







# ПвЭБВнг-6 3х300 ТУ У 31.3-00214534-017-2003

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

Technical cable requirements correspond to IEC 60502-2

Cables are used for laying:

- · in places, where mechanical impacts on cable are possible, except tensile forces
- in premises, tunnels, ducts, mines, dry soil and outdoor under shelter
- · in bunches

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

Order entry example:

ПвЭБВнг-6 3х300/25 (ОМ) 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:

ПвЭБВнг-6 3х300/25 (г) ТУ У 31.3-00214534-017-2003

Fire safety code in accordance with ДСТУ 4809:2007: ΠБ120000000

Products of this mark meet the requirements:

- · single wire cable flame retardance
- · bunched cable flame retardance category A







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## **TECHNICAL SPECIFICATIONS**

| Rated voltage   | kV    | 6                           |
|---|-------|-----------------------------|
| Maximum voltage   | kV    | 7.2                         |
| Number and rated area of conductors                         | mm²   | 3 x 300                     |
| Insulation thikness   | mm    | 2.8                         |
| Minimum screen cross-section                                | mm²   | 25                          |
| Permissible short circuit current across the screen of      | kA    | 5.1                         |
| minimum cross-section                                       |       |                             |
| Maximum permissible short-circuit current in core           | kA    | 42.9                        |
| Permissible continious current rating *                     |       |                             |
| <ul> <li>by aerial laying</li> </ul>                        | Α     | 599                         |
| • by burial   | Α     | 482                         |
| Partial discharge factor for rated voltage, not more than   | рC    | 6                           |
| Maximum permissible conductor temperature                   |       |                             |
| Continious  | °C    | +90                         |
| <ul> <li>in emergency operation</li> </ul>                  | °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    | 1280                        |
| Rated outer diameter of the cable (for reference) **        | mm    | 80                          |
| Cable weight (approximate)                                  | kg/km | 14360                       |
| Rated factory cable length and gross weight of the delivery | m, t  | # 25УД-90: 443 • 7.9        |
| on the drums ***  |       | # 26УД-100: **** 569 • 10.0 |

#### Notes:

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

<sup>\*</sup> 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

<sup>\*\*</sup> The external diameter may differ from the rated up to  $\pm$  10 %

<sup>\*\*\*</sup> Отклонение фактической массы брутто от указанного значения может составлять  $\pm\,7\,\%$ 

<sup>\*\*\*\*</sup> Option delivery on not full drum









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### **CONSTRUCTION**

- 1. Copper multiwire compact conductor
- 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. Extruded filling of PVC compound
- 8. Double galvanized steel-tape armour
- 9. Low flammable PVC compound outer sheath

Note: Conductor twisting is not illustrated