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Voltage Relay

MX200A 180A 160A

Features

- Electronic monitoring relay
- Voltage monitoring for single 3-phase system
- Phase failure monitoring
- Adjustable voltage limit
- Adjustable delay time
- Indicators for voltage fault
- Indicators for power and output ON
- ANSI Code : 27, 47, 59

Product Description

MX160A, MX180A & MX200A are single or 3-phase monitoring relays. The relays are designed for application where it required to maintain the voltage within set limits. A built-in adjustable time delay prevents nuisance tripping.

Technical Data

POWER SUPPLY INPUT

3-Phase System

Phase-to-phase voltage : 380 V AC ± 20%
400 V AC ± 20%
415 V AC ± 20%

Single Phase

Phase-to-neutral voltage : 220 V AC ± 20%
230 V AC ± 20%
240 V AC ± 20%
Frequency range : 45 to 65 Hz
Max. power consumption : 3 VA

Input Connections

For 3-phase model : Phase L1, L2, L3 to pin 5, 6, & 7
Neutral to pin 11
For single-phase model : Phase L to pin 5, 6 & 7***
Neutral to pin 11

SETTING RANGES

Lower voltage limit * : 78% - 98%
Upper voltage limit ** : 102% - 122%
Delay time, T : 0.1 - 10s

HYSTERESIS

≤1% of rms - value

OUTPUT CONTACTS

Rated voltage : 250 V AC
Contact rating : 5 A
Expected electrical life : 100,000 operations at rated current
Expected mechanical life : 5 x 10^6 operations

INDICATORS

Power supply ON : Green indicator
Output ON : Red indicator
Under voltage limit (U<) * : Red indicator
Over voltage limit (U>) ** : Red indicator

ENVIRONMENTAL CONDITIONS

Temperature : -5˚C to +55˚C
Humidity : 56 days at 93% RH and 40˚C non-condensing

MECHANICAL

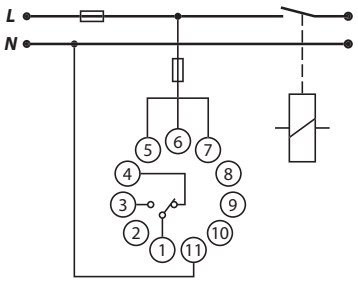
Mounting : Circular 11-pin plug-in socket
Dimension (mm) : 35(w) x 80(h) x 72.5(d)
Approximate weight : 0.3 kg

* Applicable to MX160A and MX200A only
** Applicable to MX180A and MX200A only
*** For single phase connection, short pin 5,6 & 7

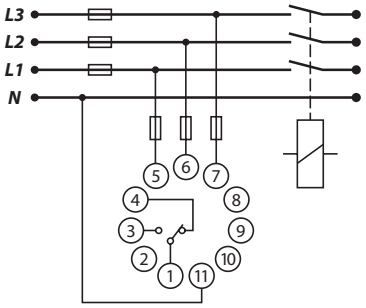
MX 200A / 180A / 160A

Wiring Diagram

Single-Phase System

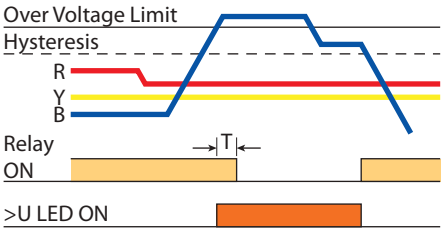


3-Phase System

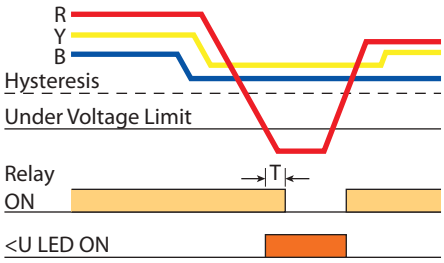


Operations Diagram

i) Over Voltage Function**



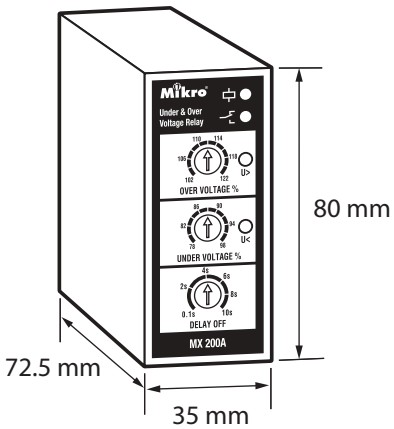
ii) Under Voltage Function*



IMPORTANT

The setting for this relay is a potentiometer knob or analogue/mechanical in nature. User will need to confirm the accuracy of the settings by using a relay test set and injecting a reference voltage and check the pick up value and the tripping timing during commissioning. To have a precise setting model, user can consider to switch to digital setting type relay.

Case Dimensions



Ordering Information

MODEL	FUNCTION		
	Under Voltage Monitoring	Over Voltage Monitoring	Supply Voltage V AC
MX160A - 380	YES	NO	380
MX160A - 400	YES	NO	400
MX160A - 415	YES	NO	415
MX180A - 380	NO	YES	380
MX180A - 400	NO	YES	400
MX180A - 415	NO	YES	415
MX200A - 380	YES	YES	380
MX200A - 400	YES	YES	400
MX200A - 415	YES	YES	415