

## ВВГнгд 1х500-1 ТУ У 31.3-00214534-018-2003

Power cables with copper conductors, with low fire-risk PVC-compound insulation, 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

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> | 1 x 500                             |
| Phase insulation thickness                                                   | mm              | 2.8                                 |
| Permissible continuous current rating (AC of industrial frequency) *         |                 |                                     |
| • by aerial laying                                                           | A               | 792                                 |
| • by burial                                                                  | A               | 690                                 |
| Permissible continuous current rating (DC) *                                 |                 |                                     |
| • by aerial laying                                                           | A               | 1054                                |
| • by burial                                                                  | A               | 1121                                |
| Maximum permissible conductor temperature                                    |                 |                                     |
| • Continuous                                                                 | °C              | +70                                 |
| • in emergency operation                                                     | °C              | +80                                 |
| • at short circuit                                                           | °C              | +130                                |
| Operating temperature range                                                  | °C              | -50 ... +50                         |
| Minimum bending radius by laying                                             | mm              | 380                                 |
| Rated outer diameter of the cable (for reference) **                         | mm              | 38                                  |
| Cable weight (approximate)                                                   | kg/km           | 5190                                |
| Rated factory cable length and gross weight of the delivery on the drums *** | m, t            | # 16a: 700 • 3.9<br># 18: 800 • 4.6 |

Notes:

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

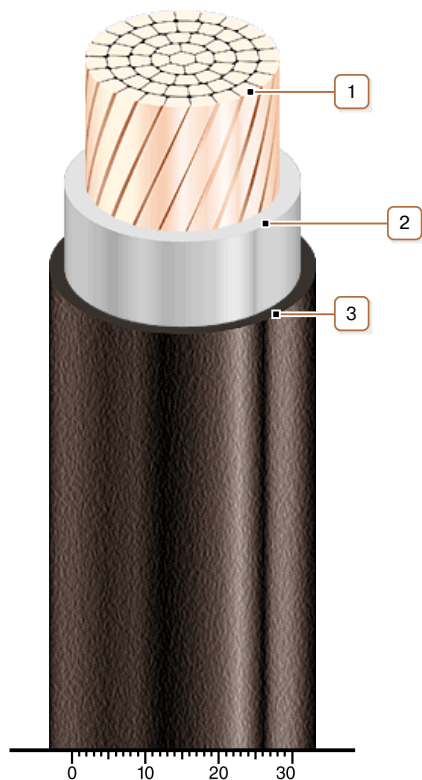
\* Long permissible current loads are calculated for the following conditions: air temperature plus 25 °C, soil temperature plus 15 °C, thermal resistivity of soil 1.2 °K·m/W, laying depth in the soil 0.7 m

\*\* 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. *Low fire-risk PVC compound outer sheath*