocution. 谨防引发火灾、触电及电击伤亡事故。

- ◆ Always remove the battery pack before cleaning, inspecting, or performing any maintenance on the tool.
清洁、检查或对设备进行任何维护作业前，务必先取下电池组。
- ◆ Changes or modifications to this product not expressly approved by the responsible compliance party shall void its warranty terms. 未经合规责任方正式许可，擅自对此产品进行改动或改装，将导致此产品的保修条款失效。

NOTE 注意

This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. The reception can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 本设备会产生、使用并辐射射频能量，若未按照使用说明进行安装与使用，可能会对无线电及电视信号接收产生有害干扰。可通过开关本设备判定是否存在信号干扰，用户可采取以下一种或多种方式消除干扰：

- ◆ Reorient or relocate the receiving antenna. 调整接收天线方向或重新安置天线位置。
- ◆ Increase the separation between the equipment and the receiver. 增加本设备与信号接收设备之间的距离。
- ◆ Consult the dealer or manufacturer technician for help. 联系经销商或厂家技术人员寻求协助。

CUSTOMER SERVICE 客户服务

Email: info@wengaoelec.com

Tel: [+86 0755 29418061](tel:+86075529418061)

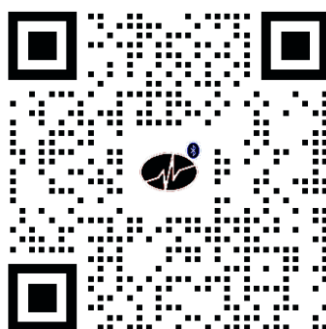
Website: www.wengaoelec.com

DATA SHEET & APP

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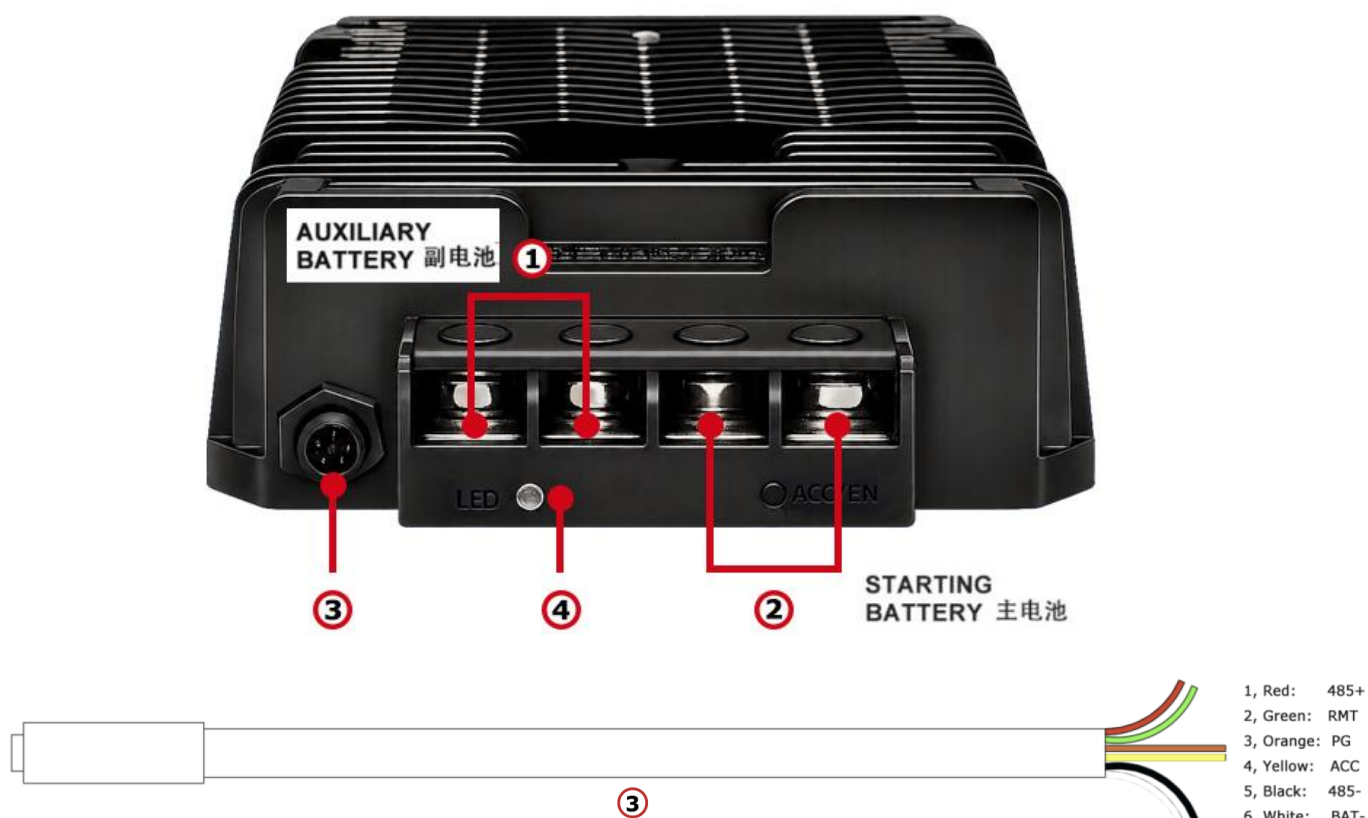
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CHARGING A BATTERY 电池充电操作

Follow these steps to charge a battery: 请根据以下步骤进行连接

1. Connect the DC output cable ① to the AUXILIARY (B) battery terminal receptacle. 将导线连接至副电池接线端子座，注意区分正负极。
2. Connect the DC input cable ② to the STARTING (A) battery terminal receptacle. 将导线连接至主电池接线端子座，注意区分正负极。



3. RS485 ③ COMMUNICATION

- 1: RS485+ (Red) 红线接 RS485 正极 (不需要此功能可以不接)
- 2: RS485- (Black) 黑线接 RS485 负极 (不需要此功能可以不接)
- 3: ACC (Yellow) 将黄色 ACC 线接到主电池的正极或接机动车钥匙 ACC 档有电、熄火断电的线上，如：点烟器、收音机、保险盒 ACC 保险丝。(如不接，充电器不工作)
- 4: RMT (Green) 将绿色 RMT 线接到副电池正极，充电器将实现反向充电
- 5: BAT - (White: Battery Negative Signal) 信号连接线
- 6: PG -/Mode (Orange) 连接橙线模式切换 (此功能暂未开放)

4. COLOR LED FOR STATUS INDICATION 彩色 LED 灯显示状态

The Charger LED Light ④ illuminates in a specified order to show the current battery status.

Red: battery is charging 亮红灯，电池正在充电

Green: fully charged 亮绿灯，电池已充满

FUNCTION & SAFETY 安全 & 保护功能

EMC 电磁兼容 Moisture-proof 防潮	EN 55014-1:2017+A11:2020
	EN 55014-2:2015
	EN IEC 61000-3-2:2019
	EN 61000-3-3:2013+A1:2019
MTBF 平均使用寿命	MTBF≥100,000H
Waterproof level 防水等级	IP65

- 1. Short-circuit protection – protects the charger from short-circuit damage. 短路保护：避免充电器因短路故障受损
- 2. Overcurrent protection – protects the charger from over-current demand. 过流保护：防止电流过大损坏充电器
- 3. Overvoltage protection – protects the batteries from damage. 过压保护：避免充电器遭受过压损坏
- 4. Overtemperature protection – protects the charger and batteries from damage. 过温保护：防止充电器因高温受损
- 5. Waterproof protection - protects the charger from damage. 防水防护：有效防护充电器免受水汽侵入损坏

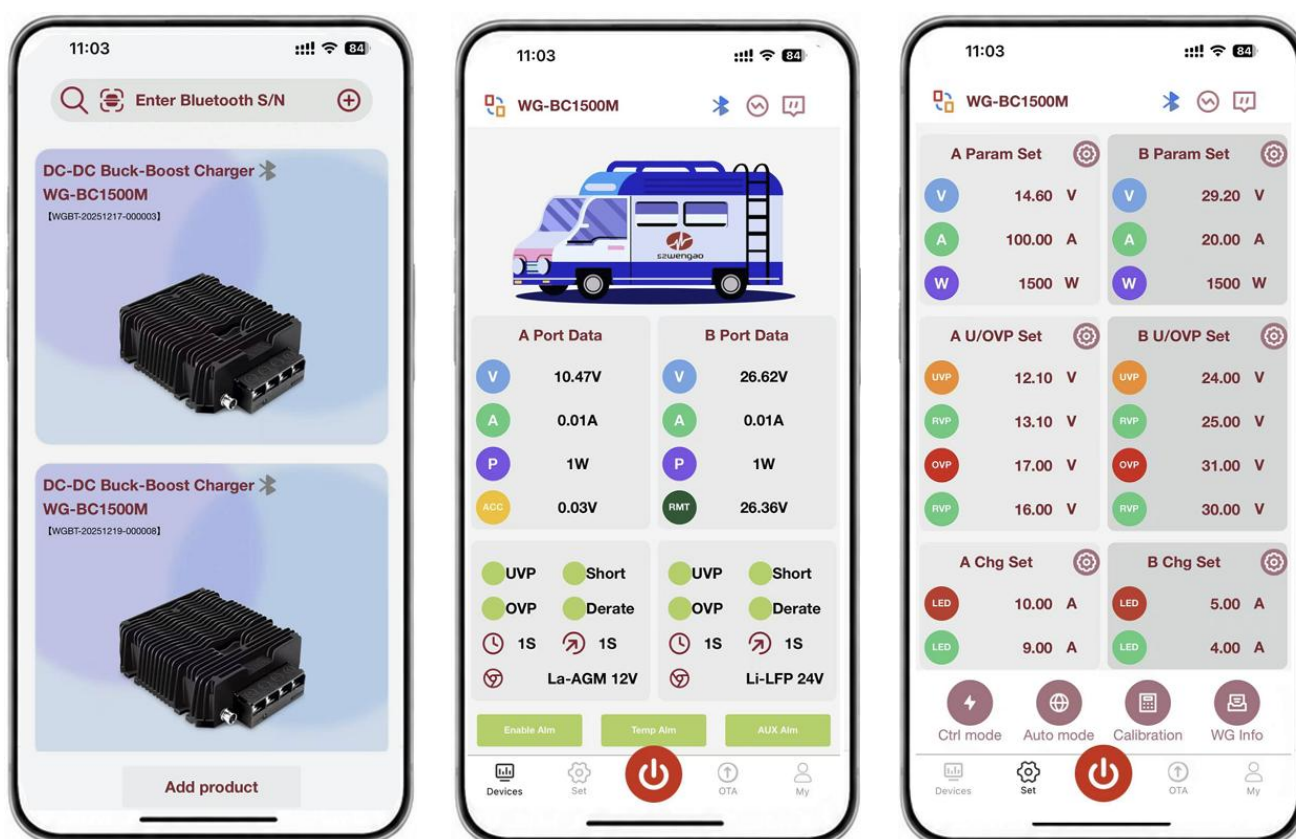
SPECIFICATIONS 规格参数

P/NO. 型号	WG-12BC900M	WG-24BC900M	WG-36BC900M	WG-48BC900M
Input rated voltage	12V/24V DC			
Input voltage range	10-60V DC			
Efficiency	96% @ 12Vin			
Output voltage	14.6V DC	29.2V DC	43.8V DC	58.4V DC
Charging current	60A	30A	20A	15A
Output power	900W			
Ripple & Noise	220-600mVp-p			
Working temperature	-40 ~ +55℃			
Waterproof level	IP65			
Working humidity	10% ~ 90% RH			
Dimension	140*120*42.5mm (5.51*4.72*1.67 inch)			
Weight	≤1.3kg			
Input cables type	6AWG	If the wire length is greater than 1m, it is recommended to use a thicker wire diameter.		
Output cables type	8AWG			
Cooling	Cooling by free air convection			
Packing	Box			
Note: Please contact us if detailed technical parameters are needed. 如需详细规格参数，请与我们联系				

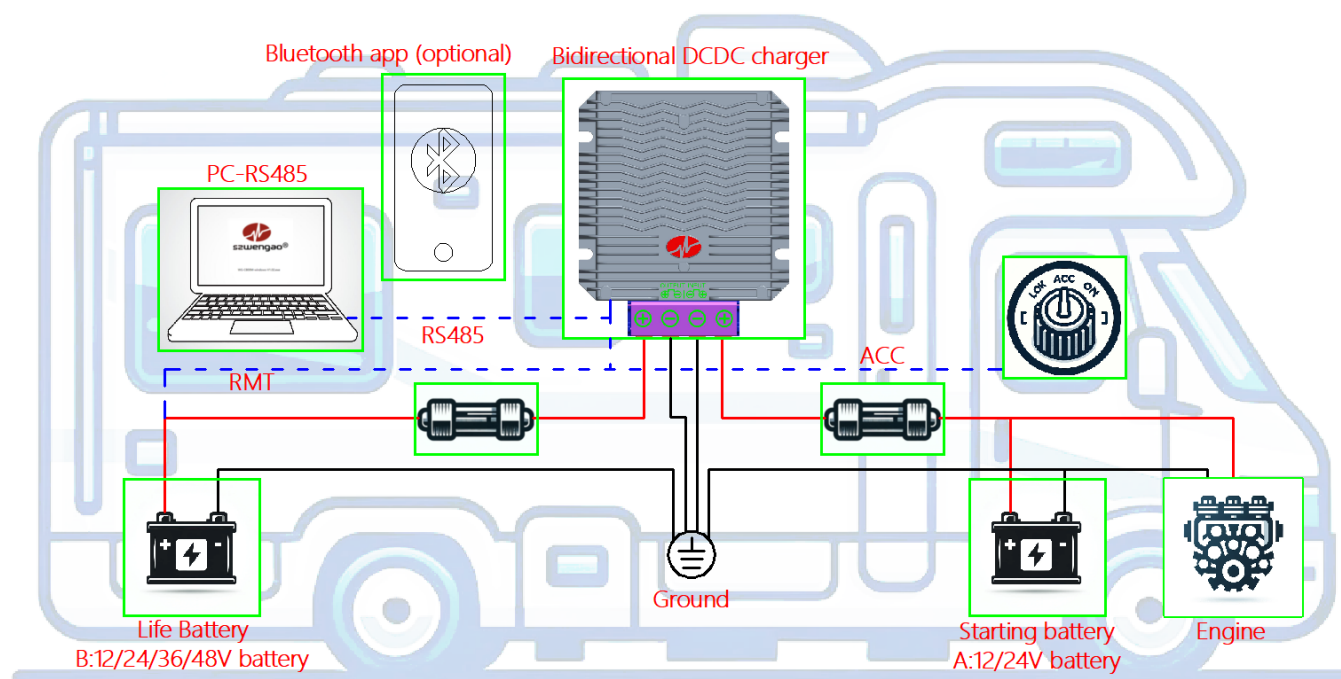
HOW TO USE THE APP 如何使用 APP

This APP is mainly used to set basic charger parameters, such as the overvoltage value and undervoltage value of the input main battery(A), as well as the charging current and charging voltage of the output auxiliary battery(B). 本 APP 用于设置充电器基础参数，如可调节主电池 (A) 的过压、欠压值等，以及副电池 (B) 的充电电流、充电电压等。

Scan the QR code printed in the manual with your mobile phone to download the APP. You will enter the interface as shown below, and you can set relevant parameters according to your actual needs. 请用手机扫描说明书上面的二维码下载 APP，进入对应界面即可按需自行设置参数。



WIRE CONNECTION 接线示意图



2-STAGE AUTOMATIC CHARGING 两段式智能充电

This is a fully automatic battery charger with 2 charge stages. 本品为两段式全自动电池充电器.

Automatic charging protects your battery from being overcharged so you can leave the charger connected to the battery indefinitely. 自动充电模式可防止电池过充，可将充电器长期与电池连接使用.

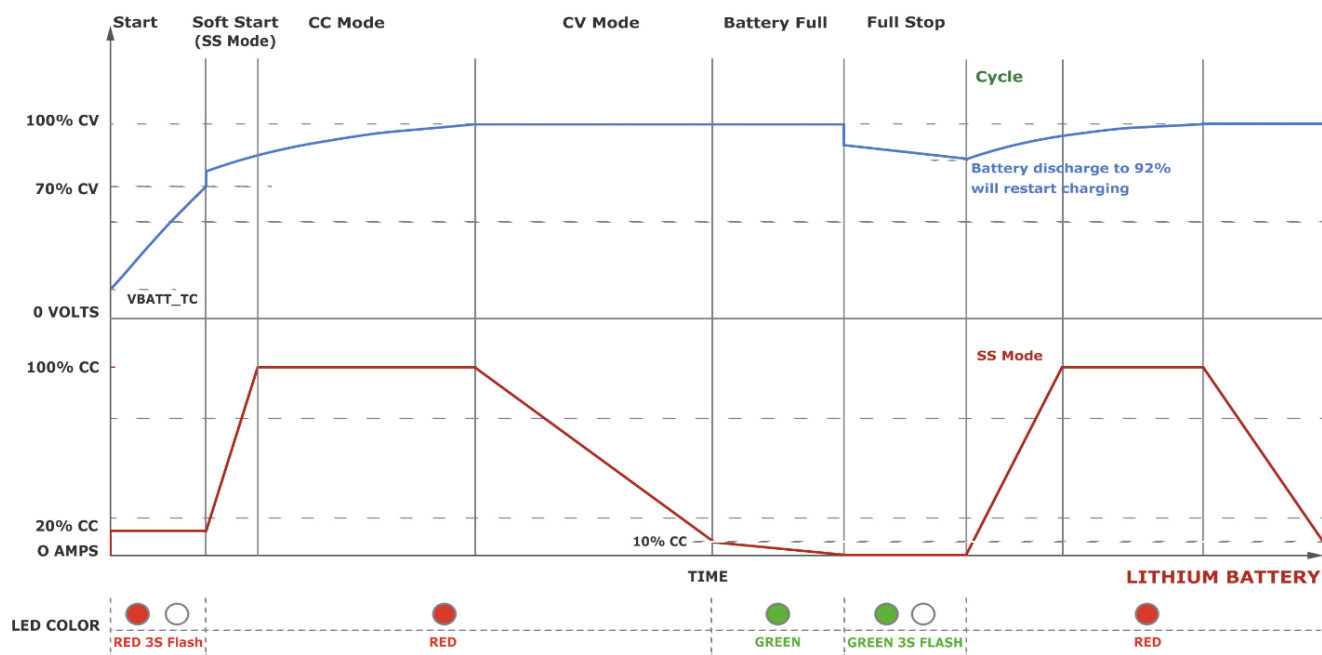
2-stage charging is a sophisticated charging technique that gives your battery longer life and better performance compared to using traditional chargers. 两段式充电为先进充电技术，相较于传统充电器，能延长电池使用寿命，提升电池使用效能.

BULK (CC MODE) 恒流模式

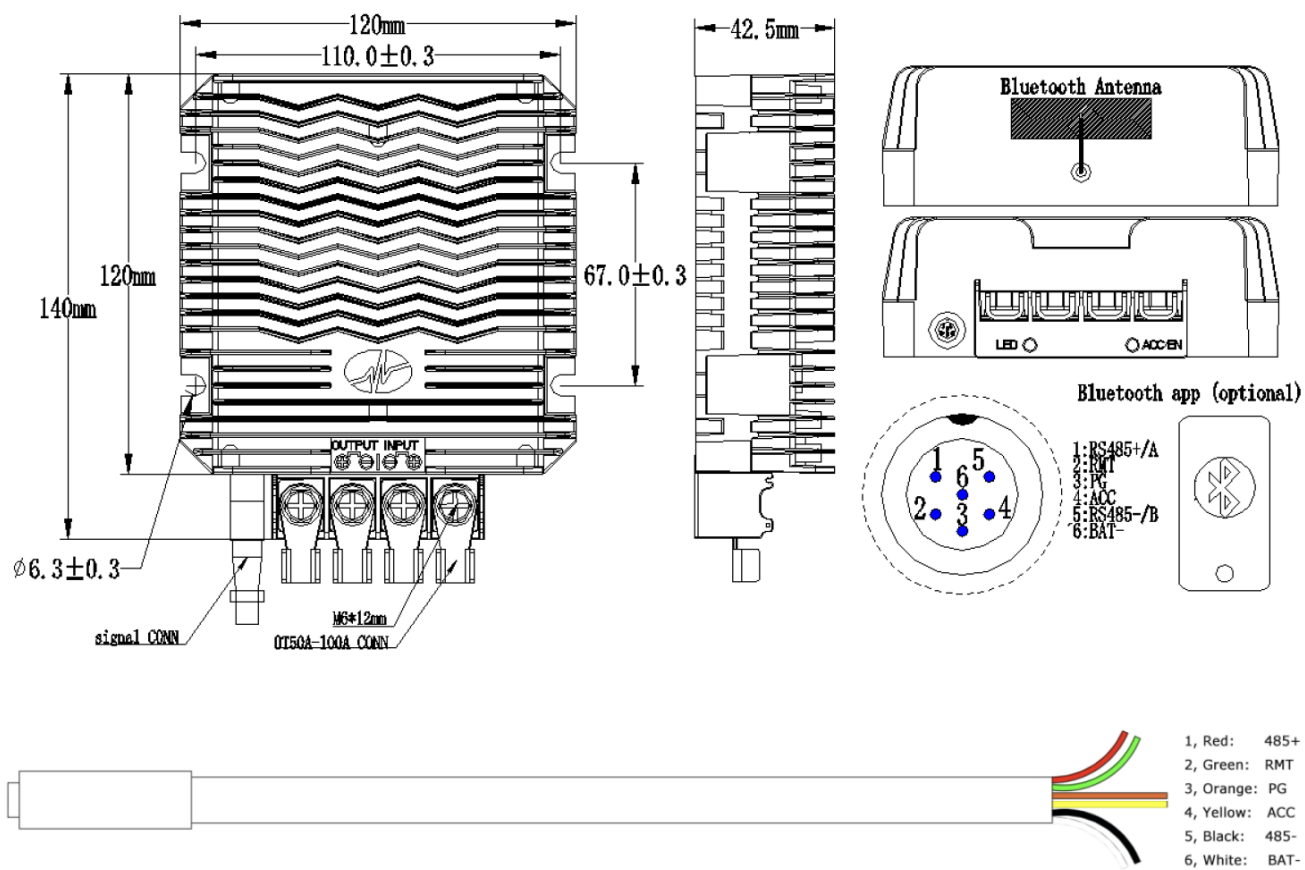
The Bulk stage reduces charging time by charging the battery at the maximum rate (constant current) to a set voltage, at which point the battery is approximately 80% charged. 以最大恒定电流充电至设定电压，大幅缩短充电时长，电池电量约充至 80%.

ABSORPTION (CV MODE) 恒压模式

The absorption stage charges the battery to 100% by adjusting the charge rate allowing the battery to absorb more power. 自动调节充电电流，补足剩余电量直至满电 100%，让电池充分蓄能.



DIMENSIONS 尺寸



■ LIMITED WARRANTY 保修

◆ We take great pride in our quality, value and performance and believe that this product should offer you trouble free operation throughout its lifetime providing you take care to follow the simple instructions in the product documentation. If you experience any problems with your product, please feel free contact with us. 我们的产品品质优良、性价比高、性能稳定，只要严格依照产品说明书规范使用，设备可长期稳定无故障运行。产品使用过程中如有任何问题，欢迎随时联系我方。

◆ **szwengao** provides a one year warranty from the date of purchase, to the original purchaser. This warranty covers manufacturing defects in material and workmanship only. **szwengao** does not cover damage or failure caused by abuse, misuse, faulty installation, improper maintenance, or any attempted repairs not carried out by **szwengao**. 本产品自购买之日起，向原始购买者提供一年质保，仅承保原材料与生产工艺类出厂故障。因违规使用、安装失误、保养不当、非我方私自维修造成的损坏，均不在质保范围内。

◆ There will be no obligations or liability on the part of **szwengao** for consequential damages arising from the use of the product or any indirect damages with respect to loss of property, revenue, or costs for removal, installation, or reinstallation. 对于产品使用产生的连带损失，以及财产损失、营收损失、拆装重装产生的各类间接费用，我方不承担任何责任。

◆ For warranty service, all shipping charges for returns should be prepaid. If the requested repairs or service are within the terms of this warranty then the item will be returned to you on completion without any charge. The unit must be in its original packaging with any original accessories. **szwengao** will not be responsible or accept any liabilities for any loss or damage to additional items which are sent with returned product. 质保返修寄回运费由客户先行承担；符合质保条款的产品，维修完成后免费寄回。返修产品需配备原包装及原装配件，随产品一同寄送的其他物品出现遗失或损坏，我方概不负责。

◆ If the product is not covered under the terms of this warranty. **szwengao** will advise you of the costs to carry out any repairs necessary and the unit will be shipped to you on receipt of payment for the work including the return freight charges. Please allow 2 to 4 weeks for return of your product. Under normal circumstance we try to ensure we carry out warranty repairs within 5 working days. We cannot be held responsible for delays in shipping. 不在质保范围内的故障，我方将告知维修费用，客户结清维修费及回寄运费后安排发货。返修时长约 2 至 4 周，常规质保维修力争 5 个工作日内完成，物流运输延误我方不予担责。

■ CONTACT SZWENGAO 联系我们

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