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ПвЭгП-60 1х400 ТУ У 31.3-00214534-060:2011

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

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

N2XS2Y (DE) • N2XS(F)2Y (DE) • 2XS2Y (DE) • 2XS(F)2Y (DE) • Cu/XLPE/CWS/MDPE (GB) • XUHKXS (PL) • XHKXS (PL) • Π $_{\rm B}$ Π $_{\rm F}$ (RU) • Π $_{\rm B}$ Π $_{\rm F}$ (RU)

Technical cable requirements correspond to IEC 60840

Cables are used for laying:

- · in soil (trenches)
- 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:

ПвЭгП-П-60 1х400/95 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:

ПвЭгП-60 1х400/95 (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:

ПвЭгП-60 1х400/95 (г) ТУ У 31.3-00214534-060:2011









ПвЭгП-60 1х400 ТУ У 31.3-00214534-060:2011

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

TECHNICAL SPECIFICATIONS

Maximum voltage kV 72.5 Conductor rated area mm² 400 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 kA 7.1 Maximum permissible short-circuit current in core kA 57.2 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 cross screen earthing A 793 • plane with double-side screen earthing or cross screen earthing or plane with single-side screen earthing or cross screen earthing A 940 • plane with single-side screen earthing or cross screen earthing A 651 • in trefoil formation with double-side screen earthing or cross screen earthing A 651 • in trefoil formation with single-side screen earthing or cross screen earthing A 683 • plane with single-side screen earthing or cross screen A 683 • plane with single-side screen earthing or cross screen A 683 • plane with single-side screen earthing or cross screen A 683 • plane with single-side screen earthing or cross screen B 683 • plane with single-side screen earthing or	Rated voltage	kV	60
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 kA 7.1 Maximum permissible short-circuit current in core kA 57.2 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 cross screen earthing A 742 • in trefoil formation with single-side screen earthing or cross screen earthing A 793 • plane with double-side screen earthing or cross screen earthing A 940 • plane with single-side screen earthing or cross screen earthing A 603 • in trefoil formation with double-side screen earthing or cross screen earthing A 651 • in trefoil formation with double-side screen earthing or cross screen earthing A 603 • in trefoil formation with double-side screen earthing or cross screen earthing A 603 • in trefoil formation with double-side screen earthing or cross screen earthing A 653 • plane with single-side screen earthing or cross screen earthing or cross screen earthing A 683 • plane with		kV	72.5
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 57.2 Permissible continious current rating by aerial laying * · in trefoil formation with double-side screen earthing A 742 · in trefoil formation with single-side screen earthing or A 793 · plane with double-side screen earthing A 738 · plane with double-side screen earthing or cross screen A 940 earthing Permissible continious current rating by burial * · in trefoil formation with double-side screen earthing or cross screen A 603 · in trefoil formation with single-side screen earthing or A 651 cross screen earthing · plane with double-side screen earthing or A 651 cross screen earthing · plane with double-side screen earthing or A 683 earthing A 549 · plane with single-side screen earthing or cross screen A 683 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 928 Rated outer diameter of the cable (for reference) ** mm 58 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 25VД-90: 838 · 7.2 # 26VД-100: **** 1222 · 10.	Conductor rated area	mm²	400
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 in trefoil formation with single-side screen earthing or cross screen earthing with double-side screen earthing or cross screen earthing plane with double-side screen earthing or cross screen in trefoil formation with single-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 or cross screen earthing plane 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 continious of the delivery of the cable (for reference) * min mergency operation of the cable (for reference) * min mergency cable length and gross weight of the delivery on the drums *** min the drums *** min the drums *** plane with double-side screen earthing or cross screen earthing or c	Minimum screen cross-section	mm²	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 or plane with single-side screen earthing or cross 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 or cross screen earthing • in trefoil formation with double-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 earthing • plane with single-side screen earthing or cross screen A 683 earthing 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 Rated outer diameter of the cable (for reference) ** mm 58 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 22VД-60: 499 • 4.3 # 25VД-90: 838 • 7.2 # 26VД-100: **** 1222 • 10.	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 double-side screen earthing or cross screen 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 in trefoil formation with single-side screen earthing or A 651 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 arthing Maximum permissible conductor temperature Continious c C +90 in emergency operation c C +130 in emergency operation c C +250 Operating temperature range c C -60+50 Minimum bending radius by laying mm 928 Rated outer diameter of the cable (for reference) ** mm 58 Cable weight (approximate) kg/km 6690 Rated factory cable length and gross weight of the delivery on the drums *** # 25VJ60: 499 • 4.3 # 25VJ90: 838 • 7.2 # 26VJ100: **** 1222 • 10.	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 742 • in trefoil formation with single-side screen earthing or cross screen earthing A 793 • plane with double-side screen earthing or cross screen earthing A 940 • plane with single-side screen earthing or cross screen earthing A 940 • permissible continious current rating by burial * • in trefoil formation with double-side screen earthing or cross screen earthing or cross screen earthing A 603 • in trefoil formation with single-side screen earthing or cross screen earthing A 651 • plane with double-side screen earthing or cross screen earthing A 683 • plane with single-side screen earthing or cross screen earthing A 683 • plane with single-side screen earthing or cross screen earthing A 683 • plane with single-side screen earthing or cross screen earthing A 683 • plane with single-side screen earthing or cross screen earthing A 683 • plane with single-side screen earthing or cross screen earthing C +90 • plane with single-side screen earthing or cross screen earthing C +90 • continious *C +90 • continious *C	Maximum permissible short-circuit current in core	kA	57.2
• in trefoil formation with single-side screen earthing or cross screen earthing A 793 • plane with double-side screen earthing or cross screen A 940 • plane with single-side screen earthing or cross screen A 940 • parthing A 603 • in trefoil formation with double-side screen earthing or cross screen earthing or cross screen earthing A 651 • plane with double-side screen earthing or plane with double-side screen earthing or cross screen earthing A 683 • plane with single-side screen earthing or cross screen A 683 • plane with single-side screen earthing or cross screen A 683 • plane with single-side screen earthing or cross screen C 190 • in earthing * C +90 • maximum permissible conductor temperature * C +90 • in emergency operation * C +250 • at short circuit * C +250 Operating temperature range * C -60 +50 Minimum bending radius by laying mm 928 Rated outer diameter of the cable (for reference) ** mm 58 Cable weight (approximate) kg/km 6690 Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-60: 499 • 4.3 • # 25УД-90: 838 • 7.2 # 25УД-90: 838 • 7.2 # 25УД-100: ***** 1222 • 10.	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 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 earthing plane with single-side screen earthing or cross screen screen earthing or	in trefoil formation with double-side screen earthing	Α	742
 plane with double-side screen earthing 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 in trefoil formation with single-side screen earthing or A 651 cross screen earthing plane with double-side screen earthing or cross screen plane with single-side screen earthing or cross screen c +90 t +90 t +90 t +90 t +90 t -10 t +90 t -10 t +90 t -10 t +90 t -10 <	in trefoil formation with single-side screen earthing or	Α	793
 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 C +90 in emergency operation c +130 at short circuit C +250 Operating temperature range C -60 +50 Minimum bending radius by laying mm 928 Rated outer diameter of the cable (for reference) ** mm 58 Cable weight (approximate) kg/km 6690 Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 499 · 4.3 # 25УД-90: 838 · 7.2 # 26УД-100: **** 1222 · 10. 	cross screen earthing		
earthingPermissible continious current rating by burial *• in trefoil formation with double-side screen earthingA603• in trefoil formation with single-side screen earthing or cross screen earthingA651• plane with double-side screen earthingA549• plane with single-side screen earthing or cross screenA683earthingMaximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm928Rated outer diameter of the cable (for reference) **mm58Cable weight (approximate)kg/km6690Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 4.3• 25УД-90: 838 • 7.2# 26УД-100: **** 1222 • 10.	plane with double-side screen earthing	Α	738
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 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) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-60: 499 · 4.3 # 26УД-100: **** 1222 · 10.	plane with single-side screen earthing or cross screen	Α	940
 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 C in emergency operation c at short circuit C -250 Operating temperature range C Minimum bending radius by laying mm plane with single-side screen earthing or cross screen c c +90 c +130 c c +250 Operating temperature range C -60 +50 Minimum bending radius by laying mm 928 Rated outer diameter of the cable (for reference) ** mm 58 Cable weight (approximate) kg/km 6690 Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 499 · 4.3 # 25УД-90: 838 · 7.2 # 26УД-100: **** 1222 · 10. 	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 double-side screen earthing plane with single-side screen earthing plane with double-side screen plane with single-side screen plane with screen plane wi	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 • plane with single-side screen earthing or cross screen • contining 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) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 499 • 4.3 # 25УД-90: 838 • 7.2 # 26УД-100: ***** 1222 • 10.	in trefoil formation with double-side screen earthing	Α	603
• plane with double-side screen earthingA549• plane with single-side screen earthing or cross screen earthingA683Maximum permissible conductor temperature° C+90• Continious° C+130• in emergency operation° C+250• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm928Rated outer diameter of the cable (for reference) **mm58Cable weight (approximate)kg/km6690Rated factory cable length and gross weight of the delivery on the drums ***# 22УД-60: 499 • 4.3# 25УД-90: 838 • 7.2 # 26УД-100: **** 1222 • 10.	in trefoil formation with single-side screen earthing or	Α	651
 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 mm 928 Rated outer diameter of the cable (for reference) ** mm 58 Cable weight (approximate) kg/km 6690 Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 499 · 4.3 # 25УД-90: 838 · 7.2 # 26УД-100: **** 1222 · 10. 	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 layingmm928Rated outer diameter of the cable (for reference) **mm58Cable weight (approximate)kg/km6690Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 4.3• 25УД-90: 838 • 7.2# 25УД-90: 838 • 7.2# 26УД-100: ***** 1222 • 10.	plane with double-side screen earthing	Α	549
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 layingmm928Rated outer diameter of the cable (for reference) **mm58Cable weight (approximate)kg/km6690Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 4.3• 25УД-90: 838 • 7.2# 26УД-100: **** 1222 • 10.	plane with single-side screen earthing or cross screen	Α	683
· Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm928Rated outer diameter of the cable (for reference) **mm58Cable weight (approximate)kg/km6690Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 4.3# 25УД-90: 838 • 7.2 # 26УД-100: ***** 1222 • 10.	earthing		
• in emergency operation°C+130• at short circuit°C+250Operating temperature range°C-60 +50Minimum bending radius by layingmm928Rated outer diameter of the cable (for reference) **mm58Cable weight (approximate)kg/km6690Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 4.3# 25УД-90: 838 • 7.2 # 26УД-100: **** 1222 • 10.	Maximum permissible conductor temperature		
• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm928Rated outer diameter of the cable (for reference) **mm58Cable weight (approximate)kg/km6690Rated factory cable length and gross weight of the deliverym, t# 22УД-60: 499 • 4.3on the drums ***# 25УД-90: 838 • 7.2# 26УД-100: **** 1222 • 10.	Continious		+90
Operating temperature range°C-60 +50Minimum bending radius by layingmm928Rated outer diameter of the cable (for reference) **mm58Cable weight (approximate)kg/km6690Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 4.3# 25УД-90: 838 • 7.2# 26УД-100: **** 1222 • 10.	in emergency operation	° C	+130
Minimum bending radius by layingmm928Rated outer diameter of the cable (for reference) **mm58Cable weight (approximate)kg/km6690Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 4.3# 25УД-90: 838 • 7.2# 26УД-100: **** 1222 • 10.	• at short circuit		+250
Rated outer diameter of the cable (for reference) ** mm 58 Cable weight (approximate) kg/km 6690 Rated factory cable length and gross weight of the delivery m, t # 22УД-60: 499 • 4.3 on the drums *** # 25УД-90: 838 • 7.2 # 26УД-100: **** 1222 • 10.	Operating temperature range	° C	-60 +50
Cable weight (approximate)kg/km6690Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 4.3# 25УД-90: 838 • 7.2 # 26УД-100: **** 1222 • 10.	Minimum bending radius by laying	mm	928
Rated factory cable length and gross weight of the delivery m, t # 22УД-60: 499 • 4.3 on the drums *** # 25УД-90: 838 • 7.2 # 26УД-100: **** 1222 • 10.	Rated outer diameter of the cable (for reference) **	mm	58
on the drums *** # 25УД-90: 838 • 7.2 # 26УД-100: **** 1222 • 10.	Cable weight (approximate)	kg/km	6690
# 26УД-100: **** 1222 • 10.		m, t	# 22УД-60: 499 • 4.3
• •	on the drums ***		# 25УД-90: 838 • 7.2
0			# 26УД-100: **** 1222 • 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



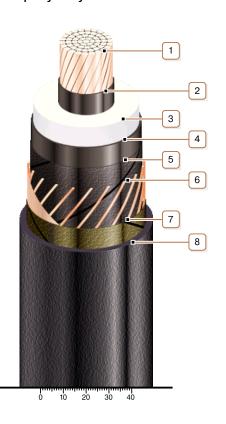




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ПвЭгП-60 1х400 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, with XLPE, longitudinal 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 nonwoven cloth tape
- 8. Outer sheath of polyethylene or polyethylene copolymer

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