



## **АПвЭоп(κ)-6 3x300 ТУ У 31.3-00214534-017-2003**

Three-core power cables with aluminium conductors, with XLPE, collective screen and polyethylene outer sheath

---

Technical cable requirements correspond to IEC 60502-2

Cables are used for laying:

- *in soil (trenches)*
- *in the air, including cable structures, if provided the additional fire protection*

---

It is possible to manufacture cables with extruded semiconductor layer along outer sheath.

Order entry example:

АПвЭоп(κ)-П-6 3x300/70 ТУ У 31.3-00214534-017-2003

An extruded semiconductor layer along outer sheath ensures the correct testing of cable line with sections of underground laying in polymer pipes.

---

It is possible to manufacture cables with an integrated fiber-optic module.

Order entry example:

АПвЭоп(κ)-6 3x300/70 (OM) ТУ У 31.3-00214534-017-2003

In conjunction with the DTS system, the integrated fiber-optic module can act as a distributed cable line temperature sensor.

---

It is possible to manufacture cable with sealed conductors.

Order entry example:

АПвЭоп(κ)-6 3x300/70 (r) ТУ У 31.3-00214534-017-2003

---



## АПвЭоп(κ)-6 3x300 ТУ У 31.3-00214534-017-2003

Three-core power cables with aluminium conductors, with XLPE, collective screen and polyethylene outer sheath

### TECHNICAL SPECIFICATIONS

Rated voltage	kV	6
Maximum voltage	kV	7.2
Number and rated area of conductors	mm <sup>2</sup>	3 x 300
Insulation thickness	mm	2.8
Minimum screen cross-section	mm <sup>2</sup>	70
Permissible short circuit current across the screen of minimum cross-section	kA	14.2
Maximum permissible short-circuit current in core	kA	28.2
Permissible continuous current rating *		
• by aerial laying	A	475
• by burial	A	384
Partial discharge factor for rated voltage, not more than	pC	6
Maximum permissible conductor temperature		
• Continuous	°C	+90
• in emergency operation	°C	+130
• at short circuit	°C	+250
Operating temperature range	°C	-60 ... +50
Minimum bending radius by laying	mm	1200
Rated outer diameter of the cable (for reference) **	mm	75
Cable weight (approximate)	kg/km	6670
Rated factory cable length and gross weight of the delivery on the drums	m, t	# 22УД-60: 319 • 3.0 # 25УД-90: 443 • 4.5

**Notes:**

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

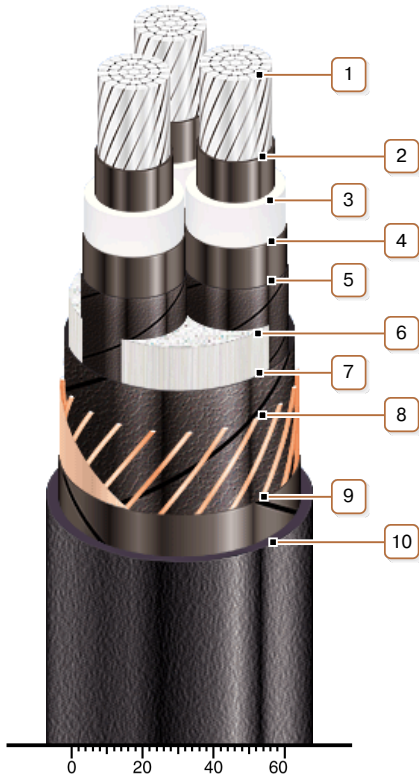
\* Long permissible current loads are calculated for the following conditions: conductor temperature 90 °C, air temperature 30 °C, soil temperature 20 °C, load factor 1.0, thermal resistivity of soil 1.5 °K·m/W, laying depth in the ground 0.8 m, shields are grounded at both ends of the line

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



## АПвЭоП(κ)-6 3x300 ТУ У 31.3-00214534-017-2003

Three-core power cables with aluminium conductors, with XLPE, collective screen and polyethylene outer sheath



### CONSTRUCTION

**1. Aluminium multiwire compacted conductor**

*Note: It is possible to manufacture cable with sealed conductors.*

**2. Inner extruded semiconducting layer**

**3. XLPE insulation**

**4. Outer extruded semiconducting layer**

**5. Lapping layer of semiconductive swellable tape**

**6. Interstitial filler with polypropylene bundles**

**7. Lapping layer of semiconductive swellable tape**

**8. Copper screen**

**9. Lapping layer of synthetic paper**

**10. Outer sheath of polyethylene or polyethylene copolymer**

*Note: It is possible to manufacture cable with extruded semiconductor layer along outer sheath*

*Note: Conductor twisting is not illustrated*