



## **ПВЭКВНГ-35 3x70 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

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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*

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

Order entry example:

ПВЭКВНГ-35 3x70/16 (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.

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It is possible to manufacture cable with sealed conductors.

Order entry example:

ПВЭКВНГ-35 3x70/16 (r) ТУ У 31.3-00214534-017-2003

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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*



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### **TECHNICAL SPECIFICATIONS**

Rated voltage	kV	35
Maximum voltage	kV	42
Number and rated area of conductors	mm <sup>2</sup>	3 x 70
Insulation thickness	mm	8.6
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	10
Permissible continuous current rating *		
• <i>by aerial laying</i>	A	253
• <i>by burial</i>	A	220
Partial discharge factor for rated voltage, not more than	pC	6
Maximum permissible conductor temperature		
• <i>Continuous</i>	°C	+90
• <i>in emergency operation</i>	°C	+130
• <i>at short circuit</i>	°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	1344
Rated outer diameter of the cable (for reference) **	mm	84
Cable weight (approximate)	kg/km	11800
Rated factory cable length and gross weight of the delivery on the drums	m, t	# 25УД-90: 420 • 6.5 # 26УД-100: 604 • 8.9 # 30УД-130: ***605 • 10.0

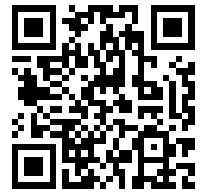
**Notes:**

*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*

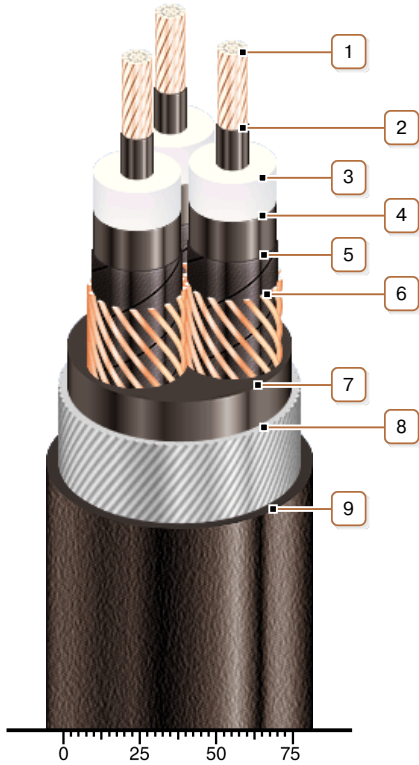
*\*\* The external diameter may differ from the rated up to ± 10 %*

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

*Note: Conductor twisting is not illustrated*