

F-Frame

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F-Frame



Typical F-Frame Breaker

Product Description

- All F-Frame Circuit Breakers are HACR rated.
- All circuit breakers 10 through 50 amperes are suitable for HID (high intensity discharge) use.
- All F-Frame circuit breakers are suitable for reverse feed use.

Technical Data and Specifications

Table 12-28. UL489 Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Interrupting Capacity (Symmetrical Amperes) (kA)					
		Volts AC (50/60 Hz)				Volts DC ①	
		240	277	480	600	125	250 ②③
ED	2, 3	65	—	—	—	10	—
EDH	2, 3	100	—	—	—	10	—
EDC	2, 3	200	—	—	—	10	—
EHD	1	—	14	—	—	10	—
	2, 3	18	—	14	—	—	10
FDB	2, 3, 4	18	—	14	14	—	10
FD	1	—	25	—	—	10	—
	2, 3, 4	65	—	25	18	—	10
HFD	1	—	65	—	—	10	—
	2, 3, 4	100	—	65	25	—	22
FDC	2, 3, 4	200	—	100	35	—	22

- ① DC ratings apply to substantially non-inductive circuits.
- ② 2-pole circuit breaker, or two poles of 3-pole circuit breaker.
- ③ Time constant is 3 milliseconds minimum at 10 kA and 8 milliseconds minimum at 22 kA.

Table 12-29. IEC 157-1 (P1) Interrupting Capacity Ratings (P1)

Circuit Breaker Type	Number of Poles	Interrupting Capacity (Symmetrical Amperes) (kA)					
		Volts AC (50/60 Hz)				Volts DC ④	
		220, 240	380, 415	440	500	125	250 ⑤⑥
ED	2, 3	65	—	—	—	10	—
EDH	2, 3	100	—	—	—	10	—
EDC	2, 3	200	—	—	—	10	—
FDB	2, 3, 4	18	14	14	14	—	10
FD	1	25	—	—	—	10	—
	2, 3, 4	65	35	35	18	—	10
HFD	1	65	—	—	—	10	—
	2, 3, 4	100	65	65	25	—	22
FDC	2, 3, 4	200	100	100	35	—	22

- ④ DC ratings apply to substantially non-inductive circuits.
- ⑤ 2-pole circuit breaker, or two poles of 3-pole circuit breaker.
- ⑥ Time constant is 3 milliseconds minimum at 10 kA and 8 milliseconds minimum at 22 kA.

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Dimensions/Weights

Table 12-30. Dimensions in Inches (mm)

Number of Poles	Width	Height	Depth
1	1.375 (35)	6 (152)	3.375 (86)
2	2.75 (70)	6 (152)	3.375 (86)
3	4.125 (105)	6 (152)	3.375 (86)
4	5.5 (140)	6 (152)	3.375 (86)

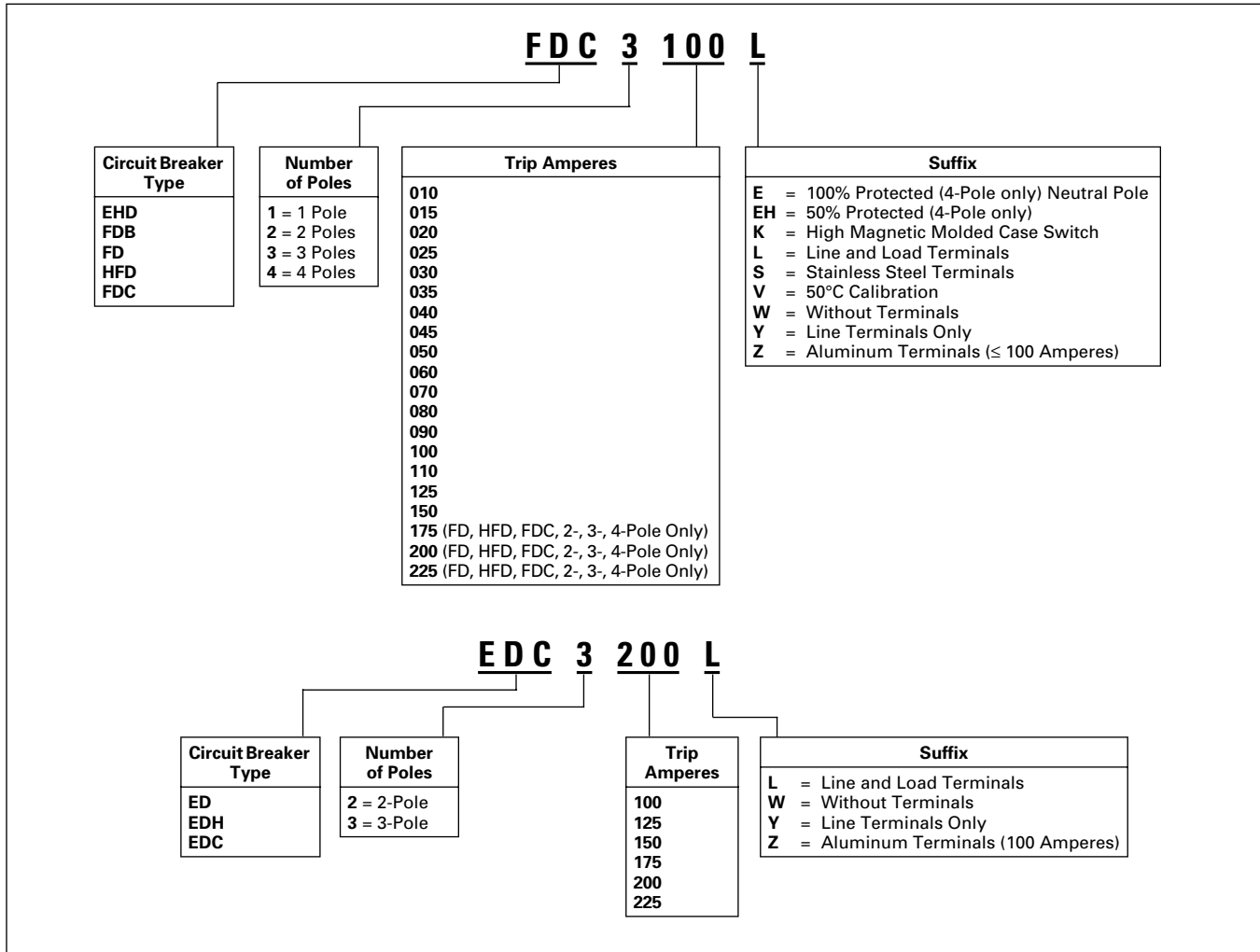
Table 12-31. Approximate Shipping Weight, Lbs. (Kg)

Breaker Type	Number of Poles			
	1	2	3	4
ED, EDH, EDC	—	3 (1.361)	4.5 (2.041)	—
EHD, FDB, FD, HFD, FDC	2 (.907)	3 (1.361)	4.5 (2.041)	6 (2.721)

Product Selection

This information is presented only as an aid to understanding Catalog Numbers. It is not to be used to build Catalog Numbers for circuit breakers or trip units.

Table 12-32. Circuit Breaker Catalog Numbering System



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Product Selection

Table 12-33. Types ED, EDH, and EDC Thermal-Magnetic Circuit Breakers with Non-interchangeable Trip Units Suitable for Reverse Feed

Maximum Continuous Ampere Rating @ 40°C	240V AC Maximum, 125V DC (Includes Terminals on Load End Only)											
	65 kAIC @ 240V AC				100 kAIC @ 240V AC				200 kAIC @ 240V AC			
	Type ED				Type EDH				Type EDC Current Limiting			
	2-Pole		3-Pole		2-Pole		3-Pole		2-Pole		3-Pole	
Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	
100	ED2100	357.	ED3100	885.	EDH2100	850.	EDH3100	1,280.	EDC2100	1,200.	EDC3100	1,655.
125	ED2125	357.	ED3125	885.	EDH2125	850.	EDH3125	1,280.	EDC2125	1,200.	EDC3125	1,655.
150	ED2150	357.	ED3150	885.	EDH2150	850.	EDH3150	1,280.	EDC2150	1,200.	EDC3150	1,655.
175	ED2175	357.	ED3175	885.	EDH2175	850.	EDH3175	1,280.	EDC2175	1,200.	EDC3175	1,655.
200	ED2200	357.	ED3200	885.	EDH2200	850.	EDH3200	1,280.	EDC2200	1,200.	EDC3200	1,655.
225	ED2225	357.	ED3225	885.	EDH2225	850.	EDH3225	1,280.	EDC2225	1,200.	EDC3225	1,655.

Note: Instruction Leaflet/FRED Number 29C101

Table 12-34. Type EHD Thermal-Magnetic Circuit Breakers with Non-interchangeable Trip Units

Maximum Continuous Ampere Rating @ 40°C	277V AC Maximum, 125V DC				480V AC Maximum, 250V DC			
	14 kAIC @ 277V AC				14 kAIC @ 480V AC			
	Type EHD (Includes Terminals on Load End Only)							
	1-Pole		2-Pole		3-Pole			
Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	
10 ①	EHD1010		123.	EHD2010		387.	EHD3010	498.
15	EHD1015 ②		123.	EHD2015		387.	EHD3015	498.
20	EHD1020 ②		123.	EHD2020		387.	EHD3020	498.
25	EHD1025		123.	EHD2025		387.	EHD3025	498.
30	EHD1030		123.	EHD2030		387.	EHD3030	498.
35	EHD1035		123.	EHD2035		387.	EHD3035	498.
40	EHD1040		123.	EHD2040		387.	EHD3040	498.
45	EHD1045		123.	EHD2045		387.	EHD3045	498.
50	EHD1050		123.	EHD2050		387.	EHD3050	498.
60	EHD1060		123.	EHD2060		387.	EHD3060	498.
70	EHD1070		238.	EHD2070		505.	EHD3070	600.
80	EHD1080		239.	EHD2080		505.	EHD3080	600.
90	EHD1090		238.	EHD2090		505.	EHD3090	600.
100	EHD1100		238.	EHD2100		505.	EHD3100	600.

① Not UL listed. 5 kAIC interrupting rating.
② UL listed for SWD applications, see NEC Article 240-83 (d).

Note: Instruction Leaflet/FRED Number 29C101