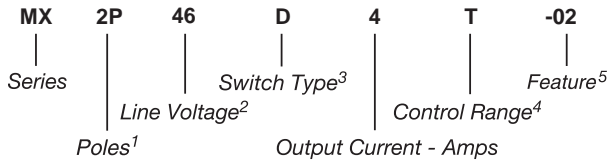


| Part Number | Description |
|--------------|-------------|
| MX2P46D4T-02 | 4A, 460 Vac |
| MX3P46D4S-02 | 4A, 460 Vac |

Part Number Explanation



NOTES

- 1) Poles: 2P = 2 pole; 3P = 3 pole
- 2) Line Voltage: 46 = 460 Vac
- 3) Switch Type: D = Zero-cross turn-on
- 4) Control Range: T = 15–40 Vdc; S = 12–35 Vdc
- 5) Options: 02 = With LED

MECHANICAL SPECIFICATION

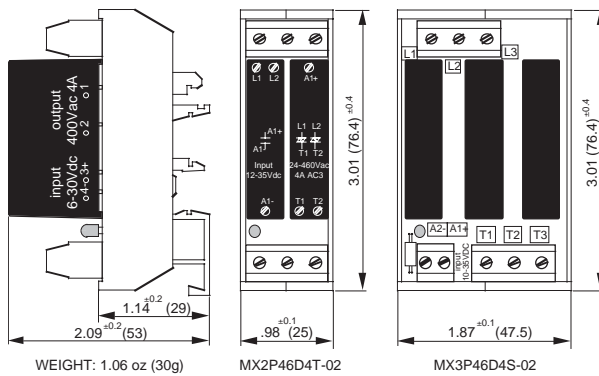


Figure 1 — MX relays; dimensions in inches (mm)

INPUT (CONTROL) SPECIFICATION

| | Min | Max | Units |
|----------------------|-----|-----|-------|
| Control Range | | | |
| MX2P46D4T-02 | 15 | 40 | V |
| MX3P46D4S-02 | 12 | 35 | V |

Input Current Range

| | | | |
|--------------|-----|----|----|
| MX2P46D4T-02 | 4.4 | 17 | mA |
| MX3P46D4S-02 | 7.5 | 30 | mA |

Must Turn-Off Voltage

| | | |
|--------------|---|---|
| MX2P46D4T-02 | 8 | V |
| MX3P46D4S-02 | 6 | V |

Input Resistance (Typical)

| | | |
|--------------|------|------|
| MX2P46D4T-02 | 2000 | Ohms |
| MX3P46D4S-02 | 1000 | Ohms |



FEATURES/BENEFITS

- New generation of solid-state relays for DIN-rail mounting
- Two- or three-pole output with single control
- Tight zero-cross window for low EMI
- Control visualization by LED
- Integrated clamping voltage
- High immunity to surges

DESCRIPTION

The Series MX relays are a new generation of solid-state relays for DIN-rail fixation. The MX relays are internally wired to provide a common control. The relays are placed on a single DIN-rail fixture, saving designers time and space. The Series MX relays provide a control status LED and internal output protection.

APPLICATIONS

- Interface applications
- Vending machines
- Light/lamp control
- Contactor driver
- Fan speed control
- HVAC controls
- Heating control

BLOCK DIAGRAM

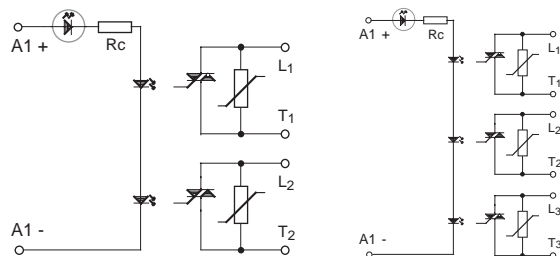


Figure 2a — MX2P relay

Figure 2b — MX3P relay

CONTROL CHARACTERISTICS

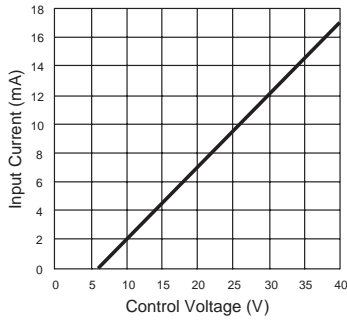


Figure 3a — MX2P relay

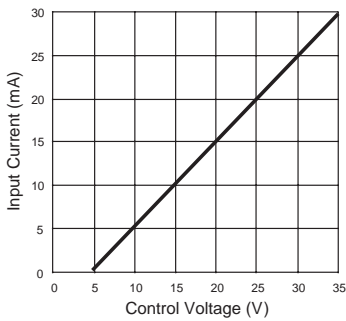


Figure 3b — MX3P relay

TYPICAL APPLICATIONS

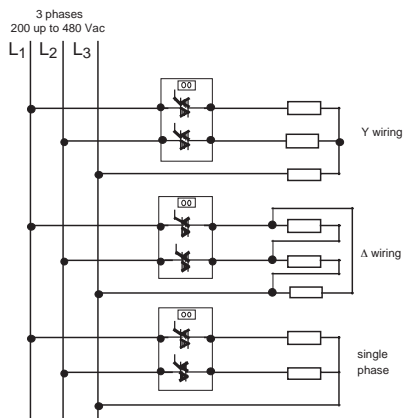


Figure 4a — MX2P relay

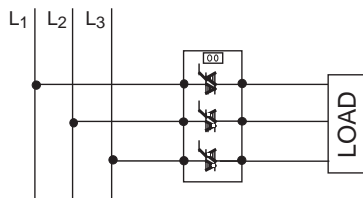


Figure 4b — MX3P relay

OUTPUT (LOAD) SPECIFICATION

| | Min | Max | Unit |
|---|------|------|------------------|
| Operating Range | 24 | 460 | Vrms |
| Peak Voltage | | 1200 | V |
| Load Current | | | |
| Range (Resistive) | .005 | 4 | Arms |
| Inductive Load Current | | 2.5 | Arms |
| Maximum Surge Current Rating (Non-Repetitive) (See Figure 5) | | 120 | A |
| On-State Voltage Drop | | 1.6 | V |
| Zero-Cross Window | | ±12 | V |
| Off-State Leakage Current (60Hz) | | 0.3 | mA |
| Turn-On Time (60Hz) | | 8.3 | ms |
| Turn-Off Time (60Hz) | | 8.3 | ms |
| Off-State dv/dt | | 500 | V/μs |
| Operating Frequency | 10 | 440 | Hz |
| I ² t for match fusing (<8.3ms) | | 50 | A ² S |

ENVIRONMENTAL SPECIFICATION

| | Min | Max | Unit |
|------------------------|-----|------|------|
| Operating Temperature | -40 | 80 | °C |
| Storage Temperature | -40 | 150 | °C |
| Input-Output Isolation | | 4000 | Vrms |
| Input-Output Capacity | | 3 | pF |

SURGE CURRENT

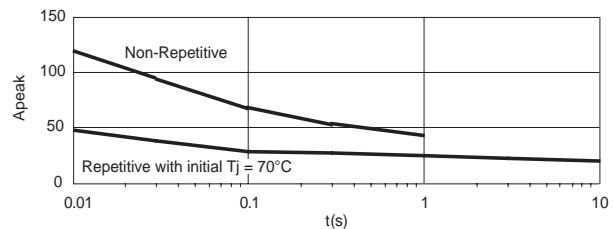


Figure 5 — MX relays

NOTES:

1. Electrical parameters at 25°C unless otherwise specified.
2. For 800Hz applications, contact factory.
3. For additional/custom options, contact factory.