

# 产品规格书

## Product Specification

产品名称 Title: Vehicle Mounted On-Board Charger

产品型号 Model: EOBC6K6360WCA

设计号 Design NO.: V1.0

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## 1. 产品功能描述 Product Description

本产品是为电动车专业设计生产的隔离转换电源，它采用国际先进的数字模拟混合控制技术，输入与输出完全电气隔离，安全可靠。具有输入电压范围宽，输出功率大、安装方便、转换效率高输出电压稳定、保护功能全、可靠性高、使用寿命长等特点。

This product is an isolated-on board charger for electric vehicle application. International advanced digital analog hybrid control technology is applied in this converter, input and output is completely isolated, making the converter safe and reliable. The features are include: wide input voltage range, large output power, convenient installation, high conversion efficiency, stable output voltage, complete protection function, high reliability, long service life and so on.

## 2. 基本参数 Basic Data

额定输入电压 Rated Input Voltage	输入电压范围 Input Voltage Range	最大输出电流 Max Output Current	输出电压范围 Rated Output Voltage
220V AC	90~264VAC	20A	250~420V DC

## 3. 电气特性 Electric characteristics

### 3-1 输入特性 Input Characteristics

#### 3-1-1 输入电压/效率/输入电流 Input Voltage/ Frequency/ Input Current

项目 Item	单位 UNIT	最小值 MIN	额定值 Rated	最大值 MAX	备注 Notes
输入电压 Input Voltage	V AC	90	220	264	正常工作电压范围 Normal operating Voltage Range
效率 Frequency	%	/	95%	95.5%	额定输入, >95%@半载至满载 Rated Input, >95%@Half load to full load
最大输入电流Maximum Input Current	A	/		32A	220VAC输入, 满载 220VAC input, full load
启动冲击电流 Inrush Current	A	/		48	空载 No load

#### 3-1-2 输入保护 Input Protection

项目 Item	保护点 Protection Point	恢复点 Recovery Point	备注 Notes
输入过压 Input Over Voltage	275±5V DC	270±5V DC	输入过压时电源关闭输出;到达恢复点后自动恢复 Shut down, auto-recovery
输入欠压 Input Under Voltage	80±5V DC	85±5V DC	输入欠压时电源关闭输出;到达恢复点后自动恢复 Shut down, auto-recovery

### 3-2 输出特性 Output Characteristics

#### 3-2-1 输出电压/电流 Output Voltage / Current

项目 Item	单位 UNIT	最小值 MIN	典型值 Typical	最大值 MAX	备注 Notes
输出电压范围 Rated Output Voltage	VDC	250	360	420	
最大输出电流 Max Output Current	A	/		20	
输出纹波系数 Ripple and noise	A		2%		
输出功率 Output power	KW			6.6KW (7.2KWpeak)	6.6 kW@输入 AC220@输出 360V @12LPM / 55°C 6.6kW@input AC220@output 360V @12LPM / 55°C

#### 3-2-2 输出保护 Output Protection

项目 Item	保护点 Protection Point	误差 Error	注释 Notes
输出防反接 Output Reverse Connection	/	/	不允许输出电压极性接反 Output voltage polarity reverse is not allowed
输出过压保护 Output over voltage protection	>425V DC		关闭输出，同时上报和存储保护信息，正常时自动恢复 Shut down, report and record protection information, auto-recovery
过温保护 Over temperature protection	有过温保护功能，>85°C过温保护。当温度降至安全温度后自动恢复。 Over temperature protection function >85°C, Shut down output voltage. Recovers automatically after temperature goes down		
短路保护 Short Circuit protection	关机保护，直到故障解除，自动恢复。 Shut down, auto-recovery		

## 4.环境要求 Environment Requirement

项目 Item	应用环境 Application environment
冷却液温度 Cooling Liquid temperature	-40~55°C with no derating ;
工作湿度 Working humidity	5%-90% , 无冷凝。 5%-90% , non-condensing
存储场所 Storage	温度、湿度受控场所 Temperature and humidity controlled place
存储温度 Storage temperature	-40~85°C
存储湿度 Storage humidity	10 ~ 90%

## 5.安规及 EMC 特性 Safety& EMC characteristics

### 5-1 绝缘性能 Withstand function

项目 Item	测试方法 Test Method	测试条件 Test Conditions
绝缘电压 Withstand voltage	输入-输出 Input-Output	3000VDC 60s. ≤10mA 无击穿与飞弧现象 3000VDC 60s. ≤10mA No breakdown and flashover
	输入-机壳 Input-Case(FG)	3000VDC 60s. ≤10mA 无击穿与飞弧现象 3000VDC 60s. ≤10mA No breakdown and flashover
绝缘阻抗 Withstand Impedance	输入-输出 Input-Output	500VDC ≥20MΩ /min ( 标准气压、环境湿度时 ) 500VDC ≥20MΩ /min(Standard air pressure、ambient humidity)
	输入-外壳 Input-Case(FG)	500VDC ≥20MΩ /min ( 标准气压、环境湿度时 ) 500VDC ≥20MΩ /min(Standard air pressure、ambient humidity)

### 5-2 EMC 要求 EMC requirement

电磁兼容性：GBT 18487-2001《发射强度的限值和测量方法 宽带9kHz~30MHz》的要求。

EMC: GBT 18487-2001 limits and measurement methods of electromagnetic field emission intensity for electric vehicles, broadband 9kHz~30MHz requirements

## 6.音响噪声 Acoustic noise

噪声 Noise	应用环境 Application environment
< 55dBA	在额定工作状态下，距离噪声源1M,模块运行的工作噪声。 Under rated operating conditions, one meter away from the noise source, test the operating noise of the converter



## 7.防护等级 Protection level

标准 Standard	级别 Level
IEC529	IP67

## 8.机械规格 Mechanical Specification

### 8-1 产品尺寸 Product Dimension

单体式车载 AC-DC ( Part No. ) 尺寸不会超过：

In-housing Converter ( Part No. ) dimension will not exceed:

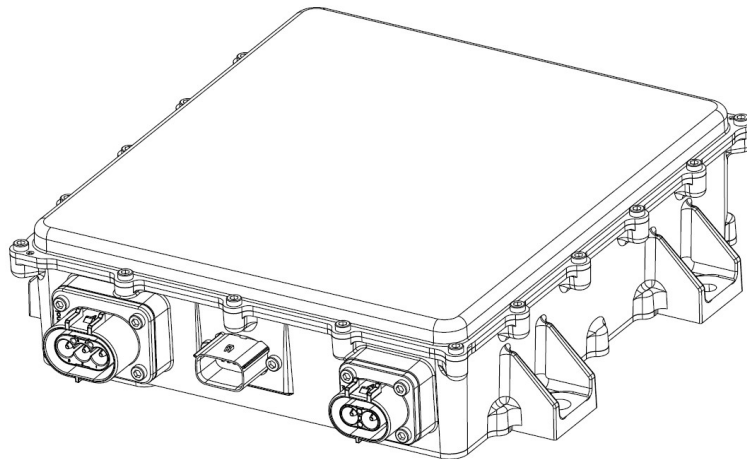
长度(L)-----290mm

宽度(W)-----260mm

高度(H)-----82mm

此尺寸为产品内部腔体尺寸，安装法兰、螺丝、I/O连接器以及水管不包含在内。

This size includes the cavity, mounting flange, screw, I/O connectors and water pipes are not included.



### 8-2 产品重量 Product weight

单体式产品重量不超过10Kg.

In-housing converter : weight is not more than 10 Kg.

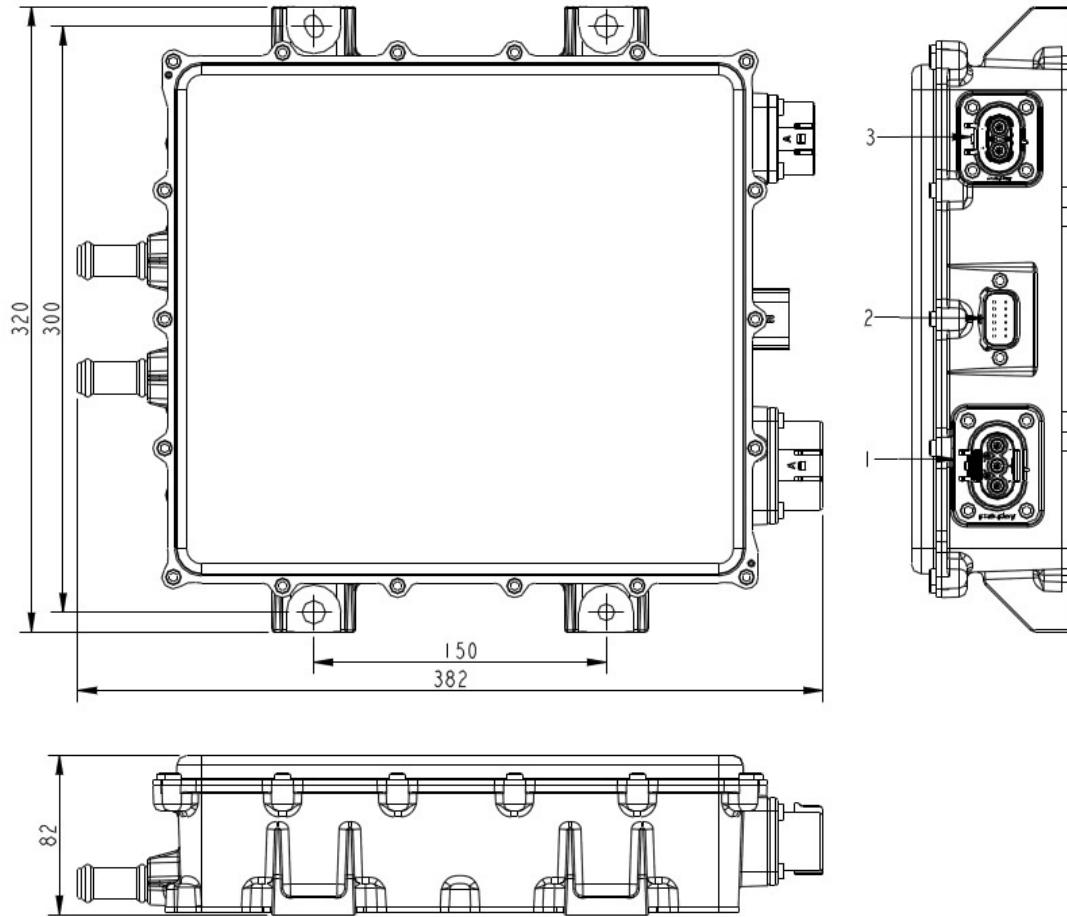
### 8-3 产品装配示意图 (AC-DC 需用 M8 螺栓固定安装法兰)

Schematic diagram of product assembly (AC-DC Need M8 bolt fixing mounting flange)

- 1、AC输入接插件：安费诺C20-737485-3AP3；  
AC input connector: Amphenol C20-737485-3AP3
- 2、信号接插件：莫仕 477256010；  
Signal connector: Molex 477256010
- 3、DC输出接插件：安费诺C20-738025-2AP2；



DC output connector: Amphenol C20-738025-2AP2



## 9.包装及运输 Packing and transportation

### 9-1 包装 Packing

包装箱由产品名称、型号、厂家标识及检验合格证、生产日期等；箱内有附件清单。

Packing box has product name, model, manufacturer identification and inspection certificate, production date, etc, there is a list of accessories in the box.

### 9-2 运输 Transportation

适用于车、船、飞机运输。

Suitable for vehicles, ships, aircraft transport

## 10.其它 Other