

POWER CABLES WITH PLASTIC INSULATION FOR VOLTAGE 6 kV

ТУ 16.К17-063-2010 ГОСТ Р 55025-2012

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(A)ВВГ, (A)ВБШв, (A)ВВГнг(A), (A)ВБШвнг(A), (A)ВВГнг(A)-LS, (A)ВБШвнг(A)-LS
(A)VVG, (A)VBSHV, (A)VVGng(A), (A)VBSHVng(A), (A)VVGng(A)-LS, (A)VBSHVng(A)-LS

APPLICATION

The cables are intended for transmission and distribution of electric power in fixed electrical installations with nominal AC voltage 6 kV and nominal frequency 50 Hz. Max. voltage of three-phase network for these cables is 7,2kV. The cables are intended for general industrial use and for nuclear power plants, and they are sold domestically and abroad.

Climatic version is УХЛ (moderate and cold climate) and Т (tropical climate), location categories are 1 and 5 acc. to GOST 15150-69.

The cables comply with safety requirements acc. to GOST 12.2.007.14-75.

DESIGN

1. Conductor – copper or aluminum, multi-conductor, sector-shaped, Class 1 or 2 acc. to GOST 22483-2012. Conductor resistance per 1 km and temperature 20°C complies with Class 1 and 2 acc. to GOST 22483-2012.

2. Conductor insulation – for cables В..., АВ... – PVC compound; for cables В..., АВ... in version «нг(A)-LS» – fire-resistant PVC compound. Nominal insulation wall thickness is 3,40 mm. Colour identifications of insulated conductors are longitudinal stripes with width min. 1 mm. Insulated conductors colours are as following: white (natural), brown, black.

3. Cable core – insulated conductors are stranded into a cable core (right-hand stranding direction). Interstices of the core composed of insulated conductors are filled with extruded kordel. Kordel material is similar to inner sheath material.

4. Belt wrapping – for cables АВВГ, АВБШв, ВВГ, ВБШв – PVC compound; for cables АВВГнг(A), ВВГнг(A), АВБШвнг(A), ВБШвнг(A) – flame-retardant PVC compound; for cables АВВГнг(A)-LS, ВВГнг(A)-LS, АВБШвнг(A)-LS, ВБШвнг(A)-LS – fire-resistant PVC compound.

5. Conductive shield – two tapes of current-conducting material taped helically with gap.

6. Metallic shield – two copper tapes with thickness min. 0,12 mm taped helically with gap.

Nominal cross-section of metallic shield:

- min. 16 mm² for cables with conductor cross-section 35 - 120 mm²;
- min. 25 mm² for cables with conductor cross-section 150 - 240 mm²;

Unarmoured cables

7. Separating layer – two tapes of PVC compound, PP taped with overlapping.

8. Outer sheath - for cables АВВГ, ВВГ – PVC compound; for cables АВВГнг(A), ВВГнг(A) – flame-retardant PVC compound; for cables АВВГнг(A)-LS, ВВГнг(A)-LS – of fire-resistant PVC compound.

Armoured cables

9. Bedding – tapes of PVC compound, PP taped with overlapping; extruded inner sheath for cables АВБШвнг(A), ВБШвнг(A) is made of flame-retardant PVC compound; for cables АВБШвнг(A)-LS, ВБШвнг(A)-LS – of fire-resistant PVC compound.

10. Protective covering – armour of two steel tapes is applied so that upper tape overlaps the gaps between the wraps of the lower tape.

11. Protective jacket – for cables АВБШв, ВБШв it is extruded of PVC compound; for cables АВБШвнг(A), ВБШвнг(A) – of flame-retardant PVC compound; for cables (A)ВБШвнг(A)-LS – of fire-resistant PVC compound.

OPERATION AND LAYING CONDITIONS

1. The cables are intended for operation in AC power systems. Armoured cable is intended for laying in ground (in trenches), except for heaving and collapsible soils.

2. Cables ВВГ, АВВГ, ВБШв, АВБШв are intended for laying of single cable lines in cable constructions and indoors. Using of a fireproofing is mandatory in case of bunched laying of these cables.

3. Cables ВВГнг(A), АВВГнг(A), ВБШвнг(A), АВБШвнг(A) are intended for bunched laying in cable constructions of external (open) electrical installations (in overhead cable tray systems and in cable galleries).

4. Cables ВВГнг(A)-LS, АВВГнг(A)-LS, ВБШвнг(A)-LS, АВБШвнг(A)-LS are intended for bunched laying in cable constructions and rooms of internal (closed) electrical installations, including places that use nuclear power.

5. Operation at ambient temperature: from - 50°C to +50°C.

6. Cable laying without preheating is possible at ambient temperature not less than minus 15 °C.

7. Permissible cable bending radius by laying shall be min. 7,5 cable diameters.

DELIVERY

1. The cables are delivered on wooden drums acc. to GOST 5151-79 «Wooden drums for electrical wires and cables». Wooden drums dimensions are shown in the Table B.2 of Appendix B.

Packing and marking comply with GOST 18690-2012 «Cables, wires, cords and cable accessories».

2. Max. cable length on drum is limited by weight of 5 tons.

BASIC RANGE OF PRODUCTS

Cable type	Number of conductors	Nominal cross-section of main conductors, mm ²
		Nominal voltage, kV
АВВГ, АВШв, АВВГнг(А), АВШвнг(А), АВВГнг(А)-LS, АВШвнг(А)-LS	3	6
ВВГ, ВШв, ВВГнг(А), ВШвнг(А), ВВГнг(А)-LS, ВШвнг(А)-LS		35-240