



## АПвЭоВ(κ)-20 3x185 ТУ У 31.3-00214534-017-2003

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

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:

АПвЭоВ(κ)-20 3x185/70 (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:

АПвЭоВ(κ)-20 3x185/70 (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 185                                      |
| Insulation thickness   | mm              | 5.5  |
| Minimum screen cross-section   | mm <sup>2</sup> | 70   |
| Permissible short circuit current across the screen of minimum cross-section | kA              | 14.2   |
| Maximum permissible short-circuit current in core                            | kA              | 17.5   |
| Permissible continuous current rating *                                      |                 |  |
| • <i>by aerial laying</i>  | A               | 355  |
| • <i>by burial</i>   | A               | 294  |
| Partial discharge factor for rated voltage, not more than                    | pC              | 6  |
| Maximum permissible conductor temperature                                    |                 |  |
| • <i>Continuous</i>  | °C              | +90  |
| • <i>in emergency operation</i>  | °C              | +130   |
| • <i>at short circuit</i>  | °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              | 1184   |
| Rated outer diameter of the cable (for reference) **                         | mm              | 74   |
| Cable weight (approximate)   | kg/km           | 6760   |
| Rated factory cable length and gross weight of the delivery on the drums *** | m, t            | # 22УД-60: 319 • 3.1<br># 25УД-90: 583 • 5.5 |

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*

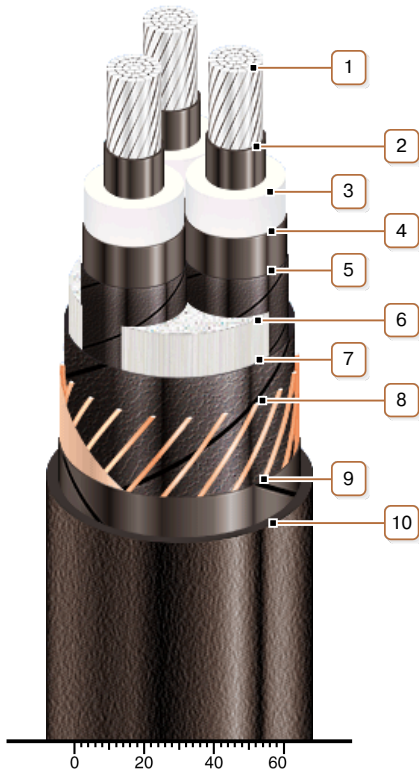
\*\* *The external diameter may differ from the rated up to ± 10 %*

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



## АПвЭОВ(κ)-20 3x185 ТУ У 31.3-00214534-017-2003

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



### 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. 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