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ПвЭВнгд-60 1х350 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, flame-retardant, with XLPE and PVC compound outer sheath and with low smoke and gas emission

For the cable of this mark correspond the foreign-made analogues: ПвВнг(B)-LS (RU) • ПвВнг(A)-LS (RU) Technical cable requirements correspond to IEC 60840

Cables are used for laying:

- in premises, tunnels, ducts, mines, dry soil and outdoor under shelter
- in bunches

• at sites, where low smoke and gas emission are required (NPP, subway, large industrial facilities, high-rise buildings, etc.)

It is possible to manufacture cables with an integrated fiber-optic module. Order entry example:

ПвЭВнгд-60 1x350/95 (ОМ) ТУ У 31.3-00214534-060:2011

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 conductor. Order entry example: ПвЭВнгд-60 1х350/95 (г) ТУ У 31.3-00214534-060:2011

Fire safety code in accordance with ДСТУ 4809:2007: ΠБ132121000

Products of this mark meet the requirements:

· single wire cable flame retardance

bunched cable flame retardance category B

• toxicity class Tk2 of the combustion products of nonmetallic elements (toxicity index from 40 up to 120 g/m³)

· class ДТк1 on smoke-forming ability by smouldering of non-metallic elements (coefficient of smoke formation from 50 to 500 m^2/kg)

• class ДΠκ2 on smoke-forming ability by combustion (minimum luminous flux more than 60 %)

 corrosive class Kκ1 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 μ S/mm)





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ПвЭВнгд-60 1x350 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, flame-retardant, with XLPE and PVC compound outer sheath and with low smoke and gas emission

TECHNICAL SPECIFICATIONS

Maximum voltagekV72.5Conductor rated areamm²350Minimum screen cross-sectionmm²35Partial discharge factor for rated voltage, not more thanpC6Permissible short circuit current across the screen ofkA7.1minimum cross-sectionmm²50.1Maximum permissible short-circuit current in corekA50.1Permissible continious current rating by aerial laying *• in trefoil formation with double-side screen earthingA695• in trefoil formation with single-side screen earthing or ross screen earthingA704• plane with double-side screen earthing or cross screenA872• anne with single-side screen earthing or cross screenA607• plane with double-side screen earthing or ross screen earthingA567• in trefoil formation with single-side screen earthing or ross screen earthingA523• plane with double-side screen earthing or cross screenA636• at short circuit* C+90+130• blane with double-side screen earthing or cross screenA636• plane with double-side screen earthing or cross screenA636• plane with doub	Rated voltage	kV	60
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Partial discharge factor for rated voltage, not more than pC 6 Permissible short circuit current across the screen of kA 7.1 Maximum permissible short-circuit current in core kA 50.1 Permissible continious current rating by aerial laying * . . • in trefoil formation with double-side screen earthing or cross screen earthing A 695 • in trefoil formation with single-side screen earthing or cross screen earthing A 704 • plane with double-side screen earthing or cross screen A 872 earthing Permissible continious current rating by burial * . • in trefoil formation with double-side screen earthing or cross screen A 607 earthing A 567 . • in trefoil formation with single-side screen earthing or cross screen earthing A 523 • plane with double-side screen earthing or cross screen A 636 earthing A 523 . • lane with single-side screen earthing or cross screen A 636 earthing C +130 . • at short circuit		mm²	350
Permissible short circuit current across the screen of minimum cross-section kA 7.1 Maximum permissible short-circuit current in core kA 50.1 Permissible continious current rating by aerial laying * . • in trefoil formation with double-side screen earthing A 695 • in trefoil formation with single-side screen earthing or cross screen earthing A 704 • plane with double-side screen earthing or cross screen A 872 earthing Permissible continious current rating by burial * . • in trefoil formation with double-side screen earthing or cross screen earthing A 567 • in trefoil formation with double-side screen earthing or cross screen earthing A 567 • in trefoil formation with double-side screen earthing or cross screen earthing A 523 • plane with double-side screen earthing or cross screen earthing A 523 • plane with double-side screen earthing or cross screen earthing C +90 • plane with single-side screen earthing or cross screen A 636 • at short circuit °C +90 . • at short circuit °C +90 . • at short circuit °C	Minimum screen cross-section	mm²	35
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Maximum permissible short-circuit current in corekA50.1Permissible continious current rating by aerial laying *••• in trefoil formation with double-side screen earthingA695• in trefoil formation with single-side screen earthing orA737cross screen earthingA704• plane with double-side screen earthing or cross screenA872earthingA704Permissible continious current rating by burial *••• in trefoil formation with double-side screen earthing orA607• in trefoil formation with double-side screen earthing orA607• in trefoil formation with single-side screen earthing orA636• plane with double-side screen earthing or cross screenA636• plane with double-side screen earthing or cross screenA636• plane with single-side screen earthing or cross screenA636• plane with single-side screen earthing or cross screenA636• continious°C+90•• in emergency operation°C+130• a short circuit°C+250Operating temperature range (in climate version NF)°C-25 +65Minimum bending radius by layingmm912Rated outer diameter of the cable (for reference) **mm57Cable weight (approximate)kg/km7100Rated factory cable length and gross weight of the deliverym, t# 22YJ-60: 499 • 4.5on the drums ***# 25YJ-90: 838	Permissible short circuit current across the screen of	kA	7.1
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· plane with single-side screen earthing or cross screen earthingA872Permissible continious current rating by burial * • in trefoil formation with double-side screen earthingA567• in trefoil formation with single-side screen earthing or cross screen earthingA607• plane with double-side screen earthing or • plane with double-side screen earthingA523• plane with double-side screen earthing or cross screen earthingA636• continious° C+90• continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range (in climate version NF)° C-50 +50Operating temperature range (in climate version T)° C-25 +65Minimum bending radius by layingmm912Rated outer diameter of the cable (for reference) **mm57Cable weight (approximate)kg/km7100Rated factory cable length and gross weight of the delivery on the drums ***# 25yд-90: 838 • 7.5	cross screen earthing		
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Permissible continious current rating by burial *• in trefoil formation with double-side screen earthingA567• in trefoil formation with single-side screen earthing orA607cross screen earthingA523• plane with double-side screen earthing or cross screenA636earthingA636Maximum permissible conductor temperature•-• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range (in climate version NF)° C-50 +50Operating temperature range (in climate version T)° C-25 +65Minimum bending radius by layingmm912Rated outer diameter of the cable (for reference) **mm57Cable weight (approximate)kg/km7100Rated factory cable length and gross weight of the deliverym, t# 22YД-60: 499 • 4.5on the drums ***# 25YД-90: 838 • 7.5	plane with single-side screen earthing or cross screen	А	872
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• plane with single-side screen earthing or cross screenA636earthingMaximum permissible conductor temperature•• Continious°C+90• in emergency operation°C+130• at short circuit°C+250Operating temperature range (in climate version NF)°C-50 +50Operating temperature range (in climate version T)°C-25 +65Minimum bending radius by layingmm912Rated outer diameter of the cable (for reference) **mm57Cable weight (approximate)kg/km7100Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 499 • 4.5on the drums ***# 25УД-90: 838 • 7.5	cross screen earthing		
earthingMaximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range (in climate version NF)° C-50 +50Operating temperature range (in climate version T)° C-25 +65Minimum bending radius by layingmm912Rated outer diameter of the cable (for reference) **mm57Cable weight (approximate)kg/km7100Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 499 • 4.5on the drums ***# 25УД-90: 838 • 7.5	plane with double-side screen earthing	А	523
Maximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range (in climate version NF)° C-50 +50Operating temperature range (in climate version T)° C-25 +65Minimum bending radius by layingmm912Rated outer diameter of the cable (for reference) **mm57Cable weight (approximate)kg/km7100Rated factory cable length and gross weight of the deliverym, t# 22YД-60: 499 • 4.5on the drums ***# 25YД-90: 838 • 7.5	plane with single-side screen earthing or cross screen	А	636
• Continious° С+90• in emergency operation° С+130• at short circuit° С+250Operating temperature range (in climate version NF)° С-50 +50Operating temperature range (in climate version T)° С-25 +65Minimum bending radius by layingmm912Rated outer diameter of the cable (for reference) **mm57Cable weight (approximate)kg/km7100Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 499 • 4.5on the drums ***# 25УД-90: 838 • 7.5	earthing		
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Operating temperature range (in climate version T)° C-25 +65Minimum bending radius by layingmm912Rated outer diameter of the cable (for reference) **mm57Cable weight (approximate)kg/km7100Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 499 • 4.5on the drums ***# 25УД-90: 838 • 7.5	at short circuit	°C	+250
Minimum bending radius by layingmm912Rated outer diameter of the cable (for reference) **mm57Cable weight (approximate)kg/km7100Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 499 • 4.5on the drums ***# 25УД-90: 838 • 7.5	Operating temperature range (in climate version NF)	°C	-50 +50
Rated outer diameter of the cable (for reference) **mm57Cable weight (approximate)kg/km7100Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 499 • 4.5on the drums ***# 25УД-90: 838 • 7.5	Operating temperature range (in climate version T)	°C	-25 +65
Cable weight (approximate)kg/km7100Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 4.5# 25УД-90: 838 • 7.5	Minimum bending radius by laying	mm	912
Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 499 • 4.5on the drums ***# 25УД-90: 838 • 7.5	Rated outer diameter of the cable (for reference) **	mm	57
on the drums *** # 25УД-90: 838 • 7.5	Cable weight (approximate)	kg/km	7100
••		m, t	# 22УД-60: 499 • 4.5
	on the drums ***		
# 20y <u>J</u> -100: ^^^ 1152 •			# 26УД-100: **** 1152 • 10.
0			0

Notes:

When ordering it is neccesary 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 1.0 °K \cdot m/W, laying depth in the ground 1.5 m, while laying in flat formation the distance between cables in clear is equal to the cable diameter, while laying in trefoil formation cables are laid side by side ** The external diameter may differ from the rated up to ± 10 %

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

**** Option delivery on not full drum



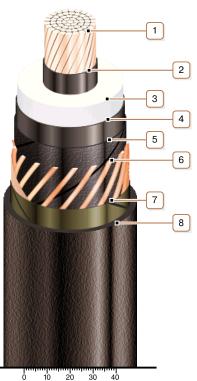


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Power cables with copper conductor, flame-retardant, with XLPE and PVC compound outer sheath and with low smoke and gas emission



10 20 30 40

CONSTRUCTION

- 1. Copper multiwire compact conductor Note: It is possible to manufacture cable with sealed conductor.
- 2. Inner extruded semiconducting layer
- 3. XLPE insulation
- 4. Outer extruded semiconducting layer
- 5. Lapping layer of semiconductive swellable tape

6. Copper screen

Note: It is possible to manufacture a cable with a fiber optic module built into the screen, including as a DTS system sensor

- 7. Lapping layer of glass tape
- 8. Low fire-risk PVC compound outer sheath