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ПвЭгаП-110 1х500 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, with XLPE, longitudinal and transverse screen sealing and polyethylene outer sheath

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

N2XS(FL)2Y (DE) • 2XS(FL)2Y (DE) • HXCHBMK (FI) • Cu/XLPE/CWS/LW/MDPE (GB) • XRUHKXS (PL) • ПвП2г (RU)

Technical cable requirements correspond to IEC 60840

Cables are used for laying:

- in soil (trenches)
- · in damp, partially flooded premises
- · in ground with high humidity
- in non-navigable waters
- · in the air, including cable structures, if provided the additional fire protection

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

Order entry example:

ПвЭгаП-П-110 1х500/95 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:

ПвЭгаП-110 1х500/95 (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:

ПвЭгаП-110 1х500/95 (г) ТУ У 31.3-00214534-060:2011









ПвЭгаП-110 1х500 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, with XLPE, longitudinal and transverse screen sealing and polyethylene outer sheath

TECHNICAL SPECIFICATIONS

Maximum voltage kV 126 Conductor rated area mm² 500 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 7.1 Minimum cross-section kA 71.5 Permissible short circuit current in core kA 71.5 Permissible continious current rating by aerial laying * • in trefoil formation with double-side screen earthing A 881 • in trefoil formation with single-side screen earthing or cross screen earthing • plane with double-side screen earthing or cross screen and thing by aerial laying to plane with single-side screen earthing A 860 • plane with single-side screen earthing or cross screen A 1088 • plane with single-side screen earthing or cross screen A 1088 • in trefoil formation with double-side screen earthing A 687 • in trefoil formation with double-side screen earthing or cross screen earthing • plane with double-side screen earthing or A 748 • in trefoil formation with single-side screen earthing A 748 • in trefoil formation with single-side screen earthing or cross screen earthing • plane with double-side screen earthing or cross screen A 787 • plane with single-side screen earthing or cross screen A 787 • cross screen earthing 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 mm 1216 Rated outer diameter of the cable (for reference) ** mm 76 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 25/J,-90: 443 • 6.1 # 26/J,-100: 664 • 8.6	Rated voltage	kV	110
Conductor rated area mm² 500 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 7.1 minimum cross-section Maximum permissible short-circuit current in core kA 71.5 Permissible continious current rating by aerial laying * * * * * * * * * * * * * * * * * * *	-	kV	126
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 Permissible continious current rating by aerial laying * in trefoil formation with double-side screen earthing A 881 in trefoil formation with single-side screen earthing or cross screen earthing plane with double-side screen earthing or cross screen A 1088 earthing Permissible continious current rating by burial * in trefoil formation with double-side screen earthing or cross screen A 687 in trefoil formation with single-side screen earthing or cross screen earthing Permissible continious current rating by burial * in trefoil formation with single-side screen earthing or A 748 cross screen earthing plane with double-side screen earthing or A 748 cross screen earthing plane with double-side screen earthing or A 787 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 1216 Rated outer diameter of the cable (for reference) ** mm 76 Cable weight (approximate) kg/km 10160 Rated factory cable length and gross weight of the delivery on the drums *** # 25VД-90: 443 - 6.1		mm²	500
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 ·plane with double-side screen earthing Permissible continious current rating by burial * ·plane with single-side screen earthing or cross screen arthing Permissible continious current rating by burial * ·in trefoil formation with double-side screen earthing or cross screen arthing Permissible continious current rating by burial * ·in trefoil formation with double-side screen earthing or cross screen earthing ·plane with double-side screen earthing or cross screen earthing Maximum permissible conductor temperature · Continious · C +90 · in emergency operation · C +250 Operating temperature range · C -60 +50 Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 76 Cable weight (approximate) kg/km 10160 Rated factory cable length and gross weight of the delivery on the drums *** # 25yД-90: 443 · 6.1	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 or cross screen earthing 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 or cross screen earthing • plane with double-side screen earthing or cross screen A 748 cross screen earthing • plane with single-side screen earthing or cross screen A 787 earthing Maximum permissible conductor temperature • Continious • C +90 • in emergency operation • C +250 Operating temperature range • C -60 +50 Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 76 Cable weight (approximate) kg/km 10160 Rated factory cable length and gross weight of the delivery on the drums *** # 25VJL-90: 443 • 6.1	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 or cross screen earthing plane with double-side screen earthing or cross screen earthing plane with single-side screen earthing or cross screen plane with single-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 or cross screen earthing permissible continious current rating by burial * 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 plane with single-side screen earthing or cross screen plane wit	Permissible short circuit current across the screen of	kA	7.1
Permissible continious current rating by aerial laying * · in trefoil formation with double-side screen earthing	minimum cross-section		
• in trefoil formation with double-side screen earthing A 881 • in trefoil formation with single-side screen earthing or cross screen earthing A 941 • plane with double-side screen earthing A 860 • plane with single-side screen earthing or cross screen A 1088 • plane with single-side screen earthing or cross screen A 687 • in trefoil formation with double-side screen earthing or in trefoil formation with single-side screen earthing or cross screen earthing A 687 • in trefoil formation with single-side screen earthing or cross screen earthing A 615 • plane with double-side screen earthing or cross screen A 787 • plane with single-side screen earthing or cross screen A 787 • plane with single-side screen earthing or cross screen A 787 • plane with single-side screen earthing or cross screen A 787 • plane with single-side screen earthing or cross screen A 787 • plane with single-side screen earthing or cross screen A 787 • continious ° C +90 • in emergency operation ° C +90 <tr< td=""><td>Maximum permissible short-circuit current in core</td><td>kA</td><td>71.5</td></tr<>	Maximum permissible short-circuit current in core	kA	71.5
 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 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 double-side screen earthing or cross screen plane with single-side screen earthing or cross screen plane with singl	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 plane with double-side screen earthing or cross screen plane with single-side screen earthing or cross screen earthing or cross screen earthing or cross screen plane with single-side screen earthing or cross screen earthing or cross screen plane with screen earthing or cross screen earthing or cross screen plane with screen earthing or cross screen	in trefoil formation with double-side screen earthing	Α	881
 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 plane with single-side screen earthing or cross screen plane with single-side screen earthing or cross screen carthing 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 1216 Rated outer diameter of the cable (for reference) ** mm 76 Cable weight (approximate) kg/km 10160 Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 319 · 4.2 on the drums *** # 25УД-90: 443 · 6.1 	in trefoil formation with single-side screen earthing or	Α	941
 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 1216 Rated outer diameter of the cable (for reference) ** mm 76 Cable weight (approximate) kg/km 10160 Rated factory cable length and gross weight of the delivery on the drums *** # 25yД-90: 443 • 6.1 	cross screen earthing		
earthing Permissible continious current rating by burial * · in trefoil formation with double-side screen earthing	plane with double-side screen earthing	Α	860
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 earthing Maximum permissible conductor temperature · Continious · in emergency operation · in emergency operation · at short circuit Operating temperature range 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 *** * 4 687 A 748 687 A 748 615 A 787 625 C +90 • C +90 • C +90 • C +130 • C +250 Operating temperature range • C -60 +50 mm 76 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 319 • 4.2 on the drums *** # 25УД-90: 443 • 6.1	 plane with single-side screen earthing or cross screen 	Α	1088
 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 plane with single-side screen earthing plane with single-side screen earthing plane with double-side screen earthing or plane with single-side screen earthing or A 748 787 plane with single-side screen earthing or A 615 plane with single-side screen earthing or plane with single-side screen earthing or A 615 plane with single-side screen earthing or plane with single-side screen earthing or A 615 plane with single-side screen earthing or plane with singl	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 ・ C +130 ・ at short circuit ・ C +250 Operating temperature range	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 • arthing 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 Rated outer diameter of the cable (for reference) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-60: 319 • 4.2 on the drums *** # 25УД-90: 443 • 6.1	 in trefoil formation with double-side screen earthing 	Α	687
 plane with double-side screen earthing plane with single-side screen earthing or cross screen plane with double-side screen earthing plane with double-side screen earthing plane with double-side screen earthing A 615 P87 A 615 A 787 A 787 B90 C +90 C +90 C +130 C +250 Operating temperature range °C +250 Operating temperature range °C -60 +50 Minimum bending radius by laying mm 1216 Rated outer diameter of the cable (for reference) ** mm 76 Cable weight (approximate) kg/km 10160 Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 319 • 4.2 on the drums *** # 25УД-90: 443 • 6.1 	 in trefoil formation with single-side screen earthing or 	Α	748
 plane with single-side screen earthing or cross screen earthing Maximum permissible conductor temperature Continious 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) ** mm 76 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** plane arthing or cross screen C +90 +90 +90 +250 -60 +50 mm 76 Cable weight (approximate) kg/km 10160 m, t # 22УД-60: 319 • 4.2 y 25УД-90: 443 • 6.1 			
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 layingmm1216Rated outer diameter of the cable (for reference) **mm76Cable weight (approximate)kg/km10160Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 319 • 4.2	 plane with double-side screen earthing 	Α	615
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 layingmm1216Rated outer diameter of the cable (for reference) **mm76Cable weight (approximate)kg/km10160Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 319 • 4.2on the drums ***# 25УД-90: 443 • 6.1	 plane with single-side screen earthing or cross screen 	Α	787
· Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1216Rated outer diameter of the cable (for reference) **mm76Cable weight (approximate)kg/km10160Rated factory cable length and gross weight of the delivery on the drums ***# 22УД-60: 319 • 4.2	earthing		
• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1216Rated outer diameter of the cable (for reference) **mm76Cable weight (approximate)kg/km10160Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 319 • 4.2on the drums ***# 25УД-90: 443 • 6.1	Maximum permissible conductor temperature		
• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1216Rated outer diameter of the cable (for reference) **mm76Cable weight (approximate)kg/km10160Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 319 • 4.2	Continious		
Operating temperature range° C-60 +50Minimum bending radius by layingmm1216Rated outer diameter of the cable (for reference) **mm76Cable weight (approximate)kg/km10160Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 319 • 4.2	in emergency operation		-
Minimum bending radius by layingmm1216Rated outer diameter of the cable (for reference) **mm76Cable weight (approximate)kg/km10160Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 319 • 4.2on the drums ***# 25УД-90: 443 • 6.1	• at short circuit		
Rated outer diameter of the cable (for reference) **mm76Cable weight (approximate)kg/km10160Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 319 • 4.2# 25УД-90: 443 • 6.1	<u> </u>	° C	
Cable weight (approximate)kg/km10160Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 319 • 4.2on the drums ***# 25УД-90: 443 • 6.1		mm	1216
Rated factory cable length and gross weight of the delivery m, t # 22УД-60: 319 • 4.2 on the drums *** # 25УД-90: 443 • 6.1	Rated outer diameter of the cable (for reference) **	mm	76
on the drums *** # 25УД-90: 443 • 6.1		kg/km	
' '	, , , , , , , , , , , , , , , , , , , ,	m, t	• •
# 26УД-100: 664 • 8.6	on the drums ***		• •
			# 26УД-100: 664 • 8.6

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 %



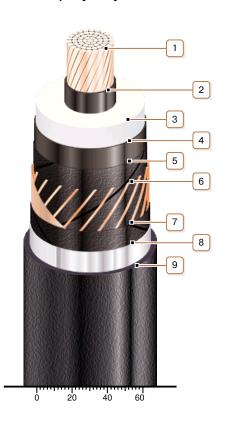




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ПвЭгаП-110 1x500 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, with XLPE, longitudinal and transverse screen sealing and polyethylene 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 semiconductive swellable tape
- 8. Alumopolymer tape
- 9. Outer sheath of polyethylene or polyethylene copolymer

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