Cables universal power flexible KUSIL-KGTP (TU 3540-025-76960731-2013)

Doncable LLC – quality management system is certified according to ISO 9001

Application range

Flexible power cables are designed for non-stationary laying, for connection of mobile machines (cranes, hoists, welding machines, etc.), machinery and equipment into the power grids and mobile electric power sources for rated voltage of 380V and 660V, frequency up to 400Hz or DC voltage 750V and 1000V, respectively.

The cable insulation and the sheath is made of thermoplastic elastomers based on styrene-ethylene-butylene-styrene (SEBS), which provides a cable with excellent resistance to mechanical operational loads, to the exposure of high temperatures, ozone and UV radiation.

Operating temperature range of the cables spreads from -60 ° C to + 80 ° C. Operating temperature of designated cables is given in Table 2.

Bending radius at mounting and operation - not less than 6 outer diameters.

Service life is not less than 4 years.

Warranty period - 6 months.

Cable design

Conductive wires of cables - copper or tinned, stranded, round-shaped, 5 or 6 class of flexibility as per GOST 22483-2012.

Cables are made with the major wires of the same cross section, with a number from 1 to 36, and may have 1 to 3 wires of smaller cross section (zero or ground) or 1 to 12 auxiliary conductors. A number and nominal cross section shown at Table 1.

Colour of insulated conductors meets the requirements of GOST 24334-80 and is presented in Table 3. It's possible to use the digital marking with consecutive numbering for wires of the same color.

Insulated conductors are twisted to form a core with fastening plastic film.

The cable sheath penetrates into the space between the wires, forming intrawire filling (in accordance with GOST 24334-80 and GOST 31945-2012) and giving a round shape to the cable.

Technical data

The cables meet the requirements of national standards:
- GOST 31945-2012
- GOST 24334-80

Conductors:
- Of 5th class flexibility (for KUSIL-KGTP)
- Of 6th class flexibility (for KUSIL-KOGTP)

Insulation and sheath of thermoplastic elastomers

Operating temperature range from -60 ° C to + 80 ° C
The minimum operating and cable assembly temperature:
- –60° for «-HL» performance cables
- –50° for other cables

Climatic performance UHL, HL, T, cable placement category 1, 2, 3 and 5 (acc to GOST 15150)

«M» – the sheath resistant to oil, petrol and diesel oil

Cables resistant to:
- tensile loads
- multiple bending

A number of bending cycles is from 10,000 to 30,000 depending on the section and diameter

Cables are of round shape

Test AC voltage with frequency of 50Hz for 5 minutes:
- 2 kV – for cables of 380V rated voltage
- 2,5 kV - for cables of 660V rated voltage

Insulation resistance at t = 20 ° C is not less than 100 MW / km

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Table 1 A number and nominal cross section of conductors

Conductor name	Conductor nominal cross-section, mm²	A number of conductors
Major (basic)	0,75; 1,0; 1,5; 2,5; 4; 6; 10; 16; 25; 35; 50; 70; 95; 120; 150; 185; 240; 300; 400	1
	0,75; 1,0; 1,5; 2,5; 4; 6; 10; 16; 25; 35; 50; 70; 95; 120; 150; 185; 240	2 - 5
	0,75; 1,0; 1,5; 2,5; 4; 6; 10	6 - 36
Grounding or zero	0,75; 1,0; 1,5; 2,5; 4; 6; 10; 16; 25; 35; 50; 70; 95; 120	1 - 3
Auxiliary	0,75; 1,0; 1,5; 2,5; 4; 6; 10; 16	1 - 12

Table 2 Fire safety class and operating temperature depending on the insulation and sheath material

Cable code	Fire safety class	The insulation and sheath material	Cable operating temperature, °C
KUSIL-KGTP	О2.8.2.5.4	Insulation and sheath are made of thermoplastic elastomers	-50°…+80°C
KUSIL-KGTP -HL	О2.8.2.5.4	Insulation and sheath are made of high frost resistant thermoplastic elastomers	-60°…+80°C
KUSIL-KGTPN	О1.8.2.5.4	Insulation and sheath are made of flame resistant thermoplastic elastomers	-50°…+80°C
KUSIL-KGTPN -HL	О1.8.2.5.4	Insulation and sheath are made of flame- and high frost- resistant thermoplastic elastomers	-60°…+80°C
KUSIL-KGTP ng(A)-HF	П16.8.1.2.1	Insulation and sheath are made of halogen free thermoplastic	-50°…+80°C

Table 3 Color of conductor insulation

A number of wire	Colors of conductor insulation in cable	
	With grounding wire	Without grounding wire
3	Yellowish green, blue, brown	Blue, black, brown
4	Yellowish green, blue, black, brown	Blue, black, brown, black or brown
5	Yellowish green, blue, black, brown, black or brown	Blue, black, brown, black or brown, black or brown
Более 5	Outer coil – yellowish green, blue, other wires – black; Internal coils – brown, other wires - black	Outer coil – blue, brown, other wires – black; Internal coils – brown, other wires - black
The colors of single and two-core cable is not standardized		

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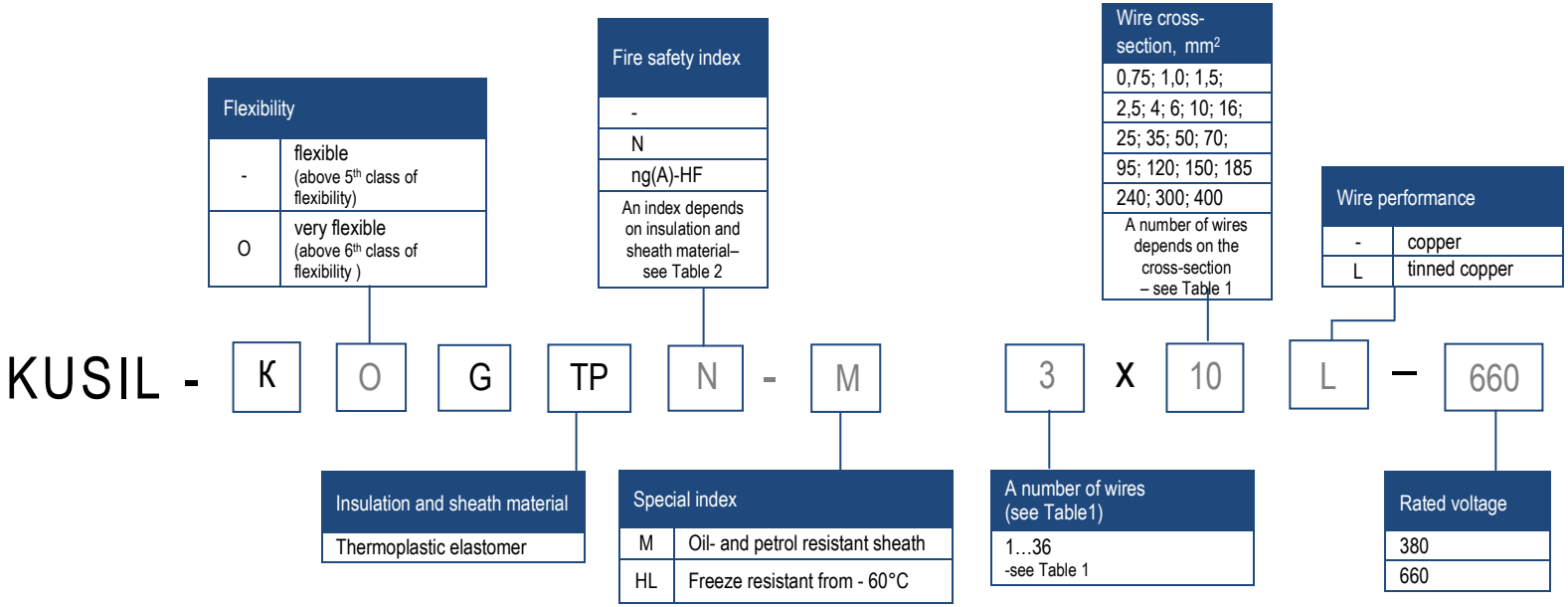
Ordering code



Ordering code	Description
KUSIL-KGTP 4x4l – 380 TU 3540-025-76960731-2013	The cable is flexible, with four main conductive tinned conductors of nominal cross section 4 mm², insulation and sheath made of thermoplastic, for a rated voltage of 380V
KUSIL-KOGTPN-HL 3x10+1x6 – 660 TU 3540-025-76960731-2013	Especially flexible cable, with three main conductive wires of nominal cross-section of 10 mm² and a grounding wire of nominal cross-section 6 mm², with insulation and sheath of thermoplastic elastomers, flame-retardant, high frost resistance, for 660V rated voltage