

Round Taped wires

Thermex 200 G2 FO 380 or Thermex 200 G2 FO 450

Enameled round copper wire Polyester-Film taped

Description:

THERMEX® 200 G2 FO 380 and FO 450 round wires are enameled, round copper wires taped with a Poly-ethylene-Terephthalate film. The additional taping of PET film is 45 ... 50 % overlapped. The Version FO 450 is taped with an PETP film, provided with an additional polyester modified adhesive and sticky between the tape layer.

The enamel consists of an excellent thermal base insulation of modified Polyester-imide and a modified Poly-amide-imide overcoat. It presents outstanding mechanical, thermal and chemical properties which are manifested by the high flexibility, abrasion resistance, the very good resistance against the action of solvents and insulating oil.

The Temperature Index of the enamel base is TI 200.

The Polyester film will enhance both the mechanical and dielectrical properties.

Dimensions:

Round copper wires in coating class Grade 2.

0,67 2,00 mm nominal diameter

The individual conventional conductor dimensions (nominal dimensions), the tolerances and the nominal cross-section areas correspond to IEC Publication 60317-0-1.

Standards:

There are not yet any IEC Standard Publications for such wires. THERMEX® 200 round enameled wires meet, however, the requirements of well-known industrial norms, governing overcoat wires, such as NEMA MW 1000/35C and IEC 60317-13. THERMEX® 200 is UL approved for thermal class 200.

Advantages:

Due to the good temperature resistance in connection with very good mechanical and chemical properties. THERMEX® 200 G2 FO 380 wires are especially applicable for windings constantly exposed to high temperature conditions in combination with high field intensity. Their chemical resistance against humidity, cooling agents, detergents, solvents and oils made them especially suited for windings under particularly severe conditions.

Applications:

- LV Motors of class 200
- Special motors exposed to severe conditions

Processing instructions:

THERMEX® 200 G2 FO 380 round wires can be processed without reservation under the normal working conditions.

- When forming coils, the use of hard or sharp-edged tools is to be avoided.
- The best method for stripping the insulation of these wires is the mechanical one (using hand cutting tools or rotary knives).

Appearance

Slight color variations are raw material or process-related and have no influence on the technical properties of the wire.

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| | Value for diam. 1.50 mm | Test norm |
|---|-------------------------|-----------------------|
| Increase in insulation | | |
| Thickness increase due to insulation (mm) | 0,16 - 0,20 | |
| Mechanical properties | | |
| Elongation at break (%) | ≥ 30 | IEC 60851-3 Test 6 |
| Springiness (°) | max. 5.5 | IEC 60851-3 Test 7 |
| Electrical properties | | |
| Specific resistance at 20 °C (Ω/m) | max. 0.00967 | IEC 60851-5 Test 5 |
| Breakdown voltage in the shot bath, winding mandrel 4 x d (V) | > 3 000 | IEC 60851-5 Test 5 |

Order data :

Quantity, Designation and Mode of Supply

The designation shall contain:

Type of wire round (DR)

Nominal dimension (bare diameter) e.g. 1.50 mm

Conductor material Cu

Designation of the insulation Thermex 200 G2 FO 380

The mode of supply shall indicate the type of reel required, e.g.

cylindrical reels according to IEC 60264-2 (identical with DIN 46399).

Example of complete order:

500 kg DR Cu 1.50 Thermex 200 G2 FO 380, reels DIN 355

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