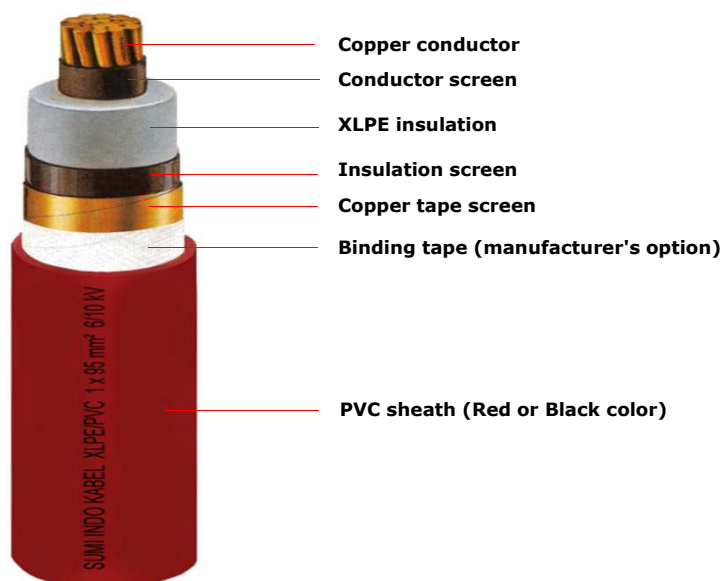


SUMI INDO KABEL

(3.6/6 kV ~ 18/30 kV) Cu/XLPE/CTS/PVC (N2XSJ) - 1 CORE SNI IEC 60502-2 / IEC 60502-2



Special application upon request :

- * Available product in accordance to SPLN, JIS, BS, 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 and anti rodent performance.
- * Tin coated Copper conductor.
- * Copper wire screen.
- * Polyethylene/Low Smoke Free Halogen sheath.

3.6/6 (7.2) kV Cu/XLPE/CTS/PVC (N2XSJ) 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	91	91
Diameter of Conductor (approx.) ²⁾	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	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
Nom. Thickness of Outer Sheath	mm	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.1	2.2	2.3	2.5
Overall Diameter of Cable	mm	17.5	18.5	19.5	21.0	23.0	24.5	26.0	27.5	30.0	33.0	36.5	40.0	44.0	49.0
Weight of Cable (approx.)	kg/km	500	610	740	955	1230	1475	1755	2105	2670	3295	4130	5210	6600	8380

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	Ω/km	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	0.128	0.0979	0.0789	0.0628	0.0504	0.0409	0.0341
Insulation Resistance at 20°C	M Ω. km	2500	2000	2000	1500	1500	1500	1500	1500	1000	900	900	900	800	700
Capacitance	μF/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	0.406	0.380	0.364	0.343	0.326	0.317	0.308	0.297	0.287	0.282	0.278	0.271	0.263	0.260
Reactance (Trefoil)	Ω/km	0.128	0.119	0.114	0.108	0.102	0.100	0.0968	0.0932	0.0903	0.0885	0.0871	0.0851	0.0827	0.0816
Current Carrying Capacity :															
- Buried direct in ground at 20°C ³⁾ (Trefoil)	A	140	166	196	239	285	323	361	406	469	526	590	655 ¹⁾	740 ¹⁾	840 ¹⁾
(Flat spaced)	A	144	172	203	246	293	332	366	410	470	524	572	650 ¹⁾	730 ¹⁾	820 ¹⁾
- In air at 30°C (Trefoil)	A	163	198	238	296	361	417	473	543	641	735	845	940 ¹⁾	1080 ¹⁾	1250 ¹⁾
(Flat spaced)	A	196	238	286	356	434	500	559	637	745	846	938	1075 ¹⁾	1235 ¹⁾	1420 ¹⁾
(Flat touching)	A	167	203	243	303	369	426	481	550	647	739	837	945 ¹⁾	1080 ¹⁾	1250 ¹⁾
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

¹⁾ Typical data

²⁾ Diameter compacted shape

³⁾ Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

6/10 (12) kV Cu/XLPE/CTS/PVC (N2XSJ) 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	91	91
Diameter of Conductor (approx.) ²⁾	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	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
Nom. Thickness of Outer Sheath	mm	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	2.2	2.2	2.4	2.5
Overall Diameter of Cable	mm	19.0	20.5	21.5	23.0	25.0	26.0	27.5	29.5	32.0	34.0	37.5	40.5	44.5	49.0
Weight of Cable (approx.)	kg/km	555	670	800	1025	1305	1550	1835	2190	2765	3360	4195	5235	6630	8415

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	Ω/km	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	0.128	0.0978	0.0788	0.0627	0.0503	0.0409	0.0341
Insulation Resistance at 20°C	M Ω. km	3000	2500	2500	2000	2000	2000	1500	1500	1500	1500	1000	900	800	700
Capacitance	μF/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	0.423	0.401	0.384	0.361	0.342	0.329	0.319	0.311	0.300	0.288	0.283	0.273	0.265	0.260
Reactance (Trefoil)	Ω/km	0.133	0.126	0.121	0.113	0.108	0.103	0.100	0.0977	0.0943	0.0904	0.0888	0.0859	0.0834	0.0816
Current Carrying Capacity :															
- Buried direct in ground at 20°C ³⁾ (Trefoil)	A	140	166	196	239	285	323	361	406	469	526	590	655 ¹⁾	740 ¹⁾	840 ¹⁾
(Flat spaced)	A	144	172	203	246	293	332	366	410	470	524	572	650 ¹⁾	730 ¹⁾	820 ¹⁾
- In air at 30°C (Trefoil)	A	163	198	238	296	361	417	473	543	641	735	845	940 ¹⁾	1080 ¹⁾	1250 ¹⁾
(Flat spaced)	A	196	238	286	356	434	500	559	637	745	846	938	1075 ¹⁾	1235 ¹⁾	1420 ¹⁾
(Flat touching)	A	167	203	243	303	369	426	481	550	647	739	837	945 ¹⁾	1080 ¹⁾	1250 ¹⁾
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

¹⁾ Typical data

²⁾ Diameter compacted shape

³⁾ Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

8.7/15 (17.5) kV Cu/XLPE/CTS/PVC (N2XSJ) 1 x (25 - 630) 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
No. of Wire	-	7	7	19	19	19	37	37	37	37	61	61	61	91
Diameter of Conductor (approx.) ²⁾	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	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
Nom. Thickness of Outer Sheath	mm	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.4
Overall Diameter of Cable	mm	21.5	22.5	23.5	25.0	27.0	28.5	30.0	31.5	34.0	36.5	39.5	43.0	46.5
Weight of Cable (approx.)	kg/km	630	750	885	1110	1400	1650	1940	2315	2900	3505	4330	5400	6790

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	15.05	15.05	15.05	15.05	15.05	15.05	15.05	15.05	15.05	15.05	15.05	15.05	15.05
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	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	0.128	0.0977	0.0786	0.0626	0.0501	0.0406
Insulation Resistance at 20°C	M Ω. km	3500	3000	3000	2500	2500	2000	2000	2000	1500	1500	1500	1500	1000
Capacitance	μF/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	0.447	0.419	0.402	0.378	0.358	0.347	0.337	0.324	0.313	0.302	0.293	0.285	0.274
Reactance (Trefoil)	Ω/km	0.140	0.132	0.126	0.119	0.112	0.109	0.106	0.102	0.0981	0.0948	0.0921	0.0896	0.0861
Current Carrying Capacity :														
- Buried direct in ground at 20°C ³⁾ (Trefoil)	A	140	166	196	239	285	323	361	406	469	526	590	655 ¹⁾	740 ¹⁾
(Flat spaced)	A	144	172	203	246	293	332	366	410	470	524	572	650 ¹⁾	730 ¹⁾
- In air at 30°C (Trefoil)	A	163	198	238	296	361	417	473	543	641	735	845	940 ¹⁾	1080 ¹⁾
(Flat spaced)	A	196	238	286	356	434	500	559	637	745	846	938	1075 ¹⁾	1235 ¹⁾
(Flat touching)	A	167	203	243	303	369	426	481	550	647	739	837	945 ¹⁾	1080 ¹⁾
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

¹⁾ Typical data

²⁾ Diameter compacted shape

³⁾ Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m

12/20 (24) kV Cu/XLPE/CTS/PVC (N2XSY) 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	91
Diameter of Conductor (approx.) ²⁾	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	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
Nom. Thickness of Outer Sheath	mm	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.1	2.2	2.3	2.4	2.5
Overall Diameter of Cable	mm	25.0	26.0	27.5	29.5	30.5	32.0	34.0	36.5	39.0	42.0	45.0	49.0
Weight of Cable (approx.)	kg/km	840	975	1205	1500	1755	2065	2430	3025	3655	4495	5555	6975

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	Ω/km	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	0.0976	0.0785	0.0625	0.0500	0.0404
Insulation Resistance at 20°C	M Ω. km	3500	3500	3000	2500	2500	2500	2000	2000	2000	1500	1500	1500
Capacitance	μF/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	0.440	0.422	0.397	0.375	0.361	0.350	0.339	0.327	0.315	0.306	0.295	0.285
Reactance (Trefoil)	Ω/km	0.138	0.133	0.125	0.118	0.113	0.110	0.107	0.103	0.0990	0.0960	0.0925	0.0894
Current Carrying Capacity :													
- Buried direct in ground at 20°C ³⁾ (Trefoil)	A	166	196	239	285	323	361	406	469	526	590	655 ¹⁾	740 ¹⁾
(Flat spaced)	A	172	203	246	293	332	366	410	470	524	572	650 ¹⁾	730 ¹⁾
- In air at 30°C (Trefoil)	A	198	238	296	361	417	473	543	641	735	845	940 ¹⁾	1080 ¹⁾
(Flat spaced)	A	238	286	356	434	500	559	637	745	846	938	1075 ¹⁾	1235 ¹⁾
(Flat touching)	A	203	243	303	369	426	481	550	647	739	837	945 ¹⁾	1080 ¹⁾
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

¹⁾ Typical data²⁾ Diameter compacted shape³⁾ Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m**18/30 (36) kV Cu/XLPE/CTS/PVC (N2XSY) 1 x (50 - 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	50	70	95	120	150	185	240	300	400	500	630	630
No. of Wire	-	19	19	19	37	37	37	37	61	61	61	91	91
Diameter of Conductor (approx.) ²⁾	mm	8.1	9.7	11.6	12.9	14.3	16.0	18.3	20.7	23.4	26.5	30.3	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	8.0
Nom. Thickness of Copper Tape	mm	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
Nom. Thickness of Outer Sheath	mm	2.0	2.0	2.1	2.1	2.2	2.2	2.3	2.4	2.5	2.6	2.7	2.7
Overall Diameter of Cable	mm	31.0	32.5	35.0	36.0	38.0	39.5	42.0	44.5	47.5	50.5	54.5	54.5
Weight of Cable (approx.)	kg/km	1235	1475	1800	2065	2390	2770	3385	4020	4880	5995	7450	7450

ELECTRICAL DATA

AC Voltage Test for 5 min.	kV	63	63	63	63	63	63	63	63	63	63	63	63
Partial Discharge Test at max. 10pC	kV	31.14	31.14	31.14	31.14	31.14	31.14	31.14	31.14	31.14	31.14	31.14	31.14
DC Resistance at 20°C	Ω/km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.0470	0.0366	0.0283	0.0283
AC Resistance at 90°C	Ω/km	0.494	0.342	0.247	0.196	0.159	0.127	0.0974	0.0783	0.0622	0.0497	0.0400	0.0400
Insulation Resistance at 20°C	M Ω. km	4000	4000	3500	3500	3000	3000	2500	2500	2000	2000	2000	2000
Capacitance	μF/km	0.138	0.153	0.170	0.182	0.194	0.209	0.229	0.250	0.274	0.300	0.333	0.333
Inductance (Trefoil)	mH/km	0.457	0.430	0.409	0.394	0.384	0.369	0.355	0.342	0.330	0.318	0.306	0.306
Reactance (Trefoil)	Ω/km	0.144	0.135	0.129	0.124	0.121	0.116	0.111	0.107	0.104	0.0997	0.0961	0.0961
Current Carrying Capacity :													
- Buried direct in ground at 20°C ³⁾ (Trefoil)	A	196	239	285	323	361	406	469	526	590	655 ¹⁾	740 ¹⁾	740 ¹⁾
(Flat spaced)	A	203	246	293	332	366	410	470	524	572	650 ¹⁾	730 ¹⁾	730 ¹⁾
- In air at 30°C (Trefoil)	A	238	296	361	417	473	543	641	735	845	940 ¹⁾	1080 ¹⁾	1080 ¹⁾
(Flat spaced)	A	286	356	434	500	559	637	745	846	938	1075 ¹⁾	1235 ¹⁾	1235 ¹⁾
(Flat touching)	A	243	303	369	426	481	550	647	739	837	945 ¹⁾	1080 ¹⁾	1080 ¹⁾
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	90.09

¹⁾ Typical data²⁾ Diameter compacted shape³⁾ Thermal Resistivity of soil : 1.5°K.m/W, Depth of laying : 0.8 m