

ALUMINUM CONDUCTOR STEEL REINFORCED (ACSR)

SPLN 41-7:1981

DIMENSIONAL & MECHANICAL DATA

Cross Sectional Area		No. of Wire / Diameter		Approx. Overall Diameter	Approx. Net Weight of Conductor
Nominal Size	Actual Size	Al	Steel		
mm ²	mm ²	pcs/mm	pcs/mm	mm	kg/km
16/2.5	15.3/2.55	6/1.8	1/1.8	5.4	62
25/4	23.8/4.0	6/2.25	1/2.25	6.8	97
35/6	34.3/5.7	6/2.7	1/2.7	8.1	140
44/32	44.0/31.7	14/2	7/2.4	11.2	372
50/8	48.3/8	6/3.2	1/3.2	9.6	196
50/30	51.2/29.8	12/2.33	7/2.33	11.7	378
70/12	69.9/11.4	26/1.85	7/1.44	11.7	284
95/15	94.4/15.3	26/2.25	7/1.67	13.6	383
95/55	96.5/56.3	12/3.2	7/3.2	16.0	712
105/75	105.7/75.5	14/3.1	19/2.25	17.5	891
120/20	121.6/19.8	26/2.44	7/1.9	15.5	494
120/70	122.0/71.3	12/3.6	7/3.6	18.0	901
125/30	127.9/29.8	30/2.33	7/2.33	16.1	591
150/25	149.9/24.2	26/2.7	7/2.1	17.1	605
170/40	171.8/40.1	30/2.7	7/2.7	18.9	794
185/30	183.8/29.8	26/3.0	7/2.33	19.0	746
210/35	209.1/34.1	26/3.2	7/2.49	20.3	850
210/50	212.1/49.5	30/3.0	7/3.0	21.0	981
230/30	230.9/29.8	24/3.5	7/2.33	21.0	977
240/40	243.0/39.5	26/3.45	7/2.68	21.9	987
265/35	263.7/34.1	24/3.74	7/2.49	22.4	1,002
300/50	304.3/49.5	26/3.88	7/3.0	24.5	1,236
305/40	304.6/39.5	54/2.68	7/2.68	24.1	1,160
340/30	339.3/29.8	48/3.0	7/2.33	25.0	1,180
360/50	382.0/49.5	54/3.0	7/3.0	27.0	1,453
385/33	366.0/34.1	48/3.2	7/2.49	26.7	1,344
435/55	434.3/56.3	54/3.2	7/3.2	28.8	1,653
450/40	448.7/39.5	48/3.45	7/2.68	28.7	1,561
490/65	490.3/63.9	54/3.4	7/3.4	30.6	1,866
493/35	494.1/34.1	43/3.74	7/3.48	29.9	1,646
510/45	510.2/45.3	48/3.69	7/2.63	30.7	1,778
550/70	550.0/71.3	54/3.6	7/3.6	32.4	2,092
560/50	561.7/49.3	48/3.86	7/3.0	32.2	1,954
570/40	571.2/39.5	45/4.82	7/2.68	32.2	1,888
650/45	660.5/45.3	45/4.3	7/2.87	34.0	2,171
680/83	678.6/86	64/4.0	19/3.4	36.0	2,566
1043/45	1045.6/45.3	72/4.3	7/2.43	43.0	3,251

ELECTRICAL DATA

Cross Sectional Area		Max. DC Conductor Resistance at 20°C	Calculated Breaking Load	Current Carrying Capacity	Standard Quantity Per Reel
Nominal Size	Actual Size				
mm ²	mm ²	Ohm/km	N	A	m
16/2.5	15.3/2.55	1.879	5,950	90	500
25/4	23.8/4.0	1.203	9,200	125	500
35/6	34.3/5.7	0.8353	12,650	145	500
44/32	44.0/31.7	-	43,000	160	500
50/8	48.3/8	0.5946	17,100	170	500
50/30	51.2/29.8	0.5644	43,800	165	500
70/12	69.9/11.4	0.4130	26,800	290	1,000
95/15	94.4/15.3	0.3053	35,750	350	1,000
95/55	96.5/56.3	0.2992	79,350	345	1,000
105/75	105.7/75.5	-	108,450	370	1,000
120/20	121.6/19.8	0.2374	45,650	410	1,000
120/70	122.0/71.3	0.2364	100,000	400	1,000
125/30	127.9/29.8	0.2259	57,600	425	1,000
150/25	149.9/24.2	0.1939	55,250	470	1,000
170/40	171.8/40.1	0.1682	76,750	520	1,000
185/30	183.8/29.8	0.1571	66,200	535	1,000
210/35	209.1/34.1	0.1980	74,900	590	1,000
210/50	212.1/49.5	0.1363	93,900	610	1,000
230/30	230.9/29.8	0.1249	73,100	625	1,000
240/40	243.0/39.5	0.1183	86,400	645	1,000
265/35	263.7/34.1	0.1094	83,050	680	1,000
300/50	304.3/49.5	0.09497	107,000	740	1,000
305/40	304.6/39.5	0.09490	99,400	740	1,000
340/30	339.3/29.8	0.09513	92,900	790	1,000
380/50	382.0/49.5	0.07573	123,100	820	1,000
385/33	386.0/34.1	0.07432	104,800	865	1,000
435/55	434.3/56.3	0.06656	136,450	900	1,000
450/40	448.7/39.5	0.05437	120,750	890	1,000
490/65	490.3/63.9	0.05896	153,100	985	1,000
493/35	494.1/34.1	0.05142	121,800	985	1,000
510/45	510.2/45.3	0.03957	136,650	995	1,000
550/70	550.0/71.3	0.05259	170,600	1,020	1,000
560/50	561.7/49.3	0.03142	148,950	1,040	1,000
570/40	571.2/39.5	0.05057	136,200	1,050	1,000
650/45	660.5/45.3	0.04420	155,500	1,120	1,000
680/83	678.6/86	0.04260	206,250	1,150	1,000
1043/45	1045.6/45.3	-	217,600	1,755	500