

Alumaflex™

Type MC AL Feeder THHN/THWN-2 Conductors



1/0 AWG through 900 kcmil Alumaflex™ THHN/THWN-2 Insulated Singles with 8000 series Triple E™ Aluminum Alloy. Bare Alumaflex™ Aluminum Alloy Grounding Conductor. UL Listed. 600 Volts. Lightweight Aluminum Interlocked Armor.

APPLICATIONS

Suitable for use as follows:

- Feeder and service power distribution in commercial, industrial, institutional, and multi-residential buildings.
- Power, lighting circuits.
- 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.
- Under raised floors for information technology equipment conductors and cables per NEC 645.5(D) & 645.5(D)(2).
- Class I Div. 2, Class II Div 2, & Class III Div. 1 Hazardous Locations.

STANDARDS & REFERENCES

Southwire Alumaflex™ Type MC Cable with Triple E™ Aluminum Alloy meets or exceeds these requirements:

- UL 83
- UL 1569
- UL 1685
- Federal Specification A-A59544 (formerly J-C-30B)
- UL Online Product Guide Info - Metal-Clad Cable (PJAZ) (www.ul.com)
- IEEE 1202 (70,000 Btu/hr) Vertical Cable Tray Flame Test
- NFPA 70 (National Electrical Code), Article 330
- REACH/RoHS-2 (Chemical Limit) Compliant
- Listed for use in UL 1, 2, and 3 Hour Through-Penetration Firestop Systems

CONSTRUCTION

Southwire Alumaflex™ Type MC Cable with Triple E™ Aluminum Alloy is constructed with Type THHN/THWN-2 conductors rated 90° C dry, and a bare equipment grounding conductor. Conductors are Alumaflex™ AA-8000 series aluminum alloy compact stranded. A binder tape is wrapped over the conductors. Aluminum interlocking armor is applied over the assembly. Conductors also available in High Voltage Colors.



High Voltage Colors



Low Voltage Colors

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AlumaFlex™ Type MC AL THHN/THWN-2 Conductors

CONDUCTOR SIZE AND COLORS	GROUNDING SIZE AND COLOR	STOCK NUMBER	WEIGHT (LBS/1000')	OVERALL DIAMETER (INCHES)
CONDUCTOR COLORS 120/208V				
1/0-3 AL THHN (BLACK/RED/WHITE)	4 ALUMINUM (BARE)	55-87-59-99	602	1.190
1/0-4 AL THHN (BLACK/RED/BLUE/WHITE)	4 ALUMINUM (BARE)	60-52-87-99	758	1.304
2/0-3 AL THHN (BLACK/RED/WHITE)	4 ALUMINUM (BARE)	55-72-07-99	705	1.276
2/0-4 AL THHN (BLACK/RED/BLUE/WHITE)	4 ALUMINUM (BARE)	55-72-56-99	893	1.401
3/0-3 AL THHN (BLACK/RED/WHITE)	4 ALUMINUM (BARE)	55-87-67-99	833	1.38
3/0-4 AL THHN (BLACK/RED/BLUE/WHITE)	4 ALUMINUM (BARE)	60-52-95-99	1138	1.61
4/0-3 AL THHN (BLACK/RED/WHITE)	2 ALUMINUM (BARE)	55-72-15-99	1089	1.59
4/0-4 AL THHN (BLACK/RED/BLUE/WHITE)	2 ALUMINUM (BARE)	55-72-64-99	1374	1.74
250-3 AL THHN (BLACK/RED/WHITE)	2 ALUMINUM (BARE)	55-80-56-99	1275	1.73
250-3 AL THHN (BLACK/RED/WHITE)	1 ALUMINUM (BARE)	55-96-47-99	1292	1.735
250-4 AL THHN (BLACK/RED/BLUE/WHITE)	1 ALUMINUM (BARE)	60-70-69-99	1635	1.91
300-3 AL THHN (BLACK/RED/WHITE)	1 ALUMINUM (BARE)	55-42-78-99	1474	1.84
300-4 AL THHN (BLACK/RED/BLUE/WHITE)	1 ALUMINUM (BARE)	60-79-78-99	1873	2.02
350-3 AL THHN (BLACK/RED/WHITE)	1 ALUMINUM (BARE)	56-05-08-99	1653	1.94
350-4 AL THHN (BLACK/RED/BLUE/WHITE)	1/0 ALUMINUM (BARE)	60-70-77-99	2129	2.13
400-3 AL THHN (BLACK/RED/WHITE)	1 ALUMINUM (BARE)	55-77-73-99	1830	2.04
400-4 AL THHN (BLACK/RED/BLUE/WHITE)	3/0 ALUMINUM (BARE)	55-51-17-99	2420	2.24
500-3 AL THHN (BLACK/RED/WHITE)	1 ALUMINUM (BARE)	55-72-23-99	2177	2.2
500-3 AL THHN (BLACK/RED/WHITE)	2/0 ALUMINUM (BARE)	55-48-47-99	2224	2.202
500-3 AL THHN (BLACK/RED/WHITE)	3/0 ALUMINUM (BARE)	56-35-86-99	2257	2.202
500-3 AL THHN (BLACK/RED/WHITE)	250 ALUMINUM (BARE)	56-12-53-99	2373	2.42
500-4 AL THHN (BLACK/RED/BLUE/WHITE)	3/0 ALUMINUM (BARE)	60-70-85-99	2577	2.42
500-4 AL THHN (BLACK/RED/BLUE/WHITE)	250 ALUMINUM (BARE)	55-27-47-99	2955	2.42
600-3 AL THHN (BLACK/RED/WHITE)	1/0 ALUMINUM (BARE)	60-07-59-99	2608	2.42
600-3 AL THHN (BLACK/RED/WHITE)	400 ALUMINUM (BARE)	56-36-08-99	2930	2.662
600-4 AL THHN (BLACK/RED/BLUE/WHITE)	3/0 ALUMINUM (BARE)	60-70-93-99	3416	2.66
600-4 AL THHN (BLACK/RED/BLUE/WHITE)	400 ALUMINUM (BARE)	55-24-83-99	3684	2.94

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AlumaFlex™ Type MC AL THHN/THWN-2 Conductors

750-3 AL THHN (BLACK/RED/WHITE)	1/0 ALUMINUM (BARE)	55-72-31-99	3118	2.63
750-3 AL THHN (BLACK/RED/WHITE)	3/0 ALUMINUM (BARE)	55-48-49-99	3177	2.63
750-3 AL THHN (BLACK/RED/WHITE)	750 ALUMINUM (BARE)	56-35-99-99	3777	2.891
750-4 AL THHN (BLACK/RED/BLUE/WHITE)	3/0 ALUMINUM (BARE)	60-71-01-99	4089	2.9
750-4 AL THHN (BLACK/RED/BLUE/WHITE)	750 ALUMINUM (BARE)	56-16-02-99	4696	3.2
900-4 AL THHN (BLACK/RED/BLUE/WHITE)	250 ALUMINUM (BARE)	55-98-33-99	4833	3.11
CONDUCTOR COLORS 277/480V				
1/0-3 AL THHN (BROWN/ORANGE/YELLOW)	4 ALUMINUM (BARE)	56-54-27-99	602	1.190
1/0-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	4 ALUMINUM (BARE)	56-33-65-99	758	1.304
2/0-3 AL THHN (BROWN/ORANGE/YELLOW)	4 ALUMINUM (BARE)	56-54-29-99	705	1.276
2/0-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	4 ALUMINUM (BARE)	56-33-74-99	893	1.40
3/0-3 AL THHN (BROWN/ORANGE/YELLOW)	4 ALUMINUM (BARE)	56-28-11-99	833	1.38
3/0-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	4 ALUMINUM (BARE)	55-98-94-99	1138	1.61
4/0-3 AL THHN (BROWN/ORANGE/YELLOW)	2 ALUMINUM (BARE)	56-27-08-99	1089	1.59
4/0-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	2 ALUMINUM (BARE)	55-98-96-99	1374	1.74
250-3 AL THHN (BROWN/ORANGE/YELLOW)	2 ALUMINUM (BARE)	56-28-16-99	1292	1.73
250-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	1 ALUMINUM (BARE)	55-99-04-99	1634	1.9
300-3 AL THHN (BROWN/ORANGE/YELLOW)	1 ALUMINUM (BARE)	56-28-18-99	1474	1.84
300-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	1 ALUMINUM (BARE)	55-99-07-99	1873	2.02
350-3 AL THHN (BROWN/ORANGE/YELLOW)	1 ALUMINUM (BARE)	56-30-52-99	1653	1.942
350-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	1/0 ALUMINUM (BARE)	55-99-09-99	2129	2.13
400-3 AL THHN (BROWN/ORANGE/YELLOW)	3/0 ALUMINUM (BARE)	56-27-04-99	1910	2.035
400-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	3/0 ALUMINUM (BARE)	55-99-11-99	2420	2.23
500-3 AL THHN (BROWN/ORANGE/YELLOW)	2/0 ALUMINUM (BARE)	56-27-06-99	2224	2.201
500-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	3/0 ALUMINUM (BARE)	55-99-15-99	2877	2.42
600-3 AL THHN (BROWN/ORANGE/YELLOW)	3/0 ALUMINUM (BARE)	56-54-36-99	2667	2.415
600-3 AL THHN (BROWN/ORANGE/YELLOW)	400 ALUMINUM (BARE)	57-33-66-99	2930	2.662
600-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	3/0 ALUMINUM (BARE)	55-99-17-99	3415	2.66
600-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	400 ALUMINUM (BARE)	55-98-69-99	3684	2.94
750-3 AL THHN (BROWN/ORANGE/YELLOW)	1/0 ALUMINUM (BARE)	56-30-46-99	3118	2.620

AlumaFlex™ Type MC AL THHN/THWN-2 Conductors

750-3 AL THHN (BROWN/ORANGE/YELLOW)	3/0 ALUMINUM (BARE)	56-54-43-99	3177	2.620
750-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	3/0 ALUMINUM (BARE)	55-99-19-99	4089	2.9
900-4 AL THHN (BROWN/ORANGE/YELLOW/GRAY)	250 ALUMINUM (BARE)	55-98-66-99	4836	3.11
* Available with oversize grounding conductor when used for parallel feeds on special orders. ** For allowable ampacities, refer to NEC 310.15				

FEATURES

- Lightweight aluminum armor--as much as 45% lighter than steel MC Cable.
- Available with Southwire pulling heads and on stacked reels
- Available in custom constructions and lengths
- UL Classified 1, 2, and 3 hour Through Penetration Firestop Systems: W-J-3037, W-L-3110, W-L-3113, W-L-3117, W-L-3120, W-L-3121, W-L-3160, C-AJ-3115, C-AJ-3140, C-AJ-3142, C-AJ-3145, C-AJ-3173, C-AJ-3202, C-AJ-4065, C-AJ-4066, F-C-3038.
- Cable reverse wound on reel for ease of pulling and installation. When pulling from coils, pull from inside to ensure ease of installation.
- Anti-short bushings are not required for use with MC cable per the NEC and UL

COLOR CODING, Standard Products

Phase Conductors		
No. of Conductors	Color Sequence 120/208Y	Color Sequence 277/480Y
3	Black, Red, White	Brown, Orange, Gray
4	Black, Red, Blue, White	Brown, Orange, Yellow, Gray
Grounding Conductor	Bare	Bare

Color sequence for other special colors are available subject to economic order quantity.

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NEC TABLE 310.15(B)(16)- ALLOWABLE AMPACITY FOR 600V CONDUCTORS

SIZE AWG OR KCMIL	TEMPERATURE RATING OF CONDUCTOR		
	60°C (140°F)	75°C (167°F)	90°C (194°F)
	Types: TW, UF	Types: RHW, THHW, THW, THWN, XHHW, USE, ZW	Types: TBS, SA, SIS, RHH, RHW-2, THHN, THHW, THW- 2, THWN-2, USE-2, XHH, XHHW, XHHW-2, ZW-2
ALUMINUM or COPPER-CLAD ALUMINUM			
18	-	-	-
16	-	-	-
14	-	-	-
12	15	20	25
10	25	30	35
8	35	40	45
6	40	50	55
4	55	65	75
3	65	75	85
2	75	90	100
1	85	100	115
1/0	100	120	135
2/0	115	135	150
3/0	130	155	175
4/0	150	180	205
250	170	205	230
300	195	230	260
350	210	250	280
400	225	270	305
500	260	310	350
600	285	340	385
700	315	375	425
750	320	385	435
800	330	395	445
900	355	425	480
1000	375	445	500
1250	405	485	545
1500	435	520	585
1750	455	545	615
2000	470	560	630
Per NEC 310.15(B)(5), the ampacity of 4/C cables shall be reduced by a factor of 0.80 when the neutral is considered a current-carrying conductor.			

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