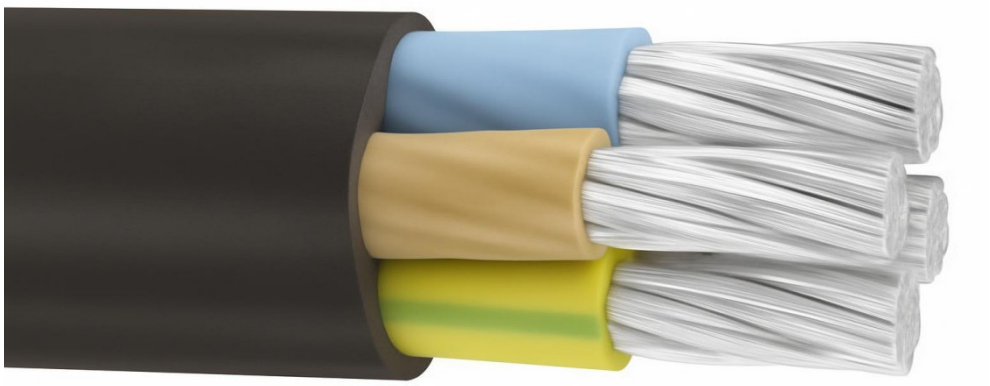
CABLE DATA for SAVT-s

General Information



Cable standard(s)

- БДС 16291-85.

Construction Product Regulation (CPR) Classification

- Regulation: Compliant with the EU Regulation (EU) No. 305/2011 on construction products.
- Intended Use: Suitable for general applications in construction works with fire safety requirements.
- Harmonized Standard: EN 50575:2014.
- Reaction to Fire Classification: Eca (according to EN 13501-6).
- Release of Dangerous Substances: N.P.D. (No Performance Determined).

Flame Retardant Properties

- The cable complies with the self–extinguishing requirements specified in БДС IEC 60332-1 (single vertical wire flame test).

Temperature Ratings

- Minimum installation and handling temperature: -5°C
- Maximum continuous conductor operating temperature: +70°C
- Maximum conductor temperature during short-circuit (≤ 5 seconds): +160°C
- Permissible ambient temperature range during operation: –30°C to +50°C

Minimum Bending Radius *(D = external diameter of the cable)*

- 15 × D

Application of the cable:

- The SAVT-s is power cable designed for the **transmission and distribution of electrical energy** in fixed installations. It serves as a fundamental component in electrical networks and wiring systems, offering a balance of performance and durability for stationary applications.
- **Universal Installation Capabilities:** This cable is engineered for exceptional versatility in laying conditions. It is suitable for fixed installation **indoors, in cable ducts, tunnels, and shafts**. Its construction allows for secure placement in complex infrastructure environments.
- **Outdoor and UV Resilience:** Specifically manufactured to meet the requirements for **UV and weather resistance**, the SAVT-s excels in outdoor settings. The outer sheath protects against solar radiation and harsh atmospheric conditions, preventing premature aging when installed in the open air.
- **Direct Underground Application:** The cable is robust enough for placement in **excavations and earth trenches**. It is designed to withstand the conditions of direct burial, ensuring continuity of power supply in underground distribution grids.

Cable Construction and Electrical Properties

Conductor:

- Aluminium conductor, Class 1 (solid)/round (RE) or Class 2 (stranded)/round (RM) or sector-shaped (SM), in accordance with БДС 904-84, БДС IEC 60228

Insulation:

- PVC insulation compound TI1, according to БДС EN 50363.
- Wire cores concentrically stranded, with or without a yellow-green protective conductor.
- Insulation color coding according to HD 308 S2.

Filler:

- No filler.

Sheath:

- PVC outer sheath, compound typeTM1, according to БДС EN 50363.
- Sheath color: Black.

Rated Voltage:

- Uo/U = 0,6/1 kV

Test Voltage:

- 4 kV AC

Ampacity chart

Cross section [mm2]	Ampacity in air at 30 °C in [A]		Ampacity in ground at 20 °C in [A]	
				
10	48	43	63	53
16	63	64	82	75
25	85	82	106	92
35	105	100	128	110
50	127	119	150	134
70	165	152	186	170
95	205	185	220	210
120	235	215	250	245
150	270	245	282	274
185	315	285	320	310
240	375	338	375	360
300	440	/	425	/

- These charts are extracted from „Технически Справочник - Cable manufactured by БДС 16291-85“ in abbreviated form and relate to cables for fixed wiring in buildings based on 30°C operating temperature. The figures shown are to be considered as guiding values only.
- For higher ambient temperatures, apply derating factors.

Dimensional Specifications

№	Construction [n×mm²]	Metal index [kg/km]	Weight (approx,) [kg/km]	Diameter (approx,) [mm]	Resistance at 20°C [Ω/km]
1	1×16 RM	45	150	10,2	1,910
2	1×25 RM	68	187	11,4	1,200
3	1×35 RM	95	225	13,0	0,868
4	1×50 RM	127	265	14,2	0,641
5	1×70 RM	190	360	16,7	0,443
6	1×95 RM	260	465	18,4	0,320
7	1×120 RM	325	550	19,9	0,253
8	1×150 RM	405	680	21,9	0,206
9	1×185 RM	510	830	24,3	0,164
10	1×240 RM	665	1065	27,2	0,125
11	1×300 RM	830	1305	30,3	0,100
12	2×16 RM	90	340	16,8	1,910
13	2×25 RM	137	470	20,3	1,200
14	3×16 RM	135	380	18,2	1,910
15	3×25 RM	210	610	21,6	1,200
16	3×35 RM	290	740	25,3	0,868
17	3×50 RM	385	950	28,8	0,641
18	3×70 RM	585	1090	28,8	0,443
19	3×16+10 RM/RE	165	475	19,2	1,910/3,080
20	3×25+16 RM/RM	255	630	23,0	1,200/1,910
21	3×35+16 RM/RM	340	825	26,8	0,868/1,910
22	3×50+25 SM/RM	480	1025	30,8	0,641/1,200
23	3×70+35 SM/RM	670	1250	31,8	0,443/0,868
24	3×95+50 SM/RM	910	1680	37,0	0,320/0,641
25	3×120+70 SM/RM	1180	2010	40,1	0,253/0,443
26	3×150+70 SM/RM	1405	2415	44,3	0,206/0,443
27	3×185+95 SM/RM	1780	2975	49,3	0,164/0,320
28	3×240+120 SM/RM	2310	3805	55,4	0,125/0,253
29	4×16 RM	180	460	19,8	1,910
30	4×25 RM	270	670	23,8	1,200
31	4×35 SM	390	905	28,0	0,868
32	4×50 SM	520	1180	32,0	0,641
33	4×70 SM	760	1390	33,0	0,443
34	4×95 SM	1060	1860	38,1	0,320
35	4×120 SM	1340	2210	41,4	0,253
36	4×150 SM	1650	2710	46,0	0,206
37	4×185 SM	2100	3320	51,1	0,164
38	4×240 SM	2720	4110	58,0	0,125
39	5×16 RM	225	580	23,2	1,910
40	5×25 RM	345	855	27,9	1,200
41	5×35 RM	480	1210	32,4	0,868