



# 关于我们

# **About Us**

**上海超时电子电器有限公司**于1993年在中国上海注册成立。本公司一直专注于专业设计和生产通用型的电子电器保护器和专用配套电子产品,应用的领域包括电梯、机床、空调、压缩机、冰柜、冷冻机、水泵、起重机械、建筑机械等行业中所配用电动机、电器控制设备及其它三相用电电器的保护。

公司主要生产和开发单相、三相三线、三相四线、三相五线交流电压保护器、三相交流变频电压保护器、电机热保护器、电源保护模块、三相及单相过电流保护装置等产品。本公司的产品质量好,跨行业适应性强,配套能力强。

本公司为中国电梯协会以及中国制冷学会会员。公司部分产品具有CCC(CQC)认证、CE认证以及RoHS认证,并且设计生产的产品拥有100%的自主知识产权,部分产品具有国家专利。

上海超时电子电器有限公司秉持着"超时创新,保护万家电;匠心智造,一器安天 下"的宗旨,为广大企业用户提供专业优质的解决方案和产品配套服务。

交流保护器系列参数对比						
系列	ABJ2通用型 (三相)	ABJ2技术型 (三相/单相)	ABJ1-W普通型 (三相)	ABJ1普通型 (三相)	ABJ3拓展型 (三相)	电逸保 (单相)
					100	
错相 (三相)	•	•	•			
动态&静态 断相保护 (三相)	•	•	•	•	•	
过欠压保护 (三相/单相)		•	•	•	•	•
过电流保护 (三相/单相)					•	•
负载端保护 (三相)				•	•	
电流不平衡 保护 (三相)					•	
电压不平衡 保护 (三相)	•	•	•	•	•	
信 <del>号</del> 变送 ( 三相/单相 )		•			•	
温度保护 (PT100, PT1000, CU50, NTC, PTC) (三相)					•	
零线&地线 保护 (三相/单相)		•			•	•

## 》单相交流保护

### 01 单相二线交流电压保护器 ABJ2-71W



### 特点

- ◆ 型号选择:延时输出、恢复延时、开机延时;过欠压值分类;
- ◆ LED指示灯形式具有中国实用新型专利证书;
- ◆ 设定值高精度、低温漂。

### 功能

- ◆保护功能:过电压&欠电压保护;
- ◆ 继电器触点输出。

### 尺寸

◆ 61 (长)×20.5(宽)×73 (高) mm





### 特点

- ◆ 故障信号输出形式为通用变送电信号;
- ◆ 浮地设计使变送信号输出可以与PLC直连;
- ◆ 设定值高精度、低温漂。

### 功能

- ◆保护功能:过电压&欠电压保护;
- ◆ 继电器触点输出。

### 尺寸

◆ 61 (长)×20.5(宽)×73 (高) mm

### 03 单相三线交流漏电驱动保护器 ABJ2-74W



### 特点

- ◆ 为时下日渐普及的新能源车特别研发,是充电桩的守护天使;
- ◆ 与漏电保护器配合使用,保护线路简单;
- ◆ 有蜂鸣器报警功能;
- ◆ LED指示灯形式具有中国实用新型专利证书;
- ◆ 漏电驱动形式具有一项中国发明专利;
- ◆ 设定值高精度、低温漂。

### 功能

- ◆保护功能:过电压&欠电压保护、超压保护、缺零线保护、 零线带电保护、地线正常指示;
- ◆ 直接驱动漏电保护开关动作和报警指示;
- ◆ 有直接驱动漏电保护器型号和附带继电器触点输出型号。 尺寸
- ◆ 61(长)×20.5(宽)×73(高) mm







## 》三相交流电压保护

# 01

### 三相三线交流电压保护器 ABJ2-1□W



### 特点

- ◆ 体积小;
- ◆ 功能齐全;
- ◆ 耐高温、低功耗;
- ◆ 故障灯显示清晰;
- ◆ 接线方便、安装方便、可靠性高;
- ◆ 技术指标高、参数和精度一致性高;
- ◆ 二组和一组触点输出形式;
- 抗温度漂移电路:电压设定精度:0.5%(设定值×0.5%);温度漂移:0.05 V/℃(基准温度25℃)。

### 功能

- ◆保护功能:过电压、欠电压、相序、动态断相、静态断相、电压不平衡保护;
- ◆ 延时功能:延时输出、延时恢复、开机延时。

### 外形尺寸

◆ 61 (长)×20.5(宽)×73 (高) mm

## 02

### 三相三线交流电压保护器 ABJ2-2□W



### 特点

- ◆ 用于三相交流变频电压环境(如变频VVVF电梯或中频电炉)三相三线交流电压保护;
- ◆ 工作电源为低压12V或24V, 交直流通用;
- ◆ 取电方便;
- ◆ 在供电环境差的电网中具有适应非正常波形和抗脉冲抗载波的能力;
- ◆ 采用浮地和隔离技术;
- ◆ 耐高压、耐高频、耐脉冲;
- ◆ 保护检测点可以任意放置在开关接点前段或后端,如交流接触器的前端或后端;
- ◆ 工作电源上电后,触点控制输出方案可选:开机吸合(默认)或不吸合(三相上电正常后吸合);
- ◆ 抗温度漂移电路:电压设定精度:0.5%(设定值×0.5%);温度漂移:0.05 V/℃(基准温度25℃)。

### 功能

- ◆保护功能:过电压、欠电压、相序、动态断相、静态断相、电压不平衡保护;
- ◆ 延时功能:延时输出、延时恢复、开机延时。

### 外形尺寸

◆ 61 (长)×20.5(宽)×73 (高) mm







### 三相五线交流电压保护器 ABJ2-9□W



### 特点

- ◆ 缺零线保护、缺地线指示;
- ◆ 故障显示清晰;
- ◆ 功能稳定可靠;
- ◆ 用于三相四线保护时零线和地线可以短接;
- ◆ 抗温度漂移电路:电压设定精度: 0.5%(设定值×0.5%); 温度漂移: 0.05 V/℃(基准温度25℃)。

### 功能

◆ 保护功能:过电压、欠电压、相序、动态断相、静态断相、电压 不平衡保护、缺零线保护、零线带电保护、零线超压保护、地线正常指示。

◆ 延时功能:延时输出、延时恢复、开机延时。

三相四线交流电压保护器

### 外形尺寸

◆ 61 (长)×20.5(宽)×73 (高) mm

ABJ2-0□W



# 特点

- ◆ 缺零线保护;
- ◆ 故障显示清晰;
- ◆ 功能稳定可靠;
- ◆ 抗温度漂移电路:电压设定精度: 0.5%(设定值×0.5%);

温度漂移: 0.05 V/℃(基准温度25℃)。

### 功能

◆ 保护功能:过电压、欠电压、相序、动态断相、静态断相、 电压不平衡保护、缺零线保护、零线带电保护、零线超压保护。

◆ 延时功能:延时输出、延时恢复、开机延时。

### 外形尺寸

◆ 61 (长)×20.5(宽)×73 (高) mm



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# **05** 三相三线交流电压保护器 ABJ2-12WG





- ◆ 适用于替换传统的通用型XJ3系列, ABJ1-12W或同类进口及国产相序保护器;
- ◆ 优质优价, 革新换代;
- ◆ 体积小巧,安装便捷;
- ◆ 耐高温, 低功耗;
- ◆ 二组和一组触点输出形式。

### 功能

- ◆ 相序保护;
- ◆ 动态断相保护;
- ◆ 静态断相保护;
- ◆ 三相电压不平衡保护;
- ◆ 延时保护:延时输出。

### 外形尺寸

◆ 61 (长)×20.5(宽)×73 (高) mm





### **06** 三相三线交流电压保护器(变送器) ABJ2-34W/44W

# 技术协定型

### 特点

- ◆用于三相三线的保护和信号变送;
- ◆ 输出形式:通用变送电信号4~20mA;
- ◆ 恒压恒流源设计适合远距离信号传输;
- ◆ 变送信号输出可以与PLC直连,并保留传统的继电器触点同步输出;
- ◆ 故障处理方式由接收变送信号的PLC设定,如:断相、恢复延时、 故障锁定等;

### 功能

- ◆ 保护功能:过电压、欠电压、相序、动态断相、静态断相、电压不平衡保护。
- ◆ 故障信号输出为通用变送电信号;
- ◆ 工作电压: 24VDC/VAC。

### 外形尺寸

◆ 61 (长)×20.5(宽)×73 (高) mm

### 07 三相三线交流电压保护器(变送器) ABJ2-54W/64W



### 特点

- ◆用于三相三线的保护和电压信号变送;
- ◆ 输出形式:通用变送电信号4~20mA;
- ◆ 恒压恒流源设计适合远距离信号传输;
- ◆ 变送信号输出可以与PLC直连,并保留传统的继电器触点同步输出;
- ◆ 故障处理方式由接收变送信号的PLC设定,如:断相、恢复延时、故障锁定等;
- ◆ 采用电压跟随技术采集电压值,并输出通用变送信号,供PLC设定电压保护值和故障保护方式;

### 功能

- ◆ 保护功能:相序、动态断相、静态断相、电压不平衡保护。
- ◆ 过欠电压保护由PLC根据变送电信号自主设定。

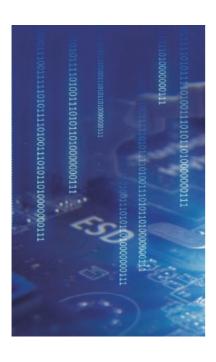
### 外形尺寸

◆ 61 (长)×20.5(宽)×73 (高) mm









# 08 三相三线交流电压保护器 ABJ1系列 & ABJ1-W系列



### 特点

- ◆ ABJ1系列中有负载端保护功能的型号
- ◆ ABJ1-W为微型系列

### 功能

◆ 保护功能:过电压、欠电压、相序、动态断相、静态断相、电压不平衡保护

◆ 延时功能:延时输出、延时恢复、开机延时

### 外形尺寸

◆ ABJ1: 74 (长)×49 (宽)× 102 (高) mm ◆ ABJ1-W: 56.5 (长)×30.5(宽)× 72.5 (高) mm

### 型号选择

◆ ABJ1系列: ABJ1-12/122/14/16/18AY/18BY/18BH/18DY/ 18DH/18DX/18FH/18FY/18GH/18GY/18GX

◆ ABJ1-W系列: ABJ1-12WX/12WY/14WX/14WY

ABJ1系列







ABJ1-W系列







# 》三相交流保护器

## ABJ3系列

# 功能拓展型

### 特点

- ┌◆ 输入电压范围宽
- ◆ 调节电压范围宽
- └ ◆ 额定电压范围宽
- ┌◆ 实时电压可视
- ◆ 电压设定可视
- └ ◆ 故障类型可视
- ┌◆ 温度传感器保护功能
- ◆ 过电流保护功能
- <sup>L</sup>◆ 变送器信号功能
- -◆ 高精度低温漂
- ◆ 参数失电储存
- └ ◆ 可在变频电源中使用

### 功能

- ◆ 过电压、欠电压保护
- ◆ 动态断相,静态断相,错相
- ◆ 过电流保护
- ◆ 温度传感保护 (PTC、NTC、PT100、CU50)
- ◆ 电压设定精度: < 0.5% (设定值×0.5%) 电压设定值温度漂移: < 0.05 V/℃(基准温度25℃)
- ◆ 电压不平衡保护
- ◆ 负载端检测(动态断相,静态断相)
- ◆ 三相三线, 四线, 五线电网(缺零、零带电, 缺地)
- ◆ 延时功能

### 外形尺寸

◆ 33 (宽)×88 (长)×68 (高) mm (35mm TH型标准安装)



### 功能拓展组合

### 三相交流保护:

三相三线、四线(缺零/零带电)、五线(缺地线)

相序保护

动态&静态断相保护

电压不平衡保护

过欠压保护

负载端保护

低压直流辅助电源12~36VDC(用于变频环境中)

温度传感保护: PT100、CU50、PTC、NTC

变送器信号保护

过电流保护: 电流不平衡 设定保护电流范围值









# PTC热保护器 ABR-W系列



### 特点

- ◆ 体积小
- ◆ 輸入工作电压有交直流(12V),交流(36V/220V)或交直流(24V)多种选择

### 功能

- ◆ 应用于带有PTC热敏电阻电动机的过热保护
- ◆ 延时功能:延时输出,延时恢复,开机延时

### 尺寸

◆ 61 (长)×20.5(宽)×73 (高) mm

# 压缩机电源保护模块 ABJR系列



### 特点

- ◆ 用于压缩机接线盒三相三线的保护;
- ◆ 功能全、耐高温、低功耗;
- ◆ 故障灯显示清晰;
- ◆ 安装方便、螺钉防掉设计;
- ◆ 通用变送信号输出 (2~28mA) ;
- ◆ 可以直接与PLC连接;
- ◆ 同一个产品上有220VAC和24VAC/VDC工作电压可选接;
- ◆ 选用低电压工作电源安全可靠(推荐24VAC)。

### 功能

- ◆保护功能:过电压、欠电压、相序、动态断相、静态断相、 电压不平衡保护、PTC热保护
- ◆ 延时功能:延时输出,延时恢复,开机延时

### 外形尺寸

◆ 82(长)×78(宽)×35.5 (高) mm

### 型号选择

- ◆ 交流电源ABJR-□□-220
- ◆ 交直流电源ABJR-□□-220/24
- ◆ 直流电源ABJR-□□-24
- ◆ 可以直接替代进口同类产品





## 》电逸保

### 与漏电保护器配合使用 可实现9种故障的保护或报警

- ■超压
- 零线带电
- ■过电压
- 欠电压 过电流
- ■缺地线

- ■缺零线
- ■缺相线
- ■相零错

### 电逸保广泛使用于各种场合



农村 用电

汽车 充电桩

装修 电工 电压 检测

电流 检测



### 型号选择

	额定保护电压值	使用环境
A型	220V±10%	电压比较稳定、少有电网故障的城市,使用于高端电子设备,高级音响设备,可用于线路检测(作为电压表)
F型	220V±12.5%	农村中电压较稳定的地区,使用于比较贵重的家电。
B型	220V±15%	农村中电压不稳定的地区,适用于耐电压波动的家电(非贵重家电等)

V型	带电压显示(数码显示屏)
W型	不带电压显示(数码显示屏)
C型	一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一

### 不同于其他电压保护器 电逸保对家电的保护更合理

### 手动复位 保护方式更合理

防止了不允许复位的情况下发生的自动复位,避免了对家用电器造成不可逆转的损坏。

### 三档电压选择 不同地区不同选择

根据家用电器的保护要求选择合理的保护值,保护电压值设定精度高、实用性强。

### 合理电压保护设定 电压值设定更精准

家用电器承受有限的过电压,电压超过极限将损坏电器,设定的电压保护峰值与 谷值不合理将使电器保护失去保护意义。

### 无需安装 即插即用

不用接线安装,省去繁琐,直接插入符合中国国家标准的250V 10A单相三线插座即可。 可随身携带作为检测插头,多种用途。

### 家用电压电流检测

可用作测量电压、可用作电笔,即插即测家庭电路状态。



更多产品详情请见 www.chaoshi18.com/dianyibao

# 产品专利证书





# CCC(CQC)认证证书







ABJ1 ABJ1-W

**ABJR** 





# RoHS认证证书



12



# About Us

Shanghai Circuit Shield Electronic & Electrical Equipment Co., Ltd. was established in Shanghai, China in 1993. This company has been consistently focusing on the specialized design and the production of general-purpose electronic protectors. Areas of application include protection of electromotors and other three-phase electrical equipment in businesses such as elevators, machine tools, air conditioners, compressors, refrigerators, freezers, water pumps, heavy-lifting machines, construction machinery, etc.

Circuit Shield mainly produces and develops products include but not limited to: single-phase, three-phase three-wire, three-phase four-wire, and three-phase five-wire AC voltage protectors; three-phase AC variable-frequency voltage protectors; PTC thermal protectors; power protection modules; three-phase and single-phase overcurrent protectors. Our company's products have outstanding quality and high cross-industry adaptability.

Our company is a member of the *China Elevator Association*, as well as the *Chinese Association of Refrigeration*. Some of the company's products have CCC(CQC) certification and CE certification, and some of them meet the RoHS compliance. All of the company's products have 100% of independent intellectual property rights, while some of them hold Chinese Invention Patent and Chinese Utility Model Patent.

# **Comparison of Parameters Across Series**

Series	General-purpose ABJ2 Series (Three-phase)	Technology-based ABJ2 Series (Three-phase/ Single-phase)	Conventional ABJ1-W Series (Three-phase)	Conventional ABJ1 Series (Three-phase)	Professional ABJ3 Series (Three-phase)	EZ Power Protector (Single-phase)
					710	
Phase Dislocation Protection (Three-phase)	•	•	•	•		
Dynamic & Static Phase loss protection (Three-phase)	•	•	•	•	•	
Overvoltage & Undervoltage Protection (Three-phase/ Single-phase)		•	•	•	•	
Overcurrent Protection (Three-phase/ Single-phase)					•	•
Load Protection (Three-phase)				•	•	
Current Unbalance Protection (Three-phase)					•	
Voltage Unbalance Protection (Three-phase)	•	•	•	•		
Signal transmission (Three-phase/ Single-phase)		•			•	
Temperature Protection (Pt100, PT1000, CU50, NTC, PTC) (Three-phase)					•	
Zero line & Ground wire protection (Three-phase/ Single-phase)		•			•	•

### > Single-phase AC Protection

01

## Single-Phase Two-Wire AC Voltage Protector ABJ2-71W

Technology -based

#### **Features**

- Model selection: delay output, delay recovery, power-on delay; classification of over-and undervoltage values
- The display form of LED indicator lights owns a Chinese utility model patent;
- High accuracy Of Set Values; low temperature drift.

### **Function**

- Protection functions: Overvoltage & undervoltage protection
- Output from relay contacts

### **Dimensions**

• 61 (L) x 20.5 (W) x 73 (H) mm



02

# Single-Phase Two-Wire AC Voltage Transmitter ABJ2-72W, ABJ2-73W

Technology -based

#### **Features**

- Fault signals are output in the form of electric signals sent by general-purpose transmitter.
- The float ground is designed to directly connect the outputs of transmitted signals to the PLC;
- High accuracy Of Set Values; low temperature drift.

### **Functions**

- Protection functions: Overvoltage and undervoltage protection
- Output from relay contacts

#### **Dimensions**

• 61 (L) x 20.5 (W) x 73 (H) mm



### ABJ2-74W Features

• Specially designed for charging piles of new energy vehicles.

(Driver for AC Leakage Protector)

 Used in conjunction with leakage protectors; Makes the protection circuit much simpler.

**Single-phase Three-wire AC Protection Relay** 

- ◆ Has buzzer alarm function
- The display form of LED indicator lights owns a Chinese utility model patent;
- High accuracy of Set Values; low temperature drift.

#### **Functions**

- Protection functions: Over-/under-voltage protections, supervoltage protection, loss of zero line protection, electrification of zero line protection, indication of normal conduction of ground wire.
- Directly drives the leakage circuit breaker to operate and to make alarm indications.
- Model selection: model that directly drives the leakage protector; model that comes with outputs from relay contacts.

### **Dimensions**

• 61 (L) x 20.5 (W) x 73 (H) mm





## **>> Three-phase AC Protection**



## Three-Phase Three-Wire AC Voltage Protector ABJ2-1□W



#### Features

- Small size and light weight;
- High temperature resistance;
- Low power consumption;
- ◆ Clear fault display;
- Convenient wiring and installation;
- High-standard technical indexes;
- High precision of the parameters;
- Two sets and one set of contact output;
- ♦ Accuracy of voltage setting: 0.5% (Set value×0.5%)Temperature drift: 0.05V/ $^{\circ}$ C (Benchmark temperature: 25 $^{\circ}$ C). Functions
- Protection functions: overvoltage, undervoltage, phase sequence, dynamic phase loss, static phase loss, voltage unbalance protection.
- Time delay functions: delay output, delay recovery, power-on delay.

#### **Dimensions**

• 61 (L) x 20.5 (W) x 73 (H) mm



## Three-Phase Three-Wire AC Voltage Protector ABJ2-2□W



#### Features

- Used in three-phase AC variable-frequency voltage environment (such as in a variable-frequency VVVF elevator or in a medium-frequency furnace) in three-use three-wire AC circuits;
- Power supply: low voltage 12V or 24V, applicable for both AC and DC;
- Taking electricity is convenient;
- Adaptability to abnormal wave form, anti-pulse capability, and anti-carrier capability in a power grid with a poor power supply;
- Float ground design and isolation technology;
- Resistance to high pressure, high frequencies, and pulse;
- Protection check points can be placed either at the front end or the back end of switch contacts, (e.g. the front end or the back end of AC contactors);
- After the power supply is power-on, there are two options for relay contact output: power-on suction (default) or non-suction (closing after the three-phase circuit is power-on normally);
- Accuracy of voltage setting: 0.5% (Set value×0.5%) Temperature drift: 0.05V/°C (Benchmark temperature: 25°C).

#### **Functions**

- Protection functions: overvoltage, undervoltage, phase sequence, dynamicphase loss, static phase loss, voltage unbalance;
- Time delay functions: delay output, delay recovery, power-on delay.

### **Dimensions**

◆ 61 (L) x 20.5 (W) x 73 (H) mm









### Three-Phase Five-Wire AC Voltage Protector

#### **Features**

- Loss of zero line protection;
- Indication of loss of ground wire;
- Clear fault display;
- Stable and reliable functions;
- When used in a three-phase four-wire circuit, the zero line and the ground wire can be shorted;
- ◆ Accuracy of voltage setting: 0.5% (Set value×0.5%)

  Temperature drift: 0.05V/°C (Benchmark temperature: 25°C).

#### **Functions**

- Protection functions: overvoltage, undervoltage, phase sequence, dynamic phase loss, static phase loss, voltage unbalance, loss of zero line, electrification of zero line, supervoltage of zero line;
- Indication of normal conduction of ground wire.
- Time delay functions: delay output, delay recovery, power-on delay .

### **Dimensions**

◆ 61 (L) x 20.5 (W) x 73 (H) mm









# Three-Phase Four-Wire AC Voltage Protector ABJ2-0□W

#### **Features**

- Loss of zero line protection
- Clear fault display
- Stable and reliable functions

#### **Functions**

- Protection functions: overvoltage, undervoltage, phase sequence, dynamic phase loss, static phase loss, voltage unbalance, loss of zero line, electrification of zero line, supervoltage of zero line;
- ◆ Time delay functions: delay output, delay recovery, power-on delay;
- ◆ Accuracy of voltage setting: 0.5% (Set value×0.5%)

  Temperature drift: 0.05V/℃ (Benchmark temperature: 25℃).

### **Dimensions**

• 61 (L) x 20.5 (W) x 73 (H) mm









## Three-phase three-wire AC Voltage Protector ABJ1-12WG

### Features

- A replacement for general-purpose XJ3 series, ABJ1-12W, or similar imported and domestic phase sequence protectors.
- A next-generation innovation with excellent quality at a good price
- ◆ Compact size; convenient installation
- Great heat resistance; low power consumption
- ◆ Two sets and one set of contact output

### **Functions**

- Phase sequence protection
- Dynamic phase loss protection
- Static phase loss protection
- ◆ Three-phase voltage unbalance protection
- ◆ Time delay function: Delay output

### **Dimensions**

◆ 61 (L) x 20.5 (W) x 73 (H) mm





## Three-Phase Three-Wire AC Voltage Protector (Transmitter) ABJ2-34W/44W



#### **Features**

- Used for three-phase-three-wire protection and signal transmission;
- Output form: general-purpose electric transmission signal (4~20mA);
- The constant voltage & constant current source design is suitable for long-distance signal transmission;
- Output of transmission signals can be directly connected to PLC, while the traditional sync output from relay contacts is kept;
- Troubleshooting is set by the PLC, which receives transmission signals (e.g. phase loss, delay recovery, fault locking, etc);

### **Functions**

- Protection functions: overvoltage, undervoltage, phase sequence, dynamic phase loss, static phase loss, voltage unbalance.
- Output of fault signals: general-purpose electric transmission signals; working voltage: 24VDC/VAC.

### **Dimensions**

• 61 (L) x 20.5 (W) x 73 (H) mm



# Three-Phase Three-Wire AC Voltage Protector (Transmitter) ABJ2-54W/64W



### **Features**

- Used for three-phase-three-wire protection and signal transmission;
- Output form: general-purpose electric transmission signal (4~20mA);
- The constant voltage & constant current source design is suitable for long-distance signal transmission;
- Output of transmission signals can be directly connected to PLC, while the traditional sync output from relay contacts is kept;
- Troubleshooting is set by the PLC, which receives transmission signals (e.g. phase loss, delay recovery, fault lock, etc);
- Uses voltage-following technology to collect voltage values;
- Outputs general-purpose transmission signals for the PLC to set the voltage protection values and troubleshooting methods;

#### **Functions**

- Protection functions: phase sequence, dynamic phase loss, static phase loss, voltage unbalance.
- Over- and undervoltage protection is independently set by the PLC according to the electric transmission signals.

#### **Dimensions**

◆ 61 (L) x 20.5 (W) x 73 (H) mm











# Three-Phase Three-Wire AC Voltage Protector ABJ1 Series & ABJ1-W Series

### **Features**

- Some models in the ABJ1 series have protection functions for the load end.
- ABJ1-W is the miniature version of ABJ1 series.

### **Functions**

- Protection functions: overvoltage, undervoltage, phase sequence, dynamic phase loss, static phase loss, voltage unbalance.
- Time delay functions: delay output, delay recovery, power-on delay.

### **Dimensions**

- ◆ ABJ1: 74 (L) x 49 (W) x 102 (H) mm
- ◆ ABJ1-W: 56.5 (L) x 30.5 (W) x 72.5 (H) mm

### **Model Selection**

- ◆ ABJ1 Series: ABJ1-12/122/14/16/18AY/18BY/18BH/18DY/
  - 18DH/18DX/18FH/18FY/18GH/18GY/18GX
- ◆ ABJ1-W Series: ABJ1-12WX/12WY/14WX/14WY

ABJ1 Series

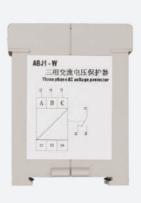






**ABJ1-W Series** 







# Three-phase AC Protector ABJ3 Series

### Features

- ◆Wide range of input voltage
- ◆Wide range of adjustable voltage
- └ ◆Wide range of rated voltage
- ∀isible real-time voltage
- → Visible voltage setting
- Visible fault types
- ⊤◆ Temperature sensing protection
- ◆ Overcurrent protection
- → High precision; low temperature drift
- ◆ Automatic storage of data if the protector loses power
- Can be used in variable-frequency power source



### **Functions**

- ◆ Over-/Under-voltage protection
- ◆ Dynamic & Static phase loss protection
- Phase dislocation protection
- Overcurrent protection
- Temperature-sensing protection (Model PTC, NTC, PT100, Cu50)
- ◆ Accuracy of voltage setting: <0.5% (Set value×0.5%)

  Temperature drift of voltage setting value: <0.05 V/°C (Reference temperature: 25°C)
- Voltage unbalance protection
- ◆ Load side detection (during dynamic/static phase loss)
- Loss of zero line protection, electrification of zero line protection, loss of ground wire protection (for three-phase three-wire/four-wire/five-wire circuits)
- ◆ Time delay functions

#### **Dimensions**

• 88(L) x 35(W) x 68(H) mm (Standard installation by using a standard 35mm TH type mounting rail)



### **Combinations of Function Extension**

Three-phase AC Protection:

Three-phase three-wire/four-wire (loss of zero line protection/ electrification of zero line protection), Three-phase five-wire (loss of ground wire protection)

Phase sequence protection

Dynamic & Static phase loss protection

Voltage unbalance protection

Over-/under-voltage protection

Load end protection

Low-voltage DC auxiliary power supply of 12~36VDC (used in variable-frequency environment)

Temperature sensing protection: PT100, CU50, PTC, NTC

Transmission signal protection

Overcurrent protection:
Voltage unbalance protection
Setting range value of current protection









# PTC Thermal Protector ABR-W Series



#### **Features**

- ◆ Small size
- Multiple options for input working voltage: AC-DC (12V), AC (36V/220V) or AC-DC (24V)

### **Functions**

- Applicable to overheat protection for motors with PTC thermistors.
- Time delay functions: delay output, delay recovery, power-on delay .

### **Dimensions**

• 61 (L) x 20.5 (W) x 73 (H) mm

# **Power Protection Modules for Compressors ABJR Series**



### **Features**

- Used for the protection of three-phase three-wire terminal box in compressors;
- High temperature resistance; low power consumption;
- Clear fault display;
- Convenient installation;
- Anti-drop design for the screws;
- General-purpose transmission signals (2~28mA);
- Can be directly connected to PLC;
- Either 220VAC or 24VAC/VDC of working voltage can be connected;
- Safer and more reliable to use a low-voltage working power supply (24VAC is recommended).

#### **Functions**

- Protection functions: overvoltage, undervoltage, phase sequence, dynamic phase loss, static phase loss, voltage unbalance
- PTC thermal protection.
- Time delay functions: delay output, delay recovery, power-on delay

### **Dimensions**

• 82 (L) x 78 (W) x 35.5 (H) mm

### **Model Selection**

- ◆ AC power supply: ABJR-□□-220
- ◆ AC-DC power supply: ABJR-□□-220/24
- ◆ DC power supply: ABJR-□□-24
- A replacement for similar imported and domestic products.



### **EZ Power Protector**

Installation-free Smart Home-use Power Protector Used in conjunction with leakage protectors

### **Protection for 9 types of Circuit Failures**

■ Supervoltage ■ Electrification of Zero Line ■ Over-voltage

■ Under-voltage ■ Overcurrent ■ Loss of Ground Wire

■ Loss of Zero Line ■ Loss of Phase Line ■ Reverse Connection of Zero Line & Phase Line



### **EZ Power Protector Can be Widely Used in Various Occasions:**

- ▶ Prevention of hidden danger in home electricity usage
- ▶ Omnidirectional voltage and current monitoring for charging piles of electric vehicles
- ▶ Easy examination of voltage / current & wiring in household renovation
- ▶ Long-distance multiload protection for electricity usage in rural areas

### **Model Selection**

	Rated voltage value	Working Environment
Model A	220V±10%	Suitable for use in cities with stable voltage and few power grid faults/ High-end electronic devices (e.g. high-end stereo equipment)
Model F	220V±12.5%	Suitable for use in rural areas with stable voltage/ Valuable home appliances
Model B	220V±15%	Suitable for use in rural areas with unstable voltage/ (Less valuable) home appliances that are resistant to voltage fluctuation

Model V:	With LED digital display of voltage value
Model W:	Without LED digital display of voltage value
Model C:	With overcurrent protection (tailored)

### Why should you use an EZ Power Protector instead of others?

More reasonable and more user-friendly protection method:

Through the feature of resetting the circuit manually based on one's own discretion, automatic resets of your home appliances are fully prevented, especially under circumstances when, technically, the home appliances are NOT allowed to reset. EZ Power Protector effectively prevents the motors in running air conditioners and refrigerators from resetting automatically after a power outage, since an automatic reset may cause irreparable damages to your home appliances.

More precise value setting of voltage protection:

There are three sets of rated voltage values for you to choose from for your EZ Power Protector: Model A is  $\pm 10\%$ , Model F is  $\pm 12.5\%$ , and Model B is  $\pm 15\%$ . To make the protection for your home more precise and better, we suggest you to pick a model with the voltage value setting that best meets the protection requirements of your home appliances. Feel free to let us know if you need any help with model selection!

No installation required. Plug-and-use:

Most home-use voltage protectors or current protectors require tedious and complicated wiring installation, which causes great inconvenience especially if your household is already renovated and furnished. However, NO installation is required for an EZ Power Protector. Used in conjunction with leakage protectors, an EZ Power Protector immediately starts working as soon as it is directly plugged into a (standard single-phase three-wire) socket or a power strip at home, on a charging pile for electric vehicles, or into an irrigation system in the fields. What's more, EZ Power Protector is small, light, and easily portable.

voltmeter) to examine whether the power circuit and wiring in your house are working normally or not.

Convenient line detection at home:
By simply plugging it into a socket, EZ Power Protector can be used (as a replacement of test pencil/a



# **Patent Certificates**



**Chinese Invention Patent** 

**Chinese Utility Model Patent** 

# China Compulsory Product Certification (China Quality Certification)







ABJ1

ABJ1-W

**ABJR** 





### ABJZ

# **Certificate of RoHS Compliance**







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