

## FAQ For Charger of FSE Series

1. What is the power of charger can be chosen?

可以提供多大功率的充电器？

**A:** At present, there are 3.3kW & 6.6kW

可以提供 3.3kW 和 6.6kW

2. What is the AC input voltage?

输入电压是多少？

**A:** 85~265V globally. However, when the power supply is 110V, the power can only reach half of the power of 220V. It is recommended to purchase a 6.6kW charger in areas with AC 110V power supply  
85~265V 全球通用。但是在 110V 供电的时候，功率就只能达到 220V 供电时的一半，建议 AC 110V 供电的地区选购 6.6kW 的充电器

3. What is the specification of the AC input plug?

输入插头是什么规格？

**A:** Can be adapted to local AC input plugs according to different countries; generally the 3.3kW connector is the European standard, and the 6.6KW connector is as following:

可以根据不同的国家，选择适合本地的 AC 输入插头；通用的 3.3kW 的是欧规，6.6KW 的如图：

产品名称 Appellation	产品型号 Code	电流(A) Normal current	接地位置 Earth contact position	电压 Normal voltage	极数 Number of poles	防护等级 Protection degree
插头 Plug	0132	16A	6h	220-250V~	2P+E	IP67
插头 Plug	0232	32A	6h	220-250V~	2P+E	IP67

  

尺寸(mm) 型号	尺寸(mm)					电缆截面积(mm <sup>2</sup> ) Cable nominal cross-section area
	a	b	Φc	d	e	
0132	75.5	47	7-15	139	112	1-2.5
0232	99	63	10-20	175	130	2.5-6

4. Whether the AC input is three-phase or single-phase?

AC 输入是三相电还是单相电?

**A:** Single phase

单相电

5. Is there certification?

是否有认证?

**A:** The core components with IATF16949:2016 certificate, and the whole charger with CE certificate

核心元件有 IATF16949:2016 证书, 整机有 CE 证书

6. How is the communication between the charger and BMS achieved?

充电机和 BMS 的通讯是怎么完成的?

**A:** It is achieved through CAN, which is compatible with our BMS CAN communication structure; it can be obtained from our company by email

通过 CAN 实现通讯, 兼容我司推出的 BMS CAN 通讯结构; 可以通过邮件向我司索取

7. How is the Communication with the IMD and AMS performed?

如何与 IMD 和 BMS 进行通信?

**A:** Directly lead in alarm signals of IMD and BMS from BMS (AMS)

直接从 BMS (AMS) 引入 IMD 和 AMS 的告警信号

8. Is there an alarm indication?

是否有告警指示

**A:** Yes, equipped with BMS and IMD alarm indicators

有, 装有 BMS 和 IMD 告警指示灯

9. What is the electrical level of the IMD & AMS(BMS) alarm interface?

IMD 和 AMS (BMS) 的告警接口是什么电平?

**A:** There are 3 different levels to choose from, see table below

IMD 和 AMS (BMS) 的告警接口有三种电平可供选择, 见下表

充电机外接设备，告警信号状态表 Alarm Status			
S/N	AMS & IMD Alarm Input Voltage		Corresponding Device
	Normal (V)	Alarm (V)	
1	Vcc-2 to Vcc	<Vcc-2	Bender IR155-3204/3204 IR155-4203/4204
2	Open	< 2	AMS
3	< 2	> 2	Reserved

10. Is there a built-in IMD detection module?  
是否装有内置的 IMD 检测模块?  
**A:** No. Using the IMD in the accumulator container  
没有，使用电池箱中的 IMD
11. What is the HV output voltage?  
HV 输出电压是多少?  
**A:** DC 48V-650V (different models with different voltage working  
range)  
DC 48V-650V (型号不同，电压工作范围不同)
12. What is the LV output voltage?  
LV 输出电压是多少?  
**A:** 12V or 24V : 12V is the factory setting, which cannot be changed by  
customers; for 24V, customers can switch to 12V by modifying the  
internal settings by themselves (modification guide document will  
be provided)  
12V 或 24V: 12V 为工厂设定，后期客户不可自行更改；24V 客户  
可通过自行修改内部设定切换成 12V (会提供修改指南)
13. Is there alarm lock function?  
是否有告警锁定功能?  
**A:** Yes, (when the input IMD or BMS alarm lasts for more than

200~300mS, the alarm will be locked), and it can be restored until the power is turned on again

有，（当输入的 IMD 或者 BMS 告警并持续超过 200~300mS 是该告警即被锁定），直至重新加电才可以恢复。

14. Is there an emergency stop switch and the diameter of the switch?  
是否有急停开关，以及开关的直径？

**A:** Yes, the diameter of emergency stop switch is 40mm  
有，急停开关直径是 40mm

15. Is there Shutdown control function?  
是否有安全回路控制功能？

**A:** Yes, controlling the closing and opening for shutdown circuit in accordance with FSG and SAE regulations  
有，按照 FSG 以及 SAE 的规则，提供安全回路控制电源的闭合和切断

16. Is there a TS detection point?  
是否有 TS 检测点？

**A:** Yes, equipped with TS+, TS-, GND monitoring points, using 4mm banana sockets, in line with IEC 1000V CAT III safety rating, equipped with protective cover, current limiting resistor between TS detection point and high voltage 5K, 5W; 10K 10W; 15K 15W can be selected (selected according to different maximum DC voltages at the factory)  
有，装有 TS+，TS-，GND 监测点，采用 4mm 香蕉插座，符合 IEC CATIII 安全等级，装有保护罩，TS 检测点和高压之间有限流电阻 5K, 5W; 10K 10W; 15K 15W 可调（出厂时根据不同 DC 最高电压调整）

17. Is there a discharge resistor installed?  
是否装有放电电阻？

**A:** Yes, equipped with a discharge resistor to ensure that the HV output voltage is lower than 60V within 5S after the HV was cut off

装有放电电阻，确保高压断电后 5S 之内高压输出电压低于 60V

18. Is there a ground wire installed?

是否安装有地线?

**A:** Yes, connected with the LV negative electrode and the shell  
有，与低压负极和外壳连在一起

19. The setting between 12 or 24 Volts comes from the factory or can we change it to our needs?

12V 或者 24V 输出是由工厂设定？客户可以自行更改吗？

**A:** 12V or 24V output, which can be set by the factory when leaving the factory, also can be set by the team later (very simple, need to contact us before change)

12V 或者 24V 输出，可以在出厂的时候由工厂设定，也可以后期有车队自行设定（很简单，改变之前，需要联络我们）

20. Which parameters do we need to provide at the moment of ordering the product?

客户在订购产品时需要提供哪些参数？

**A:** Need to provide the electric level for AMS alarm and normal level; LV & HV voltage; Type of AC connector; and Power of the charger  
需要提供 AMS 告警和正常时的电平；LV&HV 电压；连接器类型；充电机功率

21. What will be contained when shipped?

随机发货都有什么？

**A:** a. 1.7M long HV orange cable: one side is connected to the charger, and the other side is the flying wire;

a. 橘色 HV 电缆长度 1.7 米，一侧电缆连接到充电机，一侧是飞线；

b. 1.7M long LV black cable: one side is connected to the charger, and the other side is the flying wire;

b. 黑色 LV 电缆，长度是 1.7 米，一侧连接到充电机，一侧是飞线；

c. Ground wire, 2M long, with 4mm banana plug on one side and fish clip on the other side;

c. 接地线，长度 2 米，一侧是 4mm 香蕉插头一侧是鱼夹

d. Spare 250V 25A insurance (only 3.3kW version is available)

d. 备用 250V 25A 保险（只有 3.3kW 的版本有提供）

22. When the emergency stop button is pressed, what happens to the charger?

按下急停开关之后，充电机是什么反应？

**A:** a. For rules of FSG2022, pressing the emergency stop switch will cut off the HV output of the charger and the shutdown circuit

a. 根据 FSG2022 规则，按下急停开关后，会切断充电机的高压输出及安全回路

b. For rules of SAE2022, after pressing the emergency stop switch, all the outputs (HV, LV, Shutdown and AC Input) of the charger will be cut off until the power is re-energized to return to normal

b. 根据 SAE2022 的规则，按下急停开关后，会切断充电机的全部输出（高压、低压）至重新上电才可以恢复正常