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## ПвЭгаПу-45 1x1600 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 cables with extruded semiconductor layer along outer sheath.

Order entry example:

ПвЭгаПу-П-45 1х1600/95 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-45 1х1600/95 (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-45 1х1600/95 (г) ТУ У 31.3-00214534-060:2011







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### **TECHNICAL SPECIFICATIONS**

Rated voltage	kV	45
Maximum voltage	kV	52
Conductor rated area	mm²	1600
Minimum screen cross-section	mm²	35
Partial discharge factor for rated voltage, not more than	рС	6
Permissible short circuit current across the screen of	kA	10.2
minimum cross-section		
Maximum permissible short-circuit current in core	kA	229
Permissible continious current rating by aerial laying *		
in trefoil formation with double-side screen earthing	Α	1544
in trefoil formation with single-side screen earthing or	Α	1950
cross screen earthing		
plane with double-side screen earthing	Α	1299
plane with single-side screen earthing or cross screen	Α	2361
earthing		
Permissible continious current rating by burial *		
in trefoil formation with double-side screen earthing	Α	1072
in trefoil formation with single-side screen earthing or	Α	1408
cross screen earthing		
plane with double-side screen earthing	Α	847
plane with single-side screen earthing or cross screen	Α	1512
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	1504
Rated outer diameter of the cable (for reference) **	mm	94
Cable weight (approximate)	kg/km	21610
Rated factory cable length and gross weight of the delivery	m, t	# 30УД-130: **** 330 · 10.0
on the drums ***		

#### 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  $\pm\,7\,\%$ 

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



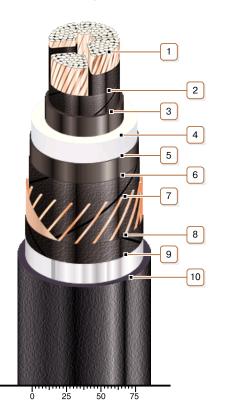




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### CONSTRUCTION

- 1. Copper segmentary multiwire compact conductor
- · It is possible to manufacture cable with sealed conductor.
- · Conductor segment twisting is not illustrated
- 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