



Product Catalogue



SUTRADO
KABEL

Quality
through excellence

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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

To become an excellent company dedicated to our customer with mission to be a leader in high quality cable manufacturer in Indonesia, supported by talented, fast, effective and efficient human resources.





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 9001:2008 for quality excellence, ISO 14001:2004 for our commitment in environmental management and OHSAS 18001:2007 for controlling and improving health and safety performance.

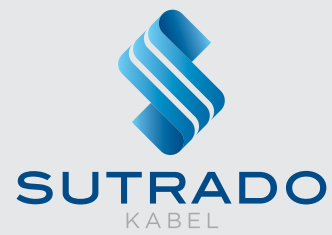
All products are manufactured using the latest technology, designed according to the applicable standards and requirements, and developed by trained and professional people to ensure our customer satisfaction.

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

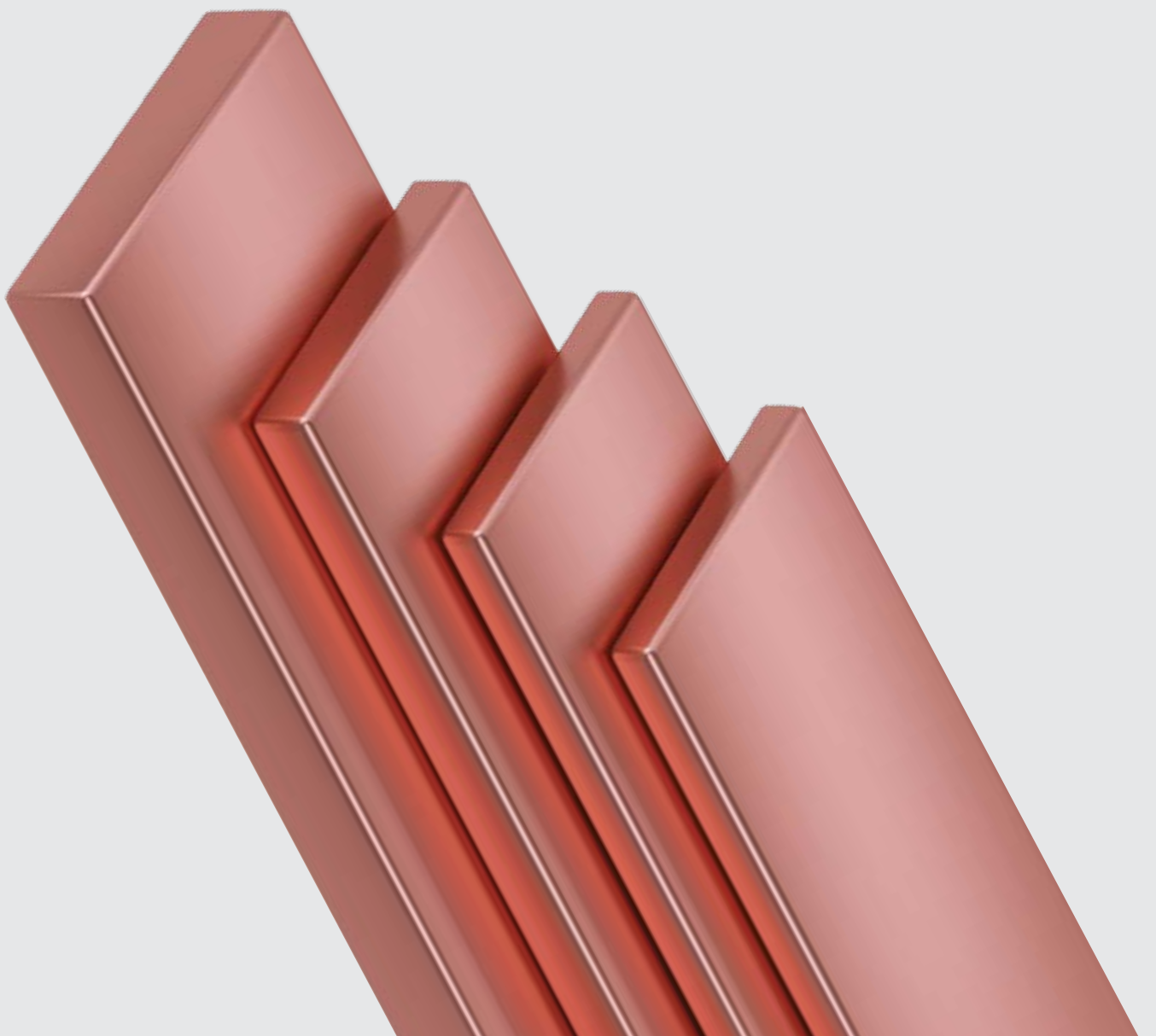
- IEC** : International Electrotechnical Commission
- ASTM** : American Society for Testing and Materials
- BS** : British Standards
- NEMA** : National Electrical Manufacturers Association
- JIS** : Japanese Industrial Standards
- DIN** : Deutsches Institut für Normung
- ICEA** : Insulated Cable Engineers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



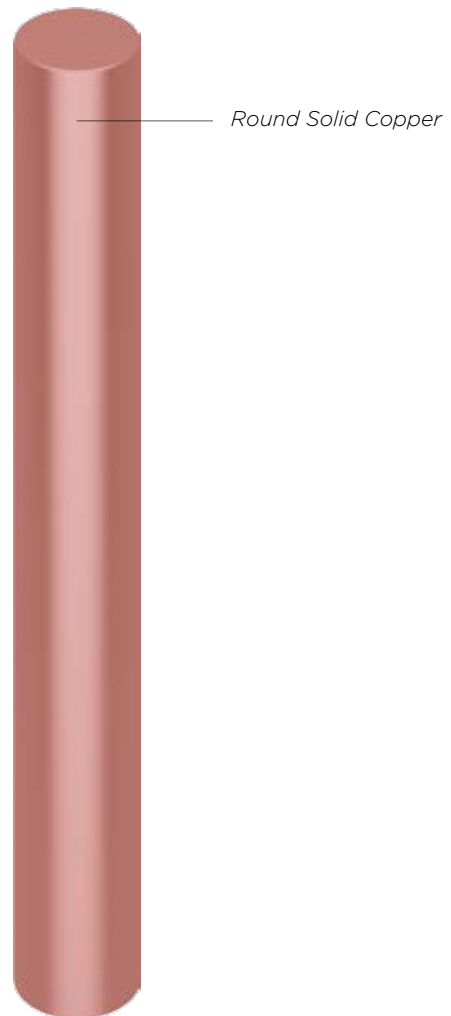
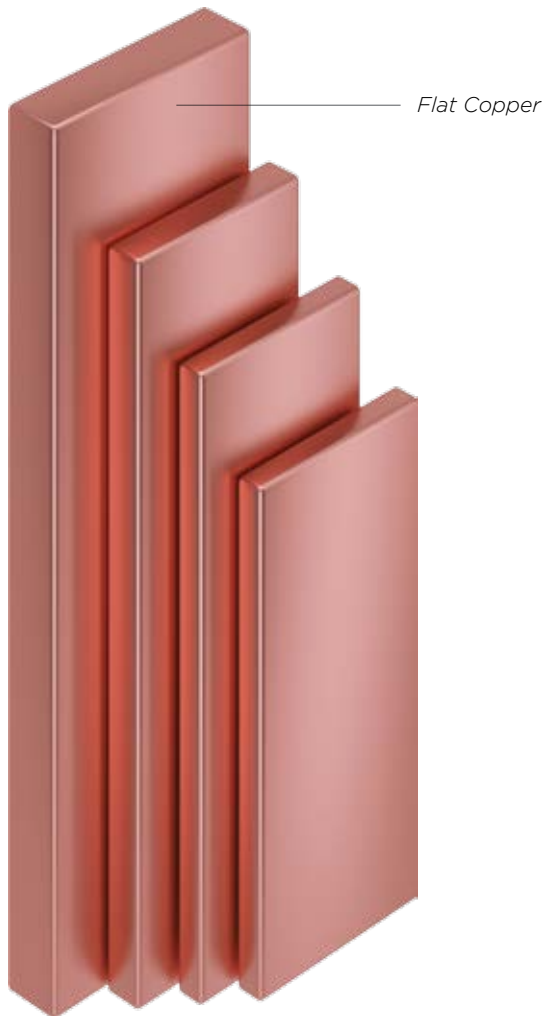




CONDUCTORS



RAIL COPPER & GROUNDING ROD



Application

- **RAIL COPPER :**
Used for Switchboard, distribution board
- **GROUNDING ROD :**
Used for underground

Specification

- **RAIL COPPER :**
ASTM B187 & Manufacturing Specification
(Other specifications are available upon request)
- **GROUNDING ROD :**
Manufacturing Specification
(Other specifications are available upon request)

Construction

- **RAIL COPPER :** Flat Copper
- **GROUNDING ROD :** Solid Copper

Classification

- **RAIL COPPER :** Grounding Rod
- **GROUNDING ROD :** Grounding Rod

RAIL COPPER										
PHYSICAL PROPERTIES			ELECTRICAL PROPERTIES							
Size	No of Packages	Approximate Weight (kg)	Current Carrying Capacity at 35°C (A)							
			No of Bus (AC Sistem)				No of Bus (DC Sistem)			
mm x mm	pcs	4m	I	II	III	IIII	I	II	III	IIII
2x15	10 / 50	1.08	140	200	-	-	145	245	-	-
3x15	10 / 30	1.61	170	300	-	-	175	305	-	-
3x20	10	2.15	220	380	-	-	225	390	-	-
3x25	10	2.69	270	460	720	940	275	470	725	950
3x30	10	3.23	315	540	800	1,050	320	560	820	1,080
3x40	10	4.30	420	710	990	1,260	430	740	1,010	1,290
4x15	10	2.15	215	370	580	770	220	380	585	780
4x20	10	2.87	270	490	710	950	270	500	720	955
4x25	10	3.58	320	600	850	1,125	320	605	860	1,130
4x30	10	4.30	380	690	1,000	1,300	380	700	1,005	1,310
4x40	10	5.73	490	880	1,260	1,640	490	890	1,270	1,670
4x50	5	7.17	610	1,060	1,450	1,830	615	1,065	1,460	1,870
5x20	10	3.58	295	500	800	1,090	300	510	810	1,100
5x25	10	4.48	350	600	970	1,290	355	610	980	1,310
5x30	10	5.38	400	700	1,090	1,470	410	720	1,100	1,500
5x40	5	7.17	520	900	1,340	1,770	530	930	1,340	1,820
5x50	5	8.96	630	1,100	1,650	2,100	650	1,150	1,705	2,200
5x60	5	10.75	760	1,250	1,800	2,410	780	1,300	1,860	2,515
5x80	5	14.34	970	1,700	2,280	2,950	1,000	1,800	2,480	3,170
6x25	10	5.38	380	610	1,110	1,320	400	620	1,120	1,345
6x30	10	6.45	443	700	1,170	1,520	470	890	1,205	1,625
6x40	5	8.60	550	850	1,490	1,950	610	1,120	1,520	2,060
6x50	5	10.75	710	1,020	1,760	2,300	740	1,340	1,850	2,410
6x60	5	12.90	850	1,340	2,050	2,610	860	1,560	2,190	2,820
6x100	2	21.50	1,250	2,300	3,020	3,810	1,290	2,490	3,300	4,480
8x30	5	8.60	570	820	1,420	1,900	570	1,076	1,450	1,950
8x40	5	11.47	720	1,020	1,750	2,380	720	1,344	1,830	2,440
8x50	5	14.34	860	1,170	2,100	2,710	870	1,600	2,230	2,910
8x100	2	28.67	1,540	2,590	3,310	4,125	1,590	2,840	3,900	5,190
10x30	5	10.75	520	770	1,580	2,160	650	1,250	1,720	2,200
10x40	5	14.34	760	1,350	1,850	2,500	770	1,400	2,000	2,700
10x50	3	17.92	920	1,600	2,250	3,000	960	1,700	2,500	3,300
10x60	3	21.50	1,060	1,900	2,600	3,500	1,100	2,000	2,800	3,600
10x80	2	28.67	1,380	2,300	3,100	4,200	1,450	2,600	3,700	4,800
10x100	2	35.84	1,700	2,800	3,650	5,000	1,800	3,200	4,500	5,800
10x120	1	43.01	2,000	3,100	4,100	5,700	2,150	3,700	5,200	6,700
10x150	1	53.76	2,350	3,760	5,100	7,050	2,600	4,600	6,700	8,800
10x160	1	57.34	2,500	3,900	5,300	7,300	2,800	4,800	6,900	9,000
10x200	1	71.68	3,000	4,750	6,350	8,800	3,400	6,000	8,500	10,000

GROUNDING ROD						
PHYSICAL PROPERTIES			ELECTRICAL PROPERTIES			
Size		No. of Package	Approximate Weight for Various Length			
inch	mm		6 m	4 m	3 m	2 m
(3/8")	9.53	10	3.53	2.56	1.92	1.28
(1/2")	12.70	10	6.81	4.54	3.41	2.27
(5/8")	15.88	10	10.65	7.10	5.32	3.55
(3/4")	19.05	5	15.32	10.22	7.66	5.11
(1")	25.40	3	27.24	18.16	13.62	9.08

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

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



Application

Grounding Wire

Specification

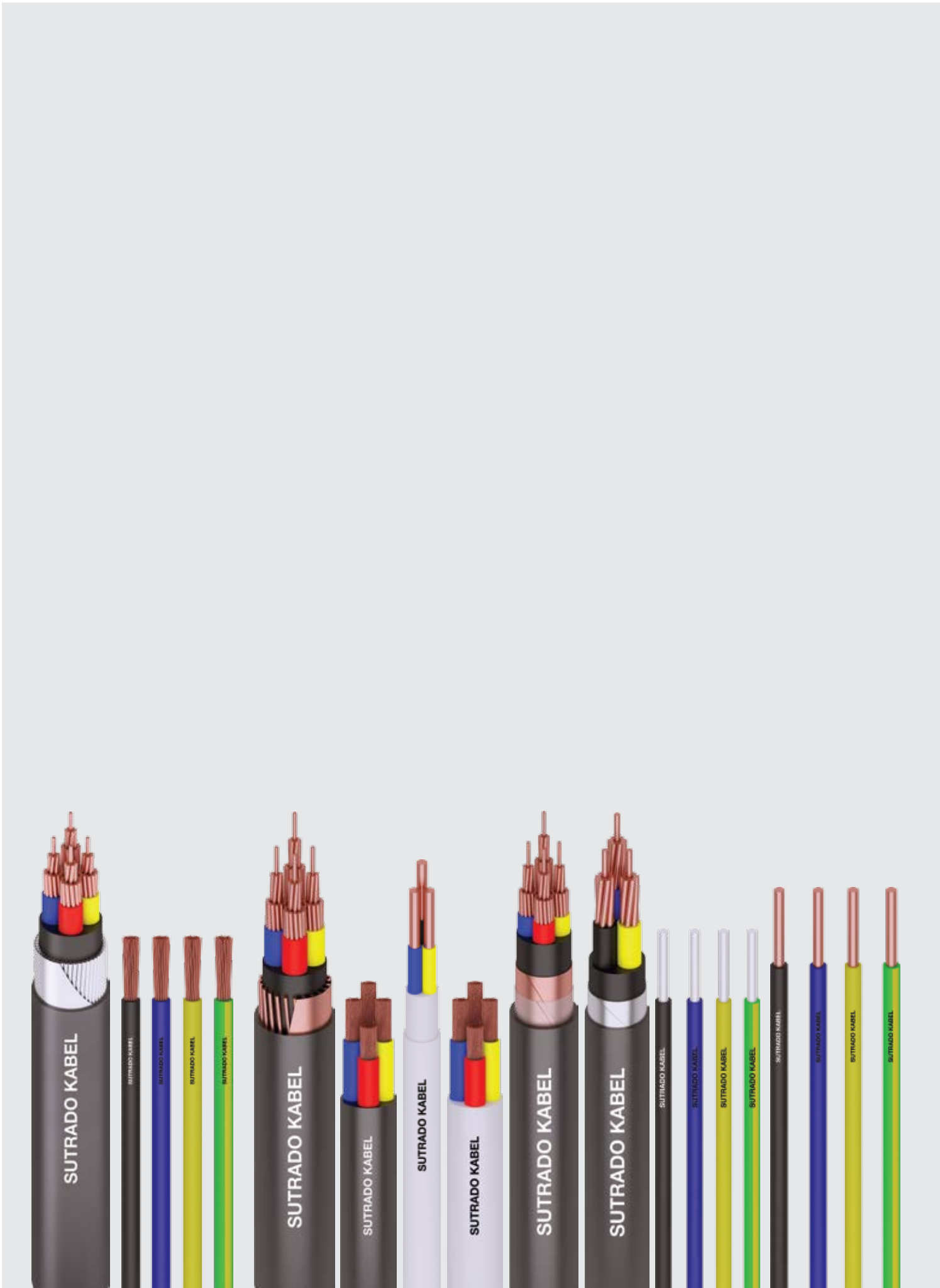
- SPLN 41-4 : 1981
 - SPLN 41-5 : 1981
- (Other specifications are available upon request)

Construction

- Solid or Stranded Bare Copper

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
Nominal Size	Actual Size								
mm ²	mm ²	pcs	mm	kg/km	ohm/km		N		kg
6	6.15	1	2.80	55	2.8994	2.8961	2,428	1,918	500
10	9.62	1	3.50	86	1.8565	1.8545	3,706	2,944	500
10	10.02	7	4.05	90	1.8181	1.8160	4,049	3,228	500
16	15.89	7	5.10	141	1.1456	1.1452	6,421	5,077	1,000
25	24.25	7	6.30	220	0.7512	0.7504	9,668	7,661	1,000
35	34.36	7	7.50	312	0.5302	0.5296	13,545	10,762	1,000
50	48.36	19	9.00	439	0.3785	0.3781	19,281	15,407	1,000
70	65.82	19	10.50	597	0.2781	0.2778	26,242	20,793	1,000
95	93.27	19	12.50	846	0.1963	0.1961	36,767	29,212	1,000
120	117.00	19	14.00	1,061	0.1565	0.1563	46,121	63,434	1,000
150	147.10	37	15.75	1,334	0.1244	0.1243	58,649	46,337	1,000
185	181.60	37	17.50	1,647	0.1008	0.1007	71,587	56,887	1,000
240	242.50	61	20.25	2,200	0.0755	0.0754	96,685	76,388	1,000
300	299.40	61	22.50	2,716	0.0611	0.0611	118,023	93,772	1,000
400	400.10	61	26.00	3,629	0.0458	0.0457	157,719	124,231	1,000
500	499.10	61	29.10	4,533	0.0367	0.0366	194,050	154,072	1,000

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





LOW VOLTAGE POWER CABLES



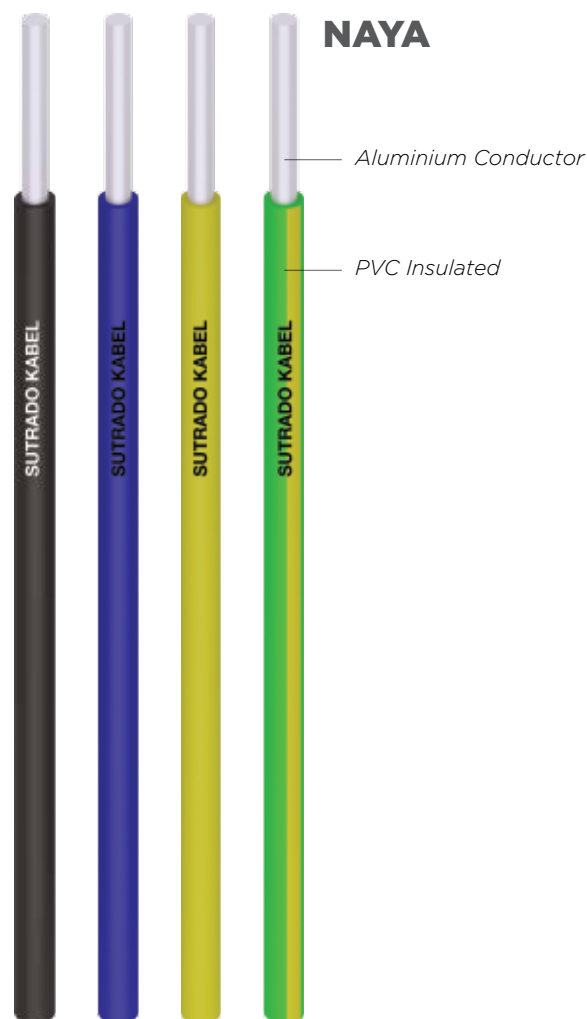
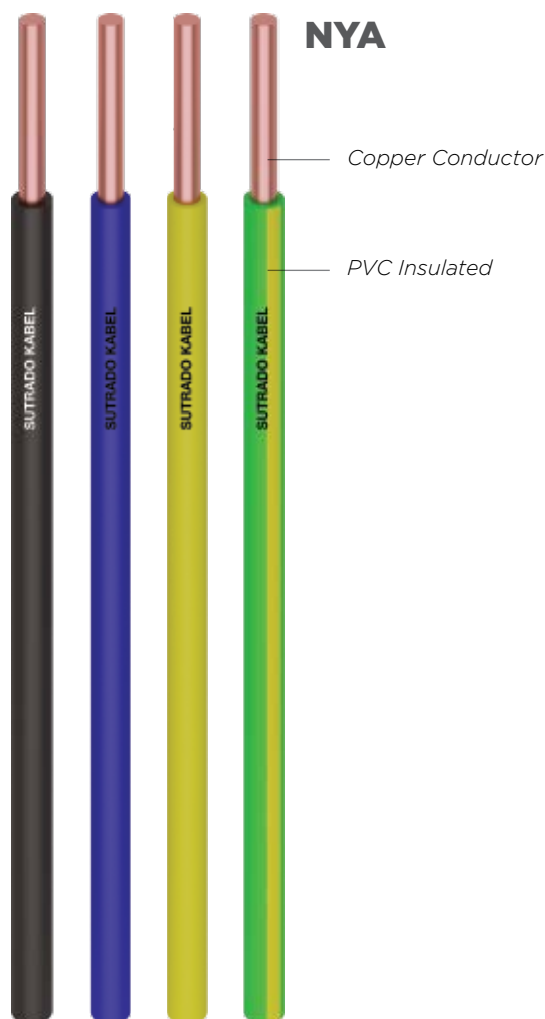
450/750 V, NYA (Cu/PVC)

(Copper Conductor, PVC Insulated)

450/750 V, NAYA (Al/PVC)

(Aluminium Conductor, PVC Insulated)

Standard Specification : SPLN 42-1, SNI 04-6629.3, IEC 60502-1



Application

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

Special Features on Request

- Fire Resistance
- Oil Resistance
- 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 $\pm 2\%$

Note : Conductor Shape

- 1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 16 - 400 sqmm supplied in non compacted circular stranded (rm) conductor shape

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 pipe	in air	
mm ²	mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	A	A	kA
1.5	2.8	20	12.100	14.478	0.010	0.320	15	24	0.17
2.5	3.4	32	7.410	8.866	0.009	0.309	19	32	0.29
4	3.9	47	4.610	5.516	0.008	0.290	25	42	0.50
6	4.4	68	3.080	3.685	0.007	0.276	33	54	0.70
10	5.6	110	1.830	2.190	0.007	0.274	45	73	1.16
16	7.2	178	1.150	1.376	0.005	0.260	61	98	1.86
25	8.8	275	0.727	0.870	0.005	0.257	83	129	2.91
35	10.0	373	0.524	0.627	0.004	0.249	103	158	4.07
50	12.0	527	0.387	0.464	0.005	0.248	132	197	5.81
70	13.7	724	0.268	0.321	0.004	0.240	165	245	8.14
95	15.9	975	0.193	0.232	0.003	0.239	207	290	11.05
120	17.5	1,212	0.153	0.184	0.003	0.235	235	345	13.95
150	19.5	1,516	0.124	0.150	0.003	0.235	-	390	17.44
185	21.7	1,868	0.099	0.121	0.003	0.235	-	445	21.51
240	24.6	2,421	0.075	0.093	0.003	0.233	-	525	27.91
300	27.4	3,008	0.060	0.075	0.003	0.232	-	605	34.88
400	31.3	3,995	0.047	0.060	0.003	0.231	-	725	46.51

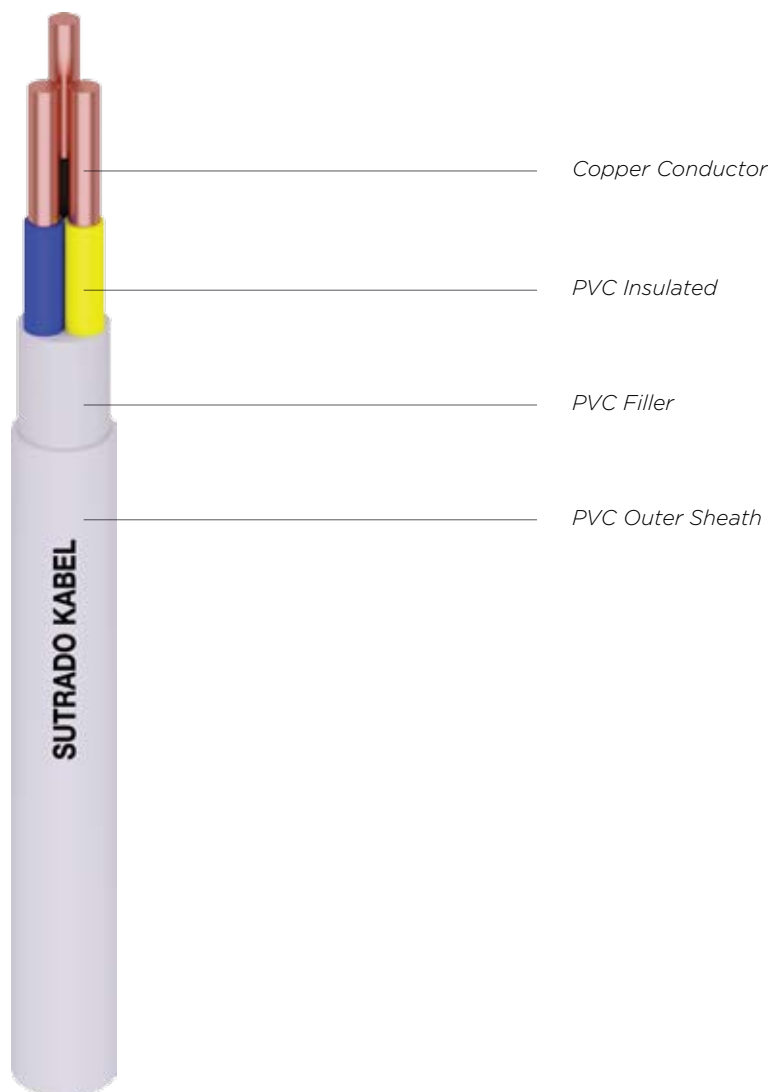
NAYA									
PHYSICAL PROPERTIES			ELECTRICAL PROPERTIES						
Nom Cross Section Area	Approx. Overall Diameter	Approx. Cable Weight	Conductor		Insulation	Inductance	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit current at 1 second
			Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C	Min. Insulation Resistance at 70 °C		in pipe	in air	
mm ²	mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	A	A	kA
10	6.1	56	3.080	3.701	0.0065	0.274	35	55	1.08
16	7.2	80	1.910	2.295	0.0050	0.258	48	75	1.72
25	8.8	121	1.200	1.442	0.0050	0.257	65	99	2.69
35	10.0	156	0.868	1.043	0.0040	0.249	80	120	3.77
50	12.0	216	0.641	0.771	0.0045	0.248	103	150	5.39
70	14.0	291	0.443	0.533	0.0035	0.240	129	189	7.54
95	15.9	384	0.320	0.385	0.0032	0.239	162	220	10.24
120	17.5	464	0.253	0.305	0.0032	0.235	184	265	12.93
150	19.5	573	0.206	0.249	0.0032	0.235	-	302	16.16
185	22.0	722	0.1640	0.199	0.0032	0.235	-	345	19.93
240	24.6	931	0.1250	0.152	0.0032	0.233	-	405	25.86
300	28.0	1,159	0.1000	0.123	0.0030	0.232	-	470	32.33
400	32.0	1,502	0.0778	0.097	0.0028	0.231	-	562	43.10

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

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

(Copper Conductor, PVC Insulated, PVC Sheathed)

Standard Specification : SPLN 42 - 2, SNI 04 - 6629.4 & IEC 60227 - 3



Application

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

Special Features on Request

- Fire Resistance
- Oil Resistance
- 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

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 $\pm 2\%$

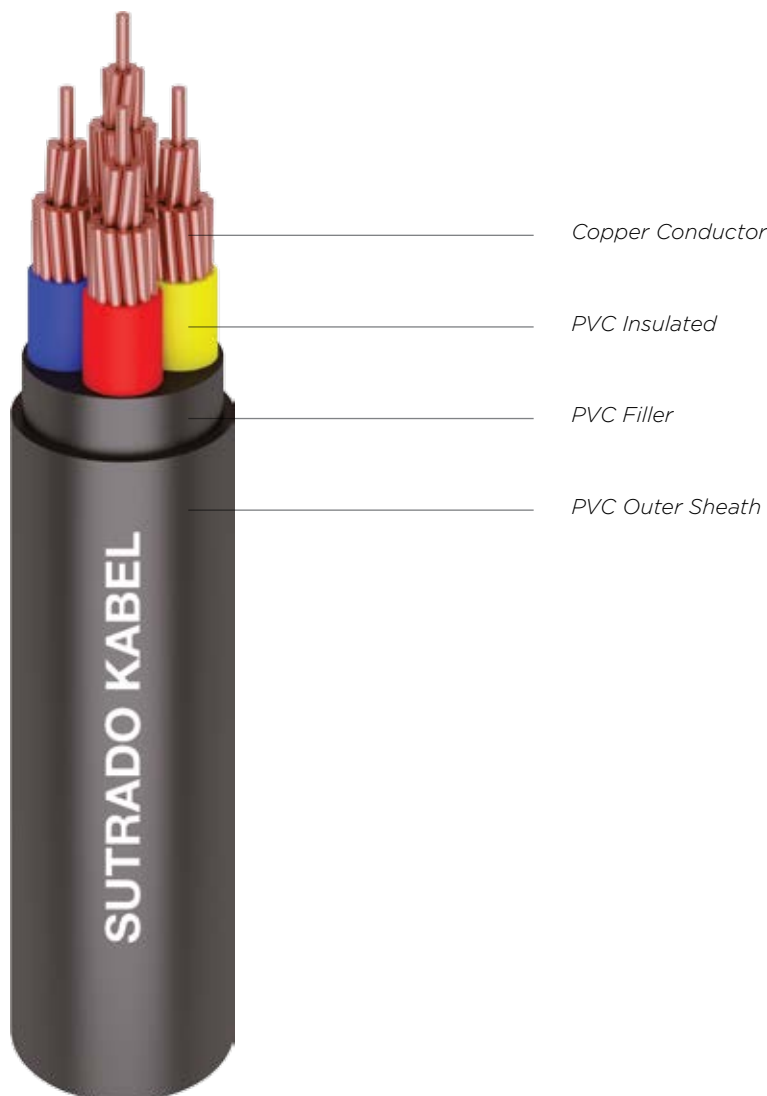
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES					
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 70 °C	Inductance	Max. Current - Carrying Capacity at 30 °C * in air	Max. Short Circuit current at 1 second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C				
mm ²			mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	A	kA
2	x	1.5	9.0	110	12.100	14.478	0.010	0.329	19	0.17
2	x	2.5	10.0	150	7.410	8.866	0.009	0.318	25	0.29
2	x	4	11.0	195	4.610	5.516	0.008	0.297	34	0.46
2	x	6	12.0	245	3.080	3.685	0.007	0.281	44	0.69
2	x	10	15.0	403	1.830	2.190	0.007	0.278	61	1.16
2	x	16	19.0	606	1.150	1.376	0.005	0.255	82	1.84
2	x	25	22.0	916	0.727	0.870	0.005	0.252	108	2.92
2	x	35	25.0	1,220	0.524	0.627	0.004	0.244	134	4.05
3	x	1.5	9.5	129	12.100	14.478	0.010	0.329	19	0.17
3	x	2.5	11.0	180	7.410	8.866	0.009	0.318	25	0.29
3	x	4	12.0	237	4.610	5.516	0.008	0.297	34	0.46
3	x	6	13.0	318	3.080	3.685	0.007	0.281	44	0.69
3	x	10	16.0	505	1.830	2.190	0.007	0.278	61	1.16
3	x	16	20.0	790	1.150	1.376	0.005	0.255	82	1.84
3	x	25	24.0	1,191	0.727	0.870	0.005	0.252	108	2.92
3	x	35	27.0	1,565	0.524	0.627	0.004	0.244	134	4.05
4	x	1.5	10.5	153	12.100	14.478	0.010	0.329	19	0.17
4	x	2.5	11.5	217	7.410	8.866	0.009	0.318	25	0.29
4	x	4	13.0	301	4.610	5.516	0.008	0.297	34	0.46
4	x	6	14.5	406	3.080	3.685	0.007	0.281	44	0.69
4	x	10	18.0	624	1.830	2.190	0.007	0.278	61	1.16
4	x	16	22.0	979	1.150	1.376	0.005	0.255	82	1.84
4	x	25	27.0	1,511	0.727	0.870	0.005	0.252	108	2.92
4	x	35	29.5	1,956	0.524	0.627	0.004	0.244	134	4.05
5	x	1.5	11.0	195	12.100	14.478	0.010	0.329	19	0.17
5	x	2.5	12.5	275	7.410	8.866	0.009	0.318	25	0.29
5	x	4	15.0	395	4.610	5.516	0.008	0.297	34	0.46
5	x	6	16.0	515	3.080	3.685	0.007	0.281	44	0.69
5	x	10	19.5	860	1.830	2.190	0.007	0.278	61	1.16
5	x	16	24.5	1,270	1.150	1.376	0.005	0.255	82	1.84
5	x	25	29.5	1,930	0.727	0.870	0.005	0.252	108	2.92
5	x	35	33.0	2,550	0.524	0.627	0.004	0.244	134	4.05

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

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

(Copper Conductor, PVC Insulated, PVC Sheathed)

Standard Specification : SPLN 43 - 1, SNI IEC 60502 - 1



Application

Power cable : Indoors, cable trunking, outdoors and buried 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

- Fire Resistance
- 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 - 500 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape

Standard Packing

- 1.5 - 10 sqmm supplied in coil @ 100 meters
- 16 - 300 sqmm supplied in wooden drum @ 1000 meters
- 400 - 500 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

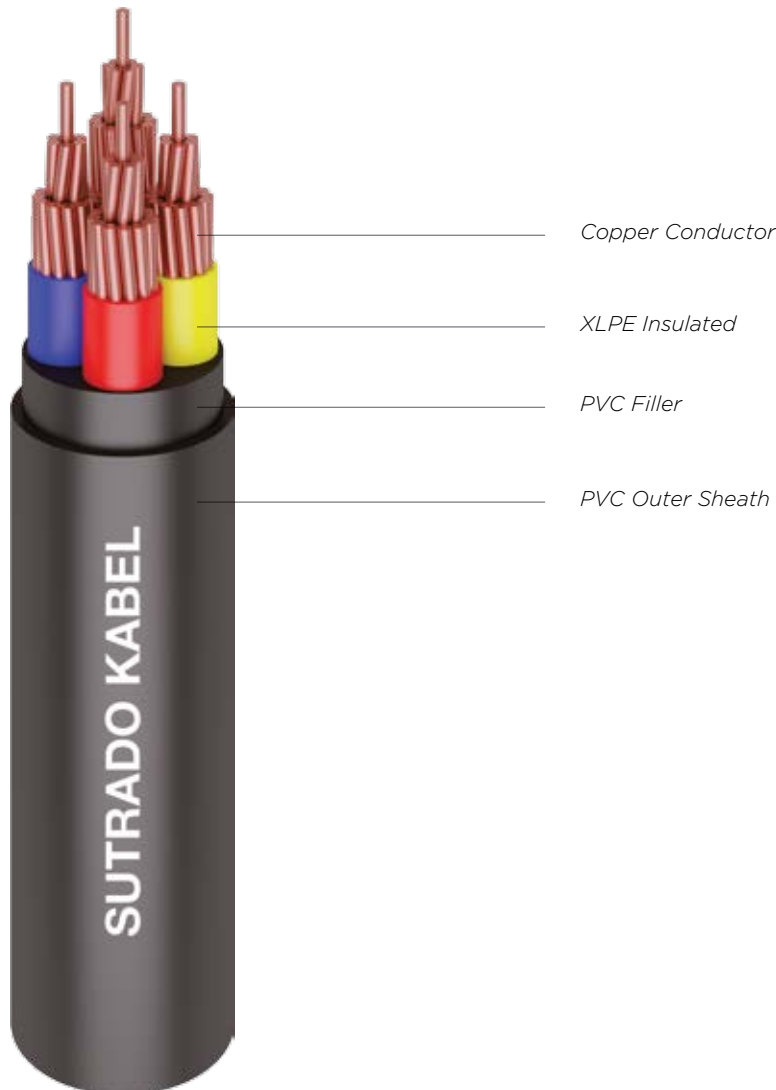
Physical Properties				Electrical Properties							
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 20 °C	Inductance	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit current at 1 second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C			in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	A	A	kA
1	x	1.5	6.0	54	12.100	14.478	50	0.459	26	33	0.17
1	x	2.5	6.5	68	7.410	8.866	50	0.423	35	45	0.29
1	x	4	7.5	95	4.610	5.516	50	0.404	46	58	0.46
1	x	6	8.0	120	3.080	3.685	50	0.380	58	74	0.70
1	x	10	8.9	170	1.830	2.190	50	0.350	80	98	1.16
1	x	16	10.0	225	1.150	1.376	40	0.327	105	129	1.86
1	x	25	11.7	335	0.727	0.870	40	0.312	140	169	2.91
1	x	35	12.9	435	0.524	0.627	40	0.299	175	210	4.07
1	x	50	14.9	570	0.387	0.464	30	0.290	215	250	5.81
1	x	70	16.6	775	0.268	0.321	30	0.278	270	310	8.14
1	x	95	19.0	1,055	0.193	0.232	30	0.274	335	375	11.05
1	x	120	20.6	1,300	0.153	0.184	30	0.267	390	425	13.95
1	x	150	22.7	1,592	0.124	0.150	20	0.266	445	480	17.44
1	x	185	25.2	1,980	0.099	0.121	20	0.264	510	550	21.51
1	x	240	28.5	2,573	0.075	0.093	20	0.261	620	640	27.91
1	x	300	31.5	3,190	0.060	0.075	20	0.258	710	730	34.88
1	x	400	35.5	4,030	0.047	0.061	20	0.256	850	855	46.51
1	x	500	38.9	5,090	0.037	0.049	20	0.252	1,000	990	58.14
2	x	1.5	11.7	220	12.100	14.478	50	0.328	21	27	0.17
2	x	2.5	12.5	265	7.410	8.866	50	0.304	29	36	0.29
2	x	4	14.3	353	4.610	5.516	50	0.303	38	47	0.46
2	x	6	15.3	426	3.080	3.685	50	0.288	48	59	0.70
2	x	10	17.9	560	1.830	2.190	50	0.269	66	78	1.16
2	x	16	20.1	732	1.150	1.376	40	0.255	90	102	1.86
2	x	25	23.5	1,043	0.727	0.870	40	0.255	120	134	2.91
2	x	35	25.8	1,310	0.524	0.627	40	0.246	150	160	4.07
2	x	50	29.8	1,701	0.387	0.464	30	0.247	180	187	5.81
2	x	70	33.4	2,265	0.268	0.321	30	0.238	230	230	8.14
2	x	95	38.3	3,021	0.193	0.232	30	0.238	275	280	11.05
2	x	120	41.7	3,668	0.153	0.184	30	0.233	320	320	13.95
2	x	150	45.9	4,466	0.124	0.150	20	0.233	375	355	17.44
2	x	185	51.0	5,820	0.099	0.121	20	0.233	430	409	21.51
2	x	240	57.5	7,520	0.075	0.093	20	0.232	510	472	27.91
2	x	300	63.5	9,295	0.060	0.075	20	0.231	590	525	34.88
3	x	1.5	12.2	247	12.100	14.478	50	0.328	18	24	0.17
3	x	2.5	13.1	301	7.410	8.866	50	0.304	25	32	0.29
3	x	4	15.0	408	4.610	5.516	50	0.303	34	41	0.46
3	x	6	16.1	502	3.080	3.685	50	0.288	44	52	0.70
3	x	10	18.8	675	1.830	2.190	50	0.269	60	69	1.16
3	x	16	21.2	901	1.150	1.376	40	0.255	80	89	1.86
3	x	25	24.9	1,301	0.727	0.870	40	0.255	105	116	2.91
3	x	35	27.3	1,658	0.524	0.627	40	0.246	130	138	4.07
3	x	50	31.6	1,850	0.387	0.464	30	0.247	160	165	5.81
3	x	70	36.1	2,525	0.268	0.321	30	0.238	200	205	8.14
3	x	95	41.0	3,405	0.193	0.232	30	0.238	245	250	11.05
3	x	120	44.7	4,161	0.153	0.184	30	0.233	285	290	13.95
3	x	150	49.5	5,081	0.124	0.150	20	0.233	325	315	17.44
3	x	185	54.5	7,500	0.099	0.121	20	0.233	370	355	21.51
3	x	240	62.0	9,785	0.075	0.093	20	0.232	435	415	27.91
3	x	300	69.0	12,200	0.060	0.075	20	0.231	500	465	34.88
3	x	400	76.5	15,415	0.047	0.060	20	0.229	600	535	46.51
4	x	1.5	13.0	282	12.100	14.478	50	0.328	18	24	0.17
4	x	2.5	13.9	348	7.410	8.866	50	0.304	25	32	0.29
4	x	4	16.1	479	4.610	5.516	50	0.303	34	41	0.46
4	x	6	17.3	596	3.080	3.685	50	0.288	44	52	0.70
4	x	10	20.4	815	1.830	2.190	50	0.269	60	69	1.16
4	x	16	23.1	1,099	1.150	1.376	40	0.255	80	89	1.86
4	x	25	27.2	1,605	0.727	0.870	40	0.255	105	116	2.91
4	x	35	29.9	2,060	0.524	0.627	40	0.246	130	138	4.07
4	x	50	35.4	2,475	0.387	0.464	30	0.247	160	165	5.81
4	x	70	35.9	3,375	0.268	0.321	30	0.238	200	205	8.14
4	x	95	41.5	4,530	0.193	0.232	30	0.238	245	250	11.05
4	x	120	44.7	5,551	0.153	0.184	30	0.233	285	290	13.95
4	x	150	50.0	6,825	0.124	0.150	20	0.233	325	315	17.44
4	x	185	56.0	8,575	0.099	0.121	20	0.233	370	355	21.51
4	x	240	62.5	11,048	0.075	0.093	20	0.232	435	415	27.91
4	x	300	68.5	13,705	0.060	0.075	20	0.231	500	465	34.88
4	x	400	78.0	17,570	0.047	0.060	20	0.229	600	535	46.51

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

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

(Copper Conductor, XLPE Insulated, PVC Sheathed)

Standard Specification : SPLN 43 - 6 & IEC 60502 - 1



Application

Power cable : Indoors, cable trunking, outdoors and buried 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

- Fire Resistance
- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Anti Termite
- 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 - 500 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape

Standard Packing

- 1.5 - 10 sqmm supplied in coil @ 100 m
- 16 - 300 sqmm supplied in wooden drum @ 1000 m
- 400 - 500 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

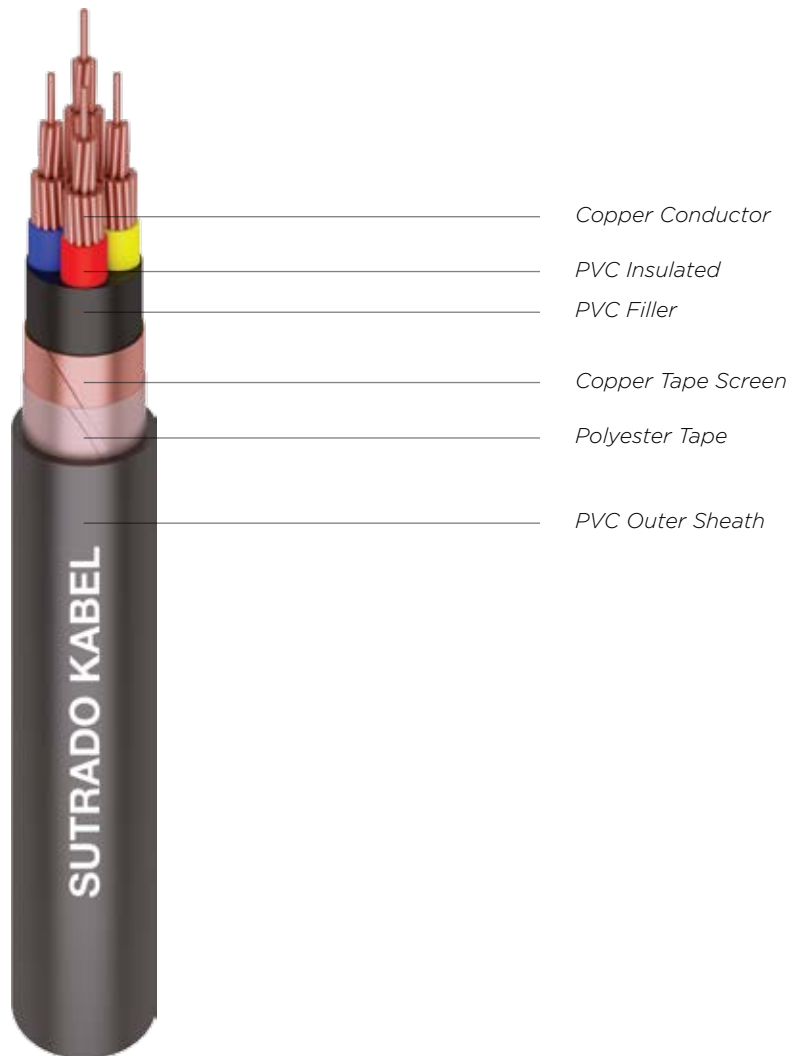
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES					
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Inductance	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C		in air	in ground	
mm			mm	kg/km	ohm/km	ohm/km	mH/km	A	A	kA
1	x	1.5	6.0	55	12.100	15.429	0.452	35	43	0.22
1	x	2.5	6.6	69	7.410	9.449	0.417	43	58	0.36
1	x	4	7.1	88	4.610	5.878	0.387	57	76	0.57
1	x	6	7.7	111	3.080	3.927	0.364	72	95	0.87
1	x	10	8.9	158	1.830	2.334	0.336	98	128	1.43
1	x	16	9.9	216	1.150	1.466	0.315	132	169	2.29
1	x	25	11.2	311	0.727	0.927	0.302	187	220	3.58
1	x	35	12.3	408	0.524	0.668	0.289	217	265	5.01
1	x	50	13.6	529	0.387	0.494	0.279	263	316	7.15
1	x	70	15.6	734	0.268	0.342	0.270	331	385	10.02
1	x	95	17.8	999	0.193	0.247	0.263	408	465	13.59
1	x	120	19.6	1,239	0.153	0.196	0.259	474	531	17.16
1	x	150	21.5	1,514	0.124	0.160	0.259	550	597	21.45
1	x	185	23.8	1,872	0.099	0.128	0.258	633	680	26.46
1	x	240	27.0	2,450	0.075	0.099	0.253	750	790	34.32
1	x	300	29.6	3,021	0.060	0.080	0.249	871	901	42.90
1	x	400	33.3	3,844	0.047	0.064	0.249	1,019	1,032	57.21
1	x	500	37.1	4,864	0.037	0.052	0.246	1,188	1,180	71.54
2	x	1.5	12.8	211	12.100	15.429	0.315	27	33	0.22
2	x	2.5	13.7	252	7.410	9.449	0.293	36	44	0.36
2	x	4	14.8	309	4.610	5.878	0.275	48	58	0.57
2	x	6	16.0	377	3.080	3.927	0.263	61	72	0.87
2	x	10	17.8	508	1.830	2.334	0.248	83	97	1.43
2	x	16	19.7	668	1.150	1.467	0.238	113	128	2.29
2	x	25	22.3	921	0.727	0.927	0.240	150	167	3.58
2	x	35	24.5	1,176	0.524	0.669	0.233	186	201	5.01
2	x	50	27.3	1,500	0.387	0.494	0.232	226	239	7.15
2	x	70	31.2	2,045	0.268	0.342	0.229	290	295	10.02
2	x	95	35.7	2,755	0.193	0.247	0.224	353	355	13.59
2	x	120	39.4	3,409	0.153	0.196	0.223	413	404	17.16
2	x	150	43.5	4,167	0.124	0.160	0.224	468	458	21.45
2	x	185	48.5	5,194	0.099	0.128	0.225	540	516	26.46
2	x	240	54.5	6,694	0.075	0.099	0.223	632	600	34.32
2	x	300	60.4	8,295	0.060	0.080	0.221	745	690	42.90
3	x	1.5	13.5	241	12.100	15.429	0.315	21	29	0.22
3	x	2.5	14.5	293	7.410	9.449	0.293	28	38	0.36
3	x	4	15.7	366	4.610	5.878	0.275	37	49	0.57
3	x	6	16.9	454	3.080	3.927	0.263	47	60	0.87
3	x	10	18.9	625	1.830	2.334	0.248	64	97	1.43
3	x	16	21.0	835	1.150	1.467	0.238	86	108	2.29
3	x	25	23.8	1,173	0.727	0.927	0.240	115	141	3.58
3	x	35	26.1	1,514	0.524	0.669	0.233	142	170	5.01
3	x	50	24.4	1,670	0.387	0.494	0.232	172	201	7.15
3	x	70	28.2	2,352	0.268	0.342	0.229	218	249	10.02
3	x	95	31.4	3,151	0.193	0.247	0.224	269	299	13.59
3	x	120	34.4	3,908	0.153	0.196	0.223	311	340	17.16
3	x	150	38.5	4,840	0.124	0.160	0.224	356	381	21.45
3	x	185	42.5	5,990	0.099	0.128	0.225	413	434	26.46
3	x	240	47.7	7,793	0.075	0.099	0.223	491	506	34.32
3	x	300	52.3	9,660	0.060	0.080	0.221	569	585	42.90
4	x	1.5	14.5	274	12.100	15.429	0.315	21	27	0.22
4	x	2.5	15.6	337	7.410	9.449	0.293	25	35	0.36
4	x	4	16.9	427	4.610	5.878	0.275	33	45	0.57
4	x	6	18.3	537	3.080	3.927	0.263	41	55	0.87
4	x	10	20.5	750	1.830	2.334	0.248	60	92	1.43
4	x	16	22.8	1,015	1.150	1.467	0.238	80	101	2.29
4	x	25	25.9	1,442	0.727	0.927	0.240	111	135	3.58
4	x	35	28.6	1,875	0.524	0.669	0.233	138	162	5.01
4	x	50	28.0	2,219	0.387	0.494	0.232	193	201	7.15
4	x	70	32.4	3,123	0.268	0.342	0.229	245	249	10.02
4	x	95	35.4	4,170	0.193	0.247	0.224	302	299	13.59
4	x	120	39.9	5,244	0.153	0.196	0.223	349	340	17.16
4	x	150	44.2	6,432	0.124	0.160	0.224	400	381	21.45
4	x	185	48.4	7,971	0.099	0.128	0.225	464	434	26.46
4	x	240	54.3	10,363	0.075	0.099	0.223	552	506	34.32
4	x	300	59.4	12,844	0.060	0.080	0.221	640	585	42.90

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

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

(Copper Conductor, PVC Insulated, Copper Tape Screen, PVC Sheathed)

Standard Specification : IEC 60502 - 1



Application

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

Special Features on Request

- Fire Resistance
- 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 - 500 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape

Standard Packing

- 1.5 - 300 sqmm supplied in wooden drum @ 1000 meters
- 400 - 500 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

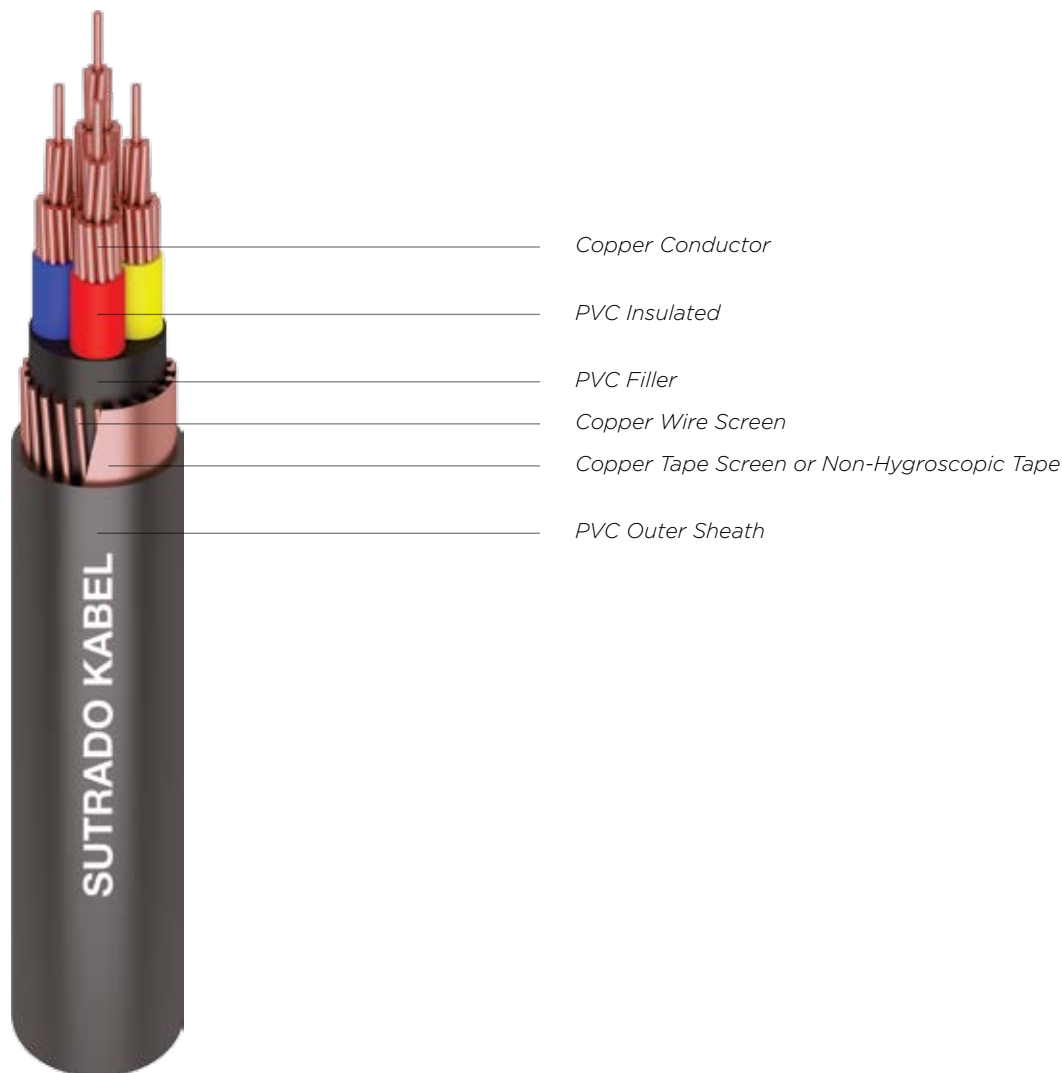
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES						
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 20 °C	Inductance	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C			in air	in ground	
mm²			mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	A	A	kA
1	x	1.5	9.6	128	12.100	14.478	50	0.531	24	30	0.17
1	x	2.5	10.2	146	7.410	8.866	50	0.491	32	43	0.29
1	x	4	11.1	182	4.610	5.516	50	0.464	42	53	0.46
1	x	6	11.7	212	3.080	3.685	50	0.436	55	70	0.70
1	x	10	12.6	270	1.830	2.190	50	0.401	75	94	1.15
1	x	16	13.6	340	1.150	1.376	40	0.374	100	124	1.86
1	x	25	15.3	464	0.727	0.870	40	0.352	135	165	2.91
1	x	35	16.4	576	0.524	0.627	40	0.336	170	206	4.07
1	x	50	18.2	730	0.387	0.463	30	0.323	209	244	5.81
1	x	70	20.0	955	0.268	0.321	30	0.307	266	306	8.14
1	x	95	22.3	1,250	0.193	0.232	30	0.298	330	370	11.05
1	x	120	23.9	1,504	0.153	0.184	30	0.289	386	420	13.95
1	x	150	25.8	1,810	0.124	0.150	20	0.285	442	477	17.44
1	x	185	28.0	2,205	0.099	0.120	20	0.280	503	545	21.51
1	x	240	31.2	2,830	0.075	0.093	20	0.273	617	634	27.91
1	x	300	34.2	3,472	0.060	0.075	20	0.270	703	724	34.88
1	x	400	38.1	4,379	0.047	0.060	20	0.268	845	850	46.51
1	x	500	42.1	5,491	0.037	0.049	20	0.263	993	986	58.14
2	x	1.5	13.0	231	12.100	14.478	50	0.328	21	27	0.17
2	x	2.5	13.9	275	7.410	8.866	50	0.304	25	34	0.29
2	x	4	15.8	365	4.610	5.516	50	0.303	35	43	0.46
2	x	6	16.9	439	3.080	3.685	50	0.288	44	55	0.70
2	x	10	18.8	579	1.830	2.190	50	0.269	62	74	1.15
2	x	16	20.7	748	1.150	1.376	40	0.255	87	99	1.86
2	x	25	24.1	1,058	0.727	0.870	40	0.255	116	129	2.91
2	x	35	26.3	1,328	0.524	0.627	40	0.246	145	157	4.07
2	x	50	29.8	1,719	0.387	0.463	30	0.247	177	185	5.81
2	x	70	33.8	2,299	0.268	0.321	30	0.238	222	226	8.14
2	x	95	38.9	3,099	0.193	0.232	30	0.238	272	277	11.05
2	x	120	42.3	3,750	0.153	0.184	30	0.233	315	315	13.95
2	x	150	46.4	4,552	0.124	0.150	20	0.233	368	350	17.44
2	x	185	51.6	5,658	0.099	0.120	20	0.233	425	405	21.51
2	x	240	58.0	7,270	0.075	0.093	20	0.232	503	468	27.91
2	x	300	64.1	8,967	0.060	0.075	20	0.231	584	520	34.88
3	x	1.5	13.5	259	12.100	14.478	50	0.328	15	22	0.17
3	x	2.5	14.5	314	7.410	8.866	50	0.304	22	29	0.29
3	x	4	16.5	424	4.610	5.516	50	0.303	30	38	0.46
3	x	6	17.7	519	3.080	3.685	50	0.288	40	48	0.70
3	x	10	19.7	700	1.830	2.190	50	0.269	55	65	1.15
3	x	16	21.8	922	1.150	1.376	40	0.255	75	84	1.86
3	x	25	23.4	1,327	0.727	0.870	40	0.255	99	110	2.91
3	x	35	27.8	1,687	0.524	0.627	40	0.246	125	133	4.07
3	x	50	25.1	1,789	0.387	0.463	30	0.247	155	160	5.81
3	x	70	28.9	2,498	0.268	0.321	30	0.238	194	199	8.14
3	x	95	32.1	3,320	0.193	0.232	30	0.238	239	240	11.05
3	x	120	35.1	4,101	0.153	0.184	30	0.233	283	283	13.95
3	x	150	39.3	5,072	0.124	0.150	20	0.233	319	310	17.44
3	x	185	43.3	6,268	0.099	0.120	20	0.233	362	350	21.51
3	x	240	48.5	8,121	0.075	0.093	20	0.232	429	410	27.91
3	x	300	53.1	10,039	0.060	0.075	20	0.231	492	458	34.88
4	x	1.5	13.5	296	12.100	14.478	50	0.328	15	22	0.17
4	x	2.5	14.6	364	7.410	8.866	50	0.304	22	29	0.29
4	x	4	16.9	497	4.610	5.516	50	0.303	30	38	0.46
4	x	6	18.3	616	3.080	3.685	50	0.288	40	48	0.70
4	x	10	20.5	844	1.830	2.190	50	0.269	55	65	1.15
4	x	16	22.8	1,125	1.150	1.376	40	0.255	75	84	1.86
4	x	25	26.9	1,634	0.727	0.870	40	0.255	99	110	2.91
4	x	35	29.6	2,092	0.524	0.627	40	0.246	125	133	4.07
4	x	50	30.9	2,510	0.387	0.463	30	0.247	155	160	5.81
4	x	70	34.8	3,435	0.268	0.321	30	0.238	194	199	8.14
4	x	95	39.0	4,615	0.193	0.232	30	0.238	239	240	11.05
4	x	120	42.4	5,646	0.153	0.184	30	0.233	283	288	13.95
4	x	150	47.4	6,976	0.124	0.150	20	0.233	319	310	17.44
4	x	185	51.5	8,595	0.099	0.120	20	0.233	362	350	21.51
4	x	240	57.9	11,148	0.075	0.093	20	0.232	429	410	27.91
4	x	300	63.5	13,796	0.060	0.075	20	0.231	492	458	34.88

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

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

(Copper Conductor, PVC Insulated, Copper Wire Screen, PVC Sheathed)

Standard Specification : IEC 60502 - 1



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

- Fire Resistance
- 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 - 500 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape

Standard Packing

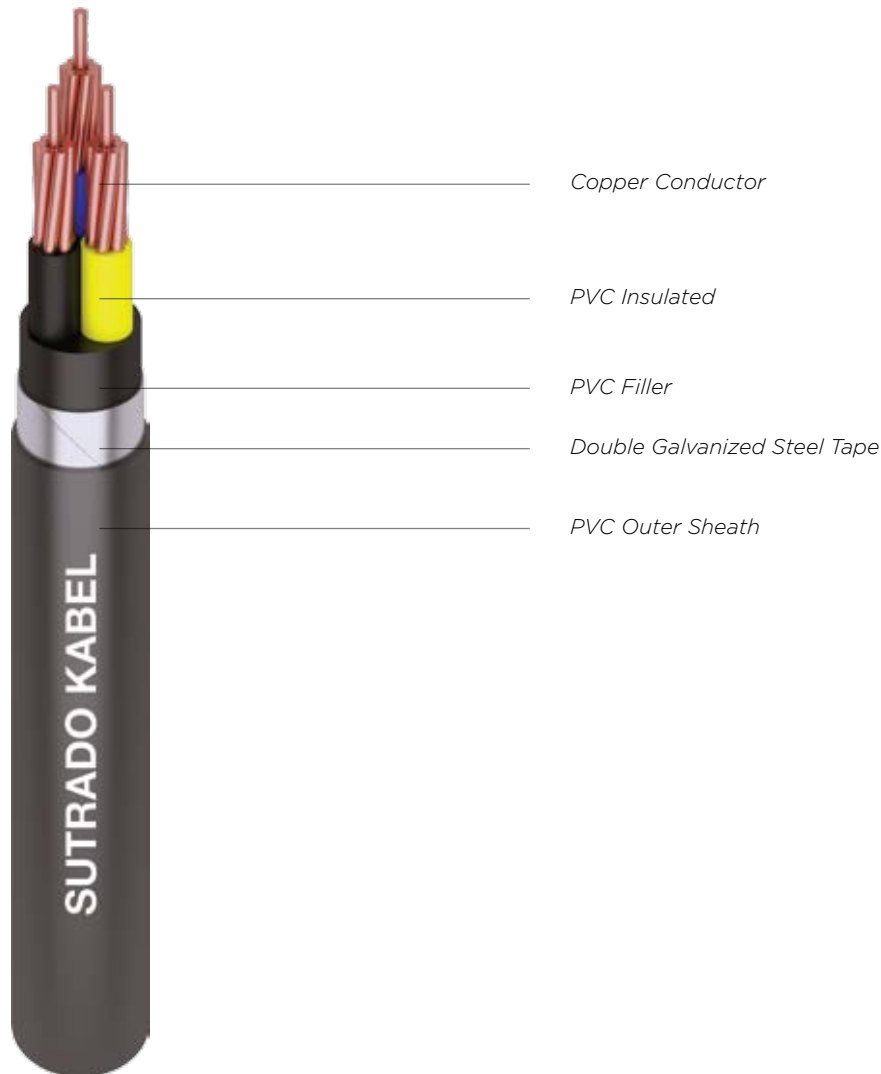
- 1.5 - 240 sqmm supplied in wooden drum @ 1000 meters
- 300 - 500 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

Physical Properties					Electrical Properties						
Nom Cross Section Area			Approx Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 20 °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 ground	
mm²			mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	A	A	kA
1	x	1.5 / 1.5	11.2	141	12.100	14.478	50	0.455	24	30	0.17
1	x	2.5 / 2.5	11.7	168	7.410	8.866	50	0.514	32	43	0.29
1	x	4 / 4	12.2	205	4.610	5.516	50	0.485	42	53	0.46
1	x	6 / 6	12.8	258	3.080	3.685	50	0.457	55	70	0.70
1	x	10 / 10	14.8	350	1.830	2.190	50	0.420	75	94	1.15
1	x	16 / 16	15.8	470	1.150	1.376	40	0.399	100	124	1.86
1	x	25 / 16	17.4	489	0.727	0.870	40	0.373	135	165	2.91
1	x	35 / 16	18.6	697	0.524	0.627	40	0.355	170	206	4.07
1	x	50 / 25	20.3	922	0.387	0.463	30	0.345	209	244	5.81
1	x	70 / 35	22.7	1,244	0.268	0.321	30	0.329	266	306	8.14
1	x	95 / 50	24.9	1,669	0.193	0.232	30	0.322	330	370	11.05
1	x	120 / 70	26.9	2,105	0.153	0.184	30	0.316	386	420	13.95
1	x	150 / 70	28.8	2,406	0.124	0.150	20	0.310	442	477	17.44
1	x	185 / 95	31.2	3,015	0.099	0.121	20	0.305	503	545	21.51
1	x	240 / 120	35.5	3,890	0.075	0.093	20	0.298	617	634	27.91
1	x	300 / 150	39.2	4,800	0.060	0.075	20	0.294	703	724	34.88
1	x	400 / 185	42.9	5,980	0.047	0.061	20	0.293	845	850	46.51
1	x	500 / 240	47.6	7,585	0.037	0.049	20	0.289	993	986	58.14
2	x	1.5 / 1.5	13.8	245	12.100	14.478	50	0.328	21	27	0.17
2	x	2.5 / 2.5	16.3	296	7.410	8.866	50	0.304	25	34	0.29
2	x	4 / 4	17.9	401	4.610	5.516	50	0.303	35	43	0.46
2	x	6 / 6	18.5	489	3.080	3.685	50	0.288	44	55	0.70
2	x	10 / 10	20.5	663	1.830	2.190	50	0.269	62	74	1.15
2	x	16 / 16	22.2	895	1.150	1.376	40	0.255	87	99	1.86
2	x	25 / 16	25.5	1,210	0.727	0.870	40	0.255	116	129	2.91
2	x	35 / 16	27.8	1,483	0.524	0.627	40	0.246	145	157	4.07
2	x	50 / 25	31.4	1,935	0.387	0.463	30	0.247	177	185	5.81
2	x	70 / 35	36.1	2,600	0.268	0.321	30	0.238	222	226	8.14
2	x	95 / 50	40.6	3,560	0.193	0.232	30	0.238	272	277	11.05
2	x	120 / 70	43.9	4,382	0.153	0.184	30	0.233	315	315	13.95
2	x	150 / 70	48.5	5,211	0.124	0.150	20	0.233	368	350	17.44
2	x	185 / 95	54.2	6,551	0.099	0.121	20	0.233	425	405	21.51
2	x	240 / 120	60.9	8,372	0.075	0.093	20	0.232	503	468	27.91
2	x	300 / 150	67.8	10,388	0.060	0.075	20	0.231	584	520	34.88
3	x	1.5 / 1.5	14.6	275	12.100	14.478	50	0.328	15	22	0.17
3	x	2.5 / 2.5	16.0	343	7.410	8.866	50	0.304	22	29	0.29
3	x	4 / 4	17.9	460	4.610	5.516	50	0.303	30	38	0.46
3	x	6 / 6	19.5	572	3.080	3.685	50	0.288	40	48	0.70
3	x	10 / 10	21.9	788	1.830	2.190	50	0.269	55	65	1.15
3	x	16 / 16	24.0	1,070	1.150	1.376	40	0.255	75	84	1.86
3	x	25 / 16	27.1	1,485	0.727	0.870	40	0.255	99	110	2.91
3	x	35 / 16	30.2	1,765	0.524	0.627	40	0.246	125	133	4.07
3	x	50 / 25	29.9	2,210	0.387	0.463	30	0.247	155	160	5.81
3	x	70 / 35	32.8	2,993	0.268	0.321	30	0.238	194	199	8.14
3	x	95 / 50	35.1	4,065	0.193	0.232	30	0.238	239	240	11.05
3	x	120 / 70	40.6	5,080	0.153	0.184	30	0.233	283	288	13.95
3	x	150 / 70	43.5	6,082	0.124	0.150	20	0.233	319	310	17.44
3	x	185 / 95	50.0	7,524	0.099	0.121	20	0.233	362	350	21.51
3	x	240 / 120	54.8	9,765	0.075	0.093	20	0.232	429	410	27.91
3	x	300 / 150	61.5	12,192	0.060	0.075	20	0.231	492	458	34.88
4	x	1.5 / 1.5	15.5	286	12.100	14.478	50	0.328	15	22	0.17
4	x	2.5 / 2.5	17.0	351	7.410	8.866	50	0.304	22	29	0.29
4	x	4 / 4	18.9	472	4.610	5.516	50	0.303	30	38	0.46
4	x	6 / 6	20.6	590	3.080	3.685	50	0.288	40	48	0.70
4	x	10 / 10	23.1	820	1.830	2.190	50	0.269	55	65	1.15
4	x	16 / 16	25.9	1,161	1.150	1.376	40	0.255	75	84	1.86
4	x	25 / 16	30.0	1,648	0.727	0.870	40	0.255	99	110	2.91
4	x	35 / 16	32.1	2,095	0.524	0.627	40	0.246	125	133	4.07
4	x	50 / 25	33.7	2,652	0.387	0.463	30	0.247	155	160	5.81
4	x	70 / 35	40.5	3,577	0.268	0.321	30	0.238	194	199	8.14
4	x	95 / 50	43.2	4,886	0.193	0.232	30	0.238	239	240	11.05
4	x	120 / 70	48.0	6,152	0.153	0.184	30	0.233	283	288	13.95
4	x	150 / 70	51.1	7,385	0.124	0.150	20	0.233	319	310	17.44
4	x	185 / 95	57.5	9,201	0.099	0.121	20	0.233	362	350	21.51
4	x	240 / 120	63.8	11,870	0.075	0.093	20	0.232	429	410	27.91
4	x	300 / 150	72.3	14,418	0.060	0.075	20	0.231	492	458	34.88

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

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

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



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

- Fire Resistance
- 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 - 300 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape

Standard Packing

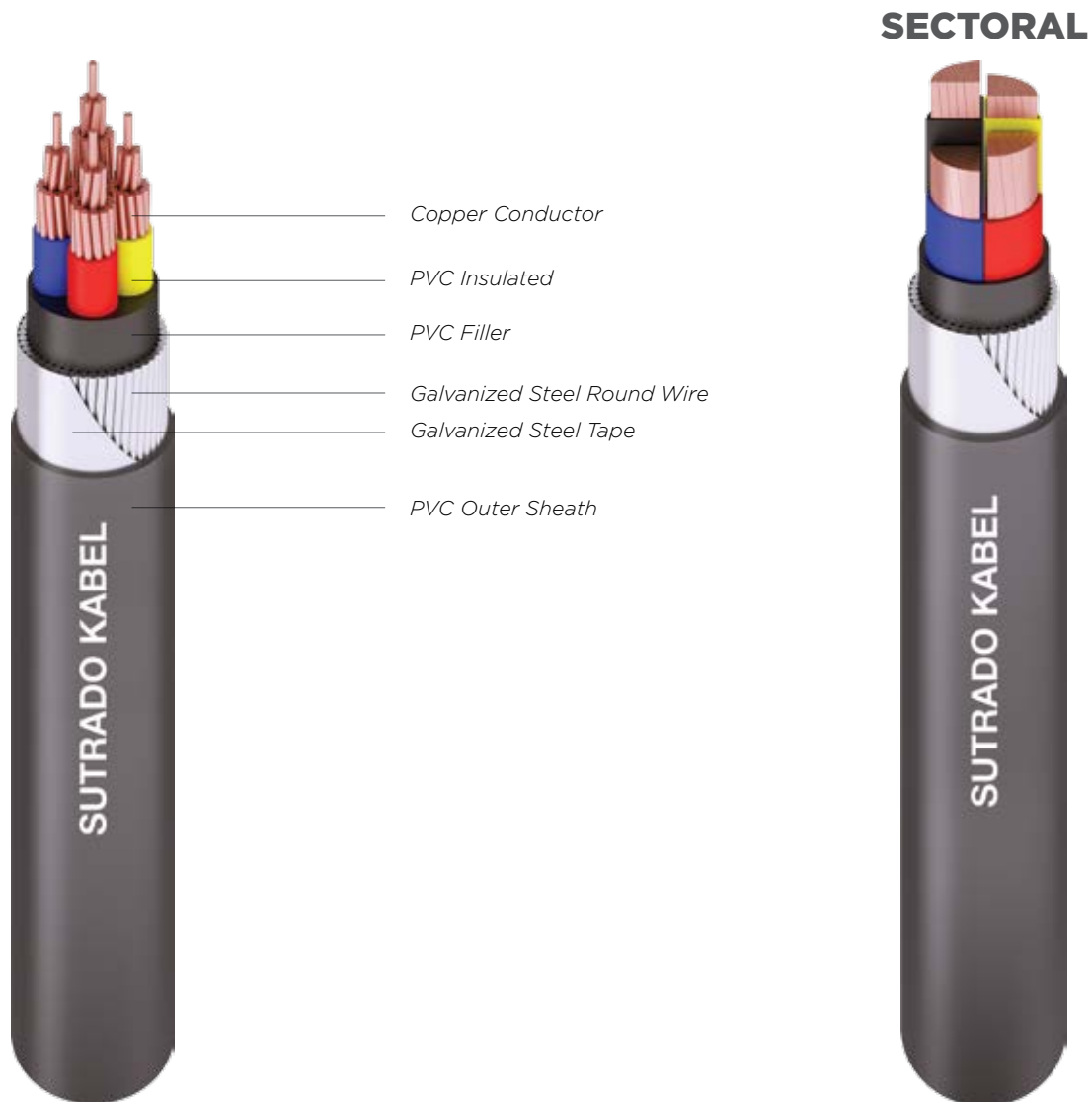
- 1.5 - 120 sqmm supplied in wooden drum @ 1000 meters
- 150 - 300 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES						
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 20 °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 ground	
mm²			mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	A	A	kA
2	x	6	17.0	480	3.080	3.685	50	0.288	52	61	0.70
2	x	10	20.0	700	1.830	2.190	50	0.269	64	74	1.16
2	x	16	21.0	800	1.150	1.376	40	0.255	82	96	1.86
2	x	25	25.5	1,200	0.727	0.870	40	0.255	94	102	2.91
2	x	35	27.5	1,530	0.524	0.627	40	0.246	115	125	4.07
2	x	50	32.0	2,000	0.387	0.464	30	0.247	140	147	5.81
2	x	70	38.0	2,290	0.268	0.321	30	0.238	180	178	8.14
2	x	95	39.0	3,380	0.193	0.232	30	0.238	215	220	11.05
2	x	120	43.0	3,960	0.153	0.184	30	0.233	250	245	13.95
2	x	150	47.0	4,490	0.124	0.150	20	0.233	290	280	17.44
2	x	185	53.0	6,580	0.099	0.121	20	0.233	370	355	20.90
2	x	240	59.5	8,375	0.075	0.093	20	0.232	435	415	27.11
2	x	300	66.0	10,280	0.060	0.075	20	0.231	500	465	33.89
3	x	6	19.0	600	3.080	3.685	50	0.288	52	61	0.70
3	x	10	21.0	800	1.830	2.190	50	0.269	67	79	1.16
3	x	16	23.0	1,150	1.150	1.376	40	0.255	85	99	1.86
3	x	25	27.0	1,550	0.727	0.870	40	0.255	105	116	2.91
3	x	35	30.0	1,950	0.524	0.627	40	0.246	130	138	4.07
3	x	50	34.0	2,260	0.387	0.464	30	0.247	160	165	5.81
3	x	70	39.0	2,860	0.268	0.321	30	0.238	200	205	8.14
3	x	95	45.0	3,900	0.193	0.232	30	0.238	245	245	11.05
3	x	120	49.0	4,900	0.153	0.184	30	0.233	285	280	13.95
3	x	150	54.0	5,890	0.124	0.150	20	0.233	325	315	17.44
3	x	185	57.0	8,320	0.099	0.121	20	0.233	370	355	20.90
3	x	240	64.0	10,710	0.075	0.093	20	0.232	435	415	27.11
3	x	300	71.0	13,085	0.060	0.075	20	0.231	500	465	33.89
4	x	6	20.0	660	3.080	3.685	50	0.288	45	53	0.70
4	x	10	22.0	950	1.830	2.190	50	0.269	58	68	1.16
4	x	16	25.0	1,400	1.150	1.376	40	0.255	80	89	1.86
4	x	25	30.0	1,900	0.727	0.870	40	0.255	105	116	2.91
4	x	35	32.5	2,400	0.524	0.627	40	0.246	130	138	4.07
4	x	50	39.0	2,950	0.387	0.464	30	0.247	160	165	5.81
4	x	70	43.0	3,900	0.268	0.321	30	0.238	200	205	8.14
4	x	95	44.0	5,050	0.193	0.232	30	0.238	245	250	11.05
4	x	120	47.5	6,300	0.153	0.184	30	0.233	285	290	13.95
4	x	150	52.5	7,650	0.124	0.150	20	0.233	325	315	17.44
4	x	185	58.0	9,425	0.099	0.121	20	0.233	370	355	20.90
4	x	240	64.5	11,985	0.075	0.093	20	0.232	435	415	27.11
4	x	300	70.5	14,745	0.060	0.075	20	0.231	500	465	33.89

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

0.6/1 kV, NYRGrbY (Cu / PVC / SWA / PVC)

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



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

- Fire Resistance
- 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 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) or compacted circular stranded (cm) conductor shape

Standard Packing

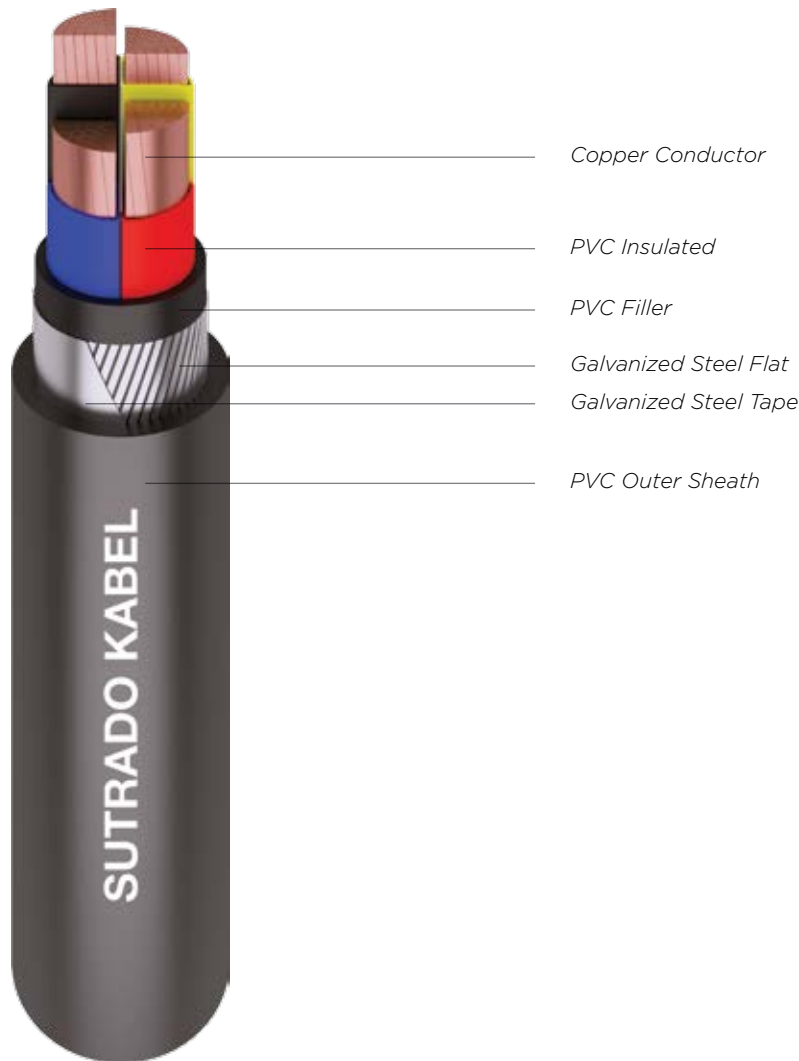
- 10 - 70 sqmm supplied in wooden drum @ 1000 meters
- 95 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES						
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 20 °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 ground	
mm ²			mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	A	A	kA
2	x	10	20.5	871	1.830	2.190	50	0.269	66	78	1.16
2	x	16	22.6	1,097	1.150	1.376	40	0.255	90	102	1.86
2	x	25	27.7	1,819	0.727	0.870	40	0.255	120	134	2.91
2	x	35	30.2	2,188	0.524	0.627	40	0.246	150	160	4.07
2	x	50	33.8	2,716	0.387	0.464	30	0.247	180	187	5.81
2	x	70	38.4	3,670	0.268	0.321	30	0.238	230	235	8.14
2	x	95	44.1	4,812	0.193	0.232	30	0.238	275	280	11.05
2	x	120	47.7	5,638	0.153	0.184	30	0.233	320	320	13.95
2	x	150	53.3	7,093	0.124	0.150	20	0.233	375	355	17.44
2	x	185	58.4	8,554	0.099	0.121	20	0.233	430	409	21.51
2	x	240	65.1	10,614	0.075	0.093	20	0.232	510	472	27.91
2	x	300	71.2	12,766	0.060	0.075	20	0.231	590	525	34.88
3	x	10	21.5	999	1.830	2.190	50	0.269	67	79	1.16
3	x	16	24.1	1,286	1.150	1.376	40	0.255	85	99	1.86
3	x	25	29.2	2,117	0.727	0.870	40	0.255	105	116	2.91
3	x	35	31.8	2,588	0.524	0.627	40	0.246	130	138	4.07
3	x	50	35.9	3,275	0.387	0.464	30	0.247	160	165	5.81
3	x	70	41.0	4,479	0.268	0.321	30	0.238	200	205	8.14
3	x	95	47.2	5,817	0.193	0.232	30	0.238	245	250	11.05
3	x	120	50.7	6,888	0.153	0.184	30	0.233	285	280	13.95
3	x	150	56.4	8,718	0.124	0.150	20	0.233	325	315	17.44
3	x	185	62.5	10,460	0.099	0.121	20	0.233	370	355	21.51
3	x	240	70.7	13,894	0.075	0.093	20	0.232	435	415	27.91
3	x	300	77.9	16,641	0.060	0.075	20	0.231	500	465	34.88
3	x	400	86.1	20,577	0.047	0.060	20	0.229	600	535	46.51
4	x	10	23.6	1,179	1.830	2.190	50	0.269	58	69	1.16
4	x	16	27.7	1,850	1.150	1.376	40	0.255	80	89	1.86
4	x	25	31.8	2,516	0.727	0.870	40	0.255	105	116	2.91
4	x	35	34.9	3,131	0.524	0.627	40	0.246	130	138	4.07
4	x	50	37.9	3,859	0.387	0.464	30	0.247	160	165	5.81
4	x	70	42.0	4,910	0.268	0.321	30	0.238	200	205	8.14
4	x	95	49.2	6,770	0.193	0.232	30	0.238	245	250	11.05
4	x	120	52.3	8,051	0.153	0.184	30	0.233	285	290	13.95
4	x	150	58.4	9,579	0.124	0.150	20	0.233	325	315	17.44
4	x	185	63.6	11,536	0.099	0.121	20	0.233	370	355	21.51
4	x	240	71.8	15,211	0.075	0.093	20	0.232	435	415	27.91
4	x	300	77.9	18,332	0.060	0.075	20	0.231	500	465	34.88
4	x	400	87.1	22,883	0.047	0.060	20	0.229	600	535	46.51

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

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

(Copper Conductor, PVC Insulated, Galvanized Steel Flat Armor, PVC Sheathed)
Standard Specification : IEC 60502 - 1, SPLN 43 - 2



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

- Fire Resistance
- 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

25 - 400 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape

Standard Packing

- 25 - 95 sqmm supplied in wooden drum @ 1000 meters
- 120 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

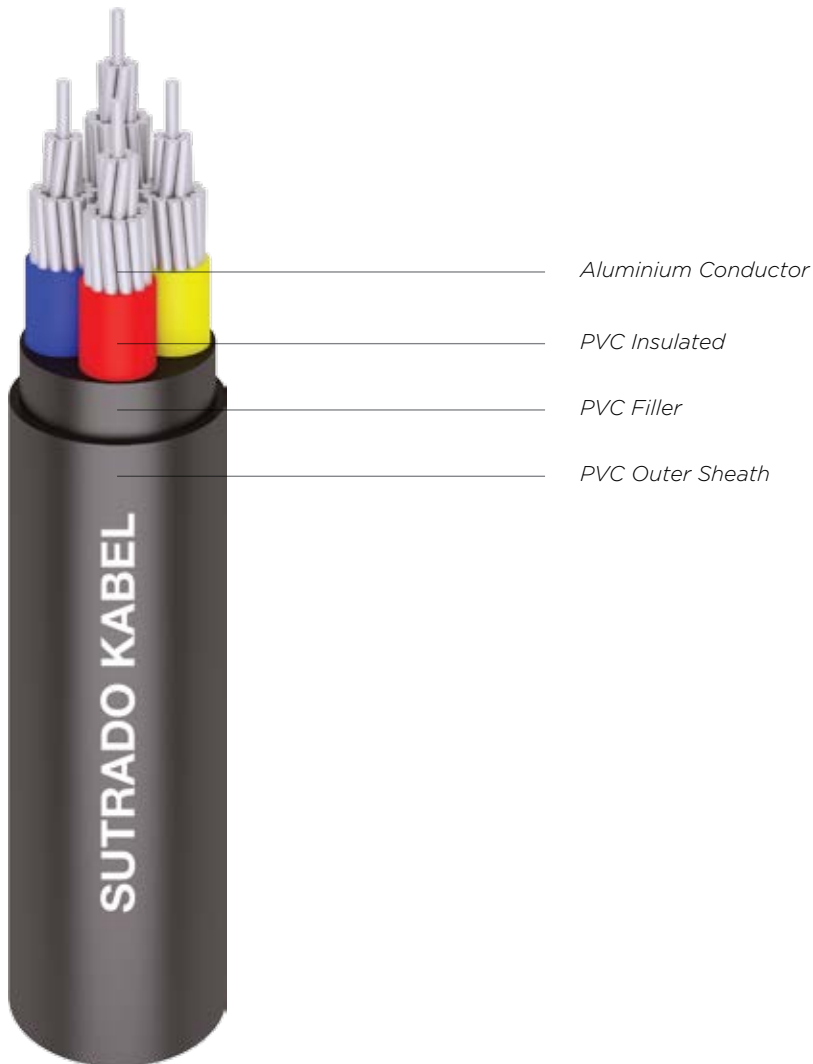
PHYSICAL PROPERTIES			ELECTRICAL PROPERTIES						
Nom Cross Section Area	Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 20 °C	Inductance	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
			Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C			in air	in ground	
mm ²	mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	A	A	kA
2 x 1.5	13.6	384	12.100	14.478	50	0.328	21	27	0.17
2 x 2.5	14.6	431	7.410	8.866	50	0.304	29	36	0.29
2 x 4	16.1	576	4.610	5.516	50	0.303	38	47	0.46
2 x 6	17.1	654	3.080	3.685	50	0.288	48	59	0.70
2 x 10	18.7	820	1.830	2.190	50	0.269	66	78	1.16
2 x 16	20.6	1,051	1.150	1.376	40	0.255	90	102	1.86
2 x 25	24.8	1,423	0.727	0.870	40	0.255	120	134	2.91
2 x 35	26.8	1,726	0.524	0.627	40	0.246	150	160	4.07
2 x 50	31.0	2,181	0.387	0.464	30	0.247	180	187	5.81
2 x 70	33.9	2,835	0.268	0.321	30	0.238	230	235	8.14
2 x 95	37.8	3,660	0.193	0.232	30	0.238	275	280	11.05
2 x 120	41.3	4,371	0.153	0.184	30	0.233	320	325	13.95
2 x 150	44.8	5,260	0.124	0.150	20	0.233	375	355	17.44
2 x 185	53.5	6,930	0.099	0.121	20	0.233	430	409	21.51
2 x 240	60.0	8,790	0.075	0.093	20	0.232	510	472	27.91
2 x 300	66.0	10,705	0.060	0.075	20	0.231	590	525	34.88
3 x 1.5	14.0	410	12.100	14.478	50	0.328	26	30	0.17
3 x 2.5	15.3	494	7.410	8.866	50	0.304	33	34	0.29
3 x 4	16.8	635	4.610	5.516	50	0.303	42	50	0.46
3 x 6	17.9	758	3.080	3.685	50	0.288	52	61	0.70
3 x 10	19.6	970	1.830	2.190	50	0.269	67	79	1.16
3 x 16	21.6	1,223	1.150	1.376	40	0.255	85	99	1.86
3 x 25	26.5	1,714	0.727	0.870	40	0.255	105	116	2.91
3 x 35	30.8	2,105	0.524	0.627	40	0.246	130	138	4.07
3 x 50	33.0	2,280	0.387	0.464	30	0.247	160	165	5.81
3 x 70	36.4	3,006	0.268	0.321	30	0.238	200	205	8.14
3 x 95	41.0	3,993	0.193	0.232	30	0.238	245	250	11.05
3 x 120	44.5	4,787	0.153	0.184	30	0.233	285	280	13.95
3 x 150	48.7	5,773	0.124	0.150	20	0.233	325	315	17.44
3 x 185	57.0	8,705	0.099	0.121	20	0.233	370	355	21.51
3 x 240	64.0	11,155	0.075	0.093	20	0.232	435	415	27.91
3 x 300	71.0	13,575	0.060	0.075	20	0.231	500	465	34.88
3 x 400	79.0	17,315	0.047	0.060	20	0.229	600	535	46.51
4 x 1.5	14.7	475	12.100	14.478	50	0.328	23	27	0.17
4 x 2.5	16.3	545	7.410	8.866	50	0.304	29	34	0.29
4 x 4	17.9	735	4.610	5.516	50	0.303	37	43	0.46
4 x 6	19.1	883	3.080	3.685	50	0.288	45	53	0.70
4 x 10	21.0	1,134	1.830	2.190	50	0.269	58	69	1.16
4 x 16	24.5	1,479	1.150	1.376	40	0.255	80	89	1.86
4 x 25	28.6	2,050	0.727	0.870	40	0.255	105	116	2.91
4 x 35	31.1	2,580	0.524	0.627	40	0.246	130	138	4.07
4 x 50	36.0	2,995	0.387	0.464	30	0.247	160	165	5.81
4 x 70	39.5	3,948	0.268	0.321	30	0.238	200	205	8.14
4 x 95	44.7	5,186	0.193	0.232	30	0.238	245	250	11.05
4 x 120	49.6	6,274	0.153	0.184	30	0.233	285	280	13.95
4 x 150	54.4	7,643	0.124	0.150	20	0.233	325	315	17.44
4 x 185	58.5	9,830	0.099	0.121	20	0.233	370	355	21.51
4 x 240	65.0	12,435	0.075	0.093	20	0.232	435	415	27.91
4 x 300	71.0	15,240	0.060	0.075	20	0.231	500	465	34.88
4 x 400	80.0	19,310	0.047	0.060	20	0.229	600	535	46.51

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

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

(Aluminium Conductor, PVC Insulated, PVC Sheathed)

Standard Specification : SPLN 43 - 1 & IEC 60502 - 1



Application

Power cable : Indoors, cable trunking, outdoors and buried 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 - 800 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape

Standard Packing

- 10 - 800 sqmm supplied in wooden drum @ 1000 meters
- Length Tolerance per drum $\pm 2\%$

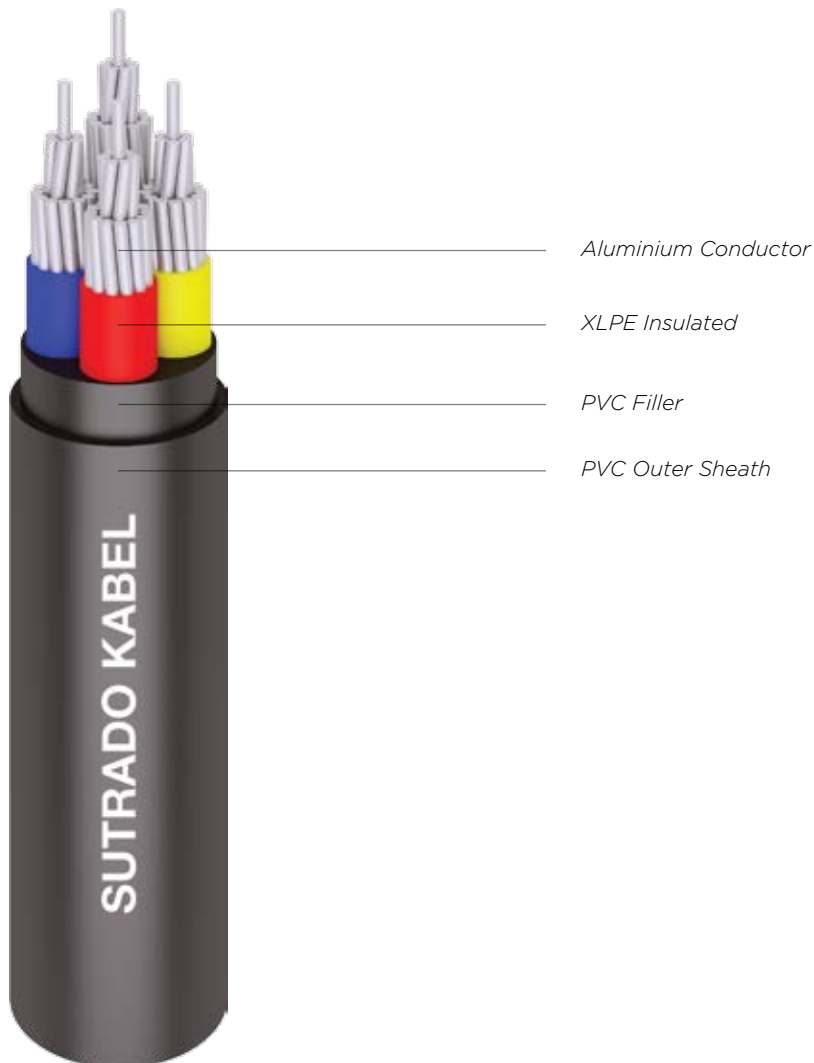
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES						
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Min. Insulation Resistance at 20 °C	Inductance	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 70 °C			in air	in ground	
mm ²			mm	kg/km	ohm/km	ohm/km	M.ohm.km	mH/km	A	A	kA
1	x	10	8.9	101	3.080	3.701	50	0.350	58	74	0.81
1	x	16	10.0	132	1.910	2.295	40	0.323	82	102	1.28
1	x	25	11.7	184	1.200	1.442	40	0.313	110	139	1.98
1	x	35	12.9	228	0.868	1.043	40	0.298	135	160	2.75
1	x	50	14.9	300	0.641	0.770	30	0.290	165	191	3.91
1	x	70	16.6	381	0.443	0.533	30	0.279	210	240	5.45
1	x	95	19.0	501	0.320	0.385	30	0.274	260	290	7.37
1	x	120	20.6	592	0.253	0.305	30	0.270	300	335	9.29
1	x	150	22.7	733	0.206	0.249	20	0.265	350	375	11.59
1	x	185	25.2	895	0.164	0.198	20	0.264	400	425	14.28
1	x	240	28.5	1,134	0.125	0.152	20	0.260	480	500	18.44
1	x	300	31.5	1,389	0.100	0.122	20	0.258	550	570	23.28
1	x	400	35.5	1,795	0.078	0.096	20	0.252	660	665	27.47
1	x	500	38.9	2,200	0.061	0.076	20	0.251	780	765	34.40
1	x	630	44.0	2,760	0.047	0.061	20	0.246	820	800	42.84
1	x	800	48.0	3,335	0.037	0.050	20	0.242	940	910	54.40
2	x	10	18.7	435	3.080	3.701	50	0.269	48	59	0.81
2	x	16	20.7	539	1.910	2.295	40	0.253	70	79	1.28
2	x	25	24.0	735	1.200	1.442	40	0.257	94	102	1.98
2	x	35	26.3	887	0.868	1.043	40	0.247	115	125	2.75
2	x	50	29.8	1,124	0.641	0.770	30	0.247	140	147	3.91
2	x	70	33.4	1,434	0.443	0.533	30	0.238	155	156	5.45
2	x	95	38.3	1,871	0.320	0.385	30	0.238	190	191	7.37
2	x	120	41.7	2,215	0.253	0.305	30	0.233	220	225	9.29
2	x	150	45.9	2,674	0.206	0.249	20	0.235	245	250	11.59
2	x	185	51.5	3,335	0.164	0.198	20	0.233	275	280	14.28
2	x	240	58.0	4,255	0.125	0.152	20	0.232	320	325	18.44
2	x	300	64.0	5,245	0.100	0.122	20	0.231	365	370	23.28
3	x	10	19.7	491	3.080	3.701	50	0.269	44	52	0.81
3	x	16	21.8	610	1.910	2.295	40	0.253	62	69	1.28
3	x	25	25.4	842	1.200	1.442	40	0.257	82	89	1.98
3	x	35	27.5	1,023	0.868	1.043	40	0.247	100	107	2.75
3	x	50	32.0	1,300	0.641	0.770	30	0.247	125	129	3.91
3	x	70	36.5	1,710	0.443	0.533	30	0.238	155	156	5.45
3	x	95	41.0	2,215	0.320	0.385	30	0.238	190	191	7.37
3	x	120	45.0	2,615	0.253	0.305	30	0.233	220	225	9.29
3	x	150	50.0	3,215	0.206	0.249	20	0.235	250	245	11.59
3	x	185	55.0	3,960	0.164	0.198	20	0.233	285	275	14.28
3	x	240	62.5	5,080	0.125	0.152	20	0.232	340	320	18.44
3	x	300	69.0	6,230	0.100	0.122	20	0.231	390	365	23.28
3	x	400	78.0	7,980	0.078	0.096	20	0.229	460	420	27.47
4	x	10	21.2	568	3.080	3.701	50	0.269	44	52	0.81
4	x	16	23.6	712	1.910	2.295	40	0.253	62	69	1.28
4	x	25	27.2	991	1.200	1.442	40	0.257	82	89	1.98
4	x	35	29.9	1,211	0.868	1.043	40	0.247	100	107	2.75
4	x	50	32.0	1,325	0.641	0.770	30	0.247	125	129	3.91
4	x	70	36.0	1,710	0.443	0.533	30	0.238	155	156	5.45
4	x	95	42.0	2,225	0.320	0.385	30	0.238	190	191	7.37
4	x	120	45.0	2,640	0.253	0.305	30	0.233	220	225	9.29
4	x	150	50.5	3,225	0.206	0.249	20	0.235	250	245	11.59
4	x	185	56.0	3,965	0.164	0.198	20	0.233	285	275	14.28
4	x	240	62.5	5,055	0.125	0.152	20	0.232	340	320	18.44
4	x	300	68.5	6,175	0.100	0.122	20	0.231	390	365	23.28
4	x	400	78.0	7,945	0.078	0.096	20	0.229	460	420	27.47

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

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

(Aluminium Conductor, XLPE Insulated, PVC Sheathed)

Standard Specification : SPLN 43 - 6 & IEC 60502 - 1



Application

Power cable : Indoors, cable trunking, outdoors and buried 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
- Low Smoke Zero Halogen

Note : Conductor Shape

- 10 - 16 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
- 25 - 800 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape

Standard Packing

- 10 - 800 sqmm supplied in wooden drum @ 1000 meters
- Length Tolerance per drum $\pm 2\%$

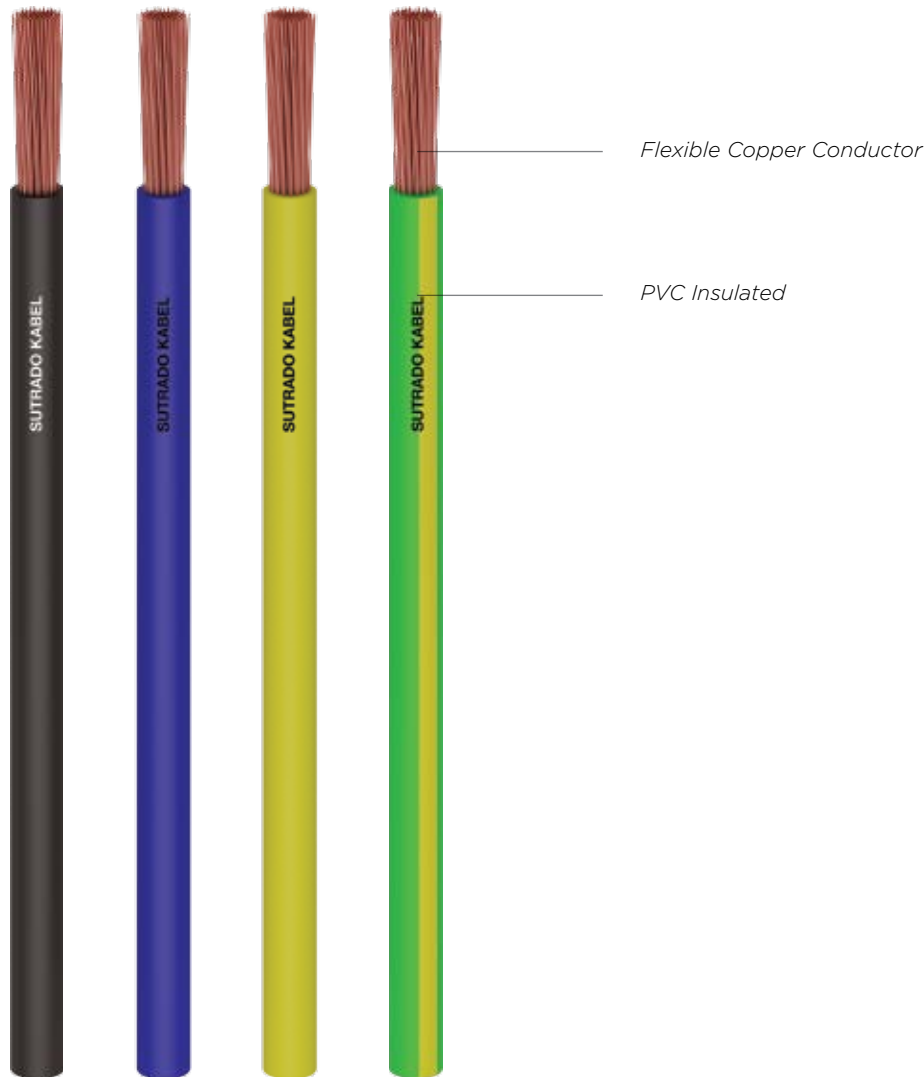
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES					
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Inductance	Max. Current - Carrying Capacity at 30 °C *		Max. Short Circuit Current at 1 Second
					Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C		in air	in ground	
mm ²			mm	kg/km	ohm/km	ohm/km	mH/km	A	A	kA
1	x	10	8.9	95	3.080	3.949	0.336	61	72	0.81
1	x	16	10.0	123	1.910	2.449	0.311	79	100	1.28
1	x	25	11.2	162	1.200	1.539	0.302	105	132	1.98
1	x	35	12.4	203	0.868	1.113	0.289	131	155	2.75
1	x	50	14.0	258	0.641	0.822	0.279	162	186	3.91
1	x	70	15.9	336	0.443	0.568	0.269	204	235	5.45
1	x	95	18.1	442	0.320	0.411	0.263	255	285	7.37
1	x	120	19.9	535	0.253	0.325	0.260	296	330	9.29
1	x	150	21.9	645	0.206	0.265	0.258	345	371	11.59
1	x	185	24.2	789	0.164	0.212	0.258	392	420	14.28
1	x	240	27.5	1,016	0.125	0.162	0.253	474	496	18.49
1	x	300	29.8	1,217	0.100	0.130	0.249	545	562	23.08
1	x	400	33.9	1,567	0.078	0.103	0.245	650	651	27.47
1	x	500	37.5	1,922	0.061	0.081	0.245	775	760	34.30
1	x	630	43.0	2,480	0.047	0.065	0.243	809	822	48.80
1	x	800	47.0	3,050	0.037	0.053	0.241	848	907	78.50
2	x	10	18.9	430	3.080	3.949	0.248	54	68	0.81
2	x	16	21.0	537	1.910	2.449	0.236	83	95	1.28
2	x	25	23.5	687	1.200	1.539	0.242	116	125	1.98
2	x	35	25.9	839	0.868	1.113	0.234	140	155	2.75
2	x	50	29.2	1,057	0.641	0.822	0.232	171	180	3.91
2	x	70	32.9	1,349	0.443	0.568	0.229	214	226	5.45
2	x	95	36.9	1,711	0.320	0.411	0.224	265	270	7.37
2	x	120	40.8	2,078	0.253	0.325	0.223	314	317	9.29
2	x	150	44.8	2,509	0.206	0.265	0.225	358	347	11.59
2	x	185	49.6	3,071	0.164	0.212	0.225	415	395	14.28
2	x	240	55.6	3,872	0.125	0.162	0.223	495	462	18.49
2	x	300	61.2	4,706	0.100	0.130	0.222	570	528	23.08
3	x	10	19.8	459	3.080	3.949	0.248	49	57	0.81
3	x	16	22.1	574	1.910	2.449	0.236	71	80	1.28
3	x	25	24.9	734	1.200	1.539	0.242	96	105	1.98
3	x	35	27.4	897	0.868	1.113	0.234	118	129	2.75
3	x	50	25.3	848	0.641	0.822	0.232	144	152	3.91
3	x	70	28.7	1,122	0.443	0.568	0.229	187	190	5.45
3	x	95	31.9	1,431	0.320	0.411	0.224	230	228	7.37
3	x	120	34.9	1,734	0.253	0.325	0.223	269	265	9.29
3	x	150	38.6	2,109	0.206	0.265	0.225	306	292	11.59
3	x	185	42.6	2,578	0.164	0.212	0.225	352	332	14.28
3	x	240	47.9	3,314	0.125	0.162	0.223	453	425	18.49
3	x	300	52.5	4,028	0.100	0.130	0.222	490	443	23.08
4	x	10	21.4	545	3.080	3.949	0.248	49	60	0.81
4	x	16	23.9	694	1.910	2.449	0.236	71	84	1.28
4	x	25	27.0	905	1.200	1.539	0.242	99	110	1.98
4	x	35	29.9	1,123	0.868	1.113	0.234	119	132	2.75
4	x	50	29.0	1,114	0.641	0.822	0.232	144	156	3.91
4	x	70	32.9	1,477	0.443	0.568	0.229	185	193	5.45
4	x	95	35.9	1,868	0.320	0.411	0.224	230	232	7.37
4	x	120	40.0	2,298	0.253	0.325	0.223	269	268	9.29
4	x	150	44.3	2,789	0.206	0.265	0.225	307	296	11.59
4	x	185	48.5	3,419	0.164	0.212	0.225	352	336	14.28
4	x	240	54.5	4,387	0.125	0.162	0.223	422	393	18.49
4	x	300	59.6	5,329	0.100	0.130	0.222	489	447	23.08

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

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

(Flexible Copper,PVC Sheated)

Standard Specification : SNI 04-6629.4



Application

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

Special Features on Request

- Fire Resistance
- Oil Resistance
- 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 - 240 sqmm supplied in non compacted circular stranded (rm) conductor shape

Standard Packing

- 1.5 - 16 sqmm supplied in coil @ 100 meters
- 25 - 240 sqmm supplied in wooden drum @ 1000 meters
- Length Tolerance per drum $\pm 2\%$

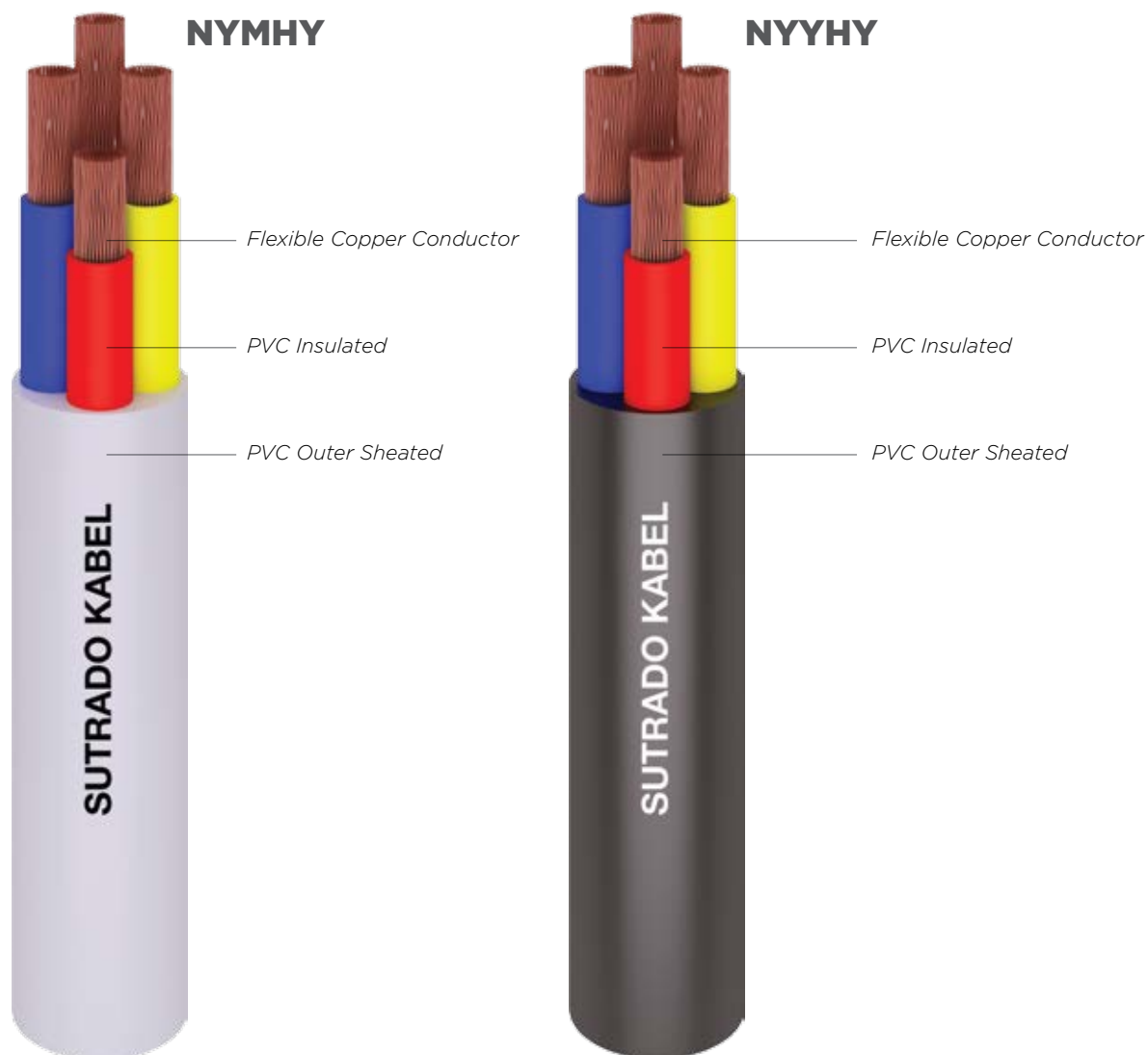
PHYSICAL PROPERTIES								ELECTRICAL PROPERTIES					
Size	No/Dia. of wire	Insulation Thickness	Approx. Overall Diameter	Approx. Cable Weight	Standard Length	Packing	Min Bending Radius	Conductor Resistance at 20°C	Insulation Resistance at 70°C	Current Carrying Capacity at 30°C		Short Circuit Current at 1 sec.	AC Voltage
mm ²	pcs/mm	mm	mm	kg/km	m	-		ohm/km	M.ohm.km	in pipe	in air	kA	kV/5min.
1.5	30/0.25	0.7	3.0	21	50/100	coil	30	13.300	0.010	15	24	0.19	2.5
2.5	50/0.25	0.8	3.7	33	50/100	coil	30	7.980	0.009	20	32	0.32	2.5
4	56/0.30	0.8	4.6	51	50/100	coil	40	4.950	0.007	25	41	0.50	2.5
6	84/0.30	0.8	5.4	72	50/100	coil	50	3.300	0.006	33	53	0.73	2.5
10	80/0.40	1.0	7.3	122	50/100	coil	70	1.910	0.006	45	72	1.20	2.5
16	126/0.40	1.0	8.4	180	1,000	drum	80	1.210	0.005	60	97	1.91	2.5
25	196/0.40	1.1	10.2	276	1,000	drum	100	0.780	0.004	82	128	2.96	2.5
35	276/0.40	1.2	11.8	377	1,000	drum	110	0.554	0.004	102	156	4.13	2.5
50	396/0.40	1.4	14.1	539	500	drum	140	0.386	0.004	131	195	5.87	2.5
70	360/0.50	1.4	16.1	745	500	drum	160	0.272	0.003	164	243	8.19	2.5
95	475/0.50	1.6	18.2	980	500	drum	180	0.206	0.003	205	287	11.09	2.5
120	608/0.50	1.6	20.0	1,232	500	drum	200	0.161	0.003	233	342	13.98	2.5
150	756/0.50	1.8	22.2	1,532	500	drum	220	0.129	0.003	-	386	17.46	2.5
185	925/0.50	2.0	25.0	1,882	500	drum	250	0.106	0.003	-	441	21.50	2.5
240	1,221/0.50	2.2	27.9	2,461	500	drum	270	0.080	0.003	-	552	27.86	2.5

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

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



Application

Permanent installation in conduit or exposed wiring in dry room

Special Features on Request

- Fire Resistance
- Oil Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category

Note : Conductor Shape

- 1.5 - 35 sqmm supplied in flexible copper wire
- 16 - 35 sqmm supplied in non compacted circular stranded (rm) conductor shape

Standard Packing

- 1.5 - 16 sqmm in coil @ 100 m
- 25 - 35 wooden drum @ 1000 m or @ 2000 m
- Length Tolerance per drum $\pm 2\%$

NYMHY															
PHYSICAL PROPERTIES										ELECTRICAL PROPERTIES					
No of Cores	Size	No/Dia. of Wire	Wall thickness		Approx. Overall Diameter	Approx. Cable Weight	Standard Length	Packing	Min Bending Radius	Conductor Resistance at 20°C	Insulation Resistance at 70°C	Current Carrying Capacity at 30°C		Short Circuit Current at 1 sec.	AC Voltage
			Insulation	Sheath								in pipe	in air		
pcs	mm ²	pcs/mm	mm	mm	mm	kg/km	m	-		ohm/km	M.ohm.km	A	A	kA	kV/5min.
2	1.5	30/0.25	0.7	1.2	8.9	112	50/100	coil	80	13.30	0.010	15	24	0.19	2
	2.5	50/0.25	0.8	1.2	10.9	165	50/100	coil	100	7.98	0.009	20	32	0.32	2
3	1.5	30/0.25	0.7	1.2	9.4	134	50/100	coil	90	13.30	0.010	15	24	0.19	2
	2.5	50/0.25	0.8	1.2	11.2	196	50/100	coil	110	7.98	0.009	20	32	0.32	2
4	1.5	30/0.25	0.7	1.3	10.5	171	50/100	coil	100	13.30	0.010	15	24	0.19	2
	2.5	50/0.25	0.8	1.3	12.1	240	50/100	coil	120	7.98	0.009	20	32	0.32	2

NYYHY															
PHYSICAL PROPERTIES										ELECTRICAL PROPERTIES					
No of Cores	Size	No/Dia. of Wire	Wall Thickness		Approx. Overall Diameter	Approx. Cable Weight	Standard Length	Packing	Min Bending Radius	Conductor Resistance at 20°C	Insulation Resistance at 70°C	Current Carrying Capacity at 30°C		Short Circuit Current at 1 sec.	AC Voltage
			Insulation	Sheath								in pipe	in air		
pcs	mm ²	pcs/mm	mm	mm	mm	kg/km	m	-		ohm/km	M.ohm.km	A	A	kA	kV/5min.
2	1.5	30/0.25	0.7	1.2	8.9	112	50/100	coil	80	13.30	0.010	15	24	0.19	2.5
	2.5	50/0.25	0.8	1.2	10.9	165	50/100	coil	100	7.98	0.009	20	32	0.32	2.5
	4	56/0.30	0.8	1.3	11.6	210	50/100	coil	110	4.95	0.007	25	41	0.50	2.5
	6	84/0.30	0.8	1.3	12.9	274	1,000	drum	120	3.30	0.006	33	53	0.73	2.5
	10	80/0.40	1.0	1.4	16.1	432	1,000	drum	160	1.91	0.006	45	72	1.17	2.5
3	1.5	30/0.25	0.7	1.2	9.4	134	50/100	coil	90	13.30	0.010	15	24	0.19	2.5
	2.5	50/0.25	0.8	1.2	11.2	196	50/100	coil	110	7.98	0.009	20	32	0.32	2.5
	4	56/0.30	0.8	1.3	12.3	257	1,000	drum	120	4.95	0.007	25	41	0.50	2.5
	6	84/0.30	0.8	1.4	13.5	345	1,000	drum	130	3.30	0.006	33	53	0.73	2.5
	10	80/0.40	1.0	1.5	17.0	545	1,000	drum	170	1.91	0.006	45	72	1.17	2.5
4	1.5	30/0.25	0.7	1.3	10.5	171	50/100	coil	100	13.30	0.010	15	24	0.19	2.5
	2.5	50/0.25	0.8	1.3	12.1	240	50/100	coil	120	7.98	0.009	20	32	0.32	2.5
	4	56/0.30	0.8	1.4	13.3	325	1,000	drum	130	4.95	0.007	25	41	0.50	2.5
	6	84/0.30	0.8	1.4	15.1	430	1,000	drum	150	3.30	0.006	33	53	0.73	2.5
	10	80/0.40	1.0	1.5	19.3	692	1,000	drum	190	1.91	0.006	45	72	1.17	2.5

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





OVERHEAD CONDUCTOR & CABLES



AAC / AAAC

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



All Aluminium Conductor



All Alloy Aluminium 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 Alloy Aluminium 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							
mm ²	mm ²	pcs/mm	mm	kg/km	kg	ohm/km	A	m
16	16.84	7/1.75	5.25	45	310	1.700	110	500
25	27.83	7/2.25	6.75	76	490	1.029	145	500
35	34.36	7/2.50	7.50	94	590	0.833	180	500
50	49.48	7/3.00	9.00	135	810	0.579	225	500
50	45.70	19/1.75	8.75	126	835	0.630	225	500
55	58.07	7/3.25	9.75	160	935	0.493	235	500
70	75.55	19/2.25	11.25	208	1,040	0.381	270	1,000
95	93.27	19/2.50	12.50	257	1,560	0.308	340	1,000
100	99.30	7/4.25	12.75	272	1,540	0.288	350	1,000
120	112.85	19/2.75	13.75	310	1,890	0.255	390	1,000
150	157.62	19/3.25	16.25	434	2,530	0.183	455	1,000
150	147.12	37/2.25	15.75	406	2,575	0.196	455	1,000
185	111.63	37/2.50	17.50	501	3,110	0.159	520	1,000
200	189.85	19/3.75	18.75	557	3,290	0.137	565	1,000
240	242.54	61/2.25	20.25	670	4,020	0.119	625	1,000
240	238.76	19/4.00	20.00	657	3,700	0.121	625	1,000
300	299.44	61/2.50	22.50	827	4,850	0.097	710	1,000
400	431.18	61/3.00	27.00	1,191	6,675	0.067	855	1,000
500	506.04	61/3.25	29.25	1,398	7,700	0.057	990	1,000
630	643.24	91/3.00	33.00	1,782	9,960	0.045	1,140	1,000
800	754.92	91/3.25	35.75	2,091	11,480	0.038	1,340	1,000
1,000	1,005.07	91/3.75	41.25	2,784	14,925	0.029	1,540	1,000

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							
mm ²	mm ²	pcs/mm	mm	kg/km	kg	ohm/km	A	m
16	16.84	7/1.75	5.25	45	480	1.955	105	500
25	27.83	7/2.25	6.75	76	790	1.183	135	500
35	34.36	7/2.50	7.50	94	980	0.958	170	500
50	49.48	7/3.00	9.00	135	1,410	0.665	210	500
50	45.70	19/1.75	8.75	126	1,300	0.724	210	500
55	58.07	7/3.25	9.75	160	1,655	0.567	220	500
70	75.55	19/2.25	11.25	208	2,150	0.438	255	1,000
95	93.27	19/2.50	12.50	257	2,660	0.355	320	1,000
100	99.30	7/4.25	12.75	272	2,830	0.332	325	1,000
120	112.85	19/2.75	13.75	310	3,220	0.293	365	1,000
150	157.62	19/3.25	16.25	434	4,490	0.210	425	1,000
150	147.12	37/2.25	15.75	406	4,190	0.225	425	1,000
185	181.60	37/2.50	17.50	501	5,175	0.183	490	1,000
240	238.76	19/4.00	20.00	657	6,805	0.137	585	1,000
240	242.54	61/2.25	20.25	670	6,910	0.139	585	1,000
300	299.44	61/2.50	22.50	827	8,530	0.111	670	1,000
400	431.18	61/3.00	27.00	1,191	12,290	0.077	810	1,000
500	506.04	61/3.25	29.25	1,398	14,420	0.066	930	1,000
630	643.24	91/3.00	33.00	1,782	18,330	0.052	1,085	1,000
800	754.92	91/3.25	35.75	2,091	21,515	0.044	1,255	1,000
1,000	1,005.07	91/3.75	41.25	2,784	28,640	0.033	1,450	1,000

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

AAAC/S

All Alloy Aluminium Conductor with XLPE Insulated



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

Middle Voltage Cable

PHYSICAL PROPERTIES							ELECTRICAL PROPERTIES			
Cross Sectional Area		Number and Diameter Wire	Semi Conductor Thickness	Insulation Thickness	Approx. Overall Diameter	Approx. Cable Weight	Calculated Breaking Force	DC. Resistance at 20°C	Current Carrying Capacity	Standard Length
Nominal Size	Actual Size									
mm ²	mm ²	pcs/mm	mm	mm	mm	kg/km	kg	ohm/km	A	m
35	34.36	7/2.50	0.80	3.0	15.10	227	980	0.958	167	1,000
50	45.71	19/1.75	0.80	3.0	16.40	289	1,300	0.724	200	1,000
70	75.55	19/2.25	0.80	3.0	19.00	385	2,150	0.438	275	1,000
95	93.27	19/2.50	0.80	3.0	20.10	449	2,660	0.355	315	1,000
100	99.30	7/4.25	0.80	3.0	20.40	490	2,830	0.332	325	1,000
120	112.85	19/2.75	0.80	3.0	21.40	530	3,220	0.293	356	1,000
150	147.10	37/2.25	0.80	3.0	23.40	639	4,190	0.225	423	1,000
185	181.60	37/2.50	0.80	3.0	25.10	770	5,170	0.183	484	1,000
240	242.50	61/2.50	0.80	3.0	28.00	955	6,910	0.139	585	1,000
300	299.40	61/2.50	0.80	3.0	30.10	1,052	8,530	0.111	670	1,000
400	431.18	61/3.00	0.80	3.0	34.60	1,464	12,290	0.077	810	500
500	506.04	61/3.25	0.80	3.0	36.85	1,774	14,420	0.066	930	500
630	643.24	91/3.00	0.80	3.0	40.60	2,129	18,330	0.052	1,085	500
800	754.92	91/3.25	0.80	3.0	43.35	2,471	21,515	0.044	1,255	500
1,000	1,005.07	91/3.75	0.80	3.0	48.85	3,232	28,640	0.033	1,450	500

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

ACSR

Aluminium Conductor Steel Reinforced



Application

Used for overhead distribution and transmission

Specification

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

Construction

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

Classification

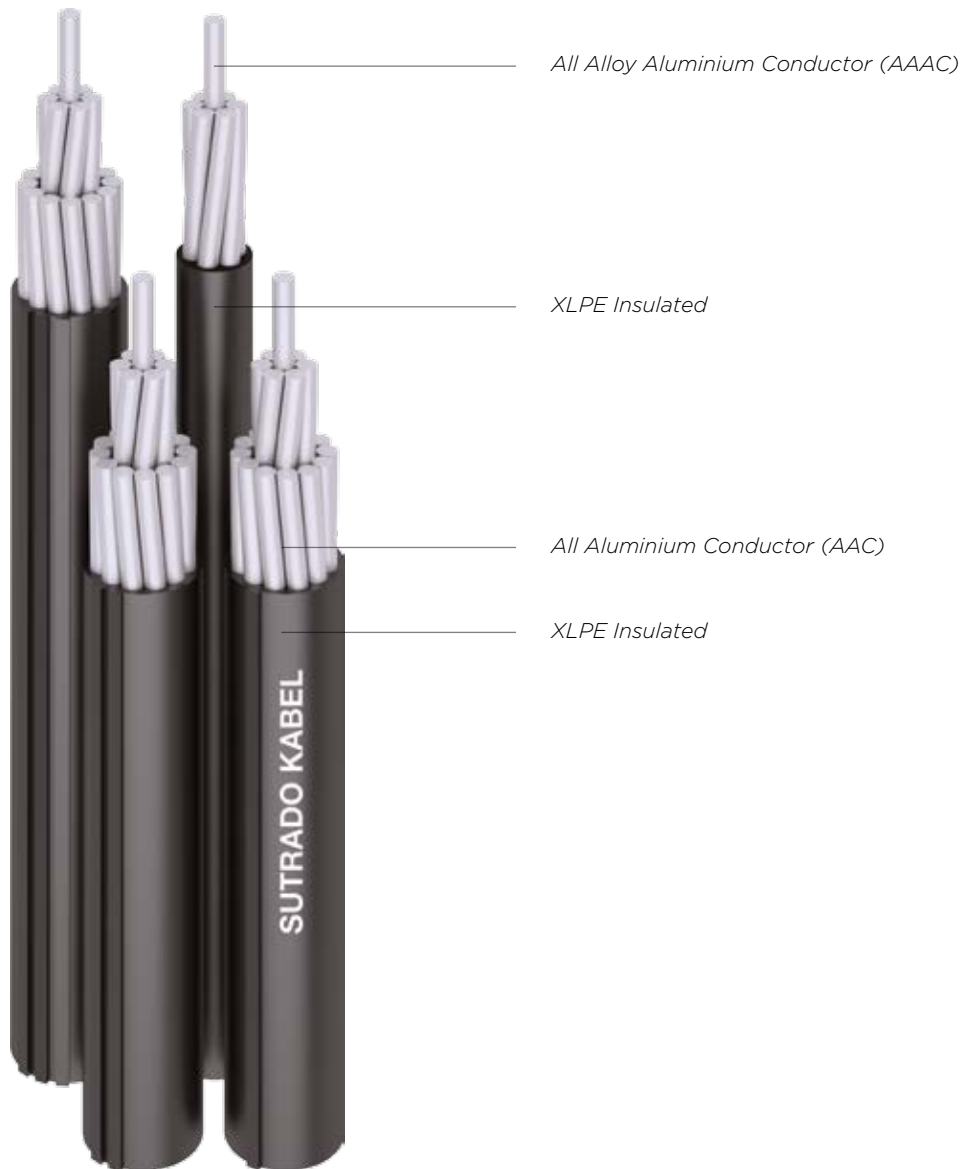
Bare Conductor

PHYSICAL AND 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						
mm ²	mm ²	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	10,000
25/4	23.8/4.0	6/2.25	1/2.25	6.80	98	1.2030	135	9,200	10,000
35/6	34.3/5.7	6/2.70	1/2.70	8.10	140	0.8353	165	12,650	10,000
44/32	44.0/31.7	24/2.00	7/2.40	11.20	379	0.6573	205	43,000	5,000
50/8	48.3/8.0	6/3.20	1/3.20	9.60	197	0.5946	205	17,100	10,000
50/30	51.2/29.8	12/2.33	7/2.33	11.70	383	0.5644	225	43,800	5,000
70/12	69.9/11.4	26/1.85	7/1.44	11.70	284	0.4130	260	26,800	5,000
95/15	94.4/15.3	26/2.25	7/1.67	13.60	383	0.3053	315	35,750	5,000
95/55	96.5/56.3	12/3.20	7/3.20	16.00	723	0.2992	335	79,350	3,000
105/75	105.7/75.5	14/3.10	19/2.25	17.50	908	0.2736	355	108,450	3,000
120/20	121.6/19.8	26/2.44	7/1.90	15.50	494	0.2374	370	45,650	5,000
120/70	122.0/71.3	12/3.60	7/3.60	18.00	915	0.2364	385	100,000	3,000
125/30	127.9/29.8	30/2.33	7/2.33	16.10	593	0.2259	385	57,600	3,000
150/25	149.9/24.2	26/2.70	7/2.10	17.10	604	0.1939	420	55,250	3,000
170/40	171.8/40.1	30/2.70	7/2.70	13.90	796	0.1682	465	76,750	3,000
185/30	183.8/29.8	26/3.00	7/2.33	19.00	745	0.1571	480	66,200	3,000
210/35	209.1/34.1	26/3.20	7/2.49	20.30	848	0.1380	520	74,900	3,000
210/50	212.1/49.5	30/3.00	7/3.00	21.00	982	0.1363	530	93,900	3,000
230/30	230.9/29.8	24/3.50	7/2.33	21.00	873	0.1249	555	73,100	3,000
240/40	243.7/39.5	26/3.45	7/2.68	21.90	985	0.1188	575	86,400	3,000
265/35	263.7/34.1	24/3.74	7/2.49	22.40	997	0.1094	600	83,050	2,000
300/50	304.3/49.5	26/3.86	7/3.00	24.40	1,234	0.0949	755	107,000	2,000
305/40	304.6/39.5	54/2.68	7/2.68	24.10	1,153	0.0949	750	99,400	2,000
340/30	339.3/29.8	48/3.00	7/2.33	25.00	1,169	0.0853	800	92,900	2,000
380/50	381.7/49.5	54/3.00	7/3.00	27.00	1,445	0.0757	865	123,100	2,000
385/35	386.0/34.1	48/3.20	7/2.49	26.70	1,331	0.0749	870	104,800	2,000
435/55	434.3/56.3	54/3.20	7/3.20	28.80	1,644	0.0665	940	136,450	1,000
450/40	448.7/39.5	48/3.45	7/2.68	28.70	1,546	0.0645	955	120,750	1,000
490/65	490.3/63.6	54/3.40	7/3.40	30.60	1,856	0.0589	1,015	153,100	1,000
495/35	494.4/34.1	45/3.74	7/2.49	29.90	1,626	0.0585	1,015	121,800	1,000
510/45	510.5/45.3	48/3.68	7/2.87	30.70	1,761	0.0566	1,035	136,650	1,000
550/70	549.7/71.3	54/3.60	7/3.60	32.40	2,080	0.0526	1,090	170,600	1,000
560/50	561.7/49.5	48/3.86	7/3.00	32.20	1,935	0.0515	1,100	148,950	1,000
570/40	571.2/39.5	45/4.02	7/2.68	32.20	1,879	0.0506	1,110	136,200	1,000
650/45	653.5/45.3	45/4.30	7/2.87	34.40	2,151	0.0443	1,205	155,500	1,000
680/85	678.6/86.0	54/4.00	19/2.40	36.00	2,554	0.0426	1,245	206,250	1,000
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 rating factor for certain cable arrangement can be found on supplementary technical information

0.6/1kV, NFA2X-T

Aerial Bundled Conductor, Twisted Cable



Application

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

Specification

SPLN 42-10 : 1993
(Other specifications are available upon request)

Construction

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

Classification

Low Voltage Cable

PHYSICAL PROPERTIES

Cable Size	Insulation Thickness			Approx Maximum Diameter			Approx. Net. Weight	Standard Length
	Phase	Neutral/Messenger	Public Lighting	Phase	Neutral/Messenger	Public Lighting		
mm ²	mm	mm	mm	mm	mm	mm	kg/km	m
2x25+25	1.4	1.4	-	10.0	10.0	10.0	338	500
2x35+25	1.6	1.4	-	11.2	10.0	10.0	394	500
2x50+35	1.6	1.6	-	12.6	11.2	11.2	526	500
2x70+50	1.8	1.6	-	15.4	12.6	12.6	760	500
2x95+70	2.0	1.8	-	17.0	15.4	15.4	975	500
3x25+25	1.4	1.4	-	10.0	10.0	10.0	452	500
3x35+25	1.6	1.4	-	11.2	10.0	10.0	537	500
3x50+35	1.6	1.6	-	12.6	11.2	11.2	717	500
3x70+50	1.8	1.6	-	15.4	12.6	12.6	1,057	500
3x95+70	2.0	1.8	-	17.0	15.4	15.4	1,360	500
3x25+25+2x16	1.4	1.4	1.2	10.0	10.0	8.1	602	500
3x35+25+2x16	1.6	1.4	1.2	11.2	10.0	8.1	687	500
3x50+35+2x16	1.6	1.6	1.2	12.6	11.2	8.1	867	500
3x70+50+2x16	1.8	1.6	1.2	15.4	12.6	8.1	1,207	500
3x95+70+2x16	2.0	1.8	1.2	17.0	15.4	8.1	1,510	500
3x25+25+16	1.4	1.4	1.2	10.0	10.0	8.1	527	500
3x35+25+16	1.6	1.4	1.2	11.2	10.0	8.1	612	500
3x50+35+16	1.6	1.6	1.2	12.6	11.2	8.1	792	500
3x70+50+16	1.8	1.6	1.2	15.4	12.6	8.1	1,132	500
3x95+70+16	2.0	1.8	1.2	17.0	15.4	8.1	1,435	500

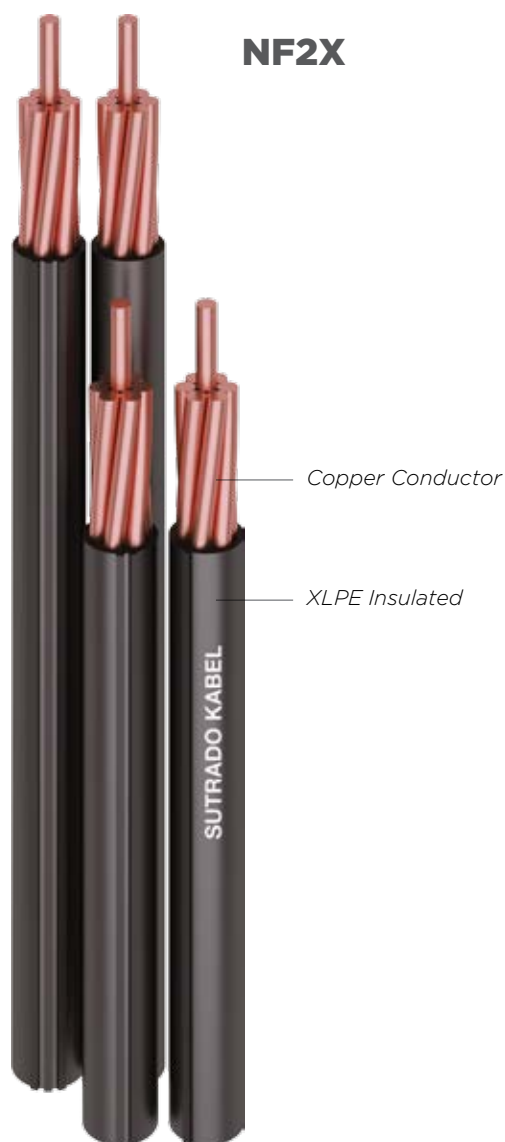
ELECTRICAL PROPERTIES

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
mm ²	ohm/km	ohm/km	ohm/km	A	A	kg	cm	cm
2x25+1x25	1.200	1.380	-	103	-	712	32	65
2x35+1+25	0.868	1.380	-	125	-	712	36	73
2x50+x35	0.641	0.986	-	154	-	997	41	82
2x70+1x50	0.443	0.690	-	196	-	1,395	50	100
2x95+1x70	0.320	0.450	-	242	-	1,935	55	110
3x25+1x25	1.200	1.380	-	103	-	712	36	73
3x35+1x25	0.868	1.380	-	125	-	712	41	81
3x50+1x35	0.641	0.956	-	154	-	997	46	91
3x70+1x50	0.443	0.690	-	196	-	1,395	56	112
3x95+1x70	0.320	0.450	-	242	-	1,932	63	125
3x25+25+2x16	1.200	1.380	1.91	103	72	712	36	73
3x35+25+2x16	0.868	1.380	1.91	125	72	712	41	81
3x50+35+2x16	0.641	0.986	1.91	154	72	997	46	91
3x70+50+2x16	0.443	0.690	1.91	196	72	1,395	56	112
3x95+70+2x16	0.320	0.450	1.91	242	72	1,932	63	125
3x25+25+16	1.200	1.380	1.91	103	72	712	36	73
3x35+25+16	0.868	1.380	1.91	125	72	712	41	81
3x50+35+16	0.641	0.986	1.91	154	72	997	46	91
3x70+50+16	0.443	0.690	1.91	196	72	1,395	56	112
3x95+70+16	0.320	0.450	1.91	242	72	1,932	63	125

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

NF2X / NFA2X

Aerial Bundled Conductor , Twisted Cable



Application

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

Specification

SPLN 42-10 : 1993
(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

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	322	2,000
2x16 rm	1.2	16.0	138	1.910	72	515	1,000
4x10 rm	1.2	17.0	187	3.080	54	644	1,000
4x16 rm	1.2	19.0	272	1.910	72	1,030	1,000
4x25 rm	1.4	24.0	423	1.200	102	1,610	1,000
4x35 rm	1.6	27.0	564	0.868	125	2,250	1,000

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





COPPER MEDIUM VOLTAGE POWER CABLES



N2XSY (Cu / XLPE / CTS / PVC)

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



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 $\pm 2\%$

Physical Properties					Electrical Properties										
	Nom Cross Section Area		Approx. Overall Diameter	Approx. Cable Weight	Conductor		Inductance		Max. (Amp) Current - Carrying Capacity				Max. Short Circuit current at 1 second		
					Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C	Trefoil Formation	Flat Formation							
		mm²		mm	kg/km	ohm/km	ohm/km	mH/km	mH/km	in air	in ground	in air	in ground	Conductor	Screen
									At 30 °C	At 20 °C	At 30 °C	At 20 °C	kA	kA	
3.6/6 (7.2) kV	1	x	35	18.1	625	0.524	0.668	0.393	0.439	198	166	238	172	5.20	1.14
	1	x	50	19.5	805	0.387	0.494	0.374	0.420	238	196	286	203	7.43	1.14
	1	x	70	21.5	1,030	0.268	0.342	0.345	0.391	296	239	356	246	10.40	1.14
	1	x	95	23.0	1,290	0.193	0.247	0.329	0.375	361	285	434	293	14.11	1.14
	1	x	120	25.0	1,525	0.153	0.196	0.319	0.365	417	323	500	332	17.83	1.14
	1	x	150	26.5	1,865	0.124	0.159	0.312	0.358	473	361	559	366	22.29	1.14
	1	x	185	28.0	2,230	0.099	0.128	0.303	0.350	543	406	637	410	27.49	1.14
	1	x	240	30.5	2,780	0.075	0.098	0.297	0.343	641	469	745	470	35.66	1.14
	1	x	300	34.0	3,395	0.060	0.079	0.288	0.334	735	526	846	524	44.57	1.14
	1	x	400	37.0	4,390	0.047	0.063	0.281	0.327	845	590	938	572	59.43	1.14
	1	x	500	41.0	5,325	0.037	0.051	0.274	0.320	974	755	999	772	74.29	1.14
	1	x	630	45.5	6,705	0.028	0.042	0.267	0.314	1,118	846	1,146	864	93.60	1.14
6/10 (12) kV	1	x	35	20.5	695	0.524	0.668	0.418	0.464	198	166	238	172	5.20	1.14
	1	x	50	22.0	885	0.387	0.494	0.389	0.435	238	196	286	203	7.43	1.14
	1	x	70	24.0	1,115	0.268	0.342	0.363	0.409	296	239	356	246	10.40	1.14
	1	x	95	25.0	1,385	0.193	0.247	0.350	0.396	361	285	434	293	14.11	1.14
	1	x	120	27.0	1,625	0.153	0.196	0.335	0.381	417	323	500	332	17.83	1.14
	1	x	150	28.5	1,965	0.124	0.159	0.326	0.373	473	361	559	366	22.29	1.14
	1	x	185	30.0	2,335	0.099	0.128	0.317	0.363	543	406	637	410	27.49	1.14
	1	x	240	32.0	2,875	0.075	0.098	0.307	0.353	641	469	745	470	35.66	1.14
	1	x	300	35.0	3,475	0.060	0.079	0.294	0.340	735	526	846	524	44.57	1.14
	1	x	400	38.0	4,450	0.047	0.063	0.286	0.332	845	590	938	572	59.43	1.14
	1	x	500	42.0	5,365	0.037	0.051	0.279	0.325	974	755	999	772	74.29	1.14
	1	x	630	48.0	6,740	0.028	0.042	0.269	0.316	1,118	846	1,146	864	93.60	1.14
8.7/15 (17.5) kV	1	x	35	23.0	795	0.524	0.668	0.438	0.484	198	166	238	172	5.20	1.14
	1	x	50	24.0	985	0.387	0.494	0.407	0.453	238	196	286	203	7.43	1.14
	1	x	70	26.0	1,220	0.268	0.342	0.383	0.429	296	239	356	246	10.40	1.14
	1	x	95	28.0	1,505	0.193	0.247	0.366	0.412	361	285	434	293	14.11	1.14
	1	x	120	29.5	1,745	0.153	0.196	0.351	0.397	417	323	500	332	17.83	1.14
	1	x	150	31.0	2,090	0.124	0.159	0.341	0.388	473	361	559	366	22.29	1.14
	1	x	185	32.5	2,470	0.099	0.128	0.332	0.378	543	406	637	410	27.49	1.14
	1	x	240	35.0	3,020	0.075	0.098	0.321	0.367	641	469	745	470	35.66	1.14
	1	x	300	38.0	3,630	0.060	0.079	0.308	0.354	735	526	846	524	44.57	1.14
	1	x	400	40.5	4,615	0.047	0.063	0.298	0.344	845	590	938	572	59.43	1.14
	1	x	500	44.0	5,545	0.037	0.051	0.288	0.335	974	755	999	772	74.29	1.14
	1	x	630	48.5	6,935	0.028	0.042	0.279	0.325	1,118	846	1,146	864	93.60	1.14
12/20 (24) kV	1	x	35	25.0	890	0.524	0.668	0.457	0.503	198	166	238	172	5.20	1.14
	1	x	50	26.5	1,085	0.387	0.494	0.425	0.471	238	196	286	203	7.43	1.14
	1	x	70	28.5	1,325	0.268	0.342	0.399	0.456	296	239	356	246	10.40	1.14
	1	x	95	30.0	1,615	0.193	0.247	0.382	0.428	361	285	434	293	14.11	1.14
	1	x	120	32.0	1,865	0.153	0.196	0.366	0.412	417	323	500	332	17.83	1.14
	1	x	150	33.0	2,215	0.124	0.159	0.355	0.402	473	361	559	366	22.29	1.14
	1	x	185	35.0	2,600	0.099	0.128	0.345	0.392	543	406	637	410	27.49	1.14
	1	x	240	37.0	3,155	0.075	0.098	0.334	0.380	641	469	745	470	35.66	1.14
	1	x	300	40.0	3,775	0.060	0.079	0.319	0.365	735	526	846	524	44.57	1.14
	1	x	400	43.0	4,775	0.047	0.063	0.309	0.355	845	590	938	572	59.43	1.14
	1	x	500	46.5	5,715	0.037	0.051	0.298	0.344	974	755	999	772	74.29	1.14
	1	x	630	51.0	7,125	0.028	0.042	0.288	0.334	1,118	846	1,146	864	93.60	1.14
18/30 (36) kV	1	x	35	31.0	1,165	0.524	0.668	0.497	0.544	198	166	238	172	5.20	1.14
	1	x	50	32.0	1,375	0.387	0.494	0.463	0.510	238	196	286	203	7.43	1.14
	1	x	70	34.0	1,630	0.268	0.342	0.435	0.482	296	239	356	246	10.40	1.14
	1	x	95	36.0	1,935	0.193	0.247	0.416	0.462	361	285	434	293	14.11	1.14
	1	x	120	37.5	2,195	0.153	0.196	0.398	0.445	417	323	500	332	17.83	1.14
	1	x	150	39.0	2,560	0.124	0.159	0.387	0.433	473	361	559	366	22.29	1.14
	1	x	185	40.5	2,955	0.099	0.128	0.375	0.422	543	406	637	410	27.49	1.14
	1	x	240	42.5	3,535	0.075	0.098	0.362	0.408	641	469	745	470	35.66	1.14
	1	x	300	46.0	4,180	0.060	0.079	0.346	0.392	735	526	846	524	44.57	1.14
	1	x	400	48.5	5,205	0.047	0.063	0.334	0.380	845	590	938	572	59.43	1.14
	1	x	500	52.0	6,180	0.037	0.051	0.321	0.367	974	755	999	772	74.29	1.14
	1	x	630	56.5	7,625	0.028	0.042	0.309	0.356	1,118	846	1,146	864	93.60	1.14

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

N2XSEY (Cu / XLPE / CTS / PVC)

(Copper Conductor, XLPE Insulated, Copper Tape Screen, PVC Sheathed)

Standard Specification : IEC 60502 - 2



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 - 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 $\pm 2\%$

Physical Properties						Electrical Properties						
	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Inductance	Max. (Amp) Current - Carrying Capacity		Max. Short Circuit Current at 1 Second	
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C		in air	in ground	Conductor	Screen
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	At 30 °C	At 20 °C	kA	kA
3.6/6 (7.2) kV	3	x	35	41.5	3,345	0.524	0.668	0.355	172	154	5.20	1.03
	3	x	50	45.0	4,110	0.387	0.494	0.328	205	181	7.43	1.03
	3	x	70	49.0	5,015	0.268	0.342	0.310	253	220	10.40	1.03
	3	x	95	53.0	6,055	0.193	0.247	0.298	307	263	14.11	1.03
	3	x	120	57.0	7,035	0.153	0.196	0.286	352	298	17.83	1.03
	3	x	150	60.0	8,260	0.124	0.159	0.279	397	332	22.29	1.03
	3	x	185	63.0	9,615	0.099	0.128	0.272	453	374	27.49	1.03
	3	x	240	68.5	11,640	0.075	0.098	0.266	529	431	35.66	1.37
	3	x	300	76.0	14,170	0.060	0.079	0.259	599	482	44.57	1.37
6/10 (12) kV	3	x	35	46.5	3,845	0.524	0.668	0.378	172	154	5.20	1.03
	3	x	50	49.5	4,590	0.387	0.494	0.350	205	181	7.43	1.03
	3	x	70	53.5	5,530	0.268	0.342	0.330	253	220	10.40	1.03
	3	x	95	57.5	6,660	0.193	0.247	0.316	307	263	14.11	1.03
	3	x	120	61.0	7,615	0.153	0.196	0.303	352	298	17.83	1.03
	3	x	150	64.0	8,860	0.124	0.159	0.295	397	332	22.29	1.03
	3	x	185	67.5	10,245	0.099	0.128	0.287	453	374	27.49	1.03
	3	x	240	72.0	12,230	0.075	0.098	0.279	529	431	35.66	1.37
	3	x	300	79.0	14,655	0.060	0.079	0.268	599	482	44.57	1.37
8.7/15 (17.5) kV	3	x	35	52.0	4,455	0.524	0.668	0.404	172	154	5.20	1.03
	3	x	50	55.0	5,225	0.387	0.494	0.374	205	181	7.43	1.03
	3	x	70	59.5	6,270	0.268	0.342	0.352	253	220	10.40	1.03
	3	x	95	63.0	7,375	0.193	0.247	0.337	307	263	14.11	1.03
	3	x	120	66.5	8,365	0.153	0.196	0.322	352	298	17.83	1.03
	3	x	150	69.5	9,640	0.124	0.159	0.313	397	332	22.29	1.03
	3	x	185	73.5	11,135	0.099	0.128	0.304	453	374	27.49	1.03
	3	x	240	78.0	13,170	0.075	0.098	0.295	529	431	35.66	1.37
	3	x	300	84.5	15,580	0.060	0.079	0.282	599	482	44.57	1.37
12/20 (24) kV	3	x	35	57.0	5,115	0.524	0.668	0.425	172	154	5.20	1.03
	3	x	50	60.0	5,915	0.387	0.494	0.394	205	181	7.43	1.03
	3	x	70	64.0	6,935	0.268	0.342	0.370	253	220	10.40	1.03
	3	x	95	68.0	8,075	0.193	0.247	0.353	307	263	14.11	1.03
	3	x	120	71.5	9,090	0.153	0.196	0.338	352	298	17.83	1.03
	3	x	150	74.5	10,470	0.124	0.159	0.328	397	332	22.29	1.03
	3	x	185	78.0	11,925	0.099	0.128	0.319	453	374	27.49	1.03
	3	x	240	83.0	13,995	0.075	0.098	0.308	529	431	35.66	1.37
	3	x	300	89.5	16,465	0.060	0.079	0.294	599	482	44.57	1.37
18/30 (36) kV	3	x	35	69.0	6,800	0.524	0.668	0.469	172	154	5.20	1.03
	3	x	50	72.0	7,665	0.387	0.494	0.436	205	181	7.43	1.03
	3	x	70	76.5	8,860	0.268	0.342	0.409	253	220	10.40	1.03
	3	x	95	80.5	10,085	0.193	0.247	0.390	307	263	14.11	1.03
	3	x	120	84.0	11,180	0.153	0.196	0.373	352	298	17.83	1.03
	3	x	150	87.0	12,550	0.124	0.159	0.362	397	332	22.29	1.03
	3	x	185	90.5	14,080	0.099	0.128	0.351	453	374	27.49	1.03
	3	x	240	95.5	16,355	0.075	0.098	0.338	529	431	35.66	1.37
	3	x	300	102.0	18,970	0.060	0.079	0.322	599	482	44.57	1.37

*Further information about rating factor for certain cable 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 : IEC 60502 - 2



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

Standard Packing

- 35 - 70 sqmm supplied in wooden drum @ 1000 meters
- 95 - 300 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

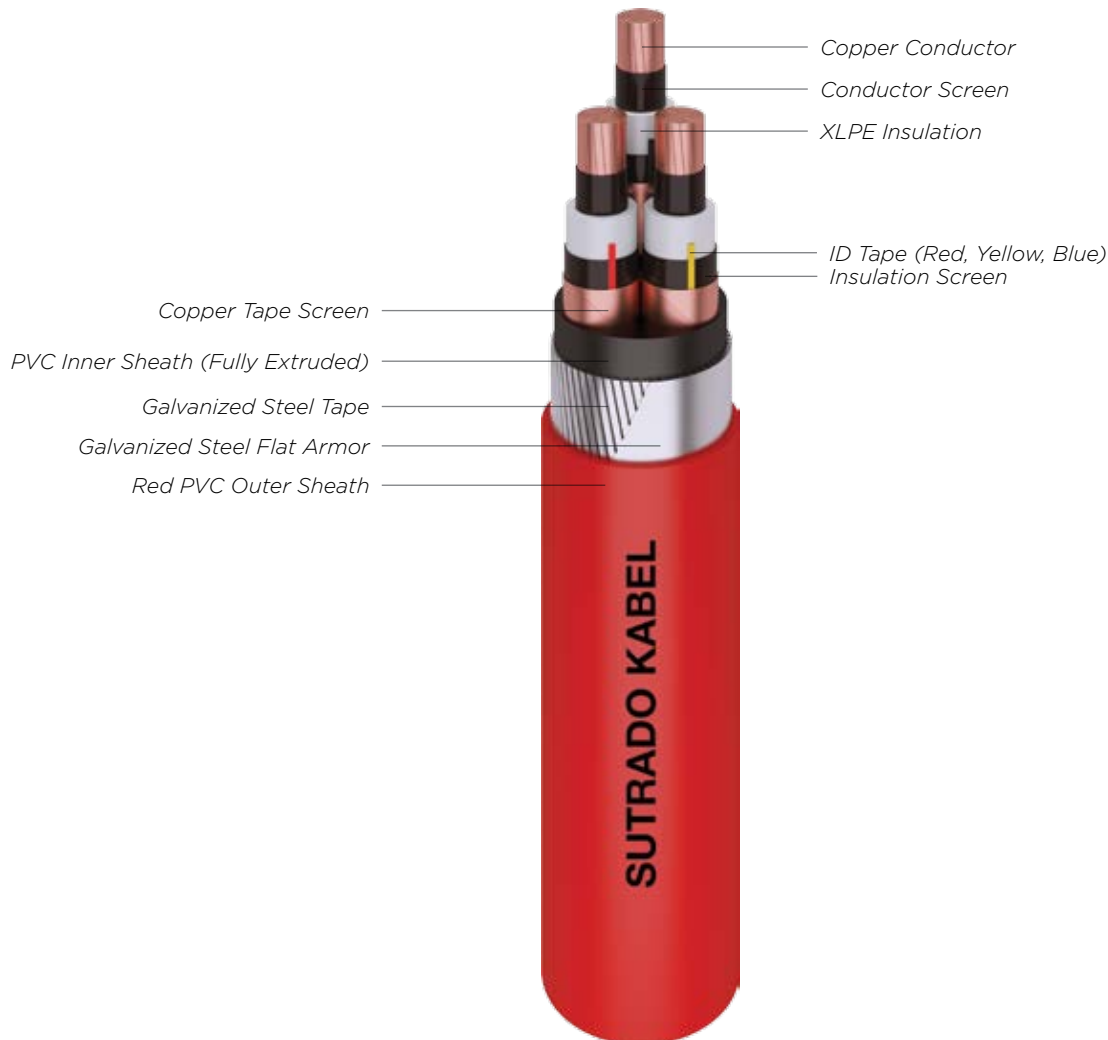
PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES						
	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Inductance	Max. (Amp) Current - Carrying Capacity		Max. Short Circuit Current at 1 Second	
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C		in air	in ground	Conductor	Screen
	mm ²			mm	kg/km	ohm/km	ohm/km	mH/km	At 30°C	At 20°C	kA	kA
3.6/6 (7.2) kV	3	x	35	41.5	3,070	0.524	0.668	0.355	172	154	5.20	1.03
	3	x	50	45.0	3,810	0.387	0.494	0.328	205	181	7.43	1.03
	3	x	70	49.0	4,685	0.268	0.342	0.310	253	220	10.40	1.03
	3	x	95	52.5	5,695	0.193	0.247	0.298	307	263	14.11	1.03
	3	x	120	56.5	6,650	0.153	0.196	0.286	352	298	17.83	1.03
	3	x	150	59.5	7,855	0.124	0.159	0.279	397	332	22.29	1.03
	3	x	185	63.0	9,185	0.099	0.128	0.272	453	374	27.49	1.03
	3	x	240	68.0	11,170	0.075	0.098	0.266	529	431	35.66	1.37
	3	x	300	76.0	13,645	0.060	0.079	0.259	599	482	44.57	1.37
6/10 (12) kV	3	x	35	46.0	3,540	0.524	0.668	0.378	172	154	5.20	1.03
	3	x	50	49.0	4,260	0.387	0.494	0.350	205	181	7.43	1.03
	3	x	70	53.5	5,170	0.268	0.342	0.330	253	220	10.40	1.03
	3	x	95	57.5	6,270	0.193	0.247	0.316	307	263	14.11	1.03
	3	x	120	61.0	7,195	0.153	0.196	0.303	352	298	17.83	1.03
	3	x	150	64.0	8,420	0.124	0.159	0.295	397	332	22.29	1.03
	3	x	185	67.5	9,780	0.099	0.128	0.287	453	374	27.49	1.03
	3	x	240	72.0	11,730	0.075	0.098	0.279	529	431	35.66	1.37
	3	x	300	79.0	14,105	0.060	0.079	0.268	599	482	44.57	1.37
8.7/15 (17.5) kV	3	x	35	51.5	4,105	0.524	0.668	0.404	172	154	5.20	1.03
	3	x	50	54.5	4,855	0.387	0.494	0.374	205	181	7.43	1.03
	3	x	70	59.0	5,865	0.268	0.342	0.352	253	220	10.40	1.03
	3	x	95	63.0	6,945	0.193	0.247	0.337	307	263	14.11	1.03
	3	x	120	66.5	7,905	0.153	0.196	0.322	352	298	17.83	1.03
	3	x	150	69.5	9,160	0.124	0.159	0.313	397	332	22.29	1.03
	3	x	185	73.0	10,630	0.099	0.128	0.304	453	374	27.49	1.03
	3	x	240	78.0	12,630	0.075	0.098	0.295	529	431	35.66	1.37
	3	x	300	85.5	15,730	0.060	0.079	0.282	599	482	44.57	1.37
12/20 (24) kV	3	x	35	57.0	4,725	0.524	0.668	0.425	172	154	5.20	1.03
	3	x	50	60.0	5,505	0.387	0.494	0.394	205	181	7.43	1.03
	3	x	70	64.0	6,495	0.268	0.342	0.370	253	220	10.40	1.03
	3	x	95	67.5	7,605	0.193	0.247	0.353	307	263	14.11	1.03
	3	x	120	71.0	8,595	0.153	0.196	0.338	352	298	17.83	1.03
	3	x	150	74.5	9,955	0.124	0.159	0.328	397	332	22.29	1.03
	3	x	185	78.0	11,380	0.099	0.128	0.319	453	374	27.49	1.03
	3	x	240	84.0	14,145	0.075	0.098	0.308	529	431	35.66	1.37
	3	x	300	90.5	16,625	0.060	0.079	0.294	599	482	44.57	1.37
18/30 (36) kV	3	x	35	69.0	6,325	0.524	0.668	0.469	172	154	5.20	1.03
	3	x	50	72.0	7,170	0.387	0.494	0.436	205	181	7.43	1.03
	3	x	70	76.5	8,330	0.268	0.342	0.409	253	220	10.40	1.03
	3	x	95	81.5	10,230	0.193	0.247	0.390	307	263	14.11	1.03
	3	x	120	85.0	11,330	0.153	0.196	0.373	352	298	17.83	1.03
	3	x	150	88.0	12,705	0.124	0.159	0.362	397	332	22.29	1.03
	3	x	185	91.5	14,240	0.099	0.128	0.351	453	374	27.49	1.03
	3	x	240	96.5	16,525	0.075	0.098	0.338	529	431	35.66	1.37
	3	x	300	103.0	19,145	0.060	0.079	0.322	599	482	44.57	1.37

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

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

(Copper Conductor, XLPE Insulated, Copper Tape Screen, PVC Inner Sheathed, Galvanized Steel Flat Armor, PVC Sheathed)

Standard Specification : IEC 60502 - 2



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

Standard Packing

- 35 - 50 sqmm supplied in wooden drum @ 1000 meters
- 70 - 300 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

Physical Properties						Electrical Properties						
	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Inductance	Max. (Amp) Current - Carrying Capacity		Max. Short Circuit Current at 1 Second	
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C		in air	in ground	Conductor	Screen
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	At 30 °C	At 20 °C	kA	kA
3.6/6 (7.2) kV	3	x	35	41.5	3,345	0.524	0.668	0.355	172	154	5.20	1.03
	3	x	50	45.0	4,110	0.387	0.494	0.328	205	181	7.43	1.03
	3	x	70	49.0	5,015	0.268	0.342	0.310	253	220	10.40	1.03
	3	x	95	53.0	6,055	0.193	0.247	0.298	307	263	14.11	1.03
	3	x	120	57.0	7,035	0.153	0.196	0.286	352	298	17.83	1.03
	3	x	150	60.0	8,260	0.124	0.159	0.279	397	332	22.29	1.03
	3	x	185	63.0	9,615	0.099	0.128	0.272	453	374	27.49	1.03
	3	x	240	68.5	11,640	0.075	0.098	0.266	529	431	35.66	1.37
	3	x	300	76.0	14,170	0.060	0.079	0.259	599	482	44.57	1.37
6/10 (12) kV	3	x	35	46.5	3,845	0.524	0.668	0.378	172	154	5.20	1.03
	3	x	50	49.5	4,590	0.387	0.494	0.350	205	181	7.43	1.03
	3	x	70	53.5	5,530	0.268	0.342	0.330	253	220	10.40	1.03
	3	x	95	57.5	6,660	0.193	0.247	0.316	307	263	14.11	1.03
	3	x	120	61.0	7,615	0.153	0.196	0.303	352	298	17.83	1.03
	3	x	150	64.0	8,860	0.124	0.159	0.295	397	332	22.29	1.03
	3	x	185	67.5	10,245	0.099	0.128	0.287	453	374	27.49	1.03
	3	x	240	72.0	12,230	0.075	0.098	0.279	529	431	35.66	1.37
	3	x	300	79.0	14,655	0.060	0.079	0.268	599	482	44.57	1.37
8.7/15 (17.5) kV	3	x	35	52.0	4,455	0.524	0.668	0.404	172	154	5.20	1.03
	3	x	50	55.0	5,225	0.387	0.494	0.374	205	181	7.43	1.03
	3	x	70	59.5	6,270	0.268	0.342	0.352	253	220	10.40	1.03
	3	x	95	63.0	7,375	0.193	0.247	0.337	307	263	14.11	1.03
	3	x	120	66.5	8,365	0.153	0.196	0.322	352	298	17.83	1.03
	3	x	150	69.5	9,640	0.124	0.159	0.313	397	332	22.29	1.03
	3	x	185	73.5	11,135	0.099	0.128	0.304	453	374	27.49	1.03
	3	x	240	78.0	13,170	0.075	0.098	0.295	529	431	35.66	1.37
	3	x	300	84.5	15,580	0.060	0.079	0.282	599	482	44.57	1.37
12/20 (24) kV	3	x	35	57.0	5,115	0.524	0.668	0.425	172	154	5.20	1.03
	3	x	50	60.0	5,915	0.387	0.494	0.394	205	181	7.43	1.03
	3	x	70	64.0	6,935	0.268	0.342	0.370	253	220	10.40	1.03
	3	x	95	68.0	8,075	0.193	0.247	0.353	307	263	14.11	1.03
	3	x	120	71.5	9,090	0.153	0.196	0.338	352	298	17.83	1.03
	3	x	150	74.5	10,470	0.124	0.159	0.328	397	332	22.29	1.03
	3	x	185	78.0	11,925	0.099	0.128	0.319	453	374	27.49	1.03
	3	x	240	83.0	13,995	0.075	0.098	0.308	529	431	35.66	1.37
	3	x	300	89.5	16,465	0.060	0.079	0.294	599	482	44.57	1.37
18/30 (36) kV	3	x	35	69.0	6,800	0.524	0.668	0.469	172	154	5.20	1.03
	3	x	50	72.0	7,665	0.387	0.494	0.436	205	181	7.43	1.03
	3	x	70	76.5	8,860	0.268	0.342	0.409	253	220	10.40	1.03
	3	x	95	80.5	10,085	0.193	0.247	0.390	307	263	14.11	1.03
	3	x	120	84.0	11,180	0.153	0.196	0.373	352	298	17.83	1.03
	3	x	150	87.0	12,550	0.124	0.159	0.362	397	332	22.29	1.03
	3	x	185	90.5	14,080	0.099	0.128	0.351	453	374	27.49	1.03
	3	x	240	95.5	16,355	0.075	0.098	0.338	529	431	35.66	1.37
	3	x	300	102.0	18,970	0.060	0.079	0.322	599	482	44.57	1.37

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





ALUMINIUM MEDIUM VOLTAGE POWER CABLES



NA2XSY (AI / XLPE / CTS / PVC)

(Aluminium Conductor, XLPE Insulated, Copper Tape Screen, PVC Sheathed)

Standard Specification : IEC 60502 - 2



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

- 50 - 800 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 50 - 300 sqmm supplied in wooden drum @ 1000 meters
- 400 - 800 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

Physical Properties					Electrical Properties										
	Nom Cross Section Area			Approx. Overall Diameter	Approx Cable Weight	Conductor		Inductance		Max. (Amp) Current - Carrying Capacity				Max. Short Circuit Current at 1 Second	
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C	Trefoil Formation	Flat Formation	in air	in ground	in air	in ground	Conductor	Screen
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	mH/km	At 30 °C	At 20 °C	At 30 °C	At 20 °C	kA	kA
3.6/6 (7.2) kV	1	x	50	19.0	485	0.641	0.822	0.374	0.420	184	152	222	157	4.91	1.14
	1	x	70	21.5	590	0.443	0.568	0.345	0.391	230	186	278	192	6.87	1.14
	1	x	95	23.0	705	0.320	0.411	0.329	0.375	280	221	338	229	9.32	1.14
	1	x	120	25.0	820	0.253	0.325	0.319	0.365	324	252	391	260	11.77	1.14
	1	x	150	26.0	935	0.206	0.265	0.312	0.358	368	281	440	288	14.72	1.14
	1	x	185	28.0	1,085	0.164	0.211	0.303	0.350	424	317	504	324	18.15	1.14
	1	x	240	30.0	1,280	0.125	0.161	0.297	0.393	502	367	593	373	23.55	1.14
	1	x	300	34.0	1,585	0.100	0.130	0.288	0.334	577	414	677	419	29.44	1.14
	1	x	400	37.0	1,940	0.078	0.102	0.281	0.327	673	470	769	466	39.25	1.14
	1	x	500	41.0	2,345	0.061	0.080	0.274	0.320	774	603	796	618	49.06	1.14
	1	x	630	45.5	2,855	0.047	0.080	0.267	0.314	914	690	939	706	61.82	1.14
	1	x	800	49.0	3,450	0.037	0.050	0.262	0.308	1,019	795	994	764	78.50	1.14
6/10 (12) kV	1	x	50	22.0	565	0.641	0.822	0.389	0.435	184	152	222	157	4.91	1.14
	1	x	70	23.5	675	0.443	0.568	0.363	0.409	230	186	278	192	6.87	1.14
	1	x	95	25.5	790	0.320	0.411	0.350	0.396	280	221	338	229	9.32	1.14
	1	x	120	27.0	915	0.253	0.325	0.335	0.381	324	252	391	260	11.77	1.14
	1	x	150	28.5	1,035	0.206	0.265	0.326	0.373	368	281	440	288	14.72	1.14
	1	x	185	30.0	1,185	0.164	0.211	0.317	0.363	424	317	504	324	18.15	1.14
	1	x	240	32.0	1,380	0.125	0.161	0.307	0.353	502	367	593	373	23.55	1.14
	1	x	300	35.0	1,665	0.100	0.130	0.294	0.340	577	414	677	419	29.44	1.14
	1	x	400	38.0	1,995	0.078	0.102	0.286	0.332	673	470	769	466	39.25	1.14
	1	x	500	41.5	2,375	0.061	0.080	0.279	0.325	774	603	796	618	49.06	1.14
	1	x	630	46.0	2,890	0.047	0.080	0.269	0.316	914	690	939	706	61.82	1.14
	1	x	800	49.5	3,485	0.037	0.050	0.263	0.310	1,019	795	994	764	78.50	1.14
8.7/15 (17.5) kV	1	x	50	24.0	665	0.641	0.822	0.407	0.453	184	152	222	157	4.91	1.14
	1	x	70	26.0	785	0.443	0.568	0.383	0.429	230	186	278	192	6.87	1.14
	1	x	95	28.0	905	0.320	0.411	0.366	0.412	280	221	338	229	9.32	1.14
	1	x	120	29.5	1,035	0.253	0.325	0.351	0.397	324	252	391	260	11.77	1.14
	1	x	150	31.0	1,165	0.206	0.265	0.341	0.388	368	281	440	288	14.72	1.14
	1	x	185	32.5	1,320	0.164	0.211	0.332	0.378	424	317	504	324	18.15	1.14
	1	x	240	35.0	1,520	0.125	0.161	0.321	0.367	502	367	593	373	23.55	1.14
	1	x	300	37.5	1,820	0.100	0.130	0.308	0.354	577	414	677	419	29.44	1.14
	1	x	400	40.5	2,165	0.078	0.102	0.298	0.344	673	470	769	466	39.25	1.14
	1	x	500	44.0	2,555	0.061	0.080	0.288	0.335	774	603	796	618	49.06	1.14
	1	x	630	48.5	3,085	0.047	0.080	0.279	0.325	914	690	939	706	61.82	1.14
	1	x	800	52.0	3,695	0.037	0.050	0.273	0.320	1,019	795	994	764	78.50	1.14
12/20 (24) kV	1	x	50	26.5	765	0.641	0.822	0.425	0.371	184	152	222	157	4.91	1.14
	1	x	70	28.5	890	0.443	0.568	0.399	0.456	230	186	278	192	6.87	1.14
	1	x	95	30.0	1,020	0.320	0.411	0.382	0.428	280	221	338	229	9.32	1.14
	1	x	120	32.0	1,155	0.253	0.325	0.366	0.412	324	252	391	260	11.77	1.14
	1	x	150	33.0	1,285	0.206	0.265	0.355	0.402	368	281	440	288	14.72	1.14
	1	x	185	34.5	1,445	0.164	0.211	0.345	0.392	424	317	504	324	18.15	1.14
	1	x	240	37.0	1,655	0.125	0.161	0.334	0.380	502	367	593	373	23.55	1.14
	1	x	300	40.0	1,965	0.100	0.130	0.319	0.365	577	414	677	419	29.44	1.14
	1	x	400	43.0	2,320	0.078	0.102	0.309	0.355	673	470	769	466	39.25	1.14
	1	x	500	46.5	2,725	0.061	0.080	0.298	0.444	774	603	796	618	49.06	1.14
	1	x	630	50.5	3,270	0.047	0.080	0.288	0.334	914	690	939	706	61.82	1.14
	1	x	800	54.0	3,895	0.037	0.050	0.282	0.328	1,019	795	994	764	78.50	1.14
18/30 (36) kV	1	x	50	32.0	1,050	0.641	0.822	0.463	0.510	184	152	222	157	4.91	1.14
	1	x	70	34.0	1,195	0.443	0.568	0.435	0.482	230	186	278	192	6.87	1.14
	1	x	95	36.0	1,335	0.320	0.411	0.416	0.462	280	221	338	229	9.32	1.14
	1	x	120	37.5	1,485	0.253	0.325	0.398	0.445	324	252	391	260	11.77	1.14
	1	x	150	39.0	1,630	0.206	0.265	0.387	0.433	368	281	440	288	14.72	1.14
	1	x	185	40.5	1,805	0.164	0.211	0.375	0.422	424	317	504	324	18.15	1.14
	1	x	240	42.5	2,035	0.125	0.161	0.362	0.408	502	367	593	373	23.55	1.14
	1	x	300	45.5	2,370	0.100	0.130	0.346	0.392	577	414	677	419	29.44	1.14
	1	x	400	48.5	2,750	0.078	0.102	0.334	0.380	673	470	769	466	39.25	1.14
	1	x	500	52.0	3,185	0.061	0.080	0.321	0.367	774	603	796	618	49.06	1.14
	1	x	630	56.5	3,775	0.047	0.080	0.309	0.356	914	690	939	706	61.82	1.14
	1	x	800	59.5	4,420	0.037	0.050	0.302	0.348	1,019	795	994	764	78.50	1.14

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

NA2XSEY (AI / XLPE / CTS / PVC)

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



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

- 50 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 50 - 95 sqmm supplied in wooden drum @ 1000 meters
- 120 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

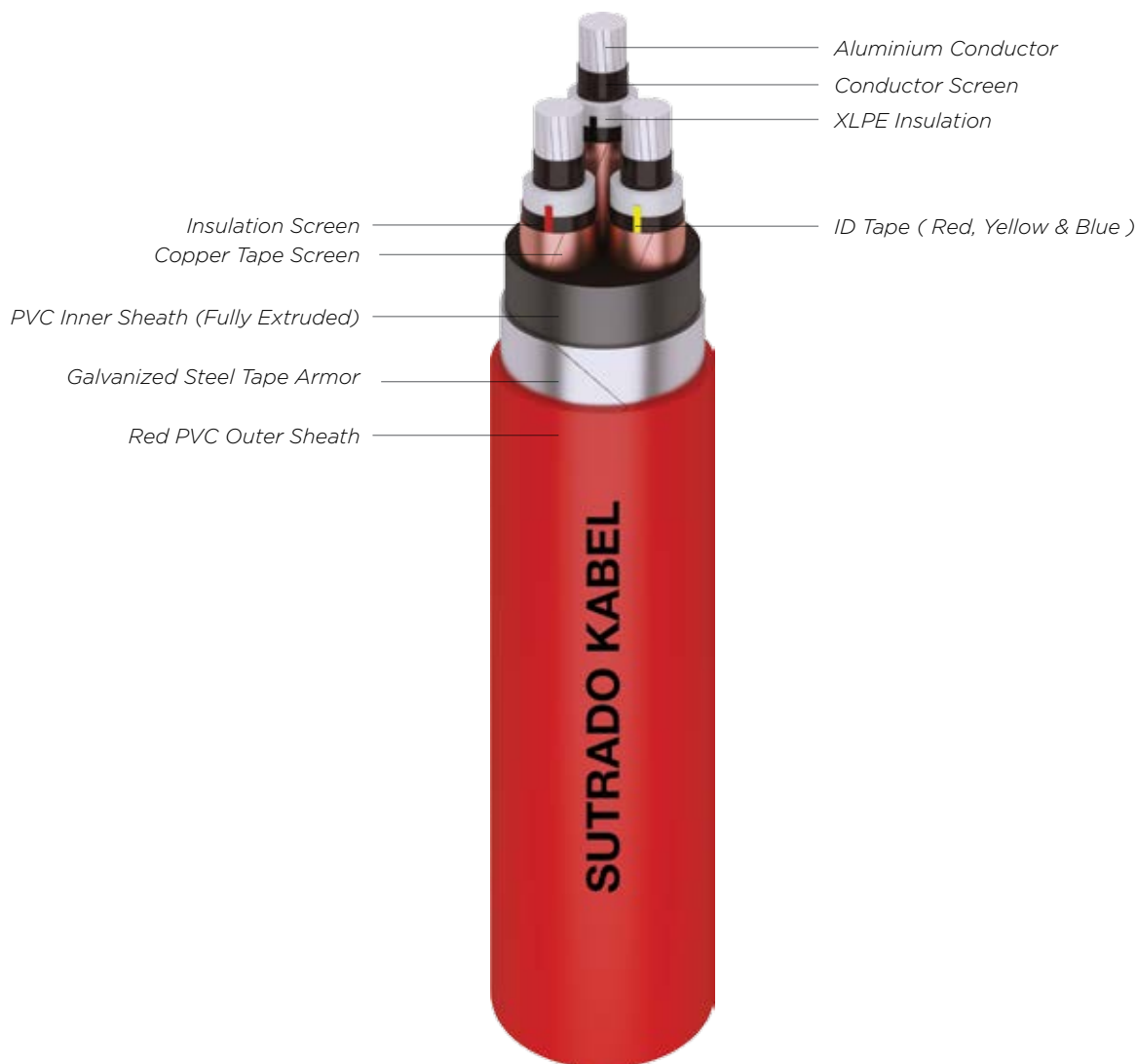
PHYSICAL PROPERTIES						ELECTRICAL PROPERTIES						
	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Inductance	Max. (Amp) Current - Carrying Capacity		Max. Short Circuit Current at 1 Second	
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C		in air	in ground	Conductor	Screen
	mm ²			mm	kg/km	ohm/km	ohm/km	mH/km	At 30 °C	At 20 °C	kA	kA
3.6/6 (7.2) kV	3	x	50	42.5	2,210	0.641	0.822	0.328	158	140	4.91	1.03
	3	x	70	47.0	2,675	0.443	0.568	0.310	196	171	6.87	1.03
	3	x	95	50.5	3,150	0.320	0.411	0.298	236	203	9.32	1.03
	3	x	120	54.5	3,705	0.253	0.325	0.286	273	232	11.77	1.03
	3	x	150	57.5	4,195	0.206	0.265	0.279	309	260	14.72	1.03
	3	x	185	61.0	4,795	0.164	0.212	0.272	355	294	18.15	1.03
	3	x	240	66.0	5,660	0.125	0.162	0.266	415	340	23.55	1.37
	3	x	300	74.0	7,060	0.100	0.130	0.259	475	384	29.44	1.37
	3	x	400	81.0	8,590	0.078	0.102	0.255	552	438	39.25	1.37
6/10 (12) kV	3	x	50	47.0	2,595	0.641	0.822	0.350	158	140	4.91	1.03
	3	x	70	51.0	3,090	0.443	0.568	0.330	196	171	6.87	1.03
	3	x	95	55.5	3,650	0.320	0.411	0.316	236	203	9.32	1.03
	3	x	120	59.0	4,185	0.253	0.325	0.303	273	232	11.77	1.03
	3	x	150	62.0	4,695	0.206	0.265	0.295	309	260	14.72	1.03
	3	x	185	65.0	5,325	0.164	0.212	0.287	355	294	18.15	1.03
	3	x	240	70.0	6,165	0.125	0.162	0.279	415	340	23.55	1.37
	3	x	300	76.0	7,480	0.100	0.130	0.268	475	384	29.44	1.37
	3	x	400	83.0	8,895	0.078	0.102	0.260	552	438	39.25	1.37
8.7/15 (17.5) kV	3	x	50	53.0	3,155	0.641	0.822	0.374	158	140	4.91	1.03
	3	x	70	57.5	3,750	0.443	0.568	0.352	196	171	6.87	1.03
	3	x	95	61.0	4,300	0.320	0.411	0.337	236	203	9.32	1.03
	3	x	120	64.5	4,870	0.253	0.325	0.322	273	232	11.77	1.03
	3	x	150	67.5	5,415	0.206	0.265	0.313	309	260	14.72	1.03
	3	x	185	71.5	6,150	0.164	0.212	0.304	355	294	18.15	1.03
	3	x	240	76.0	7,045	0.125	0.162	0.295	415	340	23.55	1.37
	3	x	300	82.5	8,355	0.100	0.130	0.282	475	384	29.44	1.37
	3	x	400	88.5	9,835	0.078	0.102	0.273	552	438	39.25	1.37
12/20 (24) kV	3	x	50	58.0	3,730	0.641	0.822	0.394	158	140	4.91	1.03
	3	x	70	62.0	4,315	0.443	0.568	0.370	196	171	6.87	1.03
	3	x	95	66.0	4,895	0.320	0.411	0.353	236	203	9.32	1.03
	3	x	120	69.5	5,495	0.253	0.325	0.338	273	232	11.77	1.03
	3	x	150	72.5	6,135	0.206	0.265	0.328	309	260	14.72	1.03
	3	x	185	76.0	6,835	0.164	0.212	0.319	355	294	18.15	1.03
	3	x	240	81.0	7,765	0.125	0.162	0.308	415	340	23.55	1.37
	3	x	300	87.5	9,135	0.100	0.130	0.294	475	384	29.44	1.37
	3	x	400	94.0	10,765	0.078	0.102	0.285	552	438	39.25	1.37
18/30 (36) kV	3	x	50	70.0	5,165	0.641	0.822	0.436	158	140	4.91	1.03
	3	x	70	74.5	5,905	0.443	0.568	0.409	196	171	6.87	1.03
	3	x	95	78.0	6,565	0.320	0.411	0.390	236	203	9.32	1.03
	3	x	120	81.5	7,245	0.253	0.325	0.373	273	232	11.77	1.03
	3	x	150	84.5	7,885	0.206	0.265	0.362	309	260	14.72	1.03
	3	x	185	88.0	8,655	0.164	0.212	0.351	355	294	18.15	1.03
	3	x	240	93.0	9,775	0.125	0.162	0.338	415	340	23.55	1.37
	3	x	300	99.5	11,285	0.100	0.130	0.322	475	384	29.44	1.37
	3	x	400	105.5	12,965	0.078	0.102	0.310	552	438	39.25	1.37

*Further information about rating factor for certain cable 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 : IEC 60502 - 2



Application

For installation indoor, in ground direct buried, 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

- 50 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 50 - 95 sqmm supplied in wooden drum @ 1000 meters
- 120 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

Physical Properties						Electrical Properties						
	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Inductance	Max. (Amp) Current - Carrying Capacity		Max. Short Circuit Current at 1 Second	
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C		in air	in ground	Conductor	Screen
	mm²					mm	kg/km	ohm/km	ohm/km	mH/km	At 30 °C	At 20 °C
3.6/6 (7.2) kV	3	x	50	45.0	2,835	0.641	0.822	0.328	159	140	4.91	1.03
	3	x	70	49.0	3,360	0.443	0.568	0.310	196	171	6.87	1.03
	3	x	95	53.0	3,895	0.320	0.411	0.298	238	204	9.32	1.03
	3	x	120	56.5	4,505	0.253	0.325	0.286	274	232	11.77	1.03
	3	x	150	59.5	5,040	0.206	0.265	0.279	309	259	14.72	1.03
	3	x	185	63.0	5,695	0.164	0.212	0.272	354	293	18.15	1.03
	3	x	240	68.0	6,635	0.125	0.162	0.266	415	338	23.55	1.37
	3	x	300	76.0	8,150	0.100	0.130	0.259	472	380	29.44	1.37
	3	x	400	84.5	10,520	0.078	0.102	0.255	545	432	39.25	1.37
6/10 (12) kV	3	x	50	49.0	3,285	0.641	0.822	0.350	159	140	4.91	1.03
	3	x	70	53.5	3,845	0.443	0.568	0.330	196	171	6.87	1.03
	3	x	95	57.5	4,465	0.320	0.411	0.316	238	204	9.32	1.03
	3	x	120	61.0	5,050	0.253	0.325	0.303	274	232	11.77	1.03
	3	x	150	64.0	5,610	0.206	0.265	0.295	309	259	14.72	1.03
	3	x	185	67.5	6,290	0.164	0.212	0.287	354	293	18.15	1.03
	3	x	240	72.0	7,195	0.125	0.162	0.279	415	338	23.55	1.37
	3	x	300	79.0	8,615	0.100	0.130	0.268	472	380	29.44	1.37
	3	x	400	86.5	10,870	0.078	0.102	0.260	545	432	39.25	1.37
8.7/15 (17.5) kV	3	x	50	54.5	3,885	0.641	0.822	0.374	159	140	4.91	1.03
	3	x	70	59.0	4,540	0.443	0.568	0.352	196	171	6.87	1.03
	3	x	95	63.0	5,140	0.320	0.411	0.337	238	204	9.32	1.03
	3	x	120	66.5	5,760	0.253	0.325	0.322	274	232	11.77	1.03
	3	x	150	69.5	6,345	0.206	0.265	0.313	309	259	14.72	1.03
	3	x	185	73.0	7,135	0.164	0.212	0.304	354	293	18.15	1.03
	3	x	240	77.5	8,095	0.125	0.162	0.295	415	338	23.55	1.37
	3	x	300	85.5	10,240	0.100	0.130	0.282	472	380	29.44	1.37
	3	x	400	91.5	11,860	0.078	0.102	0.273	545	432	39.25	1.37
12/20 (24) kV	3	x	50	60.0	4,530	0.641	0.822	0.394	159	140	4.91	1.03
	3	x	70	64.0	5,170	0.443	0.568	0.370	196	171	6.87	1.03
	3	x	95	67.5	5,805	0.320	0.411	0.353	238	204	9.32	1.03
	3	x	120	71.0	6,450	0.253	0.325	0.338	274	232	11.77	1.03
	3	x	150	74.5	7,140	0.206	0.265	0.328	309	259	14.72	1.03
	3	x	185	78.0	7,890	0.164	0.212	0.319	354	293	18.15	1.03
	3	x	240	84.0	9,610	0.125	0.162	0.308	415	338	23.55	1.37
	3	x	300	90.5	11,130	0.100	0.130	0.294	472	380	29.44	1.37
	3	x	400	97.0	12,910	0.078	0.102	0.285	545	432	39.25	1.37
18/30 (36) kV	3	x	50	72.0	6,195	0.641	0.822	0.436	159	140	4.91	1.03
	3	x	70	76.5	7,005	0.443	0.568	0.409	196	171	6.87	1.03
	3	x	95	81.5	8,425	0.320	0.411	0.390	238	204	9.32	1.03
	3	x	120	85.0	9,185	0.253	0.325	0.373	274	232	11.77	1.03
	3	x	150	88.0	9,895	0.206	0.265	0.362	309	259	14.72	1.03
	3	x	185	91.5	10,750	0.164	0.212	0.351	354	293	18.15	1.03
	3	x	240	96.5	11,985	0.125	0.162	0.338	415	338	23.55	1.37
	3	x	300	103.0	13,655	0.100	0.130	0.322	472	380	29.44	1.37
	3	x	400	109.0	15,480	0.078	0.102	0.310	545	432	39.25	1.37

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

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

(Aluminium Conductor, XLPE Insulated, Copper Tape Screen, PVC Inner Sheathed, Galvanized Steel Flat Armor, PVC Sheathed)

Standard Specification : IEC 60502 - 2



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

- 50 - 400 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing

- 50 - 70 sqmm supplied in wooden drum @ 1000 meters
- 95 - 400 sqmm supplied in wooden drum on available length
- Length Tolerance per drum $\pm 2\%$

Physical Properties						Electrical Properties						
	Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor		Inductance	Max. (Amp) Current - Carrying Capacity		Max. Short Circuit Current at 1 Second	
						Max. DC Resistance at 20 °C	Max. AC Resistance at 90 °C		in air	in ground	Conductor	Screen
	mm²			mm	kg/km	ohm/km	ohm/km	mH/km	At 30 °C	At 20 °C	kA	kA
3.6/6 (7.2) kV	3	x	50	45.0	3,135	0.641	0.822	0.328	159	140	4.91	1.03
	3	x	70	49.0	3,690	0.443	0.568	0.310	196	171	6.87	1.03
	3	x	95	53.0	4,250	0.320	0.411	0.298	238	204	9.32	1.03
	3	x	120	57.0	4,890	0.253	0.325	0.286	274	232	11.77	1.03
	3	x	150	60.0	5,445	0.206	0.265	0.279	309	259	14.72	1.03
	3	x	185	63.0	6,125	0.164	0.212	0.272	354	293	18.15	1.03
	3	x	240	68.5	7,105	0.125	0.162	0.266	415	338	23.55	1.37
	3	x	300	76.0	8,680	0.100	0.130	0.259	472	380	29.44	1.37
	3	x	400	83.5	10,370	0.078	0.102	0.255	545	432	39.25	1.37
6/10 (12) kV	3	x	50	49.5	3,615	0.641	0.822	0.350	159	140	4.91	1.03
	3	x	70	53.5	4,205	0.443	0.568	0.330	196	171	6.87	1.03
	3	x	95	57.5	4,855	0.320	0.411	0.316	238	204	9.32	1.03
	3	x	120	61.0	5,465	0.253	0.325	0.303	274	232	11.77	1.03
	3	x	150	64.0	6,050	0.206	0.265	0.295	309	259	14.72	1.03
	3	x	185	67.5	6,755	0.164	0.212	0.287	354	293	18.15	1.03
	3	x	240	72.0	7,695	0.125	0.162	0.279	415	338	23.55	1.37
	3	x	300	79.0	9,165	0.100	0.130	0.268	472	380	29.44	1.37
	3	x	400	85.5	10,715	0.078	0.102	0.260	545	432	39.25	1.37
8.7/15 (17.5) kV	3	x	50	55.0	4,255	0.641	0.822	0.374	159	140	4.91	1.03
	3	x	70	59.5	4,945	0.443	0.568	0.352	196	171	6.87	1.03
	3	x	95	63.0	5,575	0.320	0.411	0.337	238	204	9.32	1.03
	3	x	120	66.5	6,215	0.253	0.325	0.322	274	232	11.77	1.03
	3	x	150	69.5	6,825	0.206	0.265	0.313	309	259	14.72	1.03
	3	x	185	73.5	7,645	0.164	0.212	0.304	354	293	18.15	1.03
	3	x	240	78.0	8,635	0.125	0.162	0.295	415	338	23.55	1.37
	3	x	300	84.5	10,090	0.100	0.130	0.282	472	380	29.44	1.37
	3	x	400	90.5	11,700	0.078	0.102	0.273	545	432	39.25	1.37
12/20 (24) kV	3	x	50	60.0	4,940	0.641	0.822	0.394	159	140	4.91	1.03
	3	x	70	64.0	5,610	0.443	0.568	0.370	196	171	6.87	1.03
	3	x	95	68.0	6,270	0.320	0.411	0.353	238	204	9.32	1.03
	3	x	120	71.5	6,945	0.253	0.325	0.338	274	232	11.77	1.03
	3	x	150	74.5	7,660	0.206	0.265	0.328	309	259	14.72	1.03
	3	x	185	78.0	8,435	0.164	0.212	0.319	354	293	18.15	1.03
	3	x	240	83.0	9,465	0.125	0.162	0.308	415	338	23.55	1.37
	3	x	300	89.5	10,976	0.100	0.130	0.294	472	380	29.44	1.37
	3	x	400	96.0	12,740	0.078	0.102	0.285	545	432	39.25	1.37
18/30 (36) kV	3	x	50	72.0	6,695	0.641	0.822	0.436	159	140	4.91	1.03
	3	x	70	76.5	7,535	0.443	0.568	0.409	196	171	6.87	1.03
	3	x	95	80.5	8,280	0.320	0.411	0.390	238	204	9.32	1.03
	3	x	120	84.0	9,035	0.253	0.325	0.373	274	232	11.77	1.03
	3	x	150	87.0	9,740	0.206	0.265	0.362	309	259	14.72	1.03
	3	x	185	90.5	10,590	0.164	0.212	0.351	354	293	18.15	1.03
	3	x	240	95.5	11,820	0.125	0.162	0.338	415	338	23.55	1.37
	3	x	300	102.0	13,480	0.100	0.130	0.322	472	380	29.44	1.37
	3	x	400	108.0	15,290	0.078	0.102	0.310	545	432	39.25	1.37

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





MEDIUM VOLTAGE TWISTED CABLES



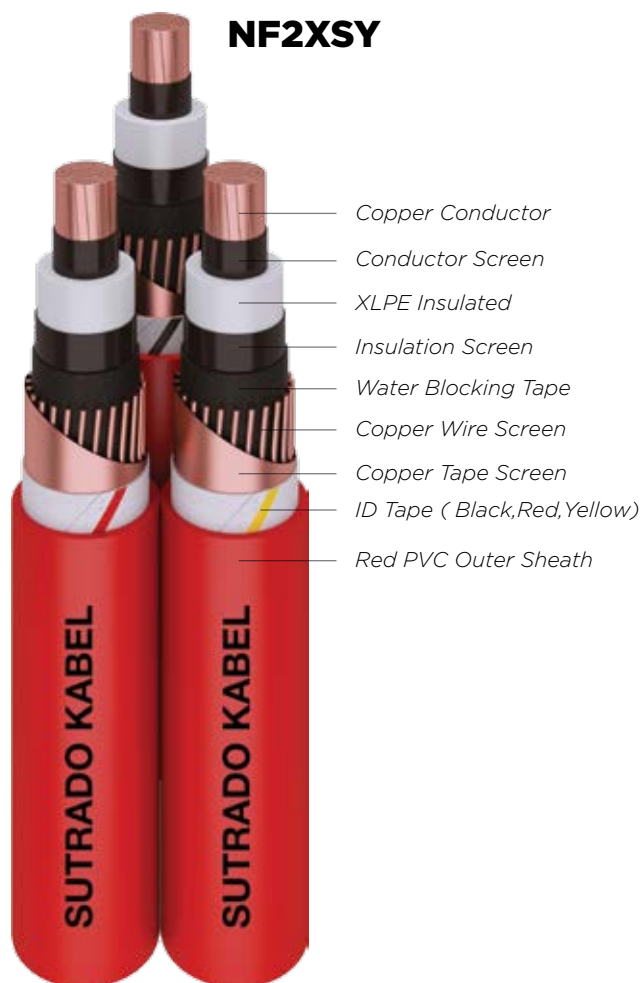
12/20 (24) kV, NF2XSY(Cu/XLPE/CWS/PVC)

(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 / IEC 60502-2



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 $\pm 2\%$

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			Conductor	Screen
mm ²			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

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 70 °C			Conductor	Screen
mm ²			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 rating factor for certain cable arrangement can be found on supplementary technical information

12/20 (24) kV, NFA2XSY-T

(Aluminium Conductor, XLPE Insulated, Copper Wire Screen, PVC Sheated
+ AAAC Messenger)

Standard Specification : SPLN 43-5 / IEC 60502-2



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 $\pm 2\%$

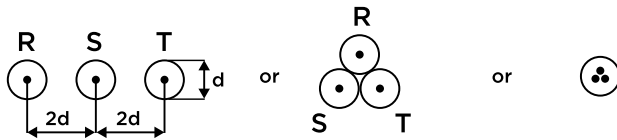
PHYSICAL PROPERTIES					ELECTRICAL PROPERTIES				
Nom Cross Section Area			Approx. Overall Diameter	Approx. Cable Weight	Conductor	Inductance	Max. (Amp) Current - Carrying Capacity at 30 °C	Max. Short Circuit Current at 1 Second	
					Max. DC Resistance at 20 °C			Conductor	Screen
mm ²			mm	kg/km	W/km	mH/km	in air	kA	kA
3 x 35	x	+ 50	56.0	2,800	0.868	0.418	142	3.45	2.77
3 x 50	x	+ 50	58.0	3,100	0.641	0.400	165	4.89	2.92
3 x 70	x	+ 50	62.0	3,500	0.443	0.382	204	6.81	3.14
3 x 95	x	+ 50	66.0	3,900	0.320	0.365	247	9.19	3.38
3 x 120	x	+ 50	70.0	4,300	0.253	0.354	287	11.58	3.57
3 x 150	x	+ 50	73.0	4,800	0.206	0.346	326	14.43	4.66
3 x 185	x	+ 50	77.0	5,200	0.164	0.333	373	17.76	3.99
3 x 240	x	+ 50	83.0	6,000	0.125	0.323	435	22.98	4.31
3 x 300	x	+ 50	88.0	6,800	0.100	0.312	481	28.67	4.60

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

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	1,08	1,04	1,00	0,96	0,91	0,87	0,82
PVC INSULATION	1,12	1,07	1,00	0,94	0,87	0,79	0,71

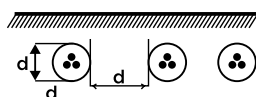
2. SOIL THERMAL RESISTIVITY

	SOIL THERMAL RESISTIVITY (°C.cm/Watt)			
	70	100	150	250
XLPE INSULATION	1,12	1,00	0,87	0,78
PVC INSULATION	1,11	1,00	0,82	0,70

3. DEPTH OF LAYING

	DEPTH OF LAYING (cm)					
	50	70	100	120	160	200
XLPE INSULATION	1,02	1,00	0,98	0,97	0,95	0,94
PVC INSULATION	1,01	1,00	0,99	0,98	0,97	0,96

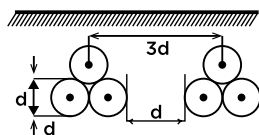
4. MULTICORE CABLE



	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

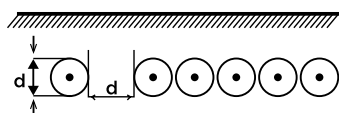
5. SINGLE CORE CABLE

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

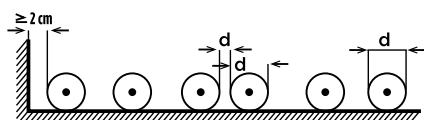
	AIR TEMPERATURES (°C)							
	20	25	30	35	40	45	50	55
XLPE INSULATION	1,08	1,04	1,00	0,96	0,91	0,87	0,82	0,76
PVC INSULATION	1,12	1,07	1,00	0,93	0,87	0,79	0,71	0,61

2. SINGLE CORE CABLE IN THREE PHASE SYSTEM

a. Flat Formation

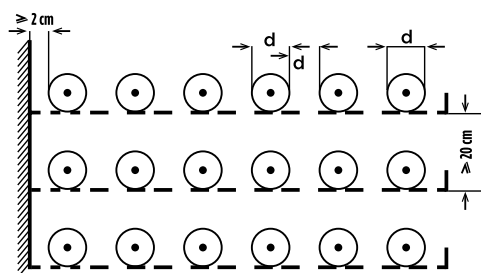
- Minimum Distance From The Wall : 2.0 cm
- Clearance Between System = Cable Diameter (d)

Laid on the ground



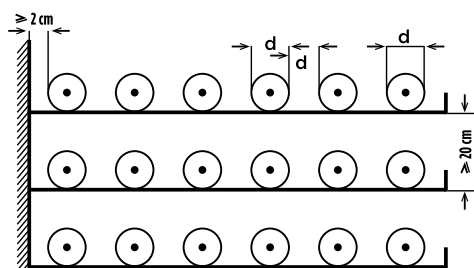
NUMBER OF SYSTEM		
1	2	3
DERATING FACTOR		
0,92	0,89	0,88

Laid on rack



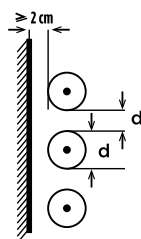
NUMBER OF TROUGH	NUMBER OF SYSTEM		
	1	2	3
DERATING FACTOR			
1	1,00	0,97	0,96
2	0,97	0,94	0,93
3	0,96	0,93	0,92
6	0,94	0,91	0,90

Laid on trough (air circulation restricted)

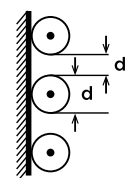


NUMBER OF TROUGH	NUMBER OF SYSTEM		
	1	2	3
DERATING FACTOR			
1	0,92	0,89	0,88
2	0,87	0,84	0,83
3	0,84	0,82	0,81
6	0,82	0,80	0,79

Arranged on structures or on the wall



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

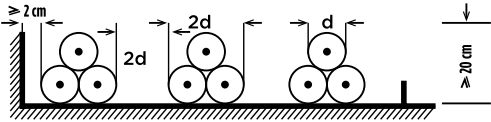


NUMBER OF SYSTEM		
1	2	3
DERATING FACTOR		
0,89	0,86	0,84

b. Trefoil Formation

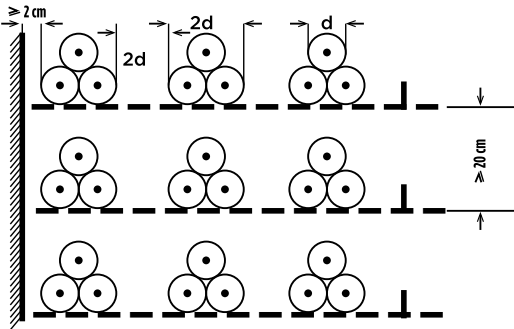
- Minimum distance from the wall: 2.0 cm
- Clearance between system = 2x cable diameter (2d)

Laid on ground



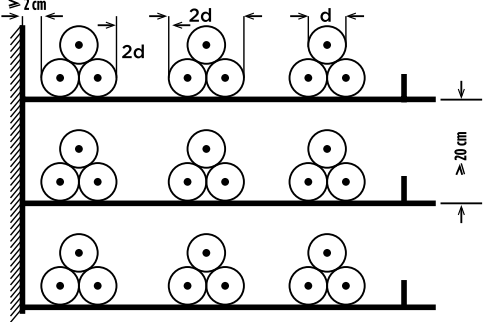
NUMBER OF SYSTEM		
1	2	3
DERATING FACTOR		
0,95	0,90	0,88

Laid on rack



NUMBER OF TROUGH	NUMBER OF SYSTEM		
	1	2	3
	DERATING FACTOR		
	1,00	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

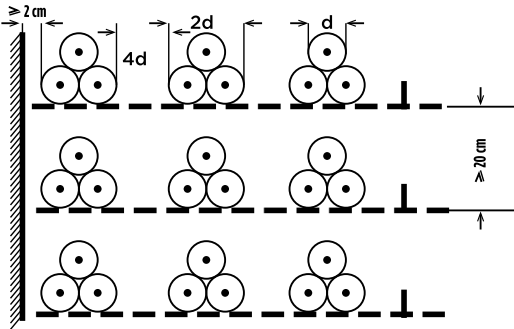
Laid on trough (air circulation restricted)



NUMBER OF TROUGH	NUMBER OF SYSTEM		
	1	2	3
	DERATING FACTOR		
	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)

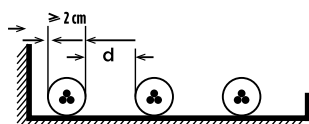


3. MULTICORE CABLE IN THREE PHASE SYSTEM AND SINGLE CORE CABLE IN DC SYSTEM

a. Flat formation

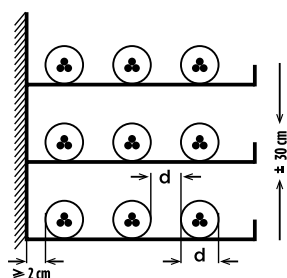
- Minimum Distance From The Wall : 2.0 cm
- Clearance Between System = Cable Diameter (d)

Laid on the ground



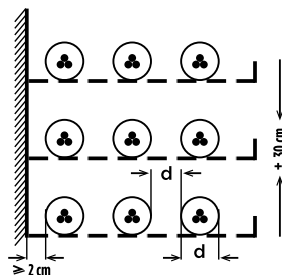
NUMBER OF SYSTEM					
1	2	3	6	9	
DERATING FACTOR					
0,95	0,90	0,88	0,85	0,84	

Laid on rack



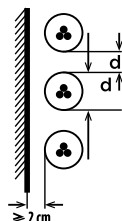
NUMBER OF TROUGH	NUMBER OF SYSTEM				
	1	2	3	6	9
	DERATING FACTOR				
1	1,00	0,98	0,96	0,93	0,92
2	1,00	0,95	0,93	0,90	0,89
3	1,00	0,94	0,92	0,89	0,88
6	1,00	0,93	0,90	0,87	0,86

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

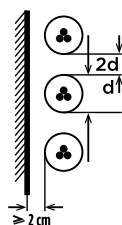
Arranged on structures or on the wall



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

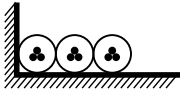
Arrangement without reducing current rating (for any number of cables)

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



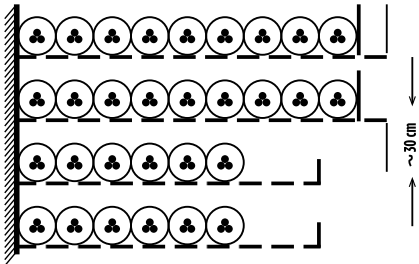
b. Cables Touching Throughout and in Contact with the Wall

Laid on the ground



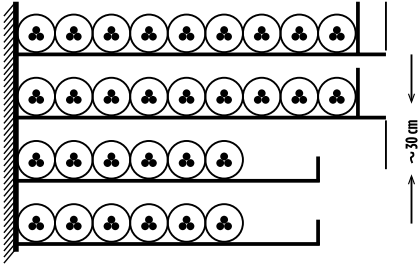
NUMBER OF SYSTEM				
1	2	3	6	9
DERATING FACTOR				
0,90	0,84	0,80	0,75	0,73

Laid on rack



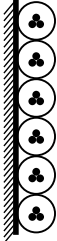
NUMBER OF TROUGH	NUMBER OF SYSTEM				
	1	2	3	6	9
DERATING FACTOR					
1	0,95	0,84	0,80	0,75	0,73
2	0,95	0,80	0,76	0,71	0,69
3	0,95	0,78	0,74	0,70	0,68
6	0,95	0,76	0,72	0,68	0,66

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

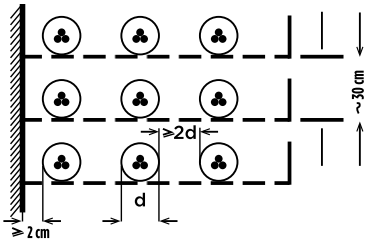
Arranged on structures or on the wall



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)



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