SUTRADO
KABEL

Product Catalogue

SUTRADO
KABEL

Quality
through excellence

Content

CONTENT		**04**
COMPANY PROFILE		
ABOUT US		06 - 07
VISION & MISSION		08 - 09
QUALITY		10 - 11
CONDUCTORS		**13**
Square Copper Busbar	SNI 8760 ; ASTM B187 ; JIS H3140 ; DIN EN 13601	14 - 15
Full Round Copper Busbar	SNI 8760 ; ASTM B187 ; JIS H3140 ; DIN EN 13601	16 - 17
Grounding Rod	Manufacturing Specification	18 - 19
Bare Copper Conductor Hard (BC-H) & (BC-1/2H)	SPLN 41-4:1981 ; SPLN 41-5:1981 ; BS 7884	20 - 21
LOW VOLTAGE POWER CABLES		**23**
NYA	IEC 60227 ; SNI 04-6629.3 ; 450/750 V	24 - 25
NAYA	IEC 60227 ; SNI 04-6629.3 ; 450/750 V	24 - 25
NYM	IEC 60227 ; SNI 04-6629.4 ; 300/500 V	26 - 27
NYY	SNI IEC 60502-1 ; SPLN D3.010-2 ; IEC 60502-1 ; 0.6/1 (1.2) kV	28 - 29
N2XY	SPLN 43-6, SNI IEC 60502-1, IEC 60502-1 ; 0.6/1 (1.2) kV	30 - 31
NYSY	SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	32 - 33
NYCY	SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	34 - 35
NYBY	SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	36 - 37
NYRY & NYRGbY	SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	38 - 39
NYFGbY	SPLN D3.010-3 ; SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	40 - 41
NAYY	SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	42 - 43
NA2XY	SPLN 43-6 ; SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	44 - 45
NYAF	SNI 04-6629.3 ; IEC 60227 ; 450/750 V	46 - 47
NYMHY	IEC 60227 ; SNI 04-6629.5 ; 300/500 V	48 - 49
NYYHY	SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	48 - 49
FRC	SNI IEC 60502-1 ; IEC 60331 ; IEC 60502-1 ; 0.6/1 (1.2) kV	50 - 51
N2XRY & N2XRGbY	SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	52 - 53
NAYFGbY	SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	54 - 55
MC-HL XHHW-2	IEC 60502-1 ; ICEA S-95-568/NEMA WC70 ; 0.6/1 (1.2) kV	56 - 57
LOW VOLTAGE CONTROL CABLES		**59**
NYY	SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	58 - 59
NYRGbY	SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	60 - 61
NYFGbY	SNI IEC 60502-1 ; IEC 60502-1 ; 0.6/1 (1.2) kV	62 - 63
INSTRUMENT CABLES		**67**
Cu/PVC/ISCR/OSCR/PVC	BS-EN 50288-7 ; IEC 60332-3 ; IEC-60332-3 Cat.C ; 300/500 V	68 - 71
Cu/PVC/OSCR/PVC	BS-EN 50288-7 ; IEC 60332-3 ; IEC-60332-3 Cat.C ; 300/500 V	72 - 75
Cu/XLPE/ISCR/OSCR/PVC/SWA/PVC	BS-EN 50288-7 ; IEC 60332-3 ; IEC-60332-3 Cat.C ; 300/500 V	76 - 79
Cu/PVC/ISCR/OSCR/PVC/SWA/PVC	BS-EN 50288-7 ; IEC 60332-3 ; IEC-60332-3 Cat.C ; 300/500 V	80 - 83
LIYCY	VDE 0812 ; IEC 60332-3-24 ; 300/500 V	84 - 85
Cu/PVC/OSCR/CAA/PVC-FR	BS-EN 50228-7 ; ICEA S-73-532/NEMA WC57 ; IEC 60332-3-24 Cat.C ; 300/500 V	86 - 87
SOLAR CABLES		**89**
Solar Cable (PV) H1Z2Z2-K	BS EN 50618 ; TUV-2PFG1169 ; 1500 VDC	90 - 91
OVERHEAD CONDUCTOR & CABLES		**92**
AAC & AAAC	SPLN 41-6 ; SPLN 41-8	94 - 95
AAAC/S	SPLN 41-10	96 - 97
ACSR	SPLN 41-7:1981	98 - 99
ACSR	ASTM B232	100 - 101
ACSR / AS	IEC 61089 ; SPLN T3.001-1:2015	102 - 103
NFA2X-T	SPLN 42-10:1993 ; SPLN D3.010-1 ; 0.6/1 (1.2) kV	104 - 107
NF2X & NFA2X	SPLN D3.010-1:2014 ; SPLN 42-10 ; 0.6/1 (1.2) kV	108 - 109
COPPER MEDIUM VOLTAGE POWER CABLES		**110**
N2XSY	SNI IEC 60502-2 ; IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	112 - 113
N2XSEY	SNI IEC 60502-2 ; IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	114 - 115
N2XSEbY	SNI IEC 60502-2 ; IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	116 - 117
N2XSERGbY	SNI IEC 60502-2 ; IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	118 - 119
N2XSRY	SNI IEC 60502-2 ; IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	120 - 121
N2XSEFGbY	SNI IEC 60502-2 ; IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	122 - 123
N2XSEYBY	SPLN, 43 - 5, SNI IEC 60502-2, IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) kV	124 - 125
N2XSEYFGbY	SPLN, 43 - 5, SNI IEC 60502-2, IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) kV	126 - 127
Type MV MC-HL	IEC 60502-2 ; ICEA S-93-639/NEMA WC74 ; UL 1072 ; 5 kV	128 - 129
MV-90 / MV-105 MC-HL	IEC 60502-2 ; ICEA S-93-639/NEMA WC74 ; UL 1072 ; 15 kV	130 - 131
ALUMINIUM MEDIUM VOLTAGE POWER CABLES		**132**
NA2XSY	SNI IEC 60502-2, IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	134 - 135
NA2XSEY	SNI IEC 60502-2 ; IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	136 - 137
NA2XSEbY	SNI IEC 60502-2 ; IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	138 - 139
NA2XSERGbY	SNI IEC 60502-2 ; IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	140 - 141
NA2XSRY	SNI IEC 60502-2 ; IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	142 - 143
NA2XSEFGbY	SNI IEC 60502-2 ; IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) ; 18/30(36) kV	144 - 145
NA2XSEYbY	SPLN 43-5, SNI IEC 60502-2, IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) kV	146 - 147
NA2XSEYFGbY	SPLN 43-5, SNI IEC 60502-2, IEC 60502-2 ; 3.6/6(7.2) ; 6/10(12) ; 8.7/15(17.5) ; 12/20(24) kV	148 - 149
MEDIUM VOLTAGE TWISTED CABLES		**150**
NF2XSY & NFA2XSY	SPLN 43-5, SNI IEC 60502-2, IEC 60502-2 ; 12/20(24) kV	152 - 153
NFA2XSY-T	SPLN 43-5, SNI IEC 60502-2, IEC 60502-2 ; 12/20(24) kV	154 - 155
HIGH VOLTAGE CABLES		**156**
N2XCK2Y & NA2XCK2Y	IEC 60840 ; 87/150 (170) kV	158 - 161
Cu/XLPE/CWS/CAA/HDPE Al/XLPE/CWS/CAA/HDPE	IEC 60840 ; 87/150 (170) kV	162 - 165
INSTALATION GUIDE		**166**

About Us

A well-established and reliable name in the manufacture and distribution of high-quality wires and cables.

PT. Sutrakabel Intimandiri (SUTRADO Kabel) is a premier cable manufacturer in Indonesia offering an extensive range of high quality products and superior after sales services. Supported by a dedicated team of professionals, SUTRADO Kabel is continuously improving its quality and services excellence for customer satisfaction.

We set high standards in everything we do and determine to bring the best quality and services in the cable industry. Building a strong relationship with our customer is our priority and we are committed to deliver the quality and convenience that our customer deserves.

Continuously growing since our establishment in 1991, we have gained recognition within the industry as a reliable and trusted cable manufacturer for a large number of customers from domestic market that includes reputable state owned enterprises, such as PT. PLN (Electricity) and PT. Pertamina (Oil and Gas), as well as international customers from countries, such as United States, Myanmar, Iraq, Mozambique, East Timor and many others.

Vision & Mission

Vision :
To become the largest electrical cable manufacturer in Indonesia by 2030 and to be a competitive product in the global market.

Mission :

1. To deliver high-quality products with competitive pricing and on-time delivery, fully aligned with customer requirements.
2. To continuously develop a highly competent and professional workforce.
3. To ensure the reliable supply of materials that meet quality, quantity, and cost-effectiveness standards as required by customers.
4. To invest in advanced technology and enhance production efficiency.
5. To strengthen the Sutrado Kabel brand image through the implementation of internationally recognized management systems.

Quality

In achieving a standard of excellence in delivering products and services, SUTRADO Kabel continues implementing quality management system and obtaining certifications for domestic and international standards.

Our company is certified with ISO 9001 for quality excellence, ISO 14001 for our commitment in environmental management and ISO 45001 for controlling and improving health and safety performance.

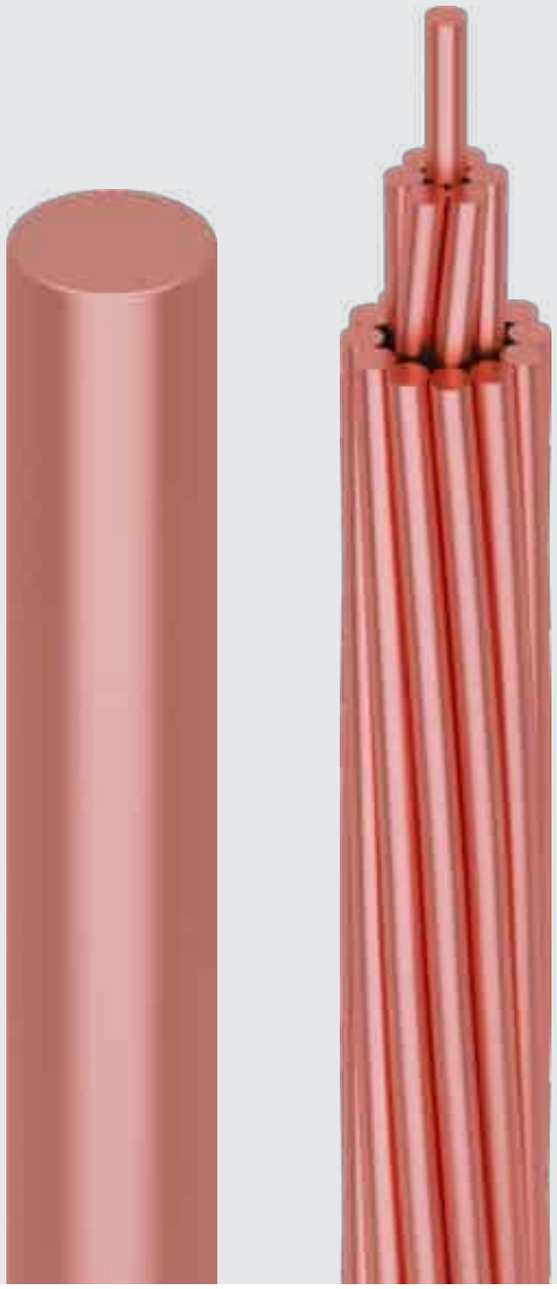
All products are manufactured using the latest technology, designed according to the applicable standards and requirements, and developed by trained and professional people to ensure our customer satisfaction.

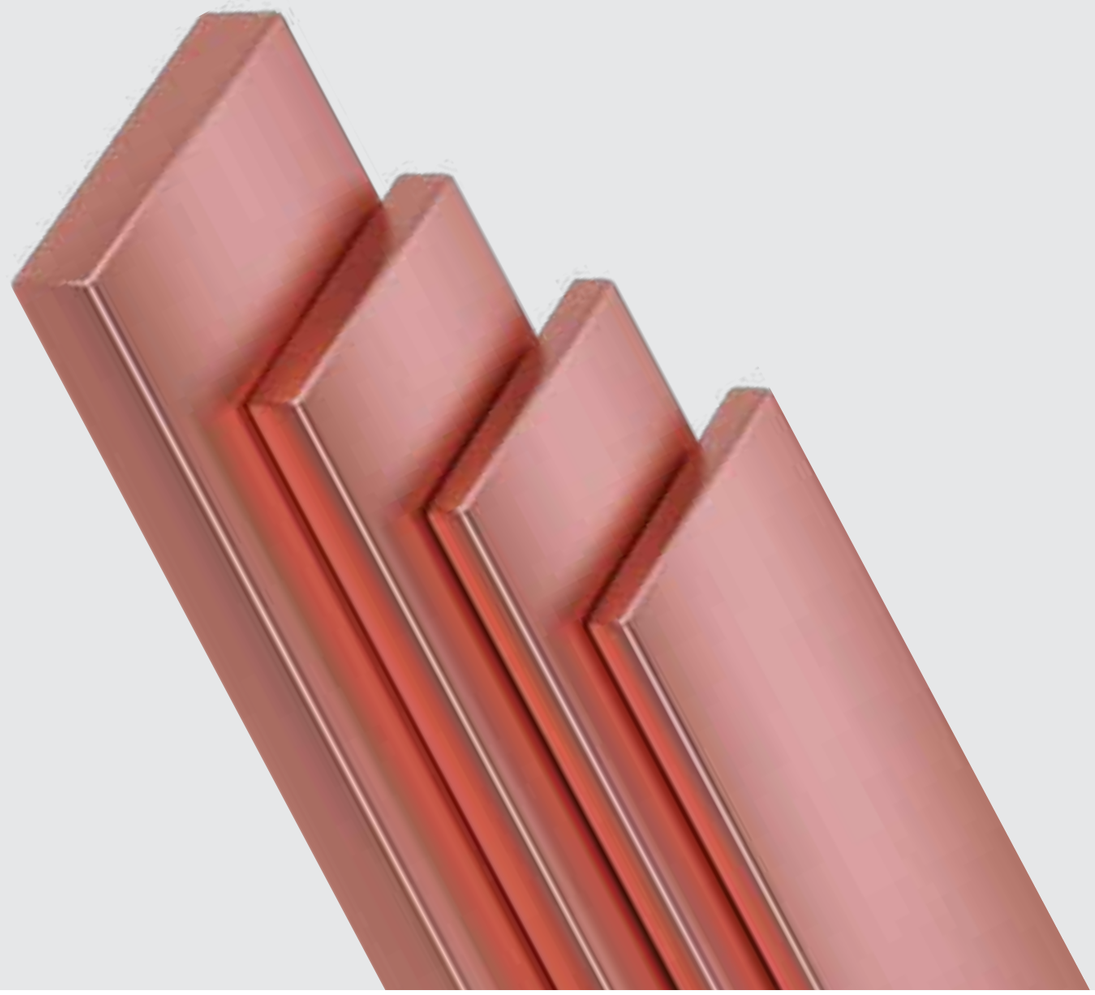
Our cables are manufactured in accordance to the SPLN LMK or SNI (Indonesian standards), as well as conforming to the standards as follow:

IEC : International Electrotechnical Commission
ASTM : American Society for Testing and Materials
BS : British Standards
NEMA : National Electrical Manufacturers Association
JIS : Japanese Industrial Standards
DIN : Deutsches Institut für Normung
ICEA : Insulated Cable Engineers Association
VDE : Verband der Elektrotechnik, Elektronik und Informationstechnik
SABS : South African Bureau of Standards
NF : Norme Française

SUTRADO
KABEL

CONDUCTORS





Square Copper Busbar

Application

- **SQUARE COPPER BUSBAR :**
  Used for Switchboard, distribution board

Specification

- **SQUARE :**
  SNI 8760, ASTM B187 , JIS H3140, DIN EN 13601
  (Other specifications are available upon request)

Construction

- **SQUARE** : Flat Copper

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Size			Approx DC Resistance 20 Ω/m	Approximate Weight (kg)	Current Carrying Capacity at 30°C (A)								Max. Short Circuit Current at 1 Second
					No of Bus (AC Sistem)				No of Bus (DC Sistem)				
mm	x	mm		4m	I	II	III	IIII	I	II	III	IIII	kA
2	x	15	558.82	1.07	152	207	-	-	152	257	-	-	3.1
2	x	25	335.74	1.80	239	440	-	-	222	408	-	-	5.1
3	x	15	375.60	1.57	184	309	-	-	184	320	-	-	4.6
3	x	16	352.20	1.68	199	367	-	-	185	340	-	-	4.9
3	x	20	281.93	2.11	260	380	-	-	260	451	-	-	6.1
3	x	25	225.66	2.66	315	461	722	943	315	538	830	1088	7.7
3	x	30	188.11	3.20	365	540	800	1050	365	639	935	1232	9.2
3	x	40	141.14	4.29	470	710	990	1260	470	809	1104	1410	12.3
3	x	50	112.94	5.38	575	1058	1484	1933	534	982	1377	1793	15.3
4	x	15	282.86	2.05	231	425	596	776	214	394	553	720	6.1
4	x	20	212.32	2.77	305	490	710	950	305	565	813	1079	8.2
4	x	25	169.94	3.50	365	600	850	1125	365	690	981	1289	10.2
4	x	30	141.67	4.22	430	690	1000	1300	430	792	1137	1482	12.3
4	x	40	106.29	5.67	545	880	1260	1640	545	990	1413	1857	16.4
4	x	50	85.06	7.11	665	1060	1450	1830	665	1152	1579	2022	20.4
5	x	20	170.28	3.42	345	500	800	1090	345	587	932	1265	10.2
5	x	25	136.29	4.32	415	600	970	1290	415	713	1146	1531	12.8
5	x	30	113.61	5.23	485	700	1090	1470	485	852	1301	1774	15.3
5	x	40	85.24	7.03	615	907	1351	1785	615	1079	1555	2112	20.4
5	x	50	68.21	8.83	745	1107	1661	2114	745	1318	1954	2522	25.6
5	x	60	56.85	10.64	870	1257	1810	2424	870	1450	2075	2805	30.7
5	x	63	54.15	11.18	945	1738	2437	3174	877	1613	2262	2946	32.2
5	x	80	42.65	14.24	1000	1753	2351	3041	1000	1800	2480	3170	40.9
5	x	100	34.12	17.85	1470	2704	3792	4938	1364	2510	3519	4583	51.1
5	x	125	27.30	22.36	1824	3356	4706	6129	1693	3115	4367	5688	63.9
6	x	25	113.76	5.13	460	610	1110	1320	460	713	1288	1547	15.3
6	x	30	94.83	6.21	535	700	1170	1520	535	1013	1372	1850	18.4
6	x	40	71.15	8.37	680	856	1501	1964	680	1249	1694	2296	24.5
6	x	50	56.94	10.54	825	1020	1760	2300	825	1494	2063	2687	30.7
6	x	60	47.46	12.70	965	1354	2071	2637	965	1750	2457	3164	36.8
6	x	80	35.60	17.02	982	1807	2533	3299	911	1677	2351	3061	49.1
6	x	100	28.48	21.34	1490	2316	3040	3836	1490	2876	3812	5175	61.3
8	x	20	106.82	5.27	447	822	1153	1501	415	763	1070	1393	16.4
8	x	30	71.27	8.14	630	820	1420	1900	630	1189	1603	2155	24.5
8	x	40	53.48	11.02	800	1026	1761	2395	800	1493	2033	2711	32.7
8	x	50	42.79	13.89	965	1188	2133	2753	965	1775	2474	3228	40.9
8	x	60	35.67	16.77	881	1622	2274	2962	818	1505	2110	2748	49.1
8	x	80	26.76	22.52	1164	2141	3003	3910	1080	1987	2786	3629	65.4
8	x	100	21.41	28.27	1735	2817	3601	4487	1735	3099	4256	5663	81.8
10	x	20	85.56	6.42	389	715	1002	1306	361	663	930	1212	20.4
10	x	25	68.48	8.22	468	861	1207	1572	434	799	1120	1459	25.6
10	x	30	57.09	10.01	720	792	1625	2222	720	1385	1905	2437	30.7
10	x	40	42.83	13.60	910	1396	1913	2585	910	1655	2364	3191	40.9
10	x	50	34.28	17.19	1090	1645	2314	3085	1090	1930	2839	3747	51.1
10	x	60	28.57	20.78	1270	2011	2752	3704	1270	2309	3233	4156	61.3
10	x	63	27.21	21.86	1400	2575	3611	4703	1299	2390	3351	4364	64.4
10	x	80	21.43	27.96	1615	2436	3283	4448	1615	2896	4121	5346	81.8
10	x	100	17.15	35.14	1950	3033	3954	5417	1950	3467	4875	6283	102.2
10	x	120	14.29	42.32	2285	3373	4461	6202	2285	3932	5527	7121	122.7
10	x	125	13.72	44.12	1984	3650	5118	6665	1841	3387	4749	6185	127.8
10	x	150	11.43	53.09	2730	4160	5643	7800	2730	4830	7035	9240	153.3
10	x	160	10.72	56.68	2930	4361	5927	8164	2930	5023	7220	9418	163.6
10	x	200	8.58	71.04	3550	5370	7179	9949	3550	6265	8875	10441	204.4
12	x	63	22.69	26.03	1170	2153	3019	3931	1086	1998	2801	3648	77.3
12	x	80	17.87	33.34	1936	3562	4995	6505	1797	3306	4636	6037	98.1
12	x	100	14.30	41.95	2377	4373	6132	7986	2206	4059	5691	7411	122.7

**Further information about derating factors for arrangement can be found on supplementary technical information.*
**Other Size base on Request Client.*

Full Round Copper Busbar

Full Round Copper Busbar

Application

- **FULL ROUND COPPER BUSBAR :**
  Used for Switchboard, distribution board

Specification

- **FULL ROUND :**
  SNI 8760, ASTM B187 , JIS H3140, DIN EN 13601
  (Other specifications are available upon request)

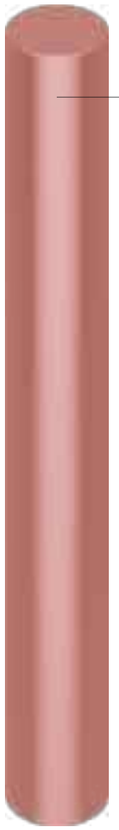
Construction

- **FULL ROUND** : Flat Copper

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Size			Approx DC Resistance 20 Ω/m	Approximate Weight (kg)	Current Carrying Capacity at 30°C (A)								Max. Short Circuit Current at 1 Second
					No of Bus (AC Sistem)				No of Bus (DC Sistem)				
mm	x	mm		4m	I	II	III	IIII	I	II	III	IIII	kA
2	x	15	575.65	1.05	152	207	-	-	152	257	-	-	3.1
2	x	25	341.74	1.76	239	440	-	-	222	408	-	-	5.2
3	x	15	392.68	1.54	184	309	-	-	184	320	-	-	4.5
3	x	16	367.17	1.65	199	367	-	-	185	340	-	-	4.8
3	x	20	291.45	2.08	260	380	-	-	260	451	-	-	6
3	x	25	231.71	2.62	315	461	722	943	315	538	830	1088	7.6
3	x	30	192.30	3.15	365	540	800	1050	365	639	935	1232	9.2
3	x	40	143.49	4.22	470	710	990	1260	470	809	1104	1410	12.3
3	x	50	114.44	5.29	575	1058	1484	1933	534	982	1377	1793	15.4
4	x	20	221.94	2.74	305	490	710	950	305	565	813	1079	7.9
4	x	25	176.05	3.45	365	600	850	1125	365	690	981	1289	10
4	x	30	145.88	4.17	430	690	1000	1300	430	792	1137	1482	12.1
4	x	40	108.65	5.60	545	880	1260	1640	545	990	1413	1857	16.2
4	x	50	86.56	7.03	665	1060	1450	1830	665	1152	1579	2022	20.4
5	x	20	180.01	3.39	345	500	800	1090	345	587	932	1265	9.8
5	x	25	142.45	4.28	415	600	970	1290	415	713	1146	1531	12.4
5	x	30	117.86	5.17	485	700	1090	1470	485	852	1301	1774	15
5	x	40	87.62	6.96	615	907	1351	1785	615	1079	1555	2112	20.1
5	x	50	69.72	8.74	745	1107	1661	2114	745	1318	1954	2522	25.3
5	x	60	57.90	10.53	870	1257	1810	2424	870	1450	2075	2805	30.4
5	x	63	55.10	11.07	945	1738	2437	3174	877	1613	2262	2946	32
5	x	80	43.23	14.10	1000	1753	2351	3041	1000	1800	2480	3170	40.8
5	x	100	34.50	17.67	1470	2704	3792	4938	1364	2510	3519	4583	51.1
5	x	125	27.54	22.14	1824	3356	4706	6129	1693	3115	4367	5688	64
6	x	25	119.98	5.09	460	610	1110	1320	460	713	1288	1547	14.7
6	x	30	99.12	6.16	535	700	1170	1520	535	1013	1372	1850	17.8
6	x	40	73.54	8.30	680	856	1501	1964	680	1249	1694	2296	24
6	x	50	58.45	10.45	825	1020	1760	2300	825	1494	2063	2687	30.2
6	x	60	48.51	12.59	965	1354	2071	2637	965	1750	2457	3164	36.3
6	x	80	36.19	16.87	982	1807	2533	3299	911	1677	2351	3061	48.7
6	x	100	28.86	21.16	1490	2316	3040	3836	1490	2876	3812	5175	61.1
8	x	20	116.89	5.23	447	822	1153	1501	415	763	1070	1393	15.1
8	x	30	75.62	8.09	630	820	1420	1900	630	1189	1603	2155	23.3
8	x	40	55.89	10.94	800	1026	1761	2395	800	1493	2033	2711	31.5
8	x	50	44.32	13.80	965	1188	2133	2753	965	1775	2474	3228	39.8
8	x	60	36.72	16.66	881	1622	2274	2962	818	1505	2110	2748	48
8	x	100	21.78	28.09	1735	2817	3601	4487	1735	3099	4256	5663	80.9
10	x	20	95.88	6.38	389	715	1002	1306	361	663	930	1212	18.4
10	x	25	74.94	8.17	468	861	1207	1572	434	799	1120	1459	23.5
10	x	30	61.50	9.95	720	792	1625	2222	720	1385	1905	2437	28.7
10	x	40	45.27	13.53	910	1396	1913	2585	910	1655	2364	3191	38.9
10	x	50	35.82	17.10	1090	1645	2314	3085	1090	1930	2839	3747	49.2
10	x	60	29.63	20.67	1270	2011	2752	3704	1270	2309	3233	4156	59.5
10	x	63	28.17	21.74	1400	2575	3611	4703	1299	2390	3351	4364	62.6
10	x	80	22.02	27.81	1615	2436	3283	4448	1615	2896	4121	5346	80
10	x	100	17.52	34.96	1950	3033	3954	5417	1950	3467	4875	6283	100.6
10	x	120	14.55	42.10	2285	3373	4461	6202	2285	3932	5527	7121	121.1
10	x	125	13.96	43.89	1984	3650	5118	6665	1841	3387	4749	6185	126.3
10	x	150	11.60	52.82	2730	4160	5643	7800	2730	4830	7035	9240	151.9
10	x	160	10.87	56.39	2930	4361	5927	8164	2930	5023	7220	9418	162.2
10	x	200	8.67	70.68	3550	5370	7179	9949	3550	6265	8875	10441	203.3
12	x	63	23.66	25.91	1170	2153	3019	3931	1086	1998	2801	3648	74.5
12	x	80	18.47	33.19	1936	3562	4995	6505	1797	3306	4636	6037	95.4
12	x	100	14.68	41.77	2377	4373	6132	7986	2206	4059	5691	7411	120.1

**Further information about derating factors for arrangement can be found on supplementary technical information.*
**Other Size base on Request Client.*

Grounding Rod



PHYSICAL PROPERTIES			ELECTRICAL PROPERTIES			
Size		No. of Package	Approximate Weight for Various Length (kg)			
inch	mm		6 m	4 m	3 m	2 m
(3/8")	8.50	10	3.10	2.07	1.55	1.03
(3/8")	9.50	10	3.86	2.57	1.93	1.29
(1/2")	11.50	10	5.64	3.76	2.82	1.88
(1/2")	12.50	10	6.65	4.43	3.33	2.22
(1/2")	12.70	10	6.86	4.58	3.43	2.29
(5/8")	14.50	10	8.93	5.95	4.46	2.98
(5/8")	15.88	5	10.70	7.13	5.35	3.57
(5/8")	16.00	5	10.86	7.24	5.43	3.62
(3/4")	18.00	3	13.72	9.15	6.86	4.57
(3/4")	19.05	3	15.36	10.24	7.68	5.12
(1")	24.00	1	24.33	16.22	12.17	8.11
(1")	25.00	1	26.39	17.60	13.20	8.80
(1")	25.40	1	27.24	18.16	13.62	9.08
(1 1/4")	31.75	1	42.50	28.33	21.25	14.17
(1 1/2")	38.10	1	61.13	40.75	30.57	20.38
(1 3/4")	44.45	1	83.15	55.43	41.57	27.72
(2")	50.80	1	108.54	72.36	54.27	36.18
(2 1/2")	63.50	1	169.46	112.97	84.73	56.49
(3")	76.20	1	243.89	162.59	121.94	81.30

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

- **GROUNDING ROD :**
  Used for grounding

Specification

- **GROUNDING ROD :**
  Manufacturing Specification
  (Other specifications are available upon request)

Construction

- **GROUNDING ROD** : Solid Copper

Bare Copper Conductor Hard (BC-H)
Bare Copper Conductor (BC-1/2H)

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Cross Sectional Area		No. of Wire	Approx. Overall Diameter	Approx. Net Weight	Max. DC. Resistance at 20°C		Calculated Breaking Force		Standard Weight	Max Short Circuit at 1 second		Current Carying Capacity	
Nominal Size	Actual Size				Hard	1/2 Hard	Hard	1/2 Hard		Hard	1/2 Hard	Hard	1/2 Hard
mm²	mm²	pcs	mm	kg/km	ohm/km	ohm/km	N	N	kg	kA	kA	A	A
6	6.16	1	2.80	55	2.8994	2.8961	2,428	1,918	500	0.15	0.30	67	68
10	9.62	1	3.50	86	1.8565	1.8545	3,706	2,944	500	0.23	0.48	90	91
10	10.02	7	4.05	90	1.8181	1.8160	4,049	3,228	500	0.24	0.50	94	95
16	15.89	7	5.10	141	1.1456	1.1452	6,421	5,077	1000	0.38	0.79	126	127
25	24.25	7	6.30	220	0.7512	0.7504	9,668	7,661	1000	0.59	1.20	164	165
35	34.36	7	7.50	312	0.5302	0.5296	13,545	10,762	1000	0.83	1.70	205	207
50	48.36	19	9.00	439	0.3785	0.3781	19,281	15,407	1000	1.17	2.39	254	256
70	65.82	19	10.50	597	0.2781	0.2778	26,242	20,793	1000	1.59	3.25	309	312
95	93.27	19	12.50	846	0.1963	0.1961	36,767	29,212	1000	2.25	4.61	385	389
120	117.00	19	14.00	1,061	0.1565	0.1563	46,121	63,434	1000	2.83	5.78	444	448
150	147.10	37	15.75	1,334	0.1244	0.1243	58,649	46,337	1000	3.55	7.27	513	518
185	181.60	37	17.50	1,647	0.1008	0.1007	71,587	56,887	1000	4.39	8.98	586	592
240	242.50	61	20.25	2,200	0.0755	0.0754	96,685	76,388	1000	5.86	11.99	703	710
300	299.40	61	22.50	2,716	0.0611	0.0611	118,023	93,772	1000	7.23	14.80	801	809
400	400.10	61	26.00	3,629	0.0458	0.0457	157,719	124,231	1000	9.66	19.78	957	967
500	499.10	61	29.10	4,533	0.0367	0.0366	194,050	154,072	1000	12.07	24.70	1080	1092

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application
Grounding Wire

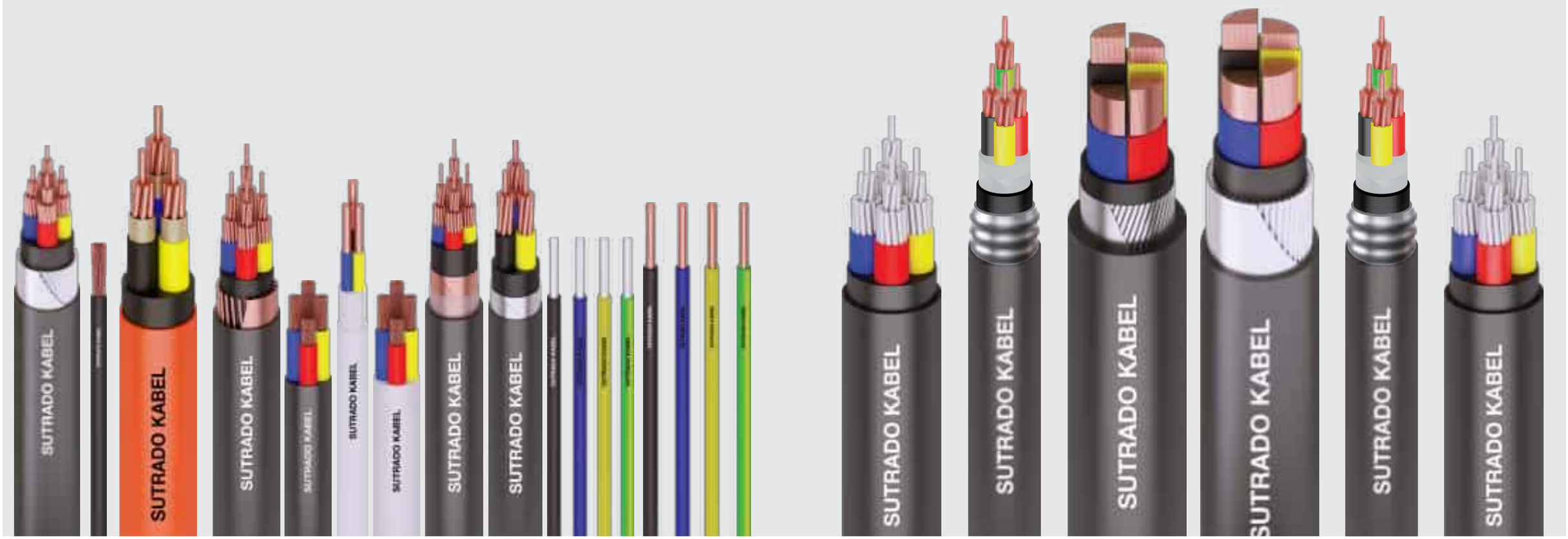
Specification
- SPLN 41-4: 1981 41-5: 1981 , BS 7884

(Other specifications are available upon request)

Construction
- Solid or Stranded Bare Copper

SUTRADO
KABEL

LOW VOLTAGE POWER CABLES



450/750 V, NYA (Cu/PVC)

(Copper Conductor, PVC Insulated)

450/750 V, NAYA (Al/PVC)

(Aluminium Conductor, PVC Insulated)
Standard Specification : SNI 04-6629.3, IEC 60227

**For Insulation colour can be based on Customer Request or Follow Standard.*

Application

For building wire installed in conduit in dry location and inter wiring in switchboard and control panel.

Special Features on Request

- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category

Standard Packing

- 1.5 - 16 sqmm supplied in coil @ 100 meters
- 25 - 400 sqmm supplied in wooden drum @ 1000 meters
- Length Tolerance per drum ± 2%

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 16 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 400 sqmm supplied in non compacted circular stranded (rm)
- Other size and shape can be discussed

NYA

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES						
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 70 °C	Inductance	Max. Current - Carrying Capacity at 30 °C *		Max. Short
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C			in air	in pipe	
mm²			mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	A	A	kA
1	x	1.5	3.06	22	12.100	14.478	0.010	0.407	26	24	0.21
1	x	2.5	3.68	34	7.410	8.866	0.009	0.394	35	32	0.36
1	x	4	4.19	49	4.610	5.516	0.008	0.369	45	41	0.57
1	x	6	4.76	70	3.080	3.685	0.007	0.349	57	51	0.86
1	x	10	6.06	115	1.830	2.190	0.007	0.345	79	69	1.43
1	x	16	7.11	174	1.150	1.376	0.005	0.326	104	90	2.29
1	x	25	8.77	270	0.727	0.870	0.005	0.322	137	118	3.58
1	x	35	9.91	366	0.524	0.627	0.004	0.311	167	142	5.01
1	x	50	11.65	493	0.387	0.464	0.004	0.310	202	171	7.15
1	x	70	13.40	690	0.268	0.321	0.004	0.299	251	211	10.01
1	x	95	15.65	950	0.193	0.232	0.003	0.297	306	256	13.59
1	x	120	17.23	1,179	0.153	0.184	0.003	0.291	351	293	17.16
1	x	150	19.17	1,456	0.124	0.150	0.003	0.292	398	-	21.45
1	x	185	21.39	1,817	0.099	0.121	0.003	0.291	455	-	26.46
1	x	240	24.39	2,382	0.075	0.093	0.003	0.289	533	-	34.32
1	x	300	27.13	2,967	0.060	0.075	0.003	0.288	605	-	42.90
1	x	400	30.05	3,656	0.047	0.060	0.003	0.287	690	-	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

NAYA

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES						
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 70 °C	Inductance	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit current at 1 second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C			in air	in pipe	
mm²			mm	kg/km	ohm/km	ohm/km	ohm.km	mH/km	A	A	kA
1	x	10	6.06	55	3.080	3.701	0.007	0.345	57	37	0.94
1	x	16	7.11	79	1.910	2.295	0.005	0.326	76	49	1.50
1	x	25	8.77	120	1.200	1.442	0.005	0.322	103	67	2.35
1	x	35	10.31	167	0.868	1.043	0.004	0.321	129	84	3.29
1	x	50	11.65	207	0.641	0.771	0.004	0.310	157	102	4.70
1	x	70	13.4	279	0.443	0.533	0.004	0.299	198	129	6.58
1	x	95	15.65	381	0.320	0.385	0.003	0.297	248	161	8.93
1	x	120	17.23	460	0.253	0.305	0.003	0.291	289	188	11.28
1	x	150	19.17	569	0.206	0.249	0.003	0.292	333	-	14.10
1	x	185	21.39	709	0.164	0.199	0.003	0.291	390	-	17.39
1	x	240	24.39	919	0.125	0.152	0.003	0.289	469	-	22.56
1	x	300	27.13	1,140	0.100	0.123	0.003	0.288	546	-	28.20
1	x	400	30.41	1,437	0.078	0.097	0.003	0.286	644	-	37.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

300 / 500 V, NYM (Cu / PVC / PVC)

(Copper Conductor, PVC Insulated, PVC Sheathed)
Standard Specification : SNI 04 - 6629.4 & IEC 60227

**For Insulation colour can be based on Customer Request or Follow Standard.*

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES					
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 70 °C	Max. Current - Carrying Capacity at 30 °C * in air		Max. Short Circuit current at 1 second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C		in air	in pipe	
mm²			mm	kg/km	ohm/km	ohm/km	M.ohm.km	A	A	kA
2	x	1.5	9.52	133	12.100	14.478	0.010	26	18	0.21
2	x	2.5	10.82	180	7.410	8.866	0.009	34	24	0.36
2	x	4	11.90	231	4.610	5.516	0.008	45	32	0.57
2	x	6	13.04	294	3.080	3.685	0.007	57	40	0.86
2	x	10	16.50	479	1.830	2.190	0.007	81	57	1.43
2	x	16	18.42	637	1.150	1.376	0.005	107	75	2.29
2	x	25	22.20	954	0.727	0.870	0.005	145	102	3.58
2	x	35	25.22	1,265	0.524	0.627	0.004	179	125	5.01
3	x	1.5	9.99	152	12.100	14.478	0.010	21	15	0.21
3	x	2.5	11.40	209	7.410	8.866	0.009	29	20	0.36
3	x	4	12.56	274	4.610	5.516	0.008	38	26	0.57
3	x	6	14.19	368	3.080	3.685	0.007	48	34	0.86
3	x	10	17.26	576	1.830	2.190	0.007	67	47	1.43
3	x	16	19.92	824	1.150	1.376	0.005	90	63	2.29
3	x	25	23.90	1,227	0.727	0.870	0.005	121	85	3.58
3	x	35	26.76	1,614	0.524	0.627	0.004	150	105	5.01
4	x	1.5	10.79	184	12.100	14.478	0.010	19	13	0.21
4	x	2.5	12.36	256	7.410	8.866	0.009	26	18	0.36
4	x	4	14.06	353	4.610	5.516	0.008	34	24	0.57
4	x	6	15.84	475	3.080	3.685	0.007	43	30	0.86
4	x	10	19.05	727	1.830	2.190	0.007	61	42	1.43
4	x	16	21.76	1,016	1.150	1.376	0.005	81	57	2.29
4	x	25	26.64	1,559	0.727	0.870	0.005	110	77	3.58
4	x	35	29.32	2,009	0.524	0.627	0.004	135	94	5.01

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

For building wire installed in conduit in dry location and inter wiring in switchboard and control panel.

Special Features on Request

- Anti Termite
- Anti Rodent
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 16 - 35 sqmm supplied in non compacted circular stranded (rm) conductor shape
- Other size and shape can be discussed

Standard Packing

- 1.5 - 4 sqmm supplied in coil @ 100 meters or in wooden drum @ 1000/2000 meters
- 6 - 35 sqmm supplied in wooden drum @ 1000 meters
- Length Tolerance per drum ± 2%

0.6/1 (1.2) kV, NYY (Cu / PVC / PVC)

(Copper Conductor, PVC Insulated, PVC Sheathed)
Standard Specification : SNI IEC 60502-1, SPLN D3.010-2, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*

Copper Conductor

PVC Insulated

PVC Filler

PVC Outer Sheath

Application

Power cable : Indoors, cable trunking, outdoors and burried in the ground, for power stations, industry and switchgear as well as for urban supply networks, if mechanical damage is unlikely.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 16 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 630 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape
- Other size and shape can be discussed

Standard Packing

- 1.5 - 10 sqmm supplied in coil @ 100 meters
- 16 - 300 sqmm supplied in wooden drum @ 1000 meters
- 400 - 630 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 20 °C	L	X	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit current at 1 second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C					in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	ohm/km	ohm/km	A	A	kA
1	×	1.5	6.20	56	12.100	14.478	50	0.416	0.130	14.478	25	37	0.21
1	×	2.5	6.60	69	7.410	8.866	50	0.387	0.121	8.867	33	48	0.36
1	×	4	7.50	95	4.610	5.516	50	0.386	0.121	5.517	45	63	0.57
1	×	6	8.10	120	3.080	3.685	50	0.364	0.114	3.687	57	78	0.86
1	×	10	9.00	167	1.830	2.190	50	0.341	0.107	2.192	77	104	1.43
1	×	16	10.00	234	1.150	1.376	40	0.322	0.101	1.380	102	134	2.29
1	×	25	11.70	342	0.727	0.870	40	0.319	0.100	0.876	138	174	3.58
1	×	35	12.80	447	0.524	0.627	40	0.308	0.097	0.635	169	208	5.01
1	×	50	14.60	586	0.387	0.464	30	0.308	0.097	0.473	208	248	7.15
1	×	70	16.30	797	0.268	0.321	30	0.297	0.093	0.335	263	304	10.01
1	×	95	18.80	1,084	0.193	0.232	30	0.296	0.093	0.250	327	364	13.59
1	×	120	20.30	1,327	0.153	0.184	30	0.290	0.091	0.206	380	414	17.16
1	×	150	22.50	1,631	0.124	0.150	20	0.290	0.091	0.176	437	464	21.45
1	×	185	24.90	2,024	0.099	0.121	20	0.290	0.091	0.151	507	524	26.46
1	×	240	28.10	2,632	0.075	0.093	20	0.288	0.090	0.130	607	607	34.32
1	×	300	31.00	3,261	0.060	0.075	20	0.287	0.090	0.117	702	683	42.90
1	×	400	34.20	3,998	0.047	0.060	20	0.285	0.090	0.108	818	773	57.20
1	×	500	38.40	5,185	0.037	0.049	20	0.283	0.089	0.102	948	870	71.50
1	×	630	42.20	6,486	0.028	0.040	20	0.278	0.087	0.096	1090	972	90.09
2	×	1.5	12.50	212	12.100	14.478	50	0.330	0.104	14.478	24	30	0.21
2	×	2.5	13.40	252	7.410	8.866	50	0.307	0.096	8.867	32	39	0.36
2	×	4	15.20	335	4.610	5.516	50	0.311	0.098	5.517	43	50	0.57
2	×	6	16.30	407	3.080	3.685	50	0.307	0.096	3.687	52	61	0.86
2	×	10	18.10	539	1.830	2.190	50	0.270	0.085	2.191	73	82	1.43
2	×	16	20.20	720	1.150	1.376	40	0.256	0.080	1.378	97	106	2.29
2	×	25	23.50	1,022	0.727	0.870	40	0.253	0.080	0.874	131	137	3.58
2	×	35	25.80	1,297	0.524	0.627	40	0.245	0.077	0.632	160	163	5.01
2	×	50	29.30	1,688	0.387	0.464	30	0.244	0.077	0.470	197	194	7.15
2	×	70	33.00	2,252	0.268	0.321	30	0.236	0.074	0.330	249	237	10.01
2	×	95	38.10	3,050	0.193	0.232	30	0.235	0.074	0.243	309	284	13.59
2	×	120	41.50	3,701	0.153	0.184	30	0.230	0.072	0.198	359	322	17.16
2	×	150	45.50	4,506	0.124	0.150	20	0.230	0.072	0.167	413	361	21.45
2	×	185	50.70	5,602	0.099	0.121	20	0.230	0.072	0.141	479	408	26.46
2	×	240	57.10	7,220	0.075	0.093	20	0.229	0.072	0.117	572	472	34.32
2	×	300	63.30	8,942	0.060	0.075	20	0.228	0.072	0.104	665	533	42.90
2	×	400	69.70	10,932	0.047	0.060	20	0.226	0.071	0.093	771	603	57.20
3	×	1.5	13.00	239	12.100	14.478	50	0.330	0.104	14.478	20	25	0.21
3	×	2.5	13.90	288	7.410	8.866	50	0.307	0.096	8.867	27	32	0.36
3	×	4	15.90	390	4.610	5.516	50	0.307	0.096	5.517	36	41	0.57
3	×	6	17.10	482	3.080	3.685	50	0.289	0.091	3.686	45	51	0.86
3	×	10	19.10	653	1.830	2.190	50	0.270	0.085	2.191	61	68	1.43
3	×	16	21.30	891	1.150	1.376	40	0.256	0.080	1.378	81	87	2.29
3	×	25	24.90	1,283	0.727	0.870	40	0.253	0.080	0.874	109	113	3.58
3	×	35	27.40	1,650	0.524	0.627	40	0.245	0.077	0.632	134	135	5.01
3	×	50	31.10	2,156	0.387	0.464	30	0.244	0.077	0.470	165	160	7.15
3	×	70	35.50	2,945	0.268	0.321	30	0.236	0.074	0.330	209	195	10.01
3	×	95	40.70	3,971	0.193	0.232	30	0.235	0.074	0.243	259	234	13.59
3	×	120	44.30	4,840	0.153	0.184	30	0.230	0.072	0.198	301	265	17.16
3	×	150	49.00	5,944	0.124	0.150	20	0.230	0.072	0.167	347	298	21.45
3	×	185	54.20	7,345	0.099	0.121	20	0.230	0.072	0.141	402	336	26.46
3	×	240	61.60	9,576	0.075	0.093	20	0.229	0.072	0.117	482	390	34.32
3	×	300	67.90	11,803	0.060	0.075	20	0.228	0.072	0.104	557	439	42.90
3	×	400	74.60	14,413	0.047	0.060	20	0.226	0.071	0.093	651	498	57.20
4	×	1.5	13.90	274	12.100	14.478	50	0.330	0.104	14.478	21	25	0.21
4	×	2.5	14.90	336	7.410	8.866	50	0.307	0.096	8.867	28	32	0.36
4	×	4	17.10	460	4.610	5.516	50	0.288	0.090	5.517	37	42	0.57
4	×	6	18.50	576	3.080	3.685	50	0.289	0.091	3.686	47	52	0.86
4	×	10	20.60	790	1.830	2.190	50	0.270	0.085	2.191	64	69	1.43
4	×	16	23.20	1,092	1.150	1.376	40	0.256	0.080	1.378	85	89	2.29
4	×	25	27.20	1,586	0.727	0.870	40	0.253	0.080	0.874	114	114	3.58
4	×	35	29.90	2,053	0.524	0.627	40	0.245	0.077	0.632	140	137	5.01
4	×	50	34.70	2,745	0.387	0.464	30	0.244	0.077	0.470	172	162	7.15
4	×	70	39.40	3,728	0.268	0.321	30	0.236	0.074	0.330	217	197	10.01
4	×	95	45.00	5,013	0.193	0.232	30	0.235	0.074	0.243	273	238	13.59
4	×	120	49.30	6,161	0.153	0.184	30	0.230	0.072	0.198	317	270	17.16
4	×	150	54.40	7,547	0.124	0.150	20	0.230	0.072	0.167	364	303	21.45
4	×	185	60.60	9,410	0.099	0.121	20	0.230	0.072	0.141	423	342	26.46
4	×	240	68.30	12,166	0.075	0.093	20	0.229	0.072	0.117	507	397	34.32
4	×	300	75.30	15,009	0.060	0.075	20	0.228	0.072	0.104	585	447	42.90
4	×	400	83.30	18,467	0.047	0.060	20	0.226	0.071	0.093	683	507	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, N2XY (Cu / XLPE / PVC)

(Copper Conductor, XLPE Insulated, PVC Sheathed)
Standard Specification : SPLN 43-6, SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*

Copper Conductor

XLPE Insulated

PVC Filler

PVC Outer Sheath

Application

Power cable : Indoors, cable trunking, outdoors and burried in the ground, for power stations, industry and switchgear as well as for urban supply networks, if mechanical damage is unlikely.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 16 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 630 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape
- Other size and shape can be discussed

Standard Packing

- 1.5 - 10 sqmm supplied in coil @ 100 m
- 16 - 300 sqmm supplied in wooden drum @ 1000 m
- 400 - 630 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

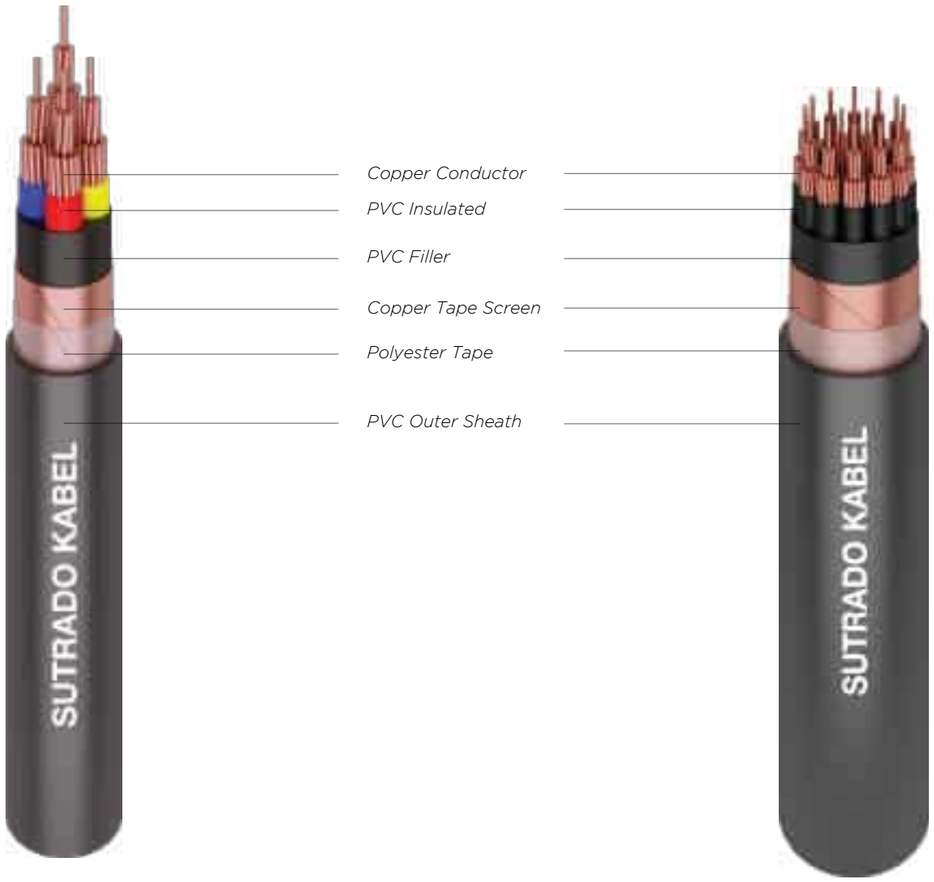
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
mm			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
1	x	1.5	6.00	50	12.100	15.429	0.453	0.142	0.163	15.429	32	44	0.21
1	x	2.5	6.40	62	7.410	9.449	0.420	0.132	0.192	9.449	42	58	0.36
1	x	4	6.90	80	4.610	5.878	0.392	0.123	0.227	5.880	55	74	0.57
1	x	6	7.50	103	3.080	3.927	0.369	0.116	0.266	3.929	69	93	0.86
1	x	10	8.40	147	1.830	2.334	0.345	0.108	0.326	2.336	94	123	1.43
1	x	16	9.40	210	1.150	1.467	0.326	0.102	0.397	1.470	124	159	2.29
1	x	25	11.10	310	0.727	0.927	0.310	0.097	0.481	0.932	165	205	3.58
1	x	35	12.20	410	0.524	0.668	0.301	0.094	0.557	0.675	203	246	5.01
1	x	50	13.80	537	0.387	0.494	0.292	0.092	0.646	0.502	247	291	7.15
1	x	70	15.70	744	0.268	0.342	0.284	0.089	0.762	0.354	314	358	10.01
1	x	95	17.80	1,004	0.193	0.247	0.281	0.088	0.813	0.262	388	428	13.59
1	x	120	19.50	1,246	0.153	0.196	0.276	0.087	0.909	0.215	454	488	17.16
1	x	150	21.70	1,534	0.124	0.160	0.281	0.088	0.808	0.182	524	547	21.45
1	x	185	23.90	1,896	0.099	0.128	0.282	0.088	0.795	0.156	609	619	26.46
1	x	240	26.90	2,469	0.075	0.099	0.279	0.087	0.857	0.132	728	716	34.32
1	x	300	29.60	3,059	0.060	0.080	0.276	0.087	0.902	0.118	840	806	42.90
1	x	400	32.80	3,765	0.047	0.064	0.276	0.087	0.918	0.108	982	914	57.20
1	x	500	37.00	4,905	0.037	0.052	0.275	0.086	0.943	0.101	1141	1031	71.50
1	x	630	41.90	6,378	0.028	0.043	0.273	0.086	0.986	0.096	1324	1157	90.09
2	x	1.5	12.80	218	12.100	15.429	0.330	0.104	0.197	15.429	31	36	0.21
2	x	2.5	13.70	257	7.410	9.449	0.333	0.105	0.192	9.449	40	46	0.36
2	x	4	14.70	311	4.610	5.878	0.311	0.098	0.227	5.879	52	60	0.57
2	x	6	15.80	380	3.080	3.927	0.293	0.092	0.266	3.928	66	74	0.86
2	x	10	17.60	507	1.830	2.334	0.274	0.086	0.326	2.335	90	98	1.43
2	x	16	19.70	683	1.150	1.467	0.259	0.081	0.397	1.469	119	126	2.29
2	x	25	23.00	971	0.727	0.927	0.246	0.077	0.481	0.930	157	161	3.58
2	x	35	25.30	1,238	0.524	0.668	0.239	0.075	0.557	0.673	193	193	5.01
2	x	50	28.40	1,592	0.387	0.494	0.232	0.073	0.646	0.499	235	228	7.15
2	x	70	32.30	2,152	0.268	0.342	0.228	0.072	0.701	0.350	298	279	10.01
2	x	95	36.40	2,841	0.193	0.247	0.223	0.070	0.813	0.257	368	334	13.59
2	x	120	40.20	3,506	0.153	0.196	0.222	0.070	0.841	0.208	430	1106	17.16
2	x	150	44.20	4,276	0.124	0.160	0.223	0.070	0.808	0.174	496	427	21.45
2	x	185	48.90	5,268	0.099	0.128	0.224	0.070	0.795	0.146	575	482	26.46
2	x	240	55.40	6,856	0.075	0.099	0.221	0.069	0.857	0.121	686	557	34.32
2	x	300	60.90	8,415	0.060	0.080	0.219	0.069	0.902	0.106	796	629	42.90
2	x	400	67.10	10,301	0.047	0.064	0.219	0.069	0.918	0.094	928	713	57.20
3	x	1.5	13.30	240	12.100	15.429	0.359	0.113	0.163	15.429	25	30	0.21
3	x	2.5	14.20	288	7.410	9.449	0.333	0.105	0.192	9.449	33	38	0.36
3	x	4	15.30	356	4.610	5.878	0.311	0.098	0.227	5.879	44	49	0.57
3	x	6	16.50	444	3.080	3.927	0.293	0.092	0.266	3.928	55	61	0.86
3	x	10	18.50	607	1.830	2.334	0.274	0.086	0.326	2.335	75	81	1.43
3	x	16	20.70	836	1.150	1.467	0.259	0.081	0.397	1.469	99	104	2.29
3	x	25	24.30	1,207	0.727	0.927	0.246	0.077	0.481	0.930	132	133	3.58
3	x	35	26.80	1,561	0.524	0.668	0.239	0.075	0.557	0.673	162	159	5.01
3	x	50	30.10	2,023	0.387	0.494	0.232	0.073	0.646	0.499	197	188	7.15
3	x	70	34.50	2,779	0.268	0.342	0.228	0.072	0.701	0.350	250	230	10.01
3	x	95	38.70	3,678	0.193	0.247	0.223	0.070	0.813	0.257	309	275	13.59
3	x	120	42.70	4,556	0.153	0.196	0.222	0.070	0.841	0.208	361	313	17.16
3	x	150	47.30	5,593	0.124	0.160	0.223	0.070	0.808	0.174	416	351	21.45
3	x	185	52.30	6,906	0.099	0.128	0.224	0.070	0.795	0.146	484	398	26.46
3	x	240	59.20	9,003	0.075	0.099	0.221	0.069	0.857	0.121	579	461	34.32
3	x	300	65.10	11,083	0.060	0.080	0.219	0.069	0.902	0.106	668	519	42.90
3	x	400	71.80	13,589	0.047	0.064	0.219	0.069	0.918	0.094	774	586	57.20
4	x	1.5	14.10	271	12.100	15.429	0.359	0.113	0.163	15.429	26	30	0.21
4	x	2.5	15.10	331	7.410	9.449	0.333	0.105	0.192	9.449	35	39	0.36
4	x	4	16.30	415	4.610	5.878	0.311	0.098	0.227	5.879	45	50	0.57
4	x	6	17.70	524	3.080	3.927	0.293	0.092	0.266	3.928	57	62	0.86
4	x	10	19.90	728	1.830	2.334	0.274	0.086	0.326	2.335	78	82	1.43
4	x	16	22.40	1,018	1.150	1.467	0.259	0.081	0.397	1.469	103	105	2.29
4	x	25	26.40	1,483	0.727	0.927	0.246	0.077	0.481	0.930	137	135	3.58
4	x	35	29.20	1,933	0.524	0.668	0.239	0.075	0.557	0.673	169	162	5.01
4	x	50	33.10	2,532	0.387	0.494	0.232	0.073	0.646	0.499	205	191	7.15
4	x	70	38.00	3,495	0.268	0.342	0.228	0.072	0.701	0.350	261	233	10.01
4	x	95	42.70	4,643	0.193	0.247	0.223	0.070	0.813	0.257	322	279	13.59
4	x	120	47.40	5,783	0.153	0.196	0.222	0.070	0.841	0.208	376	317	17.16
4	x	150	52.30	7,075	0.124	0.160	0.223	0.070	0.808	0.174	434	357	21.45
4	x	185	58.00	8,774	0.099	0.128	0.224	0.070	0.795	0.146	504	403	26.46
4	x	240	65.70	11,440	0.075	0.099	0.221	0.069	0.857	0.121	604	468	34.32
4	x	300	72.20	14,100	0.060	0.080	0.219	0.069	0.902	0.106	697	527	42.90
4	x	400	79.80	17,337	0.047	0.064	0.219	0.069	0.918	0.094	811	597	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, NYSY (Cu / PVC / CTS / PVC)

(Copper Conductor, PVC Insulated, Copper Tape Screen, PVC Sheathed)
Standard Specification : SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*



Application

For power plants and switchgear as well as for installation of sub-station; for installation indoors in confinned spaces and cable channels because of small bending radius. As burried cable, because of its light weight prefered in where installation is difficult.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape.
- 16 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 630 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape
- Other size and shape can be discussed

Standard Packing

- Length Tolerance per drum ± 2%
- Wooden drum 500m, 1000m

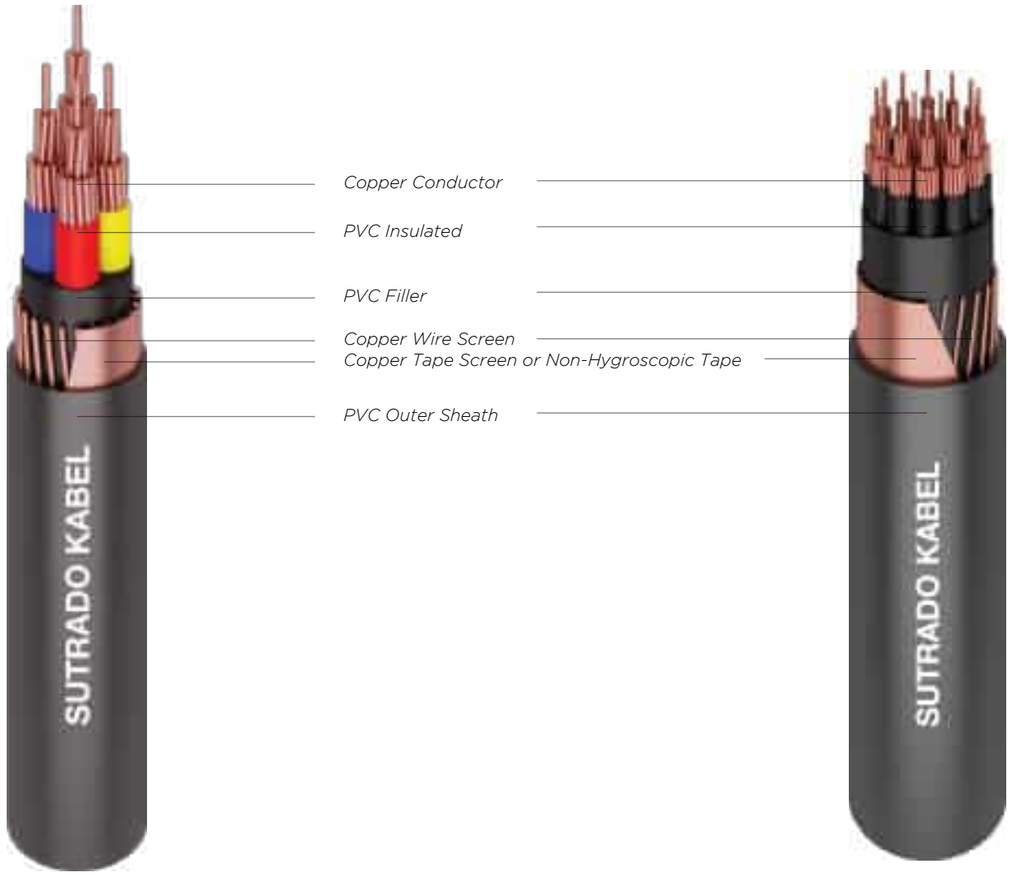
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C					in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
1	x	1.5	10.80	162	12.100	14.478	0.416	0.130	0.197	14.478	32	40	0.21
1	x	2.5	11.20	181	7.410	8.866	0.387	0.121	0.235	8.867	41	52	0.36
1	x	4	12.10	219	4.610	5.516	0.386	0.121	0.236	5.517	54	67	0.57
1	x	6	12.70	252	3.080	3.685	0.364	0.114	0.276	3.687	67	83	0.86
1	X	10	13.60	311	1.830	2.190	0.341	0.107	0.340	2.192	90	109	1.43
2	x	1.5	14.00	281	12.100	14.478	0.330	0.104	0.197	14.478	25	30	0.21
2	x	2.5	14.90	326	7.410	8.866	0.307	0.096	0.235	8.867	33	39	0.36
2	x	4	16.70	420	4.610	5.516	0.307	0.096	0.236	5.517	44	51	0.57
2	x	6	17.80	499	3.080	3.685	0.289	0.091	0.276	3.686	56	63	0.86
2	x	10	19.60	641	1.830	2.190	0.270	0.085	0.340	2.191	75	83	1.43
3	x	1.5	14.50	310	12.100	14.478	0.330	0.104	0.197	14.478	21	25	0.21
3	x	2.5	15.40	365	7.410	8.866	0.307	0.096	0.235	8.867	27	32	0.36
3	x	4	17.40	478	4.610	5.516	0.307	0.096	0.236	5.517	37	42	0.57
3	x	6	18.60	578	3.080	3.685	0.289	0.091	0.276	3.686	46	52	0.86
3	x	10	20.60	760	1.830	2.190	0.270	0.085	0.340	2.191	63	68	1.43
4	x	1.5	15.40	350	12.100	14.478	0.330	0.104	0.197	14.478	21	25	0.21
4	x	2.5	16.40	418	7.410	8.866	0.307	0.096	0.235	8.867	28	33	0.36
4	x	4	18.60	555	4.610	5.516	0.307	0.096	0.236	5.517	38	42	0.57
4	x	6	20.00	679	3.080	3.685	0.289	0.091	0.276	3.686	48	52	0.86
4	x	10	22.10	906	1.830	2.190	0.270	0.085	0.340	2.191	65	69	1.43
5	x	1.5	16.70	382	12.100	14.478	0.336	0.106	0.188	14.478	19	22	0.21
5	x	2.5	17.80	457	7.410	8.866	0.313	0.098	0.224	8.867	25	29	0.36
7	x	1.5	17.70	450	12.100	14.478	0.336	0.106	0.188	14.478	16	18	0.21
7	x	2.5	18.90	549	7.410	8.866	0.313	0.098	0.224	8.867	21	24	0.36
9	x	1.5	19.70	540	12.100	14.478	0.336	0.106	0.188	14.478	15	16	0.21
9	x	2.5	21.20	664	7.410	8.866	0.313	0.098	0.224	8.867	19	21	0.36
11	x	1.5	21.10	617	12.100	14.478	0.336	0.106	0.188	14.478	14	15	0.21
11	x	2.5	22.80	766	7.410	8.866	0.313	0.098	0.224	8.867	18	19	0.36
13	x	1.5	22.30	690	12.100	14.478	0.336	0.106	0.188	14.478	13	13	0.21
13	x	2.5	24.10	862	7.410	8.866	0.313	0.098	0.224	8.867	17	17	0.36
15	x	15.5	23.20	757	12.100	14.478	0.336	0.106	0.188	14.478	12	13	0.21
15	x	1.5	25.20	952	7.410	8.866	0.313	0.098	0.224	8.867	16	16	0.36
20	x	1.5	25.20	917	12.100	14.478	0.336	0.106	0.188	14.478	11	11	0.21
20	x	2.5	27.40	1,170	7.410	8.866	0.313	0.098	0.224	8.867	14	14	0.36
27	x	1.5	28.00	1,143	12.100	14.478	0.336	0.106	0.188	14.478	10	10	0.21
27	x	2.5	30.80	1,489	7.410	8.866	0.313	0.098	0.224	8.867	13	12	0.36

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, NYCY (Cu / PVC / CWS / PVC)

(Copper Conductor, PVC Insulated, Copper Wire Screen, PVC Sheathed)
Standard Specification : SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*



PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C					in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
1	x	1,5	12.20	177	12.100	14.478	0.416	0.130	0.197	14.478	33	42	0.21
1	x	2,5	12.60	204	7.410	8.866	0.387	0.121	0.235	8.867	42	53	0.36
1	x	4	13.50	252	4.610	5.516	0.386	0.121	0.236	5.517	56	68	0.57
1	x	6	14.10	301	3.080	3.685	0.364	0.114	0.276	3.687	71	85	0.86
1	x	10	16.10	404	1.830	2.190	0.341	0.107	0.340	2.192	96	112	1.43
2	x	1,5	14.90	284	12.100	14.478	0.330	0.104	0.197	14.478	26	31	0.21
2	x	2,5	15.70	337	7.410	8.866	0.307	0.096	0.235	8.867	34	40	0.36
2	x	4	18.10	445	4.610	5.516	0.307	0.096	0.236	5.517	45	51	0.57
2	x	6	19.30	541	3.080	3.685	0.289	0.091	0.276	3.686	57	64	0.86
2	x	10	21.40	716	1.830	2.190	0.270	0.085	0.340	2.191	78	84	1.43
3	x	1,5	15.40	312	12.100	14.478	0.330	0.104	0.197	14.478	22	25	0.21
3	x	2,5	16.30	375	7.410	8.866	0.307	0.096	0.235	8.867	28	33	0.36
3	x	4	18.90	502	4.610	5.516	0.307	0.096	0.236	5.517	38	42	0.57
3	x	6	20.10	618	3.080	3.685	0.289	0.091	0.276	3.686	48	52	0.86
3	x	10	22.40	833	1.830	2.190	0.270	0.085	0.340	2.191	65	69	1.43
4	x	1,5	16.20	351	12.100	14.478	0.330	0.104	0.197	14.478	22	26	0.21
4	x	2,5	17.20	426	7.410	8.866	0.307	0.096	0.235	8.867	29	33	0.36
4	x	4	20.00	576	4.610	5.516	0.307	0.096	0.236	5.517	39	43	0.57
4	x	6	21.40	716	3.080	3.685	0.289	0.091	0.276	3.686	49	53	0.86
4	x	10	24.00	976	1.830	2.190	0.270	0.085	0.340	2.191	67	70	1.43
5	x	1,5	17.60	405	12.100	14.478	0.330	0.104	0.197	14.478	20	23	0.21
5	x	2,5	18.70	493	7.410	8.866	0.307	0.096	0.235	8.867	26	29	0.36
7	x	1,5	18.50	473	12.100	14.478	0.330	0.104	0.197	14.478	17	19	0.21
7	x	2,5	19.80	584	7.410	8.866	0.307	0.096	0.235	8.867	22	24	0.36
9	x	1,5	20.50	569	12.100	14.478	0.330	0.104	0.197	14.478	15	16	0.21
9	x	2,5	22.00	709	7.410	8.866	0.307	0.096	0.235	8.867	20	21	0.36
11	x	1,5	21.90	651	12.100	14.478	0.330	0.104	0.197	14.478	14	15	0.21
11	x	2,5	23.60	818	7.410	8.866	0.307	0.096	0.235	8.867	18	19	0.36
13	x	1,5	23.10	718	12.100	14.478	0.330	0.104	0.197	14.478	13	14	0.21
13	x	2,5	25.00	907	7.410	8.866	0.307	0.096	0.235	8.867	17	18	0.36
15	x	1,5	24.10	789	12.100	14.478	0.330	0.104	0.197	14.478	12	13	0.21
15	x	2,5	26.00	1,002	7.410	8.866	0.307	0.096	0.235	8.867	16	16	0.36
20	x	1,5	26.00	945	12.100	14.478	0.330	0.104	0.197	14.478	11	11	0.21
20	x	2,5	28.30	1,215	7.410	8.866	0.307	0.096	0.235	8.867	14	14	0.36
27	x	1,5	28.80	1,178	12.100	14.478	0.330	0.104	0.197	14.478	10	10	0.21
27	x	2,5	31.40	1,530	7.410	8.866	0.307	0.096	0.235	8.867	13	12	0.36

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

For installation in the ground, indoors, cable trunking and outdoors if subsequent mechanical damage is likely, for urban networks, household feeder and street lighting.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 16 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 630 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape
- Other size and shape can be discussed

Standard Packing

- Length Tolerance per drum ± 2%
- wooden drum 500m, 1000m

0.6/1 (1.2) kV, NYBY (Cu / PVC / DSTA / PVC)

(Copper Conductor, PVC Insulated, Double Steel Tape Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*

Copper Conductor

PVC Insulated

PVC Filler

Double Galvanized Steel Tape

PVC Outer Sheath

Application

For installation indoors, cable channels and in ground, for industry installations, switchgear, and power station, if there is a risk that low mechanical damage may occur.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 16 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 630 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape
- Other size and shape can be discussed

Standard Packing

- 1.5 - 120 sqmm supplied in wooden drum @ 1000 meters
- 150 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

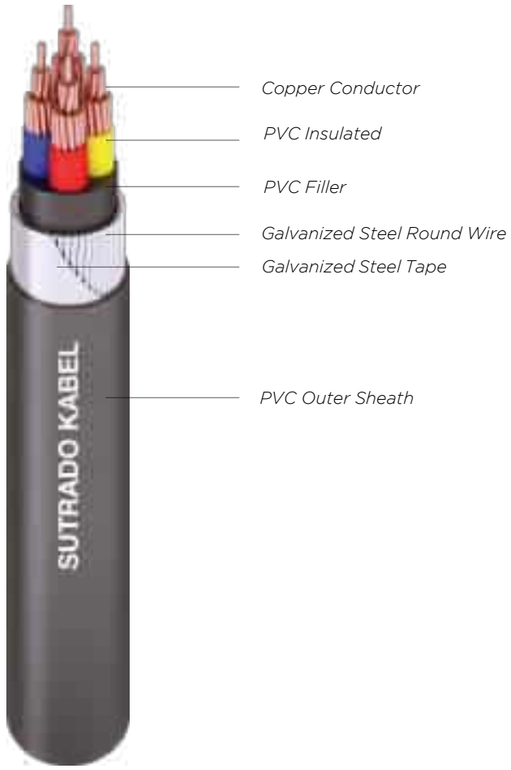
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C					in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	mH/km	A	A	kA
2	x	6	18.20	600	3.080	3.685	0.293	0.092	0.266	3.686	56	63	0.86
2	x	10	20.00	755	1.830	2.190	0.274	0.086	0.326	2.191	76	83	1.43
2	x	16	22.10	963	1.150	1.376	0.259	0.081	0.397	1.379	100	107	2.29
2	x	25	25.50	1,308	0.727	0.870	0.256	0.080	0.414	0.874	134	138	3.58
2	x	35	27.70	1,612	0.524	0.627	0.247	0.077	0.478	0.632	164	165	5.01
2	x	50	31.20	2,047	0.387	0.464	0.246	0.077	0.485	0.470	202	195	7.15
2	x	70	34.90	2,657	0.268	0.321	0.237	0.075	0.569	0.330	253	238	10.01
2	x	95	39.80	3,493	0.193	0.232	0.236	0.074	0.586	0.243	314	285	13.59
2	x	120	44.00	4,472	0.153	0.184	0.231	0.073	0.653	0.198	363	323	17.16
2	x	150	48.10	5,353	0.124	0.150	0.232	0.073	0.648	0.167	418	362	21.45
2	x	185	52.70	6,473	0.099	0.121	0.231	0.073	0.653	0.141	485	410	26.46
2	x	240	59.60	8,289	0.075	0.093	0.229	0.072	0.681	0.118	581	475	34.32
2	x	300	65.50	10,066	0.060	0.075	0.228	0.072	0.697	0.104	670	534	42.90
2	x	400	71.90	12,184	0.047	0.060	0.227	0.071	0.725	0.093	776	604	57.20
3	x	6	19.00	685	3.080	3.685	0.293	0.092	0.266	3.686	47	52	0.86
3	x	10	21.20	890	1.830	2.190	0.274	0.086	0.326	2.191	63	69	1.43
3	x	16	23.40	1,157	1.150	1.376	0.259	0.081	0.397	1.379	84	88	2.29
3	x	25	27.00	1,596	0.727	0.870	0.256	0.080	0.414	0.874	112	114	3.58
3	x	35	29.50	1,995	0.524	0.627	0.247	0.077	0.478	0.632	137	136	5.01
3	x	50	33.40	2,566	0.387	0.464	0.246	0.077	0.485	0.470	168	161	7.15
3	x	70	37.40	3,370	0.268	0.321	0.237	0.075	0.569	0.330	212	196	10.01
3	x	95	43.50	4,743	0.193	0.232	0.236	0.074	0.586	0.243	262	234	13.59
3	x	120	47.10	5,680	0.153	0.184	0.231	0.073	0.653	0.198	304	266	17.16
3	x	150	51.40	6,829	0.124	0.150	0.232	0.073	0.648	0.167	350	298	21.45
3	x	185	56.60	8,324	0.099	0.121	0.231	0.073	0.653	0.141	406	337	26.46
3	x	240	64.00	10,690	0.075	0.093	0.229	0.072	0.681	0.118	486	391	34.32
3	x	300	70.10	12,999	0.060	0.075	0.225	0.071	0.753	0.103	562	440	42.90
3	x	400	77.00	15,784	0.047	0.060	0.227	0.071	0.725	0.093	652	498	57.20
4	x	6	20.40	795	3.080	3.685	0.293	0.092	0.266	3.686	48	53	0.86
4	x	10	22.70	1,047	1.830	2.190	0.274	0.086	0.326	2.191	65	70	1.43
4	x	16	25.30	1,381	1.150	1.376	0.259	0.081	0.397	1.379	87	89	2.29
4	x	25	29.30	1,927	0.727	0.870	0.256	0.080	0.414	0.874	116	115	3.58
4	x	35	32.00	2,429	0.524	0.627	0.247	0.077	0.478	0.632	143	138	5.01
4	x	50	36.60	3,158	0.387	0.464	0.246	0.077	0.485	0.470	175	163	7.15
4	x	70	41.90	4,451	0.268	0.321	0.237	0.075	0.569	0.330	220	198	10.01
4	x	95	47.70	5,863	0.193	0.232	0.236	0.074	0.586	0.243	273	238	13.59
4	x	120	51.70	7,049	0.153	0.184	0.231	0.073	0.653	0.198	317	269	17.16
4	x	150	56.80	8,526	0.124	0.150	0.232	0.073	0.648	0.167	364	302	21.45
4	x	185	62.40	10,384	0.099	0.121	0.231	0.073	0.653	0.141	423	342	26.46
4	x	240	70.70	13,398	0.075	0.093	0.229	0.072	0.681	0.118	506	396	34.32
4	x	300	77.70	16,368	0.060	0.075	0.228	0.072	0.697	0.104	584	446	42.90
4	x	400	85.40	19,904	0.047	0.060	0.227	0.071	0.725	0.093	678	505	57.20

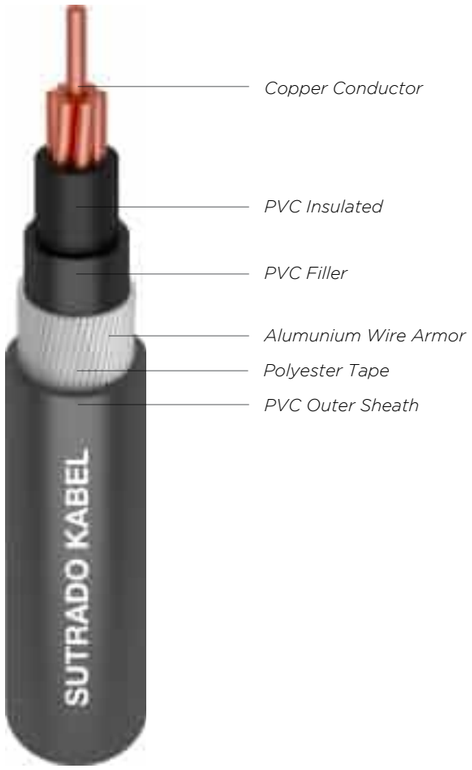
**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, NYRY (Cu / PVC / AWA / PVC)
0.6/1 (1.2) kV, NYRGbY (Cu / PVC / SWA / PVC)

(Copper Conductor, PVC Insulated, Alumunium Wire Armor, PVC Sheathed)
(Copper Conductor, PVC Insulated, Galvanized Steel Wire Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*





Application

For installation in ground, indoors, cable trunking and outdoors if increased mechanical protection is required or where high-pulling stress may occur during installation or operation.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 16 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 630 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape
- Other size and shape can be discussed

Standard Packing

- 1.5 - 10 sqmm supplied in coil @ 100 m
- 16 - 300 sqmm supplied in wooden drum @ 1000 m
- 400 - 630 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

	PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
						Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C					in air	in ground	
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
NYRY	1	×	1.5	12.20	196	12.100	14.478	0.416	0.130	0.197	14.478	33	41	0.21
	1	×	2.5	12.70	217	7.410	8.866	0.387	0.121	0.235	8.867	43	53	0.36
	1	×	4	13.60	257	4.610	5.516	0.386	0.121	0.236	5.517	56	69	0.57
	1	×	6	14.20	293	3.080	3.685	0.364	0.114	0.276	3.687	70	85	0.86
	1	×	10	15.10	352	1.830	2.190	0.341	0.107	0.340	2.192	94	111	1.43
	1	×	16	16.10	437	1.150	1.376	0.322	0.101	0.413	1.380	122	142	2.29
	1	×	25	17.80	569	0.727	0.870	0.319	0.100	0.429	0.876	160	182	3.58
	1	×	35	18.90	692	0.524	0.627	0.308	0.097	0.495	0.635	194	217	5.01
	1	×	50	20.80	863	0.387	0.464	0.308	0.097	0.500	0.473	238	257	7.15
	1	×	70	22.50	1.102	0.268	0.321	0.297	0.093	0.588	0.335	295	312	10.01
	1	×	95	24.80	1.413	0.193	0.232	0.296	0.093	0.603	0.250	359	370	13.59
	1	×	120	27.90	1.794	0.153	0.184	0.290	0.091	0.672	0.206	415	415	17.16
	1	×	150	32.20	2.569	0.124	0.150	0.290	0.091	0.664	0.176	467	458	21.45
	1	×	185	32.70	2.604	0.099	0.121	0.290	0.091	0.667	0.151	526	506	26.46
	1	×	240	35.20	3.221	0.075	0.093	0.288	0.090	0.695	0.130	604	565	34.32
	1	×	300	38.20	3.899	0.060	0.075	0.287	0.090	0.710	0.117	665	610	42.90
	1	×	400	41.70	4.734	0.047	0.060	0.286	0.090	0.725	0.108	731	656	57.20
	1	×	500	45.90	6.001	0.037	0.049	0.284	0.089	0.758	0.102	796	700	71.50
	1	×	630	49.80	7.378	0.028	0.040	0.279	0.087	0.857	0.096	852	734	90.09
NYRGbY	2	×	1.5	15.20	435	12.100	14.478	0.336	0.106	0.188	14.478	26	31	0.21
	2	×	2.5	16.00	489	7.410	8.866	0.307	0.096	0.235	8.867	35	40	0.36
	2	×	4	17.80	611	4.610	5.516	0.307	0.096	0.236	5.517	45	49	0.57
	2	×	6	19.70	796	3.080	3.685	0.289	0.091	0.276	3.686	59	64	0.86
	2	×	10	21.50	975	1.830	2.190	0.270	0.085	0.340	2.191	80	85	1.43
	2	×	16	23.60	1.215	1.150	1.376	0.256	0.080	0.413	1.378	105	109	2.29
	2	×	25	27.60	1.735	0.727	0.870	0.253	0.080	0.429	0.874	140	140	3.58
	2	×	35	29.90	2.084	0.524	0.627	0.245	0.077	0.495	0.632	170	167	5.01
	2	×	50	33.50	2.602	0.387	0.464	0.244	0.077	0.500	0.470	209	197	7.15
	2	×	70	38.10	3.509	0.268	0.321	0.236	0.074	0.588	0.330	260	238	10.01
	2	×	95	43.20	4.484	0.193	0.232	0.235	0.074	0.603	0.243	318	283	13.59
	2	×	120	46.90	5.366	0.153	0.184	0.230	0.072	0.672	0.198	367	318	17.16
	2	×	150	52.20	6.740	0.124	0.150	0.230	0.072	0.664	0.167	416	352	21.45
	2	×	185	57.10	8.050	0.099	0.121	0.230	0.072	0.667	0.141	473	392	26.46
	2	×	240	63.50	9.955	0.075	0.093	0.229	0.072	0.695	0.117	550	442	34.32
	2	×	300	69.90	12.033	0.060	0.075	0.228	0.072	0.710	0.104	615	484	42.90
	2	×	400	76.20	14.281	0.047	0.060	0.227	0.071	0.725	0.093	676	518	57.20
	2	×	1.5	15.70	469	12.100	14.478	0.330	0.104	0.197	14.478	22	26	0.21
	3	×	2.5	16.60	538	7.410	8.866	0.307	0.096	0.235	8.867	29	33	0.36
	3	×	4	19.20	777	4.610	5.516	0.307	0.096	0.236	5.517	39	43	0.57
	3	×	6	20.50	894	3.080	3.685	0.289	0.091	0.276	3.686	49	53	0.86
	3	×	10	22.40	1.113	1.830	2.190	0.270	0.085	0.340	2.191	67	70	1.43
	3	×	16	24.70	1.410	1.150	1.376	0.256	0.080	0.413	1.378	88	90	2.29
	3	×	25	28.90	2.049	0.727	0.870	0.253	0.080	0.429	0.874	117	115	3.58
	3	×	35	31.40	2.474	0.524	0.627	0.245	0.077	0.495	0.632	142	137	5.01
	3	×	50	35.60	3.144	0.387	0.464	0.244	0.077	0.500	0.470	175	162	7.15
	3	×	70	40.50	4.287	0.268	0.321	0.236	0.074	0.588	0.330	218	196	10.01
	3	×	95	46.20	5.604	0.193	0.232	0.235	0.074	0.603	0.243	269	233	13.59
	3	×	120	49.80	6.601	0.153	0.184	0.230	0.072	0.672	0.198	308	262	17.16
	3	×	150	55.70	8.361	0.124	0.150	0.230	0.072	0.664	0.167	350	291	21.45
	3	×	185	60.70	9.974	0.099	0.121	0.230	0.072	0.667	0.141	397	324	26.46
	3	×	240	68.00	12.538	0.075	0.093	0.229	0.072	0.695	0.117	463	367	34.32
	3	×	300	74.30	15.052	0.060	0.075	0.228	0.072	0.710	0.104	514	396	42.90
	3	×	400	82.50	18.842	0.047	0.060	0.227	0.071	0.725	0.093	573	432	57.20
	4	×	1.5	16.50	523	12.100	14.478	0.330	0.104	0.197	14.478	23	26	0.21
	4	×	2.5	17.50	605	7.410	8.866	0.307	0.096	0.235	8.867	30	33	0.36
	4	×	4	20.40	872	4.610	5.516	0.307	0.096	0.236	5.517	40	43	0.57
	4	×	6	21.80	1.023	3.080	3.685	0.289	0.091	0.276	3.686	51	54	0.86
	4	×	10	24.00	1.286	1.830	2.190	0.270	0.085	0.340	2.191	69	71	1.43
	4	×	16	27.20	1.801	1.150	1.376	0.256	0.080	0.413	1.378	91	91	2.29
	4	×	25	31.20	2.410	0.727	0.870	0.253	0.080	0.429	0.874	121	116	3.58
	4	×	35	34.20	2.985	0.524	0.627	0.245	0.077	0.495	0.632	148	139	5.01
	4	×	50	39.80	4.058	0.387	0.464	0.244	0.077	0.500	0.470	181	164	7.15
	4	×	70	44.60	5.278	0.268	0.321	0.236	0.074	0.588	0.330	227	199	10.01
	4	×	95	51.40	7.214	0.193	0.232	0.235	0.074	0.603	0.243	278	236	13.59
	4	×	120	56.00	8.579	0.153	0.184	0.230	0.072	0.672	0.198	319	266	17.16
	4	×	150	60.80	10.176	0.124	0.150	0.230	0.072	0.664	0.167	362	295	21.45
	4	×	185	67.10	12.324	0.099	0.121	0.230	0.072	0.667	0.141	413	329	26.46
	4	×	240	74.70	15.415	0.075	0.093	0.229	0.072	0.695	0.117	480	369	34.32
	4	×	300	81.80	18.589	0.060	0.075	0.228	0.072	0.710	0.104	537	405	42.90
	4	×	400	91.10	23.362	0.047	0.060	0.227	0.071	0.725	0.093	602	443	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, NYFGbY (Cu / PVC / SFA / PVC)

(Copper Conductor, PVC Insulated, Galvanized Steel Flat Armor, PVC Sheathed)
Standard Specification : SPLN D3.010-3, SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*

Copper Conductor

PVC Insulated

PVC Filler

Galvanized Steel Flat Armour

Galvanized Steel Tape

PVC Outer Sheath

Application

For installation in ground, indoors, cable trunking and outdoors if increased mechanical protection is required or where high-pulling stress may occur during installation or operation.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 16 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 630 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape or compacted sectoral stranded (sm) conductor shape
- Other size and shape can be discussed

Standard Packing

- 1.5 - 95 sqmm supplied in wooden drum @ 1000 meters
- 120 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C					in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
2	x	1,5	15.45	503	12.100	14.478	0.336	0.106	0.188	14.478	26	31	0.21
2	x	2,5	16.29	548	7.410	8.866	0.313	0.098	0.224	8.867	34	40	0.36
2	x	4	18.11	667	4.610	5.516	0.311	0.098	0.227	5.517	46	52	0.57
2	x	6	19.25	771	3.080	3.685	0.277	0.087	0.314	3.686	58	64	0.86
2	x	10	21.05	939	1.830	2.190	0.260	0.082	0.389	2.191	78	84	1.43
2	x	16	23.15	1,184	1.150	1.376	0.247	0.078	0.475	1.378	102	108	2.29
2	x	25	26.47	1,556	0.727	0.870	0.256	0.080	0.414	0.874	137	139	3.58
2	x	35	28.75	1,871	0.524	0.627	0.247	0.077	0.478	0.632	167	166	5.01
2	x	50	32.43	2,348	0.387	0.464	0.246	0.077	0.485	0.470	204	196	7.15
2	x	70	36.13	2,988	0.268	0.321	0.237	0.075	0.569	0.330	256	239	10.01
2	x	95	41.03	3,854	0.193	0.232	0.236	0.074	0.586	0.243	317	285	13.59
2	x	120	44.39	4,682	0.153	0.184	0.231	0.073	0.653	0.198	366	323	17.16
2	x	150	48.47	5,571	0.124	0.150	0.232	0.073	0.648	0.167	421	363	21.45
2	x	185	53.11	6,743	0.099	0.121	0.231	0.073	0.653	0.141	488	410	26.46
2	x	240	60.01	8,592	0.075	0.093	0.229	0.072	0.681	0.118	584	475	34.32
2	x	300	65.89	10,356	0.060	0.075	0.228	0.072	0.697	0.104	673	535	42.90
2	x	400	72.85	11,845	0.047	0.060	0.227	0.071	0.725	0.093	772	598	57.20
3	x	1.5	16.36	532	12.100	14.478	0.336	0.106	0.188	14.478	22	26	0.21
3	x	2.5	17.26	612	7.410	8.866	0.313	0.098	0.224	8.867	29	33	0.36
3	x	4	19.22	751	4.610	5.516	0.311	0.098	0.227	5.517	38	43	0.57
3	x	6	20.45	875	3.080	3.685	0.293	0.092	0.266	3.686	48	53	0.86
3	x	10	22.39	1,083	1.830	2.190	0.274	0.086	0.326	2.191	65	69	1.43
3	x	16	24.65	1,360	1.150	1.376	0.259	0.081	0.397	1.379	86	89	2.29
3	x	25	28.23	1,824	0.727	0.870	0.256	0.080	0.414	0.874	115	115	3.58
3	x	35	30.89	2,256	0.524	0.627	0.247	0.077	0.478	0.632	140	136	5.01
3	x	50	34.84	2,852	0.387	0.464	0.246	0.077	0.485	0.470	171	161	7.15
3	x	70	38.81	3,706	0.268	0.321	0.237	0.075	0.569	0.330	215	197	10.01
3	x	95	44.46	4,918	0.193	0.232	0.236	0.074	0.586	0.243	268	236	13.59
3	x	120	48.26	5,892	0.153	0.184	0.231	0.073	0.653	0.198	310	267	17.16
3	x	150	52.64	7,044	0.124	0.150	0.232	0.073	0.648	0.167	356	300	21.45
3	x	185	57.63	8,560	0.099	0.121	0.231	0.073	0.653	0.141	412	339	26.46
3	x	240	65.19	10,947	0.075	0.093	0.229	0.072	0.681	0.118	494	393	34.32
3	x	300	71.50	13,324	0.060	0.075	0.228	0.072	0.697	0.104	569	442	42.90
3	x	400	79.16	15,413	0.047	0.060	0.227	0.071	0.725	0.093	652	495	57.20
4	x	1.5	17.00	597	12.100	14.478	0.336	0.106	0.188	14.478	22	26	0.21
4	x	2.5	18.01	665	7.410	8.866	0.313	0.098	0.224	8.867	29	33	0.36
4	x	4	20.36	853	4.610	5.516	0.309	0.097	0.231	5.517	39	43	0.57
4	x	6	21.59	976	3.080	3.685	0.293	0.092	0.266	3.686	49	53	0.86
4	x	10	23.76	1,254	1.830	2.190	0.274	0.086	0.326	2.191	67	70	1.43
4	x	16	26.29	1,596	1.150	1.376	0.259	0.081	0.397	1.379	88	90	2.29
4	x	25	30.30	2,190	0.727	0.870	0.256	0.080	0.414	0.874	118	116	3.58
4	x	35	33.25	2,714	0.524	0.627	0.247	0.077	0.478	0.632	145	138	5.01
4	x	50	37.65	3,475	0.387	0.464	0.246	0.077	0.485	0.470	177	163	7.15
4	x	70	42.38	4,662	0.268	0.321	0.237	0.075	0.569	0.330	224	200	10.01
4	x	95	48.21	6,068	0.193	0.232	0.236	0.074	0.586	0.243	277	239	13.59
4	x	120	52.22	7,261	0.153	0.184	0.231	0.073	0.653	0.198	321	271	17.16
4	x	150	57.31	8,761	0.124	0.150	0.232	0.073	0.648	0.167	369	304	21.45
4	x	185	62.97	10,664	0.099	0.121	0.231	0.073	0.653	0.141	428	344	26.46
4	x	240	70.81	13,687	0.075	0.093	0.229	0.072	0.681	0.118	510	397	34.32
4	x	300	78.32	16,683	0.060	0.075	0.228	0.072	0.697	0.104	590	448	42.90
4	x	400	86.84	19,512	0.047	0.060	0.227	0.071	0.725	0.093	678	502	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, NAYY (Al / PVC / PVC)

(Aluminium Conductor, PVC Insulated, PVC Sheathed)
Standard Specification : SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*

Aluminium Conductor

PVC Insulated

PVC Filler

PVC Outer Sheath

Application

Power cable : Indoors, cable trunking, outdoors and burried in the ground, for power stations, industry and switchgear as well as for urban supply networks, if mechanical damage is unlikely.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 10 - 16 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 630 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape
- Other size and shape can be discussed

Standard Packing

- 10 - 630 sqmm supplied in wooden drum @ 1000 meters
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C					in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
1	x	10	9.00	107	3.080	3.701	0.341	0.107	0.340	3.702	56	75	0.94
1	x	16	10.00	137	1.910	2.295	0.322	0.101	0.413	2.297	75	98	1.50
1	x	25	11.70	190	1.200	1.442	0.319	0.100	0.429	1.445	101	127	2.35
1	x	35	12.80	234	0.868	1.043	0.308	0.097	0.495	1.048	123	152	3.29
1	x	50	14.60	296	0.641	0.770	0.308	0.097	0.500	0.776	152	181	4.70
1	x	70	16.30	380	0.443	0.533	0.297	0.093	0.588	0.541	192	222	6.58
1	x	95	18.80	507	0.320	0.385	0.296	0.093	0.603	0.396	239	266	8.93
1	x	120	20.30	597	0.253	0.305	0.290	0.091	0.672	0.318	278	303	11.28
1	x	150	22.50	731	0.206	0.248	0.290	0.091	0.664	0.265	320	339	14.10
1	x	185	24.90	900	0.164	0.198	0.290	0.091	0.667	0.218	372	385	17.39
1	x	240	28.10	1,148	0.125	0.152	0.288	0.090	0.695	0.177	447	447	22.56
1	x	300	31.00	1,407	0.100	0.122	0.287	0.090	0.710	0.152	518	504	28.20
1	x	400	34.50	1,750	0.078	0.096	0.285	0.090	0.738	0.131	610	576	37.60
1	x	500	38.40	2,175	0.061	0.077	0.283	0.089	0.770	0.117	714	655	47.00
1	x	630	42.60	2,713	0.047	0.061	0.279	0.087	0.857	0.107	837	747	59.22
2	x	10	18.10	418	3.080	3.701	0.270	0.085	0.340	3.702	53	60	0.94
2	x	16	20.20	527	1.910	2.295	0.256	0.080	0.413	2.296	71	77	1.50
2	x	25	23.50	719	1.200	1.442	0.253	0.080	0.429	1.444	96	100	2.35
2	x	35	25.80	874	0.868	1.043	0.245	0.077	0.495	1.046	117	119	3.29
2	x	50	29.30	1,111	0.641	0.770	0.244	0.077	0.500	0.774	145	142	4.70
2	x	70	33.00	1,421	0.443	0.533	0.236	0.074	0.588	0.538	182	173	6.58
2	x	95	38.10	1,900	0.320	0.385	0.235	0.074	0.603	0.392	226	207	8.93
2	x	120	41.50	2,248	0.253	0.305	0.230	0.072	0.672	0.313	263	236	11.28
2	x	150	45.50	2,714	0.206	0.248	0.230	0.072	0.664	0.259	303	264	14.10
2	x	185	50.70	3,364	0.164	0.198	0.230	0.072	0.667	0.211	352	299	17.39
2	x	240	57.10	4,265	0.125	0.152	0.229	0.072	0.695	0.168	423	348	22.56
2	x	300	63.30	5,251	0.100	0.122	0.228	0.072	0.710	0.142	491	394	28.20
2	x	400	70.40	6,516	0.078	0.096	0.227	0.071	0.725	0.120	575	449	37.60
3	x	10	19.10	471	3.080	3.701	0.270	0.085	0.340	3.702	45	49	0.94
3	x	16	21.30	600	1.910	2.295	0.256	0.080	0.413	2.296	59	64	1.50
3	x	25	24.90	828	1.200	1.442	0.253	0.080	0.429	1.444	80	82	2.35
3	x	35	27.40	1,014	0.868	1.043	0.245	0.077	0.495	1.046	98	98	3.29
3	x	50	31.10	1,291	0.641	0.770	0.244	0.077	0.500	0.774	121	117	4.70
3	x	70	35.50	1,698	0.443	0.533	0.236	0.074	0.588	0.538	153	143	6.58
3	x	95	40.70	2,246	0.320	0.385	0.235	0.074	0.603	0.392	190	171	8.93
3	x	120	44.30	2,660	0.253	0.305	0.230	0.072	0.672	0.313	221	194	11.28
3	x	150	49.00	3,255	0.206	0.248	0.230	0.072	0.664	0.259	254	218	14.10
3	x	185	54.20	3,987	0.164	0.198	0.230	0.072	0.667	0.211	295	247	17.39
3	x	240	61.60	5,143	0.125	0.152	0.229	0.072	0.695	0.168	355	287	22.56
3	x	300	67.90	6,266	0.100	0.122	0.228	0.072	0.710	0.142	411	324	28.20
3	x	400	75.30	7,748	0.078	0.096	0.227	0.071	0.725	0.120	483	371	37.60
4	x	10	20.60	548	3.080	3.701	0.270	0.085	0.340	3.702	46	50	0.94
4	x	16	23.20	704	1.910	2.295	0.256	0.080	0.413	2.296	62	65	1.50
4	x	25	27.20	980	1.200	1.442	0.253	0.080	0.429	1.444	83	84	2.35
4	x	35	29.90	1,206	0.868	1.043	0.245	0.077	0.495	1.046	102	100	3.29
4	x	50	34.70	1,590	0.641	0.770	0.244	0.077	0.500	0.774	126	118	4.70
4	x	70	39.40	2,066	0.443	0.533	0.236	0.074	0.588	0.538	159	144	6.58
4	x	95	45.00	2,713	0.320	0.385	0.235	0.074	0.603	0.392	198	173	8.93
4	x	120	49.30	3,254	0.253	0.305	0.230	0.072	0.672	0.313	230	197	11.28
4	x	150	54.40	3,962	0.206	0.248	0.230	0.072	0.664	0.259	265	221	14.10
4	x	185	60.60	4,932	0.164	0.198	0.230	0.072	0.667	0.211	308	250	17.39
4	x	240	68.30	6,256	0.125	0.152	0.229	0.072	0.695	0.168	371	291	22.56
4	x	300	75.30	7,626	0.100	0.122	0.228	0.072	0.710	0.142	429	329	28.20
4	x	400	84.20	9,565	0.078	0.096	0.227	0.071	0.725	0.120	504	376	37.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, NA2XY (Al / XLPE / PVC)

(Aluminium Conductor, XLPE Insulated, PVC Sheathed)
Standard Specification : SPLN 43 - 6, SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*

Aluminium Conductor

XLPE Insulated

PVC Filler

PVC Outer Sheath

Application

Power cable : Indoors, cable trunking, outdoors and burried in the ground, for power stations, industry and switchgear as well as for urban supply networks, if mechanical damage is unlikely.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 10 - 16 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 25 - 630 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape
- Other size and shape can be discussed

Standard Packing

- 10 - 630 sqmm supplied in wooden drum @ 1000 meters
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
1	x	10	8.40	87	3.080	3.949	0.345	0.108	0.326	3.950	68	89	0.94
1	x	16	9.40	113	1.910	2.449	0.326	0.102	0.397	2.451	91	116	1.50
1	x	25	11.10	158	1.200	1.539	0.310	0.097	0.481	1.542	121	150	2.35
1	x	35	12.20	197	0.868	1.113	0.301	0.094	0.557	1.117	148	179	3.29
1	x	50	13.80	247	0.641	0.822	0.292	0.092	0.646	0.827	180	212	4.70
1	x	70	15.70	327	0.443	0.568	0.288	0.090	0.701	0.576	230	261	6.58
1	x	95	17.80	427	0.320	0.411	0.281	0.088	0.813	0.420	283	312	8.93
1	x	120	19.50	516	0.253	0.325	0.279	0.088	0.841	0.337	331	355	11.28
1	x	150	21.70	634	0.206	0.265	0.281	0.088	0.808	0.279	383	400	14.10
1	x	185	23.90	772	0.164	0.211	0.282	0.088	0.795	0.229	447	454	17.39
1	x	240	26.90	985	0.125	0.162	0.279	0.087	0.857	0.184	535	527	22.56
1	x	300	29.60	1,205	0.100	0.130	0.276	0.087	0.902	0.157	620	594	28.20
1	x	400	33.10	1,511	0.078	0.103	0.276	0.087	0.918	0.134	730	680	37.60
1	x	500	37.00	1,892	0.061	0.081	0.275	0.086	0.943	0.119	857	774	47.00
1	x	630	41.80	2,436	0.047	0.064	0.273	0.086	0.986	0.107	1012	885	59.22
2	x	10	17.60	386	3.080	3.949	0.274	0.086	0.326	3.950	65	71	0.94
2	x	16	19.70	489	1.910	2.449	0.259	0.081	0.397	2.450	87	92	1.50
2	x	25	23.00	667	1.200	1.539	0.246	0.077	0.481	1.541	115	118	2.35
2	x	35	25.30	814	0.868	1.113	0.239	0.075	0.557	1.116	141	141	3.29
2	x	50	28.40	1,015	0.641	0.822	0.232	0.073	0.646	0.825	171	167	4.70
2	x	70	32.30	1,320	0.443	0.568	0.228	0.072	0.701	0.573	219	205	6.58
2	x	95	36.40	1,691	0.320	0.411	0.223	0.070	0.813	0.417	269	244	8.93
2	x	120	40.20	2,052	0.253	0.325	0.222	0.070	0.841	0.333	314	278	11.28
2	x	150	44.20	2,484	0.206	0.265	0.223	0.070	0.808	0.274	362	312	14.10
2	x	185	48.90	3,029	0.164	0.211	0.224	0.070	0.795	0.223	423	354	17.39
2	x	240	55.40	3,901	0.125	0.162	0.221	0.069	0.857	0.176	508	411	22.56
2	x	300	60.90	4,724	0.100	0.130	0.219	0.069	0.902	0.147	587	464	28.20
2	x	400	67.80	5,871	0.078	0.103	0.219	0.069	0.918	0.123	690	531	37.60
3	x	10	18.50	426	3.080	3.949	0.274	0.086	0.326	3.950	54	58	0.94
3	x	16	20.70	546	1.910	2.449	0.259	0.081	0.397	2.450	72	75	1.50
3	x	25	24.30	752	1.200	1.539	0.246	0.077	0.481	1.541	96	97	2.35
3	x	35	26.80	925	0.868	1.113	0.239	0.075	0.557	1.116	118	116	3.29
3	x	50	30.10	1,157	0.641	0.822	0.232	0.073	0.646	0.825	144	137	4.70
3	x	70	34.50	1,533	0.443	0.568	0.225	0.071	0.762	0.573	183	168	6.58
3	x	95	38.70	1,953	0.320	0.411	0.223	0.070	0.813	0.417	226	201	8.93
3	x	120	42.70	2,376	0.253	0.325	0.222	0.070	0.841	0.333	264	229	11.28
3	x	150	47.30	2,904	0.206	0.265	0.223	0.070	0.808	0.274	304	257	14.10
3	x	185	52.30	3,547	0.164	0.211	0.224	0.070	0.795	0.223	355	292	17.39
3	x	240	59.20	4,570	0.125	0.162	0.221	0.069	0.857	0.176	426	339	22.56
3	x	300	65.10	5,546	0.100	0.130	0.219	0.069	0.902	0.147	492	382	28.20
3	x	400	72.60	6,906	0.078	0.103	0.219	0.069	0.918	0.123	580	438	37.60
4	x	10	19.90	486	3.080	3.949	0.274	0.086	0.326	3.950	56	59	0.94
4	x	16	22.40	630	1.910	2.449	0.259	0.081	0.397	2.450	75	77	1.50
4	x	25	26.40	876	1.200	1.539	0.246	0.077	0.481	1.541	100	99	2.35
4	x	35	29.20	1,086	0.868	1.113	0.239	0.075	0.557	1.116	123	118	3.29
4	x	50	33.10	1,378	0.641	0.822	0.232	0.073	0.646	0.825	149	139	4.70
4	x	70	38.00	1,832	0.443	0.568	0.225	0.071	0.762	0.573	190	170	6.58
4	x	95	42.70	2,343	0.320	0.411	0.223	0.070	0.813	0.417	235	204	8.93
4	x	120	47.40	2,876	0.253	0.325	0.222	0.070	0.841	0.333	275	232	11.28
4	x	150	52.30	3,490	0.206	0.265	0.223	0.070	0.808	0.274	317	261	14.10
4	x	185	58.00	4,296	0.164	0.211	0.224	0.070	0.795	0.223	370	296	17.39
4	x	240	65.70	5,530	0.125	0.162	0.221	0.069	0.857	0.176	444	344	22.56
4	x	300	72.20	6,717	0.100	0.130	0.219	0.069	0.902	0.147	514	388	28.20
4	x	400	80.70	8,410	0.078	0.103	0.219	0.069	0.918	0.123	603	444	37.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

450/750 V, NYAF (Cu/PVC-f)

(Flexible Copper, PVC Sheated)
Standard Specification : SNI 04-6629.3, IEC 60227

**For Insulation colour can be based on Customer Request or Follow Standard.*

Flexible Copper Conductor

PVC Insulated

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES					
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Min. Insulation Resistance	L	Max. Current - Carrying Capacity at 30 °C In Air	Max. Current - Carrying Capacity at 30 °C In Pipe	Max. Short Circuit Current at 1 Second
mm²			mm	kg/km	ohm/km	M.ohm.km	mH/km	A	A	kA
1	x	0,75	2.33	11	26.000	0.010	0.439	16	12	0.11
1	x	1,5	2.94	20	13.300	0.010	0.412	24	18	0.21
1	x	2,5	3.69	32	7.980	0.009	0.410	32	24	0.36
1	x	4	4.22	50	4.950	0.007	0.359	44	33	0.57
1	x	6	4.88	70	3.300	0.006	0.342	57	43	0.86
1	x	10	6.11	111	1.910	0.005	0.339	79	60	1.43
1	x	16	7.01	170	1.210	0.004	0.323	105	79	2.29
1	x	25	9.57	272	0.780	0.004	0.311	148	111	3.58
1	x	35	10.34	350	0.554	0.004	0.306	178	133	5.01
1	x	50	12.17	502	0.386	0.003	0.301	224	168	7.15
1	x	70	13.64	687	0.272	0.003	0.230	286	215	10.01
1	x	95	16.96	952	0.206	0.003	0.291	352	264	13.59
1	x	120	17.66	1174	0.161	0.003	0.289	402	301	17.16
1	x	150	21.51	1490	0.129	0.003	0.285	477	358	21.45
1	x	185	23.78	1841	0.106	0.003	0.282	566	425	26.46
1	x	240	27.27	2348	0.080	0.003	0.283	668	501	34.32

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

Permanent installation in conduit or exposed wiring in dry room and distribution panel connector

Special Features on Request

- Anti termite
- Anti Rodent
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category

Standard Packing

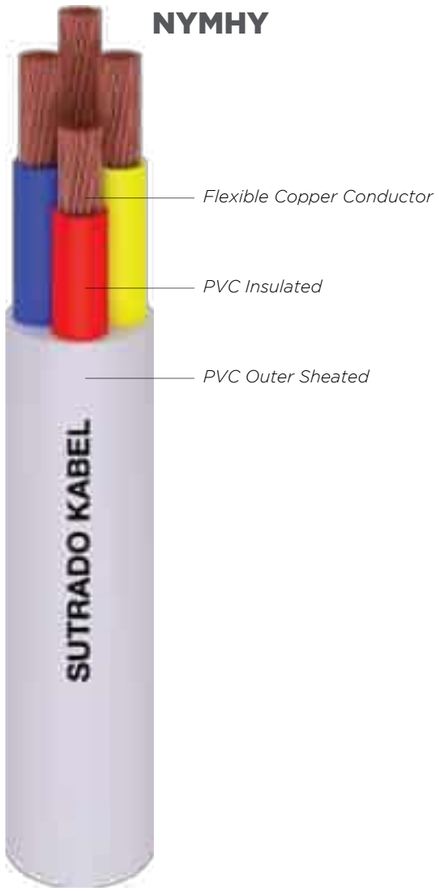
- 1.5 - 16 sqmm supplied in coil @ 100 meters
- 25 - 240 sqmm supplied in wooden drum @ 1000 meters
- Length Tolerance per drum ± 2%
- Other size can be discussed

300/500 V, NYMHY (Cu/PVC/PVC-f)
0.6/1 (1.2) kV, NYYHY (Cu/PVC/PVC-f)

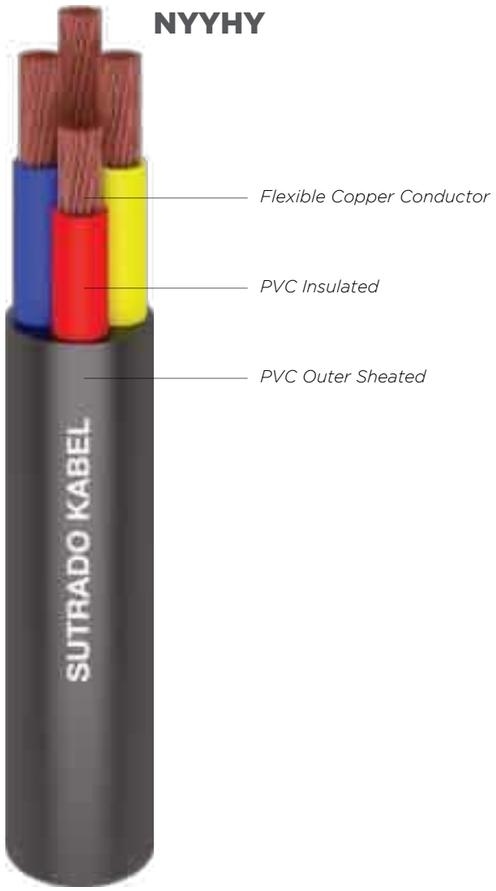
(Flexible Copper Conductor, PVC Insulated, PVC Outer Sheated)
Standard Specification : SNI 04-6629.5 ; SNI IEC 60502-1, IEC 60227

**For Insulation colour can be based on Customer Request or Follow Standard.*

NYMHY



NYYHY



Application

Permanent installation in conduit or exposed wiring in dry room

Special Features on Request

- Anti termite
- Anti Rodent
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category

Standard Packing

- 1.5 - 10 sqmm in coil @ 100 m
- 16 - 50 wooden drum @ 1000 m or @ 2000 m
- Length Tolerance per drum ± 2%

NYMHY

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES					
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor: Max. DC Resistance at 20 °C	Conductor: Max. AC Resistance at 70 °C	L	Max. Current - Carrying Capacity at 30 °C *: in air	Max. Current - Carrying Capacity at 30 °C *: in pipe	Max. Short Circuit Current at 1 Second
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	A	A	kA
2	x	0,75	6.40	59	26.000	24.500	0.349	14	10	0.11
2	x	1,5	7.60	88	13.300	12.100	0.327	21	16	0.21
2	x	2,5	9.50	140	7.980	7.410	0.326	28	21	0.36
2	x	4	10.50	190	4.950	4.610	0.285	39	29	0.57
2	x	6	12.10	257	3.300	3.080	0.271	50	37	0.86
2	x	10	17.20	492	1.910	1.830	0.269	74	55	1.43
2	x	16	19.20	669	1.210	1.150	0.256	98	70	2.29
2	x	25	24.50	1,047	0.780	0.727	0.247	136	93	3.58
2	x	35	26.30	1,272	0.554	0.524	0.243	163	113	5.01
3	x	0,75	6.70	69	26.000	24.500	0.349	12	9	0.11
3	x	1,5	8.20	110	13.300	12.100	0.327	18	13	0.21
3	x	2,5	10.30	174	7.980	7.410	0.326	24	18	0.36
3	x	4	11.20	235	4.950	4.610	0.285	33	24	0.57
3	x	6	12.80	322	3.300	3.080	0.271	42	31	0.86
3	x	10	18.20	599	1.910	1.830	0.269	62	46	1.43
3	x	16	20.30	832	1.210	1.150	0.256	82	58	2.29
3	x	25	26.00	1,300	0.780	0.727	0.247	114	77	3.58
3	x	35	27.90	1,601	0.554	0.524	0.243	136	93	5.01
4	x	0,75	7.30	83	26.000	24.500	0.349	12	9	0.11
4	x	1,5	9.20	138	13.300	12.100	0.327	16	12	0.21
4	x	2,5	11.20	211	7.980	7.410	0.326	21	16	0.36
4	x	4	12.50	296	4.950	4.610	0.285	29	22	0.57
4	x	6	14.10	398	3.300	3.080	0.271	37	28	0.86
4	x	10	20.00	738	1.910	1.830	0.268	56	42	1.43
4	x	16	22.40	1,035	1.210	1.150	0.256	73	52	2.29
4	x	25	28.80	1,617	0.780	0.727	0.247	102	69	3.58
4	x	35	30.80	2,001	0.554	0.524	0.243	123	83	5.01

**Further information about derating factors for arrangement can be found on supplementary technical information.*

NYYHY

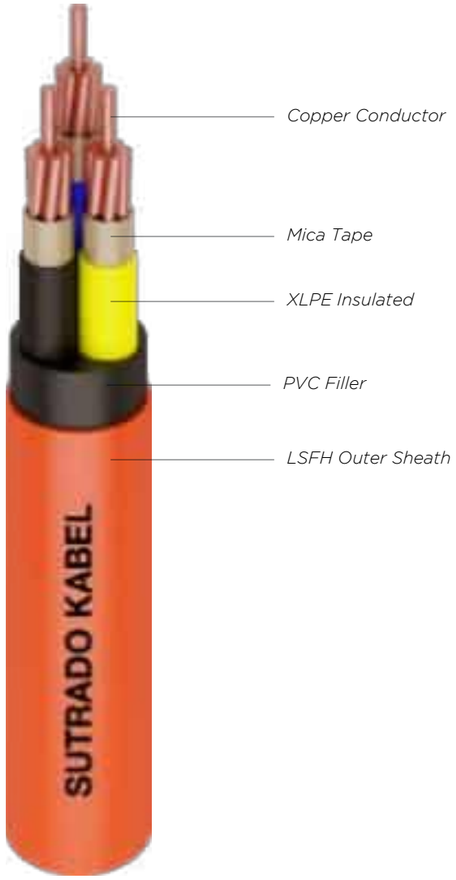
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES					
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor: Max. DC Resistance at 20 °C	Conductor: Max. AC Resistance at 70 °C	L	Max. Current - Carrying Capacity at 30 °C *: in air	Max. Current - Carrying Capacity at 30 °C *: in pipe	Max. Short Circuit Current at 1 Second
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	A	A	kA
2	x	0,75	7.20	72	26.000	24.500	0.349	14	10	0.11
2	x	1,5	8.40	104	13.300	12.100	0.327	21	16	0.21
2	x	2,5	9.70	145	7.980	7.410	0.326	28	21	0.36
2	x	4	11.90	228	4.950	4.610	0.285	39	29	0.57
2	x	6	13.50	301	3.300	3.080	0.271	50	37	0.86
2	x	10	17.60	509	1.910	1.830	0.269	74	55	1.43
2	x	16	19.40	678	1.210	1.150	0.256	98	-	2.29
2	x	25	24.70	1,058	0.780	0.727	0.247	136	-	3.58
2	x	35	26.50	1,285	0.554	0.524	0.243	163	-	5.01
2	x	50	30.30	1,748	0.386	0.387	0.239	204	-	7.15
3	x	0,75	7.60	84	26.000	24.500	0.349	12	9	0.11
3	x	1,5	8.90	123	13.300	12.100	0.327	18	13	0.21
3	x	2,5	10.30	174	7.980	7.410	0.326	24	18	0.36
3	x	4	12.70	277	4.950	4.610	0.285	33	24	0.57
3	x	6	14.30	370	3.300	3.080	0.271	42	31	0.86
3	x	10	18.60	617	1.910	1.830	0.269	62	46	1.43
3	x	16	20.50	842	1.210	1.150	0.256	82	-	2.29
3	x	25	26.20	1,313	0.780	0.727	0.247	114	-	3.58
3	x	35	28.10	1,614	0.554	0.524	0.243	136	-	5.01
3	x	50	32.20	2,218	0.386	0.387	0.239	172	-	7.15
4	x	0,75	8.30	100	26.000	24.500	0.349	12	9	0.11
4	x	1,5	9.70	149	13.300	12.100	0.327	16	12	0.21
4	x	2,5	11.20	211	7.980	7.410	0.326	21	16	0.36
4	x	4	13.90	338	4.950	4.610	0.285	29	22	0.57
4	x	6	15.70	454	3.300	3.080	0.271	37	28	0.86
4	x	10	20.20	748	1.910	1.830	0.268	56	42	1.43
4	x	16	22.40	1,035	1.210	1.150	0.256	73	-	2.29
4	x	25	28.80	1,617	0.780	0.727	0.247	102	-	3.58
4	x	35	30.80	2,001	0.554	0.524	0.243	123	-	5.01
4	x	50	35.50	2,764	0.386	0.387	0.239	156	-	7.15

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, FRC (Cu / Mica / XLPE / LSFH)

(Copper Conductor, Mica Tape, XLPE Insulated, Low Smoke Free Halogen Sheathed)
Standard Specification : SNI IEC 60502-1, IEC 60331, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*



Application

For emergency lighting and power, public adress and emergency voice communication system in highrise building, For wiring of fire resistant safety circuits, such as fire alarm system, Control and instrumentation service in industrial, Commercial and residential complexes.

Special Features on Request

- Fire Resistance
- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Anti Termite / Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 16 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 630 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape
- Other size and shape can be discussed

Standard Packing

- 1.5 - 10 sqmm supplied in coil @ 100 m
- 16 - 300 sqmm supplied in wooden drum @ 1000 m
- 400 - 630 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
mm			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
1	x	1.5	7.00	68	12.100	15.429	0.469	0.147	0.152	15.429	32	44	0.21
1	x	2.5	7.40	82	7.410	9.449	0.434	0.136	0.178	9.449	43	57	0.36
1	x	4	7.90	100	4.610	5.878	0.405	0.127	0.210	5.880	56	73	0.57
1	x	6	8.50	125	3.080	3.927	0.381	0.120	0.245	3.929	70	91	0.86
1	x	10	9.40	170	1.830	2.334	0.355	0.111	0.299	2.336	95	121	1.43
1	x	16	10.50	235	1.150	1.466	0.334	0.105	0.362	1.470	126	157	2.29
1	x	25	12.10	337	0.727	0.927	0.318	0.100	0.438	0.933	166	202	3.58
1	x	35	13.30	437	0.524	0.668	0.307	0.096	0.506	0.675	204	242	5.01
1	x	50	14.80	568	0.387	0.494	0.297	0.093	0.586	0.503	247	287	7.15
1	x	70	16.70	777	0.268	0.342	0.292	0.092	0.641	0.355	315	354	10.01
1	x	95	18.60	1,028	0.193	0.247	0.285	0.089	0.743	0.263	388	424	13.59
1	x	120	20.40	1,272	0.153	0.196	0.283	0.089	0.773	0.216	454	484	17.16
1	x	150	22.30	1,549	0.124	0.160	0.284	0.089	0.752	0.183	524	545	21.45
1	x	185	24.50	1,908	0.099	0.128	0.285	0.089	0.746	0.156	610	618	26.46
1	x	240	27.30	2,464	0.075	0.099	0.281	0.088	0.806	0.132	731	717	34.32
1	x	300	30.10	3,048	0.060	0.080	0.279	0.088	0.851	0.119	844	808	42.90
1	x	400	33.20	3,750	0.047	0.064	0.278	0.087	0.871	0.108	985	915	57.20
1	x	500	37.60	4,896	0.037	0.052	0.277	0.087	0.898	0.101	1142	1030	71.50
1	x	630	41.90	6,174	0.028	0.043	0.275	0.086	0.943	0.096	1325	931	90.09
2	x	1.5	13.30	241	12.100	15.429	0.372	0.117	0.152	15.429	31	36	0.21
2	x	2.5	14.10	282	7.410	9.449	0.345	0.108	0.178	9.449	41	47	0.36
2	x	4	15.20	338	4.610	5.878	0.321	0.101	0.210	5.879	53	60	0.57
2	x	6	16.30	408	3.080	3.927	0.302	0.095	0.245	3.928	67	74	0.86
2	x	10	18.10	537	1.830	2.334	0.281	0.088	0.299	2.335	91	98	1.43
2	x	16	20.20	716	1.150	1.466	0.265	0.083	0.362	1.469	120	126	2.29
2	x	25	23.50	1,008	0.727	0.927	0.252	0.079	0.438	0.931	159	162	3.58
2	x	35	25.80	1,277	0.524	0.668	0.244	0.076	0.506	0.673	195	194	5.01
2	x	50	28.90	1,642	0.387	0.494	0.236	0.074	0.586	0.499	237	229	7.15
2	x	70	32.80	2,206	0.268	0.342	0.232	0.073	0.641	0.350	300	280	10.01
2	x	95	36.90	2,901	0.193	0.247	0.226	0.071	0.743	0.257	370	335	13.59
2	x	120	40.60	3,578	0.153	0.196	0.225	0.071	0.773	0.209	432	380	17.16
2	x	150	44.70	4,357	0.124	0.160	0.226	0.071	0.752	0.175	499	427	21.45
2	x	185	49.40	5,356	0.099	0.128	0.226	0.071	0.746	0.147	578	483	26.46
2	x	240	55.90	6,964	0.075	0.099	0.223	0.070	0.806	0.121	689	558	34.32
2	X	300	61.30	8,535	0.060	0.080	0.221	0.069	0.851	0.106	799	630	42.90
2	x	400	67.60	10,443	0.047	0.064	0.221	0.069	0.871	0.094	927	712	57.20
3	x	1.5	13.80	264	12.100	15.429	0.372	0.117	0.152	15.429	26	30	0.21
3	x	2.5	14.70	314	7.410	9.449	0.345	0.108	0.178	9.449	34	39	0.36
3	x	4	15.80	384	4.610	5.878	0.321	0.101	0.210	5.879	44	49	0.57
3	x	6	17.00	473	3.080	3.927	0.302	0.095	0.245	3.928	56	61	0.86
3	x	10	19.00	638	1.830	2.334	0.281	0.088	0.299	2.335	76	81	1.43
3	x	16	21.30	869	1.150	1.466	0.265	0.083	0.362	1.469	100	104	2.29
3	x	25	24.80	1,241	0.727	0.927	0.252	0.079	0.438	0.931	133	133	3.58
3	x	35	27.30	1,595	0.524	0.668	0.244	0.076	0.506	0.673	163	160	5.01
3	x	50	30.60	2,069	0.387	0.494	0.236	0.074	0.586	0.499	199	189	7.15
3	x	70	35.00	2,830	0.268	0.342	0.229	0.072	0.690	0.350	252	231	10.01
3	x	95	39.20	3,731	0.193	0.247	0.226	0.071	0.743	0.257	311	276	13.59
3	x	120	43.20	4,620	0.153	0.196	0.225	0.071	0.773	0.209	363	314	17.16
3	x	150	47.80	5,663	0.124	0.160	0.226	0.071	0.752	0.175	419	353	21.45
3	x	185	52.80	6,980	0.099	0.128	0.226	0.071	0.746	0.147	486	398	26.46
3	x	240	59.70	9,093	0.075	0.099	0.223	0.070	0.806	0.121	580	461	34.32
3	X	300	65.60	11,179	0.060	0.080	0.221	0.069	0.851	0.106	672	520	42.90
3	x	400	72.30	13,703	0.047	0.064	0.221	0.069	0.871	0.094	776	587	57.20
4	x	1.5	14.70	298	12.100	15.429	0.372	0.117	0.152	15.429	27	30	0.21
4	x	2.5	15.70	359	7.410	9.449	0.345	0.108	0.178	9.449	35	39	0.36
4	x	4	16.90	445	4.610	5.878	0.321	0.101	0.210	5.879	46	50	0.57
4	x	6	18.30	556	3.080	3.927	0.302	0.095	0.245	3.928	58	62	0.86
4	x	10	20.50	762	1.830	2.334	0.281	0.088	0.299	2.335	79	82	1.43
4	x	16	23.00	1,052	1.150	1.466	0.265	0.083	0.362	1.469	104	105	2.29
4	x	25	27.00	1,519	0.727	0.927	0.252	0.079	0.438	0.931	138	135	3.58
4	x	35	29.80	1,967	0.524	0.668	0.244	0.076	0.506	0.673	170	162	5.01
4	x	50	33.70	2,582	0.387	0.494	0.236	0.074	0.586	0.499	207	191	7.15
4	x	70	38.60	3,547	0.268	0.342	0.232	0.073	0.641	0.350	263	234	10.01
4	x	95	43.20	4,695	0.193	0.247	0.226	0.071	0.743	0.257	325	280	13.59
4	x	120	47.90	5,850	0.153	0.196	0.225	0.071	0.773	0.209	379	319	17.16
4	x	150	52.80	7,145	0.124	0.160	0.226	0.071	0.752	0.175	438	358	21.45
4	x	185	58.60	8,849	0.099	0.128	0.226	0.071	0.746	0.147	508	405	26.46
4	x	240	66.20	11,530	0.075	0.099	0.223	0.070	0.806	0.121	607	469	34.32
4	x	300	72.80	14,191	0.060	0.080	0.221	0.069	0.851	0.106	704	529	42.90
4	x	400	80.40	17,449	0.047	0.064	0.221	0.069	0.871	0.094	809	596	57.20

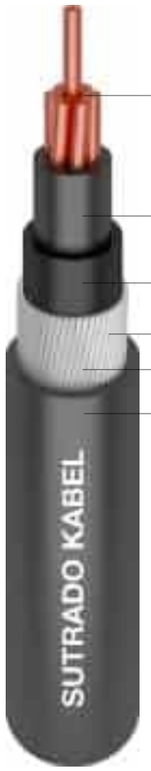
**Further information about derating factors for arrangement can be found on supplementary technical information.*
**Depth laying 70 cm; soil thermal resistivity 1°K.m/W*

0.6/1 (1.2) kV, N2XRY (Cu / XLPE / AWA / PVC)
0.6/1 (1.2) kV, N2XRGbY (Cu / XLPE / SWA / PVC)

(Copper Conductor, XLPE Insulated, Alumunium Wire Armor, PVC Sheathed)
(Copper Conductor, XLPE Insulated, Galvanized Steel Wire Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*

Copper Conductor
XLPE Insulated
PVC Filler
Galvanized Steel Round Wire
Galvanized Steel Tape
PVC Outer Sheath



Copper Conductor
XLPE Insulated
PVC Filler
Alumunium Wire Armor
Polyester Tape
PVC Outer Sheath

Application

For installation in ground, indoors, cable trunking and outdoors if increased mechanical protection is required or where high-pulling stress may occur during installation or operation.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 16 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 630 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape
- Other size and shape can be discussed

Standard Packing

- 1.5 - 10 sqmm supplied in coil @ 100 m
- 16 - 300 sqmm supplied in wooden drum @ 1000 m
- 400 - 630 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

	PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
N2XRY	1	X	1.5	12.70	205	12.100	15.429	0.446	0.140	0.168	15.429	41	49	0.21
	1	X	2.5	13.10	224	7.410	9.449	0.414	0.130	0.199	9.449	53	64	0.36
	1	X	4	13.60	249	4.610	5.878	0.386	0.121	0.236	5.879	68	81	0.57
	1	X	6	14.20	284	3.080	3.927	0.364	0.114	0.276	3.929	85	100	0.86
	1	X	10	15.10	339	1.830	2.334	0.341	0.107	0.340	2.336	114	132	1.43
	1	X	16	16.10	421	1.150	1.467	0.322	0.101	0.413	1.470	148	169	2.29
	1	X	25	17.40	531	0.727	0.927	0.307	0.097	0.502	0.932	192	215	3.58
	1	X	35	18.50	649	0.524	0.668	0.298	0.094	0.581	0.675	233	256	5.01
	1	X	50	20.00	798	0.387	0.494	0.290	0.091	0.675	0.502	285	304	7.15
	1	X	70	21.90	1034	0.268	0.342	0.286	0.090	0.730	0.354	355	369	10.01
	1	X	95	95.00	24	0.193	0.247	0.279	0.088	0.847	0.262	430	437	13.59
	1	X	120	27.10	1687	0.153	0.196	0.278	0.087	0.874	0.215	501	492	17.16
	1	X	150	29.00	2003	0.124	0.160	0.280	0.088	0.835	0.182	565	544	21.45
	1	X	185	31.20	2405	0.099	0.128	0.280	0.088	0.818	0.156	638	603	26.46
	1	X	240	34.20	3023	0.075	0.099	0.277	0.087	0.880	0.132	734	675	34.32
	1	X	300	37.00	3665	0.060	0.080	0.275	0.087	0.925	0.118	812	732	42.90
	1	X	400	40.30	4447	0.047	0.064	0.275	0.086	0.940	0.108	900	792	57.20
	1	X	500	44.50	5658	0.037	0.052	0.274	0.086	0.963	0.100	984	847	71.50
	1	X	630	48.80	7019	0.028	0.042	0.278	0.087	0.871	0.097	1061	889	90.09
N2XRGbY	2	X	1.5	14.80	416	12.100	15.429	0.354	0.111	0.168	15.429	33	37	0.21
	2	X	2.5	15.60	467	7.410	9.449	0.328	0.103	0.199	9.449	44	48	0.36
	2	X	4	16.60	539	4.610	5.878	0.307	0.096	0.236	5.879	57	62	0.57
	2	X	6	17.80	630	3.080	3.927	0.289	0.091	0.276	3.928	71	76	0.86
	2	X	10	20.30	893	1.830	2.334	0.270	0.085	0.340	2.335	98	101	1.43
	2	X	16	22.40	1112	1.150	1.467	0.256	0.080	0.413	1.469	128	129	2.29
	2	X	25	26.40	1628	0.727	0.927	0.244	0.077	0.502	0.930	168	165	3.58
	2	X	35	28.70	1946	0.524	0.668	0.236	0.074	0.581	0.673	205	197	5.01
	2	X	50	31.90	2423	0.387	0.494	0.230	0.072	0.675	0.499	247	231	7.15
	2	X	70	36.00	3104	0.268	0.342	0.227	0.071	0.730	0.350	313	282	10.01
	2	X	95	41.00	4175	0.193	0.247	0.221	0.070	0.847	0.257	382	335	13.59
	2	X	120	45.10	5091	0.153	0.196	0.220	0.069	0.874	0.208	442	377	17.16
	2	X	150	49.40	6034	0.124	0.160	0.222	0.070	0.835	0.174	503	419	21.45
	2	X	185	55.30	7679	0.099	0.128	0.223	0.070	0.818	0.146	576	467	26.46
	2	X	240	61.30	9474	0.075	0.099	0.220	0.069	0.880	0.121	667	528	34.32
	2	X	300	67.30	11387	0.060	0.080	0.219	0.069	0.925	0.105	748	579	42.90
	2	X	400	73.60	13598	0.047	0.064	0.218	0.069	0.940	0.094	826	622	57.20
	3	X	1.5	15.20	444	12.100	15.429	0.354	0.111	0.168	15.429	28	31	0.21
	3	X	2.5	16.10	510	7.410	9.449	0.328	0.103	0.199	9.449	36	40	0.36
	3	X	4	17.20	595	4.610	5.878	0.307	0.096	0.236	5.879	47	51	0.57
	3	X	6	18.50	705	3.08	3.927	0.289	0.091	0.276	3.928	59	63	0.86
	3	X	10	21.10	1013	1.83	2.334	0.270	0.085	0.340	2.335	81	83	1.43
	3	X	16	23.40	1284	1.15	1.467	0.256	0.080	0.413	1.469	107	106	2.29
	3	X	25	27.70	1893	0.727	0.927	0.244	0.077	0.502	0.930	140	136	3.58
	3	X	35	30.10	2311	0.524	0.668	0.236	0.074	0.581	0.673	171	162	5.01
	3	X	50	33.60	2883	0.387	0.494	0.230	0.072	0.675	0.499	208	191	7.15
	3	X	70	39.00	4023	0.268	0.342	0.227	0.071	0.730	0.350	263	233	10.01
	3	X	95	43.40	5100	0.193	0.247	0.221	0.070	0.847	0.257	320	276	13.59
	3	X	120	47.90	6238	0.153	0.196	0.220	0.069	0.874	0.208	371	311	17.16
	3	X	150	53.80	7934	0.124	0.160	0.222	0.070	0.835	0.174	421	345	21.45
	3	X	185	58.70	9471	0.099	0.128	0.223	0.070	0.818	0.146	483	386	26.46
	3	X	240	65.70	11892	0.075	0.099	0.220	0.069	0.880	0.121	561	436	34.32
	3	X	300	71.50	14241	0.060	0.080	0.219	0.069	0.925	0.105	629	479	42.90
	3	X	400	78.40	17068	0.047	0.064	0.218	0.069	0.940	0.094	695	515	57.20
	4	X	1.5	16.00	492	12.100	15.429	0.354	0.111	0.168	15.429	29	31	0.21
	4	X	2.5	17.00	569	7.410	9.449	0.328	0.103	0.199	9.449	37	40	0.36
	4	X	4	18.30	670	4.610	5.878	0.307	0.096	0.236	5.879	49	51	0.57
	4	X	6	20.40	909	3.080	3.927	0.289	0.091	0.276	3.928	62	64	0.86
	4	X	10	22.50	1165	1.830	2.334	0.270	0.085	0.340	2.335	85	85	1.43
	4	X	16	25.80	1652	1.150	1.467	0.256	0.080	0.413	1.469	110	108	2.29
	4	X	25	29.80	2216	0.727	0.927	0.244	0.077	0.502	0.930	145	138	3.58
	4	X	35	32.70	2761	0.524	0.668	0.236	0.074	0.581	0.673	179	164	5.01
	4	X	50	36.60	3476	0.387	0.494	0.230	0.072	0.675	0.499	216	193	7.15
	4	X	70	42.80	4888	0.268	0.342	0.227	0.071	0.730	0.350	272	235	10.01
	4	X	95	47.80	6309	0.193	0.247	0.221	0.070	0.847	0.257	334	280	13.59
	4	X	120	53.80	8116	0.153	0.196	0.220	0.069	0.874	0.208	385	315	17.16
	4	X	150	58.90	9659	0.124	0.160	0.222	0.070	0.835	0.174	438	351	21.45
	4	X	185	64.50	11558	0.0991	0.128	0.223	0.070	0.818	0.146	503	392	26.46
	4	X	240	72.10	14587	0.0754	0.099	0.220	0.069	0.880	0.121	586	444	34.32
	4	X	300	78.70	17553	0.0601	0.080	0.219	0.069	0.925	0.105	654	484	42.90
	4	X	400	88.00	22179	0.047	0.064	0.218	0.069	0.940	0.094	732	530	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, NAYFGbY (Al / PVC / SFA / PVC)

(Alumunium Conductor, PVC Insulated, Galvanized Steel Flat Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*

Alumunium Conductor

PVC Insulated

PVC Filler

Galvanized Steel Flat Armour

Galvanized Steel Tape

PVC Outer Sheath

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C					in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
2	x	10	21.10	818	3.080	3.701	0.274	0.086	0.326	3.702	60	65	0.94
2	x	16	23.20	990	1.910	2.295	0.259	0.081	0.397	2.296	79	84	1.50
2	x	25	26.50	1,253	1.200	1.442	0.256	0.080	0.414	1.444	106	108	2.35
2	x	35	28.80	1,447	0.868	1.043	0.247	0.077	0.478	1.046	129	128	3.29
2	x	50	32.40	1,771	0.641	0.770	0.246	0.077	0.485	0.774	158	152	4.70
2	x	70	36.10	2,157	0.443	0.533	0.237	0.075	0.569	0.538	199	185	6.58
2	x	95	40.80	2,704	0.320	0.385	0.236	0.074	0.586	0.392	246	222	8.93
2	x	120	44.60	3,228	0.253	0.305	0.231	0.073	0.653	0.313	285	252	11.28
2	x	150	48.70	3,779	0.206	0.248	0.232	0.073	0.648	0.259	327	282	14.10
2	x	185	54.00	4,576	0.164	0.198	0.231	0.073	0.653	0.211	380	319	17.39
2	x	240	60.40	5,636	0.125	0.152	0.229	0.072	0.681	0.168	453	370	22.56
2	x	300	66.10	6,665	0.100	0.122	0.228	0.072	0.697	0.142	527	418	28.20
2	x	400	73.30	8,087	0.078	0.096	0.227	0.071	0.725	0.120	614	476	37.60
3	x	10	22.00	901	3.080	3.701	0.274	0.086	0.326	3.702	50	53	0.94
3	x	16	24.30	1,069	1.910	2.295	0.259	0.081	0.397	2.296	66	69	1.50
3	x	25	27.80	1,369	1.200	1.442	0.256	0.080	0.414	1.444	89	89	2.35
3	x	35	30.30	1,620	0.868	1.043	0.247	0.077	0.478	1.046	108	106	3.29
3	x	50	34.20	1,986	0.641	0.770	0.246	0.077	0.485	0.774	132	125	4.70
3	x	70	38.20	2,459	0.443	0.533	0.237	0.075	0.569	0.538	166	153	6.58
3	x	95	43.90	3,193	0.320	0.385	0.236	0.074	0.586	0.392	206	182	8.93
3	x	120	47.50	3,712	0.253	0.305	0.231	0.073	0.653	0.313	239	207	11.28
3	x	150	51.80	4,355	0.206	0.248	0.232	0.073	0.648	0.259	274	232	14.10
3	x	185	57.50	5,277	0.164	0.198	0.231	0.073	0.653	0.211	320	263	17.39
3	x	240	64.40	6,515	0.125	0.152	0.229	0.072	0.681	0.168	382	305	22.56
3	x	300	70.70	7,787	0.100	0.122	0.228	0.072	0.697	0.142	441	344	28.20
3	x	400	78.20	9,426	0.078	0.096	0.227	0.071	0.725	0.120	516	393	37.60
4	x	10	23.60	1,012	3.080	3.701	0.274	0.086	0.326	3.702	51	54	0.94
4	x	16	26.10	1,209	1.910	2.295	0.259	0.081	0.397	2.296	68	70	1.50
4	x	25	30.10	1,584	1.200	1.442	0.256	0.080	0.414	1.444	92	90	2.35
4	x	35	33.10	1,867	0.868	1.043	0.247	0.077	0.478	1.046	112	107	3.29
4	x	50	37.50	2,321	0.641	0.770	0.246	0.077	0.485	0.774	137	126	4.70
4	x	70	42.50	3,000	0.443	0.533	0.237	0.075	0.569	0.538	172	154	6.58
4	x	95	48.10	3,768	0.320	0.385	0.223	0.070	0.813	0.391	208	183	8.93
4	x	120	52.10	4,354	0.253	0.305	0.222	0.070	0.841	0.313	243	208	11.28
4	x	150	57.20	5,176	0.206	0.249	0.223	0.070	0.808	0.258	280	233	14.10
4	x	185	63.50	6,294	0.164	0.198	0.224	0.070	0.795	0.210	325	265	17.39
4	x	240	71.10	7,776	0.125	0.152	0.221	0.069	0.857	0.167	390	307	22.56
4	x	300	78.10	9,301	0.100	0.122	0.219	0.069	0.902	0.140	450	346	28.20
4	x	400	86.60	11,344	0.078	0.096	0.227	0.071	0.725	0.120	534	397	37.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

For installation in ground, indoors, cable trunking and outdoors if increased mechanical protection is required or where high-pulling stress may occur during installation or operation.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 10 sqmm supplied in non compacted circular stranded (rm) conductor shape
- 25 - 400 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape
- Other size and shape can be discussed

Standard Packing

- 10 - 400 sqmm supplied in wooden drum @ 1000 m
- drum on available length
- Length Tolerance per drum ± 2%

0.6/1 (1.2) kV, MC-HL XHHW-2 (Cu / XLPE / CAA / PE)

(Copper Conductor, XLPE Insulation, Corrugated Aluminium Armour and PE Sheath)
Standard Specification : IEC 60502-1, ICEA S-95-568/NEMA 70

**For Insulation colour can be based on Customer Request or Follow Standard.*

Copper Conductor Earth
XLPE Insulation Earth
Copper Conductor Phase
XLPE Insulation Earth
PP Yarn
Polyester Tape
PE Inner Sheath
Corrugated Aluminium Armour
PE Outer Sheath

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES				
Phase Conductor		Earthing Conductor		Approx. Overall Diameter	Approx. Cable Weight	Conductor		Max. Current - Carrying Capacity at 30 °C *	Max. Short Circuit Current at 1 Second	AC Voltage Test
No. of Core	Size	No. of Core	Size			Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C	in ground		
Pcs	AWG / Kcmil	Pcs	AWG / Kcmil	mm	kg/km	ohm/km	ohm/km	A	kA	kV/min
2	8 (8,36 mm²)	1	8 (8,36 mm²)	23.90	756	2.100	2.100	113	1.20	3.5/5
3	8 (8,36 mm²)	1	8 (8,36 mm²)	24.90	873	2.100	2.100	93	1.20	3.5/5
4	8 (8,36 mm²)	1	8 (8,36 mm²)	26.40	1,017	2.100	2.100	81	1.20	3.5/5
2	6 (13.3 mm²)	1	6 (13.3 mm²)	25.90	976	1.320	1.320	145	1.90	3.5/5
3	6 (13.3 mm²)	1	6 (13.3 mm²)	27.40	1,145	1.320	1.320	119	1.90	3.5/5
4	6 (13.3 mm²)	1	6 (13.3 mm²)	30.40	1,372	1.320	1.320	105	1.90	3.5/5
2	4 (21.2 mm²)	1	6 (13.3 mm²)	31.40	1,375	0.841	1.350	189	3.03	3.5/5
3	4 (21.2 mm²)	1	6 (13.3 mm²)	34.30	1,701	0.841	1.350	156	3.03	3.5/5
4	4 (21.2 mm²)	1	6 (13.3 mm²)	37.00	2,053	0.841	1.350	136	3.03	3.5/5
2	2 (33.6 mm²)	1	5 (16.65 mm²)	35.30	1,868	0.525	1.057	243	4.81	3.5/5
3	2 (33.6 mm²)	1	5 (16.65 mm²)	3.80	2,281	0.525	1.057	200	4.81	3.5/5
4	2 (33.6 mm²)	1	5 (16.65 mm²)	41.20	2,797	0.525	1.057	175	4.81	3.5/5
2	1/0 (53.5 mm²)	1	3 (26.37 mm²)	39.70	2,563	0.328	0.667	311	7.66	3.5/5
3	1/0 (53.5 mm²)	1	3 (26.37 mm²)	42.90	3,186	0.328	0.667	256	7.66	3.5/5
4	1/0 (53.5 mm²)	1	3 (26.37 mm²)	47.00	4,024	0.328	0.667	225	7.66	3.5/5
2	2/0 (67,4 mm²)	1	2 (33,6 mm²)	43.90	3,179	0.262	0.525	353	9.64	3.5/5
3	2/0 (67,4 mm²)	1	2 (33,6 mm²)	48.00	4,056	0.262	0.525	291	9.64	3.5/5
4	2/0 (67,4 mm²)	1	2 (33,6 mm²)	52.90	5,041	0.262	0.525	255	9.64	3.5/5
2	4/0 (107 mm²)	1	1/0 (53.5 mm²)	49.70	4,554	0.164	0.328	452	15.31	3.5/5
3	4/0 (107 mm²)	1	1/0 (53.5 mm²)	54.90	5,745	0.164	0.328	374	15.31	3.5/5
4	4/0 (107 mm²)	1	1/0 (53.5 mm²)	59.80	7,173	0.164	0.328	328	15.31	3.5/5
2	250 (127 mm²)	1	2/0 (67,4 mm²)	55.40	5,474	0.138	0.262	500	18.17	3.5/5
3	250 (127 mm²)	1	2/0 (67,4 mm²)	60.30	6,889	0.138	0.262	413	18.17	3.5/5
4	250 (127 mm²)	1	2/0 (67,4 mm²)	70.30	8,856	0.138	0.262	365	18.17	3.5/5
2	350 (177 mm²)	1	3/0 (85 mm²)	61.30	7,091	0.100	0.207	594	25.33	3.5/5
3	350 (177 mm²)	1	3/0 (85 mm²)	71.80	9,272	0.100	0.207	496	25.33	3.5/5
4	350 (177 mm²)	1	3/0 (85 mm²)	78.20	11,596	0.100	0.207	435	25.33	3.5/5
2	500 (253 mm²)	1	250 (127 mm²)	74.50	10,011	0.070	0.138	727	36.20	3.5/5
3	500 (253 mm²)	1	250 (127 mm²)	81.80	12,887	0.070	0.138	602	36.20	3.5/5
4	500 (253 mm²)	1	250 (127 mm²)	89.20	16,150	0.070	0.138	528	36.20	3.5/5

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

MC-HL XHHW-2 may be installed indoors or outdoors, in wet or dry locations, as open runs of cable secured to supports spaced not more than six feet apart, in cable tray, as aerial cable on a messenger, in any approved raceway, direct burial, or encased in concrete.

MC-HL XHHW-2 are also approved for use in Class I & II, Division 2, Class III, Divisions 1 and 2, and Class I, Zone 2 hazardous locations per NEC articles 501, 502, 503 and 505; in Zone 2, Class II Div 2, Class III Div 1 and Class III Div 2 per CEC.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Hazardous Location

According to NEC 501, 502, 503 & 505

SUTRADO
KABEL

LOW VOLTAGE CONTROL CABLES

0.6/1 (1.2) kV, NYY (Cu / PVC / PVC)

(Copper Conductor, PVC Insulated, PVC Sheathed)
Standard Specification : SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*

Copper Conductor

PVC Insulated

Polyester Tape

PVC Filler

PVC Outer Sheath

Application

Power cable : Indoors, cable trunking, outdoors and burried in the ground, for power stations, industry and switchgear as well as for urban supply networks, if mechanical damage is unlikely.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 6 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- Other size and shape can be discussed

Standard Packing

- Wooden drum @500 meters
- Length Tolerance per drum ± 2%
- Other length and type of packing on request

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 20 °C	L	X	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit current at 1 second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C					in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	ohm/km	ohm/km	A	A	kA
4	x	1.5	13.90	272	12.100	14.478	0.336	0.106	14.478	21	25	0.21	0.21
4	x	2.5	14.90	333	7.410	8.866	0.313	0.098	8.867	28	32	0.36	0.36
4	x	4	17.10	457	4.610	5.516	0.311	0.098	5.517	37	42	0.57	0.57
4	x	6	18.50	571	3.080	3.685	0.293	0.092	3.686	47	52	0.86	0.86
5	x	1.5	15.20	298	12.100	14.478	0.336	0.106	14.478	17	23	0.21	0.21
5	x	2.5	16.30	366	7.410	8.866	0.313	0.098	8.867	24	30	0.36	0.36
5	x	4	18.80	500	4.610	5.516	0.311	0.098	5.517	32	39	0.57	0.57
5	x	6	20.30	629	3.080	3.685	0.293	0.092	3.686	42	49	0.86	0.86
6	x	1.5	15.70	329	12.100	14.478	0.336	0.106	14.478	16	22	0.21	0.21
6	x	2.5	16.90	409	7.410	8.866	0.313	0.098	8.867	21	28	0.36	0.36
6	x	4	19.50	564	4.610	5.516	0.311	0.098	5.517	29	36	0.57	0.57
6	x	6	21.10	715	3.080	3.685	0.293	0.092	3.686	36	44	0.86	0.86
7	x	1.5	16.20	360	12.100	14.478	0.336	0.106	14.478	10	13	0.21	0.21
7	x	2.5	17.40	451	7.410	8.866	0.313	0.098	8.867	15	18	0.36	0.36
7	x	4	20.20	628	4.610	5.516	0.311	0.098	5.517	21	23	0.57	0.57
7	x	6	21.90	802	3.080	3.685	0.293	0.092	3.686	34	36	0.86	0.86
8	x	1.5	17.20	399	12.100	14.478	0.336	0.106	14.478	10	13	0.21	0.21
8	x	2.5	18.60	502	7.410	8.866	0.313	0.098	8.867	15	18	0.36	0.36
8	x	4	21.60	703	4.610	5.516	0.311	0.098	5.517	21	23	0.57	0.57
8	x	6	23.50	900	3.080	3.685	0.293	0.092	3.686	33	35	0.86	0.86
10	x	1.5	19.40	480	12.100	14.478	0.336	0.106	14.478	9	11	0.21	0.21
10	x	2.5	21.10	608	7.410	8.866	0.313	0.098	8.867	12	15	0.36	0.36
10	x	4	24.80	858	4.610	5.516	0.311	0.098	5.517	17	19	0.57	0.57
10	x	6	27.00	1,103	3.080	3.685	0.293	0.092	3.686	32	34	0.86	0.86
12	x	1.5	20.00	536	12.100	14.478	0.336	0.106	14.478	9	11	0.21	0.21
12	x	2.5	21.70	686	7.410	8.866	0.313	0.098	8.867	12	15	0.36	0.36
12	x	4	25.50	976	4.610	5.516	0.311	0.098	5.517	17	19	0.57	0.57
12	x	6	27.80	1,265	3.080	3.685	0.293	0.092	3.686	30	32	0.86	0.86
14	x	1.5	21.10	601	12.100	14.478	0.336	0.106	14.478	8	10	0.21	0.21
14	x	2.5	23.00	774	7.410	8.866	0.313	0.098	8.867	11	13	0.36	0.36
14	x	4	27.10	1,108	4.610	5.516	0.311	0.098	5.517	16	17	0.57	0.57
14	x	6	29.70	1,442	3.080	3.685	0.293	0.092	3.686	29	30	0.86	0.86
16	x	1.5	22.10	663	12.100	14.478	0.336	0.106	14.478	8	10	0.21	0.21
16	x	2.5	24.10	858	7.410	8.866	0.313	0.098	8.867	11	13	0.36	0.36
16	x	4	28.40	1,235	4.610	5.516	0.311	0.098	5.517	16	17	0.57	0.57
16	x	6	31.20	1,614	3.080	3.685	0.293	0.092	3.686	27	28	0.86	0.86
19	x	1.5	23.40	755	12.100	14.478	0.336	0.106	14.478	7	9	0.21	0.21
19	x	2.5	25.60	983	7.410	8.866	0.313	0.098	8.867	10	11	0.36	0.36
19	x	4	30.30	1,424	4.610	5.516	0.311	0.098	5.517	14	15	0.57	0.57
19	x	6	33.50	1,886	3.080	3.685	0.293	0.092	3.686	26	27	0.86	0.86
21	x	1.5	24.00	812	12.100	14.478	0.336	0.106	14.478	7	9	0.21	0.21
21	x	2.5	26.30	1,063	7.410	8.866	0.313	0.098	8.867	10	11	0.36	0.36
21	x	4	31.20	1,546	4.610	5.516	0.311	0.098	5.517	14	15	0.57	0.57
21	x	6	34.90	2,085	3.080	3.685	0.293	0.092	3.686	25	26	0.86	0.86
24	x	1.5	26.00	913	12.100	14.478	0.336	0.106	14.478	6	8	0.21	0.21
24	x	2.5	28.50	1,198	7.410	8.866	0.313	0.098	8.867	10	10	0.36	0.36
24	x	4	34.50	1,796	4.610	5.516	0.311	0.098	5.517	12	13	0.57	0.57
24	x	6	38.20	2,377	3.080	3.685	0.293	0.092	3.686	24	25	0.86	0.86
30	x	1.5	22.10	666	12.100	14.478	0.336	0.106	14.478	6	8	0.21	0.21
30	x	2.5	30.00	1,426	7.410	8.866	0.313	0.098	8.867	10	10	0.36	0.36
30	x	4	36.60	2,168	4.610	5.516	0.311	0.098	5.517	12	13	0.57	0.57
30	x	6	40.50	2,883	3.080	3.685	0.293	0.092	3.686	22	23	0.86	0.86
40	x	1.5	30.20	1,360	12.100	14.478	0.336	0.106	14.478	5	7	0.21	0.21
40	x	2.5	33.50	1,834	7.410	8.866	0.313	0.098	8.867	8	9	0.36	0.36
40	x	4	40.90	2,794	4.610	5.516	0.311	0.098	5.517	10	11	0.57	0.57
40	x	6	45.80	3,787	3.080	3.685	0.293	0.092	3.686	20	21	0.86	0.86
52	x	1.5	34.40	1,750	12.100	14.478	0.336	0.106	14.478	5	7	0.21	0.21
52	x	2.5	38.20	2,362	7.410	8.866	0.313	0.098	8.867	8	9	0.36	0.36
52	x	4	46.70	3,605	4.610	5.516	0.311	0.098	5.517	10	11	0.57	0.57
52	x	6	51.90	4,844	3.080	3.685	0.293	0.092	3.686	19	20	0.86	0.86
61	x	1.5	36.50	2,015	12.100	14.478	0.336	0.106	14.478	5	7	0.21	0.21
61	x	2.5	40.50	2,726	7.410	8.866	0.313	0.098	8.867	7	8	0.36	0.36
61	x	4	49.60	4,164	4.610	5.516	0.311	0.098	5.517	10	11	0.57	0.57
61	x	6	55.10	5,606	3.080	3.685	0.293	0.092	3.686	18	19	0.86	0.86

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, NYRGbY (Cu / PVC / SWA / PVC)

(Copper Conductor, PVC Insulated, Galvanized Steel Wire Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*

Copper Conductor

PVC Insulated

Polyester Tape

PVC Filler

Galvanized Steel Round Wire

Galvanized Steel Tape

PVC Outer Sheath

Application

For installation in ground, indoors, cable trunking and outdoors if increased mechanical protection is required or where high-pulling stress may occur during installation or operation.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 6 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- Other size and shape can be discussed

Standard Packing

- Wooden drum @500 meters
- Length Tolerance per drum ± 2%
- Other length and type of packing on request

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit current at 1 second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C					in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
4	x	1.5	16.50	523	12.100	14.478	0.336	0.104	0.197	14.478	23	26	0.21
4	x	2.5	17.50	605	7.410	8.866	0.313	0.098	0.224	8.867	30	33	0.36
4	x	4	20.40	872	4.610	5.516	0.311	0.097	0.227	5.517	40	43	0.57
4	x	6	21.80	1,023	3.080	3.685	0.293	0.092	0.266	3.686	51	54	0.86
5	x	1.5	17.80	574	12.100	14.478	0.336	0.106	0.188	14.478	18	24	0.21
5	x	2.5	19.00	663	7.410	8.866	0.313	0.098	0.224	8.867	25	32	0.36
5	x	4	22.10	960	4.610	5.516	0.311	0.098	0.227	5.517	27	34	0.57
5	x	6	24.50	1,225	3.080	3.685	0.293	0.092	0.266	3.686	34	42	0.86
6	x	1.5	18.30	613	12.100	14.478	0.336	0.106	0.188	14.478	18	24	0.21
6	x	2.5	20.30	821	7.410	8.866	0.313	0.098	0.224	8.867	21	26	0.36
6	x	4	22.80	1,037	4.610	5.516	0.311	0.098	0.227	5.517	27	34	0.57
6	x	6	24.50	1,225	3.080	3.685	0.293	0.092	0.266	3.686	34	42	0.86
7	x	1.5	18.80	651	12.100	14.478	0.336	0.106	0.188	14.478	13	17	0.21
7	x	2.5	20.80	876	7.410	8.866	0.313	0.098	0.224	8.867	18	23	0.36
7	x	4	23.50	1,114	4.610	5.516	0.311	0.098	0.227	5.517	24	30	0.57
7	x	6	25.90	1,475	3.080	3.685	0.293	0.092	0.266	3.686	34	37	0.86
8	x	1.5	20.50	813	12.100	14.478	0.336	0.106	0.188	14.478	12	16	0.21
8	x	2.5	21.90	951	7.410	8.866	0.313	0.098	0.224	8.867	17	21	0.36
8	x	4	25.60	1,359	4.610	5.516	0.311	0.098	0.227	5.517	23	28	0.57
8	x	6	27.50	1,613	3.080	3.685	0.293	0.092	0.266	3.686	29	35	0.86
10	x	1.5	22.80	953	12.100	14.478	0.336	0.106	0.188	14.478	11	15	0.21
10	x	2.5	24.50	1,118	7.410	8.866	0.313	0.098	0.224	8.867	16	20	0.36
10	x	4	28.80	1,608	4.610	5.516	0.311	0.098	0.227	5.517	21	26	0.57
10	x	6	31.10	1,927	3.080	3.685	0.293	0.092	0.266	3.686	26	33	0.86
12	x	1.5	23.30	1,021	12.100	14.478	0.336	0.106	0.188	14.478	11	14	0.21
12	x	2.5	25.00	1,217	7.410	8.866	0.313	0.098	0.224	8.867	15	18	0.36
12	x	4	29.50	1,746	4.610	5.516	0.311	0.098	0.227	5.517	19	24	0.57
12	x	6	32.10	2,124	3.080	3.685	0.293	0.092	0.266	3.686	25	30	0.86
14	x	1.5	24.50	1,111	12.100	14.478	0.336	0.106	0.188	14.478	10	13	0.21
14	x	2.5	27.10	1,469	7.410	8.866	0.313	0.098	0.224	8.867	14	17	0.36
14	x	4	31.20	1,933	4.610	5.516	0.311	0.098	0.227	5.517	19	24	0.57
14	x	6	33.90	2,359	3.080	3.685	0.293	0.092	0.266	3.686	23	28	0.86
16	x	1.5	26.10	1,338	12.100	14.478	0.336	0.106	0.188	14.478	10	12	0.21
16	x	2.5	28.10	1,590	7.410	8.866	0.313	0.098	0.224	8.867	13	17	0.36
16	x	4	32.70	2,114	4.610	5.516	0.311	0.098	0.227	5.517	18	23	0.57
16	x	6	35.60	2,603	3.080	3.685	0.293	0.092	0.266	3.686	22	27	0.86
19	x	1.5	27.40	1,467	12.100	14.478	0.336	0.106	0.188	14.478	9	12	0.21
19	x	2.5	29.60	1,769	7.410	8.866	0.313	0.098	0.224	8.867	13	16	0.36
19	x	4	34.50	2,360	4.610	5.516	0.311	0.098	0.227	5.517	17	22	0.57
19	x	6	38.70	3,163	3.080	3.685	0.293	0.092	0.266	3.686	21	26	0.86
21	x	1.5	28.10	1,543	12.100	14.478	0.336	0.106	0.188	14.478	9	11	0.21
21	x	2.5	30.30	1,868	7.410	8.866	0.313	0.098	0.224	8.867	12	15	0.36
21	x	4	35.70	2,534	4.610	5.516	0.311	0.098	0.227	5.517	17	21	0.57
21	x	6	39.90	3,403	3.080	3.685	0.293	0.092	0.266	3.686	20	25	0.86
24	x	1.5	30.00	1,701	12.100	14.478	0.336	0.106	0.188	14.478	8	11	0.21
24	x	2.5	32.70	2,076	7.410	8.866	0.313	0.098	0.224	8.867	11	14	0.36
24	x	4	39.60	3,112	4.610	5.516	0.311	0.098	0.227	5.517	16	20	0.57
24	x	6	43.20	3,813	3.080	3.685	0.293	0.092	0.266	3.686	19	23	0.86
30	x	1.5	31.40	1,903	12.100	14.478	0.336	0.106	0.188	14.478	8	11	0.21
30	x	2.5	34.20	2,360	7.410	8.866	0.313	0.098	0.224	8.867	11	14	0.36
30	x	4	41.70	3,546	4.610	5.516	0.311	0.098	0.227	5.517	16	20	0.57
30	x	6	45.60	4,406	3.080	3.685	0.293	0.092	0.266	3.686	19	23	0.86
40	x	1.5	34.50	2,295	12.100	14.478	0.336	0.106	0.188	14.478	8	11	0.21
40	x	2.5	38.70	3,112	7.410	8.866	0.313	0.098	0.224	8.867	11	14	0.36
40	x	4	46.00	4,320	4.610	5.516	0.311	0.098	0.227	5.517	16	20	0.57
40	x	6	52.30	6,001	3.080	3.685	0.293	0.092	0.266	3.686	19	23	0.86
52	x	1.5	39.50	3,041	12.100	14.478	0.336	0.106	0.188	14.478	8	11	0.21
52	x	2.5	43.20	3,798	7.410	8.866	0.313	0.098	0.224	8.867	11	14	0.36
52	x	4	53.20	5,865	4.610	5.516	0.311	0.098	0.227	5.517	16	20	0.57
52	x	6	58.40	7,342	3.080	3.685	0.293	0.092	0.266	3.686	19	23	0.86
61	x	1.5	41.40	3,372	12.100	14.478	0.336	0.106	0.188	14.478	8	11	0.21
61	x	2.5	45.60	4,250	7.410	8.866	0.313	0.098	0.224	8.867	11	14	0.36
61	x	4	56.10	6,564	4.610	5.516	0.311	0.098	0.227	5.517	16	20	0.57
61	x	6	61.60	8,246	3.080	3.685	0.293	0.092	0.266	3.686	19	23	0.86

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, NYFGbY (Cu / PVC / SFA / PVC)

(Copper Conductor, PVC Insulated, Galvanized Steel Flat Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-1, IEC 60502-1

**For Insulation colour can be based on Customer Request or Follow Standard.*

Copper Conductor

PVC Insulated

Polyester Tape

PVC Filler

Galvanized Steel Flat Armour

Galvanized Steel Tape

PVC Outer Sheath

Application

For installation in ground, indoors, cable trunking and outdoors if increased mechanical protection is required or where high-pulling stress may occur during installation or operation.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 1.5 - 6 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- Other size and shape can be discussed

Standard Packing

- Wooden drum @500 meters
- Length Tolerance per drum ± 2%
- Other length and type of packing on request

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit current at 1 second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C					in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
4	x	1.5	16.80	597	12.100	14.478	0.336	0.106	0.188	14.478	21	25	0.21
4	x	2.5	17.80	665	7.410	8.866	0.313	0.098	0.224	8.867	28	32	0.36
4	x	4	20.00	853	4.610	5.516	0.309	0.097	0.231	5.517	37	42	0.57
4	x	6	21.40	976	3.080	3.685	0.293	0.092	0.266	3.686	47	52	0.86
5	x	1.5	17.70	641	12.100	14.478	0.336	0.106	0.188	14.478	18	24	0.21
5	x	2.5	18.90	747	7.410	8.866	0.313	0.098	0.224	8.867	25	32	0.36
5	x	4	21.30	934	4.610	5.516	0.311	0.098	0.227	5.517	34	27	0.57
5	x	6	22.90	1,107	3.080	3.685	0.293	0.092	0.266	3.686	34	42	0.86
6	x	1.5	18.20	700	12.100	14.478	0.336	0.106	0.188	14.478	16	36	0.21
6	x	2.5	19.40	793	7.410	8.866	0.313	0.098	0.224	8.867	21	26	0.36
6	x	4	22.00	1,027	4.610	5.516	0.311	0.098	0.227	5.517	29	35	0.57
6	x	6	23.70	1,223	3.080	3.685	0.293	0.092	0.266	3.686	36	43	0.86
7	x	1.5	18.70	736	12.100	14.478	0.336	0.106	0.188	14.478	13	17	0.21
7	x	2.5	20.00	866	7.410	8.866	0.313	0.098	0.224	8.867	18	23	0.36
7	x	4	22.70	1,099	4.610	5.516	0.311	0.098	0.227	5.517	24	30	0.57
7	x	6	24.40	1,319	3.080	3.685	0.293	0.092	0.266	3.686	30	37	0.86
8	x	1.5	19.70	785	12.100	14.478	0.336	0.106	0.188	14.478	12	16	0.21
8	x	2.5	21.10	929	7.410	8.866	0.313	0.098	0.224	8.867	17	21	0.36
8	x	4	24.10	1,216	4.610	5.516	0.311	0.098	0.227	5.517	23	28	0.57
8	x	6	26.00	1,463	3.080	3.685	0.293	0.092	0.266	3.686	35	39	0.86
10	x	1.5	22.00	943	12.100	14.478	0.336	0.106	0.188	14.478	11	15	0.21
10	x	2.5	23.70	1,116	7.410	8.866	0.313	0.098	0.224	8.867	16	20	0.36
10	x	4	27.30	1,464	4.610	5.516	0.311	0.098	0.227	5.517	21	26	0.57
10	x	6	29.60	1,768	3.080	3.685	0.293	0.092	0.266	3.686	26	33	0.86
12	x	1.5	22.50	1,004	12.100	14.478	0.336	0.106	0.188	14.478	11	14	0.21
12	x	2.5	24.20	1,201	7.410	8.866	0.313	0.098	0.224	8.867	15	18	0.36
12	x	4	28.00	1,618	4.610	5.516	0.311	0.098	0.227	5.517	19	24	0.57
12	x	6	30.40	1,968	3.080	3.685	0.293	0.092	0.266	3.686	25	30	0.86
14	x	1.5	23.70	1,097	12.100	14.478	0.336	0.106	0.188	14.478	10	13	0.21
14	x	2.5	25.50	1,316	7.410	8.866	0.313	0.098	0.224	8.867	17	20	0.36
14	x	4	29.70	1,777	4.610	5.516	0.311	0.098	0.227	5.517	18	23	0.57
14	x	6	32.40	2,186	3.080	3.685	0.293	0.092	0.266	3.686	23	28	0.86
16	x	1.5	24.60	1,169	12.100	14.478	0.336	0.106	0.188	14.478	10	12	0.21
16	x	2.5	26.60	1,438	7.410	8.866	0.313	0.098	0.224	8.867	13	17	0.36
16	x	4	31.00	1,922	4.610	5.516	0.311	0.098	0.227	5.517	17	22	0.57
16	x	6	33.90	2,405	3.080	3.685	0.293	0.092	0.266	3.686	22	27	0.86
19	x	1.5	25.90	1,290	12.100	14.478	0.336	0.106	0.188	14.478	9	12	0.21
19	x	2.5	28.10	1,593	7.410	8.866	0.313	0.098	0.224	8.867	13	16	0.36
19	x	4	33.00	2,156	4.610	5.516	0.311	0.098	0.227	5.517	17	21	0.57
19	x	6	36.20	2,709	3.080	3.685	0.293	0.092	0.266	3.686	21	26	0.86
21	x	1.5	26.60	1,380	12.100	14.478	0.336	0.106	0.188	14.478	9	11	0.21
21	x	2.5	28.80	1,681	7.410	8.866	0.313	0.098	0.224	8.867	12	15	0.36
21	x	4	33.90	2,315	4.610	5.516	0.311	0.098	0.227	5.517	16	20	0.57
21	x	6	37.20	2,915	3.080	3.685	0.293	0.092	0.266	3.686	20	25	0.86
24	x	1.5	28.50	1,527	12.100	14.478	0.336	0.106	0.188	14.478	8	11	0.21
24	x	2.5	31.00	1,867	7.410	8.866	0.313	0.098	0.224	8.867	11	14	0.36
24	x	4	36.90	2,622	4.610	5.516	0.311	0.098	0.227	5.517	16	20	0.57
24	x	6	40.50	3,300	3.080	3.685	0.293	0.092	0.266	3.686	19	23	0.86
30	x	1.5	29.80	1,727	12.100	14.478	0.336	0.106	0.188	14.478	8	11	0.21
30	x	2.5	32.70	2,149	7.410	8.866	0.313	0.098	0.224	8.867	11	14	0.36
30	x	4	39.00	3,036	4.610	5.516	0.311	0.098	0.227	5.517	16	20	0.57
30	x	6	42.80	3,851	3.080	3.685	0.293	0.092	0.266	3.686	19	23	0.86
40	x	1.5	32.90	2,076	12.100	14.478	0.336	0.106	0.188	14.478	8	11	0.21
40	x	2.5	36.20	2,639	7.410	8.866	0.313	0.098	0.224	8.867	11	14	0.36
40	x	4	43.30	3,751	4.610	5.516	0.311	0.098	0.227	5.517	16	20	0.57
40	x	6	48.00	4,939	3.080	3.685	0.293	0.092	0.266	3.686	19	23	0.86
52	x	1.5	36.80	2,550	12.100	14.478	0.336	0.106	0.188	14.478	8	11	0.21
52	x	2.5	40.50	3,255	7.410	8.866	0.313	0.098	0.224	8.867	11	14	0.36
52	x	4	49.20	4,787	4.610	5.516	0.311	0.098	0.227	5.517	16	20	0.57
52	x	6	54.20	6,156	3.080	3.685	0.293	0.092	0.266	3.686	19	23	0.86
61	x	1.5	38.90	2,859	12.100	14.478	0.336	0.106	0.188	14.478	8	11	0.21
61	x	2.5	42.90	3,667	7.410	8.866	0.313	0.098	0.224	8.867	11	14	0.36
61	x	4	52.00	5,432	4.610	5.516	0.311	0.098	0.227	5.517	16	20	0.57
61	x	6	57.40	7,008	3.080	3.685	0.293	0.092	0.266	3.686	19	23	0.86

**Further information about derating factors for arrangement can be found on supplementary technical information.*

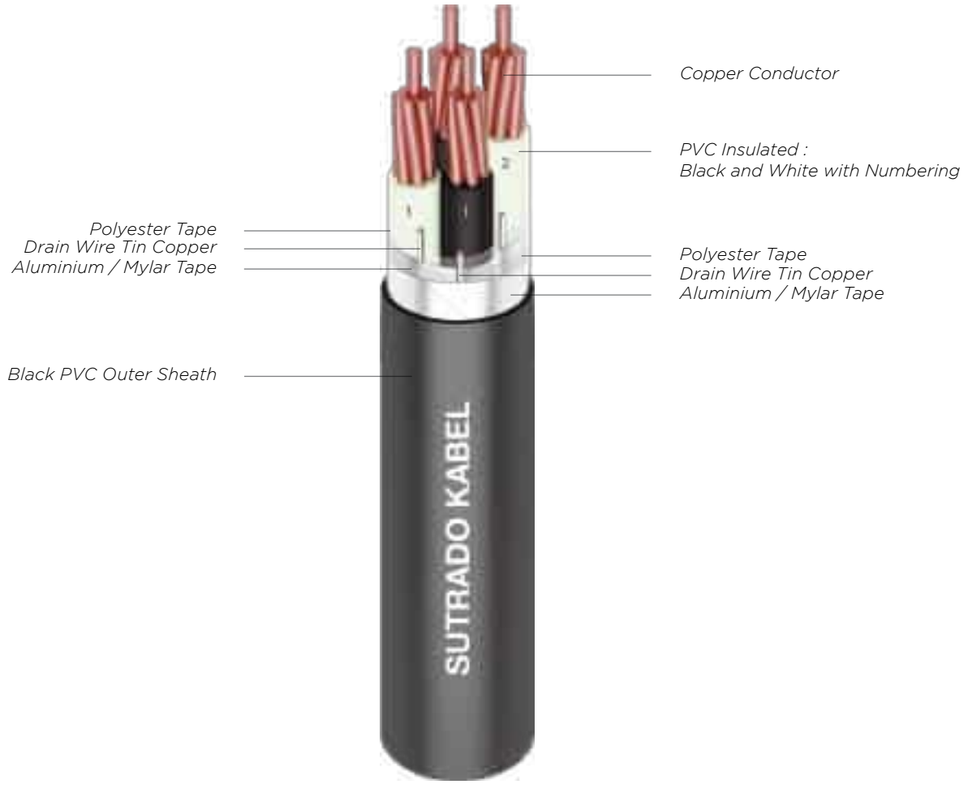
SUTRADO
KABEL

INSTRUMENT CABLES

300/500 V, Instrument Cable (Cu / PVC / ISCR / OSCR / PVC)

Standard Spesification : BS-EN 50288-7, IEC 60332-3, IEC-60332-3 Cat.C

**For Insulation colour can be based on Customer Request or Follow Standard.*



Application

Used for the transmission of measuring data signals in power stations and industrial plants. This cable is suitable for fixed indoor,outdoor,or underground installations.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 0.5 - 0.75 sqmm supplied in non-compacted circular stranded (rm)
- 1.5 - 2.5 sqmm supplied in non-compacted circular stranded (rm) or solid (re)
- Other size and shape can be discussed

Standard Packing

- Wooden drum @500 meters.
- Length Tolerance per drum ± 2%
- Other length and type of packing on request.

300/500 V, Instrument Cable (Cu / PVC / ISCR / OSCR / PVC)

Standard Spesification : BS-EN 50288-7, IEC 60332-3, IEC-60332-3 Cat.C

**For Insulation colour can be based on Customer Request or Follow Standard.*

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES				
Size			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Min. Insul Resistance	Max. Capacitance at 1 Khz	Max. L/R ratio	AC Voltage Test
mm²			mm	kg/km	ohm/km	M.ohm.km	pF/m	µH/ Ω	Volt/1 minutes
2P	x	0.5	10.30	121	36.000	25	250	25	1000
2P	x	0.75	11.20	144	24.500	25	250	25	1000
2P	x	1	11.70	157	18.100	25	250	40	1000
2P	x	1.5	12.70	188	12.100	25	250	40	1000
4P	x	0.5	13.80	201	36.000	25	250	25	1000
4P	x	0.75	14.80	234	24.500	25	250	25	1000
4P	x	1	15.80	268	18.100	25	250	40	1000
4P	x	1.5	17.20	326	12.100	25	250	40	1000
6P	x	0.5	16.10	276	36.000	25	250	25	1000
6P	x	0.75	17.30	324	24.500	25	250	25	1000
6P	x	1	18.30	371	18.100	25	250	40	1000
6P	x	1.5	20.00	457	12.100	25	250	40	1000
8P	x	0.5	18.20	345	36.000	25	250	25	1000
8P	x	0.75	19.80	417	24.500	25	250	25	1000
8P	x	1	20.70	466	18.100	25	250	40	1000
8P	x	1.5	22.90	590	12.100	25	250	40	1000
10P	x	0.5	20.50	433	36.000	25	250	25	1000
10P	x	0.75	22.10	510	24.500	25	250	25	1000
10P	x	1	23.40	584	18.100	25	250	40	1000
10P	x	1.5	25.80	737	12.100	25	250	40	1000
12P	x	0.5	22.50	502	36.000	25	250	25	1000
12P	x	0.75	24.30	595	24.500	25	250	25	1000
12P	x	1	25.70	681	18.100	25	250	40	1000
12P	x	1.5	28.40	862	12.100	25	250	40	1000
16P	x	0.5	25.70	647	36.000	25	250	25	1000
16P	x	0.75	27.70	768	24.500	25	250	25	1000
16P	x	1	29.40	880	18.100	25	250	40	1000
16P	x	1.5	32.50	1,117	12.100	25	250	40	1000
20P	x	0.5	28.30	789	36.000	25	250	25	1000
20P	x	0.75	30.50	939	24.500	25	250	25	1000
20P	x	1	32.30	1,075	18.100	25	250	40	1000
20P	x	1.5	35.70	1,366	12.100	25	250	40	1000
24P	x	0.5	31.70	941	36.000	25	250	25	1000
24P	x	0.75	34.40	1,139	24.500	25	250	25	1000
24P	x	1	36.40	1,302	18.100	25	250	40	1000
24P	x	1.5	40.20	1,652	12.100	25	250	40	1000

**Further information about derating factors for arrangement can be found on supplementary technical information.*

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES				
Size			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Min. Insul Resistance	Max. Capacitance at 1 Khz	Max. L/R ratio	AC Voltage Test
mm²			mm	kg/km	ohm/km	M.ohm.km	pF/m	µH/ Ω	Volt/1 minutes
2T	x	0.5	11.10	149	36.000	25	250	25	1000
2T	x	0.75	11.80	174	24.500	25	250	25	1000
2T	x	1	12.40	193	18.100	25	250	40	1000
2T	x	1.5	13.70	243	12.100	25	250	40	1000
4T	x	0.5	14.80	253	36.000	25	250	25	1000
4T	x	0.75	15.90	300	24.500	25	250	25	1000
4T	x	1	16.70	336	18.100	25	250	40	1000
4T	x	1.5	18.50	429	12.100	25	250	40	1000
6T	x	0.5	17.20	351	36.000	25	250	25	1000
6T	x	0.75	18.50	418	24.500	25	250	25	1000
6T	x	1	19.70	482	18.100	25	250	40	1000
6T	x	1.5	21.50	605	12.100	25	250	40	1000
8T	x	0.5	19.50	441	36.000	25	250	25	1000
8T	x	0.75	21.20	540	24.500	25	250	25	1000
8T	x	1	22.30	611	18.100	25	250	40	1000
8T	x	1.5	24.60	785	12.100	25	250	40	1000
10T	x	0.5	22.00	552	36.000	25	250	25	1000
10T	x	0.75	23.60	663	24.500	25	250	25	1000
10T	x	1	25.10	764	18.100	25	250	40	1000
10T	x	1.5	27.60	980	12.100	25	250	40	1000
12T	x	0.5	24.10	644	36.000	25	250	25	1000
12T	x	0.75	26.00	776	24.500	25	250	25	1000
12T	x	1	27.60	894.99	18.100	25	250	40	1000
12T	x	1.5	30.40	1150.67	12.100	25	250	40	1000
16T	x	0.5	27.60	831.98	36.000	25	250	25	1000
16T	x	0.75	29.90	1021.13	24.500	25	250	25	1000
16T	x	1	31.50	1161.09	18.100	25	250	40	1000
16T	x	1.5	34.80	1496.3	12.100	25	250	40	1000
20T	x	0.5	30.30	1016.56	36.000	25	250	25	1000
20T	x	0.75	32.90	1249.11	24.500	25	250	25	1000
20T	x	1	34.80	1440.4	18.100	25	250	40	1000
20T	x	1.5	38.40	1856.11	12.100	25	250	40	1000
24T	x	0.5	33.90	1213.51	36.000	25	250	25	1000
24T	x	0.75	36.80	1491.02	24.500	25	250	25	1000
24T	x	1	39.00	1718.98	18.100	25	250	40	1000
24T	x	1.5	43.30	2237.59	12.100	25	250	40	1000

**Further information about derating factors for arrangement can be found on supplementary technical information.*

300/500 V, Instrument Cable (Cu / PVC / OSCR / PVC)

Standard Spesification : BS-EN 50288-7, IEC 60332-3, IEC-60332-3 Cat.C

**For Insulation colour can be based on Customer Request or Follow Standard.*

Copper Conductor

PVC Insulated :
Black and White with Numbering

Polyester Tape
Drain Wire Tin Copper
Aluminium / Mylar Tape

Black PVC Outer Sheath

Application

Used for the transmission of measuring data signals in power stations and industrial plants. This cable is suitable for fixed indoor,outdoor,or underground installations.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 0.5 - 0.75 sqmm supplied in non-compacted circular stranded (rm)
- 1.5 - 2.5 sqmm supplied in non-compacted circular stranded (rm) or solid (re)
- Other size and shape can be discussed

Standard Packing

- Wooden drum @500 meters.
- Length Tolerance per drum ± 2%
- Other length and type of packing on request.

300/500 V, Instrument Cable (Cu / PVC / OSCR / PVC)

Standard Spesification : BS-EN 50288-7, IEC 60332-3, IEC-60332-3 Cat.C

**For Insulation colour can be based on Customer Request or Follow Standard.*

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES				
Size			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Min. Insul Resistance	Max. Capacitance at 1 Khz	Max. L/R ratio	AC Voltage Test
mm²			mm	kg/km	ohm/km	M.ohm.km	pF/m	µH/ Ω	Volt/1 minutes
2P	x	0.5	10.10	96	36.000	25	250	25	1000
2P	x	0.75	10.80	113	24.500	25	250	25	1000
2P	x	1	11.50	132	18.462	25	250	40	1000
2P	x	1.5	13.90	183	12.100	25	250	40	1000
4P	x	0.5	13.50	160	36.000	25	250	25	1000
4P	x	0.75	14.50	192	24.500	25	250	25	1000
4P	x	1	15.20	217	18.462	25	250	40	1000
4P	x	1.5	18.80	319	12.100	25	250	40	1000
6P	x	0.5	14.50	206	36.000	25	250	25	1000
6P	x	0.75	15.80	258	24.500	25	250	25	1000
6P	x	1	16.60	294	18.462	25	250	40	1000
6P	x	1.5	20.50	436	12.100	25	250	40	1000
8P	x	0.5	17.60	272	36.000	25	250	25	1000
8P	x	0.75	19.00	331	24.500	25	250	25	1000
8P	x	1	20.20	389	18.462	25	250	40	1000
8P	x	1.5	24.80	565	12.100	25	250	40	1000
10P	x	0.5	19.10	329	36.000	25	250	25	1000
10P	x	0.75	20.90	413	24.500	25	250	25	1000
10P	x	1	21.90	473	18.462	25	250	40	1000
10P	x	1.5	27.20	704	12.100	25	250	40	1000
12P	x	0.5	21.50	385	36.000	25	250	25	1000
12P	x	0.75	23.50	485	24.500	25	250	25	1000
12P	x	1	24.70	556	18.462	25	250	40	1000
12P	x	1.5	30.70	830	12.100	25	250	40	1000
16P	x	0.5	23.40	487	36.000	25	250	25	1000
16P	x	0.75	25.50	615	24.500	25	250	25	1000
16P	x	1	26.90	707	18.462	25	250	40	1000
16P	x	1.5	33.40	1,061	12.100	25	250	40	1000
20P	x	0.5	27.00	604	36.000	25	250	25	1000
20P	x	0.75	29.20	748	24.500	25	250	25	1000
20P	x	1	31.00	878	18.462	25	250	40	1000
20P	x	1.5	38.60	1,318	12.100	25	250	40	1000
24P	x	0.5	30.20	722	36.000	25	250	25	1000
24P	x	0.75	33.00	911	24.500	25	250	25	1000
24P	x	1	35.00	1,067	18.462	25	250	40	1000
24P	x	1.5	43.60	1,598	12.100	25	250	40	1000

**Further information about derating factors for arrangement can be found on supplementary technical information.*

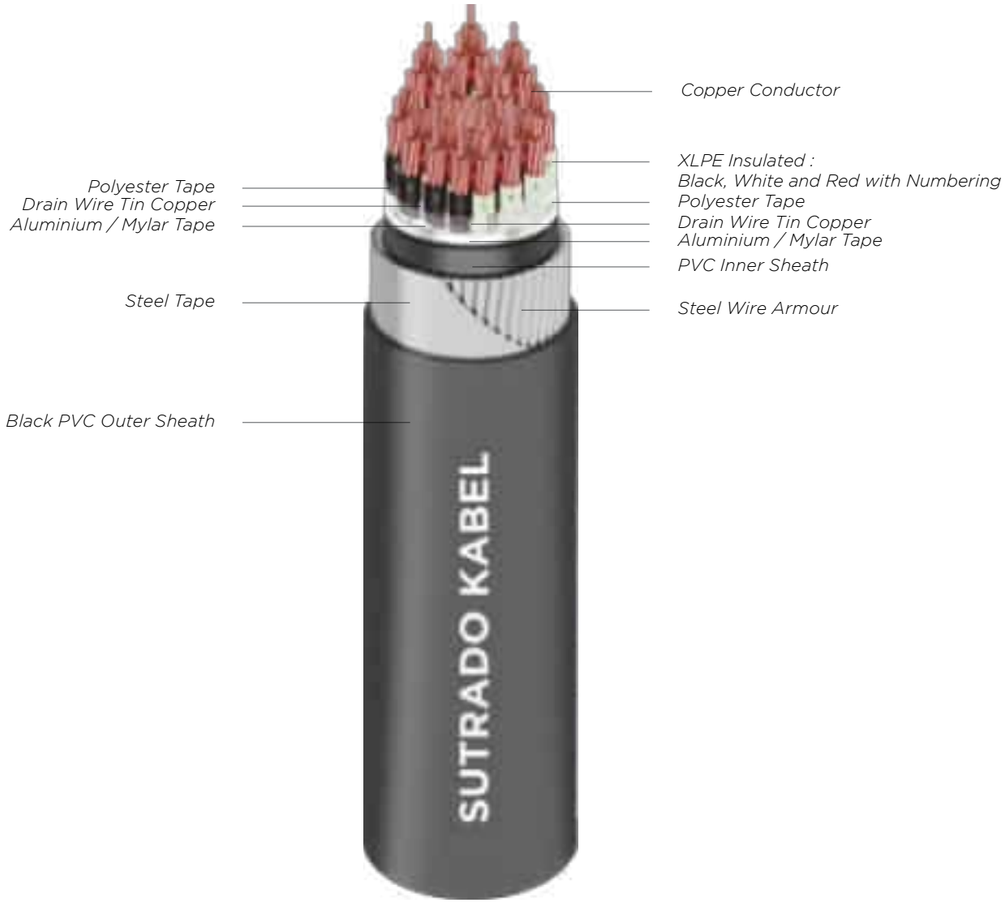
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES				
Size			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Min. Insul Resistance	Max. Capacitance at 1 Khz	Max. L/R ratio	AC Voltage Test
mm²			mm	kg/km	ohm/km	M.ohm.km	pF/m	µH/ Ω	Volt/1 minutes
2T	x	0.5	10.70	119	36.000	25	250	25	1000
2T	x	0.75	11.70	148	24.500	25	250	25	1000
2T	x	1	12.20	167	18.462	25	250	40	1000
2T	x	1.5	14.80	237	12.100	25	250	40	1000
4T	x	0.5	14.30	204	36.000	25	250	25	1000
4T	x	0.75	15.40	249	24.500	25	250	25	1000
4T	x	1	16.40	292	18.462	25	250	40	1000
4T	x	1.5	20.00	424	12.100	25	250	40	1000
6T	x	0.5	15.60	277	36.000	25	250	25	1000
6T	x	0.75	16.80	341	24.500	25	250	25	1000
6T	x	1	17.90	402	18.462	25	250	40	1000
6T	x	1.5	22.10	602	12.100	25	250	40	1000
8T	x	0.5	18.70	356	36.000	25	250	25	1000
8T	x	0.75	20.40	452	24.500	25	250	25	1000
8T	x	1	21.70	531	18.462	25	250	40	1000
8T	x	1.5	26.70	783	12.100	25	250	40	1000
10T	x	0.5	20.60	445	36.000	25	250	25	1000
10T	x	0.75	22.40	562	24.500	25	250	25	1000
10T	x	1	23.60	648	18.462	25	250	40	1000
10T	x	1.5	29.20	975	12.100	25	250	40	1000
12T	x	0.5	23.10	523	36.000	25	250	25	1000
12T	x	0.75	25.20	663	24.500	25	250	25	1000
12T	x	1	26.60	765	18.462	25	250	40	1000
12T	x	1.5	33.00	1153.37	12.100	25	250	40	1000
16T	x	0.5	25.20	665.24	36.000	25	250	25	1000
16T	x	0.75	27.40	846.05	24.500	25	250	25	1000
16T	x	1	28.90	980.37	18.462	25	250	40	1000
16T	x	1.5	35.90	1484.57	12.100	25	250	40	1000
20T	x	0.5	29.00	826	36.000	25	250	25	1000
20T	x	0.75	31.60	1050.38	24.500	25	250	25	1000
20T	x	1	33.30	1218.09	18.462	25	250	40	1000
20T	x	1.5	41.70	1866.79	12.100	25	250	40	1000
24T	x	0.5	32.50	987.39	36.000	25	250	25	1000
24T	x	0.75	35.40	1255.22	24.500	25	250	25	1000
24T	x	1	37.50	1475.25	18.462	25	250	40	1000
24T	x	1.5	46.80	2230.75	12.100	25	250	40	1000

**Further information about derating factors for arrangement can be found on supplementary technical information.*

300/500 V, Instrument Cable
(Cu / XLPE / ISCR / OSCR / PVC / SWA / PVC)

Standard Spesification : BS-EN 50288-7, IEC 60332-3, IEC-60332-3 Cat.C

**For Insulation colour can be based on Customer Request or Follow Standard.*



Application

Used for the transmission of measuring data signals in power stations and industrial plants This cable is suitable for fixed indoor,outdoor,or underground installations.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 0.5 - 0.75 sqmm supplied in non-compacted circular stranded (rm)
- 1.5 - 2.5 sqmm supplied in non-compacted circular stranded (rm) or solid (re)
- Other size and shape can be discussed

Standard Packing

- Wooden drum @500 meters.
- Length Tolerance per drum ± 2%
- Other length and type of packing on request.

300/500 V, Instrument Cable
(Cu / XLPE / ISCR / OSCR / PVC / SWA / PVC)

Standard Spesification : BS-EN 50288-7, IEC 60332-3, IEC-60332-3 Cat.C

**For Insulation colour can be based on Customer Request or Follow Standard.*

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES				
Size			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Min. Insul Resistance	Max. Capacitance at 1 Khz	Max. L/R ratio	AC Voltage Test
mm²			mm	kg/km	ohm/km	M.ohm.km	pF/m	µH/ Ω	Volt/1 minutes
2P	x	0.5	15.80	448	36.000	1000	90	25	1000
2P	x	0.75	16.70	491	24.500	1000	90	25	1000
2P	x	1	17.20	515	18.100	1000	90	25	1000
2P	x	1.5	18.20	571	12.100	1000	102	40	1000
2P	x	2.5	20.60	693	7.410	1000	102	60	1000
4P	x	0.5	19.30	608	36.000	1000	90	25	1000
4P	x	0.75	20.30	665	24.500	1000	90	25	1000
4P	x	1	21.10	708	18.100	1000	90	25	1000
4P	x	1.5	22.70	811	12.100	1000	102	40	1000
4P	x	2.5	25.90	1,011	7.410	1000	102	60	1000
6P	x	0.5	21.60	732	36.000	1000	75	25	1000
6P	x	0.75	22.80	805	24.500	1000	75	25	1000
6P	x	1	23.60	865	18.100	1000	75	25	1000
6P	x	1.5	25.50	1,003	12.100	1000	85	40	1000
6P	x	2.5	29.30	1,265	7.410	1000	85	60	1000
8P	x	0.5	23.70	847	36.000	1000	75	25	1000
8P	x	0.75	25.30	954	24.500	1000	75	25	1000
8P	x	1	26.20	1,027	18.100	1000	75	25	1000
8P	x	1.5	28.20	1,180	12.100	1000	85	40	1000
8P	x	2.5	32.50	1,508	7.410	1000	85	60	1000
10P	x	0.5	25.80	968	36.000	1000	75	25	1000
10P	x	0.75	27.60	1,096	24.500	1000	75	25	1000
10P	x	1	28.70	1,182	18.100	1000	75	25	1000
10P	x	1.5	31.10	1,384	12.100	1000	85	40	1000
10P	x	2.5	35.90	1,781	7.410	1000	85	60	1000
12P	x	0.5	27.80	1,083	36.000	1000	75	25	1000
12P	x	0.75	29.80	1,228	24.500	1000	75	25	1000
12P	x	1	31.00	1,330	18.100	1000	75	25	1000
12P	x	1.5	33.70	1,567	12.100	1000	85	40	1000
12P	x	2.5	39.10	2,024	7.410	1000	85	60	1000
16P	x	0.5	31.00	1,293	36.000	1000	75	25	1000
16P	x	0.75	33.00	1,458	24.500	1000	75	25	1000
16P	x	1	34.70	1,601	18.100	1000	75	25	1000
16P	x	1.5	37.80	1,899	12.100	1000	85	40	1000
16P	x	2.5	43.90	2,474	7.410	1000	85	60	1000
20P	x	0.5	33.60	1,478	36.000	1000	75	25	1000
20P	x	0.75	35.80	1,677	24.500	1000	75	25	1000
20P	x	1	37.60	1,845	18.100	1000	75	25	1000
20P	x	1.5	41.00	2,207	12.100	1000	85	40	1000
20P	x	2.5	47.90	2,916	7.410	1000	85	60	1000
24P	x	0.5	37.00	1,704	36.000	1000	75	25	1000
24P	x	0.75	39.50	1,934	24.500	1000	75	25	1000
24P	x	1	41.50	2,134	18.100	1000	75	25	1000
24P	x	1.5	45.30	2,554	12.100	1000	85	40	1000
24P	x	2.5	53.20	3,396	7.410	1000	85	60	1000

**Further information about derating factors for arrangement can be found on supplementary technical information.*

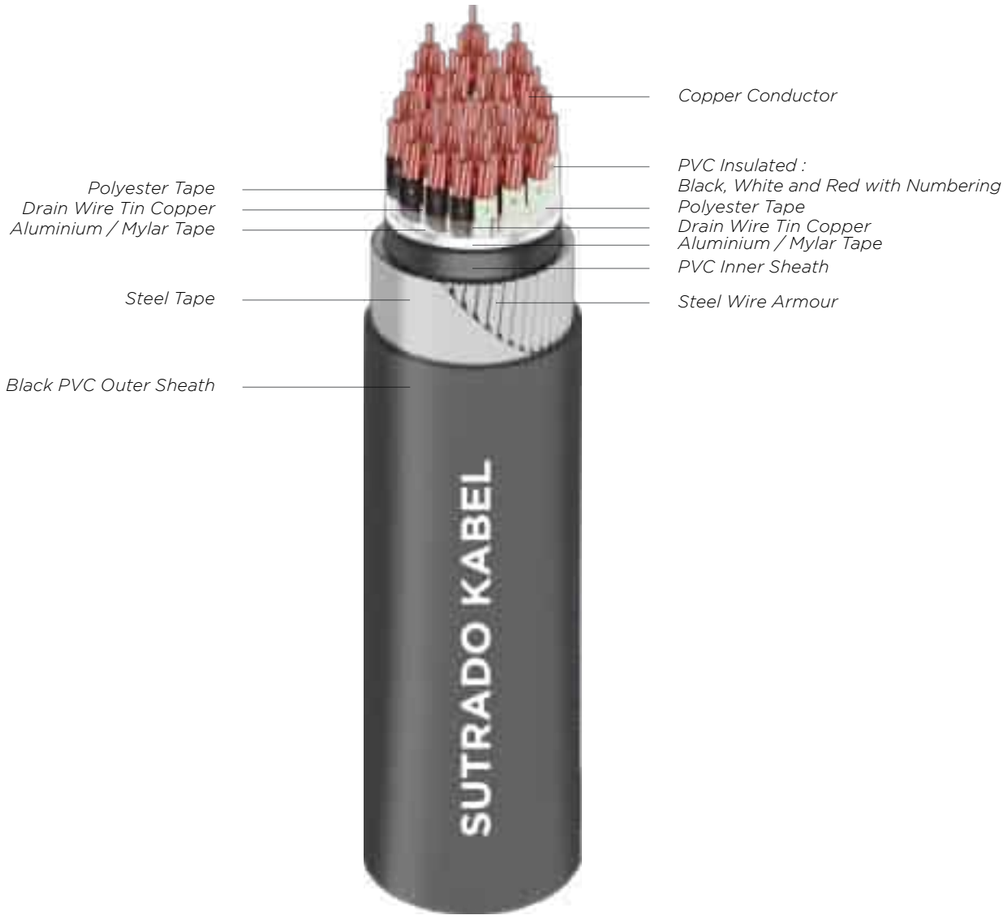
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES				
Size			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Min. Insul Resistance	Max. Capacitance at 1 Khz	Max. L/R ratio	AC Voltage Test
mm²			mm	kg/km	ohm/km	M.ohm.km	pF/m	µH/ Ω	Volt/1 minutes
2T	x	0.5	16.60	487	36.000	1000	90	25	1000
2T	x	0.75	17.30	529	24.500	1000	90	25	1000
2T	x	1	17.90	564	18.100	1000	90	25	1000
2T	x	1.5	19.20	642	12.100	1000	102	40	1000
2T	x	2.5	21.50	783	7.410	1000	102	60	1000
4T	x	0.5	20.10	664	36.000	1000	90	25	1000
4T	x	0.75	21.40	745	24.500	1000	90	25	1000
4T	x	1	22.20	804	18.100	1000	90	25	1000
4T	x	1.5	24.00	932	12.100	1000	102	40	1000
4T	x	2.5	27.20	1,167	7.410	1000	102	60	1000
8T	x	0.5	25.00	959	36.000	1000	75	25	1000
8T	x	0.75	26.50	1,078	24.500	1000	75	25	1000
8T	x	1	27.60	1,171	18.100	1000	75	25	1000
8T	x	1.5	29.90	1,396	12.100	1000	85	40	1000
8T	x	2.5	34.50	1,816	7.410	1000	85	60	1000
12T	x	0.5	29.40	1,239	36.000	1000	75	25	1000
12T	x	0.75	31.30	1,412	24.500	1000	75	25	1000
12T	x	1	32.90	1,556	18.100	1000	75	25	1000
12T	x	1.5	35.70	1,869	12.100	1000	85	40	1000
12T	x	2.5	41.50	2,468	7.410	1000	85	60	1000
16T	x	0.5	32.90	1,488	36.000	1000	75	25	1000
16T	x	0.75	35.00	1,708	24.500	1000	75	25	1000
16T	x	1	36.80	1,893	18.100	1000	75	25	1000
16T	x	1.5	40.10	2,289	12.100	1000	85	40	1000
16T	x	2.5	46.90	3,073	7.410	1000	85	60	1000
20T	x	0.5	35.60	1,720	36.000	1000	75	25	1000
20T	x	0.75	38.00	1,976	24.500	1000	75	25	1000
20T	x	1	39.90	2,200	18.100	1000	75	25	1000
20T	x	1.5	43.50	2,678	12.100	1000	85	40	1000
20T	x	2.5	51.00	3,627	7.410	1000	85	60	1000
24T	x	0.5	39.20	1,986	36.000	1000	75	25	1000
24T	x	0.75	41.90	2,289	24.500	1000	75	25	1000
24T	x	1	44.10	2,555	18.100	1000	75	25	1000
24T	x	1.5	48.40	3,143	12.100	1000	85	40	1000
24T	x	2.5	56.80	4,264	7.410	1000	85	60	1000

**Further information about derating factors for arrangement can be found on supplementary technical information.*

300/500 V, Instrument Cable
(Cu / PVC / ISCR / OSCR / PVC/ SWA/ PVC)

Standard Spesification : BS-EN 50288-7, IEC 60332-3, IEC-60332-3 Cat.C

**For Insulation colour can be based on Customer Request or Follow Standard.*



Application

Used for the transmission of measuring data signals in power stations and industrial plants This cable is suitable for fixed indoor,outdoor,or underground installations.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 0.5 - 0.75 sqmm supplied in non-compacted circular stranded (rm)
- 1.5 - 2.5 sqmm supplied in non-compacted circular stranded (rm) or solid (re)
- Other size and shape can be discussed

Standard Packing

- Wooden drum @500 meters.
- Length Tolerance per drum ± 2%
- Other length and type of packing on request.

300/500 V, Instrument Cable
(Cu / PVC / ISCR / OSCR / PVC/ SWA/ PVC)

Standard Spesification : BS-EN 50288-7, IEC 60332-3, IEC-60332-3 Cat.C

**For Insulation colour can be based on Customer Request or Follow Standard.*

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES				
Size			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Min. Insul Resistance	Max. Capacitance at 1 Khz	Max. L/R ratio	AC Voltage Test
mm²			mm	kg/km	ohm/km	M.ohm.km	pF/m	µH/ Ω	Volt/1 minutes
2P	x	0.5	15.00	425	36.000	25	250	25	1000
2P	x	0.75	15.90	467	24.500	25	250	25	1000
2P	x	1	16.40	491	18.100	25	250	40	1000
2P	x	1.5	17.40	547	12.100	25	250	40	1000
4P	x	0.5	18.50	585	36.000	25	250	25	1000
4P	x	0.75	19.50	643	24.500	25	250	25	1000
4P	x	1	20.50	696	18.100	25	250	40	1000
4P	x	1.5	21.90	789	12.100	25	250	40	1000
6P	x	0.5	20.80	713	36.000	25	250	25	1000
6P	x	0.75	22.00	787	24.500	25	250	25	1000
6P	x	1	23.00	860	18.100	25	250	40	1000
6P	x	1.5	24.70	987	12.100	25	250	40	1000
8P	x	0.5	22.90	832	36.000	25	250	25	1000
8P	x	0.75	24.50	939	24.500	25	250	25	1000
8P	x	1	25.40	1,014	18.100	25	250	40	1000
8P	x	1.5	27.60	1,184	12.100	25	250	40	1000
10P	x	0.5	25.20	968	36.000	25	250	25	1000
10P	x	0.75	26.80	1,086	24.500	25	250	25	1000
10P	x	1	28.10	1,188	18.100	25	250	40	1000
10P	x	1.5	30.50	1,396	12.100	25	250	40	1000
12P	x	0.5	27.20	1,088	36.000	25	250	25	1000
12P	x	0.75	29.00	1,222	24.500	25	250	25	1000
12P	x	1	30.40	1,343	18.100	25	250	40	1000
12P	x	1.5	33.10	1,586	12.100	25	250	40	1000
16P	x	0.5	30.40	1,309	36.000	25	250	25	1000
16P	x	0.75	32.40	1,480	24.500	25	250	25	1000
16P	x	1	34.10	1,628	18.100	25	250	40	1000
16P	x	1.5	37.20	1,936	12.100	25	250	40	1000
20P	x	0.5	33.00	1,506	36.000	25	250	25	1000
20P	x	0.75	35.20	1,713	24.500	25	250	25	1000
20P	x	1	37.00	1,887	18.100	25	250	40	1000
20P	x	1.5	40.40	2,262	12.100	25	250	40	1000
24P	x	0.5	36.40	1,743	36.000	25	250	25	1000
24P	x	0.75	39.10	2,003	24.500	25	250	25	1000
24P	x	1	41.10	2,210	18.100	25	250	40	1000
24P	x	1.5	44.90	2,648	12.100	25	250	40	1000

**Further information about derating factors for arrangement can be found on supplementary technical information.*

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES				
Size			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Min. Insul Resistance	Max. Capacitance at 1 Khz	Max. L/R ratio	AC Voltage Test
mm²			mm	kg/km	ohm/km	M.ohm.km	pF/m	µH/ Ω	Volt/1 minutes
2T	x	0.5	15.80	466	36.000	25	250	25	1000
2T	x	0.75	16.50	508	24.500	25	250	25	1000
2T	x	1	17.10	543	18.100	25	250	40	1000
2T	x	1.5	18.40	621	12.100	25	250	40	1000
4T	x	0.5	19.50	658	36.000	25	250	25	1000
4T	x	0.75	20.60	729	24.500	25	250	25	1000
4T	x	1	21.40	789	18.100	25	250	40	1000
4T	x	1.5	23.20	919	12.100	25	250	40	1000
6T	x	0.5	21.90	814	36.000	25	250	25	1000
6T	x	0.75	23.20	909	24.500	25	250	25	1000
6T	x	1	24.40	1,000	18.100	25	250	40	1000
6T	x	1.5	26.20	1,165	12.100	25	250	40	1000
8T	x	0.5	24.20	956	36.000	25	250	25	1000
8T	x	0.75	25.90	1,092	24.500	25	250	25	1000
8T	x	1	27.00	1,189	18.100	25	250	40	1000
8T	x	1.5	29.30	1,421	12.100	25	250	40	1000
10T	x	0.5	26.70	1,122	36.000	25	250	25	1000
10T	x	0.75	28.30	1,275	24.500	25	250	25	1000
10T	x	1	29.80	1,405	18.100	25	250	40	1000
10T	x	1.5	32.30	1,682	12.100	25	250	40	1000
12T	x	0.5	28.80	1,265	36.000	25	250	25	1000
12T	x	0.75	30.70	1,446	24.500	25	250	25	1000
12T	x	1	32.30	1,596	18.100	25	250	40	1000
12T	x	1.5	35.10	1,920	12.100	25	250	40	1000
16T	x	0.5	32.30	1,533	36.000	25	250	25	1000
16T	x	0.75	34.60	1,780	24.500	25	250	25	1000
16T	x	1	36.20	1,956	18.100	25	250	40	1000
16T	x	1.5	39.50	2,368	12.100	25	250	40	1000
20T	x	0.5	35.00	1,784	36.000	25	250	25	1000
20T	x	0.75	37.60	2,072	24.500	25	250	25	1000
20T	x	1	39.50	2,308	18.100	25	250	40	1000
20T	x	1.5	43.10	2,810	12.100	25	250	40	1000
24T	x	0.5	38.60	2,067	36.000	25	250	25	1000
24T	x	0.75	41.50	2,409	24.500	25	250	25	1000
24T	x	1	43.70	2,689	18.100	25	250	40	1000
24T	x	1.5	48.00	3,305	12.100	25	250	40	1000

**Further information about derating factors for arrangement can be found on supplementary technical information.*

300/500 V, LIYCY

Standard Specification : VDE 0812 ; IEC 60332-3-24

**For Insulation colour can be based on Customer Request or Follow Standard.*

Flexible Copper Conductor

PVC Insulation

Polyester Tape

Tinned Copper Wire Braided

PVC Outer Sheath

Application

Used for the transmission of measuring data signals in power stations and industrial plants. This cable is suitable for fixed indoor,outdoor,or underground installations.

Core Colour

- JZ : Black cores with white numbering + yellow - green.
- OZ : Black cores with white numbering
- JB : Coloured cores according to VDE 0293 + yellow - green
- OB : Coloured cores according to VDE 0293

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Standard Length

Max. 1000 meters or based on customer requirement.

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES		
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		AC Voltage Test
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C	
mm²			mm	kg/km	ohm/km	ohm/km	kV/min
2	x	0.5	8.00	91	39.000	46.664	1000
2	x	0.75	8.50	100	26.000	31.109	1000
2	x	1	8.90	110	19.500	23.332	1000
2	x	1.5	9.80	127	13.300	15.913	1000
2	x	2.5	11.30	167	7.980	9.548	1000
4	x	0.5	8.90	115	39.000	46.664	1000
4	x	0.75	9.50	131	26.000	31.109	1000
4	x	1	10.00	149	19.500	23.332	1000
4	x	1.5	11.20	183	13.300	15.913	1000
4	x	2.5	12.90	244	7.980	9.548	1000
6	x	0.5	9.80	139	39.000	46.664	1000
6	x	0.75	10.70	168	26.000	31.109	1000
6	x	1	11.40	193	19.500	23.332	1000
6	x	1.5	12.50	235	13.300	15.913	1000
6	x	2.5	14.70	329	7.980	9.548	1000
8	x	0.5	11.00	170	39.000	46.664	1000
8	x	0.75	11.70	201	26.000	31.109	1000
8	x	1	12.50	233	19.500	23.332	1000
8	x	1.5	14.10	294	13.300	15.913	1000
8	x	2.5	16.50	417	7.980	9.548	1000
10	x	0.5	12.40	200	39.000	46.664	1000
10	x	0.75	13.60	245	26.000	31.109	1000
10	x	1	14.50	286	19.500	23.332	1000
10	x	1.5	16.40	362	13.300	15.913	1000
10	x	2.5	19.10	505	7.980	9.548	1000
12	x	0.5	12.80	220	39.000	46.664	1000
12	x	0.75	14.00	272	26.000	31.109	1000
12	x	1	14.90	320	19.500	23.332	1000
12	x	1.5	16.90	407	13.300	15.913	1000
12	x	2.5	19.90	585	7.980	9.548	1000
16	x	0.5	14.30	274	39.000	46.664	1000
16	x	0.75	15.50	333	26.000	31.109	1000
16	x	1	16.80	403	19.500	23.332	1000
16	x	1.5	18.80	507	13.300	15.913	1000
16	x	2.5	22.30	738	7.980	9.548	1000
20	x	0.5	15.40	319	39.000	46.664	1000
20	x	0.75	16.90	399	26.000	31.109	1000
20	x	1	18.10	476	19.500	23.332	1000
20	x	1.5	20.50	613	13.300	15.913	1000
20	x	2.5	24.30	898	7.980	9.548	1000
24	x	0.5	17.10	376	39.000	46.664	1000
24	x	0.75	18.50	462	26.000	31.109	1000
24	x	1	20.10	564	19.500	23.332	1000
24	x	1.5	22.80	728	13.300	15.913	1000
24	x	2.5	27.10	1,069	7.980	9.548	1000
32	x	0.5	19.20	493	39.000	46.664	1000
32	x	0.75	21.10	626	26.000	31.109	1000
32	x	1	22.90	769	19.500	23.332	1000
32	x	1.5	26.00	998	13.300	15.913	1000
32	x	2.5	29.90	1,371	7.980	9.548	1000

**Further information about derating factors for arrangement can be found on supplementary technical information.*

300/500 V
Cu / PVC / OSCR / CAA / PVC-FR

(Copper Conductor, PVC Insulated, Overall Screen, Corrugated Aluminium Armor and PVC-FR Sheath)
Standard Specification : BS-EN 50288-7, ICEA S-73-532/NEMA WC57, IEC 60332-3-24 Cat.C

**For Insulation colour can be based on Customer Request or Follow Standard.*

Copper Conductor
XLPE Insulation
Polyester Tape
Drain Wire Tinned Copper
Aluminium / Mylar Tape
PVC-FR Inner Sheath
Corrugated Aluminium Armour
PVC-FR Outer Sheath

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES				
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Min Insul Resistance at 20 °C	Max. Capacitance at 1 KHz	Max. L/R Ratio	AC Voltage Test
AWG			mm	kg/km	ohm/km	M.ohm/km	pF/m	µH/ohm	kV/min
1P	x	16	20.90	530	13.400	25	250	60	2 / 1
1P	x	14	20.40	512	8.460	25	250	60	2 / 1
1P	x	12	21.10	542	5.350	25	250	60	2 / 1
2P	x	16	21.10	519	13.400	25	250	60	2 / 1
2P	x	14	22.60	589	8.460	25	250	60	2 / 1
2P	x	12	25.30	738	5.350	25	250	60	2 / 1
3P	x	16	22.10	587	13.400	25	250	40	2 / 1
3P	x	14	23.30	675	8.460	25	250	60	2 / 1
3P	x	12	26.30	860	5.350	25	250	60	2 / 1
4P	x	16	23.30	670	13.400	25	250	40	2 / 1
4P	x	14	24.80	775	8.460	25	250	60	2 / 1
4P	x	12	29.50	1038	5.350	25	250	60	2 / 1
6P	x	16	25.80	821	13.400	25	250	40	2 / 1
6P	x	14	27.30	961	8.460	25	250	60	2 / 1
6P	x	12	32.90	1360	5.350	25	250	60	2 / 1
8P	x	16	28.00	979	13.400	25	250	40	2 / 1
8P	x	14	31.00	1182	8.460	25	250	60	2 / 1
8P	x	12	35.90	1638	5.350	25	250	60	2 / 1
10P	x	16	32.90	1226	13.400	25	250	40	2 / 1
10P	x	14	35.40	1462	8.460	25	250	60	2 / 1
10P	x	12	41.30	2007	5.350	25	250	60	2 / 1

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

Cable are designed for use as instrumentation cables, process control and computer cables in ITC non-classified or labeled circuits up to 150 volts and 5 amps (750 VA).

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

SUTRADO
KABEL

SOLAR CABLES

1500 VDC
Solar Cable (PV) H1Z2Z2-K

Standard Specification : BS-EN 50618, TUV-2PFG1169

**For Insulation colour can be based on Customer Request or Follow Standard.*

Conductor :
Flexible Annealed Tinned Copper Wires class 5, Complied with EN 50618

Insulation :
Extruded of Black 125 °C Halogen Free Cross linked Polyolefin (XLPO)

Outer Sheath :
Extruded of Black 125 °C Halogen Free Cross linked Polyolefin (XLPO)

PHYSICAL PROPERTIES				ELECTRICAL PROPERTIES		
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Max. Current - Carrying Capacity at 35 °C In Air	Max. Short Circuit Current at 1 Second
mm²			mm	kg/km	ohm/km	A	kA
1	x	4	5.70	61	5.090	54	0.57
1	x	6	6.40	83	3.390	69	0.86
1	x	10	7.00	109	1.950	94	1.43
1	x	16	8.30	183	1.240	126	2.29
1	x	25	11.10	290	0.795	174	3.58

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application
Is used for solar modules, recommendation laying in pipe. Not suitable for permanent installation in water.

Cable Identification
One lines of a distinctive marking shall be performed continuously on a suitable place of the surface of the outer sheath by printing.

Test
The following test shall be carrier out on complete cable and sample in accordance with EN 50618 and the manufacturer standard.

- Construction Test
- Conductor Resistance Test
- AC Voltage Test

Standard Packing
The complete cable shall be wound on a strong reel and lagged securely in order to protect from a possibilities damage during transportation.

The following information shall be provided on the outside of the flange:

- The name of the manufacturer
- The type, voltage grade and size of the cable
- Cable length
- Net and gross weight
- Drum number

The cable end shall be sealed with end cap in order to avoid water penetration.

SUTRADO
KABEL

OVERHEAD CONDUCTOR & CABLES

AAC / AAAC

AAC : All Aluminium Conductor / AAAC : All Aluminium Alloy Conductor

All Aluminium Conductor

All Aluminium Alloy Conductor

Application
Overhead transmission and distribution.

Specification
- AAC : SPLN 41-6 : 1981
- AAAC : SPLN 41-8 : 1981

(Other Specifications are available upon request)

Classification
Bare Conductor.

Construction
- AAC : Stranded All Aluminium Conductor
- AAAC : Stranded All Aluminium Alloy Conductor

AAC

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES			
Cross Sectional Area		Number and Diameter Wire	Approx.Overall Diameter	Approx. Net Weight	Calculated Breaking Force	DC. Resistance at 20°C	Current Carrying Capacity	Standard Length
Nominal Size	Actual Size							
mm²	mm²	pcs/mm	mm	kg/km	kg	ohm/km	A	m
16	16.84	7/1.75	5.25	46	310	1.700	110	2,000
25	27.83	7/2.25	6.75	76	490	1.029	145	2,000
35	34.36	7/2.50	7.50	94	590	0.833	180	2,000
50	49.48	7/3.00	9.00	135	810	0.579	225	2000
50	45.70	19/1.75	8.75	125	835	0.630	225	2,000
55	58.07	7/3.25	9.75	158	935	0.493	235	2,000
70	75.55	19/2.25	11.25	206	1,040	0.381	270	2,000
95	93.27	19/2.50	12.50	254	1,560	0.308	340	2,000
100	99.30	7/4.25	12.75	271	1,540	0.288	350	1,000
120	112.85	19/2.75	13.75	308	1,890	0.255	390	1,000
150	157.62	19/3.25	16.25	430	2,530	0.183	455	1,000
150	147.12	37/2.25	15.75	401	2,575	0.196	455	1,000
185	181.62	37/2.50	17.50	495	3,110	0.159	520	1,000
200	189.85	19/3.75	18.75	572	3,290	0.137	565	1,000
240	242.54	61/2.25	20.25	661	4,020	0.119	625	1,000
240	238.76	19/4.00	20.00	651	3,700	0.121	625	500
300	299.44	61/2.50	22.50	817	4,850	0.097	710	500
400	431.18	61/3.00	27.00	1,176	6,675	0.067	855	500
500	506.04	61/3.25	35.75	1,380	7,700	0.057	990	500
630	643.24	91/3.00	33.00	1,754	9,960	0.045	1,140	500
800	754.92	91/3.25	35.75	2,059	11,480	0.038	1,340	500
1,000	1,005.07	91/3.75	41.25	2,741	14,925	0.029	1,540	500

** Further information about derating factor for certain cable arrangement can be found on supplementary technical information*

AAAC

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES			
Cross Sectional Area		Number and Diameter Wire	Approx.Overall Diameter	Approx. Net Weight	Calculated Breaking Force	DC. Resistance at 20°C	Current Carrying Capacity	Standard Length
Nominal Size	Actual Size							
mm²	mm²	pcs/mm	mm	kg/km	kg	ohm/km	A	m
16	16.84	7/1.75	5.25	46	480	1.955	105	2,000
25	27.83	7/2.25	6.75	76	790	1.183	135	2,000
35	34.36	7/2.50	7.50	94	980	0.958	170	2,000
50	49.48	7/3.00	9.00	135	1,410	0.665	210	2000
50	45.70	19/1.75	8.75	125	1,300	0.724	210	2,000
55	58.07	7/3.25	9.75	158	1,655	0.567	220	2,000
70	75.55	19/2.25	11.25	206	2,150	0.438	255	2,000
95	93.27	19/2.50	12.50	254	2,660	0.355	320	2,000
100	99.30	7/4.25	12.75	271	2,830	0.332	325	1,000
120	112.85	19/2.75	13.75	308	3,220	0.293	365	1,000
150	157.62	19/3.25	16.25	430	4,490	0.210	425	1,000
150	147.12	37/2.25	15.75	401	4,190	0.225	425	1,000
185	181.60	37/2.50	17.50	495	5,175	0.183	490	1,000
240	238.76	19/4.00	20.00	651	6,805	0.139	585	1,000
240	242.54	61/2.25	20.25	661	6,910	0.137	585	1,000
300	299.44	61/2.50	22.50	817	8,530	0.111	670	500
400	431.18	61/3.00	27.00	1,176	12,290	0.077	810	500
500	506.04	61/3.25	29.25	1,380	14,420	0.066	930	500
630	643.24	91/3.00	33.00	1,754	18,330	0.052	1,085	500
800	754.92	91/3.25	35.75	2,059	21,515	0.044	1,255	500
1,000	1,005.07	91/3.75	41.25	2,741	28,640	0.033	1,450	500

** Further information about derating factor for certain cable arrangement can be found on supplementary technical information*

AAAC/S

All Aluminium Alloy Conductor with XLPE Insulated

All Aluminium Alloy Conductor

XLPE Insulated

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES			
Cross Sectional Area / Nominal Size	Number and Diameter Wire	Insulation Thickness	Approx. Overall Diameter	Approx. Cable Weight	Calculated Breaking Force	DC. Resistance at 20°C	Current Carrying Capacity	Standard Length
mm^2	pcs/mm	mm	mm	kg/km	kg	ohm/km	A	m
35	7/2.50	3.00	14.00	199	980	0.958	167	1000
50	19/1.75	3.00	15.00	240	1300	0.724	200	1000
70	19/2.25	3.00	18.00	349	2150	0.438	275	1000
95	19/2.50	3.00	19.00	412	2660	0.355	315	1000
100	7/4.25	3.00	19.00	441	2830	0.332	325	1000
120	19/2.75	3.00	20.00	480	3220	0.293	356	1000
150	19/3.25	3.00	23.00	632	4490	0.210	423	1000
150	37/2.25	3.00	22.00	593	4190	0.225	423	1000
185	37/2.50	3.00	24.00	708	5170	0.183	484	1000
240	61/2.25	3.00	27.00	905	6910	0.139	596	1000
300	61/2.50	3.00	29.00	1088	8530	0.111	670	1000
400	61/3.00	3.00	34.00	1506	12290	0.077	810	1000
500	61/3.25	3.00	36.00	1740	14420	0.066	930	1000
630	91/3.00	3.00	40.00	2160	18330	0.052	1085	1000
800	91/3.25	3.00	42.00	2503	21515	0.044	1255	1000
1000	91/3.75	3.00	48.00	3265	28640	0.033	1450	1000

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

Used for overhead 20 kV transmission line.

Specification

SPLN 41-10 or Manufacture Spec
(Other specifications are available upon request)

Construction

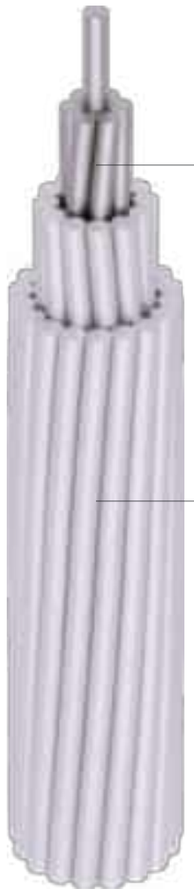
- Conductor
  Single core, Aluminium Conductors.
- Insulation
  Extrude of XLPE.

Classification

Medium Voltage Cable

ACSR

Aluminium Conductor Steel Reinforced
Standard Specification : SPLN 41-7 : 1981



Application
Used for overhead distribution and transmission

Specification
SPLN 41-7 : 1981
(Other specifications are available upon request)

Construction
- Inner Laying
  Solid or Stranded Galvanized Steel Wire.
- Outer Laying
  Stranded All Aluminium Conductor (AAC)

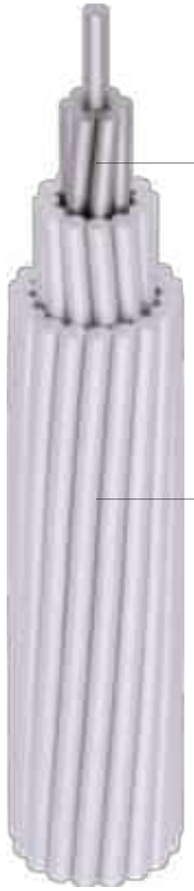
Classification
Bare Conductor

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES			
Cross Sectional Area		No. of Wire		Approx. Overall Diameter	Approx. Net Weight	DC. Resistance at 20°C	Current Carrying Capacity	Calculated Breaking Force	Standard Length
Nominal Size	Actual Size	Al	Steel						
mm²	mm²	pcs	pcs	mm	kg/km	ohm/km	A	N	m
16/2.5	15.3/2.55	6/1.80	1/1.80	5.40	63	1.8790	100	5,950	2000
25/4	23.8/4.0	6/2.25	1/2.25	6.80	98	1.2030	135	9,200	2000
35/6	34.3/5.7	6/2.70	1/2.70	8.10	140	0.8353	165	12,650	2000
44/32	44.0/31.7	24/2.00	7/2.40	11.20	379	0.6573	205	43,000	2000
50/8	48.3/8.0	6/3.20	1/3.20	9.60	197	0.5946	205	17,100	2000
50/30	51.2/29.8	12/2.33	7/2.33	11.70	383	0.5644	225	43,800	2000
70/12	69.9/11.4	26/1.85	7/1.44	11.70	284	0.4130	260	26,800	2000
95/15	94.4/15.3	26/2.25	7/1.67	13.60	383	0.3053	315	35,750	2000
95/55	96.5/56.3	12/3.20	7/3.20	16.00	723	0.2992	335	79,350	2000
105/75	105.7/75.5	14/3.10	19/2.25	17.50	908	0.2736	355	108,450	2000
120/20	121.6/19.8	26/2.44	7/1.90	15.50	494	0.2374	370	45,650	2000
120/70	122.0/71.3	12/3.60	7/3.60	18.00	915	0.2364	385	100,000	2000
125/30	127.9/29.8	30/2.33	7/2.33	16.10	593	0.2259	385	57,600	2000
150/25	149.9/24.2	26/2.70	7/2.10	17.10	604	0.1939	420	55,250	2000
170/40	171.8/40.1	30/2.70	7/2.70	13.90	796	0.1682	465	76,750	2000
185/30	183.8/29.8	26/3.00	7/2.33	19.00	745	0.1571	480	66,200	2000
210/35	209.1/34.1	26/3.20	7/2.49	20.30	848	0.1380	520	74,900	2000
210/50	212.1/49.5	30/3.00	7/3.00	21.00	982	0.1363	530	93,900	2000
230/30	230.9/29.8	24/3.50	7/2.33	21.00	873	0.1249	555	73,100	2000
240/40	243.7/39.5	26/3.45	7/2.68	21.90	985	0.1188	575	86,400	2000
265/35	263.7/34.1	24/3.74	7/2.49	22.40	997	0.1094	600	83,050	2000
300/50	304.3/49.5	26/3.86	7/3.00	24.40	1,234	0.0949	755	107,000	2000
305/40	304.6/39.5	54/2.68	7/2.68	24.10	1,153	0.0949	750	99,400	2000
340/30	339.3/29.8	48/3.00	7/2.33	25.00	1,169	0.0853	800	92,900	2000
380/50	381.7/49.5	54/3.00	7/3.00	27.00	1,445	0.0757	865	123,100	2000
385/35	386.0/34.1	48/3.20	7/2.49	26.70	1,331	0.0749	870	104,800	2000
435/55	434.3/56.3	54/3.20	7/3.20	28.80	1,644	0.0665	940	136,450	2000
450/40	448.7/39.5	48/3.45	7/2.68	28.70	1,546	0.0645	955	120,750	2000
490/65	490.3/63.6	54/3.40	7/3.40	30.60	1,856	0.0589	1,015	153,100	1000
495/35	494.4/34.1	45/3.74	7/2.49	29.90	1,626	0.0585	1,015	121,800	1000
510/45	510.5/45.3	48/3.68	7/2.87	30.70	1,761	0.0566	1,035	136,650	1000
550/70	549.7/71.3	54/3.60	7/3.60	32.40	2,080	0.0526	1,090	170,600	1000
560/50	561.7/49.5	48/3.86	7/3.00	32.20	1,935	0.0515	1,100	148,950	1000
570/40	571.2/39.5	45/4.02	7/2.68	32.20	1,879	0.0506	1,110	136,200	1000
650/45	653.5/45.3	45/4.30	7/2.87	34.40	2,151	0.0443	1,205	155,500	1000
680/85	678.6/86.0	54/4.00	19/2.40	36.00	2,554	0.0426	1,245	206,250	1000
1,045/45	1,045.6/45.3	72/4.30	7/2.87	43.00	3,219	0.0277	1,600	217,600	500

**Further information about derating factors for arrangement can be found on supplementary technical information.*

ACSR

Aluminium Conductor Steel Reinforced
Standard Specification : ASTM B232



PHYSICAL & ELECTRICAL PROPERTIES														
SKU Word	Size	STR	Dia.	Dia. Steel	Dia. Steel Core	Dia. Cable OD	Weight	Weight Steel	Weight Total	IASC (min.)	Rate Breaking Strength	DC	AC	AC
-	AWG or Kcmil	AL or STL	inches	inches	inches	inches	Pound/ 1000ft	Pound/ 1000ft	Pound/ 1000ft	%	lbf	Ohm/ Mile	Ohm/ Mile	Ohm/Mile
Turkey	6	6/1	0.0661	0.0661	0.0661	0.198	24.5	11.6	36.1	61	1190	1.3092	1.4475	1.7858
Swan	4	6/1	0.0834	0.0834	0.0834	0.250	39.0	18.4	57.4	61	1860	0.8222	0.9115	1.1421
Swanate	4	7/1	0.0772	0.1029	0.1029	0.257	39.0	28.0	67.0	61	2360	0.8245	0.9014	1.1562
Sparrow	2	6/1	0.1052	0.1052	0.1050	0.316	62.0	29.3	91.3	61	2850	0.5183	0.5748	0.7370
Sparate	2	7/1	0.0974	0.1299	0.1299	0.325	62.0	44.7	106.7	61	3640	0.5192	0.5680	0.7437
Robin	1	6/1	0.1181	0.1181	0.1181	0.354	78.2	36.9	115.1	61	3550	0.4106	0.4557	0.5924
Raven	1/0	6/1	0.1327	0.1327	0.1327	0.398	98.7	46.6	145.3	61	4380	0.3254	0.3616	0.4765
Quail	2/0	6/1	0.1489	0.1489	0.1489	0.447	124.3	58.7	183.0	61	5300	0.2586	0.2872	0.3860
Pigeon	3/0	6/1	0.1672	0.1672	0.1672	0.502	156.7	74.0	230.7	61	6620	0.2046	0.2280	0.3129
Penguin	4/0	6/1	0.1878	0.1878	0.1878	0.563	197.7	93.4	291.1	61	8350	0.1624	0.1816	0.2547
Waxwing	266.8	18/1	0.1217	0.1217	0.1217	0.609	250.3	39.2	289.5	61	6880	0.1290	0.1460	0.1726
Partridge	266.8	26/7	0.1013	0.0788	0.2364	0.642	251.7	115.6	367.2	61	11130	0.1304	0.1445	0.1708
Ostrich	300.0	26/7	0.1074	0.0835	0.2505	0.680	282.9	129.8	412.7	61	12700	0.1155	0.1285	0.1519
Merlin	336.4	18/1	0.1367	0.1367	0.1367	0.683	315.8	49.5	365.2	61	8680	0.1028	0.1157	0.1368
Linnet	336.4	26/7	0.1137	0.1137	0.2642	0.720	317.1	145.4	462.5	61	14100	0.1031	0.1124	0.1355
Oriole	336.4	30/7	0.1059	0.1059	0.3177	0.741	318.2	208.9	527.1	61	17800	0.1034	0.1138	0.1346
Chickadee	397.5	18/1	0.1486	0.1486	0.1486	0.743	373.1	58.5	431.6	61	9940	0.0871	0.0981	0.1159
Brant	397.5	24/7	0.1287	0.0858	0.2574	0.772	375.0	137.0	512.0	61	14500	0.0873	0.0976	0.1152
Ibis	397.5	25/7	0.1236	0.0961	0.2882	0.783	374.7	171.9	546.6	61	16300	0.0874	0.0972	0.1148
Lark	397.5	30/7	0.1151	0.1151	0.3453	0.806	375.8	246.8	622.6	61	20300	0.0878	0.0965	0.1141
Pelican	477.0	18/1	0.1628	0.1628	0.1628	0.814	447.8	70.2	518.0	61	11800	0.0722	0.0819	0.0966
Flicker	477.0	24/7	0.1410	0.0940	0.2820	0.846	450.1	164.4	514.5	61	17200	0.0728	0.0813	0.0960
Hawk	477.0	26/7	0.1354	0.1053	0.3159	0.858	449.6	205.4	656.0	61	19500	0.0728	0.0809	0.0956

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application
Used for overhead distribution and transmission

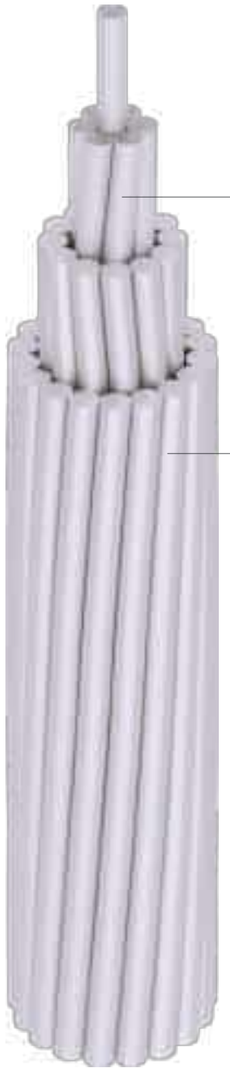
Specification
ASTM B232
(Other specifications are available upon request)

Construction
- Inner Laying
  Solid or Stranded Galvanized Steel Wire.
- Outer Laying
  Stranded All Aluminium Conductor (AAC)

Classification
Bare Conductor

ACSR / AS

Aluminium Conductor Aluminium Clad Steel Reinforced



Application

Used for overhead distribution and transmission

Specification

IEC 61089, SPLN T3.001-1 ; 2015
(Other specifications are available upon request)

Construction

- Inner Laying
  Solid or Stranded Aluminium Clad Steel Wire.
- Outer Laying
  Stranded All Aluminium Conductor (AAC)

Classification

Bare Conductor

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES			
Cross Sectional Area		No. of Wire		Approx. Overall Diameter	Approx. Net Weight	DC. Resistance at 20ºC	Current Carrying Capacity	Calculated Breaking Force	Standard Length
Nominal Size	Actual Size	Al	Steel						
mm²	mm²	pcs	pcs	mm	kg/km	ohm/km	A	kN	m
16	15.4/2.60	6/1.81	1/1.80	5.43	59	1.7923	148	5.9	2,000
25	24.1/4.0	6/2.26	1/2.26	6.78	92	1.1471	197	9.00	2,000
40	37.3/6.4	6/2.85	1/2.85	8.55	147	0.7169	266	12.41	2,000
63	60.4/10.1	6/3.58	1/3.58	10.74	232	0.4552	356	21.17	2,000
100	95.9/16.0	6/4.51	1/4.51	13.53	368	0.2868	479	31.84	2,000
125	123.0/6.8	18/2.95	7/2.95	14.75	384	0.2304	548	29.18	2,000
125	120.6/19.6	26/2.43	7/1.89	15.39	464	0.2308	554	44.49	2,000
160	157.7/8.8	18/3.34	1/3.34	16.70	492	0.1800	642	36.38	2,000
160	153.3/24.9	26/2.76	7/2.13	17.35	589	0.1803	649	56.18	2,000
200	197.7/11.0	18/3.74	1/3.74	18.70	617	0.1400	742	43.62	2,000
200	192.5/31.4	26/3.07	7/2.39	19.45	740	0.1443	749	69.72	2,000
250	244.3/24.0	22/3.76	7/2.67	21.31	818	0.1153	860	67.80	2,000
250	240.2/39.2	26/3.43	7/2.67	21.73	924	0.1154	865	86.58	2,000
315	309.7/21.3	45/2.96	7/1.97	23.67	998	0.0917	994	78.33	2,000
315	302.7/49.2	26/3.85	7/2.99	24.37	1,163	0.0916	1,003	107.58	2,000
400	394.3/27.1	45/3.34	7/2.22	26.70	1,270	0.0722	1,158	97.50	2,000
400	386.8/50.1	54/3.02	7/3.02	27.18	1,402	0.0723	1,163	124.20	2,000
450	442.9/30.6	45/3.54	7/2.36	28.32	1,428	0.0642	1,247	107.48	2,000
450	437.0/56.6	54/3.21	7/3.21	28.89	1,584	0.0642	1,255	139.72	2,000
500	491.7/34.1	45/3.73	7/2.49	29.85	1,586	0.0578	1,333	119.42	1,000
500	484.5/62.8	54/3.38	7/3.38	30.42	1,756	0.0578	1,341	153.99	1,000
560	551.4/38.0	45/3.95	7/2.63	31.59	1,778	0.0516	1,431	133.75	1,000
560	543.6/69.0	54/3.58	19/2.15	32.23	1,969	0.0516	1,440	169.36	1,000
630	620.5/42.8	45/4.19	7/2.79	33.51	2,000	0.0458	1,541	150.47	1,000
630	609.2/77.6	54/3.79	19/2.28	34.14	2,208	0.0459	1,548	190.52	1,000
710	696.7/48.2	45/4.44	7/2.96	35.52	2,247	0.0407	1,657	169.57	1,000
710	688.8/87.4	54/4.03	19/2.42	36.28	2,495	0.0407	1,667	214.72	1,000
800	791.0/34.1	72/3.74	7/2.49	29.91	2,425	0.0361	1,777	167.67	1,000
800	785.2/65.4	84/3.45	7/3.45	37.95	2,553	0.0362	1,783	206.37	1,000
800	776.9/98.6	54/4.28	19/2.57	38.53	2,814	0.0361	1,793	241.94	1,000
900	891.3/38.6	72/3.97	7/2.65	31.77	2,734	0.0321	1,907	188.63	500
900	883.8/73.6	84/3.66	7/3.66	40.26	2,873	0.0321	1,915	224.82	500
1000	988.0/42.8	72/4.18	7/2.79	33.45	3,031	0.0289	2,027	209.59	500
1120	1109.8/46.8	72/4.43	19/1.77	35.43	3,306	0.0258	2,164	233.48	500
1120	1098.2/89.6	84/4.08	19/2.48	44.89	3,648	0.0258	2,173	282.88	500
1250	1238.6/52.2	72/4.68	19/1.87	37.43	3,690	0.0231	2,301	260.58	500
1250	1225.5/100.1	84/4.31	19/2.59	47.43	4,072	0.0231	2,311	315.72	500

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, NFA2X-T

Aerial Bundled Conductor, Twisted Cable

Messenger :
All Alloy Aluminium Conductor (AAAC) or
Aluminium Conductor Steel Reinforced

Messenger :
XLPE Insulated

Phase :
All Aluminium Conductor (AAC)

Phase :
XLPE Insulated

Application

Bundle conductor for overhead distribution network with and without public lighting. (between pole to pole)

Specification

SPLN 42-10 ; 1993, SPLN D3.010-1
(Other specifications are available upon request)

Classification

Low Voltage Cable

Construction

- Conductor
  Phase : Stranded All Aluminium conductor (AAC)
  Neutral/Messenger : Stranded All Aluminium Alloy Conductor (AAAC) or Aluminium Conductor Steel Reinforced
- Insulation
  Extrude of XLPE, capable for continous operation at maximum cable's temperature.

0.6/1 (1.2) kV, NFA2X-T

Aerial Bundled Conductor, Twisted Cable

PHYSICAL PROPERTIES

Cable Size	Number / Diameter			Insulation Thickness			Approx Diameter			Approx. Twisted Diameter	Approx. Net Weight
	Phasa	Neutral	Lighting	Phasa	Neutral	Lighting	Phasa	Neutral	Lighting		
mm²	pcs/mm	pcs/mm	pcs/mm	mm	mm	mm	mm	mm	mm	mm	kg/m
2x25+25	7/2.13	7/2.13	-	1.40	1.40	-	9.29	9.29	-	19.00	326
2x35+25	7/2.52	7/2.13	-	1.60	1.40	-	10.86	9.29	-	22.00	408
2x50+35	7/3.02	7/2.52	-	1.60	1.60	-	12.36	10.86	-	25.00	555
2x70+50	19/2.17	7/3.02	-	1.80	1.60	-	14.55	12.36	-	30.00	750
2x95+70	19/2.52	19/2.17	-	2.00	1.80	-	16.70	14.55	-	34.00	1,002
3x25+25	7/2.13	7/2.13	-	1.40	1.40	-	9.29	9.29	-	21.00	434
3x35+25	7/2.52	7/2.13	-	1.60	1.40	-	10.86	9.29	-	24.00	558
3x50+35	7/3.02	7/2.52	-	1.60	1.60	-	12.36	10.86	-	27.00	758
3x70+50	19/2.17	7/3.02	-	1.80	1.60	-	14.55	12.36	-	32.00	1,024
3x95+70	19/2.52	19/2.17	-	2.00	1.80	-	16.70	14.55	-	37.00	1,366
3x25+25+2x16	7/2.13	7/2.13	7/1.71	1.400	1.40	1.20	9.29	9.29	7.63	26.52	578
3x35+25+2x16	7/2.52	7/2.13	7/1.71	1.600	1.40	1.20	10.86	9.29	7.63	31.01	702
3x50+35+2x16	7/3.02	7/2.52	7/1.71	1.600	1.60	1.20	12.36	10.86	7.63	35.29	902
3x70+50+2x16	19/2.17	7/3.02	7/1.71	1.800	1.60	1.20	14.55	12.36	7.63	41.54	1,167
3x95+70+2x16	19/2.52	19/2.17	7/1.71	2.000	1.80	1.20	16.70	14.55	7.63	47.68	1,510
3x25+25+1x16	7/2.13	7/2.13	7/1.71	1.400	1.40	1.20	9.29	9.29	7.63	25.09	506
3x35+25+1x16	7/2.52	7/2.13	7/1.71	1.600	1.40	1.20	10.86	9.29	7.63	29.33	630
3x50+35+1x16	7/3.02	7/2.52	7/1.71	1.600	1.60	1.20	12.36	10.86	7.63	33.38	830
3x70+50+1x16	19/2.17	7/3.02	7/1.71	1.800	1.60	1.20	14.55	12.36	7.63	39.30	1,096
3x95+70+1x16	19/2.52	19/2.17	7/1.71	2.000	1.80	1.20	16.70	14.55	7.63	45.11	1,438
SPLN D3.010-1											
2x35+35	7/2.52	Al6/2.73;St1/2.73	-	1.60	1.50	-	10.860	11.290	-	24.03	497
2x50+50	7/3.02	Al6/3.26;St1/3.26	-	1.60	1.60	-	12.360	13.080	-	27.89	679
2x70+70	19/2.17	Al6/3.85;St1/3.85	-	1.80	1.60	-	14.550	14.850	-	31.70	915
3x35+35	7/2.52	Al6/2.73;St1/2.73	-	1.60	1.50	-	10.860	11.290	-	26.92	647
3x50+50	7/3.02	Al6/3.26;St1/3.26	-	1.60	1.60	-	12.360	13.080	-	31.24	882
3x70+70	19/2.17	Al6/3.85;St1/3.85	-	1.80	1.60	-	14.550	14.850	-	35.51	1,189
3x95+95	19/2.52	Al6/2.16;St1/1.68	-	1.80	1.60	-	16.300	16.980	-	40.51	1,544
3x120+95	19/2.84	Al6/2.16;St1/1.68	-	1.80	1.60	-	17.900	16.980	-	42.85	1,793

**Further information about derating factors for arrangement can be found on supplementary technical information.*

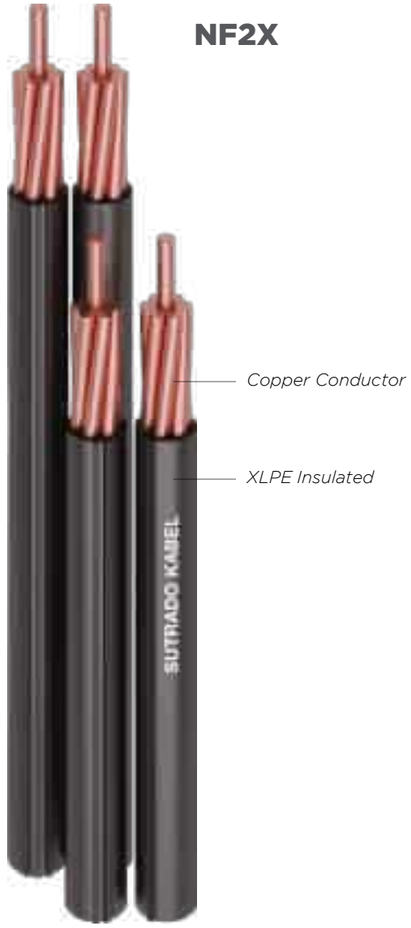
ELECTRICAL PROPERTIES

Cable Size	Conductor Resistance at 20°C			Current Carrying Capacity at 35°C		Calculated Breaking Force	Lay Length	
	Phase	Neutral/ Messenger	Public Lighting	Phase	Public Lighting		Minimum	Maximum
mm²	ohm/km	ohm/km	ohm/km	A	A	kg	cm	cm
2x25+25	1.200	1.380	-	103	-	712	32	65
2x35+25	0.868	1.380	-	125	-	712	36	73
2x50+35	0.641	0.986	-	154	-	997	41	82
2x70+50	0.443	0.690	-	196	-	1,395	50	100
2x95+70	0.320	0.450	-	242	-	1,932	55	110
3x25+25	1.200	1.380	-	103	-	712	36	73
3x35+25	0.868	1.380	-	125	-	712	41	81
3x50+35	0.641	0.986	-	154	-	997	46	91
3x70+50	0.443	0.690	-	196	-	1,395	56	112
3x95+70	0.320	0.450	-	242	-	1,932	63	125
3x25+25+2x16	1.200	1.200	1.910	103	72	712	36	73
3x35+25+2x16	0.868	1.200	1.910	125	72	712	41	81
3x50+35+2x16	0.641	0.868	1.910	154	72	997	46	91
3x70+50+2x16	0.443	0.641	1.910	196	72	1,395	56	112
3x95+70+2x16	0.320	0.450	1.910	242	72	1,932	63	125
3x25+25+1x16	1.200	1.200	1.910	103	72	712	36	73
3x35+25+1x16	0.868	1.200	1.910	125	72	712	41	81
3x50+35+1x16	0.641	0.868	1.910	154	72	997	46	91
3x70+50+1x16	0.443	0.641	1.910	196	72	1,395	56	112
3x95+70+1x16	0.320	0.450	1.910	242	72	1,932	63	125
SPLN D3.010-1								
2x35+35	0.868	0.836	-	125	-	1,285	36	73
2x50+50	0.641	0.585	-	154	-	1,369	41	82
2x70+70	0.443	0.418	-	196	-	2,450	50	100
3x35+35	0.868	0.836	-	125	-	1,285	41	81
3x50+50	0.641	0.585	-	154	-	1,369	56	91
3x70+70	0.443	0.418	-	196	-	2,450	56	112
3x95+95	0.320	0.308	-	242	-	3,589	63	125
3x120+95	0.253	0.308	-	296	-	3,589	72	144

**Further information about derating factors for arrangement can be found on supplementary technical information.*

0.6/1 (1.2) kV, NF2X / NFA2X

Aerial Bundled Conductor, Twisted Cable



PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES		
Cable Size	Insulation Thickness	Approx. Twisted Diameter	Approx. Net. Weight	Max. Conductor Resistance at 20°C	Current Carrying Capacity at 35°C	Calculated Breaking Force	Standard Length
mm^2	mm	mm	kg/km	ohm/km	A	kg	m
NF2X (COPPER CONDUCTOR)							
2x6 rm	1.2	13.0	136	3.080	54	394	2,000
2x10 rm	1.2	14.0	211	1.830	73	656	2,000
2x16 rm	1.2	16.0	334	1.150	97	1,051	1,000
4x6 rm	1.2	15.7	258	3.080	54	788	1,000
4x10 rm	1.2	17.0	422	1.830	73	1,312	1,000
4x16 rm	1.2	19.0	664	1.150	97	2,102	1,000
4x25 rm	1.4	24.0	1,008	0.727	133	3,284	1,000
NFA2X (ALL ALUMINIUM CONDUCTOR)							
2x10 rm	1.2	14.0	94	3.080	54	328	2,000
2x16 rm	1.2	16.0	138	1.910	72	525	1,000
4x10 rm	1.2	17.0	187	3.080	54	657	1,000
4x16 rm	1.2	19.0	272	1.910	72	1050	1,000
4x25 rm	1.4	24.0	423	1.200	102	1642	1,000
4x35 rm	1.6	27.0	564	0.868	125	2294	1,000

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

Bundle conductor for overhead distribution network without and with public lighting. (between pole to pole)

Specification

SPLN D3.010-1 ; 2014, SPLN 42-10
(Other specifications are available upon request)

Construction

- Conductor
  NF2X : Stranded Copper Conductor
  NFA2X : Stranded All Aluminium Conductor (AAC)
- Insulation
  Extrude of XLPE.

Classification

Low Voltage Cable

SUTRADO
KABEL

COPPER MEDIUM VOLTAGE POWER CABLES

N2XSY (Cu / XLPE / CTS / PVC)

(Copper Conductor, XLPE Insulated, Copper Tape Screen, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

Copper Conductor
Conductor Screen
XLPE Insulation
Insulation Screen
Copper Tape Screen
Non-Hygroscopic Tape
Red PVC Outer Sheath

Application

For power station and switchgear as well as station because of small bending radius in confined spaces indoors. As underground because of light weight where installation conditions are difficult.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen

Note : Conductor Shape

- 35 - 630 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 35 - 300 sqmm supplied in wooden drum @ 1000 meters
- 400 - 630 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area	Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Conductor Max. AC Resistance at 90 °C	L	X	C	Z	Max. Current - Carrying Capacity at 30 °C in air	Max. Current - Carrying Capacity at 30 °C in ground	Max. Short Circuit current at 1 second
	mm²	mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	1 x 35	19.00	631	0.524	0.668	0.573	0.180	0.287	0.668	233	189	5.01
	1 x 50	19.90	737	0.387	0.494	0.558	0.175	0.312	0.494	278	222	7.15
	1 x 70	21.80	976	0.268	0.342	0.534	0.168	0.363	0.342	350	273	10.02
	1 x 95	23.40	1,226	0.193	0.247	0.517	0.163	0.409	0.247	429	327	13.59
	1 x 120	24.80	1,462	0.153	0.196	0.506	0.159	0.447	0.196	495	372	17.17
	1 x 150	26.20	1,709	0.124	0.159	0.496	0.156	0.484	0.159	564	418	21.46
	1 x 185	27.70	2,013	0.099	0.127	0.487	0.153	0.526	0.127	648	472	26.47
	1 x 240	30.50	2,588	0.075	0.097	0.478	0.150	0.572	0.097	769	548	34.34
	1 x 300	33.20	3,157	0.060	0.078	0.473	0.149	0.588	0.078	883	618	42.93
	1 x 400	38.00	4,046	0.047	0.062	0.475	0.149	0.634	0.062	1028	704	57.23
	1 x 500	41.70	5,096	0.037	0.049	0.468	0.147	0.665	0.049	1191	800	71.54
	1 x 630	45.40	6,391	0.028	0.039	0.460	0.144	0.740	0.039	1377	904	90.14
6/10 (12) kV	1 x 35	20.80	696	0.524	0.668	0.591	0.186	0.228	0.668	234	188	5.01
	1 x 50	21.70	803	0.387	0.494	0.576	0.181	0.246	0.494	279	222	7.15
	1 x 70	23.60	1,048	0.268	0.342	0.550	0.173	0.284	0.342	351	273	10.02
	1 x 95	25.20	1,302	0.193	0.247	0.532	0.167	0.318	0.247	429	327	13.59
	1 x 120	26.60	1,541	0.153	0.196	0.520	0.163	0.347	0.196	495	372	17.17
	1 x 150	28.00	1,793	0.124	0.159	0.510	0.160	0.374	0.159	564	417	21.46
	1 x 185	29.70	2,114	0.099	0.127	0.501	0.157	0.405	0.127	646	471	26.47
	1 x 240	32.30	2,687	0.075	0.097	0.489	0.154	0.454	0.097	766	547	34.34
	1 x 300	34.40	3,225	0.060	0.078	0.480	0.151	0.497	0.078	881	618	42.93
	1 x 400	39.00	4,115	0.047	0.062	0.480	0.151	0.568	0.062	1025	704	57.23
	1 x 500	42.10	5,124	0.037	0.049	0.470	0.148	0.631	0.049	1190	799	71.54
	1 x 630	46.00	6,443	0.028	0.039	0.462	0.145	0.701	0.039	1373	903	90.14
8.7/15 (17.5) kV	1 x 35	23.00	781	0.524	0.668	0.611	0.192	0.186	0.668	234	188	5.01
	1 x 50	23.90	891	0.387	0.494	0.595	0.187	0.200	0.494	279	222	7.15
	1 x 70	25.80	1,142	0.268	0.342	0.568	0.178	0.230	0.342	351	272	10.02
	1 x 95	27.40	1,402	0.193	0.247	0.549	0.172	0.256	0.247	429	326	13.59
	1 x 120	29.00	1,659	0.153	0.196	0.537	0.169	0.277	0.196	494	371	17.17
	1 x 150	30.40	1,915	0.124	0.159	0.526	0.165	0.298	0.159	562	416	21.46
	1 x 185	32.10	2,244	0.099	0.127	0.517	0.162	0.322	0.127	644	470	26.47
	1 x 240	34.70	2,827	0.075	0.097	0.504	0.158	0.360	0.097	763	546	34.34
	1 x 300	36.80	3,372	0.060	0.078	0.493	0.155	0.392	0.078	877	617	42.93
	1 x 400	41.20	4,260	0.047	0.062	0.491	0.154	0.446	0.062	1019	702	57.23
	1 x 500	44.50	5,300	0.037	0.049	0.481	0.151	0.494	0.049	1181	798	71.54
	1 x 630	48.20	6,612	0.028	0.039	0.472	0.148	0.547	0.039	1365	902	90.14
12/20 (24) kV	1 x 35	25.00	864	0.524	0.668	0.628	0.197	0.162	0.668	234	188	5.01
	1 x 50	25.90	978	0.387	0.494	0.611	0.192	0.174	0.494	279	221	7.15
	1 x 70	27.80	1,234	0.268	0.342	0.583	0.183	0.198	0.342	351	272	10.02
	1 x 95	29.60	1,512	0.193	0.247	0.564	0.177	0.220	0.247	428	326	13.59
	1 x 120	31.00	1,760	0.153	0.196	0.550	0.173	0.238	0.196	493	370	17.17
	1 x 150	32.60	2,036	0.124	0.159	0.540	0.170	0.255	0.159	560	416	21.46
	1 x 185	34.10	2,355	0.099	0.127	0.529	0.166	0.275	0.127	642	469	26.47
	1 x 240	36.70	2,945	0.075	0.097	0.515	0.162	0.306	0.097	760	545	34.34
	1 x 300	39.00	3,515	0.060	0.078	0.505	0.159	0.332	0.078	872	615	42.93
	1 x 400	43.40	4,419	0.047	0.062	0.501	0.158	0.377	0.062	1012	701	57.23
	1 x 500	46.70	5,471	0.037	0.049	0.490	0.154	0.416	0.049	1173	796	71.54
	1 x 630	50.40	6,795	0.028	0.039	0.480	0.151	0.460	0.039	1356	901	90.14
18/30 (36) kV	1 x 35	30.20	1,113	0.524	0.668	0.666	0.209	0.128	0.668	234	187	5.01
	1 x 50	31.30	1,248	0.387	0.494	0.649	0.204	0.136	0.494	279	221	7.15
	1 x 70	33.20	1,520	0.268	0.342	0.618	0.194	0.154	0.342	349	271	10.02
	1 x 95	35.00	1,814	0.193	0.247	0.598	0.188	0.169	0.247	425	325	13.59
	1 x 120	36.40	2,074	0.153	0.196	0.582	0.183	0.181	0.196	489	369	17.17
	1 x 150	38.00	2,364	0.124	0.159	0.571	0.179	0.194	0.159	555	414	21.46
	1 x 185	39.50	2,695	0.099	0.127	0.558	0.175	0.207	0.127	635	468	26.47
	1 x 240	42.10	3,308	0.075	0.097	0.542	0.170	0.229	0.097	751	543	34.34
	1 x 300	44.40	3,898	0.060	0.078	0.531	0.167	0.248	0.078	861	613	42.93
	1 x 400	48.80	4,840	0.047	0.062	0.525	0.165	0.279	0.062	997	698	57.23
	1 x 500	52.10	5,920	0.037	0.049	0.512	0.161	0.306	0.049	1155	793	71.54
	1 x 630	55.80	7,275	0.028	0.039	0.501	0.157	0.336	0.039	1333	897	90.14

**Further information about derating factors for arrangement can be found on supplementary technical information.*

N2XSEY (Cu / XLPE / CTS / PVC)

(Copper Conductor, XLPE Insulated, Copper Tape Screen, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Copper Conductor
Conductor Screen
XLPE Insulation
ID Tape (Red, Yellow, Black)
Insulation Screen
Copper Tape Screen
PVC Inner Sheath (Fully Extruded)
Red PVC Outer Sheath

Application
Indoors, cable trunking, outdoors and in ground; For power stations, industry and switchgear.

Special Features on Request
- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape
- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing
- 35 - 95 sqmm supplied in wooden drum @ 1000 meters
- 120 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit current at 1 second
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/kM	A	A	kA
3.6/6 (7.2) kV	3	x	35	40.30	2,548	0.524	0.668	0.344	0.108	0.209	0.677	190	176	5.01
	3	x	50	42.80	2,996	0.387	0.494	0.331	0.104	0.229	0.505	224	205	7.15
	3	x	70	47.00	3,892	0.268	0.342	0.311	0.098	0.269	0.356	277	249	10.01
	3	x	95	50.80	4,817	0.193	0.247	0.297	0.093	0.304	0.264	334	297	13.59
	3	x	120	54.40	5,745	0.153	0.196	0.288	0.090	0.334	0.216	381	335	17.16
	3	x	150	57.50	6,660	0.124	0.160	0.280	0.088	0.363	0.182	430	374	21.45
	3	x	185	61.00	7,775	0.099	0.128	0.273	0.086	0.395	0.154	489	421	26.46
	3	x	240	67.10	9,845	0.075	0.099	0.265	0.083	0.435	0.129	574	487	34.32
	3	x	300	73.30	11,987	0.060	0.080	0.261	0.082	0.456	0.114	653	547	42.90
	3	x	400	83.80	15,402	0.047	0.064	0.259	0.081	0.460	0.103	753	621	57.20
6/10 (12) kV	3	x	35	44.70	2,942	0.524	0.668	0.366	0.115	0.176	0.678	195	177	5.01
	3	x	50	46.90	3,363	0.387	0.494	0.352	0.111	0.192	0.506	230	208	7.15
	3	x	70	51.10	4,289	0.268	0.342	0.330	0.104	0.224	0.357	285	252	10.01
	3	x	95	55.40	5,328	0.193	0.247	0.315	0.099	0.252	0.266	341	299	13.59
	3	x	120	58.70	6,226	0.153	0.196	0.304	0.095	0.275	0.218	390	338	17.16
	3	x	150	61.80	7,166	0.124	0.160	0.296	0.093	0.298	0.184	439	378	21.45
	3	x	185	65.30	8,309	0.099	0.128	0.287	0.090	0.324	0.156	498	425	26.46
	3	x	240	71.10	10,409	0.075	0.099	0.277	0.087	0.364	0.131	582	490	34.32
	3	x	300	76.10	12,393	0.060	0.080	0.269	0.084	0.399	0.116	660	550	42.90
	3	x	400	85.50	15,680	0.047	0.064	0.264	0.083	0.424	0.104	759	623	57.20
8.7/15 (17.5) kV	3	x	35	49.90	3,430	0.524	0.668	0.390	0.123	0.151	0.679	202	180	5.01
	3	x	50	52.00	3,871	0.387	0.494	0.375	0.118	0.163	0.508	238	210	7.15
	3	x	70	56.60	4,897	0.268	0.342	0.351	0.110	0.189	0.359	292	255	10.01
	3	x	95	60.40	5,890	0.193	0.247	0.334	0.105	0.211	0.268	351	303	13.59
	3	x	120	63.60	6,818	0.153	0.196	0.323	0.101	0.230	0.220	400	342	17.16
	3	x	150	66.70	7,786	0.124	0.160	0.313	0.098	0.248	0.187	450	382	21.45
	3	x	185	70.60	9,034	0.099	0.128	0.304	0.095	0.269	0.159	509	429	26.46
	3	x	240	76.30	11,149	0.075	0.099	0.292	0.092	0.301	0.134	594	494	34.32
	3	x	300	81.20	13,180	0.060	0.080	0.283	0.089	0.329	0.119	672	555	42.90
	3	x	400	90.60	16,556	0.047	0.064	0.277	0.087	0.352	0.107	772	629	57.20
12/20 (24) kV	3	x	35	54.80	3,952	0.524	0.668	0.410	0.129	0.135	0.681	206	181	5.01
	3	x	50	57.00	4,414	0.387	0.494	0.394	0.124	0.146	0.509	242	212	7.15
	3	x	70	61.20	5,419	0.268	0.342	0.368	0.116	0.167	0.361	298	257	10.01
	3	x	95	65.10	6,473	0.193	0.247	0.350	0.110	0.187	0.270	357	305	13.59
	3	x	120	68.30	7,429	0.153	0.196	0.338	0.106	0.203	0.223	406	344	17.16
	3	x	150	71.90	8,500	0.124	0.160	0.328	0.103	0.218	0.189	455	384	21.45
	3	x	185	75.30	9,708	0.099	0.128	0.318	0.100	0.235	0.162	516	431	26.46
	3	x	240	81.00	11,871	0.075	0.099	0.304	0.096	0.263	0.137	601	497	34.32
	3	x	300	85.70	13,905	0.060	0.080	0.295	0.093	0.287	0.122	681	559	42.90
	3	x	400	95.60	17,459	0.047	0.064	0.288	0.090	0.307	0.110	779	632	57.20
18/30 (36) kV	3	x	35	66.40	5,335	0.524	0.668	0.453	0.142	0.111	0.683	219	186	5.01
	3	x	50	68.60	5,842	0.387	0.494	0.435	0.137	0.119	0.512	257	217	7.15
	3	x	70	73.20	7,013	0.268	0.342	0.406	0.128	0.135	0.365	314	263	10.01
	3	x	95	76.90	8,120	0.193	0.247	0.386	0.121	0.149	0.275	375	312	13.59
	3	x	120	80.30	9,184	0.153	0.196	0.372	0.117	0.161	0.228	425	352	17.16
	3	x	150	83.50	10,248	0.124	0.160	0.360	0.113	0.172	0.195	477	392	21.45
	3	x	185	86.90	11,530	0.099	0.128	0.349	0.109	0.184	0.168	539	441	26.46
	3	x	240	92.40	13,770	0.075	0.099	0.333	0.105	0.204	0.143	627	508	34.32
	3	x	300	97.70	16,050	0.060	0.080	0.322	0.101	0.222	0.128	706	569	42.90
	3	x	400	107.20	19,713	0.047	0.064	0.313	0.098	0.239	0.116	808	645	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

N2XSEbY (Cu / XLPE / CTS / PVC / DSTA / PVC)

(Copper Conductor, XLPE Insulated, Copper Tape Screen, PVC Inner Sheathed, Double Steel Tape Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Copper Conductor
Conductor Screen
XLPE Insulation
ID Tape (Red, Yellow & Black)
Insulation Screen
Copper Tape Screen
PVC Inner Sheat (Fully Extrude)
Galvanized Steel Tape Armor
Red PVC Outer Sheath

Application
For installation indoor, in ground direct burried, for power station and switchgear, if there is a risk that low mechanical damage may occur.

Special Features on Request
- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape
- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing
- 35 - 70 sqmm supplied in wooden drum @ 1000 meters
- 95 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in Air	in Ground	
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	3	x	35	42.30	3,212	0.524	0.668	0.338	0.106	0.214	0.677	191	176	5.01
	3	x	50	44.80	3,701	0.387	0.494	0.326	0.102	0.234	0.504	225	205	7.15
	3	x	70	49.20	4,691	0.268	0.342	0.306	0.096	0.275	0.355	278	250	10.01
	3	x	95	53.00	5,682	0.193	0.247	0.293	0.092	0.312	0.263	335	297	13.59
	3	x	120	56.60	6,672	0.153	0.196	0.284	0.089	0.343	0.215	382	335	17.16
	3	x	150	59.70	7,640	0.124	0.160	0.276	0.087	0.372	0.181	431	375	21.45
	3	x	185	63.20	8,816	0.099	0.128	0.269	0.085	0.406	0.153	490	421	26.46
	3	x	240	69.30	10,989	0.075	0.099	0.262	0.082	0.447	0.128	575	487	34.32
	3	x	300	75.50	13,238	0.060	0.080	0.258	0.081	0.467	0.113	653	547	42.90
	3	x	400	87.20	17,674	0.047	0.064	0.257	0.081	0.470	0.102	757	622	57.20
6/10 (12) kV	3	x	35	47.00	3,703	0.524	0.668	0.361	0.113	0.179	0.678	196	177	5.01
	3	x	50	49.10	4,160	0.387	0.494	0.348	0.109	0.195	0.506	231	208	7.15
	3	x	70	53.30	5,160	0.268	0.342	0.326	0.102	0.228	0.357	286	252	10.01
	3	x	95	57.50	6,244	0.193	0.247	0.311	0.098	0.256	0.265	343	299	13.59
	3	x	120	60.70	7,196	0.153	0.196	0.301	0.094	0.281	0.217	391	339	17.16
	3	x	150	63.80	8,188	0.124	0.160	0.292	0.092	0.304	0.184	441	378	21.45
	3	x	185	67.30	9,389	0.099	0.128	0.284	0.089	0.330	0.156	500	425	26.46
	3	x	240	73.30	11,623	0.075	0.099	0.274	0.086	0.372	0.130	583	490	34.32
	3	x	300	78.30	13,691	0.060	0.080	0.266	0.084	0.408	0.115	661	550	42.90
	3	x	400	88.90	18,001	0.047	0.064	0.262	0.082	0.432	0.104	762	625	57.20
8.7/15 (17.5) kV	3	x	35	52.10	4,279	0.524	0.668	0.386	0.121	0.153	0.679	203	180	5.01
	3	x	50	54.30	4,756	0.387	0.494	0.371	0.117	0.165	0.507	239	210	7.15
	3	x	70	58.90	5,862	0.268	0.342	0.347	0.109	0.191	0.359	293	255	10.01
	3	x	95	62.60	6,920	0.193	0.247	0.331	0.104	0.214	0.268	352	303	13.59
	3	x	120	65.80	7,903	0.153	0.196	0.319	0.100	0.234	0.220	401	342	17.16
	3	x	150	69.00	8,924	0.124	0.160	0.310	0.097	0.252	0.186	451	382	21.45
	3	x	185	72.80	10,240	0.099	0.128	0.301	0.094	0.273	0.159	510	429	26.46
	3	x	240	78.50	12,451	0.075	0.099	0.289	0.091	0.306	0.133	594	494	34.32
	3	x	300	84.60	15,392	0.060	0.080	0.281	0.088	0.334	0.118	676	556	42.90
	3	x	400	94.10	19,015	0.047	0.064	0.274	0.086	0.357	0.107	775	630	57.20
12/20 (24) kV	3	x	35	57.00	4,887	0.524	0.668	0.406	0.128	0.136	0.680	208	182	5.01
	3	x	50	59.20	5,385	0.387	0.494	0.391	0.123	0.147	0.509	244	212	7.15
	3	x	70	63.40	6,462	0.268	0.342	0.365	0.115	0.169	0.361	300	258	10.01
	3	x	95	67.10	7,551	0.193	0.247	0.347	0.109	0.189	0.270	360	306	13.59
	3	x	120	70.40	8,560	0.153	0.196	0.335	0.105	0.205	0.222	409	346	17.16
	3	x	150	74.10	9,725	0.124	0.160	0.325	0.102	0.221	0.189	458	385	21.45
	3	x	185	77.60	10,993	0.099	0.128	0.315	0.099	0.238	0.161	519	432	26.46
	3	x	240	84.40	14,077	0.075	0.099	0.302	0.095	0.266	0.136	607	499	34.32
	3	x	300	89.20	16,241	0.060	0.080	0.293	0.092	0.290	0.121	687	561	42.90
	3	x	400	99.20	20,101	0.047	0.064	0.286	0.090	0.311	0.109	784	634	57.20
18/30 (36) kV	3	x	35	68.60	6,468	0.524	0.668	0.450	0.141	0.111	0.683	220	186	5.01
	3	x	50	70.80	7,011	0.387	0.494	0.432	0.136	0.119	0.512	258	218	7.15
	3	x	70	75.40	8,261	0.268	0.342	0.404	0.127	0.136	0.365	314	263	10.01
	3	x	95	79.10	9,433	0.193	0.247	0.383	0.120	0.150	0.274	376	312	13.59
	3	x	120	83.80	11,372	0.153	0.196	0.369	0.116	0.162	0.227	428	352	17.16
	3	x	150	86.90	12,521	0.124	0.160	0.358	0.112	0.173	0.195	480	393	21.45
	3	x	185	90.40	13,897	0.099	0.128	0.346	0.109	0.186	0.167	542	441	26.46
	3	x	240	96.00	16,333	0.075	0.099	0.331	0.104	0.206	0.143	629	509	34.32
	3	x	300	101.20	18,712	0.060	0.080	0.320	0.101	0.224	0.128	709	570	42.90
	3	x	400	110.60	22,621	0.047	0.064	0.311	0.098	0.241	0.116	811	646	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

N2XSERGbY (Cu / XLPE / CTS / PVC / SWA / PVC)

(Copper Conductor, XLPE Insulated, Copper Tape Screen, PVC Inner Sheathed, Steel Wire Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Copper Conductor
Conductor Screen
XLPE Insulation
ID Tape (Red, Yellow & Black)
Insulation Screen
Copper Tape Screen
Polyester Tape
PVC Inner Sheat (Fully Extrude)
Galvanized Steel Wire Armor
Galvanized Steel Tape Armor
Red PVC Outer Sheath

Application
For installation indoor, in ground direct burried, for power station and switchgear, if there is a risk that low mechanical damage may occur.

Special Features on Request
- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape
- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing
- 35 - 70 sqmm supplied in wooden drum @ 1000 meters
- 95 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/kM	A	A	kA
3.6/6 (7.2) kV	3	x	35	45.10	4,063	0.524	0.668	0.338	0.106	0.214	0.677	196	177	5.01
	3	x	50	49.30	5,105	0.387	0.494	0.326	0.102	0.234	0.504	230	206	7.15
	3	x	70	53.50	6,221	0.268	0.342	0.306	0.096	0.275	0.355	282	249	10.01
	3	x	95	57.20	7,326	0.193	0.247	0.293	0.092	0.312	0.263	338	295	13.59
	3	x	120	60.80	8,431	0.153	0.196	0.284	0.089	0.343	0.215	383	330	17.16
	3	x	150	64.00	9,482	0.124	0.160	0.276	0.087	0.372	0.181	428	366	21.45
	3	x	185	67.60	10,806	0.099	0.128	0.269	0.085	0.406	0.153	487	412	26.46
	3	x	240	73.50	13,114	0.075	0.099	0.262	0.082	0.447	0.128	552	457	34.32
	3	x	300	81.20	16,422	0.060	0.080	0.258	0.081	0.467	0.113	615	502	42.90
	3	x	400	92.10	20,626	0.047	0.064	0.257	0.081	0.470	0.102	689	551	57.20
6/10 (12) kV	3	x	35	51.20	5,179	0.524	0.668	0.361	0.113	0.179	0.678	200	178	5.01
	3	x	50	53.30	5,692	0.387	0.494	0.348	0.109	0.195	0.506	236	208	7.15
	3	x	70	57.50	6,801	0.268	0.342	0.326	0.102	0.228	0.357	289	252	10.01
	3	x	95	61.90	8,060	0.193	0.247	0.311	0.098	0.256	0.265	344	296	13.59
	3	x	120	65.10	9,095	0.153	0.196	0.301	0.094	0.281	0.217	389	332	17.16
	3	x	150	68.20	10,210	0.124	0.160	0.292	0.092	0.304	0.184	435	368	21.45
	3	x	185	71.70	11,490	0.099	0.128	0.284	0.089	0.330	0.156	489	409	26.46
	3	x	240	79.10	14,767	0.075	0.099	0.274	0.086	0.372	0.130	557	458	34.32
	3	x	300	84.00	17,031	0.060	0.080	0.266	0.084	0.408	0.115	619	503	42.90
	3	x	400	94.10	21,023	0.047	0.064	0.262	0.082	0.432	0.104	691	551	57.20
8.7/15 (17.5) kV	3	x	35	56.40	5,895	0.524	0.668	0.386	0.121	0.153	0.679	206	181	5.01
	3	x	50	58.50	6,428	0.387	0.494	0.371	0.117	0.165	0.507	242	210	7.15
	3	x	70	63.10	7,675	0.268	0.342	0.347	0.109	0.191	0.359	295	253	10.01
	3	x	95	66.90	8,847	0.193	0.247	0.331	0.104	0.214	0.268	352	299	13.59
	3	x	120	70.10	9,950	0.153	0.196	0.319	0.100	0.234	0.220	398	335	17.16
	3	x	150	73.20	11,053	0.124	0.160	0.310	0.097	0.252	0.186	443	369	21.45
	3	x	185	78.60	13,328	0.099	0.128	0.301	0.094	0.273	0.159	494	408	26.46
	3	x	240	84.20	15,788	0.075	0.099	0.289	0.091	0.306	0.133	565	459	34.32
	3	x	300	89.60	18,383	0.060	0.080	0.281	0.088	0.334	0.118	628	504	42.90
	3	x	400	99.20	22,255	0.047	0.064	0.274	0.086	0.357	0.107	698	551	57.20
12/20 (24) kV	3	x	35	61.50	6,670	0.524	0.668	0.406	0.128	0.136	0.680	211	182	5.01
	3	x	50	63.60	7,263	0.387	0.494	0.391	0.123	0.147	0.509	247	212	7.15
	3	x	70	67.80	8,451	0.268	0.342	0.365	0.115	0.169	0.361	301	255	10.01
	3	x	95	71.60	9,654	0.193	0.247	0.347	0.109	0.189	0.270	358	301	13.59
	3	x	120	74.80	10,746	0.153	0.196	0.335	0.105	0.205	0.222	404	335	17.16
	3	x	150	79.60	12,827	0.124	0.160	0.325	0.102	0.221	0.189	449	370	21.45
	3	x	185	83.30	14,280	0.099	0.128	0.315	0.099	0.238	0.161	501	409	26.46
	3	x	240	89.40	17,072	0.075	0.099	0.302	0.095	0.266	0.136	572	461	34.32
	3	x	300	94.30	19,441	0.060	0.080	0.293	0.092	0.290	0.121	634	504	42.90
	3	x	400	104.10	23,384	0.047	0.064	0.286	0.090	0.311	0.109	704	551	57.20
18/30 (36) kV	3	x	35	72.90	8,600	0.524	0.668	0.450	0.141	0.111	0.683	222	186	5.01
	3	x	50	76.50	10,002	0.387	0.494	0.432	0.136	0.119	0.512	260	216	7.15
	3	x	70	81.10	11,447	0.268	0.342	0.404	0.127	0.136	0.365	314	259	10.01
	3	x	95	84.90	12,763	0.193	0.247	0.383	0.120	0.150	0.274	371	304	13.59
	3	x	120	88.70	14,318	0.153	0.196	0.369	0.116	0.162	0.227	418	339	17.16
	3	x	150	91.80	15,597	0.124	0.160	0.358	0.112	0.173	0.195	464	374	21.45
	3	x	185	95.30	17,096	0.099	0.128	0.346	0.109	0.186	0.167	516	413	26.46
	3	x	240	101.00	19,680	0.075	0.099	0.331	0.104	0.206	0.143	587	463	34.32
	3	x	300	106.30	22,135	0.060	0.080	0.320	0.101	0.224	0.128	650	507	42.90
	3	x	400	115.70	25,741	0.047	0.064	0.311	0.098	0.241	0.116	724	558	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

N2XSRY (Cu / XLPE / CTS / PVC / AWA / PVC)

(Copper Conductor, XLPE Insulated, Copper Tape Screen, PVC Inner Sheathed, Alumunium Wire Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

Copper Conductor
Conductor Screen
XLPE Insulation
Insulation Screen
Copper Tape Screen
Polyester Tape
PVC Inner Sheat (Fully Extrude)
Polyester Tape
Aluminium Wire Armor
Red PVC Outer Sheath

Application

For installation indoor, in ground direct burried, for power station and switchgear, if there is a risk that low mechanical damage may occur.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape

- 35 - 630 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 35 - 70 sqmm supplied in wooden drum @ 1000 meters
- 95 - 630 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	1	x	35	24.70	959	0.524	0.668	0.626	0.197	0.287	0.668	241	191	5.01
	1	x	50	25.60	1,080	0.387	0.494	0.609	0.191	0.312	0.494	288	225	7.15
	1	x	70	27.70	1,359	0.268	0.342	0.582	0.183	0.363	0.342	361	276	10.02
	1	x	95	29.50	1,650	0.193	0.247	0.564	0.177	0.409	0.247	440	331	13.59
	1	x	120	30.90	1,905	0.153	0.196	0.550	0.173	0.447	0.196	508	377	17.17
	1	x	150	32.50	2,188	0.124	0.159	0.540	0.170	0.484	0.159	578	423	21.46
	1	x	185	35.20	2,639	0.099	0.127	0.535	0.168	0.526	0.127	665	479	26.47
	1	x	240	37.80	3,246	0.075	0.097	0.521	0.164	0.572	0.097	789	558	34.34
	1	x	300	40.70	3,890	0.060	0.078	0.514	0.161	0.588	0.078	904	630	42.93
	1	x	400	46.70	5,027	0.047	0.062	0.516	0.162	0.634	0.062	1056	723	57.23
	1	x	500	50.60	6,188	0.037	0.049	0.507	0.159	0.665	0.049	1224	825	71.54
	1	x	630	54.50	7,597	0.028	0.039	0.496	0.156	0.740	0.039	1420	940	90.14
6/10 (12) kV	1	x	35	26.50	1,050	0.524	0.668	0.640	0.201	0.228	0.668	241	191	5.01
	1	x	50	27.60	1,185	0.387	0.494	0.624	0.196	0.246	0.494	287	224	7.15
	1	x	70	29.70	1,472	0.268	0.342	0.596	0.187	0.284	0.342	360	276	10.02
	1	x	95	31.30	1,754	0.193	0.247	0.576	0.181	0.318	0.247	439	331	13.59
	1	x	120	33.90	2,125	0.153	0.196	0.568	0.179	0.347	0.196	508	377	17.17
	1	x	150	35.50	2,421	0.124	0.159	0.557	0.175	0.374	0.159	577	423	21.46
	1	x	185	37.00	2,758	0.099	0.127	0.545	0.171	0.405	0.127	662	479	26.47
	1	x	240	39.80	3,396	0.075	0.097	0.531	0.167	0.454	0.097	783	556	34.34
	1	x	300	42.10	3,997	0.060	0.078	0.520	0.164	0.497	0.078	900	630	42.93
	1	x	400	47.70	5,119	0.047	0.062	0.520	0.164	0.568	0.062	1051	722	57.23
	1	x	500	51.00	6,219	0.037	0.049	0.508	0.160	0.631	0.049	1222	825	71.54
	1	x	630	54.90	7,631	0.028	0.039	0.498	0.156	0.701	0.039	1418	939	90.14
8.7/15 (17.5) kV	1	x	35	29.10	1,196	0.524	0.668	0.659	0.207	0.186	0.668	240	190	5.01
	1	x	50	30.00	1,323	0.387	0.494	0.640	0.201	0.200	0.494	285	224	7.15
	1	x	70	31.90	1,603	0.268	0.342	0.610	0.192	0.230	0.342	358	275	10.02
	1	x	95	34.70	2,000	0.193	0.247	0.596	0.187	0.256	0.247	438	331	13.59
	1	x	120	36.30	2,289	0.153	0.196	0.582	0.183	0.277	0.196	505	376	17.17
	1	x	150	37.70	2,573	0.124	0.159	0.569	0.179	0.298	0.159	574	422	21.46
	1	x	185	39.60	2,951	0.099	0.127	0.559	0.176	0.322	0.127	656	477	26.47
	1	x	240	42.20	3,583	0.075	0.097	0.543	0.171	0.360	0.097	777	555	34.34
	1	x	300	45.60	4,330	0.060	0.078	0.536	0.168	0.392	0.078	898	631	42.93
	1	x	400	50.10	5,334	0.047	0.062	0.530	0.167	0.446	0.062	1042	720	57.23
	1	x	500	53.60	6,484	0.037	0.049	0.518	0.163	0.494	0.049	1209	822	71.54
	1	x	630	57.30	7,887	0.028	0.039	0.506	0.159	0.547	0.039	1403	937	90.14
12/20 (24) kV	1	x	35	31.10	1,315	0.524	0.668	0.672	0.211	0.162	0.668	239	190	5.01
	1	x	50	32.40	1,469	0.387	0.494	0.656	0.206	0.174	0.494	284	223	7.15
	1	x	70	35.30	1,860	0.268	0.342	0.631	0.198	0.198	0.342	358	275	10.02
	1	x	95	36.90	2,155	0.193	0.247	0.609	0.191	0.220	0.247	436	330	13.59
	1	x	120	38.50	2,450	0.153	0.196	0.594	0.187	0.238	0.196	502	375	17.17
	1	x	150	40.10	2,756	0.124	0.159	0.582	0.183	0.255	0.159	570	421	21.46
	1	x	185	41.80	3,124	0.099	0.127	0.570	0.179	0.275	0.127	652	476	26.47
	1	x	240	45.50	3,903	0.075	0.097	0.558	0.175	0.306	0.097	777	556	34.34
	1	x	300	48.00	4,543	0.060	0.078	0.546	0.172	0.332	0.078	890	629	42.93
	1	x	400	52.30	5,556	0.047	0.062	0.539	0.169	0.377	0.062	1034	719	57.23
	1	x	500	55.80	6,705	0.037	0.049	0.526	0.165	0.416	0.049	1200	821	71.54
	1	x	630	59.70	8,148	0.028	0.039	0.515	0.162	0.460	0.039	1391	936	90.14
18/30 (36) kV	1	x	35	37.50	1,770	0.524	0.668	0.709	0.223	0.128	0.668	238	189	5.01
	1	x	50	38.80	1,941	0.387	0.494	0.692	0.217	0.136	0.494	283	223	7.15
	1	x	70	40.70	2,253	0.268	0.342	0.659	0.207	0.154	0.342	354	274	10.02
	1	x	95	42.50	2,582	0.193	0.247	0.637	0.200	0.169	0.247	430	328	13.59
	1	x	120	43.90	2,870	0.153	0.196	0.620	0.195	0.181	0.196	495	373	17.17
	1	x	150	46.70	3,345	0.124	0.159	0.612	0.192	0.194	0.159	564	420	21.46
	1	x	185	48.40	3,740	0.099	0.127	0.599	0.188	0.207	0.127	645	475	26.47
	1	x	240	51.10	4,406	0.075	0.097	0.581	0.183	0.229	0.097	763	553	34.34
	1	x	300	53.40	5,058	0.060	0.078	0.568	0.178	0.248	0.078	874	626	42.93
	1	x	400	57.70	6,096	0.047	0.062	0.558	0.175	0.279	0.062	1015	716	57.23
	1	x	500	61.20	7,290	0.037	0.049	0.545	0.171	0.306	0.049	1177	818	71.54
	1	x	630	65.30	8,798	0.028	0.039	0.532	0.167	0.336	0.039	1362	932	90.14

**Further information about derating factors for arrangement can be found on supplementary technical information.*

N2XSEFGbY (Cu / XLPE / CTS / PVC / SFA / PVC)

(Copper Conductor, XLPE Insulated, Copper Tape Screen, PVC Inner Sheathed, Galvanized Steel Flat Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Application

For installation in the ground, indoors, cable trunking and outdoors if increased mechanical protection is required or where high-pulling stresses may occur during installation or operation.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape

- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 35 - 50 sqmm supplied in wooden drum @ 1000 meters
- 70 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area	Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
				Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²	mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	3 x 35	42.70	3,342	0.524	0.668	0.334	0.105	0.219	0.677	190	175	5.01
	3 x 50	45.60	3,935	0.387	0.494	0.322	0.101	0.240	0.504	224	205	7.15
	3 x 70	49.80	4,935	0.268	0.342	0.303	0.095	0.282	0.355	277	249	10.01
	3 x 95	53.60	5,937	0.193	0.247	0.290	0.091	0.320	0.263	335	296	13.59
	3 x 120	57.20	6,940	0.153	0.196	0.281	0.088	0.352	0.215	381	334	17.16
	3 x 150	60.30	7,927	0.124	0.160	0.274	0.086	0.382	0.181	430	373	21.45
	3 x 185	63.80	9,117	0.099	0.128	0.267	0.084	0.417	0.153	488	420	26.46
	3 x 240	69.90	11,303	0.075	0.099	0.260	0.081	0.459	0.128	572	484	34.32
	3 x 300	76.10	13,590	0.060	0.080	0.256	0.080	0.479	0.113	650	543	42.90
	3 x 400	87.20	17,546	0.047	0.064	0.255	0.080	0.480	0.102	748	615	57.20
6/10 (12) kV	3 x 35	47.60	3,945	0.524	0.668	0.358	0.112	0.182	0.678	196	177	5.01
	3 x 50	49.70	4,406	0.387	0.494	0.344	0.108	0.199	0.505	231	207	7.15
	3 x 70	53.90	5,412	0.268	0.342	0.323	0.101	0.232	0.357	285	252	10.01
	3 x 95	58.10	6,528	0.193	0.247	0.308	0.097	0.261	0.265	342	299	13.59
	3 x 120	61.30	7,472	0.153	0.196	0.298	0.094	0.286	0.217	390	338	17.16
	3 x 150	64.60	8,513	0.124	0.160	0.290	0.091	0.310	0.183	439	377	21.45
	3 x 185	68.10	9,730	0.099	0.128	0.282	0.088	0.337	0.155	498	423	26.46
	3 x 240	73.90	11,971	0.075	0.099	0.272	0.085	0.379	0.130	580	487	34.32
	3 x 300	78.90	14,040	0.060	0.080	0.264	0.083	0.416	0.115	657	546	42.90
	3 x 400	88.90	17,868	0.047	0.064	0.260	0.082	0.441	0.103	753	618	57.20
8.7/15 (17.5) kV	3 x 35	52.70	4,518	0.524	0.668	0.383	0.120	0.154	0.679	202	180	5.01
	3 x 50	54.90	5,025	0.387	0.494	0.368	0.116	0.168	0.507	238	210	7.15
	3 x 70	59.50	6,133	0.268	0.342	0.344	0.108	0.194	0.359	292	254	10.01
	3 x 95	63.20	7,202	0.193	0.247	0.328	0.103	0.217	0.267	351	302	13.59
	3 x 120	66.50	8,202	0.153	0.196	0.317	0.099	0.237	0.220	400	341	17.16
	3 x 150	69.60	9,242	0.124	0.160	0.308	0.097	0.256	0.186	450	381	21.45
	3 x 185	73.50	10,568	0.099	0.128	0.299	0.094	0.277	0.158	508	427	26.46
	3 x 240	79.10	12,822	0.075	0.099	0.287	0.090	0.311	0.133	591	492	34.32
	3 x 300	84.60	15,246	0.060	0.080	0.279	0.088	0.340	0.118	669	551	42.90
	3 x 400	94.10	18,873	0.047	0.064	0.273	0.086	0.363	0.106	766	623	57.20
12/20 (24) kV	3 x 35	57.60	5,151	0.524	0.668	0.404	0.127	0.138	0.680	207	182	5.01
	3 x 50	59.80	5,677	0.387	0.494	0.388	0.122	0.149	0.508	244	212	7.15
	3 x 70	64.00	6,761	0.268	0.342	0.362	0.114	0.171	0.361	299	257	10.01
	3 x 95	67.90	7,893	0.193	0.247	0.345	0.108	0.191	0.269	358	305	13.59
	3 x 120	71.20	8,922	0.153	0.196	0.333	0.104	0.207	0.222	408	344	17.16
	3 x 150	74.70	10,067	0.124	0.160	0.323	0.101	0.223	0.189	457	383	21.45
	3 x 185	78.20	11,349	0.099	0.128	0.313	0.098	0.241	0.161	517	430	26.46
	3 x 240	84.40	13,935	0.075	0.099	0.300	0.094	0.270	0.136	601	495	34.32
	3 x 300	89.20	16,095	0.060	0.080	0.291	0.091	0.294	0.121	680	556	42.90
	3 x 400	99.20	19,952	0.047	0.064	0.284	0.089	0.315	0.109	776	627	57.20
18/30 (36) kV	3 x 35	69.20	6,789	0.524	0.668	0.447	0.140	0.112	0.683	219	186	5.01
	3 x 50	71.40	7,337	0.387	0.494	0.430	0.135	0.120	0.512	257	217	7.15
	3 x 70	76.00	8,614	0.268	0.342	0.401	0.126	0.137	0.365	314	263	10.01
	3 x 95	79.70	9,798	0.193	0.247	0.381	0.120	0.151	0.274	375	311	13.59
	3 x 120	83.80	11,241	0.153	0.196	0.367	0.115	0.163	0.227	425	351	17.16
	3 x 150	86.90	12,389	0.124	0.160	0.356	0.112	0.175	0.194	476	391	21.45
	3 x 185	90.40	13,758	0.099	0.128	0.345	0.108	0.187	0.167	537	438	26.46
	3 x 240	96.00	16,177	0.075	0.099	0.329	0.103	0.208	0.142	624	505	34.32
	3 x 300	101.20	18,544	0.060	0.080	0.319	0.100	0.225	0.127	702	564	42.90
	3 x 400	110.60	22,432	0.047	0.064	0.309	0.097	0.243	0.115	801	638	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

N2XSEYbY (Cu / XLPE / CWS / PVC / DSTA / PVC)

(Copper Conductor, XLPE Insulated, Copper Wire Screen, PVC Inner Sheathed, Double Steel Tape Armor, PVC Sheathed)
Standard Specification : SPLN 43 - 5, SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Copper Conductor With WBT
Conductor Screen
XLPE Insulation
Insulation Screen
Semiconductive WBT
ID Tape (Red, Yellow, Black)
Copper Wire Screen
Copper Tape Screen
Non-Conductive WBT
PVC Inner Sheath (Fully Extruded)
Double Steel Tape Armor
Red PVC Outer Sheath

Rating	PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES								
	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	3	x	35	52.69	4,488	0.524	0.668	0.388	0.122	0.211	0.679	181	161	5.01
	3	x	50	55.48	5,120	0.387	0.494	0.368	0.116	0.237	0.507	214	189	7.15
	3	x	70	59.34	6,108	0.268	0.342	0.348	0.109	0.272	0.359	262	228	10.01
	3	x	95	63.63	7,277	0.193	0.247	0.331	0.104	0.310	0.268	315	271	13.59
	3	x	120	66.85	8,346	0.153	0.196	0.319	0.100	0.340	0.220	359	307	17.16
	3	x	150	70.04	9,662	0.124	0.159	0.311	0.098	0.366	0.187	402	341	21.45
	3	x	185	74.33	11,277	0.099	0.128	0.301	0.094	0.404	0.159	456	384	26.46
	3	x	240	81.33	14,315	0.075	0.098	0.293	0.092	0.432	0.134	534	444	34.32
	3	x	300	88.71	17,501	0.060	0.079	0.286	0.090	0.465	0.120	609	500	42.90
	3	x	400	96.42	21,168	0.047	0.063	0.279	0.088	0.496	0.108	696	566	57.20
6/10 (12) kV	3	x	35	56.78	4,948	0.524	0.668	0.406	0.127	0.178	0.680	185	163	5.01
	3	x	50	59.77	5,625	0.387	0.494	0.385	0.121	0.199	0.508	219	190	7.15
	3	x	70	63.63	6,644	0.268	0.342	0.364	0.114	0.226	0.361	267	230	10.01
	3	x	95	68.12	7,880	0.193	0.247	0.345	0.108	0.257	0.269	320	273	13.59
	3	x	120	71.34	8,985	0.153	0.196	0.333	0.105	0.280	0.222	365	309	17.16
	3	x	150	74.33	10,294	0.124	0.159	0.324	0.102	0.301	0.189	409	344	21.45
	3	x	185	78.62	11,934	0.099	0.128	0.313	0.098	0.331	0.161	463	387	26.46
	3	x	240	85.38	15,026	0.075	0.098	0.303	0.095	0.362	0.136	540	446	34.32
	3	x	300	91.70	18,064	0.060	0.079	0.293	0.092	0.408	0.121	614	502	42.90
	3	x	400	98.35	21,557	0.047	0.063	0.283	0.089	0.454	0.109	700	568	57.20
8.7/15 (17.5) kV	3	x	35	62.33	5,632	0.524	0.668	0.425	0.134	0.152	0.682	190	164	5.01
	3	x	50	65.12	6,305	0.387	0.494	0.404	0.127	0.169	0.510	224	192	7.15
	3	x	70	68.98	7,363	0.268	0.342	0.382	0.120	0.191	0.362	273	233	10.01
	3	x	95	73.27	8,620	0.193	0.247	0.362	0.114	0.215	0.271	327	276	13.59
	3	x	120	76.49	9,745	0.153	0.196	0.349	0.110	0.234	0.224	372	312	17.16
	3	x	150	79.68	11,120	0.124	0.159	0.339	0.107	0.250	0.191	416	347	21.45
	3	x	185	83.97	12,803	0.099	0.127	0.327	0.103	0.275	0.164	471	390	26.46
	3	x	240	90.53	15,974	0.075	0.098	0.316	0.099	0.300	0.139	549	450	34.32
	3	x	300	97.05	19,102	0.060	0.079	0.306	0.096	0.336	0.124	622	506	42.90
	3	x	400	103.70	22,676	0.047	0.063	0.295	0.093	0.373	0.112	709	572	57.20
12/20 (24) kV	3	x	35	66.65	6,175	0.524	0.668	0.442	0.139	0.136	0.683	194	166	5.01
	3	x	50	69.64	6,908	0.387	0.494	0.420	0.132	0.150	0.511	229	194	7.15
	3	x	70	73.70	8,042	0.268	0.342	0.397	0.125	0.169	0.364	278	235	10.01
	3	x	95	77.79	9,285	0.193	0.247	0.376	0.118	0.190	0.273	333	279	13.59
	3	x	120	81.21	10,480	0.153	0.196	0.362	0.114	0.206	0.226	378	314	17.16
	3	x	150	86.05	12,803	0.124	0.159	0.353	0.111	0.217	0.194	425	351	21.45
	3	x	185	89.70	14,453	0.099	0.127	0.339	0.107	0.240	0.166	481	394	26.46
	3	x	240	95.49	16,899	0.075	0.098	0.328	0.103	0.259	0.142	558	454	34.32
	3	x	300	101.57	19,994	0.060	0.079	0.316	0.099	0.292	0.127	631	510	42.90
	3	x	400	108.62	23,743	0.047	0.062	0.304	0.096	0.324	0.114	717	575	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application
For power station and switchgear, if there is a risk that low mechanical damage may occur. For installation indoor. in ground direct burried

Special Features on Request
- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape
- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing
- 35 - 50 sqmm supplied in wooden drum @ 1000 meters
- 70 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

N2XSEYFGbY (Cu / XLPE / CWS / PVC / SFA / PVC)

(Copper Conductor, XLPE Insulated, Copper Wire Screen, PVC Inner Sheathed, Steel Flat Armor, PVC Sheathed)
Standard Specification : SPLN 43 - 5, SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Application
For power station and switchgear, if there is a risk that low mechanical damage may occur. For installation indoor. in ground direct burried

Special Features on Request
- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape
- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing
- 35 - 50 sqmm supplied in wooden drum @ 1000 meters
- 70 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

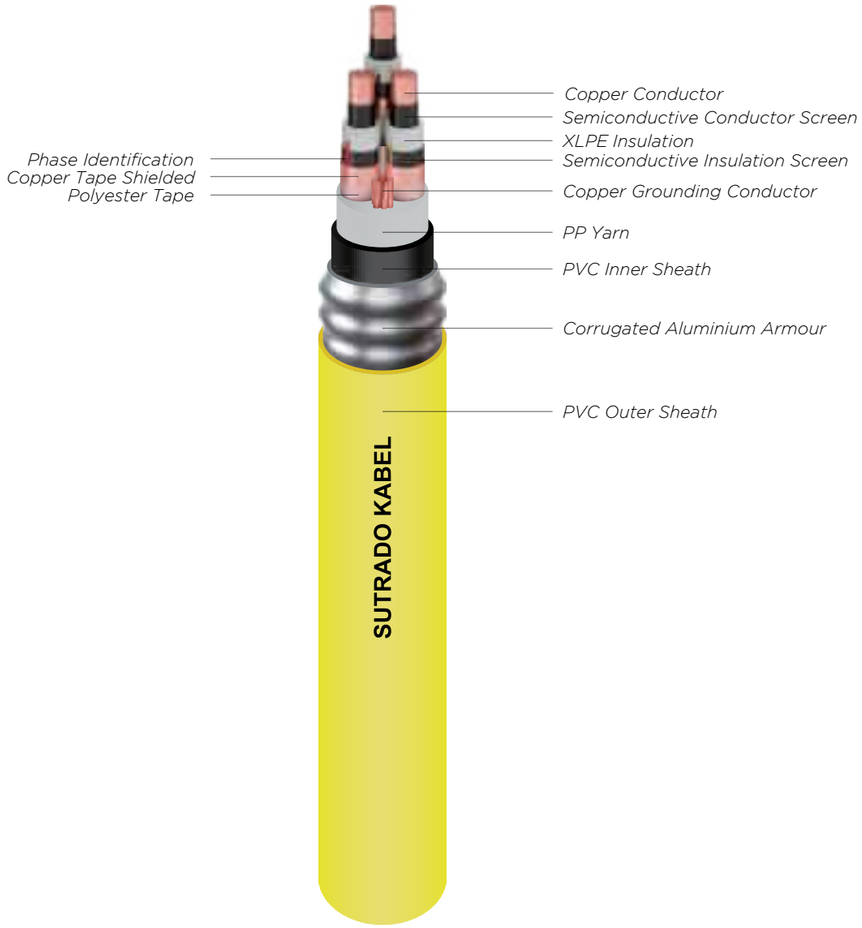
PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	3	x	35	53.30	4,115	0.524	0.668	0.388	0.122	0.211	0.679	201	179	5.01
	3	x	50	56.09	4,722	0.387	0.494	0.368	0.116	0.237	0.507	238	210	7.15
	3	x	70	59.95	5,580	0.268	0.342	0.348	0.109	0.272	0.359	292	254	10.01
	3	x	95	64.24	6,814	0.193	0.247	0.331	0.104	0.310	0.268	350	301	13.59
	3	x	120	67.46	7,857	0.153	0.196	0.319	0.100	0.340	0.220	399	340	17.16
	3	x	150	70.65	9,151	0.124	0.159	0.311	0.098	0.366	0.187	446	379	21.45
	3	x	185	74.94	10,733	0.099	0.128	0.301	0.094	0.404	0.159	506	426	26.46
	3	x	240	80.73	12,922	0.075	0.098	0.293	0.092	0.432	0.134	589	490	34.32
	3	x	300	88.11	15,978	0.060	0.079	0.286	0.090	0.465	0.120	671	551	42.90
	3	x	400	95.82	19,506	0.047	0.063	0.279	0.088	0.496	0.108	766	622	57.20
6/10 (12) kV	3	x	35	57.39	4,539	0.524	0.668	0.406	0.127	0.178	0.680	207	181	5.01
	3	x	50	60.38	5,194	0.387	0.494	0.385	0.121	0.199	0.508	243	212	7.15
	3	x	70	64.24	6,079	0.268	0.342	0.364	0.114	0.226	0.361	297	256	10.01
	3	x	95	68.73	7,384	0.193	0.247	0.345	0.108	0.257	0.269	356	304	13.59
	3	x	120	71.95	8,464	0.153	0.196	0.333	0.105	0.280	0.222	405	343	17.16
	3	x	150	74.94	9,750	0.124	0.159	0.324	0.102	0.301	0.189	454	382	21.45
	3	x	185	79.23	11,353	0.099	0.128	0.313	0.098	0.331	0.161	514	429	26.46
	3	x	240	84.78	13,566	0.075	0.098	0.303	0.095	0.362	0.136	595	492	34.32
	3	x	300	91.10	16,488	0.060	0.079	0.293	0.092	0.408	0.121	676	553	42.90
	3	x	400	97.75	19,862	0.047	0.063	0.283	0.089	0.454	0.109	770	624	57.20
8.7/15 (17.5) kV	3	x	35	62.94	5,182	0.524	0.668	0.425	0.134	0.152	0.682	211	183	5.01
	3	x	50	65.73	5,832	0.387	0.494	0.404	0.127	0.169	0.510	249	214	7.15
	3	x	70	69.59	6,759	0.268	0.342	0.382	0.120	0.191	0.362	304	258	10.01
	3	x	95	73.88	8,081	0.193	0.247	0.362	0.114	0.215	0.271	364	306	13.59
	3	x	120	77.10	9,181	0.153	0.196	0.349	0.110	0.234	0.224	413	346	17.16
	3	x	150	80.29	10,534	0.124	0.159	0.339	0.107	0.250	0.191	462	385	21.45
	3	x	185	84.58	12,184	0.099	0.127	0.327	0.103	0.275	0.164	523	432	26.46
	3	x	240	89.93	14,419	0.075	0.098	0.316	0.099	0.300	0.139	605	496	34.32
	3	x	300	96.45	17,431	0.060	0.079	0.306	0.096	0.336	0.124	686	557	42.90
	3	x	400	103.10	20,886	0.047	0.063	0.295	0.093	0.373	0.112	780	628	57.20
12/20 (24) kV	3	x	35	67.26	5,689	0.524	0.668	0.442	0.139	0.136	0.683	217	185	5.01
	3	x	50	70.25	6,399	0.387	0.494	0.420	0.132	0.150	0.511	255	216	7.15
	3	x	70	74.31	7,400	0.268	0.342	0.397	0.125	0.169	0.364	310	261	10.01
	3	x	95	78.40	8,713	0.193	0.247	0.376	0.118	0.190	0.273	371	309	13.59
	3	x	120	81.82	9,881	0.153	0.196	0.362	0.114	0.206	0.226	420	348	17.16
	3	x	150	85.45	11,329	0.124	0.159	0.353	0.111	0.217	0.194	470	388	21.45
	3	x	185	89.10	12,912	0.099	0.127	0.339	0.107	0.240	0.166	531	435	26.46
	3	x	240	94.89	15,258	0.075	0.098	0.328	0.103	0.259	0.142	615	500	34.32
	3	x	300	100.97	18,242	0.060	0.079	0.316	0.099	0.292	0.127	695	561	42.90
	3	x	400	107.39	20,848	0.047	0.064	0.309	0.097	0.243	0.115	801	638	57.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

5 kV, Type MV MC-HL

(Copper Conductor, XLPE Insulated with 133% Insulation Level, Corrugated Aluminium Armour and PVC Sheath)
Standard Specification : IEC 60502-2, ICEA S-93639/NEMA WC74, UL 1072

**For ID Tape colour can be based on Customer Request or Follow Standard*



PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES		
Size	Grounding Conductor		Approx. Overall Diameter	Approx. Cable Weight	Conductor	Max. Current - Carrying Capacity at 75 °C	
	No. of Core	Size			Max. DC Resistance at 20 °C	Cable Tray	Direct Burial
AWG	Pcs	AWG	mm	kg/km	ohm/km	A	A
2	3	10	45.90	3544	0.592	154	190
2	3	2	45.90	4322	0.592	154	190
1	3	8	47.60	4030	0.472	180	215
1/0	3	8	49.30	4484	0.373	205	245
2/0	3	8	52.50	5106	0.294	240	280
4/0	3	7	57.90	6774	0.185	320	360
4/0	3	2	57.90	7414	0.185	320	360
250	3	6	62.10	7744	0.157	355	395
350	3	6	67.50	9615	0.113	440	475
500	3	5	74.10	12357	0.079	545	570
750	3	4	85.10	17061	0.052	685	700

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

Type MV MC-HL cables are recommended as an economical alternate to a wire in conduit system.

Designed specifically for use as feeders or branch circuits in industrial and utility power distribution systems. Cable maybe installed in both exposed and conceal work, wet and dry locations, sirectly buried in the earth or embedded in concrete.

Cables maybe installed on metal racks, troughs, in cable trays or secured to supports not greater than 6 feet a part.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen
- 133% or 173% Insulation Level
- Grounding Conductor

Hazardous Location

According to NEC 501, 502, 503 & 505

15 kV, MV-90 / MV-105 MC-HL

(Copper Conductor, EPR Insulated, Copper Wire Screen, Corrugated Aluminium Armour and PVC Sheath)
Standard Specification : IEC 60502-2, ICEA S-93639/NEMA WC74, UL 1072

**For ID Tape colour can be based on Customer Request or Follow Standard*

PHYSICAL PROPERTIES			ELECTRICAL PROPERTIES		
			Conductor	Ampacities	
Size	Approx. Overall Diameter	Approx. Cable Weight	Max. DC Resistance at 25 °C	in Cable Tray	In Direct Burial
AWG/Kcmil	mm	kg/km	ohm/km	A	A
2	48.40	5682	0.5315	154	190
1	49.40	6535	0.4243	180	215
1/0	51.40	7457	0.3346	205	245
2/0	54.40	8583	0.2657	240	280
4/0	62.20	11854	0.1673	320	360
250	66.30	13698	0.1414	355	395
350	72.00	17480	0.1010	440	475
500	79.10	23278	0.0709	545	570
750	93.00	33248	0.0472	685	700
1000	104.60	43189	0.0354	790	785

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

Type MV MC-HL cables are recommended as an economical alternate to a wire in conduit system.

Designed specifically for use as feeders or branch circuits in industrial and utility power distribution systems. Cable maybe installed in both exposed and conceal work, wet and dry locations, sirectly buried in the earth or embedded in concrete.

Cables maybe installed on metal racks, troughs, in cable trays or secured to supports not greater than 6 feet a part.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen
- 133% or 173% Insulation Level
- Grounding Conductor

Hazardous Location

According to NEC 501, 502, 503 & 505

SUTRADO
KABEL

ALUMINIUM MEDIUM VOLTAGE POWER CABLES

NA2XSY (Al / XLPE / CTS / PVC)

(Aluminium Conductor, XLPE Insulated, Copper Tape Screen, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

Aluminium Conductor
Conductor Screen
XLPE Insulation
Insulation Screen
Copper Tape Screen
Non-Hygroscopic Tape
Red PVC Outer Sheath

Application

For power station and switchgear as well as station because of small bending radius in confined spaces indoors. As underground because of light weight where installation conditions are difficult.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Low Smoke Zero Halogen

Note : Conductor Shape

- 35 - 800 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 35 - 300 sqmm supplied in wooden drum @ 1000 meters
- 400 - 800 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area	Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
				Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in Air	in Ground	
	mm²	mm	kg/mm	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	1 x 35	19.00	427	0.868	1.107	0.573	0.180	0.287	1.107	181	147	3.31
	1 x 50	19.90	481	0.641	0.818	0.558	0.175	0.312	0.818	216	173	4.72
	1 x 70	21.80	580	0.443	0.565	0.534	0.168	0.363	0.565	273	213	6.61
	1 x 95	23.40	689	0.320	0.408	0.517	0.163	0.409	0.408	334	255	8.98
	1 x 120	24.80	787	0.253	0.323	0.506	0.159	0.447	0.323	386	290	11.34
	1 x 150	26.20	893	0.206	0.263	0.496	0.156	0.484	0.263	440	326	14.17
	1 x 185	27.70	1,024	0.164	0.210	0.487	0.153	0.526	0.210	507	369	17.48
	1 x 240	30.50	1,233	0.125	0.160	0.478	0.150	0.572	0.160	603	430	22.68
	1 x 300	33.20	1,507	0.100	0.128	0.473	0.149	0.588	0.128	694	487	28.35
	1 x 400	38.00	1,912	0.078	0.100	0.474	0.149	0.634	0.100	816	560	37.79
	1 x 500	41.70	2,348	0.061	0.079	0.468	0.147	0.665	0.079	956	643	47.24
	1 x 630	45.40	2,874	0.047	0.062	0.460	0.144	0.740	0.062	1121	739	59.53
	1 x 800	50.30	3,479	0.037	0.049	0.452	0.142	0.837	0.049	1309	842	75.20
6/10 (12) kV	1 x 35	20.80	491	0.868	1.107	0.591	0.186	0.228	1.107	182	146	3.31
	1 x 50	21.70	547	0.641	0.818	0.576	0.181	0.246	0.818	217	173	4.72
	1 x 70	23.60	652	0.443	0.565	0.550	0.173	0.284	0.565	273	213	6.61
	1 x 95	25.20	765	0.320	0.408	0.532	0.167	0.318	0.408	334	255	8.98
	1 x 120	26.60	867	0.253	0.323	0.520	0.163	0.347	0.323	386	290	11.34
	1 x 150	28.00	976	0.206	0.263	0.510	0.160	0.374	0.263	439	325	14.17
	1 x 185	29.70	1,125	0.164	0.210	0.501	0.157	0.405	0.210	505	369	17.48
	1 x 240	32.30	1,332	0.125	0.160	0.489	0.154	0.454	0.160	601	429	22.68
	1 x 300	34.40	1,574	0.100	0.128	0.480	0.151	0.497	0.128	693	486	28.35
	1 x 400	39.00	1,981	0.078	0.100	0.479	0.150	0.568	0.100	813	560	37.79
	1 x 500	42.10	2,376	0.061	0.079	0.470	0.148	0.631	0.079	954	643	47.24
	1 x 630	46.00	2,925	0.047	0.062	0.462	0.145	0.701	0.062	1117	738	59.53
	1 x 800	50.70	3,512	0.037	0.049	0.453	0.142	0.792	0.049	1308	842	75.20
8.7/15 (17.5) kV	1 x 35	23.00	576	0.868	1.107	0.611	0.192	0.186	1.107	182	146	3.31
	1 x 50	23.90	636	0.641	0.818	0.595	0.187	0.200	0.818	217	172	4.72
	1 x 70	25.80	746	0.443	0.565	0.568	0.178	0.230	0.565	273	212	6.61
	1 x 95	27.40	864	0.320	0.408	0.549	0.172	0.256	0.408	334	254	8.98
	1 x 120	29.00	984	0.253	0.323	0.537	0.169	0.277	0.323	385	290	11.34
	1 x 150	30.40	1,099	0.206	0.263	0.526	0.165	0.298	0.263	438	325	14.17
	1 x 185	32.10	1,255	0.164	0.210	0.517	0.162	0.322	0.210	503	368	17.48
	1 x 240	34.70	1,472	0.125	0.160	0.504	0.158	0.360	0.160	598	429	22.68
	1 x 300	36.80	1,722	0.100	0.128	0.493	0.155	0.392	0.128	689	486	28.35
	1 x 400	41.20	2,125	0.078	0.100	0.490	0.154	0.446	0.100	809	559	37.79
	1 x 500	44.50	2,552	0.061	0.079	0.481	0.151	0.494	0.079	947	642	47.24
	1 x 630	48.20	3,094	0.047	0.062	0.472	0.148	0.547	0.062	1109	737	59.53
	1 x 800	53.10	3,721	0.037	0.049	0.463	0.145	0.616	0.049	1295	841	75.20
12/20 (24) kV	1 x 35	25.00	660	0.868	1.107	0.628	0.197	0.162	1.107	182	146	3.31
	1 x 50	25.90	722	0.641	0.817	0.611	0.192	0.174	0.817	217	172	4.72
	1 x 70	27.80	838	0.443	0.565	0.583	0.183	0.198	0.565	273	212	6.61
	1 x 95	29.60	975	0.320	0.408	0.564	0.177	0.220	0.408	333	254	8.98
	1 x 120	31.00	1,086	0.253	0.323	0.550	0.173	0.238	0.323	385	289	11.34
	1 x 150	32.60	1,220	0.206	0.263	0.540	0.170	0.255	0.263	437	324	14.17
	1 x 185	34.10	1,366	0.164	0.210	0.529	0.166	0.275	0.210	502	368	17.48
	1 x 240	36.70	1,591	0.125	0.160	0.515	0.162	0.306	0.160	596	428	22.68
	1 x 300	39.00	1,865	0.100	0.128	0.505	0.159	0.332	0.128	685	485	28.35
	1 x 400	43.40	2,284	0.078	0.100	0.500	0.157	0.377	0.100	803	558	37.79
	1 x 500	46.70	2,723	0.061	0.079	0.490	0.154	0.416	0.079	941	641	47.24
	1 x 630	50.40	3,278	0.047	0.062	0.480	0.151	0.460	0.062	1102	736	59.53
	1 x 800	55.10	3,896	0.037	0.049	0.470	0.148	0.517	0.049	1287	841	75.20
18/30 (36) kV	1 x 35	30.20	909	0.868	1.107	0.666	0.209	0.128	1.107	182	146	3.31
	1 x 50	31.30	993	0.641	0.817	0.649	0.204	0.136	0.817	217	172	4.72
	1 x 70	33.20	1,124	0.443	0.565	0.618	0.194	0.154	0.565	272	211	6.61
	1 x 95	35.00	1,277	0.320	0.408	0.598	0.188	0.169	0.408	331	253	8.98
	1 x 120	36.40	1,400	0.253	0.323	0.582	0.183	0.181	0.323	382	288	11.34
	1 x 150	38.00	1,548	0.206	0.263	0.571	0.179	0.194	0.263	433	323	14.17
	1 x 185	39.50	1,706	0.164	0.210	0.558	0.175	0.207	0.210	497	366	17.48
	1 x 240	42.10	1,954	0.125	0.160	0.542	0.170	0.229	0.160	589	427	22.68
	1 x 300	44.40	2,248	0.100	0.128	0.531	0.167	0.248	0.128	677	483	28.35
	1 x 400	48.80	2,702	0.078	0.100	0.524	0.165	0.279	0.100	792	556	37.79
	1 x 500	52.10	3,172	0.061	0.079	0.512	0.161	0.306	0.079	925	639	47.24
	1 x 630	55.80	3,758	0.047	0.062	0.501	0.157	0.336	0.062	1083	734	59.53
	1 x 800	60.50	4,416	0.037	0.049	0.489	0.154	0.376	0.049	1264	839	75.20

**Further information about derating factors for arrangement can be found on supplementary technical information.*

NA2XSEY (Al / XLPE / CTS / PVC)

(Aluminium Conductor, XLPE Insulated, Copper Tape Screen, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Aluminium Conductor
Conductor Screen
XLPE Insulation
ID Tape (Red, Yellow & Black)
Insulation Screen
Copper Tape Screen
PVC Inner Sheat (Fully Extrude)
Red PVC Outer Sheath

Application

Indoors, cable trunking, outdoors and in ground; For power stations, industry and switchgear.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape

- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 35 - 95 sqmm supplied in wooden drum @ 1000 meters
- 120 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	3	x	35	40.30	1,927	0.868	1.113	0.344	0.108	0.209	1.118	147	136	3.29
	3	x	50	42.80	2,219	0.641	0.822	0.331	0.104	0.229	0.829	173	159	4.70
	3	x	70	47.00	2,690	0.443	0.568	0.311	0.098	0.269	0.577	215	194	6.58
	3	x	95	50.80	3,186	0.320	0.411	0.297	0.093	0.304	0.421	259	230	8.93
	3	x	120	54.40	3,698	0.253	0.325	0.288	0.090	0.334	0.337	296	260	11.28
	3	x	150	57.50	4,184	0.206	0.265	0.280	0.088	0.363	0.279	334	290	14.10
	3	x	185	61.00	4,776	0.164	0.211	0.273	0.086	0.395	0.228	381	328	17.39
	3	x	240	67.10	5,737	0.125	0.161	0.265	0.083	0.435	0.182	447	379	22.56
	3	x	300	73.30	6,984	0.100	0.130	0.261	0.082	0.456	0.153	510	427	28.20
	3	x	400	83.30	8,903	0.078	0.102	0.259	0.081	0.460	0.130	592	488	37.60
6/10 (12) kV	3	x	35	44.70	2,320	0.868	1.113	0.366	0.115	0.176	1.119	151	138	3.29
	3	x	50	46.90	2,586	0.641	0.822	0.352	0.111	0.192	0.829	179	161	4.70
	3	x	70	51.10	3,088	0.443	0.568	0.330	0.104	0.224	0.578	221	196	6.58
	3	x	95	55.40	3,696	0.320	0.411	0.315	0.099	0.252	0.422	265	232	8.93
	3	x	120	58.70	4,179	0.253	0.325	0.304	0.095	0.275	0.339	303	263	11.28
	3	x	150	61.80	4,691	0.206	0.265	0.296	0.093	0.298	0.281	341	293	14.10
	3	x	185	65.30	5,309	0.164	0.211	0.287	0.090	0.324	0.230	388	330	17.39
	3	x	240	71.10	6,301	0.125	0.161	0.277	0.087	0.364	0.183	453	382	22.56
	3	x	300	76.10	7,390	0.100	0.130	0.269	0.084	0.399	0.155	515	429	28.20
	3	x	400	85.00	9,178	0.078	0.102	0.264	0.083	0.424	0.131	597	490	37.60
8.7/15 (17.5) kV	3	x	35	49.90	2,808	0.868	1.113	0.390	0.123	0.151	1.120	156	139	3.29
	3	x	50	52.00	3,094	0.641	0.822	0.375	0.118	0.163	0.830	184	163	4.70
	3	x	70	56.60	3,695	0.443	0.568	0.351	0.110	0.189	0.579	227	198	6.58
	3	x	95	60.40	4,258	0.320	0.411	0.334	0.105	0.211	0.424	272	235	8.93
	3	x	120	63.60	4,771	0.253	0.325	0.323	0.101	0.230	0.340	311	266	11.28
	3	x	150	66.70	5,310	0.206	0.265	0.313	0.098	0.248	0.282	349	296	14.10
	3	x	185	70.60	6,035	0.164	0.211	0.304	0.095	0.269	0.232	396	333	17.39
	3	x	240	76.30	7,041	0.125	0.161	0.292	0.092	0.301	0.185	462	385	22.56
	3	x	300	81.20	8,177	0.100	0.130	0.283	0.089	0.329	0.157	525	433	28.20
	3	x	400	90.20	10,050	0.078	0.102	0.277	0.087	0.352	0.134	606	494	37.60
12/20 (24) kV	3	x	35	54.80	3,331	0.868	1.113	0.410	0.129	0.135	1.120	160	140	3.29
	3	x	50	57.00	3,637	0.641	0.822	0.394	0.124	0.146	0.831	188	164	4.70
	3	x	70	61.20	4,217	0.443	0.568	0.368	0.116	0.167	0.580	231	199	6.58
	3	x	95	65.10	4,841	0.320	0.411	0.350	0.110	0.187	0.425	276	236	8.93
	3	x	120	68.30	5,382	0.253	0.325	0.338	0.106	0.203	0.342	315	267	11.28
	3	x	150	71.90	6,024	0.206	0.265	0.328	0.103	0.218	0.284	353	297	14.10
	3	x	185	75.30	6,708	0.164	0.211	0.318	0.100	0.235	0.233	401	335	17.39
	3	x	240	81.00	7,763	0.125	0.161	0.304	0.096	0.263	0.187	468	387	22.56
	3	x	300	85.70	8,902	0.100	0.129	0.295	0.093	0.287	0.159	531	436	28.20
	3	x	400	95.10	10,949	0.078	0.102	0.288	0.090	0.307	0.136	612	496	37.60
18/30 (36) kV	3	x	35	66.40	4,713	0.868	1.113	0.453	0.142	0.111	1.122	170	144	3.29
	3	x	50	68.60	5,065	0.641	0.822	0.435	0.137	0.119	0.833	199	169	4.70
	3	x	70	73.20	5,811	0.443	0.568	0.406	0.128	0.135	0.582	243	204	6.58
	3	x	95	76.90	6,488	0.320	0.411	0.386	0.121	0.149	0.428	291	242	8.93
	3	x	120	80.30	7,137	0.253	0.325	0.372	0.117	0.161	0.345	330	273	11.28
	3	x	150	83.50	7,773	0.206	0.265	0.360	0.113	0.172	0.288	370	304	14.10
	3	x	185	86.90	8,531	0.164	0.211	0.349	0.109	0.184	0.238	419	342	17.39
	3	x	240	92.40	9,662	0.125	0.161	0.333	0.105	0.204	0.192	488	395	22.56
	3	x	300	97.70	11,047	0.100	0.129	0.322	0.101	0.222	0.164	550	443	28.20
	3	x	400	106.70	13,193	0.078	0.101	0.313	0.098	0.239	0.141	633	505	37.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

NA2XSEbY (Al / XLPE / CTS / PVC / DSTA / PVC)

(Aluminium Conductor, XLPE Insulated, Copper Tape Screen, PVC Sheathed, Double Steel Tape Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Application
For installation indoor, in ground direct burried, for power station and switchgear, if there is a risk that low mechanical damage may occur.

Special Features on Request
- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape
- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing
- 35 - 95 sqmm supplied in wooden drum @ 1000 meters
- 120 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area	Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
				Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²	mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	3 x 35	42.30	2,597	0.868	1.113	0.338	0.106	0.214	1.118	148	136	3.29
	3 x 50	44.80	2,931	0.641	0.822	0.326	0.102	0.234	0.828	174	159	4.70
	3 x 70	49.20	3,497	0.443	0.568	0.306	0.096	0.275	0.576	216	194	6.58
	3 x 95	53.00	4,058	0.320	0.411	0.293	0.092	0.312	0.421	260	230	8.93
	3 x 120	56.60	4,634	0.253	0.325	0.284	0.089	0.343	0.337	297	260	11.28
	3 x 150	59.70	5,174	0.206	0.265	0.276	0.087	0.372	0.279	335	290	14.10
	3 x 185	63.20	5,826	0.164	0.211	0.269	0.085	0.406	0.227	381	328	17.39
	3 x 240	69.30	6,892	0.125	0.161	0.262	0.082	0.447	0.181	448	380	22.56
	3 x 300	75.50	8,247	0.100	0.130	0.258	0.081	0.467	0.153	510	427	28.20
	3 x 400	87.20	11,251	0.078	0.102	0.257	0.081	0.470	0.130	595	489	37.60
6/10 (12) kV	3 x 35	47.00	3,089	0.868	1.113	0.361	0.113	0.179	1.119	152	138	3.29
	3 x 50	49.10	3,391	0.641	0.822	0.348	0.109	0.195	0.829	179	161	4.70
	3 x 70	53.30	3,966	0.443	0.568	0.326	0.102	0.228	0.577	222	196	6.58
	3 x 95	57.50	4,621	0.320	0.411	0.311	0.098	0.256	0.422	266	232	8.93
	3 x 120	60.70	5,158	0.253	0.325	0.301	0.094	0.281	0.338	304	263	11.28
	3 x 150	63.80	5,723	0.206	0.265	0.292	0.092	0.304	0.280	342	293	14.10
	3 x 185	67.30	6,400	0.164	0.211	0.284	0.089	0.330	0.229	389	331	17.39
	3 x 240	73.30	7,527	0.125	0.161	0.274	0.086	0.372	0.183	454	382	22.56
	3 x 300	78.30	8,700	0.100	0.130	0.266	0.084	0.408	0.154	516	429	28.20
	3 x 400	88.90	11,578	0.078	0.102	0.262	0.082	0.432	0.131	600	491	37.60
8.7/15 (17.5) kV	3 x 35	52.10	3,665	0.868	1.113	0.386	0.121	0.153	1.120	157	139	3.29
	3 x 50	54.30	3,987	0.641	0.822	0.371	0.117	0.165	0.830	185	163	4.70
	3 x 70	58.90	4,669	0.443	0.568	0.347	0.109	0.191	0.579	227	198	6.58
	3 x 95	62.60	5,298	0.320	0.411	0.331	0.104	0.214	0.424	273	235	8.93
	3 x 120	65.80	5,866	0.253	0.325	0.319	0.100	0.234	0.340	311	266	11.28
	3 x 150	69.00	6,459	0.206	0.265	0.310	0.097	0.252	0.282	350	296	14.10
	3 x 185	72.80	7,252	0.164	0.211	0.301	0.094	0.273	0.231	396	333	17.39
	3 x 240	78.50	8,355	0.125	0.161	0.289	0.091	0.306	0.185	463	385	22.56
	3 x 300	84.60	10,410	0.100	0.130	0.281	0.088	0.334	0.157	527	434	28.20
	3 x 400	94.10	12,594	0.078	0.102	0.274	0.086	0.357	0.133	609	495	37.60
12/20 (24) kV	3 x 35	57.00	4,274	0.868	1.113	0.406	0.128	0.136	1.120	161	141	3.29
	3 x 50	59.20	4,616	0.641	0.822	0.391	0.123	0.147	0.831	189	165	4.70
	3 x 70	63.40	5,270	0.443	0.568	0.365	0.115	0.169	0.580	233	200	6.58
	3 x 95	67.10	5,929	0.320	0.411	0.347	0.109	0.189	0.425	279	237	8.93
	3 x 120	70.40	6,524	0.253	0.325	0.335	0.105	0.205	0.341	318	268	11.28
	3 x 150	74.10	7,261	0.206	0.265	0.325	0.102	0.221	0.284	355	298	14.10
	3 x 185	77.60	8,006	0.164	0.211	0.315	0.099	0.238	0.233	403	336	17.39
	3 x 240	84.40	9,990	0.125	0.161	0.302	0.095	0.266	0.187	472	389	22.56
	3 x 300	89.20	11,261	0.100	0.129	0.293	0.092	0.290	0.159	536	437	28.20
	3 x 400	99.20	13,681	0.078	0.102	0.286	0.090	0.311	0.136	616	498	37.60
18/30 (36) kV	3 x 35	68.60	5,857	0.868	1.113	0.450	0.141	0.111	1.122	170	144	3.29
	3 x 50	70.80	6,245	0.641	0.822	0.432	0.136	0.119	0.833	200	169	4.70
	3 x 70	75.40	7,071	0.443	0.568	0.404	0.127	0.136	0.582	244	204	6.58
	3 x 95	79.10	7,814	0.320	0.411	0.383	0.120	0.150	0.428	291	242	8.93
	3 x 120	83.80	9,346	0.253	0.325	0.369	0.116	0.162	0.345	332	274	11.28
	3 x 150	86.90	10,067	0.206	0.265	0.358	0.112	0.173	0.287	372	305	14.10
	3 x 185	90.40	10,921	0.164	0.211	0.346	0.109	0.186	0.237	421	343	17.39
	3 x 240	96.00	12,249	0.125	0.161	0.331	0.104	0.206	0.192	489	396	22.56
	3 x 300	101.20	13,734	0.100	0.129	0.320	0.101	0.224	0.164	552	444	28.20
	3 x 400	110.60	16,205	0.078	0.101	0.311	0.098	0.241	0.141	635	506	37.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

NA2XSERGbY (Al / XLPE / CTS / PVC / SWA / PVC)

(Aluminium Conductor, XLPE Insulated, Copper Tape Screen, PVC Sheathed, Steel Wire Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Alumunium Conductor
Conductor Screen
XLPE Insulation
ID Tape (Red, Yellow & Black)
Insulation Screen
Copper Tape Screen
Polyester Tape
PVC Inner Sheat (Fully Extrude)
Galvanized Steel Wire Armor
Galvanized Steel Tape Armor
Red PVC Outer Sheath

Application
For installation indoor, in ground direct burried, for power station and switchgear, if there is a risk that low mechanical damage may occur.

Special Features on Request
- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape
- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing
- 35 - 95 sqmm supplied in wooden drum @ 1000 meters
- 120 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area	Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
				Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²	mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	3 x 35	45.10	3,389	0.868	1.113	0.338	0.106	0.214	1.118	152	137	3.29
	3 x 50	49.30	4,276	0.641	0.822	0.326	0.102	0.234	0.828	178	160	4.70
	3 x 70	53.50	4,934	0.443	0.568	0.306	0.096	0.275	0.576	220	194	6.58
	3 x 95	57.20	5,614	0.320	0.411	0.293	0.092	0.312	0.421	264	230	8.93
	3 x 120	60.80	6,309	0.253	0.325	0.284	0.089	0.343	0.337	300	259	11.28
	3 x 150	64.00	6,936	0.206	0.265	0.276	0.087	0.372	0.279	336	287	14.10
	3 x 185	67.60	7,703	0.164	0.211	0.269	0.085	0.406	0.227	380	322	17.39
	3 x 240	73.50	8,912	0.125	0.161	0.262	0.082	0.447	0.181	441	366	22.56
	3 x 300	81.20	11,308	0.100	0.130	0.258	0.081	0.467	0.153	494	405	28.20
	3 x 400	92.10	14,188	0.078	0.102	0.257	0.081	0.470	0.130	562	452	37.60
6/10 (12) kV	3 x 35	51.20	4,469	0.868	1.113	0.361	0.113	0.179	1.119	156	139	3.29
	3 x 50	53.30	4,829	0.641	0.822	0.348	0.109	0.195	0.829	183	162	4.70
	3 x 70	57.50	5,518	0.443	0.568	0.326	0.102	0.228	0.577	225	196	6.58
	3 x 95	61.90	6,355	0.320	0.411	0.311	0.098	0.256	0.422	268	231	8.93
	3 x 120	65.10	6,980	0.253	0.325	0.301	0.094	0.281	0.338	305	261	11.28
	3 x 150	68.20	7,632	0.206	0.265	0.292	0.092	0.304	0.280	342	289	14.10
	3 x 185	71.70	8,394	0.164	0.211	0.284	0.089	0.330	0.229	386	324	17.39
	3 x 240	79.10	10,483	0.125	0.161	0.274	0.086	0.372	0.183	445	367	22.56
	3 x 300	84.00	11,860	0.100	0.130	0.266	0.084	0.408	0.154	498	406	28.20
	3 x 400	94.10	14,591	0.078	0.102	0.262	0.082	0.432	0.131	565	453	37.60
8.7/15 (17.5) kV	3 x 35	56.40	5,191	0.868	1.113	0.386	0.121	0.153	1.120	160	140	3.29
	3 x 50	58.50	5,572	0.641	0.822	0.371	0.117	0.165	0.830	188	164	4.70
	3 x 70	63.10	6,402	0.443	0.568	0.347	0.109	0.191	0.579	230	198	6.58
	3 x 95	66.90	7,110	0.320	0.411	0.331	0.104	0.214	0.424	275	234	8.93
	3 x 120	70.10	7,803	0.253	0.325	0.319	0.100	0.234	0.340	312	263	11.28
	3 x 150	73.20	8,483	0.206	0.265	0.310	0.097	0.252	0.282	349	291	14.10
	3 x 185	78.60	10,213	0.164	0.211	0.301	0.094	0.273	0.231	392	324	17.39
	3 x 240	84.20	11,513	0.125	0.161	0.289	0.091	0.306	0.185	452	369	22.56
	3 x 300	89.60	13,223	0.100	0.130	0.281	0.088	0.334	0.157	506	408	28.20
	3 x 400	99.20	15,776	0.078	0.102	0.274	0.086	0.357	0.133	572	454	37.60
12/20 (24) kV	3 x 35	61.50	5,974	0.868	1.113	0.406	0.128	0.136	1.120	164	141	3.29
	3 x 50	63.60	6,376	0.641	0.822	0.391	0.123	0.147	0.831	192	165	4.70
	3 x 70	67.80	7,145	0.443	0.568	0.365	0.115	0.169	0.580	235	199	6.58
	3 x 95	71.60	7,925	0.320	0.411	0.347	0.109	0.189	0.425	280	235	8.93
	3 x 120	74.80	8,607	0.253	0.325	0.335	0.105	0.205	0.341	318	264	11.28
	3 x 150	79.60	10,238	0.206	0.265	0.325	0.102	0.221	0.284	354	292	14.10
	3 x 185	83.30	11,112	0.164	0.211	0.315	0.099	0.238	0.233	397	326	17.39
	3 x 240	89.40	12,745	0.125	0.161	0.302	0.095	0.266	0.187	458	370	22.56
	3 x 300	94.30	14,229	0.100	0.129	0.293	0.092	0.290	0.159	511	409	28.20
	3 x 400	104.10	16,984	0.078	0.102	0.286	0.090	0.311	0.136	576	455	37.60
18/30 (36) kV	3 x 35	72.90	7,845	0.868	1.113	0.450	0.141	0.111	1.122	173	145	3.29
	3 x 50	76.50	9,104	0.641	0.822	0.432	0.136	0.119	0.833	202	169	4.70
	3 x 70	81.10	10,134	0.443	0.568	0.404	0.127	0.136	0.582	246	203	6.58
	3 x 95	84.90	10,966	0.320	0.411	0.383	0.120	0.150	0.428	291	239	8.93
	3 x 120	88.70	12,112	0.253	0.325	0.369	0.116	0.162	0.345	329	268	11.28
	3 x 150	91.80	12,907	0.206	0.265	0.358	0.112	0.173	0.287	366	296	14.10
	3 x 185	95.30	13,890	0.164	0.211	0.346	0.109	0.186	0.237	411	330	17.39
	3 x 240	101.00	15,378	0.125	0.161	0.331	0.104	0.206	0.192	471	374	22.56
	3 x 300	106.30	17,074	0.100	0.129	0.320	0.101	0.224	0.164	525	413	28.20
	3 x 400	115.70	19,626	0.078	0.101	0.311	0.098	0.241	0.141	593	461	37.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

NA2XSRY (Al / XLPE / CTS / PVC / AWA / PVC)

(Aluminium Conductor, XLPE Insulated, Copper Tape Screen, PVC Sheathed, Alumunium Wire Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

Alumunium Conductor
Conductor Screen
XLPE Insulation
Insulation Screen
Copper Tape Screen
Polyester Tape
PVC Inner Sheat (Fully Extrude)
Polyester Tape
Aluminium Wire Armor
Red PVC Outer Sheath

Application

For installation indoor, in ground direct burried, for power station and switchgear, if there is a risk that low mechanical damage may occur.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape

- 35 - 630 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 35 - 95 sqmm supplied in wooden drum @ 1000 meters
- 120 - 630 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	1	x	35	24.70	770	0.868	1.113	0.626	0.197	0.287	4.869	161	148	3.31
	1	x	50	25.60	841	0.641	0.822	0.609	0.191	0.312	4.362	192	175	4.72
	1	x	70	27.70	981	0.443	0.568	0.582	0.183	0.363	3.731	241	215	6.61
	1	x	95	29.50	1,133	0.320	0.411	0.564	0.177	0.409	3.299	293	257	8.98
	1	x	120	30.90	1,252	0.253	0.325	0.550	0.173	0.447	3.015	338	293	11.34
	1	x	150	32.50	1,396	0.206	0.265	0.540	0.170	0.484	2.788	384	328	14.17
	1	x	185	35.20	1,677	0.164	0.211	0.535	0.168	0.526	2.570	445	373	17.48
	1	x	240	37.80	1,921	0.125	0.161	0.521	0.164	0.572	2.279	528	434	22.68
	1	x	300	40.70	2,274	0.100	0.129	0.514	0.161	0.588	2.062	606	491	28.35
	1	x	400	46.70	2,698	0.078	0.101	0.506	0.159	0.575	1.817	710	563	37.79
	1	x	500	50.60	3,285	0.061	0.079	0.500	0.157	0.612	1.609	830	646	47.24
	1	x	630	54.50	3,916	0.047	0.062	0.490	0.154	0.682	1.456	970	742	59.53
6/10 (12) kV	1	x	35	26.50	863	0.868	1.113	0.640	0.201	0.228	4.461	162	148	3.31
	1	x	50	27.60	948	0.641	0.822	0.624	0.196	0.246	3.997	193	174	4.72
	1	x	70	29.70	1,097	0.443	0.568	0.596	0.187	0.284	3.432	242	214	6.61
	1	x	95	31.30	1,239	0.320	0.411	0.576	0.181	0.318	3.051	294	256	8.98
	1	x	120	33.90	1,476	0.253	0.325	0.568	0.179	0.347	2.799	342	293	11.34
	1	x	150	35.50	1,632	0.206	0.265	0.557	0.175	0.374	2.594	388	328	14.17
	1	x	185	37.00	1,798	0.164	0.211	0.545	0.171	0.405	2.399	446	372	17.48
	1	x	240	39.80	2,075	0.125	0.161	0.531	0.167	0.454	2.156	528	433	22.68
	1	x	300	42.10	2,383	0.100	0.129	0.520	0.164	0.497	1.983	606	490	28.35
	1	x	400	47.70	2,817	0.078	0.101	0.512	0.161	0.520	1.775	709	562	37.79
	1	x	500	51.00	3,316	0.061	0.079	0.502	0.158	0.582	1.591	829	646	47.24
	1	x	630	54.90	3,950	0.047	0.062	0.492	0.155	0.649	1.441	969	741	59.53
8.7/15 (17.5) kV	1	x	35	29.10	1,012	0.868	1.113	0.659	0.207	0.186	4.065	163	147	3.31
	1	x	50	30.00	1,089	0.641	0.822	0.640	0.201	0.200	3.635	194	174	4.72
	1	x	70	31.90	1,230	0.443	0.568	0.610	0.192	0.230	3.137	243	214	6.61
	1	x	95	34.70	1,489	0.320	0.411	0.596	0.187	0.256	2.796	298	256	8.98
	1	x	120	36.30	1,643	0.253	0.325	0.582	0.183	0.277	2.573	343	292	11.34
	1	x	150	37.70	1,786	0.206	0.265	0.569	0.179	0.298	2.395	389	327	14.17
	1	x	185	39.60	1,995	0.164	0.211	0.559	0.176	0.322	2.223	446	371	17.48
	1	x	240	42.20	2,265	0.125	0.161	0.543	0.171	0.360	2.009	528	432	22.68
	1	x	300	45.60	2,559	0.100	0.129	0.531	0.167	0.392	1.855	607	489	28.35
	1	x	400	50.10	3,030	0.078	0.101	0.522	0.164	0.415	1.670	708	561	37.79
	1	x	500	53.60	3,577	0.061	0.079	0.512	0.161	0.463	1.505	827	644	47.24
	1	x	630	57.30	4,193	0.047	0.062	0.501	0.157	0.514	1.369	967	740	59.53
12/20 (24) kV	1	x	35	31.10	1,132	0.868	1.113	0.672	0.211	0.162	3.778	164	147	3.31
	1	x	50	32.40	1,238	0.641	0.822	0.656	0.206	0.174	3.376	195	173	4.72
	1	x	70	35.30	1,492	0.443	0.568	0.631	0.198	0.198	2.917	246	214	6.61
	1	x	95	36.90	1,647	0.320	0.411	0.609	0.191	0.220	2.607	298	256	8.98
	1	x	120	38.50	1,807	0.253	0.325	0.594	0.187	0.238	2.405	344	291	11.34
	1	x	150	40.10	1,973	0.206	0.265	0.582	0.183	0.255	2.241	389	326	14.17
	1	x	185	41.80	2,171	0.164	0.211	0.570	0.179	0.275	2.085	446	370	17.48
	1	x	240	45.50	2,428	0.125	0.161	0.552	0.174	0.306	1.892	528	431	22.68
	1	x	300	48.00	2,774	0.100	0.129	0.541	0.170	0.332	1.752	606	488	28.35
	1	x	400	52.30	3,203	0.078	0.101	0.530	0.167	0.354	1.585	708	561	37.79
	1	x	500	55.80	3,763	0.061	0.079	0.520	0.163	0.394	1.434	826	643	47.24
	1	x	630	59.70	4,426	0.047	0.062	0.508	0.160	0.436	1.310	965	739	59.53
18/30 (36) kV	1	x	35	37.50	1,595	0.868	1.113	0.709	0.223	0.128	3.257	166	147	3.31
	1	x	50	38.80	1,717	0.641	0.822	0.692	0.217	0.136	2.892	197	173	4.72
	1	x	70	40.70	1,891	0.443	0.568	0.659	0.207	0.154	2.503	247	212	6.61
	1	x	95	42.50	2,081	0.320	0.411	0.637	0.200	0.169	2.241	299	254	8.98
	1	x	120	43.90	2,234	0.253	0.325	0.620	0.195	0.181	2.074	344	290	11.34
	1	x	150	46.70	2,437	0.206	0.265	0.608	0.191	0.194	1.940	389	325	14.17
	1	x	185	48.40	2,628	0.164	0.211	0.594	0.187	0.207	1.812	446	368	17.48
	1	x	240	51.10	2,930	0.125	0.161	0.576	0.181	0.229	1.656	528	429	22.68
	1	x	300	53.40	3,300	0.100	0.129	0.564	0.177	0.248	1.543	604	485	28.35
	1	x	400	57.70	3,761	0.078	0.101	0.551	0.173	0.265	1.408	705	558	37.79
	1	x	500	61.20	4,357	0.061	0.079	0.539	0.170	0.294	1.286	821	641	47.24
	1	x	630	65.30	5,057	0.047	0.062	0.527	0.166	0.323	1.182	958	736	59.53

**Further information about derating factors for arrangement can be found on supplementary technical information.*

NA2XSEFGbY (Al / XLPE / CTS / PVC / SFA / PVC)

(Aluminium Conductor, XLPE Insulated, Copper Tape Screen, PVC Inner Sheathed, Galvanized Steel Flat Armor, PVC Sheathed)
Standard Specification : SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Aluminium Conductor
Conductor Screen
XLPE Insulation
ID Tape (Red, Yellow, Black)
Insulation Screen
Copper Tape Screen
PVC Inner Sheath (Fully Extruded)
Galvanized Steel Flat Armor
Galvanized Steel Tape
Red PVC Outer Sheath

Application

For installation in the ground, indoors, cable trunking and outdoors if increased mechanical protection is required or where high-pulling stresses may occur during installation or operation.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape

- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 35 - 70 sqmm supplied in wooden drum @ 1000 meters
- 95 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area	Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
				Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²	mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	3 x 35	42.70	2,720	0.868	1.113	0.334	0.105	0.219	1.118	147	136	3.29
	3 x 50	45.60	3,158	0.641	0.822	0.322	0.101	0.240	0.828	174	159	4.70
	3 x 70	49.80	3,733	0.443	0.568	0.303	0.095	0.282	0.576	215	193	6.58
	3 x 95	53.60	4,305	0.320	0.411	0.290	0.091	0.320	0.421	260	230	8.93
	3 x 120	57.20	4,893	0.253	0.325	0.281	0.088	0.352	0.337	296	260	11.28
	3 x 150	60.30	5,451	0.206	0.265	0.274	0.086	0.382	0.278	334	290	14.10
	3 x 185	63.80	6,117	0.164	0.211	0.267	0.084	0.417	0.227	380	327	17.39
	3 x 240	69.90	7,195	0.125	0.161	0.260	0.081	0.459	0.181	447	378	22.56
	3 x 300	76.10	8,586	0.100	0.130	0.256	0.080	0.479	0.153	508	425	28.20
	3 x 400	87.20	11,134	0.078	0.102	0.255	0.080	0.480	0.130	590	486	37.60
6/10 (12) kV	3 x 35	47.60	3,323	0.868	1.113	0.358	0.112	0.182	1.119	152	137	3.29
	3 x 50	49.70	3,628	0.641	0.822	0.344	0.108	0.199	0.829	179	161	4.70
	3 x 70	53.90	4,210	0.443	0.568	0.323	0.101	0.232	0.577	221	196	6.58
	3 x 95	58.10	4,896	0.320	0.411	0.308	0.097	0.261	0.422	265	232	8.93
	3 x 120	61.30	5,425	0.253	0.325	0.298	0.094	0.286	0.338	303	263	11.28
	3 x 150	64.60	6,038	0.206	0.265	0.290	0.091	0.310	0.280	341	292	14.10
	3 x 185	68.10	6,730	0.164	0.211	0.282	0.088	0.337	0.229	388	330	17.39
	3 x 240	73.90	7,863	0.125	0.161	0.272	0.085	0.379	0.183	453	380	22.56
	3 x 300	78.90	9,036	0.100	0.130	0.264	0.083	0.416	0.154	514	427	28.20
	3 x 400	88.90	11,456	0.078	0.102	0.260	0.082	0.441	0.131	594	487	37.60
8.7/15 (17.5) kV	3 x 35	52.70	3,897	0.868	1.113	0.383	0.120	0.154	1.119	157	139	3.29
	3 x 50	54.90	4,248	0.641	0.822	0.368	0.116	0.168	0.830	185	163	4.70
	3 x 70	59.50	4,931	0.443	0.568	0.344	0.108	0.194	0.578	227	198	6.58
	3 x 95	63.20	5,570	0.320	0.411	0.328	0.103	0.217	0.423	272	234	8.93
	3 x 120	66.50	6,156	0.253	0.325	0.317	0.099	0.237	0.340	311	265	11.28
	3 x 150	69.60	6,767	0.206	0.265	0.308	0.097	0.256	0.282	349	296	14.10
	3 x 185	73.50	7,568	0.164	0.211	0.299	0.094	0.277	0.231	395	332	17.39
	3 x 240	79.10	8,714	0.125	0.161	0.287	0.090	0.311	0.185	461	384	22.56
	3 x 300	84.60	10,243	0.100	0.130	0.279	0.088	0.340	0.156	523	431	28.20
	3 x 400	94.10	12,462	0.078	0.102	0.273	0.086	0.363	0.133	604	491	37.60
12/20 (24) kV	3 x 35	57.60	4,529	0.868	1.113	0.404	0.127	0.138	1.120	161	141	3.29
	3 x 50	59.80	4,900	0.641	0.822	0.388	0.122	0.149	0.831	189	164	4.70
	3 x 70	64.00	5,559	0.443	0.568	0.362	0.114	0.171	0.579	232	200	6.58
	3 x 95	67.90	6,262	0.320	0.411	0.345	0.108	0.191	0.425	278	237	8.93
	3 x 120	71.20	6,875	0.253	0.325	0.333	0.104	0.207	0.341	317	268	11.28
	3 x 150	74.70	7,592	0.206	0.265	0.323	0.101	0.223	0.283	354	297	14.10
	3 x 185	78.20	8,350	0.164	0.211	0.313	0.098	0.241	0.233	402	335	17.39
	3 x 240	84.40	9,827	0.125	0.161	0.300	0.094	0.270	0.187	469	387	22.56
	3 x 300	89.20	11,091	0.100	0.129	0.291	0.091	0.294	0.158	532	434	28.20
	3 x 400	99.20	13,540	0.078	0.102	0.284	0.089	0.315	0.135	611	494	37.60
18/30 (36) kV	3 x 35	69.20	6,167	0.868	1.113	0.447	0.140	0.112	1.122	170	144	3.29
	3 x 50	71.40	6,559	0.641	0.822	0.430	0.135	0.120	0.833	200	168	4.70
	3 x 70	76.00	7,413	0.443	0.568	0.401	0.126	0.137	0.582	243	204	6.58
	3 x 95	79.70	8,166	0.320	0.411	0.381	0.120	0.151	0.428	291	241	8.93
	3 x 120	83.80	9,194	0.253	0.325	0.367	0.115	0.163	0.345	330	273	11.28
	3 x 150	86.90	9,913	0.206	0.265	0.356	0.112	0.175	0.287	369	303	14.10
	3 x 185	90.40	10,758	0.164	0.211	0.345	0.108	0.187	0.237	418	341	17.39
	3 x 240	96.00	12,069	0.125	0.161	0.329	0.103	0.208	0.191	487	394	22.56
	3 x 300	101.20	13,540	0.100	0.129	0.319	0.100	0.225	0.164	548	441	28.20
	3 x 400	110.60	16,021	0.078	0.102	0.309	0.097	0.243	0.140	630	502	37.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

NA2XSEYBY (Al / XLPE / CWS / PVC / DSTA / PVC)

(Aluminium Conductor, XLPE Insulated, Copper Wire Screen, PVC Inner Sheathed, Double Steel Tape Armor, PVC Sheathed)
Standard Specification : SPLN 43-5, SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Application

For installation in the ground, indoors, cable trunking and outdoors if increased mechanical protection is required or where high-pulling stresses may occur during installation or operation.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape

- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 35 - 70 sqmm supplied in wooden drum @ 1000 meters
- 95 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		L	X	C	Z	Max. Current - Carrying Capacity at 30 °C		Max. Short Circuit Current at 1 Second
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C					in air	in ground	
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	3	x	35	52.69	3,797	0.868	1.113	0.388	0.122	0.211	1.120	156	139	3.29
	3	x	50	55.48	4,176	0.641	0.822	0.368	0.116	0.237	0.830	184	162	4.70
	3	x	70	59.34	4,742	0.443	0.568	0.348	0.109	0.272	0.579	226	197	6.58
	3	x	95	63.63	5,403	0.320	0.411	0.331	0.104	0.310	0.424	271	234	8.93
	3	x	120	66.85	5,958	0.253	0.325	0.319	0.100	0.340	0.340	309	265	11.28
	3	x	150	70.04	6,787	0.206	0.265	0.311	0.098	0.366	0.282	346	294	14.10
	3	x	185	74.33	7,621	0.164	0.211	0.301	0.094	0.404	0.231	394	332	17.39
	3	x	240	81.33	9,597	0.125	0.161	0.293	0.092	0.432	0.186	462	384	22.56
	3	x	300	88.71	11,477	0.100	0.130	0.286	0.090	0.465	0.158	528	433	28.20
	3	x	400	96.42	13,390	0.078	0.102	0.279	0.088	0.496	0.134	608	494	37.60
6/10 (12) kV	3	x	35	56.78	4,256	0.868	1.113	0.406	0.127	0.178	1.120	160	140	3.29
	3	x	50	59.77	4,682	0.641	0.822	0.385	0.121	0.199	0.831	188	164	4.70
	3	x	70	63.63	5,278	0.443	0.568	0.364	0.114	0.226	0.580	230	199	6.58
	3	x	95	68.12	6,006	0.320	0.411	0.345	0.108	0.257	0.425	276	235	8.93
	3	x	120	71.34	6,598	0.253	0.325	0.333	0.105	0.280	0.341	314	266	11.28
	3	x	150	74.33	7,419	0.206	0.265	0.324	0.102	0.301	0.284	352	296	14.10
	3	x	185	78.62	8,277	0.164	0.211	0.313	0.098	0.331	0.233	400	334	17.39
	3	x	240	85.38	10,309	0.125	0.161	0.303	0.095	0.362	0.187	467	386	22.56
	3	x	300	91.70	12,039	0.100	0.129	0.293	0.092	0.408	0.159	532	435	28.20
	3	x	400	98.35	13,780	0.078	0.102	0.283	0.089	0.454	0.135	611	495	37.60
8.7/15 (17.5) kV	3	x	35	62.33	4,940	0.868	1.113	0.425	0.134	0.152	1.121	163	141	3.29
	3	x	50	65.12	5,362	0.641	0.822	0.404	0.127	0.169	0.832	193	166	4.70
	3	x	70	68.98	5,997	0.443	0.568	0.382	0.120	0.191	0.581	235	201	6.58
	3	x	95	73.27	6,746	0.320	0.411	0.362	0.114	0.215	0.426	282	238	8.93
	3	x	120	76.49	7,358	0.253	0.325	0.349	0.110	0.234	0.343	321	269	11.28
	3	x	150	79.68	8,245	0.206	0.265	0.339	0.107	0.250	0.285	358	299	14.10
	3	x	185	83.97	9,147	0.164	0.211	0.327	0.103	0.275	0.235	407	337	17.39
	3	x	240	90.53	11,257	0.125	0.161	0.316	0.099	0.300	0.189	474	389	22.56
	3	x	300	97.05	13,077	0.100	0.129	0.306	0.096	0.336	0.161	539	438	28.20
	3	x	400	103.70	14,899	0.078	0.102	0.295	0.093	0.373	0.137	618	498	37.60
12/20 (24) kV	3	x	35	66.65	5,483	0.868	1.113	0.442	0.139	0.136	1.122	167	143	3.29
	3	x	50	69.64	5,965	0.641	0.822	0.420	0.132	0.150	0.832	197	167	4.70
	3	x	70	73.70	6,677	0.443	0.568	0.397	0.125	0.169	0.582	240	202	6.58
	3	x	95	77.79	7,411	0.320	0.411	0.376	0.118	0.190	0.427	287	240	8.93
	3	x	120	81.21	8,093	0.253	0.325	0.362	0.114	0.206	0.344	326	271	11.28
	3	x	150	86.05	9,928	0.206	0.265	0.353	0.111	0.217	0.287	366	302	14.10
	3	x	185	89.70	10,797	0.164	0.211	0.339	0.107	0.240	0.236	415	340	17.39
	3	x	240	95.49	12,182	0.125	0.161	0.328	0.103	0.259	0.191	482	392	22.56
	3	x	300	101.57	13,970	0.100	0.129	0.316	0.099	0.292	0.163	546	441	28.20
	3	x	400	108.62	15,965	0.078	0.102	0.304	0.096	0.324	0.139	625	501	37.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

NA2XSEYFGbY (Al / XLPE / CWS / PVC / SFA / PVC)

(Aluminium Conductor, XLPE Insulated, Copper Wire Screen, PVC Inner Sheathed, Steel Flat Armor, PVC Sheathed)
Standard Specification : SPLN 43-5, SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Aluminium Conductor With WBT
Conductor Screen
XLPE Insulation
Insulation Screen
Semiconductive WBT
Copper Wire Screen
Copper Tape Screen
ID Tape (Red, Yellow, Black)
Non-Conductive WBT
PVC Inner Sheath (Fully Extruded)
Galvanized Steel Flat Armor
Galvanized Steel Tape
Red PVC Outer Sheath

Application

For installation in the ground, indoors, cable trunking and outdoors if increased mechanical protection is required or where high-pulling stresses may occur during installation or operation.

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape

- 35 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 35 - 70 sqmm supplied in wooden drum @ 1000 meters
- 95 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES								
Rating	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Conductor Max. AC Resistance at 90 °C	L	X	C	Z	Max. Current - Carrying Capacity at 30 °C in air	Max. Current - Carrying Capacity at 30 °C in ground	Max. Short Circuit Current at 1 Second
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	A	kA
3.6/6 (7.2) kV	3	x	35	53.30	3,423	0.868	1.113	0.388	0.122	0.211	1.120	156	139	3.29
	3	x	50	56.09	3,778	0.641	0.822	0.368	0.116	0.237	0.830	185	163	4.70
	3	x	70	59.95	4,316	0.443	0.568	0.348	0.109	0.272	0.579	226	197	6.58
	3	x	95	64.24	4,940	0.320	0.411	0.331	0.104	0.310	0.424	272	234	8.93
	3	x	120	67.46	5,470	0.253	0.325	0.319	0.100	0.340	0.340	310	265	11.28
	3	x	150	70.65	6,276	0.206	0.265	0.311	0.098	0.366	0.282	346	294	14.10
	3	x	185	74.94	7,077	0.164	0.211	0.301	0.094	0.404	0.231	394	332	17.39
	3	x	240	80.73	8,205	0.125	0.161	0.293	0.092	0.432	0.186	459	382	22.56
	3	x	300	88.11	9,953	0.100	0.130	0.286	0.090	0.465	0.158	525	431	28.20
	3	x	400	95.82	11,729	0.078	0.102	0.279	0.088	0.496	0.134	604	490	37.60
6/10 (12) kV	3	x	35	57.39	3,847	0.868	1.113	0.406	0.127	0.178	1.120	160	140	3.29
	3	x	50	60.38	4,250	0.641	0.822	0.385	0.121	0.199	0.831	189	164	4.70
	3	x	70	64.24	4,815	0.443	0.568	0.364	0.114	0.226	0.580	231	199	6.58
	3	x	95	68.73	5,510	0.320	0.411	0.345	0.108	0.257	0.425	276	235	8.93
	3	x	120	71.95	6,077	0.253	0.325	0.333	0.105	0.280	0.341	315	266	11.28
	3	x	150	74.94	6,875	0.206	0.265	0.324	0.102	0.301	0.284	352	296	14.10
	3	x	185	79.23	7,696	0.164	0.211	0.313	0.098	0.331	0.233	400	334	17.39
	3	x	240	84.78	8,849	0.125	0.161	0.303	0.095	0.362	0.187	464	384	22.56
	3	x	300	91.10	10,463	0.100	0.129	0.293	0.092	0.408	0.159	529	432	28.20
	3	x	400	97.75	12,084	0.078	0.102	0.283	0.089	0.454	0.135	606	492	37.60
8.7/15 (17.5) kV	3	x	35	62.94	4,491	0.868	1.113	0.425	0.134	0.152	1.121	164	142	3.29
	3	x	50	65.73	4,888	0.641	0.822	0.404	0.127	0.169	0.832	193	166	4.70
	3	x	70	69.59	5,495	0.443	0.568	0.382	0.120	0.191	0.581	236	201	6.58
	3	x	95	73.88	6,207	0.320	0.411	0.362	0.114	0.215	0.426	282	238	8.93
	3	x	120	77.10	6,794	0.253	0.325	0.349	0.110	0.234	0.343	321	269	11.28
	3	x	150	80.29	7,659	0.206	0.265	0.339	0.107	0.250	0.285	358	299	14.10
	3	x	185	84.58	8,527	0.164	0.211	0.327	0.103	0.275	0.235	407	336	17.39
	3	x	240	89.93	9,702	0.125	0.161	0.316	0.099	0.300	0.189	472	387	22.56
	3	x	300	96.45	11,406	0.100	0.129	0.306	0.096	0.336	0.161	536	435	28.20
	3	x	400	103.10	13,108	0.078	0.102	0.295	0.093	0.373	0.137	614	495	37.60
12/20 (24) kV	3	x	35	67.26	4,997	0.868	1.113	0.442	0.139	0.136	1.122	168	143	3.29
	3	x	50	70.25	5,456	0.641	0.822	0.420	0.132	0.150	0.832	197	167	4.70
	3	x	70	74.31	6,136	0.443	0.568	0.397	0.125	0.169	0.582	240	202	6.58
	3	x	95	78.40	6,839	0.320	0.411	0.376	0.118	0.190	0.427	287	240	8.93
	3	x	120	81.82	7,493	0.253	0.325	0.362	0.114	0.206	0.344	327	271	11.28
	3	x	150	85.45	8,454	0.206	0.265	0.353	0.111	0.217	0.287	365	301	14.10
	3	x	185	89.10	9,256	0.164	0.211	0.339	0.107	0.240	0.236	413	339	17.39
	3	x	240	94.89	10,540	0.125	0.161	0.328	0.103	0.259	0.191	480	390	22.56
	3	x	300	100.97	12,217	0.100	0.129	0.316	0.099	0.292	0.163	543	438	28.20
	3	x	400	108.02	14,088	0.078	0.102	0.304	0.096	0.324	0.139	620	497	37.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

SUTRADO
KABEL

MEDIUM VOLTAGE TWISTED CABLES

12/20 (24) kV, NF2XSY (Cu/XLPE/CWS/PVC)

(Copper Conductor, XLPE Insulated, Copper Wire Screen,PVC Sheated)

12/20 (24) kV, NFA2XSY (Al/XLPE/CWS/PVC)

(Aluminium Conductor, XLPE Insulated, Copper Wire Screen, PVC Sheated)
Standard Specification : SPLN 43-5, SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

NF2XSY

- *Copper Conductor*
- *Conductor Screen*
- *XLPE Insulated*
- *Insulation Screen*
- *Water Blocking Tape*
- *Copper Wire Screen*
- *Copper Tape Screen*
- *Non-Conductive WBT*
- *Red PVC Outer Sheath*

NFA2XSY

- *Aluminium Conductor*
- *Conductor Screen*
- *XLPE Insulated*
- *Insulation Screen*
- *Water Blocking Tape*
- *Copper Wire Screen*
- *Copper Tape Screen*
- *Non-Conductive WBT*
- *Red PVC Outer Sheath*

Application

XLPE insulated twisted cables are applied for underground installation

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape

- 35 - 300 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 35 - 95 sqmm supplied in wooden drum @ 1000 meters
- 120 - 300 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

NF2XSY

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES					
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Inductance	Max. (Amp) Current - Carrying Capacity At 30 °C	Max. Short Circuit Current at 1 Second	
					Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C		in ground	Conductor	Screen
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	A	kA	kA
3	X	35	56.0	3,000	0.5240	0.668	0.416	175	5.18	2.77
3	X	50	58.0	3,500	0.3870	0.494	0.399	207	7.36	2.92
3	X	70	62.0	4,300	0.2680	0.342	0.380	232	10.26	3.14
3	X	95	66.0	5,200	0.1930	0.247	0.362	302	13.88	3.38
3	X	120	70.0	6,100	0.1530	0.196	0.351	343	17.49	3.57
3	X	150	73.0	7,100	0.1240	0.159	0.343	385	21.81	4.66
3	X	185	77.0	8,200	0.0990	0.128	0.331	435	26.86	3.99
3	X	240	83.0	10,100	0.0750	0.098	0.318	504	34.78	4.31
3	X	300	88.0	12,100	0.0601	0.079	0.309	567	43.41	4.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

NFA2XSY

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES					
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Inductance	Max. (Amp) Current - Carrying Capacity At 30 °C	Max. Short Circuit Current at 1 Second	
					Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C		in ground	Conductor	Screen
mm²			mm	kg/km	ohm/km	ohm/km	mH/km	A	kA	kA
3	X	50	58.0	2,600	0.641	0.822	0.399	157	4.39	2.92
3	X	70	62.0	3,000	0.443	0.568	0.380	196	6.81	3.14
3	X	95	66.0	3,400	0.320	0.411	0.362	233	9.19	3.38
3	X	120	70.0	3,800	0.253	0.325	0.351	267	11.58	3.57
3	X	150	73.0	4,300	0.206	0.265	0.343	299	14.43	4.66
3	X	185	77.0	4,800	0.164	0.212	0.331	339	17.76	3.99
3	X	240	83.0	5,500	0.125	0.162	0.318	390	22.98	4.31
3	X	300	88.0	6,300	0.100	0.130	0.309	447	28.67	4.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

12/20 (24) kV, NFA2XSY-T

(Aluminium Conductor, XLPE Insulated, Copper Wire Screen, PVC Sheated + GSW Messenger)
Standard Specification : SPLN 43-5, SNI IEC 60502-2, IEC 60502-2

**For ID Tape colour can be based on Customer Request or Follow Standard*

Aluminium Conductor
Conductor Screen
XLPE Insulated
Insulation Screen
Water Blocking Tape
Copper Wire Screen
Copper Tape Screen
Non-Conductive WBT
Black PVC Outer Sheated
Messenger
Stranded Steel Wire
PVC Insulated

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES				
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor Max. DC Resistance at 20 °C	Inductance	Max. (Amp) Current - Carrying Capacity at 30 °C	Max. Short Circuit Current at 1 Second	
								Conductor	Screen
mm²			mm	kg/km	ohm/km	mH/km	in air	kA	kA
3 x 35cm / 16	+	95	64.00	3,468	0.868	0.418	142	3.45	2.77
3 x 50cm / 16	+	95	66.00	3,659	0.641	0.400	165	4.89	2.92
3 x 70cm / 16	+	95	70.00	4,036	0.443	0.382	204	6.81	3.14
3 x 95cm / 16	+	95	74.00	4,375	0.320	0.365	247	9.19	3.38
3 x 120cm / 16	+	95	77.00	4,782	0.253	0.354	287	11.58	3.57
3 x 150cm / 25	+	95	80.00	5,395	0.206	0.346	326	14.43	4.66
3 x 185cm / 25	+	95	83.00	5,763	0.164	0.333	373	17.76	3.99
3 x 240cm / 25	+	95	89.00	6,586	0.125	0.323	435	22.98	4.31
3 x 300cm / 25	+	95	93.00	7,620	0.100	0.312	481	28.67	4.60

**Further information about derating factors for arrangement can be found on supplementary technical information.*

Application

XLPE insulated twisted cables are applied for specially overhead installation

Special Features on Request

- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite

Note : Conductor Shape

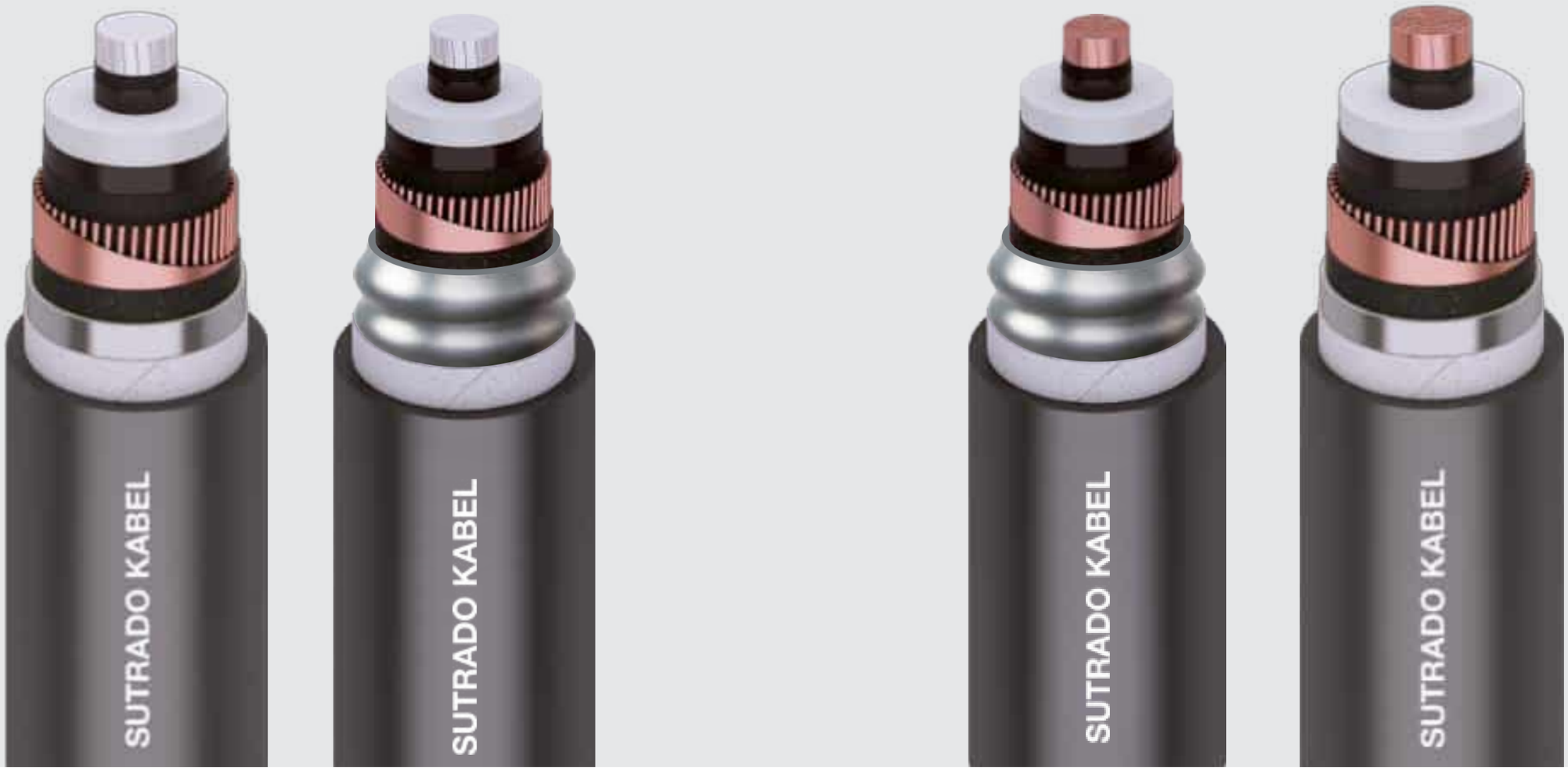
- 35 - 300 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 35 - 95 sqmm supplied in wooden drum @ 1000 meters
- 120 - 300 sqmm supplied in wooden drum on available length
- Length Tolerance per drum ± 2%

SUTRADO
KABEL

HIGH VOLTAGE CABLES



87/150 (170) kV, N2XCK2Y

(Copper Conductor, XLPE Insulated, Copper Wire Screened, Water Sealing, Lead Sheathed, HDPE Sheated)

87/150 (170) kV, NA2XCK2Y

(Aluminium Conductor, XLPE Insulated, Copper Wire Screened, Water Sealing, Lead Sheathed, HDPE Sheated)

N2XCK2Y

NA2XCK2Y

Construction

- Copper / Aluminium Conductor
- HT Semiconductive Tape
- Inner Semiconductive Compound (Bounded)
- Super Clean XLPE Insulation
- Outer Semiconductive Compound (Bounded)
- Semiconductive Water Block
- Metalic Copper Wire Screen
- Metalic Copper Tape Screen
- Semiconductive Water Block
- Lead Alloy Metalic Sheath
- Non Conductive Water Block
- PE or PVC Outer Sheath

Application

Single core High Voltage Cable, Copper or Alumunium Conductor with rated Voltage of 170 kV, Apllies for underground transmission with power frequency of 50-60 Hz.

Instalation

- Max Duration Short Circuit at 5 second, Operating temperature of cable conductor shall not exceed 250° C.
- Minimum bending radius of cable shallnot be smaller than 15 times of actual overall diametre cable.

Standard Specification

IEC 60840

Standard Packing

- Steel Drum, Max. 500 Meter.
- Gross Weight, Max. 20 - 22 Ton each Drum
- Diameter Steel Drum 3.6 meter and Width 2.4 meter

87/150 (170) kV, N2XCK2Y

(Copper Conductor, XLPE Insulated, Copper Wire Screened, Water Sealing, Lead Sheathed, HDPE Sheated)

87/150 (170) kV, NA2XCK2Y

(Aluminium Conductor, XLPE Insulated, Copper Wire Screened, Water Sealing, Lead Sheathed, HDPE Sheated)

PHYSICAL PROPERTIES

Rating	Size			Conductor Shape	Conductor Diameter	Nominal Insulation	Insulation Diameter	Metalic Screen Diameter	Metalic Sheath Diameter	Approx. Overall Diameter	Approx. Cable Weight
	mm²			mm	mm	mm	mm	mm	mm	mm	kg/km
N2XCK2Y 87/150 (170) kV	1	x	300	cm	20.50	19	64.30	71.48	80.28	88.36	16,974
	1	x	400	cm	23.50	19	67.30	74.48	83.08	91.36	17,982
	1	x	500	cm	26.50	19	70.30	77.48	86.08	94.56	19,509
	1	x	630	cm	30.20	19	74.00	81.18	89.78	98.46	21,468
	1	x	800	cm	34.20	19	78.00	85.18	93.58	102.46	23,850
	1	x	1000	4 SG	39.80	19	83.60	90.78	99.18	108.46	26,835
	1	x	1200	4 SG	42.50	19	86.30	93.48	101.88	111.36	28,934
	1	x	1600	5 SG	50.70	19	94.67	101.85	110.25	120.61	35,239
	1	x	2000	5 SG	56.60	19	100.57	107.75	116.15	126.91	40,098
NA2XCK2Y 87/150 (170) kV	1	x	300	cm	20.50	19	64.30	71.48	80.28	88.36	15,129
	1	x	400	cm	23.50	19	67.30	74.48	83.08	91.36	15,633
	1	x	500	cm	26.50	19	70.30	77.48	86.08	94.56	16,507
	1	x	630	cm	30.20	19	74.00	81.18	89.78	98.46	17,603
	1	x	800	cm	34.20	19	78.00	85.18	93.58	102.46	18,628
	1	x	1000	4 SG	39.80	19	83.60	90.78	99.18	108.46	20,320
	1	x	1200	4 SG	42.50	19	86.30	93.48	101.88	111.36	21,329
	1	x	1600	5 SG	50.70	19	94.67	101.85	110.25	120.61	24,430
	1	x	2000	5 SG	56.60	19	100.57	107.75	116.15	126.91	26,717

**Further information about derating factors for arrangement can be found on supplementary technical information.*
Deep Off Laying 1.5 m
Soil Thermal Resistivity 1 K.m/W

ELECTRICAL PROPERTIES

Rating	Size			Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C	L	X	C	Z	Max. Current - Carrying Capacity at 30 °C	Short Circuit Current at 1 Second	
										In Ground	Cond	Screen
	mm²			ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	kA/Sec	
N2XCK2Y 87/150 (170) kV	1	x	300	0.0601	0.0779	0.607	0.191	0.150	0.206	580	43	40
	1	x	400	0.0470	0.0616	0.581	0.182	0.163	0.193	654	57	40
	1	x	500	0.0336	0.0451	0.559	0.176	0.176	0.181	766	72	40
	1	x	630	0.0283	0.0389	0.536	0.168	0.192	0.173	828	90	40
	1	x	800	0.0221	0.0317	0.515	0.162	0.209	0.165	919	114	40
	1	x	1000	0.0176	0.0268	0.491	0.154	0.232	0.157	1004	143	40
	1	x	1200	0.0151	0.0241	0.481	0.151	0.244	0.153	1060	172	40
	1	x	1600	0.0113	0.0203	0.456	0.143	0.277	0.144	1162	229	40
	1	x	2000	0.0090	0.0180	0.440	0.138	0.302	0.139	1241	286	40
NA2XCK2Y 87/150 (170) kV	1	x	300	0.1000	0.1290	0.607	0.191	0.150	0.230	451	28	40
	1	x	400	0.0778	0.1007	0.581	0.182	0.163	0.208	511	38	40
	1	x	500	0.0605	0.0789	0.559	0.176	0.176	0.193	579	47	40
	1	x	630	0.0490	0.0645	0.536	0.168	0.192	0.180	643	59	40
	1	x	800	0.0367	0.0493	0.515	0.162	0.209	0.169	737	75	40
	1	x	1000	0.0291	0.0403	0.491	0.154	0.232	0.159	819	94	40
	1	x	1200	0.0247	0.0351	0.481	0.151	0.244	0.155	879	113	40
	1	x	1600	0.0186	0.0284	0.456	0.143	0.277	0.146	984	150	40
	1	x	2000	0.0149	0.0245	0.440	0.138	0.302	0.140	1064	188	40

**Further information about derating factors for arrangement can be found on supplementary technical information.*
Deep Off Laying 1.5 m
Soil Thermal Resistivity 1 K.m/W

87/150 (170) kV, Cu/XLPE/CWS/CAA/HDPE

(Copper Conductor, XLPE Insulation, Copper Wire Screen, Water Sealing, Continuous Welded Corrugated Aluminium Armour and HDPE Sheathed)

87/150 (170) kV, Al/XLPE/CWS/CAA/HDPE

(Aluminium Conductor, XLPE Insulation, Copper Wire Screen, Water Sealing, Continuous Welded Corrugated Aluminium Armour and HDPE Sheathed)

Cu/XLPE/CWS/CAA/HDPE

Al/XLPE/CWS/CAA/HDPE

Construction

- Copper / Aluminium Conductor
- HT Semiconductive Tape
- Inner Semiconductive Compound (Bounded)
- Super Clean XLPE Insulation
- Outer Semiconductive Compound (Bounded)
- Semiconductive Water Block
- Metalic Copper Wire Screen
- Metalic Copper Tape Screen
- Semiconductive Water Block
- Corrugated Aluminium Armour
- Non Conductive Water Block
- PE or PVC Outer Sheath

Application

Single core High Voltage Cable, Copper or Alumunium Conductor with rated Voltage of 170 kV, Apllies for underground transmission with power frequency of 50-60 Hz.

Instalation

- Max Duration Short Circuit at 5 second, Operating temperature of cable conductor shall not exceed 250° C.
- Minimum bending radius of cable shallnot be smaller than 15 times of actual overall diametre cable.

Standard Specification

IEC 60840

Standard Packing

- Steel Drum, Max. 500 Meter.
- Gross Weight, Max. 20 - 22 Ton each Drum
- Diameter Steel Drum 3.6 meter and Width 2.4 meter

87/150 (170) kV, Cu/XLPE/CWS/CAA/HDPE

(Copper Conductor, XLPE Insulation, Copper Wire Screen, Water Sealing, Continuous Welded Corrugated Aluminium Armour and HDPE Sheathed)

87/150 (170) kV, Al/XLPE/CWS/CAA/HDPE

(Aluminium Conductor, XLPE Insulation, Copper Wire Screen, Water Sealing, Continuous Welded Corrugated Aluminium Armour and HDPE Sheathed)

PHYSICAL PROPERTIES

Rating		Size			Conductor Shape	Conductor Diameter	Nominal Insulation	Insulation Diameter	Metalic Screen Diameter	Metalic Sheath Diameter	Approx. Overall Diameter	Approx. Cable Weight
		mm²			mm	mm	mm	mm	mm	mm	mm	kg/km
Cu/XLPE/CWS/CAA/HDPE	87/150 (170) kV	1	x	300	cm	20.50	19.00	64.30	71.48	88.00	96.56	11115
		1	x	400	cm	23.50	19.00	68.18	75.36	92.80	101.76	13066
		1	x	500	cm	26.50	19.00	71.18	78.36	95.80	104.76	14274
		1	x	630	cm	30.20	19.00	74.88	82.06	99.30	108.66	15947
		1	x	800	cm	34.20	19.00	78.88	86.06	107.50	117.06	18171
		1	x	1000	4 SG	39.80	19.00	83.80	95.46	117.50	127.66	21647
		1	x	1200	4 SG	42.50	19.00	86.50	98.16	120.00	130.36	23510
		1	x	1600	5 SG	48.60	19.00	93.60	105.46	127.50	139.02	28758
		1	x	2000	5 SG	54.50	19.00	99.50	111.36	134.30	146.22	33755
Al/XLPE/CWS/CAA/HDPE	87/150 (170) kV	1	x	300	cm	20.50	19.00	64.30	71.48	88.00	96.56	9265
		1	x	400	cm	23.50	19.00	67.30	74.48	92.80	101.76	10709
		1	x	500	cm	26.50	19.00	70.30	77.48	95.80	104.76	11263
		1	x	630	cm	30.20	19.00	74.00	81.18	99.30	108.66	12070
		1	x	800	cm	34.20	19.00	78.00	85.18	107.50	117.06	13183
		1	x	1000	4 SG	39.80	19.00	83.80	95.46	117.50	127.66	15110
		1	x	1200	4 SG	42.50	19.00	86.50	98.16	120.00	130.36	15881
		1	x	1600	5 SG	48.60	19.00	93.60	105.46	127.50	139.02	18443
		1	x	2000	5 SG	54.50	19.00	99.50	111.36	134.30	146.22	20835

**Further information about derating factors for arrangement can be found on supplementary technical information.*
Deep Off Laying *1.5 m*
Soil Thermal Resistivity *1 K.m/W*

ELECTRICAL PROPERTIES

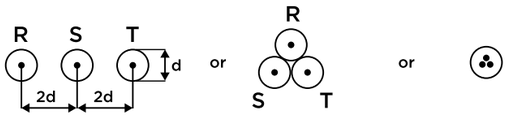
Rating		Size			Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C	L	X	C	Z	Max. Current - Carrying Capacity at 30 °C	Short Circuit Current at 1 Second	
											In Ground	Cond	Screen
		mm²			ohm/km	ohm/km	mH/km	ohm/km	µF/km	ohm/km	A	kA/Sec	
Cu/XLPE/CWS/CAA/HDPE	87/150 (170) kV	1	x	300	0.0601	0.0777	0.691	0.2171	0.14	0.165	634	43	29
		1	x	400	0.047	0.0614	0.666	0.209	0.16	0.148	728	57	29
		1	x	500	0.0366	0.0485	0.649	0.2038	0.17	0.135	828	72	29
		1	x	630	0.0283	0.0384	0.635	0.200	0.18	0.125	946	90	29
		1	x	800	0.0221	0.0311	0.618	0.1943	0.20	0.118	1062	114	29
		1	x	1000	0.0176	0.0259	0.608	0.191	0.22	0.108	1181	143	31
		1	x	1200	0.0151	0.0231	0.600	0.1886	0.23	0.105	1257	172	31
		1	x	1600	0.0113	0.019	0.577	0.181	0.26	0.101	1414	229	31
		1	x	2000	0.009	0.0166	0.565	0.1774	0.28	0.098	1525	286	31
Al/XLPE/CWS/CAA/HDPE	87/150 (170) kV	1	x	300	0.1	0.1289	0.694	0.218	0.14	0.216	493	28	29
		1	x	400	0.0778	0.1006	0.666	0.209	0.16	0.188	572	38	29
		1	x	500	0.0605	0.0787	0.649	0.2038	0.17	0.166	655	47	29
		1	x	630	0.049	0.0642	0.635	0.200	0.18	0.151	738	60	29
		1	x	800	0.0367	0.0489	0.618	0.1943	0.20	0.136	856	76	29
		1	x	1000	0.0291	0.0396	0.608	0.191	0.22	0.121	968	94	31
		1	x	1200	0.0247	0.0343	0.600	0.1886	0.23	0.116	1046	113	31
		1	x	1600	0.0186	0.0272	0.577	0.181	0.26	0.109	1201	151	31
		1	x	2000	0.0149	0.0231	0.565	0.1774	0.28	0.105	1316	189	31

**Further information about derating factors for arrangement can be found on supplementary technical information.*
Deep Off Laying *1.5 m*
Soil Thermal Resistivity *1 K.m/W*

Installation Guide

CURRENT CARRYING CAPACITY

The Current Ratings Are Designed With The Following Conditions :
One Circuit Of Three Phase Load.



Maximum operating temperature :

- PVC insulation: 70°C
- XLPE insulation: 90°C

No other heat sources installed near the group of cables

Cable laying :

In Ground :
- Soil temperature : 30°C
- Depth of laying : 70 cm
- Soil thermal resistivity : 100°C.cm/Watt

In Air :
- Ambient temperature : 30°C
- The cable must be protected from solar radiation and should have a large enough space so that heat generated from the loaded cable can be wasted perfectly.

Note :
If the actual installation conditions differ from the ones mentioned above, the current ratings should be multiplied by the appropriate derating factors shown in the tables on the next pages.

DERATING FACTORS

A. GROUPING IN GROUND

1. GROUND TEMPERATURE

	GROUND TEMPERATURES (°C)						
	20	25	30	35	40	45	50
XLPE INSULATION	1.00	0.96	0,93	0,89	0,85	0,8	0,76
PVC INSULATION	1.00	0,95	0,89	0,84	0.77	0,71	0,63

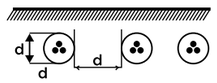
2. SOIL THERMAL RESISTIVITY

	SOIL THERMAL RESISTIVITY (°C.cm/Watt)			
	80	100	150	250
XLPE INSULATION	1,30	1,19	1,00	0,78
PVC INSULATION	1,28	1,17	1,00	0,70

3. DEPTH OF LAYING

	DEPTH OF LAYING (cm)					
	50	80	100	125	150	200
XLPE INSULATION	1,04	1,00	0,98	0,96	0,93	0,90
PVC INSULATION	1,01	1,00	0,99	0,98	0,96	0,94

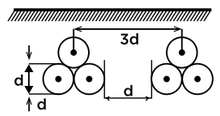
4. MULTICORE CABLE



	NUMBER OF GROUPING							
	1	2	3	4	5	6	8	10
XLPE INSULATION	1,00	0,86	0,76	0,71	0,67	0,64	0,60	0,57
PVC INSULATION	1,00	0,85	0,75	0,68	0,64	0,60	0,56	0,53

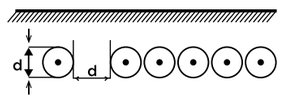
5. SINGLE CORE CABLE

A. TREFOIL FORMATION



	NUMBER OF GROUPING							
	1	2	3	4	5	6	8	10
XLPE INSULATION	1,00	0,89	0,82	0,75	0,75	0,73	0,70	0,68
PVC INSULATION	1,00	0,90	0,82	0,79	0,76	0,74	0,71	0,69

B. FLAT INFORMATION



	NUMBER OF GROUPING							
	1	2	3	4	5	6	8	10
XLPE INSULATION	1,00	0,87	0,77	0,73	0,70	0,68	0,65	0,63
PVC INSULATION	1,00	0,87	0,78	0,74	0,70	0,68	0,65	0,63

B. GROUPING IN AIR

1. AIR TEMPERATURE

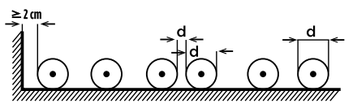
	AIR TEMPERATURES (°C)						
	20	25	30	35	40	45	50
XLPE INSULATION	1,08	1,04	1,00	0,96	0,91	0,87	0,82
PVC INSULATION	1,12	1,06	1,00	0,94	0,87	0,79	0,71

2. SINGLE CORE CABLE IN THREE PHASE SYSTEM

a. Flat Formation

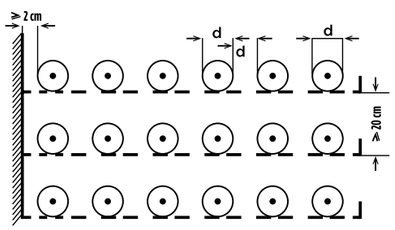
- Minimum Distance From The Wall : 2.0 cm
- Clearance Between System = Cable Diameter (d)

Laid on the ground



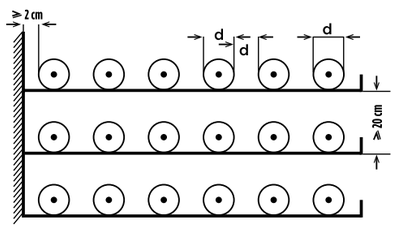
NUMBER OF SYSTEM		
1	2	3
DERATING FACTOR		
0,92	0,89	0,88

Laid on rack



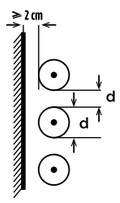
NUMBER OF TROUGH	NUMBER OF SYSTEM		
	1	2	3
	DERATING FACTOR		
1	1,00	0,97	0,96
2	0,97	0,94	0,93
3	0,96	0,93	0,92
6	0,94	0,91	0,90

Laid on trough (air circulation restricted)

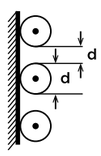


NUMBER OF TROUGH	NUMBER OF SYSTEM		
	1	2	3
	DERATING FACTOR		
1	0,92	0,89	0,88
2	0,87	0,84	0,83
3	0,84	0,82	0,81
6	0,82	0,80	0,79

Arranged on structures or on the wall



NUMBER OF SYSTEM		
1	2	3
DERATING FACTOR		
0,94	0,91	0,89

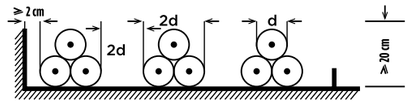


NUMBER OF SYSTEM		
1	2	3
DERATING FACTOR		
0,89	0,86	0,84

b. Trefoil Formation

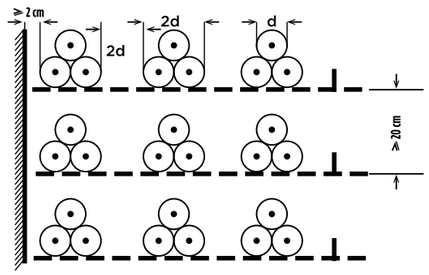
- Minimum distance from the wall: 2.0 cm
- Clearance between system = 2x cable diameter (2d)

Laid on ground



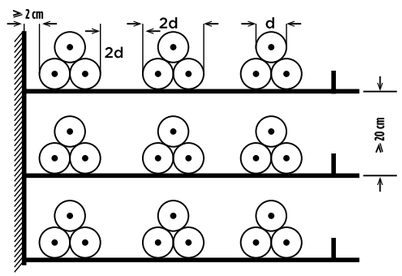
NUMBER OF SYSTEM		
1	2	3
DERATING FACTOR		
0,95	0,90	0,88

Laid on rack



NUMBER OF TROUGH	NUMBER OF SYSTEM		
	1	2	3
	DERATING FACTOR		
1	1,00	0,98	0,96
2	1,00	0,95	0,93
3	1,00	0,94	0,92
6	1,00	0,93	0,90

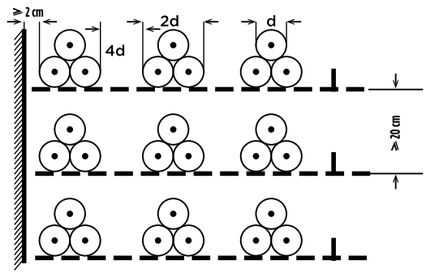
Laid on trough (air circulation restricted)



NUMBER OF TROUGH	NUMBER OF SYSTEM		
	1	2	3
	DERATING FACTOR		
1	0,95	0,90	0,88
2	0,90	0,85	0,83
3	0,88	0,83	0,81
6	0,86	0,81	0,79

Arrangement without reducing current rating (for all systems)

- **Minimum distance from the wall: 2.0 Cm**
- **Clearance between cables = 4x cable diameter (4d)**

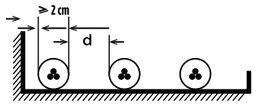


3. MULTICORE CABLE IN THREE PHASE SYSTEM AND SINGLE CORE CABLE IN DC SYSTEM

a. Flat formation

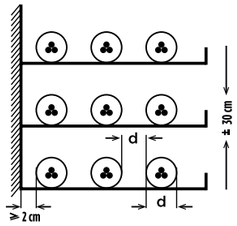
- Minimum Distance From The Wall : 2.0 cm
- Clearance Between System = Cable Diameter (d)

Laid on the ground



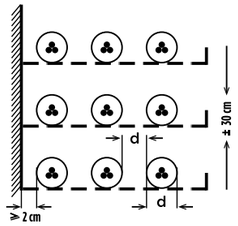
NUMBER OF SYSTEM				
1	2	3	6	9
DERATING FACTOR				
0,95	0,90	0,88	0,85	0,84

Laid on rack



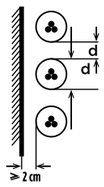
NUMBER OF TROUGH	NUMBER OF SYSTEM				
	1	2	3	6	9
	DERATING FACTOR				
1	1,00	0,98	0,96	0,93	0,92
2	1,00	0,95	0,93	0,90	0,89
3	1,00	0,94	0,92	0,89	0,88
6	1,00	0,93	0,90	0,87	0,86

Laid on trough (air circulation restricted)



NUMBER OF TROUGH	NUMBER OF SYSTEM				
	1	2	3	6	9
	DERATING FACTOR				
1	0,95	0,90	0,88	0,85	0,84
2	0,90	0,85	0,83	0,81	0,80
3	0,88	0,83	0,81	0,79	0,78
6	0,86	0,81	0,79	0,77	0,76

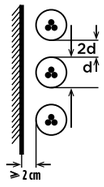
Arranged on structures or on the wall



NUMBER OF SYSTEM				
1	2	3	6	9
DERATING FACTOR				
1,00	0,93	0,90	0,87	0,86

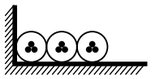
Arrangement without reducing current rating (for any number of cables)

- **Minimum distance from the wall: 2.0 Cm**
- **Clearance between cables = 2x cable diameter (2d)**



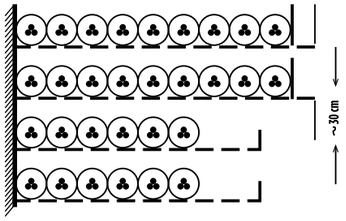
b. Cables Touching Throughout and in Contact with the Wall

Laid on the ground



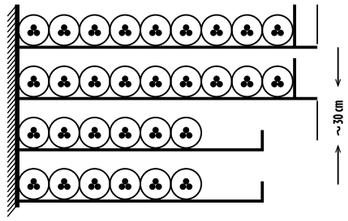
NUMBER OF SYSTEM				
1	2	3	6	9
DERATING FACTOR				
0,90	0,84	0,80	0,75	0,73

Laid on rack



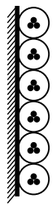
NUMBER OF TROUGH	NUMBER OF SYSTEM				
	1	2	3	6	9
	DERATING FACTOR				
1	0,95	0,84	0,80	0,75	0,73
2	0,95	0,80	0,76	0,71	0,69
3	0,95	0,78	0,74	0,70	0,68
6	0,95	0,76	0,72	0,68	0,66

Laid on trough (air circulation restricted)



NUMBER OF TROUGH	NUMBER OF SYSTEM				
	1	2	3	6	9
	DERATING FACTOR				
1	0,95	0,84	0,80	0,75	0,73
2	0,95	0,80	0,76	0,71	0,69
3	0,95	0,78	0,74	0,70	0,68
6	0,95	0,76	0,72	0,68	0,66

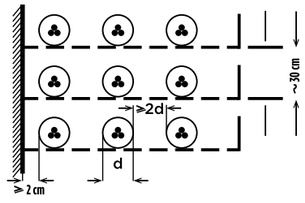
Arranged on structures or on the wall



NUMBER OF SYSTEM				
1	2	3	6	9
DERATING FACTOR				
0,95	0,78	0,73	0,68	0,66

Arrangement without reducing current rating (for any number of cables)

- **Minimum distance from the wall: 2.0 Cm**
- **Clearance between cables = 2x cable diameter (2d)**



PT Sutrakabel Intimandiri
Raya Bogor KM 49
Jl Roda Pembangunan No 5
Ds Cimandala Kec Sukaraja Kab Bogor 16710
Ph. 021 875 3735
Fax. 021 875 3736
Email : marketing@sutrakabel.com

www.sutrakabel.com

SNI SPLN LMK ISO 9001 ISO 14001 ISO 45001

Copyright © 2026 Sutrado Kabel