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| 1024400                   | <b>DATA SHEET</b>            |  |
| valid from:<br>01.01.2019 | <b>ÖLFLEX® HEAT 125 C MC</b> |                                                                                     |

## Application

ÖLFLEX® HEAT 125 C MC are heat resistant, highly flame retardant, halogen-free, multi core screened cables with a cross-linked polyolefin copolymer compound for occasional flexible use and fixed installation subject to medium mechanical load conditions. Further special features: wide temperature range, ozone-, UV-light- and oil resistant.

These cables are halogen-free, and with low toxicity and smoke density in case of fire. It's possible to use the cables where human and animal life as well as valuable property are exposed to high risk of fire hazards.

The screen is a protection against electrical interference.

Application range:

For safety in areas with high density of people, public buildings; airport, railway station, for the wiring and connection of lighting, heating appliances, control cabinets, and distributors in mechanical and plant engineering, heating and air conditioning systems, for use in traffic regulation systems and outdoors.

## Design

|                          |                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Design                   | based on EN 50525-3-41 (VDE 0285-525-3-41) and<br>EN 50525-3-21 (VDE 0285-525-3-21)                                                                                                                                                                                                                                                              |
| Certification            | DNV GL<br>Certificate No: TAE00001M0                                                                                                                                                                                                                                                                                                             |
| Conductor                | fine wire strands of non-porous tinned copper acc. to IEC 60228 resp. VDE 0295, Class 5                                                                                                                                                                                                                                                          |
| Insulation               | electron beam cross-linked polyolefin copolymer compound, halogen-free and highly flame retardant                                                                                                                                                                                                                                                |
| Core identification code | acc. to VDE 0293-1, with or without GN/YE protective conductor<br>up to 5 cores (2 different article variations):<br>coloured acc. to HD 308 S2 resp. VDE 0293-308<br>or<br>black cores with white numbers acc. to DIN EN 50334 (VDE 0293-334)<br><br>starting at 6 cores: black cores with white numbers<br>acc. to DIN EN 50334 (VDE 0293-334) |
| Taping                   | plastic foil                                                                                                                                                                                                                                                                                                                                     |
| Screen                   | braid of tinned copper, coverage = 85% (nominal value)                                                                                                                                                                                                                                                                                           |
| Outer sheath             | electron beam cross-linked polyolefin copolymer compound, halogen-free and highly flame retardant<br>Colour: black, similar RAL 9005                                                                                                                                                                                                             |

## Electrical properties at 20°C

|                    |                                                                                                                                                                                              |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Transfer impedance | at 30 MHz: max. 250 mΩ/m acc. To DIN EN 50525-2-51 resp. VDE 0285-525-2-51                                                                                                                   |
| Rated voltage      | U <sub>0</sub> /U: 0.5 mm <sup>2</sup> to 1.0 mm <sup>2</sup> : 300 / 500 V<br>> 1.5 mm <sup>2</sup> : 450 / 750 V<br>> 1.5 mm <sup>2</sup> for fixed and protected installation: 0.6 / 1 kV |
| Test voltage       | core/core: 4000 V AC<br>core/screen: 2500 V AC                                                                                                                                               |

## Mechanical and thermal properties

|                        |                                                                                                                                                                                                                                                                                                                                 |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minimum bending radius | occasional flexing: 15 x cable diameter<br>fixed installation: 4 x cable diameter                                                                                                                                                                                                                                               |
| Temperature range      | occasional flexing: -35 °C up to +120 °C max. conductor temp. (20.000 h, IEC 60216)<br>fixed installation: -55 °C up to +125 °C max. conductor temp.<br>temporary up to +145 °C max. conductor temp. (3.000 h)<br>Short circuit temperature: +200° C                                                                            |
| Flammability           | flame retardant acc. to IEC 60332-1-2 resp. VDE 0482-332-1-2<br>NF C 32-070 (C1), Class C acc. to NF-F 16-101<br>flame propagation acc. to IEC 60332-3-24 resp. VDE 0482-332-3-24, Cat. C or<br>IEC 60332-3-25 resp. VDE 0482-332-3-25, Cat. D<br>(cables with OD < 12.0 mm)<br>IEC 60332-3-22, resp. VDE 0482-332-3-22, Cat. A |
| Halogen free           | acc. to IEC 60754-1, EN 60754-1<br>EN 60684-2 (Fluorine)                                                                                                                                                                                                                                                                        |
| Corrosivity of gases   | acc. to IEC 60754-2, EN 60754-2                                                                                                                                                                                                                                                                                                 |
| Smoke density          | acc. to IEC 61034-2                                                                                                                                                                                                                                                                                                             |

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| Toxicity             | acc. to NES 02-713 (< 3), NF X 70-100<br>EN 50264-1 resp. VDE 0260-264-1                                                                                                  |
| UV resistance        | EN 50525-1 resp. VDE 0285-525-1.<br>Cables with black sheath are suitable for a permanent outdoor use.<br>acc. to EN ISO 4892-2-2013, method A (change of colour allowed) |
| Ozone resistance     | acc. to EN 50396 resp. VDE 0473-396, method B                                                                                                                             |
| Oil resistance       | acc. to IEC 60227-1, ST9<br>EN 50264-1 (VDE 0260-264-1), EM 104                                                                                                           |
| Fuel resistance      | acc. to EN 50264-1 (VDE 0260-264-1), EM 104                                                                                                                               |
| Tests                | acc. to IEC 60811 resp. VDE 0473 part 811, VDE 0472, EN 50395, EN 50396                                                                                                   |
| General requirements | These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive)                                                                                           |

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