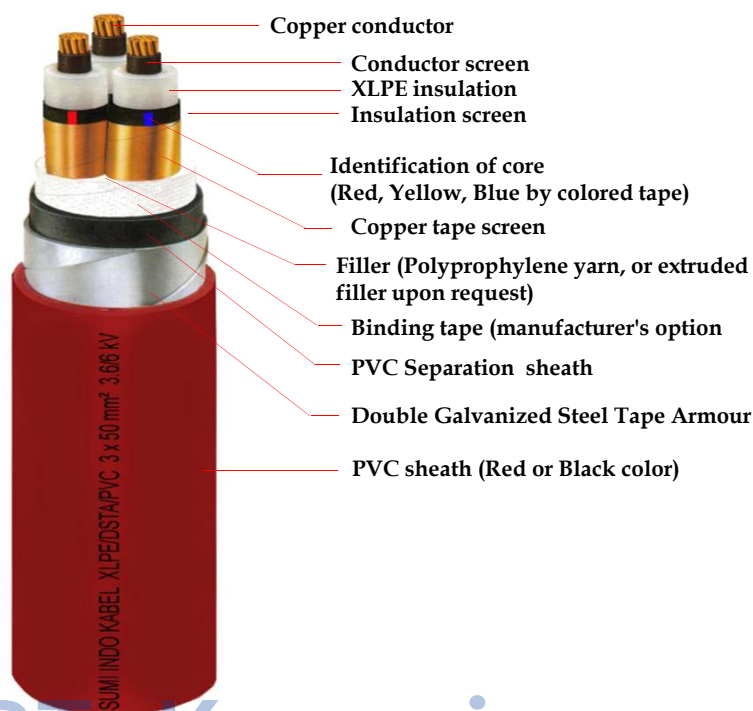


SUMI INDO KABEL

(3.6/6 kV ~ 18/30 kV) Cu/XLPE/CTS/DSTA/PVC (N2XSEYBY)

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 / DSTA / PVC (N2XSEYBY) 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	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
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	μF / 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

6/10 (12) kV Cu / XLPE / CTS / DSTA / PVC (N2XSEYBY) 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	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
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	M Ω. km	3000	2500	2500	2000	2000	2000	1500	1500	1500	1500
Capacitance	μF / 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

8.7 / 15 (17.5) kV Cu / XLPE / CTS / DSTA / PVC (N2XSEYBY) 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	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
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	15.05	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
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	M Ω. km	3500	3000	3000	2500	2500	2000	2000	2000	1500	1500
Capacitance	μF / 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

12 / 20 (24) kV Cu / XLPE / CTS / DSTA / PVC (N2XSEYBY) 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	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
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	M Ω. km	3500	3500	3000	2500	2500	2500	2000	2000	2000
Capacitance	μF / 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

18 / 30 (36) kV Cu / XLPE / CTS / DSTA / PVC (N2XSEYBY) 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	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
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	31.14	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
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	M Ω. km	4000	4000	3500	3500	3000	3000	2500	2500
Capacitance	μF / 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