

TE10S

Single Phase Solid State Contactor



The TE10S Series is a small but heavy-duty DIN rail mountable single phase SSC that is an environmentally responsible replacement for mercury contactors. Perfect for general purpose resistive heating applications, the TE10S can be zero cross-fired from an AC or DC logic signal. It has a partial load fail option that activates an LED and an alarm when load current drops below a specified value. The PDSIO® input option allows the same two wires used for switching to be used to transmit heater and SSC health and RMS load current value to a companion Series 2000 controller.

Ordering codes

TE10S	1	2	3	4	5	6	7	8
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1	Current	2	Voltage	3	Input	7	Fuse
Current	16A 16 amps 25A 25 amps 50A 50 amps	Voltage	120V 120 volts 240V 240 volts 480V 480 volts 500V 500 volts	Input	LGC Universal DC 5-32 VDC LAC 48 VAC input HAC 100-240 VAC PDS1 PDS ⁽¹⁾ Heater Break Detect PDS2 PDS ⁽¹⁾ Current Monitoring	Fuse	FUSE Fuse without microswitch MSFU Fuse with microswitch NONE No fuse
4	Language	5	Option	8	Label		
	ENG English FRA French GER German		Partial load failure 00 None PLF Relay open in alarm IPF Relay closed in alarm		- Eurotherm 99/Ax144 Barber-Colman		

External fuses and holders may be ordered separately, see pages 3-47 to 3-49.

Features

- 16–50 amps, 120–500Vac max.
- 1∅ zero crossing fired
- LED status indicator
- optional partial load fail
- optional load current monitoring and diagnostics

Specifications

Dimensions (with PLF) mm:

16A: 115H x 35W (53W) x 93D, 320g/550g
 25A: 115H x 53W (70W) x 93D, 500g/700g
 50A: 115H x 105W (123W) x 93D, 880g/1200g

Load type:

resistive or short wave infrared

Firing mode:

zero voltage switching (synch. to line).

Operating temperature:

0 to 45°C (60°C with derating)

Inputs:

DC Logic (LGC): ON ≥5V, 32V max. and >5mA, 10mA max.,

OFF ≤2V or <0.5 mA

AC Logic (LAC): ON ≥30V, 55V max., input impedance 2kΩ

OFF ≤5V

AC Logic (HAC): ON ≥85V, 265V max., input impedance 9.6kΩ,

OFF ≤10V

PDS1:

Heater break detection

PDS2:

Load current monitoring

Optional:

PLF/IPF partial load failure

(1) PDS (not available with PLF/IPF) uses the same two wires to control the switching of the TE10S and to feedback load status.

PDS Heater Break Detect will transmit the power demand signal to a TE10S, typically from a 2200 Series controller and read back a heater break alarm. Similarly, PDS Current Monitoring will transmit the power demand signal to a TE10S and read back load current, open and short circuit alarms.