
产 品 规 格 书

SPECIFICATION SHEET

型 号/Model No.: DA3K3M17E-600C

发布日期/Issued Date: 2021.12

版 本/Revision: V1.0

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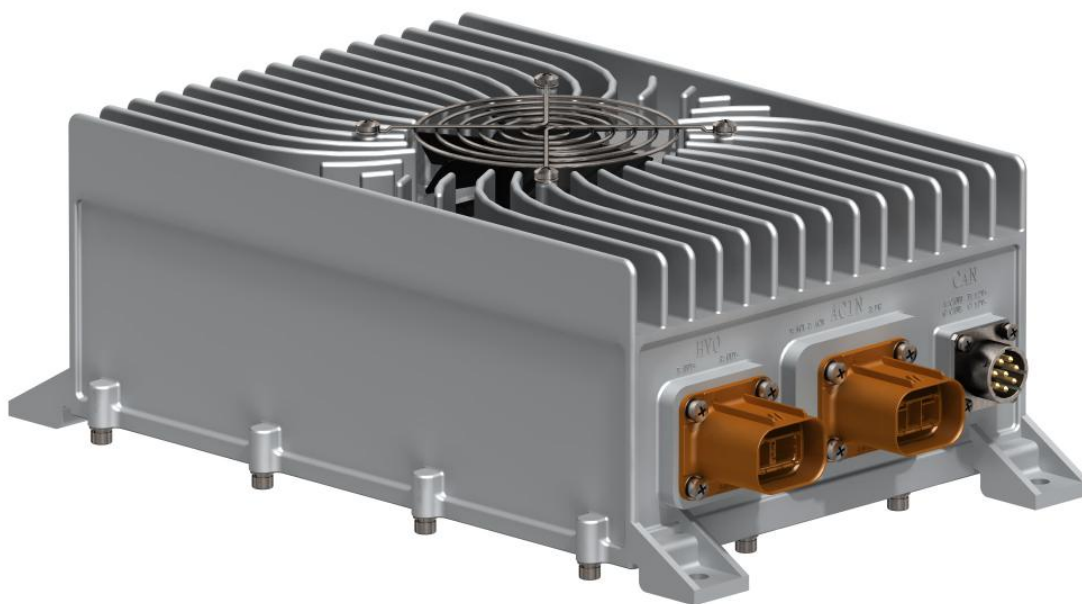
1. 产品简介 Product introduction

DA3K3M17E-600C 是一款 AC/DC 开关电源变换器,采用先进的全数字谐振调频技术,效率高。与同类产品相比,更加节能、体积小、工作可靠。充电方式采用自有专利技术,恒压、恒流、恒功率状态自动转换充电方法,有效节省充电时间;具有有源功率因数校正功能,对电网低污染;输入和输出电压范围宽;采用 CAN2.0B 通信协议;具有智能充电功能、智能监测故障告警保护功能、烧写、故障查询等功能;同时内置 12V 供电电池管理系统唤醒信号电源。具有与充电桩连接的控制导引功能(可选)等。

该款电源专为新能源汽车高压电池充电而设计,与国际一流汽车电源厂商完全同步,各项性能指标已达到或超越国际同行水平,无故障运行时间更长。该系列电源也可适用于需要恒压、恒流、恒功率充电的各个领域。**此充电机仅支持对电池充电。**

DA3K3M17E-600C is an AC/DC switching power converter. The charger adopts advanced all-digital resonant frequency modulation technology, which has high efficiency, high power, small size and reliable operation. The charging mode adopts constant power, constant voltage and constant current automatic state transition, which effectively saves charging time. With active power factor correction, zero pollution to the grid, wide input and output voltage range, using CAN2.0B communication protocol. With intelligent charging function, it has intelligent monitoring fault alarm protection function, programme function and fault inquiry function; it also has built-in 12V independent auxiliary power supply for power supply of car battery management system.

This power supply is specially designed for charging high-voltage batteries of new energy vehicles, which is completely synchronized with the world-class automobile power supply manufacturers. The performance indicators have reached or exceeded the international peer level, and the fault-free running time is longer. **The charger only supports charging the battery.**



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2.主要规格 Power Supply Overview

额定功率 Rated Power	输入电压范围 Input Voltage Range	输出电压范围 Output Voltage Range	输出电流范围 Output Current Range	稳压精度 Precision of Voltage Regulation	功率因数 Power Factor
3KW	AC85V-AC264V 单相输入	400~750Vdc	≤5.7A	≤±1%Vo	≥0.99 @380Vac/ 600Vdc/5A

3. 电性能指标 Electrical performance

3.1 输入特性 Input Electrical Characteristics

项目/Item	指标 Index
额定输入电压 Rated Input Voltage	220 单相输入 (AC175V 以下输入功率降额至 1.2KW) 220 1-phase input (below AC175V, power is derated to 1.2KW)
输入电压范围 Input Voltage Range	AC85V-AC264V 单相输入/1-phase input
频率范围 Frequency range	45Hz~63Hz
最大输入电流 Maximum Input Current	16A
启动冲击电流 Start Inrush Current	<5A
最高效率 MAX Efficiency	93% (不包括辅路电源 Not including auxiliary power supply)
功率因数 Power Factor	≥0.99@380Vac/600Vdc/5A
输入电流 THD Input current THD	<5%@ 380Vac, Po≤3KW, Vo≥600V, f=50Hz

3.2 输出特性/Output Electrical Characteristics Overview

3.2.1 电性能参数/ Electrical Characteristics Overview

项目/Item	指标/Index
额定输出功率 Rated Output Power	3KW(@230Vac~265Vac) 辅路：2W
额定输出电压 Rated Output Voltage	主路：600Vdc 辅路：12Vdc

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输出电压范围 Output Voltage Range	400Vdc~750Vdc (DC400V-DC510V 间输出功率 2000W) 400Vdc~750Vdc (between DC400V-DC510V, output power 2000W)
额定输出电流 Rated Output Current	主路: 5A 辅路: 0.16 Main : 5A Auxiliary : 0.16
输出电流范围 Output Current Range	≤5.7A
温度系数 (1/°C) Temperature Factor	≤±0.002%
稳压精度 Precision of Voltage Regulation	≤±1%Vo 输入 85Vac-265Vac, 输出 10%-100%负载 ≤±1%Vo input 85Vac-265Vac, output 10%-100% load
稳流精度 Precision of Current Regulation	主路≤±1A Main≤±1A
输出电压整定误差 Output Voltage Tuning Error	≤±1%
输出电流整定误差 Output Current Tuning Error	≤1A
负载效应 Loading Effect	≤±0.5%
源效应 Source Effect	≤±0.5%

3.2.2 输出纹波和噪声/Output Ripple & Noise

输出电压 Output Voltage	纹波和噪声 (峰-峰值) Ripple & Noise(Peak-Peak value)
400-750Vdc	≤±2%Vo

注: 纹波和噪声测试: 纹波和噪音带宽设置在 20M 赫兹。

Note: Ripple and noise test: Ripple and noise bandwidth are set at 20M Hz.

3.2.3 输出电流特性 Output Current Characteristics

充电模式 Charging Mode	功能 Function
恒压 Constant voltage	OBC 可根据负载状况及控制指令或要求进行模式自动切换, 控制指令优先 OBC can transfer charging mode automatically according to load condition and command order, command order priority.
恒流 Constant current	
恒功率 Constant power	

注 Note:

1) OBC 输出电流上升至最大工作电流时间≤5s, 超调量小于 5%;

OBC output current rises to the maximum working current time≤5s, and overshoot is less than 5%;

2) 上升时间以发送工作指令时间作为起始判断依据, 以电流稳定至最大输出电流时作为终止

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判断依据。

The rise time is based on the time when the work order is sent as the initial judgment, and the current is stabilized to the maximum output current as the termination judgment.

3.2.4 开机输出延迟时间/Delay Time at Turn On

输出电压 Output Voltage	时间 Time
600V	1s~3s (input220Vac@25℃)

3.2.5 工作状态/Working State

OBC 工作状态分为:

OBC working status as below:

工作状态 Working Status	功能/Function
充电状态 Charging status	充电机所带负载为动力电池工作 The load on the charger is working for the power battery
加热状态 Heating status	充电机所带负载为动力电池加热装置工作 The load on the charger is working for the power battery heater
充 电 状 态 + 加 热 状 态 charging status+heating status	充电机负载为动力电池和电池加热装置 Charger load is power battery and battery heater

注 Note:

- 1) 工作状态可自由组合; Working status can be freely combined;
- 2) 当电池加热状态完成后切换为充电模式之前, 如果 BMS 下发停止指令且 BMS 主正、主负未吸合继电器情况下, 此时充电机会上报电池未连接故障(充电机关机时恢复为充电模式)。
When battery finished heating status and before transfer to charging mode, if BMS issue stop order and BMS main positive and negative relay not absorb, at this time charger will report battery not connecting fault(charger will return to charging mode when power off).

3.3 保护功能 Protection function

3.3.1 输出过流保护 Output Over Current Protection

输出过流保护 Output Current Limited Protection	功能 Function
$\geq 110\%I_o$	输出端电流超出设计输出电流阈值, OBC 自动关闭输出; 当故障消除后可自动恢复。 When output current exceeds the design output current threshold, OBC will automatically turns off output; Charger will automatically recover when the fault is removed.

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3.3.2 输出短路保护 Output Short Circuit Protection

输出短路保 Output Short Circuit Protection	功能 Function
启动前输出短路 Output short circuit before starting	<p>启动前, 输出端已出现短路时, 收到工作指令后 OBC 将不启动, 并上报告警; 故障排除后, OBC 不能自动恢复正常工作, 需重新上电开机</p> <p>Before starting, when output end has a short circuit, OBC will not start after receiving work instruction and will report an alarm; after troubleshooting, OBC cannot automatically resume normal work, needing to be re-powered on.</p>
工作过程中输出短路 Output short circuit during operation	<p>在工作的过程中, 输出端短路时, OBC 自动关闭输出, 并上报告警, 短路故障消除后, 不能自动恢复正常工作, 需重新上电开机</p> <p>During working, when output end is short-circuited, OBC automatically turns off output and reports an alarm. After troubleshooting, OBC cannot automatically resume normal work, need to be re-powered on.</p>

3.3.3 输出过压保护 Output over Voltage Protection

输出过压保护点 Output over Voltage Protect Point	功能 Function
$\geq 767 \pm 10\text{Vdc}$	<p>在输出端电压高于 767Vdc 时, OBC 停止工作, 并上报告警信息。故障消除后, 输出电压低于 750Vdc, 自动恢复正常工作</p> <p>When output voltage $\geq 767\text{Vdc}$, OBC stops working and reports an alarm. After troubleshooting, output voltage $< 750\text{Vdc}$, it will automatically resume normal operation.</p>

3.3.4 输出欠压保护 Output under Voltage Protection

输出欠压保护点 Output under Voltage Protect Point	功能 Function
$< 370 \pm 10\text{Vdc}$	<p>当输出端电压低于 370V 时, OBC 停止工作, 并上报告警信息, 当电压高于输出欠压恢复 400V 后, OBC 停止告警并自动恢复正常工作</p> <p>When output voltage $< 370\text{V}$, OBC stops working and reports an alarm. When output undervoltage recovery 400V, OBC stops the alarm and automatically resumes normal operation.</p>



3.3.5 输入过压保护 Input over Voltage Protection

输入过压保护点 Input over Voltage Protect Point	功能/Function
$>275 \pm 10\text{Vac}$	$>275\text{Vac}$ 时, 关闭输出, 并上报告警信息; $>275\text{Vac}$, output is turned off and an alarm is reported. $<264\text{Vac}$ 时, 恢复正常工作, 并停止告警 $<264\text{V}$, resume normal operation and stop the alarm.

3.3.6 输入欠压保护 Input under Voltage Protection

输入欠压点 Input under Voltage Protection Point	功能 Function
$<74 \pm 10\text{Vac}$	$<74\text{Vac}$ 时, 关闭输出, 并告警; $<74\text{Vac}$, turn off output, and alarm; $>85\text{Vac}$ 后, 恢复正常工作, 并停止告警 $>85\text{Vac}$, resume normal operation and stop the alarm

3.3.7 CAN 通信故障 CAN Communication Fault

CAN 通信故障 CAN Communication Fault	功能/Function
连续 5s 未收到 BMS 或 VCU 指令 No BMS or VCU command received for 5s consecutively	OBC 立刻停止工作并上报 CAN 通信故障; OBC immediately stops working and reports CAN communication failure. CAN 总线恢复且稳定, 响应工作指令 CAN bus is restored and stable, responding to work orders

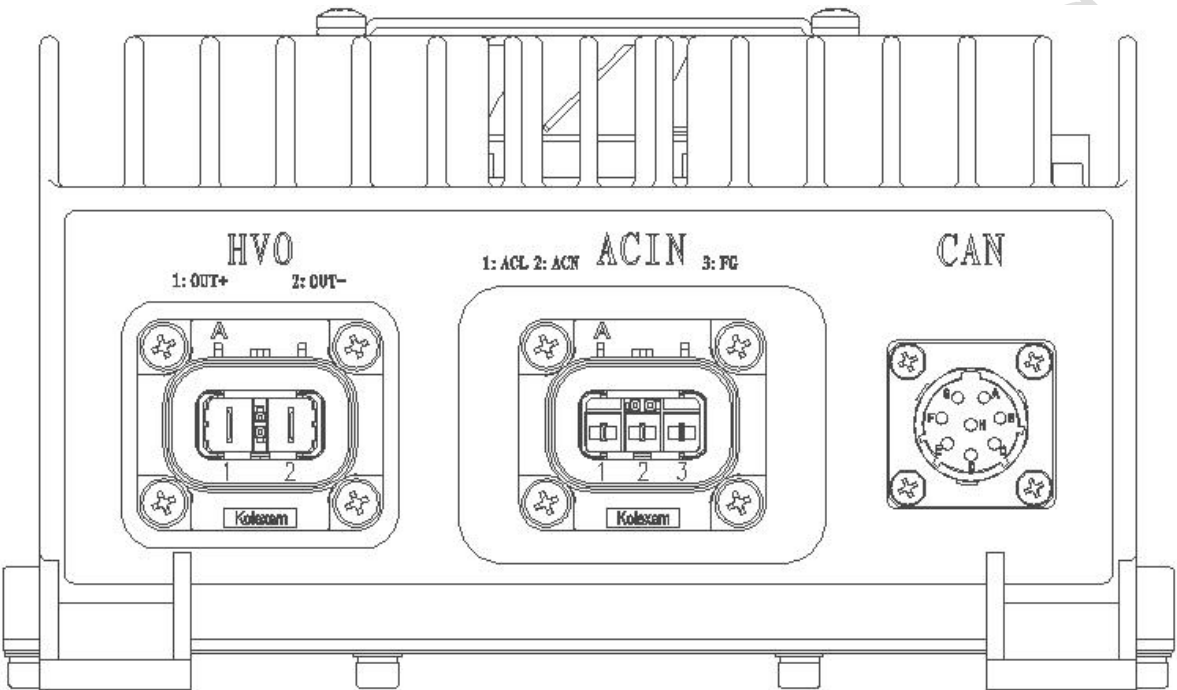
3.3.8 过温保护/Over Temperature Protection

过温保护 Over Temperature Protection	功能 Function
OBC 内部温度 $>80^{\circ}\text{C}$ OBC inner temperature $>80^{\circ}\text{C}$	温度告警并控制输出电流开始降额 Temperature alarm and control output current start derating.
OBC 内部温度 $>80^{\circ}\text{C}$ OBC inner temperature $>80^{\circ}\text{C}$	阶梯式降额, 温度每升高 1°C , 功率降低 300W For every 1°C increased in temperature, the power is

	reduced by 300W.
OBC 内部温度>90℃ OBC inner temperature>90℃	关机，温度降低至 65℃后，OBC 应能自恢复启动 Shutdown, after the temperature is lowered to 65℃, the OBC should be able to start spontaneously.

4.接口定义 Interface Definition

4.1 连接器脚位定义 Connector Pins Definition



端子位 Terminal	CAN 控制插 CAN control connector	ACIN 输入插件 ACIN input connector	Vout 高压输出插件 Vout HV output connector
产品端插件型号 Charger end connector model	RT00128PN03	KHVA280 02 3A	KHVA630 02 2A
产品端插件定义 Charger end connector definition	A:CAN_H G:CAN_L B: 12V+ C: 12V- D. E .F. H: NC	1:AC_L 2:AC_N 3:FG	1:OUT+ 2:OUT-

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线束端插件型号 Connector model	RT06128SNHEC03	KHVA280 06 3A	KHVA630 06 2A
插件制造厂商 Manufacturer	安菲诺 Amphenol	科耐斯 Kolexam	科耐斯 Kolexam
插件压接线径 Crimping diameter	B C:0.5mm ² A G:0.35mm ²	4mm ²	1.5mm ²

4.3 动态响应时间 Transient Response Time

动态响应时间 Transient Response Time	功能 Function
电流调整 Current adjustment	<2s
功率切换 Power switching	<200ms

4.4 接地说明 Ground Description

接地 Ground	功能 Function
整车地 Vehicle GND	整车地与机壳可靠连接 The vehicle ground is reliably connected to the casing

5. 绝缘性能 Insulation Characteristics

项目 Item		技术指标 Index
绝缘耐压 Insulation voltage	输入-输出 input - output	2.8kVdc/1min
	输入-机壳 input - casing	2.8kVdc/1min
	输出-机壳 output - casing	2.8kVdc/1min
绝缘电阻 Insulation resistance		25°C,70%RH 条件下, 各独立电路与机壳的绝缘电阻不低于 20MΩ。无电气连接的各电路之间的绝缘电阻不低 20MΩ Under 25°C and 70% RH condition, the insulation resistance of each independent circuit and chassis is not less than 20MΩ. The insulation resistance between the circuits without electrical connection is not less than 20MΩ
接地电阻 Grounding resistance		≤100mΩ

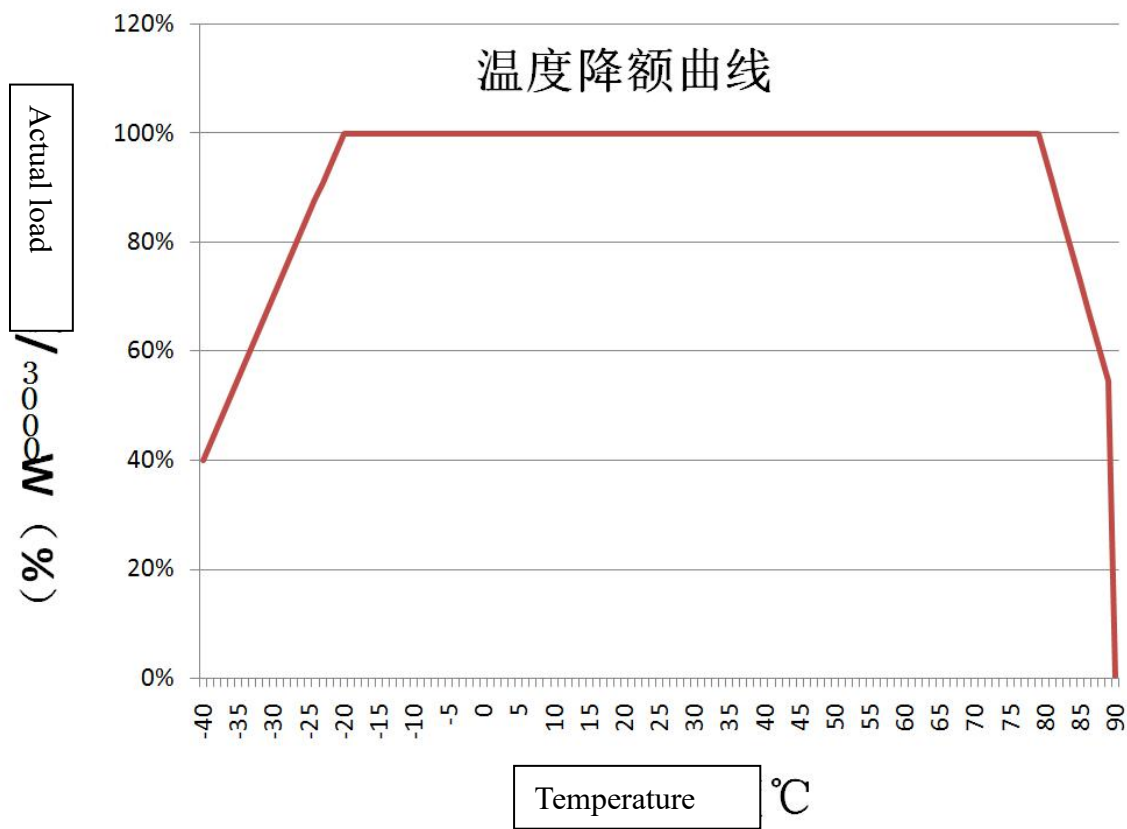
6. 降额 Derating

6.1 输入电压降额 Input VoltageDerating

输入电压范围 Input voltage range	85~175Vac	175~265Vac
输出功率 Output power	1.2KW MAX	3KW MAX

注：输入电压 85~265Vac，最大输入电流 16A
Note: Input voltage 85~265Vac, maximum input current 16A

6.2 温度降额曲线 Temperature Derating Curve




7. 安规标准 Safe Standard

GB4943-2011 IEC60950

8.电磁兼容性 EMC

电磁兼容性/EMC/EMI	引用标准 Reference standard
电磁抗扰性/EMC	GB/T18487.3-2001 中 11.3.1 要求 GB/T18487.3-2001, 11.3.1
电磁骚扰性/EMI	GB/T18487.3-2001 中 11.3.2 要求

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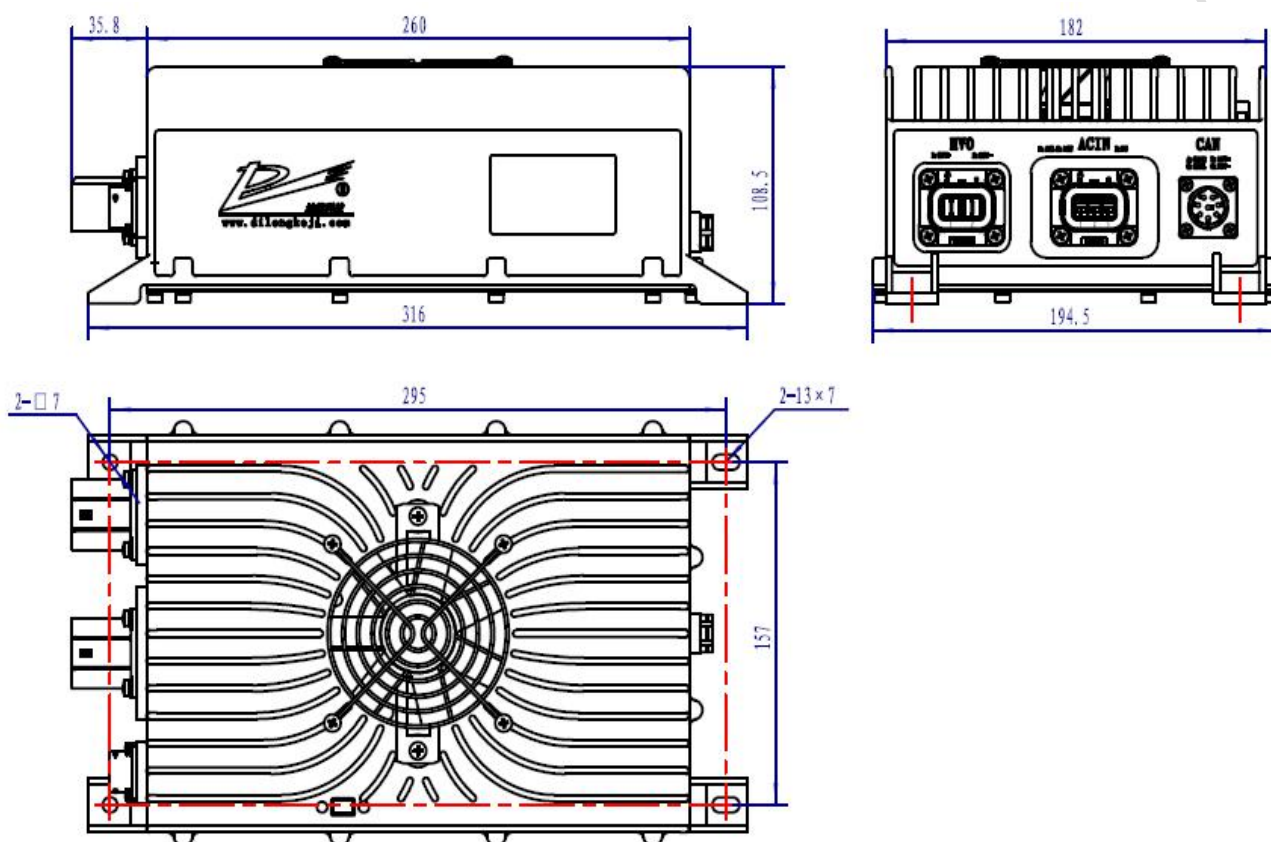
9.基本工作环境/Basic Environmental Requirement

工作环境 Working environment	项目 Item	要求 Requirement	备注 Remark
环境温度 Environmental Temperature	工作环境温度 Operating T	-40℃~+90℃ (温度 80℃以上智能降额) (Intelligently derate begin when shell temperature above 80℃)	
	贮存温度 Storage T	-45℃~+95℃	
环境湿度 Environmental Humidity	工作湿度 Operating	<90%RH 不冷凝 (No condensation)	工作环境相对湿度: Operating humidity: 5%~95%
	存储湿度 Storage	<95%RH 不冷凝 (No condensation)	
海拔高度 Altitude height	工作高度 Operating height	0~3000m, 以 2000m 为基础, 海拔每升高 200 m, 规格最高温度降低 1℃ 0~3000m, 2000m as basic, altitude ever increase 200m, standard highest temperature decline 1℃	
	存储高度 Storage height	0~3000m, 以 2000m 为基础, 海拔每升高 200 m, 规格最高温度降低 1℃ 0~3000m, 2000m as basic, altitude ever increase 200m, standard highest temperature decline 1℃	
气压范围 Barometric Range		56.9KPa~106.3Kpa	
冷却方式 Cooling Method		风冷 Air cooled	
耐振动性能 Vibration Resistance		满足 QC/T 895-2011 中 7.8.1 的要求 Satisfy the requirement in QC/T 895-2011:7.8.1	
耐冲击性能 Impact Resistance		满足 QC/T 895-2011 中 7.8.2 的要求 Satisfy the requirement in QC/T 895-2011:7.8.2	
噪声Noise		满足 QC/T 895-2011 中 7.9 的要求	

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		Satisfy the requirement in QC/T 895-2011:7.9	
防盐雾性能 Salt fog Resistance		满足 QC/T 895-2011 中 7.8.5 的要求 QC/T 895-2011:7.8.5	

10.物理尺寸 Dimension/mm



11.重量 Weight

6±0.5kg

12. 运输与存放 Transport & Store

12.1 储存和保管 Storage

产品的储存和保管应保持 5℃~40℃的清洁、干燥及通风良好的环境。应避免日晒、火烤、水浸、与腐蚀性物质放在一起。

Storage of the product should be kept in a clean, dry and well ventilated environment of 5℃~40℃. Avoid sun exposure, fire roasting, water immersion, and corrosive substances.

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12.2 装卸、运输 Loading and Unloading & Transport

产品在搬运时所受到的冲击和振动应限制在最小程度。

The shock and vibration of the product during handling should be limited to minimum.

13. 其他 Others

项目Items	要求Requirement	备注Note
气味smell	不产生异味和有害健康的气味 Does not produce harmful odor	
元器件 Components and parts	所有器件满足降额 All devices meet the derating	

14. 可靠性&MTBF/Reliability&MTBF

14.1 可靠性 Reliability

项目 Items	指标 Index
质量担保期 Warranty	依据双方协议 According to mutual agreement
使用寿命 Service life	10年@环境温度50℃，每天工作12小时 10 years @ambient temperature 50 °C, working 12 hours a day

14.2 MTBF :

3*10⁵h@ 25℃，额定输入，满载输出。

3*10⁵h@ 25℃, rated input, full load output.

15.使用指南 Guide to Use

15.1 电源安装 Mount

本电源可以安装在一个散热平面上使用，安装要牢固可靠。风冷应用时，在本电源的周围要留出一定空间。

The power supply can be installed on a heat dissipation surface and the installation should be firm and reliable. For Air-cooled applications, Leave some space around the power supply.

15.2 安装力矩 Installation Moment

安装时依据螺钉大小、连接方式等，使用合适的力矩进行安装，参照下表：

When installation apply suitable torque based on bolt screw and connection way, reference below table:

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螺钉 Screw	力矩 Torque
M8*15	33kgf.cm

15.3 使用说明 Guide to Use

本章内容包括如何拆卸包装和便于运输重新包装、最初的检查、使用前的准备以及操作指南等。

This chapter covers how to remove packaging and facilitate transportation, repackaging, initial inspection, preparation before use, and operating instructions.

注意 Attention

本电源是一种开关电源，它产生的电磁场可能会影响其他设备的工作，如果设备受到干扰，请使其远离本电源。

The power supply is a switching power supply. The electromagnetic field generated by it may affect the work of other equipment. If the equipment is disturbed, please keep it away from this power supply.



警告:

Notice

因电源内部即使在断电的情况下也可能有高压，非经过培训的本公司技术人员不得擅自打开机壳。

本电源在使用时要确保机壳通过 FG 端子良好接地。

There may be high voltage in the power supply even in the case of power failure, person who are not trained can not open the shell without permission.

The power supply should ensure that the shell is well grounded through FG terminal when used.

15.3.1 拆卸包装和重新包装 Disassemble Packing and Repacking

拆卸包装时螺丝刀等工具划开包装的纸箱，取出内部的包装材料，把电源取出，拆下的包装箱及包装材料要注意保存，以便于以后的运输。

When disassemble the packaging using screwdriver tools to open the packing carton, remove the internal packaging materials, take out charger. Preserve the packaging materials for future transportation.

15.3.2 使用前的准备 Preparation before Use

本电源正常工作需要连接合适的交流电源，交流电源的电压必须在输入电压范围之内，在阅读本章的 15.3.5 和 15.3.6 条之前先不要加电。

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This power supply work correctly needing to connect to suitable AC power, AC power voltage must be in the allowed range; do not add to AC power before reading this chapter, the article15.3.5 and 15.3.6.

请按表 15-1 的步骤做好加电之前的准备工作。

Please do the preparation work before connecting to AC power according to the procedure in table 15-1.

表 15-1 加电前需要做的准备工作

Table 15-1 preparations work before connecting to AC power

步骤 Step	项目 Item	内容 Content	参阅 Reference
1	检查 Inspect	外观检查 Appearance inspection	15.3.3
2	安 装 Installation	电源的前后上下应留出足够的通风空间 There should be enough ventilation space around the power supply	15.1
3	连接 交 流 电 源 Connect to AC power	把本电源连接到规定的交流电源 Connect the charger to the specified AC power	15.3.5
4	测试 Test	开机测试 Power on test	15.3.6

15.3.3 初次使用前的检查 Checking before First Use

从包装箱里拿出电源，首先对照装箱清单检查物品是否齐全，其次检查电源的外形是否有磕碰或挤压变形等情况，检查输入输出连接器等有无扭曲变形等异常情况，检查有无划伤扭曲变形损坏等情况，如有损伤请立即联系运输单位并通知迪龙营销中心。

Take power supply from the package carton box, firstly check the goods against the packing list is complete or not; then check if there is power supply form is bump or extrusion deformation on the surface of the charger;thirdly check the input and output connectors are distorted, etc.; lastly check whether there are scratches, distortion, deformation and damage. Any abnormal occurs please contact the shipping company immediately, and inform the sales department of Dilong New Energy Technology.

15.3.4 对交流电源的要求/Request for AC

本电源要求单相交流电源，电压范围为 85Vac~264Vac，交流电源频率为 47~63Hz。要保证在重载情况下加到本电源交流输入的电压不要跌落到所允许的电压范围之外。

The power supply requires 1-phase AC power, the voltage range is AC 85Vac~264Vac, and the frequency is 47~63Hz. Ensure that the voltage added to the AC input end do not drop beyond the allowable voltage range.

15.3.5 交流电源的连接 AC power Connection

本电源 AC 输入应该通过一个额定电流 32A(单相输入)并具有保护装置(如空气开关，

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保险等)的设备连接交流电源。
AC input of the charger shall be connected to the AC power through a device with rated current 32A (single-phase input) and protective devices (such as air switches, fuses, etc.).

15.3.6 开机测试/Power On Test

进行下面的测试以确保电源工作正常:
Perform the following tests to ensure that the power supply is working properly.

1) 确认电源以按 15.3.4、15.3.5 条连接交流电源,交流电源处于“关断”的位置,确认电源输出与蓄电池极性连接正确。
Confirm that the power supply is connected to the AC power according to 15.3.4 and 15.3.5 and AC power is in the “OFF” position. Make sure that the power supply output is properly connected to the battery polarity.

2) 确认所有插头连线正确无误。
Make sure all the plug connections are correct.

3) 打开交流电源的开关。
Turn on the AC power switch.

16.引用标准及规范 Quoted Standard & Rules

QC/T 413-2002 汽车电气设备基本技术条件
QC/T 895-2011 电动汽车用传导式 OBC
GB/T 2423.1-2008 电工电子产品环境试验 第 2 部分: 试验方法 试验 A: 低温
GB/T 2423.2-2008 电工电子产品环境试验 第 2 部分: 试验方法 试验 B: 高温
GB/T 18384.3-2015 电动汽车 安全要求 第 3 部分: 人员触电防护
GB/T 24347-2009 电动汽车 DC/DC 变换器
GB 4208-2008 外壳防护等级 (IP 代码)
Q/FT B102-2005 车辆产品零部件可追溯性标识规定
GB/T 2423.3-1993 电工电子产品基本环境试验规程—试验 Ca:恒定湿热试验方法;
GB/T 2423.4.1993 电工电子产品基本环境试验规程—试验 Db:交变湿热试验方法
GB/T 2423.5-1995 电工电子产品环境试验, 第 2 部分: 试验方法/试验 Ea 和导则: 冲击
GB/T 2423.6-1995 电工电子产品环境试验, 第 2 部分: 试验方法/试验 Ea 和导则: 碰撞
GB/T 2423.8-1995 电工电子产品环境试验, 第 2 部分: 试验方法/试验 Ed: 自由跌落
GB/T 2423.10-1995 电工电子产品环境试验, 第 2 部分: 试验方法/试验 Fc 和导则: 振动 (正弦)
GB/T 2423.11-1997 电工电子产品环境试验, 第 2 部分: 试验方法/试验 Fd: 宽频带随机振动--般要求
GB/T 2423.22-2002 电工电子产品环境试验, 第 2 部分: 试验 N: 温度变化
GB/T 17626.3-2006 电磁兼容 试验和测量技术射频电磁场辐射抗扰度试验
GB/T 17626.4-2008 电磁兼容 试验和测量技术电快速瞬变脉冲群抗扰度试验
GB/T 17626.5-2008 电磁兼容 试验和测量技术浪涌 (冲击) 抗扰度试验
GB 9254-2008 信息技术设备的无线电骚扰限值和测量方法



GB/T 17619 1998 机动车电子电器组件的电磁辐射抗扰性限值和测量方法

GB/T 18655-2010 测量、船和内燃机 无线电骚扰特性用于保护车载接收机的限值和测量方法

GB/T 18487.1-2015 电动车辆传导充电系统通用要求

GB/T 18487.2-2001 电动车辆传导充电系统电动车 辆与交流直流电源的连接要求

GB/T 18487.3-2001 电动车辆传导充电系统电动车辆交流直流 OBC (站)

GB 14023-2011 车辆、船和由内燃机驱动的装置 无线电骚扰特性 限值和测量方法

GB/T 18387-2008 电动车辆的电磁场发射强度的限值和测量方法,宽带,9kHz~30MHz

GB/T 21437.2-2008 道路车辆 由传导和耦合引起的电骚扰 第 2 部分: 沿电源线的电瞬态传导

NB/T 33001-2010 电动汽车非车载传导式 OBC 技术条件

NB/T33008.1-2013 电动汽车充电设备检验试验规范第 1 部分

QC/T 895-2011 电动汽车用传导式 OBC

GB/T 2423.17-2008: 电工电子产品环境试验试验 第 2 部分: 试验方法 试验 Ka: 盐雾

QSQR E1-5-2012 禁用物质要求

GB/T 28382-2012 纯电动乘用车 技术条件

QC/T 413-2002 Basic technical conditions for automotive electrical equipment

QC/T 895-2011 Conductive OBC for electric vehicle

GB/T 2423.1-2008 Environmental testing for electric and electronic products Part 2: Test methods test A: low temperature

GB/T 2423.2-2008 Environmental testing of electric and electronic products Part 2: Test methods test B: high temperature

GB/T 18384.3-2015 Safety requirements for electric vehicles Part 3: protection against electric shock

GB/T 24347-2009 DC / DC converters for electric vehicles

GB 4208-2008 Enclosure protection class (IP code)

Q/FT b102-2005 Regulations on traceability identification of vehicle product parts

G/T 2423.3-1993 Basic environmental test procedures for electrical and electronic products -Test CA: constant damp heat test method;

GB/T 2423.4.1993 basic environmental test procedures for electrical and electronic products -Test DB: alternating damp heat test method

GB/T 2423.5-1995 Environmental testing of electric and electronic products, Part 2: Test methods/Test Ea and guidelines: impact

GB/T 2423.6-1995 Environmental testing of electric and electronic products, Part 2: Test methods/Test Ea and guidelines: collision

GB/T 2423.8-1995 Environmental testing of electric and electronic products, Part 2: Test methods/test ED: free fall

GB/T 2423.10-1995 Environmental testing of electric and electronic products, Part 2: Test methods/test FC and guidelines: vibration (sinusoidal)

GB / T 2423.11-1997 Environmental testing of electric and electronic products, Part 2: Test methods/test FD: broadband random vibration - General requirements

GB /T 2423.22-2002 Environmental testing of electrical and electronic products, Part 2: Test N: temperature change

GB/T 17626.3-2006 Electromagnetic compatibility testing and measurement techniques radio frequency electromagnetic field radiation immunity test

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GB/T 17626.4-2008 Electromagnetic compatibility testing and measurement technology electrical fast transient burst immunity test

GB/T 17626.5-2008 Electromagnetic compatibility testing and measurement technology surge (impact) immunity test

GB 9254-2008 Radio disturbance limits and measurement methods for information technology equipment

GB/T 17619 1998 Limits and measurement methods for electromagnetic radiation immunity of motor vehicle electronic and electrical components

GB/T 18655-2010 Radio disturbance characteristics of ships and internal combustion engines limits and measurement methods for protecting on-board receivers

GB/T 18487.1-2015 General requirements for conductive charging system of electric vehicles

GB/T 18487.2-2001 Electric vehicle conduction charging system requirements for connection between electric vehicle and AC / DC power supply

GB/T 18487.3-2001 Electric vehicle conduction charging system electric vehicle AC/DC OBC (station)

GB 14023-2011 Limits and measurement methods for radio disturbance characteristics of vehicles, ships and devices driven by internal combustion engines

GB/T 18387-2008 Limits and measurement methods of electromagnetic field emission intensity of electric vehicles, broadband, 9KHz ~ 30MHz

GB/T 21437.2-2008 Road vehicles - Electrical disturbances caused by conduction and coupling - Part 2: Electrical transient conduction along power lines

NB/T 33001-2010 Technical conditions for off board conductive OBC of electric vehicles

NB/T33008.1-2013 Specification for inspection and test of electric vehicle charging equipment Part 1

QC/T 895-2011 Conductive OBC for electric vehicle

GB/T 2423.17-2008: Environmental tests for electric and electronic products Part 2: Test methods Test Ka: Salt Spray

QSQRE1-5-2012 Requirements for prohibited substances

GB/T 28382-2012 Technical requirements for pure electric passenger cars

17.用户须知 User Notice

使用产品前请注意告警和注意事项部分。不正确的操作可能导致电源电击受损或引起火灾。

Please pay attention to the warnings and precautions before using the product. Improper operation may result in damage to the power supply or fire.

使用产品前请确认已阅读告警和注意事项。

Please confirm that you have read the alarms and precautions before using the product.

17.1 告警 Alarm

告警 Alarm



电源内部即使在交流断电的情况下也可能有电压，因此如果要拆卸输入或输出线缆，请在断开交流电 2 分钟之后进行。

Inner part of charger may have a voltage even in the cut off of AC power, so if you want to

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remove the input or output cables, please do so after two minutes of disconnection.

17.2 注意事项 Attention



注意：请在上电前确保接插件与对接件接线无误，接反会瞬间造成无法修复的损坏！

Please ensure that the mating connectors are connected correctly before power on. The reverse connection will momentarily cause irreparable damage!

OBC 的交流输入端连接导线截面积要大于 6mm^2 ，高压直流输出端连接导线截面积要大于等于 4mm^2 ，辅助电源输出端(BMS 激活)连接导线截面积要大于 0.5mm^2 。CAN 通讯端连接导线应采用屏蔽导线，屏蔽层可靠连接机壳端。

The cross-sectional area of the connecting wire of the AC input end of OBC should be greater than 6mm^2 , the cross-sectional area of the connecting wire of the high-voltage DC output terminal should be greater than 4mm^2 , and the cross-sectional area of the connecting wire of the auxiliary power output terminal (BMS activated) should be greater than 0.5mm^2 . CAN communication terminal connection wire should be shielded wire, and the shielding layer is reliably connected to the casing end.

18.在判定故障之前的确认 Confirm before Fault Determined

在认为电源有故障之前，请确认以下事项：

Please confirm the following items before the power failure is considered:

18.1.没有输出电压 No Output Voltage

1)所加输入电压是否在规定范围之内[输入电压是否进入过欠压保护范围]

Whether the input voltage is within the specified range (whether the input voltage is under or under voltage protection).

2)连接的导线极性是否正确，连接有无异常

Whether the connected wire polarity is correct and the connection is abnormal or not.

3) 蓄电池极性是否接反，或电池电压是否过放欠压

Whether the polarity of the battery is reversed, or whether the battery voltage is over-discharged.

18.2.过压过、流保护 Over Voltage or Over Current Protection

蓄电池有无异常 Whether the battery is abnormal or not

18.3.输出电压低 Low Output Voltage

1) 连接导线是否过细过长 Whether the connecting wire is too long or too thin.

2)连接的蓄电池有无异常 Whether the battery connection is abnormal or not.

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18.4.输出纹波电压高 Large Output RippleVoltage

1) 测定方法是否与应用手册规定的方法相同或等同

Whether the determination methods is same as stated in the manual.

2)输出线是否太长

Whether output wire is too long.

Dilong New Energy