

**Cross Reference to
Rockwell Part Number
25105-209-08**

Typical F-Frame Breaker
F-Frame Breaker with Electronic Trip Unit




F-Frame (10–225 Amperes)

Product Description

- All Eaton's F-Frame circuit breakers are HACR rated
- All circuit breakers 10 through 30 amperes are suitable for HID (high intensity discharge) use
- All F-Frame circuit breakers are suitable for reverse feed use

**Type FD Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units
(Includes Terminals on Load End Only)**

Maximum Continuous Ampere Rating at 40°C	277 Vac Maximum, 125 Vdc 35 kAIC at 277 Vac	600 Vac Maximum, 250 Vdc 35 kAIC at 480 Vac		
	Single-Pole Catalog Number	Two-Pole Catalog Number	Three-Pole Catalog Number	Four-Pole Catalog Number
10 ①	FD1010	—	—	—
15	FD1015 ②	FD2015	FD3015	FD4015
20	FD1020 ②	FD2020	FD3020	FD4020
25	FD1025	FD2025	FD3025	FD4025
30	FD1030	FD2030	FD3030	FD4030
35	FD1035	FD2035	FD3035	FD4035
40	FD1040	FD2040	FD3040	FD4040
45	FD1045	FD2045	FD3045	FD4045
50	FD1050	FD2050	FD3050	FD4050
60	 FD1060	FD2060	FD3060	FD4060
70	FD1070	FD2070	FD3070	FD4070
80	FD1080	FD2080	FD3080	FD4080
90	FD1090	FD2090	FD3090	FD4090
100	FD1100	FD2100	FD3100	FD4100
110	FD1110	FD2110	FD3110	FD4110
125	FD1125	FD2125	FD3125	FD4125
150	FD1150	FD2150	FD3150	FD4150
175	—	FD2175	FD3175	FD4175
200	—	FD2200	FD3200	FD4200
225	—	FD2225	FD3225	FD4225

Notes

- ① Not UL listed. 5 kAIC interrupting rating.
 ② UL listed for SWD applications, see NEC Article 240.83(d).

F-Frame Digitrip Specifications

Trip Unit Type	Digitrip RMS 310+	
rms sensing	Yes	
Breaker Type		
Frame	FDE	
Ampere range	15–225A	
Interrupting rating at 480V	35, 65, 100 (kA)	
Protection		
Ordering options	LS	LSI
	LSG	LSIG
Fixed rated plug (I_n)	No	
Overtemperature trip	Yes	
Long Delay Protection (L)		
Adjustable rating plug (I_n)	No	
Long delay pickup	40–100% frame	
Long delay time I^2t	2–24 seconds	
Long delay time I^4t	No	
Long delay thermal memory	Yes	
High load alarm	Yes	
Short Delay Protection (S)		
Short delay pickup	200–1000% x (I_r)	
Short delay time I^2t	Yes	No
Short delay time Flat	No	Inst–300 ms
Short delay time Z.S.I.	Yes ^①	
Instantaneous Protection (I)		
Instantaneous pickup	No	
Discriminator	No	
Instantaneous override	Yes	
Ground Fault Protection (G)		
Ground fault alarm	No	
Ground fault pickup	20–100% frame	
Ground fault delay I^2t	No	
Ground fault delay flat	Inst–300 ms	
Ground fault Z.S.I.	Yes ^①	
Ground fault thermal memory	Yes	
System Diagnostics		
Cause of trip LEDs	No	
Magnitude of trip information	No	
Remote signal contacts	No	
System Monitoring		
Digital display	No	
Current	No	
Voltage	No	
Power and energy	No	
Power quality harmonics	No	
Power factor	No	
Communications		
PowerNet	No	
Testing		
Testing method	Test kit	

Legend I_n = Rating Plug I_r = Long Delay Pickup Setting x I_n **Note**

^① ZSI (zone selective interlocking) is optional. Must order with ZSI. Standard 310+ does not come with ZSI.

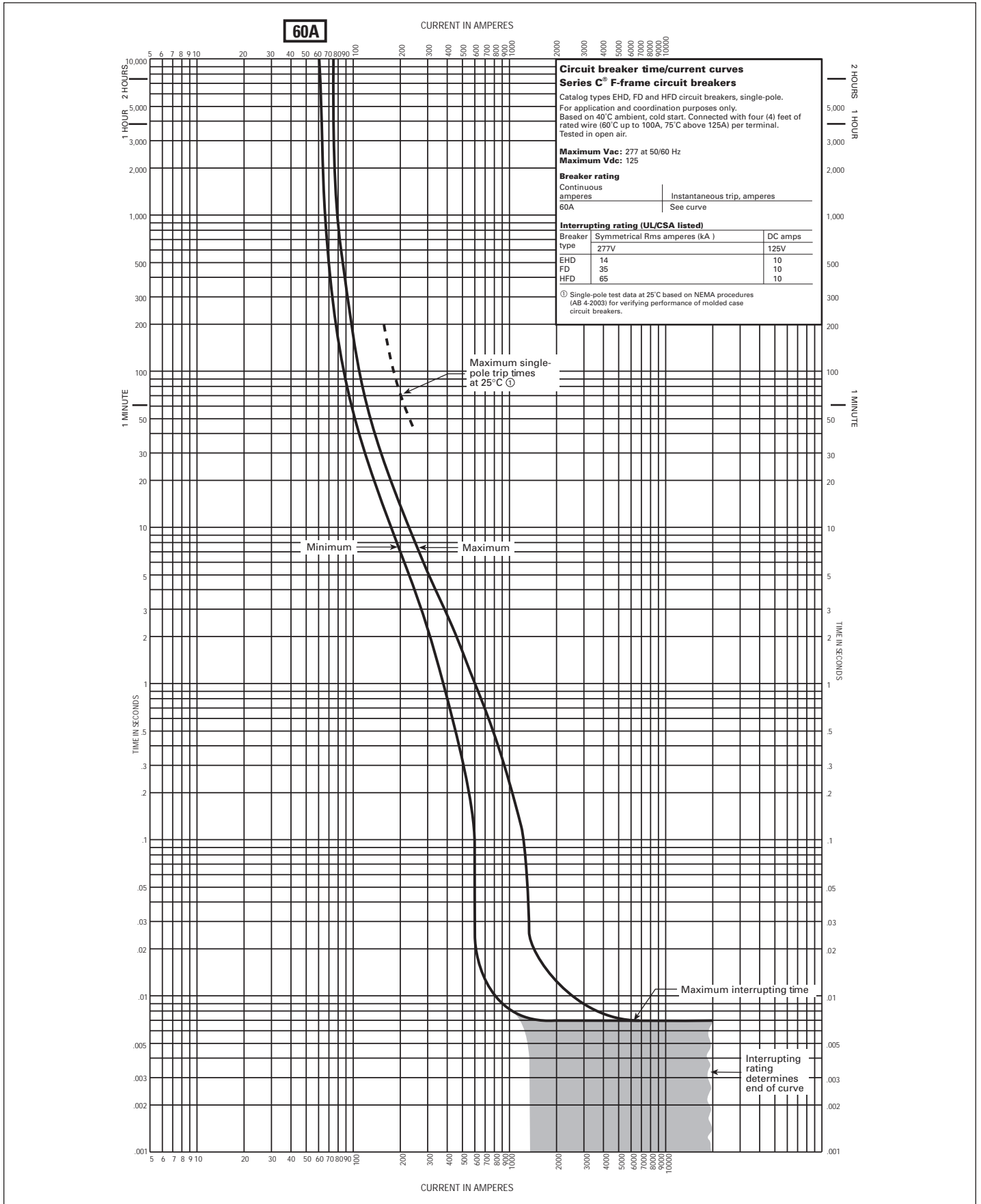


Figure 9. Types EHD, FD, and HFD 60A—Curve No. SC-4431-88A