



LAL/LHL  
2P and 3P  
125–400 A

**Table 7.129: L-Frame—400 A, Thermal-Magnetic Circuit Breakers, 600 Vac**

Ampere Rating	Adjustable AC Magnetic Trip		Standard Interrupting		High Interrupting		Terminal Wire Range
	Low	High	Cat. No.	\$ Price	Cat. No.	\$ Price	
<b>2P, 600 Vac, 250 Vdc</b>							
125 A	625 A	1250 A	LAL26125	3807.00	LHL26125	6362.00	(1) 1 AWG–600 kcmil Al or (2) 1 AWG–250 kcmil Al
150 A	750 A	1500 A	LAL26150	3807.00	LHL26150	6362.00	
175 A	875 A	1750 A	LAL26175	3807.00	LHL26175	6362.00	
200 A	1000 A	2000 A	LAL26200	3807.00	LHL26200	6362.00	
225 A	1125 A	2250 A	LAL26225	3807.00	LHL26225	6362.00	
250 A	1250 A	2500 A	LAL26250	3807.00	LHL26250	6362.00	
300 A	1500 A	3000 A	LAL26300	3807.00	LHL26300	6362.00	
350 A	1750 A	3500 A	LAL26350	3807.00	LHL26350	6362.00	
400 A	2000 A	4000 A	LAL26400	3807.00	LHL26400	6362.00	
<b>3P, 600 Vac, 250 Vdc</b>							
125 A	625 A	1250 A	LAL36125	4619.00	LHL36125	7598.00	(1) 1 AWG–600 kcmil Al or (2) 1 AWG–250 kcmil Al
150 A	750 A	1500 A	LAL36150	4619.00	LHL36150	7598.00	
175 A	875 A	1750 A	LAL36175	4619.00	LHL36175	7598.00	
200 A	1000 A	2000 A	LAL36200	4619.00	LHL36200	7598.00	
225 A	1125 A	2250 A	LAL36225	4619.00	LHL36225	7598.00	
250 A	1250 A	2500 A	LAL36250	4619.00	LHL36250	7598.00	
300 A	1500 A	3000 A	LAL36300	4619.00	LHL36300	7598.00	
350 A	1750 A	3500 A	LAL36350	4619.00	LHL36350	7598.00	
400 A	2000 A	4000 A	LAL36400	4619.00	LHL36400	7598.00	



LIL36600  
2P and 3P 300–600 A

**Table 7.130: L-Frame—600 A, Extra-High Interrupting and Current-Limiting Circuit Breakers, 600 Vac**

Ampere Rating	Adjustable AC Magnetic Trip		Extra-High Interrupting		Current Limiting		Terminal Wire Range
	Low	High	Cat. No.	\$ Price	Cat. No.	\$ Price	
<b>2P, 600 Vac</b>							
300 A	1500 A	3200 A	LCL26300	7479.00	LIL26300	8604.00	(2) 4/0 AWG–500 kcmil Al
350 A	1750 A	3200 A	LCL26350	7479.00	LIL26350	8604.00	
400 A	2000 A	3200 A	LCL26400	7479.00	LIL26400	8604.00	
450 A	2250 A	4200 A	LCL26450	7823.00	LIL26450	12551.00	
500 A	2500 A	4200 A	LCL26500	7823.00	LIL26500	12551.00	
600 A	3000 A	4200 A	LCL26600	7823.00	LIL26600	12551.00	
<b>3P, 600 Vac</b>							
300 A	1500 A	3200 A	LCL36300	8312.00	LIL36300	9563.00	(2) 4/0 AWG–500 kcmil Al
350 A	1750 A	3200 A	LCL36350	8312.00	LIL36350	9563.00	
400 A	2000 A	3200 A	LCL36400	8312.00	LIL36400	9563.00	
450 A	2250 A	4200 A	LCL36450	8691.00	LIL36450	13949.00	
500 A	2500 A	4200 A	LCL36500	8691.00	LIL36500	13949.00	
600 A	3000 A	4200 A	LCL36600	8691.00	LIL36600	13949.00	

■ Type LC, LI, LX, LXI, and LE circuit breakers are NOT recommended for use on single motor branch circuits.

**NOTE:** For LA Mission Critical circuit breakers, see Table 7.77.



AL400LA AL600LI5



AL400LH7

**Table 7.131: Mechanical Lug Kit Information**

Circuit Breaker Application				(Number of Wires Per Lug) Wire Range	Cat. No.	Lugs Per Kit	\$ Price Per Kit
Standard	Ampere Rating	Optional	Ampere Rating				
LA, LH	125–400 A	—	—	(1) 1 AWG–600 kcmil Al or Cu or (2) 1 AWG–250 kcmil Al or Cu	AL400LA	1	35.70
—	—	LA, LH	125–400 A	(1) 350–750 kcmil Al or Cu	AL400LH7	1	47.10
LE, LX, LXI	100–250 A	LC, LI, LE, LX, LXI	—	(2) 1 AWG–350 kcmil Al or Cu	AL600LI35	1	53.00
LI, LE, LX, LXI, LC	300–600 A	LE, LX, LXI	100–250 A	(2) 4/0 AWG–500 kcmil Al or Cu	AL600LI5	1	47.10
—	—	LI, LE, LX, LXI, LC	—	(1) 500–750 kcmil Al or Cu	AL600LI7	1	53.00
—	—	LA, LH	125–400 A	(1) 1 AWG–600 kcmil Cu or (2) 1 AWG–250 kcmil Cu	CU400LA	1	70.00
—	—	LI, LE, LX, LXI, LC	—	(2) 1 AWG–350 kcmil Cu	CU600LI35	1	230.00
—	—	LI, LE, LX, LXI, LC	—	(2) 4/0 AWG–500 kcmil Cu	CU600LI5	1	230.00
—	—	LI, LE, LX, LXI, LC	—	(1) 500–750 kcmil Cu	CU600LI7	1	230.00

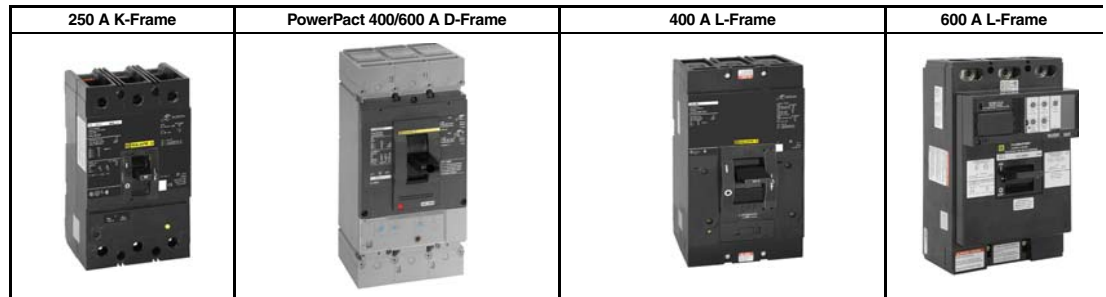
**NOTE:** Consider using PowerPac<sup>®</sup> circuit breakers for situations requiring circuit breaker accessories.

**Table 7.132: Interrupting Table**

	LAL	LHL	LCL	LIL
240 Vac	42 kA	65 kA	100 kA	200 kA
480 Vac	30 kA	35 kA	65 kA	200 kA
600 Vac	22 kA	25 kA	35 kA	100 kA

Accessories ..... Supplemental Digest  
Compression and Power Distribution Connector Lugs . Supplemental Digest  
Dimensions ..... Page 7-54  
Enclosures ..... Page 7-56

7 MINIATURE AND MOLDED CASE CIRCUIT BREAKERS



	250 A K-Frame	PowerPact 400/600 A D-Frame				400 A L-Frame			600 A L-Frame	
<b>Circuit Breaker Type</b>	KI	DG	DJ	DL	Q4	LA	LH	LC	LI	
<b>Number of Poles</b>	2, 3	3, 4	3, 4	3, 4	2,3	2,3	2, 3	2, 3	2, 3	
<b>Current Range</b>	110–250	150–600	150–600	150–600	250–400	125–400	125–400	300–600	300–600	
<b>Interrupting Ratings</b>										
UL/CSA/NOM Rating (kA RMS) (50/60 Hz)	240 Vac	200	65	100	150	25	42	65	100	200
	480Y/277 Vac	200	35	65	100	—	30	35	65	200
	480 Vac	200	35	65	100	—	30	35	65	200
	600Y/347 Vac	100	18	25	25	—	22	25	35	100
	600 Vac	100	18	25	25	—	22	25	35	100
DC Ratings	250 Vdc	—	—	—	—	—	10	50	—	—
	500 Vdc▲	—	—	—	—	—	—	20	—	—
IEC 60947-2 (kA RMS) Icu/Ics■	240 Vac	—	85/85	100/100	150/150	—	—	—	—	—
	415 Vac	130/65	45/45	70/70	150/150	—	20/5	20/5	65/65△	—
IEC 50/60 Hz	For additional IEC ratings, see the Supplemental Digest.				For additional IEC ratings, see the Supplemental Digest.					
<b>Special Ratings</b>										
Fed. Specs W-C-375B/GEN	X	—	—	—	X	X	X	X	X	
HACR (2P, 3P)	—	X	X	X	—	X	X	—	—	
<b>Connections/Terminations</b>										
Unit Mount	X	X	X	X	X	X	X	X	X	
I-Line®	X	—	—	—	X	X	X	X	X	
Rear Connection	—	X	X	X	X	X	X	—	—	
Drawout	—	X	X	X	—	—	—	—	—	
Optional Lugs	X	X	X	X	X	X	X	X	X	
<b>Accessories and Modifications</b>										
Shunt Trip	X♦	X	X	X	X	X	X	X	X	
Undervoltage Trip	X♦	X	X	X	X	X	X	X	X	
Auxiliary Switches	X♦	X	X	X	X	X	X	X	X	
Alarm Switch	X♦	X	X	X	X	X	X	X	X	
Motor Operator	X	X	X	X	X	X	X	—	—	
Handle Operators	—	X	X	X	X	X	X	—	—	
Mechanical Interlocks (3P)	—	X	X	X	—	X★	X★	—	—	
Handle Padlock Attachment	X	X	X	X	X	X	X	X	X	
Cylinder Lock (3P)	—	—	—	—	X	X	X	—	—	
Optional GF Protection	X▼	X	X	X	—	—	—	—	—	
<b>Trip System Type</b>										
Thermal-magnetic	X	—	—	—	X	X	X	X	X	
Instantaneous-only (MCP)	—	X	X	X	—	X	X	—	—	
Molded Case Switch (Automatic)	—	X	X	X	—	—	X	—	—	
Electronic	—	X	X	X	—	—	—	—	—	
<b>Enclosures (Pages 7-56–7-58)</b>										
General Purpose (NEMA 1)	—	—	—	—	X	X	X	—	—	
Raintight (NEMA 3R)	X	—	—	—	X	X	X	—	—	
Dust-tight (NEMA 12)	X	—	—	—	X	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)	13.38 (340)			11 (279)			11.86 (301)	
	Width	4.5 (114)	5.51 (140)			6 (152)			7.5 (190)	
	Depth	4.75 (121)	4.33 (110)			5.84 (148)			6.74 (171)	
Pages (Unit Mount)/(I-Line)	Pages 7-49/9-26		Pages 7-25/7-33			Pages 7-51/9-27			Pages 7-51/9-27	

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

- ▲ Ungrounded UPS systems only. See page 7-34.
- Dual UL and IEC ratings and CE markings on circuit breakers. For additional IEC ratings, see the Supplemental Digest.
- ♦ Factory-installed option only.
- ★ Requires circuit breaker with WB suffix.
- ▼ Requires factory-installed "G" Shunt trip. Available only for 3P.
- △ 65/50 kA Icu/Ics for 450 A–600 A ratings

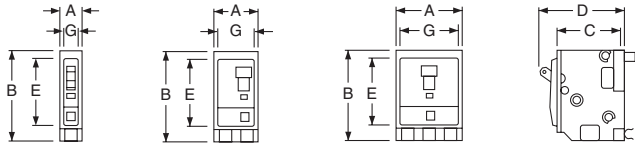


Figure 1 Figure 2 Figure 3 QO, QOB

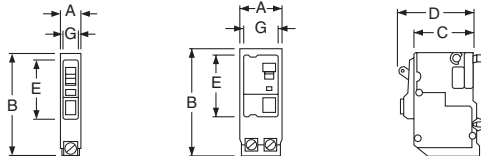


Figure 4 Figure 5 QO-GFI, QO-PL QO-EPD

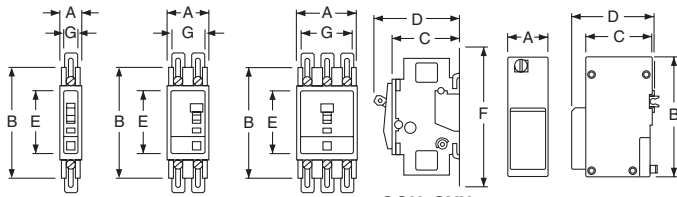


Figure 6 Figure 7 Figure 8 QOU, QYU Low Ampere Figure 9 QO-PLPS

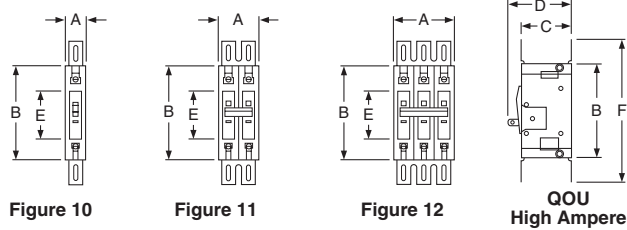


Figure 10 Figure 11 Figure 12 QOU High Ampere

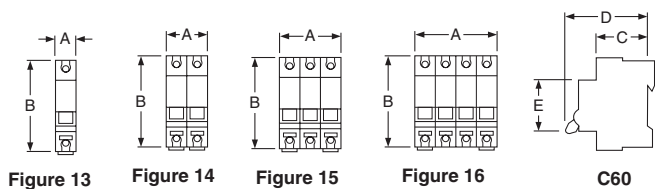


Figure 13 Figure 14 Figure 15 Figure 16 C60

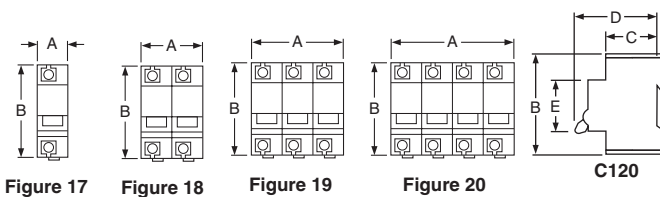


Figure 17 Figure 18 Figure 19 Figure 20 C120

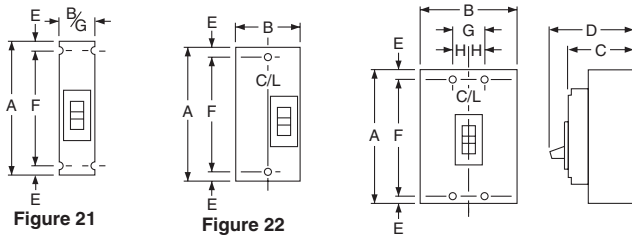


Figure 21 Figure 22 Figure 23

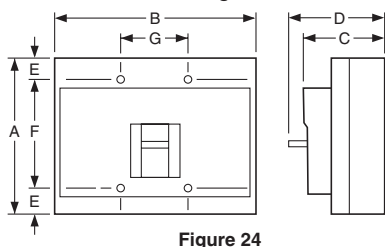


Figure 24

Table 7.140: QO®, QOU, Multi 9™ Circuit Breakers

Circuit Breaker Cat. No. Prefix	Poles	Fig. No.	Dimensions—Inches						
			A	B	C	D	E	F	G
QO, QOB	1	1	0.75	3.00▲	2.31	2.91	2.25	—	0.59
	2	2	1.50	3.00▲	2.31	2.91	2.25	—	1.34
	3	3	2.25	3.00▲	2.31	2.91	2.25	—	2.09
QOB-VH 150 A QOB-VH 110–150 A	2	2	3.0	5.72	2.53	4.90	3.78	—	2.85
	3	3	4.50	5.72	2.53	4.90	3.78	—	4.35
QO-PL QO-GFI QO-EPD	1	4	0.75	4.12■	2.31	2.91	2.25	—	0.59
	2	5	1.50	4.12■	2.31	2.91	2.25	—	1.34
	3	5	2.25	4.12■	2.31	2.91	2.25	—	2.09
QOU QYU Low Ampere	1	6	0.75	4.05♦	2.38	2.98	2.25	5.00★	0.62
	2	7	1.50	4.05♦	2.38	2.98	2.25	5.00★	1.37
	3	8	2.25	4.05★	2.38	2.98	2.25	5.00△	2.12
QOU High Ampere	1	10	0.75	4.45	2.37	2.96	2.25	6.78	—
	2	11	1.50	4.45	2.37	2.96	2.25	6.78	—
	3	12	2.25	4.45	2.37	2.96	2.25	6.78	—
Multi 9™ C60N	1	13	0.71	3.19	1.73	2.76	1.77	—	—
	2	14	1.42	3.19	1.73	2.76	1.77	—	—
	3	15	2.13	3.19	1.73	2.76	1.77	—	—
	4	16	2.84	3.19	1.73	2.76	1.77	—	—
QO-PLPS Power Supply	2	9	1.45	4.35	2.42	3.11	—	—	—

- ▲ 35–70 A is 3.12 in; 80–100 A 2P and 70–100 A 3P are 3.50 in.
- QO-PL is 4.55 in.
- ♦ 80–100 A 1P and 80–125 A 2P are 4.45 in
- ★ 80–100 A 1P and 80–125 A 2P are 6.78 in.
- ▼ 70–100 A 4.45 in.
- △ 70–100 A is 6.78 in.

Table 7.141: QB, QD, QG, QJ, Q4, FA, FI, KA, KC, KI, LA, LC, LI, LE, LX, LXI, MA Circuit Breakers

Circuit Breaker Cat. No. Prefix	Poles	Fig. No.	Dimensions—Inches							
			A	B	C	D	E	F	G	H
QB, QD, QG, QJ	2	22	6.47	3.00	3.02	3.93	□	4.25	—	—
	3	23	6.47	4.50	3.02	3.93	□	4.25	1.50	0.75
FAL, FHL	1	21	6.00	1.50	3.16	4.13	0.44	5.13	1.50	—
	2	22	6.00	3.00	3.16	4.13	0.44	5.13	—	—
	3	23	6.00	4.50	3.16	4.13	0.44	5.13	1.50	0.75
FIL, KAL, KCL, KHL, KIL	2 & 3	23	8.00	4.50	3.66	4.75	0.44	7.13	1.50	0.75
Q4L, LAL, LHL	2 & 3	23	11.00	6.00	4.06	5.84	0.88	9.25	2.00	1.00
LIL, LEL, LXL, LXIL, LCL	2 & 3	24	11.86	7.50	5.48	6.74	0.55	10.75	2.50	—
MAL, MHL	2 & 3	23	14.00	9.00	4.53	6.50	1.66	10.69	3.00	1.50

□ Dimensions E are 1.59 in at ON end and 0.63 in at OFF end.

Table 7.142: Shipping Weights◇

Frame Size	Approx. Shipping Weight (Lbs.)	Frame Size	Approx. Shipping Weight (Lbs.)
FAL, FHL 1P	2	KIL	9
FAL, FHL 2P	3	LAL, LHL	15
FAL, FHL 3P	5	LEL, LIL, LXL, LXIL, LCL	25
FIL	8	Q4L	15
QB, QD, QG, QJ	4	MAL, MHL	34
KAL, KHL	7		

◇ All weights are for 3P circuit breakers unless otherwise noted.

**INTRODUCTION**

**CLASS IV**

Exchange of permanent trip circuit breakers (KA, LA, MA or NA) furnished in lieu of circuit breakers specified with interchangeable trip. These circuit breakers can be identified by a label stating that they are subject to this exchange policy.

**Allowance**

A replacement circuit breaker within the same frame size, but of a different trip rating than that exchanged, is furnished at the lowest recognized competitive list price for a trip unit of the same frame size and trip rating minus the regular discount. This exchange arrangement requires that the replaced circuit breaker be returned to Square D.

**CATALOG NUMBERS**

Square D circuit breakers are ordered by a catalog number that includes the breaker family, description, poles, voltage rating, amperage rating and suffix.

Figure 5 shows a catalog number broken down by components. For example, FAL36050V2100, a typical catalog number, can be broken down as follows:

- FA 100A frame circuit breaker
- L Circuit breaker with lugs on both ends
- 3 Number of poles
- 6 Voltage rating
- 050 Continuous current amperage rating (handle rating)
- V and 2100 V indicates the Visi-Blade feature and the 2100 indicates a factory installed contact alarm. These two components are the suffix.

**TYPICAL CATALOG NUMBER:**

	<b>FA</b>	L	3	6	050	V	2100
<b>BREAKER FAMILY</b>							
FY - 30 Amp. Frame	NOTE: "A" is replaced by letter "H" for High Interrupting						
FA - 100 Amp. Frame	"A" is replaced by letter "C" for Extra High Interrupting						
KA - 250 Amp. Frame	"A" is replaced by letter "I" for Current Limiting. (FA, KA, LA circuit breakers only)						
LA - 400 Amp. Frame							
MA - 1000 Amp. Frame							
NA - 1200 Amp. Frame							
<b>DESCRIPTION</b>							
NO LETTER - (I-LINE®) Plug-On Breaker							
B - (I-LINE) Bolt-On Breaker (400 ampere frame maximum)							
F - Terminal Pads Only (No Lugs)							
L - Lugs on Both Ends (Merchandised — Universal Breaker)							
P - Lugs OFF End Only							
R - Plug-On Breaker (I-LINE Type DO with Plug-On Line & Load Connectors)							
<b>POLES</b>							
1 - 1-Pole							
2 - 2-Pole							
3 - 3-Pole							
<b>VOLTAGE RATING</b>							
2 - 240Vac							
4 - 480Vac							
6 - 600Vac							
<b>AMPERE RATING</b>							
015 - 090 - 15-90 Ampere Rating							
100 - 900 - 100-900 Ampere Rating							
1000 - 1200 - 1000-1200 Ampere Rating							
000 or 0000 - Molded Case Switch							
000X or 000XX - Molded Case Switch							
<b>SUFFIX</b>							
The suffix indicates a special feature of the circuit breaker.							
A, B, C - indicates I-LINE® Phase Connections							
V - indicates Visi-Blade							
M - indicates Automatic Molded Case Switch							
XXM - indicates Instantaneous Trip only (MAG-GARD®) (i.e., 18M is 300-1100A adjustable trip range)							
XXT - indicates adjustable magnetic trip with responsive thermal (mining breakers)							
G - indicates Ground Fault Shunt Trip accessory							
XXXX - i.e., 2100 indicates a factory installed accessory							

FIGURE 5  
CATALOG NUMBERING SYSTEM FOR THERMAL-MAGNETIC MOLDED CASE CIRCUIT BREAKERS

