

## АПвЭоВнг(к)-35 3x70 ТУ У 31.3-00214534-017-2003

Three-core power cables with aluminium conductors, flame-retardant, with XLPE, collective screen and PVC compound outer sheath

Technical cable requirements correspond to IEC 60502-2

Cables are used for laying:

- in premises, tunnels, ducts, mines, dry soil and outdoor under shelter
- in bunches

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

Order entry example:

АПвЭоВнг(к)-35 3x70/35 (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:

АПвЭоВнг(к)-35 3x70/35 (r) ТУ У 31.3-00214534-017-2003

Fire safety code in accordance with ДСТУ 4809:2007: ПБ130000000

Products of this mark meet the requirements:

- single wire cable flame retardance
- bunched cable flame retardance category B

### TECHNICAL SPECIFICATIONS

Rated voltage	kV	35
Maximum voltage	kV	42
Number and rated area of conductors	mm <sup>2</sup>	3 x 70
Insulation thickness	mm	8.6
Minimum screen cross-section	mm <sup>2</sup>	35
Permissible short circuit current across the screen of minimum cross-section	kA	7.1
Maximum permissible short-circuit current in core	kA	6.6
Permissible continuous current rating *		
• by aerial laying	A	196
• by burial	A	171
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 (in climate version NF)	°C	-50 ... +50
Operating temperature range (in climate version T)	°C	-25 ... +65
Minimum bending radius by laying	mm	1184
Rated outer diameter of the cable (for reference) **	mm	74
Cable weight (approximate)	kg/km	6280
Rated factory cable length and gross weight of the delivery on the drums	m, t	# 22УД-60: 319 • 2.9 # 25УД-90: 583 • 5.2

Notes:

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

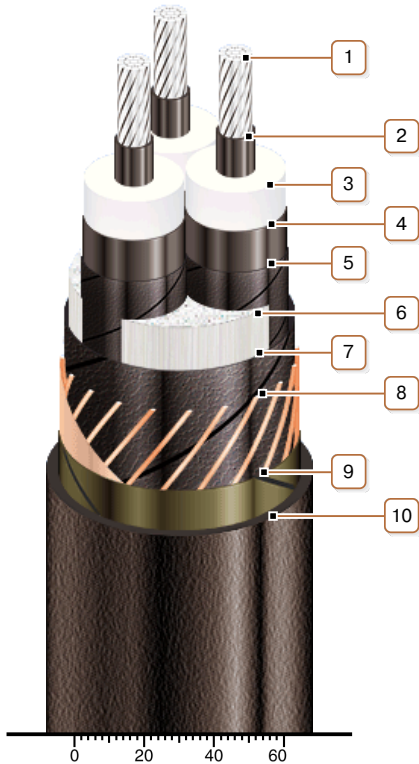
\* Long permissible current loads are calculated for the following conditions: conductor temperature 90 °C, air temperature 30 °C, soil temperature 20 °C, load factor 1.0, thermal resistivity of soil 1.5 °K·m/W, laying depth in the ground 0.8 m, shields are grounded at both ends of the line

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



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### 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 glass tape**

**10. Low flammable PVC compound outer sheath**

*Note: Conductor twisting is not illustrated*