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# АПвЭКВ-10 3х300 ТУ У 31.3-00214534-017-2003

Three-core power cables with aluminium conductors, with XLPE, steel-wire armoured, with PVC compound outer sheath

For the cable of this mark correspond the foreign-made analogues:

AI/XLPE/CWS/PVC/SWA/PVC (GB)

Technical cable requirements correspond to IEC 60502-2

Cables are used for laying:

- · in places, where mechanical impacts on cable are possible, including tensile forces
- in premises, tunnels, ducts, mines, dry soil and outdoor under shelter
- · single laying

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

Order entry example:

АПвЭКВ-10 3х300/25 (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.

It is possible to manufacture cable with sealed conductors.

Order entry example:

АПвЭКВ-10 3х300/25 (г) ТУ У 31.3-00214534-017-2003

Fire safety code in accordance with ДСТУ 4809:2007: ΠБ100000000

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	mm²	3 x 300
Insulation thikness	mm	3.4
Minimum screen cross-section	mm²	25
Permissible short circuit current across the screen of	kA	5.1
minimum cross-section		
Maximum permissible short-circuit current in core	kA	28.2
Permissible continious current rating *		
by aerial laying	Α	472
• by burial	Α	380
Partial discharge factor for rated voltage, not more than	рС	6
Maximum permissible conductor temperature		
Continious	°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	1392
Rated outer diameter of the cable (for reference) **	mm	87
Cable weight (approximate)	kg/km	12380
Rated factory cable length and gross weight of the delivery	m, t	# 25УД-90: 396 • 6.5
on the drums ***		# 26УД-100: 457 • 7.5
		# 30УД-130: **** 577 · 10.0

#### Notes:

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

<sup>\*</sup> 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

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

<sup>\*\*\*</sup> Отклонение фактической массы брутто от указанного значения может составлять  $\pm$  7 %

<sup>\*\*\*\*</sup> Option delivery on not full drum



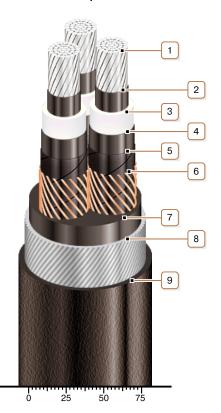




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## **CONSTRUCTION**

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. PVC compound outer sheath

Note: Conductor twisting is not illustrated