



- ▶ **High contact rating**
- ▶ **High compressive strength**
- ▶ **Conditional current sensitivity**
- ▶ **High temperature sensitivity**
- ▶ **Short reaction time**

**Areas of operation**

The thermal overload protector type BM-1 is an electromechanical safety device, which provides complete protection to your electrical equipment against over-heating, overloading, and mechanical malfunctions.

After cooling down, the thermo switch closes its contact again (auto reset function).

The BM-1 is partially sensitive to current. This characteristic can be influenced by selection of a different kind of bimetal material. UL and VDE

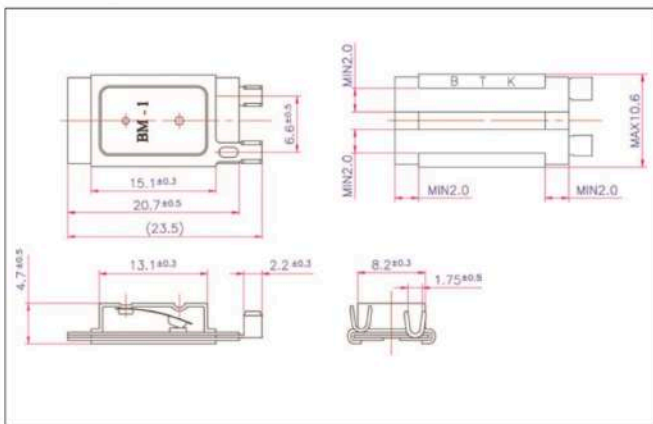
approvals are available.

The BM-1 is available with blank terminals or with connecting leads (radial, Type A und axial Type B). It is possible to insulate the live housing using an insulation tube. For use under vacuum conditions, please use the sealed version of the BM-1.

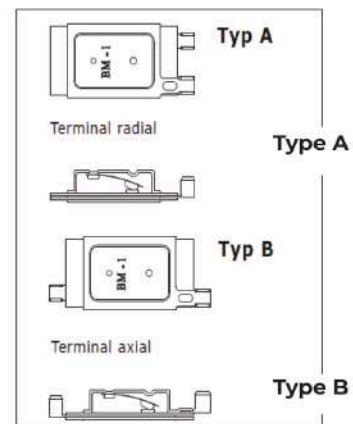
**Typical applications**

Protection of household equipment, electrical motors, transformers, electrical ballast, etc.

**Dimensions**



**Terminal configurations**



**Switching temperatures**

Code	Open temp.	Close temp.	Tolerance
045	45°C ± 5	34°C	± 15
050	50°C ± 5	38°C	± 15
055	55°C ± 5	42°C	± 15
060	60°C ± 5	46°C	± 15
065	65°C ± 5	50°C	± 15
070	70°C ± 5	52°C	± 15
075	75°C ± 5	54°C	± 15
080	80°C ± 5	56°C	± 15
085	85°C ± 5	58°C	± 15
090	90°C ± 5	60°C	± 15

Code	Open temp.	Close temp.	Tolerance
095	95°C ± 5	62°C	± 15
100	100°C ± 5	65°C	± 15
105	105°C ± 5	68°C	± 15
110	110°C ± 5	71°C	± 15
115	115°C ± 5	74°C	± 15
120	120°C ± 5	77°C	± 15
125	125°C ± 5	80°C	± 15
130	130°C ± 5	83°C	± 15
135	135°C ± 5	86°C	± 15
140	140°C ± 5	90°C	± 15

Code	Open temp.	Close temp.	Tolerance
145	145°C ± 5	94°C	± 15
150	150°C ± 5	98°C	± 15
155	155°C ± 5	115°C	± 15
160	160°C ± 5	120°C	± 15
170	170°C ± 5	125°C	± 15
180	180°C ± 5	130°C	± 15



**Technical specifications**

**Lead type**

Type	Lead
N	without leads
L18	AWG 18
L20	AWG 20
others upon request	

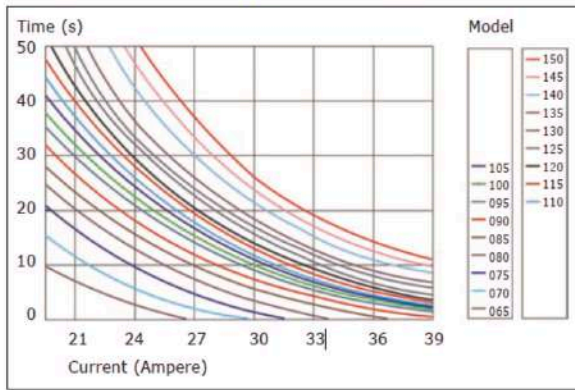
**Contact rating**

20 Amp / 16 Vdc	6000 cycles
20 Amp / 125 Vac	6000 cycles
8 Amp, cos 1,00 / 250 Vac	10000 cycles
20 Amp, cos 0,45 / 250 Vac	10000 cycles

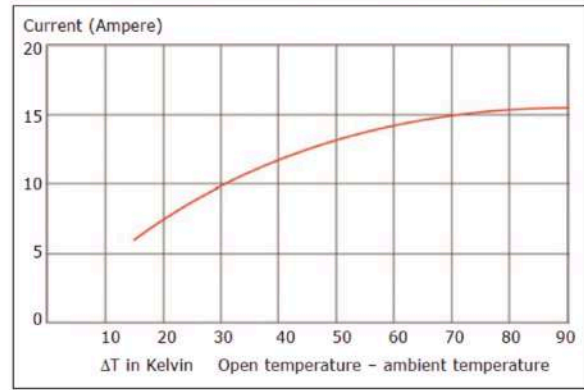
**Selection criteria for your application:**

1. Value of the cut-off current
2. Opening temperature

**Average First Cycle Tripping Time vs. Current**



**Ultimate Trip Current vs. Ambient Temperature**



Other temperature settings on request

The minimum hysteresis for low temperatures is 10% from opening temperature.

**Approvals:** VDE 61445/18438. EN 60730-1; 2-2; 2-3, UL/CSA E 225267, XEW R2/XEW R8, conform to RoHS

**Ordering information** (Please use the characters in the chart below to construct your product code)

