





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

АПвЭСПу-60 1х95 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-60 1х95/95 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-60 1х95/95 (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-60 1х95/95 (г) ТУ У 31.3-00214534-060:2011







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

АПвЭСПу-60 1х95 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 SPECIFICATIONS

Maximum voltage	Rated voltage	kV	60
Sheath thikness mm 2 Partial discharge factor for rated voltage, not more than pC 6 Permissible short circuit current across the screen kA 11.30 Maximum permissible short-circuit current in core kA 8.9 Permissible continious current rating by aerial laying * - in trefoil formation with double-side screen earthing A 279 - in trefoil formation with single-side screen earthing or A 281 - ross screen earthing - plane with double-side screen earthing or cross screen earthing - plane with double-side screen earthing or cross screen earthing Permissible continious current rating by burial * - in trefoil formation with double-side screen earthing A 240 - in trefoil formation with single-side screen earthing or A 243 - in trefoil formation with single-side screen earthing or A 243 - ross screen earthing - plane with double-side screen earthing or A 244 - in trefoil formation with single-side screen earthing or Cross screen earthing Maximum permissible conductor temperature - Continious - in emergency operation or C 60 +50 Minimum bending radius by laying - mm 1375 - Rated outer diameter of the cable (for reference) ** mm 55	Maximum voltage	kV	72.5
Partial discharge factor for rated voltage, not more than Permissible short circuit current across the screen RA 11.30 Maximum permissible short-circuit current in core RA 8.9 Permissible continious current rating by aerial laying * in trefoil formation with double-side screen earthing A 279 in trefoil formation with single-side screen earthing or Palane with double-side screen earthing Permissible continious current rating by burial * in trefoil formation with single-side screen earthing or cross screen Permissible continious current rating by burial * in trefoil formation with double-side screen earthing Permissible continious current rating by burial * in trefoil formation with double-side screen earthing or Permissible continious current rating by burial * in trefoil formation with single-side screen earthing or Permissible continious current rating by burial * in trefoil formation with single-side screen earthing or Permissible continious current rating or cross screen earthing or Permissible conductor temperature in trefoil formation with single-side screen earthing or Permissible conductor temperature in the foil formation with single-side screen earthing or Permissible conductor temperature in the foil formation with single-side screen earthing or Permissible conductor temperature in the foil formation with single-side screen earthing or Permissible conductor temperature in the foil formation with single-side screen earthing or Permissible conductor temperature in the foil formation with single-side screen earthing or Permissible conductor temperature in the foil formation with single-side screen earthing or Permissible conductor temperature in the foil formation with single-side screen earthing or cross screen A 240 240 241 242 243 244 249 244 249 249 240 241 241 241 242 243 244 249 244 249 249 240 241 241 241 242 242 243 244 249 244 249 249	Conductor rated area	mm²	95
Permissible short circuit current across the screen kA 11.30 Maximum permissible short-circuit current in core kA 8.9 Permissible continious current rating by aerial laying * • in trefoil formation with double-side screen earthing A 279 • in trefoil formation with single-side screen earthing or A 281 cross screen earthing • plane with double-side screen earthing A 334 earthing Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing A 240 • in trefoil formation with double-side screen earthing A 243 cross screen earthing • plane with double-side screen earthing or A 243 cross screen earthing • plane with double-side screen earthing A 244 • plane with double-side screen earthing A 253 earthing Maximum permissible conductor temperature • Continious • C +90 • in emergency operation • C +130 Operating temperature range Minimum bending radius by laying mm 1375 Rated outer diameter of the cable (for reference) **	Sheath thikness	mm	2
Maximum permissible short-circuit current in core	Partial discharge factor for rated voltage, not more than	рС	6
Permissible continious current rating by aerial laying * in trefoil formation with double-side screen earthing	Permissible short circuit current across the screen	kA	11.30
 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 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 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 p	Maximum permissible short-circuit current in core	kA	8.9
 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 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 scre	Permissible continious current rating by aerial laying *		
cross screen earthing • plane with double-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 A 243 cross screen earthing • plane with double-side screen earthing or cross screen earthing • plane with single-side screen earthing or cross screen A 253 earthing Maximum permissible conductor temperature • Continious • C +90 • in emergency operation • C +130 • at short circuit • C -60 +50 Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 55	in trefoil formation with double-side screen earthing	Α	279
 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 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 1375 Rated outer diameter of the cable (for reference) ** 	in trefoil formation with single-side screen earthing or	Α	281
 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 A 243 cross screen earthing plane with double-side screen earthing or A 253 plane with single-side screen earthing or cross screen A 253 earthing Maximum permissible conductor temperature Continious C +90 in emergency operation at short circuit C +250 Operating temperature range C -60 +50 Minimum bending radius by laying mm 1375 Rated outer diameter of the cable (for reference) ** 	cross screen earthing		
earthing Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing A 240 • in trefoil formation with single-side screen earthing or A 243 cross screen earthing • plane with double-side screen earthing A 244 • plane with single-side screen earthing or cross screen A 253 earthing Maximum permissible conductor temperature • Continious	plane with double-side screen earthing	Α	322
Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing A 240 • in trefoil formation with single-side screen earthing or A 243 cross screen earthing • plane with double-side screen earthing A 244 • plane with single-side screen earthing or cross screen A 253 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 mm 1375 Rated outer diameter of the cable (for reference) ** mm 55	plane with single-side screen earthing or cross screen	Α	334
 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 plane with single-side screen earthing or cross screen plane with single-side screen earthing or cross screen contining 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 1375 Rated outer diameter of the cable (for reference) ** mm 55 	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 A 244 253 earthing Maximum permissible conductor temperature C +90 in emergency operation C +130 at short circuit C +250 Operating temperature range C -60 +50 Minimum bending radius by laying mm 1375 Rated outer diameter of the cable (for reference) ** mm 55 	Permissible continious current rating by burial *		
cross screen earthing • 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) ** A 244 253 264 275 C +90 C +90 C +130 C +250 C -60 +50 mm 1375 mm 55	in trefoil formation with double-side screen earthing	Α	240
 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 plane with double-side screen earthing A 244 plane with double-side screen earthing C +90 in earthing in emergency operation in	in trefoil formation with single-side screen earthing or	Α	243
 plane with single-side screen earthing or cross screen earthing Maximum permissible conductor temperature Continious in emergency operation at short circuit C +250 Operating temperature range C -60 +50 Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** A 253 C +90 C +90 C +130 C -60 +50 Minimum bending radius by laying mm 1375 mm 55 	cross screen earthing		
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) ** Maximum permissible conductor temperature ° C +90 +130 • C +130 • C +250 C -60 +50 mm 1375 mm 55	plane with double-side screen earthing	Α	244
Maximum permissible conductor temperature • Continious • in emergency operation • at short circuit • C Operating temperature range Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** methods C +90 +130 • C +250 C -60 +50 mm 1375 mm 55	plane with single-side screen earthing or cross screen	Α	253
 Continious in emergency operation 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 55 	earthing		
 in emergency operation 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 55 	Maximum permissible conductor temperature		
 at short circuit C +250 Operating temperature range C -60 +50 Minimum bending radius by laying mm 1375 Rated outer diameter of the cable (for reference) ** mm 55 	Continious	°C	+90
Operating temperature range °C -60 +50 Minimum bending radius by laying mm 1375 Rated outer diameter of the cable (for reference) ** mm 55	in emergency operation	°C	+130
Minimum bending radius by laying mm 1375 Rated outer diameter of the cable (for reference) ** mm 55	• at short circuit	°C	+250
Rated outer diameter of the cable (for reference) ** mm 55	Operating temperature range	°C	-60 +50
· · ·	Minimum bending radius by laying	mm	1375
Cable weight (approximate) kg/km 6010	Rated outer diameter of the cable (for reference) **	mm	55
	Cable weight (approximate)	kg/km	6010
Rated factory cable length and gross weight of the delivery m, t # 22УД-60: 499 • 3.9	Rated factory cable length and gross weight of the delivery	m, t	# 22УД-60: 499 • 3.9
on the drums *** # 25УД-90: 1028 • 7.7	on the drums ***		• •
# 26УД-100: **** 1361 • 10.			# 26УД-100: **** 1361 • 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



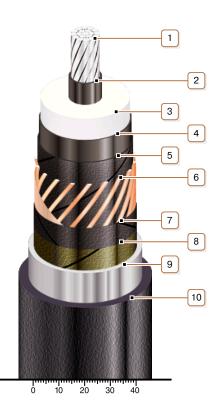




7, Autogennaya Str., Kharkov, 61099, Ukraine. Phone: (+38-057) 728-1244, 728-1241. Fax: (+38-057) 728-1243, (+38-0572) 946-830 E-mail: market@yuzhcable.com.ua

АПвЭСПу-60 1х95 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



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. Lapping layer of semiconductive tape
- 9. Lead sheath
- 10. Strengthened polyethylene outer sheath

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