

## ВВГнгд-К 4x50/35-1 ТУ У 31.3-00214534-048:2007

Power cables with copper conductors, with PVC compound insulation, with concentric conductor, with low fire-risk PVC-compound outer sheath

Cables are used for laying:

- in bunches
- in premises, dry ducts and tunnels, in corrosive environment
- in bunches, in crowded places
- in locations, where a high level of electrical protection is required

It is possible to manufacture armoured cable

Fire safety code in accordance with ДСТУ 4809:2007: ПБ123121000

Products of this mark meet the requirements:

- single wire cable flame retardance
- bunched cable flame retardance category A
- toxicity class Tk3 of the combustion products of nonmetallic elements (toxicity index over 120 g/m<sup>3</sup>)
- class ДТк1 on smoke-forming ability by smouldering of non-metallic elements (coefficient of smoke formation from 50 to 500 m<sup>2</sup>/kg)
- class ДПк2 on smoke-forming ability by combustion (minimum luminous flux more than 60 %)
- corrosive class Kk1 of combustion products of non-metallic elements (the number of halogen hydrides less than 150 mg/g, pH less than 4.3, specific conductivity more than 10 μS/mm)

### TECHNICAL SPECIFICATIONS

Rated voltage	kV	1
Number and rated area of conductors	mm <sup>2</sup>	4 x 50
Nominal cross-section area of concentric conductor	mm <sup>2</sup>	35
Phase insulation thickness	mm	1.4
Permissible continuous current rating (AC of industrial frequency) *		
• by aerial laying	A	155
• by burial	A	173
Maximum permissible conductor temperature		
• Continuous	°C	+70
• at short circuit	°C	+130
Operating temperature range	°C	-50 ... +50
Minimum bending radius by laying	mm	285
Rated outer diameter of the cable (for reference) **	mm	38
Cable weight (approximate)	kg/km	3270
Rated factory cable length and gross weight of the delivery on the drums	m, t	# 16a: 700 • 2.5 # 18: 800 • 3.1

Notes:

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

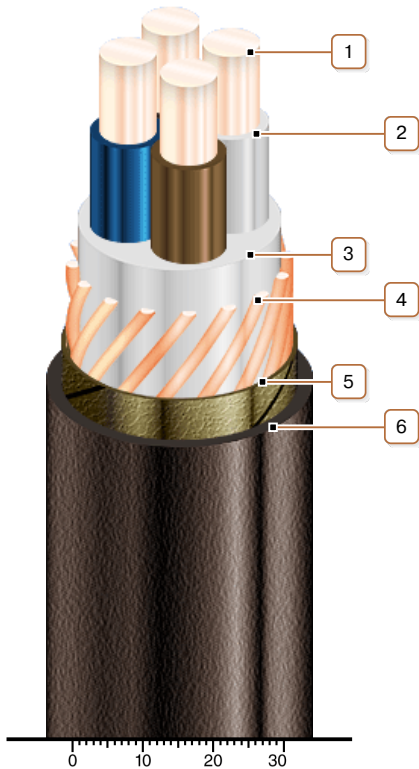
\* Long permissible current loads are calculated during operation in four-wire networks with load in all the conductors for the following conditions: air temperature plus 25 °C, soil temperature plus 15 °C, thermal resistivity of soil 1.2 °K·m/W, laying depth in the soil 0.7 m

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



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### **CONSTRUCTION**

1. *Copper conductor*
2. *Low fire-risk PVC compound insulation*
3. *Low fire-risk PVC-compound inner sheath*
4. *Concentric copper conductor*
5. *Lapping layer of nonwoven cloth tape*
6. *Low fire-risk PVC compound outer sheath*

*Note: Conductor twisting is not illustrated*