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ПвЭгПнг-HF-150 1x800 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, flame-retardant and halogen-free, with XLPE, longitudinal screen sealing and polymer compound outer sheath

For the cable of this mark correspond the foreign-made analogues:

N2XSH (DE) · 2XSH (DE) · NUHKXS (PL)

Technical cable requirements correspond to IEC 60840

Cables are used for laying:

- in premises, tunnels, ducts, mines, dry soil and outdoor under shelter
- at sites, where low smoke and corrosive gas emission are required (NPP, subway, large industrial facilities, high-rise buildings, etc.)

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

Order entry example:

ПвЭгПнг-НF-П-150 1х800/95 ТУ У 31.3-00214534-060:2011

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:

ПвЭгПнг-HF-150 1х800/95 (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:

ПвЭгПнг-HF-150 1х800/95 (г) ТУ У 31.3-00214534-060:2011

Fire safety code in accordance with ДСТУ 4809:2007: ПБ122122000

Products of this mark meet the requirements:

- · single wire cable flame retardance
- · bunched cable flame retardance category A
- toxicity class Tk2 of the combustion products of nonmetallic elements (toxicity index from 40 up to 120 g/m³)
- class $\mathcal{L}T\kappa 1$ on smoke-forming ability by smouldering of non-metallic elements (coefficient of smoke formation from 50 to 500 m²/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 μ S/mm)







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ПвЭгПнг-HF-150 1x800 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, flame-retardant and halogen-free, with XLPE, longitudinal screen sealing and polymer compound outer sheath

TECHNICAL SPECIFICATIONS

Maximum voltage kV 170 Conductor rated area mm² 800 Minimum screen cross-section mm² 35 Partial discharge factor for rated voltage, not more than pC 6 Permissible short circuit current across the screen of kA 10.2 Minimum cross-section kA 114.4 Permissible short-circuit current in core kA 114.4 Permissible continious current rating by aerial laying * • in trefoil formation with double-side screen earthing A 1086 • in trefoil formation with single-side screen earthing or cross screen earthing • plane with double-side screen earthing or cross screen earthing • plane with single-side screen earthing or cross screen A 1410 Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing or A 939 • plane with single-side screen earthing or A 939 • premissible continious current rating by burial * • in trefoil formation with double-side screen earthing or A 939 • plane with double-side screen earthing or A 939 • plane with single-side screen earthing or A 939 • plane with single-side screen earthing or Cross screen earthing A 705 • plane with single-side screen earthing or cross screen A 1000 earthing Maximum permissible conductor temperature • Continious • C +90 • in emergency operation • C +130 • at short circuit • C +250 Operating temperature range • C -60+50 Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 91 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 26VJA-100: 457 * 8.8 # 30VJA-130: **** 470 * 10.0	Rated voltage	kV	150
Conductor rated area mm² 800 Minimum screen cross-section mm³ 35 Partial discharge factor for rated voltage, not more than pC 6 Permissible short circuit current across the screen of minimum cross-section kA 10.2 Maximum permissible short-circuit current in core kA 114.4 Permissible continious current rating by aerial laying * * • in trefoil formation with double-side screen earthing A 1086 • in trefoil formation with single-side screen earthing or cross screen earthing A 1204 • plane with double-side screen earthing or cross screen A 1410 • plane with single-side screen earthing or cross screen A 827 • in trefoil formation with double-side screen earthing or cross screen earthing A 827 • in trefoil formation with single-side screen earthing or cross screen earthing A 939 • in trefoil formation with single-side screen earthing or cross screen earthing A 705 • plane with double-side screen earthing or cross screen A 1000 • plane with double-side screen earthing or cross screen A 1000 • plane with double-side screen earthing or cross screen <td< td=""><td></td><td>kV</td><td>170</td></td<>		kV	170
Minimum screen cross-section Partial discharge factor for rated voltage, not more than Pc 6 Permissible short circuit current across the screen of minimum cross-section Maximum permissible short-circuit current in core Maximum permissible short-circuit current in core Minimum cross-section Maximum permissible short-circuit current in core Maximum permissible short-circuit current in core Minimum permissible sortinious current rating by aerial laying * in trefoil formation with double-side screen earthing or A 1204 cross screen earthing permissible continious current rating or cross screen A 1410 earthing Permissible continious current rating by burial * in trefoil formation with double-side screen earthing or A 399 cross screen earthing plane with double-side screen earthing or A 399 cross screen earthing plane with double-side screen earthing or A 399 cross screen earthing plane with double-side screen earthing or cross screen A 1000 earthing Maximum permissible conductor temperature Continious C +90 in emergency operation C +130 at short circuit C -60 +50 Minimum bending radius by laying mm 1456 Rated outer diameter of the cable (for reference) ** mm 91 Cable weight (approximate) kg/km 15210 Rated factory cable length and gross weight of the delivery on the drums *** # 269/Д-100: 457 · 8.8		mm²	800
Permissible short circuit current across the screen of minimum cross-section Maximum permissible short-circuit current in core Permissible continious current rating by aerial laying * - in trefoil formation with double-side screen earthing or cross screen earthing - plane with double-side screen earthing or arthering Permissible continious current rating by burial * - in trefoil formation with double-side screen earthing or cross screen earthing - plane with single-side screen earthing or cross screen earthing Permissible continious current rating by burial * - in trefoil formation with double-side screen earthing or cross screen earthing Permissible continious current rating by burial * - in trefoil formation with single-side screen earthing or cross screen earthing - in trefoil formation with single-side screen earthing or cross screen earthing - plane with double-side screen earthing or cross screen - plane with single-side screen earthing or cross screen - continious Maximum permissible conductor temperature - Continious - C +90 - in emergency operation - C +130 - at short circuit - C +250 Operating temperature range - C -60 +50 Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 91 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 26УД-100: 457 · 8.8	Minimum screen cross-section		35
minimum cross-section Maximum permissible short-circuit current in core Permissible continious current rating by aerial laying * · in trefoil formation with double-side screen earthing or cross screen earthing · plane with double-side screen earthing or cross screen earthing · plane with double-side screen earthing or cross screen earthing Permissible continious current rating by burial * · in trefoil formation with double-side screen earthing Permissible continious current rating by burial * · in trefoil formation with double-side screen earthing or cross screen earthing Permissible continious current rating by burial * · in trefoil formation with double-side screen earthing or A 939 cross screen earthing · plane with double-side screen earthing or cross screen earthing or cross screen earthing Maximum permissible conductor temperature · Continious · C +90 · in emergency operation · C +130 · at short circuit · C +250 Operating temperature range · C -60 +50 Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 91 Cable weight (approximate) Rated factory cable length and gross weight of the delivery m, t # 25VД-90: 305 · 6.2 on the drums *** # 26VД-100: 457 · 8.8	Partial discharge factor for rated voltage, not more than	рС	6
Maximum permissible short-circuit current in core Permissible continious current rating by aerial laying * in trefoil formation with double-side screen earthing in trefoil formation with single-side screen earthing or plane with double-side screen earthing or plane with double-side screen earthing or cross screen permissible continious current rating by burial * in trefoil formation with double-side screen earthing or in trefoil formation with double-side screen earthing or in trefoil formation with double-side screen earthing or plane with single-side screen earthing or cross screen plane with single-side screen earthing plane with single-side screen earthing plane with singl	Permissible short circuit current across the screen of	kA	10.2
Permissible continious current rating by aerial laying *	minimum cross-section		
• in trefoil formation with double-side screen earthing A 1086 • in trefoil formation with single-side screen earthing or cross screen earthing A 1204 • plane with double-side screen earthing A 987 • plane with single-side screen earthing or cross screen earthing A 1410 • plane with single-side screen earthing by burial * • in trefoil formation with double-side screen earthing or cross screen earthing A 827 • in trefoil formation with single-side screen earthing or cross screen earthing A 939 • cross screen earthing A 705 • plane with double-side screen earthing or cross screen earthing A 1000 • plane with single-side screen earthing or cross screen earthing A 1000 • plane with single-side screen earthing or cross screen earthing C +90 • plane with single-side screen earthing or cross screen earthing C +90 • plane with single-side screen earthing or cross screen C +90 • plane with single-side screen earthing or cross screen C +90 • plane with single-side screen earthing or cross screen C +90 • plane with single-side screen earthing or cross screen C -60 <td>Maximum permissible short-circuit current in core</td> <td>kA</td> <td>114.4</td>	Maximum permissible short-circuit current in core	kA	114.4
 in trefoil formation with single-side screen earthing or cross screen earthing plane with double-side screen earthing plane with single-side screen earthing or cross screen plane with single-side screen earthing or cross screen earthing Permissible continious current rating by burial * in trefoil formation with double-side screen earthing in trefoil formation with single-side screen earthing or cross screen earthing plane with double-side screen earthing plane with single-side screen earthing or cross screen plane with single-side s	Permissible continious current rating by aerial laying *		
ross screen earthing plane with double-side screen earthing or cross screen plane with single-side screen earthing or cross screen permissible continious current rating by burial * in trefoil formation with double-side screen earthing in trefoil formation with single-side screen earthing or cross screen earthing plane with double-side screen earthing or cross screen earthing plane with double-side screen earthing or cross screen plane with single-side screen earthing or cross screen earthing or	in trefoil formation with double-side screen earthing	Α	1086
 plane with double-side screen earthing plane with single-side screen earthing or cross screen earthing Permissible continious current rating by burial * in trefoil formation with double-side screen earthing in trefoil formation with single-side screen earthing or in trefoil formation with single-side screen earthing or plane with double-side screen earthing plane with single-side screen earthing or cross screen continious C +90 in emergency operation c C +250 Operating temperature range °C +250 Operating temperature range °C -60 +50 Minimum bending radius by laying mm 1456 Rated outer diameter of the cable (for reference) ** mm 91 Cable weight (approximate) kg/km 15210 Rated factory cable length and gross weight of the delivery on the drums *** # 26УД-100: 457 • 8.8 	in trefoil formation with single-side screen earthing or	Α	1204
 plane with single-side screen earthing or cross screen earthing Permissible continious current rating by burial * in trefoil formation with double-side screen earthing in trefoil formation with single-side screen earthing or cross screen earthing plane with double-side screen earthing plane with double-side screen earthing or cross screen plane with single-side screen earthing or cross screen plane with single-side screen earthing or cross screen continious Continious in emergency operation in emergency operation at short circuit C +250 Operating temperature range C -60+50 Minimum bending radius by laying mm 1456 Rated outer diameter of the cable (for reference) ** mm 91 Cable weight (approximate) kg/km 15210 Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-90: 305 · 6.2 on the drums *** # 26УД-100: 457 · 8.8 	cross screen earthing		
earthing Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing or • in trefoil formation with single-side screen earthing or cross screen earthing • plane with double-side screen earthing or cross screen • plane with single-side screen earthing or cross screen • plane with single-side screen earthing or cross screen • A 1000 earthing Maximum permissible conductor temperature • Continious °C +90 • in emergency operation °C +130 • at short circuit °C +250 Operating temperature range °C -60 +50 Minimum bending radius by laying mm 1456 Rated outer diameter of the cable (for reference) ** mm 91 Cable weight (approximate) kg/km 15210 Rated factory cable length and gross weight of the delivery on the drums *** # 26УД-100: 457 • 8.8	plane with double-side screen earthing	Α	987
Permissible continious current rating by burial * · in trefoil formation with double-side screen earthing · in trefoil formation with single-side screen earthing or cross screen earthing · plane with double-side screen earthing · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen earthing Maximum permissible conductor temperature · Continious · C +90 · in emergency operation · at short circuit · C +250 Operating temperature range · C -60 +50 Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 26УД-100: 457 · 8.8	 plane with single-side screen earthing or cross screen 	Α	1410
• in trefoil formation with double-side screen earthingA827• in trefoil formation with single-side screen earthing or cross screen earthingA939• plane with double-side screen earthingA705• plane with single-side screen earthing or cross screen earthingA1000Maximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1456Rated outer diameter of the cable (for reference) **mm91Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the delivery on the drums ***# 25УД-90: 305 • 6.2	earthing		
• in trefoil formation with single-side screen earthing or cross screen earthingA939• plane with double-side screen earthingA705• plane with single-side screen earthing or cross screen earthingA1000Maximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1456Rated outer diameter of the cable (for reference) **mm91Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the delivery on the drums ***# 25УД-90: 305 • 6.2	Permissible continious current rating by burial *		
cross screen earthing • plane with double-side screen earthing • plane with single-side screen earthing or cross screen • plane with single-side screen earthing or cross screen • at 1000 Maximum permissible conductor temperature • Continious • C +90 • in emergency operation • C +130 • at short circuit • C +250 Operating temperature range Minimum bending radius by laying Minimum bending radius by laying Maximum bending radius by laying Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 91 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-90: 305 • 6.2 w # 26УД-100: 457 • 8.8	 in trefoil formation with double-side screen earthing 	Α	827
 plane with double-side screen earthing plane with single-side screen earthing or cross screen plane with double-side screen earthing A 705 A 1000 c +90 in emergency operation °C +90 +130 °C +250 Operating temperature range °C -60 +50 Minimum bending radius by laying mm 1456 Rated outer diameter of the cable (for reference) ** mm 91 Cable weight (approximate) kg/km 15210 Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-90: 305 • 6.2 on the drums *** # 26УД-100: 457 • 8.8 	 in trefoil formation with single-side screen earthing or 	Α	939
• plane with single-side screen earthing or cross screen earthingA1000Maximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1456Rated outer diameter of the cable (for reference) **mm91Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the delivery on the drums ***m, t# 25УД-90: 305 • 6.2	cross screen earthing		
earthingMaximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1456Rated outer diameter of the cable (for reference) **mm91Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the delivery on the drums ***m, t# 25УД-90: 305 • 6.2	 plane with double-side screen earthing 	Α	705
Maximum permissible conductor temperature° C+90• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1456Rated outer diameter of the cable (for reference) **mm91Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 305 • 6.2on the drums ***# 26УД-100: 457 • 8.8	 plane with single-side screen earthing or cross screen 	Α	1000
· Continious°C+90• in emergency operation°C+130• at short circuit°C+250Operating temperature range°C-60 +50Minimum bending radius by layingmm1456Rated outer diameter of the cable (for reference) **mm91Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the delivery on the drums ***m, t# 25УД-90: 305 • 6.2	earthing		
• in emergency operation°C+130• at short circuit°C+250Operating temperature range°C-60 +50Minimum bending radius by layingmm1456Rated outer diameter of the cable (for reference) **mm91Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 305 • 6.2on the drums ***# 26УД-100: 457 • 8.8	Maximum permissible conductor temperature		
• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1456Rated outer diameter of the cable (for reference) **mm91Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the delivery on the drums ***m, t# 25УД-90: 305 • 6.2	Continious		
Operating temperature range°C-60 +50Minimum bending radius by layingmm1456Rated outer diameter of the cable (for reference) **mm91Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 305 • 6.2on the drums ***# 26УД-100: 457 • 8.8	 in emergency operation 	°C	+130
Minimum bending radius by layingmm1456Rated outer diameter of the cable (for reference) **mm91Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 305 • 6.2on the drums ***# 26УД-100: 457 • 8.8	at short circuit		
Rated outer diameter of the cable (for reference) **mm91Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 305 • 6.2on the drums ***# 26УД-100: 457 • 8.8	Operating temperature range	°C	
Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 305 • 6.2on the drums ***# 26УД-100: 457 • 8.8		mm	1456
Rated factory cable length and gross weight of the delivery m, t # 25УД-90: 305 • 6.2 on the drums *** # 26УД-100: 457 • 8.8	Rated outer diameter of the cable (for reference) **	mm	91
on the drums *** # 26УД-100: 457 • 8.8	Cable weight (approximate)	kg/km	15210
• •		m, t	• •
# 30УД-130: **** 470 · 10.0	on the drums ***		
			# 30УД-130: **** 470 • 10.0

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•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 \pm 10 %

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

^{****} Option delivery on not full drum



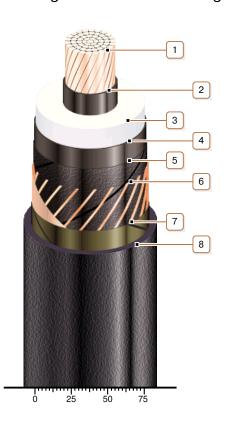




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ПвЭгПнг-HF-150 1x800 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, flame-retardant and halogen-free, with XLPE, longitudinal screen sealing and polymer compound outer sheath



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. Polymer compound outer sheath:flame-retardant and halogen-free Note: It is possible to manufacture cable with extruded semiconductor layer along outer sheath