



7, Autogennaya Str., Kharkov, 61099, Ukraine. Phone: (+38-057) 728-1244, 728-1241. Fax: (+38-057) 728-1243, (+38-0572) 946-830 E-mail: market@yuzhcable.com.ua

# ПвЭБВ-20 3х300 ТУ У 31.3-00214534-017-2003

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

For the cable of this mark correspond the foreign-made analogues: 2XSEYBY (DE)  $\cdot$  Cu/SC/XLPE/SC/CuT/STA/PVC (GB)  $\cdot$  ПвБВ (RU) 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
- single laying

It is possible to manufacture cables with an integrated fiber-optic module. Order entry example:  $\Pi_B \Im BB-20 \ 3x300/25$  (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:  $\Pi_B \Im \Box B \Im \Box B \Im \Box 3 X 300/25$  ( $\Gamma$ ) TY Y 31.3-00214534-017-2003

Fire safety code in accordance with ДСТУ 4809:2007: ПБ10000000 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                         | mm²   | 3 x 300                     |
| Insulation thikness   | mm    | 5.5                         |
| 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 *                     |       |                             |
| • by aerial laying  | А     | 599                         |
| • by burial   | А     | 482                         |
| Partial discharge factor for rated voltage, not more than   | рС    | 6                           |
| Maximum permissible conductor temperature                   |       |                             |
| Continious  | °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    | 1456                        |
| Rated outer diameter of the cable (for reference) **        | mm    | 91                          |
| Cable weight (approximate)                                  | kg/km | 16260                       |
| Rated factory cable length and gross weight of the delivery | m, t  | # 25УД-90: 305 • 6.5        |
| on the drums ***  |       | # 26УД-100: 457 • 9.3       |
|   |       | # 30УД-130: **** 439 • 10.0 |
| Natasi  |       |                             |

Notes:

When ordering it is neccesary 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  $\pm$  10 %

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

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

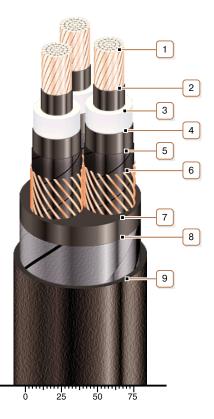




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## CONSTRUCTION

- 1. Copper multiwire compact conductor
- 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. PVC compound outer sheath

Note: Conductor twisting is not illustrated