HIGH-FLEX LV REELING CABLE · RTG / RMG / STS | 3-IN-1 · POWER · CONTROL · FIBRE | 0.6/1 kV | 10 sizes | CPE rubber | 6E9

# FC-TRB-M-PF6 0.6/1 kV

3-in-1 Power, Control and Fibre-Optic Reeling Cable 0.6/1 kV – 3 power cores + 3 split PE conductors + 2 pilot cores 2×2.5 mm² + 6 single-mode fibres G.652.D, CPE rubber sheath. Complete technical data sheet: construction, dimensions, weights, current ratings, standards and installation guidance for 10 sizes.

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## 01 Application and Product Overview

FC-TRB-M-PF6 is a high-flex reeling cable for container terminals and heavy port equipment, rated 0.6/1 kV, with the configuration 3 power cores + 3 split PE conductors + 2 pilot cores 2×2.5 mm² + 6 single-mode fibres G.652.D. It has fine-wire class 5 copper conductors, halogen-free EPR/HEPR rubber insulation, a halogen-free inner sheath and an outer sheath of chlorinated polyethylene (CPE) rubber, resistant to weather, ozone and oil; power cores from 25 – 300 mm². Short-lay stranding makes it suitable for continuous winding on and off a cable reel under tensile and torsional load. The construction is derived from the FC-TPU-M D2X11Y platform with a rubber sheath.

### Typical applications

- Cranes with ground-check or pilot-wire protection in addition to power supply
- Remote-controlled and automated cranes that send PLC, video and remote-operation data over single-mode fibre through the reel
- Rubber-tyred gantry (RTG), rail-mounted gantry (RMG) and electrified RTG cranes fed through spring-driven or motor-driven cable reels
- Ship-to-shore (STS) crane auxiliary drives, automated stacking cranes, ship unloaders and bulk-handling machines in terminals
- Outdoor quayside and yard operation with exposure to seawater spray, salt mist, UV radiation and ozone
- Reeling operation at travel speeds up to 60 m/min with repeated tensile and torsional loads

### Design

Power cores and split PE conductors combined with two 2.5 mm² pilot cores. The pilot cores form a monitoring loop for earth-continuity (ground-check) relays and protective interlocks, and are larger than standard control cores for higher mechanical robustness on the reel. This is a 3-in-1 design in the DIN VDE 0250 reeling-cable tradition: power cores, pilot cores and optical fibres share one sheath, so one reel, one slip-ring/rotary-joint assembly and one cable route replace three separate cables. The cable contains one optical element (6 single-mode fibres G.652.D). Single-mode fibres carry the crane data, video and remote-operation links over the full length of the terminal with very low attenuation, so a single reel cable can connect the crane to the terminal operating system without intermediate repeaters.

| 10 sizes | 0.6/1 kV | +90 °C | CPE rubber |
|---|---|---|---|
| Cross-section 25 – 300 mm² | Rated voltage $U_0/U$ | Maximum conductor temperature | Sheath: CPE rubber |

### Key features

- Fine-wire class 5 copper conductors and a very short core lay length for repeated reeling

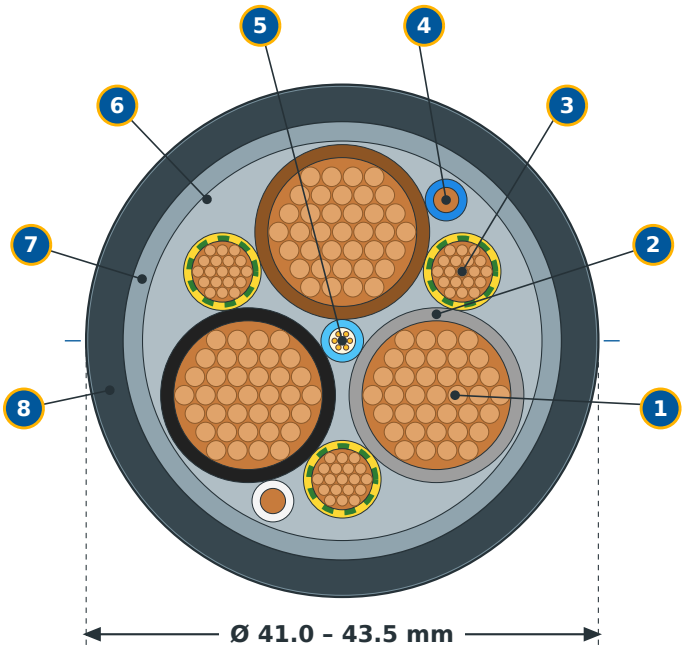
- 3-in-1 design: power, pilot and 6 single-mode fibres G.652.D in a crush-resistant loose-tube element on the cable axis
- Three split PE conductors in the interstices keep the cross-section round and balanced
- Designed for 20 N/mm² continuous tensile load (on the total copper cross-section of the power cores)
- CPE rubber sheath with proven weather, ozone and oil resistance
- Flame retardant to IEC 60332-1-2

## 02 Construction

**FEICHUN · CROSS-SECTION A–A · 0.6/1 kV**

**FC-TRB-M-PF6**

Sample size 3×95+3G16+2×2.5+6E9 · Rev 0 · Illustrative, not to scale




| No. | Component | Material |
|---|---|---|
| 1 | Conductor | Bare annealed fine-wire copper, class 5 to IEC 60228 |
| 2 | Insulation | Halogen-free EPR/HEPR rubber |
| 3 | Split PE conductor | Class 5 copper, green-yellow insulation, laid in the interstices between the power cores |
| 4 | Pilot cores | Class 5 copper, blue and white insulation |
| 5 | Optical element | 6 single-mode fibres G.652.D; gel-filled loose tube, aramid strength members |
| 6 | Filler and binder tape | Halogen-free compound, polyester tape |
| 7 | Inner sheath | Halogen-free polymer compound |
| 8 | Outer sheath | Chlorinated polyethylene (CPE) rubber, resistant to weather, ozone and oil |

The drawing shows size 3×95+3G16+2×2.5+6E9. Other sizes have the same construction with scaled dimensions.

### Construction details

| | |
|---|---|
| **Conductor** | Bare annealed fine-wire copper, class 5 to DIN EN 60228 / IEC 60228 / VDE 0295 |
| **Insulation** | Halogen-free EPR/HEPR rubber to IEC 60502-1, maximum conductor temperature 90 °C |
| **Core identification** | Power cores brown, black, grey to DIN VDE 0298-300 |
| **Protective conductor** | Three PE conductors (3G), green-yellow, 16 mm² each, laid in the interstices between the power cores |
| **Pilot cores** | Two pilot cores 2 × 2.5 mm² (blue, white) laid in the free space between the power cores |
| **Optical element** | One element: 6 single-mode fibres G.652.D, located at the centre of the cable |
| **Stranding** | Power cores, split PE conductors and control or optical elements are stranded together with a very short lay length |
| **Inner sheath** | Halogen-free polymer compound, extruded tightly over the stranded cores |
| **Outer sheath** | Chlorinated polyethylene (CPE) rubber, resistant to weather, ozone and oil |

### Optical fibre data

| | |
|---|---|
| **Fibre type** | Single-mode E9/125 µm, ITU-T G.652.D / IEC 60793-2-50 B-652.D, low water peak |
| **Attenuation, cabled** | ≤ 0.40 dB/km at 1310 nm; ≤ 0.30 dB/km at 1550 nm |
| **Mode-field diameter** | 9.2 ± 0.4 µm at 1310 nm |
| **Typical link reach** | 1 Gbit/s and 10 Gbit/s Ethernet up to 10 km (1000BASE-LX, 10GBASE-LR) |
| **Optical element** | Gel-filled loose tube with aramid strength members and a crush-resistant TPU element sheath, placed on the cable axis where bending strain is lowest |
| **Fibre colours** | IEC 60304 / DIN VDE 0888 colour sequence; tube and element marked for identification |
| **Fibre strain, reeling** | ≤ 0.25 % at the rated tensile load of the cable |
| **Optical test** | Attenuation of every fibre measured by OTDR after cabling; values recorded in the test certificate |

### Sheath material

The chlorinated polyethylene (CPE) rubber sheath offers good resistance to weather, ozone and mineral oil with good mechanical robustness and flexibility to −30 °C in motion, at a favourable cost level. CPE contains halogen; where halogen-free cables are specified, select the PUR version of the same construction.

## 03 Electrical, Thermal and Mechanical Characteristics

### Electrical data

| | |
|---|---|
| **Rated voltage $U_0/U$** | 0.6/1 kV AC |
| **Test voltage** | 2.5 kV AC (power cores); 2 kV AC (control cores) |
| **Maximum operating voltage, DC** | 0.9/1.8 kV |
| **Current-carrying capacity** | To DIN VDE 0298-4 at 30 °C ambient; the table gives rated design values |
| **Conductor resistance** | Maximum at 20 °C, class 5 to IEC 60228 |

### Thermal and mechanical data

| | |
|---|---|
| **Maximum conductor temperature** | +90 °C |
| **Maximum temperature at short circuit** | +250 °C |
| **Ambient temperature, fixed installation** | −40 °C to +90 °C |
| **Ambient temperature, in motion** | −30 °C to +90 °C |
| **Minimum bending radius** | 4 × D fixed; 8 × D on a cable reel (DIN VDE 0298-3) |
| **Maximum tensile load** | 20 N/mm² continuous, on the total copper cross-section of the power cores |
| **Maximum torsional load** | ±50 °/m |
| **Maximum travelling speed** | 60 m/min on a cable reel; higher speeds on request |
| **Flame propagation** | IEC 60332-1-2 / DIN EN 60332-1-2 |
| **Halogen-free** | No (CPE rubber sheath) |
| **UV and ozone resistance** | Resistant |
| **Mineral oil resistance** | Resistant, IEC 60811-404 |
| **Optical element, temperature in operation** | −40 °C to +70 °C |

### Sheath material comparison

| Property | PUR | PUR low-temp | CSP rubber | CPE rubber | PCP rubber | HFFR rubber |
|---|---|---|---|---|---|---|
| **Abrasion resistance** | Excellent | Excellent | Good | **Good** | Very good | Good |
| **Cut and tear resistance** | Excellent | Excellent | Good | **Good** | Very good | Good |
| **Mineral oil resistance** | Very good | Very good | Very good | **Very good** | Very good | Good |
| **Weather, UV and ozone resistance** | Very good | Very good | Excellent | **Very good** | Excellent | Very good |
| **Cold flexibility (moving)** | −30 °C | −40 °C | −30 °C | **−30 °C** | −25 °C | −25 °C |
| **Halogen-free (IEC 60754-1/-2)** | Yes | Yes | No | **No** | No | Yes |

The column of the sheath used in this cable is highlighted. Ratings are qualitative; ask FeiChun for test data on a specific requirement.

## 04 Dimensions, Weights and Rated Data – 0.6/1 kV (10 sizes)

| Type designation cores × mm² | FeiChun article no. | Conductor Ø max mm | Outer Ø min mm | Outer Ø max mm | Min. bend radius mm | Weight approx. kg/km | Max. pull force N | $R_{20}$ max Ω/km | Rated current A | $I_k$ (1 s) kA |
|---|---|---|---|---|---|---|---|---|---|---|
| **3×25+3G6+2×2.5+6E9** | FC-LV130-001 | 6.2 | 24.0 | 25.5 | 204 | 1,240 | 1,500 | 0.780 | 131 | 3.58 |
| **3×35+3G6+2×2.5+6E9** | FC-LV130-002 | 7.8 | 27.5 | 29.5 | 236 | 1,640 | 2,100 | 0.554 | 162 | 5.00 |
| **3×50+3G10+2×2.5+6E9** | FC-LV130-003 | 9.6 | 31.5 | 33.5 | 268 | 2,300 | 3,000 | 0.386 | 202 | 7.15 |
| **3×70+3G16+2×2.5+6E9** | FC-LV130-004 | 11.1 | 36.0 | 38.5 | 308 | 3,220 | 4,200 | 0.272 | 250 | 10.01 |
| **3×95+3G16+2×2.5+6E9** | FC-LV130-005 | 12.6 | 41.0 | 43.5 | 348 | 3,860 | 5,700 | 0.206 | 302 | 13.59 |
| **3×120+3G25+2×2.5+6E9** | FC-LV130-006 | 14.8 | 44.0 | 47.0 | 376 | 4,950 | 7,200 | 0.161 | 350 | 17.16 |
| **3×150+3G25+2×2.5+6E9** | FC-LV130-007 | 16.0 | 50.0 | 53.0 | 424 | 5,970 | 9,000 | 0.129 | 402 | 21.45 |
| **3×185+3G35+2×2.5+6E9** | FC-LV130-008 | 17.7 | 53.5 | 57.0 | 456 | 7,520 | 11,100 | 0.106 | 459 | 26.45 |
| **3×240+3G50+2×2.5+6E9** | FC-LV130-009 | 20.2 | 61.0 | 65.0 | 520 | 9,840 | 14,400 | 0.0801 | 540 | 34.32 |
| **3×300+3G50+2×2.5+6E9** | FC-LV130-010 | 22.4 | 67.0 | 71.5 | 572 | 11,840 | 18,000 | 0.0641 | 621 | 42.90 |

Current-carrying capacity: rated design values to DIN VDE 0298-4 for flexible cables, free air, 30 °C ambient; for other ambient temperatures, grouping or layered winding on a reel, apply the factors below. Pull force = 20 N/mm² × total copper cross-section of the power cores. Diameters, dimensions and weights are nominal design values and vary within manufacturing tolerances; confirm critical dimensions before dimensioning reels, guides or festoon systems. Other sizes and configurations are produced to order.

### Ambient temperature factors (conductor 90 °C)

| °C | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|
| Factor | 1.08 | 1.04 | 1.00 | 0.96 | 0.91 | 0.87 | 0.82 |

### Short-circuit current rating

$I_k$ = 0.143 kA/mm² × cross-section of the power core (conductor 90 °C → 250 °C). For another short-circuit duration t: $I_{k,t} = I_{k,1s} / \sqrt{t}$ (0.1 s ≤ t ≤ 5 s).

### Derating on a cable reel (DIN VDE 0298-4)

1 layer: 0.80 · 2 layers: 0.61 · 3 layers: 0.49 · 4 layers: 0.41. Permissible current = table current × layer factor × temperature factor.

## 05 Reeling Performance and Reel Design Data

The values below support the dimensioning of the cable reel: minimum reel core diameter, copper weight for earthing and loop-resistance calculations, cable weight, and the rated current for the number of layers wound on the reel.

| Type designation cores × mm² | Outer Ø max mm | Min. bend radius on reel, mm | Min. reel core Ø mm | Copper weight kg/km | Cable weight kg/100 m | Current, 1 layer A | 2 layers A | 3 layers A | 4 layers A |
|---|---|---|---|---|---|---|---|---|---|
| 3×25+3G6+2×2.5+6E9 | 25.5 | 204 | 408 | 870 | 124.0 | 105 | 80 | 64 | 54 |
| 3×35+3G6+2×2.5+6E9 | 29.5 | 236 | 472 | 1,140 | 164.0 | 130 | 99 | 79 | 66 |
| 3×50+3G10+2×2.5+6E9 | 33.5 | 268 | 536 | 1,640 | 230.0 | 162 | 123 | 99 | 83 |
| 3×70+3G16+2×2.5+6E9 | 38.5 | 308 | 616 | 2,340 | 322.0 | 200 | 152 | 122 | 102 |
| 3×95+3G16+2×2.5+6E9 | 43.5 | 348 | 696 | 3,000 | 386.0 | 242 | 184 | 148 | 124 |
| 3×120+3G25+2×2.5+6E9 | 47.0 | 376 | 752 | 3,910 | 495.0 | 280 | 214 | 172 | 144 |
| 3×150+3G25+2×2.5+6E9 | 53.0 | 424 | 848 | 4,710 | 597.0 | 322 | 245 | 197 | 165 |
| 3×185+3G35+2×2.5+6E9 | 57.0 | 456 | 912 | 5,910 | 752.0 | 367 | 280 | 225 | 188 |
| 3×240+3G50+2×2.5+6E9 | 65.0 | 520 | 1,040 | 7,780 | 984.0 | 432 | 329 | 265 | 221 |
| 3×300+3G50+2×2.5+6E9 | 71.5 | 572 | 1,144 | 9,380 | 1,184.0 | 497 | 379 | 304 | 255 |

### Reel design guidance

- Minimum reel core diameter = 2 × minimum bending radius = 16 × D (outer diameter D).
- Spring reels suit short travel and low tensile load; motor-driven reels with torque control keep the cable under constant, low tension.
- Fit a guide or level-wind that keeps the cable parallel to the reel axis to prevent crossing turns.
- Rated current falls with the number of layers on the reel because heat is not dissipated; see the layer factors below.

## 06 Selection Guide and Sizing Aid

FC-TRB-M-PF6 covers 10 sizes. The smallest, 3×25+3G6+2×2.5+6E9, has an outer diameter of up to 25.5 mm and weighs about 1,240 kg/km; the largest, 3×300+3G50+2×2.5+6E9, has an outer diameter of up to 71.5 mm and weighs about 11,840 kg/km, 9.5 times as much. Across the range the rated current in free air rises from 131 A to 621 A at 30 °C, and the minimum bending radius from 204 mm to 572 mm.

**Example 1.** A drive draws 128 A continuously, the cable is wound in 2 layers on the reel and the ambient temperature is 40 °C. Required table current = 128 / (0.61 × 0.91) = 231 A. The smallest suitable size is 3×70+3G16+2×2.5+6E9 with 250 A.

**Example 2.** A drive draws 284 A continuously, the cable is wound in 1 layer on the reel and the ambient temperature is 35 °C. Required table current = 284 / (0.80 × 0.96) = 370 A. The smallest suitable size is 3×150+3G25+2×2.5+6E9 with 402 A.

| Type designation cores × mm² | Apparent power at 400 V kVA (1 layer) | Apparent power at 690 V kVA (1 layer) | Winding capacity m |
|---|---|---|---|
| 3×25+3G6+2×2.5+6E9 | 72.6 | 125.2 | 6,570 |
| 3×35+3G6+2×2.5+6E9 | 89.8 | 154.9 | 4,680 |
| 3×50+3G10+2×2.5+6E9 | 112.0 | 193.1 | 3,585 |
| 3×70+3G16+2×2.5+6E9 | 138.6 | 239.0 | 2,615 |
| 3×95+3G16+2×2.5+6E9 | 167.4 | 288.7 | 1,950 |
| 3×120+3G25+2×2.5+6E9 | 194.0 | 334.6 | 1,710 |
| 3×150+3G25+2×2.5+6E9 | 222.8 | 384.3 | 1,255 |
| 3×185+3G35+2×2.5+6E9 | 254.4 | 438.8 | 1,035 |
| 3×240+3G50+2×2.5+6E9 | 299.3 | 516.3 | 820 |
| 3×300+3G50+2×2.5+6E9 | 344.2 | 593.7 | 590 |

Apparent power S = √3 × U × I × 0.80 (one layer on the reel, 30 °C). Winding capacity is an indicative value for a reel with 2,500 mm flange diameter, 1,000 mm traverse width, core diameter equal to the minimum reel core diameter and 90 % fill; it is not a substitute for the reel manufacturer’s calculation.

## 07 Standards and Testing

| Standard | Scope |
|---|---|
| **DIN EN 60228 / IEC 60228 / VDE 0295** | Conductors, class 5 |
| **IEC 60502-1** | Insulation compound, power cables up to 1 kV |
| **DIN VDE 0298-3** | Application of cables – bending radii and tensile loads |
| **DIN VDE 0298-4** | Application of cables – current-carrying capacity |
| **DIN EN 60332-1-2 / IEC 60332-1-2** | Flame propagation, single cable |
| **DIN VDE 0298-300** | Core identification |
| **DIN VDE 0250-814** | Design reference for flexible reeling and trailing cables (NSHTÖU type) |
| **ITU-T G.652.D / IEC 60793-2-50** | Single-mode optical fibres |
| **IEC 60794-1-21** | Optical cables – mechanical test methods |
| **IEC 60811-404** | Mineral oil immersion test |

### Routine and type tests

- AC voltage test on every reel length (routine test): 2.5 kV AC (power cores); 2 kV AC (control cores)
- Conductor resistance and checks of dimensions, insulation thickness and sheath thickness
- Continuity of conductors and protective earth
- Bending, tensile and reeling torsion tests (type test)
- Flame propagation (IEC 60332-1-2)
- Optical attenuation of every fibre by OTDR after cabling (routine test); reeling and torsion tests with optical monitoring (type test)

**Test documentation:** every delivery is accompanied by a test certificate from FeiChun's own laboratory. Third-party witnessed tests can be arranged at the buyer's cost.

## 08 Installation, Marking and Delivery

### Installation guidance

- Use a spring-driven or motor-driven cable reel with a core diameter of at least twice the minimum bending radius (16 × D).
- Unwind from the shipping reel tangentially; never pull the cable over the flange of the drum, and avoid loops and kinks.
- Keep torsion within the permitted limit (±50 °/m) and tensile load within the value in the table.
- Guide the cable so that it is not run over by vehicles or crushed; inspect the sheath regularly.
- Connect all parts of the split PE conductor at both ends of the cable.
- Suitable for wet conditions; consult FeiChun for continuous immersion.

### Sheath marking

```
FEICHUN FC-TRB-M-PF6 [cross-section] 0.6/1 kV [year] [serial no.] [metre mark]
```

### Packing and delivery

| | |
|---|---|
| **Reel** | Steel or fumigated wooden reels; cable ends sealed with heat-shrink caps |
| **Delivery length** | As ordered, in one continuous length without joints |
| **Lead time** | 2–3 weeks after technical approval |
| **Warranty** | 1 year, covering failures not caused by human factors |
| **Reel label** | Type, cross-section, length, gross/net weight, batch no., reel no. |

### Ordering information

| Field | Example | Meaning |
|---|---|---|
| **Series code** | FC-TRB-M-PF6 | FeiChun series and sheath system |
| **Core configuration** | 3×95+3G16+2×2.5+6E9 | Number × cross-section (mm²) of the power cores, split PE conductors (G) and control or optical elements |
| **Rated voltage** | 0.6/1 kV | $U_0$/U, AC |
| **Length and packing** | 500 m, steel reel | Delivery length in one piece; reel type on request |

**Order example: FC-TRB-M-PF6 3×95+3G16+2×2.5+6E9 0.6/1 kV** – 500 m on one steel reel. When requesting a quotation, state the cable type, configuration, cross-section, voltage, length per piece, required standards and installation conditions.

## 09 Certification and Quality

All cable is subject to FeiChun's quality control, with routine testing over 100 % of the delivered length. Certificates, type tests and third-party tests (for example partial discharge or compatibility with cable accessories) are provided per project requirement; copies of the records are available on request.

The CE, EAC and UKCA certificates listed in datasheet FC-TDS-TMP-2026-9238-EN apply to the FC-TPU-M D2X11Y product group. Confirm with FeiChun that the certificate scope covers this construction before quoting it in a tender.

## 10 Related Datasheets

Variants of this cable that differ in one attribute – sheath, configuration, optical fibres or voltage. All datasheets are in PDF format.

- FC-TPU-M D2X11Y-PF6 0.6/1 kV – 3 power cores + 3 split PE conductors + 2 pilot cores 2×2.5 mm² + 6 single-mode fibres G.652.D, PUR
- FC-TRB-M-KF6 0.6/1 kV – 3 power cores + 3 split PE conductors + 2 control cores + 6 single-mode fibres G.652.D, CPE rubber
- FC-TRB-M-P 0.6/1 kV – 3 power cores + 3 split PE conductors + 2 pilot cores 2×2.5 mm², CPE rubber
- FC-TPU-MA D2X11Y-PF6 0.6/1 kV – 3 power cores + 3 split PE conductors + 2 pilot cores 2×2.5 mm² + 6 single-mode fibres G.652.D, PUR low-temp
- FC-TRB-M-F6 0.6/1 kV – 3 power cores + 3 split PE conductors + 6 single-mode fibres G.652.D, CPE rubber
- FC-TRB-M-PF 0.6/1 kV – 3 power cores + 3 split PE conductors + 2 pilot cores 2×2.5 mm² + 12 single-mode fibres G.652.D, CPE rubber
- FC-TCS-M-PF6 0.6/1 kV – 3 power cores + 3 split PE conductors + 2 pilot cores 2×2.5 mm² + 6 single-mode fibres G.652.D, CSP rubber
- FC-TRB-M-NSF6 0.6/1 kV – 3 power cores + 3 split PE conductors + overall screen + 6 single-mode fibres G.652.D, CPE rubber

Overview of all datasheets: Low-Voltage Port Reeling Cables 0.6/1 kV

### Frequently asked questions

**What is FC-TRB-M-PF6 used for?**
Typical applications include cranes with ground-check or pilot-wire protection in addition to power supply.

**What are the outer diameter and minimum bending radius of 3×95+3G16+2×2.5+6E9?**
The outer diameter is 41.0 to 43.5 mm and the minimum bending radius in moving or reeling operation is 348 mm (8 × D).

**What minimum reel core diameter is needed for 3×95+3G16+2×2.5+6E9?**
At least 696 mm, which is twice the minimum bending radius of 348 mm. A larger core diameter extends cable life.

**What current rating applies to 3×95+3G16+2×2.5+6E9 on a cable reel?**
The rated current in free air at 30 °C ambient is 302 A. Multiply it by 0.80 for one layer on the reel, 0.61 for two layers, 0.49 for three layers and 0.41 for four layers (DIN VDE 0298-4), and by the ambient temperature factor.

**Which optical fibres does FC-TRB-M-PF6 contain?**
6 single-mode fibres G.652.D. 1 Gbit/s and 10 Gbit/s Ethernet up to 10 km (1000BASE-LX, 10GBASE-LR).

**Why choose a 3-in-1 reeling cable?**
One cable carries power, pilot-wire monitoring and data, so the crane needs one reel channel, one slip-ring assembly with a fibre-optic rotary joint and one cable route. This saves reel space and weight and reduces the number of terminations to maintain.

**How are the fibres connected on the reel?**
Through a fibre-optic rotary joint (FORJ) on the reel axis, normally combined with the power slip-ring assembly. Match the number of FORJ channels to the number of fibres in use and keep spare fibres for later expansion.

**Is this cable halogen-free?**
No. The CPE rubber sheath contains halogen. If halogen-free cables are required, select the HFFR rubber or PUR version of the same construction.

**Which cross-sections are available?**
FC-TRB-M-PF6: 25, 35, 50, 70, 95, 120, 150, 185, 240, 300 mm². Other sizes and special designs can be produced to order.

## 11 Trademark Notice and Intellectual Property

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