

## ВВГнгд-К 3х120/70-1 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 Кк1 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

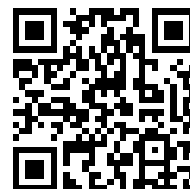
|  |                 |  |
|--|-----------------|--|
| Rated voltage  | kV              | 1  |
| Number and rated area of conductors  | mm <sup>2</sup> | 3 x 120  |
| Nominal cross-section area of concentric conductor                           | mm <sup>2</sup> | 70   |
| Phase insulation thickness   | mm              | 1.6  |
| Permissible continuous current rating (AC of industrial frequency) *         |                 |  |
| • <i>by aerial laying</i>  | A               | 302  |
| • <i>by burial</i>   | A               | 317  |
| Maximum permissible conductor temperature                                    |                 |  |
| • <i>Continuous</i>  | °C              | +70  |
| • <i>at short circuit</i>  | °C              | +130   |
| Operating temperature range  | °C              | -50 ... +50  |
| Minimum bending radius by laying   | mm              | 337.5  |
| Rated outer diameter of the cable (for reference) **                         | mm              | 45   |
| Cable weight (approximate)   | kg/km           | 5110   |
| Rated factory cable length and gross weight of the delivery on the drums *** | m, t            | # 16a: 480 • 2.7<br># 18: 550 • 3.3<br># 20: 870 • 5.1 |

Notes:

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

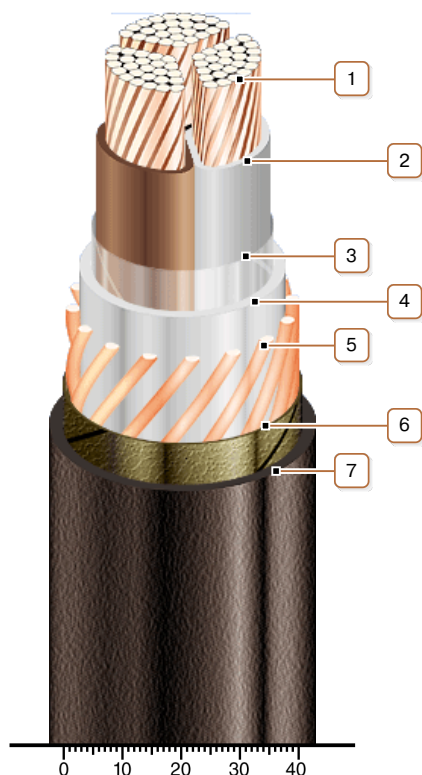
\* Long permissible current loads are calculated for the following conditions: air temperature plus 25 °C, soil temperature plus 15 °C, thermal resistivity of soil 1.2 °K·m/W, laying depth in the soil 0.7 m

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



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### **CONSTRUCTION**

1. Copper multiwire compact conductor
2. Low fire-risk PVC compound insulation
3. PET film winding
4. Low fire-risk PVC-compound inner sheath
5. Concentric copper conductor
6. Lapping layer of nonwoven cloth tape
7. Low fire-risk PVC compound outer sheath

*Note: Conductor twisting is not illustrated*