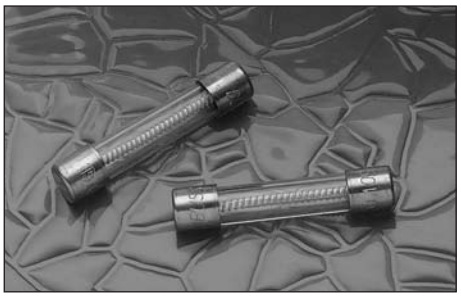
COOPER Bussmann

¼″ x 1 ¼″ Time-Delay, Glass Tube Fuses
MDL Series

Description
- Time-delay
- Optional axial leads available
- ¼ x 1 ¼ (6.4 x 31.7mm) physical size
- Glass tube, nickel-plated brass endcap construction
- UL Listed product meets standard 248-14

RoHS 2002/95/EC



Electrical Characteristics		
Rated Current	**% of Amp Rating**	**Opening Time**
1/16 - 30A	100%	None
	135%	60 minutes maximum
	200%	120 seconds maximum
1/16 - 3A	200%	5 seconds minimum
3-2/10 - 8A	200%	12 seconds minimum

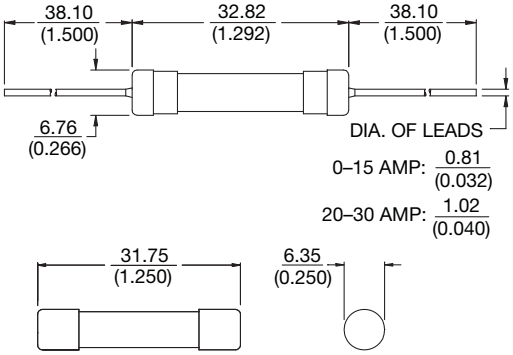
Agency Information
- UL Listed Card: MDL 1/16 - 8A (Guide JDYX, File E19180)
- UL Recognized Card: MDL 9 - 30A (Guide JDYX2, File E19180)
- CSA Certification Card: MDL 1/16 - 8A (Class No. 1422-01)
- CSA Component Acceptance: MDL 9-30A (Class No. 1422-30)
- CE

Environmental Data
- Shock: 1A thru 30A – MIL-STD-202, Method 207, (HI Shock)
- Vibration: 1/4A thru 30A – MIL-STD-202, Method 204, Test Condition C (Except 5g, 500HZ)

Ordering
Specify packaging code
- Insert packaging code prefix before part number. E.g., BK (or BK1)-MDL-5-R

Specify option codes if desired
- For axial leads, insert "V" between catalog series and amp rating. E.g., BK-MDL-V-5-R
- For board washable, insert "B" between catalog series and amp rating. E.g., BK-MDL-B-5-R
- For axial leads and board washable, insert "B" then "V" between catalog series and amp rating. E.g., BK-MDL-BV-5-R

Dimensions - mm (in)
Drawing Not to Scale

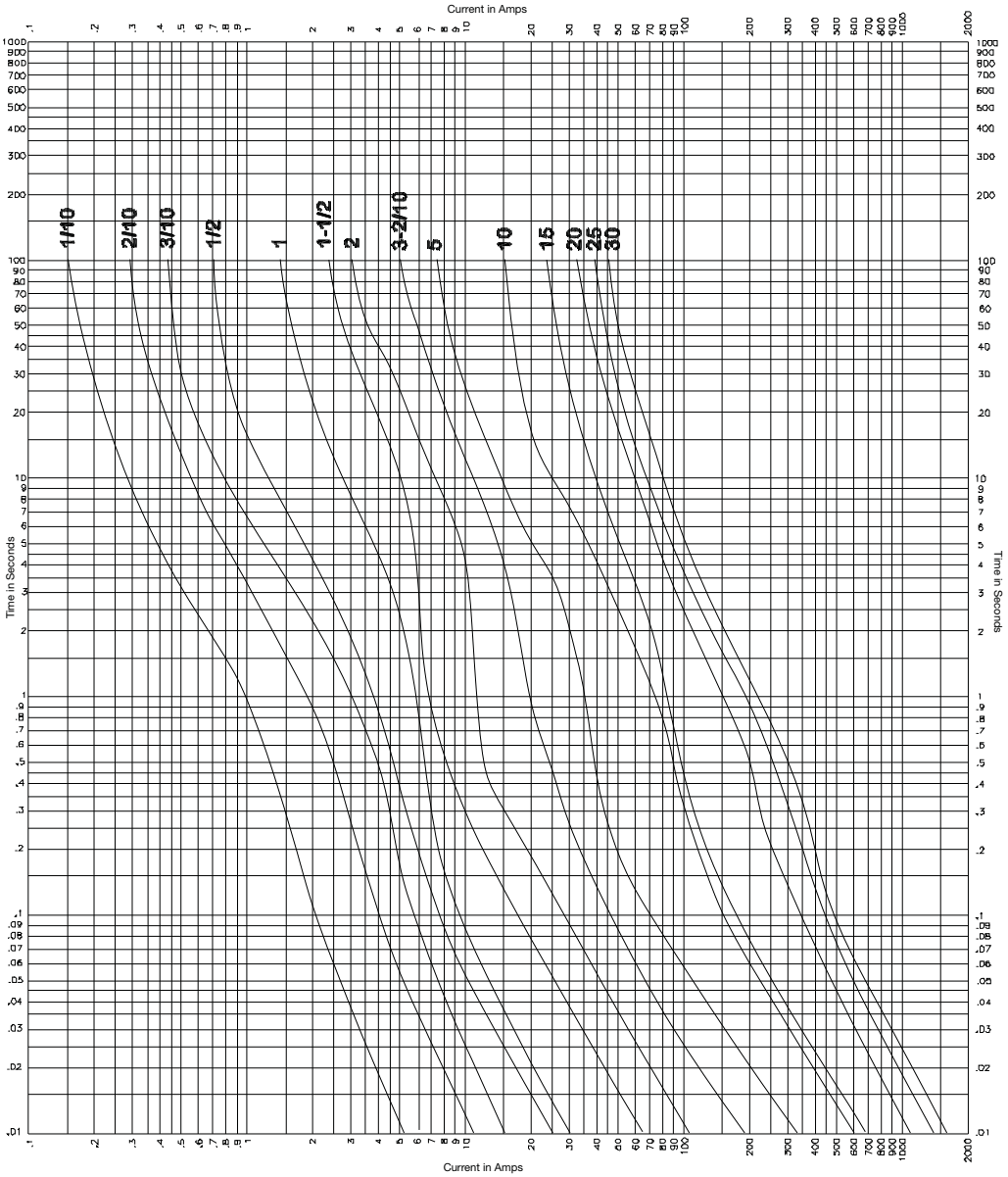


Specifications

Part Number	Voltage Rating Vac	AC Interrupting Rating* (amps)@ 250Vac	125Vac	32Vac	Typical DC Cold Resistance** (Ω)	Typical Melting I²t† AC	Typical Voltage Drop‡
MDL-1/16-R	250	35	10000	-	45.6	0.0046	2.79
MDL-1/10-R	250	35	10000	-	15.68	0.0420	1.95
MDL-1/8-R	250	35	10000	-	12.238	0.0422	1.52
MDL-3/16-R	250	35	10000	-	4.81	0.116	1.05
MDL-2/10-R	250	35	10000	-	5.234	0.314	0.972
MDL-1/4-R	250	35	10000	-	3.208	0.447	0.965
MDL-3/10-R	250	35	10000	-	2.046	0.412	0.808
MDL-3/8-R	250	35	10000	-	1.567	0.982	1.46
MDL-1/2-R	250	35	10000	-	0.943	1.656	1.27
MDL-3/4-R	250	35	10000	-	0.397	4.343	1.01
MDL-1-R	250	35	10000	-	0.273	11.498	0.995
MDL-1-1/4-R	250	100	10000	-	0.205	86.2	0.722
MDL-1-1/2-R	250	100	10000	-	0.156	22.7	0.721
MDL-2-R	250	100	10000	-	0.116	62.3	0.644
MDL-2-1/4-R	250	100	10000	-	0.096	49.6	0.535
MDL-2-1/2-R	250	100	10000	-	0.081	63.1	0.410
MDL-3-R	250	100	10000	-	0.057	67.5	0.345
MDL-4-R	250	200	10000	-	0.038	19.3	0.187
MDL-5-R	250	200	10000	-	0.025	32.0	0.160
MDL-6-R	250	200	10000	-	0.022	37.4	0.155
MDL-6-1/4-R	250	200	10000	-	0.02	38.7	0.152
MDL-7-R	250	200	10000	-	0.018	42.7	0.140
MDL-8-R	250	200	10000	-	0.015	47.8	0.119
MDL-9-R	32	-	-	1000	0.012	51.5	0.124
MDL-10-R	32	-	-	1000	0.01	64.4	0.114
MDL-15-R	32	-	-	1000	0.005	354.0	0.130
MDL-20-R	32	-	-	1000	0.004	2914.0	0.530
MDL-25††	32	-	-	1000	0.01225	15221.0	0.30
MDL-30††	32	-	-	1000	0.0011	15581.0	0.40

* Interrupting Ratings (Interrupting ratings were measured at 70% - 80% power factor on AC)
** DC Cold Resistance (Measured at ≤10% of rated current)
† Typical Melting I^2t (A^2Sec) (I^2t was measured at listed interrupting rating and rated voltage.)
‡ Typical Voltage Drop (Voltage drop was measured at 25°C±3°C ambient temperature at rated current)
†† MDL-25 & MDL-30 not available in RoHS compliant construction.

Time-Current Curve



Packaging Code	
Packaging Code	**Description**
BK	100 fuses packed into a cardboard carton
BK1	1,000 fuses packed into a cardboard carton
BK8	8,000 fuses packed into a cardboard carton

	Option Code
Option Code	**Description**
B	Sealed to withstand aqueous cleaning (Board Washable)
V	Axial leads - copper tinned wire with nickel plated brass overcaps

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MDL-15-R BK/MDL-3-2/10PX BK/MDL-3/4RX BK/MDL-40 BK/MDL-4GX BK/MDL-4RX BK/MDL-4YX BK/MDL-6EX BK/MDL-8AX BK/MDL-B-1 BK/MDL-B-1/2 BK/MDL-B-1/8 BK/MDL-B-2 BK/MDL-B-3 BK/MDL-175/1000 BK/MDL-1/100 BK/MDL-1-1/8-R BK/MDL-1/200 BK/MDL-1-2/10NA BK/MDL-1/2BB BK/MDL-1/2LX BK/MDL-1/2-OO BK/MDL-1/2YX BK/MDL-1/4BB BK/MDL-1/4RX BK/MDL-15ND BK/MDL-1-8/10NX BK/MDL-1/8SX BK/MDL-1BX BK/MDL-2-1/2WX BK/MDL-2KX BK/MDL-3-1/2DX BK/MDL-3/16DX BK/MDL-3-2/10GX MDL-1/10-R MDL-1-1/4-R MDL-1/16-R MDL-1-2/10-R MDL-1-6/10-R MDL-1-8/10-R MDL-1/8-R MDL-2/10-R MDL-2-1/2-R MDL-2-1/4-R MDL-2-8/10-R MDL-3/10-R MDL-3-1/2-R MDL-3/16-R MDL-3-2/10-R MDL-3/4-R MDL-3/8-R MDL-4/10-R MDL-6/10-R MDL-6-1/4-R MDL-7/10-R MDL-7-1/2-R MDL-8/10-R

Eaton:

BK/MDL-4 BK/MDL-1-1/2 BK/MDL-12 BK/MDL-1/4 BK/MDL-1-6/10 BK/MDL-10 BK/MDL-1/2 BK/MDL-6/10 BK/MDL-7/10 BK/MDL-6 BK/MDL-7 BK/MDL-2/10 BK/MDL-3-1/2 BK/MDL-15 BK/MDL-3-2/10 BK/MDL-8/10 BK/MDL-25 BK/MDL-4/10-R BK/MDL-2-1/2-R BK/MDL-2-1/4-R BK/MDL175/1000R BK/MDL-9-R BK/MDL-8/10-R BK/MDL-7/10-R BK/MDL-7-1/2-R BK/MDL-6/10-R BK/MDL-2-8/10-R BK/MDL-3/8-R BK/MDL-3/4-R BK/MDL-3/16-R BK/MDL-3/10-R BK/MDL-3-2/10-R BK/MDL-3-1/2-R BK/MDL-20-R BK/MDL-2/10-R BK/MDL-6-1/4-R BK/MDL-1-6/10-R MDL-1/100-R BK/MDL-15-R BK/MDL-1-2/10-R BK/MDL-1-8/10-R BK/MDL-1/10-R BK/MDL-1/16-R BK/MDL-1/8-R BK/MDL-1-1/4-R BK/MDL-1/8 BK/MDL-1-1/4 BK/MDL-2-1/2 BK/MDL-8 MDL-1/4-R MDL-175/1000-R MDL-10BC MDL-20BC BK3-MDL-BV-2-25 BK3-MDL-BV-2-5 BK1-MDL-15 BK1-MDL-2 BK1-MDL-4 BK1-MDL-5 BK1-MDL-6 BK4-MDL-6 BK-MDL-1-100 BK-MDL-1-1-8 BK-MDL-1-1-8-R BK-MDL-1-200 BK-MDL-1-2-10NA BK-MDL-1-2BB BK-MDL-1-2LX BK-MDL-1-2-OO BK-MDL-1-2YX BK-MDL-1-4BB BK-MDL-1-4RX BK-MDL-15ND BK-MDL-175-1000 BK-MDL-1-8-10NX BK-MDL-1-8SX BK-MDL-1BX BK-MDL-2-1-2WX BK-MDL-2KX BK-MDL-2NB BK-MDL-3-1-2DX BK-MDL-3-16DX BK-MDL-3-2-10GX BK-MDL-3-2-10PX BK-MDL-3-4RX BK-MDL-40 BK-MDL-4GX BK-MDL-4RX BK-MDL-4YX BK-MDL-6EX BK-MDL-8AX BK-MDL-B-1 BK-MDL-B-1-2 BK-MDL-B-1-8 BK-MDL-B-2 BK-MDL-B-3 BK-MDL-B-3-4 BK-MDL-B-6-1-4 MDL-1-10-R MDL-1-1-4-R