



# Sensata Technologies

## 7AM SERIES



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## | 7AM SERIES

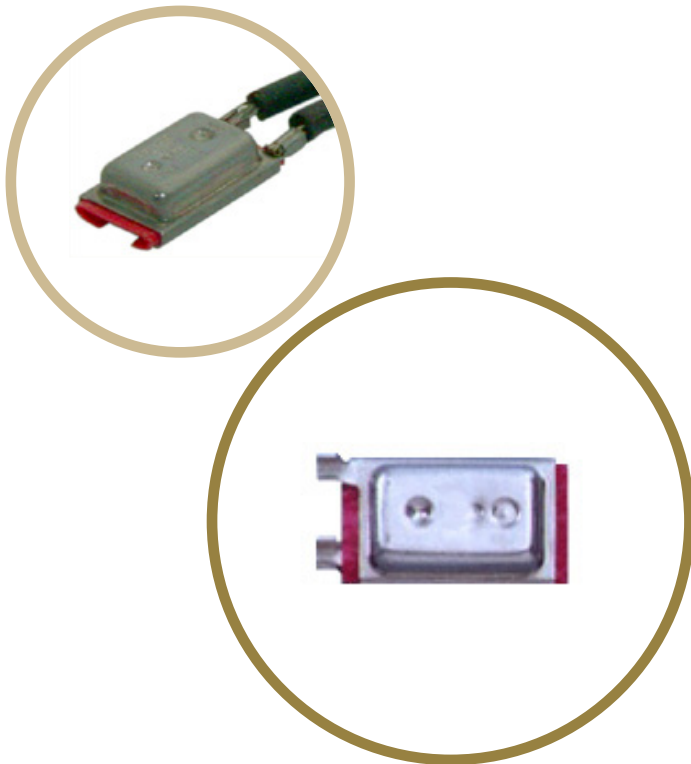
LIGHTING, ELECTRICAL, THERMAL, BATTERY, MOTOR PROTECTION

### Introduction

The Klixon® 7AM delivers the maximum protection in the smallest package at an excellent price. It's the most reliable on the market, backed by the leading innovators in protection technology.

Each 7AM temperature rating has a bimetal disc specifically manufactured for that rating. Each device is then calibrated and checked for opening temperature. This results in optimum snap-acting open and reset characteristics necessary to achieve consistent performance over the required cycle life.

The Klixon® bimetal disc welded in a steel can provides excellent thermal sensitivity and maximum protection properties.



### Features

- Over 3 billion sold
- Compact, miniature size
- UL, C-UL, DEKRA (ENEC) approvals
- Individually temperature checked on modern, custom-designed equipment
- Positive make and break with Klixon® snap-action disc
- Repeatable temperature performance over life
- Gasketed steel case suitable for most impregnation processes
- Current and temperature sensitivity for maximum design flexibility and application
- Wide selection of leads and insulating sleeves

## PERFORMANCE CHARACTERISTICS

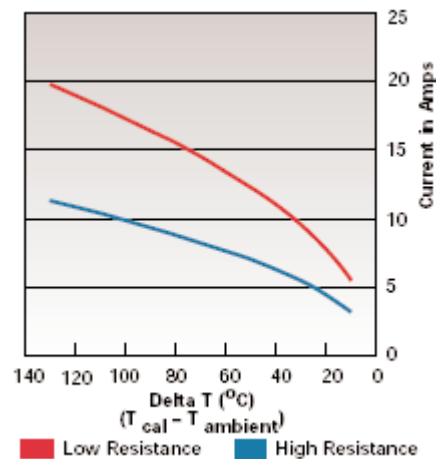
<b>Rated Voltage</b>	125 Vac / 250 Vac
<b>Dimensions</b>	20.2 x 10.8 x 4.9 mm (including terminals)
<b>Life</b>	10,000 cycles / 8 A / 250 Vac (see approvals sheets)
<b>Maximum Contact Ratings @ 10K cycles</b>	16 VDC at 20 amps 120 VAC at 22 amps 277 VAC at 8 amps 600 VAC at 4 amps
<b>Open Temperature</b>	70°C to 175°C in increments of 5°C
<b>Temperature Tolerance</b>	±5°C
<b>Differential Temperature</b>	19°C to 54°C, depending on open temperature
<b>Seal</b>	High-seal and low-seal gasket material available
<b>Maximum Ambient Temperature</b>	Continuous: open-temperature +10°C Overshoot: 5 minutes at 200°C
<b>Vibration</b>	Military standard 202F, Method 204D, Test Condition D (20g peak)
<b>Corrosion Resistance</b>	48 hours at 35°C in 5% salt environment (ASTM B117)
<b>Humidity</b>	95% relative humidity, 40°C: 7 days
<b>Thermal Shock</b>	-20°C / +150°C, each for 30 minutes / 5 cycles

## MAXIMUM CONTACT RATINGS (10,000 CYCLES)

Voltage	Current
16 VDC	20 amperes
120 VAC	22 amperes
277 VAC	8 amperes
600 VAC	4 amperes

## ULTIMATE TRIP CURRENT VS. DELTA TEMPERATURE

Approximation, to be used only for selecting samples for verification tests.



Note: Delta T is the difference between the zero current calibrated opening temperature ( $T_{ca}$ ) and ambient temperature ( $T_{ambient}$ ) at the protector location.



# ORDERING OPTIONS

Example : 7AMXXXXX-XXX-X

## Family



## Standard Operating Temperature

Operating Temp. °C	Low Resistance Bimetal Disc	High Resistance Bimetal Disc
	Code	
65	020	-
70	021	201
75	022	202
80	023	203
85	024	204
90	025	205
95	026	206
100	027	207
105	028	208
110	029	209
115	030	210
120	031	211
125	032	212
130	033	213
135	034	214
140	035	215
145	036	216
150	037	217
155	038	218
160	039	219
165	040	-
170	336	-
175	316	-

## Terminal Configuration

- A** = Same end
- B** = Opposite end

## Temperature Tolerance

- 5** = ±5°C

## Physical Characteristics

i.e. Wire leads, insulating sleeve

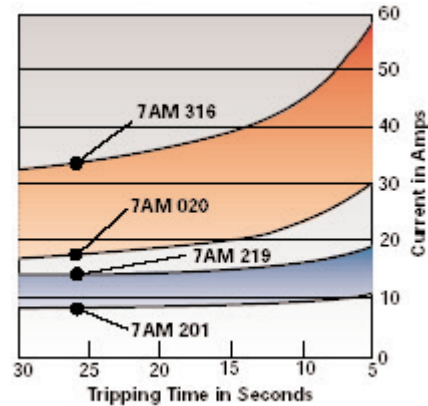
## Non-Standard Gasket Material (Optional)

- 5** = High Seal / White

Some ratings may not have UL listing. Please consult agency file listings.



## AVERAGE FIRST CYCLE TRIPPING TIME VS. CURRENT (25°C AMBIENT)



## AGENCY APPROVALS & CERTIFICATIONS

Agency	File Number	Standard	Note
UL/Canadian-UL	E15962	UL2111, C22.2, #77	Motor protection
UL/Canadian-UL	E34618	UL873, C22.2, #74	Limit and regulating controls
DEKRA (ENEC)	2014531.03	EN 60730-2-22	Motor protection
DEKRA (ENEC)	2014531.03	EN 60730-2-3	Ballast protection
DEKRA (ENEC)	2014531.03	EN60730-2-9	Thermal cut-out

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