



# 34HM | MOTOR PROTECTORS

HERMETICALLY SEALED ON-WINDING, 3-PHASE

## Introduction

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 secondary single-phasing (loss of phase). The 34HM is designed to reduce installation costs by replacing pilot control systems with a simple, economical, compact device.

The basic element of the 34HM is the famous Klixon® Snap Act



## Features and Benefits

- Protect WYE (Star) wound 3-phase motors from 1 to 6HP. 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 x 10<sup>-9</sup> 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.

## Line Break Operation

Klixon® 16HM motor protectors are line break automatic reset controls which are wired in series with the motor windings. These protectors are designed to track winding temperatures and to respond to changes in line current. When properly applied, the 16HM can provide protection against motor overheating under the following conditions:

## SPECIFICATIONS

### Maximum Recommended Locked Rotor Current

Standard Series			High Capacity Series				
1XX	2XX		3XX	4XX	5XX		6XX
230V	380V	460V	575V	230V	380V	460V	575V
90A	55A	45A	35A	105A	80A	75A	60A

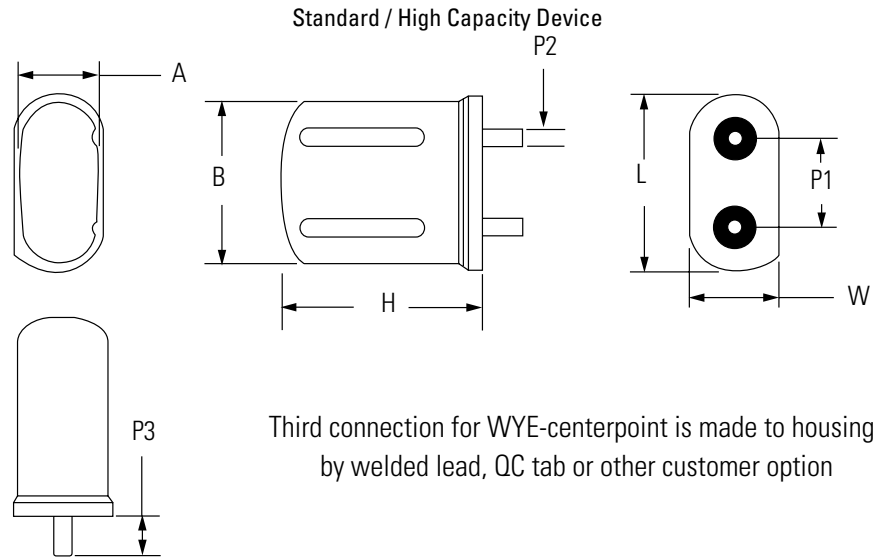
Current ratings are based on life test data which has demonstrated high reliability at 5K cycles (standard series) and 2K cycles (high capacity series) at 0.7 over factor on Sensata life test boards. These capacities are intended as a guide for application work.

# Standard Operating Temperatures

<b>Open Temperature</b>	95°C to 175°C (5°C Increments) Tolerance ±5°C
<b>Closing Temperature</b>	To Suit Application Tolerance ±9°C
<b>Pressure Rating</b>	1600 PSIG 110 Bar

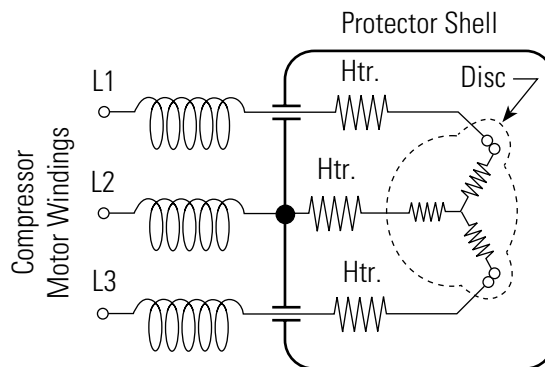
## DIAGRAMS

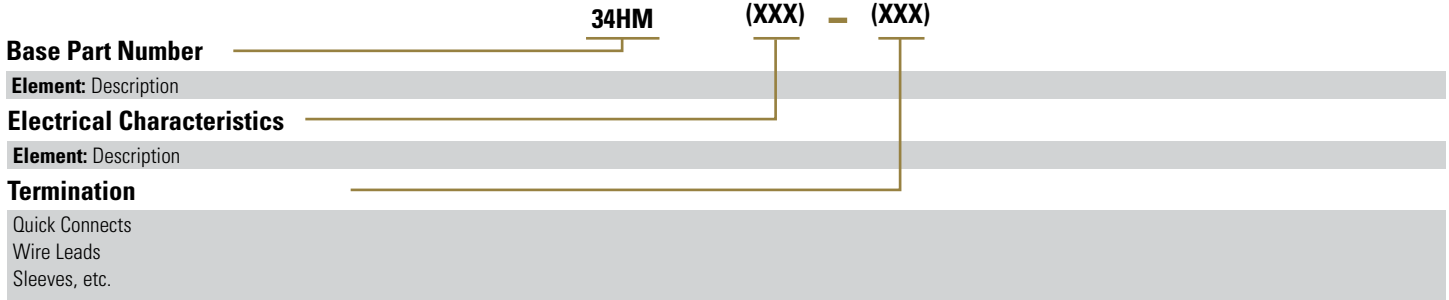
34HM Hermetic Motor Protector



Unit	L	W	H	P1	P2	P3	A	B
Ins	1.170	0.670	1.140	0.556	0.089	0.250	0.585	1.080
mm	29.7	17.0	29.0	14.1	2.3	6.4	14.9	27.4

## Electrical Schematic





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.



### AGENCY APPROVALS & CERTIFICATIONS



Agency	File Number
UL/Canadian UL	E15962
DEKRA (ENEC)	2018218.08
CQC	CQC03002007220

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