



| 31, 32, 33HM SERIES MOTOR PROTECTORS

HERMETICALLY SEALED ON-WINDING, 3-PHASE

Introduction

The Klixon® 31HM, 32HM, and 33HM on-winding motor protectors are 3-phase line break, automatic reset devices wired in series with each phase at the neutral point.



Features and Benefits

- Protect WYE (Star) wound 3-phase motors from 1 to 15HP. Used in refrigeration compressors, submersible pumps and other restrictive environments.
- Increased protection in a small size, with a rugged all welded construction. Low profile shape allows for close coupling to motor windings.
- Hermetic reliability designed for leakage rates less than 1×10^{-9} per second of air with 1 atmosphere pressure differential.
- Klixon® snap-action discs assure positive make and break action and controlled temperature differential.

These protectors are designed to protect 3-phase refrigeration and air conditioning compressor motors from excessive winding temperatures; however, applications may be made to any 3-phase motors where an environmental seal is required. Small size permits the devices to be installed directly on the motor windings for precise temperature monitoring, thus affording protection against such severe overload conditions as loss of refrigerant charge, low voltage locked rotor, and single phasing.

The 31HM, 32HM, and 33HM are designed to reduce installation costs by replacing pilot control systems with a simple, economical, compact device.



SPECIFICATIONS

Locked Rotor Current Capacity

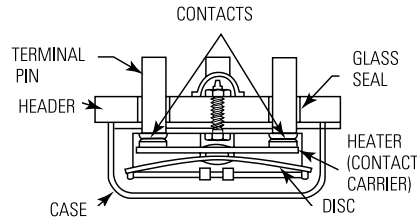
	Std. 1XX Series			4XX Series	5XX Series			15XX HC Series		
	230V	460V	575V	230V	240V	460V	575V	230V	460V	575V
31HM	70A	40A	35A	60A	90A	50A	40A	Not Available		
32HM	135A	70A	55A	180A	200A	100A	80A	275A	175A	125A
33HM	Not Available			250A	285A	145A	115A	380A	190A	N/A

Current ratings are based on life test data which has demonstrated high reliability at 2000 cycles at 0.7 power factor on Sensata life test boards. These capacities are intended as a guide for application work.

Standard Operating Temperature

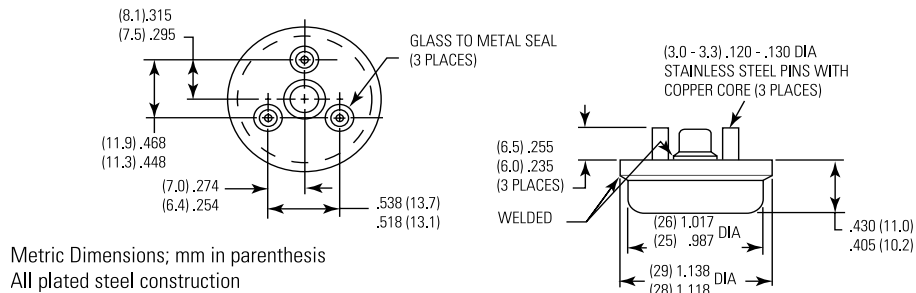
Opening Temperature	90°C to 170°C in 5°C increments Tolerance $\pm 5^\circ\text{C}$
Closing Temperature	To suit application Tolerance $\pm 9^\circ\text{C}$ for $< 150^\circ\text{C}$ opening $\pm 15^\circ\text{C}$ for $\geq 150^\circ\text{C}$

DIAGRAMS & CONFIGURATIONS

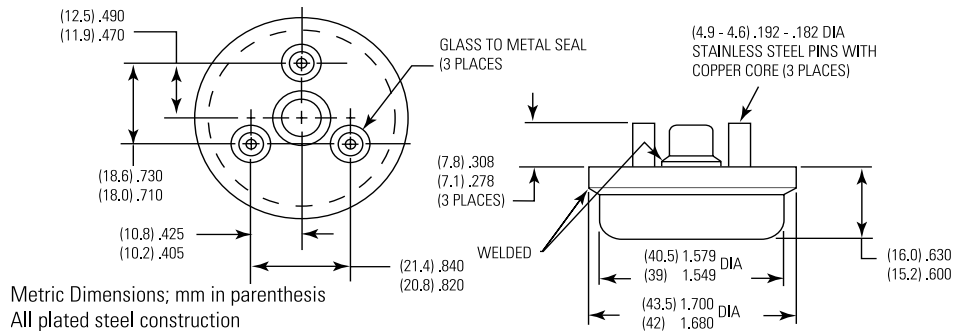


The basic element of the 31, 32, and 33HM is the famous Klixon® snap-acting disc.

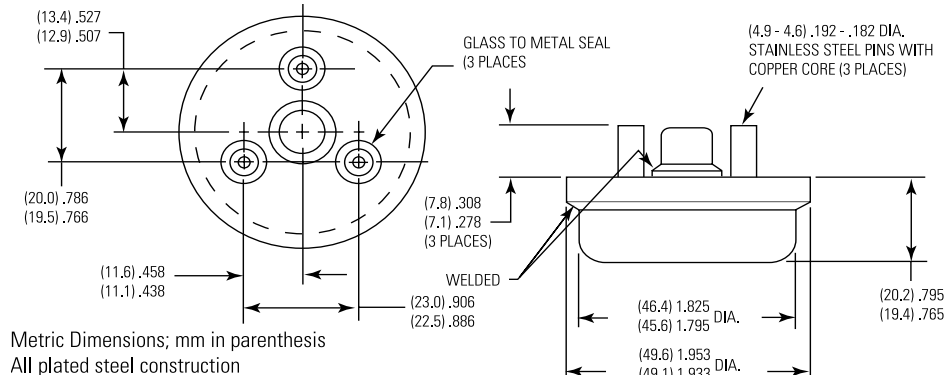
31HM Series Hermetic Motor Protector



32HM Series Hermetic Motor Protector



33HM Series Hermetic Motor Protector

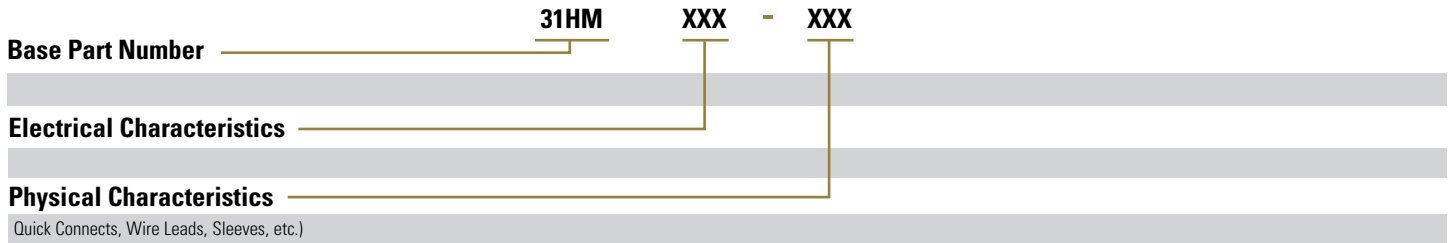




ORDERING OPTIONS

Example : 31HM XXX-XXX

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



UL / C-UL	File# E15962
DEKRA (ENEC)	2018218.07
CQC	31HM - CQC04002010972 32HM - CQC04002010971 33HM - CQC15002131252

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