



## ОПТ \* 12 – 4 ТУ У 31.3-00214534-047:2005

Fiber optic overhead module-core cables, with polyethylene outer sheath

### Mark formation:

ОПТ-[a]-[b] [c]12(12x[e])-4

[a] central strength element

- C – steel
- No marks – dielectric

[b] quantity of optical fibers in the cable, possible values

- 72, 96, 120, 144, 156, 168, 180, 192

[c] type of optical fiber

- E – single-mode (ITU-T G.652B)
- A – single-mode with extended wavelength band (ITU-T G.652D, ITU-T G.657A1)
- C – single-mode with non-zero shifted dispersion (ITU-T G.655)
- M – multimode with core and sheath diameter ratio 50 : 125 mm (ITU-T G.651)
- B – multimode with core and sheath diameter ratio 62.5 : 125 mm (IEC 60793-2)

[e] quantity of optical fibers in the module:

- 1 ... 16

Manufacturing of cables in climate version F is possible

Manufacturing of cables with steel strength element is possible

Manufacturing of cables with armouring (aramid yarns and/or corrugated steel tape) is possible

Manufacturing of cables with steel or dielectric wire rope (glass fiber rod) is possible

Manufacturing of cables with flame-retardant polymer compound outer sheath is possible

It is possible to manufacture cables with gel-filled core or dry core (with water-blocking yarns and tapes)

It is possible to manufacture cables with a number of core elements up to and including 18

Order placing: sample of indication (corresponds to configuration pattern)

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Cables are used for:

- suspensions and operation at supports of aerial contact-lines, urban electric transport and aerial power transmission lines under impact of wind, ice or their combination loads



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### TECHNICAL SPECIFICATIONS

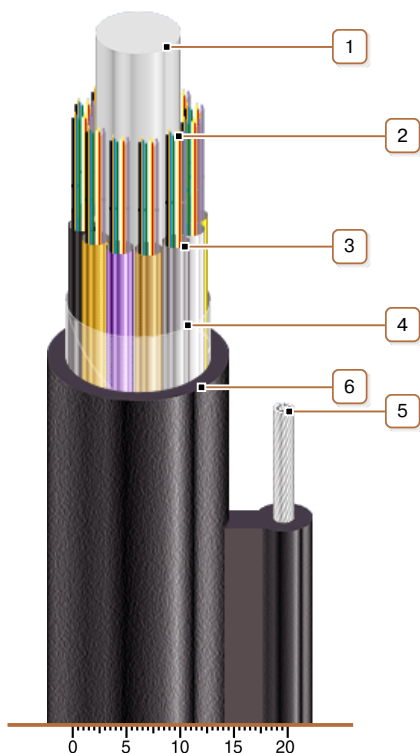
|  |           |                  |
|--|-----------|------------------|
| Number of cable core elements  | units     | 12               |
| Number of optical fibers in cable  | units     | 72 ... 192       |
| Electrical resistance of sheath insulation, not less than                                  | MOhm · km | 2000             |
| Permissible tensile force  | kN        | 4                |
| Permissible crushing force, no less than   | N/10 sm   | 3000             |
| Operating temperature range  | °C        | -40 ... +60      |
| Operating temperature range (in climate version F)   | °C        | -60 ... +60      |
| Cable weight (approximate, depending on construction)                                      | kg/km     | 210 ... 265      |
| Rated outer diameter of the cable (for reference only, depending on construction) **       | mm        | 14 ... 17        |
| Cable width with suspension element (for reference only, depending on construction design) | mm        | 22 ... 25        |
| Minimum bending radius during laying   | mm        | 340              |
| Rated factory cable length and gross weight of the delivery on the drums ***               | m, t      | # 14: 2460 · 0.7 |

Notes:

When ordering it is necessary to agree the factory length of the product with the manufacturer

\*\* The external diameter may differ from the rated up to  $\pm 10\%$

### CONSTRUCTION



#### 1. Central dielectric strength element

Note: Manufacturing of cables with steel strength element is possible

#### 2. Optic fibers

#### 3. Tube of fiber optic module

#### 4. PET film winding

#### 5. Extended strength member (rope)

Note: Manufacturing of cables with steel or dielectric wire rope (glass fiber rod) is possible

#### 6. Polyethylene outer sheath

Note: Manufacturing of cables with flame-retardant polymer compound outer sheath is possible

Notes:

- Optical module twisting is not illustrated.
- Manufacturing of cables with armouring (aramid yarns and/or corrugated steel tape) is possible
- It is possible to manufacture cables with gel-filled core or dry core (with water-blocking yarns and tapes)
- It is possible to manufacture cables with a number of core elements up to and including 18