7, Autogennaya Str., Kharkov, 61099, Ukraine. Phone: (+38-057) 728-1244, 728-1241. Fax: (+38-057) 728-1243, (+38-0572) 946-830
E-mail: market@yuzhcable.com.ua

100803-100030000120

АПвЭБВнгд-10 3х120
ТУ У 31.3-00214534-017-2003

Three-core power cables with aluminium conductors, flame-retardant, with XLPE, steel-tape armoured, with PVC compound outer sheath, with low smoke and gas emission

For the cable of this mark correspond the foreign-made analogues:
АПвБВнг(В)-LS (RU) • АПвБВнг(А)-LS (RU)
Technical cable requirements correspond to IEC 60502-2

Cables are used for laying:
- *in places, where mechanical impacts on cable are possible, except tensile forces*
- *in premises, tunnels, ducts, mines, dry soil and outdoor under shelter*
- *in bunches*
- *at sites, where low smoke and gas emission are required (NPP, subway, large industrial facilities, high-rise buildings, etc.)*

It is possible to manufacture cables with an integrated fiber-optic module.
Order entry example:
АПвЭБВнгд-10 3х120/16 (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:
АПвЭБВнгд-10 3х120/16 (г) ТУ У 31.3-00214534-017-2003

Fire safety code in accordance with ДСТУ 4809:2007: ПБ122121000
Products of this mark meet the requirements:
- *single wire cable flame retardance*
- *bunched cable flame retardance category А*
- *toxicity class Тк2 of the combustion products of nonmetallic elements (toxicity index from 40 up to 120 g/m^3)*
- *class ДТк1 on smoke-forming ability by smouldering of non-metallic elements (coefficient of smoke formation from 50 to 500 m^2/kg)*
- *class ДПк2 on smoke-forming ability by combustion (minimum luminous flux more than 60 %)*
- *corrosive class Кк1 of combustion products of non-metallic elements (the number of halogen hydrides less than 150 mg/g, pH less than 4.3, specific conductivity more than 10 μS/mm)*

© 2024 PJSC Yuzhcable Works. © 2024 A. Kevorkyan

7, Autogennaya Str., Kharkov, 61099, Ukraine. Phone: (+38-057) 728-1244, 728-1241. Fax: (+38-057) 728-1243, (+38-0572) 946-830
E-mail: market@yuzhcable.com.ua

100803-100030000120

АПвЭБВнгд-10 3х120
ТУ У 31.3-00214534-017-2003

Three-core power cables with aluminium conductors, flame-retardant, with XLPE, steel-tape armoured, with PVC compound outer sheath, with low smoke and gas emission

TECHNICAL SPECIFICATIONS

Rated voltage	kV	10
Maximum voltage	kV	12
Number and rated area of conductors	mm^2	3 x 120
Insulation thikness	mm	3.4
Minimum screen cross-section	mm^2	16
Permissible short circuit current across the screen of minimum cross-section	kA	3.3
Maximum permissible short-circuit current in core	kA	11.3
Permissible continious current rating *		
• *by aerial laying*	A	274
• *by burial*	A	232
Partial discharge factor for rated voltage, not more than	pC	6
Maximum permissible conductor temperature		
• *Continious*	° C	+90
• *in emergency operation*	° C	+130
• *at short circuit*	° C	+250
Operating temperature range (in climate version NF)	° C	-50 ... +50
Operating temperature range (in climate version T)	° C	-25 ... +65
Minimum bending radius by laying	mm	1040
Rated outer diameter of the cable (for reference) **	mm	65
Cable weight (approximate)	kg/km	5760
Rated factory cable length and gross weight of the delivery on the drums ***	m, t	# 22УД-60: 363 • 3.0 # 25УД-90: 643 • 5.3

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

*** The external diameter may differ from the rated up to ± 10 %*

**** Отклонение фактической массы брутто от указанного значения может составлять ± 7 %*

© 2024 PJSC Yuzhcable Works. © 2024 A. Kevorkyan

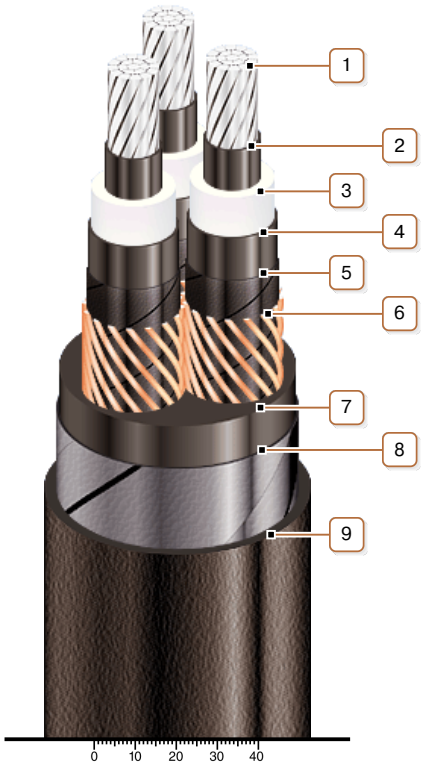
YUZHCABLE
PRODUCTION GUIDE

100803-100030000120

7, Autogennaya Str., Kharkov, 61099, Ukraine. Phone: (+38-057) 728-1244, 728-1241. Fax: (+38-057) 728-1243, (+38-0572) 946-830
E-mail: market@yuzhcable.com.ua

АПвЭБВнгд-10 3х120
ТУ У 31.3-00214534-017-2003

Three-core power cables with aluminium conductors, flame-retardant, with XLPE, steel-tape armoured, with PVC compound outer sheath, with low smoke and gas emission



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 conductors.*

2. Inner extruded semiconducting layer

3. XLPE insulation

4. Outer extruded semiconducting layer

5. Lapping layer of semiconductive swellable tape

6. Copper screen

7. Extruded filling of low fire-risk PVC compound

8. Double galvanized steel-tape armour

9. Low fire-risk PVC compound outer sheath

Note: Conductor twisting is not illustrated

© 2024 PJSC Yuzhcable Works. © 2024 A. Kevorkyan