

3HM Series, Hermetically Sealed Motor Protectors

For single-phase on-winding protection



- High reliability: 2 contact ratings
- Compact oval construction for smaller device profile
- Meet rotary compressor high side pressure requirements
- Application range: 1 to 2-½HP

Overview

The 3HM hermetic overload protectors are new generation product designed to meet the demands of tomorrow's compressors. The 3HM family of motor protectors can be applied to air conditioning compressors ranging from 1 to 2-½ HP. They may also be used in commercial motors which must function in high-pressure corrosive environments. Its low profile allows ease of installation, while the overall design provides resistance to mechanical shock.

Line Break Operation

Klixon 3HM 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 respond to changes in line current, which provides protection against the overload conditions listed below:

- Running overload
- High/low voltage locked rotor
- High voltage light load
- High discharge temperature

Protector Ratings

Series	Line Voltage	Locked Rotor Current
1XX	230	*60 Amp
2XX		
3XX		
4XX		
5XX	230	*80 Amp
6XX		

*To be used as a guide for selection only. Consult factory for specific life test data.

Technical Characteristics

Purpose of control: Thermal protector for motor compressor

Rated voltage: 240Vac

Rated current: 16A inductive load, 80A at p/f 0.6

Temperature Range: 90°C to 175°C

Ambient temp limits: T_{min}=0°C / T_{max}=200°C

Tolerance on Temp: Open is +/- 5K, Close is +/- 11K

Type of disconnection: Type3C

Pollution Situation: Normal

PTI for Insulation: PTI600

Enclosure protection degree: IP00

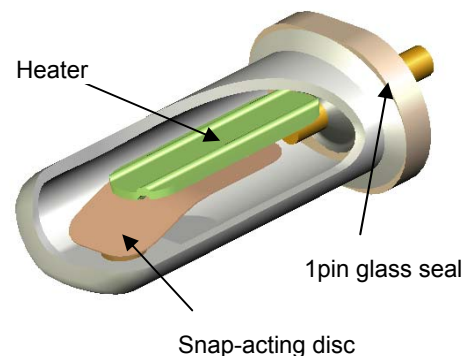
Certifications

Certification	Standards	Certification#
UL	UL2111	E15962
ENEC	EN60730-2-4	2018218.04

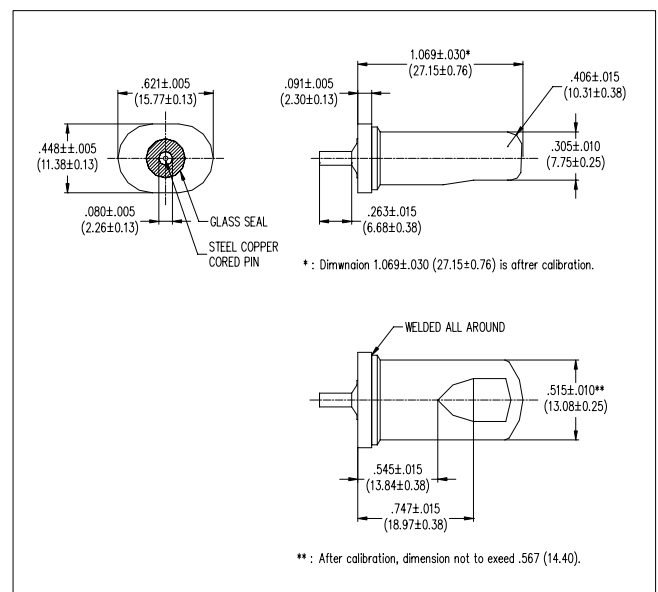
Rated capacity to be used as a guide for selection only. Expert will consult for specific life test data.

Construction

The basic element in the hermetic motor protector series is the Klixon snap-acting disc. An integral series heater allows close control of ON times, and longer cycle rates when stalled rotor condition exists. Glass sealed header is resistant welded to the steel case to provide a hermetic seal. Optional wire leads, sleeve and terminal connector can be provided.



Dimensions (Metric dimensions in parentheses.)

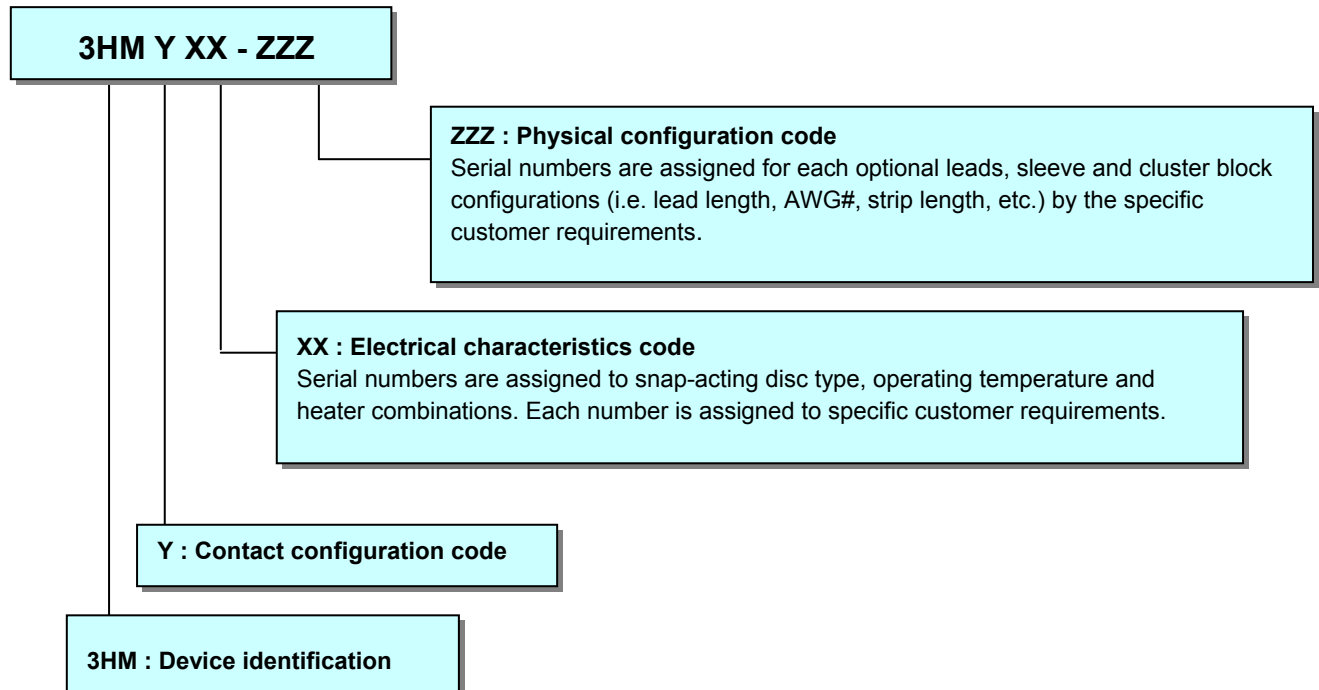


3HM Series Hermetically Sealed Motor Protectors by Texas Instruments

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Unique Type Reference

The coding system is defined as follows and particular numbers are assigned to each specific customer requests.



EXAMPLE

3HM525-36

Bimetal of 35ohms/cm, operating temperature 170°C, reset temperature 92°C, with #6 heater, high capacity contacts (80A), DMD-wire leads AWG#14, 240mm (Can side) length and 190mm (Pin side) length with strip length 10mm, insulation sleeve by Toray Lummmrror X10S, 55mm length



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