

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.

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

Ordering codes

TE10S	1	2	3	4	5	6	7	8
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1	Current	2	Voltage	3	Input	7	Fuse	8	Label
Current	16A 16 amps 25A 25 amps 50A 50 amps	120V 120 volts	240V 240 volts 480V 480 volts 500V 500 volts	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 without microswitch MSFU Fuse with microswitch NONE No fuse	ENG English FRA French GER German	Partial load failure 00 None PLF Relay open in alarm IPF Relay closed in alarm	- 99/Ax144 Eurotherm Barber-Colman	

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

(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.