

SOUTH CABLE

BUILDING WIRE





ABOUT SOUTH

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

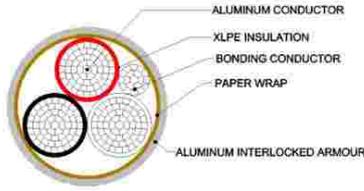
We are committed to providing safe, reliable, and efficient connectivity solutions for global energy transmission, information communication, and smart infrastructure construction.

Building Wire

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AC90 – ALUMINUM CONDUCTOR



APPLICATION

AC90 armored building wire is rated FT4-ST1 for -40°C to 90°C. Engineered specifically for demanding environments, superior flammability and smoke emission performance.

For use in ventilated, non-ventilated and ladder-type cable trays.

For dry locations, in ceiling air-handling plenums, exposed or concealed wiring and service entrance above ground.

CHARACTERISTICS

Voltage Rating U₀/U (Um)

600V

Temperature Rating

-40°C to 90°C

STANDARDS

Industry compliances: CSA Standard C22.2 No. 51, No.38 and No.2256, RoHS

Flame test compliances: CSA ST1 and FT4

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

Stranded AA-8000 Series Aluminum Alloy (ACM)

Insulation

Cross-linked Polyethylene (XLPE)
CSA Type XL 90°C dry/wet 600V
Halogen-Free.

Bonding Conductor

Stranded AA-8000 Series Aluminum Alloy (ACM)

Armour

Aluminum (AIA) or Galvanized Steel (SIA)
Interlock Armour

Sheath Colour

- 3Core: Black, White, Red
- 4Core: Black, White, Red and Blue

AC90 – ALUMINUM CONDUCTOR

AC90 600V – 3 Aluminum Conductors

CONDUCTOR SIZE	GROUND SIZE	INSULATION THICKNESS	CABLE DIAMETER	CABLE WEIGHT	MAX PULLING TENSION	MIN. BEND RADIUS	AMPACITY (A)
6 AWG	8 AWG	0.045 in.	0.800 in.	243 lbs/Mft	526 lbs	11.2 in.	55
		1.14 mm	20.3 mm	361 kg/km	239 kg	285 mm	
4 AWG	6 AWG	0.045 in.	0.880 in.	286 lbs/Mft	832 lbs	12.3 in.	75
		1.14 mm	22.4 mm	426 kg/km	377 kg	313 mm	
2 AWG	6 AWG	0.045 in.	1.030 in.	392 lbs/Mft	1322 lbs	14.4 in.	100
		1.14 mm	26.2 mm	583 kg/km	600 kg	366 mm	
1 AWG	4 AWG	0.055 in.	1.160 in.	477 lbs/Mft	1653 lbs	16.2 in.	115
		1.40 mm	29.5 mm	710 kg/km	750 kg	413 mm	
1/0 AWG	4 AWG	0.055 in.	1.250 in.	622 lbs/Mft	2081 lbs	17.5 in.	135
		1.40 mm	31.8 mm	925 kg/km	944 kg	445 mm	
2/0 AWG	4 AWG	0.055 in.	1.320 in.	738 lbs/Mft	2696 lbs	18.5 in.	150
		1.40 mm	33.5 mm	1099 kg/km	1223 kg	469 mm	
3/0 AWG	4 AWG	0.055 in.	1.420 in.	843 lbs/Mft	3375 lbs	19.9 in.	175
		1.40 mm	36.1 mm	1254 kg/km	1531 kg	505 mm	
4/0 AWG	4 AWG	0.055 in.	1.530 in.	994 lbs/Mft	4199 lbs	21.4 in.	205
		1.40 mm	38.9 mm	1479 kg/km	1905 kg	544 mm	

AC90 – ALUMINUM CONDUCTOR

AC90 600V – 3 Aluminum Conductors

CONDUCTOR SIZE	GROUND SIZE	INSULATION THICKNESS	CABLE DIAMETER	CABLE WEIGHT	MAX PULLING TENSION	MIN. BEND RADIUS	AMPACITY (A)
250 kcmil	2 AWG	0.065 in.	1.641 in.	1203 lbs/Mft	5152 lbs	23.0 in.	230
		1.65 mm	41.7 mm	1791 kg/km	2337 kg	584 mm	
300 kcmil	2 AWG	0.065 in.	1.828 in.	1355 lbs/Mft	5807 lbs	25.6 in.	260
		1.65 mm	46.4 mm	2017 kg/km	2634 kg	650 mm	
350 kcmil	2 AWG	0.065 in.	1.843 in.	1546 lbs/Mft	7396 lbs	25.8 in.	280
		1.65 mm	46.8 mm	2301 kg/km	3355 kg	655 mm	
400 kcmil	2 AWG	0.065 in.	1.991 in.	1713 lbs/Mft	7960 lbs	27.9 in.	305
		1.65 mm	50.6 mm	2549 kg/km	3611 kg	708 mm	
500 kcmil	1 AWG	0.080 in.	2.155 in.	2112 lbs/Mft	9804 lbs	30.2 in.	350
		2.03 mm	54.7 mm	3143 kg/km	4447 kg	766 mm	
600 kcmil	1 AWG	0.080 in.	2.320 in.	2447 lbs/Mft	12103 lbs	32.5 in.	385
		2.03 mm	59 mm	3642 kg/km	5490 kg	825 mm	
750 kcmil	1/0 AWG	0.080 in.	2.523 in.	2934 lbs/Mft	15568 lbs	35.3 in.	435
		2.03 mm	64.1 m	4367 kg/km	7062 kg	897 mm	

AC90 – ALUMINUM CONDUCTOR

AC90 600V – 4 Aluminum Conductors

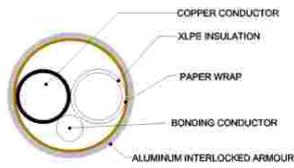
CONDUCTOR SIZE	GROUND SIZE	INSULATION THICKNESS	CABLE DIAMETER	CABLE WEIGHT	MAX. PULLING TENSION	MIN. BEND RADIUS	AMPACITY (A)
4 AWG	6 AWG	0.045 in.	0.937 in.	405 lbs/Mft	1109 lbs	13.1 in.	60
		1.14 mm	23.9 mm	603 kg/km	503 kg	333 mm	
2 AWG	6 AWG	0.045 in.	1.070 in.	472 lbs/Mft	1763 lbs	15.0 in.	80
		1.14 mm	27.2 mm	702 kg/km	799 kg	381 mm	
1 AWG	4 AWG	0.055 in.	1.260 in.	591 lbs/Mft	2203 lbs	17.6 in.	92
		1.40 mm	32.0 mm	879 kg/km	999 kg	448 mm	

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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AC90 – COPPER CONDUCTOR



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CONSTRUCTION

Conductor

Solid Soft Copper, ASTM B3

Insulation

Cross-linked Polyethylene (XLPE)
CSA Type XL 90°C dry/wet 600V
Halogen-Free.

Bonding Conductor

Solid ASTM B3 Soft Bare Copper

Armour

Aluminum (AIA) or Galvanized Steel (SIA)
Interlock Armour

Sheath Colour

- 2Core: Black, White
- 2Core: Black, Red
- 3Core: Black, White, Red
- 4Core: Black, White, Red and Blue

AC90 – COPPER CONDUCTOR

AC90 600V – 2 Copper Conductors (Black/White)

NO. OF CONDUCTORS	CONDUCTOR SIZE	BARE BONDING CONDUCTOR SIZE	INSULATION THICKNESS	CABLE DIAMETER	CABLE WEIGHT	MAX. PULLING TENSION	MIN. BEND RADIUS	AMPACITY (A)
2	14 AWG	14 AWG	0.030 in	0.430 in	81 lbs/Mft	66 lbs	6.0 in	25
			0.76 mm	10.9 mm	120 kg/km	30 kg	151 mm	
2	12 AWG	14 AWG	0.030 in	0.454 in	99 lbs/Mft	104 lbs	6.4 in	30
			0.76 mm	11.5 mm	148 kg/km	47 kg	164 mm	
2	10 AWG	12 AWG	0.030 in	0.512 in	138 lbs/Mft	166 lbs	6.9 in	40
			0.76 mm	13.0 mm	206 kg/km	75 kg	174 mm	

AC90 600V – 2 Copper Conductors (Black/Red)

NO. OF CONDUCTORS	CONDUCTOR SIZE	BARE BONDING CONDUCTOR SIZE	INSULATION THICKNESS	CABLE DIAMETER	CABLE WEIGHT	MAX. PULLING TENSION	MIN. BEND RADIUS	AMPACITY (A)
2	14 AWG	14 AWG	0.030 in	0.430 in	80 lbs/Mft	66 lbs	6.02 in	20
			0.76 mm	10.9 mm	120 kg/km	30 kg	153 mm	
2	12 AWG	12 AWG	0.030 in	0.454 in	99 lbs/Mft	104 lbs	6.36 in	24
			0.76 mm	11.6 mm	148 kg/km	47 kg	161 mm	
2	10 AWG	12 AWG	0.030 in	0.512 in	138 lbs/Mft	166 lbs	7.17 in	32
			0.76 mm	13.0 mm	206 kg/km	75 kg	182 mm	

AC90 – COPPER CONDUCTOR

AC90 600V – 3 Copper Conductors

NO. OF CONDUCTORS	CONDUCTOR SIZE	GROUND SIZE	INSULATION THICKNESS	CABLE DIAMETER	CABLE WEIGHT	MAX PULLING TENSION	MIN. BEND RADIUS	AMPACITY (A)
3	14/1 AWG	14/1 AWG	0.030 in.	0.445 in.	105 lbs/Mft	99 lbs	6.2 in.	25
			0.76 mm	11.3 mm	156 kg/km	45 kg	158 mm	
3	12/1 AWG	14/1 AWG	0.030 in.	0.490 in.	130 lbs/Mft	157 lbs	6.9 in.	30
			0.76 mm	12.4 mm	193 kg/km	71 kg	174 mm	
3	10/1 AWG	12/1 AWG	0.030 in.	0.535 in.	182 lbs/Mft	249 lbs	7.5 in.	40
			0.76 mm	13.6 mm	271 kg/km	113 kg	190 mm	
3	8/7 AWG	10/7 AWG	0.045 in.	0.714 in.	309 lbs/Mft	418 lbs	10.0 in.	55
			1.14 mm	18.1 mm	460 kg/km	190 kg	254 mm	
3	6/7 AWG	8/7 AWG	0.045 in.	0.770 in.	417 lbs/Mft	702 lbs	10.8 in.	75
			1.14 mm	19.6 mm	621 kg/km	318 kg	274 mm	
3	4/7 AWG	8/7 AWG	0.045 in.	0.940 in.	601 lbs/Mft	1193 lbs	13.2 in.	95
			1.14 mm	23.9 mm	894 kg/km	541 kg	334 mm	
3	3/7 AWG	6/7 AWG	0.045 in.	0.990 in.	721 lbs/Mft	1622 lbs	13.9 in.	115
			1.14 mm	25.1 mm	1073 kg/km	736 kg	352 mm	
3	2/7 AWG	6/7 AWG	0.045 in.	1.040 in.	891 lbs/Mft	1922 lbs	14.6 in.	130
			1.14 mm	26.4 mm	1326 kg/km	872 kg	370 mm	

AC90 – COPPER CONDUCTOR

AC90 600V – 4 Copper Conductors

NO. OF CONDUCTORS	CONDUCTOR SIZE	GROUND SIZE	INSULATION THICKNESS	CABLE DIAMETER	CABLE WEIGHT	MAX PULLING TENSION	MIN. BEND RADIUS	AMPACITY (A)
4	14 AWG	14 AWG	0.030 in.	0.490 in.	130 lbs/Mft	131 lbs	6.9 in.	20
			0.76 mm	12.4 mm	193 kg/km	60 kg	174 mm	
4	12 AWG	14 AWG	0.030 in.	0.535 in.	166 lbs/Mft	209 lbs	7.5 in.	24
			0.76 mm	13.6 mm	247 kg/km	95 kg	190 mm	
4	10 AWG	12 AWG	0.030 in.	0.630 in.	232 lbs/Mft	332 lbs	8.8 in.	32
			0.76 mm	16.0 mm	345 kg/km	150 kg	224 mm	

SOUTH CABLE

AC90 – COPPER CONDUCTOR

ISO-AC90 600V – Copper Conductors – Isolated Circuit

CONDUCTOR COUNT	CONDUCTOR SIZE	INS. GROUND SIZE	GROUND SIZE	INSULATION THICKNESS	ARMOUR O.D.	CABLE WEIGHT	MAX. PULLING TENSION	MIN. BEND RADIUS	AMPACITY (A)
2	14 AWG	14 AWG	14 AWG	0.030 in.	0.440 in.	105 lbs/Mft	66 lbs	6.2 in.	25
				0.76 mm	11.2 mm	156 kg/km	30 kg	156 mm	
2	12 AWG	12 AWG	14 AWG	0.030 in.	0.485 in.	138 lbs/Mft	104 lbs	6.8 in.	30
				0.76 mm	12.3 mm	206 kg/km	47 kg	172 mm	
2	10 AWG	10 AWG	12 AWG	0.030 in.	0.533 in.	186 lbs/Mft	166 lbs	7.5 in.	40
				0.76 mm	13.5 mm	277 kg/km	75 kg	190 mm	
3	12 AWG	12 AWG	14 AWG	0.030 in.	0.522 in.	165 lbs/Mft	157 lbs	7.5 in.	24
				0.76 mm	13.3 mm	245 kg/km	71 kg	190 mm	
3	10 AWG	10 AWG	12 AWG	0.030 in.	0.591 in.	232 lbs/Mft	249 lbs	8.3 in.	32
				0.76 mm	15.0 mm	346 kg/km	113 kg	210 mm	

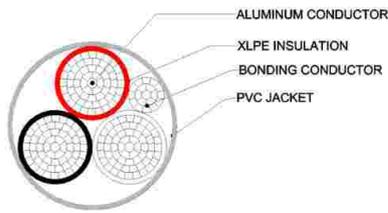
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SOUTH
CABLE

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NMD90 300V – Aluminum Conductors



APPLICATION

For exposed and concealed wiring in dry or damp locations.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

300V

Temperature Rating

-25°C to 90°C

STANDARDS

CSA C22.2 No. 48, Nonmetallic sheathed cable

CSA C22.2 No. 38, Thermoset-insulated wires and cables

CSA C22.2 No. 2556, FT1 Vertical Propagation Flame Test

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SUSTAINABILITY COMMITMENT

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CONSTRUCTION

Conductor

Stranded AA-8000 Series Aluminum Alloy (ACM)

Insulation

Cross-linked Polyethylene (XLPE)

Bonding Conductor:

Stranded AA-8000 Series Aluminum Alloy (ACM)

Cable Assembly:

All conductors are cabled together

Jacket:

Polyvinyl Chloride (PVC)

Sheath Colour

● 3Core: Black, White, Red

NMD90 300V – Aluminum Conductors

NMD90 Aluminum 300V CSA

Power Conductor		Bonding Conductor	Insulation Thickness		Jacket Thickness		Cable Overall Diameter		Cable Weight		Ampacity
Conductor Count	AWG	AWG	in	mm	in	mm	in	mm	lbs	kg	A
8	10	10/1	0.045	1.14	0.045	1.1	0.535	13.6	123	183	45
6	8	10/1	0.045	1.14	0.045	1.1	0.651	16.5	183	272	55
4	6	8/7	0.045	1.14	0.060	1.5	0.776	19.7	275	409	75
2	6	8/7	0.045	1.14	0.080	2.0	0.936	23.8	404	601	100

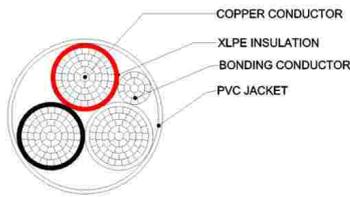
NOTE: Ampacity values based on CE Code Part I 2024, Table 4. Correction factors may apply
Dimensions and weights are nominal and subject to change without notice.

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NMD90 300V – Copper Conductors



APPLICATION

For exposed and concealed wiring in dry or damp locations.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

300V

Temperature Rating

-25°C to 90°C

STANDARDS

CSA C22.2 No. 48, Nonmetallic sheathed cable

CSA C22.2 No. 38, Thermoset-insulated wires and cables

CSA C22.2 No. 2556, FT1 Vertical Propagation Flame Test

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CONSTRUCTION

Conductor

Stranded Bare Soft Copper, ASTM B8

Insulation

Cross-linked Polyethylene (XLPE)

Bonding Conductor:

Stranded Bare Soft Copper, ASTM B8

Cable Assembly:

All conductors are cabled together

Jacket:

Polyvinyl Chloride (PVC)

Sheath Colour

- 3Core: Black, White, Red

NMD90 300V – Copper Conductors

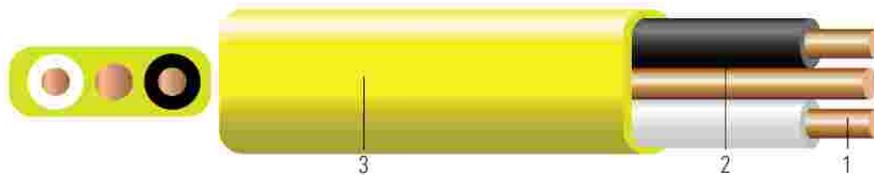
NMD90 Copper 300V CSA

Power Conductor		Bonding Conductor	Insulation Thickness		Jacket Thickness		Cable Overall Diameter		Cable Weight		Ampacity
Conductor Count	AWG	AWG	in	mm	in	mm	in	mm	lbs	kg	A
2	8/7	10/1	0.045	1.14	0.045	1.1	0.498	12.6	193	287	55
2	6/7	10/1	0.045	1.14	0.045	1.1	0.608	15.4	287	426	75
2	4/7	8/7	0.045	1.14	0.060	1.5	0.750	19.1	431	641	95
2	3/7	8/7	0.045	1.14	0.080	2.0	0.844	21.4	558	831	115
2	2/7	8/7	0.045	1.14	0.080	2.0	0.906	23.0	662	985	130
3	8/7	10/1	0.045	1.14	0.045	1.1	0.529	13.4	256	381	55
3	6/7	10/1	0.045	1.14	0.045	1.1	0.647	16.4	383	570	75
3	4/7	8/7	0.045	1.14	0.060	1.5	0.797	20.3	586	873	95
3	3/7	8/7	0.045	1.14	0.080	2.0	0.895	22.7	747	1112	115
3	2/7	8/7	0.045	1.14	0.080	2.0	0.962	24.4	899	1338	130

NOTE: Ampacity values based on CE Code Part I 2024, Table 4. Correction factors may apply
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NMD90 300V – Copper Conductors



APPLICATION

NMD90 cables may be used for both exposed work in dry locations or concealed work in dry or damp locations. The maximum allowable conductor temperature is 90°C. The minimum recommended installation temperature is -25°C for two-conductor cables and -10°C for three-conductor cables (with suitable handling procedures). Material should be properly stored above 0°C for 24 hours prior to installation. The maximum voltage rating for all intended applications is 300 volts.

Consult the Canadian Electrical Code for further information related to applications

CHARACTERISTICS

Voltage Rating U_0/U (Um)

300V

Temperature Rating

-25°C to 90°C

STANDARDS

ASTM B3 Soft or Annealed Copper Wire

- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA C22.2 No. 48 non-metallic sheathed cable
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- FT1 Flame Test (1,706 BTU/Hr nominal - Vertical Wire Flame Test)

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CONSTRUCTION

Conductor

Bare copper per ASTM B3. Sizes #14 AWG - #10 AWG are solid. Sizes #8 AWG - #2 AWG are Class B compressed stranded per ASTM B8

Insulation

All phases are insulated with Polyvinyl Chloride (PVC) with Nylon Sheath

Jacket

Polyvinyl Chloride (PVC) jacket

Sheath Colour

- 2/C: Black, White
- 3/C: Black, White, Red

NMD90 300V – Copper Conductors

SOUTH CABLE Weights and Measurements

Cond. Size AWG/ Kcmil	Conductor Number	Diameter Over Conductor (inch)	Conductor Stranding	Thickness Insulation (mils)	Ground Size (No.xAWG)	Thickness Jacket (mil)	Approx. OD (inch)	Weight (lbs/1000ft)	Copper Weight Overall (lbs/1000ft)
14	2	0.064	Solid	35	1x14	30	0.196x0.396	37	69
14	2	0.064	Solid	35	1x14	30	0.196x0.396	37	69
14	2	0.064	Solid	35	1x14	30	0.196x0.396	37	69
14	3	0.064	Solid	35	1x14	30	0.388	50	90
12	2	0.08	Solid	35	1x14	30	0.213x0.430	51	88
12	2	0.08	Solid	35	1x14	30	0.213x0.430	51	88
12	3	0.08	Solid	35	1x14	30	0.428	72	118
10	2	0.101	Solid	35	1x12	30	0.234x0.488	82	124
10	2	0.101	Solid	35	1x12	30	0.234x0.488	82	124
10	3	0.101	Solid	35	1x12	30	0.479	115	168
8	2	0.141	7	40	1x10	45	0.316x0.694	133	210
8	3	0.141	7	40	1x10	45	0.635	186	283
6	2	0.177	7	50	1x8	45	0.374x0.800	213	339
6	3	0.177	7	50	1x8	45	0.775	297	433
4	2	0.225	7	50	1x8	60	0.839	311	463
3	2	0.252	7	50	1x6	80	0.937	410	610
3	3	0.252	7	50	1x6	80	1.029	574	822
2	3	0.282	7	50	1x6	80	0.991	702	862

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NMD90 300V – Copper Conductors

Electrical and Engineering Data

Cond. Size AWG/ Kcmil	Conductor Number	Min. Bend Radius (Inches)	DC Resistance at 25°C (Ω /1000ft)	AC Resistance at 75°C (Ω /1000ft)	Inductive Reactance @ 60Hz (Ω /1000ft)	Allowable Ampacity Raceway 75°C (Amp)	Allowable Ampacity Raceway 90°C (Amp)
14	2	1.6	2.631	3.17	0.058	20	25
14	2	1.6	2.631	3.17	0.058	20	25
14	2	1.6	2.631	3.17	0.058	20	25
14	3	1.5	2.631	3.17	0.058	20	25
12	2	1.6	1.662	2.002	0.054	25	30
12	2	1.6	1.662	2.002	0.054	25	30
12	3	1.7	1.662	2.002	0.054	25	30
10	2	2	1.04	1.253	0.05	35	40
10	2	2	1.04	1.253	0.05	35	40
10	3	1.9	1.04	1.253	0.05	35	40
8	2	2.8	0.653	0.786	0.052	50	55
8	3	2.5	0.653	0.786	0.052	50	55
6	2	3.2	0.411	0.495	0.051	65	75
6	3	3.1	0.411	0.495	0.051	65	75
4	2	3.3	0.258	0.31	0.048	85	95
3	2	3.7	0.205	0.246	0.047	100	115
3	3	5.1	0.205	0.246	0.047	100	115
2	3	3.9	0.162	0.195	0.045	115	130

All dimensions are nominal and subject to normal manufacturing tolerances

Cable marked with this symbol is a standard stock item.

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THHN / THWN-2 Copper Electric Wire PNS35-1



APPLICATION

General purpose building wire for services feeders and branch circuits. Also used for wiring of machine tools (stranded), appliances, and control circuits.

CHARACTERISTICS

Voltage Rating U_0/U (Um)

600V

Temperature Rating

90°C dry / 75°C wet

STANDARDS

PNS35-1

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

Annealed copper wire: Conforming to requirements of PNS 260 for solid conductor or PNS 1207 for stranded conductors.

Insulation

PVC conforming to the requirements of PNS 661

Sheath

Tough polyamide (Nylon)

Sheath Colour

- Available colors are red, white, blue, green, black, etc.

THHN / THWN-2 Copper Electric Wire PNS35-1

THHN/THWN, 90°C Dry/75°C Wet, 600V wire

Nominal sectional area mm ²	Conductor			Minimum insulation thickness, mm		Minimum nylon thickness mm	Approx. overall diameter mm
	Composition		Outside diameter mm	Average	At any point		
	Number of wires	Wire diameter mm					
2	1	1.6	1.6	0.4	0.34	0.1	2.6
	7	0.6	1.8				2.8
3.5	1	2	2	0.4	0.34	0.1	3
	7	0.8	2.4				3.4
5.5	1	2.6	2.6	0.5	0.34	0.1	3.8
	7	1	3				4.2
8	1	3.2	3.2	0.8	0.68	0.13	5.06
	7	1.2	3.6				5.46
14	7	1.6	4.8	0.8	0.68	0.13	6.66
22	7	2	6	1	0.85	0.15	8.3
30	7	2.3	6.9	1	0.85	0.15	9.2
38	19	1.6	8	1.3	1.11	0.18	10.96
50	19	1.8	9	1.3	1.11	0.18	11.96
60	19	2	10	1.3	1.11	0.18	12.96
80	19	2.3	11.5	1.3	1.11	0.18	14.46
100	19	2.6	13	1.3	1.11	0.18	15.96
125	37	2.1	14.7	1.6	1.36	0.18	18.26
150	37	2.3	16.1	1.6	1.36	0.2	19.7
175	37	2.47	17.3	1.6	1.36	0.2	20.9
200	37	2.6	18.2	1.6	1.36	0.2	21.8
250	37	2.95	20.65	1.6	1.36	0.2	24.25
250	61	2.3	20.7				24.3
300	61	2.52	22.7	1.8	1.53	0.23	26.76
325	61	2.6	23.4	1.8	1.53	0.23	27.46
375	61	2.82	25.3	1.8	1.53	0.23	29.36
400	61	2.9	26.1	1.8	1.53	0.23	30.16
500	61	3.2	28.8	1.8	1.53	0.23	32.86

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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THHN / THWN-2 Copper Electric Wire



APPLICATION

Low voltage electrical energy distribution; for use in electrical wiring of buildings, feeder circuits, branches and secondary industrial, commercial and residential indoor networks. Special for installations in abrasive sites or sites contaminated with oil, grease, gasoline, and other chemical substances. They are suitable for installation in ducts, pipes, boards, and cable trays according to RETIE article 20.3 literal J, from 12 AWG gauge and larger.

CHARACTERISTICS

Voltage Rating U_o/U (U_m)

600V

Temperature Rating

90°C dry and wet places

STANDARDS

ASTM B 3; ASTM B 8; NTC 1332; NTC 307; NTC 359; UL 83

THE CABLE TEST

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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

BSoft copper conductor, concentric stranded, Class B.

Insulation

Polyvinyl chloride (PVC), flame retardant (FR), resistant to heat, abrasion and humidity, resistant to sunlight (SR) in black, free of hazardous substances (RoHS).

Sheath

External cover in polyamide (nylon), resistant to gasoline and oils (GR II).

Sheath Colour

● Red/Black/White/Blue/Green/Pink etc.

THHN / THWN-2 Copper Electric Wire

AC90 600V – 3 Aluminum Conductors

CONDUCTOR SIZE	GROUND SIZE	INSULATION THICKNESS	CABLE DIAMETER	CABLE WEIGHT	MAX PULLING TENSION	MIN. BEND RADIUS	AMPACITY (A)
6 AWG	8 AWG	0.045 in.	0.800 in.	243 lbs/Mft	526 lbs	11.2 in.	55
		1.14 mm	20.3 mm	361 kg/km	239 kg	285 mm	
4 AWG	6 AWG	0.045 in.	0.880 in.	286 lbs/Mft	832 lbs	12.3 in.	75
		1.14 mm	22.4 mm	426 kg/km	377 kg	313 mm	
2 AWG	6 AWG	0.045 in.	1.030 in.	392 lbs/Mft	1322 lbs	14.4 in.	100
		1.14 mm	26.2 mm	583 kg/km	600 kg	366 mm	
1 AWG	4 AWG	0.055 in.	1.160 in.	477 lbs/Mft	1653 lbs	16.2 in.	115
		1.40 mm	29.5 mm	710 kg/km	750 kg	413 mm	
1/0 AWG	4 AWG	0.055 in.	1.250 in.	622 lbs/Mft	2081 lbs	17.5 in.	135
		1.40 mm	31.8 mm	925 kg/km	944 kg	445 mm	
2/0 AWG	4 AWG	0.055 in.	1.320 in.	738 lbs/Mft	2696 lbs	18.5 in.	150
		1.40 mm	33.5 mm	1099 kg/km	1223 kg	469 mm	
3/0 AWG	4 AWG	0.055 in.	1.420 in.	843 lbs/Mft	3375 lbs	19.9 in.	175
		1.40 mm	36.1 mm	1254 kg/km	1531 kg	505 mm	
4/0 AWG	4 AWG	0.055 in.	1.530 in.	994 lbs/Mft	4199 lbs	21.4 in.	205
		1.40 mm	38.9 mm	1479 kg/km	1905 kg	544 mm	

SOUTH CABLE

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