

# Voltage and Motor Protection Relays

## Voltage Protection Relay (MKR-09)

### Application and Operation Principles

**MKR-09** : Frequent under-voltage may cause serious damages on the devices. MKR-09 controls phase-neutral voltage difference of three phase. MKR-09 is an ideal relay for air conditioning systems, climatization system, e.g. when any or all of the phase voltage values drop below the set interval (standard 150V), the voltage indication LED and the relay is switched on to cut off the energy. When the voltage reaches at the adjusted limits the voltages indication LED switches on and the relay is kept inactive until the set delay time period is on. At the end of the set delay time the relay switches off and relay operating LED turns on. Thus the device connected with relay start operation. If, during the set time counting period, the voltage value drops below the set interval limits, the timer will reset zero. Once the voltage is normal then the time counting starts from zero.

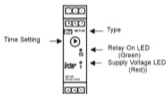
### Technical Datas

|                       |                       |
|-----------------------|-----------------------|
| Supply Voltage        | : 3x380 VAC 50 - 60Hz |
| Under Voltage         | : 150 ± 5V            |
| Time Interval         | : 5 min. - 18 min.    |
| Contact Output        | : 250V-5A             |
| Hysteresis            | : max. 5V             |
| Operation Temperature | : -40°C. - 50°C       |
| Net Weight            | : 100 gr              |

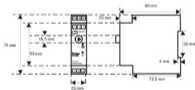
### Order Informations

| Type   | Supply Voltage    | Contact Output |
|--------|-------------------|----------------|
| MKR-09 | 3x380V AC 50-60Hz | 250V AC-5A     |

### Front View Informations



### Dimensions



### Connection Diagram

