

HIGH VOLTAGE XLPE CABLES 64/110 ÷ 115(123)kV

COPPER CONDUCTOR

- 2XS(FL)2Y acc. IEC 60840
- N2XS(FL)2Y acc. DIN VDE 0276-632
- XRUHKXS acc. ZN-BFK-021:1998

Cross-section of conductor	Diameter of conductor	Insulation		Copper screen		Outer diameter of cable	Weight of cable	Max. pulling force	Min. bending radius
		Average thickness	Diameter over insulation	Cross-section	Diameter over screen				
mm ²		mm		mm ²	mm		kg / km	kN	m
1 x 150 RM	14.5 + 0.30	18.0	54.8	95	62.5	72.5	5620	7.5	1.63
1 x 185 RM	16.0 + 0.30	17.0	53.7	95	61.4	71.2	5790	9.25	1.61
1 x 240 RM	18.5 + 0.30	16.0	54.2	95	61.9	71.9	6280	12	1.62
1 x 300 RM	20.5 + 0.30	15.0	54.0	95	61.7	71.7	6750	15	1.61
1 x 400 RM	23.5 + 0.30	15.0	57.0	95	64.7	74.9	7770	20	1.69
1 x 500 RM	26.5 + 0.40	15.0	60.1	95	67.8	78.2	8970	25	1.76
1 x 630 RM	30.3 + 0.40	15.0	65.0	95	72.7	83.3	10600	31.5	1.89
1 x 800 RM	34.6 + 0.50	15.0	69.4	95	77.1	88.1	12480	40	2.0
1 x 1000 RM	37.6 + 0.50	15.0	72.4	95	80.1	91.3	14500	50	2.07
1 x 1200 RMS	43.6 + 0.80	15.0	79.2	95	87.1	98.7	16930	60	2.25
1 x 1400 RMS	46.6 + 1.0	15.0	82.8	95	90.7	102.7	19120	70	2.34
1 x 1600 RMS	50.0 + 1.0	15.0	86.8	95	95.1	107.3	21360	80	2.45
1 x 1800 RMS	53.3 + 1.0	15.0	90.1	95	98.4	110.8	23420	90	2.53
1 x 2000 RMS	56.3 + 1.2	15.0	93.3	95	101.6	114.4	25590	100	2.61

ELECTRICAL PARAMETERS

RM – round multiwire conductor

RMS – round multiwire segmented conductor (Milliken construction)

¹ – trefoil formation

² – phase distance at flat formation = 2 x cable diameter

³ – phase distance at flat formation = 70 mm + cable diameter

⁴ – SPB – Single Point Bonding; CB – Cross-bonding; Both-ends – Both-ends Bonding

Cross-section of conductor	Conductor resistance		Copper screen resistance		Field strength at conductor screen / insulation	Max. short circuit current		Capacitance	Inductance mH/km ¹ μH/km ² μH/km ³	Ampacity	
	DC20 °C	AC90 °C	DC20 °C	AC80 °C		Conductor	Copper screen			In ground	In air
mm ²	Ω / km				kV / mm	kA / 1 sec		μF / km	mH / km	A	
1 x 150 RM	0.124	0.1586	0.215	0.266	6.39 / 2.10	21.45	19.29	0.11	0.510.690.69	435 / 410	551 / 478
										406 / 406	515 / 473
1 x 185 RM	0.0991	0.1272	0.215	0.266	6.49 / 2.28	26.45	19.29	0.12	0.480.670.67	490 / 465	630 / 546
										448 / 453	574 / 538
1 x 240 RM	0.0754	0.0972	0.215	0.266	6.44 / 2.54	34.32	19.29	0.14	0.460.640.64	570 / 540	745 / 645
										505 / 519	659 / 628
1 x 300 RM	0.0601	0.078	0.215	0.266	6.54 / 2.83	42.9	19.29	0.15	0.440.620.62	640 / 610	845 / 746
										535 / 580	719 / 719
1 x 400 RM	0.047	0.0618	0.215	0.266	6.30 / 2.92	57.2	19.29	0.17	0.420.600.60	720 / 690	961 / 861
										595 / 650	814 / 824
1 x 500 RM	0.0366	0.0492	0.215	0.266	6.10 / 2.99	71.5	19.29	0.18	0.400.590.58	825 / 785	1113 / 992
										650 / 730	903 / 940
1 x 630 RM	0.0283	0.0393	0.215	0.266	5.85 / 3.09	90.09	19.29	0.20	0.390.570.56	940 / 890	1297 / 1139
										705 / 810	998 / 1061
1 x 800 RM	0.0221	0.0323	0.215	0.266	5.67 / 3.17	114.4	19.29	0.22	0.370.560.54	1055 / 995	1486 / 1297
										755 / 885	1092 / 1187
1 x 1000 RM	0.0176	0.0273	0.215	0.266	5.57 / 3.22	143	19.29	0.23	0.360.550.52	1165 / 1095	1670 / 1449
										800 / 950	1181 / 1307
1 x 1200 RMS	0.0151	0.0205	0.215	0.266	5.39 / 3.31	171.6	19.29	0.26	0.350.540.50	1345 / 1280	1974 / 1733
										860 / 1055	1302 / 1496
1 x 1400 RMS	0.0129	0.0178	0.215	0.266	5.32 / 3.35	200.2	19.29	0.28	0.340.530.50	1455 / 1385	2168 / 1890
										890 / 1110	1365 / 1601
1 x 1600 RMS	0.0113	0.016	0.215	0.266	5.24 / 3.39	228.8	19.29	0.29	0.340.520.49	1550 / 1470	2347 / 2037
										920 / 1155	1423 / 1696
1 x 1800 RMS	0.0101	0.0147	0.215	0.266	5.18 / 3.42	257.4	19.29	0.31	0.330.520.48	1627 / 1537	2485 / 2145
										938 / 1187	1460 / 1762
1 x 2000 RMS	0.009	0.0135	0.215	0.266	5.14 / 3.45	286	19.29	0.32	0.330.510.47	1705 / 1605	2625 / 2252
										955 / 1220	1496 / 1827

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ALUMINIUM CONDUCTOR

- A2XS(FL)2Y acc. IEC 60840
- NA2XS(FL)2Y acc. DIN VDE 0276-632
- XRUHAKXS acc. ZN-BFK-021:1998

Cross-section of conductor	Diameter of conductor	Insulation		Copper screen		Outer diameter of cable	Weight of cable	Max. pulling force	Min. bending radius
		Average thickness	Diameter over insulation	Cross-section	Diameter over screen				
mm ²	mm	mm	mm	mm ²	mm	kg / km	kN	m	
1 x 150 RM	14.2 + 0.20	18.0	54.4	95	62.1	72.1	4700	4.5	1.62
1 x 185 RM	15.8 + 0.20	17.0	53.4	95	61.1	70.9	4650	5.55	1.60
1 x 240 RM	17.8 + 0.10	16.0	53.3	95	61.0	70.8	4740	7.2	1.60
1 x 300 RM	20.0 + 0.30	15.0	53.5	95	61.2	71.0	4850	9.0	1.60
1 x 400 RM	22.9 + 0.30	15.0	56.4	95	64.1	74.1	5290	12.0	1.67
1 x 500 RM	25.7 + 0.40	15.0	59.3	95	67.0	77.2	5810	15.0	1.75
1 x 630 RM	29.3 + 0.50	15.0	64.1	95	71.8	82.4	6590	18.9	1.87
1 x 800 RM	33.0 + 0.50	15.0	67.8	95	75.5	86.3	7320	24.0	1.96
1 x 1000 RM	38.0 + 0.50	15.0	72.8	95	80.5	91.7	8290	30.0	2.08
1 x 1200 RM	41.0 + 0.60	15.0	75.9	95	83.8	95.2	9150	36.0	2.17
1 x 1200 RMS	43.6 + 0.80	15.0	79.2	95	87.1	98.7	9530	36.0	2.25
1 x 1400 RMS	46.6 + 1.0	15.0	82.8	95	90.7	102.7	10440	42.0	2.34
1 x 1600 RMS	50.0 + 1.0	15.0	86.8	95	95.1	107.3	11440	48.0	2.45
1 x 1800 RMS	53.3 + 1.0	15.0	90.1	95	98.4	110.8	11290	54.0	2.53
1 x 2000 RMS	55.4 + 1.2	15.0	92.4	95	100.7	113.3	12950	60.0	2.59

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Cross-section of conductor	Conductor resistance		Copper screen resistance		Field strength that conductor screen / insulation	Max. short circuit current		Capacitance	Inductance % ¹ % ² % ³	Ampacity	
	DC20 °C	AC90 °C	DC20 °C	AC80 °C		Conductor	Copper screen			In ground	In air
mm ²	Ω / km				kV / mm	kA / 1 sec		μF / km	mH / km	A	
1 x 150 RM	0.206	0.2644	0.215	0.266	6.44 / 2.09	14.18	19.29	0.11	0.510.700.69	335 / 320	431 / 373
										325 / 320	415 / 373
1 x 185 RM	0.164	0.2105	0.215	0.266	6.53 / 2.27	17.48	19.29	0.12	0.490.670.67	380 / 360	494 / 425
										363 / 358	465 / 423
1 x 240 RM	0.125	0.1607	0.215	0.266	6.53 / 2.51	22.68	19.29	0.13	0.460.650.65	445 / 420	583 / 504
										416 / 416	541 / 499
1 x 300 RM	0.100	0.1289	0.215	0.266	6.59 / 2.82	28.35	19.29	0.15	0.440.620.62	495 / 475	656 / 578
										445 / 460	593 / 567
1 x 400 RM	0.0778	0.101	0.215	0.266	6.34 / 2.90	37.8	19.29	0.16	0.420.610.60	565 / 540	751 / 672
										500 / 525	672 / 656
1 x 500 RM	0.0605	0.0794	0.215	0.266	6.15 / 2.97	47.25	19.29	0.18	0.410.590.58	645 / 620	877 / 782
										555 / 595	761 / 756
1 x 630 RM	0.0469	0.0624	0.215	0.266	5.89 / 3.08	59.54	19.29	0.20	0.390.580.56	740 / 710	1024 / 908
										610 / 670	861 / 872
1 x 800 RM	0.0367	0.0501	0.215	0.266	5.73 / 3.15	75.6	19.29	0.21	0.380.560.54	845 / 805	1187 / 1045
										665 / 745	956 / 987
1 x 1000 RM	0.0291	0.0412	0.215	0.266	5.56 / 3.22	94.5	19.29	0.23	0.360.550.52	950 / 900	1360 / 1192
										720 / 820	1055 / 1108
1 x 1200 RM	0.0247	0.0362	0.215	0.266	5.47 / 3.27	113.4	19.29	0.25	0.350.540.51	1025 / 970	1491 / 1297
										755 / 870	1124 / 1197
1 x 1200 RMS	0.0247	0.0326	0.215	0.266	5.39 / 3.31	113.4	19.29	0.26	0.350.540.50	1025 / 970	1491 / 1297
										755 / 870	1124 / 1197
1 x 1400 RMS	0.0212	0.0282	0.215	0.266	5.32 / 3.35	132.3	19.29	0.28	0.340.530.50	1100 / 1040	1622 / 1402
										785 / 915	1181 / 1281
1 x 1600 RMS	0.0186	0.025	0.215	0.266	5.24 / 3.39	151.2	19.29	0.29	0.340.520.49	1165 / 1095	1733 / 1491
										815 / 955	1229 / 1349
1 x 1800 RMS	0.0165	0.0225	0.215	0.266	5.18 / 3.42	170.1	19.29	0.31	0.330.520.48	1220 / 1145	1832 / 1570
										835 / 985	1271 / 1407
1 x 2000 RMS	0.0149	0.0206	0.215	0.266	5.15 / 3.44	189.0	19.29	0.32	0.330.510.47	1275 / 1190	1932 / 1649
										855 / 1015	1313 / 1465