



HIGH VOLTAGE > > >



Zenergy Cable

Office : 1300 347 922

Email : sales@zenergy.com.au

Web : www.zenergycable.com

An Aryam Australia Group



Zenergy Cable  Zenergy



An Aryam Australia Group  ARYAM





Contents

High Voltage XLPE Single	02
3.8/6.6kV Single Core Screened & PVC Sheathed	04
6.35/11kV Single Core Screened & PVC Sheathed	06
12.7/22kV Single Core Screened & PVC Sheathed	08
19/33kV Single Core Screened & PVC Sheathed	10
High Voltage XLPE Three Core	12
3.8/6.6kV Three Core Ind. Screened & PVC Sheathed	14
6.35/11kV Three Core Ind. Screened & PVC Sheathed	16
12.7/22kV Three Core Ind. Screened & PVC Sheathed	18
19/33kV Three Core Ind. Screened & PVC Sheathed	20
6.35/11kV Three Core Ind. Screened PVC/HDPE Sheathed URD	22
12.7/22kV Three Core Ind. Screened PVC/HDPE Sheathed URD	23
High Voltage Three Core	24
6.35/11kV Triplex Ind. Screened, Water Blocking Taped/HDPE Sheathed	26
12.7/22kV Triplex Ind. Screened, Water Blocking Taped/HDPE Sheathed	28
6.35/11kV, URD Triplex Ind. Screened, Water Blocking Taped/HDPE Sheathed	30
12.7/22kV URD Triplex Ind. Screened, Water Blocking Taped/HDPE Sheathed	31
High Voltage XLPE Three	32
3.8/6.6kV Three Core Ind. Screened PVC/SWA/PVC Sheathed	34
6.35/11kV Three Core Ind. Screened PVC/SWA/PVC Sheathed	36
12.7/22kV Three Core Ind. Screened PVC/SWA/PVC Sheathed	38
19/33kV Three Core Ind. Screened PVC/SWA/PVC Sheathed	40

Our Story

As part of the Aryam Australia Group, ZMS (Znergy) Cable is a global electrical manufacturer. Invested with cutting edge technology, we manufacture Low Voltage to High Voltage and any specialist cables in Mining, Fire, LSZH, Shipping, Instrumentation, Oil & Petro-chemical, Gas, Solar, Undersea submersible and industrial cables. Boasting advanced capabilities in technology, ZMS manufactures cables for nuclear plants, space agency projects and boasts HV capabilities up to 512KV. The plants manufacture cables for many Australian, European and American cable manufactures under an OEM agreement.

NATA endorsed Lab tested certified cables

We have invested into cutting edge technology for all our HV Cables and obtained NATA endorsed Laboratory testing certificates single core, 3 cores and triplex HV cable in all ranges from 3.3KV to 33KV. We recommend Tree XLPE and high-density screen rated cables in all our range.

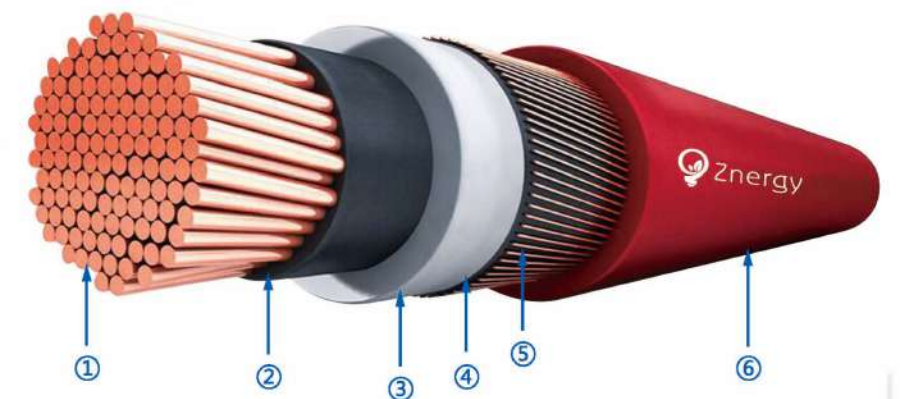
Our Lab tested certified design Znergy® for electrical components and cables, is driven by our belief in technology and quality. It is engineered with innovation to provide high standard Australian quality. We design and manufacture distribution boards, protection and switching devices, signaling & power interface, energy and lighting control components, circuit breakers and high voltage transformer.



High Voltage XLPE Single

Construction Stranded compacted copper or aluminium conductor, triple extruded conductor screen, insulation and insulation screen, copper wire screened, PVC sheathed.

3.8/6.6 to 19/33kV



- ① Conductor
- ② Semi-conductive conductor screen
- ③ XLPE insulation (option of TREE XLPE)
- ④ Semi-conductive insulation screen
- ⑤ Copper wire screen
- ⑥ PVC sheath(option of HDPE & other types)

3.8/6.6kV Single Core Screened & PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass	Max. pulling tension	Min. bending radius			Nominal duct diameter
										During pulling	Set in position		
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m	kN	mm	mm	mm	mm
16	4.8	2.5	11.0	15.9	28/0.85	14.3	18.4	54	1.1	330	220	50	65
25	5.8	2.5	12.0	24.4	43/0.85	15.3	19.4	72	1.8	350	230	50	65
35	6.8	2.5	13.0	34.4	24/1.35	17.3	21.4	93	2.5	380	260	50	65
50	8.0	2.5	14.1	48.7	34/1.35	18.4	22.5	120	3.5	410	270	50	65
70	9.6	2.5	15.7	68.1	30/1.70	20.7	25.0	160	4.9	450	300	50	80
95	11.5	2.5	17.6	68.1	30/1.70	22.6	26.9	190	6.7	480	320	50	80
120	13.1	2.5	19.2	68.7	48/1.35	23.5	27.6	215	8.4	500	330	50	80
150	14.5	2.5	20.6	68.7	48/1.35	24.9	29.0	245	11	520	350	50	100
185	16.1	2.5	22.2	68.7	48/1.35	26.5	30.8	275	13	550	370	63	100
240	18.5	2.6	24.9	68.7	48/1.35	29.2	33.7	335	17	610	400	63	100
300	20.7	2.8	27.6	68.7	48/1.35	31.9	36.6	400	21	660	440	63	100
400	23.6	3.0	30.9	68.7	48/1.35	35.2	40.2	500	28	720	480	65	150

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area	In air					Continuous current-carrying capacity, A In ground				In underground ducts				Fault current carrying capacity for 1 second	
														Cond.kA	Screen kA
mm ²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond		
16	113	133	104	110	79	116	118	113	102	103	101	91		2.29	2.36
25	146	172	135	143	102	148	150	145	130	131	128	116		3.57	3.62
35	180	211	166	176	123	178	179	174	155	155	153	139		5.00	5.09
50	214	250	198	210	146	208	208	204	180	178	179	164		7.15	7.22
70	266	307	248	264	182	251	248	249	215	211	216	202		10.0	10.1
95	322	370	301	321	219	297	291	296	252	245	255	241		13.6	10.1
120	366	418	344	367	247	334	324	335	282	271	287	273		17.1	10.2
150	412	467	389	415	285	369	355	373	310	296	318	309		21.4	10.2
185	467	524	443	474	322	411	391	419	344	325	356	348		26.4	10.2
240	543	600	521	558	373	466	437	481	388	361	407	400		34.3	10.2
300	614	668	595	636	436	515	477	537	428	394	454	460		42.9	10.2
400	698	748	684	732	495	570	521	604	471	429	507	518		57.2	10.2

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Cond. AC resistance at 50Hz and 90°C			Inductive reactance at 50Hz and 90°C			Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	Screen DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
		Trefoil flat touching	Flat spaced	Flat spaced	Trefoil touching	Flat touching	Flat spaced								
mm ²	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
16	1.15	1.47	1.47	0.155	0.170	0.216	11000	0.221	0.263	4.00	2.06	2.06	1.14	2.29	0.0842
25	0.727	0.927	0.927	0.146	0.161	0.207	9700	0.248	0.296	4.50	1.99	0.739	1.47	0.0770	
35	0.524	0.668	0.668	0.142	0.157	0.203	8700	0.276	0.330	5.01	1.93	0.525	1.05	0.0732	
50	0.387	0.494	0.494	0.135	0.150	0.196	7800	0.308	0.368	5.59	1.87	0.371	0.758	0.0678	
70	0.268	0.342	0.342	0.130	0.145	0.191	6900	0.352	0.420	6.39	1.82	0.265	0.533	0.0632	
95	0.193	0.247	0.247	0.120	0.135	0.181	6000	0.404	0.482	7.33	1.77	0.266	0.459	0.0551	
120	0.153	0.196	0.195	0.113	0.128	0.174	5400	0.447	0.534	8.11	1.74	0.263	0.416	0.0506	
150	0.124	0.160	0.159	0.110	0.125	0.171	5000	0.486	0.580	8.81	1.72	0.263	0.388	0.0480	
185	0.0991	0.128	0.127	0.107	0.122	0.168	4600	0.530	0.632	9.61	1.69	0.263	0.363	0.0455	
240	0.0754	0.0982	0.0973	0.103	0.119	0.164	4200	0.576	0.687	10.4	1.61	0.263	0.339	0.0430	
300	0.0601	0.0792	0.0781	0.102	0.117	0.163	4000	0.597	0.713	10.8	1.49	0.263	0.325	0.0420	
400	0.0470	0.0632	0.0618	0.0982	0.113	0.159	3800	0.627	0.749	11.4	1.38	0.263	0.312	0.0394	

3.8/6.6kV Single Core Screened & PVC Sheathed

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass	Max. pulling tension	Min. bending radius			Nominal duct diameter
										During pulling	Set in position		
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m	kN	mm	mm	mm	mm
35	6.9	2.5	13.0	22.7	40/0.85	16.3	20.4	60	1.8	370	250	50	65
50	8.1	2.5	14.2	32.9	23/1.35	18.5	22.6	76	2.5	410	270	50	65
70	9.6	2.5	15.8	45.8	32/1.35	20.1	24.2	97	3.5	440	290	50	80
95	11.4	2.5	17.5	61.5	43/1.35	21.8	25.9	120	4.8	470	310	50	80
120	12.8	2.5	18.9	68.7	48/1.35	23.2	27.3	140	6.0	490	330	50	80
150	14.2	2.5	20.3	68.7	48/1.35	24.6	28.7	150	7.5	520	340	50	80
185	15.7	2.5	21.8	68.7	48/1.35	26.1	30.4	160	9.3	550	360	63	100
240	18.0	2.6	24.3	68.7	48/1.35	28.6	33.1	185	12	600	400	63	100
300	20.1	2.8	27.0	68.7	48/1.35	31.3	36.0	210	15	650	430	63	100
400	23.0	3.0	30.3	68.7	48/1.35	34.6	39.5	245	20	710	470	65	150

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area	In air					Continuous current-carrying capacity, A In ground				In underground ducts				Fault current carrying capacity for 1 second	
														Cond.kA	Screen kA
mm ²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond		
35	138	163	127	134	95	138	139	134	121	122	119	107		3.31	3.37
50	167	197	154	164	113	163	164	159	142	143	140	128		4.73	4.88
70	208	244	192	204	142	198	199	194	172	171	170	158		6.62	6.79
95	252	293	233	248	170	234	233	231	202	199	201	188		8.99	9.13
120	288	334	268	286	193	264	260	262	226	221	227	213		11.4	10.2
150	326	375	303	324	223	293	288	292	251	244	253	242		14.2	10.2
185	371	424	347	371	253	328	320	329	281	272	286	273		17.5	10.2
240	435	492	410	438	294	376	362	380	320	306	328	316		22.7	10.2
300	495	553	469	502	345	419	399	426	356	337	368	365		28.4	10.2
400	572	629	546	585	397	471	443	485	400	374	418	416		37.8	10.2

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Cond. AC resistance at 50Hz and 90°C		Inductive reactance at 50Hz and 90°C			Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	Screen DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
		Trefoil flat touching	Flat spaced	Trefoil touching	Flat touching	Flat spaced								
mm²	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	µF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	1.11	0.138	0.154	0.199	8700	0.278	0.332	5.04	1.92	0.799	1.67	0.0709
50	0.641	0.821	0.821	0.135	0.150	0.196	7800	0.309	0.369	5.61	1.87	0.548	1.19	0.0676
70	0.443	0.568	0.568	0.125	0.140	0.185	6800	0.353	0.422	6.41	1.82	0.395	0.838	0.0591
95	0.320	0.410	0.410	0.118	0.134	0.179	6000	0.400	0.478	7.26	1.77	0.294	0.614	0.0543
120	0.253	0.325	0.325	0.114	0.129	0.175	5500	0.439	0.524	7.96	1.74	0.263	0.516	0.0512
150	0.206	0.265	0.264	0.111	0.126	0.171	5100	0.477	0.569	8.66	1.72	0.263	0.469	0.0485
185	0.164	0.211	0.211	0.108	0.123	0.169	4700	0.518	0.618	9.40	1.70	0.263	0.428	0.0462
240	0.125	0.161	0.161	0.104	0.119	0.165	4300	0.561	0.670	10.2	1.62	0.264	0.389	0.0436
300	0.100	0.130	0.129	0.102	0.118	0.163	4100	0.582	0.695	10.6	1.50	0.263	0.363	0.0426
400	0.0778	0.102	0.101	0.0989	0.114	0.160	3900	0.613	0.731	11.1	1.39	0.263	0.342	0.0395

6.35/11kV Single Core Screened & PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass	Max. pulling tension	Min. bending radius			Nominal duct diameter
										During pulling	Set in position		
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m	kN	mm	mm	mm	mm
16	4.8	3.4	12.8	15.9	28/0.85	16.1	20.2	59	1.1	360	240	50	65
25	5.8	3.4	13.8	24.4	43/0.85	17.1	21.2	78	1.8	380	250	50	65
35	6.8	3.4	14.8	34.4	24/1.35	19.1	23.2	99	2.5	420	280	50	65
50	8.0	3.4	16.0	48.7	34/1.35	20.3	24.4	125	3.5	440	290	50	80
70	9.6	3.4	17.6	68.1	30/1.70	22.6	26.9	165	4.9	480	320	50	80
95	11.5	3.4	19.4	68.7	48/1.35	23.7	27.9	195	6.7	500	330	50	80
120	13.1	3.4	21.0	68.7	48/1.35	25.3	29.4	225	8.4	530	350	50	100
150	14.5	3.4	22.4	68.7	48/1.35	26.7	31.1	255	11	560	370	63	100
185	16.1	3.4	24.1	68.7	48/1.35	28.4	32.7	285	13	590	390	63	100
240	18.5	3.4	26.5	68.7	48/1.35	30.8	35.3	345	17	640	420	63	100
300	20.7	3.4	28.9	68.7	48/1.35	33.2	37.9	410	21	680	450	63	150
400	23.6	3.4	31.8	68.7	48/1.35	36.3	41.2	505	28	740	490	65	150
500	26.5	3.4	34.7	68.7	48/1.35	39.2	44.3	605	35	800	530	65	150
630	29.9	3.4	38.4	68.7	48/1.35	42.9	48.7	730	44	880	580	80	150
800	35.9	3.4	44.5	68.7	48/1.35	49.0	55.0	925	56	990	660	80	200

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area	In air					Continuous current-carrying capacity, A in ground				In underground ducts				Fault current carrying capacity for 1 second	
mm ²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Cond.kA	Screen kA
16	114	134	106	112	81	116	118	113	103	104	101	91	2.29	2.36	
25	148	173	137	145	103	148	150	145	131	131	129	117	3.57	3.62	
35	182	211	168	178	125	177	179	174	156	156	154	140	5.00	5.09	
50	216	251	201	213	150	208	208	204	181	180	180	167	7.15	7.22	
70	269	308	251	266	184	251	248	249	216	212	217	204	10.0	10.1	
95	323	368	302	321	219	297	291	296	253	246	256	242	13.6	10.1	
120	370	420	348	370	257	334	325	336	284	274	289	279	17.1	10.2	
150	416	468	393	419	288	370	356	374	314	300	322	311	21.4	10.2	
185	471	525	448	478	325	412	392	420	347	328	359	350	26.4	10.2	
240	548	602	525	561	376	467	439	482	391	365	410	402	34.3	10.2	
300	617	670	598	639	438	516	478	538	431	397	457	462	42.9	10.2	
400	701	750	687	735	497	571	522	605	474	431	510	519	57.2	10.2	
500	787	831	782	837	558	627	565	674	520	466	568	580	71.5	10.2	
630	877	911	886	948	624	683	607	746	560	496	620	642	90.0	10.2	
800	986	1014	1008	1082	727	740	651	822	616	537	693	734	114	10.2	

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Cond. AC resistance at 50Hz and 90°C		Inductive reactance at 50Hz and 90°C			Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	Screen DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
	resistance at 20°C	Trefoil flat touching	Flat spaced	Trefoil touching	Flat touching	Flat spaced								
mm ²	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
16	1.15	1.47	1.47	0.161	0.176	0.222	14000	0.177	0.354	8.98	2.77	1.14	2.29	0.0922
25	0.727	0.927	0.927	0.152	0.167	0.213	12000	0.198	0.394	10.0	2.65	0.740	1.47	0.0845
35	0.524	0.668	0.668	0.147	0.163	0.208	11000	0.219	0.436	11.1	2.55	0.527	1.05	0.0800
50	0.387	0.494	0.494	0.140	0.155	0.201	10000	0.242	0.484	12.3	2.46	0.371	0.758	0.0742
70	0.268	0.342	0.342	0.135	0.150	0.196	8800	0.275	0.549	13.9	2.37	0.266	0.534	0.0689
95	0.193	0.247	0.247	0.122	0.138	0.183	7700	0.314	0.626	15.9	2.30	0.263	0.457	0.0594
120	0.153	0.196	0.195	0.117	0.133	0.178	7000	0.346	0.689	17.5	2.25	0.264	0.417	0.0556
150	0.124	0.160	0.159	0.114	0.129	0.175	6400	0.374	0.747	19.0	2.21	0.263	0.388	0.0527
185	0.0991	0.128	0.127	0.111	0.126	0.172	5900	0.407	0.811	20.6	2.17	0.263	0.363	0.0499
240	0.0754	0.0980	0.0973	0.106	0.122	0.167	5300	0.456	0.909	23.1	2.13	0.262	0.339	0.0465
300	0.0601	0.0791	0.0781	0.104	0.119	0.165	4800	0.503	1.00	25.5	2.10	0.263	0.324	0.0444
400	0.0470	0.0631	0.0618	0.0988	0.115	0.161	4300	0.561	1.12	28.5	2.07	0.263	0.312	0.0412
500	0.0366	0.0508	0.0489	0.0970	0.112	0.158	3900	0.620	1.24	31.4	2.05	0.263	0.302	0.0390
630	0.0283	0.0412	0.0389	0.0953	0.111	0.156	3500	0.694	1.38	35.2	2.02	0.263	0.294	0.0373
800	0.0221	0.0347	0.0318	0.0906	0.106	0.151	3000	0.816	1.63	41.3	1.99	0.263	0.288	0.0337

6.35/11kV Single Core Screened & PVC Sheathed

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass	Max. pulling tension	Min. bending radius			Nominal duct diameter
										During pulling	Set in position		
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m	kN	mm	mm	mm	mm
35	6.9	3.4	14.9	22.7	40/0.85	18.2	22.3	66	1.8	400	270	50	65
50	8.1	3.4	16.0	32.9	23/1.35	20.3	24.4	82	2.5	440	290	50	80
70	9.6	3.4	17.6	45.8	32/1.35	21.9	26.0	105	3.5	470	310	50	80
95	11.4	3.4	19.3	61.5	43/1.35	23.6	27.7	130	4.8	500	330	50	80
120	12.8	3.4	20.7	68.7	48/1.35	25.0	29.1	145	6.0	520	350	50	100
150	14.2	3.4	22.1	68.7	48/1.35	26.4	30.7	155	7.5	550	370	63	100
185	15.7	3.4	23.6	68.7	48/1.35	27.9	32.2	170	9.3	580	390	63	100
240	18.0	3.4	25.9	68.7	48/1.35	30.2	34.7	190	12	630	420	63	100
300	20.1	3.4	28.3	68.7	48/1.35	32.6	37.3	215	15	670	450	63	150
400	23.0	3.4	31.1	68.7	48/1.35	35.6	40.5	250	20	730	490	65	150
500	26.5	3.4	34.7	68.7	48/1.35	39.2	44.3	295	25	800	530	65	150
630	29.9	3.4	38.4	68.7	48/1.35	42.9	48.4	345	32	870	580	80	150
800	34.2	3.4	42.8	68.7	48/1.35	47.3	53.0	405	40	950	640	80	200

Current Ratings

Nominal conductor area	In air					Continuous current-carrying capacity, A in ground				In underground ducts				Fault current carrying capacity for 1 second	
mm ²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Cond.kA	Screen kA
35	140	163	129	136	96	138	139	134	121	122	119	108	3.31	3.37	
50	169	198	156	166	117	163	164	159	143	144	141	130	4.73	4.88	
70	210	244	194	206	143	198	199	194	173	172	171	159	6.62	6.79	
95	254	293	235	250	171	234	233	231	203	200	202	189	8.99	9.13	
120	291	334	271	288	200	264	261	262	227	223	228	218	11.4	10.2	
150	328	375	306	326	225	293	288	292	254	248	256	244	14.2	10.2	
185	374	425	350	373	255	329	321	330	283	274	287	275	17.5	10.2	
240	438	492	413	441	296	376	363	380	323	308	330	318	22.7	10.2	
300	497	553	472	504	347	419	400	427	358	338	369	366	28.4	10.2	
400	573	630	548	586	398	471	444	485	402	376	419	417	37.8	10.2	
500	660	715	638	682	456	528	491	550	449	414	474	473	47.3	10.2	
630	751	801	734	786	518	586	537	620	494	450	530	533	59.6	10.2	
800	848	893	840	900	610	645	583	692	544	488	591	618	75.7	10.2	

Electrical Characteristics

12.7/22kV Single Core Screened & PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass	Max. pulling tension	Min. bending radius			Nominal duct diameter
										During pulling	Set in position		
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m	kN	mm	mm	mm	mm
35	6.8	5.5	19.1	34.4	24/1.35	23.4	27.5	115	2.5	500	330	50	80
50	8.0	5.5	20.3	48.7	34/1.35	24.6	28.7	140	3.5	520	340	50	80
70	9.6	5.5	21.9	68.7	48/1.35	26.2	30.5	185	4.9	550	370	63	100
95	11.5	5.5	23.8	68.7	48/1.35	28.1	32.4	215	6.7	580	390	63	100
120	13.1	5.5	25.3	68.7	48/1.35	29.6	34.1	245	8.4	610	410	63	100
150	14.5	5.5	26.8	68.7	48/1.35	31.1	35.6	275	11	640	430	63	100
185	16.1	5.5	28.4	68.7	48/1.35	32.7	37.4	310	13	670	450	63	150
240	18.5	5.5	30.8	68.7	48/1.35	35.1	40.0	375	17	720	480	65	150
300	20.7	5.5	33.2	68.7	48/1.35	37.7	42.6	440	21	770	510	65	150
400	23.6	5.5	36.1	68.7	48/1.35	40.6	46.1	535	28	830	550	65	150
500	26.5	5.5	39.0	68.7	48/1.35	43.5	49.0	640	35	880	590	80	150
630	29.9	5.5	42.7	68.7	48/1.35	47.2	53.4	765	44	960	640	80	200
800	35.9	5.5	48.8	68.7	48/1.35	53.3	59.7	965	56	1070	720	100	200
1000	40.2	5.5	54.3	68.7	48/1.35	58.8	65.4	1160	70	1180	780	100	200
1200	43.8	5.5	58.3	68.7	48/1.35	62.8	69.6	1360	84	1250	840	100	200

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area	In air					Continuous current-carrying capacity, A in ground					In underground ducts			Fault current carrying capacity for 1 second	
mm ²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Cond.kA	Screen kA
35	186	212	173	182	130	177	179	174	157	155	144	144	144	5.00	5.09
50	221	251	206	217	157	208	208	205	183	182	181	172	172	7.15	7.22
70	272	307	254	269	192	251	248	249	220	217	221	209	209	10.0	10.1
95	329	369	309	327	230	297	292	297	259	252	261	249	249	13.6	10.1
120	376	420	355	377	262	335	326	336	290	280	294	282	282	17.1	10.2
150	423	469	400	425	293	371	358	374	319	305	326	314	314	21.4	10.2
185	479	526	456	485	342	413	394	421	354	335	365	362	362	26.4	10.2
240	556	604	534	568	396	469	441	483	399	373	417	417	417	34.3	10.2
300	627	674	608	647	446	519	482	541	440	406	465	466	466	42.9	10.2
400	710	752	697	743	504	574	526	607	485	441	520	523	523	57.2	10.2
500	798	835	794	847	567	632	570	679	526	472	572	585	585	71.5	10.2
630	889	916	898	959	662	689	612	752	574	508	635	673	673	90.0	10.2
800	999	1020	1022	1093	738	748	657	829	613	539	687	741	741	114	10.2
1000	1150	1125	1211	1295	861	839	707	961	674	579	772	856	856	143	10.2
1200	1239	1196	1326	1420	932	888	738	1036	715	606	832	921	921	171	10.2

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Cond. AC resistance at 50Hz and 90°C		Inductive reactance at 50Hz and 90°C			Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	Screen DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
	resistance at 20°C	Trefoil flat touching	Flat spaced	Trefoil touching	Flat touching	Flat spaced								
mm ²	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
35	0.524	0.668	0.668	0.159	0.174	0.219	16000	0.156	0.622	31.6	3.63	0.526	1.05	0.0937
50	0.387	0.494	0.494	0.151	0.166	0.212	14000	0.171	0.682	34.7	3.48	0.371	0.758	0.0871
70	0.268	0.342	0.342	0.143	0.158	0.204	13000	0.192	0.765	38.9	3.31	0.263	0.531	0.0799
95	0.193	0.247	0.247	0.132	0.147	0.193	11000	0.216	0.862	43.8	3.16	0.263	0.457	0.0705
120	0.153	0.196	0.195	0.127	0.143	0.188	10000	0.236	0.942	47.8	3.07	0.263	0.417	0.0660
150	0.124	0.159	0.159	0.123	0.138	0.184	9500	0.254	1.01	51.5	3.00	0.262	0.387	0.0626
185	0.0991	0.128	0.127	0.119	0.135	0.180	8800	0.274	1.09	55.6	2.93	0.263	0.363	0.0593
240	0.0754	0.0978	0.0972	0.115	0.130	0.176	7900	0.305	1.22	61.8	2.85	0.263	0.340	0.0551
300	0.0601	0.0788	0.0780	0.112	0.127	0.172	7200	0.334	1.33	67.8	2.79	0.263	0.325	0.0528
400	0.0470	0.0628	0.0617	0.107	0.122	0.168	6500	0.371	1.48	75.1	2.73	0.263	0.312	0.0485
500	0.0366	0.0503	0.0488	0.104	0.119	0.165	5900	0.407	1.62	82.4	2.69	0.263	0.302	0.0457
630	0.0283	0.0407	0.0388	0.101	0.117	0.162	5300	0.453	1.81	91.8	2.64	0.263	0.294	0.0436
800	0.0221	0.0341	0.0317	0.0960	0.111	0.157	4600	0.528	2.11	107	2.58	0.263	0.288	0.0392
1000	0.0182	0.0246	0.0240	0.0948	0.110	0.156	4000	0.597	2.38	121	2.54	0.263	0.282	0.0387
1200	0.0150	0.0208	0.0201	0.0932	0.108	0.154	3700	0.646	2.58	131	2.51	0.263	0.279	0.0375

12.7/22kV Single Core Screened & PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass	Max. pulling tension	Min. bending radius			Nominal duct diameter
										During pulling	Set in position		
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m	kN	mm	mm	mm	mm
35	6.9	5.5	19.2	22.7	40/0.85	22.5	26.6	81	1.8	480	320	50	80
50	8.1	5.5	20.3	32.9	23/1.35	24.6	28.7	98	2.5	520	340	50	80
70	9.6	5.5	21.9	45.8	32/1.35	26.2	30.5	120	3.5	550	370	63	100
95	11.4	5.5	23.6	61.5	43/1.35	27.9	32.2	150	4.8	580	390	63	100
120	12.8	5.5	25.0	68.7	48/1.35	29.3	33.8	170	6.0	610	410	63	100
150	14.2	5.5	26.4	68.7	48/1.35	30.7	35.2	180	7.5	630	420	63	100
185	15.7	5.5	27.9	68.7	48/1.35	32.2	36.9	195	9.3	670	440	63	100
240	18.0	5.5	30.3	68.7	48/1.35	34.6	39.5	220	12	710	470	65	150
300	20.1	5.5	32.6	68.7	48/1.35	37.1	42.0	245	15	760	500	65	150
400	23.0	5.5	35.4	68.7	48/1.35	39.9	45.2	280	20	810	540	65	150
500	26.5	5.5	39.0	68.7	48/1.35	43.5	49.0	325	25	880	590	80	150
630	29.9	5.5	42.7	68.7	48/1.35	47.2	53.1	380	32	960	640	80	200
800	34.2	5.5	47.1	68.7	48/1.35	51.6	57.7	445	40	1040	690	100	200
1000	40.2	5.5	54.3	68.7	48/1.35	58.8	65.1	540	50	1170	780	100	200
1200	43.8	5.5	58.3	68.7	48/1.35	62.8	69.3	620	60	1250	830	100	200

Current Ratings

Nominal conductor area	In air					Continuous current-carrying capacity, A in ground			In underground ducts				Fault current carrying capacity for 1 second	
														
mm2	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Cond.kA	Screen kA
35	143	164	133	140	100	138	139	135	122	123	120	111	3.31	3.37
50	173	198	160	169	122	163	164	159	144	145	142	134	4.73	4.88
70	214	244	199	210	150	198	199	194	177	176	175	163	6.62	6.79
95	258	293	240	255	179	234	233	232	207	205	206	194	8.99	9.13
120	295	334	276	293	204	264	261	262	232	228	233	220	11.4	10.2
150	333	375	312	331	229	294	289	293	257	251	259	246	14.2	10.2
185	379	424	356	378	268	329	321	330	287	278	290	284	17.5	10.2
240	443	492	419	446	312	377	364	381	329	315	336	329	22.7	10.2
300	504	553	479	509	352	420	402	428	365	346	376	369	28.4	10.2
400	579	629	555	591	403	473	446	486	408	382	425	420	37.8	10.2
500	666	715	644	687	461	530	494	552	454	420	479	476	47.3	10.2
630	757	801	742	791	547	590	540	622	503	458	538	557	59.6	10.2
800	855	894	848	906	616	649	587	695	545	491	591	622	75.7	10.2
1000	993	1007	1002	1072	715	729	640	799	606	536	669	712	94.6	10.2
1200	1084	1083	1109	1186	782	781	675	870	648	565	725	773	114	10.2

19/33kV Single Core Screened & PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass	Max. pulling tension	Min. bending radius			Nominal duct diameter
										During pulling	Set in position		
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m	kN	mm	mm	mm	mm
50	8.0	8.0	25.5	48.7	34/1.35	29.8	34.3	170	3.5	620	410	63	100
70	9.6	8.0	27.1	68.7	48/1.35	31.4	36.1	215	4.9	650	430	63	100
95	11.5	8.0	29.0	68.7	48/1.35	33.3	38.0	245	6.7	680	460	65	150
120	13.1	8.0	30.6	68.7	48/1.35	34.9	39.8	280	8.4	720	480	65	150
150	14.5	8.0	32.0	68.7	48/1.35	36.5	41.4	310	11	750	500	65	150
185	16.1	8.0	33.6	68.7	48/1.35	38.1	43.2	345	13	780	520	65	150
240	18.5	8.0	36.0	68.7	48/1.35	40.5	45.9	410	17	830	550	65	150
300	20.7	8.0	38.4	68.7	48/1.35	42.9	48.4	475	21	870	580	80	150
400	23.6	8.0	41.3	68.7	48/1.35	45.8	51.5	575	28	930	620	80	150
500	26.5	8.0	44.2	68.7	48/1.35	48.7	54.9	685	35	990	660	80	200
630	29.9	8.0	47.9	68.7	48/1.35	52.4	58.8	815	44	1060	710	100	200
800	35.9	8.0	54.0	68.7	48/1.35	58.5	65.3	1020	56	1180	780	100	200
1000	40.2	8.0	59.5	68.7	48/1.35	64.0	71.0	1220	70	1280	850	125	200
1200	43.8	8.0	63.5	68.7	48/1.35	68.0	75.2	1420	84	1350	900	125	200

Current Ratings

Nominal conductor area	In air					Continuous current-carrying capacity, A in ground					In underground ducts				Fault current carrying capacity for 1 second	
															Cond.kA	Screen kA
mm ²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond		
50	224	250	210	221	160	208	209	205	187	186	185	174	7.15	7.22		
70	276	306	259	273	202	251	249	249	223	219	223	216	10.0	10.1		
95	333	369	315	332	242	297	292	297	265	258	267	258	13.6	10.1		
120	381	420	361	381	276	335	327	336	296	287	300	292	17.1	10.2		
150	429	469	407	430	308	372	359	375	327	313	333	325	21.4	10.2		
185	485	527	463	490	348	414	397	421	362	343	372	366	26.4	10.2		
240	563	605	542	574	402	471	444	485	408	382	425	420	34.3	10.2		
300	634	674	616	653	452	521	485	542	446	413	471	469	42.9	10.2		
400	719	756	706	750	533	579	531	610	492	449	526	547	57.2	10.2		
500	807	837	803	854	600	637	574	682	539	484	585	611	71.5	10.2		
630	902	924	911	969	672	697	619	759	576	513	635	680	90.0	10.2		
800	1012	1026	1036	1103	748	756	664	838	630	552	705	748	114	10.2		
1000	1160	1131	1219	1300	888	845	713	966	661	578	749	880	143	10.2		
1200	1252	1204	1337	1426	963	896	745	1043	698	603	801	948	171	10.2		

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Cond. AC resistance at 50Hz and 90°C		Inductive reactance at 50Hz and 90°C			Insulator resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	Screen DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
	resistance at 20°C	Trefoil flat touching	Flat spaced	Trefoil touching	Flat touching	Flat spaced								
mm ²	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
50	0.387	0.494	0.494	0.163	0.178	0.224	18000	0.133	0.796	60.5	4.05	0.372	0.759	0.0999
70	0.268	0.342	0.342	0.154	0.169	0.215	16000	0.148	0.883	67.1	3.82	0.263	0.531	0.0919
95	0.193	0.247	0.247	0.143	0.158	0.204	15000	0.165	0.984	74.8	3.61	0.263	0.457	0.0817
120	0.153	0.195	0.195	0.137	0.153	0.198	14000	0.179	1.07	81.1	3.48	0.263	0.416	0.0767
150	0.124	0.159	0.159	0.133	0.148	0.194	13000	0.191	1.14	86.8	3.38	0.264	0.389	0.0731
185	0.0991	0.127	0.127	0.129	0.144	0.190	12000	0.205	1.23	93.2	3.29	0.264	0.364	0.0693
240	0.0754	0.0976	0.0972	0.124	0.139	0.185	11000	0.227	1.35	103	3.17	0.263	0.340	0.0645
300	0.0601	0.0786	0.0779	0.120	0.135	0.181	9800	0.247	1.48	112	3.09	0.264	0.325	0.0612
400	0.0470	0.0625	0.0616	0.115	0.130	0.176	8900	0.272	1.62	123	3.00	0.263	0.312	0.0564
500	0.0366	0.0499	0.0487	0.111	0.126	0.172	8100	0.297	1.77	135	2.93	0.263	0.302	0.0531
630	0.0283	0.0403	0.0387	0.108	0.123	0.169	7300	0.329	1.96	149	2.86	0.263	0.294	0.0504
800	0.0221	0.0336	0.0315	0.102	0.117	0.163	6300	0.381	2.27	173	2.78	0.263	0.289	0.0452
1000	0.0182	0.0245	0.0240	0.100	0.115	0.161	5600	0.427	2.55	194	2.72	0.263	0.282	0.0441
1200	0.0150	0.0207	0.0201	0.0984	0.114	0.159	5200	0.461	2.75	209	2.68	0.263	0.279	0.0426

19/33kV Single Core Screened & PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass	Max. pulling tension	Min. bending radius			Nominal duct diameter
										During pulling	Set in position		
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m	kN	mm	mm	mm	mm
50	8.1	8.0	25.6	32.9	23/1.35	29.9	34.4	125	2.5	620	410	63	100
70	9.6	8.0	27.2	45.8	32/1.35	31.5	36.2	150	3.5	650	430	63	100
95	11.4	8.0	28.9	61.5	43/1.35	33.2	37.9	180	4.8	680	450	63	150
120	12.8	8.0	30.3	68.7	48/1.35	34.6	39.5	200	6.0	710	470	65	150
150	14.2	8.0	31.7	68.7	48/1.35	36.2	41.1	215	7.5	740	490	65	150
185	15.7	8.0	33.2	68.7	48/1.35	37.7	42.8	230	9.3	770	510	65	150
240	18.0	8.0	35.5	68.7	48/1.35	40.0	45.1	255	12	810	540	65	150
300	20.1	8.0	37.8	68.7	48/1.35	42.3	47.8	285	15	860	570	80	150
400	23.0	8.0	40.7	68.7	48/1.35	45.2	50.9	320	20	920	610	80	150
500	26.5	8.0	44.2	68.7	48/1.35	48.7	54.6	370	25	980	660	80	200
630	29.9	8.0	48.0	68.7	48/1.35	52.5	58.6	430	32	1050	700	100	200
800	34.2	8.0	52.3	68.7	48/1.35	56.8	63.4	500	40	1140	760	100	200
1000	40.2	8.0	59.5	68.7	48/1.35	64.0	70.8	600	50	1270	850	100	200
1200	43.8	8.0	63.5	68.7	48/1.35	68.0	75.0	680	60	1350	900	125	200

Current Ratings

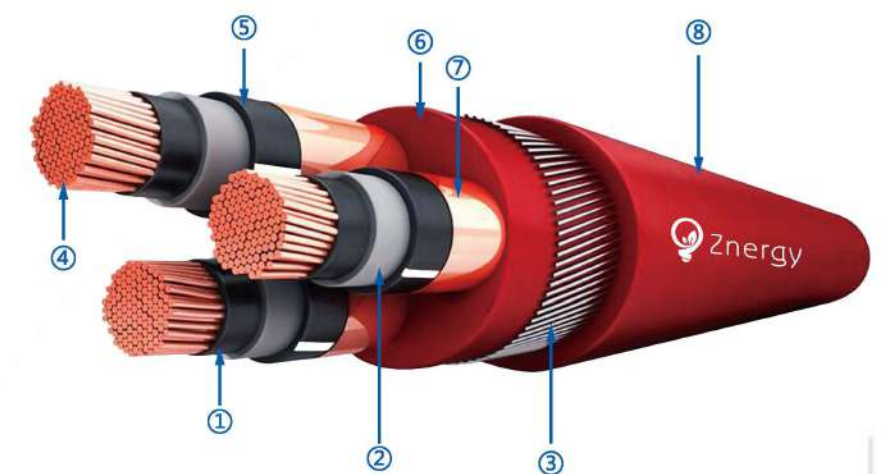
Nominal conductor area	In air					Continuous current-carrying capacity, A in ground					In underground ducts				Fault current carrying capacity for 1 second	
															Cond.kA	Screen kA
mm ²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond		
50	175	197	163	172	125	162	164	159	147	148	145	135	4.73	4.88		
70	217	243	202	213	158	198	199	194	178	178	175	169	6.62	6.79		
95	262	292	245	258	189	234	234	232	209	207	208	201	8.99	9.13		
120	299	332	281	296	215	264	262	262	237	233	237	228	11.4	10.2		
150	337	374	317	335	241	294	290	293	263	257	264	254	14.2	10.2		
185	383	422	362	382	272	330	323	330	293	285	296	287	17.5	10.2		
240	448	491	425	450	316	378	366	382	334	321	340	331	22.7	10.2		
300	508	551	484	513	357	421	404	428	370	352	381	371	28.4	10.2		
400	584	628	561	595	425	475	449	487	414	389	430	437	37.8	10.2		
500	671	714	651	691	487	533	497	554	462	428	486	497	47.3	10.2		
630	764	802	748	795	553	593	545	625	507	464	541	560	59.6	10.2		
800	862	895	855	910	623	654	591	699	556	501	602	625	75.7	10.2		
1000	997	1007	1006	1072	736	733	644	801	619	546	681	730	94.6	10.2		
1200	1089	1085	1113	1187	805	786	681	873	639	565	710	794	114	10.2		

Electrical Characteristics

High Voltage XLPE Three Core

Construction Stranded compacted copper or aluminium conductor, triple extruded conductor screen, insulation and insulation screen, copper wire screened, steel wire armoured, PVC sheathed.

3.8/6.6 to 19/33kV SWA



- ① Semi-conductive conductor screen
- ② XLPE insulation(option for TREE XLPE)
- ③ Galvanised steel wire armour
- ④ Conductor
- ⑤ Semi-conductive insulation screen
- ⑥ Fillers
- ⑦ Copper wire screen or tape
- ⑧ PVC sheath (option of HDPE or other types)

3.8/6.6kV Three Core Ind. Screened & PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approximate mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
16	4.8	2.5	11.0	17.0	10/0.85	14.3	35.6	130
25	5.8	2.5	12.0	25.5	15/0.85	15.3	37.9	170
35	6.8	2.5	13.0	34.0	20/0.85	16.3	40.3	215
50	8.0	2.5	14.1	49.4	29/0.85	17.4	43.0	275
70	9.6	2.5	15.7	68.1	40/0.85	19.0	46.7	360
95	11.5	2.5	17.6	68.1	40/0.85	20.9	51.1	455
120	13.1	2.5	19.2	68.1	40/0.85	22.5	54.8	545
150	14.5	2.5	20.6	68.1	40/0.85	23.9	58.2	630
185	16.1	2.5	22.2	68.1	40/0.85	25.5	61.8	735
240	18.5	2.6	24.9	68.1	40/0.85	28.2	67.9	930
300	20.7	2.8	27.6	68.1	40/0.85	30.9	74.3	1130
400	23.6	3.0	30.9	68.1	40/0.85	34.2	81.8	1440

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area mm ²	Continuous current-carrying capacity, A						Fault current carrying capacity for 1 second	
	In air			In ground			Conductor kA	Screen kA
								
16	102	108	75	113	86	2.29	2.52	
25	132	141	96	145	111	3.57	3.79	
35	160	171	118	173	134	5.00	5.05	
50	191	205	140	204	159	7.15	7.32	
70	238	256	173	249	195	10.0	10.1	
95	291	313	212	298	237	13.6	10.1	
120	336	363	243	339	270	17.1	10.1	
150	381	411	281	379	307	21.4	10.1	
185	436	472	319	429	348	26.4	10.1	
240	515	559	373	496	404	34.3	10.1	
300	591	642	439	559	468	42.9	10.1	
400	683	744	503	634	532	57.2	10.1	

Installation

Maximum pulling tension	Minimum bending radius		Nominal duct dia.
	During pulling	Set in position	
kN	mm	mm	mm
3.4	640	430	63
5.3	680	450	63
7.4	730	480	65
11	770	520	65
15	840	560	65
20	920	610	80
25	990	660	80
32	1050	700	100
39	1110	740	100
50	1220	810	100
63	1340	890	125
84	1470	980	125

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
16	1.15	1.47	0.134	11000	0.221	0.263	4.00	2.06	1.06	4.34	0.0842
25	0.727	0.927	0.127	9700	0.248	0.296	4.50	1.99	0.706	2.84	0.0770
35	0.524	0.668	0.120	8700	0.276	0.330	5.01	1.93	0.533	2.12	0.0712
50	0.387	0.494	0.115	7800	0.308	0.368	5.59	1.87	0.366	1.49	0.0660
70	0.268	0.342	0.109	6900	0.352	0.420	6.39	1.82	0.265	1.06	0.0603
95	0.193	0.247	0.101	6000	0.404	0.482	7.33	1.77	0.265	0.989	0.0525
120	0.153	0.196	0.0969	5400	0.447	0.534	8.11	1.74	0.266	0.951	0.0491
150	0.124	0.160	0.0942	5000	0.486	0.580	8.81	1.72	0.265	0.920	0.0467
185	0.0991	0.128	0.0917	4600	0.530	0.632	9.61	1.69	0.265	0.896	0.0443
240	0.0754	0.0986	0.0890	4200	0.576	0.687	10.4	1.61	0.266	0.874	0.0418
300	0.0601	0.0798	0.0879	4000	0.597	0.713	10.8	1.49	0.265	0.857	0.0409
400	0.0470	0.0640	0.0852	3800	0.627	0.749	11.4	1.38	0.265	0.845	0.0384

3.8/6.6kV Three Core Ind. Screened & PVC Sheathed

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approximate mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
35	6.9	2.5	13.0	23.8	14/0.85	16.3	40.5	140
50	8.1	2.5	14.2	32.3	19/0.85	17.5	43.1	170
70	9.6	2.5	15.8	46.0	27/0.85	19.1	46.8	210
95	11.4	2.5	17.5	61.3	36/0.85	20.8	50.8	270
120	12.8	2.5	18.9	68.1	40/0.85	22.2	54.1	305
150	14.2	2.5	20.3	68.1	40/0.85	23.6	57.3	340
185	15.7	2.5	21.8	68.1	40/0.85	25.1	60.8	385
240	18.0	2.6	24.3	68.1	40/0.85	27.6	66.6	465
300	20.1	2.8	27.0	68.1	40/0.85	30.3	72.8	550
400	23.0	3.0	30.3	68.1	40/0.85	33.6	80.3	660

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area mm ²	Continuous current-carrying capacity, A						Fault current carrying capacity for 1 second	
	In air			In ground			Conductor kA	Screen kA
								
35	124	133	92	134	104	3.31	3.53	
50	148	159	109	158	123	4.73	4.80	
70	185	199	134	193	151	6.62	6.82	
95	225	242	164	231	183	8.99	9.09	
120	260	280	188	263	209	11.4	10.1	
150	295	318	217	294	238	14.2	10.1	
185	338	365	247	333	270	17.5	10.1	
240	400	434	290	387	315	22.7	10.1	
300	459	499	342	436	365	28.4	10.1	
400	537	584	396	500	420	37.8	10.1	

Installation

Maximum pulling tension	Minimum bending radius		Nominal duct dia.
	During pulling	Set in position	
kN	mm	mm	mm
5.3	730	490	65
7.5	780	520	65
11	840	560	65
14	920	610	80
18	970	650	80
23	1030	690	100
28	1090	730	100
36	1200	800	100
45	1310	870	125
60	1450	960	125

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	0.120	8700	0.278	0.332	5.04	1.92	0.761	3.15	0.0709
50	0.641	0.822	0.115	7800	0.309	0.369	5.61	1.87	0.559	2.32	0.0658
70	0.443	0.569	0.106	6800	0.353	0.422	6.41	1.82	0.393	1.62	0.0574
95	0.320	0.410	0.101	6000	0.400	0.478	7.26	1.77	0.295	1.20	0.0528
120	0.253	0.325	0.0976	5500	0.439	0.524	7.96	1.74	0.265	1.05	0.0497
150	0.206	0.265	0.0948	5100	0.477	0.569	8.66	1.72	0.266	1.00	0.0472
185	0.164	0.211	0.0923	4700	0.518	0.618	9.40	1.70	0.265	0.960	0.0449
240	0.125	0.162	0.0896	4300	0.561	0.670	10.2	1.62	0.265	0.922	0.0424
300	0.100	0.130	0.0885	4100	0.582	0.695	10.6	1.50	0.265	0.895	0.0415
400	0.0778	0.102	0.0857	3900	0.613	0.731	11.1	1.39	0.265	0.874	0.0390

6.35/11kV Three Core Ind. Screened & PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approximate mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
16	4.8	3.4	12.8	17.0	10/0.85	16.1	40.0	150
25	5.8	3.4	13.8	25.5	15/0.85	17.1	42.3	195
35	6.8	3.4	14.8	34.0	20/0.85	18.1	44.7	240
50	8.0	3.4	16.0	49.4	29/0.85	19.3	47.4	295
70	9.6	3.4	17.6	68.1	40/0.85	20.9	51.0	390
95	11.5	3.4	19.4	68.1	40/0.85	22.7	55.3	480
120	13.1	3.4	21.0	68.1	40/0.85	24.3	58.9	575
150	14.5	3.4	22.4	68.1	40/0.85	25.7	62.3	665
185	16.1	3.4	24.1	68.1	40/0.85	27.4	66.0	770
240	18.5	3.4	26.5	68.1	40/0.85	29.8	71.6	965
300	20.7	3.4	28.9	68.1	40/0.85	32.2	76.9	1160
400	23.6	3.4	31.8	68.1	40/0.85	35.3	84.2	1460
500	26.5	3.4	34.7	68.1	40/0.85	38.2	90.9	1790

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area mm ²	Continuous current-carrying capacity, A						Fault current carrying capacity for 1 second	
	In air			In ground			Conductor kA	Screen kA
16	104	110	78	113	89	2.29	2.52	
25	134	143	100	145	114	3.57	3.79	
35	162	173	120	173	136	5.00	5.05	
50	194	208	145	204	162	7.15	7.32	
70	241	259	178	249	199	10.0	10.1	
95	295	317	220	299	242	13.6	10.1	
120	340	367	252	340	276	17.1	10.1	
150	385	415	284	380	310	21.4	10.1	
185	440	476	322	429	350	26.4	10.1	
240	519	563	389	497	416	34.3	10.1	
300	594	645	442	560	470	42.9	10.1	
400	685	746	505	635	534	57.2	10.1	
500	779	850	569	710	597	71.5	10.1	

Installation

Maximum pulling tension	Minimum bending radius		Nominal duct dia.
	During pulling	Set in position	
kN	mm	mm	mm
3.4	720	480	65
5.3	760	510	65
7.4	800	540	65
11	850	570	80
15	920	610	80
20	1000	660	100
25	1060	710	100
32	1120	750	100
39	1190	790	100
50	1290	860	125
63	1380	920	125
84	1520	1010	125
105	1640	1090	150

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
16	1.15	1.47	0.142	14000	0.177	0.354	8.98	2.77	1.06	4.34	0.0922
25	0.727	0.927	0.134	12000	0.198	0.394	10.0	2.65	0.707	2.85	0.0845
35	0.524	0.668	0.127	11000	0.219	0.436	11.1	2.55	0.530	2.12	0.0782
50	0.387	0.494	0.121	10000	0.242	0.484	12.3	2.46	0.366	1.48	0.0725
70	0.268	0.342	0.115	8800	0.275	0.549	13.9	2.37	0.265	1.06	0.0663
95	0.193	0.247	0.106	7700	0.314	0.626	15.9	2.30	0.265	0.989	0.0580
120	0.153	0.196	0.102	7000	0.346	0.689	17.5	2.25	0.265	0.950	0.0543
150	0.124	0.160	0.0990	6400	0.374	0.747	19.0	2.21	0.266	0.922	0.0515
185	0.0991	0.128	0.0961	5900	0.407	0.811	20.6	2.17	0.265	0.896	0.0488
240	0.0754	0.0985	0.0926	5300	0.456	0.909	23.1	2.13	0.266	0.875	0.0455
300	0.0601	0.0796	0.0904	4800	0.503	1.00	25.5	2.10	0.265	0.856	0.0434
400	0.0470	0.0638	0.0870	4300	0.561	1.12	28.5	2.07	0.265	0.845	0.0403
500	0.0373	0.0525	0.0847	3900	0.620	1.24	31.4	2.05	0.265	0.835	0.0381

6.35/11kV Three Core Ind. Screened & PVC Sheathed

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approximate mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
35	6.9	3.4	14.9	23.8	14/0.85	18.2	44.6	165
50	8.1	3.4	16.0	32.3	19/0.85	19.3	47.5	195
70	9.6	3.4	17.6	46.0	27/0.85	20.9	51.1	245
95	11.4	3.4	19.3	61.3	36/0.85	22.6	55.0	295
120	12.8	3.4	20.7	68.1	40/0.85	24.0	58.2	340
150	14.2	3.4	22.1	68.1	40/0.85	25.4	61.5	375
185	15.7	3.4	23.6	68.1	40/0.85	26.9	64.9	420
240	18.0	3.4	25.9	68.1	40/0.85	29.2	70.3	490
300	20.1	3.4	28.3	68.1	40/0.85	31.6	75.5	570
400	23.0	3.4	31.1	68.1	40/0.85	34.6	82.8	690
500	26.5	3.4	34.7	68.1	40/0.85	38.2	90.9	845

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area mm ²	Continuous current-carrying capacity, A						Fault current carrying capacity for 1 second	
	In air			In ground			Conductor kA	Screen kA
35	126	135	93	134	106	3.31	3.53	
50	151	161	112	158	126	4.73	4.80	
70	187	201	138	193	154	6.62	6.82	
95	228	245	171	231	188	8.99	9.09	
120	263	283	195	263	214	11.4	10.1	
150	298	321	220	295	240	14.2	10.1	
185	341	368	250	333	272	17.5	10.1	
240	403	436	292	387	316	22.7	10.1	
300	462	501	344	437	366	28.4	10.1	
400	538	585	397	500	420	37.8	10.1	
500	622	679	454	567	477	47.3	10.1	

Installation

Maximum pulling tension	Minimum bending radius		Nominal duct dia.
	During pulling	Set in position	
kN	mm	mm	mm
5.3	800	540	65
7.5	850	570	80
11	920	610	80
14	990	660	100
18	1050	700	100
23	1110	740	100
28	1170	780	100
36	1270	840	100
45	1360	910	125
60	1490	990	125
75	1640	1090	150

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	0.127	11000	0.220	0.439	11.1	2.54	0.758	3.14	0.0779
50	0.641	0.821	0.121	9900	0.243	0.486	12.3	2.46	0.559	2.32	0.0723
70	0.443	0.569	0.112	8700	0.276	0.551	14.0	2.37	0.393	1.62	0.0634
95	0.320	0.410	0.106	7800	0.311	0.620	15.8	2.30	0.295	1.21	0.0583
120	0.253	0.325	0.103	7100	0.339	0.677	17.2	2.25	0.265	1.05	0.0549
150	0.206	0.265	0.0996	6600	0.368	0.734	18.6	2.22	0.265	1.00	0.0520
185	0.164	0.211	0.0968	6100	0.398	0.794	20.2	2.18	0.265	0.959	0.0494
240	0.125	0.161	0.0933	5400	0.445	0.887	22.5	2.14	0.266	0.923	0.0461
300	0.100	0.130	0.0910	4900	0.491	0.980	24.9	2.11	0.266	0.898	0.0441
400	0.0778	0.102	0.0876	4400	0.548	1.09	27.8	2.08	0.266	0.876	0.0409
500	0.0617	0.0823	0.0847	3900	0.620	1.24	31.4	2.05	0.265	0.859	0.0381

12.7/22kV Three Core Ind. Screened & PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approximate mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
35	6.8	5.5	19.1	34.0	20/0.85	22.4	54.6	300
50	8.0	5.5	20.3	49.4	29/0.85	23.6	57.3	360
70	9.6	5.5	21.9	68.1	40/0.85	25.2	60.9	460
95	11.5	5.5	23.8	68.1	40/0.85	27.1	65.2	560
120	13.1	5.5	25.3	68.1	40/0.85	28.6	68.9	650
150	14.5	5.5	26.8	68.1	40/0.85	30.1	72.2	750
185	16.1	5.5	28.4	68.1	40/0.85	31.7	75.9	855
240	18.5	5.5	30.8	68.1	40/0.85	34.1	81.5	1060
300	20.7	5.5	33.2	68.1	40/0.85	36.7	87.5	1270
400	23.6	5.5	36.1	68.1	40/0.85	39.6	94.1	1570
500	26.5	5.5	39.0	68.1	40/0.85	42.5	100.8	1910

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area mm ²	Continuous current-carrying capacity, A						Fault current carrying capacity for 1 second	
	In air			In ground			Conductor kA	Screen kA
35	167	178	126	173	140	10.1	5.00	5.05
50	199	213	152	204	168	10.1	7.15	7.32
70	247	265	187	250	205	10.1	10.0	10.1
95	301	323	225	299	246	10.1	13.6	10.1
120	346	373	258	340	280	10.1	17.1	10.1
150	392	422	299	381	321	10.1	21.4	10.1
185	448	483	339	430	363	10.1	26.4	10.1
240	527	570	396	498	421	10.1	34.3	10.1
300	602	652	449	562	474	10.1	42.9	10.1
400	694	754	513	638	539	10.1	57.2	10.1
500	789	859	601	714	624	10.1	71.5	10.1

Installation

Maximum pulling tension	Minimum bending radius		Nominal duct dia.
	During pulling	Set in position	
kN	mm	mm	mm
7.4	980	660	80
11	1030	690	100
15	1100	730	100
20	1170	780	100
25	1240	830	100
32	1300	870	125
39	1370	910	125
50	1470	980	125
63	1570	1050	125
84	1690	1130	150
105	1810	1210	200

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
35	0.524	0.668	0.141	16000	0.156	0.622	31.6	3.63	0.531	2.12	0.0923
50	0.387	0.494	0.134	14000	0.171	0.682	34.7	3.48	0.367	1.49	0.0858
70	0.268	0.342	0.127	13000	0.192	0.765	38.9	3.31	0.265	1.06	0.0786
95	0.193	0.247	0.117	11000	0.216	0.862	43.8	3.16	0.265	0.988	0.0693
120	0.153	0.196	0.112	10000	0.236	0.942	47.8	3.07	0.265	0.949	0.0648
150	0.124	0.160	0.109	9500	0.254	1.01	51.5	3.00	0.266	0.924	0.0615
185	0.0991	0.128	0.105	8800	0.274	1.09	55.6	2.93	0.266	0.897	0.0582
240	0.0754	0.0981	0.101	7900	0.305	1.22	61.8	2.85	0.265	0.872	0.0542
300	0.0601	0.0792	0.0988	7200	0.334	1.33	67.8	2.79	0.265	0.857	0.0519
400	0.0470	0.0633	0.0944	6500	0.371	1.48	75.1	2.73	0.265	0.844	0.0477
500	0.0373	0.0518	0.0915	5900	0.407	1.62	82.4	2.69	0.265	0.835	0.0450

12.7/22kV Three Core Ind. Screened & PVC Sheathed

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approximate mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
35	6.9	5.5	19.2	23.8	14/0.85	22.5	54.7	225
50	8.1	5.5	20.3	32.3	19/0.85	23.6	57.4	260
70	9.6	5.5	21.9	46.0	27/0.85	25.2	61.0	310
95	11.4	5.5	23.6	61.3	36/0.85	26.9	64.9	370
120	12.8	5.5	25.0	68.1	40/0.85	28.3	68.1	415
150	14.2	5.5	26.4	68.1	40/0.85	29.7	71.4	460
185	15.7	5.5	27.9	68.1	40/0.85	31.2	74.8	505
240	18.0	5.5	30.3	68.1	40/0.85	33.6	80.2	585
300	20.1	5.5	32.6	68.1	40/0.85	36.1	86.0	685
400	23.0	5.5	35.4	68.1	40/0.85	38.9	92.7	800
500	26.5	5.5	39.0	68.1	40/0.85	42.5	100.8	960

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area mm ²	Continuous current-carrying capacity, A						Fault current carrying capacity for 1 second	
	In air			In ground			Conductor kA	Screen kA
35	130	138	97	134	109	10.1	3.31	3.53
50	155	165	118	158	130	10.1	4.73	4.80
70	192	205	145	194	159	10.1	6.62	6.82
95	233	250	175	232	191	10.1	8.99	9.09
120	268	288	199	264	217	10.1	11.4	10.1
150	303	326	232	295	249	10.1	14.2	10.1
185	346	374	263	334	281	10.1	17.5	10.1
240	408	441	307	388	327	10.1	22.7	10.1
300	467	506	349	437	369	10.1	28.4	10.1
400	543	590	403	501	423	10.1	37.8	10.1
500	628	683	478	568	497	10.1	47.3	10.1

Installation

Maximum pulling tension	Minimum bending radius		Nominal duct dia.
	During pulling	Set in position	
kN	mm	mm	mm
5.3	980	660	80
7.5	1030	690	100
11	1100	730	100
14	1170	780	100
18	1230	820	100
23	1280	860	125
28	1350	900	125
36	1440	960	125
45	1550	1030	125
60	1670	1110	150
75	1810	1210	200

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	0.140	15000	0.157	0.626	31.8	3.62	0.759	3.15	0.0919
50	0.641	0.821	0.134	14000	0.172	0.685	34.8	3.47	0.560	2.32	0.0855
70	0.443	0.568	0.124	13000	0.192	0.768	39.0	3.30	0.393	1.62	0.0757
95	0.320	0.410	0.117	11000	0.214	0.855	43.4	3.17	0.294	1.20	0.0697
120	0.253	0.325	0.113	10000	0.232	0.926	47.0	3.08	0.265	1.05	0.0657
150	0.206	0.265	0.110	9700	0.250	0.997	50.7	3.01	0.266	1.00	0.0622
185	0.164	0.211	0.106	9000	0.269	1.07	54.5	2.95	0.265	0.961	0.0591
240	0.125	0.161	0.102	8100	0.298	1.19	60.4	2.87	0.265	0.920	0.0550
300	0.100	0.130	0.0996	7400	0.327	1.30	66.3	2.81	0.265	0.896	0.0527
400	0.0778	0.102	0.0951	6700	0.363	1.45	73.5	2.75	0.266	0.876	0.0484
500	0.0617	0.0819	0.0915	5900	0.407	1.62	82.4	2.69	0.265	0.858	0.0450

19/33kV Three Core Ind. Screened & PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approximate mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
50	8.0	8.0	25.5	49.4	29/0.85	28.8	69.4	460
70	9.6	8.0	27.1	68.1	40/0.85	30.4	73.0	560
95	11.5	8.0	29.0	68.1	40/0.85	32.3	77.3	665
120	13.1	8.0	30.6	68.1	40/0.85	33.9	81.1	765
150	14.5	8.0	32.0	68.1	40/0.85	35.5	84.8	875
185	16.1	8.0	33.6	68.1	40/0.85	37.1	88.4	990
240	18.5	8.0	36.0	68.1	40/0.85	39.5	94.1	1190
300	20.7	8.0	38.4	68.1	40/0.85	41.9	99.4	1410
400	23.6	8.0	41.3	68.1	40/0.85	44.8	106.2	1730
500	26.5	8.0	44.2	68.1	40/0.85	47.7	112.9	2070

Note: For larger sizes use 6.35/11kV cables

19/33kV Three Core Ind. Screened & PVC Sheathed

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approximate mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
50	8.1	8.0	25.6	32.3	19/0.85	28.9	69.5	355
70	9.6	8.0	27.2	46.0	27/0.85	30.5	73.1	415
95	11.4	8.0	28.9	61.3	36/0.85	32.2	77.0	480
120	12.8	8.0	30.3	68.1	40/0.85	33.6	80.2	525
150	14.2	8.0	31.7	68.1	40/0.85	35.2	83.9	580
185	15.7	8.0	33.2	68.1	40/0.85	36.7	87.3	635
240	18.0	8.0	35.5	68.1	40/0.85	39.0	92.9	730
300	20.1	8.0	37.8	68.1	40/0.85	41.3	98.1	820
400	23.0	8.0	40.7	68.1	40/0.85	44.2	104.8	955
500	26.5	8.0	44.2	68.1	40/0.85	47.7	112.9	1120

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area mm ²	Continuous current-carrying capacity, A						Fault current carrying capacity for 1 second	
	In air			In ground			Conductor kA	Screen kA
50	204	217	156	205	170	7.15	7.32	
70	252	269	198	250	213	10.0	10.1	
95	306	328	238	299	255	13.6	10.1	
120	352	377	271	341	290	17.1	10.1	
150	397	427	304	381	324	21.4	10.1	
185	454	488	345	431	366	26.4	10.1	
240	533	575	402	499	424	34.3	10.1	
300	609	658	456	563	478	42.9	10.1	
400	701	759	542	640	562	57.2	10.1	
500	797	864	610	718	630	71.5	10.1	

Installation

Maximum pulling tension	Minimum bending radius		Nominal duct dia.
	During pulling	Set in position	
kN	mm	mm	mm
11	1250	830	100
15	1310	880	125
20	1390	930	125
25	1460	970	125
32	1530	1020	125
39	1590	1060	150
50	1690	1130	150
63	1790	1190	150
84	1910	1270	200
105	2030	1350	200

Current Ratings

Nominal conductor area mm ²	Continuous current-carrying capacity, A						Fault current carrying capacity for 1 second	
	In air			In ground			Conductor kA	Screen kA
50	158	168	121	159	132	4.73	4.80	
70	196	209	153	194	165	6.62	6.82	
95	237	254	184	232	197	8.99	9.09	
120	272	292	210	264	224	11.4	10.1	
150	307	330	236	295	251	14.2	10.1	
185	351	378	268	334	284	17.5	10.1	
240	413	445	312	388	330	22.7	10.1	
300	472	509	354	438	372	28.4	10.1	
400	548	593	424	502	440	37.8	10.1	
500	632	686	484	570	499	47.3	10.1	

Installation

Maximum pulling tension	Minimum bending radius		Nominal duct dia.
	During pulling	Set in position	
kN	mm	mm	mm
7.5	1250	830	100
11	1320	880	125
14	1390	920	125
18	1440	960	125
23	1510	1010	125
28	1570	1050	125
36	1670	1110	150
45	1770	1180	150
60	1890	1260	200
75	2030	1350	200

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
50	0.387	0.494	0.147	18000	0.133	0.796	60.5	4.05	0.366	1.49	0.0988
70	0.268	0.342	0.139	16000	0.148	0.883	67.1	3.82	0.265	1.06	0.0909
95	0.193	0.247	0.128	15000	0.165	0.984	74.8	3.61	0.265	0.989	0.0807
120	0.153	0.196	0.123	14000	0.179	1.07	81.1	3.48	0.265	0.949	0.0757
150	0.124	0.159	0.120	13000	0.191	1.14	86.8	3.38	0.266	0.922	0.0722
185	0.0991	0.128	0.116	12000	0.205	1.23	93.2	3.29	0.266	0.897	0.0685
240	0.0754	0.0978	0.111	11000	0.227	1.35	103	3.17	0.265	0.872	0.0637
300	0.0601	0.0788	0.107	9800	0.247	1.48	112	3.09	0.266	0.858	0.0605
400	0.0470	0.0628	0.102	8900	0.272	1.62	123	3.00	0.266	0.845	0.0557
500	0.0373	0.0513	0.0990	8100	0.297	1.77	135	2.93	0.265	0.835	0.0524

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
50	0.641	0.821	0.147	18000	0.134	0.798	60.7	4.04	0.559	2.32	0.0985
70	0.443	0.568	0.136	16000	0.148	0.885	67.3	3.81	0.392	1.62	0.0879
95	0.320	0.410	0.129	15000	0.164	0.977	74.3	3.62	0.294	1.20	0.0812
120	0.253	0.325	0.124	14000	0.176	1.05	79.9	3.50	0.265	1.05	0.0766
150	0.206	0.264	0.120	13000	0.189	1.13	85.5	3.40	0.265	1.00	0.0731
185	0.164	0.211	0.117	12000	0.202	1.20	91.5	3.31	0.265	0.961	0.0694
240	0.125	0.161	0.112	11000	0.222	1.32	101	3.20	0.266	0.923	0.0647
300	0.100	0.130	0.108	10000	0.242	1.44	110	3.11	0.265	0.897	0.0614
400	0.0778	0.102	0.103	9100	0.267	1.59	121	3.02	0.265	0.874	0.0565
500	0.0617	0.0815	0.0990	8100	0.297	1.77	135	2.93	0.265	0.858	0.0524

6.35/11kV Three Core Ind. Screened PVC/HDPE Sheathed URD

Aluminium Conductors, 3kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
35	6.9	3.4	14.9	20.4	12/0.85	18.2	44.7	155
95	11.4	3.4	19.3	23.8	14/0.85	22.6	55.1	250
185	15.7	3.4	23.6	28.9	17/0.85	26.9	65.0	370
240	18.0	3.4	25.9	30.6	18/0.85	29.2	70.4	440
300	20.1	3.4	28.3	32.3	19/0.85	31.6	75.6	515

Screen Electrical Characteristics

Screen Fault current carrying capacity for 1 second	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero sequence reactance at 50Hz
kA	Ohm/km	Ohm/km	Ohm/km
3.03	0.884	3.52	0.0779
3.53	0.760	2.60	0.0583
4.29	0.623	2.03	0.0494
4.54	0.590	1.90	0.0461
4.80	0.559	1.78	0.0441

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
35	6.9	3.4	14.9	23.8	14/0.85	18.2	44.7	155
95	11.4	3.4	19.3	61.3	36/0.85	22.6	55.1	285
185	15.7	3.4	23.6	68.1	40/0.85	26.9	65.0	405
240	18.0	3.4	25.9	68.1	40/0.85	29.2	70.4	475
300	20.1	3.4	28.3	68.1	40/0.85	31.6	75.6	550

Screen Electrical Characteristics

Screen Fault current carrying capacity for 1 second	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero sequence reactance at 50Hz
kA	Ohm/km	Ohm/km	Ohm/km
3.53	0.758	3.14	0.0779
9.09	0.295	1.21	0.0583
10.1	0.265	0.959	0.0494
10.1	0.266	0.923	0.0461
10.1	0.266	0.898	0.0441

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Conductor fault current carrying capacity for 1 second
	In air			In ground		
						
mm ²						kA
35	127	136	94	135	106	3.31
95	230	248	171	233	189	8.99
185	344	373	251	335	273	17.5
240	407	441	294	389	318	22.7
300	467	508	346	440	368	28.4

Installation

Maximum pulling tension	Minimum bending radius		Nominal duct dia.
	During pulling	Set in position	
kN	mm	mm	mm
5.3	1120	670	65
14	1380	830	80
28	1630	980	100
36	1760	1060	100
45	1890	1130	125

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm
35	0.868	1.11	0.127	11000	0.220	0.439	11.1	2.54
95	0.320	0.410	0.106	7800	0.311	0.620	15.8	2.30
185	0.164	0.211	0.0968	6100	0.398	0.794	20.2	2.18
240	0.125	0.161	0.0933	5400	0.445	0.887	22.5	2.14
300	0.100	0.130	0.0910	4900	0.491	0.980	24.9	2.11

12.7/22kV Three Core Ind. Screened PVC/HDPE Sheathed URD

Aluminium Conductors, 3kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
35	6.9	5.5	19.2	23.8	14/0.85	22.5	54.8	215
95	11.4	5.5	23.6	28.9	17/0.85	26.9	65.0	330
185	15.7	5.5	27.9	32.3	19/0.85	31.2	74.9	450
240	18.0	5.5	30.3	35.7	21/0.85	33.6	80.3	535

Screen Electrical Characteristics

Screen Fault current carrying capacity for 1 second	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero sequence reactance at 50Hz
kA	Ohm/km	Ohm/km	Ohm/km
3.53	0.759	3.15	0.0919
4.29	0.623	2.19	0.0697
4.80	0.559	1.84	0.0591
5.30	0.505	1.64	0.0550

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires on each core	Nominal diameter over wire screen	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	kg/100m
35	6.9	5.5	19.2	23.8	14/0.85	22.5	54.8	215
95	11.4	5.5	23.6	61.3	36/0.85	26.9	65.0	360
185	15.7	5.5	27.9	68.1	40/0.85	31.2	74.9	485
240	18.0	5.5	30.3	68.1	40/0.85	33.6	80.3	565

Screen Electrical Characteristics

Screen Fault current carrying capacity for 1 second	DC resistance of screens at 20°C	Zero sequence resistance at 20°C	Zero sequence reactance at 50Hz
kA	Ohm/km	Ohm/km	Ohm/km
3.53	0.759	3.15	0.0919
9.09	0.294	1.20	0.0697
10.1	0.265	0.961	0.0591
10.1	0.265	0.920	0.0550

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Conductor fault current carrying capacity for 1 second
	In air			In ground		
						
mm²						kA
35	131	139	98	135	109	3.31
95	235	252	175	233	191	8.99
185	350	378	264	336	283	17.5
240	412	447	309	390	329	22.7

Installation

Maximum pulling tension	Minimum bending radius		Nominal duct dia.
	During pulling	Set in position	
kN	mm	mm	mm
5.3	1370	820	80
14	1630	980	100
28	1870	1120	125
36	2010	1200	125

Electrical Characteristics

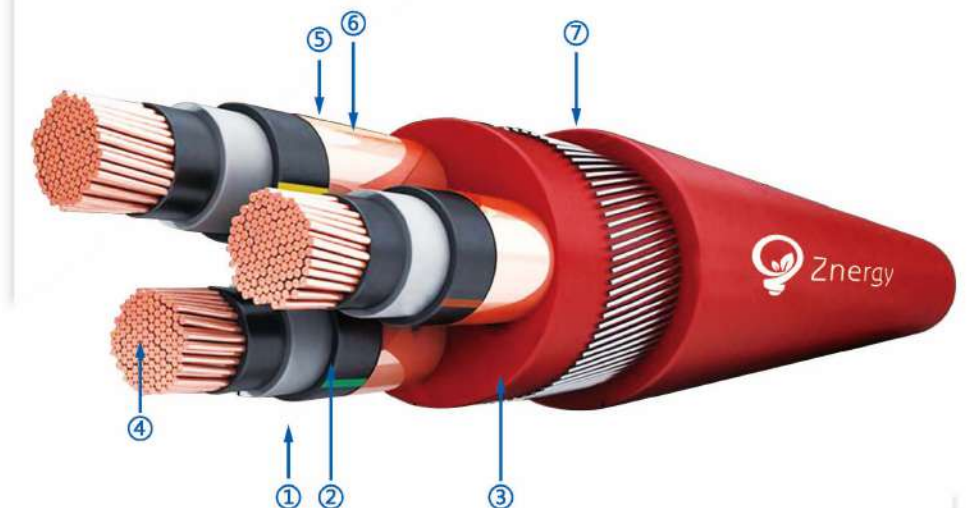
Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm
35	0.868	1.11	0.140	15000	0.157	0.626	31.8	3.62
95	0.320	0.410	0.117	11000	0.214	0.855	43.4	3.17
185	0.164	0.211	0.106	9000	0.269	1.07	54.5	2.95
240	0.125	0.161	0.102	8100	0.298	1.19	60.4	2.87



High Voltage Three Core

Construction Stranded compacted copper or aluminium conductor, triple extruded conductor screen, insulation and insulation screen, copper wire screened, water blocking taped, HDPE sheathed, laid up "Triplex" cables.

6.35/11 to 12.7/22kV



- ① Semi-conductive conductor screen
- ② XLPE
- ③ Waterblocking tape
- ④ Conductor
- ⑤ Semi-conductive insulation screen
- ⑥ Copper wire screen
- ⑦ HDPE sheath

6.35/11kV Triplex Ind. Screened, Water Blocking Taped/HDPE Sheathed

Copper Conductors, up to 10kA fault level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter of each phase cable	Nominal overall diameter of Triplex	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	kg/100m
16	4.8	3.4	12.8	15.9	28/0.85	16.1	20.6	44.5	165
25	5.8	3.4	13.8	24.4	43/0.85	17.1	21.6	46.6	220
35	6.8	3.4	14.8	34.4	24/1.35	19.1	23.6	50.9	280
50	8.0	3.4	16.0	48.7	34/1.35	20.3	24.8	53.4	360
70	9.6	3.4	17.6	68.1	30/1.70	22.6	27.1	58.4	480
95	11.5	3.4	19.4	68.7	48/1.35	23.7	28.3	60.9	565
120	13.1	3.4	21.0	68.7	48/1.35	25.3	29.9	64.3	650
150	14.5	3.4	22.4	68.7	48/1.35	26.7	31.5	67.8	735
185	16.1	3.4	24.1	68.7	48/1.35	28.4	33.1	71.3	830
240	18.5	3.4	26.5	68.7	48/1.35	30.8	35.7	77.0	1010
300	20.7	3.4	28.9	68.7	48/1.35	33.2	38.3	82.5	1200
400	23.6	3.4	31.8	68.7	48/1.35	36.3	41.6	89.7	1480
500	26.5	3.4	34.7	68.7	48/1.35	39.2	44.7	96.4	1780

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air			In ground			
							
mm²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Conductor kA	Screen kA
16	106	112	81	113	92	2.29	2.36
25	137	145	104	145	117	3.57	3.62
35	168	178	125	173	141	5.0	5.09
50	201	213	150	204	167	7.15	7.22
70	251	266	184	249	204	10.0	10.1
95	302	321	226	296	246	13.6	10.2
120	348	370	257	335	279	17.1	10.2
150	393	419	288	373	311	21.4	10.2
185	448	478	325	419	350	26.4	10.2
240	525	561	376	481	402	34.3	10.2
300	598	638	438	537	461	42.9	10.2
400	687	734	497	603	519	57.2	10.2
500	776	830	554	668	575	71.5	10.2

Installation

Maximum pulling tension	Minimum bending radius				Nominal duct dia.
	Phase cable		Cable bundle		
	During pulling	Set in position	During pulling	Set in position	
kN	mm	mm	mm	mm	mm
3.4	520	310	670	440	65
5.3	540	320	700	470	65
7.4	590	350	760	510	65
11	620	370	800	530	80
15	680	410	880	580	80
20	710	420	910	610	80
25	750	450	970	640	100
32	790	470	1020	680	100
39	830	500	1070	710	100
50	890	540	1150	770	100
63	960	570	1240	830	125
84	1040	620	1350	900	125
105	1120	670	1450	960	125

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screen at 20°C	Zero sequence resistance at 20°C	Zero seq. react.
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
16	1.15	1.47	0.155	14000	0.177	0.354	8.98	2.77	1.14	2.29	0.0922
25	0.727	0.927	0.145	12000	0.198	0.394	10.0	2.65	0.740	1.47	0.0845
35	0.524	0.668	0.140	11000	0.219	0.436	11.1	2.55	0.527	1.05	0.0800
50	0.387	0.494	0.134	10000	0.242	0.484	12.3	2.46	0.371	0.758	0.0742
70	0.268	0.342	0.128	8800	0.275	0.549	13.9	2.37	0.266	0.534	0.0689
95	0.193	0.247	0.117	7700	0.314	0.626	15.9	2.30	0.263	0.457	0.0594
120	0.153	0.196	0.112	7000	0.346	0.689	17.5	2.25	0.264	0.417	0.0556
150	0.124	0.160	0.109	6400	0.374	0.747	19.0	2.21	0.263	0.388	0.0527
185	0.0991	0.128	0.105	5900	0.407	0.811	20.6	2.17	0.263	0.363	0.0499
240	0.0754	0.0980	0.101	5300	0.456	0.909	23.1	2.13	0.262	0.339	0.0465
300	0.0601	0.0791	0.0988	4800	0.503	1.00	25.5	2.10	0.263	0.324	0.0444
400	0.0470	0.0631	0.0951	4300	0.561	1.12	28.5	2.07	0.263	0.312	0.0412
500	0.0373	0.0516	0.0923	3900	0.620	1.24	31.4	2.05	0.263	0.303	0.0390

6.35/11kV Triplex Ind. Screened, Water Blocking Taped/HDPE Sheathed

Aluminium Conductors, up to 10kA fault level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter of each phase cable	Nominal overall diameter of Triplex	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	kg/100m
35	6.9	3.4	14.9	22.7	40/0.85	18.2	22.7	48.9	180
50	8.1	3.4	16.0	32.9	23/1.35	20.3	24.8	53.5	230
70	9.6	3.4	17.6	45.8	32/1.7	21.9	26.4	57.0	290
95	11.4	3.4	19.3	61.5	43/1.35	23.6	28.2	60.7	365
120	12.8	3.4	20.7	68.7	48/1.35	25.0	29.6	63.7	415
150	14.2	3.4	22.1	68.7	48/1.35	26.4	31.2	67.2	450
185	15.7	3.4	23.6	68.7	48/1.35	27.9	32.7	70.4	485
240	18.0	3.4	25.9	68.7	48/1.35	30.2	35.2	75.8	550
300	20.1	3.4	28.3	68.7	48/1.35	32.6	37.7	81.2	615
400	23.0	3.4	31.1	68.7	48/1.35	35.6	41.0	88.3	710
500	26.5	3.4	34.7	68.7	48/1.35	39.2	44.7	96.4	840

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air			In ground			
							
mm²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Conductor kA	Screen kA
35	129	137	96	134	108	3.31	3.37
50	157	166	117	159	130	4.73	4.88
70	194	206	143	194	159	6.62	6.79
95	236	251	176	231	192	8.99	9.13
120	271	288	201	262	218	11.4	10.2
150	307	327	225	292	244	14.2	10.2
185	350	373	255	329	275	17.5	10.2
240	413	440	296	380	317	22.7	10.2
300	472	503	347	426	366	28.4	10.2
400	548	586	398	484	417	37.8	10.2
500	632	676	452	545	469	47.3	10.2

Installation

Maximum pulling tension	Minimum bending radius				Nominal duct dia
	Phase cable		Cable bundle		
	During pulling	Set in position	During pulling	Set in position	
kN	mm	mm	mm	mm	mm
5.3	570	340	730	490	65
7.5	620	370	800	540	80
11	660	400	850	570	80
14	700	420	910	610	80
18	740	440	960	640	100
23	780	470	1010	670	100
28	820	490	1060	700	100
36	880	530	1140	760	100
45	940	570	1220	810	125
60	1020	610	1320	880	125
75	1120	670	1450	960	125

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screen at 20°C	Zero sequence resistance at 20°C	Zero seq. react.
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	0.138	11000	0.220	0.439	11.1	2.54	0.796	1.66	0.0779
50	0.641	0.821	0.134	9900	0.243	0.486	12.3	2.46	0.548	1.19	0.0740
70	0.443	0.568	0.124	8700	0.276	0.551	14.0	2.37	0.395	0.839	0.0650
95	0.320	0.410	0.118	7800	0.311	0.620	15.8	2.30	0.294	0.614	0.0597
120	0.253	0.325	0.114	7100	0.339	0.677	17.2	2.25	0.263	0.517	0.0563
150	0.206	0.265	0.110	6600	0.368	0.734	18.6	2.22	0.263	0.469	0.0533
185	0.164	0.211	0.107	6100	0.398	0.794	20.2	2.18	0.263	0.428	0.0506
240	0.125	0.161	0.103	5400	0.445	0.887	22.5	2.14	0.264	0.389	0.0472
300	0.100	0.130	0.100	4900	0.491	0.980	24.9	2.11	0.263	0.363	0.0451
400	0.0778	0.102	0.0965	4400	0.548	1.09	27.8	2.08	0.263	0.342	0.0418
500	0.0617	0.0817	0.0929	3900	0.620	1.24	31.4	2.05	0.263	0.326	0.0390

12.7/22kV Triplex Ind. Screened, Water Blocking Taped/HDPE Sheathed

Copper Conductors, up to 10kA fault level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter of each phase cable	Nominal overall diameter of Triplex	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	kg/100m
35	6.8	5.5	19.1	34.4	24/1.35	23.4	28.0	60.2	325
50	8.0	5.5	20.3	48.7	34/1.35	24.6	29.1	62.7	405
70	9.6	5.5	21.9	68.7	48/1.35	26.2	30.9	66.6	535
95	11.5	5.5	23.8	68.7	48/1.35	28.1	32.8	70.7	620
120	13.1	5.5	25.3	68.7	48/1.35	29.6	34.6	74.5	710
150	14.5	5.5	26.8	68.7	48/1.35	31.1	36.0	77.6	800
185	16.1	5.5	28.4	68.7	48/1.35	32.7	37.8	81.5	900
240	18.5	5.5	30.8	68.7	48/1.35	35.1	40.5	87.2	1080
300	20.7	5.5	33.2	68.7	48/1.35	37.7	43.0	92.7	1280
400	23.6	5.5	36.1	68.7	48/1.35	40.6	46.3	99.8	1570
500	26.5	5.5	39.0	68.7	48/1.35	43.5	49.2	106.1	1870

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air			In ground			
							
mm²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Conductor kA	Screen kA
35	173	182	130	174	144	5.00	5.09
50	206	217	157	204	172	7.15	7.22
70	254	269	192	248	209	10.0	10.2
95	309	327	230	296	249	13.6	10.2
120	355	376	262	335	282	17.1	10.2
150	400	425	293	374	314	21.4	10.2
185	456	484	342	420	362	26.4	10.2
240	534	568	396	482	416	34.3	10.2
300	608	647	445	539	466	42.9	10.2
400	697	742	504	606	523	57.2	10.2
500	787	840	562	673	580	71.5	10.2

Installation

Maximum pulling tension	Minimum bending radius				Nominal duct dia.
	Phase cable		Cable bundle		
	During pulling	Set in position	During pulling	Set in position	
kN	mm	mm	mm	mm	mm
7.4	700	420	900	600	80
11	730	440	940	630	100
15	770	460	1000	670	100
20	820	490	1060	710	100
25	860	520	1120	750	100
32	900	540	1160	780	100
39	950	570	1220	810	125
50	1010	610	1310	870	125
63	1080	650	1390	930	125
84	1160	690	1500	1000	150
105	1230	740	1590	1060	150

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screen at 20°C	Zero sequence resistance at 20°C	Zero seq. react.
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
35	0.524	0.668	0.151	16000	0.156	0.622	31.6	3.63	0.526	1.05	0.0937
50	0.387	0.494	0.144	14000	0.171	0.682	34.7	3.48	0.371	0.758	0.0871
70	0.268	0.342	0.136	13000	0.192	0.765	38.9	3.31	0.263	0.531	0.0799
95	0.193	0.247	0.126	11000	0.216	0.862	43.8	3.16	0.263	0.457	0.0705
120	0.153	0.196	0.121	10000	0.236	0.942	47.8	3.07	0.263	0.417	0.0660
150	0.124	0.159	0.117	9500	0.254	1.01	51.5	3.00	0.262	0.387	0.0626
185	0.0991	0.128	0.114	8800	0.274	1.09	55.6	2.93	0.263	0.363	0.0593
240	0.0754	0.0978	0.109	7900	0.305	1.22	61.8	2.85	0.263	0.340	0.0551
300	0.0601	0.0788	0.106	7200	0.334	1.33	67.8	2.79	0.263	0.325	0.0528
400	0.0470	0.0628	0.102	6500	0.371	1.48	75.1	2.73	0.263	0.312	0.0485
500	0.0373	0.0512	0.0987	5900	0.407	1.62	82.4	2.69	0.263	0.302	0.0457

6.35/11kV Triplex Ind. Screened, Water Blocking Taped/HDPE Sheathed

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter of each phase cable	Nominal overall diameter of Triplex	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	kg/100m
35	6.9	5.5	19.2	22.7	40/0.85	22.5	27.0	58.2	225
50	8.1	5.5	20.3	32.9	23/1.35	24.6	29.2	62.8	275
70	9.6	5.5	21.9	45.8	32/1.35	26.2	31.0	66.7	345
95	11.4	5.5	23.6	61.5	43/1.35	27.9	32.7	70.4	420
120	12.8	5.5	25.0	68.7	48/1.35	29.3	34.3	73.8	475
150	14.2	5.5	26.4	68.7	48/1.35	30.7	35.7	76.9	510
185	15.7	5.5	27.9	68.7	48/1.35	32.2	37.4	80.5	550
240	18.0	5.5	30.3	68.7	48/1.35	34.6	39.9	86.0	620
300	20.1	5.5	32.6	68.7	48/1.35	37.1	42.4	91.4	695
400	23.0	5.5	35.4	68.7	48/1.35	39.9	45.7	98.4	795
500	26.5	5.5	39.0	68.7	48/1.35	43.5	49.2	106.1	930

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air			In ground			
							
mm ²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Conductor kA	Screen kA
35	133	140	100	134	111	3.31	3.37
50	160	169	123	159	134	4.73	4.88
70	199	210	150	194	163	6.62	6.79
95	241	255	180	231	194	8.99	9.13
120	276	293	204	262	220	11.4	10.2
150	312	331	229	292	246	14.2	10.2
185	356	378	268	329	284	17.5	10.2
240	419	445	312	380	328	22.7	10.2
300	478	509	352	427	369	28.4	10.2
400	555	590	403	485	419	37.8	10.2
500	639	681	457	547	472	47.3	10.2

Installation

Maximum pulling tension	Minimum bending radius				Nominal duct dia.
	Phase cable		Cable bundle		
	During pulling	Set in position	During pulling	Set in position	
kN	mm	mm	mm	mm	mm
5.3	680	410	870	580	80
7.5	730	440	940	630	100
11	770	460	1000	670	100
14	820	490	1060	700	100
18	860	510	1110	740	100
23	890	540	1150	770	100
28	930	560	1210	810	125
36	1000	600	1290	860	125
45	1060	640	1370	910	125
60	1140	690	1480	980	150
75	1230	740	1590	1060	150

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screen at 20°C	Zero sequence resistance at 20°C	Zero seq. react.
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	0.148	15000	0.157	0.626	31.8	3.62	0.797	1.67	0.0919
50	0.641	0.821	0.144	14000	0.172	0.685	34.8	3.47	0.549	1.19	0.0869
70	0.443	0.568	0.133	13000	0.192	0.768	39.0	3.30	0.395	0.838	0.0769
95	0.320	0.410	0.126	11000	0.214	0.855	43.4	3.17	0.293	0.613	0.0709
120	0.253	0.325	0.122	10000	0.232	0.926	47.0	3.08	0.263	0.516	0.0668
150	0.206	0.264	0.118	9700	0.250	0.997	50.7	3.01	0.262	0.469	0.0633
185	0.164	0.211	0.115	9000	0.269	1.07	54.5	2.95	0.263	0.428	0.0601
240	0.125	0.161	0.110	8100	0.298	1.19	60.4	2.87	0.263	0.388	0.0560
300	0.100	0.129	0.107	7400	0.327	1.30	66.3	2.81	0.263	0.364	0.0536
400	0.0778	0.102	0.103	6700	0.363	1.45	73.5	2.75	0.263	0.342	0.0492
500	0.0617	0.0815	0.0987	5900	0.407	1.62	82.4	2.69	0.263	0.326	0.0457

6.35/11kV, URD Triplex Ind. Screened, Water Blocking Taped/HDPE Sheathed

Aluminium Conductors, 3kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter of each phase cable	Nominal overall diameter of Triplex	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	kg/100m
35	6.9	3.4	14.9	20.4	36/0.85	18.2	22.7	48.9	175
95	11.4	3.4	19.3	20.4	36/0.85	22.6	27.2	58.5	250
185	15.7	3.4	23.6	20.4	36/0.85	26.9	31.7	68.2	345
240	18.0	3.4	25.9	20.4	36/0.85	29.2	34.2	73.6	410
300	20.1	3.4	28.3	20.4	36/0.85	31.6	36.7	79.1	480

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air			In ground			
							
mm²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Conductor kA	Screen kA
35	131	139	97	136	109	3.31	3.03
95	237	252	172	234	190	8.99	3.03
185	355	379	258	336	279	17.5	3.03
240	421	449	302	389	324	22.7	3.03
300	483	516	355	439	375	28.4	3.03

Installation

Maximum pulling tension	Minimum bending radius				Nominal duct diameter
	Phase cable		Cable bundle		
	During pulling	Set in position	During pulling	Set in position	
kN	mm	mm	mm	mm	mm
5.3	570	340	730	490	65
14	680	410	880	590	80
28	790	470	1020	680	100
36	850	510	1100	740	100
45	920	550	1190	790	100

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screen at 20°C	Zero sequence resistance at 20°C	Zero seq. react.
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	0.138	11000	0.220	0.439	11.1	2.54	0.884	1.75	0.0779
95	0.320	0.410	0.116	7800	0.311	0.620	15.8	2.30	0.886	1.21	0.0583
185	0.164	0.211	0.105	6100	0.398	0.794	20.2	2.18	0.883	1.05	0.0494
240	0.125	0.161	0.101	5400	0.445	0.887	22.5	2.14	0.886	1.01	0.0461
300	0.100	0.130	0.0987	4900	0.491	0.980	24.9	2.11	0.885	0.986	0.0441

12.7/22kV URD Triplex Ind. Screened, Water Blocking Taped/HDPE Sheathed

Aluminium Conductors, 3kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulator thickness	Nominal diameter over insulation	Nominal screen area on each core	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal overall diameter of each phase cable	Nominal overall diameter of Triplex	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	kg/100m
35	6.9	5.5	19.2	20.4	36/0.85	22.5	27.0	58.2	220
95	11.4	5.5	23.6	20.4	36/0.85	26.9	31.7	68.2	305
185	15.7	5.5	27.9	20.4	36/0.85	31.2	36.4	78.4	415
240	18.0	5.5	30.3	20.4	36/0.85	33.6	38.7	83.4	480

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air			In ground			
							
mm²	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Solid Bond	Conductor kA	Screen kA
35	134	142	101	136	112	3.31	3.03
95	242	257	181	234	196	8.99	3.03
185	362	384	272	336	288	17.5	3.03
240	427	454	317	390	335	22.7	3.03

Installation

Maximum pulling tension	Minimum bending radius				Nominal duct dia.
	Phase cable		Cable bundle		
	During pulling	Set in position	During pulling	Set in position	
kN	mm	mm	mm	mm	mm
5.3	680	410	870	580	80
14	790	470	1020	680	100
28	910	550	1180	780	100
36	970	580	1250	830	125

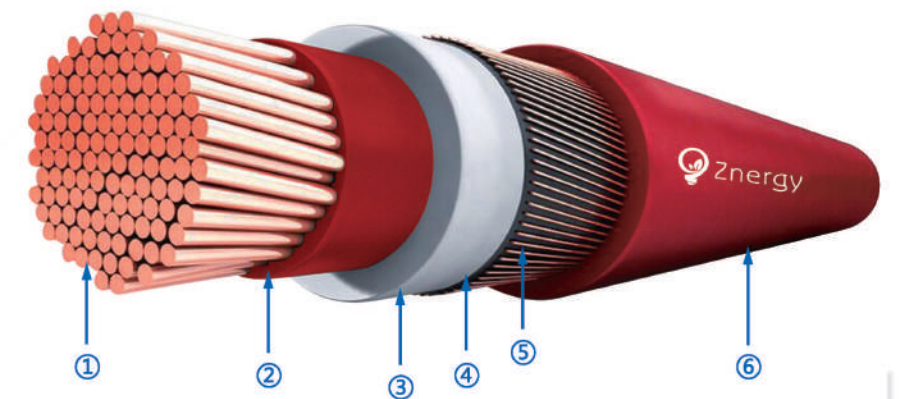
Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screen at 20°C	Zero sequence resistance at 20°C	Zero seq. react.
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	0.149	15000	0.157	0.626	31.8	3.62	0.886	1.75	0.0919
95	0.320	0.410	0.125	11000	0.214	0.855	43.4	3.17	0.883	1.20	0.0697
185	0.164	0.211	0.114	9000	0.269	1.07	54.5	2.95	0.885	1.05	0.0591
240	0.125	0.161	0.109	8100	0.298	1.19	60.4	2.87	0.883	1.01	0.0550

High Voltage XLPE Three

Construction Stranded compacted copper or aluminium conductor, triple extruded conductor screen, insulation and insulation screen, copper wire screened, PVC sheathed.

3.8/6.6 to 19/33kV



- ① Conductor
- ② Semi-conductive conductor screen
- ③ XLPE insulation (option of TREE XLPE)
- ④ Semi-conductive insulation screen
- ⑤ Copper wire screen
- ⑥ PVC sheath(option of HDPE & other types)

3.8/6.6kV Three Core Ind. Screened PVC/SWA/PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal diameter over armour bedding	Normal Armour Wire diameter	Nominal diameter over armour	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	mm	mm	kg/100m
16	4.8	2.5	11.0	17.0	10/0.85	14.3	34.0	2.0	38.0	42.6	295
25	5.8	2.5	12.0	25.5	15/0.85	15.3	36.1	2.0	40.1	44.9	345
35	6.8	2.5	13.0	34.0	20/0.85	16.3	38.5	2.5	43.5	48.7	440
50	8.0	2.5	14.1	49.4	29/0.85	17.4	41.0	2.5	46.0	51.4	515
70	9.6	2.5	15.7	68.1	40/0.85	19.0	44.6	2.5	49.6	55.2	630
95	11.5	2.5	17.6	68.1	40/0.85	20.9	48.9	2.5	53.9	59.7	745
120	13.1	2.5	19.2	68.1	40/0.85	22.5	52.3	2.5	57.3	63.3	850
150	14.5	2.5	20.6	68.1	40/0.85	23.9	55.7	2.5	60.7	66.9	960
185	16.1	2.5	22.2	68.1	40/0.85	25.5	59.4	2.5	64.4	70.8	1090
240	18.5	2.6	24.9	68.1	40/0.85	28.2	65.3	3.15	71.6	78.6	1410
300	20.7	2.8	27.6	68.1	40/0.85	30.9	71.4	3.15	77.7	85.2	1660
400	23.6	3.0	30.9	68.1	40/0.85	34.2	78.8	3.15	85.1	92.9	2030

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air		In ground				
						Conductor kA	Screen kA
mm²							
16	103	110	78	112	89	2.29	2.52
25	134	142	100	143	114	3.57	3.79
35	162	173	122	171	137	5.00	5.05
50	193	206	145	201	162	7.15	7.32
70	238	255	181	245	200	10.0	10.1
95	289	310	218	292	239	13.6	10.1
120	332	357	248	330	271	17.1	10.1
150	373	401	277	367	301	21.4	10.1
185	423	456	312	411	338	26.4	10.1
240	492	532	371	469	395	34.3	10.1
300	555	600	415	521	440	42.9	10.1
400	628	682	466	579	489	57.2	10.1

Installation

Maximum pulling tension	Minimum bending radius			Nominal duct dia.
	Conductor	Armour	During pulling Set in position	
kN	kN	mm	mm	mm
3.4	22	770	510	65
5.3	23	810	540	65
7.4	29	880	580	80
11	31	920	620	80
15	34	990	660	100
20	37	1070	720	100
25	40	1140	760	100
32	42	1200	800	100
39	45	1270	850	100
50	63	1410	940	125
63	68	1530	1020	125
84	75	1670	1120	150

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Armour DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	µF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km	Ohm/km
16	1.15	1.47	0.134	11000	0.221	0.263	4.00	2.06	1.06	0.857	2.58	0.0842
25	0.727	0.927	0.127	9700	0.248	0.296	4.50	1.99	0.706	0.811	1.86	0.0770
35	0.524	0.668	0.120	8700	0.276	0.330	5.01	1.93	0.533	0.657	1.41	0.0712
50	0.387	0.494	0.115	7800	0.308	0.368	5.59	1.87	0.366	0.616	1.08	0.0660
70	0.268	0.342	0.109	6900	0.352	0.420	6.39	1.82	0.265	0.559	0.807	0.0603
95	0.193	0.247	0.101	6000	0.404	0.482	7.33	1.77	0.265	0.521	0.721	0.0525
120	0.153	0.196	0.0969	5400	0.447	0.534	8.11	1.74	0.266	0.487	0.669	0.0491
150	0.124	0.160	0.0942	5000	0.486	0.580	8.81	1.72	0.265	0.458	0.629	0.0467
185	0.0991	0.128	0.0917	4600	0.530	0.632	9.61	1.69	0.265	0.431	0.593	0.0443
240	0.0754	0.0986	0.0890	4200	0.576	0.687	10.4	1.61	0.266	0.307	0.504	0.0418
300	0.0601	0.0798	0.0879	4000	0.597	0.713	10.8	1.49	0.265	0.284	0.473	0.0409
400	0.0470	0.0640	0.0852	3800	0.627	0.749	11.4	1.38	0.265	0.257	0.440	0.0384

3.8/6.6kV Three Core Ind. Screened PVC/SWA/PVC Sheathed

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal diameter over armour bedding	Normal Armour Wire diameter	Nominal diameter over armour	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	mm	mm	kg/100m
35	6.9	2.5	13.0	23.8	14/0.85	16.3	38.6	2.5	43.6	48.6	370
50	8.1	2.5	14.2	32.3	19/0.85	17.5	41.1	2.5	46.1	51.5	410
70	9.6	2.5	15.8	46.0	27/0.85	19.1	44.7	2.5	49.7	55.3	480
95	11.4	2.5	17.5	61.3	36/0.85	20.8	48.6	2.5	53.6	59.4	555
120	12.8	2.5	18.9	68.1	40/0.85	22.2	51.6	2.5	56.6	62.6	615
150	14.2	2.5	20.3	68.1	40/0.85	23.6	54.9	2.5	59.9	66.1	665
185	15.7	2.5	21.8	68.1	40/0.85	25.1	58.3	2.5	63.3	69.7	735
240	18.0	2.6	24.3	68.1	40/0.85	27.6	63.9	3.15	70.2	77.3	940
300	20.1	2.8	27.0	68.1	40/0.85	30.3	70.0	3.15	76.3	83.7	1070
400	23.0	3.0	30.3	68.1	40/0.85	33.6	77.2	3.15	83.5	91.4	1240

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air		In ground				
						Conductor kA	Screen kA
mm²							
35	126	134	95	133	107	3.31	3.53
50	150	160	113	156	126	4.73	4.80
70	186	199	141	191	156	6.62	6.82
95	225	241	170	227	186	8.99	9.09
120	258	277	193	258	211	11.4	10.1
150	291	313	217	287	236	14.2	10.1
185	331	357	245	323	266	17.5	10.1
240	389	420	294	372	314	22.7	10.1
300	441	477	331	416	351	28.4	10.1
400	507	550	377	470	397	37.8	10.1

Installation

Maximum pulling tension	Minimum bending radius			Nominal duct dia.
	Conductor	Armour	During pulling Set in position	
kN	kN	mm	mm	mm
5.3	30	880	580	80
7.5	31	930	620	80
11	34	1000	660	100
14	37	1070	710	100
18	40	1130	750	100
23	41	1190	790	100
28	44	1260	840	100
36	62	1390	930	125
45	67	1510	1000	125
60	74	1640	1100	150

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Armour DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	µF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	0.120	8700	0.278	0.332	5.04	1.92	0.761	0.643	1.91	0.0709
50	0.641	0.822	0.115	7800	0.309	0.369	5.61	1.87	0.559	0.616	1.52	0.0658
70	0.443	0.569	0.106	6800	0.353	0.422	6.41	1.82	0.393	0.559	1.14	0.0574
95	0.320	0.410	0.101	6000	0.400	0.478	7.26	1.77	0.295	0.521	0.884	0.0528
120	0.253	0.325	0.0976	5500	0.439	0.524	7.96	1.74	0.265	0.487	0.769	0.0497
150	0.206	0.265	0.0948	5100	0.477	0.569	8.66	1.72	0.266	0.465	0.714	0.0472
185	0.164	0.211	0.0923	4700	0.518	0.618	9.40	1.70	0.265	0.438	0.660	0.0449
240	0.125	0.162	0.0896	4300	0.561	0.670	10.2	1.62	0.265	0.312	0.556	0.0424
300	0.100	0.130	0.0885	4100	0.582	0.695	10.6	1.50	0.265	0.288	0.515	0.0415
400	0.0778	0.102	0.0857	3900	0.613	0.731	11.1	1.39	0.265	0.261	0.473	0.0390

6.35/11kV Three Core Ind. Screened PVC/SWA/PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal diameter over armour bedding	Normal Armour Wire diameter	Nominal diameter over armour	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	mm	mm	kg/100m
16	4.8	3.4	12.8	17.0	10/0.85	16.1	37.9	2.0	41.9	46.9	330
25	5.8	3.4	13.8	25.5	15/0.85	17.1	40.2	2.5	45.2	50.4	430
35	6.8	3.4	14.8	34.0	20/0.85	18.1	42.6	2.5	47.6	53.0	490
50	8.0	3.4	16.0	49.4	29/0.85	19.3	45.1	2.5	50.1	55.7	565
70	9.6	3.4	17.6	68.1	40/0.85	20.9	48.8	2.5	53.8	59.6	680
95	11.5	3.4	19.4	68.1	40/0.85	22.7	53.0	2.5	58.0	64.1	795
120	13.1	3.4	21.0	68.1	40/0.85	24.3	56.4	2.5	61.4	67.9	910
150	14.5	3.4	22.4	68.1	40/0.85	25.7	59.9	2.5	64.9	71.5	1020
185	16.1	3.4	24.1	68.1	40/0.85	27.4	63.3	2.5	68.3	75.2	1150
240	18.5	3.4	26.5	68.1	40/0.85	29.8	68.8	3.15	75.1	82.3	1470
300	20.7	3.4	28.9	68.1	40/0.85	32.2	74.1	3.15	80.4	88.0	1710
400	23.6	3.4	31.8	68.1	40/0.85	35.3	81.2	3.15	87.5	95.5	2070
500	26.5	3.4	34.7	68.1	40/0.85	38.2	87.6	3.15	93.9	102.4	2450

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air		In ground				
						Conductor kA	Screen kA
mm²							
16	105	111	79	112	90	2.29	2.52
25	136	145	104	143	116	3.57	3.79
35	164	174	124	171	138	5.00	5.05
50	195	208	150	201	165	7.15	7.32
70	241	257	183	245	201	10.0	10.1
95	291	312	220	292	240	13.6	10.1
120	334	359	250	330	272	17.1	10.1
150	375	403	288	367	309	21.4	10.1
185	426	458	324	412	347	26.4	10.1
240	495	534	373	469	396	34.3	10.1
300	556	602	416	521	440	42.9	10.1
400	629	682	467	579	490	57.2	10.1
500	699	760	535	634	555	71.5	10.1

Installation

Maximum pulling tension	Minimum bending radius			Nominal duct dia.
	Conductor	Armour	During pulling Set in position	
	kN	kN	mm	mm
3.4	24	840	560	65
5.3	31	910	610	80
7.4	33	950	640	80
11	34	1000	670	100
15	37	1070	710	100
20	40	1150	770	100
25	43	1220	810	100
32	45	1290	860	125
39	48	1350	900	125
50	66	1480	990	125
63	71	1580	1060	150
84	77	1720	1150	150
105	83	1840	1230	200

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Armour DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	µF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km	Ohm/km
16	1.15	1.47	0.142	14000	0.177	0.354	8.98	2.77	1.06	0.770	2.49	0.0922
25	0.727	0.927	0.134	12000	0.198	0.394	10.0	2.65	0.707	0.629	1.73	0.0845
35	0.524	0.668	0.127	11000	0.219	0.436	11.1	2.55	0.530	0.592	1.36	0.0782
50	0.387	0.494	0.121	10000	0.242	0.484	12.3	2.46	0.366	0.559	1.05	0.0725
70	0.268	0.342	0.115	8800	0.275	0.549	13.9	2.37	0.265	0.521	0.795	0.0663
95	0.193	0.247	0.106	7700	0.314	0.626	15.9	2.30	0.265	0.479	0.706	0.0580
120	0.153	0.196	0.102	7000	0.346	0.689	17.5	2.25	0.265	0.451	0.655	0.0543
150	0.124	0.160	0.0990	6400	0.374	0.747	19.0	2.21	0.266	0.425	0.616	0.0515
185	0.0991	0.128	0.0961	5900	0.407	0.811	20.6	2.17	0.265	0.403	0.580	0.0488
240	0.0754	0.0985	0.0926	5300	0.456	0.909	23.1	2.13	0.266	0.293	0.495	0.0455
300	0.0601	0.0796	0.0904	4800	0.503	1.00	25.5	2.10	0.265	0.272	0.464	0.0434
400	0.0470	0.0638	0.0870	4300	0.561	1.12	28.5	2.07	0.265	0.250	0.435	0.0403
500	0.0373	0.0525	0.0847	3900	0.620	1.24	31.4	2.05	0.265	0.232	0.411	0.0381

6.35/11kV Three Core Ind. Screened PVC/SWA/PVC Sheathed

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal diameter over armour bedding	Normal Armour Wire diameter	Nominal diameter over armour	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	mm	mm	kg/100m
35	6.9	3.4	14.9	23.8	14/0.85	18.2	42.6	2.5	47.6	53.0	415
50	8.1	3.4	16.0	32.3	19/0.85	19.3	45.2	2.5	50.2	55.8	460
70	9.6	3.4	17.6	46.0	27/0.85	20.9	48.9	2.5	53.9	59.7	530
95	11.4	3.4	19.3	61.3	36/0.85	22.6	52.8	2.5	57.8	63.8	610
120	12.8	3.4	20.7	68.1	40/0.85	24.0	55.8	2.5	60.8	67.2	675
150	14.2	3.4	22.1	68.1	40/0.85	25.4	59.0	2.5	64.0	70.7	730
185	15.7	3.4	23.6	68.1	40/0.85	26.9	62.3	2.5	67.3	74.1	800
240	18.0	3.4	25.9	68.1	40/0.85	29.2	67.4	3.15	73.7	81.0	990
300	20.1	3.4	28.3	68.1	40/0.85	31.6	72.6	3.15	78.9	86.6	1110
400	23.0	3.4	31.1	68.1	40/0.85	34.6	79.8	3.15	86.1	94.1	1290
500	26.5	3.4	34.7	68.1	40/0.85	38.2	87.6	3.15	93.9	102.4	1500

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air		In ground				
						Conductor kA	Screen kA
mm²							
35	127	136	96	133	107	3.31	3.53
50	152	162	117	157	129	4.73	4.80
70	188	201	143	191	157	6.62	6.82
95	227	243	171	227	187	8.99	9.09
120	260	279	195	258	212	11.4	10.1
150	293	315	218	287	237	14.2	10.1
185	333	359	255	323	273	17.5	10.1
240	391	422	296	372	315	22.7	10.1
300	442	478	332	416	352	28.4	10.1
400	507	549	378	469	397	37.8	10.1
500	576	626	442	524	458	47.3	10.1

Installation

Maximum pulling tension	Minimum bending radius			Nominal duct dia.
	Conductor	Armour	During pulling Set in position	
	kN	kN	mm	mm
5.3	33	950	640	80
7.5	34	1010	670	100
11	37	1070	720	100
14	40	1150	770	100
18	42	1210	810	100
23	45	1270	850	100
28	47	1330	890	125
36	65	1460	970	125
45	69	1560	1040	125
60	76	1690	1130	150
75	83	1840	1230	200

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Armour DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	µF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	0.127	11000	0.220	0.439	11.1	2.54	0.758	0.592	1.87	0.0779
50	0.641	0.821	0.121	9900	0.243	0.486	12.3	2.46	0.559	0.559	1.48	0.0723
70	0.443	0.569	0.112	8700	0.276	0.551	14.0	2.37	0.393	0.521	1.12	0.0634
95	0.320	0.410	0.106	7800	0.311	0.620	15.8	2.30	0.295	0.479	0.868	0.0583
120	0.253	0.325	0.103	7100	0.339	0.677	17.2	2.25	0.265	0.458	0.757	0.0549
150	0.206	0.265	0.0996	6600	0.368	0.734	18.6	2.22	0.265	0.431	0.699	0.0520
185	0.164	0.211	0.0968	6100	0.398	0.794	20.2	2.18	0.265	0.408	0.646	0.0494
240	0.125	0.161	0.0933	5400	0.445	0.887	22.5	2.14	0.266	0.297	0.546	0.0461
300	0.100	0.130	0.0910	4900	0.491	0.980	24.9	2.11	0.266	0.280	0.510	0.0441
400	0.0778	0.102	0.0876	4400	0.548	1.09	27.8	2.08	0.266	0.254	0.468	0.0409
500	0.0617	0.0823	0.0847	3900	0.620	1.24	31.4	2.05	0.265	0.232	0.434	0.0381

12.7/22kV Three Core Ind. Screened PVC/SWA/PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal diameter over armour bedding	Normal Armour Wire diameter	Nominal diameter over armour	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	mm	mm	kg/100m
35	6.8	5.5	19.1	34.0	20/0.85	22.4	52.1	2.5	57.1	63.2	610
50	8.0	5.5	20.3	49.4	29/0.85	23.6	54.8	2.5	59.8	66.0	685
70	9.6	5.5	21.9	68.1	40/0.85	25.2	58.5	2.5	63.5	70.1	810
95	11.5	5.5	23.8	68.1	40/0.85	27.1	62.6	2.5	67.6	74.4	935
120	13.1	5.5	25.3	68.1	40/0.85	28.6	66.3	3.15	72.6	79.6	1140
150	14.5	5.5	26.8	68.1	40/0.85	30.1	69.6	3.15	75.9	83.1	1270
185	16.1	5.5	28.4	68.1	40/0.85	31.7	73.0	3.15	79.3	87.0	1400
240	18.5	5.5	30.8	68.1	40/0.85	34.1	78.5	3.15	84.8	92.6	1640
300	20.7	5.5	33.2	68.1	40/0.85	36.7	84.2	3.15	90.5	98.8	1900
400	23.6	5.5	36.1	68.1	40/0.85	39.6	90.7	3.15	97.0	105.6	2260
500	26.5	5.5	39.0	68.1	40/0.85	42.5	97.1	3.15	103.4	112.5	2640

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air		In ground				
							
mm²						Conductor kA	Screen kA
35	167	178	130	171	142	5.00	5.05
50	199	212	153	201	167	7.15	7.32
70	245	261	187	245	203	10.0	10.1
95	296	316	231	292	248	13.6	10.1
120	339	363	262	330	280	17.1	10.1
150	380	408	292	366	311	21.4	10.1
185	430	462	328	410	349	26.4	10.1
240	499	538	377	469	398	34.3	10.1
300	561	606	421	521	442	42.9	10.1
400	634	687	490	580	508	57.2	10.1
500	705	766	539	635	556	71.5	10.1

Installation

Maximum pulling tension	Minimum bending radius			Nominal duct dia.
	Conductor		Armour	
	During pulling	Set in position		
kN	kN	mm	mm	mm
7.4	40	1140	760	100
11	41	1190	790	100
15	44	1260	840	100
20	47	1340	890	125
25	64	1430	960	125
32	67	1500	1000	125
39	70	1570	1040	125
50	75	1670	1110	150
63	80	1780	1190	150
84	86	1900	1270	200
105	92	2020	1350	200

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Armour DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km	Ohm/km
35	0.524	0.668	0.141	16000	0.156	0.622	31.6	3.63	0.531	0.487	1.29	0.0923
50	0.387	0.494	0.134	14000	0.171	0.682	34.7	3.48	0.367	0.465	1.00	0.0858
70	0.268	0.342	0.127	13000	0.192	0.765	38.9	3.31	0.265	0.438	0.763	0.0786
95	0.193	0.247	0.117	11000	0.216	0.862	43.8	3.16	0.265	0.408	0.675	0.0693
120	0.153	0.196	0.112	10000	0.236	0.942	47.8	3.07	0.265	0.302	0.577	0.0648
150	0.124	0.160	0.109	9500	0.254	1.01	51.5	3.00	0.266	0.288	0.540	0.0615
185	0.0991	0.128	0.105	8800	0.274	1.09	55.6	2.93	0.266	0.276	0.506	0.0582
240	0.0754	0.0981	0.101	7900	0.305	1.22	61.8	2.85	0.265	0.257	0.468	0.0542
300	0.0601	0.0792	0.0988	7200	0.334	1.33	67.8	2.79	0.265	0.241	0.440	0.0519
400	0.0470	0.0633	0.0944	6500	0.371	1.48	75.1	2.73	0.265	0.224	0.413	0.0477
500	0.0373	0.0518	0.0915	5900	0.407	1.62	82.4	2.69	0.265	0.209	0.390	0.0450

12.7/22kV Three Core Ind. Screened PVC/SWA/PVC Sheathed

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal diameter over armour bedding	Normal Armour Wire diameter	Nominal diameter over armour	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	mm	mm	kg/100m
35	6.9	5.5	19.2	23.8	14/0.85	22.5	52.3	2.5	57.3	63.3	535
50	8.1	5.5	20.3	32.3	19/0.85	23.6	54.9	2.5	59.9	66.1	585
70	9.6	5.5	21.9	46.0	27/0.85	25.2	58.6	2.5	63.6	70.0	665
95	11.4	5.5	23.6	61.3	36/0.85	26.9	62.3	2.5	67.3	74.1	750
120	12.8	5.5	25.0	68.1	40/0.85	28.3	65.5	3.15	71.8	78.8	900
150	14.2	5.5	26.4	68.1	40/0.85	29.7	68.7	3.15	75.0	82.3	975
185	15.7	5.5	27.9	68.1	40/0.85	31.2	72.0	3.15	78.3	85.9	1040
240	18.0	5.5	30.3	68.1	40/0.85	33.6	77.1	3.15	83.4	91.3	1160
300	20.1	5.5	32.6	68.1	40/0.85	36.1	82.8	3.15	89.1	97.3	1300
400	23.0	5.5	35.4	68.1	40/0.85	38.9	89.3	3.15	95.6	104.2	1480
500	26.5	5.5	39.0	68.1	40/0.85	42.5	97.1	3.15	103.4	112.5	1700

Note: For larger sizes use 6.35/11kV cables

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air		In ground				
							
mm ²						Conductor kA	Screen kA
35	130	138	101	133	111	3.31	3.53
50	155	165	119	157	130	4.73	4.80
70	191	204	146	191	159	6.62	6.82
95	230	246	180	227	193	8.99	9.09
120	264	283	205	258	219	11.4	10.1
150	297	319	229	287	244	14.2	10.1
185	337	362	258	323	275	17.5	10.1
240	394	424	299	372	316	22.7	10.1
300	446	481	336	416	353	28.4	10.1
400	510	552	396	469	412	37.8	10.1
500	579	628	445	524	459	47.3	10.1

Installation

Maximum pulling tension	Minimum bending radius			Nominal duct dia.
	Conductor			
	Armour	During pulling	Set in position	
kN	kN	mm	mm	mm
5.3	40	1140	760	100
7.5	41	1190	790	100
11	45	1260	840	100
14	47	1330	890	125
18	63	1420	950	125
23	66	1480	990	125
28	69	1550	1030	125
36	74	1640	1100	150
45	79	1750	1170	150
60	85	1880	1250	200
75	92	2020	1350	200

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Armour DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	0.140	15000	0.157	0.626	31.8	3.62	0.759	0.487	1.76	0.0919
50	0.641	0.821	0.134	14000	0.172	0.685	34.8	3.47	0.560	0.465	1.40	0.0855
70	0.443	0.568	0.124	13000	0.192	0.768	39.0	3.30	0.393	0.431	1.06	0.0757
95	0.320	0.410	0.117	11000	0.214	0.855	43.4	3.17	0.294	0.408	0.833	0.0697
120	0.253	0.325	0.113	10000	0.232	0.926	47.0	3.08	0.265	0.307	0.680	0.0657
150	0.206	0.265	0.110	9700	0.250	0.997	50.7	3.01	0.266	0.293	0.624	0.0622
185	0.164	0.211	0.106	9000	0.269	1.07	54.5	2.95	0.265	0.280	0.573	0.0591
240	0.125	0.161	0.102	8100	0.298	1.19	60.4	2.87	0.265	0.261	0.520	0.0550
300	0.100	0.130	0.0996	7400	0.327	1.30	66.3	2.81	0.265	0.244	0.482	0.0527
400	0.0778	0.102	0.0951	6700	0.363	1.45	73.5	2.75	0.266	0.226	0.446	0.0484
500	0.0617	0.0819	0.0915	5900	0.407	1.62	82.4	2.69	0.265	0.209	0.414	0.0450

19/33kV Three Core Ind. Screened PVC/SWA/PVC Sheathed

Copper Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal diameter over armour bedding	Normal Armour Wire diameter	Nominal diameter over armour	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	mm	mm	kg/100m
50	8.0	8.0	25.5	49.4	29/0.85	28.8	66.5	3.15	72.8	80.1	950
70	9.6	8.0	27.1	68.1	40/0.85	30.4	70.2	3.15	76.5	83.9	1080
95	11.5	8.0	29.0	68.1	40/0.85	32.3	74.2	3.15	80.5	88.2	1220
120	13.1	8.0	30.6	68.1	40/0.85	33.9	78.0	3.15	84.3	92.1	1340
150	14.5	8.0	32.0	68.1	40/0.85	35.5	81.7	3.15	88.0	96.0	1490
185	16.1	8.0	33.6	68.1	40/0.85	37.1	85.2	3.15	91.5	99.9	1630
240	18.5	8.0	36.0	68.1	40/0.85	39.5	90.6	3.15	96.9	105.6	1880
300	20.7	8.0	38.4	68.1	40/0.85	41.9	95.9	3.15	102.2	111.3	2140
400	23.6	8.0	41.3	68.1	40/0.85	44.8	102.4	3.15	108.7	118.1	2510
500	26.5	8.0	44.2	68.1	40/0.85	47.7	109.0	3.15	115.3	125.2	2900

Note: For larger sizes use 6.35/11kV cables

19/33kV Three Core Ind. Screened PVC/SWA/PVC Sheathed

Aluminium Conductors, up to 10kA Fault Level

Nominal conductor area	Nominal conductor diameter	Nominal insulation thickness	Nominal diameter over insulation	Nominal screen area	Number and nominal diameter of screen wires	Nominal diameter over wire screen	Nominal diameter over armour bedding	Normal Armour Wire diameter	Nominal diameter over armour	Nominal overall diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no/mm	mm	mm	mm	mm	mm	kg/100m
50	8.1	8.0	25.6	32.3	19/0.85	28.9	66.6	3.15	72.9	80.2	850
70	9.6	8.0	27.2	46.0	27/0.85	30.5	70.3	3.15	76.6	84.0	935
95	11.4	8.0	28.9	61.3	36/0.85	32.2	74.0	3.15	80.3	87.9	1030
120	12.8	8.0	30.3	68.1	40/0.85	33.6	77.2	3.15	83.5	91.3	1100
150	14.2	8.0	31.7	68.1	40/0.85	35.2	80.9	3.15	87.2	95.2	1190
185	15.7	8.0	33.2	68.1	40/0.85	36.7	84.1	3.15	90.4	98.8	1270
240	18.0	8.0	35.5	68.1	40/0.85	39.0	89.4	3.15	95.7	104.4	1400
300	20.1	8.0	37.8	68.1	40/0.85	41.3	94.6	3.15	100.9	110.0	1540
400	23.0	8.0	40.7	68.1	40/0.85	44.2	101.0	3.15	107.3	116.7	1720
500	26.5	8.0	44.2	68.1	40/0.85	47.7	109.0	3.15	115.3	125.2	1960

Current Ratings

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air		In ground				
							
mm ²						Conductor kA	Screen kA
50	202	215	161	201	173	7.15	7.32
70	249	265	196	245	210	10.0	10.1
95	300	320	234	291	250	13.6	10.1
120	342	366	265	329	282	17.1	10.1
150	383	411	295	366	313	21.4	10.1
185	433	465	332	410	350	26.4	10.1
240	502	540	395	468	412	34.3	10.1
300	564	608	441	520	457	42.9	10.1
400	637	689	493	579	509	57.2	10.1
500	713	772	547	640	561	71.5	10.1

Installation

Maximum pulling tension	Minimum bending radius			Nominal duct dia.
Conductor	Armour	During pulling	Set in position	
kN	kN	mm	mm	mm
11	64	1440	960	125
15	67	1510	1010	125
20	71	1590	1060	150
25	74	1660	1110	150
32	78	1730	1150	150
39	81	1800	1200	150
50	86	1900	1270	200
63	91	2000	1340	200
84	97	2130	1420	200
105	96	2250	1500	200

Installation

Nominal conductor area	Continuous current-carrying capacity, A					Fault current carrying capacity for 1 second	
	In air		In ground				
							
mm ²						Conductor kA	Screen kA
50	157	167	125	157	135	4.73	4.80
70	194	206	153	191	164	6.62	6.82
95	234	249	183	228	195	8.99	9.09
120	267	285	207	258	221	11.4	10.1
150	300	321	232	287	246	14.2	10.1
185	340	365	261	323	276	17.5	10.1
240	396	426	313	371	327	22.7	10.1
300	448	482	352	415	366	28.4	10.1
400	513	553	399	469	412	37.8	10.1
500	583	631	449	526	462	47.3	10.1

Maximum pulling tension	Minimum bending radius			Nominal duct dia.
	Conductor	Armour	During pulling Set in position	
kN	kN	mm	mm	mm
7.5	64	1440	960	125
11	67	1510	1010	125
14	71	1580	1050	125
18	74	1640	1100	150
23	77	1710	1140	150
28	80	1780	1190	150
36	85	1880	1250	200
45	89	1980	1320	200
60	95	2100	1400	200
75	96	2250	1500	200

Electrical Characteristics

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Armour DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km	Ohm/km
50	0.387	0.494	0.147	18000	0.133	0.796	60.5	4.05	0.366	0.302	0.884	0.0988
70	0.268	0.342	0.139	16000	0.148	0.883	67.1	3.82	0.265	0.288	0.682	0.0909
95	0.193	0.247	0.128	15000	0.165	0.984	74.8	3.61	0.265	0.272	0.596	0.0807
120	0.153	0.196	0.123	14000	0.179	1.07	81.1	3.48	0.265	0.261	0.548	0.0757
150	0.124	0.159	0.120	13000	0.191	1.14	86.8	3.38	0.266	0.247	0.509	0.0722
185	0.0991	0.128	0.116	12000	0.205	1.23	93.2	3.29	0.266	0.238	0.476	0.0685
240	0.0754	0.0978	0.111	11000	0.227	1.35	103	3.17	0.265	0.224	0.441	0.0637
300	0.0601	0.0788	0.107	9800	0.247	1.48	112	3.09	0.266	0.211	0.415	0.0605
400	0.0470	0.0628	0.102	8900	0.272	1.62	123	3.00	0.266	0.198	0.389	0.0557
500	0.0373	0.0513	0.0990	8100	0.297	1.77	135	2.93	0.265	0.215	0.395	0.0524

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	DC resistance of screens at 20°C	Armour DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	μF/km	A/km	W/km	kV/mm	Ohm/km	Ohm/km	Ohm/km	Ohm/km
50	0.641	0.821	0.147	18000	0.134	0.798	60.7	4.04	0.559	0.302	1.23	0.0985
70	0.443	0.568	0.136	16000	0.148	0.885	67.3	3.81	0.392	0.288	0.942	0.0879
95	0.320	0.410	0.129	15000	0.164	0.977	74.3	3.62	0.294	0.272	0.744	0.0812
120	0.253	0.325	0.124	14000	0.176	1.05	79.9	3.50	0.265	0.264	0.647	0.0766
150	0.206	0.264	0.120	13000	0.189	1.13	85.5	3.40	0.265	0.250	0.593	0.0731
185	0.164	0.211	0.117	12000	0.202	1.20	91.5	3.31	0.265	0.241	0.543	0.0694
240	0.125	0.161	0.112	11000	0.222	1.32	101	3.20	0.266	0.226	0.492	0.0647
300	0.100	0.130	0.108	10000	0.242	1.44	110	3.11	0.265	0.216	0.458	0.0614
400	0.0778	0.102	0.103	9100	0.267	1.59	121	3.02	0.265	0.202	0.423	0.0565
500	0.0617	0.0815	0.0990	8100	0.297	1.77	135	2.93	0.265	0.215	0.419	0.0524