



## **АПВЭКПы-10 3x300 ТУ У 31.3-00214534-017-2003**

Three-core power cables with aluminium conductors, with XLPE, steel-wire armoured, with strengthened polyethylene outer sheath

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Technical cable requirements correspond to IEC 60502-2

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Cables are used for laying:

- *in places, where mechanical impacts on cable are possible, including tensile forces*
  - *in soil (trenches)*
  - *on difficult route sections, according to the unique specification*
  - *in the air, including cable structures, if provided the additional fire protection*
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It is possible to manufacture cables with extruded semiconductor layer along outer sheath.

Order entry example:

АПВЭКПы-П-10 3x300/25 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.

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

Order entry example:

АПВЭКПы-10 3x300/25 (ОМ) 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.

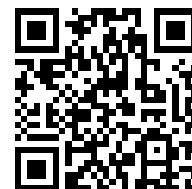
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It is possible to manufacture cable with sealed conductors.

Order entry example:

АПВЭКПы-10 3x300/25 (r) ТУ У 31.3-00214534-017-2003

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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 300
Insulation thickness	mm	3.4
Minimum screen cross-section	mm <sup>2</sup>	25
Permissible short circuit current across the screen of minimum cross-section	kA	5.1
Maximum permissible short-circuit current in core	kA	28.2
Permissible continuous current rating *		
• by aerial laying	A	472
• by burial	A	380
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	1424
Rated outer diameter of the cable (for reference) **	mm	89
Cable weight (approximate)	kg/km	12000
Rated factory cable length and gross weight of the delivery on the drums	m, t	# 25УД-90: 396 • 6.3 # 26УД-100: 457 • 7.3 # 30УД-130: ***595 • 10.0

#### 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

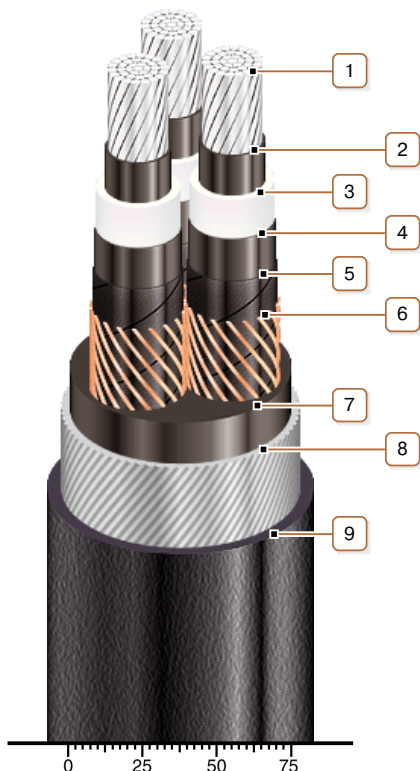
\*\* The external diameter may differ from the rated up to ± 10 %

\*\*\* Option delivery on not full drum



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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. Copper screen

*Note: It is possible to manufacture a cable with a fiber optic module built into the screen, including as a DTS system sensor*

#### 7. Extruded filling of PVC compound

#### 8. Round galvanized steel-wire armour

#### 9. Strengthened polyethylene outer sheath

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

*Note: Conductor twisting is not illustrated*