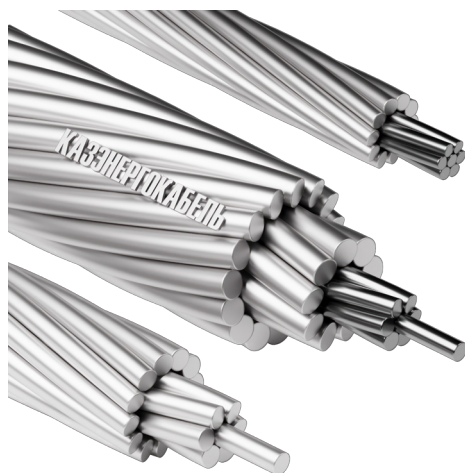




## CABLE PRODUCTS

### Bare conductors for overhead power transmission lines GOST 839-2019



**A** - conductor twisted from aluminum wires. It is used in air atmospheres of types I and II, provided that the sulfur dioxide content in the atmosphere does not exceed  $150 \text{ mg/m}^2 \cdot (1.5 \text{ mg/m}^3)$  in all macroclimatic regions on land according to GOST 15150-69, UHL execution, except for TV and TS.

**Construction elements:** aluminum wire

#### Main dimensions and their characteristics:

Nominal conductor cross-section, mm <sup>2</sup>	Number of wires	Wire diameter, mm	Conductor diameter, mm	Construction length, m
10	7	1,35	4,05	3000
16	7	1,7	5,1	3000
25	7	2,13	6,39	3000
35	7	2,5	7,5	3000
50	7	3,0	9	3000
70	7	3,55	10,65	2000
95	7	4,1	12,3	1500
120	19	2,8	14	2000
150	19	3,15	15,75	2000
185	19	3,5	17,5	2000
240	19	4,0	20	2000
300	37	3,15	22,05	2000
400	37	3,66	25,62	1500
500	37	4,15	29,05	1500
600	61	3,5	31,5	1200
700	61	3,8	34,2	1000



- The current-carrying part of A-type conductors consists of aluminum wires. Conductor cross-sections range from 10 to 1500 mm<sup>2</sup>.

The electric resistance of 1 km of conductor to direct current at plus 20 °C complies with GOST 839-2019.

- The current-carrying part of AS, ASK, ASKS, and ASKP conductors consists of aluminum wires. The load-bearing part of the conductors consists of galvanized steel wires.

Conductor cross-sections range from 10 to 1250 mm<sup>2</sup>.

The electric resistance of 1 km of conductor to direct current at plus 20 °C complies with GOST 839-2019.

- In the manufacture of ASK, ASKS, and ASKP conductors, a neutral high-temperature-resistant grease of grade ZES is used.

- In the manufacture of ASK conductors, polyethylene terephthalate (PET) film is used.



- The warranty period for the operation of conductors is 4 years from the date of commissioning.

The service life of the conductors:

- type A and AS – at least 45 years;
- type ASKP – at least 25 years;
- type ASK and ASKS – at least 10 years.



**AS** – conductors consisting of a steel core and aluminum wires. They are used for operation on land in regions with moderate and cold climates. They are laid in an atmosphere with sulfur dioxide content not exceeding  $150 \text{ mg/m}^3 \cdot \text{day}$  and chlorides less than  $0.3 \text{ mg/m}^3 \cdot \text{day}$ . The long-term permissible temperature of the conductors during operation should not exceed plus  $90^\circ \text{C}$ .

#### Construction elements:

Characteristics	Core made of twisted steel wires	Current-carrying part made of aluminum wires
Number of wires	1, 7, 19, 37 or 61;	6, 18, 24, 26, 30, 42, 45, 48, 54, 72, 76, 84, 90 or 96
Nominal wire diameter (mm)	1,50...4,6	1,50...4,70
Number of twists	1...4	1 – 4

Core coating:

- absent for single-wire core;
- neutral high-temperature-resistant grease for multi-wire core;

Core insulation made of two layers of polyethylene terephthalate film.

**ASKP** – a conductor of the AS type, but the inter-wire space of the entire conductor, except for the outer surface, is filled with neutral high-temperature-resistant grease. It is used on the shores of seas, salt lakes, in industrial areas, and regions with saline sands, as well as in adjacent areas with air atmospheres of types II and III on land and sea in all macroclimatic regions according to GOST 15150-69, UHL execution.

#### Construction elements:

Characteristics	Core made of twisted steel wires	Current-carrying part made of twisted aluminum wires
Number of wires	1, 7, 19, 37 or 61;	6, 18, 24, 26, 30, 42, 45, 48, 54, 72, 76, 84, 90 or 96
Nominal wire diameter (mm)	1,50...4,61	1,50...4,70
Number of twists	1...4	1 – 4

The inter-wire space of the conductor is filled with neutral high-temperature-resistant grease.

**ASKS** – a conductor of the AS type, but the inter-wire space of the steel core, including its outer surface, is filled with neutral high-temperature-resistant grease. It is used on the shores of seas, salt lakes, in industrial areas, and regions with saline sands, as well as in adjacent areas with air atmospheres of types II and III, provided that the sulfur dioxide content in the atmosphere does not exceed  $150 \text{ mg/ml}$  and chloride salts do not exceed  $200 \text{ mg/ml}$  on land in all macroclimatic regions according to GOST 15150-69, UHL execution, except for TV.

#### Construction elements:

Characteristics	Core made of twisted steel wires	Current-carrying part made of twisted aluminum wires
Number of wires	1, 7, 19, 37 or 61;	6, 18, 24, 26, 30, 42, 45, 48, 54, 72, 76, 84, 90 or 96
Nominal wire diameter (mm)	1,50...4,61	1,50...4,70
Number of twists	1...4	1 – 4

The inter-wire space and the outer surface of the core are filled with neutral high-temperature-resistant grease.

## Main dimensions and characteristics of AS, ASK, ASKP, ASKS conductors:

Cross-section, mm <sup>2</sup>	Aluminum part of the conductor		Steel core		Outer diameter, mm	Tensile strength of the conductor, not less than N	Construction length, not less than m
	Number of wires	Wire diameter	Number of wires	Wire diameter			
16 / 2,7	6	1,85	1	1,85	5,6	6220	3000
25 / 4,2	6	2,3	1	2,3	6,9	9296	3000
35 / 6,2	6	2,8	1	2,8	8,4	13524	3000
50 / 8	6	3,2	1	3,2	9,6	17112	3000
70 / 11	6	3,8	1	3,8	11,4	24130	2000
95 / 16	6	4,5	1	4,5	13,5	33369	1500
120 / 19	26	2,4	7	1,85	15,2	41521	2000
120 / 27	30	2,2	7	2,2	15,4	49465	2000
150 / 19	24	2,8	7	1,85	16,8	46307	2000
150 / 24	26	2,7	7	2,1	17,1	52279	2000
150 / 34	30	2,5	7	2,5	17,5	62643	2000
185 / 24	24	3,15	7	2,1	18,9	58075	2000
185 / 29	26	2,98	7	2,3	18,8	62055	2000
185 / 43	30	2,8	7	2,8	19,6	77767	2000
240 / 32	24	3,6	7	2,4	21,6	75050	2000
240 / 39	26	3,4	7	2,65	21,6	80895	2000
240 / 56	30	3,2	7	3,2	22,4	98253	2000
300 / 39	24	4	7	2,65	24	90574	2000
300 / 48	26	3,8	7	2,95	24,1	100623	2000
300 / 67	30	3,5	7	3,5	24,5	126270	2000
330 / 43	54	2,8	7	2,8	25,2	103784	2000
400 / 18	42	3,4	7	1,85	26	85600	1500
400 / 51	54	3,05	7	3,05	27,5	120481	1500
450 / 56	54	3,2	7	3,2	28,8	131370	1500
500 / 64	54	3,4	7	3,4	30,6	148257	1500

*It is possible to manufacture conductors with other designs specified in GOST 839-2019*

### Technical specifications (brief)

Conductor type	Material of the current-carrying part	Cross-section, mm²	Load-bearing part	Grease	Electric resistance of 1 km of conductor to direct current at 20 °C
A	Aluminum wires	from 10 to 1500	—	—	Complies with GOST 839-2019
AS	Aluminum and steel wires	from 10 to 1250	Galvanized steel wires according to GOST 9850-72	—	
ASK	Aluminum and steel wires			Neutral high-temperature-resistant grease of grade ZES	
ASKS	Aluminum and steel wires				
ASKP	Aluminum and steel wires				

In the manufacture of ASKP conductors, polyethylene terephthalate (PET) film is used according to GOST 24234-80.

The warranty period for the operation of the conductors is 4 years from the date of commissioning.

#### The service life of the conductors is at least:

- for A and AS conductors – 45 years
- for ASKP conductors – 25 years
- for ASK and ASKS conductors – 10 years.

Designations for ordering

