## АПвАПу-10 1x120

ТУ У 27.3-00214534-092:2016

## Single-core power cables with aluminium conductors, XLPE-insulated, aluminium sheathed, with reinforced outer sheath of polyethylene

## Technical cable requirements correspond to IEC 60502-2

Cables are used for laying:

- in places, where small mechanical impacts on cable are possible, including tensile forces
- in soil(trenches)
- in damp, partially flooded premises
- 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:
АПвАПу-П-10 1х120/16 ТУ У 27.3-00214534-092:2016
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:
АПвАПу-10 1x120/16 (ОМ) ТУ у 27.3-00214534-092:2016
In conjunction with the DTS system, the integrated fiber-optic module can act as a distributed cable line temperature sensor.
Cables with copper screen can also be manufactured
It is possible to manufacture cable with
Order entry example:
АПвАПу-10 1х120/16 (ожк) ТУ У 27.3-00214534-092:2016
It is possible to manufacture cable with sealed conductor.
Order entry example:
АПвАПу-10 1х120/16 (г) ТУ У 27.3-00214534-092:2016
It is possible to supply of three stranded single-core cables.
Order entry example:
ЗхАПвАПу-10 1х120/16 ТУ У 27.3-00214534-092:2016

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## TECHNICAL SPECIFICATIONS

| Rated voltage | kV | 10 |
| :---: | :---: | :---: |
| Maximum voltage | kV | 12 |
| Number and rated area of conductors | $\mathrm{mm}^{2}$ | $1 \times 120$ |
| Insulation thikness | mm | 3.4 |
| Sheath thikness | mm | 1.3 |
| Permissible short circuit current across the screen | kA | 8.80 |
| Maximum permissible short-circuit current in core | kA | 11.3 |
| Permissible continious current rating * |  |  |
| - by aerial laying in trefoil formation | A | 324 |
| - by aerial flat laying | A | 391 |
| - by burial in trefoil formation | A | 252 |
| - by burial flat | A | 260 |
| Partial discharge factor for rated voltage, not more than | pC | 6 |
| Maximum permissible conductor temperature |  |  |
| - Continious | ${ }^{\circ} \mathrm{C}$ | +90 |
| - in emergency operation | ${ }^{\circ} \mathrm{C}$ | +130 |
| - at short circuit | ${ }^{\circ} \mathrm{C}$ | +250 |
| Operating temperature range | ${ }^{\circ} \mathrm{C}$ | -60 .. +50 |
| Minimum bending radius by laying | mm | 800 |
| Rated outer diameter of the cable (for reference) ** | mm | 32 |
| Cable weight (approximate) | kg/km | 1180 |
| Rated factory cable length and gross weight of the delivery on the drums | m, t | $\begin{aligned} & \text { \# 18УД-40: } 1035 \cdot 1.8 \\ & \text { \# 18аУД-40: } 1597 \cdot 2.4 \\ & \hline \end{aligned}$ |

## 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 $90^{\circ} \mathrm{C}$, air temperature $30{ }^{\circ} \mathrm{C}$, soil temperature $20^{\circ} \mathrm{C}$, thermal resistivity of soil $1.5^{\circ} \mathrm{K} \cdot \mathrm{m} / \mathrm{W}$, laying depth in the soil 0.8 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, shields are earthed on both ends of the line
** The external diameter may differ from the rated up to $\pm 10 \%$

PRODUCTION GUIDE
, Autogennaya Str., Kharkov, 6109
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## CONSTRUCTION

1. Aluminium multiwire compacted conductor

Notes:

- It is possible to manufacture cable with a single-wire conductor
- 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. Lapping layer of semiconductive tape
7. Aluminium sheath
8. Strengthened polyethylene outer sheath

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

Note: Cables with copper screen can also be manufactured

