



## **ПВЭКВНГ-20 3x35 ТУ У 31.3-00214534-017-2003**

Three-core power cables with copper conductors, flame-retardant, with XLPE, steel-wire 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, including 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:

ПВЭКВНГ-20 3x35/16 (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:

ПВЭКВНГ-20 3x35/16 (Г) ТУ У 31.3-00214534-017-2003

Fire safety code in accordance with ДСТУ 4809:2007: ПБ120000000

Products of this mark meet the requirements:

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



## ПвЭКВнг-20 3x35 ТУ У 31.3-00214534-017-2003

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

### TECHNICAL SPECIFICATIONS

Rated voltage	kV	20
Maximum voltage	kV	24
Number and rated area of conductors	mm <sup>2</sup>	3 x 35
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	5
Permissible continuous current rating *		
• by aerial laying	A	172
• by burial	A	154
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	1008
Rated outer diameter of the cable (for reference) **	mm	63
Cable weight (approximate)	kg/km	6460
Rated factory cable length and gross weight of the delivery on the drums ***	m, t	# 22УД-60: 450 • 3.8 # 25УД-90: 771 • 6.6

#### 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

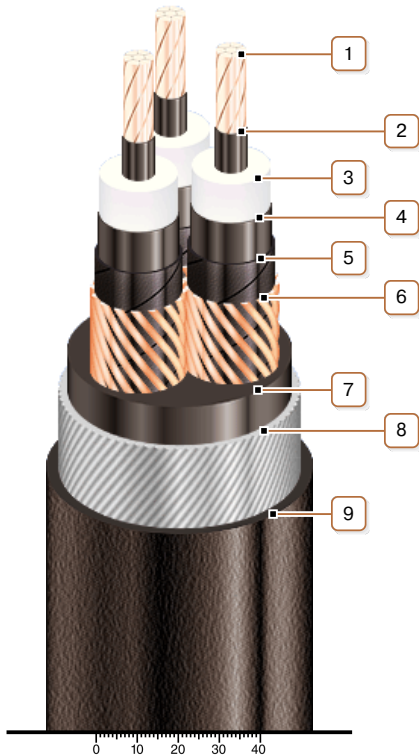
\*\* The external diameter may differ from the rated up to ± 10 %

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



## ПвЭКВнг-20 3x35 ТУ У 31.3-00214534-017-2003

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



### 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. Low flammable PVC compound outer sheath**

*Note: Conductor twisting is not illustrated*