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# АПвЭгаПу-150 1x1400 ТУ У 31.3-00214534-060:2011



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

For the cable of this mark correspond the foreign-made analogues: AΠβΠy2r (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:

АПвЭгаПу-П-150 1х1400/95 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:

АПвЭгаПу-150 1x1400/95 (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: ΑΠβ∂raΠy-150 1x1400/95 (г) TУ У 31.3-00214534-060:2011





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## **TECHNICAL SPECIFICATIONS**

Rated voltage	kV	150
Maximum voltage	kV	170
Conductor rated area	mm²	1400
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	14.2
minimum cross-section		
Maximum permissible short-circuit current in core	kA	132
Permissible continious current rating by aerial laying *		
<ul> <li>in trefoil formation with double-side screen earthing</li> </ul>	А	1319
in trefoil formation with single-side screen earthing or	А	1507
cross screen earthing		
plane with double-side screen earthing	А	1240
<ul> <li>plane with single-side screen earthing or cross screen</li> </ul>	А	1784
earthing		
Permissible continious current rating by burial *		
<ul> <li>in trefoil formation with double-side screen earthing</li> </ul>	А	914
<ul> <li>in trefoil formation with single-side screen earthing or</li> </ul>	А	1083
cross screen earthing		
plane with double-side screen earthing	А	775
plane with single-side screen earthing or cross screen	А	1148
earthing		
Maximum permissible conductor temperature		
Continious	°C	+90
<ul> <li>in emergency operation</li> </ul>	°C	+130
• at short circuit	°C	+250
Operating temperature range	°C	-60 +50
Minimum bending radius by laying	mm	1776
Rated outer diameter of the cable (for reference) **	mm	111
Cable weight (approximate)	kg/km	12950
Notes:		

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  $\cdot$  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  $\pm$  7 %





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### CONSTRUCTION

- 1. Aluminium multiwire compacted conductor
- Notes: • 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