



OUVR-1 Self-recovery Overvoltage and Undervoltage Protector

1. Product Features

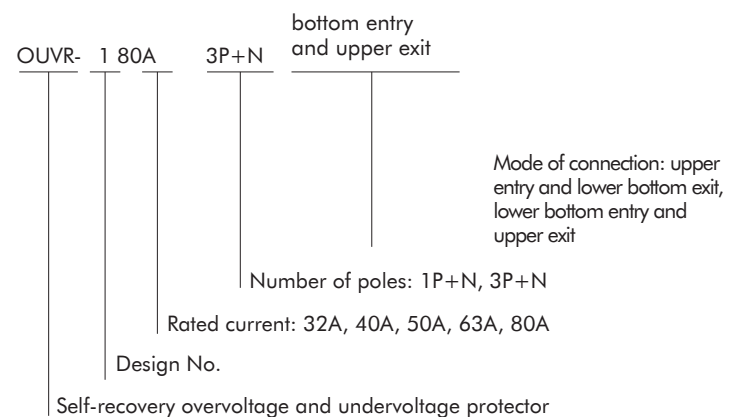
- 1.1 Preventing misoperation: Where sudden transient or temporary overvoltage occurs in the line, the protector will not generate misoperation; when the line suffers instable voltage or sudden power recovery after sudden power disruption due to loose contact or other fault, the protector will not close the circuit;
- 1.2 Reliable operation: Protection is characterized by inverse time lag operation with operating time $\leq 1s$;
- 1.3 Wide scope of voltage protection: 0~450V; in case of maximum fault voltage upon line fault, the protector itself will not be damaged;
- 1.4 Safer, impulse withstand voltage: 4kV (conforming to the safety standard of category III electrical apparatus);
- 1.5 Condition indication: The protector has the LED to indicate the operating state, where green is normal voltage indication, and red is overvoltage or undervoltage indication;
- 1.6 External modular design, guiderail DIN rail mounting.

2.Scope of Application

OUVR-1 self-recovery overvoltage and undervoltage protector is a new type of intelligent protection apparatus. With the modular standard design, in case of the overvoltage or undervoltage of power supply line, the protector can quickly and safely break the circuit under continuous high voltage surge, avoiding the happening of an accident due to abnormal voltage entry into the terminal apparatus; when voltage resumes normal value, the protector will automatically close the circuit within the specified time to ensure the terminal apparatus can operate normally in an unattended way.

OUVR-1 self-recovery overvoltage and undervoltage protector is applied for the users or loads of AC 230/400V, 50Hz and rated operating current 80A and below. It is mainly used in the household distribution box or other distribution line requiring protection.

3.Model and Meanings



4. Normal Operating Conditions and Mounting Conditions

- 4.1 Ambient temperature: $-20^{\circ}\text{C} \sim +65^{\circ}\text{C}$
- 4.2 Altitude: $\leq 3000\text{M}$
- 4.3 Atmospheric conditions: The atmospheric relative humidity is not more than 50% when the ambient air temperature is $+40^{\circ}\text{C}$; high relative humidity is permitted under low temperature. For example, it may be up to 90% at $+20^{\circ}\text{C}$; special measures should be taken in case of occasional condensation due to temperature variation;
- 4.4 Pollution degree: level 2;
- 4.5 Mounting category: category II or III .
- 4.6 Mounting form: It is installed using the TH35-7.5 section steel mounting rail. The inclination of installing surface and vertical plane cannot exceed 5° .

5. Points for Attention

- 5.1 When the protector is energized for the first time, it needs a time delay of $30 \pm 10\text{s}$ before normal power supply of loads.
- 5.2 Protector conductor N is neutral line, L is live line; connection cannot be done in a wrong way;
- 5.3 Mode of connection is upper entry and bottom exit;
- 5.4 Before use, please tighten the clamping screws to prevent the damage of the product due to loose contact.
- 5.5 LED indication: green lamp normally on—normal
Red lamp normally on—overvoltage or undervoltage
- 5.6 Neutral line must be connected. When the neutral line or any phase of live conductor is disconnected in the line, the protector will play a role of protection.
- 5.7 After overvoltage or undervoltage of a 3P+N product, it can only resume normal operation when the voltage of three phases to neutral line is within the range of recovery value.

6. Technical data

- 6.1 Rated voltage: AC230V/400V, 50Hz
- 6.2 Rated operating current: 32A, 40A, 50A, 63A, 80A
- 6.3 Overvoltage operation cutoff value: $270\text{V} \pm 5\text{V}$
- 6.4 Overvoltage recovery value: $240 \sim 260\text{V}$
- 6.5 Undervoltage operation cutoff value: $170 \pm 5\text{V}$
- 6.6 Undervoltage recovery value: $185 \sim 195\text{V}$
- 6.7 Time delay close time: $30 \pm 10\text{s}$
- 6.8 Electric mechanical life: $> 50,000$ operations
- 6.9 Power consumption: $< 2\text{W}$
- 6.10 Connection capacity: $< 25\text{mm}^2$
- 6.11 Number of poles: 1P+N, 3P+N
- 6.12 Mode of connection: upper entry and lower bottom exit, lower bottom entry and upper exit

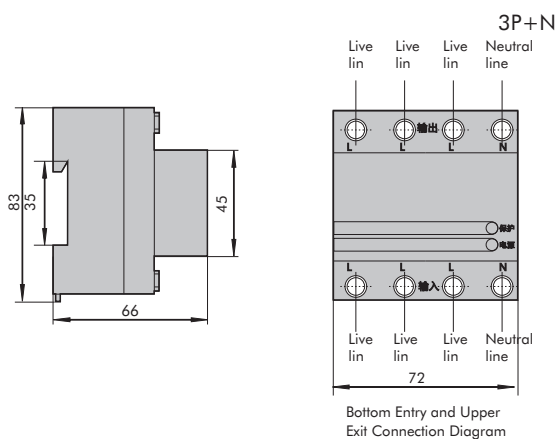
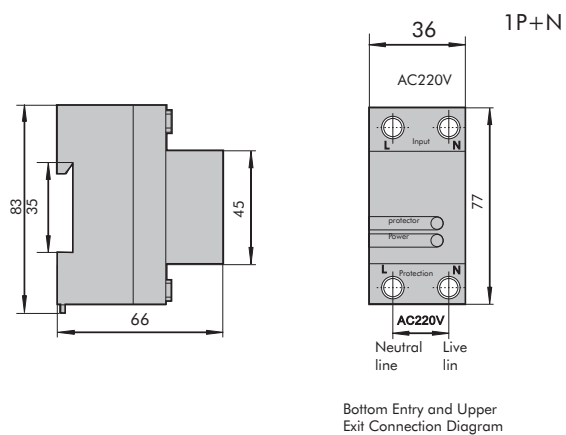
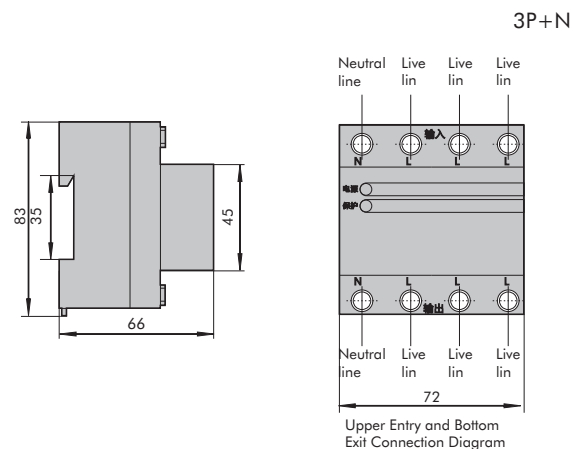
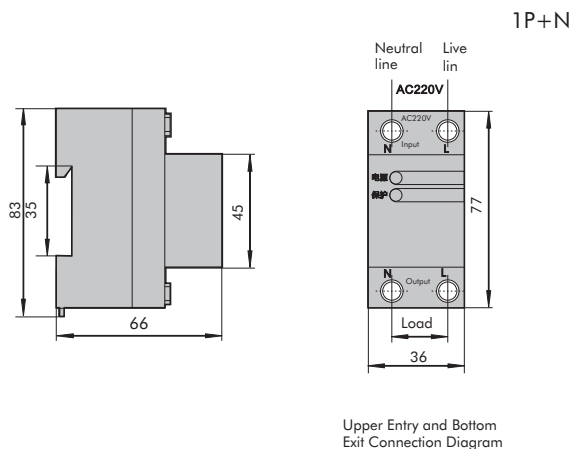
7. Installation and Connection

- 7.1 Before installation, it should first check whether the product mark conforms to the use conditions.
- 7.2 Connection should be done according to the product marked entry and exit (The load current cannot be higher than the product rated current).
- 7.3 Pole N cannot be connected in a wrong way, and it must be reliably connected; otherwise, the protector cannot operate normally.
- 7.4 For the connecting conductor section area, refer to Table 1.

Table 1 Section Area and Rated Current of Connecting Conductor

Rated current A	32	40	50	63	80
Conductor section area mm^2	6	10	10	16	25

8. Outline and Installing Dimensions



9. Ordering information

When ordering the goods, the user must indicate the product name, type, number of poles, rated voltage, rated current and order quantity:

Order example: To order OUVR-1 self-recovery overvoltage and undervoltage protector, 1P+N, upper entry and lower exit, rated voltage 230V, rated current 40A, quantity: 1000units:

Please indicate: OUVR-1 40A 1P+N upper entry and lower bottom exit 230V 1000units.

OVR	1	32A	1P+N	Top in, bottom out
Self-recovery overvoltage and undervoltage protector	Design No.	Rated current	Poles	Mode of connection
OVR	1	32A 40A 50A 63A 80A	1P+N 3P+N	Upper entry and lower bottom exit lower bottom entry and upper exit

Ie(A)	Poles	Connection	Description	Code
32	1P+N	feeding from top	OVR-1 32A 1P+N Top in, bottom out	217446
32	1P+N	feeding from bottom	OVR-1 32A 1P+N Bottom in, top out	217451
32	3P+N	feeding from top	OVR-1 3P+N 32A Top in, bottom out	296665
32	3P+N	feeding from bottom	OVR-1 3P+N 32A Bottom in, top out	296670
40	1P+N	feeding from top	OVR-1 40A 1P+N Top in, bottom out	217447
40	1P+N	feeding from bottom	OVR-1 40A 1P+N Bottom in, top out	217452
40	3P+N	feeding from top	OVR-1 3P+N 40A Top in, bottom out	296664
40	3P+N	feeding from bottom	OVR-1 3P+N 40A Bottom in, top out	296669
50	1P+N	feeding from top	OVR-1 50A 1P+N Top in, bottom out	217448
50	1P+N	feeding from bottom	OVR-1 50A 1P+N Bottom in, top out	217453
50	3P+N	feeding from top	OVR-1 3P+N 50A Top in, bottom out	296663
50	3P+N	feeding from bottom	OVR-1 3P+N 50A Bottom in, top out	296668
63	1P+N	feeding from top	OVR-1 63A 1P+N Top in, bottom out	217449
63	1P+N	feeding from bottom	OVR-1 63A 1P+N Bottom in, top out	217454
63	3P+N	feeding from top	OVR-1 3P+N 63A Top in, bottom out	296662
63	3P+N	feeding from bottom	OVR-1 3P+N 63A Bottom in, top out	296667
80	1P+N	feeding from top	OVR-1 80A 1P+N Top in, bottom out	217450
80	1P+N	feeding from bottom	OVR-1 80A 1P+N Bottom in, top out	217455
80	3P+N	feeding from top	OVR-1 3P+N 80A Top in, bottom out	296661
80	3P+N	feeding from bottom	OVR-1 3P+N 80A Bottom in, top out	296666