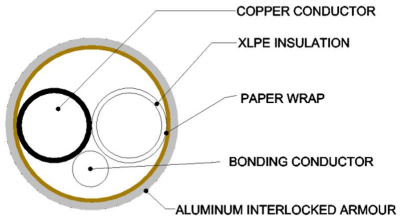
SOUTH CABLE

AC90 - COPPER CONDUCTOR





APPLICATION

AC90 armoured 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 Uo/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 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
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 (AlA) or Galvanized Steel (StA) Interlock Armour

Sheath Colour

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

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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 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	

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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	

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	

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

SOUTH CABLE

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in 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.

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