



# MANUAL

**PRODUCT: ON BOARD CHARGER**

**MODEL: PCHG-AS6600**

## Overview

The 6.6KW charger is a product specially designed for supplementing electric energy for the power battery of electric vehicles. This product not only has the advantages of high efficiency, small size, high stability, long life, etc., but also has the characteristics of high protection level, high reliability, and complete protection functions. It is an ideal power source for electric vehicle charging. The charger has a built-in heat-sensing device, has an overheat protection function, and can automatically recover. Fully sealed potting process, up to IP67 protection level, can ensure that it works in any complex environment without causing failure.

Main features: full potting process, air-cooled heat dissipation (module type optional)

can work reliably under the conditions of  $-35^{\circ}\text{C}$  -  $+85^{\circ}\text{C}$

Built-in temperature sensor

can shut off the output under dangerous working conditions (internal  $90^{\circ}\text{C}$ )

Protection class IP67

Can work safely under short-term flooding conditions

MODEL :

额定输出电压 Rated output voltage	输出电压范围 Range of output voltage	输出电流范围 Range of output current
48V	0~68V	0~80A
96V	0-132V	0~60A
144V	0~180V	0~40A
360V	0~450V	0~18A
540V	0~700V	0~12A

SPECIFICATION		
输入 input	额定输入电压 Rated input voltage	220V
	输入电压范围 input voltage range	90-265VAC
	频率 Frequency	45-65Hz
	启动冲击电流 inrush current	≤16A
	输入功率因数 input power factor	≥0.99 (@220Vin,Pomax)
输出 output	输出方式 output method	恒压 / 恒流 Constant voltage/current
	输出功率 Output Power	6600W@220VAC 3300W@110VAC
	稳压精度 Voltage regulation accuracy	≤1%
	稳流精度 Current regulation accuracy	≤5%
	纹波电压系数 Ripple voltage coefficient	≤1%
	输出响应时间 output response time	≤5S
	典型效率 typical efficiency	≥93%
低压 输出 Low Voltage output	输出方式 Output method	恒压 constant voltage
	输出电压 Output power	13.8V/27.6V
	额定电流 Raged current	5A
	恒压精度 CV ccuracy	±2%
	最大电流 Max current	5.5A±0.5A
	输出功率 Output power	≥62.5W
	纹波电压系数 Ripple voltage coefficient	1%
通信功能 Communi- cation function	CAN 通信	有 YES
	波特率 Baud rate	125Kbps、250Kbps、500Kbps(可选 Optional)
	终端电阻 Terminating resistor	120 Ω

**PROTECTION**

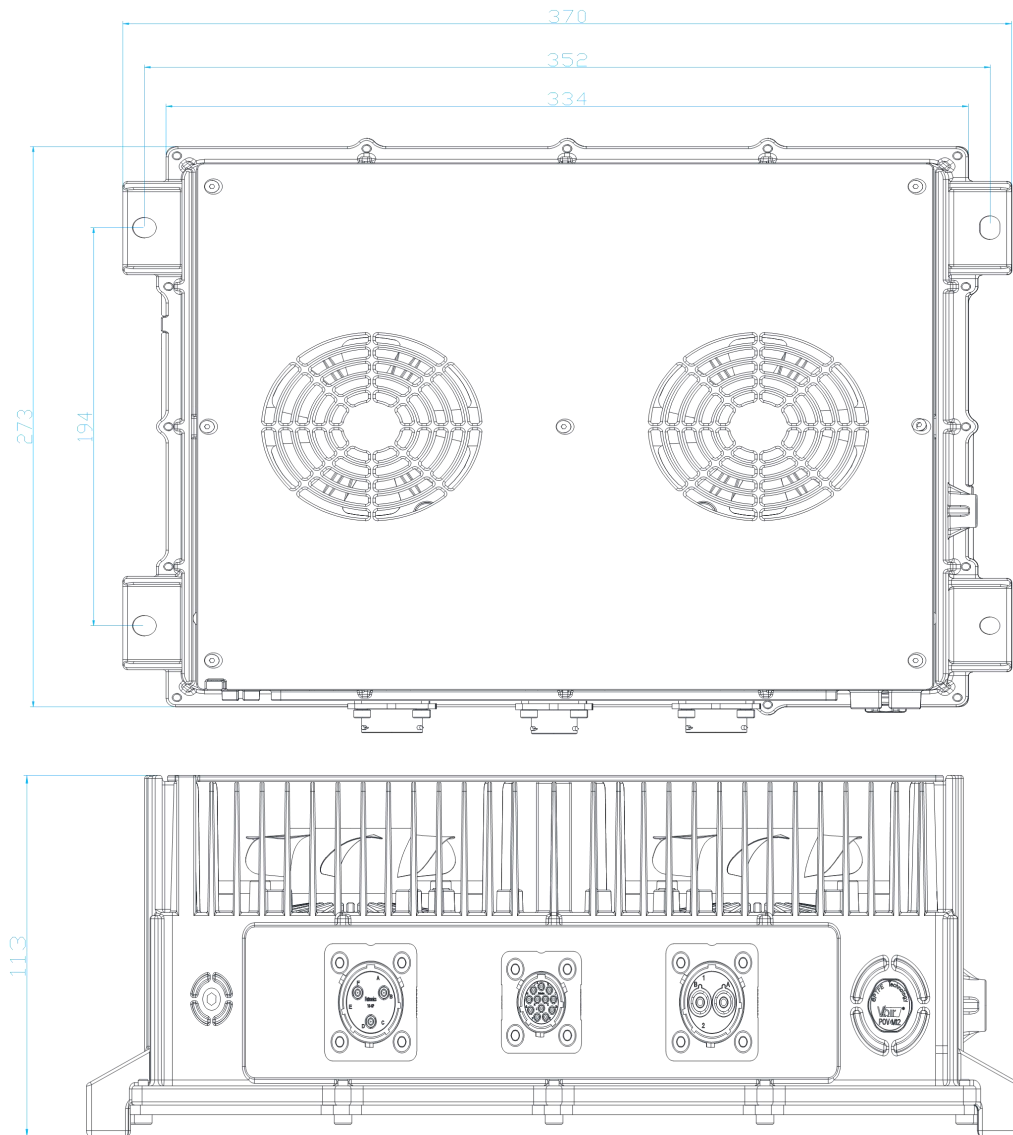
保护功能 protection	输入过压保护 Input over voltage protection	AC266±5V
	输入欠压保护 Input under voltage protection	AC85±5V
	输出过压保护 output over voltage protection	超过最高输出电压+1%时，停止输出 Stop output when the maximum output voltage+1% is exceeded
	输出欠压保护 Output over voltage protection	低于最低输出电压-5%时，停止输出 Stop output when it is lower than - 5% of the minimum output voltage
	输出过流保护 Output over current protection	超过最大输出电流+1%时，停止输出 Stop output when the maximum output current+1% is exceeded
	过温保护 Over temperature protection	85 度开始功率下降，90 度关机 Start power reduction at 85°C and shut down at 90°C
	短路保护 Short circuit protection	停止输出 Stop Output
	电池反接保护 Anti-reverse protection	有 YES
	接地保护 Gound protection	≤100mΩ
	CAN 通信保护 CAN communication protection	CAN 通信失效时自动停止输出 Automatically stop output in case of CAN communication failure

**Safety regulations and others**

安规和其它	耐压 Withstand voltage	输入对输出 Input to output: 2000VAC≤20mA; 输入对地 Input to ground: 2000VAC≤24mA; 输出对地 Output to ground: 2000VAC≤20mA, 均为 1min
	绝缘电阻 Insulation resistance	输入端、输出端、信号端对外壳≥10MΩ, 测试电压 1000VDC Input end, output end, signal end to shell ≥ 10M Ω, test voltage 1000VDC
	电磁抗扰性 Electromagnetic immunity	满足 Meet GB/T 18487.3-2001 11.3.1 条
	电磁骚扰性 Electromagnetic harassment	满足 Meet GB/T 18487.3-2001 11.3.2 条
	谐波电流 Harmonic current	满足 Meet GB 17625.1-2003 6.7.1.1 条
	电流上升时间 Current rise time	≤5S, 超调量≤5%
	关闭响应时间 Turn off response time	100%到 10%≤50mS, 100%到 0%≤200mS

防护等级 Protection level	IP67
耐振动 Vibration resistant	10—25Hz 振幅 1.2mm, 25—500Hz 30m/s <sup>2</sup> , 每方向 8 小时
噪声 noise	≤60dB(A 级)
MTBF	150000H
工作环境 working environment	相对温度 5%-95%无结露 Relative temperature 5% - 95% without condensation
工作温度 Operating temperature	-35℃ ~ +85℃
储存温度 Storage temperature	-55℃ ~ +100℃

### Size (air-cooled)



## LED INDICATOR

CHARGER STATUS			
	CHARGING STATUS	Led light	Remark
STATU S	1 STANDBY BY	RED ON	
	2 CHARING	RED FLASH	
	3 CHARGED FULLY	GREEN ON	
	4 No load (short circuit, under voltage, reverse connection)	Red and green light flicking alternately(0.5S)	Check output voltage
故障指 示	5.communication fault	Red Red Green-	Check the communication cable
	6 Abnomal AC input	Red Green Green-	Check the AC input voltage
	7output overvoltage	Red Green Green Green-	Check whether the connection of the output terminal is properly connected, check the voltage of the output
	8Internal overheating	Red Red Green Green-	
闪烁优先级：输入异常 > 输出过压 > 空载 > 通讯故障 > 内部过热 Blinking priority: input abnormality > output overvoltage > no-load > communication fault > internal overheating			

## Compliance standard

- QC/T 413-2002 Basic Technical Conditions for Automotive Electrical Equipment
- QC/T 895-2011 Conductive Charger for Electric Vehicle Basic Technical Conditions for Electric Equipment of Vehicle
- GB/T 18487.1 General Requirements for Conductive Charging of Electric Vehicles
- GB/T 2423.1 Environmental Testing of Electrical and Electronic Products Part 2: Test Method Test A: Low Temperature (GB/T 2423.1-2008, IEC 60068-2-1:2007, IDT)
- GB/T 2423.2 Environmental Test for Electrical and Electronic Products Part 2: Test Method Test B:High Temperature (GB/T 2423.2-2008, IEC 60068-2-2:2007, IDT)
- GB/T 2423.17 Environmental testing for electric and electronic products - Part 2: Test methods - Test Ka: Salt spray (GB/T 2423.17-2008, IEC 60068-2-11:1981, IDT)
- GB 4208-2008 Shell Protection Level (IP Code) (IEC 60529:2001, IDT)
- GB/T 17619-1998 Limit and Measurement Method of Electromagnetic Radiation Immunity for Motor Vehicle Electronic and Electrical Components
- GB/T 18384.1-2001 Safety Requirements for Electric Vehicles Part 1: On-board Energy Storage Devices
- GB/T 18488.1-2006 Electric motors and controllers for electric vehicles Part 1: Technical requirements
- GB18655-2002 Limits and measurement methods for protecting radio disturbance characteristics of vehicle receivers (idt IEC/CISPR 25:1995)