Thermal-Magnetic Molded Case
250 Ampere Frame
Class 655, 825

Catalog Numbering System for Thermal-Magnetic Molded Case Circuit Breakers

	FA	L	3	6	100	2100

Circuit Breaker Family
FY
EH
Q4

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.**	AL250KI 1-#1/0 AWG-350 kcmil
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.**	AL250KI 1-#1/0 AWG-350 kcmil
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

Selection Information
Class 500, 600, 800

		100A Frame				225A Frame			250A Frame			
			 GJL									
Breaker Type		**FC**	**FI**	**FY**	**GJL**	**Q2**	**Q2-H**	**Q2H**	**KA**	**KH**	**KC**	**KI**
Number of Poles		2, 3	2, 3	1	3	2,3	2,3	2	2, 3	2, 3	2, 3	2, 3
Current Range		15–100	20–100	15–30	15–100	100–225	100–225	100–225	70–250	70–250	110–250	110–250
Interrupting Ratings												
UL/CSA/NOM Rating (kA RMS) (50/60 Hz AC)	240 Vac	100	200	14	100	10★	22	42	42	65	100	200
	480Y/277 Vac	65	200	14	65	. . .	. . .	. . .	25	35	65	200
	480 Vac	65	200	. . .	65	. . .	. . .	. . .	25	35	65	200
	600Y/347 Vac	. . .	100	. . .	18	. . .	. . .	. . .	22	25	. . .	100
	600 Vac	. . .	100	. . .	. . .	. . .	. . .	. . .	22	25	. . .	100
DC Ratings	250 Vdc	. . .	. . .	. . .	. . .	. . .	. . .	. . .	10	10	. . .	. . .
	500 Vdc ♦	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	20	. . .	. . .
IEC 947-2 415/240 Vac (Icu/Ics) ☆		10/2.5	6/1.5	. . .	65/65	. . .	. . .	. . .	10/2.5	10/2.5	65/65	130/65
IEC 947-2 50/60 Hz		For additional IEC ratings, see Supplemental Digest.										
Special Ratings												
Fed. Specs W-C-375B/GEN		✓	✓			✓	✓	✓	✓	✓	✓	✓
HACR (2, 3-Pole)									✓	✓		
Connections/Terminations												
Unit Mount		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
I-LINE		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Rear Connection									✓	✓		
Drawout												
Optional Lugs		✓	✓						✓	✓	✓	✓
Accessories and Modifications												
Shunt Trip		✓●	✓●		✓				✓●	✓●	✓●	✓●
Undervoltage Trip		✓●	✓●		✓				✓●	✓●	✓●	✓●
Auxiliary Switches		✓●	✓●		✓				✓●	✓●	✓●	✓●
Alarm Switch		✓●	✓●		✓				✓●	✓●	✓●	✓●
Motor Operator		✓	✓						✓	✓	✓	✓
Handle Operators		✓			✓				✓	✓	✓	
Mechanical Interlocks (3-Pole)									✓■	✓■		
Handle Padlock Attachment		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cylinder Lock (3-Pole)		✓●							✓●	✓●		
Optional GF Protection		✓▲	✓▲						✓▲	✓▲	✓▲	✓▲
Trip System Type												
Thermal Magnetic		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Instantaneous Trip (3-Pole)					✓				✓	✓		
Molded Case Switch (Automatic)						✓	✓	✓		✓		
Electronic												
Enclosures (Pages 6-47–6-50)												
General Purpose (NEMA Type 1)		✓	✓			✓	✓	✓	✓	✓		
Raintight (NEMA Type 3R)		✓	✓			✓	✓	✓	✓	✓	✓	✓
Dustight (NEMA Type 12)		✓	✓						✓	✓	✓	✓
Watertight (NEMA Type 4, 4X, 5)		✓	✓						✓	✓	✓	✓
Explosion Proof (NEMA Type 7, 9)		✓							✓	✓		
Dimensions (3P Unit Mount)	Height IN (mm)	6 (152)	8 (203)		4.72 (120)	6.44 (163)			8 (203)			
	Width IN (mm)	4.5 (114)	4.5 (114)		3.54 (90)	3 (76)			4.5 (114)			
	Depth IN (mm)	4.13 (105)	4.75 (121)		3.94 (100)	4.5 (114)			4.75 (121)			
Pages (Unit Mount)/(I-LINE)		Pages 6-21, 6-22, 8-29, 8-30				Pages 6-22, 8-30			Pages 6-23, 8-31			

NOTE: All circuit breakers on this chart are UL Listed and CSA Certified unless otherwise noted.
● Factory installed option only
♦ Ungrounded UPS systems only
★ 2-Pole Q2 is 10 kA at 120/240 Vac
■ Requires breaker with WB suffix .
▲ Requires factory installed "G" Shunt trip and 3-Pole module.
☆ Dual UL and IEC ratings and CE markings on circuit breakers. For additional IEC ratings, see Supplemental Digest.

Electrical Accessories

UL Listed
Class 690

Square D
www.squared.com
FOR CURRENT INFORMATION

Electrical accessories are available on all molded case circuit breakers except FY, Q2, QOM1 and QOB-VH (2-pole 150 A and 3-pole 110-150 A) circuit breakers. All AC electrical accessories shown below are rated for 50/60 Hz. Add 20% to accessory price for each field-installable accessory that is factory installed. See Page 6-39 for field-installable accessories.

Molded Case Circuit Breakers
Factory-installed Electrical Accessories

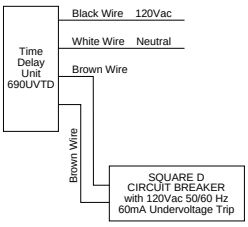
Accessory	Description	Rated Voltage	Coil Burden†	Suffix	List Price Adder∗
SHUNT TRIP	Trips the circuit breaker from a remote location by means of a trip coil energized from a separate circuit. A 120 V shunt trip will operate at 55% or more of rated voltage. All other shunt trips will operate at 75% or more of rated voltage. **Application** • For use with momentary or maintained push button. • Sure Trip Capacitor Unit requires 48 Vdc shunt trip. • Leads: (2) Black #18 AWG Cu.	AC 24 120 208 240 277 480 DC 24 48 125 250	21VA 24VA 107VA 154VA 14VA 45VA 36VA 36VA 44VA 15VA	-1042■ -1021★ -1021 -1021 -1037■ -1037 -1027 -1028 -1029 -1030▲	**$ 479.** **479.** **479.** **479.** **479.** **479.** **479.** **479.** **479.** **479.**
GROUND-FAULT SHUNT TRIP	Trips the circuit breaker electrically using the signal from a MICROLOGIC® Ground-Fault Module. **Application** • For use only with obsolete GP GROUND-CENSOR® system or add on ground-fault module. • Leads: (2) Orange #18 AWG Cu.	. . .	. . .	-G▲	**479.**
UNDER VOLTAGE TRIP	Trips the circuit breaker electrically when a control circuit falls below 35 to 70% of nominal (not field adjustable). Picks up at 35-85% of nominal voltage. **Application** • UVR must be energized in order to close the circuit breaker. • Leads: (2) Brown #18 AWG Cu leads.	AC 24 120 240 DC 24 DC 48	5 VA 8 VA 8 VA 2 VA 3 VA	-1143▲♦ -1121 -1124♦ -1127♦ -1128♦	**479.** **479.** **479.** **479.** **479.**
TIME DELAY UNIT	Provides adjustable time delay for UVR of 0.1 to 0.6 second before circuit breaker trips. **Application** • For use only with -1121 UV trip. • Adjustable time delay (0.1 to 0.6 second). • I-LINE unit requires 1.5 in. (38 mm) of mounting space. • Leads: (2) Brown #18 AWG Cu and (2) Black/White #18 AWG Cu.	AC 120	**Catalog No.** Unit Mt.: 690UVTD I-LINE: 690UVTDI		**1232.**
AUXILIARY SWITCHES	Monitors circuit breaker contact status and provides a remote signal indicating the circuit breaker contacts are OPEN or CLOSED. **Application** • Max. Load = FA, FH, FC, FI, KA, KH, LC, LE, LI, LX, LXI. 10A @ 125-250 Vac ¼ hp @ 125-250 Vac, 5A @ 30 Vdc • Leads: Yellow for "A", Blue for "B", Striped for common #18 AWG Cu.	1A/1B 2A/2B 3A/3B	See load info. in App. text at left	See load info. in App. text at left	-1212 -1352 -1364☆	**198.** **395.** **508.**
ALARM SWITCHES	Used with control circuits and actuated only when the circuit breaker has tripped. Standard construction includes a normally open contact. **Application** • Max. Load = 10 A @ 125-250 Vac 5 A @ 30 Vdc • Leads: (2) Red #18 AWG Cu.	1A 1A 1B 1B	AC 250 DC 28 AC 250 DC 28	See load info. in App. text at left	-2100 -2100 -2103 -2103	**198.** **198.** **198.** **198.**

Note:
Alarm switch is the only accessory available for 1-pole FA circuit breakers.

Combination accessories may be ordered by description, i.e., 1021 and 1212.

- ■ Not available on FI, KI or KC circuit breakers.
- ▲ Not available on LC, LE, LI, LX, LXI circuit breakers.
- ♦ Not available on ME or MX circuit breakers.
- ★ LC, LE, LI, LX, and LXI circuit breakers operate at 75% or more of rated voltage.
- ☆ Not available in FA, FC, FH, FI and KI circuit breakers.
- † Coil burden values do not apply to LC, LE, LI, LX and LXI. Consult Field Sales Office for more information.
- ∗ List price for field-installed accessories. See Page 6-39.

690UVTD Wiring Diagram



1-pole QO with Shunt Trip

Miniature Circuit Breakers

Factory-installed electrical accessories take up an additional pole space on EH, EH-PL, QO, QO-GFI, QO-EPD, QO-SWN, QOU and QO-PL circuit breakers. All AC electrical accessories shown below are rated for 50/60 Hz. Accessories are not available for Q2, QOM1 and QOB-VH (2-pole 150 A and 3-pole 110-150 A) circuit breakers or QO molded case switches. QO circuit breakers will accept only one accessory per circuit breaker. EH/EHB circuit breakers will accept multiple accessories. Undervoltage trip is not available on miniature circuit breakers.

Accessory	Description	Rated Voltage	Coil Burden	Suffix	List Price Adder
SHUNT TRIP	Trips the circuit breaker from a remote location by means of a trip coil energized from a separate circuit. A 120 V shunt trip will operate at 55% or more of rated voltage. All other shunt trips will operate at 75% or more of rated voltage. **Application** • For use with momentary or maintained push button. • Not available on QO-GFI, QO-EPD. • Shunt trip terminals accept (2) #14-#12 AWG Cu. • Leads: EHB circuit breakers have (2) Black #16 AWG Cu.	**QO Circuit Breakers**			
		AC/DC 12	60VA	-1042	**$120.**
		24	168VA	-1042	
		AC 120	72VA	-1021	**120.**
		208	228VA	-1021	
		240	288VA	-1021	
		EH/EHB Circuit Breakers			
		AC/DC 12	60VA	-1042	**479.**
		24	168VA	-1042	
		AC 120	72VA	-1082	
		208	218VA	-1082	**479.**
		240	288VA	-1082	
		277	416VA	-1082	
		QO M2			
		AC240	168VA	-1021	**120.**

Accessory	Description	Contact Comb.	Max. Voltage	Max. Load	Suffix	List Price Adder
AUXILIARY SWITCHES	Monitors circuit breaker contact status and provides a remote signal indicating the circuit breaker contacts are OPEN or CLOSED. **Application** • Auxiliary switch terminals accept (2) #14-#12 AWG Cu leads. • Leads (EH): Yellow for "A", Blue for "B", Striped common #18 AWG Cu.	**QO Circuit Breakers**				
		1A	AC 120	5A	-1200	**$ 84.**
		1B	AC 120	5A	-1201	**84.**
		EH/EHB Circuit Breakers				
		1A/1B	AC 277	5A	-1212	**198.**
ALARM SWITCHES	Used with control circuits and is actuated only when the circuit breaker has tripped. Standard construction includes a normally-open contact. **Application** Leads: EHB circuit breakers have (2) Red #18 AWG Cu. Alarm switch terminals accept (2) #14-#12 AWG Cu leads.	**QO Circuit Breakers**				
		1A	AC 120	5A	-2100	**84.**
		EH/EHB Circuit Breakers				
		1A	AC 277	5A	-2100	**198.**

Dimensions
Class 600

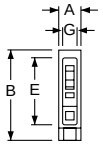


Figure 1

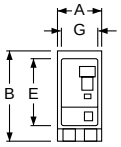


Figure 2

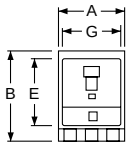
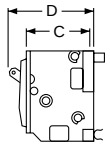


Figure 3



QO, QOB

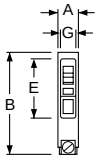


Figure 4

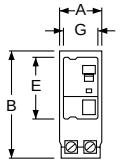
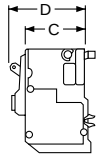


Figure 5



QO-GFI
QO-PL
QO-EPD

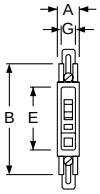


Figure 6

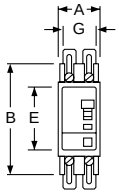


Figure 7

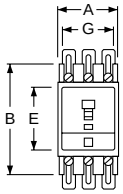
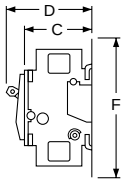


Figure 8



QOU, QYU
Low Ampere

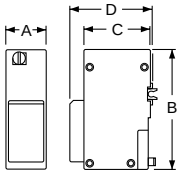


Figure 9
QO-PLPS

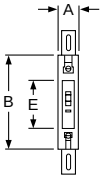


Figure 10

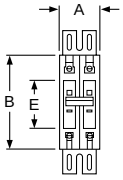


Figure 11

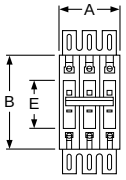
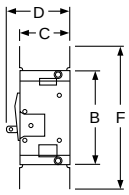


Figure 12



QOU
High Ampere

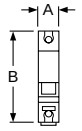


Figure 13

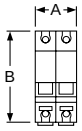


Figure 14

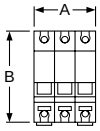


Figure 15

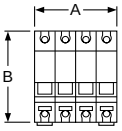
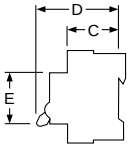


Figure 16



C60

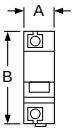


Figure 17

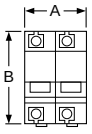


Figure 18

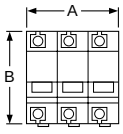


Figure 19

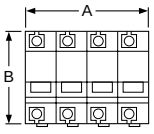
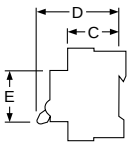


Figure 20



NC100

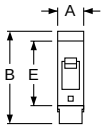


Figure 21

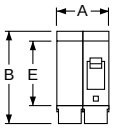


Figure 22

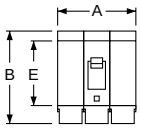
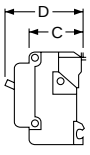


Figure 23



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.

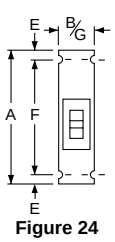


Figure 24

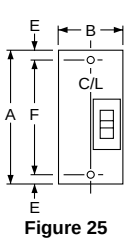


Figure 25

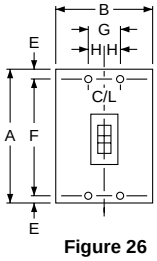
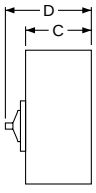


Figure 26



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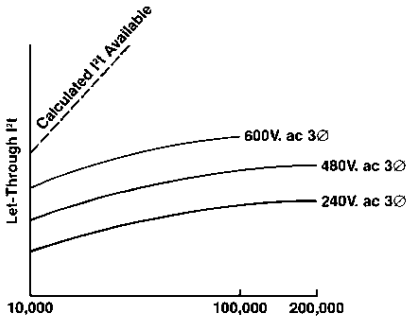
MULTI 9 is a Trademark of Schneider Electric.

circuit conditions. The theoretical I^2t let-through of symmetrical sinusoidal current can be calculated. At 100,000 amperes rms, this would be 83 x 10^6 ampere^2 seconds for ½ cycle IF NO CURRENT LIMITING DEVICE WERE IN THE CIRCUIT. In contrast, the curves show that with the same level of 100,000 rms symmetrical short circuit amperes available, the 100 ampere current limiting circuit breaker would limit the energy flow 0.62x10^6 ampere^2 second at 480 volts or 0.27x10^6 ampere^2 seconds at 240 volts.



MAXIMUM LET-THROUGH I^2t ENERGY

CONSTRUCTION

Square D thermal-magnetic circuit breakers are manufactured and tested according to the following standards and files:

- UL Standard 489
- NEMA Standard AB-1
- Canadian Standards Association (CSA) File LR7551
- International Electrotechnical Commission (IEC) 157-1
- Federal Specification W-C-375B/GEN as Class 11a, 11b; 12a, 12b; and 13a, 13b

Magnetic only circuit breakers are manufactured in accordance with the following standards:

- UL File E10027
- CSA File LR32390

Molded case switches comply with:

- UL 1087
- UL File E33117
- UL File LR 32390

Note: Circuit breakers are to be applied by guidelines detailed in the NEC and other local electrical codes.

SPECIFICATIONS

Cases for molded case circuit breakers are constructed of a glass-reinforced insulating material that provides high dielectric strength. Current carrying components are isolated from the handle and accessory mounting area. The handle position indicates whether the circuit breaker is OFF, ON or tripped.

Square D molded case circuit breakers:

- have common tripping of all poles
- are equipped with a Push-To-Trip button to manually trip the circuit breaker
- can be mounted and operated in any position
- are fully tested, UL Listed, CSA certified and IEC rated for reverse connection without restrictive "LINE" or "LOAD" markings

TRIPPING SYSTEM

Square D thermal-magnetic molded case circuit breakers have a permanent trip unit that contains a factory preset thermal trip element and a magnetic trip element in each pole. The thermal trip element is rms sensing. In circuit breakers with frame sizes greater than 100A, the magnetic trip element is field adjustable. A single adjustment simultaneously adjusts the instantaneous trip point in each pole.

TERMINATIONS

All factory installed mechanical type lugs are UL Listed to accept solid or stranded conductors and can be used with wire rated at 60°C, 75°C and 90°C (sized according to the NEC 75°C temperature rating). Most molded case circuit breakers are UL Listed to accept field installable mechanical type and compression type lugs.

UL REQUIREMENTS

A UL label on a Square D molded case circuit breaker indicates that the circuit breaker meets the requirements of UL Standard 489 for circuit breakers.

A UL label also means the production procedure is monitored by UL inspectors for continuing conformance to UL performance requirements. These requirements are based on sound engineering principles, research, records of test and field experience, and information gathered from users and inspection authorities. These requirements are subject to revision as necessary.

UL HACR TYPE

Type FA, FH, KA, and KH industrial molded case circuit breakers are UL Listed as HACR type.