



FA/FH, 1-pole
1.5 in (38 mm)
Mounting Height



FA/FH, 2-pole
3 in (76 mm)
Mounting Height



FA/FH, 3-pole
4.5 in (114 mm)
Mounting Height

Table 9.114: Example: BD, 20 A 1-Pole, 277 Vac and 90 A 2- and 3-Pole BD 240 Vac. Use phase option number for BD, BG, BJ, HD, HG, HJ, HL, HR, JD, JG, JJ, JL, JR, 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 [1]	ABC	—	—	QBA32070
6	CBA	—	—	QBA320706

Table 9.116: 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	—	—	—

F-frame accessories starting on Supplemental Digest Section 3.

Table 9.115: Example: FA, 30 A, 480 Vac. Use phase option letters for FA, FH, LA, and LH.

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

Ampere Rating	AC Magnetic Trip Settings		Standard Interrupting Catalog Number	Terminal Wire Range
	Hold	Trip		
2-pole, 240 Vac [2]				
40 A			FA22040()	AL50FA #14–#4 AWG Cu or #12–#4 AWG Al
20 A	275	600	FA22020()	
25 A			FA22025()	
30 A			FA22030()	
35 A	400	850	FA22035()	AL100FA #14–#1/0 AWG Cu or #12–#1/0 AWG Al
45 A			FA22045()	AL100FA #14–#1/0 AWG Cu or #12–#1/0 AWG Al
50 A	800	1450	FA22050()	
60 A			FA22060()	
70 A			FA22070()	
80 A			FA22080()	
90 A	900	1700	FA22090()	AL100FA #14–#1/0 AWG Cu or #12–#1/0 AWG Al
100 A			FA22100()	
3-pole, 240 Vac				
15 A	275	600	FA32015	AL50FA #14–#4 AWG Cu or #12–#4 AWG Al
20 A			FA32020	
25 A			FA32025	
30 A			FA32030	
35 A	400	850	FA32035	AL100FA #14–#1/0 AWG Cu or #12–#1/0 AWG Al
40 A			FA32040	
45 A			FA32045	
50 A			FA32050	
60 A	800	1450	FA32060	AL100FA #14–#1/0 AWG Cu or #12–#1/0 AWG Al
70 A			FA32070	
80 A			FA32080	
90 A			FA32090	
100 A	900	1700	FA32100	AL100FA #14–#1/0 AWG Cu or #12–#1/0 AWG Al

Table 9.118: F-frame—100 A, Thermal-magnetic (480 Vac)

Ampere Rating	AC Magnetic Trip Settings		Standard Interrupting Catalog Number	Extra High Interrupting Catalog Number	Terminal Wire Range	
	Hold	Trip			FY/FA Lugs	FJ/FC Lugs
1-pole, 277 Vac, 125 Vdc [3]						
15 A	275	600	FY14015() [4]	FJA14015()	AL50FA #14–#6 AWG Cu, or #12–#4 AWG Al	AL30FD #12–#6 AWG Al, or #14–#6 AWG Cu
20 A			FY14020() [4]	FJA14020()		
25 A			FY14025() [4]	FJA14025()		
30 A			FY14030() [4]	FJA14030()		
35 A	400	850	FA14035()	FJA14035()	AL100FA #14–#1/0 AWG Cu or #12–#1/0 AWG Al	AL100FD #12–#2/0 AWG Al or
40 A			FA14040()	FJA14040()		

[1] The absence of a phase option number after a 3-pole catalog number will result in an ABC phase connection.
 [2] 1- and 2-pole circuit breaker catalog numbers are completed by adding the required phase connection letters as a suffix.
 [3] 1- and 2-pole circuit breaker catalog numbers are completed by adding the required phase connection letters as a suffix.
 [4] Rated 277 Vac 15 and 20 A FY circuit breakers are rated for switching duty (SWD). 15, 20, 25, and 30 A FA I-Line circuit breakers are also available (no SWD rating).

L- and PowerPact M-frame for I-Line™ Panelboards and Switchboards

Table 9.134: L-frame 600 A Circuit Breakers with Lugs and Factory-Sealed Electronic Trip Units Suitable for Reverse Connection^[25] (L-frame circuit breaker utilizes 6" of available I-Line bus)

Electronic Trip Unit			Sensor Rating	Catalog Number ^[26]	Terminal
Type	Function	Trip Unit			
600 Vac, 53/60 Hz, 3P					
Micrologic Standard	LI	3.3 ^[27]	250 A	L()A36250U31X	AL400L61K3 ^[28]
			400 A	L()A36400U31X	AL600LF52K3 ^[29]
			600 A	L()A36600U31X	AL600LF52K3 ^[29]
Micrologic Standard	LSI	3.3S ^[27]	250 A	L()A36250U33X	AL400L61K3 ^[28]
			400 A	L()A36400U33X	AL600LF52K3 ^[29]
Micrologic Ammeter	LSI	5.3A	400 A	L()A36400U43X	
			600 A	L()A36600U43X	
Micrologic Energy	LSI	5.3E	400 A	L()A36400U53X	
			600 A	L()A36600U53X	
Micrologic Ammeter	LSIG	6.3A	400 A	L()A36400U44X	
			600 A	L()A36600U44X	
Micrologic Energy	LSIG	6.3E	400 A	L()A36400U54X	
			600 A	L()A36600U54X	

Table 9.135: Interrupt Ratings (kA) for PowerPact L and M Frames

	G	J	L ^[30]
240 V	65	100	125
480 V	35	65	100
600 V ^[31]	18	25	50

Table 9.136: PowerPact M-frame: with ET1.0 Factory – sealed trip unit (not field adjustable)—800 A^[32] (PowerPact M-frame circuit breakers utilize 9" of the available I-Line bussing.)

	Ampere Rating	Adjustable Instantaneous Trip Range ^[33]		G Interrupting	J Interrupting	Terminal Wire Range
		Low	High	Catalog Number ^[34]	Catalog Number ^[34]	
2-pole, 600 Vac, 50/60 Hz	300 A	600	3000	MGA26300()	MJA26300()	3–3/0 through 500 kcmil Al or Cu
	350 A	700	3500	MGA26350()	MJA26350()	
	400 A	800	4000	MGA26400()	MJA26400()	
	450 A	900	4500	MGA26450()	MJA26450()	
	500 A	1000	5000	MGA26500()	MJA26500()	
	600 A	1200	6000	MGA26600()	MJA26600()	
	700 A	1400	7000	MGA26700()	MJA26700()	
	800 A	1600	8000	MGA26800()	MJA26800()	
3-pole, 600 Vac, 50/60 Hz	300 A	600	3000	MGA36300	MJA36300	3–3/0 through 500 kcmil Al or Cu
	350 A	700	3500	MGA36350	MJA36350	
	400 A	800	4000	MGA36400	MJA36400	
	450 A	900	4500	MGA36450	MJA36450	
	500 A	1000	5000	MGA36500	MJA36500	
	600 A	1200	6000	MGA36600	MJA36600	
	700 A	1400	7000	MGA36700	MJA36700	
	800 A	1600	8000	MGA36800	MJA36800	

L-frame accessories, see Supplemental Digest Section 3. M-frame accessories, page 7-54.
L-frame dimensions, page 7-75. M-frame dimensions, page 7-75.
L-frame optional lugs, page 7-59. M-frame optional lugs, page 7-59.

Table 9.137: Automatic Molded Case Switches—600 Vac, 50/60 Hz

Ampere Rating	2-pole	3-pole	Withstand Rating ^[35]			Trip Point Amperes	Terminal Wire Range
	Catalog Number ^[36]	Catalog Number	240 Vac	480 Vac	600 Vac	AC	
600 A	PJA26000S60()	PJA36000S60	100	65	25	10000	3–3/0 through 500 kcmil Al or Cu
800 A	PJA26000S80()	PJA36000S80	100	65	25	10000	
1000 A	PJA26000S10()	PJA36000S10	100	65	25	10000	
1200 A	PJA26000S12()	PJA36000S12	100	65	25	10000	4–3/0 through 500 kcmil Al or Cu

Table 9.138: PowerPact P- and R-frame Interrupt Ratings

Voltage	P-frame Interrupt Rating				R-frame Interrupt Rating			
	G	J	K	L	G	J	K	L
240 Vac	65 kA	100 kA	65 kA	125 kA	65 kA	100 kA	65 kA	125 kA
480 Vac	35 kA	65 kA	50 kA	100 kA	35 kA	65 kA	65 kA	100 kA

[25] See Supplemental Digest page 3-4 for circuit breakers with field-interchangeable trip units.
 [26] For 100% rated circuit breakers (250 A and 400 A only), add a "C" in the 9th character place (for example, LRA36400CU31X).
 [27] 3P circuit breakers with this trip unit can be used for 2P applications.
 [28] AL400L61K3 terminal wire ranges are (1) 2 AWG–600 kcmil Cu or (1) 2 AWG–500 kcmil Al.
 [29] AL600LF52K3 terminal wire range is (2) 3/0 –500 kcmil.
 [30] L interrupting rating is not available in M-frame.
 [31] 600 V interrupt ratings not available for D-frame.
 [32] The ET 1.0 trip unit cannot be field replaced, nor does it allow adjustment of the long-time trip point setting. It is considered an electronic equivalent of a thermal-magnet circuit breaker.
 [33] UL magnetic trip setting tolerances are ±10% from the nominal values shown.
 [34] Fill in parentheses with the following phase connection options: (2) for AC and (5) for CA.
 [35] The withstand rating is the fault current, at rated voltage, that the molded case switch will withstand without damage when protected by a circuit breaker with an equal ampere rating.
 [36] Fill in parentheses with the following phase connection options: (2) for AC or (5) for CA.