
 TECHNICAL DATA SHEET

Type CMAC - Aluminum, CSA Certified

Flexible metal conduit

Steel City® Conduit Systems



Features & Benefits:

- Meets requirements of CSA C22.2 No. 56-13 for Flexible Metal Conduits
- Meets requirements of UL 1 for Flexible Metal Conduits (1/2" to 4" trade sizes)
- Full compliance to IEC 61386-1 requirements
- Trade sizes from 3/8" to 4" (12mm to 103mm)
- Suitable for use with T&B Fittings® and Steel City® fittings, listed for use with flexible metal conduits.
 - Ser. XC Squeeze Type Connectors
 - Ser. XC Clamp Type Connectors
 - Ser. 300 Tite-Bite Connectors
 - Ser. 200 Squeeze Connectors
- Suitable for use with Iberville fittings, listed for use with flexible metal conduits
 - Ser. CI21 Clamp Connectors
 - Ser. CI22 Clamp Connectors
 - Ser. CI40 Clamp Connectors

Applications:

- The CSA conduit is intended for use as a metal raceway for wires and cable in accordance with Canadian Electrical Code (CEC) C22.1 Section 12-1000
- Permitted in or on buildings of either combustible or non-combustible construction

Restrictions and Exception:

- CEC Rule 12-1004 (a) states: "12mm (3/8") trade size flexible metal conduit shall be permitted to be used for runs of not more than 1.5 meters (5 ft) for the connection of equipment."
- CEC Rule 12-1004 (b) states: "12mm (3/8") trade size flexible metal may be used as permitted by this code."

Securements with straps:

- CEC Rule 12-1010 (3) states: "when flexible metal conduit is installed, it shall be secured at intervals not exceeding 1.5 meters (5 ft.) and within 300mm (12 In.) on each side of every outlet box or fitting except where flexible metal conduit is fished and except for lengths of not over 900 mm (3 ft.) at terminals where flexibility is required."

Conductor fill:

- CEC Rule 12-1014 defines the maximum number of conductors
- CEC Table 6 provides the maximum number of conductors of one size in trade size conduits
- CEC Table 8 provides the maximum allowable percent conduit fill
- CEC Table 9 provides the cross sectional areas of the conduit

CSA Certified, Aluminum non-jacketed flexible metal conduits, also known as "Heavy Wall Flex." are used in many universal wiring applications.

Certifications / Standards:


Construction / Material / Finish:

- Aluminum Alloy
- Heavy gauge and high strength
- Helically wound, formed strip
- Color: Metallic

Conforms to:

- CSA C22.2 No. 56, Flexible Metal Conduits (FMC)
 - CSA File: LR-72635
- UL 1, Flexible Metal Conduits (FMC)
 - UL File: E484989
- IEC 61386-1, -23, Conduit Systems for Cable Management
 - EU DoC: EC-012-17-172
- CE (Conformité Européene, European Conformity)
- RoHS (Restriction of Hazardous Substances Directive)

Environment ratings:
Working Temperature:

- IEC/CE: Gen: -45 to +400°C (-49 to +752°F)

Standards requirements:

Meets all CSA C22.2 No. 56 and UL 1 standards requirements

including:

- ID and OD dimensions, material thickness, tension loading, flexibility, and markings

Meets all IEC 61386-1, -23 standard requirements including:

- Compression strength - Code 4 Heavy; 1250 N/50mm
- Impact strength - Code 5 Very Heavy; 20 Joules
- Tensile strength - Code 2 Light; 250 N/2 min.

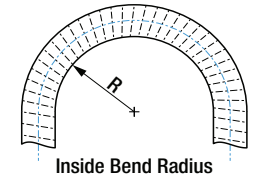
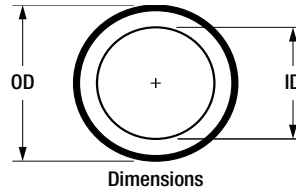
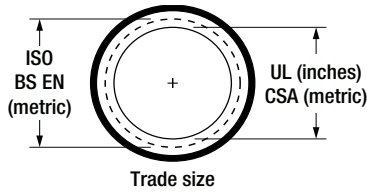
Ingress protection:
IEC system ingress rating:

- IP Ingress Protection per IEC 60529 requirements
- IEC Ingress Ratings: IP40

Type CMAC - Aluminum, CSA Certified
Product selection and dimensions

Product selection

Trade size			Coil Length											
UL	CSA	ISO BS EN	Carton		Standard reel		Bulk reel		Bulk reel		Weight			
Inches	mm	mm	Part No./GID	Feet	Meter	Part No./GID	Feet	Meter	Part No./GID	Feet	Meter	lbs/ft	kg/m	
3/8	12	16	CMACS01M-C	100	30	CMACS01M-K	500	150	CMACS01M-L	1,000	300	0.07	0.10	
			7TAA012CE0R0000			7TAA012CE0R0011			7TAA012CE0R0019					
7/16	14	18	CMACS14M-C	100	30	CMACS14M-K	500	150	CMACS14M-L	1,000	300	0.08	0.12	
			7TAA012CE0R0001			7TAA012CE0R0012			7TAA012CE0R0020					
1/2	16	20	CMACS02M-C	100	30	CMACS02M-K	500	150	CMACS02M-L	1,000	300	0.10	0.14	
			7TAA012CE0R0002			7TAA012CE0R0013			7TAA012CE0R0021					
3/4	21	25	CMACS03M-C	100	30	CMACS03M-K	500	150	CMACS03M-L	1,000	300	0.14	0.20	
			7TAA012CE0R0003			7TAA012CE0R0014			7TAA012CE0R0022					
1	27	32	CMACS04M-B	50	15	CMACS04M-J	400	120	-	-	-	0.18	0.27	
			7TAA012CE0R0004			7TAA012CE0R0015								
1 1/4	35	40	CMACS05M-B	50	15	CMACS05M-J	400	120	-	-	-	0.22	0.33	
			7TAA012CE0R0005			7TAA012CE0R0016								
1 1/2	41	50	CMACS06M-A	25	8	CMACS06M-H	300	90	-	-	-	0.26	0.39	
			7TAA012CE0R0006			7TAA012CE0R0017								
2	53	70	CMACS07M-A	25	8	CMACS07M-D	150	45	-	-	-	0.35	0.52	
			7TAA012CE0R0007			7TAA012CE0R0018								
2 1/2	63	70	CMACS08M-A	25	8	-	-	-	-	-	-	0.57	0.85	
			7TAA012CE0R0008											
3	78	80	CMACS09M-A	25	8	-	-	-	-	-	-	0.70	1.04	
			7TAA012CE0R0009											
4	103	100	CMACS11M-A	25	8	-	-	-	-	-	-	0.80	1.19	
			7TAA012CE0R0010											



Dimensions

Part number	Trade Size			Minimum inside bend radius				Inches				Millimeters			
	UL	CSA	ISO BS EN	Static		Dynamic		Inside (ID)		Outside (OD)		Inside (ID)		Outside (OD)	
				Inches	mm	Inches	mm	Min	Max	Min	Max	Min	Max	Min	Max
CMACS01M-*	3/8	12	16	2.0	51	-	-	0.375	0.393	0.560	0.610	9.5	10.0	14.2	15.5
CMACS14M-*	7/16	14	18	2.3	57	-	-	0.437	0.457	0.655	0.675	11.1	11.6	15.8	17.1
CMACS02M-*	1/2	16	20	3.0	76	-	-	0.625	0.645	0.860	0.920	15.9	16.4	21.8	23.4
CMACS03M-*	3/4	21	25	4.2	107	-	-	0.081	0.835	1.045	1.105	20.6	21.2	26.5	28.1
CMACS04M-*	1	27	32	5.5	140	-	-	1.000	1.040	1.300	1.380	25.4	26.4	33.0	35.1
CMACS05M-*	1 1/4	35	40	7.0	178	-	-	1.250	1.300	1.550	1.630	31.8	33.0	39.4	41.4
CMACS06M-*	1 1/2	41	50	4.5	114	-	-	1.500	1.575	1.850	1.950	38.1	40.0	47.0	49.5
CMACS07M-*	2	53	63	6.0	152	-	-	2.000	2.080	2.350	2.454	50.8	52.8	59.7	62.3
CMACS08M-*	2 1/2	63	70	8.0	203	-	-	2.500	2.700	2.860	3.060	63.5	68.2	72.6	77.7
CMACS09M-*	3	78	80	10.0	254	-	-	3.000	3.200	3.360	3.560	76.2	81.3	85.3	90.4
CMACS11M-*	4	103	100	12.0	305	-	-	4.000	4.200	4.360	4.560	101.6	106.7	110.7	115.8

Note: Products must be installed in accordance with applicable national and local electrical codes

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