

Steel-Armoured Gel-Free Central Loose Tube Cable up to 24 Fibers

Design Type A-BQ(ZN)(SR)H Outdoor

Properties

- Corrugated Steel Armoured Outdoor Cable
- Glass yarn strength member
- Dry tube (Gel-Free)
- Halogen free and non-corrosive fire gases
- Low fire load for high safety requirements
- Longitudinal and transversal water resistant cable

Cable Construction

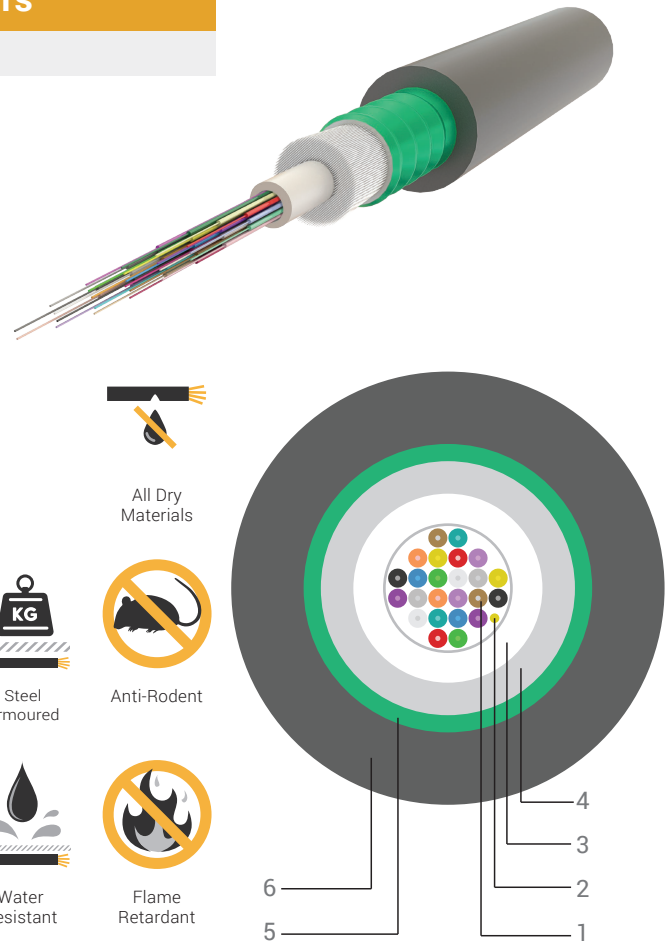
1 Fiber	SM (250 μ)
2 Tube Filling Compound	Water Swellable Yarn
3 Loose Tube	LSZH
4 Strength Member	Swellable Glass Yarn
5 Armoured Material	Corrugated Steel
6 Outer Sheath	UV Resistant LSZH

Sheath Marking

Print Color/Method	White / Ink-Jet	(length marking 1 m intervals)
Cable Printing	Manufacturer name, fiber count, fiber type, product code, cable type, date, meter marking	

Optical Characteristics and Physical Properties

Fiber Type		SM	OM1	OM2	OM3	OM4
Jacket Color		Black	Orange	Orange	Aqua	Violet
Tube Diameter (μm)		9.0 ±0.5	62.5 ±2.5	50 ±2.5	50 ±2.5	50 ±2.5
Cladding Diameter (μm)		125 ±5.0	125 ±5.0	125 ±5.0	125 ±5.0	125 ±5.0
Primary Coating Diameter (μm)		245 ±10	245 ±10	245 ±10	245 ±10	245 ±10
Attenuation (max. in cable) (dB/km)	@1310 nm	≤ 0.40	-	-	-	-
	@1550 nm	≤ 0.30	-	-	-	-
	@850 nm	-	≤ 3.4	≤ 3.0	≤ 3.0	≤ 3.0
Bandwidth (overfilled)	@1300 nm	-	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0
	@850 nm	-	200 Mhz*km	500 Mhz*km	1500 Mhz*km	3500 Mhz*km
Serial Ethernet 1 Gigabit	@1300 nm	-	500 Mhz*km	500 Mhz*km	500 Mhz*km	500 Mhz*km
	@850 nm	-	-	-	1000 meters	1040 meters
Serial Ethernet 10 Gigabit	@1300 nm	-	-	-	600 meters	600 meters
	@850 nm	-	-	-	300 meters	550 meters
	@1300 nm	-	-	-	300 meters	300 meters



Mechanical and Environmental Properties

Test	Test Conditions	Value		Unit	Method
Fiber Count	-	4-12F	24F	-	-
Tube Diameter	-	3.0 ±3%	3.0 ±3%	mm	IEC 60811-203
Approx. Cable Diameter	-	7.9 ±0.2	7.9 ±0.2	mm	IEC 60811-203
Approx. Cable Weight	-	82.5 ±10%	82.5 ±10%	kg/km	
Max. Tensile Strength	During Installation (Loaded)	1000		N	IEC 60794-1-2 E1
	In Service (Unloaded)	400			
Min. Bending Radius	During Installation (Loaded)	20xD		mm	IEC 60794-1-2 E11
	In Service (Unloaded)	15xD			
Crush Resistance	ShortTerm	3000		N/dm	IEC 60794-1-2 E3
	LongTerm	1600			
Impact Resistance	Wp=1.5J	3		Impact	IEC 60794-1-2 E4
Repeated Bending	r=20xD	35		cycles	IEC 60794-1-2 E6
Water Penetration	h=1m, 48h, p < 3m	passed		-	IEC 60794-1-22 F5B
Temperature Range	During installation	-30 to +60		°C	IEC 60794-1-22 F1
	In service	-20 to +70			
	In storage	0 to +70			

Combustion Properties

Fiber Type	Test Conditions	Type	Value	Unit	Result	Method
Fire Load	-	All types	1.5	Mj/m	-	-
Fire Propagation	On a vertical single cable	All types	-	-	passed	IEC 60332-1-2
Smoke Density	-	All types	-	-	passed	IEC 61034-2
Halogen Acid Gas	Jacket material	All types	-	-	passed	IEC 60754-1
Degree of Acidity	Jacket material	All types	-	-	passed	IEC 60754-2

Cable Coding System

0 - 24 - DI - 79 - SDC - DD - H - BK

Type	Fiber Count	Cable Type	Diameter	Tube Type	Fiber Type	Sheath Mat.	Color
Outdoor: 0	4 Fiber: 04 6 Fiber: 06 8 Fiber: 08 12 Fiber: 12 24 Fiber: 24	Distribution: DI	7.9 mm: 79	Steel Armoured Dry Central Loose Tube: SDC	SM G.652 D: DD SM G.657 A2: A2 SM G.657 B3: B3 MM G.651 OM1: M1 MM G.651 OM2: M2 MM G.651 OM3: M3 MM G.651 OM4: M4	LSZH: H	Black: BK DD Black: BK A2 Black: BK B3 Black: BK M1 Black: BK M2 Black: BK M3 Black: BK M4