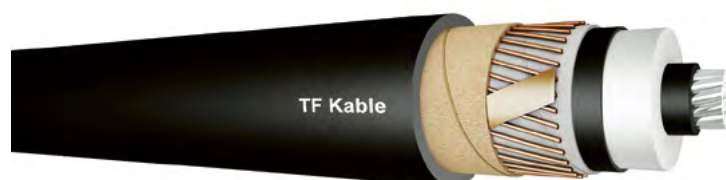


MEDIUM VOLTAGE XLPE POWER CABLES – Longitudinally Sealed

18/30 (36) kV

ALUMINIUM CONDUCTOR - Round, stranded and compacted conductor - Class 2
NA2XS(F)2Y acc. to DIN VDE 0276-620 and HD 620S2:2010 part 10 section C
A2XS(F)2Y acc. to IEC 60502-2:2005 and BS 6622:2007
XUHAKXS acc. ZN-TF-501:2002



Conductor – nominal cross sectional area	Conductor diameter	Insulation		Metallic screen		Cable diameter D_e	Cable weight	Maximum cable pulling force	Recommended min. bending radius for laying
		Thickness	Diameter over insulation	Cross sectional area	Diameter over metallic screen				
mm ²	mm			mm ²	mm	mm	kg/km	kN	m
1x50RMC	8.25 ^{+0.10}	8.0	25.5	16	29.6	35.1	1000	1.5	0.53
1x70RMC	9.5 ^{+0.20}	8.0	26.7	25	30.8	36.4	1190	2.1	0.55
1x95RMC	11.3 ^{+0.20}	8.0	28.5	35	32.6	38.2	1410	2.85	0.57
1x120RMC	12.5 ^{+0.20}	8.0	29.7	50	33.8	39.4	1660	3.6	0.59
1x150RMC	14.2 ^{+0.20}	8.0	31.4	50	35.5	41.1	1800	4.5	0.62
1x185RMC	15.8 ^{+0.20}	8.0	33.0	50	37.1	42.7	1960	5.55	0.64
1x240RMC	17.9 ^{+0.10}	8.0	35.1	50	39.2	44.8	2180	7.2	0.67
1x300RMC	20.0 ^{+0.30}	8.0	37.2	50	41.3	46.9	2410	9	0.70
1x400RMC	22.9 ^{+0.30}	8.0	40.1	50	44.2	49.8	2740	12	0.75
1x500RMC	25.7 ^{+0.40}	8.0	43.4	50	47.7	53.7	3210	15	0.81
1x630RMC	29.3 ^{+0.50}	8.0	47.3	50	51.6	57.7	3740	18.9	0.87
1x800RMC	33.0 ^{+0.50}	8.0	51.4	50	55.7	62.0	4380	24	0.93
1x1000RMC	38.0 ^{+0.50}	8.0	56.4	50	60.7	67.4	5160	30	1.01

Electrical data

RM (RMC) - Round Multiwire Conductor IC (C - compacted), Class 2

SPB - Single Point Bonded

CB - Cross Bonded

BE - Both Ends

D_e - Cable diameter

2 - Cables in trefoil formation, the distance between cables D_e

3 - Cables in flat formation (in the ground) – the distance between cables $D_e + 70$ mm

4 - Cables in flat formation (in the air) – the distance between cables $2 \times D_e$

Nominal cross sectional area	Conductor resistance		Metallic screen resistance		Electrical field stress at conductor/insulation	Zero resistance R_0	Zero reactance X_0	Capacitance C	Capacitive reactance X_c	Charging current I_c	Inductance L	Inductive reactance X_L	Impedance
	DC 20°C	AC 90°C	DC 20°C	AC 80°C									
Conductor/ Metallic screen	DC 20°C	AC 90°C	DC 20°C	AC 80°C									
mm ²	Ω/km				kV/mm	Ω/km	Ω/km	μF/km	kΩ/km	A/km	mH/km	Ω/km	Ω/km
1x50RMC/16	0.641	0.822	1.12	1.38	3.85/1.40	2.20	0.094	0.13	25.2	0.71	0.48	0.150	0.836
											0.74	0.234	0.855
											0.66	0.208	0.848
1x70RMC/25	0.443	0.568	0.72	0.89	3.67/1.44	1.45	0.087	0.14	23.2	0.77	0.46	0.144	0.586
											0.72	0.226	0.611
											0.64	0.202	0.603
1x95RMC/35	0.320	0.411	0.51	0.63	3.48/1.50	1.04	0.080	0.15	20.9	0.86	0.43	0.136	0.432
											0.69	0.216	0.464
											0.62	0.194	0.454
1x120RMC/50	0.253	0.325	0.36	0.44	3.38/1.54	0.77	0.076	0.16	19.6	0.92	0.42	0.131	0.350
											0.67	0.210	0.387
											0.60	0.189	0.376
1x150RMC/50	0.206	0.265	0.36	0.44	3.26/1.58	0.71	0.071	0.18	18.1	1.00	0.40	0.126	0.293
											0.65	0.203	0.334
											0.59	0.184	0.322
1x185RMC/50	0.164	0.211	0.36	0.44	3.17/1.62	0.65	0.067	0.19	16.8	1.07	0.39	0.122	0.243
											0.63	0.197	0.289
											0.57	0.180	0.277
1x240RMC/50	0.125	0.161	0.36	0.44	3.08/1.66	0.60	0.063	0.21	15.4	1.17	0.37	0.117	0.199
											0.61	0.191	0.250
											0.56	0.175	0.238
1x300RMC/50	0.100	0.129	0.36	0.44	3.00/1.69	0.57	0.060	0.22	14.2	1.26	0.36	0.113	0.172
											0.59	0.185	0.226
											0.54	0.171	0.214
1x400RMC/50	0.0778	0.101	0.36	0.44	2.91/1.73	0.54	0.055	0.25	12.9	1.40	0.34	0.108	0.148
											0.57	0.178	0.205
											0.53	0.166	0.195
1x500RMC/50	0.0605	0.0797	0.36	0.44	2.82/1.76	0.52	0.053	0.27	11.7	1.53	0.34	0.106	0.132
											0.55	0.173	0.190
											0.52	0.164	0.182

Nominal cross sectional area	Conductor resistance		Metallic screen resistance		Electrical field stress at conductor/insulation	Zero resistance R_0	Zero reactance X_0	Capacitance C	Capacitive reactance X_c	Charging current I_c	Inductance L	Inductive reactance X_l	Impedance
	DC 20°C	AC 90°C	DC 20°C	AC 80°C									
Conductor/ Metallic screen	DC 20°C	AC 90°C	DC 20°C	AC 80°C	kV/mm	Ω /km	Ω /km	μ F/km	k Ω /km	A/km	mH/km	Ω /km	Ω /km
mm ²	Ω /km				kV/mm	Ω /km	Ω /km	μ F/km	k Ω /km	A/km	mH/km	Ω /km	Ω /km
1x630RMC/50	0.0469	0.0629	0.36	0.44	2.75/1.80	0.51	0.050	0.30	10.5	1.71	0.32	0.102	0.120
											0.53	0.166	0.178
											0.51	0.160	0.172
1x800RMC/50	0.0367	0.0506	0.36	0.44	2.69/1.84	0.49	0.047	0.33	9.5	1.89	0.31	0.099	0.111
											0.51	0.161	0.169
											0.50	0.157	0.165
1x1000RMC/50	0.0291	0.0419	0.36	0.44	2.63/1.87	0.48	0.044	0.37	8.5	2.12	0.30	0.095	0.104
											0.49	0.155	0.160
											0.49	0.153	0.159

Current – carrying capacity

Nominal cross sectional area	Max short circuit capacity	GROUND				AIR					
		Conductor	Metallic screen	FLAT		TREFOIL		FLAT		TREFOIL	
				BE	SPB, CB	BE	SPB, CB	BE	SPB, CB	BE	SPB, CB
mm ²	kA/sec	A									
1x50RMC/16	4.7	3.7	221	222	210	211	232	233	202	202	
1x70RMC/25	6.6	5.3	270	272	257	258	285	288	249	250	
1x95RMC/35	9.0	7.1	322	328	309	311	346	352	303	304	
1x120RMC/50	11.3	9.8	362	374	351	354	392	405	347	349	
1x150RMC/50	14.2	9.8	406	422	396	399	445	462	394	397	
1x185RMC/50	17.5	9.8	457	481	449	454	507	531	452	456	
1x240RMC/50	22.7	9.8	523	560	521	528	590	627	530	537	
1x300RMC/50	28.4	9.8	583	636	589	599	668	721	607	616	
1x400RMC/50	37.8	9.8	657	734	676	690	769	846	707	720	
1x500RMC/50	47.3	9.8	734	843	769	791	874	984	818	838	
1x630RMC/50	59.5	9.8	820	970	877	907	997	1153	948	977	
1x800RMC/50	75.6	9.8	905	1106	989	1031	1120	1336	1085	1126	
1x1000RMC/50	94.5	9.8	992	1253	1101	1158	1250	1546	1234	1290	

Operating Conditions

For laying in ground		For installation in air	
Depth of lay:	0,7 m.	Ambient temperature:	30°C
Ground temperature:	20°C	Protection from direct solar radiation	
Soil thermal resistivity:	1/ 2,5 K · m/W		