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АПвЭгаПнг-132 1x630 ТУ У 31.3-00214534-060:2011

Power cables with aluminium conductor, flame-retardant, with XLPE, longitudinal and transverse screen sealing and polymer compound outer sheath

For the cable of this mark correspond the foreign-made analogues: AHXCHBMK (FI)

Technical cable requirements correspond to IEC 60840

Cables are used for laying:

- in premises, tunnels, ducts, mines, dry soil and outdoor under shelter
- · single laying

It is possible to manufacture cables with extruded semiconductor layer along outer sheath.

Order entry example:

АПвЭгаПнг-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:

АПвЭгаПнг-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:

АПвЭгаПнг-132 1х630/95 (г) ТУ У 31.3-00214534-060:2011

Fire safety code in accordance with ДСТУ 4809:2007: ΠБ121122000

Products of this mark meet the requirements:

- · single wire cable flame retardance
- bunched cable flame retardance category A
- toxicity class Tk1 of the combustion products of nonmetallic elements (toxicity index from 13 up to 40 g/m3)
- class $\Delta T \kappa 1$ on smoke-forming ability by smouldering of non-metallic elements (coefficient of smoke formation from 50 to 500 m²/kg)
- class ДПк2 on smoke-forming ability by combustion (minimum luminous flux more than 60 %)
- corrosive class $K\kappa 2$ of combustion products of non-metallic elements (the number of halogen hydrides less than 150 mg/g, pH more than 4.3, specific conductivity less than 10 μ S/mm)







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АПвЭгаПнг-132 1x630 ТУ У 31.3-00214534-060:2011

Power cables with aluminium conductor, flame-retardant, with XLPE, longitudinal and transverse screen sealing and polymer compound outer sheath

TECHNICAL SPECIFICATIONS

Maximum voltage kV 145 Conductor rated area mm² 630 Minimum screen cross-section mm² 35 Partial discharge factor for rated voltage, not more than pC 6 Permissible short circuit current across the screen of kA 7.1 Minimum cross-section kA 7.1 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 * • plane with double-side screen earthing or cross screen earthing * • plane with single-side screen earthing or cross screen A 992 earthing Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing or A 672 • in trefoil formation with double-side screen earthing or A 672 • in trefoil formation with single-side screen earthing or A 672 • in trefoil formation with single-side screen earthing or A 672 • in trefoil formation with single-side screen earthing or A 672 • plane with single-side screen earthing A 576 • plane with single-side screen earthing or cross screen earthing Maximum permissible conductor temperature • Continious • C +90 • in emergency operation • C +130 • at short circuit • C +250 Operating temperature range Minimum bending radius by laying mm 1360 Rated outer diameter of the cable (for reference) ** mm 85 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 25VJA-90: 420 · 5.4 on the drums **** # 25VJA-90: 420 · 5.4 on the drums **** # 25VJA-90: 420 · 5.4 on the drums **** # 25VJA-90: 420 · 5.4 on the drums **** # 25VJA-100: 604 · 7.3 # 30VJA-130: **** 785 · 10.0	Rated voltage	kV	132
Conductor rated area mm² 630 Minimum screen cross-section mm² 35 Partial discharge factor for rated voltage, not more than pC 6 Permissible short circuit current across the screen of kA 7.1 minimum cross-section Maximum permissible short-circuit current in core kA 59 Permissible continious current rating by aerial laying * * * * * * * * * * * * * * * * * * *		kV	145
Minimum screen cross-section Partial discharge factor for rated voltage, not more than PC 6 Permissible short circuit current across the screen of minimum cross-section Maximum permissible short-circuit current in core Maximum permissible short-circuit current in core Minimum cross-section Maximum permissible short-circuit current in core Maximum permissible short-circuit current in core Minimum permissible short-circuit current in core Maximum permissible sont-circuit current in core Minimum permissible sontinious current rating by aerial laying * in trefoil formation with double-side screen earthing in trefoil formation with single-side screen earthing or plane with single-side screen earthing or cross screen A 992 earthing Permissible continious current rating by burial * in trefoil formation with double-side screen earthing or in trefoil formation with single-side screen earthing or plane with double-side screen earthing or plane with double-side screen earthing or plane with double-side screen earthing or cross screen earthing plane with double-side screen earthing or plane with double-side screen earthing or cross screen earthing cross screen earthing plane with double-side screen earthing or cross screen earthing cross screen earthing plane with single-side screen earthing or cross screen plane with single-side screen earthi		mm²	630
Permissible short circuit current across the screen of minimum cross-section Maximum permissible short-circuit current in core Permissible continious current rating by aerial laying * - in trefoil formation with double-side screen earthing - in trefoil formation with single-side screen earthing or - plane with double-side screen earthing - plane with single-side screen earthing or cross screen - plane with single-side screen earthing or cross screen - plane with single-side screen earthing or cross screen - in trefoil formation with double-side screen earthing or - in trefoil formation with single-side screen earthing or - in trefoil formation with single-side screen earthing or - vin trefoil formation with single-side screen earthing or - plane with double-side screen earthing - plane with double-side screen earthing or cross screen - plane with single-side screen earthing or cross screen - continious - conti	Minimum screen cross-section		35
Permissible short circuit current across the screen of minimum cross-section 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 A 855 cross screen earthing · plane with double-side screen earthing or cross screen A 992 earthing Permissible continious current rating by burial * · in trefoil formation with double-side screen earthing A 627 · in trefoil formation with double-side screen earthing A 672 cross screen earthing Permissible continious current rating by burial * · in trefoil formation with single-side screen earthing A 672 cross screen earthing · plane with double-side screen earthing A 576 · plane with double-side screen earthing or cross screen a 707 earthing Maximum permissible conductor temperature · Continious · C +90 · in emergency operation · C +250 Operating temperature range · C -60 +50 Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 85 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 26УД-100: 604 • 7.3	Partial discharge factor for rated voltage, not more than	рС	6
Maximum permissible short-circuit current in core Permissible continious current rating by aerial laying * · in trefoil formation with double-side screen earthing or cross screen earthing · plane with double-side screen earthing or cross screen earthing · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen earthing Permissible continious current rating by burial * · in trefoil formation with double-side screen earthing or cross screen earthing · in trefoil formation with single-side screen earthing or cross screen earthing · plane with double-side screen earthing or cross screen earthing · plane with double-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with double-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen · plane with single-side screen earthing · plane with single-side screen earthing · plane with single-	Permissible short circuit current across the screen of	kA	7.1
Permissible continious current rating by aerial laying *	minimum cross-section		
• 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 or cross screen earthing A 809 • plane with single-side screen earthing or cross screen earthing A 992 • plane with single-side screen earthing or cross screen earthing or in trefoil formation with double-side screen earthing or cross screen earthing A 627 • in trefoil formation with single-side screen earthing or cross screen earthing A 672 • plane with double-side screen earthing or cross screen earthing A 707 • plane with single-side screen earthing or cross screen earthing A 707 • plane with single-side screen earthing or cross screen earthing C +90 • plane with single-side screen earthing or cross screen earthing *C +90 • plane with single-side screen earthing or cross screen earthing *C +90 • plane with single-side screen earthing or cross screen *C +90 • plane with single-side screen earthing or cross screen *C +90 • plane with single-side screen earthing or cross screen *C +90 • continuit *C<	Maximum permissible short-circuit current in core	kA	59
 in trefoil formation with single-side screen earthing or cross screen earthing plane with double-side screen earthing plane with single-side screen earthing or cross screen plane with single-side screen earthing or cross screen permissible continious current rating by burial * in trefoil formation with double-side screen earthing in trefoil formation with single-side screen earthing or cross screen earthing plane with double-side screen earthing plane with single-side screen earthing or cross screen continious C plane with single-side screen earthing or cross screen c plane with single-side screen earthing or cross screen A 576 +90 +130 • t +90 +130 • t +250 Operating temperature range ° C -60 -60 -7.3 +255/Д-90: 420 · 5.4 on the drums *** # 269/Д-100: 604 · 7.3 	Permissible continious current rating by aerial laying *		
cross screen earthingA809• plane with double-side screen earthing or cross screenA992earthingBermissible continious current rating by burial *• in trefoil formation with double-side screen earthingA627• in trefoil formation with single-side screen earthing or cross screen earthingA672• plane with double-side screen earthingA576• plane with double-side screen earthing or cross screenA707earthingA707Maximum permissible conductor temperature° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1360Rated outer diameter of the cable (for reference) **mm85Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the delivery on the drums ***m, t# 25УД-90: 420 · 5.4on the drums ***# 26УД-100: 604 · 7.3	in trefoil formation with double-side screen earthing	Α	810
 plane with double-side screen earthing plane with single-side screen earthing or cross screen earthing Permissible continious current rating by burial * in trefoil formation with double-side screen earthing in trefoil formation with single-side screen earthing or in trefoil formation with single-side screen earthing or plane with double-side screen earthing plane with single-side screen earthing or cross screen plane with single-side screen earthing or cross screen plane with single-side screen earthing or cross screen continious Continious in emergency operation in emergency operation continious in emergency operation conductor temperature Coperating temperature range Condinious Condinious Condinious in emergency operation conductor temperature conductor	in trefoil formation with single-side screen earthing or	Α	855
 plane with single-side screen earthing or cross screen earthing Permissible continious current rating by burial * in trefoil formation with double-side screen earthing in trefoil formation with single-side screen earthing or cross screen earthing plane with double-side screen earthing plane with double-side screen earthing or cross screen plane with single-side screen earthing or cross screen plane with single-side screen earthing or cross screen 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 1360 Rated outer diameter of the cable (for reference) ** mm 85 Cable weight (approximate) kg/km 9100 Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-90: 420 · 5.4 on the drums *** 	cross screen earthing		
earthing Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing or • in trefoil formation with single-side screen earthing or cross screen earthing • plane with double-side screen earthing or cross screen • plane with single-side screen earthing or cross screen • plane with single-side screen earthing or cross screen • plane with single-side screen earthing or cross screen • Continious • ° C +90 • in emergency operation • ° C +130 • at short circuit • ° C +250 Operating temperature range • ° C -60 +50 Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 85 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 26УД-100: 604 • 7.3	plane with double-side screen earthing	Α	809
Permissible continious current rating by burial * · in trefoil formation with double-side screen earthing · in trefoil formation with single-side screen earthing or · in trefoil formation with single-side screen earthing or · plane with double-side screen earthing · plane with single-side screen earthing or cross screen · plane with single-side screen earthing or cross screen earthing Maximum permissible conductor temperature · Continious	plane with single-side screen earthing or cross screen	Α	992
• in trefoil formation with double-side screen earthingA627• in trefoil formation with single-side screen earthing or cross screen earthingA672• plane with double-side screen earthingA576• plane with single-side screen earthing or cross screen earthingA707Maximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1360Rated outer diameter of the cable (for reference) **mm85Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the delivery on the drums ***# 25УД-90: 420 • 5.4	earthing		
・ in trefoil formation with single-side screen earthing or cross screen earthing ・ plane with double-side screen earthing ・ plane with single-side screen earthing or cross screen ・ plane with single-side screen earthing or cross screen earthing 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 Rated outer diameter of the cable (for reference) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-90: 420 • 5.4 on the drums *** # 26УД-100: 604 • 7.3	Permissible continious current rating by burial *		
cross screen earthingA576• plane with double-side screen earthing or cross screenA707• plane with single-side screen earthing or cross screenA707earthing**C+90• Maximum permissible conductor temperature° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1360Rated outer diameter of the cable (for reference) **mm85Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the delivery on the drums ***m, t# 25УД-90: 420 • 5.4on the drums ****# 26УД-100: 604 • 7.3	in trefoil formation with double-side screen earthing	Α	627
• plane with double-side screen earthing • plane with single-side screen earthing or cross screen earthing Maximum permissible conductor temperature • Continious • in emergency operation • at short circuit Operating temperature range Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** A 576 A 707	 in trefoil formation with single-side screen earthing or 	А	672
· plane with single-side screen earthing or cross screen earthing Maximum permissible conductor temperature · Continious · in emergency operation · at short circuit Operating temperature range Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** A 707 A 707 A 707 A 707 B 707 A 707 A 707 A 707 B 90 C +90 C +130 C +250 C -60 +50 Mm 1360 Rated outer diameter of the cable (for reference) ** mm 85 Cable weight (approximate) Rated factory cable length and gross weight of the delivery on the drums *** # 25УД-90: 420 · 5.4 # 26УД-100: 604 · 7.3	cross screen earthing		
earthingMaximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1360Rated outer diameter of the cable (for reference) **mm85Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the delivery on the drums ***m, t# 25УД-90: 420 • 5.4	plane with double-side screen earthing	Α	576
Maximum permissible conductor temperature°C+90• Continious°C+90• in emergency operation°C+130• at short circuit°C+250Operating temperature range°C-60 +50Minimum bending radius by layingmm1360Rated outer diameter of the cable (for reference) **mm85Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 5.4on the drums ***# 26УД-100: 604 • 7.3	 plane with single-side screen earthing or cross screen 	Α	707
· Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1360Rated outer diameter of the cable (for reference) **mm85Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 5.4on the drums ***# 26УД-100: 604 • 7.3	earthing		
• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1360Rated outer diameter of the cable (for reference) **mm85Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 5.4on the drums ***# 26УД-100: 604 • 7.3	Maximum permissible conductor temperature		
• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1360Rated outer diameter of the cable (for reference) **mm85Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the delivery on the drums ***m, t# 25УД-90: 420 • 5.4	Continious		+90
Operating temperature range°C-60 +50Minimum bending radius by layingmm1360Rated outer diameter of the cable (for reference) **mm85Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the delivery on the drums ***m, t# 25УД-90: 420 • 5.4	in emergency operation	° C	+130
Minimum bending radius by layingmm1360Rated outer diameter of the cable (for reference) **mm85Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 5.4on the drums ***# 26УД-100: 604 • 7.3	at short circuit		
Rated outer diameter of the cable (for reference) **mm85Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 5.4on the drums ***# 26УД-100: 604 • 7.3	Operating temperature range	° C	-60 +50
Cable weight (approximate)kg/km9100Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 5.4on the drums ***# 26УД-100: 604 • 7.3		mm	1360
Rated factory cable length and gross weight of the delivery m, t # 25УД-90: 420 • 5.4 on the drums *** # 26УД-100: 604 • 7.3	Rated outer diameter of the cable (for reference) **	mm	85
on the drums *** # 26УД-100: 604 • 7.3	Cable weight (approximate)	kg/km	9100
· ·	, , , , , , , , , , , , , , , , , , , ,	m, t	• •
# 30УД-130: **** 785 • 10.0	on the drums ***		
			# 30УД-130: **** 785 · 10.0

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 • 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 ± 7 %

^{****} Option delivery on not full drum



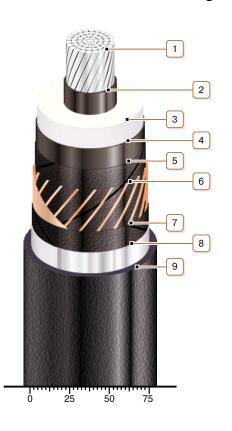




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Power cables with aluminium conductor, flame-retardant, with XLPE, longitudinal and transverse screen sealing and polymer compound outer sheath



CONSTRUCTION

1. Aluminium multiwire compacted conductor

Note: 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. 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

- 7. Lapping layer of semiconductive swellable tape
- 8. Alumopolymer tape
- 9. Flame-retardant polymer compound outer sheath

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