



## **АПВЭВ-20 3x300** **ТУ У 31.3-00214534-017-2003**

Power cables with aluminium conductors, with XLPE and PVC compound outer sheath

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

NA2XSEY (DE) • A2XSEY (DE) • Al/XLPE/CWS/PVC (GB) • АПВВ (RU)

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:

АПВЭВ-20 3x300/25 (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:

АПВЭВ-20 3x300/25 (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	20
Maximum voltage	kV	24
Number and rated area of conductors	mm <sup>2</sup>	3 x 300
Insulation thickness	mm	5.5
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	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 (in climate version NF)	°C	-50 ... +50
Operating temperature range (in climate version T)	°C	-25 ... +65
Minimum bending radius by laying	mm	1344
Rated outer diameter of the cable (for reference) **	mm	84
Cable weight (approximate)	kg/km	8280
Rated factory cable length and gross weight of the delivery on the drums	m, t	# 25УД-90: 420 • 5.0 # 26УД-100: 604 • 6.8 # 30УД-130: 825 • 9.7

#### Notes:

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

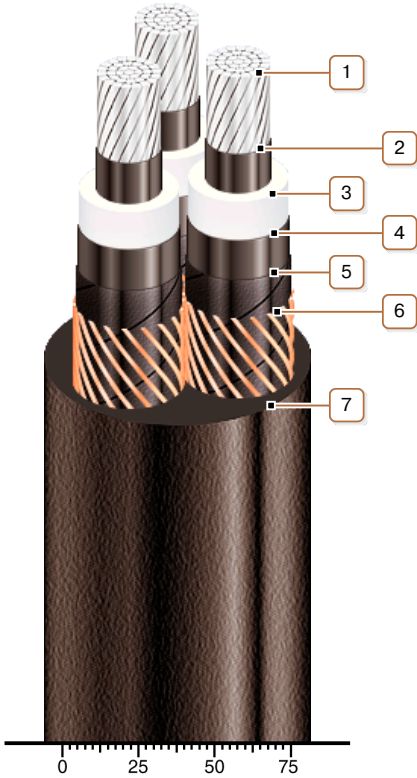
\* Long permissible current loads are calculated for the following conditions: conductor temperature 90 °C, air temperature 30 °C, soil temperature 20 °C, load factor 1.0, thermal resistivity of soil 1.5 °K·m/W, laying depth in the ground 0.8 m, shields are grounded at both ends of the line

\*\* 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. 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. PVC compound outer sheath**

*Note: Conductor twisting is not illustrated*