

## **АПвЕрПу(κ)-10 3x240 ТУ У 31.3-00214534-017-2003**

Three core power cables with aluminium conductors, XLPE-insulated, core-filled with bundles, with reinforced outer sheath of polyethylene

---

Technical cable requirements correspond to IEC 60502-2

---

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*
- 

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

Order entry example:

АПвЕрПу(κ)-П-10 3x240/25 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.

---

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

Order entry example:

АПвЕрПу(κ)-10 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.

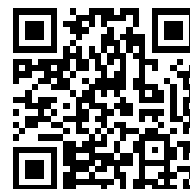
---

It is possible to manufacture cable with sealed conductors.

Order entry example:

АПвЕрПу(κ)-10 3x240/25 (r) ТУ У 31.3-00214534-017-2003

---



## АПвЕгПу(κ)-10 3x240 ТУ У 31.3-00214534-017-2003

Three core power cables with aluminium conductors, XLPE-insulated, core-filled with bundles, with reinforced outer sheath of polyethylene

### TECHNICAL SPECIFICATIONS

|                                                                              |                 |                                              |
|------------------------------------------------------------------------------|-----------------|----------------------------------------------|
| Rated voltage                                                                | kV              | 10                                           |
| Maximum voltage                                                              | kV              | 12                                           |
| Number and rated area of conductors                                          | mm <sup>2</sup> | 3 x 240                                      |
| Insulation thickness                                                         | mm              | 3.4                                          |
| 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                                                  | °C              | -60 ... +50                                  |
| Minimum bending radius by laying                                             | mm              | 1152                                         |
| Rated outer diameter of the cable (for reference) **                         | mm              | 72                                           |
| Cable weight (approximate)                                                   | kg/km           | 4520                                         |
| Rated factory cable length and gross weight of the delivery on the drums *** | m, t            | # 22УД-60: 339 • 2.5<br># 25УД-90: 583 • 4.2 |

#### 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

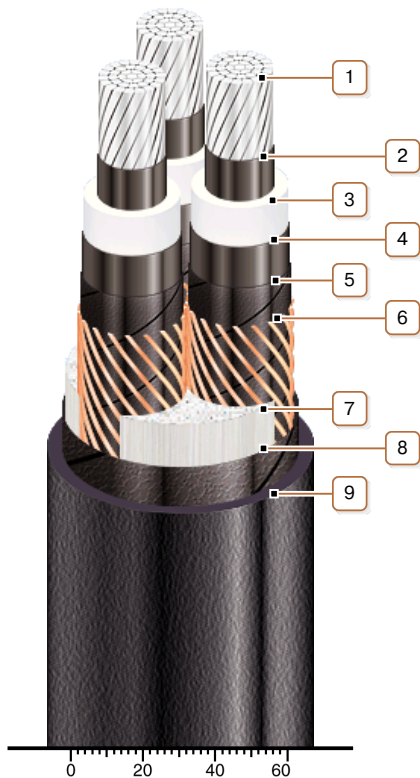
\*\* The external diameter may differ from the rated up to ± 10 %

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



## АПвЕгПу(κ)-10 3x240 ТУ У 31.3-00214534-017-2003

Three core power cables with aluminium conductors, XLPE-insulated, core-filled with bundles, with reinforced outer sheath of polyethylene



### 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. Interstitial filler with polypropylene bundles

#### 8. Lapping layer of semiconductive tape

#### 9. Strengthened polyethylene outer sheath

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

Note: Conductor twisting is not illustrated