Armorlite® Type MC THHN/THWN Aluminum Conductor Feeder Cable with Green Insulated Ground 277/480V Colors

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

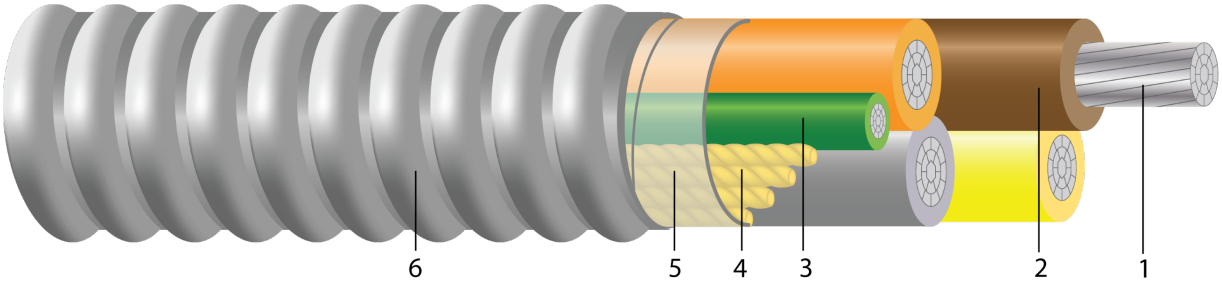

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compact stranded 8000 series H14/H24 aluminum per ASTM B800 and B801 or compact round stranded 8000 series H14/H24 aluminum per ASTM B800 and B836
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath Type THHN/THWN
3. **Ground:** Green insulated 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
- 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

UPDATED: Nov. 14, 2025, 1:34 a.m.UTC REVISION: 1.000.027

- 3/C: Brown, Orange, Yellow
- 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, Halogen 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

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
671715	1/0	3	BN,OE,YW,GN	0.336	19	60	1x4	1.250	645
674910	2/0	3	BN,OE,YW,GN	0.376	12	60	1x4	1.320	740
643336	3/0	3	BN,OE,YW,GN	0.422	16	60	1x4	1.469	898
643340	4/0	3	BN,OE,YW,GN	0.474	19	60	1x2	1.630	1130
589234	250	3	BN,OE,YW,GN	0.52	22	70	1x1/0	1.789	1395
593388	250	3	BN,OE,YW,GN	0.52	22	70	1x2	1.745	1335
640731	250	3	BN,OE,YW,GN	0.520	22	70	1x1	1.740	1340
583270	300	3	BN,OE,YW,GN	0.569	21	70	1x2	1.842	1521
599476	350	3	BN,OE,YW,GN	0.615	35	70	1x3/0	2.017	1834
593621	350	3	BN,OE,YW,GN	0.615	35	70	1x1/0	1.974	1756
575004	350	3	BN,OE,YW,	0.615	35	70	1x2	1.929	1665
672216	400	3	BN,OE,YW,GN	0.659	35	70	1x3/0	2.190	1988
678468	400	3	BN,OE,YW,GN	0.659	35	70	1x2/0	2.077	1969
593619	400	3	BN,OE,YW,GN	0.659	35	70	1x1	2.039	1906
562706	500	3	BN,OE,YW	0.735	34	70	1x2/0	2.188	2257
668399	500	3	BN,OE,YW,GN	0.735	34	70	1x3/0	2.253	2316
585135	500	3	BN,OE,YW,GN	0.735	34	70	1x250	2.306	2510
679424	500	3	BN,OE,YW,GN	0.735	34	70	1x400	2.374	2687
586227	500	3	BN,OE,YW,GN	0.735	35	70	1x2/0	2.208	2299
641832	500	3	BN,OE,YW,GN	0.735	35	70	1x1	2.210	2225
675737	500	3	BN,OE,YW,GN	0.735	34	70	1x350	2.568	2596
597891	600	3	BN,OE,YW	0.812	41	80	1x350	2.459	2941
586489	600	3	BN,OE,YW,GN	0.812	41	80	1x350	2.538	3046
674843	600	3	BN,OE,YW GN	0.812	41	80	1x3/0	2.448	2753
586488	600	3	BN,OE,YW,GN	0.812	41	80	1x400	2.526	3124
598033	600	3	BN,OE,YW,GN	0.812	41	80	1x4/0	2.448	2823
588770	600	3	BN,OE,YW,GN	0.812	41	80	1x600	2.635	3356
583311	750	3	BN,OE,YW,GN	0.908	53	80	1x1/0	2.608	3205
678410	750	3	BN,OE,YW,GN	0.908	53	80	1x3/0	2.621	3278
457000	750	3	BN,OE,YW	0.908	41	80	1x600	2.833	3816
565827	1	4	BN,OE,YW,GY,GN	0.298	8	50	1x4	1.345	732
588830	1	4	BN,OE,YW,GY	0.298	8	50	1x4	1.292	700
674893	1/0	4	BN,OE,YW,GY,GN	0.336	19	60	1x4	1.370	795
564030	2/0	4	BN,OE,YW,GY,GN	0.376	12	60	1x4	1.54	1042
139019	2/0	4	BN,OE,YW,GY,GN	0.376	19	60	1x4	1.510	985
457771	250	4	BN,OE,YW,GY	0.52	22	70	1x1/0	1.978	1781
560741	250	4	BN,OE,YW,GY,	0.52	22	70	1x1/0	1.919	1725
640669	250	4	PK,PE,TN,GY,OE,GN	0.52	22	60	1x1	1.96	1758
593602	250	4	BN,OE,YW,GY,GN	0.520	22	70	1x1	1.990	1755
139015	250	4	BN,OE,YW,GY,GN	0.520	22	70	1x2	1.916	1713

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
137867	300	4	PK,PE,TN,GY,GN	0.569	21	70	1x1	2.070	2003
593240	350	4	BN,OE,YW,GY,GN	0.615	35	70	1x1/0	2.19	2262
456842	350	4	PK,PE,TN,GY	0.615	35	70	1x2	2.146	2205
674647	350	4	BN,OE,YW,GY,GN	0.616	35	70	1x2	2.163	2180
643757	400	4	BN,OE,YW,GY,GN	0.659	35	70	1x4/0	2.353	2627
647508	400	4	BN,OE,YW,GY,GN	0.659	35	70	1x3/0	2.328	2575
593238	400	4	BN,OE,YW,GY,GN	0.659	35	70	1x1	2.267	2428
457811	400	4	BN,OE,YW,GY	0.659	35	70	1x400	2.455	2864
457823	500	4	BN,OE,YW,GY,GN	0.735	35	70	1x250	2.560	2541
674889	500	4	BN,OE,YW,GY,GN	0.735	34	70	1x3/0	2.518	2945
457823	500	4	BN,OE,YW,GY	0.735	34	70	1x250	2.556	3143
457827	500	4	BN,OE,YW,GY	0.735	34	70	1x4/0	2.524	3042
457833	500	4	BN,OE,YW,GY	0.735	34	70	1x350	2.604	3261
559870	500	4	BN,OE,YW,GY	0.735	34	70	1x250	2.487	3050
590100	500	4	BN,OE,YW,GY,GN	0.735	34	70	1x2/0	2.552	2984
456879	600	4	BN,OE,YW,GY	0.812	41	80	1x300	2.782	3753
456877	600	4	BN,OE,YW,GY	0.812	41	80	1x350	2.805	3810
589092	600	4	BN,OE,YW,GY,GN	0.812	41	80	1x600	2.912	4118
643334	750	4	BN,OE,YW,GY,GN	0.908	53	80	1x3/0	2.926	4282

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

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
1/0	3	8.8	1900	0.168	0.201	0.044	120	135
2/0	3	9.3	2395	0.133	0.16	0.043	135	150
3/0	3	10.3	3020	0.105	0.126	0.042	155	175
4/0	3	8.8	1900	0.084	0.100	0.041	180	205
250	3	12.5	4500	0.071	0.086	0.041	205	230
250	3	12.2	4500	0.071	0.086	0.041	205	230
250	3	12.2	4500	0.071	0.086	0.041	205	230
300	3	12.9	5400	0.059	0.071	0.04	230	260
350	3	14.1	6300	0.05	0.062	0.04	250	280
350	3	13.8	6300	0.05	0.062	0.04	250	280
350	3	13.5	6300	0.05	0.062	0.04	250	280
400	3	15.3	7200	0.044	0.054	0.040	270	305
400	3	14.5	7200	0.044	0.054	0.04	270	305
400	3	14.3	7200	0.044	0.054	0.04	270	305
500	3	15.3	9000	0.035	0.044	0.039	310	350
500	3	15.8	9000	0.035	0.044	0.039	310	350
500	3	16.1	9000	0.035	0.044	0.039	310	350
500	3	16.6	9000	0.035	0.044	0.039	310	350
500	3	15.5	9000	0.035	0.044	0.039	310	350
500	3	15.5	9000	0.035	0.044	0.039	310	350
500	3	18.0	9000	0.035	0.044	0.039	310	350
600	3	17.2	10800	0.029	0.037	0.039	340	385
600	3	17.8	10800	0.029	0.037	0.039	340	385
600	3	17.1	10800	0.029	0.037	0.039	340	385
600	3	17.7	10800	0.029	0.037	0.039	340	385
600	3	17.1	10800	0.029	0.037	0.039	340	385
600	3	18.4	10800	0.029	0.037	0.039	340	385
750	3	18.3	13500	0.024	0.031	0.038	385	435
750	3	18.3	13500	0.024	0.031	0.038	385	435
750	3	19.8	13500	0.024	0.031	0.038	385	435
1	4	9.4	1606	0.211	0.254	0.046	80	92
1	4	9	1606	0.211	0.254	0.046	80	92
1/0	4	9.6	2027	0.168	0.201	0.044	96	108
2/0	4	10.8	2555	0.133	0.16	0.043	108	120
2/0	4	10.6	2395	0.133	0.160	0.043	108	120
250	4	13.8	4800	0.071	0.086	0.041	164	184
250	4	13.4	4800	0.071	0.086	0.041	164	184
250	4	13.7	4800	0.071	0.086	0.041	164	184
250	4	13.9	4800	0.071	0.086	0.041	164	184
250	4	13.4	4800	0.071	0.097	0.027	164	184

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
300	4	14.5	5760	0.059	0.071	0.04	184	208
350	4	15.3	8400	0.05	0.062	0.04	200	224
350	4	15	6720	0.05	0.062	0.04	200	224
350	4	15.1	6720	0.051	0.069	0.026	200	224
400	4	16.5	9600	0.044	0.054	0.04	216	244
400	4	16.3	9600	0.044	0.054	0.04	216	244
400	4	15.8	7680	0.043	0.058	0.034	216	244
400	4	17.2	7680	0.044	0.054	0.04	216	244
500	4	17.9	9600	0.035	0.044	0.039	248	280
500	4	17.8	9600	0.035	0.044	0.039	248	280
500	4	17.9	9600	0.035	0.044	0.039	248	280
500	4	17.7	9600	0.035	0.044	0.039	248	280
500	4	18.2	9600	0.035	0.044	0.039	248	280
500	4	17.4	12000	0.035	0.044	0.039	248	280
500	4	17.8	9600	0.035	0.044	0.039	248	280
600	4	19.5	11520	0.029	0.037	0.039	272	308
600	4	19.6	11520	0.029	0.037	0.039	272	308
600	4	20.4	14400	0.029	0.037	0.039	272	308
750	4	20.5	18000	0.024	0.031	0.038	308	348

* 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.