



## **АПВЭВ-20 1x1400** **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:

NA2XSY (DE) • A2XSY (DE) • Al/XLPE/CWS/PVC (GB) • YHAKXS (PL) • 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 1x1400/95 (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 conductor.

Order entry example:

АПВЭВ-20 1x1400/95 (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

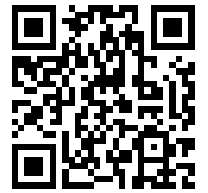
Rated voltage	kV	20
Maximum voltage	kV	24
Number and rated area of conductors	mm <sup>2</sup>	1 x 1400
Insulation thickness	mm	5.5
Minimum screen cross-section	mm <sup>2</sup>	95
Permissible short circuit current across the screen of minimum cross-section	kA	19.3
Maximum permissible short-circuit current in core	kA	132
Permissible continuous current rating *		
• by aerial laying in trefoil formation	A	1413
• by aerial flat laying	A	1535
• by burial in trefoil formation	A	921
• by burial flat	A	844
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	1264
Rated outer diameter of the cable (for reference) **	mm	79
Cable weight (approximate)	kg/km	7600

**Notes:**

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

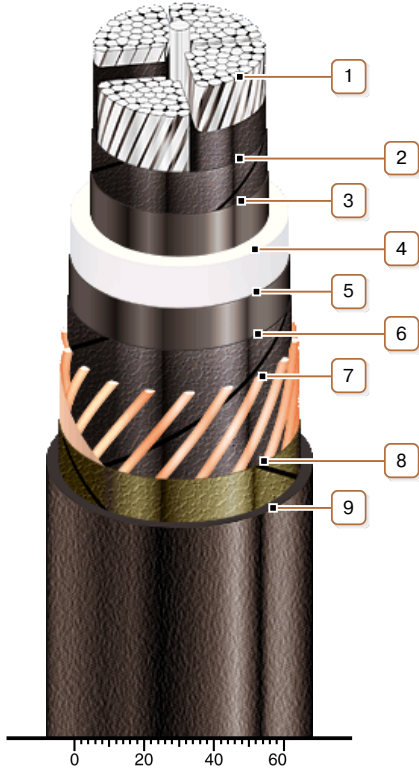
\* Long permissible current loads are calculated for the following conditions: conductor temperature 90 °C, air temperature 30 °C, soil temperature 20 °C, thermal resistivity of soil 1.5 °K·m/W, laying depth in the soil 0.8 m, while laying in flat formation the distance between cables in clear is equal to the cable diameter, while laying in trefoil formation cables are laid side by side, shields are earthed on 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

Notes:

- It is possible to manufacture cable with sealed conductor.
- Conductor segment twisting is not illustrated

#### 2. Lapping layer of semiconductive swellable tape

#### 3. Inner extruded semiconducting layer

#### 4. XLPE insulation

#### 5. Outer extruded semiconducting layer

#### 6. Lapping layer of semiconductive swellable tape

#### 7. Copper screen

#### 8. Lapping layer of nonwoven cloth tape

#### 9. PVC compound outer sheath