



## **АПвЕрПу-20 3x70** **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:

АПвПуr (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:

АПвЕрПу-П-20 3x70/16 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:

АПвЕрПу-20 3x70/16 (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:

АПвЕрПу-20 3x70/16 (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 70                                       |
| Insulation thickness                                                         | mm              | 5.5                                          |
| Minimum screen cross-section                                                 | mm <sup>2</sup> | 16                                           |
| Permissible short circuit current across the screen of minimum cross-section | kA              | 3.3                                          |
| Maximum permissible short-circuit current in core                            | kA              | 6.6                                          |
| Permissible continuous current rating *                                      |                 |                                              |
| • by aerial laying                                                           | A               | 196                                          |
| • by burial                                                                  | A               | 171                                          |
| 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              | 1040                                         |
| Rated outer diameter of the cable (for reference) **                         | mm              | 65                                           |
| Cable weight (approximate)                                                   | kg/km           | 3940                                         |
| Rated factory cable length and gross weight of the delivery on the drums *** | m, t            | # 22УД-60: 363 • 2.4<br># 25УД-90: 643 • 4.1 |

#### 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

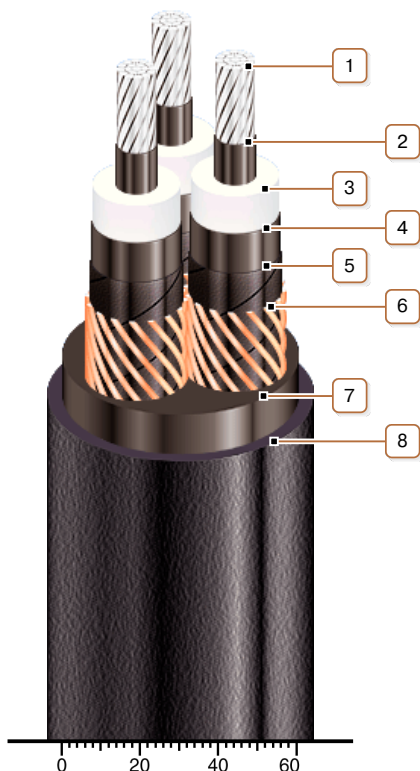
\*\* The external diameter may differ from the rated up to ± 10 %

\*\*\* 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. 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*