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ПвЭгаП-110 1x240 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) • Π B Π 2Γ (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 1х240/95 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 1х240/95 (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 1х240/95 (г) ТУ У 31.3-00214534-060:2011







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ПвЭгаП-110 1х240 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 240 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 Maximum permissible short-circuit current in core kA 34.3 Permissible continious current rating by aerial laying * - in trefoil formation with double-side screen earthing A 619 - in trefoil formation with single-side screen earthing or cross screen earthing - plane with double-side screen earthing or cross screen A 737 - in trefoil formation with double-side screen earthing or cross screen A 737 - plane with single-side screen earthing or cross screen A 737 - earthing - permissible continious current rating by burial * - in trefoil formation with double-side screen earthing or A 520 - ross screen earthing - in trefoil formation with double-side screen earthing or A 520 - ross screen earthing - plane with single-side screen earthing or cross screen earthing or cross screen earthing - plane with single-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 - 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 - 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 - 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 - 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 - provided the screen earthing or cross screen - provided the screen earthing or cross sc	Rated voltage	kV	110
Conductor rated area mm² 240 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 kA 7.1 minimum cross-section Maximum permissible short-circuit current in core kA 34.3 Permissible continious current rating by aerial laying * · in trefoil formation with double-side screen earthing A 619 · in trefoil formation with single-side screen earthing or A 639 · plane with double-side screen earthing A 658 · plane with single-side screen earthing or cross screen A 737 earthing Permissible continious current rating by burial * · in trefoil formation with double-side screen earthing or cross screen A 520 cross screen earthing · in trefoil formation with double-side screen earthing or A 520 cross screen earthing · plane with indige-side screen earthing A 498 · in trefoil formation with single-side screen earthing or A 520 cross screen earthing · plane with double-side screen earthing A 475 · plane with single-side screen earthing or cross screen A 544 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 1072 Rated outer diameter of the cable (for reference) ** mm 67 Cable weight (approximate) kg/km 6150 Rated factory cable length and gross weight of the delivery on the drums *** # 25yД-90: 611 · 5.3		kV	126
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 minimum cross-section Maximum permissible short-circuit current in core kA 34.3 Permissible continious current rating by aerial laying * - in trefoil formation with double-side screen earthing A 619 - in trefoil formation with single-side screen earthing or cross screen earthing A 639 - plane with double-side screen earthing or cross screen earthing A 737 - plane with single-side screen earthing or cross screen arthing Permissible continious current rating by burial * - in trefoil formation with double-side screen earthing A 498 - in trefoil formation with single-side screen earthing A 498 - in trefoil formation with single-side screen earthing A 520 - cross screen earthing - plane with double-side screen earthing or A 520 - cross screen earthing - plane with double-side screen earthing A 475 - plane with double-side screen earthing A 544 - 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 1072 Rated outer diameter of the cable (for reference) ** mm 67 Cable weight (approximate) kg/km 6150 Rated factory cable length and gross weight of the delivery on the drums *** # 25VД-90: 611 • 5.3	Conductor rated area	mm²	240
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 Maximum permissible continious current rating by aerial laying * in trefoil formation with double-side screen earthing or in trefoil formation with single-side screen earthing or plane with double-side screen earthing or cross screen 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 earthing Permissible continious current rating by burial * in trefoil formation with single-side screen earthing or cross screen earthing Piname with double-side screen earthing or cross screen earthing A 498 in trefoil formation with single-side screen earthing or cross screen earthing A 475 plane with double-side screen earthing or cross screen arthing Maximum permissible conductor temperature Continious c +90 in emergency operation c +130 in emergency operation c +250 Operating temperature range c -60 +50 Minimum bending radius by laying mm 1072 Rated outer diameter of the cable (for reference) ** mm 67 Cable weight (approximate) kg/km 6150 Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 339 · 3.0 on the drums ***	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 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 double-side screen earthing or A 520 cross screen earthing • plane with double-side screen earthing or A 520 cross screen earthing • plane with double-side screen earthing or A 544 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 67 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 25YД-90: 611 • 5.3	Partial discharge factor for rated voltage, not more than	рС	6
Maximum permissible short-circuit current in core RA 34.3 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 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 in trefoil formation with single-side screen earthing or plane with double-side screen earthing or plane with double-side screen earthing or plane with double-side screen earthing or cross screen plane with single-side screen earthing plane with single-side	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 or cross screen earthing or plane with double-side screen earthing or earthing or earthing or plane with single-side screen earthing or earthing or earthing or earthing or earthing or earthing or earthing arthing permissible continious current rating by burial * in trefoil formation with double-side screen earthing or earthing or earthing or earthing or earthing or earthing	minimum cross-section		
• in trefoil formation with double-side screen earthing A 619 • in trefoil formation with single-side screen earthing or cross screen earthing A 639 • plane with double-side screen earthing or cross screen earthing A 658 • plane with single-side screen earthing or cross screen earthing A 737 earthing Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing or A 498 • in trefoil formation with single-side screen earthing or cross screen earthing A 498 • in trefoil formation with single-side screen earthing or cross screen earthing A 475 • plane with double-side screen earthing or cross screen earthing or cross screen earthing A 544 • plane with single-side screen earthing or cross screen earthing A 544 • plane with single-side screen earthing or cross screen earthing A 544 • plane with single-side screen earthing or cross screen earthing A 544 • plane with single-side screen earthing or cross screen earthing A 544 • plane with single-side screen earthing or cross screen earthing C +90 • in emergency operation ° C +90 • in emergency operati	Maximum permissible short-circuit current in core	kA	34.3
• in trefoil formation with single-side screen earthing or cross screen earthing A 639 • plane with double-side screen earthing A 658 • plane with single-side screen earthing or cross screen earthing A 737 earthing A 498 Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing A 498 • in trefoil formation with single-side screen earthing or cross screen earthing A 498 • in trefoil formation with single-side screen earthing or cross screen earthing A 475 • plane with double-side screen earthing or cross screen A 544 earthing A 475 Maximum permissible conductor temperature • C +90 • in emergency operation ° C +90 • in emergency operation ° C +130 • at short circuit ° C +250 Operating temperature range ° C -60 +50 Minimum bending radius by laying mm 1072 Rated outer diameter of the cable (for reference) ** mm 67 Cable weight (approximate) kg/km 6150 Rated factory cable length and gross weight of the delivery on the drums *** # 259Д-90: 611 · 5.3	Permissible continious current rating by aerial laying *		
cross screen earthing • plane with double-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 double-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 Minimum bending radius by laying Mated outer diameter of the cable (for reference) ** Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-90: 611 • 5.3	in trefoil formation with double-side screen earthing	Α	619
 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 cross screen earthing plane with double-side screen earthing 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 °C -60+50 Minimum bending radius by laying mm 1072 Rated outer diameter of the cable (for reference) ** mm 67 Cable weight (approximate) kg/km 6150 Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-60: 339 · 3.0 on the drums *** # 25УД-90: 611 · 5.3 	in trefoil formation with single-side screen earthing or	Α	639
 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 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 1072 Rated outer diameter of the cable (for reference) ** mm 67 Cable weight (approximate) kg/km 6150 Rated factory cable length and gross weight of the delivery on the drums *** # 25yД-90: 611 • 5.3 	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	658
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 · in emergency operation · at short circuit · C +250 Operating temperature range · C -60 +50 Minimum bending radius by laying Maximum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 67 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 339 • 3.0 maximum trefoil formation with double-side screen earthing or cross screen earthing or A 520 A 498 498 498 498 498 520 A 475 A 544 614 624 634 635 636 637 638 639 639 639 639 630 639 630 639 630 630	plane with single-side screen earthing or cross screen	Α	737
· 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 · in emergency operation · in emergency operation · at short circuit · C +250 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 *** # 25УД-90: 611 · 5.3	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 ・C +90 ・in emergency operation ・in emergency operation ・at short circuit ・C +250 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 *** * 4 475 A 475 A 544 * 6 544 * 6 150 * C +90 * C +90 * C +250 Operating temperature range * C -60 +50 Minimum bending radius by laying * Mm 1072 Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 339 • 3.0 * 25УД-90: 611 • 5.3	Permissible continious current rating by burial *		
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 • continious • C +90 • in emergency operation • C +130 • at short circuit • C +250 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 *** # 25УД-60: 339 • 3.0 m	in trefoil formation with double-side screen earthing	Α	498
 plane with double-side screen earthing plane with single-side screen earthing or cross screen plane with double-side screen earthing plane with single-side screen earthing plane with single-side screen earthing plane with single-side screen plane with screen<!--</td--><td>in trefoil formation with single-side screen earthing or</td><td>Α</td><td>520</td>	in trefoil formation with single-side screen earthing or	Α	520
・ 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 ° C -60 +50 Minimum bending radius by laying mm 1072 Rated outer diameter of the cable (for reference) ** mm 67 Cable weight (approximate) kg/km 6150 Rated factory cable length and gross weight of the delivery m, t # 22УД-60: 339 • 3.0 on the drums *** # 25УД-90: 611 • 5.3	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 layingmm1072Rated outer diameter of the cable (for reference) **mm67Cable weight (approximate)kg/km6150Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 339 · 3.0on the drums ****# 25УД-90: 611 · 5.3	plane with double-side screen earthing	Α	475
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 layingmm1072Rated outer diameter of the cable (for reference) **mm67Cable weight (approximate)kg/km6150Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 339 • 3.0on the drums ****# 25УД-90: 611 • 5.3	 plane with single-side screen earthing or cross screen 	Α	544
• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1072Rated outer diameter of the cable (for reference) **mm67Cable weight (approximate)kg/km6150Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 339 • 3.0on the drums ***# 25УД-90: 611 • 5.3	earthing		
• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1072Rated outer diameter of the cable (for reference) **mm67Cable weight (approximate)kg/km6150Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 339 • 3.0	Maximum permissible conductor temperature		
• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1072Rated outer diameter of the cable (for reference) **mm67Cable weight (approximate)kg/km6150Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 339 • 3.0	Continious		+90
Operating temperature range° C-60 +50Minimum bending radius by layingmm1072Rated outer diameter of the cable (for reference) **mm67Cable weight (approximate)kg/km6150Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 339 • 3.0	in emergency operation	°C	+130
Minimum bending radius by layingmm1072Rated outer diameter of the cable (for reference) **mm67Cable weight (approximate)kg/km6150Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 339 • 3.0on the drums ***# 25УД-90: 611 • 5.3	• at short circuit		+250
Rated outer diameter of the cable (for reference) **mm67Cable weight (approximate)kg/km6150Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 339 • 3.0on the drums ***# 25УД-90: 611 • 5.3	Operating temperature range	°C	-60 +50
Cable weight (approximate)kg/km6150Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 339 • 3.0on the drums ***# 25УД-90: 611 • 5.3		mm	1072
Rated factory cable length and gross weight of the delivery m, t # 22УД-60: 339 • 3.0 on the drums *** # 25УД-90: 611 • 5.3	Rated outer diameter of the cable (for reference) **	mm	67
on the drums *** # 25УД-90: 611 • 5.3	Cable weight (approximate)	kg/km	6150
	, , ,	m, t	
# 26УД-100: 869 • 7.2	on the drums ***		
			# 26УД-100: 869 • 7.2

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 %









ПвЭгаП-110 1x240 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