PRODUCTION GUIDE

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АПвЭСПу-132 1x630
ТУ У 31.3-00214534-060:2011
Power cables with aluminium conductor, XLPE-insulated, with copper screen, lead-sheathed, with reinforced outer sheath of polyethylene

## Technical cable requirements correspond to IEC 60840

Cables are used for laying:

- in places, where small mechanical impacts on cable are possible, including tensile forces
- in soil (trenches) with high corrosiveness
- in damp, partially flooded premises
- in wetlands
- 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:
АПвЭСПу-П-132 1х630/95 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:
АПвЭСПу-132 1х630/95 (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:
АПвЭСПу-132 1х630/95 (г) ТУ У 31.3-00214534-060:2011

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## TECHNICAL SPECIFICATIONS

| Rated voltage | kV | 132 |
| :---: | :---: | :---: |
| Maximum voltage | kV | 145 |
| Conductor rated area | $\mathrm{mm}^{2}$ | 630 |
| Sheath thikness | mm | 3 |
| Partial discharge factor for rated voltage, not more than | pC | 6 |
| Permissible short circuit current across the screen | kA | 22.40 |
| Maximum permissible short-circuit current in core | kA | 59 |
| Permissible continious current rating by aerial laying * |  |  |
| - in trefoil formation with double-side screen earthing | A | 810 |
| - in trefoil formation with single-side screen earthing or cross screen earthing | A | 855 |
| - plane with double-side screen earthing | A | 809 |
| - plane with single-side screen earthing or cross screen earthing | A | 992 |
| Permissible continious current rating by burial * |  |  |
| - in trefoil formation with double-side screen earthing | A | 627 |
| - in trefoil formation with single-side screen earthing or cross screen earthing | A | 672 |
| - plane with double-side screen earthing | A | 576 |
| - plane with single-side screen earthing or cross screen earthing | A | 707 |
| 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 | 2250 |
| Rated outer diameter of the cable (for reference) ** | mm | 90 |
| Cable weight (approximate) | kg/km | 15830 |
| Rated factory cable length and gross weight of the delivery on the drums | m, t | $\begin{aligned} & \text { \# 25УД-90: 396•7.8 } \\ & \text { \# 26УД-100: } 457 \cdot 9.1 \\ & \text { \# 30УД-130: ***451•10.0 } \end{aligned}$ |

## 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 $20^{\circ} \mathrm{C}$, load factor 1.0 , thermal resistivity of soil $1.0^{\circ} \mathrm{K} \cdot \mathrm{m} / \mathrm{W}$, 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 $\pm 10 \%$
*** Option delivery on not full drum

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CONSTRUCTION

1. Aluminium multiwire compacted conductor
2. Inner extruded semiconducting layer
3. XLPE insulation
4. Outer extruded semiconducting layer
5. Lapping layer of semiconductive swellable tape
6. Copper screen
7. Lapping layer of semiconductive swellable tape
8. Lapping layer of semiconductive tape
9. Lead sheath
10. Strengthened polyethylene outer sheath
