

SOUTH CABLE

SOUTH CABLE

**WIRE CABLE
SELECTION
GUIDE**



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ABOUT SOUTH

SOUTH CABLE is a company specializing in the research, development, manufacturing, and sales of high-end wire and cable products.

We are committed to providing safe, reliable, and efficient connectivity solutions for global energy transmission, information communication, and smart infrastructure construction.

MEDIUM VOLTAGE POWER CABLE

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01

MEDIUM VOLTAGE POWER CABLE

1

N2XSH 12/20 (24)kV Cable

SOUTH
CABLE



APPLICATION

Medium voltage power cables for distribution networks and generation units. LSZH outer sheathing makes the cable suitable for internal installation as well as directly in ground, outdoors, and in cable ducts. UV Resistant.

STANDARDS

Voltage Rating U_o/U (Um)

12/20 (24)kV

Test Voltage

42kV AC 50Hz (5 mins)

Temperature Rating

-20°C to +60°C

Permissible Conductor Operating Temperature: +90°C

Permissible Short Circuit Temperature up to 5 sec: 250°C

Minimum Bending Radius

15 x overall diameter

STANDARDS

IEC 60502-2, EN 60228

Low Smoke Zero Halogen to: IEC 60754-1/2, IEC 61034-2

Flame Retardant: IEC 60332-3-24 Cat C, IEC 60332-1-2

UV Resistant: ISO 4892-3

Abrasion and Tear Resistant: EN 60229-4.1

Impact rated to: AG2 EN 60364-5.51

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMEN

South Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustain-able development.

CONSTRUCTION

Conductor

Class 2 Stranded Copper

Conductor Screen

Semi-conductive material

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive material (bonded)

Screen

Copper wires and copper tape

Outer Sheath

LSZH (Low Smoke Zero Halogen)

Sheath Colour

- Black

2

N2XSH 12/20 (24)kV Cable

N2XSH 12/20 (24)kV Cable

DIMENSIONS

NO.OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL SCREEN CROSS SECTIONAL AREA mm ²	NOMINAL CONDUCTOR DIAMETER mm	NUMBER WIRES CONDUCTOR mm	NOMINAL INSULATION THICKNESS mm	NOMINAL DIAMETER OVER INSULATION mm	MINIMUM INSULATION THICKNESS mm	NOM THICKNESS SEMI-CON LAYER INNER mm	NOM THICKNESS SEMI-CON LAYER OUTER mm
1	50	16	8.1	10x2.62	5.50	20.3	4.85	0.50	0.40
1	70	16	9.7	14x2.62	5.50	21.9	4.85	0.50	0.40
1	95	16	11.4	19x2.362	5.50	23.6	4.85	0.50	0.40
1	120	16	12.7	19x2.97	5.50	24.9	4.85	0.50	0.40
1	150	25	14.5	19x3.20	5.50	26.7	4.85	0.50	0.40
1	185	25	15.9	27x2.62	5.50	28.1	4.85	0.50	0.40
1	240	25	18.6	48x2.62	5.50	30.8	4.85	0.50	0.40
1	300	25	20.7	61x2.62	5.50	32.9	4.85	0.50	0.40
1	400	35	23.5	61x2.97	5.50	35.7	4.85	0.50	0.40
1	500	35	26.5	61x3.29	5.50	38.7	4.85	0.50	0.40
1	630	35	30.2	61x3.80	5.50	42.9	4.85	0.50	0.40

NOMINAL CROSS SECTIONAL AREA mm ²	NUMBER WIRES SCREEN mm	NOMINAL SHEATH THICKNESS mm	MINIMUM SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM SIDEWALL N/cm ²	MAXIMUM PULLING TENSION N	DIAMETER TAPE SCREEN mm
50	44x0.66	1.80	1.240	26	1000	489	2500	1x0.1x10
70	44x0.66	1.90	1.320	28	1200	619	3500	1x0.1x10
95	44x0.66	1.90	1.320	30	1500	785	4750	1x0.1x10
120	44x0.66	2.00	1.400	31	1800	915	6000	1x0.1x10
150	71x0.66	2.00	1.400	33	2250	1053	7500	1x0.1x10
185	71x0.66	2.10	1.480	35	2500	1236	9250	1x0.1x10
240	71x0.66	2.10	1.480	38	3250	1413	12000	1x0.1x10
300	71x0.66	2.20	1.560	40	3750	1647	15000	1x0.1x10
400	60x0.85	2.30	1.640	43	4750	2005	20000	1x0.1x15
500	60x0.85	2.40	1.720	48	5750	2299	25000	1x0.1x15
630	60x0.85	2.50	1.800	51	7000	2586	31500	1x0.1x15

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20oC ohms/km	CONDUCTOR DC RESISTSOCE ohms/km	CONDUCTOR AC RESISTANCE BY MAX TEMP ohms/km	CURRENT CARRYING CAPACITY (A) In Ground 20oC	CURRENT CARRYING CAPACITY (A) In Air 300C	REACTANCE ohms/km	CHARGING ADMITTANCE A/km	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC KA	CONDUCTOR LOSSESIN THE GROUND kW/km	CAPACITANCE uF/km
50	0.387	0.801	0.497	250.0	279.0	0.19	0.19	0.19	0.19	31.10	0.19
70	0.268	0.555	0.344	304.0	347.0	0.18	0.18	0.18	0.18	31.80	0.18
95	0.193	0.399	0.248	361.0	420.0	0.18	0.18	0.18	0.18	32.30	0.19
120	0.153	0.316	0.196	407.0	483.0	0.17	0.17	0.17	0.17	32.50	0.20
150	0.124	0.160	0.256	445.0	540.0	0.17	0.17	0.17	0.17	31.70	0.22
185	0.0991	0.205	0.128	498.0	614.0	0.17	0.17	0.17	0.17	31.70	0.24
240	0.0754	0.156	0.0980	569.0	718.0	0.16	0.16	0.16	0.16	31.70	0.27
300	0.0601	0.124	0.0800	633.0	813.0	0.16	0.16	0.16	0.16	32.10	0.29
400	0.0470	0.0974	0.0640	686.0	904.0	0.16	0.16	0.16	0.16	30.10	0.32
500	0.0366	0.0758	0.0510	756.0	1011.0	0.15	0.15	0.15	0.15	29.10	0.36
630	0.0283	0.0420	0.0586	850.0	1030.0	0.15	0.15	0.15	0.15	30.30	0.40

Derating factor (ground): 1(Soil thermal resistivity: 1kmW, Depth 0.8m, Flat formation - touching)
 Derating factor (air): 1 (Flat formation - touching)

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N2XS(F)H 6/10 (12)kV Cable



APPLICATION

Medium voltage power cables for distribution networks and generation units. LSZH outer sheathing makes the cablesuitable for internal installation as well as directly in ground, outdoors, and in cable ducts. UV Resistant.

CHARACTERISTICS

Voltage Rating U₀/U (Um)

6/10(12)kV

Test Voltage:

21kV AC 50Hz (5mins)

Temperature Rating:

-20°Cto +60°C

Permissible Conductor Operating Temperature: +90°C

Permissible Short Circuit Temperature up to 5 sec 250°C

Minimum Bending Radius

15 x overall diameter

STANDARDS

EN 60228, IEC 60502-2

Flame retardant according to IEC/EN 60332-1-2

UV Resistant

Abrasion and Tear Resistant: EN 60229-4.1

Impact rated to: AG2 EN 60364-5.51

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMEN

South Cable actively implements the "carbon reduction"goal, strives to promote the green's low-carbon transformation,strengthens energy-saving and emission reduction technologyinnovation, and promotes the company's healthy and sustain-able development.

N2XS(F)H 6/10 (12)kV Cable

DIMENSIONS

NO. OF CORE	NOMINAL CROSS SECTIONAL AREA		NOMINAL Conductor DIAMETER	NUMBER WIRES CONDUCTOR	NOMINAL OVERALL DIAMTERI		NOMINAL INSULATION THICKNESS	NOMINAL DIAMETER OVER INSULATION
	mm				INNER	OUTER		
1	50	16	8.1	10*2.62	0.50	0.40	2.96	16.3
1	70	16	9.7	14*2.62	0.50	0.40	2.96	17.9
1	95	16	11.4	19*2.62	0.50	0.40	2.96	19.6
1	120	16	12.7	19*2.67	0.50	0.40	2.96	20.9
1	150	25	14.5	19*3.20	0.50	0.40	2.96	22.7
1	185	25	15.9	27*2.62	0.50	0.40	2.96	24.1
1	240	25	18.6	48*2.62	0.50	0.40	2.96	26.8
1	300	25	20.7	61*2.62	0.50	0.40	2.96	28.9
1	400	35	23.5	61*2.97	0.50	0.40	2.96	31.7
1	500	35	26.5	61*3.29	0.50	0.40	2.96	34.7
1	630	35	30.2	61*3.80	0.50	0.40	2.96	38.9

NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES SCREEN	NUMBER WIRES SCREEN	NOMINAL SHEATH THICKNESS	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT	MAXIMUM SIDEWALL PRESSURE	MAXIMUM PULLING TENSION
mm ²	mm	mm	mm	mm	kg/km	N/cm ²	N
50	44*0.66	1*0.1*10	1.80	1.24	850	554	2500
70	44*0.66	1*0.1*10	1.80	1.24	1100	692	3500
95	44*0.66	1*0.1*10	1.80	1.24	1300	847	4750
120	44*0.66	1*0.1*10	1.80	1.24	1600	1008	6000
150	71*0.66	1*0.1*10	1.90	1.32	2000	1149	7500
185	71*0.66	1*0.1*10	1.90	1.32	2250	1344	9250
240	71*0.66	1*0.1*10	2.00	1.40	3000	1550	12000
300	60*0.85	1*0.1*10	2.10	1.48	3500	1764	15000
400	60*0.85	1*0.1*1.5	2.20	1.56	4500	2133	20000
500	60*0.85	1*0.1*1.5	2.30	1.64	5500	2443	25000
630	60*0.85	1*0.1*1.5	2.40	1.72	6750	2756	31500

N2XS(F)H 6/10 (12)kV Cable

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20°C Ω/km	CONDUCTOR DC RESISTANCE AT 75°C Ω/km	CONDUCTOR AC RESISTANCE BY MAX TEMP Ω/km	CURRENT CARRYING CAPACITY (A)		REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC KA	S.C.C SCREEN 1SEC KA	CONDUCTOR LOSSES IN THE GROUND
				In Ground 20°C	In Air 30°C						
50	0.387	0.801	0.497	249	277	0.18	0.36	0.21	7.15	3.2	30.8
70	0.268	0.555	0.344	303	345	0.17	0.34	0.24	10.1	3.2	31.6
95	0.193	0.399	0.248	358	418	0.16	0.31	0.30	13.59	3.2	32.0
120	0.153	0.316	0.196	404	481	0.16	0.31	0.30	17.16	3.2	32.0
150	0.124	0.160	0.256	441	537	0.16	0.300	0.33	21.45	5.0	31.1
185	0.0991	0.205	0.128	493	612	0.16	0.290	0.35	26.46	5.0	31.1
240	0.0754	0.156	0.0980	563	716	0.15	0.280	0.40	34.32	5.0	31.1
300	0.0601	0.124	0.0800	626	811	0.15	0.27	0.44	42.90	5.0	31.4
400	0.047	0.0974	0.0640	676	901	0.15	0.27	0.49	57.20	7.1	29.2
500	0.0366	0.0758	0.0510	743	1006	0.15	0.28	0.54	71.50	7.1	28.2
630	0.0283	0.0420	0.0586	850	1030	0.14	0.25	0.62	90.09	7.1	30.3

Derating factor (ground): 1(Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation touching)
 Derating factor (air): 1(Flat formation - touching)

The notation contained in this datasheet is for guidance only and is subject to change without notice or liability. All the information provided is good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.

N2XS(FL)H 6/10 (12)kV Cable



APPLICATION

Medium voltage power cables for distribution networks and generation units. LSZH outer sheathing makes the cable suitable for internal installation as well as directly in ground, outdoors, and in cable ducts. UV Resistant.

CHARACTERISTICS

Voltage Rating U₀/U (Um)

6/10(12)kV

Test Voltage:

21kV AC 50Hz (15mins)

Temperature Rating:

-20°C to +60°C

Permissible Conductor Operating Temperature: +90°C

Permissible Short Circuit Temperature up to 5 sec 250°C

Minimum Bending Radius

15 x overall diameter

STANDARDS

IEC 60502-2, IEC 60228

Low Smoke Zero Halogen to: IEC 60754-1/2, IEC 61034-2

Flame Retardant: EN 60332-3-24 Cat C, IEC 60332-1-2

UV Resistant: EN 50396 Abrasion and Tear Resistant: EN 60229-4.1

Impact rated to: AG2 EN 60364-5.51

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMENT

South Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustainable development.

CONSTRUCTION

Conductor

Class 2 Stranded Copper

Conductor Screen

Semi-conductive material

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive material (bonded)

Longitudinal Waterblocking

Semi-conductive swellable tape

Screen

Copper Wires and copper tape

Longitudinal Waterblocking

Swellable Tapes

Radial Waterblocking

AIPET (Aluminium/Polyester) tape tightly bonded to sheath

Outer Sheath

LSZH (Low Smoke Zero Halogen)

Sheath Colour

- Black

N2XS(FL)H 6/10 (12)kV Cable

N2XS(FL)H 6/10 (12)kV Cable

DIMENSIONS

NO. OF CORE	NOMINAL CROSS SECTIONAL AREA		NOMINAL Conductor DIAMETER	NUMBER WIRES CONDUCTOR	NOMINAL THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS	MINIMUM INSULATION THICKNESS	NOMINAL DIAMETER OVER INSULATION
	Conductor	Screen			INNER	OUTER			
1	50	16	8.1	10x2.62	0.50	0.40	3.40	2.96	16.3
1	70	16	9.7	14x2.62	0.50	0.40	3.40	2.96	17.9
1	95	16	11.4	19x2.362	0.50	0.40	3.40	2.96	19.6
1	120	16	12.7	19x2.97	0.50	0.40	3.40	2.96	20.9
1	150	25	14.5	19x3.20	0.50	0.40	3.40	2.96	22.7
1	185	25	15.9	27x2.62	0.50	0.40	3.40	2.96	24.1
1	240	25	18.6	48x2.62	0.50	0.40	3.40	2.96	26.8
1	300	25	20.7	61x2.62	0.50	0.40	3.40	2.96	28.9
1	400	35	23.5	61x2.97	0.50	0.40	3.40	2.96	31.7
1	500	35	26.5	61x3.29	0.50	0.40	3.40	2.96	34.7
1	630	35	30.2	61x3.80	0.50	0.40	3.40	2.96	38.9

NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES SCREEN	DIAMETER TAPE SCREEN	NOMINAL SHEATH THICKNESS	MINIMUM SHEATH THICKNESS	NOMINAL OVERALL DIAMTER	NOMINAL WEIGHT	MAXIMUM SIDEWALL PRESSURE	MAXIMUM PULLING TENSION
mm ²	mm	mm	mm	mm	mm	kg/km	N/cm ²	N
50	44*0.66	1*0.1*10	1.8	1.24	23	950	536	2500
70	44*0.66	1*0.1*10	1.8	1.24	25	1200	672	3500
95	44*0.66	1*0.1*10	1.8	1.24	26	1400	847	4750
120	44*0.66	1*0.1*10	1.8	1.24	28	1700	983	6000
150	71*0.66	1*0.1*10	1.9	1.32	30	2000	1124	7500
185	71*0.66	1*0.1*10	1.9	1.32	31	2500	1315	9250
240	71*0.66	1*0.1*10	2.0	1.40	34	3000	1521	12000
300	71*0.66	1*0.1*10	2.1	1.48	36	3750	1764	15000
400	60*0.85	1*0.1*1.5	2.2	1.56	39	4500	2133	20000
500	60*0.85	1*0.1*1.5	2.3	1.64	42	5750	2398	25000
630	60*0.85	1*0.1*1.5	2.4	1.72	47	7000	2720	31500

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20°C Ω/km	CONDUCTOR DC RESISTANCE AT 75°C Ω/km	CONDUCTOR AC RESISTANCE BY MAX TEMP Ω/km	NOMINAL INSULATION		REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC kA	CONDUCTOR LOSSES IN THE GROUND
				In Ground 20°C	In Air 30°C					
50	0.387	0.801	0.497	249	277	0.18	0.36	0.21	7.15	30.8
70	0.268	0.555	0.344	303	345	0.18	0.34	0.24	10.01	31.6
95	0.193	0.399	0.248	358	418	0.17	0.33	0.27	13.59	31.8
120	0.153	0.316	0.196	404	481	0.17	0.32	0.30	17.16	32.0
150	0.124	0.256	0.160	441	537	0.16	0.30	0.33	21.45	31.1
185	0.0991	0.205	0.128	493	612	0.16	0.30	0.35	26.46	31.1
240	0.0754	0.156	0.0980	563	716	0.15	0.28	0.40	34.32	31.1
300	0.0601	0.124	0.0800	626	811	0.15	0.28	0.44	42.90	31.4
400	0.0470	0.0974	0.0640	676	901	0.15	0.27	0.49	57.20	29.2
500	0.0366	0.0758	0.0510	743	1006	0.15	0.26	0.54	71.50	28.2
630	0.0283	0.0586	0.0420	850	1030	0.14	0.26	0.62	90.09	30.3

Derating factor (ground): 1(Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation touching)
 Derating factor (air): 1(Flat formation - touching)

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NA2XSH 18/30 (36)kV Cable

NA2XSH 18/30 (36)kV Cable



APPLICATION

UV resistant Medium voltage cables for distribution networks; also for connection to generation units and plant and process connection. LSZH outer sheath allows interal and external installation including directly in ground and in cable ducts.

CHARACTERISTICS

Voltage Rating U₀/U (Um)

18/30(36)kV

Temperature Rating

Permissible operating temperature of conductor: +90°C
Permissible short-circuit temperature up to 5 sec: +250°C

Minimum Bending Radius

15 x overall diameter

STANDARDS

IEC 60502-2,
Flame retardant according to IEC/EN 60332-1-2
Low Smoke Zero Halogen according to IEC/EN 61034-1/2,
IEC/EN 60754-1/2

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMENT

South Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustainable development.

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium

Conductor Screen

Semi-conductive material (Bonded Type)

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive material (Strippable Type) screen

Filler

Copper Wires and copper tape

Sheath

LSZH (Low Smoke Zero Halogen)

Sheath Colour

● Black

DIMENSIONS

NO. OF CORE	NOMINAL CROSS SECTIONAL AREA mm ²		NOMINAL Conductor DIAMETER	NUMBER WIRES CONDUCTOR	NOMINAL THICKNESS SEMI-CON.LAYER		NOMINAL INSULATION THICKNESS	MINIMUM INSULATION THICKNESS	NOMINAL DIAMETER OVER INSULATION
	Conductor	Screen	mm	mm	mm	mm	mm	mm	mm
1	50	16	8.20	7*2.90	0.50	0.40	8.00	7.10	25.2
1	70	16	9.70	19*2.18	0.50	0.40	8.00	7.10	26.7
1	95	16	11.40	19*2.55	0.50	0.40	8.00	7.10	28.4
1	120	16	12.65	19*2.90	0.50	0.40	8.00	7.10	29.7
1	150	25	14.4	19*3.16	0.50	0.40	8.00	7.10	31.4
1	185	25	15.75	37*2.55	0.50	0.40	8.00	7.10	33.2
1	240	25	18.2	37*2.90	0.50	0.40	8.00	7.10	35.7
1	300	25	20.5	61*2.55	0.50	0.40	8.00	7.10	38.0
1	400	35	23.0	61*2.90	0.50	0.40	8.00	7.10	40.5
1	500	35	26.0	61*3.20	0.50	0.40	8.00	7.10	43.5
1	630	35	30.2	61*3.65	0.50	0.40	8.00	7.10	47.7

NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES SCREEN	DIAMETER TAPE SCREEN	NOMINAL SHEATH THICKNESS	MINIMUM SHEATH THICKNESS	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT	MAXIMUM SIDEWALL PRESSURE	MAXIMUM PULLING TENSION
mm ²	mm	mm	mm	mm	mm	kg/km	N/cm ²	N
50	44*0.66	1*0.1*10	2.00	1.40	32	900	255	1500
70	44*0.66	1*0.1*10	2.00	1.40	33	1100	328	2100
95	44*0.66	1*0.1*10	2.10	1.48	35	1200	409	2850
120	44*0.66	1*0.1*10	2.10	1.48	36	1300	493	3600
150	71*0.66	1*0.1*10	2.20	1.56	38	1500	573	4500
185	71*0.66	1*0.1*10	2.20	1.56	40	1700	664	5550
240	71*0.66	1*0.1*10	2.30	1.64	43	1900	784	7200
300	71*0.66	1*0.1*1.0	2.40	1.72	45	2250	916	9000
400	60*0.85	1*0.1*1.5	2.50	1.80	48	2750	1127	12000
500	60*0.85	1*0.1*1.5	2.60	1.88	51	3000	1299	15000
630	60*0.85	1*0.1*1.5	2.70	1.96	56	3500	1462	18900

NA2XSH 18/30 (36)kV Cable

NA2XSH /NA2XSEH 12/20 (24)kV Cable



NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20°C Ω/km	CONDUCTOR DC RESISTANCE AT 75°C Ω/km	CONDUCTOR AC RESISTANCE BY MAX TEMP Ω/km	NOMINAL INSULATION THICKNESS		REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S. C. C CONDUCTOR 1SEC KA	S.C.C SCREEN 1SEC KA	CONDUCTOR LOSSES IN THE GROUND
				In Ground 20°C	In Air 30°C						
50	0.641	1.32	0.825	196	217	0.20	0.43	0.12	4.70	3.2	31.7
70	0.443	0.917	0.57	238	270	0.19	0.41	0.13	6.58	3.2	32.3
95	0.32	0.662	0.412	284	328	0.19	0.39	0.14	8.98	3.2	33.2
120	0.258	0.524	0.328	322	378	0.18	0.38	0.15	11.28	3.2	34.0
150	0.203	0.426	0.268	355	425	0.18	0.36	0.17	14.10	5.0	33.8
185	0.164	0.339	0.213	400	485	0.18	0.35	0.18	17.39	5.0	34.1
240	0.125	0.258	0.1600	461	572	0.17	0.33	0.20	22.56	5.0	34.6
300	0.1000	0.207	0.1320	516	649	0.17	0.32	0.22	28.20	5.0	35.1
400	0.0778	0.161	0.1030	572	737	0.16	0.32	0.24	37.60	7.1	33.7
500	0.0605	0.125	0.0810	638	835	0.16	0.30	0.26	47.00	7.1	33.0
630	0.0469	0.0972	0.0640	860	1080	0.15	0.29	0.29	59.22	7.1	47.3

Derating factor (ground): 1(Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation touching)
 Derating factor (air): 1(Flat formation - touching)

APPLICATION

UV resistant Medium voltage cables for distribution networks; also for connection to generation units and plant and process connection LSZH outer sheath allows internal and external installation including directly in ground and in cable ducts.

CHARACTERISTICS

Voltage Rating U₀/U (Um)

12/20 (24)kV

Temperature Rating

Permissible operating temperature of conductor: +90°C
 Permissible short-circuit temperature up to 5 sec: +250°C

Minimum Bending Radius

15 x overall diameter

STANDARDS

IEC 60502-2,
 Flame Retardant according to IEC/EN 60332-1-2
 Low Smoke Zero Halogen according to IEC/EN 61034-1/2,
 IEC/EN 60754-1/2

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMENT

South Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustainable development.

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium

Conductor Screen

Semi-conductive material (Bonded Type)

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive material

Filler

LSZH (Low Smoke Zero Halogen)

Screen

Copper Wires and copper tape

Outer Sheath

LSZH (Low Smoke Zero Halogen)

Sheath Colour

● Black

The information provided in this datasheet is for guidance only and is subject to change without notice or liability. All the information provided is good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.

NA2XSH /NA2XSEH 12/20 (24)kV Cable

SOUTH
CABLE

DIMENSIONS

NO.OF CORES	NOMINAL CROSS SECTIONAL AREA mm ² Conductor	NOMINAL CROSS SECTIONAL AREA mm ² Copper Wire Screen	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
1	35	16	27.0	800.0
1	50	16	28.0	850.0
1	70	16	30.0	950.0
1	95	16	32.00	1100.0
1	120	16	33.0	1200.0
1	150	25	34.0	1400.0
1	185	25	36.0	1600.0
1	240	25	38.0	1800.0
1	300	25	38.0	2000.0
1	400	35	43.0	2500.0
1	500	35	46.0	2900.0
1	630	35	50.0	3500.0
3	35	16	52.0	2750.0
3	50	16	55.0	3000.0
3	70	16	60.0	3500.0
3	95	16	63.0	4200.0
3	120	16	66.0	4500.0
3	150	25	70.0	5250.0
3	185	25	73.0	5800.0
3	240	25	79.0	6800.0
3	300	25	84.0	7800.0
3	400	25	90.0	9400.0

NA2XSH /NA2XSEH 12/20 (24)kV Cable

SOUTH
CABLE

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL SHORT-CIRCUIT CURRENT FOR 1 SECOND OF CONDUCTOR kA	CONDUCTOR DC RESITANCE AT 20°C Ohm/km	CONDUCTOR AC RESISTANCE BY MAX. TEMPERATURE Ohm/km	CURRENT CARRYING CAPACITY In Ground at 20°C	CURRENT CARRYING CAPACITY In Air at 30°C
35	3.29	0.868	1.120	145	154
50	4.70	0.641	0.825	195	217
70	6.58	0.443	0.570	237	270
95	8.93	0.320	0.412	282	328
120	11.28	0.253	0.328	320	378
150	14.10	0.206	0.268	353	425
185	17.39	0.164	0.213	396	485
240	22.56	0.125	0.163	457	573
300	28.20	0.100	0.132	511	652
400	37.60	0.078	0.103	566	740
500	47.00	0.0605	0.081	630	838
630	59.22	0.0469	0.064	701	882

NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL SHORT-CIRCUIT CURRENT FOR 1 SECOND OF CONDUCTOR kA	CONDUCTOR DC RESITANCE AT 20°C Ohm/km	CONDUCTOR AC RESISTANCE BY MAX. TEMPERATURE Ohm/km	CURRENT CARRYING CAPACITY (A) In Ground 20°C	CURRENT CARRYING CAPACITY (A) In Air 30°C
35	3.29	0.868	1.12	142	140
50	4.700	0.641	0.825	167.0	167.0
70	6.580	0.443	0.570	205.0	208.0
95	8.930	0.320	0.412	244.0	251.0
120	11.280	0.253	0.328	279.0	291.0
150	14.100	0.206	0.268	312.0	329.0
185	17.3900	0.164	0.213	355.0	379.0
240	22.5600	0.125	0.1630	412.0	446.0
300	28.2000	0.100	0.1320	476.0	513.0
400	37.6000	0.0780	0.1030	552.0	593.0

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NA2XS(FL)H 18/30 (36)kV Cable



APPLICATION

Medium voltage power cables for distribution networks and generation units. LSZH outer sheathing makes the cable suitable for internal installation as well as directly in ground, outdoors, and in cable ducts. UV Resistant.

CHARACTERISTICS

Voltage Rating U₀/U (Um)

18/30(36)kV

Test Voltage:

63kV AC 50Hz (15 mins)

Temperature Rating

-20°C to +60°C

Permissible Conductor Operating Temperature: +90°C

Permissible Short Circuit Temperature up to 5 sec: 250°C

Minimum Bending Radius

15 x overall diameter

STANDARDS

EN 60228, IEC 60502-2

IEC 60502-2, IEC 60228

Low Smoke Zero Halogen: IEC 60754-1/2, IEC 61034-2

Flame Retardant: EN 60332-3-24 Cat C, IEC 60332-1-2

UV Resistant: EN 50396

Abrasion and Tear Resistant: EN 60229-4.1

Impact rated to: AG2 EN 60364-5.51

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMENT

South Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustainable development.

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium

Conductor Screen

Semi-conductive material (Bonded Type)

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive material (bonded)

Longitudinal Waterblocking

Semi-conductive swellable tape

Screen

Copper Wires and copper tape

Longitudinal Waterblocking

Swellable Tapes

Radial Waterblocking

Al/PET (Aluminium/Polyester) tape tightly bonded to sheath

Outer Sheath

LSZH (Low Smoke Zero Halogen)

Sheath Colour

- Black

NA2XS(FL)H 18/30 (36)kV Cable

DIMENSIONS

NO. OF CORE	NOMINAL CROSS SECTIONAL AREA		NOMINAL Conductor DIAMETER	NUMBER WIRES CONDUCTOR	NOMINAL THCKNESS SEMI-CON.LAYER		NOMINAL INSULATION THICKNESS	MINIMUM INSULATION THICKNESS	NOMINAL DIAMETER OVER INSULATION
	Conductor	Screen			INNER	OUTER			
1	50	16	8.20	7*2.90	0.50	0.40	8	7.1	25.2
1	70	16	9.70	19*2.18	0.50	0.40	8	7.1	26.7
1	95	16	11.4	19*2.55	0.50	0.40	8	7.1	28.4
1	120	16	12.65	19*2.90	0.50	0.40	8	7.1	29.7
1	150	25	14.4	19*3.16	0.50	0.40	8	7.1	31.4
1	185	25	15.75	37*2.55	0.50	0.40	8	7.1	33.2
1	240	25	18.2	37*2.90	0.50	0.40	8	7.1	35.7
1	300	25	20.5	61*2.55	0.50	0.40	8	7.1	38.0
1	400	35	23.0	61*2.90	0.50	0.40	8	7.1	40.5
1	500	35	26.0	61*3.20	0.50	0.40	8	7.1	43.5
1	630	35	30.2	61*3.65	0.50	0.40	8	7.1	47.7

NOMINAL CROSS SECTIONAL AREA	NUMBER WIRES SCREEN	DIAMETER TAPE SCREEN	NOMINAL SHEATH THICKNESS	MINIMUM SHEATH THICKNESS	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT	MAXIMUM SIDEWALL PRESSURE	MAXIMUM PULLING TENSION
mm ²	mm	mm	mm	mm	mm	kg/km	N/cm ²	N
50	44*0.66	1*0.1*10	2.0	1.40	32	1100	249	1500
70	44*0.66	1*0.1*10	2.0	1.40	34	1200	320	2100
95	44*0.66	1*0.1*10	2.1	1.48	36	1300	401	2850
120	44*0.66	1*0.1*10	2.1	1.48	37	1400	483	3600
150	71*0.66	1*0.1*10	2.2	1.56	39	1700	562	4500
185	71*0.66	1*0.1*10	2.2	1.56	41	1800	652	5550
240	71*0.66	1*0.1*10	2.3	1.64	43	2250	784	7200
300	71*0.66	1*0.1*10	2.4	1.72	46	2500	902	9000
400	60*0.85	1*0.1*1.5	2.5	1.80	49	2750	1111	12000
500	60*0.85	1*0.1*1.5	2.6	1.88	52	3250	1282	15000
630	60*0.85	1*0.1*1.5	2.7	1.96	56	3750	1462	18900

NA2XS(FL)H 18/30 (36)kV Cable

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20°C Ω/km	CONDUCTOR DC RESISTANCE AT 75°C Ω/km	CONDUCTOR AC RESISTANCE BY MAX TEMP. Ω/km	CURRENT CARRYING CAPACITY (A)		REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND
				In Ground 20°C	In Air 30°C						
50	0.641	1.32	0.825	196	217	0.20	0.43	0.12	4.70	3.2	31.7
70	0.443	0.917	0.57	238	270	0.19	0.41	0.13	6.58	3.2	32.3
95	0.32	0.662	0.412	284	328	0.19	0.39	0.14	8.98	3.2	33.2
120	0.258	0.524	0.328	322	378	0.18	0.38	0.15	11.28	3.2	34.0
150	0.203	0.426	0.268	355	425	0.18	0.36	0.17	14.10	5.0	33.8
185	0.164	0.339	0.213	400	485	0.18	0.35	0.18	17.39	5.0	34.1
240	0.125	0.258	0.1600	461	572	0.17	0.33	0.20	22.56	5.0	34.6
300	0.1000	0.207	0.1320	516	649	0.17	0.32	0.22	28.20	5.0	35.1
400	0.0778	0.161	0.1030	572	737	0.16	0.32	0.24	37.60	7.1	35.7
500	0.0605	0.125	0.0810	638	835	0.16	0.30	0.26	47.00	7.1	35.0
630	0.0469	0.0972	0.0640	860	1080	0.15	0.29	0.29	59.22	7.1	47.3

Derating factor (ground): 1 (Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation touching)

Derating factor (air): 1 (Flat formation touching)

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N2XS2Y XLPE MDPE 8.7/15 (17.5) kV Cable



APPLICATION

Medium Voltage MDPE sheathed power distribution cables particularly noted for applications in wind energy installations.

CHARACTERISTICS

Voltage Rating U₀/U (Um)

8.7/15 (17.5)kV

Test Voltage

Maximum conductor operating temperature: 90°C
 Initial temperature at S.C.C for metallic screen: 80°C
 Maximum conductor temperature during S.C: 250°C

Minimum Bending Radius

20 x overall diameter

STANDARDS

IEC 60502-2, EN 60228

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMENT

South Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustainable development.

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium

Conductor Screen

Semi-conductive material

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive material (bonded)

Longitudinal Waterblocking

Semi-conductive swellable tape

Screen

Copper Wires and copper tape

Longitudinal Waterblocking

Swellable Tapes

Outer Sheath

MDPE (Medium Density Polyethylene)

Sheath Colour

- Black

N2XS2Y XLPE MDPE 8.7/15 (17.5) kV Cable

N2XS2Y XLPE MDPE 8.7/15 (17.5) kV Cable

DIMENSIONS

NOMINAL CROSS SECTIONAL AREA	NOMINAL CROSS SECTIONAL AREA	NOMINAL SCREEN CROSS SECTIONAL AREA	NOMINAL INSULATION THICKNESS	NOMINAL SHEATH THICKNESS	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT
	mm ²	mm ²	mm	mm	mm	kg/km
1	50	16	4.5	1.7	23.80	904
1	70	16	4.5	1.8	25.80	1132
1	95	16	4.5	1.8	27.10	1389
1	120	16	4.5	1.9	28.70	1647
1	150	25	4.5	2	30.70	2027
1	185	25	4.5	2	32.20	2368
1	240	25	4.5	2.1	34.60	2943
1	300	25	4.5	2.2	37.20	3522
1	400	35	4.5	2.3	40.20	4445
1	500	35	4.5	2.4	43.80	5444
1	630	35	4.5	2.5	48.70	6869
1	800	35	4.5	2.6	53	8655

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C Ω/km	MAXIMUM CONDUCTOR AC RESISTANCE AT TEMP AND 50HZ Ω/km	CAPACITANCE uF/km	CHARGING CURRENT A/km	DIELECTRIC LOSSES W/km	REACTANCE AT 50HZ ohm/km	CONDUCTOR S.C.C 1SEC kA	COPPER SCREEN S.C.C FOR 1SEC kA	CURRENT RATING A	
									Laid in ground	Laid in free air
50	0.387	0.494	0.214	0.586	20.37	0.128	7.15	1.75	227	238
70	0.268	0.342	0.245	0.67	23.29	0.121	10.01	1.75	273	300
95	0.193	0.247	0.267	0.73	25.39	0.116	13.585	1.75	325	362
120	0.153	0.196	0.29	0.794	27.64	0.112	17.16	1.75	369	419
150	0.124	0.159	0.317	0.868	30.20	0.108	21.45	2.73	413	474
185	0.0991	0.128	0.343	0.937	32.59	0.105	26.455	2.73	465	545
240	0.0754	0.098	0.383	1.047	36.42	0.101	34.32	2.73	536	645
300	0.0601	0.078	0.423	1.156	40.23	0.097	42.9	2.73	601	744
400	0.047	0.062	0.466	1.275	44.35	0.094	44.35	3.82	673	856
500	0.0366	0.049	0.523	1.429	49.74	0.091	49.74	3.82	758	985
630	0.0283	0.039	0.601	1.643	57.17	0.090	57.17	3.82	840	1118
800	0.0221	0.032	0.669	1.829	63.65	0.087	63.65	3.82	945	1256

Laying conditions at trefoil formation are as below:

- Soil thermal resistivity 120 °C.Cm/Watt
- Ground temperature 15 °C
- Air temperature 25 °C
- Frequency 50 Hz

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APPLICATION

Medium voltage power cables for distribution networks and generation units, suitable for external installation including in direct in ground and in buried cable ducts. UV Resistant

CHARACTERISTICS

Voltage Rating U₀/U (Um)

18/30(36)kV

Test Voltage:

63kV AC 50Hz (5 mins)

Temperature Rating:

-20°C to +60°C

Permissible Conductor Operating Temperature: +90°C

Permissible Short Circuit Temperature up to 5 sec 250°C

Minimum Bending Radius

15 x overall diameter

STANDARDS

IEC 60502-2, IEC 60228

Low Smoke Zero Halogen to: IEC 60754-1/2, IEC 61034-2

Flame Retardant: EN 60332-3-24 Cat C, IEC 60332-1-2

UV Resistant: EN 50396 Abrasion and Tear Resistant: EN 60229-4.1

Impact rated to: AG2 EN 60364-5.51

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMENT

South Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustainable development.

CONSTRUCTION

Conductor

Class 2 Stranded Aluminium

Conductor Screen

Semi-conductive material

Insulation

XLPE (Cross-Linked Polyethylene)

Insulation Screen

Semi-conductive material (bonded)

Longitudinal Waterblocking

Semi-conductive swellable tape

Screen

Copper Wires and copper tape

Outer Sheath

MDPE (Medium Density Polyethylene)

Sheath Colour

- Black

N2XS2Y XLPE MDPE 8.7/15 (17.5) kV Cable

N2XS2Y XLPE MDPE 8.7/15 (17.5) kV Cable

DIMENSIONS

NO. OF CORE	NOMINAL CROSS SECTIONAL AREA mm ²		NOMINAL CONDUCTOR DIAMETER mm	NUMBER WIRES CONDUCTOR mm	NOM. THICKNESS SEMI-CON. LAYER		NOMINAL INSULATION THICKNESS mm	MINIMUM INSULATION THICKNESS mm	NOMINAL DIAMETER OVER INSULATION mm
	Conductor	Screen			INNER mm	OUTER mm			
1	50	16	8.20	7*2.90	0.50	0.40	8.00	7.10	25.2
1	70	16	9.70	19*2.18	0.50	0.40	8.00	7.10	26.7
1	95	16	11.4	19*2.55	0.50	0.40	8.00	7.10	28.4
1	120	16	12.65	19*2.90	0.50	0.40	8.00	7.10	29.7
1	150	25	14.4	19*3.16	0.50	0.40	8.00	7.10	31.4
1	185	25	15.75	37*2.55	0.50	0.40	8.00	7.10	33.2
1	240	25	18.2	61*2.90	0.50	0.40	8.00	7.10	35.7
1	300	25	20.5	61*2.55	0.50	0.40	8.00	7.10	38.0
1	400	35	23.0	61*2.90	0.50	0.40	8.00	7.10	40.5
1	500	35	26.0	61*3.20	0.50	0.40	8.00	7.10	43.5
1	630	35	30.2	61*3.65	0.50	0.40	8.00	7.10	47.7

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR DC RESISTANCE AT 20°C ohms/km	CONDUCTOR DC RESISTANCE AT 75°C ohms/km	CONDUCTOR AC RESISTANCE BY MAX TEMP ohms/km	CURRENT CARRYING CAPACITY (A)		REACTANCE ohms/km	CHARGING ADMITTANCE A/km	CAPACITANCE uF/km	S.C.C CONDUCTOR 1SEC kA	S.C.C SCREEN 1SEC kA	CONDUCTOR LOSSES IN THE GROUND kW/km	NOMINAL CROSS SECTIONAL AREA mm ²
				In Ground 20°C	In Air 30°C							
50	0.641	1.32	0.825	196	217	0.20	0.43	0.12	4.70	3.2	31.7	50
70	0.443	0.917	0.57	238	270	0.19	0.41	0.13	6.58	3.2	32.3	70
95	0.32	0.662	0.412	284	328	0.19	0.39	0.14	8.93	3.2	33.2	95
120	0.258	0.524	0.328	322	378	0.18	0.38	0.15	11.28	3.2	34.0	120
150	0.203	0.426	0.268	355	425	0.18	0.36	0.17	14.10	5.0	33.8	150
185	0.164	0.339	0.213	400	485	0.18	0.35	0.18	17.39	5.0	34.1	185
240	0.125	0.258	0.160	461	572	0.17	0.33	0.20	22.56	5.0	34.6	240
300	0.100	0.207	0.1320	516	649	0.17	0.32	0.22	28.20	5.0	35.1	300
400	0.0778	0.161	0.1030	572	737	0.16	0.32	.24	37.60	7.1	33.7	400
500	0.0605	0.125	0.0810	638	835	0.16	0.30	0.26	47.00	7.1	33.0	500
630	0.0469	0.0972	0.0640	860	1080	0.15	0.29	0.29	59.22	7.1	47.3	630

Derating factor (ground): 1 (Soil thermal resistivity: 1km/W, Depth 0.8m, Flat formation touching)

Derating factor (air): 1 (Flat formation touching)

NOMINAL CROSS SECTIONAL AREA mm ²	NUMBER WIRES SCREEN mm	DIAMETER TAPE SCREEN mm	NOMINAL SHEATH THICKNESS mm	MINIMUM SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM SIDEWALL PRESSURE N/CM2	MAXIMUM PULLING TENSION N
50	44*0.66	1*0.1*10	2.00	1.40	32	900	255	1500
70	44*0.66	1*0.1*10	2.00	1.40	33	1100	328	2100
95	44*0.66	1*0.1*10	2.10	1.48	35	1200	409	2850
120	44*0.66	1*0.1*10	2.10	1.48	36	1300	493	3600
150	71*0.66	1*0.1*10	2.20	1.56	38	1500	573	4500
185	71*0.66	1*0.1*10	2.20	1.56	40	1700	664	5550
240	71*0.66	1*0.1*10	2.30	1.64	43	1900	784	7200
300	71*0.66	1*0.1*10	2.40	1.72	45	2250	916	9000
400	60*0.85	1*0.1*15	2.50	1.80	48	2750	1127	12000
500	60*0.85	1*0.1*15	2.60	1.88	51	3000	1299	15000
630	60*0.85	1*0.1*15	2.70	1.96	56	3500	1462	18900

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N2XSJ XLPE PVC - 12/20 (24)kV Cable



APPLICATION

Medium voltage cables for distribution networks; also for connection to generation units and plant and process connection. To be laid directly in ground, outdoors, indoors and in cable ducts.

CHARACTERISTICS

Voltage Rating U₀/U (Um)

12/20 (24)kV

Temperature Rating

Maximum conductor operating temperature: 90°C
Initial temperature at S.C.C for metallic screen: 80°C
Maximum conductor temperature during S.C: 250°C

Minimum Bending Radius

15 x overall diameter

STANDARDS

EN 60228, IEC 60502-2
Flame retardant according to IEC/EN 60332-1-2
UV Resistant

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMENT

South Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustain-able development.

CONSTRUCTION

Conductor

Class 2 stranded aluminium conductor

Inner Semi-Conductive Layer

Semi-conductive material (Bonded Type)

Insulation

XLPE (Cross-Linked Polyethylene)

Outer Semi-Conductive Layer

Semi-conductive material (Strippable Type) screen

Screen

Copper wires with Open Helix Copper Tape Screen

Sheath

PVC (Polyvinyl Chloride)

Sheath Colour

● Black

N2XSJ XLPE PVC - 12/20 (24)kV Cable

DIMENSIONS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA	NOMINAL SCREEN CROSS SECTIONAL AREA	NOMINAL INSULATION THICKNESS	NOMINAL SHEATH THICKNESS	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT
	mm ²	mm ²	mm	mm	mm	kg/km
1	50	16	5.5	1.8	26.0	1056
1	70	16	5.5	1.9	28.0	1301
1	95	16	5.5	1.9	29.3	1567
1	120	16	5.5	2	30.9	1840
1	150	25	5.5	2	32.7	2221
1	185	25	5.5	2.1	34.2	2572
1	240	25	5.5	2.2	36.8	3182
1	300	25	5.5	2.2	39.2	3764
1	400	35	5.5	2.3	42.2	4715
1	500	35	5.5	2.4	45.8	5748
1	630	35	5.5	2.5	50.7	7215
1	800	35	5.5	2.7	55.2	9072

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C	MAXIMUM CONDUCTOR AC RESISTANCE AT TEMP. AND 50HZ	CAPACITANCE	CHARGING CURRENT	DIELECTRIC LOSSES	REACTANCE AT 50 HZ	CONDUCTOR S.C.C for 1 SEC	COPPER SCREEN S.C.C FOR 1 SEC	CURRENT RATING A	
									Laid in ground	Laid in free air
mm ²	Ω/km	Ω/km	uF/km	A/Km	W/Km	ohms/km	KA	KA		
50	0.387	0.494	0.184	0.693	33.24	0.133	7.15	1.75	234	245
70	0.268	0.342	0.209	0.787	37.78	0.126	10.01	1.75	284	309
95	0.193	0.247	0.227	0.855	41.03	0.121	13.585	1.75	337	378
120	0.153	0.196	0.246	0.928	44.52	0.117	17.16	1.75	384	436
150	0.124	0.159	0.268	1.01	48.48	0.112	21.45	2.73	428	491
185	0.0991	0.128	0.288	1.087	52.18	0.109	26.455	2.73	483	567
240	0.0754	0.098	0.321	1.21	58.08	0.104	34.32	2.73	553	669
300	0.0601	0.078	0.353	1.333	63.97	0.101	42.9	2.73	621	772
400	0.047	0.062	0.388	1.465	70.33	0.097	57.2	3.82	697	883
500	0.0366	0.049	0.434	1.638	78.63	0.094	71.5	3.82	783	1019
630	0.0283	0.039	0.498	1.876	90.08	0.092	90.09	3.82	866	1153
800	0.0221	0.032	0.553	2.084	100.05	0.089	114.40	3.82	945	1299

Laying conditions at trefoil formation are as below:

- Soil thermal resistivity 120 °C.Cm/Watt
- Burial depth 0.5 m-Ground temperature 15 °C
- Air temperature 25 °C
- Frequency 50 Hz

NA2XSJ Aluminium Conductor

XLPE PVC - 6/10 (12)kV Cable



APPLICATION

Medium voltage cables for distribution networks; also for connection to generation units and plant and processconnection. To be laid directly in ground, outdoors, indoors and in cable ducts.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

6/10(12)kV

Temperature Rating

Fixed: -20°C to +90°C

Minimum Bending Radius

15 x overall diameter

STANDARDS

EN 60228, IEC 60502-2

Flame retardant according to IEC/EN 60332-1-2

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMEN

South Cable actively implements the "carbon reduction" goal, strives to promote the green's low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company's healthy and sustain-able development.

CONSTRUCTION

Conductor

Class 2 stranded aluminium conductor

Inner Semi-Conductive Layer

Semi-conductive material

Insulation

XLPE (Cross-Linked Polyethylene)

Outer Semi-Conductive Layer

Semi-conductive material

Screen

Copper wires

Sheath

PVC (Polyvinyl Chloride)

Sheath Colour

● Black

NA2XSJ Aluminium Conductor

XLPE PVC - 6/10 (12)kV Cable

DIMENSIONS

NO.OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL SCREEN CROSS SECTIONAL AREA mm ²	NOMINAL CONDUCTOR DIAMETER mm	NUMBER WIRES CONDUCTOR mm	NOMINAL INSULATION THICKNESS mm	NOMINAL DIAMETER OVER INSULATION mm	MINIMUM INSULATION THICKNESS mm	NOM. THICKNESS SEMI-CON. LAYER INNER mm	NOM. THICKNESS SEMI-CON. LAYER OUTER mm
1	50	16	8.1	10x2.62	5.50	20.3	4.85	0.50	0.40
1	70	16	9.7	14x2.62	5.50	21.9	4.85	0.50	0.40
1	95	16	11.4	19x2.62	5.50	23.6	4.85	0.50	0.40
1	120	16	12.7	19x2.97	5.50	24.9	4.85	0.50	0.40
1	150	25	14.5	19x3.20	5.50	26.7	4.85	0.50	0.40
1	185	25	15.9	27x2.62	5.50	28.1	4.85	0.50	0.40
1	240	25	18.6	48x2.62	5.50	30.8	4.85	0.50	0.40
1	300	25	20.7	61x2.62	5.50	32.9	4.85	0.50	0.40
1	400	35	23.5	61x2.97	5.50	35.7	4.85	0.50	0.40
1	500	35	26.5	61x3.29	5.50	38.7	4.85	0.50	0.40
1	630	35	30.2	61x3.80	5.50	42.9	4.85	0.50	0.40

NOMINAL CROSS SECTIONAL AREA mm ²	NUMBER WIRES SCREEN mm	NOMINAL SHEATH THICKNESS mm	MINIMUM SHEATH THICKNESS mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	MAXIMUM SIDEWALL N/cm ²	MAXIMUM PULLING TENSION N	DIAMETER TAPE SCREEN mm
50	44x0.66	1.80	1.240	26	1000	489	2500	1x0.1x10
70	44x0.66	1.90	1.320	28	1200	619	3500	1x0.1x10
95	44x0.66	1.90	1.320	30	1500	785	4750	1x0.1x10
120	44x0.66	2.00	1.400	31	1800	915	6000	1x0.1x10
150	71x0.66	2.00	1.400	33	2250	1053	7500	1x0.1x10
185	71x0.66	2.10	1.480	35	2500	1236	9250	1x0.1x10
240	71x0.66	2.10	1.480	38	3250	1413	12000	1x0.1x10
300	71x0.66	2.20	1.560	40	3750	1647	15000	1x0.1x10
400	60x0.85	2.30	1.640	43	4750	2005	20000	1x0.1x15
500	60x0.85	2.40	1.720	48	5750	2299	25000	1x0.1x15
630	60x0.85	2.50	1.800	51	7000	2586	31500	1x0.1x15