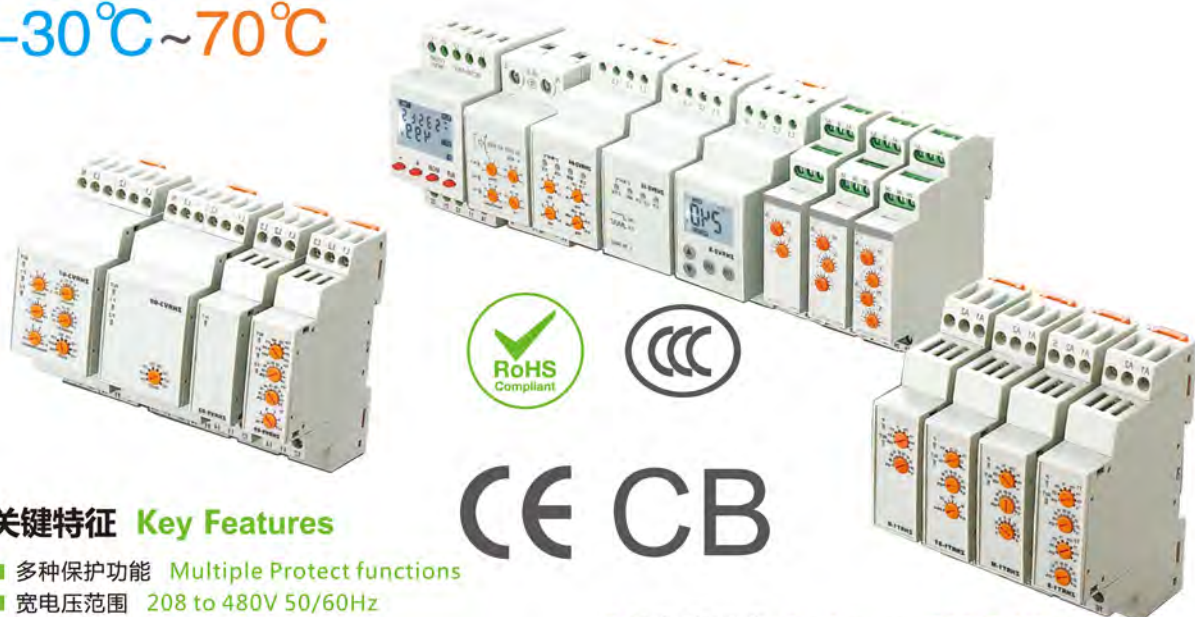


-30°C ~ 70°C



CE CB

## 关键特征 Key Features

- 多种保护功能 Multiple Protect functions
- 宽电压范围 208 to 480V 50/60Hz
- 导轨安装 DIN-rail mounting
- 符合国际标准 Conforms to CCC, RoHS and CE IEC

型号规格 Model	类型 Style	功能类型 Function Type	功能数量 Number of Functions	触点配置 Contact Configuration	触点配置容量 Contact Configuration capacity(A)	宽度 Width (mm)	额定电源电压 Rated Supply Voltage
ZHRV2-36	过欠压自复位保护器 Automatic reset over and under voltage protector	Over voltage Under voltage	2	1NO (Non-Isolated)	32~80	36	220V AC
ZHRV2-54T	过欠压自复位保护器 Automatic reset over and under voltage protector	Over voltage Under voltage	2	1NO (Non-Isolated)	32~80	54	220V AC
ZHRV2-72	过欠压自复位保护器 Automatic reset over and under voltage protector	Phase sequence ,Phase failure,Over and Under voltage	4	3NO+N (Non-Isolated)	50~80	72	3P+N 220V AC
ZHRV1-01~19	电压控制继电器 Voltage control relay	Phase sequence ,Phase failure,Asymmetry, Over and Under voltage PTC,Test,Load Protect	8	1C/O	10	45	3P:A220~A480 3P+N: N220~N240
ZHRV2-01~11	电压控制继电器 Voltage control relay	Phase sequence ,Phase failure,Asymmetry, Over and Under voltage	5	1C/O	10	36	3P:A220~A415 3P+N: N220~N240
ZHRV2-S	电压控制继电器 Voltage control relay	Phase sequence ,Phase failure,Asymmetry, Over and Under voltage	1	1C/O	10	36	3P:M415 ( 380~415V ) 3P+N:M240 ( 220~240V )
ZHRV2-45	电压控制继电器 Voltage control relay	Phase sequence ,Phase failure,Asymmetry, Over and Under voltage Tinmer,Count	7	1C/O	10	45	3P:A380
ZHRV3-01~11	电压控制继电器 Voltage control relay	Phase sequence ,Phase failure,Asymmetry, Over and Under voltage	5	2C/O or 1C/O+1C/O	8	36	3P:M440 (208~440V) 3P+N:M254 (120~254V)
ZHRV5-01-02	单相电压继电器 Voltage control relay	Over voltage Under voltage	2	1C/O	8	18	DC12~240 AC24~240
ZHRV5-03-12	三相电压继电器 Voltage control relay	Phase sequence ,Phase failure,Asymmetry, Over and Under voltage	5	1C/O	8	18	3P:M460 (220~460V)



### 1. 特点 / General

#### 1.1 应用

应用于单相工控系统中保护电器设备，当电源过、欠压异常时，切断供电回路，达到保护设备的目的。

#### 1.1 Applications

Used in single-phase control system, when the power supply is abnormal (voltage too high or too low), cut off the power to protect electrical equipment from damage.

#### 1.2 功能特点：

内置微处理器，真有效值测量，电压测量精度 $\leq 1\%$ ，测量频率范围45Hz-65Hz，旋钮设定，LED灯显示工作状态，具有故障状态锁定功能，导轨安装。

#### 1.2 Features：

Built-in microprocessors, true RMS measurement, voltage measurement accuracy  $\leq 1\%$ . Measuring frequency 45Hz~65Hz, knob setting, LED indicator shows working status. Lock function with fault status, DIN rail mounting.

### 1.3 型号说明 / Model Description



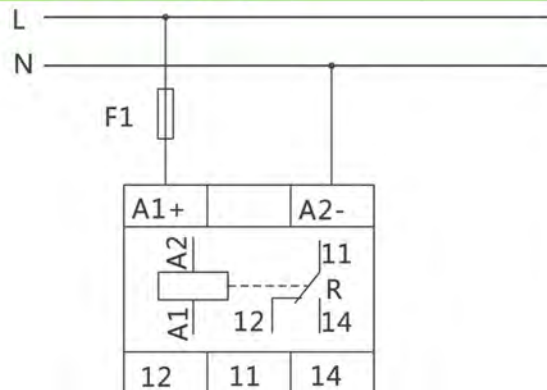
### 1.4 型号选型表 / Model Selection Table

型号 Model	过电压 Over-voltage	欠电压 Under-voltage	动作延时时间 Action delay	额定电源 电压代号 Rated supply voltage code	额定电源电压 Rated supply voltage	工作电压范围 Working voltage range	设置范围 Setting range
ZHRV5-01	旋钮设置二选一 >U or <U selectable by knob		0.1s~10s	D12	DC 12V	DC 7~20V	DC 9V~15V
				AD48	AC/DC 24V~48V	AC/DC 15V~100V	AC/DC 20V~80V
				AD240	AC/DC 110V~240V	AC/DC 50V~270V	AC/DC 65V~260V
				A220	AC 220V	AC 160V~270V	AC 180V~260V
ZHRV5-02	●	●	0.1s~10s	D12	DC 12V	DC 7~20V	DC 9V~15V
				AD48	AC/DC 24V~48V	AC/DC 15V~100V	AC/DC 20V~80V
				AD240	AC/DC 110V~240V	AC/DC 50V~270V	AC/DC 65V~260V
				A220	AC 220V	AC 160V~270V	AC 180V~260V

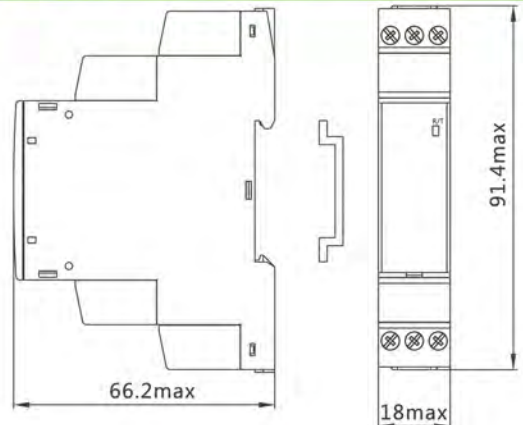
注：“●”此功能可用的，“-”此功能不可用。

Note：“●” Function is available，“-” Function is not available.

### 1.7 接线图 / Wiring Diagram



### 1.8 外形尺寸图 / Dimensions (mm)

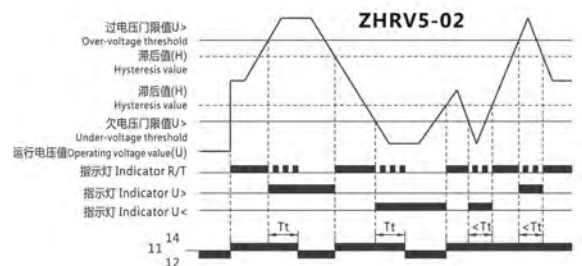
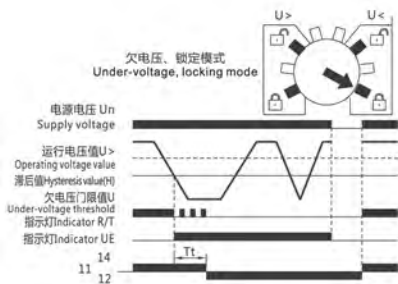
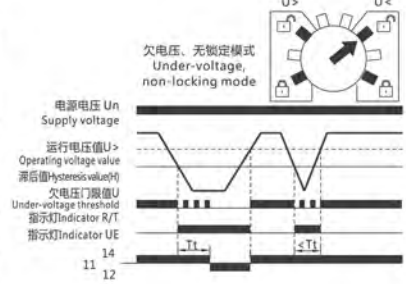
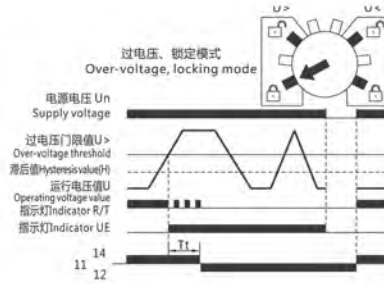
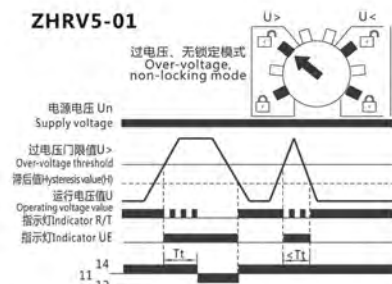


### 1.5 技术参数 / Technical Parameters

测量范围 Measuring range	45Hz~65Hz, 0
可调整的滞后值 Adjustable hysteresis value	ZHRV5-01: 门限值的5~20% / 5~20% of Threshold value
固定的滞后值 Fixed hysteresis value	ZHRV5-02: 门限值的3% / 3% of Threshold value
动作延时设定范围 Action delay setting range	0.1s~10s
电压测量误差 Voltage measurement error	< 1% ( 整个设定范围/ Entire setting range )
延时误差 Delay error	±10%+0.1s
旋钮设置精度 Knob setting accuracy	1%的刻度值 / 1% scale value
额定绝缘电压 Rated insulation voltage	460V
触点配置容量 Contact configuration capacity(A)	8A
IP等级 IP Class	IP20
污染等级 Class of pollution	III
电气寿命 Electrical Life	10 <sup>5</sup>
机械寿命 Mechanical life	10 <sup>6</sup>
海拔高度 Altitude	≤2000m
允许的相对湿度 Allowable relative humidity	≤50% ( 40°C ) ( 无凝霜 / No condensation )
使用类别 Use category	AC-15
触点容量 Contact capacity	Ue/Ie : 250V/1.5A
输出类型 Output type	1 C/O
导轨标准 DIN rail Standard	宽度 (width)35mm ( IEC/EN60715 )

### 1.6 工作时序图 / Function diagram

#### ZHRV5-01





### 1. 特点 / General

#### 1.1 应用

用于控制柜、空调机组、电梯机房、水泵、风机等电机控制场合，作电源过电压、欠电压、断相、相序、三相不平衡保护用，当电源异常时切断供电回路，达到保护设备的目的。

#### 1.1 Applications

Used in air conditioning units, elevator machine room, pumps, fans and other motor control applications, as protection of over-voltage, under-voltage, phase loss, phase sequence, 3-phase imbalance. When the power supply is abnormal, stop supply to protect the equipment.

#### 1.2 功能特点:

内置微处理器，真有效值测量，电压测量精度 $\leq 1\%$ ，测量频率范围45Hz~65Hz，旋钮设定，LED灯显示工作状态，额定电压三相三线220V~460V通用，导轨安装。

#### 1.2 Features:

Built-in microprocessors, true RMS measurement, voltage measurement accuracy  $\leq 1\%$ . Measuring frequency 45Hz~65Hz, knob setting. LED indicator shows working status. Rated voltage three-phase three-wire 220V~460V universal. DIN-rail mounting.

### 1.3 型号说明 / Model Description



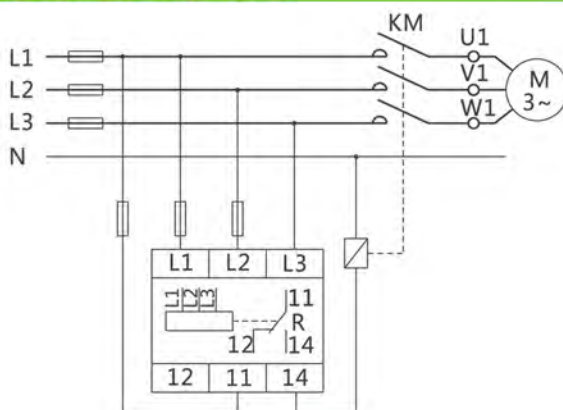
### 1.4 型号选型表 / Model Description

型号 Model	过电压 Over-voltage	欠电压 Under-voltage	不平衡 Unbalance	断相 Phase failure	相序 Phase sequence	延时时间 Delay
ZHRV5-03	-	-	-	●	●	-
ZHRV5-04	-	-	5%~15%	●	●	0.1~10s
ZHRV5-05	2%~20%	-	-	●	-	0.1~10s
ZHRV5-06	-	-20%~2%	-	●	-	0.1~10s
ZHRV5-07	2%~20%	-20%~2%	-	●	-	0.1~10s
ZHRV5-08	2%~20%	-20%~2%	-	●	●	0.1~10s
ZHRV5-09	2%~20%	-20%~2%	8%	●	●	0.1~10s
ZHRV5-10	2%~20%	-20%~2%	5%~15%	●	●	2s
ZHRV5-11	-	-	8%	●	●	2s
ZHRV5-12	15%	-15%	8%	●	●	2s

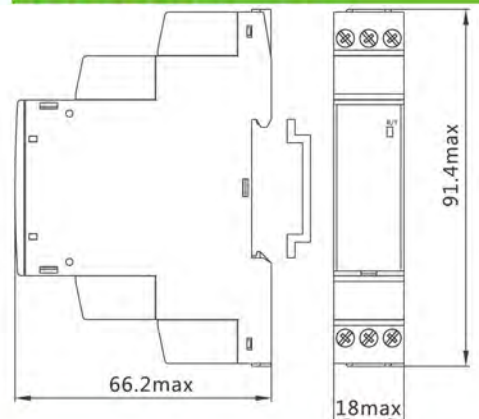
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Note: “●” Function is available, “-” Function is not available.

### 1.7 接线图 / Wiring Diagram



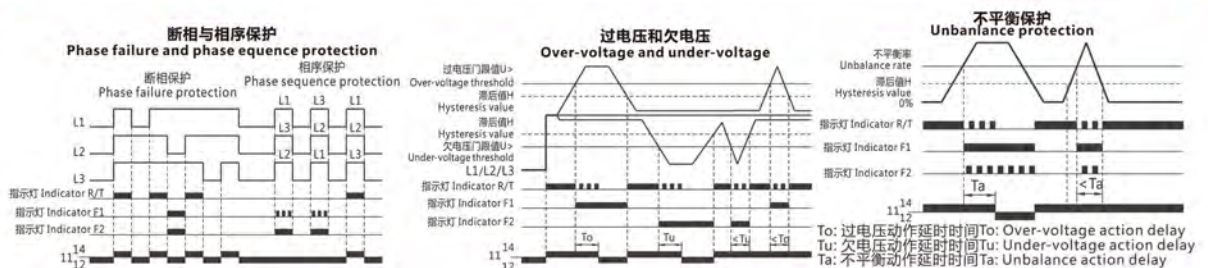
### 1.8 外形尺寸图 / Dimensions (mm)



### 1.5 技术参数 / Technical Parameters

额定电源电压 Rated supply voltage	AC 3×220V → 3×460V
工作电压范围 Operating voltage range	AC 187V~529V
额定电源频率 Rated supply frequency	50Hz/60Hz
额定工作电压选择 Voltage range	220-230-240-380-400-415-440-460 (V)
测量范围 Measuring range	AC 176V → 552V
测量频率范围 Measurement frequency range	45Hz~65Hz
断相、相序动作时间 Phase failure and phase sequence action time	< 0.5s
动作延时时间 Action delay	0.1s~10s
固定滞后率 Fixed hysteresis rate	额定工作电压的2% / 2% of rated operating voltage
电压测量误差 Voltage measurement error	≤1% ( 整个设定范围 / Entire setting range )
延时误差 Delay error	±10%+0.1s
旋钮设置精度 Knob setting accuracy	1%的刻度值 / 1% scale value
额定绝缘电压 Rated insulation voltage	460V
触点配置容量 Contact configuration capacity(A)	8A
IP等级 IP Class	IP20
污染等级 Class of pollution	III
电气寿命 Electrical Life	10 <sup>5</sup>
机械寿命 Mechanical life	10 <sup>6</sup>
允许的相对湿度 Allowable relative humidity	≤50%(40°C) (No condensation)
海拔高度 Altitude	≤2000m
使用类别 Use category	AC-15
触点容量 DIN rail Standard	Ue/Ie : 250V/1.5A
输出类型 Contact capacity	1 C/O
导轨标准 Standard Guide	宽度(width)35mm(IEC/EN60715)

### 1.6 工作时序图 / Function diagram



### 2. 订货须知 / Ordering instructions

产品型号意义:

ZHRV5-10/M460 电压继电器, 额定电源电压三相AC220V至460V/八档可选, 具相序、断相、过欠压、不平衡保护功能, 过欠压、不平衡设定值可调。

Model significance:

ZHRV5-10/M460 voltage relay, rated supply voltage 3-phase 8 selections AC220V ~ AC460V, with phase sequence, phase failure, under-voltage, over-voltage and unbalance protection. Adjustable over-voltage, under-voltage and unbalance setting.