



## **АПвЭгПу-20 3x185 ТУ У 31.3-00214534-017-2003**

Power cables with aluminium conductors, with XLPE, longitudinal screen sealing and strengthened polyethylene outer sheath

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

АПвПуг (RU)

Technical cable requirements correspond to IEC 60502-2

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Cables are used for laying:

- *in soil (trenches)*
- *on difficult route sections, according to the unique specification*
- *in the air, including cable structures, if provided the additional fire protection*

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It is possible to manufacture cables with extruded semiconductor layer along outer sheath.

Order entry example:

АПвЭгПу-П-20 3x185/25 ТУ У 31.3-00214534-017-2003

An extruded semiconductor layer along outer sheath ensures the correct testing of cable line with sections of underground laying in polymer pipes.

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It is possible to manufacture cables with an integrated fiber-optic module.

Order entry example:

АПвЭгПу-20 3x185/25 (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:

АПвЭгПу-20 3x185/25 (r) ТУ У 31.3-00214534-017-2003

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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 185                                       |
| 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              | 17.5  |
| Permissible continuous current rating *                                      |                 |   |
| • by aerial laying   | A               | 355   |
| • by burial  | A               | 294   |
| 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  | °C              | -60 ... +50                                   |
| Minimum bending radius by laying   | mm              | 1264  |
| Rated outer diameter of the cable (for reference) **                         | mm              | 79  |
| Cable weight (approximate)   | kg/km           | 6300  |
| Rated factory cable length and gross weight of the delivery on the drums *** | m, t            | # 25УД-90: 443 • 4.4<br># 26УД-100: 631 • 5.8 |

#### 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

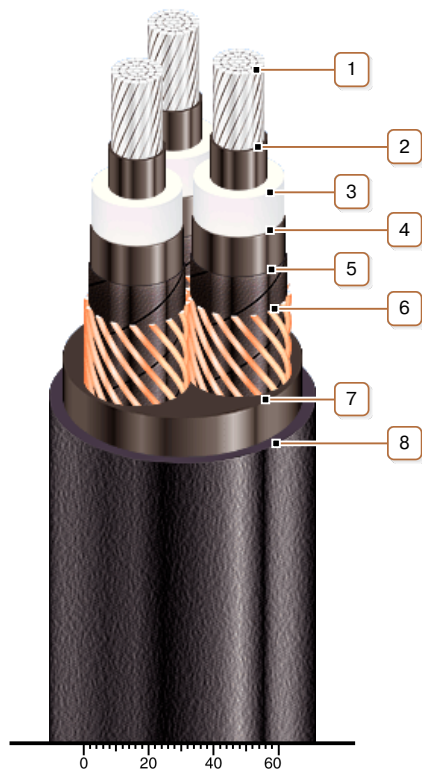
\*\* The external diameter may differ from the rated up to ± 10 %

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



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### CONSTRUCTION

#### 1. Aluminium multiwire compacted conductor

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

#### 7. Extruded filling of PVC compound

#### 8. Strengthened polyethylene outer sheath

Note: It is possible to manufacture cable with extruded semiconductor layer along outer sheath

Note: Conductor twisting is not illustrated