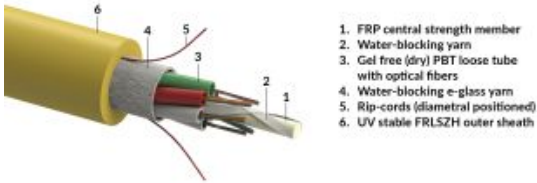


Stranded loose tube, gel-free cable, iRP-increased rodent protected, universal-use, UV.FRLSZH sheath - yellow, Cca, 4 x 12f = 48 fibers G657A1



DESCRIPTION

Gel-free, improved rodent-protected and longitudinal watertight stranded non-metallic loose tube cable with up to 72 fibers in a 6-strand stranding, for indoor or outdoor duct installation (universal-use).

PRODUCT_IMAGE

TECHNICAL DATA

DESCRIPTION	VALUE / VALUE RANGE
Cable family code	UTd6x2,3GF FiRis
Cable type	Stranded loose tube cable
Cable version	Gel-free installation cable
Cable application	universal use
CPR classification	Cca-s2,d1,a1
DoP number	D9089
Fiber type	G.657.A1
Fiber count	48
Fiber color coding	1.-12.: red, green, blue, yellow, white, grey, brown, violet, turquoise, black, orange, pink
Fiber count per tube	12
Loose tube count	6
Loose tube diameter	2.3 mm
FRP/coat. CSM nominal thickness [mm]	2.5
Armor	Rodent protection
Outer sheath thickness	1.4 mm
Outer sheath material	UV stable FRLSZH
Outer sheath color	yellow
Sheath marking	Ink-Jet, black
Cable outer diameter	10.6 mm
Cable weight	120.0 kg/km / 80 lbs/1000ft
DIN / VDE 0888 code	U-BQ(ZN)BH nx2,3
Warranty	R&Mfreenet
Expected lifetime	min. 30 years
CPR test method	EN 50575, EN 13501-6
Standard put-up length on drum	2'100 m ± 5%
CPR classification	Cca

Minimum bending radius

no tension - 10 x cable diameter

MECHANICAL DATA

DESCRIPTION	VALUE / VALUE RANGE
In-service tensile strength	2200 N
In-service tensile strength acceptance criteria	$\Delta\alpha \leq 0,05$ dB
In-service tensile strength test method	IEC 60794-1-21:E1A
Installation tensile strength	4000 N
Installation tensile strength acceptance criteria	$\Delta\alpha \leq 0,05$ dB after test
Installation tensile strength test method	IEC 60794-1-21:E1A
Crush resistance long term	2000 N/100mm
Long-term crush resistance acceptance criteria	$\Delta\alpha \leq 0,05$ dB prior release, no damage
Long-term crush resistance test method	IEC 60794-1-21:E3A
Short-term crush resistance	4000 N/100mm
Short-term crush resistance acceptance criteria	$\Delta\alpha \leq 0,05$ dB after release, no damage
Short-term crush resistance test method	IEC 60794-1-21:E3A
Impact resistance	10 Nm, 3 impacts, d=20 mm, R=300 mm
Impact resistance acceptance criteria	$\Delta\alpha \leq 0,05$ dB after test, no damage
Impact resistance test method	IEC 60794-1-21:E4
Torsion	L = 1 m, rotation angle $\pm 180^\circ$, 10 cycles
Torsion acceptance criteria	no damage
Torsion test method	IEC 60794-1-21:E7
Repeated bending	R=20 x cable diameter, 25 cycles
Repeated bending acceptance criteria	no damage
Repeated bending test method	IEC 60794-1-21:E6
Cable bend	d=20 x cable diameter, 4 turns, 3 cycles
Cable bend acceptance criteria	$\Delta\alpha \leq 0,05$ dB after test, no damage
Cable bend test method	IEC 60794-1-21:E11A
Minimum bend radius in service	160 mm
Minimum bend radius during installation	215 mm
Loose-tube colour coding	1.red, 2.green - on each layer, rest of tubes white (fillers uncoloured or black)

ENVIRONMENTAL DATA

DESCRIPTION	VALUE / VALUE RANGE
Temperature cycling	-40 °C +70 °C / -40 °F +158 °F
Temperature cycling acceptance criteria	$\Delta\alpha \leq 0,05$ dB
Temperature cycling test method	IEC 60794-1-22:F1
Operation temperature	-40 °C to +70 °C / -40 °F to +158 °F
Storage / Transport temperature	-40 °C to +70 °C / -40 °F to +158 °F
Water penetration	L = 3 m, h = 1 m, 24 h
Water penetration acceptance criteria	no water leakage
Water penetration test method	IEC 60794-1-22 F5B
Thermal load	2 MJ/m
Flammability vertical single cable	Pass
Flammability vertical single cable test method	IEC 60332-1-2
Flammability vertical cable bundle	Pass

Flammability vertical cable bundle test method	IEC 60332-3-22
Smoke density	Pass
Smoke density test method	IEC 61034-2
Halogen free, acid gases	Pass
Halogen free, acid gases test method	IEC 60754-2
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