



## **ПвЕКВ-20 3x150** **TY Y 31.3-00214534-017-2003**

Three-core power cables with copper conductors, with XLPE, steel-wire armoured, with PVC compound outer sheath

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

Cu/XLPE/CWS/PVC/SWA/PVC (GB)

Technical cable requirements correspond to IEC 60502-2

Cables are used for laying:

- *in places, where mechanical impacts on cable are possible, including tensile forces*
- *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:

ПвЕКВ-20 3x150/25 (OM) TY Y 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.

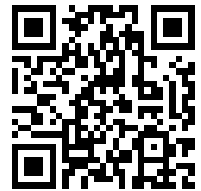
Order entry example:

ПвЕКВ-20 3x150/25 (r) TY Y 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*



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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 150                                                                       |
| 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              | 21.5                                                                          |
| Permissible continuous current rating *                                      |                 |                                                                               |
| • by aerial laying                                                           | A               | 397                                                                           |
| • by burial                                                                  | A               | 332                                                                           |
| 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              | 1296                                                                          |
| Rated outer diameter of the cable (for reference) **                         | mm              | 81                                                                            |
| Cable weight (approximate)                                                   | kg/km           | 12940                                                                         |
| Rated factory cable length and gross weight of the delivery on the drums *** | m, t            | # 25УД-90: 420 • 7.0<br># 26УД-100: 631 • 10.0<br># 30УД-130: **** 552 • 10.0 |

#### Notes:

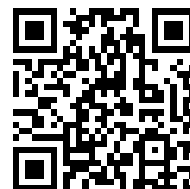
When ordering it is necessary to agree the factory length of the product with the manufacturer

\* 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 %

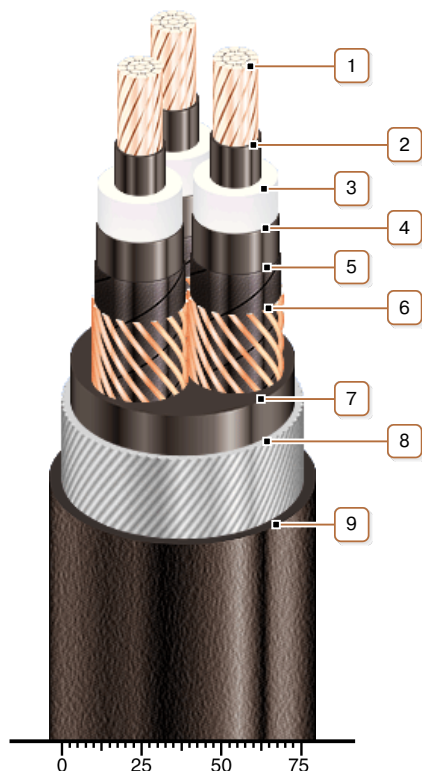
\*\*\* Отклонение фактической массы брутто от указанного значения может составлять ± 7 %

\*\*\*\* Option delivery on not full drum



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### **CONSTRUCTION**

#### **1. Copper multiwire compact 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. Round galvanized steel-wire armour**

#### **9. PVC compound outer sheath**

*Note: Conductor twisting is not illustrated*