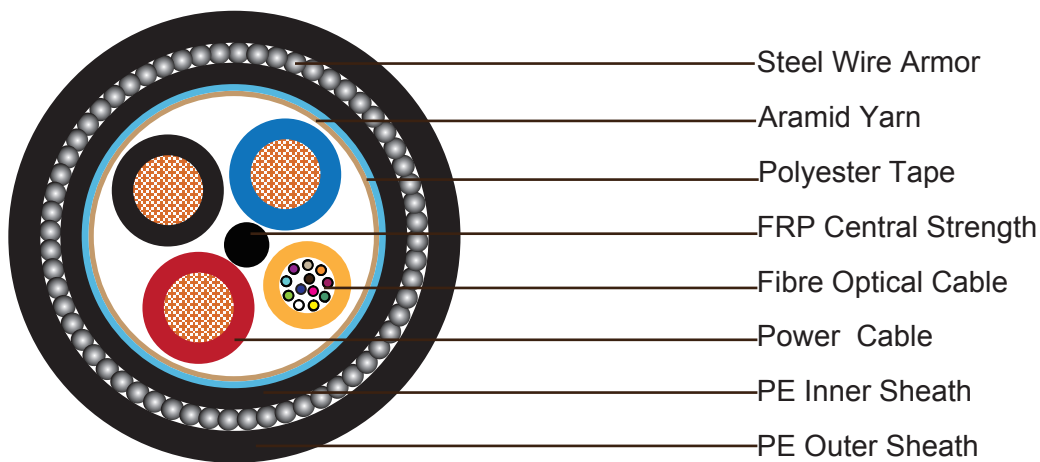




3x2.5 Power Cable + 12C Fiber Optic Cable SWA Composite Cable

Construction:



3x2.5mm² Power Cable

| | |
|-------------------|---|
| Conductor | 7/0.67mm Stranded bare copper wire |
| Insulation | XLPE. Thickness is 0.7mm. Outer diameter 3.41mm |

12C Fiber Cable

| | |
|----------------------------|---|
| No of fibers in loose tube | 12 fibers |
| Loose tube | outer diameter: 2.4mm (PE or PVC Sheath would be used over the loose tube if necessary) |

Element Assembly

| | |
|--------------------------------|--|
| Central Strength Member | 1.5mm FRP central strength member with PE/PVC coating if necessary |
| Strength member | Aramid yarn helically is applied over cable core. |
| Wrapping Tape | Polyester tape is applied over cable core |
| Inner Jacket | PE, LSOH is optional, thickness is 1.0mm |
| Armor | Steel wire armour, size: 0.9mm |



| | |
|--------------|---|
| Sheath | PE, LSOH is optional, thickness is 1.8mm, nominal outer diameter 17.0±1.0mm |
| Sheath Color | Black |

Optical Characteristics

12C Optic Fiber Cable, G652D (around central member)

| Parameter | | Standard Single Mode Fiber per ITU-T G.652D | Non-zero Dispersion Shifted fiber per ITU-T G.655 | Non-zero Dispersion Shifted fiber per ITU-T G.656 | Units |
|--|----------------------------------|---|---|---|--------------------------|
| Fiber Code | | 9 | 8 | 7 | |
| Attenuation, Loose Tube Cables | @1310nm | ≤0.35 | N/A | N/A | dB/km |
| | @1550nm | ≤0.22 | ≤0.22 | ≤0.22 | dB/km |
| | @1625nm | ≤0.25 | ≤0.26 | ≤0.26 | dB/km |
| Attenuation, Tight Buffer or Semi-Tight Cables | @1310nm | ≤0.38 | N/A | | dB/km |
| | @1550nm | ≤0.28 | N/A | | dB/km |
| Chromatic Dispersion | between 1260 and 1360nm (O Band) | ≤3.5 | N/A | N/A | ps/(nm*km) |
| | between 1460 and 1530nm (S Band) | N/A | N/A | 2.0-7.0 | ps/(nm*km) |
| | between 1530 and 1565nm (C Band) | ≤18 | 1.0-10.0 | 7.0-10.0 | ps/(nm*km) |
| | between 1565 and 1625nm (L Band) | ≤22 | 7.0-12.0 | 10.0-14.0 | ps/(nm*km) |
| Zero Dispersion Wavelength | | 1310±11 | 1530-1560 | 1460-1565 | nm |
| Zero Dispersion Slope | | 0.093 | 0.093 | 0.093 | ps/(nm ² .km) |
| Point Discontinuity at 1300nm& 1550nm | | 0.1 | 0.1 | 0.1 | dB |
| Mode Field Diameter | @1300nm | 9.3±0.5 | N/A | N/A | um |
| | @1550nm | 10.4±0.8 | 8.5±0.6 | 9.0±0.5 | um |
| Cable Cut-offWavelength | | ≤1260 | ≤1450 | ≤1450 | nm |
| PMD (Individual fiber) | | ≤0.2 | ≤0.2 | ≤0.2 | ps/km ^{1/2} |
| Cladding Diameter | | 125±1 | 125±1 | 125±1 | um |



Composite Cables

| | | | | |
|---|-----------|-----------|-----------|------------|
| Core/Cladding Concentricity Error | ≤0.5 | ≤0.5 | ≤0.6 | um |
| Cladding Non-Circularity | ≤1.0 | ≤1.0 | ≤1.0 | % |
| Coating Non-Circularity | ≤6.0 | ≤6.0 | ≤6.0 | % |
| Primary Coating Diameter | 245±10 | 245±10 | 245±10 | um |
| Proof-Test Level | 100 (0.7) | 100 (0.7) | 100 (0.7) | Kpsi/GN/m2 |
| Fatigue Coefficient | ≥20 | ≥20 | ≥20 | |
| Temperature Dependence between 0°C ~ +70°C @ 1310 & 1550nm | 0.1 | 0.1 | 0.1 | Db/km |

The fibers contain no splices.

Mechanical Properties:

Tensile load:

Operating: 2650N

Installation: 8000N

Bending radius:

Operating: 15×OD

Installation: 30×OD

Compressive load:

Short term: 6000N

Long term: 4000N

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.