

Fibre hybrid cable

Type 3644K



Construction characteristics

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| Fibre optic element | 4 single mode optical fibres 9/125 µm type Strong bend-EX single mode fibre ITU-T G657.B2 and 4 multi mode optical fibres 50/125 µm type BandAble OM2/OM2+ Bend-Insensitive in jelly filled stainless steel tube with Polyolefin jacket. 3 mm diameter SM fibre colour white, yellow, green, blue MM fibre colour red, orange, brown, grey |
| Conductor | 1,0 mm ² stranded tinned copper conductor insulated with polyolefin 3 mm diameter, (6 each) Colour brown, red, orange yellow, green, blue |
| Filler | Hot melt filler + binder tape |
| Inner jacket | Polyurethane jacket. Nominal diameter 10.9 mm. Colour glossy green |
| Strength member | High strength textile braid |
| Outer jacket | Polyurethane jacket. Colour glossy green |
| Environment lights | Used in sea water, exposed to air, snow, rain and sun |
| Halogen free | Halogen acid gas emission ≤0,5% when tested in accordance to IEC 60754-1 – CEI 20-37 |

Mechanical characteristics

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| Diameter | 16.40 ±0.40 mm |
| Weight in air | 278 kg/km |
| Weight in seawater | 67 kg/km |
| Min. bending radius, static | 164 mm |
| Min. bending radius, dynamic | 246 mm |
| Safe working load | 5 kN |
| Min. breaking strength | 25 kN |
| Qualified pressure test | 6,000 m (600 bar) |
| Operating temperature range | -20°C - +80°C |

Electrical and fibre optical characteristics

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| Operating voltage | 1,000 V Va.c. |
| Test voltage | 3,000 V Va.c. x 1 minute |

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| Electrical resistance at 20°C | ≤ 20.4 Ω/km | |
| Insulation resistance at 20°C | ≥ 1,000 MΩ x km | |
| Fibre attenuation (SM – dB/km) | ≤ 0.38 dB/km at 1,310 nm | |
| | ≤ 0.25 dB/km at 1,550 nm | |
| | Mandrel radius 15 mm at 1,550 nm 10 turns | ≤ 0.03 dB |
| | Mandrel radius 15 mm at 1,626 nm 10 turns | ≤ 0.10 dB |
| | Mandrel radius 10 mm at 1,550 nm 1 turn | ≤ 0.10 dB |
| | Mandrel radius 10 mm at 1,625 nm 1 turn | ≤ 0.20 dB |
| | Mandrel radius 7.5 mm at 1,550 nm 1 turn | ≤ 0.50 dB |
| | Mandrel radius 7.5 mm at 1,625 nm 1 turn | ≤ 1.00 dB |
| Fibre attenuation (MM – dB/km) | ≤ 2.80 dB/km at 850 nm | |
| | ≤ 0.80 dB/km at 1,300 nm | |
| | Mandrel radius 37.5 mm at 850 nm 100 turns | ≤ 0.05 dB |
| | Mandrel radius 37.5 mm at 1,300 nm 100 turns | ≤ 0.15 dB |
| | Mandrel radius 15 mm at 850 nm 2 turns | ≤ 0.10 dB |
| | Mandrel radius 15 mm at 1,300 nm 2 turns | ≤ 0.30 dB |
| | Mandrel radius 7.5 mm at 850 nm 2 turns | ≤ 0.20 dB |
| | Mandrel radius 7.5 mm at 1,300 nm 2 turns | ≤ 0.50 dB |