AL ARMOR CSA AC90 600V

Copper Conductors 600 Volts RW90 Type AC90

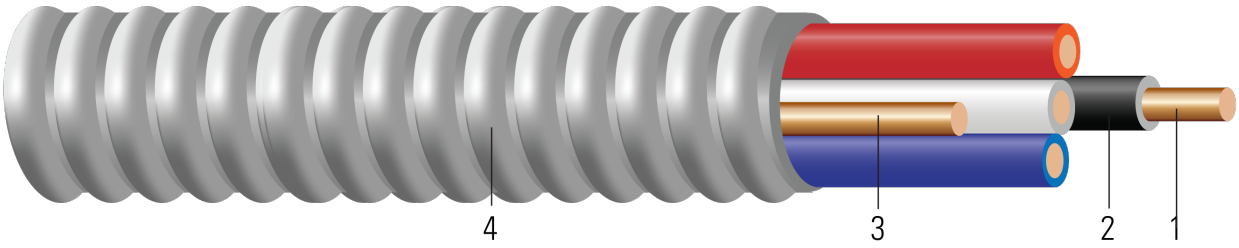


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid copper per ASTM B3
2. **Insulation:** All phases are insulated with Cross-Linked Polyethene (XLPE) RW90
3. **Bond Wire:** Solid copper
4. **Armor:** Aluminum Interlocked Armor

APPLICATIONS AND FEATURES:

Southwire's AC90 Cable are designed for exposed and concealed wiring such as ventilated cable trays and other dry locations, where the maximum conductor temperature will not exceed 90°C. Minimum recommended installation temperature: -10°C (with suitable handling procedures).

- Reduces installation costs when compared to pulling separate power and control/signal/data cables
- All cables under one armor decreases the likelihood of damage - eliminating costly callbacks for troubleshooting and repair
- Yellow Stripe Identification - for easy identification when installed with other cables
- CSA 90°C Max. Insulation Temperature rating
- CSA -25°C Cold Temperature Rating
- CSA -10°C Minimum recommended cold Installation Temperature
- Class - C572101 - Control Cables
- CSA Certification File: LL90458 - Certified as ACIC for Control and Instrumentation

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- CSA C22.2 No. 239 Control and instrumentation cables

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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Diameter Over Armor	Approx. OD	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	inch	lbs/1000ft	lbs/ 1000ft
14 AWG | Solid											
552226	14	2	BK,WE	0.064	Solid	30	1x14	0.452	0.452	37	90
557730	14	3	BK,WE,GN	0.064	Solid	30	1x14	0.472	0.472	49	110
552227	14	3	BK,WE,RD	0.064	Solid	30	1x14	0.474	0.474	49	109
557885	14	4	BK,WE,RD,BE	0.064	Solid	30	1x14	0.519	0.519	62	131
12 AWG | Solid											
552228	12	2	BK,WE	0.08	Solid	30	1x14	0.485	0.485	51	110
557775	12	2	BK,RD	0.08	Solid	30	1x14	0.485	0.485	51	111
552229	12	3	BK,WE,RD	0.08	Solid	30	1x14	0.508	0.508	71	137
557539	12	3	BK,WE,GN	0.08	Solid	30	1x14	0.524	0.524	71	139
557472	12	4	BK,WE,RD,BE	0.08	Solid	30	1x14	0.543	0.543	91	166
10 AWG | Solid											
552230	10	2	BK,WE	0.101	Solid	30	1x12	0.527	0.527	82	148
552231	10	3	BK,WE,RD	0.101	Solid	30	1x12	0.553	0.553	114	188
557541	10	4	BK,WE,BE,RD	0.101	Solid	30	1x12	0.604	0.604	145	233
552233	8	3	BK,WE,RD	0.141	7	45	1x10	0.705	0.705	183	315
552234	6	3	BK,WE,RD	0.177	7	60	1x8	0.847	0.847	294	480
643549	3	3	BK,WE,RD	0.252	7	45	1x8	1.038	1.038	568	809

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

* Ampacities based upon 2021 Canadian Electrical Code, Part I (CEC) Table 2 and do not take into account the overcurrent protection limitations in CEC Rule 14-104(2) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding). Also, see CEC Rules 4-004 and 4-006 for additional requirements."

* Inductive impedance is based on non-ferrous conduit with one diameter spacing.

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

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Table 2 – Electrical and Engineering Data

Cond. Size	Conductor Number	Min. Bend Radius	Max Pull Tension	DC Resistance at 25°C	AC Resistance at 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity Raceway 60°C	Allowable Ampacity Raceway 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Lbs	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
14 AWG | Solid									
14	2	3.2	65	2.631	3.17	0.058	15	20	25
14	3	3.3	98	2.631	3.17	0.058	15	20	25
14	3	3.3	98	2.631	3.17	0.058	15	20	25
14	4	3.6	105	2.631	3.17	0.058	12	16	20
12 AWG | Solid									
12	2	3.4	104	1.662	2.002	0.054	20	25	30
12	2	3.4	104	1.662	2.002	0.054	20	25	30
12	3	3.6	156	1.662	2.002	0.054	20	25	30
12	3	3.7	156	1.662	2.002	0.054	20	25	30
12	4	3.8	167	1.662	2.002	0.054	16	20	24
10 AWG | Solid									
10	2	3.7	166	1.04	1.253	0.05	30	35	40
10	3	3.9	249	1.04	1.253	0.05	30	35	40
10	4	4.2	265	1.04	1.253	0.05	24	28	32
8	3	4.9	396	0.653	0.786	0.052	40	50	55
6	3	5.9	629	0.411	0.495	0.051	55	65	75
3	3	7.3	1262	0.205	0.246	0.047	85	100	115

* Ampacities based upon 2021 Canadian Electrical Code, Part I (CEC) Table 2 and do not take into account the overcurrent protection limitations in CEC Rule 14-104(2) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding). Also, see CEC Rules 4-004 and 4-006 for additional requirements."
* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

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