

Instantaneous trip magnetic only circuit breakers have a single adjustment which simultaneously sets the magnetic trip level of each individual pole. MAG-GARD circuit breakers comply with NEC requirements for providing motor circuit protection when installed as part of a UL Listed combination controller having motor overload protection. Interrupting ratings are established for these UL Recognized

Components only when they are used in combination with motor starters with properly sized overload relays and contactors.

All MAG-GARD circuit breakers will accept the same lugs and accessories as equivalent thermal-magnetic circuit breakers. MAG-GARD circuit breakers are available with I-LINE construction*. H construction MAG-GARD circuit breakers (FHL, KHL, LHL, etc.) are also available.

Magnetic Only • 3-1200 Amperes 600 Vac, 50/60 Hz▼

Ampere Rating	Adjustable▲ Trip Range Amperes	3-pole only		Ampere Rating	Adjustable▲ Trip Range Amperes	Suffix	3-pole only		
		Catalog Number	Price				Catalog Number	Price	
FAL	3	8-28	FAL3600311M	400	500-1000		LAL3640022M	\$ 2932.	
	7	18-70	FAL3600712M		750-1600		LAL3640028M	2932.	
	15	50-180	FAL3601513M		1000-2000		LAL3640030M	2932.	
	30	50-180	FAL3603013M		1125-2250		LAL3640031M	2932.	
	30	100-350	FAL3603015M		1250-2500		LAL3640032M	2932.	
	50	75-260	FAL3605014M		1500-3000		LAL3640033M	2932.	
	50	150-580	FAL3605016M		1750-3500		LAL3640035M	2932.	
	100	150-580	FAL3610016M		2000-4000		LAL3640036M	2932.	
	100	300-1100	FAL3610018M						
	150	450-1100	FAL3615024M						
GJL	3	9-33	GJL36003M01	600 800 1000	625-1250 750-1500 1000-2000 1500-3000 2000-4000 2500-5000 3000-6000 3500-7000 4000-8000 4500-9000 5000-10000	25M 26M 30M 33M 36M 40M 42M 44M 45M 46M 47M	MAL36600	Add Suffix	4800.
	7	21-77	GJL36007M02				MAL36800		6303.
	15	45-165	GJL35015M03				MAL361000		8067.
	30	90-330	GJL36030M04						
	50	150-550	GJL36050M05						
	75	225-825	GJL36075M06						
KAL	150	750-1500	KAL3615026M	1200	4000-8000 4500-9000 5000-10000	45M 46M 47M	NAL36120045M		12094.
	250	400-800	KAL3625021M					NAL36120046M	12094.
		500-1000	KAL3625022M					NAL36120047M	12094.
		625-1250	KAL3625025M						
		750-1500	KAL3625026M						
		875-1750	KAL3625029M						
		1000-2000	KAL3625030M						
		1125-2250	KAL3625031M						
		1250-2500	KAL3625032M						
		1500-3000	KAL3625033M*						

* Each Ampere rating can be ordered with any designated trip range for the frame by adding the proper suffix to the catalog numbers.
 ▼ 250 Vdc ratings are available except on NA. Contact your nearest Square D/Schneider Electric sales office for trip range. No UL component recognition.
 ▲ UL magnetic trip setting tolerances are -20%/+30% from the nominal values shown.
 * Not UL Recognized.
 ☆ No GJL I-LINE available.
 ● POWERPACT® MAG-GARD motor circuit protectors are listed on Page 6-17.

Molded Case Switches and Automatic Molded Case Switches ◊

AUTOMATIC molded case switches open instantaneously at a factory preset magnetic trip point, calibrated to protect only the molded case switch itself, when it is subjected to high fault currents. The trip point is nonadjustable and provides no overload or low level fault protection.

STANDARD molded case switches provide no overcurrent protection or short-circuit protection. They must not be used on systems that have an available fault current greater than the values listed in the table to the right.

Molded case switches open when the handle is switched to the OFF position or in response to an auxiliary tripping device such as a shunt trip.

All standard and automatic switches will accept the same lugs and accessories as equivalent thermal-magnetic circuit breakers, with the exception of the QOU and Q2 models.

Standard and automatic molded case switches are UL Listed per UL 1087 and are CSA Certified.

Ampere Rating	2-pole		3-pole		Withstand Rating■				Trip Point – Amperes (Automatic Switch)		Lug Kit Installed
	Catalog No.	Price	Catalog No.	Price	240 Vac	480 Vac	600 Vac	250 Vdc	AC‡	DC‡	

Standard Molded Case Switches

240 Vac Standard											
60	QO200	\$ 44.70	QO300	\$157.00	10k				N/A	N/A	N/A
60	QOU200	55.00	QOU300	181.00	10k				N/A	N/A	N/A
100	QO2000	127.00	QO3000	232.00	10k				N/A	N/A	N/A
100	QOU2000	156.00	QOU3000	264.00	10k				N/A	N/A	N/A
125	QOU20001	287.00	QOU30001	454.00	10k				N/A	N/A	N/A

Automatic Molded Case Switches

240 Vac Automatic											
225	Q2L2000M	\$ 279.00	Q2L3000M	\$ 757.00	10k				4500	N/A	N/A
600 Vac Automatic											
100	FHL26000M*	\$ 494.00	FHL36000M*	\$ 635.00	65k	25k	18k	10k	1500	1725	AL100FA
150	—	—	FHL3600015M*	952.00	65k	25k	18k	—	2500	—	AL150FA
250	KHL26000M*	1160.00	KHL36000M*	1451.00	65k	35k	25k	10k	4500	5175	AL250KA
400	LHL26000M	2283.00	LHL36000M	2749.00	65k	35k	25k	10k	8000	9600	AL400LA
600	MHL26000M	3390.00	MHL36000M	4180.00	65k	65k	25k	10k	9000	9900	AL900MA
800	MHL260008M	3804.00	MHL360008M	4594.00	65k	65k	25k	10k	9000	9900	AL900MA
1000	MHL26000M	4742.00	MHL36000M	5896.00	65k	65k	25k	10k	9000	9900	AL900MA
1200	NCL2600012M	6912.00	NCL3600012M	7981.00	125k	100k	65k		16000	N/A	AL1200NE6
2000	PHF260000M	10055.00	PHF360000M	12418.00	125k	100k	65k		16000	N/A	N/A
2500	PCF260000M	15990.00	PCF360000M	19765.00	125k	100k	65k		16000	N/A	N/A

■ 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 continuous current rating.
 ‡ UL magnetic trip setting tolerances are -20% and +30% from the nominal values shown.
 * FHL and KHL automatic switches will not accept cylinder lock attachments.
 ◊ POWERPACT® automatic switches are listed on Page 6-17.



Q2 Switch

KAL MAG-GARD

Accessories Pages 6-37–6-39
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 Catalog Numbering System Page 6-23

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DE2	DE2A
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Catalog Numbering System for Thermal-Magnetic Molded Case Circuit Breakers

		FA	L	3	6	100	2100
Circuit Breaker Family	FA, FH, FC, FI KA, KH, KC, KI LA, LH, LC, LI MA, MH NA, NC						
Note: "A" is replaced by letter "H" for high interrupting circuit breaker. "A" is replaced by letter "C" for extra high interrupting circuit breaker. "A" is replaced by the letter "I" for current-limiting circuit breakers.							
No Letter – I-LINE L – Lugs on both ends	F – Terminal pads only (No Lugs) P – Lugs OFF end only						
1 – 1-pole 2 – 2-pole 3 – 3-pole							
2 – 240 Vac 4 – 480 Vac 6 – 600 Vac							
015-1200 – Ampere rating 000M-0000M – Molded case switch (automatic)							
Special Features A, B, C – I-LINE phase connections XXXX – Factory-installed accessories							



KAL/KHL
 2- and 3-pole
 70-250 Amperes



KIL36250

K Frame – 250 A, Thermal-Magnetic (600 Vac)

Continuous Current Rating @ 40° C	AC Magnetic Trip Settings▲		Standard Interrupting		High Interrupting		Current Limiting		Terminal Wire Range
	Low	High	Catalog Number	Price	Catalog Number	Price	Catalog Number	Price	
2-Pole, 600 Vac, 250 Vdc									
70	350	700	KAL26070	\$1315.	KHL26070	\$3072.	AL250KA 1-#4 AWG-350 kcmil
80	400	800	KAL26080	1315.	KHL26080	3072.	...	...
90	450	900	KAL26090	1315.	KHL26090	3072.	...	...
100	500	1000	KAL26100	1315.	KHL26100	3072.	...	...
110	550	1100	KAL26110	1315.	KHL26110	3072.	KIL26110	\$3922.	
125	625	1250	KAL26125	1315.	KHL26125	3072.	KIL26125	3922.	
150	750	1500	KAL26150	1315.	KHL26150	3072.	KIL26150	3922.	
175	875	1750	KAL26175	1315.	KHL26175	3072.	KIL26175	3922.	
200	1000	2000	KAL26200	1315.	KHL26200	3072.	...	...
225	1125	2250	KAL26225	1315.	KHL26225	3072.	...	...
250	1250	2500	KAL26250	2286.	KHL26250	4039.	...	...
200	1000	2000	...	...	...	...	KIL26200	3922.
225	1125	2250	...	...	...	...	KIL26225	3922.
250	1250	2500	...	...	...	...	KIL26250	4586.
3-Pole, 600 Vac, 250 Vdc									
70	350	700	KAL36070	\$1650.	KHL36070	\$3713.	AL250KA 1-#4 AWG-350 kcmil
80	400	800	KAL36080	1650.	KHL36080	3713.	...	...
90	450	900	KAL36090	1650.	KHL36090	3713.	...	...
100	500	1000	KAL36100	1650.	KHL36100	3713.	...	...
110	550	1100	KAL36110	1650.	KHL36110	3713.	KIL36110	\$4923.	
125	625	1250	KAL36125	1650.	KHL36125	3713.	KIL36125	4923.	
150	750	1500	KAL36150	1650.	KHL36150	3713.	KIL36150	4923.	
175	875	1750	KAL36175	1650.	KHL36175	3713.	KIL36175	4923.	
200	1000	2000	KAL36200	1650.	KHL36200	3713.	...	...
225	1125	2250	KAL36225	1650.	KHL36225	3713.	...	...
250	1250	2500	KAL36250	2751.	KHL36250	4824.	...	...
200	1000	2000	...	...	...	...	KIL36200	4923.
225	1125	2250	...	...	...	...	KIL36225	4923.
250	1250	2500	...	...	...	...	KIL36250	5766.

K Frame – 250 A, Thermal-Magnetic (480 Vac)

Continuous Current Rating @ 40° C	AC Magnetic Trip Settings▲		Extra High Interrupting		Terminal Wire Range
	Low	High	Catalog Number	Price	
2-Pole, 480 Vac					
110	550	1100	KCL24110	\$3465.	AL250KA 1-#4 AWG-350 kcmil
125	625	1250	KCL24125	3465.	
150	750	1500	KCL24150	3465.	
175	875	1750	KCL24175	3465.	
200	1000	2000	KCL24200	3465.	AL250KI 1-#1/0 AWG-350 kcmil
225	1125	2250	KCL24225	3465.	
250	1250	2500	KCL24250	4248.	
3-Pole, 480 Vac					
110	550	1100	KCL34110	4331.	AL250KA 1-#4 AWG-350 kcmil
125	625	1250	KCL34125	4331.	
150	750	1500	KCL34150	4331.	
175	875	1750	KCL34175	4331.	
200	1000	2000	KCL34200	4331.	AL250KI 1-#1/0 AWG-350 kcmil
225	1125	2250	KCL34225	4331.	
250	1250	2500	KCL34250	5314.	

▲ UL magnetic trip setting tolerances are ±25% (low) and ±20% (high) from nominal values shown.

Interrupting Ratings (kA)

	KAL	KHL	KCL	KIL
240 V	42	65	100	200
480 V	25	35	65	200
600 V	22	25	...	100

Accessories Pages 6-37–6-39
 Optional Lugs Pages 6-40, 6-41
 Dimensions Page 6-45, 6-46
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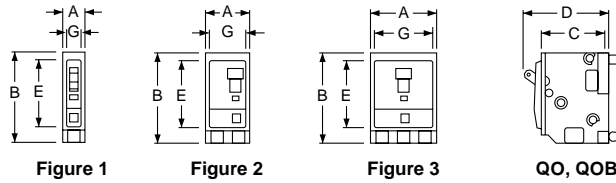


Figure 1 Figure 2 Figure 3 QO, QOB

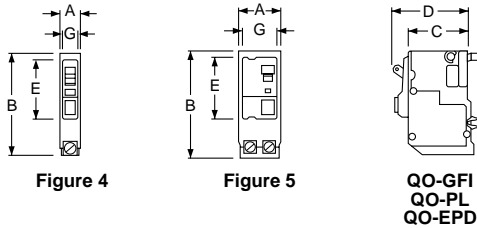


Figure 4 Figure 5 QO-GFI
QO-PL
QO-EPD

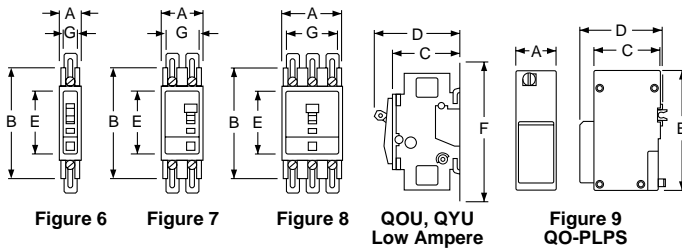


Figure 6 Figure 7 Figure 8 QOU, QYU
Low Ampere Figure 9
QO-PLPS

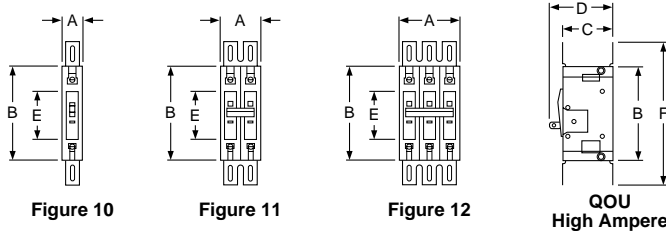


Figure 10 Figure 11 Figure 12 QOU
High Ampere

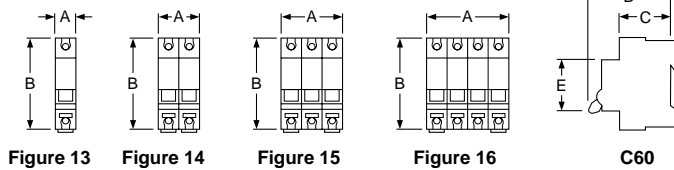


Figure 13 Figure 14 Figure 15 Figure 16 C60

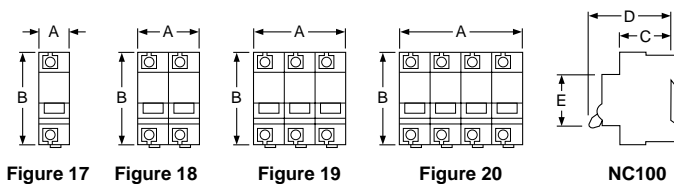


Figure 17 Figure 18 Figure 19 Figure 20 NC100

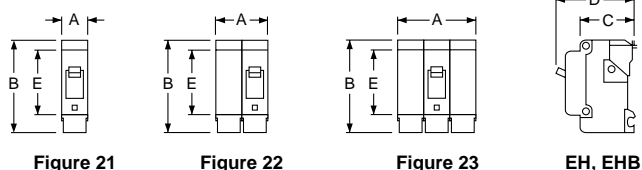


Figure 21 Figure 22 Figure 23 EH, EHB

QO, QOU, EH Circuit Breakers

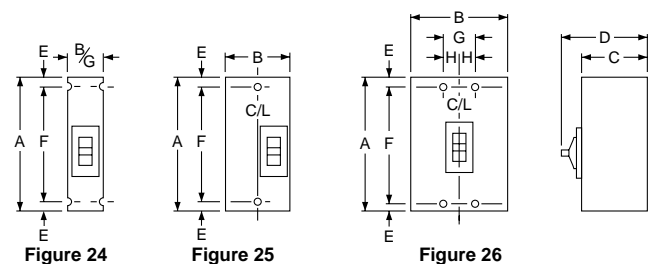
Circuit Breaker Catalog No. Prefix	No. Poles	Fig. No.	Dimensions - Inches						
			A	B	C	D	E	F	G
QO, QOB	1	1	0.75	3.00▲	2.31	2.91	2.25	...	0.59
	2	2	1.50	3.00▲	2.31	2.91	2.25	...	1.34
	3	3	2.25	3.00▲	2.31	2.91	2.25	...	2.09
QOB-VH 150A QOB-VH 110-150A	2	2	3.0	5.72	2.53	4.90	3.78	...	2.85
	3	3	4.50	5.72	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	...	...
MULTI 9 NC100	1	17	1.06	3.19	1.73	2.76	1.77	...	...
	2	18	2.13	3.19	1.73	2.76	1.77	...	...
	3	19	3.19	3.19	1.73	2.76	1.77	...	...
	4	20	4.25	3.19	1.73	2.76	1.77	...	...
QO-PLPS Power Supply	2	9	1.45	4.35	2.42	3.11	...	...	...
EH, EHB	1	21	1.00	3.50	2.00	2.97	2.44	...	...
	2	22	2.00	3.50‡	2.00	2.97	2.44	...	...
	3	23	3.00	3.50‡	2.00	2.97	2.44	...	...

‡ 70-100 A is 4.00 in.
▲ 35-70 A is 3.12 in; 80-100 A 2-pole and 70-100 A 3-pole are 3.50 in.
■ QO-PL is 4.55 in.
★ 80-100 A 1-pole and 80-125 A 2-pole are 4.45 in.
● 70-100 A 4.45 in.
† 80-100 A 1-pole and 80-125 A 2-pole are 6.78 in.
* 70-100 A is 6.78 in.

Q2, Q4, FA, FI, KA, KI, LA, MA, ME and MX Circuit Breakers

Circuit Breaker Catalog No. Prefix	No. Poles	Fig. No.	Dimensions - Inches							
			A	B	C	D	E	F	G	H
Q2L, Q2L-H	2	25	6.44	3.00	3.16	3.92	★	4.25	...	...
	3	26	6.44	4.50	3.16	3.92	★	4.25	1.50	0.75
FAL, FHL,FCL▼	1	24	6.00	1.50	3.16	4.13	0.44	5.13	1.50	...
	2	25	6.00	3.00▼	3.16	4.13	0.44	5.13	...	...
	3	26	6.00	4.50	3.16	4.13	0.44	5.13	1.50	0.75
FIL, KAL, KHL, KCL, KIL	2 & 3	26	8.00	4.50	3.66	4.75	0.44	7.13	1.50	0.75
Q4L, LAL, LHL	2 & 3	26	11.00	6.00	4.06	5.84	0.88	9.25	2.00	1.00
MAL, MHL	2 & 3	26	14.00	9.00	4.53	6.50	1.66	10.69	3.00	1.50
MXL, MEL	2 & 3	26	14.75	9.00	4.37	6.50	1.66	11.43	3.00	1.50

★ Dimensions E 1.59 in at ON end and 0.63 in at OFF end.
▼ FCL 2-pole circuit breaker dimension B is 4.50 as in Fig. 26.



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