



## | 5TC SERIES

20 to 50 Amp, Single-Phase, Ambient Compensated

### Introduction

Klixon® single-phase TC devices are the smallest, lightest, high performance aircraft circuit breakers available today. They represent the state-of-the-art protection of today's aerospace power systems. Their light weight and small size make them especially well suited for aircraft, avionics and electronic systems.

The Klixon® trademark has set the standard for aerospace circuit breakers. For a small, light weight configuration, the TC series offers the endurance and reliability required by exacting military specifications, and are available in standard current ratings from 1 through 50 amperes.



### Features

- Miniature size
- Light weight
- Single-phase
- Ambient compensated
- Trip-free design
- Current rating: 20 to 50 amps
- Coordinated ratings
- High vibration resistance
- High interrupting capacity
- Options include: standard or auxiliary switch configuration, terminal barriers
- Typical use: Aircraft, avionics and electronic systems



### PERFORMANCE CHARACTERISTICS

|                          |   |   |
|--------------------------|---|---|
| <b>Vibrations</b>        | 10G minimum, 80–500 Hz (other vibration levels available)   |   |
| <b>Mechanical Shock</b>  | 50G   |   |
| <b>Acceleration</b>      | 10G   |   |
| <b>Weight</b>            | Standard device: 53 grams (no hardware), 58 grams (hardware)<br>Auxiliary device: 55 grams (no hardware), 59 grams (hardware) |   |
| <b>Interrupt Current</b> | 20–50 amps: 4000 amps at 28 VDC<br>20–50 amps: 2000 amps at 115 VAC, 400 Hz   |   |
| <b>Endurance</b>         | 2,500 cycles: 115 VAC, 400 Hz inductive<br>2,500 cycles: 28 VDC inductive   | 2,500 cycles: 28 VDC resistive<br>5,000 cycles: Mechanical, no load |

## QUALIFICATIONS

|             |   |
|-------------|---|
| <b>ASNE</b> | ASNE0732-005 (our 5TC65 auxiliary device) |
| <b>NSA</b>  | NSA93121 (our 5TC50 standard device)      |

## CALIBRATION CHART

For a Standard Device

| Temp. | Minimum Ultimate Trip | Maximum Ultimate Trip | Trip Time (in seconds) |          |           |
|-------|-----------------------|-----------------------|------------------------|----------|-----------|
|       |                       |                       | 200%                   | 500%     | 1000%     |
| 23°C  | 110%                  | 145%                  | 2–18                   | 0.15–2.5 | 0.045–0.6 |
| -54°C | 110%                  | 165%                  | 70 seconds max.        | 0.15–2.5 | 0.045–0.6 |
| 70°C  | 105%                  | 145%                  | 1.5 seconds min.       | 0.15–2.5 | 0.045–0.6 |
| 125°C | 90%                   | 145%                  | 1.5 seconds min.       | 0.15–2.5 | 0.045–0.6 |

*The most typical device is 3–35 amps. For others, please contact us.*

## VOLTAGE DROP

| Amp Rating | Max. Voltage Drop* |
|------------|--------------------|
| 20         | 0.15               |
| 25         | 0.15               |
| 35         | 0.15               |
| 50         | 0.15               |

\*Maximum voltage drop at nominal rated current.

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