



## **АПвЕгПнг-15 3x50 ТУ У 31.3-00214534-017-2003**

Power cables with aluminium conductors, flame-retardant, with XLPE, longitudinal screen sealing and polymer compound outer sheath

---

Technical cable requirements correspond to IEC 60502-2

Cables are used for laying:

- *in premises, tunnels, ducts, mines, dry soil and outdoor under shelter*
- *single laying*

---

It is possible to manufacture cables with extruded semiconductor layer along outer sheath.

Order entry example:

АПвЕгПнг-П-15 3x50/16 ТУ У 31.3-00214534-017-2003

An extruded semiconductor layer along outer sheath ensures the correct testing of cable line with sections of underground laying in polymer pipes.

---

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

Order entry example:

АПвЕгПнг-15 3x50/16 (ОМ) 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.

---

It is possible to manufacture cable with sealed conductors.

Order entry example:

АПвЕгПнг-15 3x50/16 (г) ТУ У 31.3-00214534-017-2003

---

It is possible manufacturing of cables in versions (A) and (B), flame-retardant when laying in bunches

---

Fire safety code in accordance with ДСТУ 4809:2007: ПБ101122000

Products of this mark meet the requirements:

- *single wire cable flame retardance*
- *toxicity class Tk1 of the combustion products of nonmetallic elements (toxicity index from 13 up to 40 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 Kk2 of combustion products of non-metallic elements (the number of halogen hydrides less than 150 mg/g, pH more than 4.3, specific conductivity less than 10 μS/mm)*



## АПвЕгПнг-15 3x50 ТУ У 31.3-00214534-017-2003

Power cables with aluminium conductors, flame-retardant, with XLPE, longitudinal screen sealing and polymer compound outer sheath

### TECHNICAL SPECIFICATIONS

Rated voltage	kV	15
Maximum voltage	kV	17.5
Number and rated area of conductors	mm <sup>2</sup>	3 x 50
Insulation thickness	mm	4.5
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	4.7
Permissible continuous current rating *		
• by aerial laying	A	158
• by burial	A	140
Partial discharge factor for rated voltage, not more than	pC	6
Maximum permissible conductor temperature		
• Continuous	°C	+90
• in emergency operation	°C	+130
• at short circuit	°C	+250
Operating temperature range	°C	-60 ... +50
Minimum bending radius by laying	mm	912
Rated outer diameter of the cable (for reference) **	mm	57
Cable weight (approximate)	kg/km	3280
Rated factory cable length and gross weight of the delivery on the drums ***	m, t	# 18аУД-40: 423 • 1.9 # 20аУД-60: 526 • 2.4 # 25УД-90: 838 • 4.3

#### 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

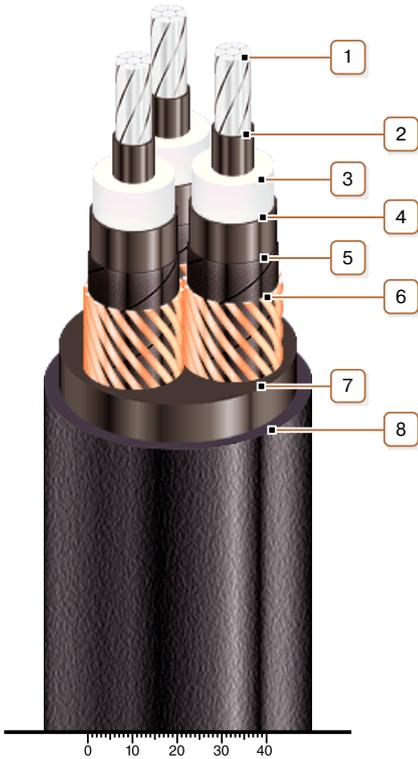
\*\* The external diameter may differ from the rated up to ± 10 %

\*\*\* Отклонение фактической массы брутто от указанного значения может составлять ± 7 %



## АПвЕгПнг-15 3x50 ТУ У 31.3-00214534-017-2003

Power cables with aluminium conductors, flame-retardant, with XLPE, longitudinal screen sealing and polymer compound outer sheath



### CONSTRUCTION

**1. Aluminium multiwire compacted 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. Flame-retardant polymer compound outer sheath**

*Note: It is possible to manufacture cable with extruded semiconductor layer along outer sheath*

*Note: Conductor twisting is not illustrated*