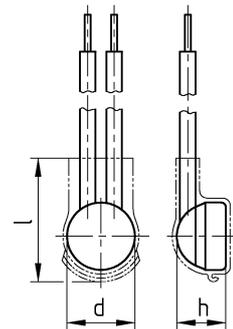


Information 410 e

Thermal Protectors Series 06 Types C06 / C08 und S06 / S08

Application:

Thermal Protectors (TP) of series 06 (normally closed) and 08 (normally open) are used in numerous electric appliances e.g. in motors, transformers and ballasts. These TP's characterize their ability to tolerate higher current load in spite of their small design. Furthermore, they are suitable to be installed into the windings, because they are very pressure- and impregnation resistant.



Design:

These switches are equipped with a high capacity contact mechanism, wherein the bimetallic disc can move freely, without the current flowing through it. An additional spring disc maintains constant contact pressure until reaching its switching temperature.

The connecting lead wires are welded on, to ensure the use of the switch under high temperature and strong currents without problems.

Versions:

S06 / S08 with insulation cap
C06 / C08 without insulation cap

Diameter d_{max} . (with / or without insulation cap)	9,8 / 9,3 mm
Height h_{max} . (with / or without insulation cap)	7,6 / 7,2 mm
Lengths of insulation cap l_{max}	17 mm

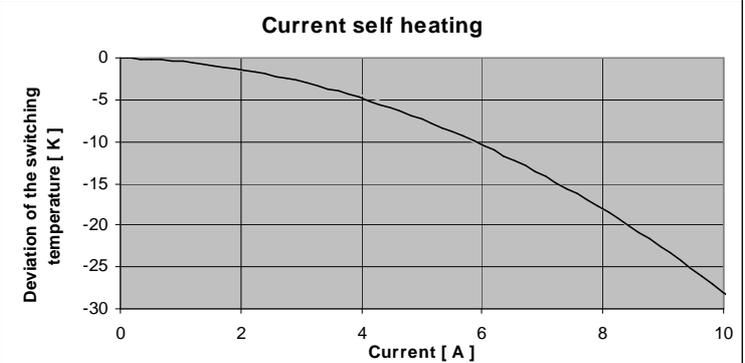
Operation:

If the rated switching temperature of the bimetallic disc is reached, this suddenly snaps over and opens (C06/S06) or closes the contacts (C06/C08). After cooling down to under its resetting temperature, the contact mechanism returns automatically to its initial position.

Features:

Strong power density	: Strong currents in small types of construction
Quick response sensitivity	: Featured by small protector mass and the metal-housing
Excellent long term performance	: Due to instantaneous switching, fine silver contacts, constant contact resistance and to electrically as well as mechanically unstrained bimetallic disc, reproducible switching temperature values
Very short bouncing times	: < 1 ms
Instantaneous switching	: With constant contact pressure over the whole temperature range
Temperature resistance	: By use of high temperature resistant materials and components

Technical Data

Contact type	NC / NO														
Nominal switching temperature (NST)	70 °C – 200 °C														
Standard tolerance	±5 K														
Resetting temperature (RST) Standard:	NST 60°C - 200°C: > 35°C														
CSA:	NST 60°C - 200°C: RST = NST –10K to NST –50K														
UL:	NST 60°C - 180°C: RST = NST – 50K ±15K														
UL:	NST 185°C - 200°C° RST = NST – 65K ±15K														
Operating voltage...AC /..DC	..500V~ / DC ratings available, corresponding values on inquiry														
Rated Voltage (at 50Hz – 60Hz)	250 V AC (VDE,IEC,CSA) 277V (UL)														
Rated current I _{NOM} (approved Values)	10 A cos φ = 1.0 ; 6.3 A cos φ = 0.6 10,000 switching cycles														
Max. switching current at 250 V ~	25 A (acc. Thermik test) 2,000 switching cycles														
Contact bounce time	< 1 ms														
Impregnation resistance	suitable acc. to Thermik-Test														
Contact resistance	< 50 mΩ acc. to MIL–STD. R 5757														
Vibrations proof bei 10 .. 60 Hz	100 m/s ²														
Pressure stability of the housing	600 N max. to Thermik-Test														
Basic insulation (S06/S08)	Insulation cap: Mylar - Nomex ® ®: Trade mark Du Pont														
Dielectric strength of the insulation cap	2 kV _{r.m.s}														
Connection leads	Multi strand wire: 0.75 mm ² / AWG 18														
Approvals acc. to design for	VDE with reference to EN 60730-1;EN 60730-2-9 (VDE 0631) CB**) with reference to IEC 60730-1; IEC 60730-2-9 UL with reference to 2111; UL 873 CSA with reference to CSA-C22.2														
Current sensitivity characteristic at I _{Nom} : Dependent of... - Thermal coupling - Application area - Built-in conditions - Outer influences - Wiring length / wiring diameter	<p style="text-align: center;">Current self heating</p>  <table border="1"> <caption>Data points for Current self heating graph</caption> <thead> <tr> <th>Current [A]</th> <th>Deviation of the switching temperature [K]</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td></tr> <tr><td>2</td><td>-2</td></tr> <tr><td>4</td><td>-5</td></tr> <tr><td>6</td><td>-10</td></tr> <tr><td>8</td><td>-18</td></tr> <tr><td>10</td><td>-28</td></tr> </tbody> </table>	Current [A]	Deviation of the switching temperature [K]	0	0	2	-2	4	-5	6	-10	8	-18	10	-28
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***) The "European Accreditation CB Scheme" Certificate, named CB- Certificate, covers virtually almost all national approbations.

The data of this table refers to the standard version. For others - please inquire.

Marking example:

Trade mark _____ 

Type and versions _____ **thermik**

_____ **S06**

NST [°C] . _____ **125.05**

Ordering example:

S06 . 125 . 05 0100 / 0100

Type and version _____

NST [°C] _____

Tolerance [K] _____

Lead length [mm] _____