Alumaflex™ Riser MC™ THHN/THWN-2 Aluminum Conductor Feeder Cable

AlumaFlex™ THHN/THWN-2 Insulated Singles with 8000 series Triple E™ Aluminum Alloy. Bare AlumaFlex™ Aluminum Alloy Grounding Conductor. UL Listed. 600 Volts. Binder Sheath for Continuous Conductor Support. Lightweight Aluminum Interlocked Armor.

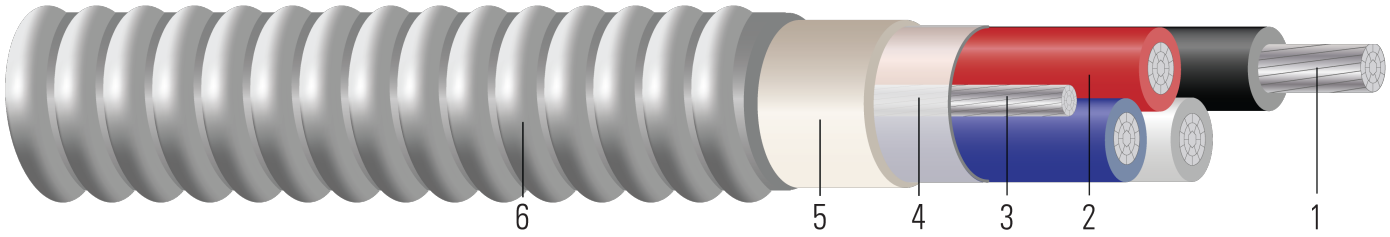

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B801 or B836
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath Type THHN/THWN-2
3. **Ground:** Bare aluminum ground
4. **Binder:** Mylar tape
5. **Polymeric Binder:** Polymeric binder sheath under armor for continuous conductor support
6. **Armor:** Aluminum Interlocked Armor

APPLICATIONS AND FEATURES:

Southwire Armorlite® Type MC Riser Feeder cable is suitable for use as follows:

- Riser cable, vertical applications
- Branch, feeder and service power distribution in commercial, industrial, institutional, and multi-residential buildings.
- Fished or embedded in plaster.
- Concealed or exposed installations.
- Environmental air-handling spaces per NEC 300.22 (C).
- Places of Assembly per NEC 518.4 and theaters per NEC 520.5.
- Installation in cable tray and approved raceways, or as aerial cable on a messenger.
- Under raised floors for information technology equipment conductors and cables per NEC 645.5.
- Class I Div. 2, Class II Div 2, & Class III Div. 1 Hazardous Locations.
- Conductors are Type THHN/THWN-2 rated 90ºC Wet and Dry. Unjacketed MC cables are not rated for wet locations.

Southwire Armorlite® Type MC Riser Feeder Cable - meets or exceeds the following requirements:

- UL Online Product Guide Info - Metal-Clad Cable (PJAZ) (www.ul.com)
- Federal Specification A-A59544 (formerly J-C-30B)
- NFPA 70 (National Electrical Code), Article 330
- Listed for use in UL 1, 2 and 3 Hour Through Penetration Firestop Systems

SPECIFICATIONS:

- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B801 Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy

Copyright © 2026 Southwire Company, LLC. All Rights Reserved
UPDATED: Dec. 31, 2024, 11:08 p.m.UTC REVISION: 1.000.008

- ASTM B836 Compact Rounded Stranded Aluminum Conductors
- UL 83 Thermoplastic Insulated Wires and Cables
- UL 1569 Metal-Clad Cables
- UL 1479 Standard for Safety Fire Tests of Penetration Firestops
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- Buy American: Compliant with Buy American Requirements, found in 49 U.S.C. § 5323(j); specify “Made in the USA Only!” when ordering to ensure your project receives American made products.

SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE {UL} X/C XX AWG COMPACT 8000 AL. --- TRIPLE E ALLOY AA8176 THHN/THWN-2 CDRS 600V GW 1 X X AWG 3E AL TYPE MC FOR CT USE.

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Diameter Over Armor	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	lbs/1000ft
583766◊	2/0	3	BK,RD,WE	0.376	1	50	1x4	1.765	1105
583913◊	3/0	3	BK,RD,WE	0.423	18	50	1x4	1.879	1261
583917◊	4/0	3	BK,RD,WE	0.475	1	50	1x2	1.943	1457
599417	4/0	4	BK,WE,RD,BE	0.475	1	50	1x2	2.106	1811
573432◊	250	3	BN,OE,YW	0.52	1	60	1x3/0	1.998	1708
580637◊	250	3	BN,OE,YW	0.52	1	60	1x1	1.998	1628
647493	250	4	BN,OE,YW,GY	0.52	1	60	1x1	2.243	2106
646549◊	300	3	BN,OE,YW	0.57	1	60	1x1	2.106	1875
677601	300	4	BK,RD,BE,WE	0.57	1	60	1x2	2.287	2295
677621◊	350	3	BN,OE,YW	0.616	1	60	1x1	2.205	2028
575252	350	4	BN,OE,YW,GY	0.616	1	60	1x1/0	2.398	2584
678297	350	4	BK,WE,RD,BE	0.616	1	60	1x1	2.398	2563
597913◊	400	3	BN,OE,YW	0.659	1	60	1x3/0	2.373	2387
677373	400	3	BN,OE,YW	0.659	1	60	1x1/0	2.334	2303
573254◊	500	3	BN,OE,YW	0.736	1	60	1x250	2.688	2878
640673	500	4	BN,OE,YW,GY,GN	0.736	1	60	1x2/0	2.8	3444
643956	500	4	BK,RD,BE,WE,GN	0.736	1	60	1x3/0	2.688	3444
641550◊	600	3	BN,OE,YW	0.813	1	70	1x4/0	2.661	3173
674367	600	4	BN,OE,YW,GY,GN	0.813	1	70	1x2/0	2.907	3995
640676	600	4	BN,OE,YW,GY,GN	0.813	1	70	1x350	3.073	4303
562700◊	750	3	BN,OE,YW	0.908	53	70	1x3/0	2.884	3682
641914◊	750	3	BN,OE,YW	0.908	1	70	1x750	3.156	4404
649342	750	4	BN,OE,YW,GY,GN	0.908	1	70	1x3/0	3.198	4797
643253◊	4	4	BN,OE,YW,GY	0.213	18	40	1x6	1.248	604
649354◊	4	4	BK,RD,BE,WE	0.213	1	40	1x8	1.298	1021
641362◊	2	4	BK,RD,BE,WE	0.268	18	40	1x4	1.398	786
597542◊	1	4	BK,WE,RD,BE	0.299	18	50	1x4	1.613	1000
583762◊	1/0	4	BN,OE,YW,GY	0.336	1	50	1x4	1.818	1206
596279◊	2/0	4	BK,WE,RD,BE	0.376	1	50	1x4	1.768	1278
456832◊	2/0	4	BK,RD,BE,WE	0.376	1	50	1x4	1.82	1329
593349◊	3/0	4	BK,WE,RD,BE	0.423	1	50	1x4	2.034	1537
671853◊	4/0	4	BK,RD,BE,WE	0.475	1	50	1x1/0	2.174	1842
581869◊	4/0	5	BN,OE,YW,GY	0.475	1	50	1x1	2.092	1859
561133◊	250	4	BK,RD,BE,WE	0.52	1	60	1x1	2.166	2038
565212◊	250	4	BN,OE,YW,GY	0.52	1	60	1x1	2.166	2051
641535◊	300	4	BK,RD,BE,WE	0.57	1	60	1x1	2.287	2329
561135◊	350	4	BK,WE,RD,BE	0.616	1	60	1x1/0	2.398	2600
649344◊	350	4	BN,OE,YW,GY	0.616	1	60	1x2	2.428	2588
580634◊	400	4	BN,OE,YW,GY	0.659	1	60	1x3/0	2.502	2897
561136◊	500	4	BK,RD,BE,WE	0.736	1	60	1x3/0	2.688	3420

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Diameter Over Armor	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	lbs/1000ft
649347◊	500	4	BN,OE,YW,GY	0.736	1	60	1x1	2.728	3362
564942◊	500	4	BN,OE,YW,GY	0.736	1	60	1x3/0	2.688	3420
567308◊	600	4	BN,OE,YW,GY	0.813	1	70	1x400	3.11	4372
456861◊	600	4	RD,BE,WE,GN	0.813	1	70	1x600	3.206	4626
643618◊	750	4	BK,RD,BE,WE	0.908	1	70	1x750	3.466	5635
643936◊	750	4	BK,RD,BE,WE	0.908	1	70	1x600	3.45	5409
561137◊	750	4	BK,RD,BE,WE	0.908	1	70	1x3/0	3.16	4748
580975◊	900	4	BN,OE,YW,GY	0.999	1	70	1x250	3.393	5595

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
* Strand count meets minimum number per ASTM
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.

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

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 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Lbs	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
2/0	3	12.4	2395	0.133	0.166	0.043	135	150
3/0	3	13.2	3020	0.105	0.131	0.042	155	175
4/0	3	13.6	3808	0.084	0.105	0.041	180	205
4/0	4	14.7	5078	0.084	0.105	0.041	144	164
250	3	14	4500	0.07	0.087	0.041	205	230
250	3	14	4500	0.07	0.087	0.041	205	230
250	4	15.7	6000	0.07	0.087	0.041	164	184
300	3	14.7	5400	0.059	0.074	0.041	230	260
300	4	16	7200	0.059	0.074	0.041	184	208
350	3	15.4	6300	0.051	0.064	0.04	250	280
350	4	16.8	8400	0.051	0.064	0.04	200	224
350	4	16.8	8400	0.051	0.064	0.04	200	224
400	3	16.6	7200	0.044	0.055	0.04	270	305
400	3	16.3	7200	0.044	0.055	0.04	270	305
500	3	18.8	9000	0.036	0.045	0.039	310	350
500	4	19.6	12000	0.036	0.045	0.039	248	280
500	4	18.8	12000	0.036	0.045	0.039	248	280
600	3	18.6	10800	0.03	0.038	0.039	340	385
600	4	20.3	14400	0.03	0.038	0.039	272	308
600	4	21.5	14400	0.03	0.038	0.039	272	308
750	3	20.2	13500	0.023	0.03	0.038	385	435
750	3	22.1	13500	0.023	0.03	0.038	385	435
750	4	22.4	18000	0.023	0.03	0.038	308	348
4	4	8.7	1001	0.424	0.528	0.048	52	60
4	4	9.1	1001	0.424	0.528	0.048	52	60
2	4	9.8	1592	0.266	0.331	0.045	72	80
1	4	11.3	2008	0.211	0.263	0.046	80	92
1/0	4	12.7	2534	0.167	0.208	0.044	96	108
2/0	4	12.4	3194	0.133	0.166	0.043	108	120
2/0	4	12.7	3194	0.133	0.166	0.043	108	120
3/0	4	14.2	4027	0.105	0.131	0.042	124	140
4/0	4	15.2	5078	0.084	0.105	0.041	144	164
4/0	5	14.6	6348	0.084	0.105	0.041	144	164
250	4	15.2	6000	0.07	0.087	0.041	164	184
250	4	15.2	6000	0.07	0.087	0.041	164	184
300	4	16	7200	0.059	0.074	0.041	184	208
350	4	16.8	8400	0.051	0.064	0.04	200	224
350	4	17	8400	0.051	0.064	0.04	200	224
400	4	17.5	9600	0.044	0.055	0.04	216	244
500	4	18.8	12000	0.036	0.045	0.039	248	280

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

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 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Lbs	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
500	4	19.1	12000	0.036	0.045	0.039	248	280
500	4	18.8	12000	0.036	0.045	0.039	248	280
600	4	21.8	14400	0.03	0.038	0.039	272	308
600	4	22.4	14400	0.03	0.038	0.039	272	308
750	4	24.3	18000	0.023	0.03	0.038	308	348
750	4	24.2	18000	0.023	0.03	0.038	308	348
750	4	22.1	18000	0.023	0.03	0.038	308	348
900	4	23.8	21600	0.019	0.025	0.037	340	384

* Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.
* Ampacities have been adjusted for more than Three Current-Carrying Conductors.

Copyright © 2026 Southwire Company, LLC. All Rights Reserved