FIG8 SELF-SUPPORTING CABLE

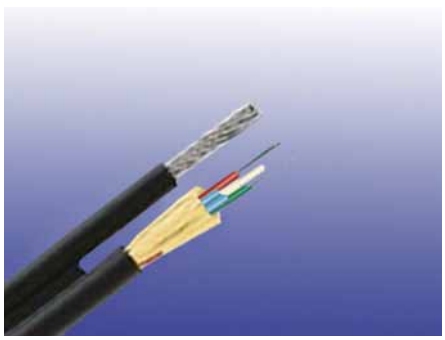
Application

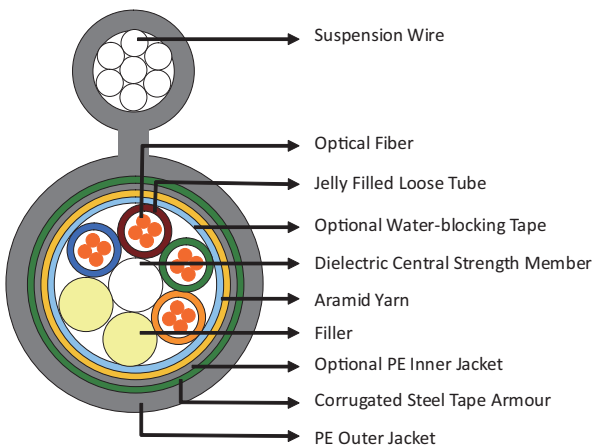
This cable is ideal for in long distance and interoffice communication in strong current zone, as well as power transmission system. The built in suspension stranded rope provides high tensile strength, enabling the cable suited for large span installation, resulting in time and installation cost savings. The suspension wire, being an integral part of the cable, is easily available for gripping, fastening and pulling. This cable is featured of its lightness, low dispersion and high tensile strength.

Description

The cable consists of 5 to 36 fibers containing tubes or fillers stranded in up to 3 layers around a central strength member and bound under a PE jacket. Each jelly filled tube contains 4 -12 fibers. Solid or stranded steel wire coated with polyethylene is usually used as central strength member. Fiber glass reinforced plastics (FRP) will be used as central strength member if non metallic construction is required. Either aramid yarn or fiber glass is wound around the tube to provide physical protection and tensile strength. Water blocking materials are filled in the interstice of the cable core, core wrapping layer/water blocking tape. The cable can be jacketed with either PE, PVC or LSZH though PE is the preferred option for water protection purpose. For direct burial, steel wire armour or corrugated steel tape armour is applied with an optional inner jacket of either PVC or PE. An optional Aluminium moisture tape can be incorporated under the jacket for water blocking and shielding purpose. Cable cores are connected with the suspension wires by PE sheath to form a figure “8” shape. An optional ripcord is located under the jacket to facilitate jacket removal.

Construction





Armoured Type

Physical Properties

Fiber Count	Nominal Weight (kg/km)	Nominal Weight (lb/kft)	Nominal Outer Diameter (mm)	Nominal Outer Diameter (in)	Maximum Pulling/Tensile Load	
					Installation (N/lb)	Operating (N/lb)
2-24	389.0	261.07	12.6*25.1	0.50*0.99	2670/600	890/200
36-72	429.0	287.92	14.7*27.1	0.58*1.07	2670/600	890/200
96-144	571.0	383.22	20.2*32.6	0.80*1.29	2670/600	890/200

FIG8 SELF-SUPPORTING CABLE

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					Installation (N/lb)	Operating (N/lb)
2-24	303.0	203.36	9.1*21.5	0.36*0.85	2670/600	890/200
36-72	332.0	222.82	11.1*23.5	0.44*0.93	2670/600	890/200
96-144	417.0	279.87	15.9*28.3	0.63*1.12	2670/600	890/200

Construction

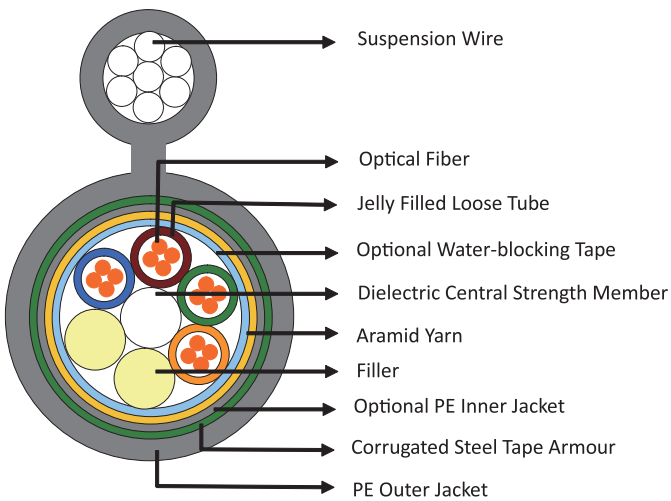

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FIG8 SELF-SUPPORTING CABLE

Mechanical Properties

Minimum Bending Radius:

Under installation: 20×OD

During operation: 10×OD for unarmoured cables; 20×OD for armoured cables.

Temperature Range:

Operating Temperature Range: -40℃(-40℉) to +70℃(+158℉)

Storage Temperature Range: -50℃(-58℉) to +50℃(+158℉)

Maximum Compressive Load: 4000N for unarmoured cables; 6000N for armoured cables

Repeated Impact: 4.4 N.m (J)

Twist (Torsion): 180×10 times, 125×OD

Cyclic Flexing: 25 cycles for armoured cables.; 100 cycles for unarmoured cables.

Crush Resistance: 220N/cm (125lb/in)

Fiber Compliance

Temperature Cycling	IEC60794-1-2-F2	**Repeated Bending**	IEC60794-1-2-E6
Tensile Strength	IEC60794-1-2-E1A	**Torsion**	IEC60794-1-2-E7
Crush	IEC60794-1-2-E3	**Kink**	IEC60794-1-2-E10
Impact	IEC60794-1-2-E4	**Cable Bend**	IEC60794-1-2-E11
		Cool Bend	IEC60794-1-2-E11

Safety Compliance

General Purpose Grade	Flammability Test: OFN(UL1581)
Riser Grade	Flammability Test: OFNR/FT4 (UL1666)
Plenum Grade	Flammability Test: OFNP/FT6(UL 910)
FRPVC Grade	Flammability Test: IEC60332-1
LSZH Grade	Halogen Content Test: IEC 60754-1 Acidity Test: IEC 60754; Smoke Emission Test: IEC61034-1/2
LSFROH Grade	Halogen Content Test: IEC 60754-1 Acidity Test: IEC 60754; Smoke Emission Test: IEC61034-1/2 Flammability Test: IEC60332-1 & IEC 60332-3C/A
FR Grade	Fire Resistance Test: IEC 60331 / BS 6387 CWZ

Standard Compliances

Telcordia GR-20 RUS 7 CFR 1755.900 (REA PE-90) ICEA S 87-640

Features

- Suitable for self supporting aerial, duct and direct burial installation
- Tear away messenger simplifies grounding
- Ripcord allows easy cable entry and jacket removal
- Compatible with existing Fig 8 hardware
- Flexible buffer tube simplifies routing and splicing.
- Loose tube jelly filled for superior fiber protection
- UV or moisture resistant for outdoor application