



# 规格书

# SPECIFICATION

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**MODEL**  
**K-AC900-W380-10**

# MODEL:K-AC900-W380-10

## 产品设计标准和安规要求/ Engineering standard and safety regulations

◆ GB14711《中小型旋转电机安全通用要求》/GB14711 *Safety requirements of small and medium size rotating electrical machines*

◆ JB/T10562-2006 《一般用途轴流风机通用技术条件》/JB/T10562-2006 *General technical requirement for general axial fan*

◆ 本产品符合以下认证/ Certification

☐ UL+cUL

☐ CE-LVD

☒ CE-LVD+EMC

☐ CE-EMC

☐ TUV

☐ CCC

☐ 其他 Others

◆ 本产品全部材料符合 RoHS 或 REACH 要求。/All materials accord with RoHS or REACH.

## 使用环境 / Operating environment requirements

◆ 工作温度/Operating temperature:  $-25^{\circ}\text{C} \sim +60^{\circ}\text{C}$

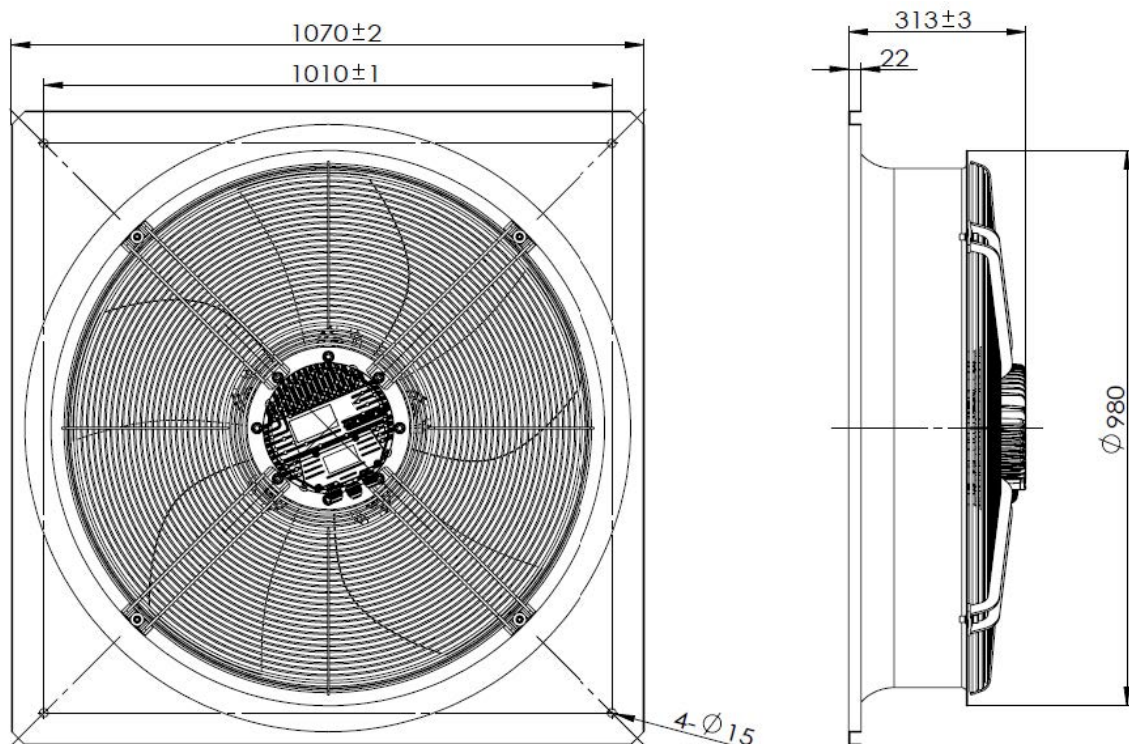
◆ 工作湿度/Operating humidity:  $0\% \sim 95\% \text{ RH}$

◆ 贮存温度/Storing temperature :  $-25^{\circ}\text{C} \sim +60^{\circ}\text{C}$

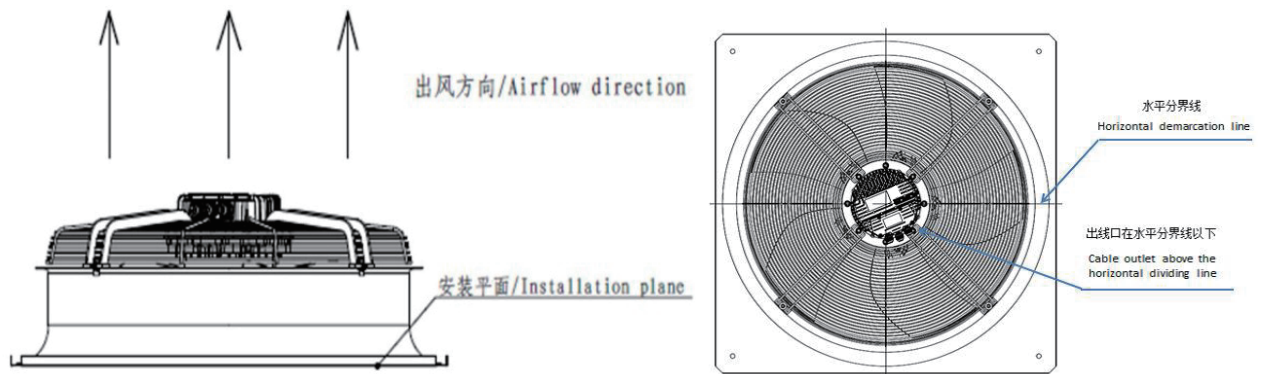
◆ 贮存湿度/Storing humidity:  $0\% \sim 95\% \text{ RH}$

◆ 海拔高度/Altitude:  $\leq 1000\text{m}$

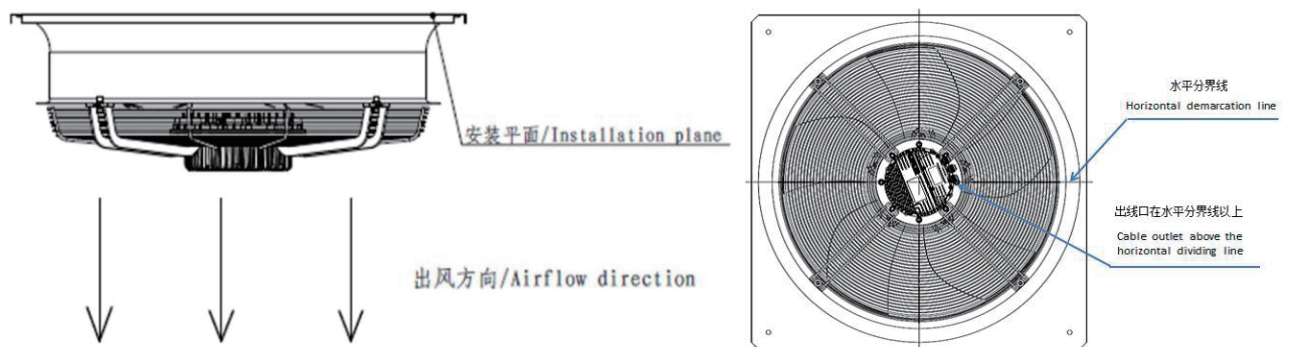
## 产品图 /Dimension drawing



安装方向/ Installation direction description:





正确安装方式/Correct installation method

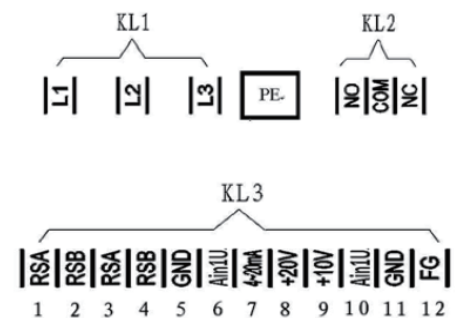


错误安装方式/Wrong installation method

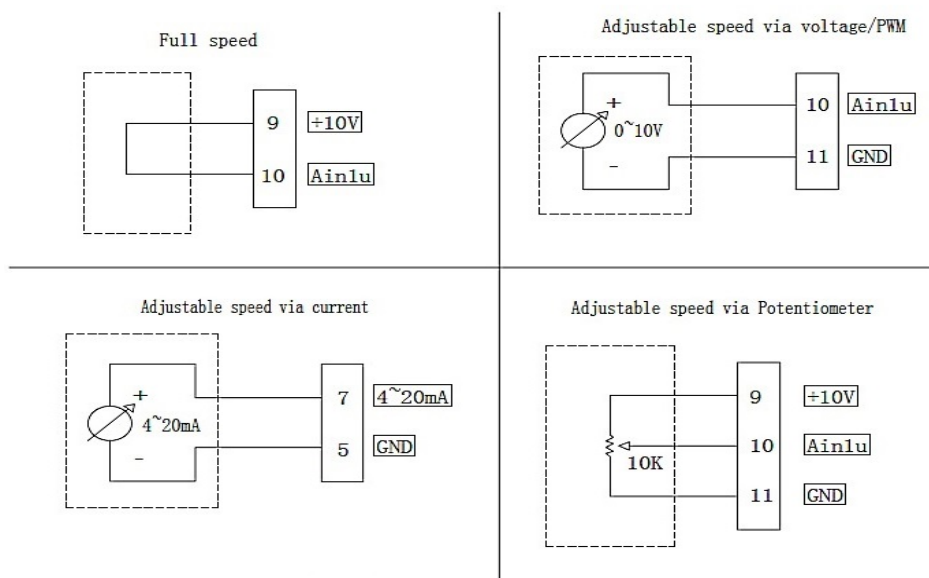
铭牌标识/Nameplate drawing

<div>  <b>EC Axial Fan</b> </div>	
FAN TYPE : K-AC900-W380-10	RATED VOLTAGE : 3[PH]380V
MOTOR TYPE : DM150F5-0000Q	FREQUENCY : 50/60Hz
RATED SPEED : 1020r/min	RATED POWER : 2785W
INS.CL : F	OUTPUT POWER : 2255W
	RATED CURRENT : 4.46A
MAXIMUM CURRENT : 4.8A    MAXIMUM POWER : 2900W	

接线示意图/ View lead connection



序号	脚位	标记	定义/功能	序号	脚位	标记	定义/功能
NO.	Pin	Signal	Assignment/Function	NO.	Pin	Signal	Assignment/Function
KL3	1/3	RSA	RS485接口RSA; Bus connection RS485; RSA; MODBUS RTU	KL2	1	NO	继电器常开端 Status relay, floating status contact; normally open; close with error
	2/4	RSB	RS485接口RSB; Bus connection RS485; RSB; MODBUS RTU		2	COM	报警继电器公共端 Status relay, common connection; Contact rating 250VAC/2A(AC1)
	5/11	GND	控制信号参考端 Signal ground for control interface KL3		3	NC	报警继电器常闭端 Status relay, break with error
	6/10	Ain1U	0~10VDC/PWM调速输入; Control input 0~10VDC/PWM; only usable as alternative to input 4~20mA	KL1	1	L1	主电源输入端, 电压 3[PH]380±10%VAC; 50/60Hz; 需要客户配空气开关或慢断保险管 10A~16A; Mains supply connection, supply voltage 3[PH]380±10%VAC; 50/60Hz; Need customer to add air switch or time-lag fuse 10A~16A.
	7	4~20mA	4~20mA 电流调速输入; Analogue Control input 4~20mA; only usable as alternative to input 0~10V/PWM		2	L2	
	8	+20V	+20VDC 辅助电源输出; Fixed voltage output 20VDC (+20% max. 20mA); power supply for ext. devices (e.g. potentiometer)		3	L3	
	9	+10V	+10VDC 辅助电源输出; Fixed voltage output 10VDC (±10% max. 10mA); power supply for ext. devices (e.g. potentiometer)	PE		PE	大地接口; Earth connection, PE connection
	12	FG	速度/故障输出反馈 Speed Signal Feedback/Fault Feedback				



## 性能参数/Nominal data

额定电压/Nominal voltage	3 [PH]380VAC
额定电压范围/Nominal voltage range	380VAC~480VAC
频率/Frequency	50/60Hz
电容/Capacitor(±5%)	/
电流/Current draw(±10%)	4.1A
输入功率/Power input(±10%)	2500W
转速/Speed(±10%)	1020r/min
风量/Air flow(±10%)	32000m <sup>3</sup> /h
噪音/Noise(-7/+3)	LpA:85dB(A)
测试状态/ Method of obtaining data	放空状态/ Free air

## 最高效率点参数/Parameters at maximum efficiency point

静压/Pst	162Pa
输入功率/Power input	2849W
风量/Air flow	20926m <sup>3</sup> /h
转速/Speed	969r/min
ErP 指令/ErP Directive	Erp2020
效率等级/Efficiency grade N	50

## 最大电流点参数（供参考）Parameters at maximum current point (For reference)

额定电压/Rated voltage	380VAC
频率/Frequency	50/60Hz
电容/Capacitor	/
静压/Pst	162Pa

## 机械参数/Mechanical data

电机/Motor	
叶轮/Impeller	ADC12, 本色/ADC12, true color.
导风圈/Inlet ring	SPCE, 黑色/SPCE, black
重量/Weight	57.5Kg
电机防护等级/motor degree of protection	IP54
控制器防护等级/ PCB degree of protection	IP54
轴承/Bearing	滚动轴承/Ball Bearing
振动/Vibration	≤5.4mm/s
平衡/Balancing	在 1020±10%r/min 运转时, 每个端面动平衡精度不低于平衡品质等级 6.3。/When the fan is running at 1020±10%r/min, the dynamic balance accuracy of each end side is not lower than the balance quality grade G6.3.

## 电气参数/Electrical description

绝缘等级/Insulation class	F
器具等级/Protection class	接地保护, 客户端连接 I (with customer connection of ground protection)
保护/Protection	过流保护/Over-current protection function 过欠压保护/Under-voltage and over-voltage lockout protection 堵转保护/Locked-rotor protecting function

最大电流/Current draw 4.7A

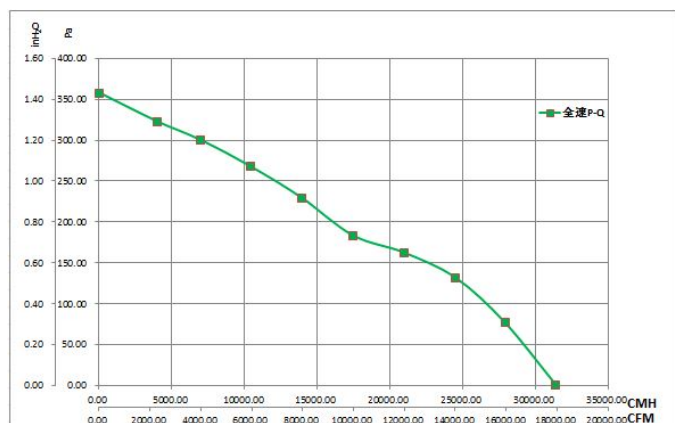
输入功率/Power input 2849W

转速/Speed 969r/min

风量/Air flow 20926m<sup>3</sup>/h



## 特性曲线 /Performance curve



调速电压U	电压 U	频率 f	输入电流 I	输入功率 P	转速 n	静压 Pts	流量 QV	静压 Pts	流量 QV
VDC	VAC	Hz	A	W	r/min	Pa	CMH	inH2O	CFM
10	380	50/60	4.2	2503	763	355	0	1.4	0
10	380	50/60	4.6	2777	863	298	6967	1.2	4103
10	380	50/60	4.7	2849	969	162	20926	0.7	12324
10	380	50/60	4.6	2846	989	132	24489	0.5	14422
10	380	50/60	4.2	2533	1028	0	31372	0	18476

## 寿命/Life expectance

在额定电压、环境温度40℃、风机全速连续运转时，预期寿命为40000小时（根据应用产品实际工况，预期寿命会有不同。）/The life expectancy is 40000hours at rated voltage, ambient temperature of 40℃, and continuous operation of the fan at full speed. (According to the actual working conditions of the product, the life expectancy will be different).保质期以双方约定的协议为准。/The warranty period is subject to the agreement agreed by both parties.

## 备注/Note:

**测试环境:** 在室温为 25℃, 相对湿度为 85%RH 时测试/Tested at room temperature of 25 ° C and relative temperature of 85% RH.  
**风量:** 根据 ISO5801 安装类别 A 标准进行测试; /Air volume is tested according to ISO 5801 installation category A standard;  
**噪音:** 进行声压级测试, 根据按 GB/T2888 《风机和罗茨鼓风机噪声测量方法》进行测试, 轴水平放置风机, 离风机进风口 1 米处测试。给定的值在上述条件下有效, 并且可能根据实际安装情况而有所不同。/noise is tested for sound pressure level, according to GB/T 2888 Fan and Roots Blower Noise Measurement Method, the axis is placed horizontally and the fan is tested 1 meter away from the air inlet of the fan . The given value is valid under the above conditions and may vary according to the actual installation situation.Measurement Method, the axis is placed horizontally and the fan is tested 1 meter away from the air inlet of the fan . The given value is valid under the above conditions and may vary according to the actual installation situation.

## 主要功能/Technical features

### 软启动/Soft start

电机以低转速启动, 大约 20 秒到达全速, 以减少对电源的电流冲击/The motor starts at low speed and reaches full speed about 20 seconds' running for reducing power supply current surge.

### 过流保护/Over-current protection function

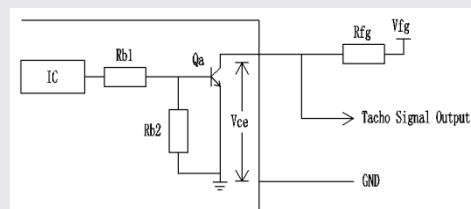
电流过流保护功能/Over-current protection.

### 过欠压保护/Under-voltage and over-voltage lockout protection

电机具有欠压与过压停机保护功能  
This motor with under-voltage and over-voltage lockout protection.

### 堵转保护/Locked-rotor protecting function

将负载风机堵住, 输入额定的电压及调速电压, 输入电流小于额定值。/Lock the loaded fan, and input rated voltage and speed control voltage, and input current is less than the rated value.



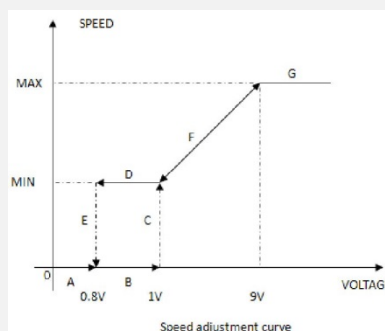
### 转速反馈/Feedback function of rotary speed

风机具有速度输出信号,Vfg和上拉电阻为客户外接部分,Vfg建议范围为5~30VDC, Rfg=Vfg\*1000 Ω。反馈信号高电平电压为Vfg。每转输出5个脉冲

The fan provides an speed output signal, VFG and pull up resistor are out connect for customer,the range of VFG is from 5VDC to 30VDC for advised and RFG=VFG\*1000.The feedback signal high level is Vfg.5 pulse per revolution.

### 速度控制/Speed control

停止状态下,风机启动电压为  $1\pm0.2V$ ,在  $9\pm0.2V$  时速度达到最大速度;运行状态下,停机电压为  $0.8\pm0.2V$ ,调速曲线如图。/When the fan is stopped, the starting voltage is  $1\pm0.2V$ , and the speed reaches the maximum at  $9\pm0.2V$ . When the fan is under operation, the shutdown voltage is  $0.8\pm0.2V$ .The variable speed curve is shown in the figure.



## 配附件/Other requirements on accessory

导风圈/Inlet cones

有

防护网罩/Fan guard

有

连接器组件/Annectent

无

端子/Terminal

无

连接器/Linker

无

电源线/Power cable

无

信号线/Signal wire

无

端子/Terminal

无

## 其他/Other



## 警示语 /Warning:

在使用产品之前,请仔细阅读以下说明,遵守以下警告,以防止发生故障或对人员造成危险。/ Read these instructions carefully before starting work on the device. Observe the following warnings to prevent malfunctions or danger to persons.



### 危险/ DANGER:

表示在紧急的情况下, 如不采用指定的措施, 会导致死亡和重伤, 必须遵守说明。/Indicates an imminently hazardous situation which will result in death or serious injury if the specified actions are not taken. Compliance with the instructions is imperative.

1) 没有防护, 在操作过程中, 手、衣物、长头发可能会卡在设备中, 从而导致严重伤害。/Without protection hands, clothing, and long hair may get stuck in the device, resulting in serious injury during operation.

2) 风机请安装在儿童不能接触到扇叶和带电部件的地方, 也不允许儿童单独使用本产品。/ The fan should keep away from the children especially the blade and electric parts. And the children are not allowed to operate the fan alone.

### 警告/ WARNING:

表示潜在的危险情况下, 可能导致死亡或严重伤害, 工作格外小心。/ Indicates a potentially hazardous situation which can result in death or serious injury if the specified actions are not taken. Exercise extreme caution while working.

1) 产品在安装、拆卸过程中可能打滑、掉落, 可能会导致致命或严重的伤害以及财产损失, 设备严重损坏。/The product may slip and fall during installation and disassembly, which may result in fatal or serious injury, property damage, and serious damage to the equipment.

2) 噪音可能超过  $L_p: 70\text{dB(A)}$  时, 有引起听力损失的风险。/ the sound pressure level may exceed  $70\text{dB(A)}$ . Risk of noise-induced hearing loss.

### 警戒/ CAUTION:

表示潜在的危险情况下, 如果不采取指定的措施, 可能会导致轻度或中度伤害或财产损失。/Indicates a potentially hazardous situation which can result in minor or moderate injury or damage to property if the specified actions are not taken.

1) 从包装中取出风扇时有割伤和压伤的危险。/Cutting and crushing hazard when removing fan from packaging.

### 注意/ NOTE:

可能会发生潜在的有害情况, 如果不避免, 可能会导致财产损失。/A potentially harmful situation can occur and, if not avoided, can lead to property damage.

1) 包装运输仅以原始包装运输。在原始包装中, 清洁的环境中保护其不受天气影响, 并且不受振影响。/ Transport the device in its original packaging only. protected against the weather and free from vibration, in the original packaging in a clean environment.

2) 在客户端进行安装时须满足可能出现的机械、温度及使用寿命相关的应力要求。/ When installing at the client, it must meet the mechanical, temperature and service life-related stress requirements that may occur

3) 在接入设备前, 请检查数据连接、输入的电压是否与铭牌相匹配。/Before connecting to the device, check whether the information on the nameplate matches the connection data, and make sure the power supply matches the device voltage.

4) 在移动产品的时候, 不得以风机扇叶为受力点搬运产品, 否则会造成扇叶变形而使风机震动过大。/ Be careful when moving the fan and do not take the blades as a handle because it will cause the distortion and chatter.

5) 使用的安装螺丝不得超过要求长度, 否则会造成风机损坏。/ The length of the mounting screws shall not exceed the requirement, otherwise the fan will be damaged.

6) 请不要自主拆装风机, 否则将影响动扇叶平衡、防水等效果, 严重的将引起安全问题。/ Do not disassemble the fan arbitrarily. It may hurt the capacity of watertightness and dynamic balance or cause other serious problems.

7) 带导风圈的风机需按照推荐尺寸设计和安装, 否则将影响产品性能。/ The fan with inlet ring should be installed follow the requirements or it will affect the performance.

8) 对于未带电缆线之风机, 客户所接电缆线的外径需在要求的范围内, 否则将影响防水效果。/ Users should use the standard cable when install the fan otherwise it will affect the watertightness.



### 危险/ DANGER:

表示带电设备, 触电危险。/ Electrically charged device, Risk of electric shock

**警告/ WARNIN:** 设备关闭, 重新起动, 有触电的危险。/ Live terminals and connections even with device switched off, Electric shock

**警戒/ CAUTION:** 发生故障时, 给电机或风机通电或者在停电后, 如果设备设置有控制电压或者存储速度值, 电机将自动重启, 有受伤的风险。/ When a fault occurs, power on the motor or fan or after a power failure, if the device is set with a control voltage or stored speed value, the motor will automatically restart, there is a risk of injury.



### 警戒/ CAUTION:

表示外壳表面高温, 有烫伤危险和着火危险。/ High temperature on electronics housing Risk of burns

1) 电机接线必须按接线图的指示, 有接地线要求的产品请务必接上地线, 不建议客户使用延长线, 所有不按指示接线都可能造成电机烧坏。/ Wiring depends on the wiring diagram and please connect the earth ground if required. we don't suggest to use the extension cord. Any wrong connection may cause the damage of the fan.

2) 对于有接温控器要求的风机, 请务必接上带温控器的引线, 否则有可能造成电机内部温度过高而损坏。/ Connect the thermostat if required otherwise it would damage the motor because of the over temperature.

3) 风机的电气连接必须有合适的过流保护器以防止电流过大对产品造成损坏。/ The overcurrent protector is necessary in case the damage from the overcurrent.