

MODEL 2734

Current Sensitive Relay

- Adjustable Start-up Delay
- Adjustable Trip Delay
- Automatic or Manual Reset

DESCRIPTION

The **Model 2734 Current Sensitive Relay** monitors a single-phase AC current for an over-current condition. A top-mounted current transformer (CT) provides complete isolation from the control voltage as well as easy installation.

Operation begins when the current being monitored rises to 10% of the trip setting, which initiates the start-up delay. When the delay expires, over-current sensing begins.

In the AUTO mode, the Model 2734 resets when current drops below the trip setting. In the MANUAL mode, the unit must be reset by momentarily switching to the AUTO mode, and back, after the current fault is cleared. The TRIPPED LED indicates the output relay status. Current must drop below 10% of the trip setting for the start-up delay to restart.

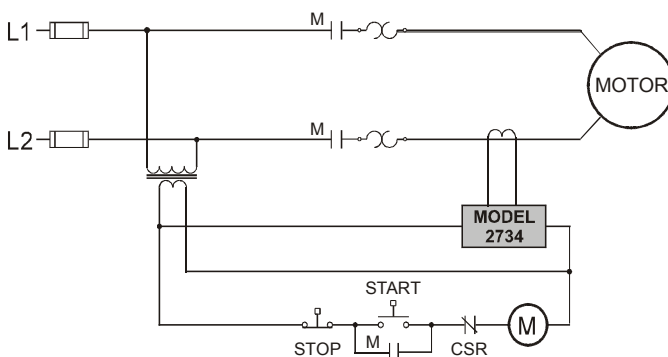
The standard model operates in a non-failsafe mode; if control power is lost, over-current detection is lost.



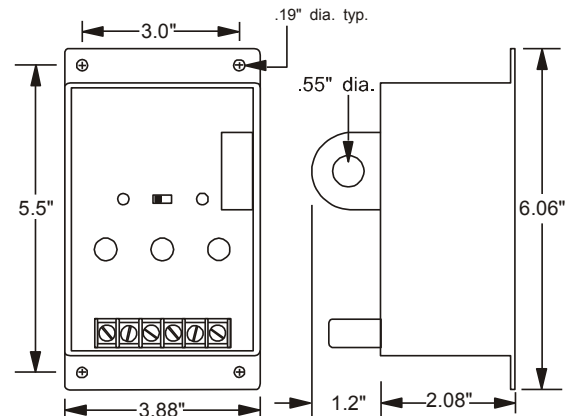
SPECIFICATIONS

MODEL	2734	
Operating Voltage	24VAC	120VAC
Voltage Range	21-30VAC	100-140VAC
Power Consumption	0.5W	2.0W
Frequency	60Hz	
Over-current Range	2-20 amps with 1 pass thru CT 1-10 amps with 2 passes thru CT 0.5-5 amps with 4 passes thru CT	
CT Insulation Rating	600VAC	
Dead Band	± 1% of trip setting	
Trip Point Repeatability	± 2% of trip point	
Trip Delay	0.2 to 2.5 seconds	
Start-up Delay	0.5 to 6 seconds	
Reset	User selectable - Auto or Manual	
Contacts	SPDT 10A at 240VAC resistive	
Expected Relay Life	Mech: 10 million operations Elec: 100,000 operations at rated load	
Operating Temperature	+32° to +140° F	
Humidity Tolerance	0-97% without condensation	
Enclosure Material	ABS plastic	
Weight	12 oz.	

TYPICAL APPLICATION



DIMENSIONS



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MODEL 2734 Current Sensitive Relay

READ ALL INSTRUCTIONS BEFORE INSTALLING, OPERATING OR SERVICING THIS DEVICE.
KEEP THIS DATA SHEET FOR FUTURE REFERENCE.

GENERAL SAFETY

POTENTIALLY HAZARDOUS VOLTAGES ARE PRESENT AT THE TERMINALS OF THE MODEL 2734.
ALL ELECTRICAL POWER SHOULD BE REMOVED WHEN CONNECTING OR DISCONNECTING WIRING.
THIS DEVICE SHOULD BE INSTALLED AND SERVICED BY QUALIFIED PERSONNEL.

Installation Instructions

INSTALLATION

Mount the Model 2734 in a suitable enclosure.

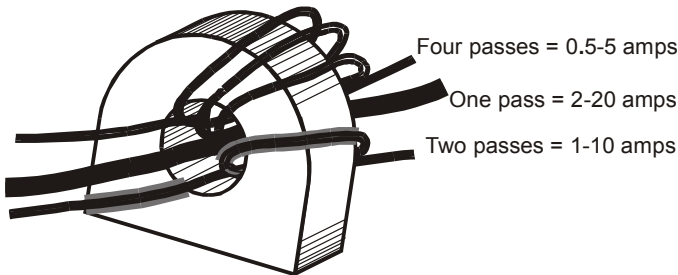
Connect the AC and normally closed (N.C.) wiring to the terminals with the contact markings (refer to the diagram on the unit and the TYPICAL APPLICATION on the front page).

Pass the line to be monitored through the CT on the Model 2734. For a current range of 2-20 amps, use one pass through the CT (See *diagram below*). For a range of 1-10 amps, double the line back and pass it through the CT a second time. See formula below.

Range	# of Passes	
2-20 amps	1	Standard Range
1-10 amps	2	Non-standard
0.5-5 amps	4	Non-standard

* Non-standard Range Formula:
Standard range divided by the number of passes

Apply operating power to the Model 2734. **DO NOT START THE MOTOR UNTIL THE DELAYS AND TRIP LEVEL ARE SET.**



ADJUSTMENT

Set the START-UP DELAY to the required time. This delay prevents the Model 2734 from responding to the surge of current caused by the motor start-up.

Set the TRIP DELAY to the required time. The TRIP DELAY prevents the Model 2734 from responding to the momentary current fluctuations during operation.

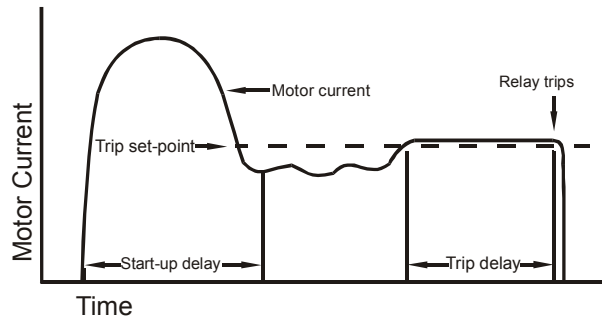
Set the CURRENT TRIP adjustment to the current level at which you want the Model 2734 to trip off the motor. Set the reset switch to either the AUTO or MAN position.

You can now start motor or load.

OPERATION

During normal operation, the Model 2734 will energize its control relay when an over-current condition occurs. This is a non-failsafe condition. If the AC operating power is removed from the Model 2734 while the motor is operating, the Model 2734 will not operate the control relay if an over-current condition occurs.

Operating characteristics of the standard Model 2734 are shown in the following graph.



RESET PROCEDURE

In the AUTO Reset mode, the Model 2734 will de-energize its relay when the over-current condition is corrected.

In the MANUAL Reset mode, first clear the over-current condition. Then, slide the reset switch momentarily to AUTO, then back to MANUAL. The Model 2734 will then reset and be ready to resume monitoring.

WARRANTY

This product is warranted to be free from defects in materials and workmanship for one year. Should this device fail to operate, we will repair it for one year from the date of manufacture. For complete warranty details, see the *Terms and Conditions of Sales* page in the front section of the Time Mark catalog or contact Time Mark at 1-800-862-2875.

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