Fibre Optic Cable Armoured Direct Burial OM3 MDPE

Features and Benefits

Applications

- Outdoor data communication connections
- CATV trunk lines
- Telecom trunk lines
- Telecom access net connections

Commerical Standards

ISO 11801 2nd edition
EN 50173-1:2002
IEC 60794-1
IEC 60793-2-10 Category A1a.2
EN 60793-2-10: type A1a.2
ITU Recommendation G.651
TIA/EIA-492 AAAB
EN 50 173:2002 category OM3
ISO/IEC 11801:2002 category OM3
IEEE 802.3 - 2002 incl. amendment 802.3ae - 2002.

Technical Information

Mechanical Characteristics

Loose tube: ø2.8 mm gel filled loose tube with 2 – 16 fibres; ø3.5 mm loose tube with 24 fibres
Strength member: E-Glass yarns
Armouring: 0.15 mm corrugated steel tape
Sheath: 1.5 mm black MDPE sheath, IEC 60811, IEC 60708

Optical/Electrical Characteristics

Attenuation IEC 60793-1-40
Maximum value of cable at 850 nm: ≤ 3.0 dB/km
Maximum value of cable at 1300 nm: ≤ 1.0 dB/km
Maximum value of fibre (for reference only) at 850 nm: ≤ 2.5 dB/km
Maximum value of fibre (for reference only) at 1300 nm: ≤ 0.7 dB/km
Inhomogeneity of OTDR trace for any two 1000 metre fibre lengths: Max. 0.1 dB/km

Bandwidth IEC 60793-1-41
OFL value at 850 nm: ≥ 1500 MHz • km
OFL value at 1300 nm: ≥ 500 MHz • km
Effective Modal Bandwidth (EMB)
Effective Modal Bandwidth I assured by means of differential mode delay (DMD) measurement as specified in IEC 60793-1-49: ≥ 2000 MHz • km

Group index of refraction

IEC 60793-1-22
Group index of refraction at 850 nm: 1.482
Group index of refraction at 1300 nm: 1.477

MOLEX PREMISE NETWORKS

Americas
Tel: 630 969 4550
www.molexpn.com

EMEA
Tel: 44 (0)2392 205800
www.molexpn.co.uk

APAC
Tel: 61 3 9971 7111
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FEATURES AND SPECIFICATIONS

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Physical Properties

Order No.	Test Method	Description
Nominal outer diameter	-	2 - 16 fibres: 8.5 mm 2 - 16 fibres: 9.5 mm
Nominal weight		2 - 16 fibres: 75 kg/km 18 - 24 fibres: 80 kg/km
Tensile strength (dynamic)	E1	1000 N
Tensile strength (permanent)	E1	500 N
Compressive strength (crush)	E3	2000N
Impact	E4	10 Nm
Torsion	E7	5 cycles ± 1 turn
Kink	E10	The cables do not form a kink when a loop is drawn together to a diameter of 100 mm
Min. Bending radius, unloaded	E11	R = 55 mm
Min. Bending radius, loaded	-	R = 110 mm
Temperature range	F1	Storage and installation: -40°C to +70°C Operation: -40°C to +70°C. The max. attenuation variation in the operational temperature range is: For M6 and M5 fibres: 0.5 dB/km For SM fibres: 0.2 dB/km.

Other Properties

Attribute	Measurement Method	Units	Limits
Core diameter	IEC/EN 60793-1-20	µm	50 ± 2.5
Cladding diameter	IEC/EN 60793-1-20	µm	125.0 ± 1.0
Cladding non-circularity	IEC/EN 60793-1-20	%	≤ 1.0
Core non-circularity	IEC/EN 60793-1-20	%	≤ 5
Core-cladding concentricity error	IEC/EN 60793-1-20	µm	≤ 1.5
Primary coating diameter – uncoloured	IEC/EN 60793-1-21	µm	242 ± 7
Primary coating diameter – coloured	IEC/EN 60793-1-21	µm	250 ± 15
Primary coating non-circularity	IEC/EN 60793-1-21	%	≤ 5
Primary coating-cladding concentricity error	IEC/EN 60793-1-21	µm	≤ 10
Proof stress level	IEC/EN 60793-1-30	GPa	≥ 0.7 (≈ 1 %)
Typical average strip force	IEC/EN 60793-1-32	N	1.7
Strip force (peak)	IEC/EN 60793-1-32	N	1.3 ≤ Fpeak.strip ≤ 8.9
Numerical aperture:	IEC/EN 60793-1-43	N	0.200 ± 0.015

ORDERING INFORMATION

Order No.	SAP No.	Description
CFR-00551	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 4 CORE
CFR-00552	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 6 CORE
CFR-00553	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 8 CORE
CFR-00554	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 12 CORE
CFR-00555	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 16 CORE
CFR-00556	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 24 CORE

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