



# Motor Protectors from Texas Instruments

## 34 HM Series Hermetically Sealed On-Winding 3-Phase

- Protect WYE wound 3-phase motors from 1 to 4 HP.  
Used in refrigeration compressors, submersible pumps and other restrictive environments.
- In-line protection in a small rugged welded construction. Low profile shape allows for close coupling to motor windings.
- Hermetic reliability designed for leakage rates less than  $1 \times 10^{-9}$  cc per second of air with 1 atmosphere pressure differential.
- Klixon snap-action discs assure positive make and break action and controlled temperature differential.
- Designed for low and high side pressure applications.



Photo is shown  
approximately actual size

### Product Overview

The Klixon 34 HM on-winding motor protector is a 3-phase line break, automatic reset device which interrupts line current at the centerpoint of a WYE wound motor.

This protector is designed to protect 3-phase refrigeration and air conditioning compressor motors from excessive winding temperature; however, applications may be made to any WYE wound 3-phase motors

where environmental conditions require a hermetic seal.

The low profile permits the device to be installed directly on motor windings for closely coupled temperature monitoring, thus enhancing over-temperature protection against loss of refrigeration charge, low voltage locked rotor, and single phasing.

The 34 HM is designed to reduce installation costs by replacing pilot control systems with a simple, economical, compact device.

### Maximum Recommended Locked Rotor Current

	Standard Series		
	230V	460V	575V
34 HM	80A	40A	—

Current ratings are based on life test data which has demonstrated high reliability at 5K cycles at 0.7 power factor on TI test boards. These capacities are intended as a guide for application work.

# The basic element of the 34 HM is the famous KLIXON Snap Acting Disc.

## Standard Operating Temperature

### Opening Temperature

100°C to 180°C in 5° increments.  
Tolerance at +/-5°C

### Closing Temperature

to suit application

Tolerance

+/-9°C for <150°C opening

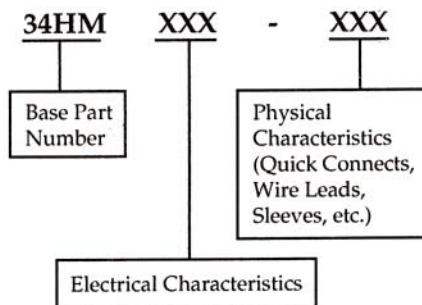
+/-15°C for >150°C opening

### Pressure Rating

Tested to 1600 PSIG per UL984/  
CSA 22.2 #140.2, sec 36-37.

### Coding System

When making an inquiry on KLIXON hermetically sealed motor protectors, be certain to specify the entire part number for your application, if known. The six digits following the series identification indicate your specific electrical and physical requirement.



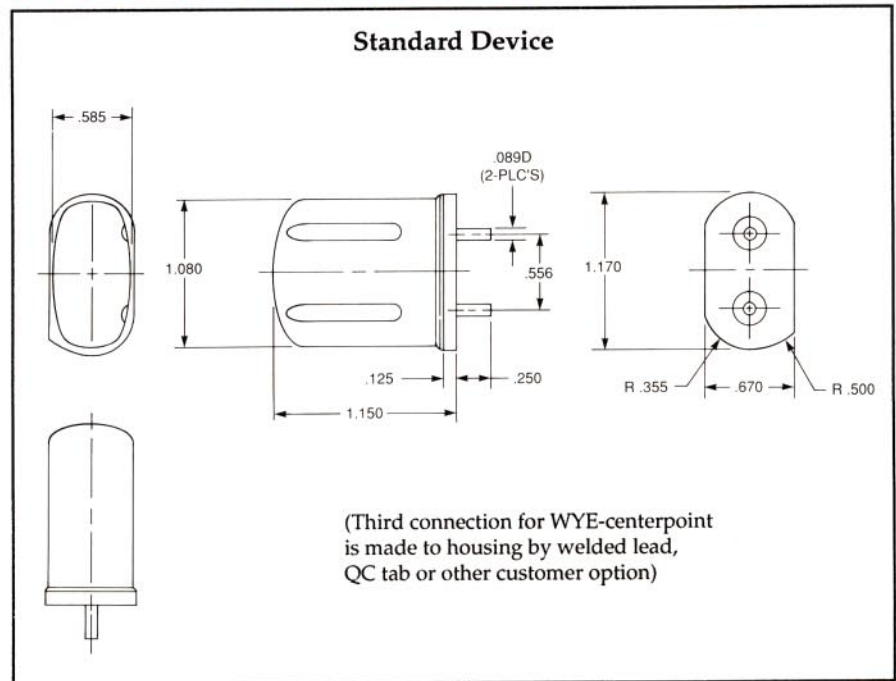
UL File #E15692

CSA File # LR11372-99

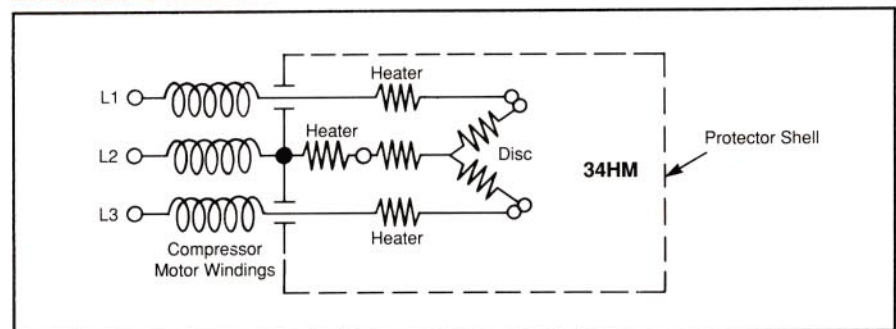
VDE Approval with Factory  
Surveillance

34HM XXX - XXX  
12(12 Max 48) A  
3AC 400V

## 34 HM Series Hermetic Motor Protector



## Electrical Schematic



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