

## **ПВЭКП-20 3x50** **ТУ У 31.3-00214534-017-2003**

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

---

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

Cu/XLPE/CWS/PVC/SWA/MDPE (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 soil (trenches)*
- *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:

ПВЭКП-П-20 3x50/16 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:

ПВЭКП-20 3x50/16 (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.

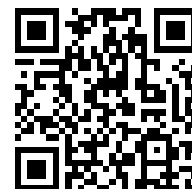
---

It is possible to manufacture cable with sealed conductors.

Order entry example:

ПВЭКП-20 3x50/16 (r) ТУ У 31.3-00214534-017-2003

---



## ПВЭКП-20 3x50 ТУ У 31.3-00214534-017-2003

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

### TECHNICAL SPECIFICATIONS

Rated voltage	kV	20
Maximum voltage	kV	24
Number and rated area of conductors	mm <sup>2</sup>	3 x 50
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	7.2
Permissible continuous current rating *		
• by aerial laying	A	205
• by burial	A	181
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	1040
Rated outer diameter of the cable (for reference) **	mm	65
Cable weight (approximate)	kg/km	6780
Rated factory cable length and gross weight of the delivery on the drums ***	m, t	# 22УД-60: 363 • 3.4 # 25УД-90: 643 • 5.9

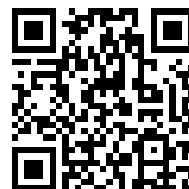
#### Notes:

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

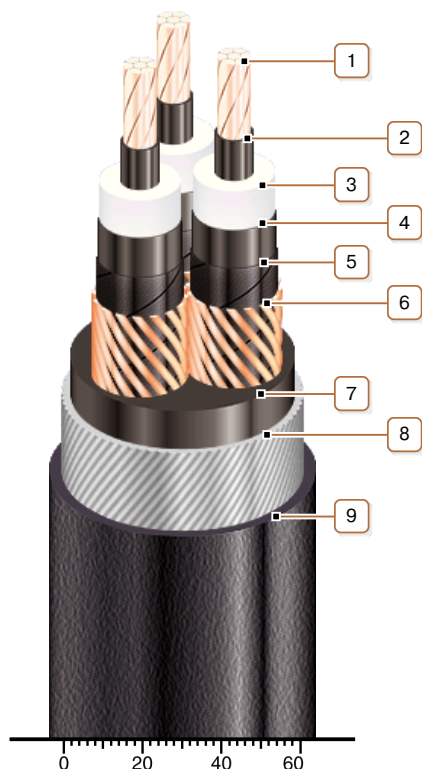
\*\* The external diameter may differ from the rated up to ± 10 %

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



## ПВЭКП-20 3x50 ТУ У 31.3-00214534-017-2003

Three-core power cables with copper conductors, with XLPE, steel-wire armoured, with polyethylene 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. Outer sheath of polyethylene or polyethylene copolymer

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

*Note: Conductor twisting is not illustrated*