

## M5 Series Multiple Patent Rocker-Actuated , Trip-Free Thermal Circuit Breaker/Power switch With Option Indicator Lamp

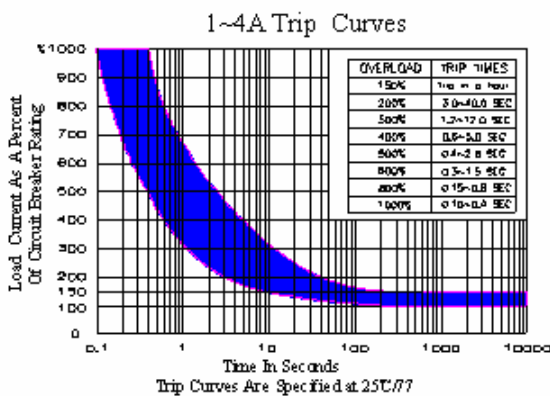
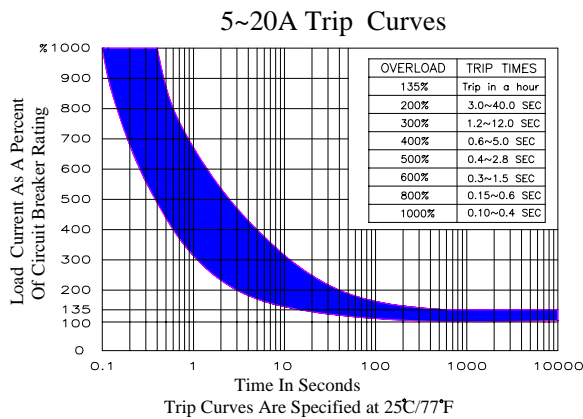
### Features

- Compact, trip-free, rocker – actuated design.
- 1 to 20 amp ratings.
- Provides circuit protection and power switching in a single unit
- Available with optional indicator lamp
- Snaps into the same cutout as many common power switches
- Various color, marking and termination options.

### Technical data

|                              |   |
|------------------------------|---|
| Rated voltage                | AC 125/250V DC 50V  |
| Rated current                | 1-20 A  |
| Interrupt Capacity           | 1000A   |
| Dielectric strength          | 1500VAC/1min  |
| Insulation resistance        | ≥ 100 MΩ , 500VDC   |
| Resettable Overload Capacity | Six times rated current (1-4A)<br>Ten times rated current (5-20A) |
| Switch Endurance Cycling     | Typically 6,000 operations<br>at 100% of rating                   |
| Weight                       | Approx 10.5g  |

### Time vs. Current Trip Curve @ +25°C



### Approval

| Approval & File No. | Rated current range | Rated voltage    |
|---------------------|---------------------|------------------|
| UL/CUL              | 1-20 A              | 125/250VAC 50VDC |
| VDE 60934           | 1-16 A              | 250VAC 50VDC     |

### Typical Resistance vs. Current Rating @ +25°C

| Current Rating in Amps | Typical Resistance in Ohms | Current Rating in Amps | Typical Resistance in Ohms |
|------------------------|----------------------------|------------------------|----------------------------|
| 1.0                    | 0.450                      | 8.0                    | 0.032                      |
| 2.0                    | 0.200                      | 10.0                   | 0.025                      |
| 3.0                    | 0.100                      | 12.0                   | 0.021                      |
| 4.0                    | 0.060                      | 15.0                   | 0.017                      |
| 5.0                    | 0.050                      | 16.0                   | 0.016                      |
| 6.0                    | 0.042                      | 20.0                   | 0.0125                     |
| 7.0                    | 0.036                      |                        |                            |

### Mechanical/Environmental Data

Operating Temperature Range: -10 °C to +60 °C .

Termination: 250" (6.35 mm) quick connects, solder terminals

Mounting: Snaps into 1.122" x .531" (28.5 X 13.5) panel cutout .

### Ambient Compensation Table

| Ambient Temperature<br>In °C | Rating Correction Factor |              |
|------------------------------|--------------------------|--------------|
|                              | 1-6A Models              | 7-20A Models |
| 10                           | .80                      | .80          |
| 20                           | .90                      | .90          |
| 25                           | 1.00                     | 1.00         |
| 30                           | 1.10                     | 1.05         |
| 40                           | 1.25                     | 1.15         |
| 50                           | 1.61                     | 1.25         |
| 60                           | 2.15                     | 1.40         |

The unit is calibrated for ambient temperature of +25°C .  
To determine the rated current for a lower or higher ambient temperature, use correction factor as above .