



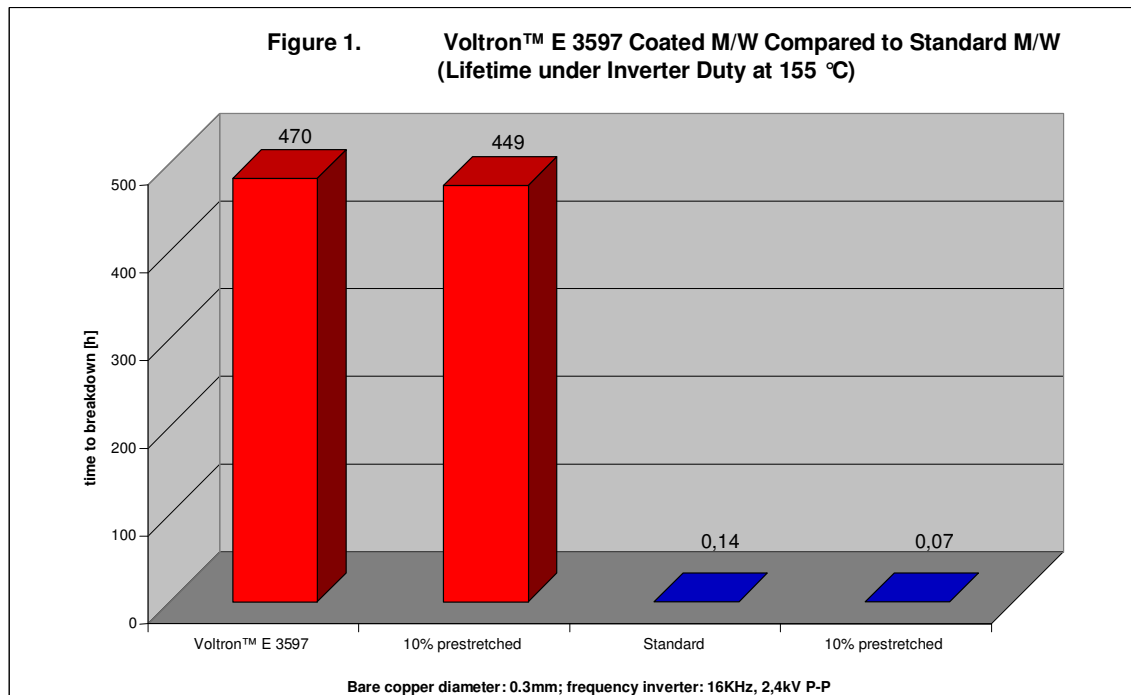
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Voltron™ E 3597 Herberts® Wire Enamel

For Magnetwires with Improved Corona Resistance

Chemical base Mod. THEIC-Polyesterimide

Characteristics Voltron™ E 3597 coated magnet wires have outstanding resistance to partial discharges as e.g. they occur in inverter fed motors. In addition they have high thermal rating as well as good chemical resistance and flexibility.



Enamelling technology Voltron™ E 3597 can be applied on round wire diameters ranging from approx. 0.2 mm up to approx. 6.00 mm, single and heavy build, by convection or recirculation air ovens, both horizontal or vertical types. The enamel can be applied with dies.

No special requirements for enamel application is needed.

| Standard parameters | Voltron™ E 3597 /38 |
|----------------------------------|----------------------------|
| solid content (1 h, 180 °C, 1 g) | 37,5 % ± 1,5 % |
| viscosity at 25 °C, DIN 53 015 | 2800 mPa·s ± 800 mPa·s |
| diluent | E 5068 |

Wire test results

| | | |
|------------------------------|--|---|
| Enamelling conditions | wire enamel recirculating air oven application oven temperature conductor diameter enamelling speed increase in diameter | Voltron™ E 3597 / 38 8 m, vertical dies, 8 passes, 550 °C 1.0 mm 50 m/min 79 µm |
|------------------------------|--|---|

Test results

| | |
|--|------------------|
| flexibility and adherence, mandrel test, 1 x d, after pre-stretching of | 15 % |
| heat shock, 1 x d, 30 min. | 200 °C |
| cut through temperature, measured tested | 379 °C 390 °C |
| resistance to abrasion, medium force minimum force | 11.8 N 10.5 N |
| resistance to solvents, given as pencil hardness as delivered | 7-8 H |
| IEC standard solvent | 7-8 H |
| HERBERTS [®] impregnating varnishes | 7-8 H |
| HERBERTS [®] UP-impregnating resins | 7-8 H |
| HERBERTS [®] EP-impregnating resins | 7-8 H |
| dissipation factor tan δ -intersection point | 178 °C |
| lifetime on frequency inverter, at 155°C, 16 kHz, 2.4 kV P-P (figure 1) as delivered (diameter increase: 47 μ m) after 10% pre-stretching | 470 h 449 h |
| temperature index acc. to ASTM D 2307, 20000 h value (expected) | 212 °C |

Information regarding health and safety precautions for the safe handling of this product and the requirements for the transportation of this material is given on the Material Safety Data Sheets.

The employed tests comply with state-of-the-art technology regarding methods and accuracy. The quoted measuring results do not constitute a legal warranty of specific purpose. Warning remarks on the labels must be observed. Any existing industrial property rights must be considered. According to our general terms and conditions of domestic and export sale, we warrant that our products are in the condition specified in the contract.

This edition supersedes prior technical leaflets on this product.



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