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#### Klixon Aircraft Circuit Breakers Klixon® 2TC series

# Klixon 2TC Series

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- Request Pricing or Info Klixon 2TC49 Series

#### 2TC49 Overview

- Request Pricing or Info **Aircraft Circuit Breakers**

### Contacts & Distributors

Klixon Aircraft

Circuit Breaker Catalog » (PDF file, 32

pages, 6MB)



#### klixon@sensata.com

KLIXON

Phone: 1-508-236-3287 Fax: 1-508-236-1598 more » **Part numbers** 

Don't risk ordering the

## wrong part. Contact us or

a distributor.

About these pages

Sensata Technologies is in

the process of updating our web pages. Please bear with us during this process. If you have questions or comments, we'd like to hear from you. Please see contact us.

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#### Variable frequency Longer push buttons

- High vibration
- Random vibration
- Metric mounting thread

**2TC Options** 

- Metric terminal thread
- Dust boot (part #14500-1 fits 15/32 bushing, part #14500-5 fits 7/16
- bushing) Auxiliary switch (male and female contacts available)
- Terminal hardware
- For others, please contact

Amp

Rating

Terminal barriers

Voltage Drop 

Drop\*

Max. Voltage

1	1.10				
2	0.70				
21/2	0.50				
3	0.40				
4	0.45				
5	0.35				
71/2	0.30				
10	0.28				
15	0.25				
20	0.25				
25	0.20				
* Maximum voltage drop at nominal rated current.					
Site Updated July 11th, 2014					

Support

1-25 amp, single-phase, miniature ambient compensated

	Features and Overview	Part Numbering		
	Amps and Voltage	Performance Characteristics		
	Calibration Chart	Spec Sheet PDFs		
	Options Available	Trip Curve		
	Ask a question »	Contacts and distributors »		

# 

## Miniature size Coordinated ratings AS58091 qualified (Also: Light weight Trip-free design

High interrupting capacity

Current ratings (1 to 25

High vibration resistance

amps)

- 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
- Military Approvals, FAA PMA) Typical end use: Aircraft power distribution systems

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 and the TC series offers the endurance and reliability required by exacting military specifications. Coordination The 2TC series breaker ratings are coordinated so any rating will trip before another rating twice its capacity in the event of a fault. of up to 6,000 amps let-thru current.

This results in improved overall equipment performance since only the smallest faulted circuit is interrupted, while larger circuits remain operational. **Ambient Temperature Compensation** Ambient compensated circuit breakers let designers specify smaller gauge wire where

the circuit breaker and wiring are exposed to different ambient temperatures. They are

# especially suited for application where ambient temperature exceeds the 160°F (71°C)

maximum of non-ambient compensated thermal circuit breakers. The TC series may be applied where operating temperatures are as high as 250°F (121°C) with no derating of the circuit breaker. This eliminates the need for cooling air and allows substantial weight, space, and cost savings. Trip-Free The complete line of TC series circuit breakers is trip-free. The circuit breaker cannot be maintained closed during an overload even with the actuator button held closed.

## **High Short Circuit Capacity**

Acceleration

For its miniature size, the 2TC series offers unusually high current interrupting capacity. Overloads can be safely interrupted without affecting calibration or operating performance in the standard 2TC series for:

Overloads up to 6,000 amps at 28 VDC

Overloads of 2,000-3,500 amps at 120 VAC, 400 Hz

**Performance Characteristics Vibration** 10G minimum, 50-500 Hz (other vibration levels available) Mechanical Shock 50G

Weight 24 gram maximum (2TC14) Interrupt Current 1–20 amps: 6,000 amps at 28 VDC

**Ultimate** 

**Trip Curve** 

10G

25 amps: 1,625 amps at 28 VDC 15 amps: 2,500 amps at 120 VAC, 400 Hz 20 amps: 2,000 amps at 120 VAC, 400 Hz 25 amps: 1,800 amps at 120 VAC, 400 Hz **Endurance** 2,500 cycles: 120 VAC, 400 Hz inductive 5,000 cycles: 120 VAC, 400 Hz resistive

2,500 cycles: 30 VDC inductive

5,000 cycles: 30 VDC resistive 10,000 cycles: Mechanical, no load Temp. Minimum Maximum Trip Time in seconds

**Ultimate Trip** 

Trip 25°C 115% 138% 4-16 0.40 - 1.600.10-0.40 -54°C 115% 165% 7-35 0.60 - 3.000.15-0.70 121°C 85% 145% 2-13 0.25 - 1.000.06 - 0.25For others, please contact us.

200%

500%

54°C MAXIMUM TRIP CURVE

+25°C TRIP BAND

below.

Approximate Time-Current Curves – 2TC Circuit Breakers

urrent					25 C THIP BAND	
% Rated Current	+121°C MINIMUM TRIP CUR	UM TRIP CURVE				165% 138% 115% 85%
0.01	0.1		1 Trip Time in Se	10 conds	100	1000
Part N	umbering				/\ <u>Top</u>	
Where <b>2TCX</b> is the basic part number and <b>-Y</b> is the amp rating. For more detailed information, please see spec she						



2TC14 Commercial Download spec sheet (File: PDF | Size: 95K) Download spec sheet (File: PDF | Size: 107K) 2TC27 Military 2TC49 Military Download spec sheet (File: PDF | Size: 114K) 2TC63 Military Download spec sheet (File: PDF | Size: 109K) For others, please contact us.

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