

# YC9VA-3

Digital Voltage and Current  
Display Relay

## OPERATION INSTRUCTION

Standard: JB/T 12762-2015



**⚠** Before installing and using this product,  
please read this manual carefully and  
pay more attention to safety.

# **YC9VA -3**

## **Description**

YC9VA-3 voltage and current display relay is a microprocessor-based voltage monitoring device for Three phase AC networks to protect electrical equipment from surge voltage. The device analyzes the main voltage and displays its current value on a digital indicator. Load is switched by electromagnetic relay. The user can set the current voltage value and delay time through the button. The value is stored in non-volatile memory. Aluminum wires and copper wires can be used for connection.

## **Application**

YC9VA-3 voltage and current display relay used in administrative, industrial and residential buildings and has the function of protecting single-phase lines:

- Undervoltage protection;
- Overvoltage protection;
- Working under voltmeter mode;
- Overcurrent protection.

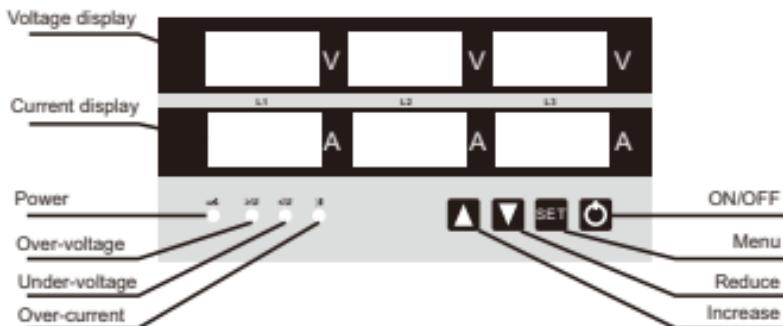
## Technical data

Rated supply voltage	AC 220	AC 380
Operation voltage range	AC 80~400V(three phase)	AC 140~700V(tree phase)
Rated frequency	50/60Hz	50/60Hz
Electric current (>A) setting range	1~40A/8A/3A/80A/100A	1~40A/8A/3A/80A/100A
Overvoltage (>U) setting range	230~300V	390~500V
Undervoltage (<U) setting range	210~140V	370~260V
Rated current	40A/83A/80A/100A	40A/83A/80A/100A
>U and <U trip delay	0.1~30S	0.1~30S
Reset start delay	1~500S	1~500S
Voltage measurement accuracy	2%	2%
Rated insulation voltage	400V	700V
Output contact	3NO	3NO
Electrical life	10 <sup>5</sup>	10 <sup>5</sup>
Mechanical life	10 <sup>6</sup>	10 <sup>5</sup>
Protection degree	IP20	IP20
Pollution degree	3	3
Altitude	≤2000m	≤2000m
Operating temperature	-50°C~55°C	-50°C~55°C
Humidity	≤50% at 40°(without condensation)	≤50% at 40°(without condensation)
Storage temperature	-30°C~70°C	-30°C~70°C

Rated supply voltage	AC 220V			AC 380V				
Current specification	40A	63A	80A	100A	40A	63A	80A	100A
Rated operating current( $I_n$ , A)	40	63	80	100	40	63	80	100
Maximum operating current $I_{max}$ (A, with in 10 min)	63A	80A	100A	125A	63A	80A	100A	125A
Max. power of load(kW)	8.8	13.9	17.6	22	15.2	24	30.4	38

## Default setting

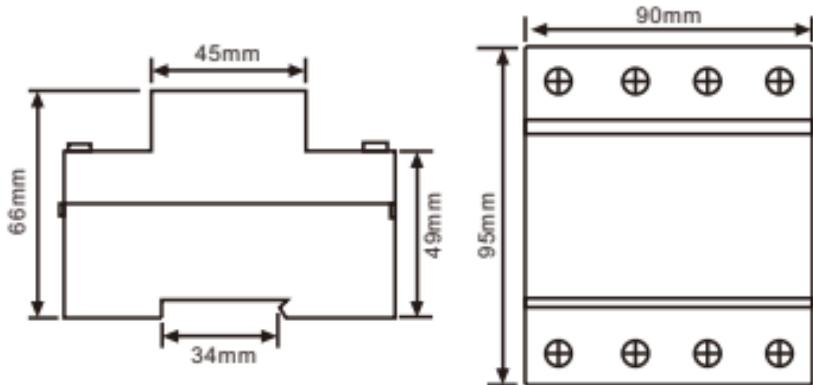
Technical parameter	Setting range	Step	Factory setting
Power-on delay time	1~500S	1S	10S
Over-voltage protection value	230~300V/380~500V	1V	270V/430V
Over-voltage recovery value	225~295V/385~495V	1V	265V/425V
Over-voltage recovery delay time	1~500S	1S	30S
Over-voltage protection action time	0.1~30S	0.1S	1S
Under-voltage protection value	210~140V/370~260V	1V	170V/330V
Under-voltage recovery value	215~145V/375~265V	1V	175V/335V
Under-voltage recovery delay time	1~500S	1S	30S
Under-voltage protection action time	0.1~30S	0.1S	1S
Three phase voltage error value	-9.5~9.5%	0.5%	0%
Three phase voltage unbalance value	20~99V	1V	20V
Three phase voltage unbalance recovery value	5~94V	1V	15V
Three phase voltage unbalance protection switch	off/on		on
Phase sequence protection switch	off/on		on
Over-current protection value	1~40A/63A/80A/100A	0.1A	30A
Over-current recovery delay time	1~500S	1S	30S
Over-current protection action time	0.1~30S	0.1S	1S
Three phase current error value	-9.5~9.5%	0.5%	0%
Continuous over-current protect times	1~20/off	1	off



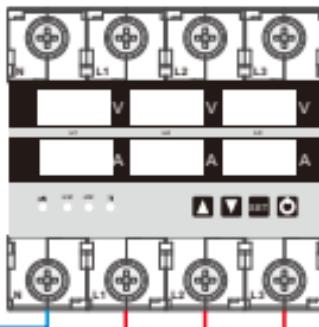
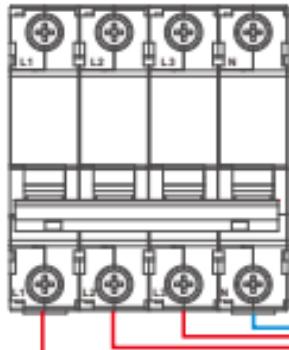
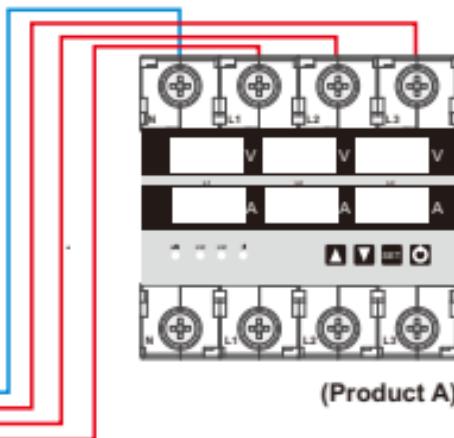
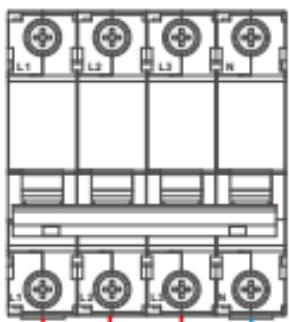
## Function setting

			Voltage display
			Current display
<b>P-1</b>	Power-on delay time	<b>U-10</b>	Three phase voltage unbalance value
	1 → 500S	<b>20</b>	20 → 99V
		<b>U-11</b>	Three phase voltage unbalance recovery value
<b>U-1</b>	Over-voltage protection value		5 → 94V
<b>270</b>	230 → 300V(220V) 390 → 500V(380V)	<b>U-12</b>	Three phase voltage unbalance protection switch off/on
<b>U-2</b>	Over-voltage recovery value	<b>U-13</b>	Phase sequence protection switch off/on
<b>265</b>	225 → 295V(220V) 385 → 495V(380V)		
		<b>L-1</b>	Over-current protection value
<b>U-3</b>	Over-voltage recovery delay time		1 → 40A/63A/80A/100A
<b>30</b>	1 → 500S	<b>L-2</b>	Over-current recovery delay time
			1 → 500S
<b>U-4</b>	Over-voltage protection action time	<b>L-3</b>	Over-current protection action time
<b>10</b>	0.1 → 30S		0.1 → 30S
		<b>L-4</b>	Three phase current error value
<b>U-5</b>	Under-voltage protection value		-9.5 → 9.5%
<b>170</b>	210 → 140V(220V) 370 → 260V(380V)		
		<b>L-5</b>	Continuous over-current protect times
<b>U-6</b>	Under-voltage recovery value		1 → 20/off
<b>175</b>	215 → 145V(220V) 375 → 265V(380V)		
		<b>P-1</b>	Continue to press the  key to cycle
<b>U-7</b>	Under-voltage recovery delay time		Long press set for 5 seconds to save
<b>30</b>	1 → 500S		
		<b>U-9</b>	To adjust the figure quickly by long time press the add or subtract key
<b>U-8</b>	Under-voltage protection action time		
<b>10</b>	0.1 → 30S		
		<b>0</b>	
<b>U-9</b>	Three phase voltage error value		
<b>0</b>	-9.5 → 9.5%		

## Overall and mounting dimensions(mm)



Connection diagram



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# **CERTIFICATE**

Product Model: YC9VA-3

Standard : JB/T 12762-2015

Inspector : **CNC 001**

Production date: Printed on the product  
or package.

This product is qualified according  
to the delivery inspection

**CNC**

YC9VA-3 series

**CNC ELECTRIC**

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