# 7277 SERIES

½ to 20 Amp, Single–Phase, Non–Compensated, General Application

## Introduction

Klixon® 7277 series is designed for applications that do not require the tighter performance characteristics and approvals of our military circuit breakers. Originally developed as an alternative to slow blow fuses, the trip–free 7277 is used extensively as primary electrical circuit protection on general aviation aircraft.

The military grade version of this circuit breaker is the Klixon® 7274-2 series. The 7277 and 7274-2 series circuit breakers are physically and electrically identical, with the exception that the 7277 has wider calibration limits.

## Features

- Miniature size
- Light weight
- Trip–free design
- Current rating: 0.5 to 20 amps
- High vibration resistance
- Options include: dust boot (part #14500-1 fits 15/32 bushing, part #14500-5 fits 7/16 bushing), auxiliary switch, terminal hardware, longer push button

## PERFORMANCE CHARACTERISTICS

| | | |
|---|---|---|
| **Vibrations** | 10G minimum, 50–500 Hz (other vibration levels available) | |
| **Mechanical Shock** | 35G | |
| **Acceleration** | 10G | |
| **Weight** | 28 grams maximum | |
| **Interrupt Current** | 0.50–5 amps: unlimited at 28 VDC<br>7.50–15 amps: 2,000 amps at 28 VDC<br>0.50–1.50 amps: unlimited at 120 VAC, 400 Hz | 2–5 amps: 800 amps at 120 VAC, 400 Hz<br>7.50–20 amps: 500 amps at 120 VAC, 400 Hz |
| **Endurance** | 2,500 cycles: 120 VAC, 400 Hz inductive<br>5,000 cycles: 120 VAC, 400 Hz resistive<br>2,500 cycles: 30 VDC inductive | 5,000 cycles: 30 VDC resistive<br>10,000 cycles: Mechanical, no load |

## CALIBRATION CHART

For a Standard Device

| Temp. | Minimum Ultimate Trip | Maximum Ultimate Trip | Trip Time (in seconds) | | |
|---|---|---|---|---|---|
| | | | 200% | 500% | 1000% |
| 25°C | 110% | 150% | 2-35 | 0.15-1.7 | 0.028-0.55 |
| The most typical device is 1–20 amps. For others, please contact us. | | | | | |



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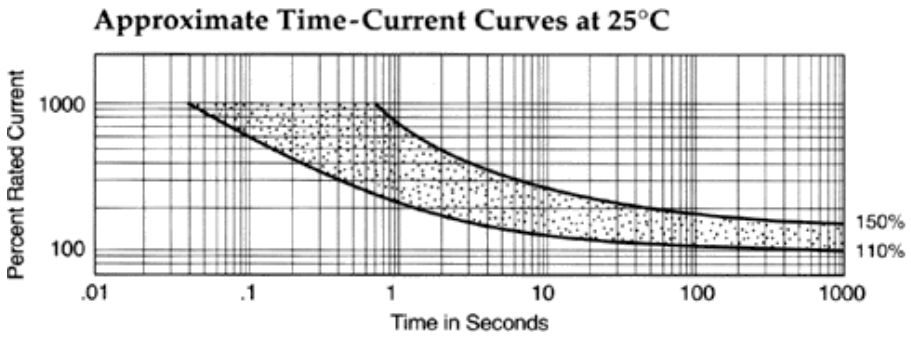
## TYPICAL USE

- Computers
- Construction
- Data processing and telecommunications equipment
- Flight simulators
- General aviation aircraft
- Materials handling
- Other industrial electronic equipment
- Trainers and simulators, where all breakers are operated on low ampere control current (see Klixon® 3SB simulator series). Different amp rating inserts (amp ratings on top of push button) can be ordered separately. Use Sensata part number 27515.)

## TRIP CURVE




## VOLTAGE DROP

| Amp Rating | Max. Voltage Drop* |
|---|---|
| ½ | 2.00 |
| ¾ | 1.45 |
| 1 | 1.10 |
| 1½ | 0.75 |
| 2 | 0.70 |
| 2½ | 0.50 |
| 3 | 0.33 |
| 4 | 0.30 |
| 5 | 0.25 |
| 7½ | 0.20 |
| 10 | 0.15 |
| 15 | 0.15 |
| 20 | 0.15 |

**Maximum voltage drop at nominal rated current.*



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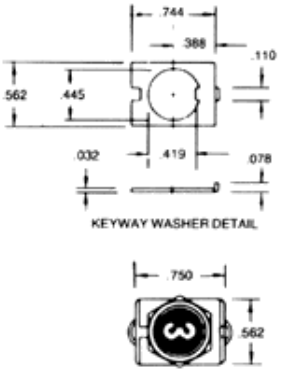
## DIMENSIONS

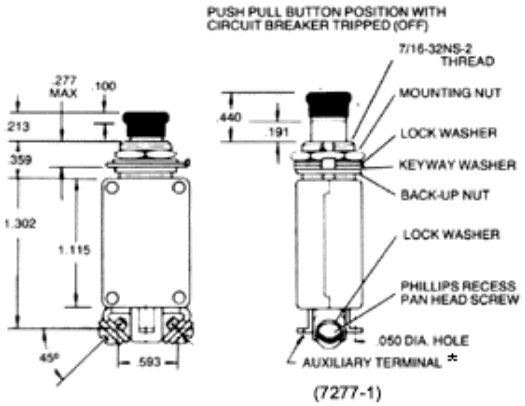
Dimensions in mm [Inch]

# 7277-1* and 7277-2

### Top View




### Side View

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