# Product: GRRHD72

Universal OFC MLT: LSZH + GLASS YARNS + LSZH with 6 Tubes of Ø1.9mm 72f MM OM3.

## Product Description

Universal (Indoor/Outdoor) dry core optical fiber Multi Loose Tube cable with Low Smoke Zero Halogen inner jacket, glass yarns as strength member and Low Smoke Zero Halogen outer jacket. Product feature: This cable has rodent protection by glass yarns. Existing out of 6 tubes with a diameter of 1.9mm with 72 fibers (6t x 12f) MM OM3.

## Technical Specifications

### Product Overview

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|---|---|
| Construction Type: | Multi Loose Tube |
| Environmental Space: | Indoor/Outdoor |
| Suitable Applications: | For outdoor and indoor use in structured (data) wiring systems such as industrial backbone, campus backbone, building backbone (riser) and/or horizontal cabling. For outdoor and indoor use in networks for industrial, telecom, cable TV and/or broadcast. Easy to install in ducts, tunnels and/or tubes. |

### Construction

**Fiber Cable Construction**

| Fiber Type | Fiber Count | Subunit Color |
|---|---|---|
| OM3 | 72 | TIA coding (Gxxxxxx.T): Blue, Orange, Green, Brown, Gray, White |

| | |
|---|---|
| Fiber Color Coding: | TIA coding (Gxxxxxx.T): Blue, Orange, Green, Brown, Gray, White, Red, Black, Yellow, Violet, Pink, Aqua |
| Central Strength Member: | GRP |
| Cable Core Water Tight: | Yes |
| Cable Core Waterblocking: | Waterblocking Glass Yarns + Tape |
| Bulk Cable Weight: | 175 kg/km |

### SubUnit Specifications

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|---|---|
| Number of Active Subunits: | 6 |
| Number of Subunit Positions: | 6 |
| Fibers Per Subunit: | 12 |
| Subunit Diameter: | 1.9 mm |
| Subunit Waterblocking: | Gel Filled |

### Jacket Specifications

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|---|---|
| Number of Jackets: | Double Jacket |
| Type of Armor: | All Dielectric |

### Inner Jacket

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|---|---|
| Material: | LSZH - Low Smoke Zero Halogen (Flame Retardant) |

### Outer Jacket Specifications

**Outer Jacket**

| Material | Nominal Diameter | Ripcord |
|---|---|---|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 12.1 mm | Yes |

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|---|---|
| Table Notes: | Standard color: Orange. Available colors: Orange, Yellow, Turquoise, Erika Violet, Red, Blue, Green, Brown, Violet, Pink, Grey, White, Black, Lime Green |

## Optical Characteristics

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|---|---|
| Max. Attenuation at 1300 nm: | 0.9 dB/km |
| Max. Attenuation at 850 nm: | 2.9 dB/km |

## Mechanical Characteristics

**Mechanical Tests**

| Description | Tested Standard | Requirement/Value | According to Family Specification |
|---|---|---|---|
| Cable Min. Bend Radius Installation (Short Term) | IEC 60794-1-21-E6 | 242 mm | IEC 60794-3-10 |
| Cable Min. Bend Radius Operation (Long Term) | IEC 60794-1-21-E11 | 242 mm | IEC 60794-3-10 |
| Cable Max. Tensile Strength Installation (Short Term) | IEC 60794-1-21-E1 | 4950 N (1113 lbf) | IEC 60794-3-10 |
| Cable Max. Tensile Strength Operation (Long Term) | IEC 60794-1-21-E1 | 1650 N (371 lbf) | IEC 60794-3-10 |
| Cable Max. Crush Resistance Installation (Short Term) | IEC 60794-1-21-E3 | 15 kN/m | IEC 60794-3-10 |
| Cable Max. Crush Resistance Operation (Long Term) | IEC 60794-1-21-E3 | 7.5 kN/m | IEC 60794-3-10 |
| Cable Impact Resistance | IEC 60794-1-21-E4 | 10 J, 300 mm Radius, 3 Cycles | IEC 60794-3-10 |
| Cable Torsion Resistance | IEC 60794-1-21-E7 | 180°, 2 m, 10 cycles | IEC 60794-3-10 |

## Temperature Range

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|---|---|
| Operating Temperature Range: | -30 °C to +70 °C |
| Installation Temperature Range: | -5 °C to +50 °C |
| Storage Temperature Range: | -30 °C to +70 °C |

## Standards

| | |
|---|---|
| UL Rating/Flame Test: | Non-UL Rated |
| Reaction to Fire - Bundle Flame Test: | IEC 60332-3-24 |
| IEC 60754-1 - Halogen Amount: | Zero |
| IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity: | 10 µS/mm |
| IEC 60754-2 - Halogen Acid Gas Amount - Min. pH: | 4.3 |
| REACH: | Compliant |
| ISO/IEC Compliance: | IEC 60794-1-1 |
| EU Directive 2011/65/EU (RoHS 2): | Compliant |
| UV/ Sunlight Protection: | Yes |

## History

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|---|---|
| Update and Revision: | Revision Number: 0.75 Revision Date: 12-12-2023 |

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