

Table 9.107: QO® Distribution Panel—240 Vac Max. Only Mounts in Type HCN, HCM, HCP, HCP-SU, or HCR-U I-Line panelboards, 30 A max. branch circuit breaker. Order QO plug-on circuit breakers from page 9-33.

Maximum No. 1-pole QO Circuit Breakers	Phase Connection	Mounting Height		2-pole Catalog Number	3-pole Catalog Number	\$ Price ▲
		IN	mm			
6	AB	4.5	114	HQO206AB	—	369.
6	BC	4.5	114	HQO206BC	—	369.
6	AC	4.5	114	HQO206AC	—	369.
6	ABC	4.5	114	—	HQO306	369.

▲ Includes (5) QO1DB dummy circuit breakers.

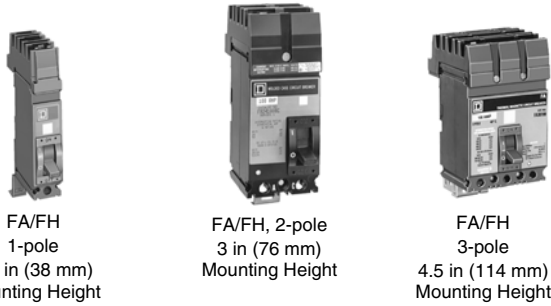


Table 9.108: Example: FJA, 20 A 1-pole, 277 Vac and 70 A 2- and 3-pole QB 240 Vac. Use phase option number for HD, HG, HJ, HL, JD, JG, JJ, JL, MG and MJ.

Phase Option Number	Phase Connection	1-pole	2-pole	3-pole
1	A	FJA140201	—	—
3	B	FJA140203	—	—
5	C	FJA140205	—	—
1	AB	—	QBA220701	—
2	AC	—	QBA220702	—
3	BA	—	QBA220703	—
4	BC	—	QBA220704	—
5	CA	—	QBA220705	—
6	CB	—	QBA220706	—
Standard ▲	ABC	—	—	QBA32070
6	CBA	—	—	QBA320706

▲ The absence of a phase option number after a 3-pole catalog number will result in an ABC phase connection.

Table 9.109: Example: FA, 30 A, 480 Vac. Use phase option letters for FH, FI, KI, LA, LH, LC, and LI.

Phase Option Letter	1-pole	2-pole	3-pole
A	FA14035A	—	—
B	FA14035B	—	—
C	FA14035C	—	—
AB	—	FA24030AB	—
AC	—	FA24030AC	—
BC	—	FA24030BC	—
ABC	—	—	FA34030
CBA	—	—	FA34030CBA

Table 9.110: Interrupt Ratings (kA)

	FA (240 V)	FA (480 V)	FJ
240 V	10	18 (1P), 25 (2, 3P)	65
277 V	—	18	65
480 V	—	18	—
600 V	—	—	—

Accessories: Supplemental & Obsolescence Digest
Optional Lugs pages 7-48
Dimensions pages 7-53

Table 9.111: F-frame—100 A, Thermal-magnetic (240 Vac)

Ampere Rating	AC Magnetic Trip Settings		Standard Interrupting		Terminal Wire Range				
	Hold	Trip	Catalog Number	\$ Price					
2-pole, 240 Vac ▲									
15	275	600	FA22015()	398.	AL50FA #14-#4 AWG Cu or #12-#4 AWG Al				
20			FA22020()						
25			FA22025()						
30			FA22030()						
35	400	850	FA22035()	617.	AL100FA #14-#1/0 AWG Cu or #12-#1/0 AWG Al				
40			FA22040()						
45			FA22045()						
50			FA22050()						
60			FA22060()						
70			FA22070()						
80	FA22080()	1700	FA22090()	780.	AL100FA #14-#1/0 AWG Cu				
90	FA22090()								
100	FA22100()								
3-pole, 240 Vac									
15	275	600	FA32015	572.	AL50FA #14-#4 AWG Cu or #12-#4 AWG Al				
20			FA32020						
25			FA32025						
30			FA32030						
35	400	850	FA32035	572.	AL100FA #14-#1/0 AWG Cu or #12-#1/0 AWG Al				
40			FA32040						
45			FA32045						
50			FA32050						
60			FA32060			1450	FA32070	780.	AL100FA #14-#1/0 AWG Cu or #12-#1/0 AWG Al
70			FA32070						
80	FA32080								
90	FA32090	1700	FA32090	780.	AL100FA #14-#1/0 AWG Cu				
100	FA32100								

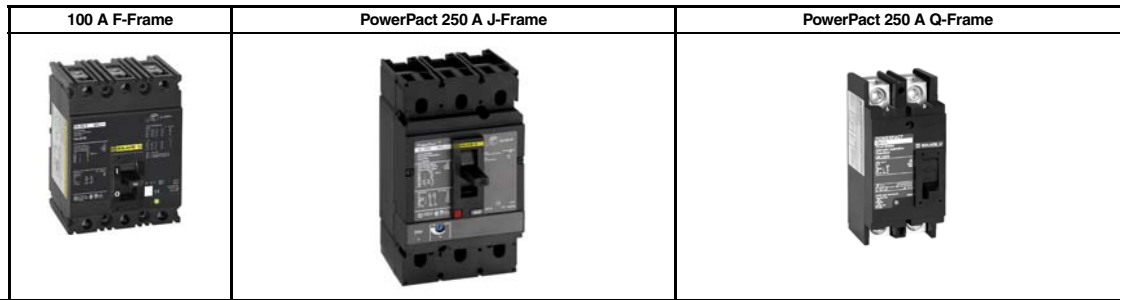
▲ 1- and 2-pole circuit breaker catalog numbers are completed by adding the required phase connection letters as a suffix.

Table 9.112: F-frame—100 A, Thermal-magnetic (480 Vac)

Ampere Rating	AC Magnetic Trip Settings		Standard Interrupting		Extra High Interrupting		Terminal Wire Range		
	Hold	Trip	Catalog Number	\$ Price	Catalog Number	\$ Price	FY/FA Lugs	FJ/FC Lugs	
1-pole, 277 Vac, 125 Vdc ▲									
15	275	600	FY14015() ■	149.	FJA14015()	651.	AL50FA #14-#4 AWG Cu, or #12-#4 AWG Al	AL30FD #12-#6 AWG Al, or #14-#6 AWG Cu	
20			FY14020() ■		FJA14020()				
25			FY14025() ■		FJA14025()				
30			FY14030() ■		FJA14030()				
35	400	850	FA14035() ◆	302.	FJA14035()	651.	AL100FA #14-#1/0 AWG Cu or #12-#1/0 AWG Al	AL100FD #12-#2/0 AWG Al or #14-#2/0 AWG Cu	
40			FA14040() ◆		FJA14040()				
45			FA14045() ◆		FJA14045()				
50			FA14050() ◆		FJA14050()				
60			FA14060() ◆		FJA14060()				720.
70			FA14070() ◆		FJA14070()				
80	FA14080() ◆	—	—	—					
90	FA14090() ◆	—	—	—					
100	FA14100() ◆	—	—	—					
2-pole, 480 Vac, 250 Vdc ▲ ■ ◆									
15	275	600	FA24015()	651.	—	—	AL50FA #14-#4 AWG Cu or #12-#4 AWG Al	CU30FA4 one #14- #10 AWG Cu only	
20			FA24020()		—				
25			FA24025()		—				
30			FA24030()		—				
35	400	850	FA24035()	651.	—	—	AL100FA #14-#1/0 AWG Cu or #12-#1/0 AWG Al	AL100FA4 one #14-#3 AWG Cu or one #12-#1 AWG Al	
40			FA24040()		—				
45			FA24045()		—				
50			FA24050()		—				
60			FA24060()		651.				—
70			FA24070()		833.				—
80	FA24080()	—	—						
90	FA24090()	833.	—						
100	FA24100()	—	—						
3-pole, 480 Vac, 250 Vdc ▲									
15	275	600	FA34015	833.	—	—	AL50FA #14-#4 AWG Cu or #12-#4 AWG Al	CU30FA4 one #14- #10 AWG Cu only	
20			FA34020		—				
25			FA34025		—				
30			FA34030		—				
35	400	850	FA34035	833.	—	—	AL100FA #14-#1/0 AWG Cu or #12-#1/0 AWG Al	AL100FA4 one #14-#3 AWG Cu or one #12-#1 AWG Al	
40			FA34040		—				
45			FA34045		—				
50			FA34050		—				
60			FA34060		833.				—
70			FA34070		996.				—
80	FA34080	—	—						
90	FA34090	—	—						
100	FA34100	996.	—						

▲ 1- and 2-pole circuit breaker catalog numbers are completed by adding the required phase connection letters as a suffix.

■ Rated 277 Vac 15 and 20 ampere FY circuit breakers are rated for switching duty (SWD). 15, 20, 25 and 30 ampere FA I-LINE circuit breakers are also available (no SWD rating).
◆ Rated 277 Vac, 125 Vdc, except FY circuit breakers, which have no dc rating. 15-30 ampere circuit breakers suitable for use with 60°C or 75°C conductors. 35-100 ampere circuit breakers are suitable for use with 75°C conductors.



Circuit Breaker Type	FI	FY	JD	JG	JJ	JL	QB	QD	QG	QJ	
Number of Poles	2, 3	1	2,3▲	2,3▲	2,3▲	2,3▲	2, 3	2, 3	2, 3	2, 3	
Current Range	20–100	15–30	150–250 A	150–250 A	150–250 A	150–250 A	70–250■	70–250■	70–250■	70–250■	
Interrupting Ratings											
UL/CSA/NOM Rating (kA RMS) (50/60 Hz)	240 Vac	200	14	25	65	100	125	10	25	65	100
	480Y/277 Vac	200	14	18	35	65	100	—	—	—	—
	480 Vac	200	—	18	35	65	100	—	—	—	—
	600Y/347 Vac	100	—	14	18	25	50	—	—	—	—
DC Ratings	600 Vac	100	—	14	18	25	50	—	—	—	—
	250 Vdc	—	—	20	20	20	20	—	—	—	—
IEC Rating (kA RMS) Icu/Ics★	500 Vdc◆	—	—	—	20	—	—	—	—	—	—
	240 Vac	—	—	25/25	65/65	100/100	125/125	10/5	10/5	10/5	10/5
IEC 50/60 Hz	415 Vac	6/1.5	—	18/18	35/35	65/65	100/100	10/5	10/5	10/5	10/5
	For additional IEC ratings, see the Supplemental Digest.										
Special Ratings											
Fed. Specs W-C-375B/GEN	X	—	X	X	X	X	X	X	X	X	X
HACR (2P, 3P)	—	—	X	X	X	X	X	X	X	X	—
Connections/Terminations											
Unit Mount	X	—	X	X	X	X	X	X	X	X	X
I-Line®	X	X	X	X	X	X	X	X	X	X	X
Rear Connection	—	—	X	X	X	X	—	—	—	—	—
Drawout	—	—	X	X	X	X	—	—	—	—	—
Optional Lugs	X	—	X	X	X	X	—	—	—	—	—
Accessories and Modifications											
Shunt Trip	X△	—	X	X	X	X	—	—	—	—	—
Undervoltage Trip	X△	—	X	X	X	X	—	—	—	—	—
Auxiliary Switches	X△	—	X	X	X	X	—	—	—	—	—
Alarm Switch	X△	—	X	X	X	X	—	—	—	—	—
Motor Operator	X	—	X	X	X	X	—	—	—	—	—
Handle Operators	—	—	X	X	X	X	—	—	—	—	—
Mechanical Interlocks (3P)	—	—	X	X	X	X	X	X	X	X	X
Handle Padlock Attachment	X	X	X	X	X	X	X	X	X	X	X
Cylinder Lock (3P△)	—	—	—	—	—	—	—	—	—	—	—
Optional GF Protection▼	X	—	—	—	—	—	—	—	—	—	—
Trip System Type											
Thermal-magnetic	X	X	X	X	X	X	X	X	X	X	X
Instantaneous-only (MCP)	—	—	—	X□	X□	—	—	—	—	—	—
Molded Case Switch (Automatic)	—	—	X	X	X	X	X	—	—	—	—
Electronic	—	—	—	—	—	—	—	—	—	—	—
Enclosures (Pages 7-56–7-58)											
General Purpose (NEMA 1)	X	—	X	X	X	—	X	X	X	X	X
Raintight (NEMA 3R)	X	—	X	X	X	—	X	X	X	X	X
Dust-tight (NEMA 12)	X	—	X	X	X	—	—	—	—	—	—
Watertight (NEMA 4, 4X, 5)	X	—	X	X	X	—	—	—	—	—	—
Explosion Proof (NEMA 7, 9)	—	—	—	—	—	—	—	—	—	—	—
Dimensions (3P Unit Mount) in. (mm)	Height	8 (203)			7.5 (191)			6.47 (164)			
	Width	4.5 (114)			4.1 (104)			4.5 (114)			
	Depth	4.75 (121)			3.4 (86)			3.93 (100)			
Pages (Unit Mount)/(I-Line)	Pages 7-49/9-24			Pages 7-22, 7-23, 7-28, 7-33, 7-34/9-25			Pages 7-24/9-24				

Note: All circuit breakers on this chart are UL Listed and CSA Certified unless otherwise noted.

- ▲ 2P in a 3P module
- I-Line Q-frame circuit breakers are available 70–225 A only. 250 A Q-frame unit-mount circuit breakers are limited to Cu conductors only.
- ◆ Ungrounded UPS systems only. See page 7-34. Special DC J-Frame only.
- ★ Dual UL and IEC ratings and CE markings on circuit breakers. For additional IEC ratings, see the Supplemental Digest.
- ▼ Requires factory-installed “G” shunt trip and 3P module.
- △ Factory-installed option only.
- 3P only.

7 MINIATURE AND MOLDED CASE CIRCUIT BREAKERS



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