

Klixon | 3HM Series

Hermetically sealed motor protector for single-phase on-winding protection

PRODUCT OVERVIEW

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

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 1/2 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

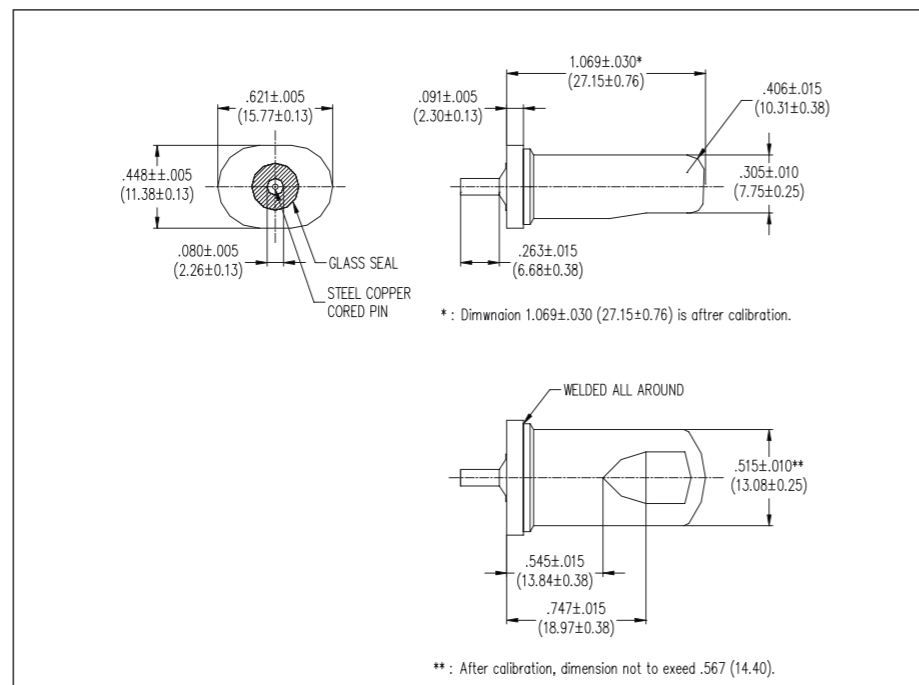
overload conditions listed below;

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

Constructions

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.



Protector Ratings

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

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

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.

Unique Type Reference

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

3HM Y XX - ZZZ

ZZZ : Physical configuration code
Serial numbers are assigned for each optional leads, sleeve and cluster block configurations (i.e. lead length, AWG#, strip length, e.t.c.) by the specific customer requirements.

XX : Electrical characteristics code
Serial numbers are assigned to snap-acting disc type, operating temperature and heater combinations. Each number is assigned to specific customer requirements.

Y : Contact configuration coderequirements.

3HM : Device identification

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: Tmin=0°C / Tmax=200°C
 Tolerance on Temp: Open +/- 5K, Close +/- 11K
 Type of disconnection: Type3C
 Pollution Situation: Normal
 PTI for Insulation: PTI600
 Enclosure protection degree: IP00

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 Lumrror
- X10S, 55mm length

