

## АПВЭВ-20 3x240 ТУ У 31.3-00214534-017-2003

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

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

Cables are used for laying:

- 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:

АПВЭВ-20 3x240/25 (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.

It is possible to manufacture cable with sealed conductors.

Order entry example:

АПВЭВ-20 3x240/25 (r) ТУ У 31.3-00214534-017-2003

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

Products of this mark meet the requirements:

- single wire cable flame retardance

### TECHNICAL SPECIFICATIONS

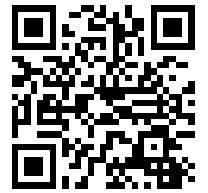
|  |                 |   |
|--|-----------------|---|
| Rated voltage  | kV              | 20  |
| Maximum voltage  | kV              | 24  |
| Number and rated area of conductors  | mm <sup>2</sup> | 3 x 240                                       |
| Insulation thickness   | mm              | 5.5   |
| 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              | 22.7  |
| Permissible continuous current rating *                                      |                 |   |
| • by aerial laying   | A               | 415   |
| • by burial  | A               | 340   |
| 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           | 7100  |
| Rated factory cable length and gross weight of the delivery on the drums     | m, t            | # 25УД-90: 443 • 4.7<br># 26УД-100: 631 • 6.3 |

Notes:

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

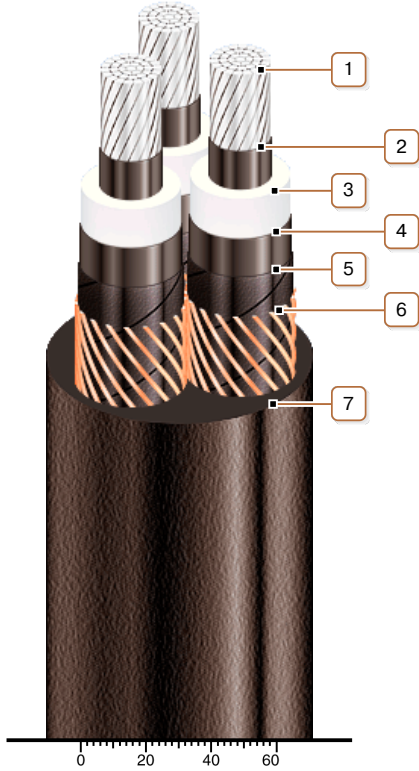
\* Long permissible current loads are calculated for the following conditions: conductor temperature 90 °C, air temperature 30 °C, soil temperature 20 °C, load factor 1.0, thermal resistivity of soil 1.5 °K•m/W, laying depth in the ground 0.8 m, shields are grounded at both ends of the line

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



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### CONSTRUCTION

#### 1. Aluminium multiwire compacted conductor

Notes:

- It is possible to manufacture cable with a single-wire conductor
- 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