



Cutler-Hammer
 Westinghouse &
 Cutler-Hammer Products
 Five Parkway Center
 Pittsburgh, Pennsylvania, U.S.A. 15220

Application Data
29-167M

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May 1994
 New Information
 Mailed to: E/29-100A

Time/Current Characteristic Curves for
 Westinghouse Series C® M-Frame
 Circuit Breakers

Westinghouse AB DE-ION® Circuit Breakers

Breaker Description	Curve No.	Page
Series C Type MD Circuit Breakers, 125-600 Amperes	SC-5702-94	2
Series C Type MD Circuit Breakers, 700-800 Amperes	SC-5703-94	3
Series C Type MDS Circuit Breakers, 400-800 Amperes	SC-5704-94	4
Series C Types MDSA , MDSGA Circuit Breakers, 400-800 Amperes	SC-5705-94	5
Series C Types MDSG , MDSGA Ground Fault Pick-up Curves	SC-5706-94	6

Additional copies of this application data may be ordered from the Westinghouse Printing Division, Trafford, PA 15085. Order Application Data 29-167M.

Individual oversize copies of curves listed above printed on onion-skin paper are available in limited quantity from:

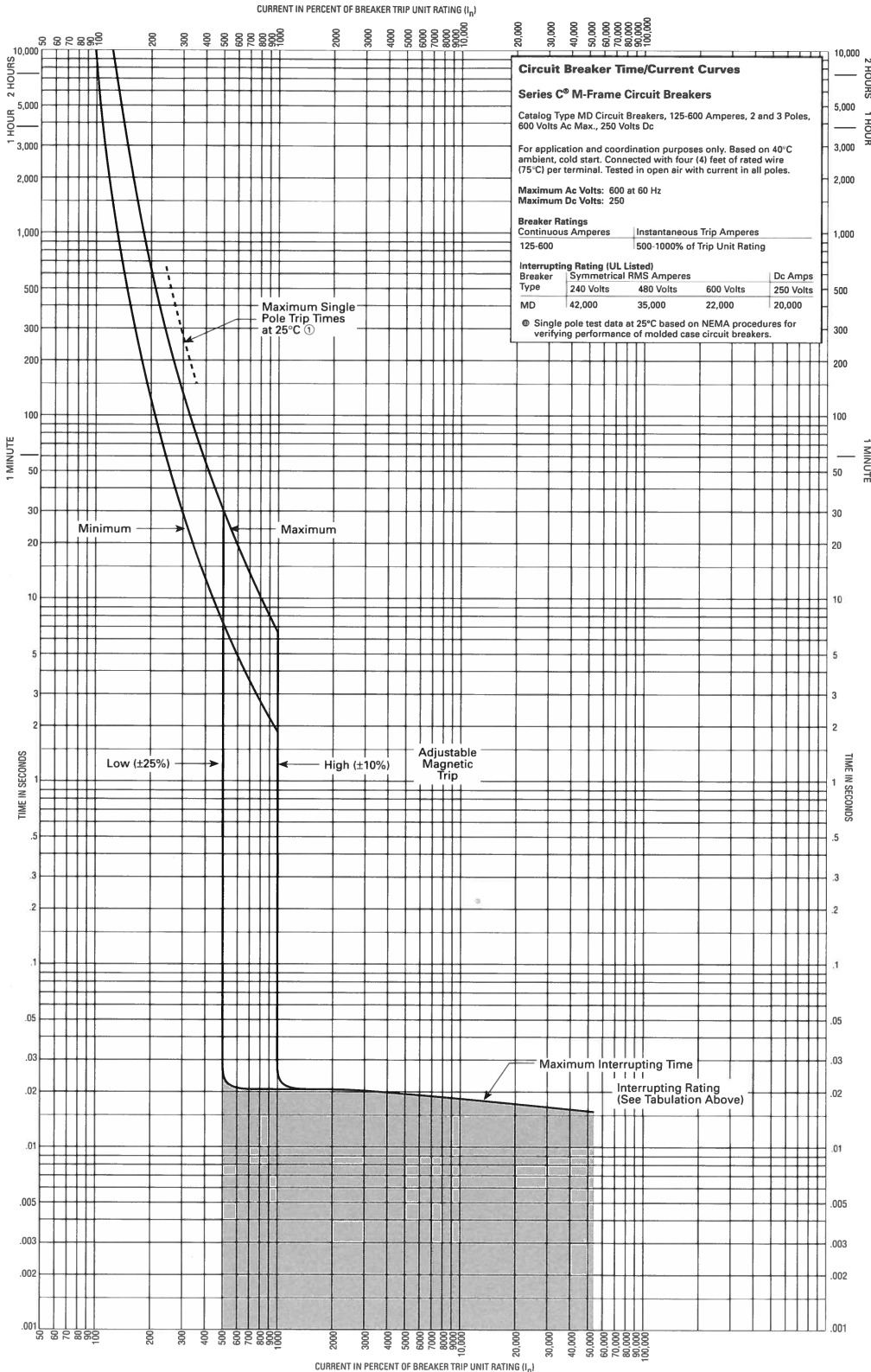
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When ordering onion-skin curves, use number at bottom of page where curve appears, i.e., SC-5702-94. **Requests for full sets of curves will not be honored.**



AB DE-ION Circuit Breakers

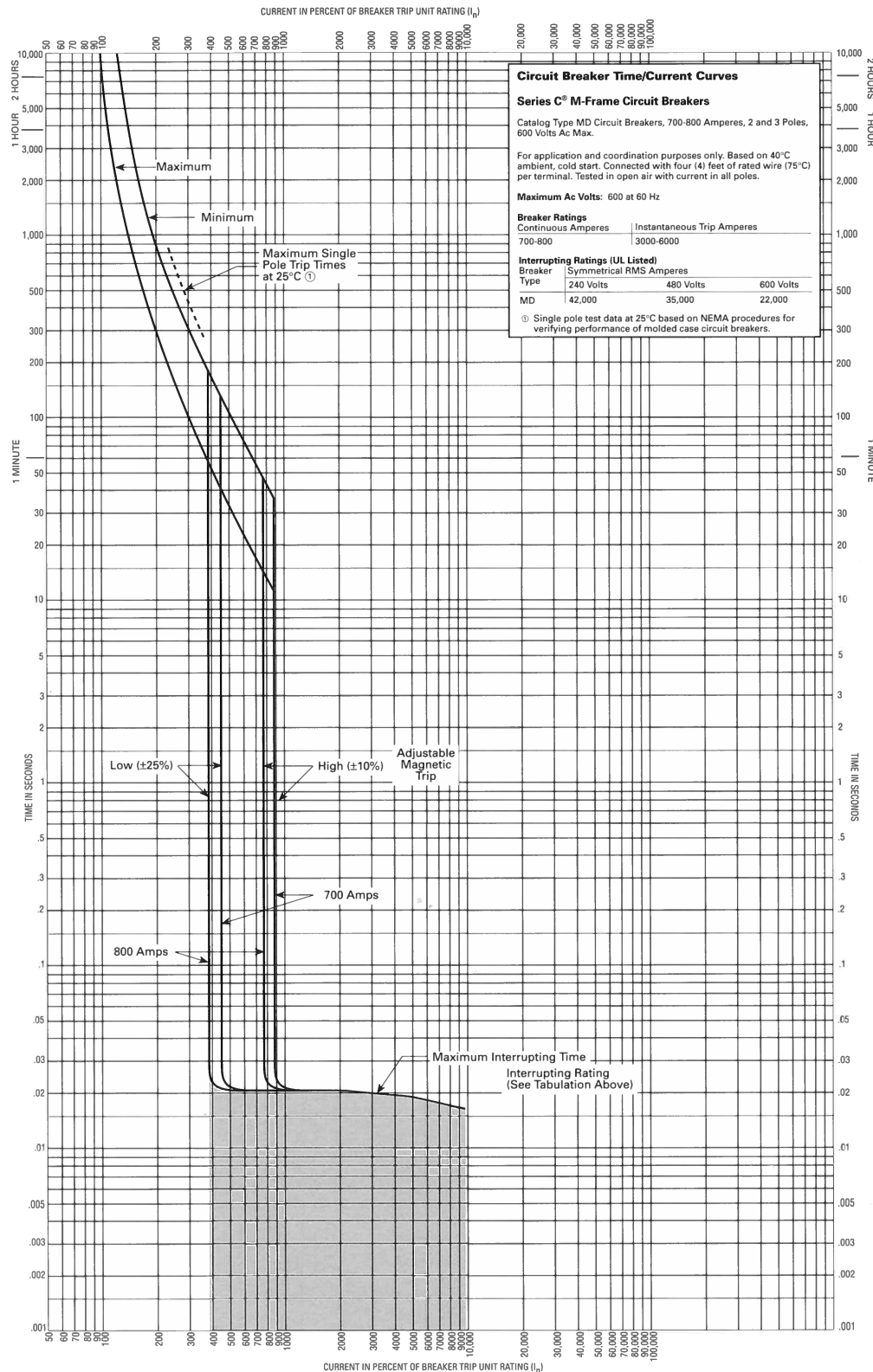
Type MD, 125-600 Amperes





AB DE-ION Circuit Breakers

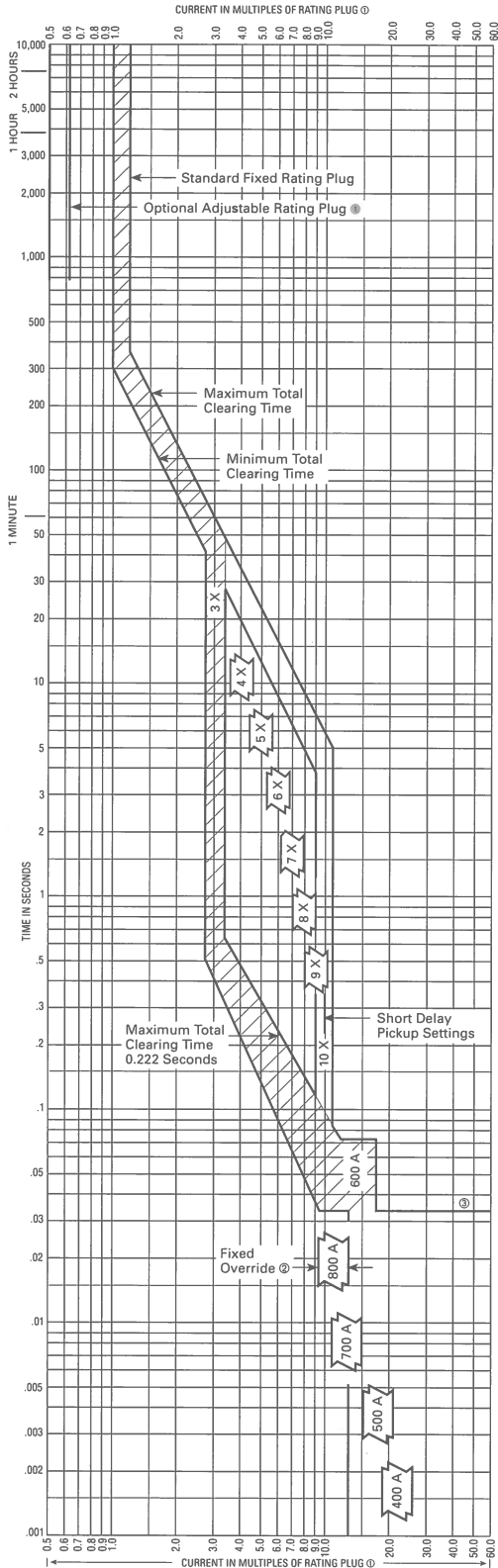
Type MD, 700-800 Amperes





AB DE-ION Circuit Breakers

Type MDS, 400-800 Amperes



Circuit Breaker Time/Current Curves

Series C[®] M-Frame Circuit Breakers

Catalog Type MDS Circuit Breakers, 400-800 Amperes, 2 and 3 Poles

Curve accuracy applies from -20°C to +55°C ambient. For possible continuous ampere derating for ambients above +40°C refer to Cutler-Hammer.

Maximum Ac Volts: 600, at 50/60 Hz

Breaker Ratings	Short Delay Pickup Settings
Continuous Amperes	3x to 10x Rating Plug Value with Calibration Settings as Shown on Curve (Tol. ±10%)
400-800	

Interrupting Rating (UL/CSA Listed)			
Breaker	Symmetrical RMS Amperes		
Frame	240 Volts	480 Volts	600 Volts
MDS	42,000	35,000	22,000

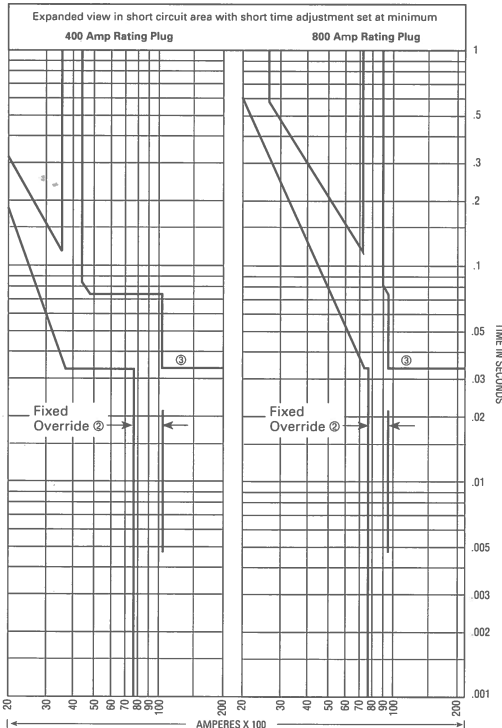
Rating Plugs Available	
Continuous Amperes	Range Adjustment
800 Amp	Fixed 100% ⓐ
800 Amp	50 - 100% ⓐ
700 Amp	Fixed 100% ⓐ
700 Amp	70 - 100% ⓐ
600 Amp	Fixed 100% ⓐ
600 Amp	70 - 100% ⓐ
500 Amp	Fixed 100% ⓐ
500 Amp	80 - 100% ⓐ
400 Amp	Fixed 100%

ⓐ When adjustable rating plugs are used, short delay pickup settings track the selected position of the adjustable rating plug. For example, with an adjustable 800 amp rating plug set at 50%, and the short delay pickup set at 4x, the short delay pickup is 800 x 50% x 4 = 1600 amps.

ⓑ For high fault current levels, a fixed instantaneous override is provided. The trip level for each rating plug is as shown. (Tolerance ±15%)

ⓒ The end of the curve is determined by the interrupting rating and/or the specific application.

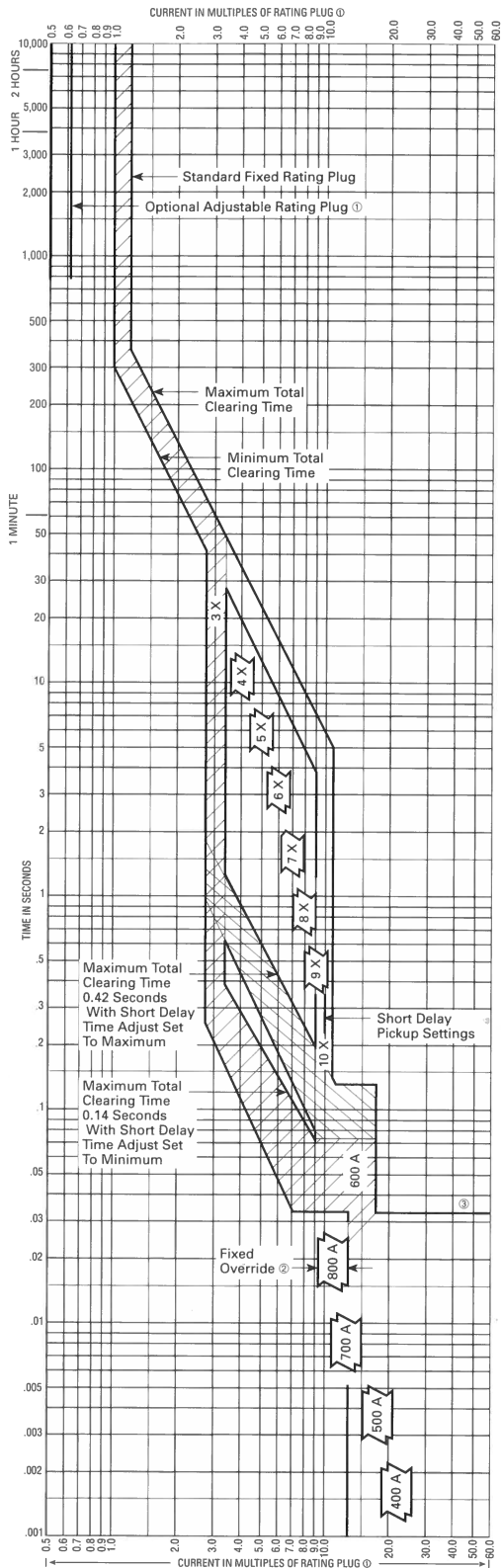
ⓓ For ground fault time-current characteristics of MDSG see Curve No. SC-5706-94.





AB DE-ION Circuit Breakers

Types MDSA, MDSGA, 400-800 Amperes



Circuit Breaker Time/Current Curves

Series C[®] M-Frame Circuit Breakers

Catalog Types MDSA, MDSGA Circuit Breakers, 400-800 Amperes, 2 and 3 Poles

Curve accuracy applies from -20°C to +55°C ambient. For possible continuous ampere derating for ambients above +40°C refer to Cutler-Hammer.

Maximum Ac Volts: 600, at 50/60 Hz

Breaker Ratings	Continuous Amperes	Short Delay Pickup Settings
400-800		3x to 10x Rating Plug Value with Calibration Settings as Shown on Curve (Tol. ±10%)

Interrupting Rating (UL/CSA Listed)

Breaker	Symmetrical RMS Amperes	480 Volts	600 Volts
MDSA	42,000	35,000	22,000
MDSGA			

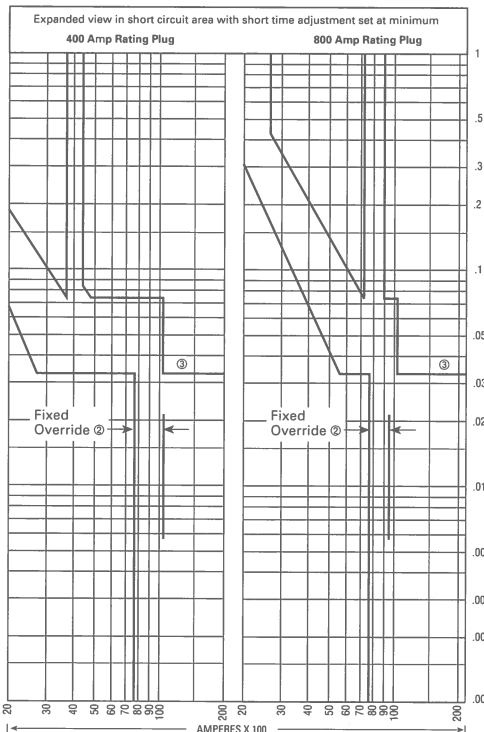
Rating Plugs Available	Range of Adjustment
800 Amp	Fixed 100% 50 - 100% ⓐ
800 Amp	Fixed 100% 70 - 100% ⓐ
800 Amp	Fixed 100% 70 - 100% ⓐ
800 Amp	Fixed 100% 80 - 100% ⓐ
800 Amp	Fixed 100%
500 Amp	Fixed 100%
500 Amp	Fixed 100%
400 Amp	Fixed 100%

When adjustable rating plugs are used, short delay pickup settings track the selected position of the adjustable rating plug. For example, with an adjustable 800 amp rating plug set at 50%, and the short delay pickup set at 4x, the short delay pickup is 800 x 50% x 4 = 1600 amps.

ⓐ For high fault current levels, a fixed instantaneous override is provided. The trip level for each rating plug is as shown. (Tolerance ±15%)

ⓑ The end of the curve is determined by the interrupting rating and/or the specific application.

ⓒ For ground fault time-current characteristics of MDSGA see Curve No. SC-5706-94.





AB DE-ION Circuit Breakers

Types MDSG, MDSGA Ground Fault Pick-up Curves

