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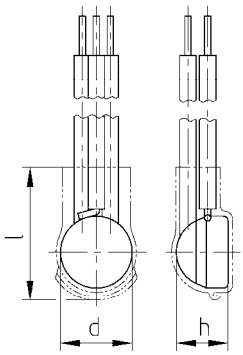
ThermalProtectors for Star Connection
Type Y6 – Version SY6, CY6



Application:

Thermal**P**rotectors (TP) of type Y6 with normally closed contacts are designed to protect small three-phase motors up to 700 VA (1.6A*440V) against overheating. The Y6-types can be placed between the windings of different phases because of their housing pressure stability and impregnation resistance.

Design:

The design of the Y6-types is based on the well proven mechanism of Thermik's product series 06 with three connection leads for a star point connection.

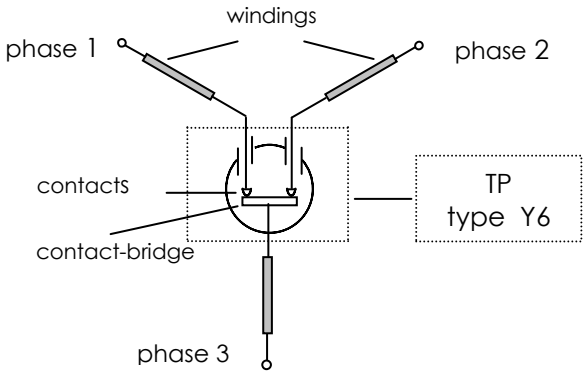
Versions :

SY6 - with insulation cap
CY6 - without insulation cap

Diameter **d** (with / without insulation cap)	9.8 /9.3 mm
Height **h** (with / without insulation cap)	7.6 /7.2 mm
Length of insulation cap **l**	17,0 mm
dimensions (average)	

Operation:

If - in the case of overheating - the rated switching temperature of the bimetal is reached, it suddenly snaps over and disconnects the two contacts and the contact-bridge. Now, each phase is disconnected from the other ones. Automatic reset immediately after a significant temperature drop.



Features:

Compact design with high pressure stability	
For star connection	: to use without any relay
Quick response sensitivity	: featured by the metal housing and small protector mass
Excellent long term performance	: due to fine silver contacts. Reproducible switching temperature values due to tempered, mechanically and electrically unstressed bimetallic disc
Very short bounce times	: < 1 ms
Instantaneous switching	: with constant contact pressure over the whole temperature range. Minimal burning-off of the contacts
Temperature resistance	: by use of high temperature resistant materials and components

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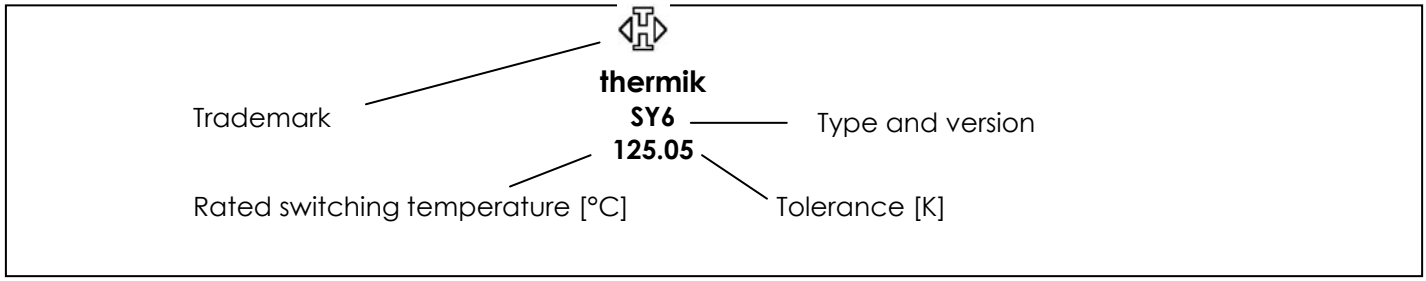
Technical Data - Types Y6

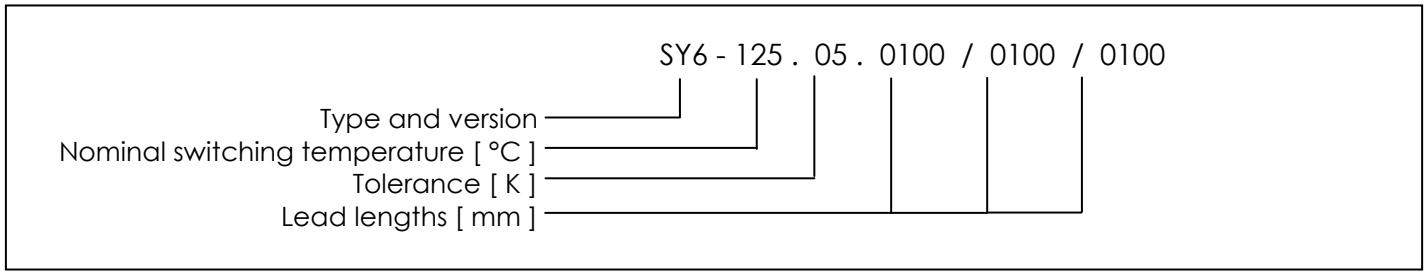
Contact type		NC – normally closed -
Nominal switching temperature (NST)		70 ℃ - 180 ℃ in steps of 5 K
Standard tolerance		± 5 K
Resetting temperature (RST)	Standard: CSA: UL:	NST 70℃ - 180℃: > 35℃ NST 70℃ - 180℃: RST = NST –10K to NST –50K NST 70℃ - 180℃: RST = – 50K ±15K
Operating voltage		Up to 480 V~ ; DC ratings available, corresponding values on inquiry
Rated voltage		3 x 440 V 50/60 Hz
Rated current I_{NOM}		2.5 A @ cos φ (phi) = 1.0 10,000 switching cycles 1.6 A @ cos φ (phi) = 0.6 10,000 switching cycles
Current sensitivity at I_{NOM}		no
Max. switching current at 250V~		5.0 A 2,000 switching cycles
Contact bounce time		< 1 ms
Impregnation resistant		suitable (according to Thermik-Test)
Contact resistance		< 50 mΩ with reference to MIL–STD. R 5757
Vibration proof at 10 ..... 60 Hz		100 m/s²
Pressure stability of housing		600N
Switch insulation standard (SY6)		insulation cap Mylar® – Nomex®
Dielectric strength of the insulation cap (SY6)		2 $kV_{r.m.s.}$
Connection leads	Standard	multi strand wire 0.5 mm²
	Standard UL / CSA – version	multi strand wire AWG 20, insulation class F, (up to 150℃) UL-Style 3289 / CSA 1503, 150 ℃, 600 V oror UL-Style 10126 / CSA AWM I A/B, 150 ℃, 600 V multi strand wire AWG 20, insulation class H, (from 155℃) UL-Style 3557 / CSA AWM I A/B, 200 ℃, 600 V
	standard length	100 mm each, 10 mm partly stripped
Approvals acc. to design for		UL with reference to UL 2111 CSA with reference to C 22.2 - 77

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

Marking example of the insulation cap:



Ordering example :



The indicated values in this data sheet can differ for special designs. We reserve the right to modify technical specifications without notice. For latest actual data please refer to our product catalogues available on our websites: www.eis-asia.com Rev.: 11 - 2008

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