



## **АПВЭОВ(κ)-10 3x50 ТУ У 31.3-00214534-017-2003**

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

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Technical cable requirements correspond to IEC 60502-2

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Cables are used for laying:

- *in premises, tunnels, ducts, mines, dry soil and outdoor under shelter*
  - *single laying*
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It is possible to manufacture cables with an integrated fiber-optic module.

Order entry example:

АПВЭОВ(κ)-10 3x50/35 (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.

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It is possible to manufacture cable with sealed conductors.

Order entry example:

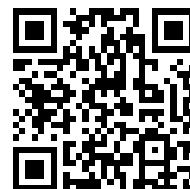
АПВЭОВ(κ)-10 3x50/35 (r) ТУ У 31.3-00214534-017-2003

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Fire safety code in accordance with ДСТУ 4809:2007: ПБ100000000

Products of this mark meet the requirements:

- *single wire cable flame retardance*



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### TECHNICAL SPECIFICATIONS

Rated voltage	kV	10
Maximum voltage	kV	12
Number and rated area of conductors	mm <sup>2</sup>	3 x 50
Insulation thickness	mm	3.4
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	4.7
Permissible continuous current rating *		
• by aerial laying	A	158
• by burial	A	140
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	768
Rated outer diameter of the cable (for reference) **	mm	48
Cable weight (approximate)	kg/km	2720
Rated factory cable length and gross weight of the delivery on the drums ***	m, t	# 18аУД-40: 710 • 2.5 # 22УД-60: 814 • 3.1 # 25УД-90: 1366 • 5.3

#### 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

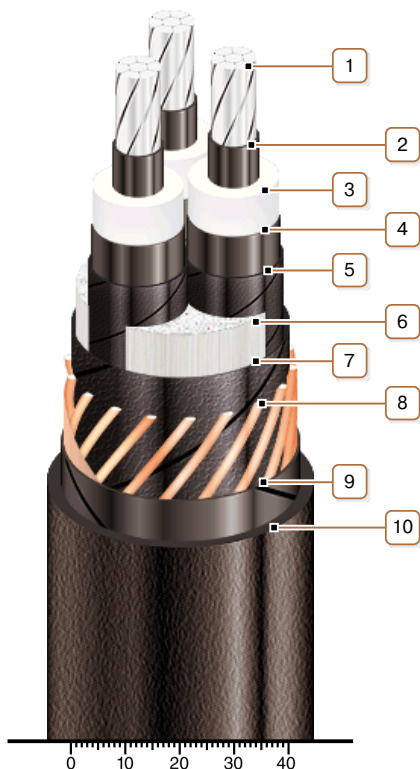
\*\* The external diameter may differ from the rated up to ± 10 %

\*\*\* Отклонение фактической массы брутто от указанного значения может составлять ± 7 %



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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 synthetic paper

#### 10. PVC compound outer sheath

*Note: Conductor twisting is not illustrated*