

## Thermal Motor Protector ST07 Series



- Sensitive to temperature and current
- Gasketed steel case suitable for most impregnation processes
- Wide selection of leads & insulating sleeves
- Repeatable temperature performance over life

### Applications

Over temperature & current protection in electrical appliances, as shaded pole motors, permanent split capacitor motors, fluorescent lighting ballasts, HID ballasts, transformers, recessed lighting fixtures, battery packs, vacuum cleaners, automotive accessory motors, solenoids, PC boards and much more.

### Function

The operating principal of ST07 is both simple and effective. At the heart of the protector is a bimetal snap action disc. When the temperature of the disc reaches its rated temperature it snaps open, resulting in an open circuit. This temperature is reached during a fault condition, caused by either an increase in ambient temperature, an increase in current flowing through the disc, or a combination of both. After the ST07 breaks the circuit, the system cools and the ST07 automatically reset allowing power to be restored to the circuit.

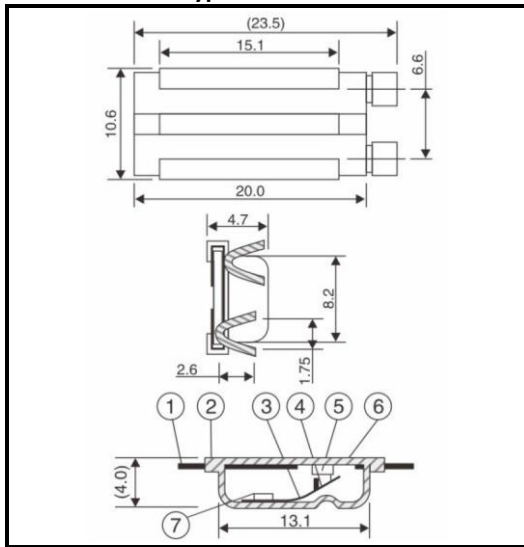
### Technical Data

Function	Normally closed (NC)
Nominal switching temperature in 5K steps	50°C ~ 180°C
Tolerance (Standard)	± 5K
Differential temperature	19K ... 54K, depending on open temperature
Curent @ AC 270V	10A
Curent @ AC 120V	22A
Curent @ DC 16V	20A
Insulation voltage	1,5 kV
Lead wire length (Standard)	66.7 ± 5mm
recognized standards	VDE EN 60730-2-2 (55°C ... 180°C) UL 2111 (65°C ... 165°C)

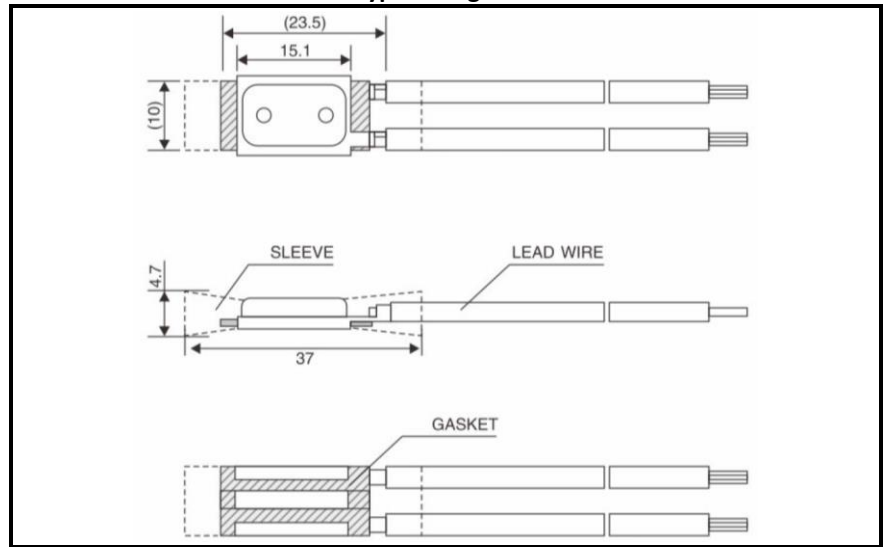
Delta T (°C)	Low Resistance (Amps)	High Resistance (Amps)
140	~20	~10
120	~18	~9
100	~15	~8
80	~12	~7
60	~10	~6
40	~8	~5
20	~6	~4
0	~5	~3

## Available designs

**A-Type construction**



**A-Type configuration**



## Numbering system

<b>ST07</b>	<b>XXX</b>	<b>X</b>	<b>X</b>	<b>-</b>	<b>X</b>
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**Standard operating temperature**

Operating temp.	Low resistance bimetal disc
50°C	017
55°C	018
60°C	019
65°C	020
70°C	021
75°C	022
80°C	023
85°C	024
90°C	025
95°C	026
100°C	027
105°C	028
110°C	029
115°C	030
120°C	031
125°C	032
130°C	033
135°C	034
140°C	035
145°C	036
150°C	037
155°C	038
160°C	039
165°C	040
170°C	041
175°C	042
180°C	043

**Terminal configuration**

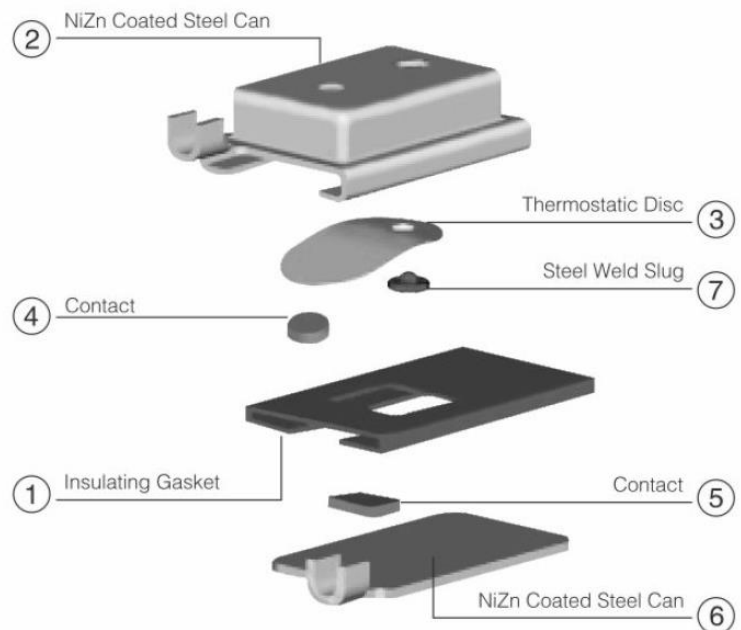
Code	Terminal
A	Same end

**Temperature tolerance**

Code	Tolerance
5	± 5K

**Physical characteristics**

Code	L(mm)
4	66.7



Changes and errors expected