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ПвЭгаП-60 1х300 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-60 1х300/95 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-60 1х300/95 (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-60 1х300/95 (г) ТУ У 31.3-00214534-060:2011









ПвЭгаП-60 1х300 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 72.5 Conductor rated area mm² 300 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 5.1 Maximum permissible short-circuit current in core kA 42.9 Permissible continious current rating by aerial laying * in trefoil formation with double-side screen earthing A 659 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 in trefoil formation with double-side screen earthing or a for screen earthing plane with single-side screen earthing or cross screen plane with single-side screen earthing plane with single-side screen earthing or cross screen plane with single-sid | 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 5.1 Maximum permissible short-circuit current in core kA 42.9 Permissible continious current rating by aerial laying * * • in trefoil formation with double-side screen earthing A 659 • in trefoil formation with single-side screen earthing or cross screen earthing A 695 cross screen earthing A 678 • plane with double-side screen earthing or cross screen earthing A 823 earthing A 541 Permissible continious current rating by burial * * in trefoil formation with double-side screen earthing or cross screen earthing A 576 rorss screen earthing A 576 * 576 rorss screen earthing A 504 * 191 * 191 * 191 * 191 * 191 * 191 * 191 * 191 * 191 * 191 * 191 < | | kV | 72.5 |
| 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 42.9 Permissible continious current rating by aerial laying * - in trefoil formation with double-side screen earthing A 659 - in trefoil formation with single-side screen earthing or cross screen earthing - plane with double-side screen earthing or cross screen earthing 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 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 double-side screen earthing or cross screen A 603 - plane with single-side screen earthing or cross screen A 603 - plane with single-side screen earthing or cross screen A 603 - plane with single-side screen earthing or cross screen A 603 - plane with single-side screen earthing or cross screen A 603 - plane with fouble-side screen earthing or cross screen A 603 - plane with single-side screen earthing or cross screen A 603 - plane with single-side screen earthing or cross screen A 603 - plane with single-side screen earthing or cross screen A 603 - plane with single-side screen earthing or cross screen A 603 - plane with single-side screen earthing or cross screen A 603 - plane with single-side screen earthing or cross screen A 603 - plane with double-side screen earthing or cross screen A 603 - plane with single-side screen earthing or cross screen A 603 - plane with double-side screen earthing or cross screen A 603 - plane with double-side screen earthing or cross screen A 603 - plane with double-side screen earthing or cross screen earthing or cross screen earthing or cross screen earthing or cross scr | Conductor rated area | mm² | 300 |
| 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 plane with double-side screen earthing or cross screen earthing plane with single-side screen earthing or cross screen in trefoil formation with single-side screen earthing or cross screen in trefoil formation with double-side screen earthing or cross screen 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 plane with single-side screen earthing or cross screen plane with s | 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 · 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 576 cross screen earthing · plane with double-side screen earthing or A 576 cross screen earthing · plane with double-side screen earthing or cross screen earthing Maximum permissible conductor temperature · Continious Maximum permissible conductor temperature · Continious in emergency operation cross screen cross screen earthing Maximum permissible conductor temperature · Continious * C +90 · in emergency operation cross screen earthing Maximum bending radius by laying mm 880 Rated outer diameter of the cable (for reference) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 22VД-60: 499 • 3.9 # 25VД-90: 1028 • 7.6 # 26VД-100: **** 1391 • 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 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 • a 823 • plane with single-side screen earthing or cross screen • a 823 • permissible continious current rating by burial * • in trefoil formation with double-side screen earthing • in trefoil formation with single-side screen earthing or 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 • plane with single-side screen earthing or cross screen • continious • plane with single-side screen earthing or cross screen • continious • c +90 • in emergency operation • c +250 • Operating temperature range • c -60 +50 Minimum bending radius by laying mm 880 Rated outer diameter of the cable (for reference) ** mm 55 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 22YД-60: 499 • 3.9 # 25YД-90: 1028 • 7.6 # 26YД-100: **** 1391 • 10. | Permissible short circuit current across the screen of | kA | 5.1 |
| 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 • 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 • plane with single-side screen earthing or cross screen • a 823 • earthing Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing or a 576 • cross screen earthing • plane with double-side screen earthing or cross screen earthing • plane with double-side screen earthing or cross screen a 603 • 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 Rated outer diameter of the cable (for reference) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 25YД-90: 1028 • 7.6 # 26YД-100: **** 1391 • 10. | minimum cross-section | | |
| • in trefoil formation with double-side screen earthingA659• in trefoil formation with single-side screen earthing or cross screen earthingA695• plane with double-side screen earthing or cross screen earthingA678• plane with single-side screen earthing or cross screen earthingA823Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing or cross screen earthingA541• in trefoil formation with single-side screen earthing or cross screen earthingA576cross screen earthingA504• plane with double-side screen earthing or cross screen earthingA603Maximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm880Rated outer diameter of the cable (for reference) **mm55Cable weight (approximate)kg/km5880Rated factory cable length and gross weight of the delivery on the drums ***# 25УД-60: 499 • 3.9• # 25УД-90: 1028 • 7.6 # 26УД-100: ***** 1391 • 10. | Maximum permissible short-circuit current in core | kA | 42.9 |
| 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 perthing 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 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 880 Rated outer diameter of the cable (for reference) ** mm 55 Cable weight (approximate) kg/km 5880 Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-90: 1028 • 7.6 # 26УД-100: ***** 1391 • 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 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 | 659 |
| 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 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 continious C P90 in emergency operation C +90 in emergency operation C 2 2 2 0 0<td>in trefoil formation with single-side screen earthing or</td><td>Α</td><td>695</td> | in trefoil formation with single-side screen earthing or | Α | 695 |
| 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 880 Rated outer diameter of the cable (for reference) ** mm 55 Cable weight (approximate) kg/km 5880 Rated factory cable length and gross weight of the delivery on the drums *** # 26УД-90: 1028 • 7.6 # 26УД-100: **** 1391 • 10. | 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 | 678 |
| 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 · 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 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 · 3.9 # 25УД-90: 1028 · 7.6 # 26УД-100: **** 1391 · 10. | plane with single-side screen earthing or cross screen | Α | 823 |
| 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 continious C H90 in emergency operation C +130 at short circuit C +250 Operating temperature range C -60 +50 Minimum bending radius by laying mm 880 Rated outer diameter of the cable (for reference) ** mm 55 Cable weight (approximate) kg/km 5880 Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 499 • 3.9 # 25УД-90: 1028 • 7.6 # 26УД-100: **** 1391 • 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 earthing Maximum permissible conductor temperature · Continious · 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 *** * In trefoil formation with single-side screen earthing or cross screen A 504 603 603 604 603 605 606 607 607 607 607 607 607 | Permissible continious current rating by burial * | | |
| ross 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 in emergency operation cat short circuit check cat short circuit check cat short circuit cat short cat short circuit cat short cat short cat short circuit cat short | in trefoil formation with double-side screen earthing | Α | 541 |
| • plane with double-side screen earthingA504• plane with single-side screen earthing or cross screen earthingA603Maximum 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 layingmm880Rated outer diameter of the cable (for reference) **mm55Cable weight (approximate)kg/km5880Rated factory cable length and gross weight of the delivery on the drums ***# 22УД-60: 499 • 3.9• # 25УД-90: 1028 • 7.6 # 26УД-100: **** 1391 • 10. | in trefoil formation with single-side screen earthing or | Α | 576 |
| • plane with single-side screen earthing or cross screen earthingA603Maximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm880Rated outer diameter of the cable (for reference) **mm55Cable weight (approximate)kg/km5880Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 3.9# 25УД-90: 1028 • 7.6 # 26УД-100: **** 1391 • 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 layingmm880Rated outer diameter of the cable (for reference) **mm55Cable weight (approximate)kg/km5880Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 3.9on the drums ***# 25УД-90: 1028 • 7.6# 26УД-100: **** 1391 • 10. | plane with double-side screen earthing | Α | 504 |
| 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 layingmm880Rated outer diameter of the cable (for reference) **mm55Cable weight (approximate)kg/km5880Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 3.9on the drums ***# 25УД-90: 1028 • 7.6# 26УД-100: ***** 1391 • 10. | plane with single-side screen earthing or cross screen | Α | 603 |
| · Continious° C+90· in emergency operation° C+130· at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm880Rated outer diameter of the cable (for reference) **mm55Cable weight (approximate)kg/km5880Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 · 3.9w 1028 · 7.6 # 26УД-100: **** 1391 · 10. | earthing | | |
| • in emergency operation°C+130• at short circuit°C+250Operating temperature range°C-60 +50Minimum bending radius by layingmm880Rated outer diameter of the cable (for reference) **mm55Cable weight (approximate)kg/km5880Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 3.9**** # 25УД-90: 1028 • 7.6 # 26УД-100: ***** 1391 • 10. | Maximum permissible conductor temperature | | |
| • at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm880Rated outer diameter of the cable (for reference) **mm55Cable weight (approximate)kg/km5880Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 3.9***** # 25УД-90: 1028 • 7.6 # 26УД-100: ***** 1391 • 10. | Continious | | +90 |
| Operating temperature range°C-60 +50Minimum bending radius by layingmm880Rated outer diameter of the cable (for reference) **mm55Cable weight (approximate)kg/km5880Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 3.9*** 25УД-90: 1028 • 7.6# 26УД-100: ***** 1391 • 10. | in emergency operation | ° C | +130 |
| Minimum bending radius by laying mm 880 Rated outer diameter of the cable (for reference) ** mm 55 Cable weight (approximate) kg/km 5880 Rated factory cable length and gross weight of the delivery on the drums *** # 22УД-60: 499 • 3.9 # 25УД-90: 1028 • 7.6 # 26УД-100: **** 1391 • 10. | • at short circuit | | +250 |
| Rated outer diameter of the cable (for reference) **mm55Cable weight (approximate)kg/km5880Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 3.9# 25УД-90: 1028 • 7.6 # 26УД-100: **** 1391 • 10. | | ° C | -60 +50 |
| Cable weight (approximate)kg/km5880Rated factory cable length and gross weight of the delivery on the drums ***m, t# 22УД-60: 499 • 3.9# 25УД-90: 1028 • 7.6 # 26УД-100: **** 1391 • 10. | | mm | 880 |
| Rated factory cable length and gross weight of the delivery m, t # 22УД-60: 499 • 3.9 on the drums *** # 25УД-90: 1028 • 7.6 # 26УД-100: **** 1391 • 10. | Rated outer diameter of the cable (for reference) ** | mm | 55 |
| on the drums *** # 25УД-90: 1028 • 7.6 # 26УД-100: **** 1391 • 10. | Cable weight (approximate) | kg/km | 5880 |
| # 26УД-100: **** 1391 • 10. | | m, t | • • |
| • • | on the drums *** | | |
| | | | # 26УД-100: **** 1391 • 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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ПвЭгаП-60 1x300 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