## CABLE PRODUCTS



## Power cables for non-stationary installation (GOST 24334-2020)

Flexible power cables of types KGTP and AsKGTP are designed for connecting mobile machines, mechanisms, and equipment to electrical networks and mobile power sources with a nominal voltage of up to 450/750 V AC at frequencies up to 400 Hz.

## **Cable construction:**

- current-carrying conductors made of copper or aluminum alloy, class 5 according to GOST 22483-2021;
- insulation and outer sheath made of thermoplastic elastomer.



Current-carrying conductors:

- copper;
- made of aluminum alloy;
- class 5 according to GOST 22483-2021;
- conductor cross-section from  $0.5\ \text{mm}^2$

to 630 mm<sup>2</sup>;

— number of conductors in the cable from 1 to 7.

Insulation and sheath made of thermoplastic

Cables may have a shield made of copper wires «e».

Wide operating temperature range: from -60 to +50  $^{\circ}\mathrm{C}.$ 

Minimum installation temperature: -15 °C. Climatic performance: UHL, HL, placement categories 1-3 (according to GOST 15150-69).

> Warranty period: 1 year. Service life: 4 years.

The cables are designed for operation in modes 2 (medium) and 3 (light) according to GOST 24334-2020.

The number of conductors and their nominal cross-sections are specified in the table:

Nominal cross-section of main conductors, mm <sup>2</sup>	Type of conductor	Number of conductors		
0,5; 0,75; 1,0; 1,5; 2,5; 4; 6; 10; 16; 25; 35; 50; 70; 95; 120; 150; 185; 240; 300; 400; 500; 630	Main conductor	1-3		
0,5; 0,75; 1,0; 1,5; 2,5; 4; 6; 10; 16; 25; 35; 50; 70; 95; 120; 150; 185; 240	Grounding conductor and/or neutral conductor	1, 2		
0,5; 0,75; 1,0; 1,5; 2,5; 4; 6; 10; 16	Auxiliary conductor	1, 2		
Note - the minimum cross-section of current-carrying conductors made of aluminum alloy wire is 6 mm <sup>2</sup>				

The insulation colors of the main conductors, grounding conductors, and neutral conductor are shown in the table below.

The insulation of the grounding conductor (PE) is green-yellow, and the insulation of the neutral conductor (N) is blue.

The insulation of auxiliary conductors can be any of the colors listed in the table below, except for blue and green-yellow.

By agreement with the customer, insulation marking of the conductors with numbers, starting from one, is allowed, except for the grounding and neutral conductors.

When using numerical marking, all insulated conductors of the same color, except for the green-yellow grounding conductor and the blue neutral conductor, shall be marked with numbers.

Number of conductors	Conductor's ordinal number					
	1	2	3	4	5	
1	Gray*	-	-	-	-	
2	Gray*	Brown	-	-	-	
3	Gray*	Brown	Black	-	-	
	Gray*	Blue	Green-yellow			
4	Gray*	Brown	Black	Blue	-	
	Gray*	Brown	Black	Green-yellow	-	
5	Gray*	Brown	Black	Blue	Green-yellow	
more than 5 conductors	Blue, green-yellow, the remaining conductors are gray* with numerical marking					

A separator layer of polyethylene terephthalate (PET) film strips is applied over the twisted insulated conductors of the cables. The outer gaps between the twisted insulated conductors are filled simultaneously with the application of the outer sheath made of thermoplastic elastomer.

The sheath color is black. For cables in HL performance, the sheath color is either blue or black.

## **Technical specifications**

Nominal voltage	not more than 450/750 V AC with a frequency up to 400 Hz	
The electrical resistance of insulation during operation, $t = +20$ °C, not less than	50 ΜΩ	
The electrical resistance of current-carrying conductors, at $t = +20$ °C, not less than	complies with GOST 22483-2021	
Test voltage, V	2500 V	
Ambient temperature, upper limit	plus 50 °C	
Ambient temperature, lower limit	<ul> <li>up to -60 °C − cables of HL climatic performance;</li> <li>up to -50 °C − cables of other performances</li> </ul>	
Installation temperature, not lower than	<ul> <li>minus 30 °C – for cables of HL performance;</li> <li>minus 15 °C – for cables of other performances</li> </ul>	
Maximum operating temperature of the conductor	plus 70 °C	
Minimum allowable bending radius of the cables	8 calculated outer diameters of the cable	
Minimum service life of the cables	4 years	
Minimum warranty period of operation	1 year	

