Armorlite® Type MC THHN/THWN Aluminum Conductor Feeder Cable 277/480V Colors

Aluminum THHN/THWN-2 Insulated Singles with 8000 series Triple E™ Aluminum Alloy. Bare AlumaFlex™ Aluminum Alloy Grounding Conductor. UL Listed. 600 Volts. Rated VW-1. Lightweight Aluminum Interlocked Armor.

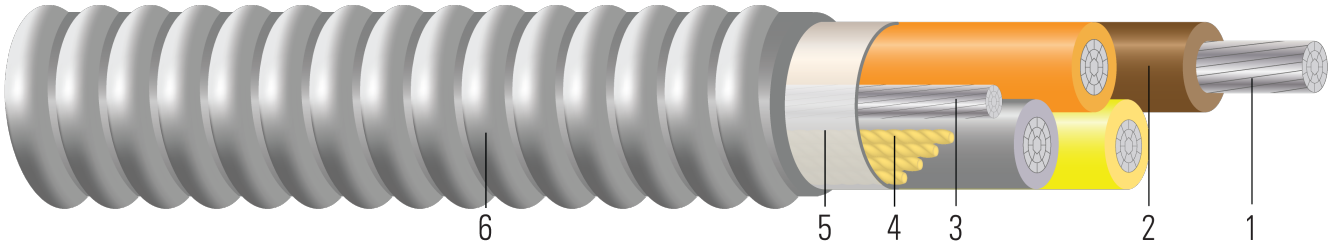


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B801or ASTM B836
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath Type THHN/THWN
3. **Ground:** Bare aluminum ground
4. **Filler:** Fillers as needed
5. **Binder:** Mylar tape
6. **Armor:** Aluminum Interlocked Armor

APPLICATIONS AND FEATURES:

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

- Feeder and service power distribution in commercial, industrial, institutional, and multi-residential buildings.
- Fished or embedded in plaster.
- Concealed or exposed installations.
- Suitable for power and lighting circuits.
- Places of Assembly per NEC 518.4 and theaters per NEC 520.5.
- Environmental air-handling spaces per NEC 300.22 (C).
- 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(D) & 645.5(E)
- Class I Div. 2, Class II Div 2, & Class III Div. 1 Hazardous Locations.
- Type THHN/THWN rated 90ºC Dry/ 75ºC Wet
- Anti-short bushings are not required for use with MC cable per NEC and UL

Southwire Armorlite® Type MC 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

Color Code

- 3/C: Brown, Orange, Yellow

Copyright © 2024 Southwire Company, LLC. All Rights Reserved

UPDATED: Dec. 11, 2023, 9:29 p.m.UTC REVISION: 1.000.002

- 4/C: Brown, Orange, Yellow, Gray

SPECIFICATIONS:

- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B801 Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy
- 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
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- RoHS Compliant Lead-Free, Silicone-Free
- 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:

E96627 {UL} TYPE MC AWG XX THHN OR THWN CDRS FOR USE IN CABLE TRAYS 600 VOLTS

Copyright © 2024 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
565427◊	1/0	3	BN/OE/YW	0.336	10	60	1x4	1.240	614
563370◊	2/0	3	BN/OE/GY	0.376	12	60	1x4	1.276	705
565429◊	2/0	3	BN/OE/YW	0.376	12	60	1x4	1.276	705
562811◊	3/0	3	BN/OE/YW	0.422	16	60	1x4	1.377	833
562708◊	4/0	3	BN/OE/YW	0.474	19	60	1x2	1.590	1087
561587◊	250	3	BN/OE/YW	0.520	22	70	1x2/0	1.735	1336
562816◊	250	3	BN/OE/YW	0.520	22	70	1x1	1.731	1292
562818◊	300	3	BN/OE/YW	0.569	21	70	1x1	1.843	1474
563052◊	350	3	BN/OE/YW	0.615	35	70	1x1	1.942	1651
562704◊	400	3	BN/OE/YW	0.659	35	70	1x3/0	2.035	1911
672216◊	400	3	BN/OE/YW	0.659	35	70	1x3/0 GG	2.190	1988
586227◊	500	3	BN/OE/YW	0.735	35	70	1x2/0	2.201	2226
586227◊	500	3	BN/OE/YW	0.735	35	70	1x2/0 GG	2.238	2276
586488◊	600	3	BN/OE/YW	0.812	41	80	1x400 GG	2.526	3125
573366◊	600	3	BN/OE/YW	0.812	41	80	1x400	2.662	2916
563046◊	750	3	BN/OE/YW	0.908	58	80	1x1/0	2.620	3121
563365◊	1/0	4	BN/OE/ YW/GY	0.336	10	60	1x4	1.304	778
563374◊	2/0	4	BN/OE/ YW/GY	0.376	12	60	1x4	1.400	918
559894◊	3/0	4	BN/OE/ YW/GY	0.422	16	60	1x4	1.614	1168
559896◊	4/0	4	BN/OE/ YW/GY	0.474	19	60	1x2	1.739	1414
559904◊	250	4	BN/OE/ YW/GY	0.520	22	70	1x1	1.901	1678
559907◊	300	4	BN/OE/ YW/GY	0.569	21	70	1x1	2.022	1933
559909◊	350	4	BN/OE/ YW/GY	0.615	35	70	1x1/0	2.106	2199
559911◊	400	4	BN/OE/ YW/GY	0.659	35	70	1x3/0	2.237	2491
559915◊	500	4	BN/OE/ YW/GY	0.735	34	70	1x3/0	2.423	2948
559917◊	600	4	BN/OE/ YW/GY	0.812	41	80	1x3/0	2.642	3508
559869◊	600	4	BN/OE/ YW/GY	0.812	41	80	1x400	2.781	3752
559919◊	750	4	BN/OE/ YW/GY	0.908	53	80	1x3/0	2.891	4227
593450	750	4	BN/OE/ YW/GY	0.908	53	80	1x350	3.196	4452
559866◊	900	4	BN/OE/ YW/GY	0.999	58	80	1x250	3.148	5062

All dimensions are nominal and subject to normal manufacturing tolerances

Copyright © 2024 Southwire Company, LLC. All Rights Reserved

◊ Cable marked with this symbol is a standard stock item
* Strand count meets minimum number per ASTM

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
1/0	3	8.7	1900	0.168	0.201	0.044	100	120	135
2/0	3	8.9	2395	0.133	0.160	0.043	115	135	150
2/0	3	8.9	2395	0.133	0.160	0.043	115	135	150
3/0	3	9.6	3020	0.105	0.126	0.042	130	155	175
4/0	3	11.1	3808	0.084	0.100	0.041	150	180	205
250	3	12.1	4500	0.071	0.086	0.041	170	205	230
250	3	12.1	4500	0.071	0.086	0.041	170	205	230
300	3	12.9	5400	0.059	0.071	0.041	195	230	260
350	3	13.6	6300	0.050	0.062	0.040	210	250	280
400	3	14.2	7200	0.044	0.054	0.040	225	270	305
400	3	15.3	7200	0.044	0.054	0.040	225	270	305
500	3	15.4	9000	0.035	0.044	0.039	260	310	350
500	3	15.7	9000	0.035	0.044	0.039	260	310	350
600	3	17.7	10800	0.029	0.037	0.039	285	340	385
600	3	18.6	10800	0.029	0.037	0.039	285	340	385
750	3	18.3	13500	0.024	0.031	0.038	320	385	435
1/0	4	9.1	2027	0.168	0.201	0.044	80	96	108
2/0	4	9.8	2555	0.133	0.160	0.043	92	108	120
3/0	4	11.3	3221	0.105	0.126	0.042	104	124	140
4/0	4	12.2	4062	0.084	0.100	0.041	120	144	164
250	4	13.3	4800	0.071	0.086	0.041	136	164	184
300	4	14.2	5760	0.059	0.071	0.041	156	184	208
350	4	14.7	6720	0.050	0.062	0.040	168	200	224
400	4	15.7	7680	0.044	0.054	0.040	180	216	244
500	4	17.0	9600	0.035	0.044	0.039	208	248	280
600	4	18.5	11520	0.029	0.037	0.039	228	272	308
600	4	19.5	11520	0.029	0.037	0.039	228	272	308
750	4	20.2	14400	0.024	0.031	0.038	256	308	348
750	4	22.4	14400	0.024	0.031	0.038	256	308	348
900	4	22.0	17280	0.020	0.027	0.037	284	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.