MDC10M - DC Distribution Fuse

1000VDC Main Fuse

SPECIAL PURPOSE

FOR DC DISTRIBUTION

MDC
DC Distribution Series

With the evolution of DC distribution and new technologies on the horizon, Mersen's MDC DC Distribution Series is the product line to help customers achieve ultimate protection for today and tomorrow. The product portfolio allows system integrators and OEM manufacturers to select fuses easily for the protection of DC distribution in a variety of applications.

The MDC Series incorporates proven fuse technologies which provide optimal current limitation while achieving maximum performance. The MDC portfolio is designed to easily allow customers to choose fuses where coordination with other DC components is critical, eliminating unnecessary downtime.

Technical Data Overview	
Volts	1000VDC; 600VAC (70-400A)
Amps	70A-600A
IR	65kA @ 1000VDC 200kA @ 600VAC (70-400A)
AC MBC	2.0 x In @ 600VAC
DC MBC	2.0 x In @ 1000VDC

FEATURES/BENEFITS

- Designed for DC applications
- Low watt losses
- High cycling performance
- Low & high current interrupting capability

APPLICATIONS

- DC Distribution
- DC Cabling and Bus
- DC Auxiliary Circuits
- Electrical Energy Storage
- EV Charging
- Critical Power
- UPS Protection

APPROVALS/STANDARDS

- AC Listed E2137 (70-400A)
- DC Listed E333668 (70-600A)

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CATALOG NUMBERS

Straight Blade, Bolt In

MDC10M70B | **MDC10M400B**

Catalog Number	Rated Voltage (VAC)	Rated Voltage (VDC)	Rated Current (A)	DC Min. Breaking Capacity (MBC)*	DC Max Interrupting Rating (kA)	Melting I^2t (kA^2s)	Clearing I^2t at 1000VDC, 65kA, L/R = 1ms (kA^2s)	DC Time Constant L/R (ms)
MDC10M70B	600	1000	70	140	65	1	6	0.6
MDC10M80B	600	1000	80	160	65	2	10	0.6
MDC10M100B	600	1000	100	200	65	3	14	0.6
MDC10M125B	600	1000	125	250	65	6	26	0.6
MDC10M160B	600	1000	160	320	65	12	50	0.6
MDC10M200B	600	1000	200	400	65	15	64	0.6
MDC10M250B	600	1000	250	500	65	26	106	0.4
MDC10M300B	600	1000	300	600	65	35	141	0.4
MDC10M350B	600	1000	350	700	65	46	185	0.4
MDC10M400B	600	1000	400	800	65	63	233	0.4
MDC10M450B	N/A	1000	450	900	65	96	311	0.4
MDC10M500B	N/A	1000	500	100	65	141	485	0.4
MDC10M600B	N/A	1000	600	1200	65	171	572	0.4

*Fuse Minimum Breaking Capacity (MBC): the smallest current the fuse has been tested to safely clear at a given voltage and time constant

Recommended Mounting Torque and Bolt Size

Fuse Type	Mounting Style	Fuse Rating	Thread Size	Tightening Torque N-m	Tightening Torque In-lbs
MDC010M	Blade Mount (-4)	350-400A 450-600A	3/8-24 1/2-20	20 42	180 375

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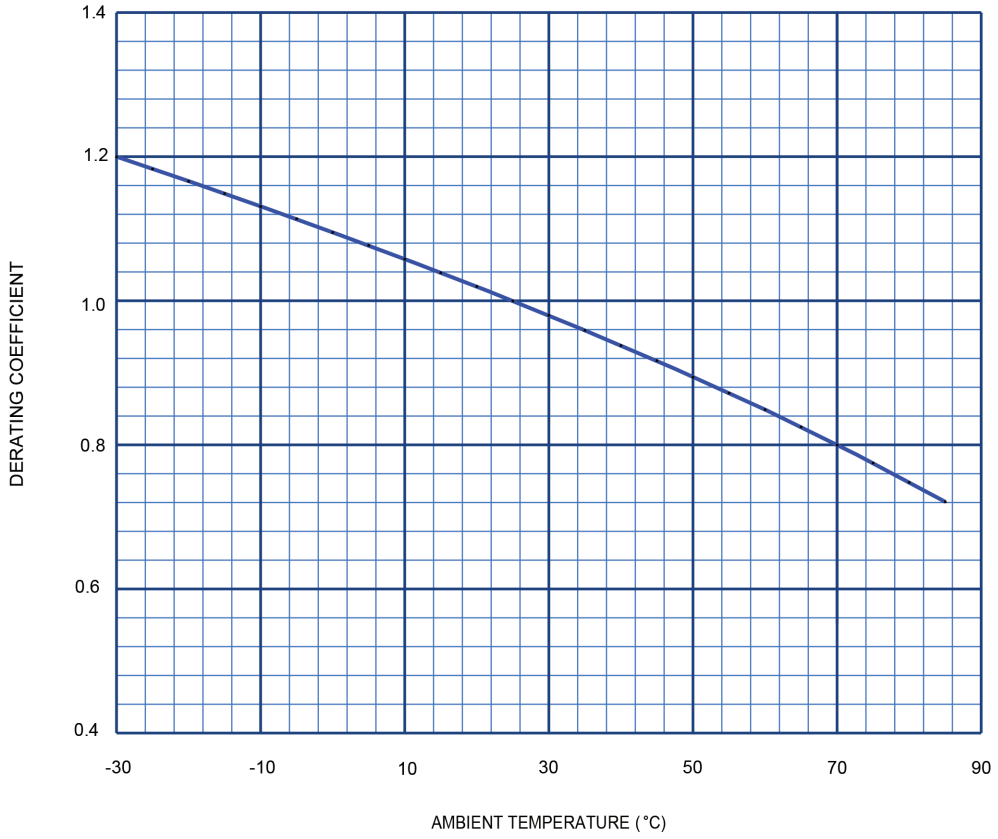
AMPERE RATING VS AMBIENT TEMPERATURE

MDC10M



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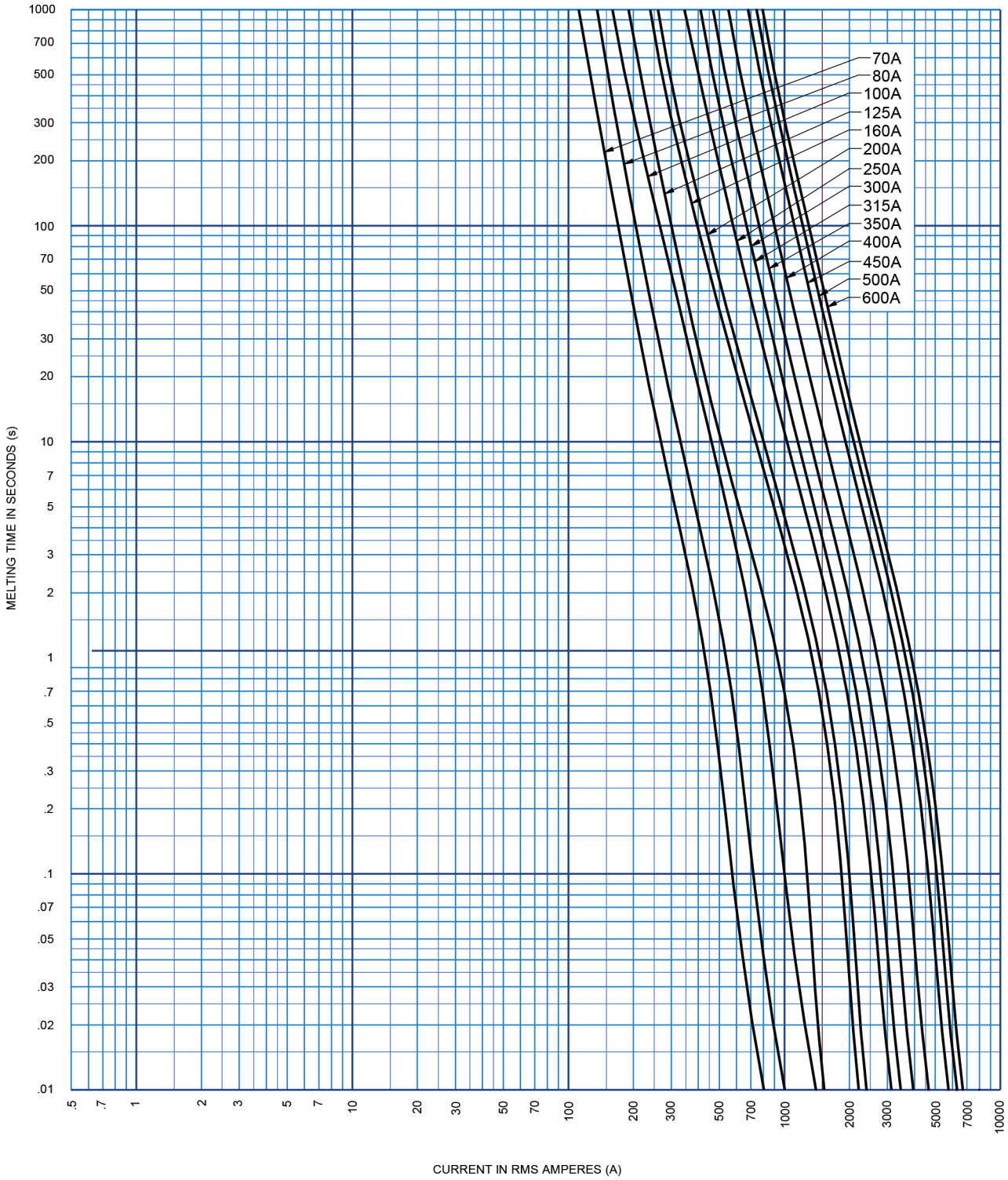
AVERAGE MELTING TIME CURRENT CURVE

MDC10M



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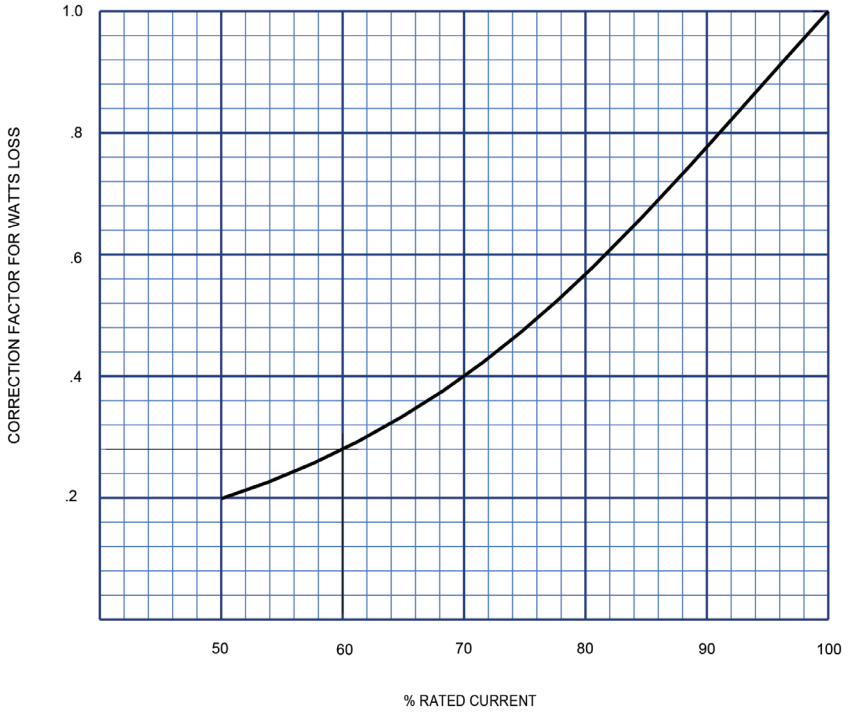
WATTS LOSS DATA

MDC10M 70-600A

Ampere Rating	Watts Loss @70% (W)	Watts Loss @80% (W)	Watts Loss @100% (W)
70	3	5	10
80	4	5	10
100	6	7	15
125	5	7	14
160	6	8	16
200	10	15	27
250	13	18	34
300	16	22	37
315	16	23	43
350	17	24	45
400	19	27	52
450	22	27	56
500	22	31	58
600	30	43	82

WATTS LOSS VS % RATED CURRENT

MDC10M



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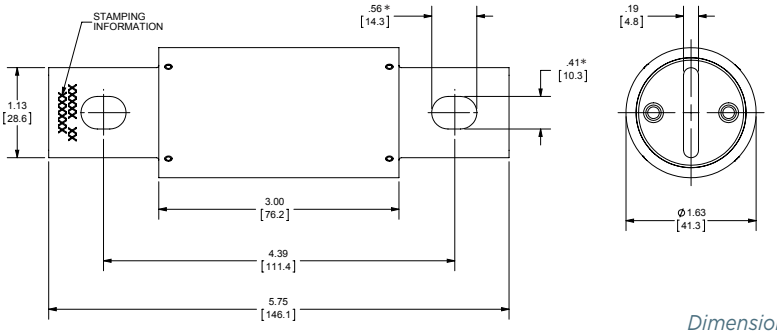
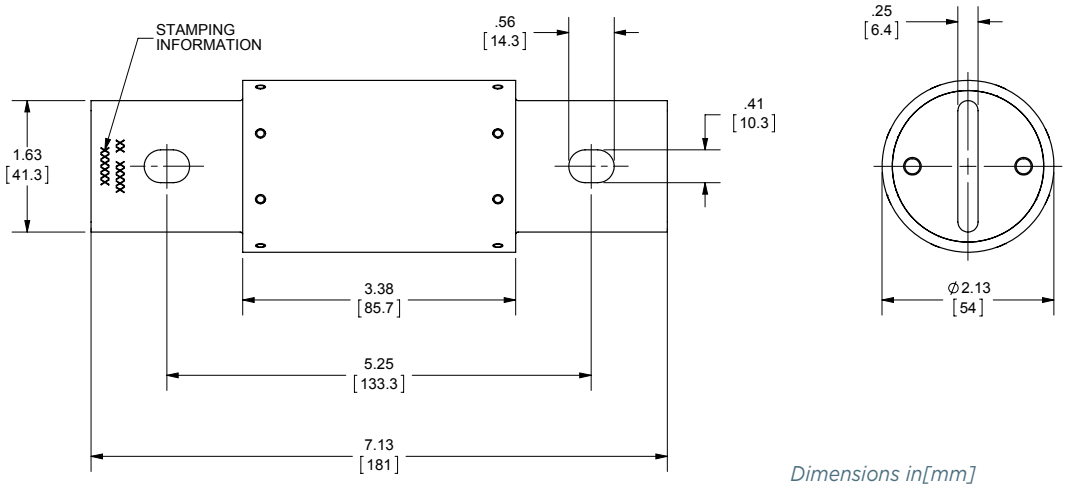
DIMENSIONS:

MDC10M(70-200A)B



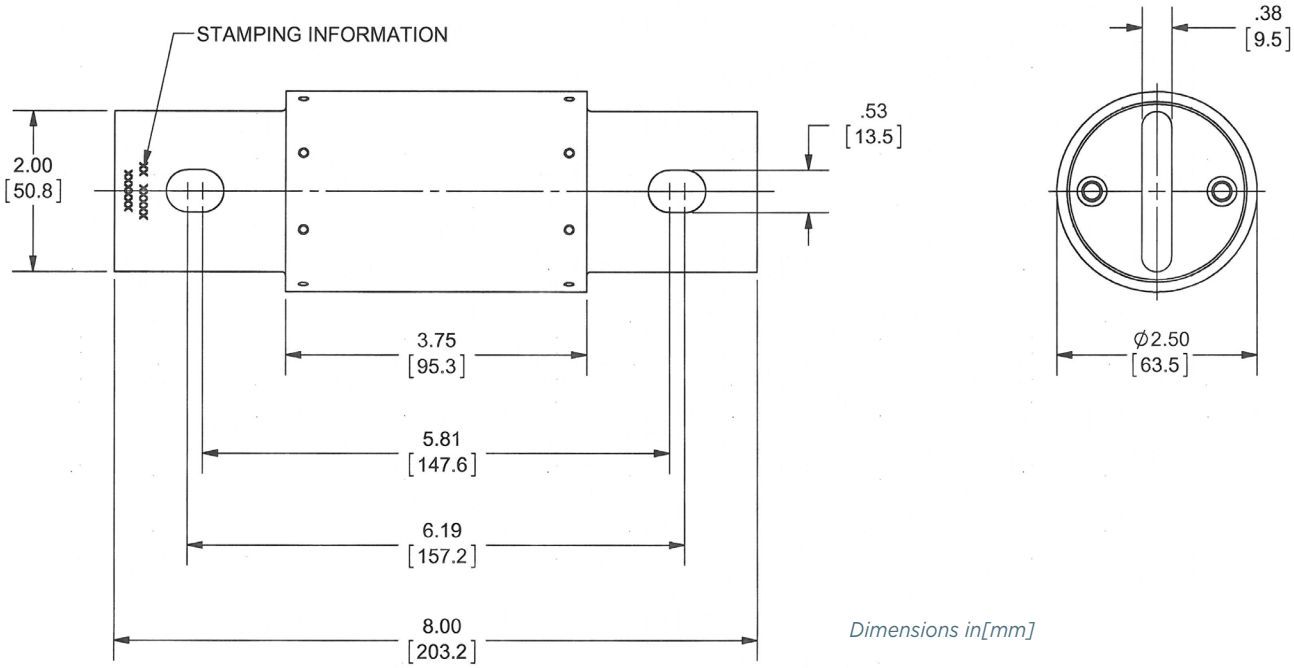
Dimensions in[mm]

MDC10M(250-400A)B



Dimensions in[mm]

MDC10M(450-600A)B



Dimensions in[mm]

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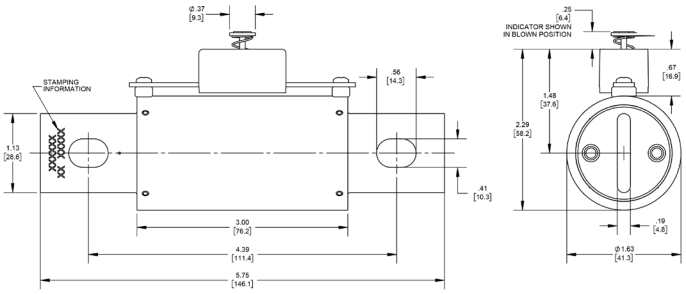
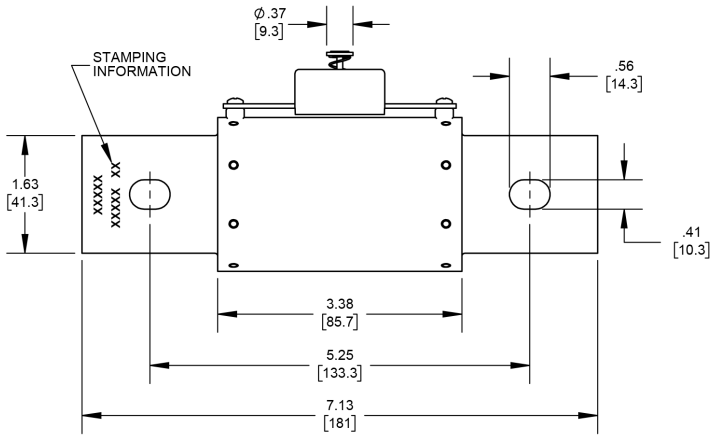
OPTIONAL INDICATOR/MICROSWITCH MOUNT (EI) DIMENSIONS:

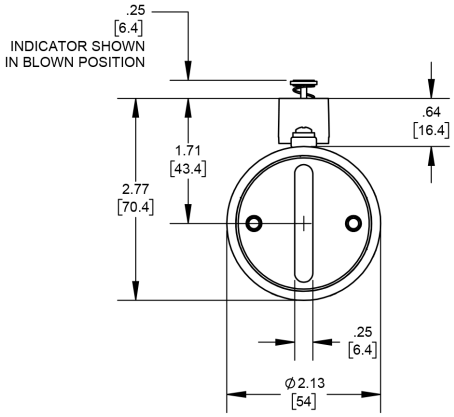
MDC10M(70-200A)BEI



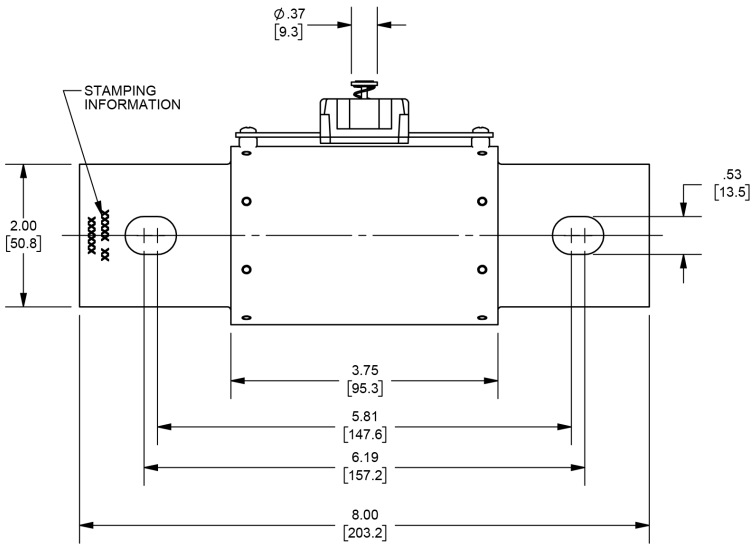
Note: Fuses with the EI option are designed to work with the AOS-S or AOS-Q add-on switch (ordered separately).

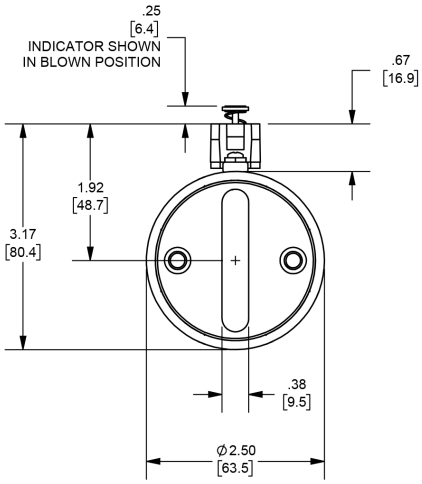
MDC10M(250-400A)BEI





MDC10M(450-600A)BEI





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