



PT. SUMI INDO KABEL Tbk.

AFFILIATE OF
SUMITOMO ELECTRIC INDUSTRIES, LTD - JAPAN



**XLPE Insulated, Copper Tape Shielded, Double Aluminium Tape Armoured
and PVC Sheathed Cables**

(3.6/6 kV ~ 18/30 kV) XLPE/DATA/PVC

According to : IEC 60502-2



Note : Special application upon request

- * Available product in accordance to: SPLN, ICEA/NEMA, AS standard or other requirement.
- * Flame retardant test acc. to IEC 60332-3 cat. A, B or C.
- * Longitudinally Water Blocking characteristic.
- * Anti termite performance.
- * Tin coated Copper conductor.
- * Copper wire screen.
- * Polyethylene/Low Smoke halogen Free sheath.

(E)

XLPE Insulated, Copper Tape Shielded, Double Aluminium Tape and PVC Sheathed Cables

3.6/6 (7.2) kV XLPE / DATA / PVC 1 x (25 - 800) mm²

CONSTRUCTION DATA

No. of Core	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Nom. Cross-section area	mm ²	25	35	50	70	95	120	150	185	240	300	400	500	630	800
No. of Wire	-	7	7	19	19	19	37	37	37	37	61	61	61	61	61
Diameter of Conductor, approx. (**)	mm	5.9	7.1	8.1	9.7	11.6	12.9	14.3	16.0	18.3	20.7	23.4	26.5	30.3	34.3
Nom. Thickness of Insulation	mm	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.8	3.0	3.2	3.2	3.2
Nom. Thickness of Copper tape	mm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nom. Thickness of Separation Sheath	mm	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.4
Nom. Thickness of aluminium tape	mm	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Nom. Thickness of Outer sheath	mm	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6
Overall Diameter of cable	mm	21.5	22.5	23.5	25.0	27.0	28.5	30.0	31.5	34.5	37.5	40.5	44.5	48.5	53.0
Weight of cable, approximate	kg/km	705	830	970	1205	1500	1755	2055	2440	3045	3710	4580	5705	7165	8915

ELECTRICAL DATA

AC Voltage test for 5 min.	kV	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	
Partial Discharge test at max. 10pC	kV	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	
DC Resistance at 20°C		0.727	0.524	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.0470	0.0366	0.0283	0.0221	
AC Resistance at 90°C	Ω / km	0.927	0.668	0.494	0.342	0.247	0.196	0.159	0.127	0.0976	0.0785	0.0623	0.0498	0.0401	0.0332	
Insulation Resistance at 20°C	M Ω . km	2500	2000	2000	1500	1500	1500	1500	1500	1000	900	900	900	800	700	
Capacitance	mF / km	0.266	0.300	0.328	0.373	0.427	0.463	0.502	0.550	0.593	0.615	0.641	0.673	0.755	0.842	
Inductance (Trefoil)	mH / km	0.447	0.419	0.402	0.378	0.358	0.347	0.337	0.324	0.315	0.307	0.298	0.292	0.283	0.276	
Reactance (Trefoil)	Ω / km	0.140	0.132	0.126	0.119	0.112	0.109	0.106	0.102	0.0990	0.0965	0.0937	0.0918	0.0888	0.0866	
Current Carrying Capacity :																
- Buried direct in ground at 20°C (***) (Trefoil)	A	140	166	196	239	285	323	361	406	469	526	590	* 655	* 740	* 840	
(Flat spaced)	A	144	172	203	246	293	332	366	410	470	524	572	* 650	* 730	* 820	
- In Air at 30°C	(Trefoil) A	163	198	238	296	361	417	473	543	641	735	845	* 940	* 1080	* 1250	
(Flat spaced)	A	196	238	286	356	434	500	559	637	745	846	938	* 1075	* 1235	* 1420	
(Flat touching)	A	167	203	243	303	369	426	481	550	647	739	837	* 945	* 1080	* 1250	
Short circuit current rating at 1 sec. (approx.)	kA	3.58	5.01	7.15	10.01	13.59	17.16	21.45	26.46	34.32	42.90	57.20	71.50	90.09	114.40	

*) typical data

**) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

XLPE Insulated, Copper Tape Shielded, Double Aluminium Tape and PVC Sheathed Cables

6/10 (12) kV XLPE / DATA / PVC 1 x (25 - 800) mm²

CONSTRUCTION DATA

No. of Core	-	1	1	1	1	1	1	1	1	1	1	1	1	1	
Nom. Cross-section area	mm ²	25	35	50	70	95	120	150	185	240	300	400	500	630	800
No. of Wire	-	7	7	19	19	19	37	37	37	37	61	61	61	61	61
Diameter of Conductor, approx. **)	mm	5.9	7.1	8.1	9.7	11.6	12.9	14.3	16.0	18.3	20.7	23.4	26.5	30.3	34.3
Nom. Thickness of Insulation	mm	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Nom. Thickness of Copper tape	mm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nom. Thickness of Separation Sheath	mm	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.4	1.4
Nom. Thickness of aluminium tape	mm	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Nom. Thickness of Outer sheath	mm	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.4	2.5	2.6
Overall Diameter of cable	mm	23.0	24.5	25.5	27.0	29.0	30.0	32.0	33.5	36.0	38.5	41.5	45.0	49.0	53.0
Weight of cable, approximate	kg/km	785	910	1055	1295	1595	1855	2170	2560	3145	3790	4655	3735	7200	8950

ELECTRICAL DATA

AC Voltage test for 5 min.	kV	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Partial Discharge test at max. 10pC	kV	10.38	10.38	10.38	10.38	10.38	10.38	10.38	10.38	10.38	10.38	10.38	10.38	10.38	10.38
DC Resistance at 20°C		0.727	0.524	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.0470	0.0366	0.0283	0.0221
AC Resistance at 90°C	Ω / km	0.927	0.668	0.494	0.342	0.247	0.196	0.159	0.127	0.0975	0.0784	0.0623	0.0497	0.0401	0.0332
Insulation Resistance at 20°C	MΩ . km	3000	2500	2500	2000	2000	2000	1500	1500	1500	1500	1000	900	800	700
Capacitance	mF / km	0.211	0.236	0.257	0.291	0.330	0.357	0.386	0.421	0.468	0.518	0.573	0.637	0.715	0.797
Inductance (Trefoil)	mH / km	0.461	0.436	0.418	0.393	0.372	0.357	0.350	0.336	0.324	0.313	0.303	0.295	0.285	0.276
Reactance (Trefoil)	Ω / km	0.145	0.137	0.131	0.124	0.117	0.112	0.110	0.106	0.102	0.0982	0.0952	0.0925	0.0894	0.0866
Current Carrying Capacity :															
- Buried direct in ground at 20°C ***) (Trefoil)	A	140	166	196	239	285	323	361	406	469	526	590	* 655	* 740	* 840
(Flat spaced)	A	144	172	203	246	293	332	366	410	470	524	572	* 650	* 730	* 820
- In Air at 30°C	(Trefoil) A	163	198	238	296	361	417	473	543	641	735	845	* 940	* 1080	* 1250
(Flat spaced)	A	196	238	286	356	434	500	559	637	745	846	938	* 1075	* 1235	* 1420
(Flat touching)	A	167	203	243	303	369	426	481	550	647	739	837	* 945	* 1080	* 1250
Short circuit current rating at 1 sec. (approx.)	kA	3.58	5.01	7.15	10.01	13.59	17.16	21.45	26.46	34.32	42.90	57.20	71.50	90.09	114.40

*) typical data

**) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

XLPE Insulated, Copper Tape Shielded, Double Aluminium Tape and PVC Sheathed Cables

8.7/15 (17.5) kV XLPE / DATA / PVC 1 x (25 - 630) mm²

CONSTRUCTION DATA

No. of Core	-	1	1	1	1	1	1	1	1	1	1	1	1	
Nom. Cross-section area	mm ²	25	35	50	70	95	120	150	185	240	300	400	500	630
No. of Wire	-	7	7	19	19	19	37	37	37	37	61	61	61	61
Diameter of Conductor, approx. **)	mm	5.9	7.1	8.1	9.7	11.6	12.9	14.3	16.0	18.3	20.7	23.4	26.5	30.3
Nom. Thickness of Insulation	mm	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Nom. Thickness of Copper tape	mm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nom. Thickness of Separation Sheath	mm	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.4
Nom. Thickness of aluminium tape	mm	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Nom. Thickness of Outer sheath	mm	1.8	1.8	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.3	2.4	2.5	2.6
Overall Diameter of cable	mm	25.5	26.5	27.5	29.0	31.5	32.5	34.0	36.0	38.5	41.0	44.0	47.5	51.5
Weight of cable, approximate	kg/km	885	1015	1160	1405	1725	1990	2315	2695	3305	3955	4820	5950	7405

ELECTRICAL DATA

AC Voltage test for 5 min.	kV	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
Partial Discharge test at max. 10pC	kV	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
DC Resistance at 20°C		0.727	0.524	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.0470	0.0366	0.0283
AC Resistance at 90°C	Ω / km	0.927	0.668	0.494	0.342	0.247	0.196	0.159	0.127	0.0975	0.0784	0.0622	0.0496	0.0399
Insulation Resistance at 20°C	M Ω . km	3500	3000	3000	2500	2500	2000	2000	2000	1500	1500	1500	1500	1000
Capacitance	mF / km	0.173	0.192	0.208	0.234	0.264	0.284	0.307	0.333	0.369	0.407	0.449	0.497	0.556
Inductance (Trefoil)	mH / km	0.481	0.452	0.433	0.408	0.388	0.373	0.362	0.351	0.337	0.325	0.315	0.305	0.295
Reactance (Trefoil)	Ω / km	0.151	0.142	0.136	0.128	0.122	0.117	0.114	0.110	0.106	0.102	0.0989	0.0959	0.0925
Current Carrying Capacity :														
- Buried direct in ground at 20°C ***) (Trefoil)	A	140	166	196	239	285	323	361	406	469	526	590	* 655	* 740
(Flat spaced)	A	144	172	203	246	293	332	366	410	470	524	572	* 650	* 730
- In Air at 30°C	(Trefoil) A	163	198	238	296	361	417	473	543	641	735	845	* 940	* 1080
(Flat spaced)	A	196	238	286	356	434	500	559	637	745	846	938	* 1075	* 1235
(Flat touching)	A	167	203	243	303	369	426	481	550	647	739	837	* 945	* 1080
Short circuit current rating at 1 sec. (approx.)	kA	3.58	5.01	7.15	10.01	13.59	17.16	21.45	26.46	34.32	42.90	57.20	71.50	90.09

*) typical data

**) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

XLPE Insulated, Copper Tape Shielded, Double Aluminium Tape and PVC Sheathed Cables

12/20 (24) kV XLPE / DATA / PVC 1 x (35 - 630) mm²

CONSTRUCTION DATA

No. of Core	-	1	1	1	1	1	1	1	1	1	1	1	1
Nom. Cross-section area	mm ²	35	50	70	95	120	150	185	240	300	400	500	630
No. of Wire	-	7	19	19	19	37	37	37	37	61	61	61	61
Diameter of Conductor, approx. **)	mm	7.1	8.1	9.7	11.6	12.9	14.3	16.0	18.3	20.7	23.4	26.5	30.3
Nom. Thickness of Insulation	mm	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Nom. Thickness of Copper tape	mm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nom. Thickness of Separation Sheath	mm	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.4	1.5
Nom. Thickness of aluminium tape	mm	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Nom. Thickness of Outer sheath	mm	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.3	2.4	2.5	2.6	2.7
Overall Diameter of cable	mm	29.0	30.0	31.5	33.5	35.0	36.5	38.5	41.0	43.5	46.5	50.0	54.0
Weight of cable, approximate	kg/km	1130	1275	1540	1855	2140	2450	2855	3475	4135	5010	6155	7650

ELECTRICAL DATA

AC Voltage test for 5 min.	kV	42	42	42	42	42	42	42	42	42	42	42	42
Partial Discharge test at max. 10pC	kV	20.76	20.76	20.76	20.76	20.76	20.76	20.76	20.76	20.76	20.76	20.76	20.76
DC Resistance at 20°C		0.524	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.0470	0.0366	0.0283
AC Resistance at 90°C	Ω / km	0.668	0.494	0.342	0.247	0.196	0.159	0.127	0.0974	0.0783	0.0621	0.0495	0.0398
Insulation Resistance at 20°C	M Ω . km	3500	3500	3000	2500	2500	2500	2000	2000	2000	1500	1500	1500
Capacitance	mF / km	0.165	0.178	0.199	0.224	0.240	0.258	0.279	0.309	0.339	0.373	0.412	0.459
Inductance (Trefoil)	mH / km	0.470	0.450	0.424	0.401	0.388	0.376	0.364	0.350	0.337	0.326	0.316	0.304
Reactance (Trefoil)	Ω / km	0.148	0.142	0.133	0.126	0.122	0.118	0.114	0.110	0.106	0.102	0.0991	0.0955
Current Carrying Capacity :													
- Buried direct in ground at 20°C ***) (Trefoil)	A	166	196	239	285	323	361	406	469	526	590	* 655	* 740
(Flat spaced)	A	172	203	246	293	332	366	410	470	524	572	* 650	* 730
- In Air at 30°C	(Trefoil) A	198	238	296	361	417	473	543	641	735	845	* 940	* 1080
(Flat spaced)	A	238	286	356	434	500	559	637	745	846	938	* 1075	* 1235
(Flat touching)	A	203	243	303	369	426	481	550	647	739	837	* 945	* 1080
Short circuit current rating at 1 sec. (approx.)	kA	5.01	7.15	10.01	13.59	17.16	21.45	26.46	34.32	42.90	57.20	71.50	90.09

*) typical data

**) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

XLPE Insulated, Copper Tape Shielded, Double Aluminium Tape and PVC Sheathed Cables

18/30 (36) kV XLPE / DATA / PVC 1 x (50 - 630) mm²

CONSTRUCTION DATA

No. of Core	-	1	1	1	1	1	1	1	1	1	1	1
Nom. Cross-section area	mm ²	50	70	95	120	150	185	240	300	400	500	630
No. of Wire	-	19	19	19	37	37	37	37	61	61	61	61
Diameter of Conductor, approx. **)	mm	8.1	9.7	11.6	12.9	14.3	16.0	18.3	20.7	23.4	26.5	30.3
Nom. Thickness of Insulation	mm	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Nom. Thickness of Copper tape	mm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nom. Thickness of Separation Sheath	mm	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.5	1.6
Nom. Thickness of aluminium tape	mm	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Nom. Thickness of Outer sheath	mm	2.1	2.2	2.2	2.3	2.3	2.4	2.5	2.5	2.6	2.7	2.9
Overall Diameter of cable	mm	35.5	37.0	39.0	40.5	42.0	44.0	46.5	49.0	52.0	55.5	60.0
Weight of cable, approximate	kg/km	1610	1890	2215	2515	2850	3260	3905	4590	5485	6665	8225

ELECTRICAL DATA

AC Voltage test for 5 min.	kV	63	63	63	63	63	63	63	63	63	63	63
Partial Discharge test at max. 10pC	kV	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1
DC Resistance at 20°C		0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.0470	0.0366	0.0283
AC Resistance at 90°C	Ω / km	0.494	0.342	0.247	0.196	0.159	0.127	0.0973	0.0782	0.0619	0.0493	0.0395
Insulation Resistance at 20°C	M Ω . km	4000	4000	3500	3000	3000	3000	2500	2500	2000	2000	2000
Capacitance	mF / km	0.138	0.153	0.170	0.182	0.194	0.209	0.229	0.250	0.274	0.300	0.333
Inductance (Trefoil)	mH / km	0.484	0.456	0.431	0.417	0.404	0.391	0.375	0.361	0.348	0.336	0.325
Reactance (Trefoil)	Ω / km	0.152	0.143	0.135	0.131	0.127	0.123	0.118	0.113	0.109	0.106	0.102
Current Carrying Capacity :												
- Buried direct in ground at 20°C ***) (Trefoil)	A	196	239	285	323	361	406	469	526	590	* 655	* 740
(Flat spaced)	A	203	246	293	332	366	410	470	524	572	* 650	* 730
- In Air at 30°C (Trefoil)	A	238	296	361	417	473	543	641	735	845	* 940	* 1080
(Flat spaced)	A	286	356	434	500	559	637	745	846	938	* 1075	* 1235
(Flat touching)	A	243	303	369	426	481	550	647	739	837	* 945	* 1080
Short circuit current rating at 1 sec. (approx.)	kA	7.15	10.01	13.59	17.16	21.45	26.46	34.32	42.90	57.20	71.50	90.09

*) typical data

**) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m



PT. SUMI INDO KABEL Tbk.

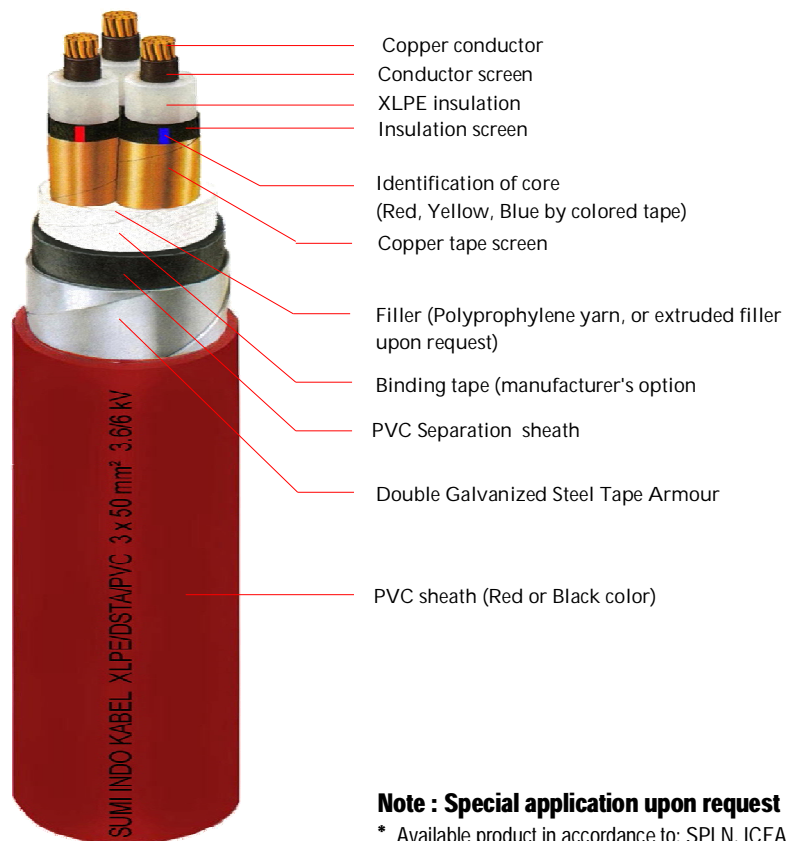
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XLPE Insulated, Copper Tape Shielded, Double Galvanized Steel Tape Armoured and PVC Sheathed Cables

(3.6/6 kV ~ 18/30 kV) XLPE/DSTA/PVC

According to : IEC 60502-2



Note : Special application upon request

- * Available product in accordance to: SPLN, ICEA/NEMA, AS standard or other requirement.
- * Flame retardant test acc. to IEC 60332-3 cat. A, B or C.
- * Longitudinally Water Blocking characteristic.
- * Anti termite performance.
- * Tin coated Copper conductor.
- * Copper wire screen.
- * Polyethylene/Low Smoke halogen Free sheath.

(F)

XLPE Insulated, Copper Tape Shielded, Double Galvanized Steel Tape Armoured and PVC Sheathed Cables

3.6/6 (7.2) kV XLPE / DSTA / PVC 3 x (25 - 300) mm²

CONSTRUCTION DATA

No. of Core	-	3	3	3	3	3	3	3	3	3	3
Nom. Cross-section area	mm ²	25	35	50	70	95	120	150	185	240	300
No. of Wire	-	7	7	19	19	19	37	37	37	37	61
Diameter of Conductor, approx. *)	mm	5.9	7.1	8.1	9.7	11.6	12.9	14.3	16.0	18.3	20.7
Nom. Thickness of Insulation	mm	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.8
Nom. Thickness of Copper tape	mm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nom. Thickness of Separation Sheath	mm	1.2	1.3	1.3	1.4	1.4	1.5	1.6	1.6	1.7	1.8
Nom. Thickness of Steel Tape	mm	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Nom. Thickness Of Outer sheath	mm	2.2	2.3	2.4	2.5	2.6	2.8	2.9	3.0	3.2	3.4
Overall Diameter of cable	mm	38.0	41.0	43.0	47.0	51.5	54.5	58.0	62.0	67.5	74.0
Weight of cable, approximate	kg/km	2340	2795	3250	4065	5060	5965	6995	8220	10180	12390

ELECTRICAL DATA

AC Voltage test for 5 min.	kV	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Partial Discharge test at max. 10pC	kV	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23	6.23
DC Resistance at 20°C	Ω / km	0.727	0.524	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601
AC Resistance at 90°C	Ω / km	0.927	0.668	0.494	0.342	0.247	0.196	0.159	0.128	0.0981	0.0792
Insulation Resistance at 20°C	M Ω. km	2500	2000	2000	1500	1500	1500	1500	1500	1000	900
Capacitance	mF / km	0.266	0.300	0.328	0.373	0.427	0.463	0.502	0.550	0.593	0.615
Inductance	mH / km	0.360	0.340	0.326	0.309	0.294	0.285	0.277	0.270	0.263	0.258
Reactance	Ω / km	0.113	0.107	0.102	0.0970	0.0922	0.0895	0.0871	0.0847	0.0825	0.0810
Current Carrying Capacity **):											
- Buried direct in ground at 20°C	A	129	154	181	220	263	298	332	374	431	482
- In a Buried duct at 20°C	A	112	134	158	194	232	264	296	335	387	435
- In Air at 30°C	A	143	172	205	253	307	352	397	453	529	599
Short circuit current rating at 1 sec. (approx.)	kA	3.58	5.01	7.15	10.01	13.59	17.16	21.45	26.46	34.32	42.90

*) Diameter compacted shape

***) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

Thermal Resistivity of earthenware ducts : 1.2 K.m/W

XLPE Insulated, Copper Tape Shielded, Double Galvanized Steel Tape Armoured and PVC Sheathed Cables

6/10 (12) kV XLPE / DSTA / PVC 3 x (25 - 300) mm²

CONSTRUCTION DATA

No. of Core	-	3	3	3	3	3	3	3	3	3	3
Nom. Cross-section area	mm ²	25	35	50	70	95	120	150	185	240	300
No. of Wire	-	7	7	19	19	19	37	37	37	37	61
Diameter of Conductor, approx. *)	mm	5.9	7.1	8.1	9.7	11.6	12.9	14.3	16.0	18.3	20.7
Nom. Thickness of Insulation	mm	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Nom. Thickness of Copper tape	mm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nom. Thickness of Separation Sheath	mm	1.3	1.3	1.4	1.5	1.5	1.6	1.6	1.7	1.8	1.9
Nom. Thickness of Steel Tape	mm	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Nom. Thickness Of Outer sheath	mm	2.4	2.4	2.6	2.7	2.8	2.9	3.0	3.1	3.3	3.5
Overall Diameter of cable	mm	42.5	45.0	47.5	51.5	56.0	59.0	62.0	66.0	71.5	77.0
Weight of cable, approximate	kg/km	2670	3100	3635	4475	5495	6395	7415	8635	10640	12775

ELECTRICAL DATA

AC Voltage test for 5 min.	kV	21	21	21	21	21	21	21	21	21	21
Partial Discharge test at max. 10pC	kV	10.38	10.38	10.38	10.38	10.38	10.38	10.38	10.38	10.38	10.38
DC Resistance at 20°C	Ω / km	0.727	0.524	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601
AC Resistance at 90°C	Ω / km	0.927	0.668	0.494	0.342	0.247	0.196	0.159	0.128	0.0980	0.0791
Insulation Resistance at 20°C	MΩ . km	3000	2500	2500	2000	2000	2000	1500	1500	1500	1500
Capacitance	mF / km	0.211	0.236	0.257	0.291	0.330	0.357	0.386	0.421	0.468	0.518
Inductance	mH / km	0.384	0.632	0.347	0.328	0.311	0.302	0.293	0.284	0.274	0.266
Reactance	Ω / km	0.121	0.114	0.109	0.103	0.0977	0.0947	0.0920	0.0892	0.0862	0.0836

Current Carrying Capacity **):

- Buried direct in ground at 20°C	A	129	154	181	220	263	298	332	374	431	482
- In a Buried duct at 20°C	A	112	134	158	194	232	264	296	335	387	435
- In Air at 30°C	A	143	172	205	253	307	352	397	453	529	599
Short circuit current rating at 1 sec. (approx.)	kA	3.58	5.01	7.15	10.01	13.59	17.16	21.45	26.46	34.32	42.90

*) Diameter compacted shape

**) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

Thermal Resistivity of earthenware ducts : 1.2 K.m/W

XLPE Insulated, Copper Tape Shielded, Double Galvanized Steel Tape Armoured and PVC Sheathed Cables

8.7 / 15 (17.5) kV XLPE / DSTA / PVC 3 x (25 - 300) mm²

CONSTRUCTION DATA

No. of Core	-	3	3	3	3	3	3	3	3	3	3
Nom. Cross-section area	mm ²	25	35	50	70	95	120	150	185	240	300
No. of Wire	-	7	7	19	19	19	37	37	37	37	61
Diameter of Conductor, approx. *)	mm	5.9	7.1	8.1	9.7	11.6	12.9	14.3	16.0	18.3	20.7
Nom. Thickness of Insulation	mm	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Nom. Thickness of Copper tape	mm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nom. Thickness of Separation Sheath	mm	1.4	1.4	1.5	1.5	1.6	1.7	1.7	1.8	1.9	2.0
Nom. Thickness of Steel Tape	mm	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.8
Nom. Thickness Of Outer sheath	mm	2.5	2.6	2.7	2.8	3.0	3.1	3.2	3.3	3.5	3.7
Overall Diameter of cable	mm	47.5	50.5	53.0	56.5	61.0	64.0	67.0	71.0	77.0	83.5
Weight of cable, approximate	kg/km	3100	3570	4100	4940	6045	6915	7950	9260	11305	14325

ELECTRICAL DATA

AC Voltage test for 5 min.	kV	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
Partial Discharge test at max. 10pC	kV	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
DC Resistance at 20°C	Ω / km	0.727	0.524	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601
AC Resistance at 90°C	Ω / km	0.927	0.668	0.494	0.342	0.247	0.196	0.159	0.128	0.0979	0.0789
Insulation Resistance at 20°C	MΩ . km	3500	3000	3000	2500	2500	2000	2000	2000	1500	1500
Capacitance	mF / km	0.173	0.192	0.208	0.234	0.264	0.284	0.307	0.333	0.369	0.407
Inductance	mH / km	0.411	0.387	0.370	0.350	0.331	0.320	0.310	0.301	0.289	0.280
Reactance	Ω / km	0.129	0.121	0.116	0.110	0.104	0.101	0.0975	0.0944	0.0909	0.0879

Current Carrying Capacity **):

- Buried direct in ground at 20°C	A	129	154	181	220	263	298	332	374	431	482
- In a Buried duct at 20°C	A	112	134	158	194	232	264	296	335	387	435
- In Air at 30°C	A	143	172	205	253	307	352	397	453	529	599
Short circuit current rating at 1 sec. (approx.)	kA	3.58	5.01	7.15	10.01	13.59	17.16	21.45	26.46	34.32	42.90

*) Diameter compacted shape

**) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

Thermal Resistivity of earthenware ducts : 1.2 K.m/W

XLPE Insulated, Copper Tape Shielded, Double Galvanized Steel Tape Armoured and PVC Sheathed Cables

12/20 (24) kV XLPE / DSTA / PVC 3 x (35 - 300) mm²

CONSTRUCTION DATA

No. of Core	-	3	3	3	3	3	3	3	3	3
Nom. Cross-section area	mm ²	35	50	70	95	120	150	185	240	300
No. of Wire	-	7	19	19	19	37	37	37	37	61
Diameter of Conductor, approx. *)	mm	7.1	8.1	9.7	11.6	12.9	14.3	16.0	18.3	20.7
Nom. Thickness of Insulation	mm	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Nom. Thickness of Copper tape	mm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nom. Thickness of Separation Sheath	mm	1.5	1.6	1.6	1.7	1.8	1.8	1.9	2.0	2.1
Nom. Thickness of Steel Tape	mm	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.8	0.8
Nom. Thickness Of Outer sheath	mm	2.8	2.9	3.0	3.1	3.2	3.3	3.5	3.7	3.8
Overall Diameter of cable	mm	55.5	58.0	61.5	66.0	69.0	72.5	76.5	83.0	88.5
Weight of cable, approximate	kg/km	4080	4630	5475	6545	7495	8550	9925	12845	15090

ELECTRICAL DATA

AC Voltage test for 5 min.	kV	42	42	42	42	42	42	42	42	42
Partial Discharge test at max. 10pC	kV	20.76	20.76	20.76	20.76	20.76	20.76	20.76	20.76	20.76
DC Resistance at 20°C	Ω / km	0.524	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601
AC Resistance at 90°C	Ω / km	0.668	0.494	0.342	0.247	0.196	0.159	0.128	0.0978	0.0788
Insulation Resistance at 20°C	MΩ . km	3500	3500	3000	2500	2500	2500	2000	2000	2000
Capacitance	mF / km	0.165	0.178	0.199	0.224	0.240	0.258	0.279	0.309	0.339
Inductance	mH / km	0.408	0.391	0.369	0.349	0.337	0.327	0.316	0.303	0.293
Reactance	Ω / km	0.128	0.123	0.116	0.109	0.106	0.103	0.0991	0.0953	0.0920

Current Carrying Capacity **):

- Buried direct in ground at 20°C	A	154	181	220	263	298	332	374	431	482
- In a Buried duct at 20°C	A	134	158	194	232	264	296	335	387	435
- In Air at 30°C	A	172	205	253	307	352	397	453	529	599
Short circuit current rating at 1 sec. (approx.)	kA	5.01	7.15	10.01	13.59	17.16	21.45	26.46	34.32	42.90

*) Diameter compacted shape

**) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

Thermal Resistivity of earthenware ducts : 1.2 K.m/W

XLPE Insulated, Copper Tape Shielded, Double Galvanized Steel Tape Armoured and PVC Sheathed Cables

18 / 30 (36) kV XLPE / DSTA / PVC 3 x (50 - 240) mm²

CONSTRUCTION DATA

No. of Core	-	3	3	3	3	3	3	3	3
Nom. Cross-section area	mm ²	50	70	95	120	150	185	240	300
No. of Wire	-	19	19	19	37	37	37	37	61
Diameter of Conductor, approx. *)	mm	8.1	9.7	11.6	12.9	14.3	16.0	18.3	20.7
Nom. Thickness of Insulation	mm	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Nom. Thickness of Copper tape	mm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nom. Thickness of Separation Sheath	mm	1.8	1.8	1.9	2.0	2.0	2.1	2.2	2.3
Nom. Thickness of Steel Tape	mm	0.5	0.5	0.5	0.8	0.8	0.8	0.8	0.8
Nom. Thickness Of Outer sheath	mm	3.3	3.4	3.5	3.7	3.8	3.9	4.1	4.2
Overall Diameter of cable	mm	70.5	73.5	78.5	82.5	86.0	90.0	95.5	101.0
Weight of cable, approximate	kg/km	5940	6840	8050	9920	11065	12520	14760	17100

ELECTRICAL DATA

AC Voltage test for 5 min.	kV	63	63	63	63	63	63	63	63
Partial Discharge test at max. 10pC	kV	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1
DC Resistance at 20°C	Ω / km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601
AC Resistance at 90°C	Ω / km	0.494	0.342	0.247	0.196	0.159	0.127	0.0976	0.0785
Insulation Resistance at 20°C	MΩ . km	4000	4000	3500	3500	3000	3000	2500	2500
Capacitance	mF / km	0.138	0.153	0.170	0.182	0.194	0.209	0.229	0.250
Inductance	mH / km	0.433	0.408	0.385	0.372	0.360	0.347	0.333	0.318
Reactance	Ω / km	0.136	0.128	0.121	0.117	0.113	0.109	0.105	0.100
Current Carrying Capacity **):									
- Buried direct in ground at 20°C	A	181	220	263	298	332	374	431	482
- In a Buried duct at 20°C	A	158	194	232	264	296	335	387	435
- In Air at 30°C	A	205	253	307	352	397	453	529	599
Short circuit current rating at 1 sec. (approx.)	kA	7.15	10.01	13.59	17.16	21.45	26.46	34.32	42.90

*) Diameter compacted shape

**) Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

Thermal Resistivity of earthenware ducts : 1.2 K.m/W