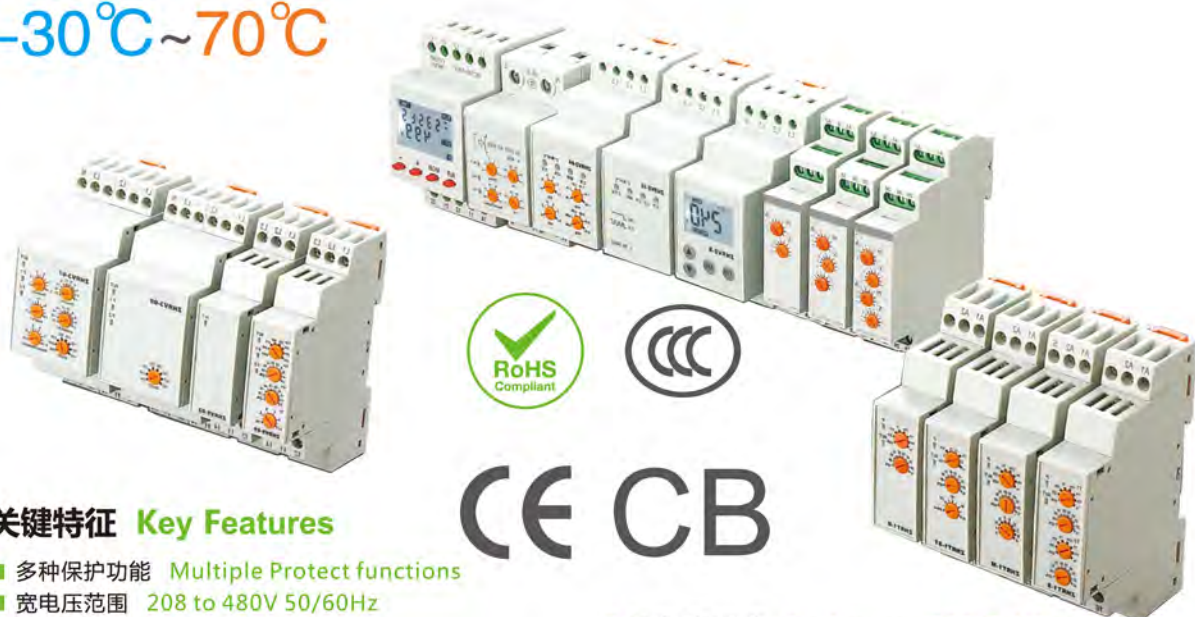


-30°C ~ 70°C



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)



ZHRV1-08

ZHRV1-14

### 1.1 应用

用于空调机组、电梯机房、水泵、风机等电机控制场合，作过、欠压、断相、相序、三相不平衡及PTC温度保护用，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 failure, phase sequence, phase imbalance and PTC temperature. When the power supply is abnormal, turn off power 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 $\leq 1\%$ ；50/60Hz通用，旋钮设定，LED灯显示工作状态，具N相断相保护功能，特有的负载端和PTC温度保护，可附加手动复位和按键测试功能，导轨安装。

### 1.2 Features：

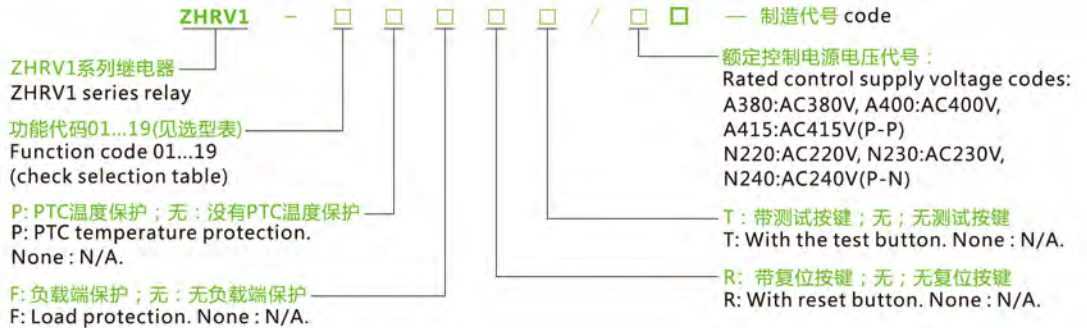
Built-in microprocessor, true RMS measurement, measurement accuracy  $\leq 1\%$ . 50/60Hz universal, knob setting, LED indicator shows working status. With N-phase phase failure protection, unique load-side and PTC temperature protection, optional manual reset and key test function, DIN rail mounting.



## 技术参数 / Technical Parameters

额定电源电压 Rated supply voltage	AC220V、AC230、AC240V、AC380V、AC400V、AC415V
额定电源频率 Rated supply frequency	50Hz/60Hz
过电压门限值范围 Over-voltage threshold range	$(1.05 \sim 1.30) \times U_e$
欠电压门限值范围 Under-voltage threshold range	$(0.70 \sim 0.95) \times U_e$
不平衡门限值范围 Unbalance threshold range	5%~15%
动作延时时间范围 Action delay range	0.1s~10s
断相、相序 phase failure and phase sequence	$\leq 1s$
电压测量误差 Voltage measurement error	$\leq 1\%$ ( 整个设定范围/Entire setting range )
延时误差 Delay error	$\pm 10\% + 0.1s$
旋钮设置精度 Knob setting accuracy	$\pm 1\%$ 的刻度值/Scale value
额定绝缘电压 Rated insulation voltage	415V
触点配置容量 Contact configuration capacity(A)	10A
IP等级 IP Class	IP20
污染等级 Class of pollution	III
电气寿命 Electrical Life	$10^5$
机械寿命 Mechanical life	$10^6$
海拔高度 Altitude	$\leq 2000m$
允许的相对湿度 Allowable relative humidity	$\leq 50\%$ (40°C) ( 无凝霜/No condensation )
使用类别 Use category	AC-15
短路保护器的型式 Short circuit protector type	RT36-00 5A
触点容量 Contact capacity	$U_e/I_e: 240V/1.5A, 415V/0.95A$
输出类型 Output type	1 C/O
导轨标准 DIN rail Standard	宽度(width)35mm(IEC/EN60715)

### 1.3 型号说明 / Model Description



### 型号选型表 / Model Selection Table

型号 Model	过电压 Over-voltage		欠电压 Under-voltage		不平衡 Unbalance		相序 Phase sequence	断相 phase failure	复位 Reset	测试 Test	PTC 保护 PTC protection	负载端 保护 Load protection
	整定范围 Setting range	延时范围 Delay range	整定范围 Setting range	延时范围 Delay range	整定范围 Setting range	延时范围 Delay range						
01	1.05...1.30	0.1s...10s	-	-	-	-	-	●	-	-	-	-
02	-	-	0.70...0.95	0.1s...10s	-	-	-	●	-	-	-	-
03	1.05...1.30	0.1s...10s	0.70...0.95	0.1s...10s	-	-	-	●	-	-	○	○
04	1.05...1.30	0.1s...10s	0.70...0.95	0.1s...10s	-	-	●	●	-	-	○	○
05	1.05...1.30	0.1s...10s	0.70...0.95	0.1s...10s	8%	2s	-	●	-	-	○	○
06	1.05...1.30	0.1s...10s	0.70...0.95	0.1s...10s	8%	2s	●	●	-	-	○	○
07	1.05...1.30	0.1s...10s	0.70...0.95	0.1s...10s	5%...15%	0.1s...10s	-	●	-	-	○	○
08	1.05...1.30	0.1s...10s	0.70...0.95	0.1s...10s	5%...15%	0.1s...10s	●	●	-	-	○	○
09	1.05...1.30	2s	0.70...0.95	2s	8%	2s	-	●	○	○	○	○
10	1.05...1.30	2s	0.70...0.95	2s	8%	2s	●	●	○	○	○	○
11	1.15	2s	0.85	2s	5%...15%	0.1s...10s	-	●	○	○	○	○
12	1.15	2s	0.85	2s	5%...15%	0.1s...10s	●	●	○	○	○	○
13	1.15	2s	0.85	2s	8%	2s	-	●	○	○	○	○
14	1.15	2s	0.85	2s	8%	2s	●	●	○	○	○	○
15	1.15	2s	0.85	2s	-	-	-	●	-	-	-	-
16	1.15	2s	0.85	2s	-	-	●	●	-	-	-	-
17	-	-	-	-	5%...15%	0.1s...10s	●	●	-	-	-	-
18	-	-	-	-	-	-	●	●	-	-	-	-
19	-	-	-	-	8%	2s	●	●	-	-	-	-

注:

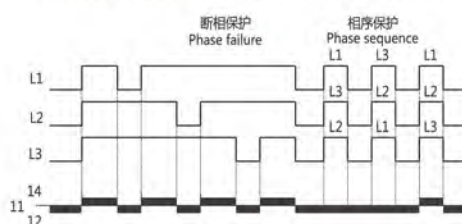
1. "●"此功能可用的, "-"此功能不可用。"○"此功能可定制。
2. 在三相四线电路中, 无相序保护功能的继电器, 可实现单相或两相的电压保护。
3. PTC温度保护功能与负载端保护功能只能选择其中一种保护功能。
4. 负载端保护为: L1/L2/L3 (P-P)。

Note:

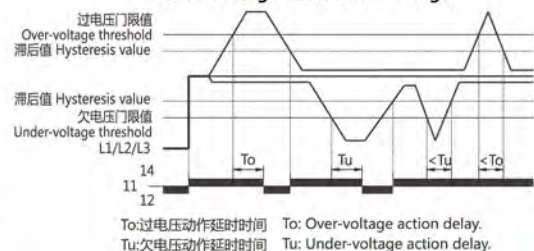
1. "●" Function is available, "-" Function is not available, "○" Function can be customized.
2. In three-phase four-wire circuit, relay without phase sequence protection could achieve single-phase or two-phase protection.
3. Choose either PTC protection or load protection.
4. Load protection: L1/L2/L3 (P-P).

### 功能图 / Function diagram

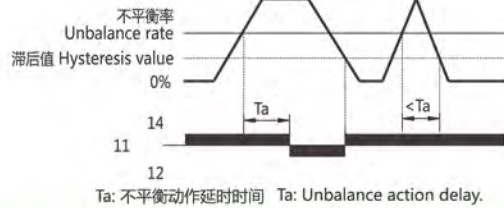
断相与相序保护  
Phase failure and phase sequence protection



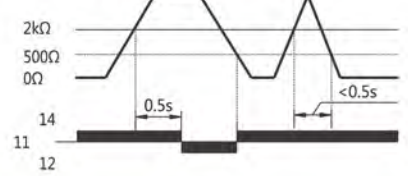
过电压和欠电压  
Over-voltage and under-voltage



### 不平衡保护 Unbalance protection

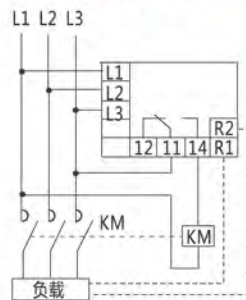


### PTC温度保护 PTC temperature protection

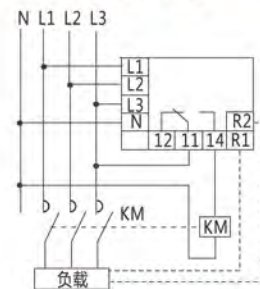


### 接线图 / Wiring Diagram

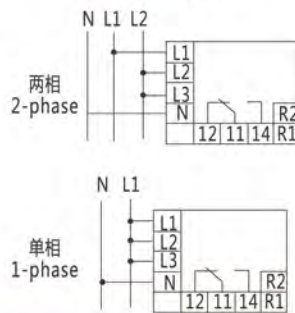
#### 三相三线制 3-phase 3-wire



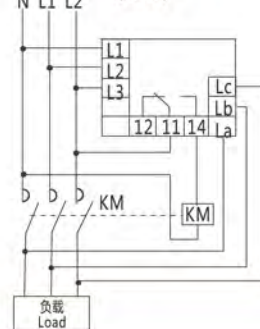
#### 三相四线制 3-phase 4-wire



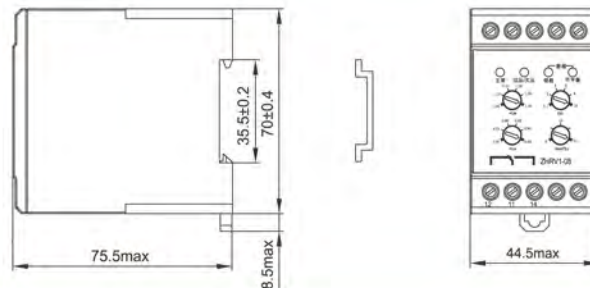
#### 单相、两相 1-phase and 2-phase



#### 三相三线制 (负载端) 3-phase 3-wire (load)



### 外形尺寸图 / Dimensions (mm)



### 订货须知 / Ordering instructions

产品型号意义：

ZHRV1-04/A380 电压继电器，额定电压交流380V，具有断相、相序、过欠压保护功能，过压范围(1.05-1.3)Ue、欠压范围(0.7-0.95)Ue、不平衡保护范围(5%-15%)Ue可调，动作延时时间0.1s~10s可调功能。

Model significance:

ZHRV1-04/A380 voltage relays, rated voltage AC 380V, with phase failure, phase sequence, over-voltage protection. Adjustable over-voltage range (1.05-1.3)Ue, under-voltage range (0.7-0.95)Ue, unbalance protection range (5%-15%)Ue, action delay time 0.1s to 10s.