Overheating Protector

self resetting

Series C4

General

• **High pressure resistance** when being mounted into the winding due to a curved steel case. Damage to the contact system is thus avoided.

• **Welded leads** guarantee reliable and stable mechanical and thermal connections.

• **Magnetic and electric shielding.** The case is made of a ferromagnetic material (steel) and withstands any influence of magnetic fields. Therefore deflection of the spark will be avoided. No vibration noise is caused by magnetic alternating fields.

• **Constant contact resistance** is guaranteed by the selection of optimal contact material, high contact pressure and sliding contacts.

• **Instantaneous shut-down and short contact bounces** due to a reliable operating bimetal snap-action disc.

• **Thermal sensitivity, independent from installation,** is provided by symmetrical construction of the switch and excellent thermal conductivity of the metal case thus achieving short response time. As both sides are equally sensitive, installation in any position is possible.

• **Constant dimensions.** The overall size of the switch is independent from the lead diameter. The connections for the leads are placed at the face side. A damage of the lead insulation at the edges of the case is excluded.

• **Patented design**

• **Fully automated production.** TMC thermal protectors are manufactured fully automatically from the first to the last step with integrated 100% inspection thus ensuring a permanent high quality level.

• **Custom-designed method of connection** can be realized at low cost.

Description

TMC - thermal protectors Series C4 are most efficient **miniature bimetal switches** and have been designed to protect electrical equipment such as electric motors, transformers etc. against overheating.

The C4 series offers optimum performance characteristics achieved by selecting the best combination of terminal material and bimetal type to provide the ideal operating temperature to suit any specific application, independent from load current.

The current sensitivity is negligibly low, therefore the C4 is an ideal device for non current sensitive applications.
Technical Data

Contact function: normally closed (snap action)

Contact rating:
- AC p. f. = 1,0: 2,5 A / 250 V
- AC p. f. = 0,6: 1,6 A / 250 V
- AC p. f. = 0,6: 0,5 A / 500 V
- DC ohmic load: 1,6 A / 24 V
- DC ohmic load: 1,25 A / 48 V

max. current*: 6,3 A / 250 V...3,000 Zyk.

Voltage range: 12 V - 500 V

Nominal temperature (NST): 50°C...180°C (within 5 K - steps)

Standard tolerance of NST: ±5 K (letter B)

Reset temperature (RST): 40 ± 15 K (below NST)

Ambient temperature: T180

Contact resistance: < 50 mΩ

Contact bounce: < 1 ms

Dielectric strength: 2 kV

Resistance to tracking: PT1175 (only phys. config. W and L)

Protection class: I

Enclosure rating: IP00

Pressure solidity: > 600 N

* approved values: 50...180°C (VDE)

Further tolerances: ±2,5 K (= A), ±7,5 K (= C), ±10 K (= D)

Measure on TMC test-facility

Other leads, stripping, colours and multiple wiring (double, triple or others) on request.

Validation:

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<th>DIN</th>
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Performance - Curve

Coding

Example: Double

Ordering Code: BC-20

Ordering example

C4W - 150B - 100/100

Fixing

C4W - 150B - 100/100

We reserve the right to modify specification and dimensions. Regarding the information of this brochure there can't lay claim of liability or to acceptance guarantee.

This new data sheet obsoletes all previous issues.

Stand 12/10

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