





## ПвВГнгд-FR 3x2.5+1x1.5-1 ТУ У 31.3-00214534-055:2006



Fire resistant power cables with copper conductors, XLPE-insulated, 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
- power supply cable lines of NPP safety system equipment, circuits wiring of fire safety systems (fire alarm circuits, power supply of fire-fighting pumps, lightning of emergency exits and evacuation routes, smoke exhaust and blowing ventilation systems, evacuation elevators); for wiring in hospital surgical wings, emergency and equipment (current collectors) power supply circuits, operating in a fire emergency

Manufacturing of extruded fire-resistant barrier is possible

Fire safety code in accordance with ДСТУ 4809:2007: ПБ123121080

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  $\mu$ TK1 on smoke-forming ability by smouldering of non-metallic elements (coefficient of smoke formation from 50 to 500 m²/kg)
- class ДΠκ2 on smoke-forming ability by combustion (minimum luminous flux more than 60 %)
- corrosive class  $K\kappa 1$  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  $\mu$ S/mm)
- flame-resistant class FE180 under fire conditions with a temperature not less than 750 °C









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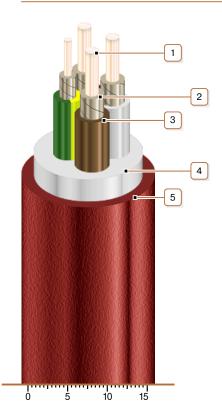
### **TECHNICAL SPECIFICATIONS**

| Rated voltage  | kV    | 1                 |
|--|-------|-------------------|
| Number and rated area of conductors                                  | mm²   | 3 x 2.5 + 1 x 1.5 |
| Phase insulation thikness  | mm    | 0.7               |
| Permissible continious current rating (AC of industrial frequency) * |       |                   |
| by aerial laying   | Α     | 34                |
| • by burial  | Α     | 40                |
| Maximum permissible conductor temperature                            |       |                   |
| Continious   | °C    | +90               |
| in emergency operation   | °C    | +130              |
| at short circuit   | °C    | +250              |
| Operating temperature range  | °C    | -50 +50           |
| Minimum bending radius by laying                                     | mm    | 135               |
| Rated outer diameter of the cable (for reference) **                 | mm    | 18                |
| Cable weight (approximate)   | kg/km | 310               |
| Rated factory cable length and gross weight of the delivery          | m, t  | # 12: 1010 • 0.4  |
| on the drums ***   |       |                   |
|  |       |                   |

#### Notes:

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

<sup>\*\*</sup> The external diameter may differ from the rated up to  $\pm$  10 %



### CONSTRUCTION

- 1. Copper conductor
- 2. Fire-resistant barrier

Note: Manufacturing of extruded fire-resistant barrier is possible

- 3. XLPE insulation
- 4. Low fire-risk PVC-compound inner sheath
- 5. Low fire-risk PVC compound outer sheath

Note: Conductor twisting is not illustrated

<sup>\*</sup> 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