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# АПвЭогаП-20 3x185 ТУ У 31.3-00214534-017-2003

Three-core power cables with aluminium conductors, with XLPE, collective screen, with longitudinal and transverse sealing and polyethylene outer sheath

Technical cable requirements correspond to IEC 60502-2

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:

АПвЭогаП-П-20 3х185/70 ТУ У 31.3-00214534-017-2003

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:

АПвЭогаП-20 3x185/70 (ОМ) ТУ У 31.3-00214534-017-2003

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 conductors.

Order entry example:

АПвЭогаП-20 3х185/70 (г) ТУ У 31.3-00214534-017-2003







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### **TECHNICAL SPECIFICATIONS**

Rated voltage	kV	20
Maximum voltage	kV	24
Number and rated area of conductors	mm²	3 x 185
Insulation thikness	mm	5.5
Minimum screen cross-section	mm²	70
Permissible short circuit current across the screen of	kA	14.2
minimum cross-section		
Maximum permissible short-circuit current in core	kA	17.5
Permissible continious current rating *		
by aerial laying	Α	355
• by burial	Α	294
Partial discharge factor for rated voltage, not more than	рС	6
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	1296
Rated outer diameter of the cable (for reference) **	mm	81
Cable weight (approximate)	kg/km	6350
Rated factory cable length and gross weight of the delivery	m, t	# 25УД-90: 420 • 4.2
on the drums ***		# 26УД-100: 631 • 5.8
		# 30УД-130: 860 • 8.3

#### 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 1.5 °K · m/W, laying depth in the ground 0.8 m, shields are grounded at both ends of the line

<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  $\pm\,7\,\%$ 







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### **CONSTRUCTION**

- 1. Central polyethylene bundle
- 2. Aluminium multiwire compacted conductor
- · It is possible to manufacture cable with a single-wire conductor
- · It is possible to manufacture cable with sealed conductors.
- 3. Inner extruded semiconducting layer
- 4. XLPE insulation
- 5. Outer extruded semiconducting layer
- 6. Lapping layer of semiconductive swellable tape
- 7. Extruded filling of semiconducting polyethylene
- 8. Lapping layer of semiconductive swellable tape
- 9. Copper screen
- 10. Lapping layer of semiconductive swellable tape
- 11. Alumopolymer tape
- 12. Outer sheath of polyethylene or polyethylene copolymer

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

Note: Conductor twisting is not illustrated