

HIGH VOLTAGE XLPE CABLES 127/220 ÷ 230(245)kV

COPPER CONDUCTOR

- 2XS(FL)2Y acc. IEC 62067
- 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	mm	mm ²	mm	kg / km	kN	m	
1 x 500 RM	26.5 ^{+0.40}	23.0	77.1	95	84.8	96.4	11180	25	2.18
1 x 630 RM	30.3 ^{+0.40}	22.0	79.6	95	87.3	99.1	12610	31.5	2.25
1 x 800 RM	34.6 ^{+0.50}	22.0	84.0	95	91.7	103.7	14570	40	2.36
1 x 1000 RM	37.6 ^{+0.50}	22.0	87.0	95	94.7	106.9	16660	50	2.44
1 x 1200 RMS	43.6 ^{+0.80}	22.0	93.6	95	101.7	114.5	19300	60	2.61
1 x 1400 RMS	46.6 ^{+1.0}	22.0	97.2	95	105.3	118.3	21540	70	2.70
1 x 1600 RMS	50.0 ^{+1.0}	22.0	101.2	95	109.5	122.7	23840	80	2.81
1 x 1800 RMS	53.3 ^{+1.0}	22.0	104.5	95	112.8	126.2	25990	90	2.89
1 x 2000 RMS	56.3 ^{+1.2}	22.0	107.7	95	116.0	129.8	28230	100	2.97

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 that 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			μF / km	mH / km	In ground	In air
												SPB, CB ⁴	Both-ends ⁴
mm ²	Ω / km				kV / mm	kA / 1 sec		μF / km	mH / km	A			
1 x 500 RM	0.0366	0.0489	0.215	0.266	8.97 / 3.50	71.5	19.29	0.14	0.440.630.60	825 / 785	1113 / 992		
1 x 630 RM	0.0283	0.039	0.215	0.266	8.81 / 3.83	90.09	19.29	0.15	0.420.610.58	650 / 730	903 / 940		
1 x 800 RM	0.0221	0.0319	0.215	0.266	8.49 / 3.94	114.4	19.29	0.17	0.410.590.55	940 / 890	1297 / 1139		
1 x 1000 RM	0.0176	0.0268	0.215	0.266	8.30 / 4.01	143	19.29	0.18	0.390.580.54	705 / 810	998 / 1061		
1 x 1200 RMS	0.0151	0.0204	0.215	0.266	7.97 / 4.14	171.6	19.29	0.19	0.380.560.52	1055 / 995	1486 / 1297		
1 x 1400 RMS	0.0129	0.0177	0.215	0.266	7.83 / 4.20	200.2	19.29	0.21	0.370.560.51	755 / 885	1092 / 1187		
1 x 1600 RMS	0.0113	0.0159	0.215	0.266	7.68 / 4.27	228.8	19.29	0.22	0.370.550.50	1165 / 1095	1670 / 1449		
1 x 1800 RMS	0.0101	0.0146	0.215	0.266	7.58 / 4.32	257.4	19.29	0.23	0.360.540.49	800 / 950	1181 / 1307		
1 x 2000 RMS	0.009	0.0134	0.215	0.266	7.49 / 4.36	286	19.29	0.24	0.350.540.49	1345 / 1280	1974 / 1733		
										860 / 1055	1302 / 1496		
										1455 / 1385	2168 / 1890		
										890 / 1110	1365 / 1601		
										1550 / 1470	2347 / 2037		
										920 / 1155	1423 / 1696		
										1627 / 1537	2485 / 2145		
										938 / 1187	1460 / 1762		
										1705 / 1605	2625 / 2252		
										955 / 1220	1496 / 1827		

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- 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 500 RM	25.7 ^{+0.40}	23.0	76.3	95	84.0	95.4	7990	15.0	2.17
1 x 630 RM	29.3 ^{+0.50}	22.0	78.7	95	86.4	98.0	8540	18.9	2.23
1 x 800 RM	33.0 ^{+0.50}	22.0	82.4	95	90.0	102.1	9390	24.0	2.32
1 x 1000 RM	38.0 ^{+0.50}	22.0	87.4	95	95.0	107.3	10460	30.0	2.45
1 x 1200 RM	41.0 ^{+0.60}	22.0	90.7	95	98.8	114.4	11500	36.0	2.54
1 x 1200 RMS	43.6 ^{+0.80}	22.0	93.6	95	101.7	114.5	11900	36.0	2.61
1 x 1400 RMS	46.6 ^{+1.0}	22.0	97.2	95	105.3	118.3	12860	42.0	2.70
1 x 1600 RMS	50.0 ^{+1.0}	22.0	101.2	95	109.5	122.7	13930	48.0	2.81
1 x 1800 RMS	53.3 ^{+1.0}	22.0	104.5	95	112.8	126.2	14850	54.0	2.89
1 x 2000 RMS	55.4 ^{+1.2}	22.0	106.8	95	115.1	128.7	15580	60.0	2.95

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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			μF / km	mH / km	In ground	In air
												SPB, CB ⁴	Both-ends ⁴
mm ²	Ω / km				kV / mm	kA / 1 sec		μF / km	mH / km	A			
1 x 500 RM	0.0605	0.0790	0.215	0.266	9.06 / 3.48	47.25	19.29	0.13	0.450.630.60	645 / 620 555 / 595	877 / 782 761 / 756		
1 x 630 RM	0.0469	0.0620	0.215	0.266	8.89 / 3.81	59.54	19.29	0.15	0.430.610.58	740 / 710 610 / 670	1024 / 908 861 / 872		
1 x 800 RM	0.0367	0.0495	0.215	0.266	8.60 / 3.90	75.6	19.29	0.16	0.410.600.56	845 / 805 665 / 745	1187 / 1045 956 / 987		
1 x 1000 RM	0.0291	0.0404	0.215	0.266	8.28 / 4.02	94.5	19.29	0.18	0.390.580.54	950 / 900 720 / 820	1360 / 1192 1055 / 1108		
1 x 1200 RM	0.0247	0.0353	0.215	0.266	8.11 / 4.09	113.4	19.29	0.19	0.390.570.53	1025 / 970 755 / 870	1491 / 1297 1124 / 1197		
1 x 1200 RMS	0.0247	0.0324	0.215	0.266	7.97 / 4.14	113.4	19.29	0.19	0.380.560.52	1025 / 970 755 / 870	1491 / 1297 1124 / 1197		
1 x 1400 RMS	0.0212	0.0280	0.215	0.266	7.83 / 4.20	132.3	19.29	0.21	0.370.560.51	1100 / 1040 785 / 915	1622 / 1402 1181 / 1281		
1 x 1600 RMS	0.0186	0.0248	0.215	0.266	7.68 / 4.27	151.2	19.29	0.22	0.370.550.50	1165 / 1095 815 / 955	1733 / 1491 1229 / 1349		
1 x 1800 RMS	0.0165	0.0223	0.215	0.266	7.58 / 4.32	170.1	19.29	0.23	0.360.540.49	1220 / 1145 835 / 985	1832 / 1570 1271 / 1407		
1 x 2000 RMS	0.0149	0.0203	0.215	0.266	7.51 / 4.35	189.0	19.29	0.23	0.360.540.49	1275 / 1190 855 / 1015	1932 / 1649 1313 / 1465		