

DPA31 Voltage Monitoring Relay

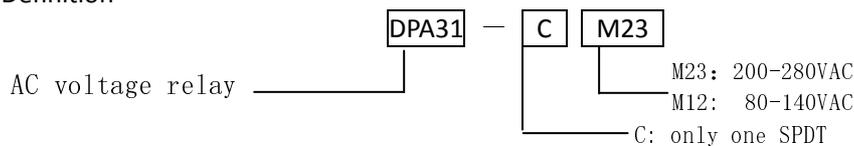
1. Profile

1.1 Application

DPA31 single-phase voltage monitoring relay is mainly used as a protector against the voltage, over voltage and under voltage of the motor with single phase, AC 50/60Hz, rated voltage below 300V.

When the power supply is normal, the NO contact(11、 14) of the relay closes, the NC (11、 12) one opens, the green LED lights, when the power supply is suffering one or more abnormalities, the NO contact opens, the NC one closes, and green LED turns off, the relative indicator LED lights.

1.2 Type & Definition



2. Functions

2.1 Over voltage: referring that the voltage of protected circuit is higher than the set value, Yellow LED lights.

2.2 Under voltage: referring that the voltage of protected circuit is lower than the set value, Red LED lights.

2.3 Delay protection: Relay will drop out when after setting times continuous over/under voltage.

3. Specifications

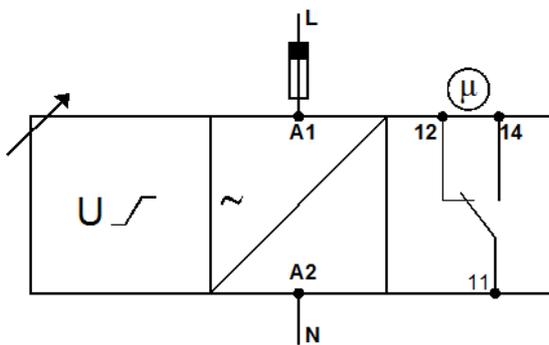
| | |
|--|---|
| Situation of certification | |
| Product standard | EN 60947-5-1 |
| Approvals | UL, CCC (GB14048.5-2008,A037133) |
| CE Marking | L. V. Directive 2006/95/EC EMC Directive 2004/108/EC |
| EMC | |
| Immunity | According to EN 61000-6-2 |
| Emissions | According to EN 61000-6-3 |
| RoHS Instruction | 2011/65/EU |
| Indication for | |
| Power supply ON | LED green ON |
| Under voltage | LED red ON |
| Over voltage | LED yellow ON |
| Input Specifications | |
| Range(knob-adjustable) | 160 to 280VAC 80 to 140VAC |
| Output Specifications | |
| Output | SPDT |
| Action principle | Closed circuit |
| Contact ratings | AgSnO |
| Rated voltage | 24VDC, 250VAC |
| Rated current | DC12 24V 5A |
| | AC15 250V 2.5A |
| | DC13 24V 2.5A |
| Mechanical life | ≥ 10 ⁷ operations |
| Electrical life | ≥ 10 ⁵ operations (at 5 A, 250 V, cos ψ = 1) |
| General Specifications | |
| Housing | |
| Dimensions | 17.5 x 81x 67.2 mm |
| Material | PA66 or PC |
| Weight | Approx. 70g |
| Screw terminals | |
| Tightening torque | Max.0.5 Nm(acc. to IEC 60947) |
| Wire section | 2.5mm ² (AWG13) stranded wire |
| Application area | anywhere |
| Mounting | DIN-rail(DIN 43880) |
| Degree of protection | IP20 |
| Pollution degree | III |
| Operating temperature @ Max.voltage,50Hz | -20...+60℃, R.H. < 95% |
| Storage temperature | -30...+80℃, R.H. < 95% |

4. Level setting

Select the proper undervoltage level, overvoltage level, and delay times using the knob.

| Knobs | | Undervoltage setting (VAC) | | Overvoltage setting (VAC) | | Note |
|-------------------|-----------|----------------------------|-----------|---------------------------|-----------|--|
| | | DPA31CM23 | DPA31CM12 | DPA31CM23 | DPA31CM12 | |
| Middle and Bottom | 0 | 160 | 80 | 240 | 120 | Select the proper operating voltage value before switching on the power. |
| | 1 | 175 | 88 | 250 | 125 | |
| | 2 | 190 | 95 | 260 | 130 | |
| | 3 | 205 | 102 | 270 | 135 | |
| | 4 | 220 | 110 | 280 | 140 | |
| Top | 8S(1-10S) | | | | | Delay times setting value |

5. Wiring Diagrams



6. Shapes and Dimensions

