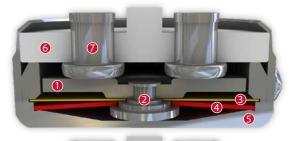
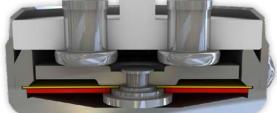


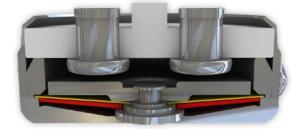
DATASHEET Thermal Protector CY6

Type series Y6











Construction and function

Switchgear consisting of a mobile and circumferential contact bridge (1), a contact bearing pin (2), a spring snap-in disc (3) and a bimetallic disc (4) which is riveted into one another, undetachable and fixed in a positive lock and self-aligning between the floor of a conductive housing (5) and an insulating ceramic bearing (6) with two integrated stationary contacts (7) as electrodes. At the same time, the switchgear is supported by the spring snap-in disc (3) with the contact bridge (1) acting as a transfer element for electric current which is held between a supporting collar and a circumferential ring. As such, the bimetallic disc (4) underlying it, that is also stuck out from the contact bearing pin (2), can continuously work (exposed) by mechanical loads without the contact pressure defined by the spring snap-in disc (3) diminishing. As soon as the bimetallic disc (4) reaches its rated switching temperature, it effectively springs against the throw force of the spring snap-in disc (3) into its inverted position. The contacts are abruptly opened. The temperature will now fall. The bimetallic disc (4) will only snap back upon reaching a defined reset temperature and the contacts will be abruptly closed again. As the contact bearing pin (2) is appropriately dimensioned, an easy, circular rotation of the circle-shaped contact bridge (1) is enabled with every switch so that transfer resistances remain constantly below the minimum limit after many switch cycles and the long term stability is sustained even under high levels of stress. Through an additional outer connection to the switch housing, the Thermal protectors can be operated in a threephase arrangement. In this case the current flow is interrupted during operation through each phase.

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 always constant contact pressure up to the nominal switching point, resulting in low contact stress	
Temperature resistance	by use of high temperature resistant materials and components	

Y6			Type: Three-pole (normally closed) for three phase AC current use in the sta	r point; resets automatically; with epoxy; without insulation
	1:1		Nominal switching temperature (NST) in 5 °C increments	5 70 °C - 180 °C
		NY NY	Tolerance (standard)	±5 K
	2 2 2		Reverse Switch Temperature	UL ≥ 35° C (≤ 95° C NST)
	THEN		(defined RST is possible at the customer's request)	-50 K ± 15 K (≥ 100° C ≤ 180° C NST)
	RMUK RMUK		Installation height	from 6,5 mm
	2 ³ 2		Diameter	9,0 mm
			Resistance to impregnation * su	
	mm 0,9	Y6 160 05	Suitable for installation in protection class	1
	06	20V- 19435	Pressure resistance to the switch housing *	600 N
	9,0 mm	6,5 mm 9,0 mm	Standard connection	Lead wire 0,5 mm² / AWG20
			Available approvals (please state)	UL; CSA; CQC
			Operational voltage range AC/DC	up until 440 V AC
			Rated voltage AC	3x 440 V 50/60 Hz
	hhh	ή ή	Rated current AC cos φ = 1.0/cycles	2,5 A / 10.000
			Max. switching current AC $\cos \varphi = 1.0$ /cycles	6,3 A / 3.000
		ЩШ	Total bounce time	< 1 ms
	htth	th chh	Contact resistance (according to MIL-STD. R5757)	≤ 50 mΩ
	lilili		Vibration resistance at 10 60 Hz	100 m/s ²
		lil <u>l</u>		
	FIL			
		- 111	WINDINGS	
			P HA SE 1	P HA SE 2
	d	h		
			CONTACTS (U)	TP
	Installation height	h from 6,5 mm		туре Үб

CONTACT-BRIDGE

PHASE 3

Ordering example: CY6 - 125. 05 0100 / 0100 / 0100 Type / version NST [°C] Tolerance [K] Lead lengths [mm]

9,0 mm

More varieties of the type series Y6:

Diameter d

• SY6 – with epoxy; insulation: Mylar®-Nomex®

www.thermik.de/data/SY6

"In accordance with the Thermik test-"specifications relating to part applications (on the part of the buyer) which deviate from our standards are not checked for their capacity to support an application and office of the part of the suitability of Thermik poducts for such applications falls upon the user. "Single deviations are possible in terms of dimensions' values, depending on the embodiment of the product. "Weresene the right to make technical changes in the course of further development." betails concerning certain data, measurement methods, applications, approach, etc. can be supplied upon request.