



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

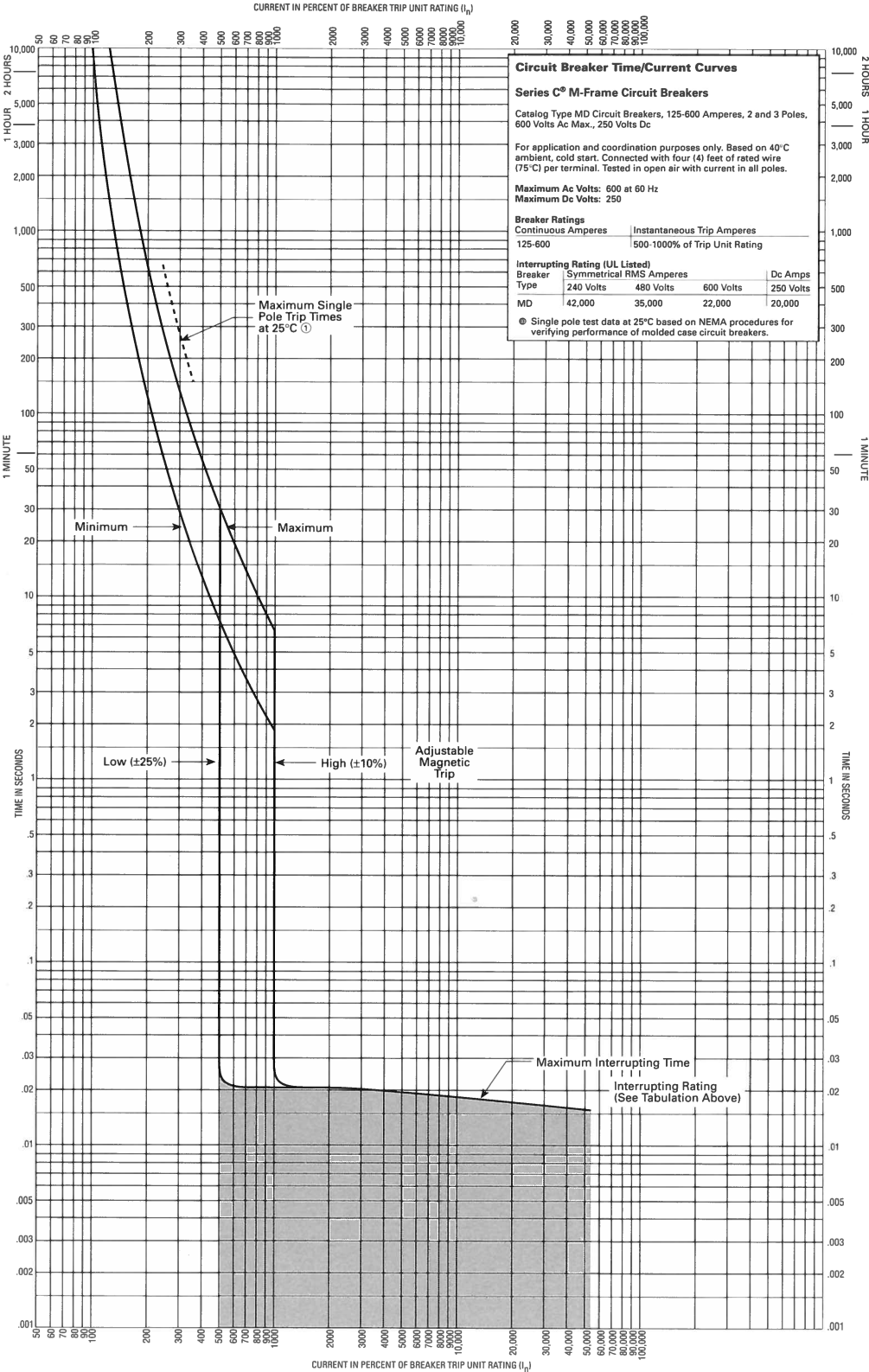
Individual oversize copies of curves listed above printed on onion-skin paper are available in limited quantity from:

Cutler-Hammer  
Westinghouse &  
Cutler-Hammer Products  
Five Parkway Center  
Pittsburgh, PA 15220

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.**



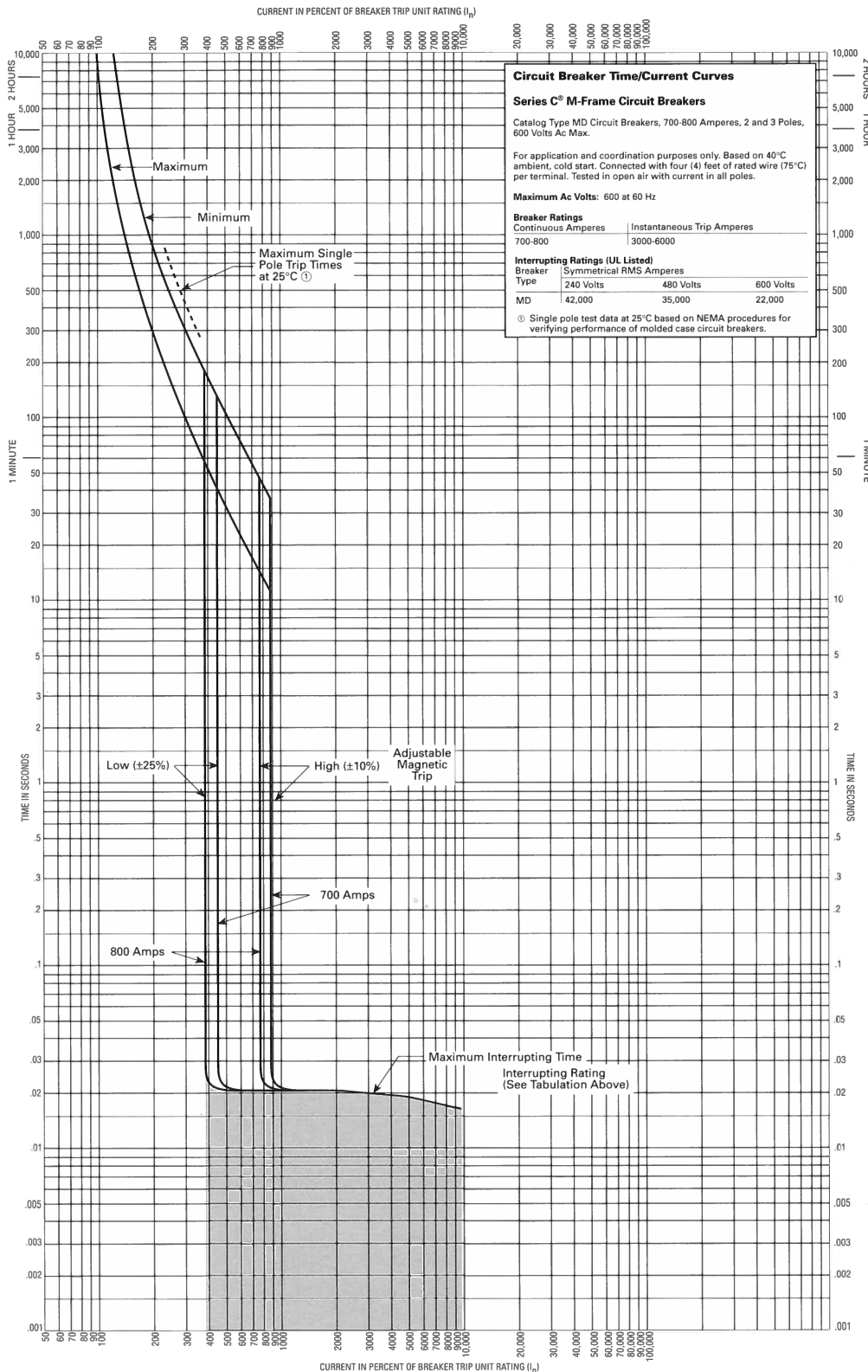
AB DE-ION Circuit Breakers  
Type MD, 125-600 Amperes





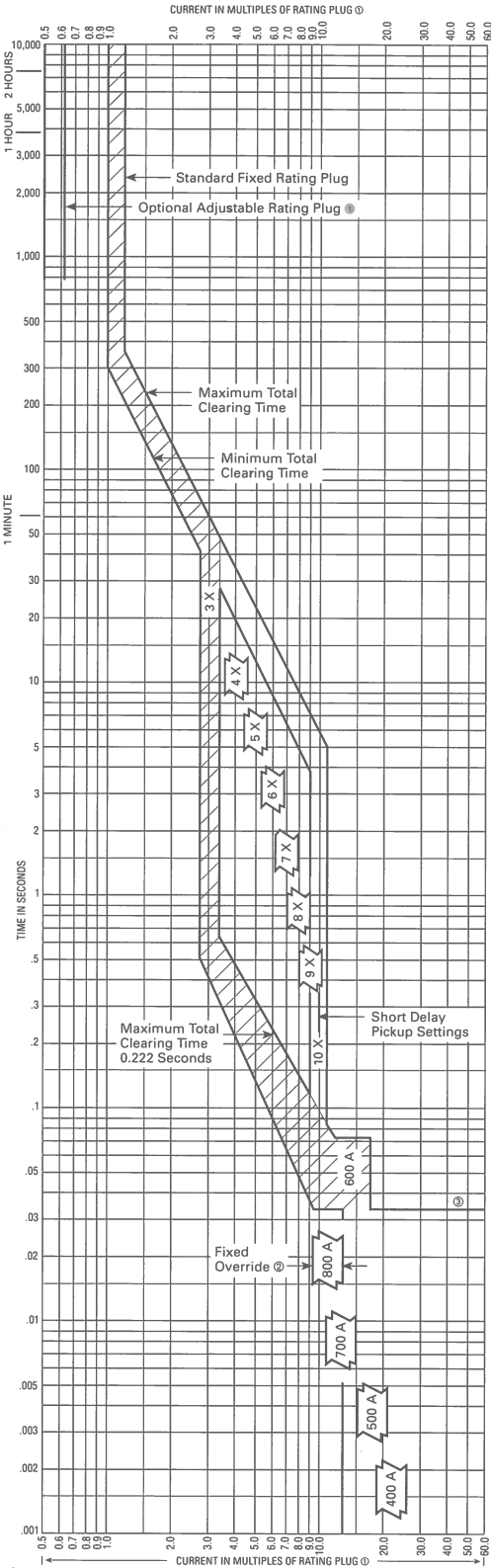
## AB DE-ION Circuit Breakers

### 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
400-800	With Calibration Settings as Shown on Curve (Tol. ±10%)

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

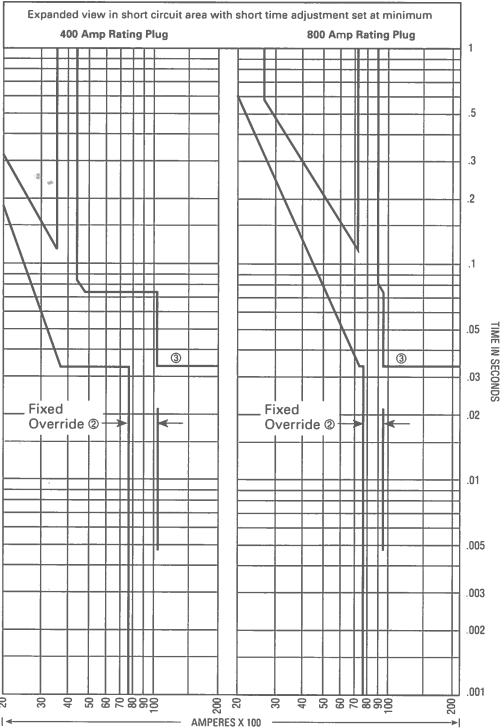
Rating Plugs Available	Range Adjustment
Continuous Amperes	
800 Amp	Fixed 100% ①
800 Amp	50 - 100% ①
700 Amp	Fixed 100% ①
700 Amp	70 - 100% ①
600 Amp	Fixed 100% ①
600 Amp	70 - 100% ①
500 Amp	Fixed 100% ①
500 Amp	80 - 100% ①
400 Amp	Fixed 100% ①

① 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.

② For high fault current levels, a fixed instantaneous override is provided. The trip level for each rating plug is as shown. (Tolerance ±15%)

③ The end of the curve is determined by the interrupting rating and/or the specific application.

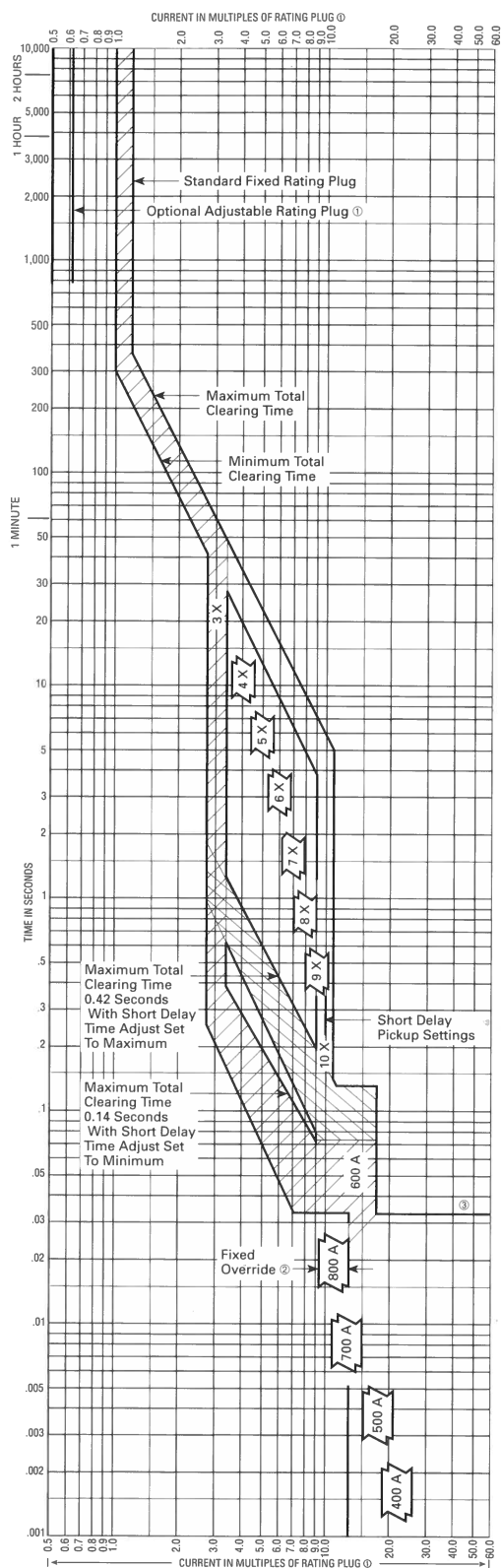
④ For ground fault time-current characteristics of MDSG see Curve No. SC-5706-94.





## 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  
Frame      240 Volts      480 Volts      600 Volts  
MDSA      42,000      35,000      22,000  
MDSGA

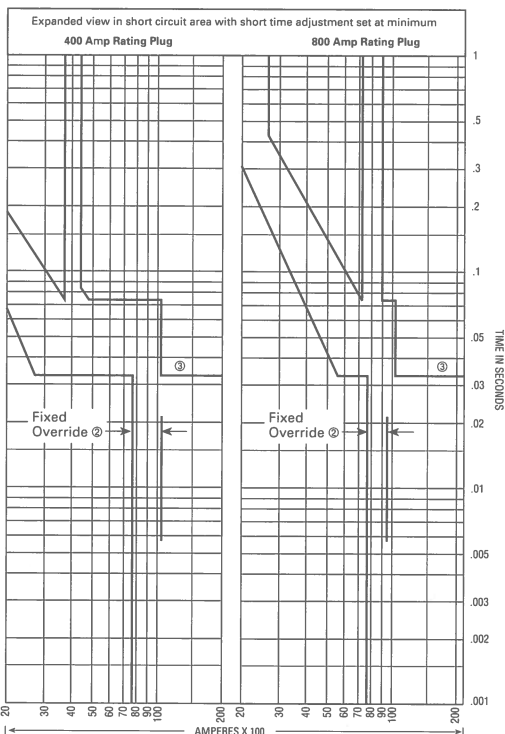
Rating Plugs Available	Range of Adjustment
Continuous Amperes	
800 Amp	Fixed 100%
800 Amp	50 - 100% ①
700 Amp	Fixed 100%
700 Amp	70 - 100% ①
600 Amp	Fixed 100%
600 Amp	70 - 100% ①
500 Amp	Fixed 100%
500 Amp	80 - 100% ①
400 Amp	Fixed 100%

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.

② For high fault current levels, a fixed instantaneous override is provided. The trip level for each rating plug is as shown. (Tolerance ±15%)

③ The end of the curve is determined by the interrupting rating and/or the specific application.

④ For ground fault time-current characteristics of MDSGA see Curve No. SC-5706-94.



Curve No. SC-5705-94



## AB DE-ION Circuit Breakers

### Types MDSG, MDSGA Ground Fault Pick-up Curves

