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# ПвЭгаПу-132 1x1000 ТУ У 31.3-00214534-060:2011

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

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

ПвПу2г (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
- · on difficult route sections, according to the unique specification
- in the air, including cable structures, if provided the additional fire protection

It is possible to manufacture cable with a segmented conductor

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

Order entry example:

ПвЭгаПу-П-132 1х1000/95 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:

ПвЭгаПу-132 1х1000/95 (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:

ПвЭгаПу-132 1х1000/95 (г) ТУ У 31.3-00214534-060:2011









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## ПвЭгаПу-132 1х1000 ТУ У 31.3-00214534-060:2011

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### **TECHNICAL SPECIFICATIONS**

| Rated voltage  |
|--|
| Conductor rated area mm² 1000  Minimum screen cross-section mm² 35  Partial discharge factor for rated voltage, not more than pC 6  Permissible short circuit current across the screen of kA 10.2  minimum cross-section  Maximum permissible short-circuit current in core kA 143  Permissible continious current rating by aerial laying *  · in trefoil formation with double-side screen earthing A 1180  · in trefoil formation with single-side screen earthing or A 1333  cross screen earthing  · plane with double-side screen earthing or cross screen A 1580  earthing  Permissible continious current rating by burial *  · in trefoil formation with double-side screen earthing or A 1027  cross screen earthing  · in trefoil formation with single-side screen earthing or A 1027  cross screen earthing  · plane with double-side screen earthing A 741  · plane with single-side screen earthing or cross screen A 1106  earthing  Maximum permissible conductor temperature  |
| Minimum screen cross-section mm² 35  Partial discharge factor for rated voltage, not more than pC 6  Permissible short circuit current across the screen of kA 10.2  minimum cross-section  Maximum permissible short-circuit current in core kA 143  Permissible continious current rating by aerial laying *  · in trefoil formation with double-side screen earthing A 1180  · in trefoil formation with single-side screen earthing or A 1333  cross screen earthing  · plane with double-side screen earthing or cross screen A 1580  earthing  Permissible continious current rating by burial *  · in trefoil formation with double-side screen earthing or A 1027  cross screen earthing  · in trefoil formation with single-side screen earthing or A 1027  cross screen earthing  · plane with double-side screen earthing A 741  · plane with single-side screen earthing or cross screen A 1106  earthing  Maximum permissible conductor temperature   |
| Permissible short circuit current across the screen of minimum cross-section  Maximum permissible short-circuit current in core kA 143  Permissible continious current rating by aerial laying *  • in trefoil formation with double-side screen earthing A 1180  • in trefoil formation with single-side screen earthing or A 1333  cross screen earthing  • plane with double-side screen earthing or cross screen A 1580  earthing  Permissible continious current rating by burial *  • in trefoil formation with double-side screen earthing or A 1027  cross screen earthing  • plane with double-side screen earthing or A 1027  cross screen earthing  • plane with double-side screen earthing A 741  • plane with double-side screen earthing or cross screen A 1106  earthing  Maximum permissible conductor temperature  |
| minimum cross-section  Maximum permissible short-circuit current in core kA 143  Permissible continious current rating by aerial laying *  • in trefoil formation with double-side screen earthing A 1180  • in trefoil formation with single-side screen earthing or A 1333  cross screen earthing  • plane with double-side screen earthing A 1580  earthing  Permissible continious current rating by burial *  • in trefoil formation with double-side screen earthing or A 887  • in trefoil formation with single-side screen earthing or A 1027  cross screen earthing  • plane with double-side screen earthing A 741  • plane with double-side screen earthing or cross screen A 1106  earthing  Maximum permissible conductor temperature  |
| Maximum permissible short-circuit current in core  Rermissible continious current rating by aerial laying *  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  earthing  Permissible continious current rating by burial *  in trefoil formation with double-side screen earthing or  in trefoil formation with single-side screen earthing or  plane with double-side 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  A 1106  earthing  Maximum permissible conductor temperature   |
| Permissible continious current rating by aerial laying *  • in trefoil formation with double-side screen earthing  |
| <ul> <li>in trefoil formation with double-side screen earthing</li> <li>in trefoil formation with single-side screen earthing or cross screen earthing</li> <li>plane with double-side screen earthing or cross screen</li> <li>plane with single-side screen earthing or cross screen</li> <li>plane with single-side screen earthing or cross screen</li> <li>earthing</li> <li>Permissible continious current rating by burial *</li> <li>in trefoil formation with double-side screen earthing</li> <li>in trefoil formation with single-side screen earthing or cross screen earthing</li> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>plane with single-side screen earthing or cross screen</li> <li>Maximum permissible conductor temperature</li> </ul>   |
| <ul> <li>in trefoil formation with single-side screen earthing or cross screen earthing</li> <li>plane with double-side screen earthing or cross screen</li> <li>plane with single-side screen earthing or cross screen</li> <li>plane with single-side screen earthing or cross screen</li> <li>earthing</li> <li>Permissible continious current rating by burial *</li> <li>in trefoil formation with double-side screen earthing</li> <li>in trefoil formation with single-side screen earthing or cross screen earthing</li> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>plane with single-side screen earthing or cross screen</li> <li>Maximum permissible conductor temperature</li> </ul>  |
| <ul> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>plane with single-side screen earthing or cross screen</li> <li>permissible continious current rating by burial *</li> <li>in trefoil formation with double-side screen earthing</li> <li>in trefoil formation with single-side screen earthing or cross screen earthing</li> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>plane with single-side screen earthing or cross screen</li> <li>Maximum permissible conductor temperature</li> </ul>  |
| <ul> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>plane with single-side screen earthing or cross screen</li> <li>permissible continious current rating by burial *</li> <li>in trefoil formation with double-side screen earthing</li> <li>in trefoil formation with single-side screen earthing or cross screen earthing</li> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>plane with single-side screen earthing or cross screen</li> <li>Maximum permissible conductor temperature</li> </ul>  |
| <ul> <li>plane with single-side screen earthing or cross screen earthing</li> <li>Permissible continious current rating by burial *</li> <li>in trefoil formation with double-side screen earthing</li> <li>in trefoil formation with single-side screen earthing or cross screen earthing</li> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen earthing</li> <li>plane with single-side screen earthing or cross screen earthing</li> <li>Maximum permissible conductor temperature</li> </ul>   |
| earthing  Permissible continious current rating by burial *  • in trefoil formation with double-side screen earthing   |
| Permissible continious current rating by burial *  • in trefoil formation with double-side screen earthing   |
| <ul> <li>in trefoil formation with double-side screen earthing</li> <li>in trefoil formation with single-side screen earthing or cross screen earthing</li> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> </ul>  |
| <ul> <li>in trefoil formation with single-side screen earthing or cross screen earthing</li> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>plane with single-side scree</li></ul> |
| <ul> <li>cross screen earthing</li> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>earthing</li> <li>Maximum permissible conductor temperature</li> </ul>   |
| <ul> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>earthing</li> <li>Maximum permissible conductor temperature</li> </ul>  |
| <ul> <li>plane with single-side screen earthing or cross screen         <ul> <li>earthing</li> </ul> </li> <li>Maximum permissible conductor temperature</li> </ul>  |
| earthing  Maximum permissible conductor temperature  |
| Maximum permissible conductor temperature  |
|  |
| · Continious   |
|  |
| • in emergency operation °C +130   |
| • at short circuit °C +250   |
| Operating temperature range °C -60 +50   |
| Minimum bending radius by laying mm 1488   |
| Rated outer diameter of the cable (for reference) ** mm 93   |
| Cable weight (approximate) kg/km 17200   |
| Rated factory cable length and gross weight of the delivery m, t # 25УД-90: 283 • 6.4  |
| on the drums *** # 26УД-100: 433 • 9.3   |
| # 30УД-130: **** 415 • 10.0  |

#### Notes:

When ordering it is neccesary to agree the factory length of the product with the manufacturer

<sup>\*</sup> 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

<sup>\*\*</sup> The external diameter may differ from the rated up to  $\pm$  10 %

<sup>\*\*\*</sup> Отклонение фактической массы брутто от указанного значения может составлять ± 7 %

<sup>\*\*\*\*</sup> Option delivery on not full drum



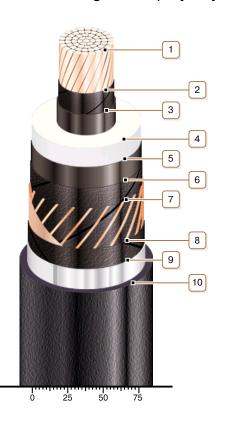




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### CONSTRUCTION

## 1. Copper multiwire compact conductor

Votes:

- · It is possible to manufacture cable with a segmented conductor
- It is possible to manufacture cable with sealed conductor.
- 2. Lapping layer of semiconductive swellable tape
- 3. Inner extruded semiconducting layer
- 4. XLPE insulation
- 5. Outer extruded semiconducting layer
- 6. Lapping layer of semiconductive swellable tape
- 7. 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

- 8. Lapping layer of semiconductive swellable tape
- 9. Alumopolymer tape
- 10. Strengthened polyethylene outer sheath

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