



## **АПВЭОВ(κ)-6 3x50 ТУ У 31.3-00214534-017-2003**

Three-core power cables with aluminium conductors, with XLPE, collective screen and PVC compound outer sheath

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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:

АПВЭОВ(κ)-6 3x50/35 (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:

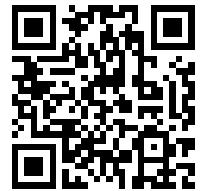
АПВЭОВ(κ)-6 3x50/35 (r) ТУ У 31.3-00214534-017-2003

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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              | 6  |
| Maximum voltage  | kV              | 7.2  |
| Number and rated area of conductors  | mm <sup>2</sup> | 3 x 50   |
| Insulation thickness   | mm              | 2.5  |
| Minimum screen cross-section   | mm <sup>2</sup> | 35   |
| Permissible short circuit current across the screen of minimum cross-section | kA              | 7.1  |
| Maximum permissible short-circuit current in core                            | kA              | 4.7  |
| Permissible continuous current rating *                                      |                 |  |
| • by aerial laying   | A               | 158  |
| • by burial  | A               | 140  |
| 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              | 720  |
| Rated outer diameter of the cable (for reference) **                         | mm              | 45   |
| Cable weight (approximate)   | kg/km           | 2410   |
| Rated factory cable length and gross weight of the delivery on the drums *** | m, t            | # 18аУД-40: 733 • 2.3<br># 20аУД-60: 840 • 2.7<br># 22УД-60: 848 • 3.0 |

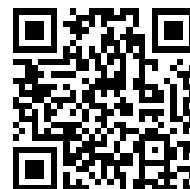
#### Notes:

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

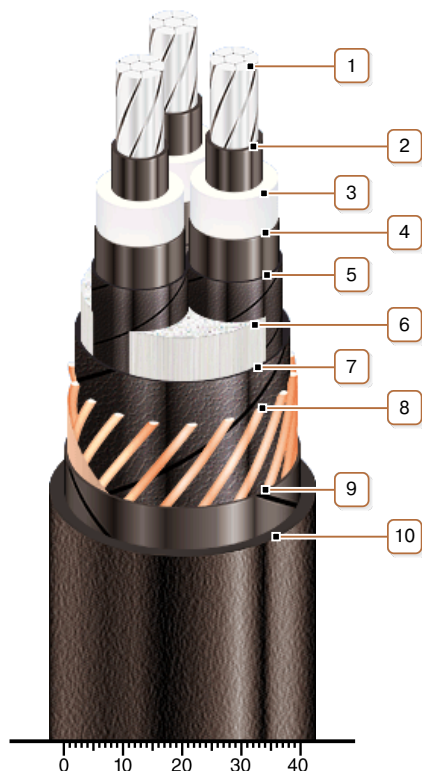
\*\* The external diameter may differ from the rated up to ± 10 %

\*\*\* Отклонение фактической массы брутто от указанного значения может составлять ± 7 %



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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. Interstitial filler with polypropylene bundles

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

#### 8. Copper screen

#### 9. Lapping layer of synthetic paper

#### 10. PVC compound outer sheath

*Note: Conductor twisting is not illustrated*