Characteristics of aluminium conductors used in Austria - Type AL1
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
				Wire	Cond.						
		mm²		mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
24-AL1	25	24,2	7	2,10	6,30	66,3	4,36	1,1787	60000	2,30E-05	144
34-AL1	35	34,4	7	2,50	7,50	93,9	6,01	0,8317	60000	2,30E-05	180
49-AL1	50	49,5	7	3,00	9,00	135,2	8,41	0,5776	60000	2,30E-05	225
66-AL1	70	65,8	19	2,10	10,5	180,9	11,85	0,4367	57000	2,30E-05	270
93-AL1	95	93,3	19	2,50	12,5	256,3	16,32	0,3081	57000	2,30E-05	340
117-AL1	120	117,0	19	2,80	14,0	321,5	19,89	0,2456	57000	2,30E-05	390
147-AL1	150	147,1	37	2,25	15,8	405,7	26,48	0,1960	57000	2,30E-05	455
182-AL1	185	181,6	37	2,50	17,5	500,9	31,78	0,1588	57000	2,30E-05	520
243-AL1	240	242,5	61	2,25	20,3	671,1	43,66	0,1193	55000	2,30E-05	625
299-AL1	300	299,4	61	2,50	22,5	828,5	52,40	0,0966	55000	2,30E-05	710
400-AL1	400	400,1	61	2,89	26,0	1107,1	68,02	0,0723	55000	2,30E-05	855
452-AL1	450	451,5	61	3,07	27,6	1249,3	74,50	0,0641	55000	2,30E-05	925
500-AL1	500	499,8	61	3,23	29,1	1382,9	82,47	0,0579	55000	2,30E-05	990
626-AL1	625	626,2	91	2,96	32,6	1739,7	106,45	0,0464	55000	2,30E-05	1140
802-AL1	800	802,1	91	3,35	36,9	2228,3	132,34	0,0362	55000	2,30E-05	1340
1000-AL1	1000	999,7	91	3,74	41,1	2777,3	159,95	0,0291	55000	2,30E-05	1540

NOTE 1: Direction of lay of external layer is right-hand (Z)

NOTE 2: Values of final modulus of elasticity and coefficient of linear expansion of the conductor sizes listed in the table are used in Austria. Values for other conductor constructions may be calculated using the method given in IEC 61597.

NOTE 3: Guideline values of current carrying capacity are valid up to a frequency of 60 Hz, assuming a wind velocity of 0,6 m/s, the effect of solar radiation for Austria, an initial ambient temperature of 35°C and a conductor temperature of 80°C. For special applications, when there is no air turbulence, the values should be reduced by 30 %.

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Characteristics of aluminium alloy conductors used in Austria - Type AL3
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
				Wire	Cond.						
		mm²		mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
24-AL3	25	24,2	7	2,10	6,30	66,2	7,15	1,3566	60000	2,30E-05	135
34-AL3	35	34,4	7	2,50	7,50	93,8	10,14	0,9572	60000	2,30E-05	169
49-AL3	50	49,5	7	3,00	9,00	135,1	14,60	0,6647	60000	2,30E-05	210
66-AL3	70	65,8	19	2,10	10,5	180,7	19,41	0,5026	57000	2,30E-05	255
93-AL3	95	93,3	19	2,50	12,5	256,0	27,51	0,3546	57000	2,30E-05	320
117-AL3	120	117,0	19	2,80	14,0	321,2	34,51	0,2827	57000	2,30E-05	365
147-AL3	150	147,1	37	2,25	15,8	405,3	43,40	0,2256	57000	2,30E-05	425
182-AL3	185	181,6	37	2,50	17,5	500,3	53,58	0,1827	57000	2,30E-05	490
243-AL3	240	242,5	61	2,25	20,3	670,3	71,55	0,1373	55000	2,30E-05	585
299-AL3	300	299,4	61	2,50	22,5	827,5	88,33	0,1112	55000	2,30E-05	670
400-AL3	400	400,1	61	2,89	26,0	1105,9	118,04	0,0832	55000	2,30E-05	810
452-AL3	450	451,5	61	3,07	27,6	1247,9	133,20	0,0737	55000	2,30E-05	870
500-AL3	500	499,8	61	3,23	29,1	1381,4	147,45	0,0666	55000	2,30E-05	930
626-AL3	625	626,2	91	2,96	32,6	1737,7	184,73	0,0534	55000	2,30E-05	1075
802-AL3	800	802,1	91	3,35	36,9	2225,8	236,62	0,0417	55000	2,30E-05	1255
1000-AL3	1000	999,7	91	3,74	41,1	2774,3	294,91	0,0334	55000	2,30E-05	1450

NOTE 1: Direction of lay of external layer is right-hand (Z)

NOTE 2: Values of final modulus of elasticity and coefficient of linear expansion of the conductor sizes listed in the table are used in Austria. Values for other conductor constructions may be calculated using the method given in IEC 61597.

NOTE 3: Guideline values of current carrying capacity are valid up to a frequency of 60 Hz, assuming a wind velocity of 0,6 m/s, the effect of solar radiation for Austria, an initial ambient temperature of 35°C and a conductor temperature of 80°C. For special applications, when there is no air turbulence, the values should be reduced by 30 %.

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Characteristics of aluminium conductors steel reinforced used in Austria - Type AL1/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
		Al	Steel	Total	Al	Steel	Al	Steel	Core	Cond.						
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
34-AL1/6-ST1A	35/6	34,4	5,73	40,1	6	1	2,70	2,70	2,70	8,1	138,7	12,37	0,8342	81000	1,92E-05	180
48-AL1/8-ST1A	50/8	48,3	8,04	56,3	6	1	3,20	3,20	3,20	9,6	194,8	16,81	0,5939	81000	1,92E-05	220
70-AL1/11-ST1A	70/12	69,9	11,4	81,3	26	7	1,85	1,44	4,32	11,7	282,2	26,27	0,4132	77000	1,89E-05	290
94-AL1/22-ST1A	94/22	94,2	22,0	116,2	30	7	2,00	2,00	6,00	14,0	432,5	43,17	0,3067	82000	1,78E-05	350
94-AL1/15-ST1A	95/15	94,4	15,3	109,7	26	7	2,15	1,67	5,01	13,6	380,6	34,93	0,3060	77000	1,89E-05	350
97-AL1/34-ST1A	95/34	96,8	34,4	131,1	36	7	1,85	2,50	7,50	14,9	536,5	57,07	0,2990	90000	1,67E-05	360
122-AL1/20-ST1A	120/20	121,6	19,8	141,4	26	7	2,44	1,90	5,70	15,5	491,0	44,50	0,2376	77000	1,89E-05	410
119-AL1/42-ST1A	120/42	118,8	41,6	160,4	36	7	2,05	2,75	8,25	16,5	653,9	68,79	0,2435	90000	1,67E-05	415
128-AL1/30-ST1A	125/30	127,9	29,8	157,8	30	7	2,33	2,33	6,99	16,3	587,0	56,41	0,2260	82000	1,78E-05	425
149-AL1/24-ST1A	150/25	148,9	24,2	173,1	26	7	2,70	2,10	6,30	17,1	600,8	53,67	0,1940	77000	1,89E-05	470
150-AL1/53-ST1A	150/53	149,6	52,8	202,4	36	7	2,30	3,10	9,30	18,5	827,1	84,29	0,1934	90000	1,67E-05	480
172-AL1/40-ST1A	170/40	171,8	40,1	211,8	30	7	2,70	2,70	8,10	18,9	788,2	74,89	0,1683	82000	1,78E-05	515
184-AL1/30-ST1A	185/30	183,8	29,8	213,6	26	7	3,00	2,33	6,99	19,0	741,0	65,27	0,1571	77000	1,89E-05	535
209-AL1/34-ST1A	210/35	209,1	34,1	243,2	26	7	3,20	2,49	7,47	20,3	844,1	73,36	0,1381	77000	1,89E-05	590
212-AL1/49-ST1A	210/50	212,1	49,5	261,5	30	7	3,00	3,00	9,00	21,0	973,1	92,46	0,1363	82000	1,78E-05	610
243-AL1/39-ST1A	240/40	243,1	39,5	282,5	26	7	3,45	2,68	8,04	21,8	980,1	85,12	0,1188	77000	1,89E-05	640
238-AL1/82-ST1A	240/80	237,8	82,4	320,2	36	19	2,90	2,35	11,8	23,4	1305,3	134,37	0,1218	99890	1,64E-05	645
257-AL1/60-ST1A	257/60	256,6	59,9	316,5	30	7	3,30	3,30	9,90	23,1	1177,5	108,20	0,1126	82000	1,78E-05	665
304-AL1/49-ST1A	300/50	304,3	49,5	353,7	26	7	3,86	3,00	9,00	24,4	1227,3	105,09	0,0949	77000	1,89E-05	740
341-AL1/109-ST1A	340/110	341,2	108,8	450,0	78	19	2,36	2,70	13,5	27,7	1797,4	183,73	0,0848	84000	1,67E-05	800
382-AL1/49-ST1A	380/50	381,7	49,5	431,2	54	7	3,00	3,00	9,00	27,0	1442,5	121,30	0,0758	70000	1,93E-05	840
449-AL1/39-ST1A	450/40	448,7	39,5	488,2	48	7	3,45	2,68	8,04	28,7	1549,1	119,05	0,0644	62000	2,09E-05	920
562-AL1/49-ST1A	560/50	561,7	49,5	611,2	48	7	3,86	3,00	9,00	32,2	1939,5	146,28	0,0515	62000	2,09E-05	1040

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Characteristics of aluminium conductors steel reinforced used in Austria - Type AL1/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
		Al	Steel	Total	Al	Steel	Al	Steel	Core	Cond.						
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
635-AL1/117-ST1A	635/117	634,7	117,0	751,7	38+22	19	3,25/4,30	2,80	14,0	35,6	2671,2	236,50	0,0455	84120	1,82E-05	1106
679-AL1/86-ST1A	680/85	678,6	86,0	764,5	54	19	4,00	2,40	12,0	36,0	2549,7	206,56	0,0426	68000	1,94E-05	1150
1288-AL1/183-ST1A	1280/183	1288,2	182,8	1471,1	100	19	4,05	3,50	17,5	49,9	5001,6	407,20	0,0225	79260	1,90E-05	1780

NOTE 1: Direction of lay of external layer is right-hand (Z)

NOTE 2: Values of final modulus of elasticity and coefficient of linear expansion of the conductor sizes listed in the table are used in Austria. Values for other conductor constructions may be calculated using the method given in IEC 61597.

NOTE 3: Guideline values of current carrying capacity are valid up to a frequency of 60 Hz, assuming a wind velocity of 0,6 m/s, the effect of solar radiation for Austria, an initial ambient temperature of 35°C and a conductor temperature of 80°C. For special applications, when there is no air turbulence, the values should be reduced by 30 %.

Characteristics of aluminium alloy conductors steel reinforced used in Austria - Type AL3/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
		Al	Steel	Total	Al	Steel	Al	Steel	Core	Cond.						
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
34-AL3/6-ST1A	35/6	34,4	5,73	40,1	6	1	2,70	2,70	2,70	8,10	138,6	16,66	0,9601	81000	1,92E-05	170
48-AL3/8-ST1A	50/8	48,3	8,04	56,3	6	1	3,20	3,20	3,20	9,60	194,7	23,08	0,6835	81000	1,92E-05	205
70-AL3/11-ST1A	70/12	69,9	11,4	81,3	26	7	1,85	1,44	4,32	11,7	282,0	33,96	0,4756	77000	1,89E-05	270
94-AL3/22-ST1A	94/22	94,2	22,0	116,2	30	7	2,00	2,00	6,00	14,0	432,2	53,53	0,3530	82000	1,78E-05	330
94-AL3/15-ST1A	95/15	94,4	15,3	109,7	26	7	2,15	1,67	5,01	13,6	380,3	45,79	0,3521	77000	1,89E-05	330
97-AL3/34-ST1A	95/34	96,8	34,4	131,1	36	7	1,85	2,50	7,50	14,9	536,2	67,72	0,3441	90000	1,67E-05	335
122-AL3/20-ST1A	120/20	121,6	19,8	141,4	26	7	2,44	1,90	5,70	15,5	490,6	59,09	0,2734	77000	1,89E-05	385
119-AL3/42-ST1A	120/42	118,8	41,6	160,4	36	7	2,05	2,75	8,25	16,5	653,6	82,45	0,2803	90000	1,67E-05	390
128-AL3/30-ST1A	125/30	127,9	29,8	157,8	30	7	2,33	2,33	6,99	16,3	586,6	71,76	0,2601	82000	1,78E-05	400
149-AL3/24-ST1A	150/25	148,9	24,2	173,1	26	7	2,70	2,10	6,30	17,1	600,3	72,28	0,2233	77000	1,89E-05	440
150-AL3/53-ST1A	150/53	149,6	52,8	202,4	36	7	2,30	3,10	9,30	18,5	826,6	102,24	0,2226	90000	1,67E-05	450
172-AL3/40-ST1A	170/40	171,8	40,1	211,8	30	7	2,70	2,70	8,10	18,9	787,7	96,36	0,1937	82000	1,78E-05	485
184-AL3/30-ST1A	185/30	183,8	29,8	213,6	26	7	3,00	2,33	6,99	19,0	740,4	88,24	0,1809	77000	1,89E-05	500
209-AL3/34-ST1A	210/35	209,1	34,1	243,2	26	7	3,20	2,49	7,47	20,3	843,5	100,54	0,1590	77000	1,89E-05	550
212-AL3/49-ST1A	210/50	212,1	49,5	261,5	30	7	3,00	3,00	9,00	21,0	972,5	118,96	0,1569	82000	1,78E-05	575
243-AL3/39-ST1A	240/40	243,1	39,5	282,5	26	7	3,45	2,68	8,04	21,8	979,4	116,72	0,1368	77000	1,89E-05	605
238-AL3/82-ST1A	240/80	237,8	82,4	320,2	36	19	2,90	2,35	11,8	23,4	1304,6	164,09	0,1402	99890	1,64E-05	607
257-AL3/60-ST1A	257/60	256,6	59,9	316,5	30	7	3,30	3,30	9,90	23,1	1176,7	141,55	0,1296	82000	1,78E-05	625
304-AL3/49-ST1A	300/50	304,3	49,5	353,7	26	7	3,86	3,00	9,00	24,4	1226,4	146,16	0,1092	77000	1,89E-05	700
341-AL3/109-ST1A	340/110	341,2	108,8	450,0	78	19	2,36	2,70	13,5	27,7	1796,4	224,67	0,0976	84000	1,67E-05	750
382-AL3/49-ST1A	380/50	381,7	49,5	431,2	54	7	3,00	3,00	9,00	27,0	1441,4	169,01	0,0872	70000	1,93E-05	790
449-AL3/39-ST1A	450/40	448,7	39,5	488,2	48	7	3,45	2,68	8,04	28,7	1547,7	177,39	0,0741	62000	2,09E-05	865
562-AL3/49-ST1A	560/50	561,7	49,5	611,2	48	7	3,86	3,00	9,00	32,2	1937,8	222,11	0,0592	62000	2,09E-05	980

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Characteristics of aluminium alloy conductors steel reinforced used in Austria - Type AL3/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
		Al	Steel	Total			Al	Steel	Core	Cond.						
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
635-AL3/117-ST1A	635/117	634,7	117,0	751,7	38+22	19	3,25/4,30	2,80	14,0	35,6	2669,2	320,62	0,0524	84120	1,82E-05	1030
679-AL3/86-ST1A	680/85	678,6	86,0	764,5	54	19	4,00	2,40	12,0	36,0	2547,6	298,17	0,0490	68000	1,94E-05	1080
1288-AL3/183-ST1A	1280/183	1288,2	182,8	1471,1	100	19	4,05	3,50	17,5	49,9	4997,6	581,12	0,0259	79260	1,90E-05	1675

NOTE 1: Direction of lay of external layer is right-hand (Z)

NOTE 2: Values of final modulus of elasticity and coefficient of linear expansion of the conductor sizes listed in the table are used in Austria. Values for other conductor constructions may be calculated using the method given in IEC 61597.

NOTE 3: Guideline values of current carrying capacity are valid up to a frequency of 60 Hz, assuming a wind velocity of 0,6 m/s, the effect of solar radiation for Austria, an initial ambient temperature of 35°C and a conductor temperature of 80°C. For special applications, when there is no air turbulence, the values should be reduced by 30 %.

Characteristics of aluminium conductors used in Germany - Type AL1
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
				Wire	Cond.						
		mm²		mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
16-AL1	16	15,9	7	1,70	5,10	43,4	3,02	1,7986	60000	2,30E-05	110
24-AL1	25	24,2	7	2,10	6,30	66,3	4,36	1,1787	60000	2,30E-05	145
34-AL1	35	34,4	7	2,50	7,50	93,9	6,01	0,8317	60000	2,30E-05	180
49-AL1	50	49,5	7	3,00	9,00	135,2	8,41	0,5776	60000	2,30E-05	225
48-AL1	50	48,3	19	1,80	9,00	132,9	8,94	0,5944	57000	2,30E-05	225
66-AL1	70	65,8	19	2,10	10,5	180,9	11,85	0,4367	57000	2,30E-05	270
93-AL1	95	93,3	19	2,50	12,5	256,3	16,32	0,3081	57000	2,30E-05	340
117-AL1	120	117,0	19	2,80	14,0	321,5	19,89	0,2456	57000	2,30E-05	390
147-AL1	150	147,1	37	2,25	15,8	405,7	26,48	0,1960	57000	2,30E-05	455
182-AL1	185	181,6	37	2,50	17,5	500,9	31,78	0,1588	57000	2,30E-05	520
243-AL1	240	242,5	61	2,25	20,3	671,1	43,66	0,1193	55000	2,30E-05	625
299-AL1	300	299,4	61	2,50	22,5	828,5	52,40	0,0966	55000	2,30E-05	710
400-AL1	400	400,1	61	2,89	26,0	1107,1	68,02	0,0723	55000	2,30E-05	855
500-AL1	500	499,8	61	3,23	29,1	1382,9	82,47	0,0579	55000	2,30E-05	990
626-AL1	625	626,2	91	2,96	32,6	1739,7	106,45	0,0464	55000	2,30E-05	1140
802-AL1	800	802,1	91	3,35	36,9	2228,3	132,34	0,0362	55000	2,30E-05	1340
1000-AL1	1000	999,7	91	3,74	41,1	2777,3	159,95	0,0291	55000	2,30E-05	1540

NOTE 1: Direction of lay of external layer is right-hand (Z)

NOTE 2: Values of final modulus of elasticity and coefficient of linear expansion of the conductor sizes listed in the table are used in Germany. Values for other conductor constructions may be calculated using the method given in IEC 61597.

NOTE 3: Guideline values of current carrying capacity are valid up to a frequency of 60 Hz, assuming a wind velocity of 0,6 m/s, the effect of solar radiation for Germany an initial ambient temperature of 35°C and a conductor temperature of 80°C. For special applications, when there is no air turbulence, the values should be reduced by 30 %.

Characteristics of aluminium alloy conductors used in Germany - Type AL3
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
				Wire	Cond.						
		mm²		mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
16-AL3	16	15,9	7	1,70	5,10	43,4	4,69	2,0701	60000	2,30E-05	105
24-AL3	25	24,2	7	2,10	6,30	66,2	7,15	1,3566	60000	2,30E-05	135
34-AL3	35	34,4	7	2,50	7,50	93,8	10,14	0,9572	60000	2,30E-05	170
49-AL3	50	49,5	7	3,00	9,00	135,1	14,60	0,6647	60000	2,30E-05	210
48-AL3	50	48,3	19	1,80	9,00	132,7	14,26	0,6841	57000	2,30E-05	210
66-AL3	70	65,8	19	2,10	10,5	180,7	19,41	0,5026	57000	2,30E-05	255
93-AL3	95	93,3	19	2,50	12,5	256,0	27,51	0,3546	57000	2,30E-05	320
117-AL3	120	117,0	19	2,80	14,0	321,2	34,51	0,2827	57000	2,30E-05	365
147-AL3	150	147,1	37	2,25	15,8	405,3	43,40	0,2256	57000	2,30E-05	425
182-AL3	185	181,6	37	2,50	17,5	500,3	53,58	0,1827	57000	2,30E-05	490
243-AL3	240	242,5	61	2,25	20,3	670,3	71,55	0,1373	55000	2,30E-05	585
299-AL3	300	299,4	61	2,50	22,5	827,5	88,33	0,1112	55000	2,30E-05	670
400-AL3	400	400,1	61	2,89	26,0	1105,9	118,04	0,0832	55000	2,30E-05	810
500-AL3	500	499,8	61	3,23	29,1	1381,4	147,45	0,0666	55000	2,30E-05	930
626-AL3	625	626,2	91	2,96	32,6	1737,7	184,73	0,0534	55000	2,30E-05	1075
802-AL3	800	802,1	91	3,35	36,9	2225,8	236,62	0,0417	55000	2,30E-05	1255
1000-AL3	1000	999,7	91	3,74	41,1	2774,3	294,91	0,0334	55000	2,30E-05	1450

NOTE 1: Direction of lay of external layer is right-hand (Z)

NOTE 2: Values of final modulus of elasticity and coefficient of linear expansion of the conductor sizes listed in the table are used in Germany. Values for other conductor constructions may be calculated using the method given in IEC 61597.

NOTE 3: Guideline values of current carrying capacity are valid up to a frequency of 60 Hz, assuming a wind velocity of 0,6 m/s, the effect of solar radiation for Germany an initial ambient temperature of 35°C and a conductor temperature of 80°C. For special applications, when there is no air turbulence, the values should be reduced by 30 %.

Characteristics of aluminium conductors steel reinforced used in Germany - Type AL1/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
		Al	Steel	Total	Al	Steel	Al	Steel	Core	Cond.						
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
15-AL1/3-ST1A	16/2,5	15,3	2,54	17,8	6	1	1,80	1,80	1,80	5,40	61,6	5,80	1,8769	81000	1,92E-05	105
24-AL1/4-ST1A	25/4	23,9	3,98	27,8	6	1	2,25	2,25	2,25	6,75	96,3	8,95	1,2012	81000	1,92E-05	140
34-AL1/6-ST1A	35/6	34,4	5,73	40,1	6	1	2,70	2,70	2,70	8,10	138,7	12,37	0,8342	81000	1,92E-05	170
44-AL1/32-ST1A	44/32	44,0	31,7	75,6	14	7	2,00	2,40	7,20	11,2	369,3	44,24	0,6574	110000	1,50E-05	-
48-AL1/8-ST1A	50/8	48,3	8,04	56,3	6	1	3,20	3,20	3,20	9,60	194,8	16,81	0,5939	81000	1,92E-05	210
51-AL1/30-ST1A	50/30	51,2	29,8	81,0	12	7	2,33	2,33	6,99	11,7	374,7	42,98	0,5644	107000	1,53E-05	-
70-AL/11-ST1A	70/12	69,9	11,4	81,3	26	7	1,85	1,44	4,32	11,7	282,2	26,27	0,4132	77000	1,89E-05	290
94-AL1/15-ST1A	95/15	94,4	15,3	109,7	26	7	2,15	1,67	5,01	13,6	380,6	34,93	0,3060	77000	1,89E-05	350
97-AL1/56-ST1A	95/55	96,5	56,3	152,8	12	7	3,20	3,20	9,60	16,0	706,8	77,85	0,2992	107000	1,53E-05	-
106-AL1/76-ST1A	105/75	105,7	75,5	181,2	14	19	3,10	2,25	11,3	17,5	885,3	105,82	0,2742	110000	1,50E-05	-
122-AL1/20-ST1A	120120	121,6	19,8	141,4	26	7	2,44	1,90	5,70	15,5	491,0	44,50	0,2376	77000	1,89E-05	410
122-AL1/71-ST1A	120/70	122,1	71,3	193,4	12	7	3,60	3,60	10,8	18,0	894,5	97,92	0,2364	107000	1,53E-05	-
128-AL1/30-ST1A	125/30	127,9	29,8	157,8	30	7	2,33	2,33	6,99	16,3	587,0	56,41	0,2260	82000	1,78E-05	425
149-AL1/24-ST1A	150/25	148,9	24,2	173,1	26	7	2,70	2,10	6,30	17,1	600,8	53,67	0,1940	77000	1,89E-05	470
172-AL1/40-ST1A	170/40	171,8	40,1	211,8	30	7	2,70	2,70	8,10	18,9	788,2	74,89	0,1683	82000	1,78E-05	520
184-AL1/30-ST1A	185/30	183,8	29,8	213,6	26	7	3,00	2,33	6,99	19,0	741,0	65,27	0,1571	77000	1,89E-05	535
209-AL1/34-ST1A	210/35	209,1	34,1	243,2	26	7	3,20	2,49	7,47	20,3	844,1	73,36	0,1381	77000	1,89E-05	590
212-AL1/49-ST1A	210/50	212,1	49,5	261,5	30	7	3,00	3,00	9,00	21,0	973,1	92,46	0,1363	82000	1,78E-05	610
231-AL1/30-ST1A	230/30	230,9	29,8	260,8	24	7	3,50	2,33	6,99	21,0	870,9	72,13	0,1250	74000	1,96E-05	630
243-AL1/39-ST1A	240/40	243,1	39,5	282,5	26	7	3,45	2,68	8,04	21,8	980,1	85,12	0,1188	77000	1,89E-05	645
264-AL1/34-ST1A	265/35	263,7	34,1	297,7	24	7	3,74	2,49	7,47	22,4	994,4	81,04	0,1095	74000	1,96E-05	680
304-AL1/49-ST1A	300/50	304,3	49,5	353,7	26	7	3,86	3,00	9,00	24,4	1227,3	105,09	0,0949	77000	1,89E-05	740
305-AL1/39-ST1A	305/40	304,6	39,5	344,1	54	7	2,68	2,68	8,04	24,1	1151,2	96,80	0,0949	70000	1,93E-05	740

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Characteristics of aluminium conductors steel reinforced used in Germany - Type AL1/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
		Al	Steel	Total	Al	Steel	Al	Steel	Core	Cond.						
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
339-AL1/30-ST1A	340/30	339,3	29,8	369,1	48	7	3,00	2,33	6,99	25,0	1171,2	91,71	0,0852	62000	2,05E-05	790
382-AL1/49-ST1A	380/50	381,7	49,5	431,2	54	7	3,00	3,00	9,00	27,0	1442,5	121,30	0,0758	70000	1,93E-05	840
386-AL1/34-ST1A	385/35	386,0	34,1	420,1	48	7	3,20	2,49	7,47	26,7	1333,6	102,56	0,0749	62000	2,05E-05	850
434-AL1/56-ST1A	435/55	434,3	56,3	490,6	54	7	3,20	3,20	9,60	28,8	1641,3	133,59	0,0666	70000	1,93E-05	900
449-AL1/39-ST1A	450/40	448,7	39,5	488,2	48	7	3,45	2,68	8,04	28,7	1549,1	119,05	0,0644	62000	2,05E-05	920
490-AL1/64-ST1A	490/65	490,3	63,6	553,8	54	7	3,40	3,40	10,20	30,6	1852,9	150,81	0,0590	70000	1,93E-05	960
494-AL1/34-ST1A	495/35	494,4	34,1	528,4	45	7	3,74	2,49	7,47	29,9	1632,6	117,96	0,0584	61000	2,09E-05	985
511-AL1/45-ST1A	510/45	510,5	45,3	555,8	48	7	3,68	2,87	8,61	30,7	1765,3	133,31	0,0566	62000	2,05E-05	995
550-AL1/71-ST1A	550/70	549,7	71,3	620,9	54	7	3,60	3,60	10,8	32,4	2077,2	166,32	0,0526	70000	1,93E-05	1020
562-AL1/49-ST1A	560/50	561,7	49,5	611,2	48	7	3,86	3,00	9,00	32,2	1939,5	146,28	0,0515	62000	2,05E-05	1040
571-AL1/39-ST1A	570/40	571,2	39,5	610,6	45	7	4,02	2,68	8,04	32,2	1887,1	136,40	0,0506	61000	2,09E-05	1050
653-AL1/45-ST1A	650/45	653,5	45,3	698,8	45	7	4,30	2,87	8,61	34,4	2159,9	156,18	0,0442	61000	2,09E-05	1120
679-AL1/86-ST1A	680/85	678,6	86,0	764,5	54	19	4,00	2,40	12,0	36,0	2549,7	206,56	0,0426	68000	1,94E-05	1150
1046-AL1/45-ST1A	1045/45	1045,6	45,3	1090,9	72	7	4,30	2,87	8,61	43,0	3248,2	218,92	0,0277	60000	2,17E-05	1580

NOTE 1: Direction of lay of external layer is right-hand (Z)

NOTE 2: Values of final modulus of elasticity and coefficient of linear expansion of the conductor sizes listed in the table are used in Germany. Values for other conductor constructions may be calculated using the method given in IEC 61597.

NOTE 3: Guideline values of current carrying capacity are valid up to a frequency of 60 Hz, assuming a wind velocity of 0,6 m/s, the effect of solar radiation for Germany an initial ambient temperature of 35°C and a conductor temperature of 80°C. For special applications, when there is no air turbulence, the values should be reduced by 30 %.

Characteristics of aluminium alloy conductors steel reinforced used in Germany - Type AL3/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
		Al	Steel	Total	Al	Steel	Al	Steel	Core	Cond.						
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
15-AL313-ST1A	16/2,5	15,3	2,54	17,8	6	1	1,80	1,80	1,80	5,40	61,6	7,48	2,1602	81000	1,92E-05	100
24-AL3/4-ST1A	25/4	23,9	3,98	27,8	6	1	2,25	2,25	2,25	6,75	96,2	11,69	1,3825	81000	1,92E-05	135
34-AL3/6-ST1A	35/6	34,4	5,73	40,1	6	1	2,70	2,70	2,70	8,10	138,6	16,66	0,9601	81000	1,92E-05	165
44-AL3/32-ST1A	44/32	44,0	31,7	75,6	14	7	2,00	2,40	7,20	11,2	369,1	49,08	0,7566	110000	1,50E-05	-
48-AL3/8-ST1A	50/8	48,3	8,04	56,3	6	1	3,20	3,20	3,20	9,60	194,7	23,08	0,6835	81000	1,92E-05	200
51-AL3/30-ST1A	50/30	51,2	29,8	81,0	12	7	2,33	2,33	6,99	11,7	374,6	49,12	0,6496	107000	1,53E-05	-
70-AL3/11-ST1A	70/12	69,9	11,4	81,3	26	7	1,85	1,44	4,32	11,7	282,0	33,96	0,4756	77000	1,89E-05	270
94-AL3/15-ST1A	95/15	94,4	15,3	109,7	26	7	2,15	1,67	5,01	13,6	380,3	45,79	0,3521	77000	1,89E-05	330
97-AL3/56-ST1A	95/55	96,5	56,3	152,8	12	7	3,20	3,20	9,60	16,0	706,5	90,40	0,3444	107000	1,53E-05	-
106-AL3/76-ST1A	105/75	105,7	75,5	181,2	14	19	3,10	2,25	11,3	17,5	885,0	119,56	0,3155	110000	1,50E-05	-
122-AL3/20-ST1A	120/20	121,6	19,8	141,4	26	7	2,44	1,90	5,70	15,5	490,6	59,09	0,2734	77000	1,89E-05	385
122-AL3/71-ST1A	120/70	122,1	71,3	193,4	12	7	3,60	3,60	10,8	18,0	894,2	114,41	0,2721	107000	1,53E-05	-
128-AL3/30-ST1A	125/30	127,9	29,8	157,8	30	7	2,33	2,33	6,99	16,3	586,6	71,76	0,2601	82000	1,78E-05	400
149-AL3/24-ST1A	150/25	148,9	24,2	173,1	26	7	2,70	2,10	6,30	17,1	600,3	72,28	0,2233	77000	1,89E-05	445
172-AL3/40-ST1A	170/40	171,8	40,1	211,8	30	7	2,70	2,70	8,10	18,9	787,7	96,36	0,1937	82000	1,78E-05	490
184-AL3/30-ST1A	185/30	183,8	29,8	213,6	26	7	3,00	2,33	6,99	19,0	740,4	88,24	0,1809	77000	1,89E-05	505
209-AL3/34-ST1A	210/35	209,1	34,1	243,2	26	7	3,20	2,49	7,47	20,3	843,5	100,54	0,1590	77000	1,89E-05	555
212-AL3/49-ST1A	210/50	212,1	49,5	261,5	30	7	3,00	3,00	9,00	21,0	972,5	118,96	0,1569	82000	1,78E-05	575
231-AL3/30-ST1A	230/30	230,9	29,8	260,8	24	7	3,50	2,33	6,99	21,0	870,1	102,14	0,1439	74000	1,96E-05	595
243-AL3/39-ST1A	240/40	243,1	39,5	282,5	26	7	3,45	2,68	8,04	21,8	979,4	116,72	0,1368	77000	1,89E-05	605
264-AL3/34-ST1A	265/35	263,7	34,1	297,7	24	7	3,74	2,49	7,47	22,4	993,6	116,64	0,1260	74000	1,96E-05	640
304-AL3/49-ST1A	300/50	304,3	49,5	353,7	26	7	3,86	3,00	9,00	24,4	1226,4	146,16	0,1092	77000	1,89E-05	700
305-AL3/39-ST1A	305/40	304,6	39,5	344,1	54	7	2,68	2,68	8,04	24,1	1150,3	134,88	0,1093	70000	1,93E-05	700

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Characteristics of aluminium alloy conductors steel reinforced used in Germany - Type AL3/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance	Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
		Al	Steel	Total			Al	Steel	Core	Cond.						
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km	N/mm²	1/K	A
339-AL3/30-ST1A	340/30	339,3	29,8	369,1	48	7	3,00	2,33	6,99	25,0	1170,2	134,12	0,0980	62000	2,05E-05	740
382-AL3/49-ST1A	380/50	381,7	49,5	431,2	54	7	3,00	3,00	9,00	27,0	1441,4	169,01	0,0872	70000	1,93E-05	790
386-AL3/34-ST1A	385/35	386,0	34,1	420,1	48	7	3,20	2,49	7,47	26,7	1332,4	152,74	0,0862	62000	2,05E-05	800
434-AL3/56-ST1A	435/55	434,3	56,3	490,6	54	7	3,20	3,20	9,60	28,8	1640,0	190,04	0,0766	70000	1,93E-05	845
449-AL3/39-ST1A	450/40	448,7	39,5	488,2	48	7	3,45	2,68	8,04	28,7	1547,7	177,39	0,0741	62000	2,05E-05	865
490-AL3/64-ST1A	490/65	490,3	63,6	553,8	54	7	3,40	3,40	10,2	30,6	1851,4	214,54	0,0679	70000	1,93E-05	905
550-AL3/71-ST1A	550/70	549,7	71,3	620,9	54	7	3,60	3,60	10,8	32,4	2075,6	240,52	0,0605	70000	1,93E-05	960
562-AL3/49-ST1A	560/50	561,7	49,5	611,2	48	7	3,86	3,00	9,00	32,2	1937,8	222,11	0,0592	62000	2,05E-05	980
679-AL3/86-ST1A	680/85	678,6	86,0	764,5	54	19	4,00	2,40	12,0	36,0	2547,6	298,17	0,0490	68000	1,94E-05	1080

NOTE 1: Direction of lay of external layer is right-hand (Z)

NOTE 2: Values of final modulus of elasticity and coefficient of linear expansion of the conductor sizes listed in the table are used in Germany. Values for other conductor constructions may be calculated using the method given in IEC 61597.

NOTE 3: Guideline values of current carrying capacity are valid up to a frequency of 60 Hz, assuming a wind velocity of 0,6 m/s, the effect of solar radiation for Germany an initial ambient temperature of 35°C and a conductor temperature of 80°C. For special applications, when there is no air turbulence, the values should be reduced by 30 %.

Characteristics of aluminium clad steel conductors used in Germany - Type A20SA
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance		Final modulus of elasticity	Coefficient of linear expansion	Current carrying capacity
				Wire	Cond.			Calculated using aluminium and steel	Calculated using aluminium only			
		mm²		mm	mm	kg/km	kN	Ohm/km	Ohm/km	N/mm²	1/K	A
24-A20SA	25	24,2	7	2,10	6,30	161,5	32,49	3,5364	4,6995	159000	1,30E-05	65
34-A20SA	35	34,4	7	2,50	7,50	229,0	46,04	2,4953	3,3160	159000	1,30E-05	80
49-A20SA	50	49,5	7	3,00	9,00	329,7	66,30	1,7328	2,3028	159000	1,30E-05	115
66-A20SA	70	65,8	19	2,10	10,5	441,0	88,18	1,3102	1,7412	159000	1,30E-05	135
93-A20SA	95	93,3	19	2,50	12,5	624,9	124,98	0,9245	1,2286	159000	1,30E-05	170
117-A20SA	120	117,0	19	2,80	14,0	783,9	156,77	0,7370	0,9794	159000	1,30E-05	195
147-A20SA	150	147,1	37	2,25	15,8	989,2	197,13	0,5881	0,7815	159000	1,30E-05	225
182-A20SA	185	181,6	37	2,50	17,5	1221,2	243,38	0,4764	0,6331	159000	1,30E-05	255
243-A20SA	240	242,5	61	2,25	20,3	1636,1	325,00	0,3579	0,4756	157000	1,30E-05	310
299-A20SA	300	299,4	61	2,50	22,5	2019,8	401,24	0,2899	0,3852	157000	1,30E-05	355

NOTE 1: Direction of lay of external layer is right-hand (Z)

NOTE 2: Values of final modulus of elasticity and coefficient of linear expansion of the conductor sizes listed in the table are used in Germany. Values for other conductor constructions may be calculated using the method given in IEC 61597.

NOTE 3: Guideline values of current carrying capacity are valid up to a frequency of 60 Hz, assuming a wind velocity of 0,6 m/s, the effect of solar radiation for Germany an initial ambient temperature of 35°C and a conductor temperature of 80°C. For special applications, when there is no air turbulence, the values should be reduced by 30 %.

Characteristics of aluminium conductors used in Switzerland - Type AL1
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance
				Wire	Cond.			
		mm²		mm	mm	kg/km	kN	Ohm/km
25-AL1	25	25,2	7	2,14	6,42	68,8	4,53	1,1350
35-AL1	35	34,9	7	2,52	7,56	95,4	5,94	0,8185
50-AL1	50	50,1	7	3,02	9,06	137,0	8,27	0,5699
70-AL1	70	70,3	19	2,17	10,9	193,1	12,65	0,4090
95-AL1	95	94,8	19	2,52	12,6	260,5	16,11	0,3033
120-AL1	120	120,4	19	2,84	14,2	330,8	20,46	0,2388
150-AL1	150	150,0	19	3,17	15,9	412,1	24,74	0,1916
150-AL1	150	149,7	37	2,27	15,9	413,0	26,20	0,1926
185-AL1	185	184,5	37	2,52	17,6	508,9	31,37	0,1563
239-AL1	240	239,4	37	2,87	20,1	660,1	40,69	0,1205
301-AL1	300	301,3	37	3,22	22,5	831,0	49,71	0,0957
403-AL1	400	402,9	61	2,90	26,1	1114,8	68,50	0,0718
497-AL1	500	496,7	61	3,22	29,0	1374,4	81,96	0,0582
551-AL1	550	550,6	61	3,39	30,5	1523,3	90,85	0,0525
548-AL1	550	548,4	91	2,77	30,5	1523,5	93,23	0,0530
600-AL1	600	600,4	61	3,54	31,9	1661,1	96,06	0,0482
601-AL1	600	601,1	91	2,90	31,9	1669,9	102,18	0,0483
802-AL1	800	802,1	91	3,35	36,9	2228,3	132,34	0,0362

NOTE: Direction of lay of external layer is right-hand (Z)

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Characteristics of aluminium alloy conductors used in Switzerland - Type AL3
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance
				Wire	Cond.			
		mm²		mm	mm	kg/km	kN	Ohm/km
16-AL3	16	15,9	7	1,70	5,10	43,4	4,69	2,0701
25-AL3	25	25,2	7	2,14	6,42	68,7	7,43	1,3064
35-AL3	35	34,9	7	2,52	7,56	95,3	10,30	0,9421
50-AL3	50	50,1	7	3,02	9,06	136,9	14,79	0,6560
50-AL3	50	50,0	19	1,83	9,15	137,2	14,74	0,6619
70-AL3	70	70,3	19	2,17	10,9	192,9	20,73	0,4707
95-AL3	95	94,8	19	2,52	12,6	260,2	27,96	0,3490
120-AL3	120	120,4	19	2,84	14,2	330,4	35,51	0,2748
150-AL3	150	149,7	37	2,27	15,9	412,5	44,17	0,2217
185-AL3	185	184,5	37	2,52	17,6	508,4	54,44	0,1799
239-AL3	240	239,4	37	2,87	20,1	659,4	70,61	0,1387
301-AL3	300	301,3	37	3,22	22,5	830,0	88,88	0,1102
299-AL3	300	299,4	61	2,50	22,5	827,5	88,33	0,1112
403-AL3	400	402,9	61	2,90	26,1	1113,6	118,86	0,0826
497-AL3	500	496,7	61	3,22	29,0	1372,9	146,54	0,0670
551-AL3	550	550,6	61	3,39	30,5	1521,6	162,42	0,0605
548-AL3	550	548,4	91	2,77	30,5	1521,8	161,78	0,0610
600-AL3	600	600,4	61	3,54	31,9	1659,3	177,11	0,0555
601-AL3	600	601,1	91	2,90	31,9	1668,0	177,32	0,0556
802-AL3	800	802,1	91	3,35	36,9	2225,8	236,62	0,0417

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Characteristics of aluminium conductors steel reinforced used in Switzerland - Type AL1/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance
		Al	Steel	Total			Al	Steel	Wire	Cond.			
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km
22-AL1/4-ST1A	-	21,6	3,60	25,2	6	1	2,14	2,14	2,14	6,42	87,1	8,09	1,3279
30-AL1/5-ST1A	-	29,9	5,0	34,9	6	1	2,52	2,52	2,52	7,56	120,8	10,77	0,9576
43-AL1/7-ST1A	-	43,0	7,2	50,1	6	1	3,02	3,02	3,02	9,06	173,5	14,97	0,6668
60-AL1/10-ST1A	-	59,7	10,0	69,7	6	1	3,56	3,56	3,56	10,7	241,1	20,50	0,4798
79-AL1/18-ST1A	-	78,9	18,4	97,3	30	7	1,83	1,83	5,49	12,8	362,1	36,14	0,3663
97-AL1/23-ST1A	-	97,1	22,7	119,8	30	7	2,03	2,03	6,09	14,2	445,6	43,98	0,2977
121-AL1/28-ST1A	-	121,4	28,3	149,7	30	7	2,27	2,27	6,81	15,9	557,1	53,54	0,2381
150-AL1/35-ST1A	-	149,6	34,9	184,5	30	7	2,52	2,52	7,56	17,6	686,6	65,24	0,1932
194-AL1/45-ST1A	-	194,1	45,3	239,4	30	7	2,87	2,87	8,61	20,1	890,6	84,62	0,1489
212-AL1/49-ST1A	-	212,1	49,5	261,5	30	7	3,00	3,00	9,00	21,0	973,1	92,46	0,1363
244-AL1/57-ST1A	-	244,3	57,0	301,3	30	7	3,22	3,22	9,66	22,5	1121,1	103,01	0,1183
282-AL1/66-ST1A	-	282,1	65,8	347,9	30	7	3,46	3,46	10,4	24,2	1294,4	118,94	0,1025
357-AL1/46-ST1A	-	356,7	46,2	402,9	54	7	2,90	2,90	8,70	26,1	1348,0	113,35	0,0811
440-AL1/57-ST1A	-.	439,7	57,0	496,7	54	7	3,22	3,22	9,66	29,0	1661,9	135,26	0,0658
487-AL1/63-ST1A	-	487,4	63,2	550,6	54	7	3,39	3,39	10,2	30,5	1842,0	149,92	0,0593
531-AL1/69-ST1A	-	531,5	68,9	600,4	54	7	3,54	3,54	10,6	31,9	2008,6	160,82	0,0544
748-AL1/97-ST1A	-	748,1	97,0	845,2	96	19	3,15	2,55	12,8	38,0	2832,9	234,06	0,0387

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Characteristics of aluminium alloy conductors steel reinforced used in Switzerland - Type AL3/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance
		Al	Steel	Total			Al	Steel	Wire	Cond.			
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km
14-AL3/4-ST1A	-	13,6	2,27	15,9	6	1	1,70	1,70	1,70	5,10	54,9	6,67	2,4218
22-AL3/4-ST1A	-	21,6	3,60	25,2	6	1	2,14	2,14	2,14	6,42	87,1	10,57	1,5283
30-AL3/5-ST1A	-	29,9	4,99	34,9	6	1	2,52	2,52	2,52	7,56	120,7	14,51	1,1021
43-AL3/7-ST1A	-	43,0	7,16	50,1	6	1	3,02	3,02	3,02	9,06	173,4	20,56	0,7674
60-AL3/10-ST1A	-	59,7	10,0	69,7	6	1	3,56	3,56	3,56	10,7	240,9	28,57	0,5523
79-AL3/18-ST1A	-	78,9	18,4	97,3	30	7	1,83	1,83	5,49	12,8	361,8	44,82	0,4216
97-AL3/23-ST1A	-	97,1	22,7	119,8	30	7	2,03	2,03	6,09	14,2	445,3	55,15	0,3426
121-AL3/28-ST1A	-	121,4	28,3	149,7	30	7	2,27	2,27	6,81	15,9	556,8	68,11	0,2740
150-AL3/35-ST1A	-	149,6	34,9	184,5	30	7	2,52	2,52	7,56	17,6	686,2	83,94	0,2223
194-AL3/45-ST1A	-	194,1	45,3	239,4	30	7	2,87	2,87	8,61	20,1	890,0	108,88	0,1714
212-AL3/49-ST1A	-	212,1	49,5	261,5	30	7	3,00	3,00	9,00	21,0	972,5	118,96	0,1569
244-AL3/57-ST1A	-	244,3	57,0	301,3	30	7	3,22	3,22	9,66	22,5	1120,3	134,77	0,1362
282-AL3/66-ST1A	-	282,1	65,8	347,9	30	7	3,46	3,46	10,38	24,2	1293,5	155,61	0,1179
357-AL3/46-ST1A	-	356,7	46,2	402,9	54	7	2,90	2,90	8,70	26,1	1346,9	157,93	0,0933
440-AL3/57-ST1A	-	439,7	57,0	496,7	54	7	3,22	3,22	9,66	29,0	1660,5	192,43	0,0757
487-AL3/63-ST1A	-	487,4	63,2	550,6	54	7	3,39	3,39	10,17	30,5	1840,5	213,28	0,0683
531-AL3/69-ST1A	-	531,5	68,9	600,4	54	7	3,54	3,54	10,62	31,9	2007,0	232,57	0,0626
748-AL3/97-ST1A	-	748,1	97,0	845,2	96	19	3,15	2,55	12,75	38,0	2830,6	331,32	0,0446

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Characteristics of aluminium conductors used in Sweden - Type AL1
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance
				Wire	Cond.			
		mm²		mm	mm	kg/km	kN	Ohm/km
62-AL1	VITSIPPA	62,4	7	3,37	10,1	170,6	10,30	0,4577
99-AL1	KATTFOT	99,3	7	4,25	12,8	271,4	15,89	0,2878
159-AL1	GULLVIVA	158,6	19	3,26	16,3	435,9	26,17	0,1812
241-AL1	VALLMO	241,2	19	4,02	20,1	662,8	38,58	0,1192
330-AL1	RENFANA	330,0	37	3,37	23,6	910,2	54,45	0,0874
454-AL1	AKLEJA	454,5	61	3,08	27,7	1257,5	74,99	0,0637
594-AL1	HAMPDAN	593,6	61	3,52	31,7	1642,4	94,98	0,0487
774-AL1	STORMHATT	774,2	61	4,02	36,2	2142,1	123,88	0,0374
911-AL1	SOLROS	910,7	61	4,36	39,2	2519,8	145,72	0,0318

NOTE: Direction of lay of external layer is right-hand (Z)

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Characteristics of aluminium conductors steel reinforced used in Sweden - Type AL1/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance
		Al	Steel	Total			Al	Steel	Wire	Cond.			
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km
54-AL1/9-ST1A	RAVEN	53,5	8,92	62,4	6	1	3,37	3,37	3,37	10,1	216,1	18,64	0,5355
85-AL1/14-ST1A	PIGEON	85,1	14,2	99,3	6	1	4,25	4,25	4,25	12,8	343,6	29,22	0,3367
135-AL1/22-ST1A	PARTRIDGE	134,9	22,0	156,9	26	7	2,57	2,00	6,00	16,3	544,5	48,66	0,2141
201-AL1/33-ST1A	IBIS	201,3	32,7	234,1	26	7	3,14	2,44	7,32	19,9	812,1	70,53	0,1434
283-AL1/46-ST1A	DOVE	282,6	45,9	328,5	26	7	3,72	2,89	8,67	23,6	1139,6	97,56	0,1022
402-AL1/52-ST1A	CONDOR	402,3	52,2	454,5	54	7	3,08	3,08	9,24	27,7	1520,5	123,75	0,0719
525-AL1/68-ST1A	CURLEW	525,5	68,1	593,6	54	7	3,52	3,52	10,6	31,7	1986,0	159,01	0,0550
685-AL1/89-ST1A	SKATA	685,4	88,8	774,2	54	7	4,02	4,02	12,1	36,2	2590,2	207,39	0,0422
806-AL1/102-ST1A	FALCON	806,2	102,4	908,7	54	19	4,36	2,62	13,1	39,3	3031,7	245,77	0,0358
563-AL1/29-ST1A	MORKULLA	562,7	29,3	592,0	42	7	4,13	2,31	6,9	31,7	1783,7	123,47	0,0513
735-AL1/38-ST1A	RIPA	734,9	38,0	772,9	42	7	4,72	2,63	7,9	36,2	2327,5	160,93	0,0393
865-AL1/44-ST1A	ORRE	864,7	44,0	908,8	42	7	5,12	2,83	8,5	39,2	2733,1	188,55	0,0334
89-AL1/52-ST1A	DOTTEREL	89,4	52,2	141,6	12	7	3,08	3,08	9,2	15,4	654,8	72,12	0,3230
117-AL1/68-ST1A	ODEN	116,8	68,1	184,9	12	7	3,52	3,52	10,6	17,6	855,2	93,62	0,2473
152-AL1/89-ST1A	ATLE	152,3	88,8	241,2	12	7	4,02	4,02	12,1	20,1	1115,4	122,10	0,1896
251-AL1/65-ST1A	YMER	251,0	64,7	315,6	32	7	3,16	3,43	10,3	22,9	1199,8	112,56	0,1152

NOTE: Direction of lay of external layer is right-hand (Z)

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Characteristics of aluminium conductors used in the United Kingdom - Type AL1
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance
				Wire	Cond.			
		mm²		mm	mm	kg/km	kN	Ohm/km
23-AL1	MIDGE	23,3	7	2,06	6,18	63,8	4,20	1,2249
27-AL1	GNAT	26,9	7	2,21	6,63	73,4	4,83	1,0643
37-AL1	MOSQUITO	36,9	7	2,59	7,77	100,8	6,27	0,7749
43-AL1	LADYBIRD	42,8	7	2,79	8,37	117,0	7,28	0,6678
53-AL1	ANT	52,8	7	3,10	9,30	144,4	8,72	0,5409
64-AL1	FLY	63,6	7	3,40	10,2	173,7	10,49	0,4497
74-AL1	BLUEBOTTLE	73,6	7	3,66	11,0	201,3	11,78	0,3880
79-AL1	EARWIG	78,6	7	3,78	11,3	214,7	12,57	0,3638
84-AL1	GRASSHOPPER	84,1	7	3,91	11,7	229,7	13,45	0,3400
96-AL1	CLEGG	95,6	7	4,17	12,5	261,3	15,30	0,2989
106-AL1	WASP	106,0	7	4,39	13,2	289,6	16,95	0,2697
106-AL1	BEETLE	106,4	19	2,67	13,4	292,4	18,08	0,2701
132-AL1	BEE	132,0	7	4,90	14,7	360,8	21,12	0,2165
158-AL1	HORNET	157,6	19	3,25	16,3	433,2	26,01	0,1823
186-AL1	CATERPILLAR	185,9	19	3,53	17,7	511,1	29,75	0,1546
213-AL1	CHAFER	213,2	19	3,78	18,9	586,0	34,12	0,1348
238-AL1	SPIDER	237,6	19	3,99	20,0	652,9	38,01	0,1210
266-AL1	COCKROACH	265,7	19	4,22	21,1	730,4	42,52	0,1081
323-AL1	BUTTERFLY	322,7	19	4,65	23,3	886,8	51,63	0,0891
373-AL1	MOTH	373,1	19	5,00	25,0	1025,3	59,69	0,0770
372-AL1	DRONE	372,4	37	3,58	25,1	1027,1	59,59	0,0774
415-AL1	CENTIPEDE	415,2	37	3,78	26,5	1145,1	66,43	0,0695
486-AL1	MAYBUG	486,1	37	4,09	28,6	1340,6	77,78	0,0593

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Characteristics of aluminium conductors used in the United Kingdom - Type AL1
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance
				Wire	Cond.			
		mm²		mm	mm	kg/km	kN	Ohm/km
530-AL1	SCORPION	529,8	37	4,27	29,9	1461,2	84,77	0,0544
628-AL1	CICADA	628,3	37	4,65	32,6	1732,9	100,54	0,0459

NOTE: Direction of lay of external layer is right-hand (Z)

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Characteristics of aluminium alloy conductors used in the United Kingdom - Type AL3
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance
				Wire	Cond.			
		mm²		mm	mm	kg/km	kN	Ohm/km
19-AL3	BOX	18,8	7	1,85	5,55	51,4	5,55	1,7480
24-AL3	ACACIA	23,8	7	2,08	6,24	64,9	7,02	1,3828
30-AL3	ALMOND	30,1	7	2,34	7,02	82,2	8,88	1,0926
35-AL3	CEDAR	35,5	7	2,54	7,62	96,8	10,46	0,9273
42-AL3	DEODAR	42,2	7	2,77	8,31	115,2	12,44	0,7797
48-AL3	FIR	47,8	7	2,95	8,85	130,6	14,11	0,6875
60-AL3	HAZEL	59,9	7	3,30	9,90	163,4	17,66	0,5494
72-AL3	PINE	71,6	7	3,61	10,8	195,6	21,14	0,4591
84-AL3	HOLLY	84,1	7	3,91	11,7	229,5	24,79	0,3913
90-AL3	WILLOW	89,7	7	4,04	12,1	245,0	26,47	0,3665
119-AL3	OAK	118,9	7	4,65	14,0	324,5	35,07	0,2767
151-AL3	MULBERRY	150,9	19	3,18	15,9	414,3	44,52	0,2192
181-AL3	ASH	180,7	19	3,48	17,4	496,1	53,31	0,1830
211-AL3	ELM	211,0	19	3,76	18,8	579,2	62,24	0,1568
239-AL3	POPLAR	239,4	37	2,87	20,1	659,4	70,61	0,1387
303-AL3	SYCAMORE	303,2	37	3,23	22,6	835,2	89,40	0,1095
362-AL3	UPAS	362,1	37	3,53	24,7	997,5	106,82	0,0917
479-AL3	YEW	479,0	37	4,06	28,4	1319,6	141,31	0,0693
498-AL3	TOTARA	498,1	37	4,14	29,0	1372,1	146,93	0,0666
587-AL3	RUBUS	586,9	61	3,50	31,5	1622,0	173,13	0,0567
659-AL3	SORBUS	659,4	61	3,71	33,4	1822,5	194,53	0,0505
821-AL3	ARAUCARIA	821,1	61	4,14	37,3	2269,4	242,24	0,0406

NOTE: Direction of lay of external layer is right-hand (Z)

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Characteristics of aluminium alloy conductors used in the United Kingdom - Type AL5
Technical data according to EN50182/2001

Code	Old code	Area	No. of wires	Diameter		Mass per unit length	Rated strength	DC resistance
				Wire	Cond.			
		mm²		mm	mm	kg/km	kN	Ohm/km
239-AL5	POPLAR	239,4	37	2,87	20,1	659,4	70,61	0,1330
303-AL5	SYCAMORE	303,2	37	3,23	22,6	835,2	89,44	0,1050
362-AL5	UPAS	362,1	37	3,53	24,7	997,5	106,82	0,0879
479-AL5	YEW	479,0	37	4,06	28,4	1319,6	141,31	0,0665
498-AL5	TOTARA	498,1	37	4,14	29,0	1372,1	146,93	0,0639
587-AL5	RUBUS	586,9	61	3,50	31,5	1622,0	173,13	0,0544
659-AL5	SORBUS	659,4	61	3,71	33,4	1822,5	194,53	0,0484
821-AL5	ARAUCARIA	821,1	61	4,14	37,3	2269,4	242,24	0,0389

NOTE Direction of lay of external layer is right-hand (Z)

Characteristics of aluminium conductors steel reinforced used in the United Kingdom - Type AL1/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance
		Al	Steel	Total			Al	Steel	Wire	Cond.			
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km
11-AL1/2-ST1A	MOLE	10,6	1,77	12,4	6	1	1,50	1,50	1,50	4,50	42,8	4,14	2,7027
21-AL1/3-ST1A	SQUIRREL	21,0	3,50	24,5	6	1	2,11	2,11	2,11	6,33	84,7	7,87	1,3659
26-AL1/4-ST1A	GOPHER	26,2	4,37	30,6	6	1	2,36	2,36	2,36	7,08	106,0	9,58	1,0919
32-AL1/5-ST1A	WEASEL	31,6	5,27	36,9	6	1	2,59	2,59	2,59	7,77	127,6	11,38	0,9065
37-AL1/6-ST1A	FOX	36,7	6,11	42,8	6	1	2,79	2,79	2,79	8,37	148,1	13,21	0,7812
42-AL1/7-ST1A	FERRET	42,4	7,07	49,5	6	1	3,00	3,00	3,00	9,00	171,2	15,27	0,6757
53-AL1/9-ST1A	RABBIT	52,9	8,81	61,7	6	1	3,35	3,35	3,35	10,1	213,5	18,42	0,5419
63-AL1/11-ST1A	MINK	63,1	10,5	73,6	6	1	3,66	3,66	3,66	11,0	254,9	21,67	0,4540
63-AL1/37-ST1A	SKUNK	63,2	36,9	100,1	12	7	2,59	2,59	7,77	13,0	463,0	52,79	0,4568
75-AL1/13-ST1A	BEAVER	75,0	12,5	87,5	6	1	3,99	3,99	3,99	12,0	302,9	25,76	0,3820
73-AL1/43-ST1A	HORSE	73,4	42,8	116,2	12	7	2,79	2,79	8,37	14,0	537,3	61,26	0,3936
79-AL1/13-ST1A	RACOON	78,8	13,1	92,0	6	1	4,09	4,09	4,09	12,3	318,3	27,06	0,3635
84-AL1/14-ST1A	OTTER	83,9	14,0	97,9	6	1	4,22	4,22	4,22	12,7	338,8	28,81	0,3415
95-AL1/16-ST1A	CAT	95,4	15,9	111,3	6	1	4,50	4,50	4,50	13,5	385,3	32,76	0,3003
105-AL1/17-ST1A	HARE	105,0	17,5	122,5	6	1	4,72	4,72	4,72	14,2	423,8	36,04	0,2730
105-AL1/14-ST1A	DOG	105,0	13,6	118,5	6	7	4,72	1,57	4,71	14,2	394,0	32,65	0,2733
132-AL1/20-ST1A	COYOTE	131,7	20,1	151,8	26	7	2,54	1,91	5,73	15,9	520,7	45,86	0,2192
132-AL1/7-ST1A	COUGAR	131,5	7,31	138,8	18	1	3,05	3,05	3,05	15,3	418,8	29,74	0,2188
131-AL1/31-ST1A	TIGER	131,2	30,6	161,9	30	7	2,36	2,36	7,08	16,5	602,2	57,87	0,2202
158-AL1/37-ST1A	WOLF	158,1	36,9	194,9	30	7	2,59	2,59	7,77	18,1	725,3	68,91	0,1829
159-AL1/9-ST1A	DINGO	158,7	8,81	167,5	18	1	3,35	3,35	3,35	16,8	505,2	35,87	0,1814
183-AL1/43-ST1A	LYNX	183,4	42,8	226,2	30	7	2,79	2,79	8,37	19,5	841,6	79,97	0,1576
184-AL1/10-ST1A	CARACAL	184,2	10,2	194,5	18	1	3,61	3,61	3,61	18,1	586,7	40,74	0,1562

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Characteristics of aluminium conductors steel reinforced used in the United Kingdom - Type AL1/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance
		Al	Steel	Total			Al	Steel	Wire	Cond.			
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km
212-AL1/49-ST1A	PANTHER	212,1	49,5	261,5	30	7	3,00	3,00	9,00	21,0	973,1	92,46	0,1363
211-AL1/12-ST1A	JAGUAR	210,6	11,7	222,3	18	1	3,86	3,86	3,86	19,3	670,8	46,57	0,1366
238-AL1/56-ST1A	LION	238,3	55,6	293,9	30	7	3,18	3,18	9,54	22,3	1.093,4	100,47	0,1213
264-AL1/62-ST1A	BEAR	264,4	61,7	326,1	30	7	3,35	3,35	10,1	23,5	1213,4	111,50	0,1093
324-AL1/76-ST1A	GOAT	324,3	75,7	400,0	30	7	3,71	3,71	11,1	26,0	1488,2	135,13	0,0891
375-AL1/88-ST1A	SHEEP	375,1	87,5	462,6	30	7	3,99	3,99	12,0	27,9	1721,3	156,30	0,0771
374-AL1/48-ST1A	ANTELOPE	374,1	48,5	422,6	54	7	2,97	2,97	8,91	26,7	1413,8	118,88	0,0773
382-AL1/49-ST1A	BISON	381,7	49,5	431,2	54	7	3,00	3,00	9,00	27,0	1442,5	121,30	0,0758
430-AL1/100-ST1A	DEER	429,6	100,2	529,8	30	7	4,27	4,27	12,8	29,9	1971,4	179,00	0,0673
429-AL1/56-ST1A	ZEBRA	428,9	55,6	484,5	54	7	3,18	3,18	9,54	28,6	1620,8	131,92	0,0674
477-AL1/111-ST1A	ELK	477,1	111,3	588,5	30	7	4,50	4,50	13,5	31,5	2189,5	198,80	0,0606
476-AL1/62-ST1A	CAMEL	476,0	61,7	537,7	54	7	3,35	3,35	10,1	30,2	1798,8	146,40	0,0608
528-AL1/69-ST1A	MOOSE	528,5	68,5	597,0	54	7	3,53	3,53	10,6	31,8	1997,3	159,92	0,0547

NOTE: Direction of lay of external layer is right-hand (Z)

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Characteristics of aluminium alloy conductor steel reinforced used in the United Kingdom - Type AL5/ST1A
Technical data according to EN50182/2001

Code	Old code	Areas			No. of wires		Wire diameter		Diameter		Mass per unit length	Rated strength	DC resistance
		Al	Steel	Total			Al	Steel	Wire	Cond.			
		mm²	mm²	mm²	Al	Steel	mm	mm	mm	mm	kg/km	kN	Ohm/km
183-AL5/43-ST1A	KEZIAH	183,4	42,8	226,2	30	7	2,79	2,79	8,37	19,5	841,6	102,89	0,1740

NOTE: Direction of lay of external layer is right-hand (Z)

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