imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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TL SERIES

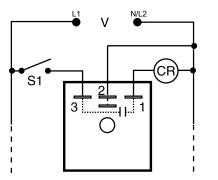
Lockout







Wiring Diagram



V = Voltage S1 = Initiate Switch CR = Compressor or Control Relay

Ordering Information

MODEL	INPUT VOLTAGE	LOCKOUT TIME	DELAY-ON-MAKE
TL120A5T	120VAC	5m	1s
TL230A5	230VAC	5m	No delay
TL24A5T	24VAC	5m	1s

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Description

The TL Series provides protection against short cycling of a compressor. At the end of each operation, or whenever power is lost, a lockout delay is initiated. This lockout delay prevents restarting of the compressor until the head pressure has equalized. Compressor relay chatter due to thermostat bounce is eliminated by use of optional one second delay-on-make. The TL Series should not be used with cooling anticipator resistors or solid-state switches. (See the TA Series).

Operation (Lockout)

Lockout: On initial closure of S1, the compressor relay energizes immediately (or after an optional 1s delay). When the S1 opens or input voltage is interrupted, the output opens and remains open for the lockout time delay. During this lockout time delay period, the compressor relay cannot be re-energized.

Reset: The lockout time delay cannot be reset. After the time delay is completed, the unit automatically resets.

Features & Benefits

FEATURES	BENEFITS
Lockout delay	Prevents rapid cycling of compressor and eliminates nuisance service calls due to blown fuse or tripped breaker by locked rotor during short cycling.
One second Delay-on-Make (models ending in T)	Eliminates contactor chatter due to thermostat bounce
Totally solid state and encapsulated	No moving parts to arc and wear out over time and encapsulated to protect against shock, vibration, and humidity
1A steady, 10A inrush, solid state output	Provides 100 million operations in typical conditions

Accessories

P1023-6 Mounting bracket

The 90° orientation of mounting slots makes installation/removal of modules quick and easy.

P1015-64 (AWG 14/16) Female Quick Connect

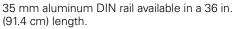
These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.

P1015-18 Quick Connect to Screw Adapter

Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.



C103PM (AL) DIN Rail 35 mm aluminum DIN rail av





P1023-20 DIN Rail Adapter Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.



Expertise Applied | Answers Delivered

Specifications

TL SERIES

Input

Voltage AC Line Frequency Tolerance Output Minimum Load Current Maximum Load Current Inrush Current Voltage Drop

Time Delay

Initiate Time Lockout Time* Tolerance Option

Protection

Circuitry Dielectric Breakdown Insulation Resistance 24, 120, or 230VAC 50/60 Hz ±20%

≤ 40mA
1A @ 24VAC; 0.5A @ 120 & 230VAC at 60°C
10A at 60°C
24VAC - 2.5V @ 1A
120 & 230VAC - 4.2V @ 0.5A

≅ 8ms
Fixed 2, 3, or 5m
-15% - 35%
1s delay-on-make eliminates contactor chatter due to thermostat bounce

Encapsulated \geq 2000V RMS terminals to mounting surface \geq 100 M Ω

Mechanical Mounting Dimensions

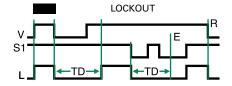
Termination Environmental Operating/Storage Temperature Humidity Weight Surface mount with one #10 (M5 x 0.8) screw H 50.8 mm (2"); W 50.8 mm (2"); D 30.7 mm (1.21") 0.25 in. (6.35 mm) male quick connect terminals

 -40° to 70° C / -40° to 85° C 95% relative, non-condensing ≈ 2.4 oz (68 g)

*Power must be applied for at least 15 s to achieve a full lockout delay. Less than 15 s will result in proportionally shorter delay periods.

NOTE: Cooling anticipator resistor or leakage may cause erratic operation. See TA Series for use with 24VAC systems that include anticipator resistors or use solid-state switches.

Function Diagram



- V = Voltage S1 = Initiate Switch L = Load (CR) E = Ready TD = Time Delay
- R = Reset

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