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, CSA, DEKRA (ENEC) approvals
- Individually temperature checked on modern, custom-designed equipment

Sensata

Technologies

- 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



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PERFORMANCE CHARACTERISTICS

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



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





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Family		7AM XXX	<u>x</u> <u>x</u>	<u> </u>	xx — _	x
Standard Onevoting	Formanatura					
Stanuaru Operating						
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 Configurati	on					
A = Same end B = Opposite end						
Temperature Tolerance						
5 = ±5°C						
Physical Characteristics						
i.e. Wire leads, insulating sleeve						
Non-Standard Gaske 5 = High Seal / White	et Material (Optional)					1

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





AGENCY APPROVALS & CERTIFICATIONS

Agency	File Number	Standard	Note
CSA	11372	C22.2, #77	Motor protection
CSA	24458	C22.2, #74	Limit and regulating controls
DEKRA (ENEC)	2014531.03	EN 60730-2-2	Motor protection
DEKRA (ENEC)	2014531.03	EN 60730-2-3	Ballast protection
DEKRA (ENEC)	2014531.03	EN60730-2-9	Thermal cut-out
UL	E 15962	2111	Motor protection
UL	E 34618	873	Limit and regulating controls

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