





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

# ПвЭгаПу-132 1х500 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, with XLPE, longitudinal and transverse screen sealing and strengthened polyethylene outer sheath

For the cable of this mark correspond the foreign-made analogues:

ПвПу2г (RU)

Technical cable requirements correspond to IEC 60840

Cables are used for laying:

- · in soil (trenches)
- · in damp, partially flooded premises
- · in ground with high humidity
- · 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:

ПвЭгаПу-П-132 1х500/95 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:

ПвЭгаПу-132 1х500/95 (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:

ПвЭгаПу-132 1х500/95 (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

# ПвЭгаПу-132 1х500 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, with XLPE, longitudinal and transverse screen sealing and strengthened polyethylene outer sheath

### **TECHNICAL SPECIFICATIONS**

Maximum voltage kV 145 Conductor rated area mm² 500 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 minimum cross-section  Maximum permissible short-circuit current in core kA 7.1  Maximum permissible short-circuit current in core kA 71.5  Permissible continious current rating by aerial laying *  in trefoil formation with double-side screen earthing A 881  in trefoil formation with single-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 A 1088  plane with single-side screen earthing or cross screen A 1088  permissible continious current rating by burial *  in trefoil formation with double-side screen earthing or A 687  in trefoil formation with single-side screen earthing or A 748  ross screen earthing  plane with double-side screen earthing or A 748  cross screen earthing  A 615  plane with single-side screen earthing or cross screen A 787  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  Mated outer diameter of the cable (for reference) ** mm 83  Cable weight (approximate)  Rated factory cable length and gross weight of the delivery on the drums *** # 26YJA-100: 604 * 8.4 # 26YJA-100: 604 * 8	Rated voltage	kV	132
Conductor rated area       mm²       500         Minimum screen cross-section       mm³       35         Partial discharge factor for rated voltage, not more than       pC       6         Permissible short circuit current across the screen of minimum cross-section       kA       7.1         Maximum permissible short-circuit current in core       kA       71.5         Permissible continious current rating by aerial laying *			
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 minimum cross-section  Maximum permissible short-circuit current in core kA 71.5  Permissible continious current rating by aerial laying *  • in trefoil formation with double-side screen earthing A 941  cross screen earthing  • plane with double-side screen earthing or cross screen earthing A 1088  earthing  Permissible continious current rating by burial *  • in trefoil formation with double-side screen earthing or cross screen earthing or cross screen earthing or cross screen earthing or earthing arthering  Permissible continious current rating by burial *  • in trefoil formation with double-side screen earthing or cross screen earthing or a 748  • in trefoil formation with single-side screen earthing or a 748  • in trefoil formation with single-side screen earthing or a 748  • in trefoil formation with single-side screen earthing or a 748  • in trefoil formation with single-side screen earthing or a 748  • in trefoil formation with single-side screen earthing or a 748  • cross screen earthing  • plane with double-side screen earthing or cross screen earthing earthing  • plane with single-side screen earthing or cross screen earthing or cross screen earthing ear		mm²	500
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 or cross screen earthing  · plane with double-side screen earthing or cross screen earthing or plane with single-side screen earthing or earthing  Permissible continious current rating by burial *  · in trefoil formation with double-side screen earthing or cross screen earthing earthing earthing earthing or cross screen earthing or cross screen earthing or cross screen earthing earthing earthing earthing earthing or cross screen earthing or cross screen earthing earthin	Minimum screen cross-section		35
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 or cross screen earthing  • plane with double-side screen earthing or cross 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 or cross screen earthing  Permissible continious current rating by burial *  • in trefoil formation with double-side screen earthing or cross screen earthing or cross screen earthing  • plane 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 earthing  Maximum permissible conductor temperature  • Continious  • C +90  • in emergency operation • C +130  • 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 83  Cable weight (approximate)  kg/km 10960  Rated factory cable length and gross weight of the delivery on the drums ***  # 26УД-100: 604 • 8.4	Partial discharge factor for rated voltage, not more than	рC	6
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 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 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  plane with single-side screen earthing or cross screen  plane with double-side screen earth	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       881         • in trefoil formation with single-side screen earthing or cross screen earthing       A       941         • plane with double-side screen earthing       A       860         • plane with single-side screen earthing or cross screen       A       1088         • arthing       a       687         • permissible continious current rating by burial *       • in trefoil formation with double-side screen earthing       A       687         • in trefoil formation with single-side screen earthing or cross screen earthing       A       748         • cross screen earthing       A       615         • plane with double-side screen earthing or cross screen       A       787         • plane with single-side screen earthing or cross screen       A       787         • plane with single-side screen earthing or cross screen       A       787         • plane with single-side screen earthing or cross screen       A       787         • plane with single-side screen earthing or cross screen       A       787         • plane with single-side screen earthing or cross screen       A       787         • continious       ° C       +90         • in emergency operation       ° C       +90         • in emergency operation	Maximum permissible short-circuit current in core	kA	71.5
• in trefoil formation with single-side screen earthing or cross screen earthing A 941   • plane with double-side screen earthing A 860   • plane with single-side screen earthing or cross screen earthing A 1088   earthing A 1088   Permissible continious current rating by burial * • in trefoil formation with double-side screen earthing A 687   • in trefoil formation with single-side screen earthing or cross screen earthing A 748   • plane with double-side screen earthing A 615   • plane with single-side screen earthing or cross screen A 787   earthing A 787   Maximum permissible conductor temperature • C +90   • in emergency operation • C +90   • in emergency operation • C +90   • in emergency operation • C +250   Operating temperature range • C -60 +50   Minimum bending radius by laying mm 1328   Rated outer diameter of the cable (for reference) ** mm 83   Cable weight (approximate) kg/km 10960   Rated factory cable length and gross weight of the delivery m, t # 25УД-90: 420 • 6.2   on the drums *** # 26УД-100: 604 • 8.4	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 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 double-side screen earthing plane with single-side screen earthing or cross screen screen earthing or	in trefoil formation with double-side screen earthing	Α	881
<ul> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>permissible continious current rating by burial *</li> <li>in trefoil formation with double-side screen earthing</li> <li>in trefoil formation with single-side screen earthing or</li> <li>in trefoil formation with single-side screen earthing or</li> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>plane with single-side</li></ul>	in trefoil formation with single-side screen earthing or	Α	941
• plane with single-side screen earthing or cross screen earthingA1088Permissible 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 earthingA615 • 187 • 187 • 188 • 188 • 189 • 189 <td>cross screen earthing</td> <td></td> <td></td>	cross screen earthing		
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 • plane with single-side screen earthing or cross screen • A 787  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) **  mm 83  Cable weight (approximate)  Rated factory cable length and gross weight of the delivery on the drums ***  # 25УД-90: 420 • 6.2  # 26УД-100: 604 • 8.4	plane with double-side screen earthing	Α	860
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     · 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	1088
• in trefoil formation with double-side screen earthingA687• in trefoil formation with single-side screen earthing or cross screen earthingA748• plane with double-side screen earthingA615• plane with single-side screen earthing or cross screen earthingA787Maximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1328Rated outer diameter of the cable (for reference) **mm83Cable weight (approximate)kg/km10960Rated factory cable length and gross weight of the delivery on the drums ***# 25УД-90: 420 • 6.2	earthing		
• in trefoil formation with single-side screen earthing or cross screen earthingA748• plane with double-side screen earthingA615• plane with single-side screen earthing or cross screen earthingA787Maximum permissible conductor temperature• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1328Rated outer diameter of the cable (for reference) **mm83Cable weight (approximate)kg/km10960Rated factory cable length and gross weight of the delivery on the drums ***# 25УД-90: 420 • 6.2	Permissible continious current rating by burial *		
cross screen earthing  • plane with double-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  Minimum bending radius by laying  Rated outer diameter of the cable (for reference) **  mm 83  Cable weight (approximate)  Rated factory cable length and gross weight of the delivery  on the drums ***  # 26УД-90: 420 • 6.2  # 26УД-100: 604 • 8.4	<ul> <li>in trefoil formation with double-side screen earthing</li> </ul>	Α	687
<ul> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing or cross screen</li> <li>plane with double-side screen earthing</li> <li>plane with single-side screen earthing</li> <li>plane with single-side screen</li> <li>plane with screen</li> <li>plan</li></ul>	<ul> <li>in trefoil formation with single-side screen earthing or</li> </ul>	Α	748
・ 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 mm 1328 Rated outer diameter of the cable (for reference) ** mm 83 Cable weight (approximate) kg/km 10960 Rated factory cable length and gross weight of the delivery m, t # 25УД-90: 420 · 6.2 on the drums *** # 26УД-100: 604 · 8.4	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 layingmm1328Rated outer diameter of the cable (for reference) **mm83Cable weight (approximate)kg/km10960Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 6.2on the drums ***# 26УД-100: 604 • 8.4	<ul> <li>plane with double-side screen earthing</li> </ul>	Α	615
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 layingmm1328Rated outer diameter of the cable (for reference) **mm83Cable weight (approximate)kg/km10960Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 6.2on the drums ***# 26УД-100: 604 • 8.4	<ul> <li>plane with single-side screen earthing or cross screen</li> </ul>	Α	787
• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1328Rated outer diameter of the cable (for reference) **mm83Cable weight (approximate)kg/km10960Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 6.2on the drums ***# 26УД-100: 604 • 8.4	earthing		
• in emergency operation°C+130• at short circuit°C+250Operating temperature range°C-60 +50Minimum bending radius by layingmm1328Rated outer diameter of the cable (for reference) **mm83Cable weight (approximate)kg/km10960Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 6.2on the drums ***# 26УД-100: 604 • 8.4	Maximum permissible conductor temperature		
• at short circuit° C+250Operating temperature range° C-60 +50Minimum bending radius by layingmm1328Rated outer diameter of the cable (for reference) **mm83Cable weight (approximate)kg/km10960Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 6.2on the drums ***# 26УД-100: 604 • 8.4	Continious		
Operating temperature range° C-60 +50Minimum bending radius by layingmm1328Rated outer diameter of the cable (for reference) **mm83Cable weight (approximate)kg/km10960Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 6.2on the drums ***# 26УД-100: 604 • 8.4	in emergency operation		
Minimum bending radius by layingmm1328Rated outer diameter of the cable (for reference) **mm83Cable weight (approximate)kg/km10960Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 6.2on the drums ***# 26УД-100: 604 • 8.4	at short circuit		
Rated outer diameter of the cable (for reference) **mm83Cable weight (approximate)kg/km10960Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 • 6.2on the drums ***# 26УД-100: 604 • 8.4	· · · · · · · · · · · · · · · · · · ·	°C	
Cable weight (approximate)kg/km10960Rated factory cable length and gross weight of the deliverym, t# 25УД-90: 420 ⋅ 6.2on the drums ***# 26УД-100: 604 ⋅ 8.4		mm	1328
Rated factory cable length and gross weight of the delivery m, t # 25УД-90: 420 • 6.2 on the drums *** # 26УД-100: 604 • 8.4	Rated outer diameter of the cable (for reference) **	mm	83
on the drums *** # 26УД-100: 604 • 8.4	<u> </u>	kg/km	10960
•	, , , , , , , , , , , , , , , , , , , ,	m, t	• •
# 30УД-130: **** 652 • 10.0	on the drums ***		
· ·			# 30УД-130: **** 652 · 10.0

#### Notes:

When ordering it is neccesary to agree the factory length of the product with the manufacturer

<sup>\*</sup> 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

<sup>\*\*</sup> The external diameter may differ from the rated up to  $\pm$  10 %

<sup>\*\*\*</sup> Отклонение фактической массы брутто от указанного значения может составлять ± 7 %

<sup>\*\*\*\*</sup> Option delivery on not full drum



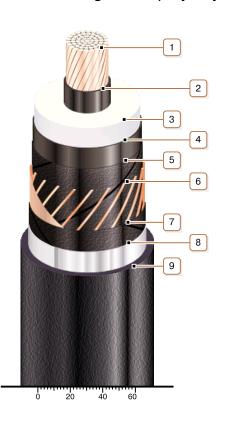




7, Autogennaya Str., Kharkov, 61099, Ukraine. Phone: (+38-057) 728-1244, 728-1241. Fax: (+38-057) 728-1243, (+38-0572) 946-830 E-mail: market@yuzhcable.com.ua

# ПвЭгаПу-132 1х500 ТУ У 31.3-00214534-060:2011

Power cables with copper conductor, with XLPE, longitudinal and transverse screen sealing and strengthened polyethylene outer sheath



### **CONSTRUCTION**

1. Copper multiwire compact 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. Strengthened polyethylene outer sheath

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