



B-Frame



H-Frame



J-Frame



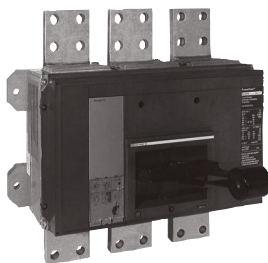
L-Frame



M-Frame



P-Frame



R-Frame

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DE3 CIRCUIT BREAKERS

Selection Information

Miniature Circuit Breakers

Class 500, 600


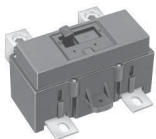
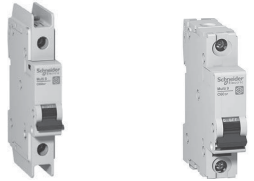

DE3 CIRCUIT BREAKERS

		CHOM Circuit Breakers								QO™ Circuit Breakers																				
																														
Circuit Breaker Type	Plug-on	CHOM	CHOM-CAFI	CHOM-DF	CHOM-GFI	CHOM-EPD	CHOMT	QO	QO-H	QO-VH	QO-VH	QH	QOT	QO-CAFI	QO-VHCAFI	QO-GFI	QO-VHGF	QO-EPD	QO-EPE	QO-DF	QOVH-DF									
	Bolt-on	—	—	—	—	—	—	QOB	QOB-H	—	—	—	—	QOB-VH	QHB	—	—	QOB-CAFI	QOB-VHCAFI	QOB-GFI	QOB-VHGF	QOB-EPD	QOB-EPE	—	—					
	Unit Mount	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
Number of Poles		1	2	1,2	1	1	2	1	2	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	1				
Current Range		15-50	15-200	15-20	15-20	15-20	15-50	15-50	10-70	10-200	10-100	15-100	15-30	15-125	15-100	15-30	15-150	15-30	15-30	15-30	15-60	15-60	15-30	15-30	15-60	15-50				
Interrupting Ratings																														
UL/CSA Rating (kA) (50/60 Hz)	120 Vac	10	10	10	10	10	10	10	10	10	10	10	22	22	22	22	22	65	65	10	10	22	10	—	22	10	10	—	10	22
	120/240 Vac	10	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	208Y/120	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	240 Vac ★	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	277 Vac	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DC Ratings	480Y/277 Vac	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	48 Vdc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60 Vdc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	65 Vdc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	125 Vdc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IEC 60947-2 (50/60 Hz) ▼	IEC (Icu)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	CCC	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fed. Specs W-C-375B/GEN		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Other Standard		HACR Δ		HACR Δ		HACR Δ		HACR □		HACR □		HACR □		HACR □		HACR □		HACR □		HACR □		HACR □		HACR □		HACR □		HACR □		
Accessories and Modifications																														
Shunt Trip ◇		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Undervoltage Trip		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Auxiliary Switches ◇		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alarm Switch ◇		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Handle Operators		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Handle Padlock Attachment		X	X	X	X	—	—	—	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Trip System Type																														
Thermal-magnetic		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Molded Case Switch		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dimensions (1P Unit Mount)																														
Dimensions (1P Unit Mount) in. (mm)	Height	3.13 (79)								3.5 (89) ▲				4.75 (121)				4.12 (103)												
	Width	1.00 (25)								0.75 (19) ▲																				
	Depth	2.98 (76)								2.92 (74) ▲																				
Pages		Section DE1								Pages DE3-10, DE3-11																				

- ▲ See page DE3-53 for dimensions for: QOB2150VH, QOB3110VH, QOB3125VH and QOB3150VH.
- CHOMT tandem is 30 A maximum. CHOMT quad has 20 A maximum on outside poles, and 50 A maximum on the inside poles.
- ◆ AFI, EPD and GFI products are rated 60 Hz only.
- ★ 22 kA @ 240 Vac for 3P only.
- ▼ 1P and 2P, 10–70 A and 3P 10–60 A only.
- △ HACR on CHOM 1P 15–50 A and 2P 15–100 A
- HACR on QO, QOB 1P 10–70 A, 2P 15–100 A, 3P 10–100 A; QOB-VH 1P 15–70 A, 2P 15–125 A, 3P 15–100 A.
- ◇ Factory-installed option only.
- ☆ Factory-installed accessories are not available on QOB-VH 2P150 A and 3P 110–150 A.
- ▽ Handle padlock attachment available for CHOMT quad tandem only.
- 2P 150–200 A requires 4P width.

Selection Information Miniature Circuit Breakers

Class 500, 600

		QOU Circuit Breakers			QOM1 and QOM2 Main Circuit Breakers		Multi 9™ Circuit Breakers and Supplementary Protectors								EDB Circuit Breakers										
																									
Circuit Breaker Type	Plug-on	—			—		—								—										
	Bolt-on	—			QOM1-VH	QOM2-VH	—								EDB		EGB		EJB						
	Unit Mount	QOU			—		CSA C22.2 No. 5/UL 489 C60BP/BPR				CSA C22.2 No. 235/UL1077 C60SP				—		—		—						
Number of Poles	1	2	3	2	2	1	2	3	1	2	3,4	2,3,4	1	2,3	1	2,3	1	2,3							
Current Range	10-100	10-125	10-100	50-125	100-225	0.5-35	1-25	30-35	40-63	1-35	40-63	0.5-32	40-63	1-25	32	2-32	40-63	15-70	15-125☆	15-70	15-125☆	15-70	15-125☆		
Interrupting Ratings																									
UL/CSA Rating (kA RMS) (50/60 Hz)	120 Vac	10	10	10	22	22	14	—	—	—	—	14	10	—	—	—	—	25	25	65	65	100	100		
	120/240 Vac	10	10	10	22	22	14	—	—	—	—	14	10	—	—	—	—	18	25	35	65	65	100		
	240 Vac	—	—	10	—	—	14	14	10	14	10	14	10	14	14	10	10	18	25	35	65	65	100		
	277 Vac	—	—	—	—	—	10	10	—	10	—	—	10	5	10	10	5	18	18	35	35	65	65		
	377 Vac	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	—	18	—	25	—	
	480Y/277 Vac	—	—	—	—	—	—	10	10	—	10	—	—	—	10	10	5	—	18	—	35	—	65	—	
DC Ratings	600Y/347 Vac	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	—	18	—	25		
	48 Vdc	5■	5■	5■	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	60 Vdc	5♦	5♦	5♦	—	—	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	65 Vdc	—	—	—	—	—	—	—	—	—	—	10	10	—	—	—	—	—	—	—	—	—	—		
	125 Vdc	—	—	—	—	—	—	10	—	—	—	—	—	10	—	—	—	—	—	—	—	—	—		
	250 Vdc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
IEC 60947-2 (50/60 Hz) Icu	500 Vdc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	240 Vac	—	—	—	—	—	10	20	20	20	20	10	10	20	20	20	20	20	—	—	—	—	—		
	415 Vac	—	—	—	—	—	3	10	10	10	10	3	3	10	10	10	10	10	—	—	—	—	—		
Special Ratings																									
CCC	X□	X□	X□	—	—	X	X	X	X	X	X	X	X	X	X	X	X	—	—	—	—	—	—		
Fed. Specs W-C-375B/GEN	X	X	X	X	X	X	X	X	X	X	X	—	—	—	—	—	—	X	X	X	X	X	X		
Other Standard	HACR ★			—	—	GB	GB	GB	GB	GB	GB	GB	GB	GB	GB	GB	HACR								
Accessories and Modifications																									
Shunt Trip	X▼	X▼	X▼	—	X▼	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Undervoltage Trip	—	—	—	—	—	X	X	X	X	X	X	X	X	X	X	X	X	—	—	—	—	—	—		
Auxiliary Switches	X▼	X▼	X▼	—	—	X	X	X	X	X	X	X	X	X	X	X	X	X▼	X▼	X▼	X▼	X▼	X▼		
Alarm Switch	X▼	X▼	X▼	—	—	X	X	X	X	X	X	X	X	X	X	X	X	X▼	X▼	X▼	X▼	X▼	X▼		
Handle Operators	—	—	—	—	—	X	X	X	X	X	X	X	X	X	X	X	X	—	—	—	—	—	—		
Handle Padlock Attachment	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Trip System Type																									
Thermal-magnetic	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Molded Case Switch	—	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Dimensions (1P Unit Mount)																									
Dimensions (1P Unit Mount) in. (mm)	Height	4.05 (103)			5.09 (129)△		5.60 (142)△		4.06 (103)				3.19 (81)				5.66 (144)								
	Width	0.75 (19)			5.00 (127)△		5.07 (129)△		0.71 (18)				0.71 (18)				0.98 (25)								
	Depth	2.92 (74)			3.47 (88)△		3.60 (91)△		2.83(72)				2.83 (72)				4.05 (103)								
Pages	Pages DE3-14			Section DE1		Pages DE3-16 through DE3-18																		Section DE5	

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




- ▲ C60H-DC is a UL 1077 (not CSA certified) supplementary protector.
- 1P and 2P, 10-70 A and 3P 10-60 A only.
- ♦ QOU is CSA/UL Listed for 60 Vdc per pole 80-100 A, 1P; 80-125 A, 2P; and 70-100 A, 3P.
- ★ HACR on QOU 1P and 3P 15-100 A, 2P 15-125 A;
- ▼ Factory-installed option only
- △ QOM1 and QOM2 dimensions are for 2-pole unit.
- 15-70 A 1P and 2P, 15-60 A 3P.
- ◇ 100 A maximum at 600Y/347 Vac

DE3 CIRCUIT BREAKERS

Selection Information

Molded Case Circuit Breakers

DE3 CIRCUIT BREAKERS



	PowerPact™ 125 A B-Frame				PowerPact™ 150 A H-Frame					PowerPact 250 A J-Frame					
															
Circuit Breaker Type	BD	BG	BJ	BK	HD	HG	HJ	HL	HR	JD	JG	JJ	JL	JR	
Number of Poles [1]	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2	2, 3	2, 3	2▲, 3	2▲, 3	—	2▲, 3	2▲, 3	2▲, 3	2▲, 3	3	
Current Range, A [1]	15-125	15-125	15-125	15-125	15-150	15-150	15-150	15-150	—	150-250	150-250	150-250	150-250	150-250	
Number of Poles [2]	—	—	—	—	3	3	3	3	3	3	3	3	3	3	
Current Range, A [2]	—	—	—	—	15-150	15-150	15-150	15-150	15-150	70-250	70-250	70-250	70-250	70-250	
Interrupting Ratings															
UL/CSA/NOM Rating (kARMS) (50/60Hz)	240 Vac	25	65	100	100	25	65	100	125	200	25	65	100	125	200
	480Y/277 Vac	18	35	65	65	18	35	65	100	200	18	35	65	100	200
	480 Vac	18	35	65	65	18	35	65	100	200	18	35	65	100	200
	600Y/347 Vac	14	18	25	65	14	18	25	50	100	14	18	25	50	100
DC Ratings	600 Vac	—	—	—	—	14	18	25	50	100	14	18	25	50	100
	250 Vdc♦	10	20	50	—	20	20	20	20	—	20	20	20	20	—
IEC AC Rating (kA RMS) (50/60Hz) Icu/Ics★	500 Vdc♦	—	—	—	—	—	20	—	50	—	—	20	—	50	—
	220/240 Vac	25	65	100	100	25	65	100	125	150	25	65	100	125	150
	380/415 Vac	18	35	65	65	18	35	65	100	125	18	35	65	100	125
	440/480 Vac	18	35	65	65	18	35	65	100	125	18	18	25	50	125
IEC DC Ratings	500/525 Vac	14	18	25	25	14	18	25	50	75	14	20	20	20	75
	690 Vac	—	—	—	—	—	—	—	—	20	—	—	—	—	20
Special Ratings															
CCC	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fed. Specs W-C-375B/GEN	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HACR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Connections/Terminations															
Unit Mount	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
I-Line™	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rear Connection	—	—	—	—	X▼	X▼	X	X	X	X	X	X	X	X	X
Drawout	—	—	—	—	X▼	X▼	X	X	X	X	X	X	X	X	X
Optional Lugs	X	X	X	X	X▼	X▼	X	X	X	X	X	X	X	X	X
Accessories and Modifications															
Shunt Trip	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Undervoltage Trip	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Auxiliary Switches	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Alarm Switch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Motor Operator	—	—	—	—	X▼	X▼	X	X	X	X	X	X	X	X	X
Handle Operators	X	X	X	X	X▼	X▼	X	X	X	X	X	X	X	X	X
Mechanical Interlocks (3P)	X	X	X	—	X	X	X	X	X	X	X	X	X	X	X
Handle Padlock Attachment	X	X	X	X	X▼	X▼	X	X	X	X	X	X	X	X	X
Cylinder Lock (3P)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Optional GF Protection	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Trip System Type															
Thermal-magnetic	X	X	X	X	X	X	X	X	—	X	X	X	X	X	X
Instantaneous-only (MCP)	—	—	—	—	—	—	X△	X△	X	—	—	X△	X△	X	X
Molded Case Switch (Automatic)	X	X	X	—	—	X	—	X	—	—	X	—	X	—	X
Enclosures (Pages DE3-46–DE3-49)															
General Purpose (NEMA 1)	X	X	X	X	X	X	X	X	X**	—	X	X	X	X**	—
Raintight (NEMA 3R)	X	X	X	X	X	X	X	X	X**	—	X	X	X	X**	—
Dust-tight (NEMA 12)	X	X	X	X	X	X	X	X	X**	—	X	X	X	X**	—
Watertight (NEMA 4, 4X, 5)	X	X	X	X	X	X	X	X	X**	—	X	X	X	X**	—
Explosion Proof (NEMA 7, 9)	X	X	X	X	—	—	—	—	—	—	X□	X□	—	—	—
Dimensions (3P Unit Mount) in. (mm)	Height	5.4 (137)				6.4 (163)					7.5 (191)				
	Width	3.2 (81)				4.1 (104)					4.1 (104)				
	Depth	3.5 (89)				3.4 (86)					3.4 (86)				
Pages (UnitMount)/(I-Line)	Page DE3-20/Section DE5				Pages DE3-21, DE3-22/Section DE5					Pages DE3-21, DE3-22/Section DE5					

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

- ▲ 2P in a 3P module
- [1] MCCB with thermal magnetic trip unit
- [2] MCCB with electronic trip unit
- ♦ Not available with electronic trip units. 125 Vdc for 1P PowerPact B
- ★ Dual CSA/UL and IEC ratings and CE markings on circuit breakers
- ▼ Not available in HD and HG 2P rating (2P module)
- △ 3P only
- Not UL Listed due to wire bending space
- ** 25 kA at 600 Vac; 20 kA at 250 Vdc

Selection Information

Molded Case Circuit Breakers

	250 A Q-Frame				Q4, LA, LH			
								
Circuit Breaker Type	QB	QD	QG	QJ	Q4	LA	LH	
Number of Poles [1]	2, 3	2, 3	2, 3	2, 3	2▲, 3	2▲, 3	2▲, 3	
Current Range, A [1]	70-250 [3]	70-250 [3]	70-250 [3]	70-250 [3]	125-400	125-400	125-400	
Number of Poles [2]	—	—	—	—	—	—	—	
Current Range, A [2]	—	—	—	—	—	—	—	
Interrupting Ratings								
UL/CSA/NOM Rating (kARMS) (50/60Hz)	240 Vac	10	25	65	100	25	42	65
	480Y/277 Vac	—	—	—	—	—	30	35
	480 Vac	—	—	—	—	—	30	35
	600Y/347 Vac	—	—	—	—	—	22	25
DC Ratings	600 Vac	—	—	—	—	—	22	25
	250 Vdc★	—	—	—	—	—	10	50
IEC AC Rating (kA RMS) (50/60Hz) Icu/lcs★	500 Vdc◆★	—	—	—	—	—	—	—
	220/240 Vac	10/5	10/5	10/5	10/5	—	—	—
	380/415 Vac	10/5	10/5	10/5	10/5	—	20/5	20/5
	440/480 Vac	—	—	—	—	—	—	—
IEC DC Ratings	500/525 Vac	—	—	—	—	—	—	—
	690 Vac	—	—	—	—	—	—	—
	250 Vdc	—	—	—	—	—	—	—
500 Vdc	—	—	—	—	—	—	—	
Special Ratings								
CCC	—	—	—	—	—	—	—	
Fed. Specs W-C-375B/GEN	X	X	X	X	X	X	X	
HACR (2P, 3P)	X	X	X	—	—	X	X	
Connections/Terminations								
Unit Mount	X	X	X	X	X	X	X	
I-Line™	X	X	X	X	X	X	X	
Rear Connection	—	—	—	—	X	X	X	
Drawout	—	—	—	—	—	—	—	
Optional Lugs	—	—	—	—	X	X	X	
Accessories and Modifications								
Shunt Trip	—	—	—	—	X	X	X	
Undervoltage Trip	—	—	—	—	X	X	X	
Auxiliary Switches	—	—	—	—	X	X	X	
Alarm Switch	—	—	—	—	X	X	X	
Motor Operator	—	—	—	—	X	X	X	
Handle Operators	—	—	—	—	X	X	X	
Mechanical Interlocks (3P)	X	X	X	X	—	X[4]	X[4]	
Handle Padlock Attachment	X	X	X	X	X	X	X	
Cylinder Lock (3P▲)	—	—	—	—	X	X	X	
Optional GF Protection	—	—	—	—	—	—	—	
Trip System Type								
Thermal-magnetic	X	X	X	X	X	X	X	
Instantaneous-only (MCP)	—	—	—	—	—	X	X	
Molded Case Switch (Automatic)	X	—	—	—	—	—	X	
Electronic	—	—	—	—	—	—	—	
Enclosures (Pages DE3-46–DE3-49)								
General Purpose (NEMA 1)	X	X	X	X	X	X	X	
Raintight (NEMA 3R)	X	X	X	X	X	X	X	
Dust-tight (NEMA 12)	—	—	—	—	X	X	X	
Watertight (NEMA 4, 4X, 5)	—	—	—	—	X	X	X	
Explosion Proof (NEMA 7,9)	—	—	—	—	—	—	—	
Dimensions (3P Unit Mount) in. (mm)	Height	6.47 (164)				11 (279)		
	Width	4.5 (114)				6 (152)		
	Depth	3.93 (100)				5.84 (148)		
Pages (UnitMount)/(I-Line)	Pages DE3-23/Section DE5				DE3-24/Section DE5			

DE3 CIRCUIT BREAKERS

▲ 2P in a 3P module
 [1] MCCB with thermal magnetic trip unit
 [2] MCCB with electronic trip unit
 [3] I-Line Q-frame circuit breakers are available 70–225A only. 250A Q-frame unit-mount circuit breakers are limited to Cu conductors only
 [4] Requires circuit breaker with WB suffix
 ★ Dual CSA/UL and IEC ratings and CE markings on circuit breakers
 ▲ Factory-installed option only
 □ 3P only
 ☆ Not available with electronic trip units

Selection Information

Molded Case Circuit Breakers

PowerPact™ 600 A L-Frame



DE3 CIRCUIT BREAKERS

Circuit Breaker Type		LD	LG	LJ	LL	LR
Number of Poles [1]		—	—	—	—	—
Current Range, A [1]		—	—	—	—	—
Number of Poles [2]		3, 4	3, 4	3, 4	3, 4	3, 4
Current Range, A [2]		70-600	70-600	70-600	70-600	70-600
Interrupting Ratings						
UL/CSA/NOM Rating (kARMS) (50/60Hz)	240 Vac	25	65	100	125	200
	480Y/277 Vac	18	35	65	100	200
	480 Vac	18	35	65	100	200
	600Y/347 Vac	14	18	25	50	100
DC Ratings	600 Vac	14	18	25	50	100
	250 Vdc★	—	—	—	—	—
IEC AC Rating (kA RMS) (50/60Hz) Icu/Ics★	500 Vdc◆★	—	20	—	50	—
	220/240 Vac	25	65	100	125	150
	380/415 Vac	18/18	18	65	100	125
	440/480 Vac	18/18	18	65	100	125
IEC DC Ratings	500/525 Vac	18/18	14	25	50	125
	690 Vac	—	—	—	—	20
	250 Vdc	—	—	—	—	—
500 Vdc		—	—	—	—	—
Special Ratings						
CCC		X	X	X	X	X
Fed. Specs W-C-375B/GEN		—	—	—	—	—
HACR (2P, 3P)		X	X	X	X	X
Connections/Terminations						
Unit Mount		X	X	X	X	X
I-Line™		X	X	X	X	X
Rear Connection		X	X	X	X	X
Drawout		X	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	X
Mechanical Interlocks (3P)		X	X	X	X	X
Handle Padlock Attachment		X	X	X	X	X
Cylinder Lock (3PΔ)		—	—	—	—	—
Optional GF Protection		X	X	X	X	X
Trip System Type						
Thermal-magnetic		—	—	—	—	—
Instantaneous-only (MCP)		X	X	X	X	X
Molded Case Switch (Automatic)		—	X	—	X	X
Electronic		X	X	X	X	X
Enclosures (Pages DE3-46–DE3-49)						
General Purpose (NEMA 1)		—	—	—	—	—
Raintight (NEMA 3R)		—	—	—	—	—
Dust-tight (NEMA 12)		X	X	X	X	X
Watertight (NEMA 4, 4X, 5)		—	—	—	—	—
Explosion Proof (NEMA 7, 9)		—	—	—	—	—
Dimensions (3P Unit Mount) in. (mm)	Height	13.38 (340)				
	Width	5.51 (140)				
	Depth	4.33 (110)				
Pages (UnitMount)/(I-Line)		DE3-25/Section DE5				

[1] MCCB with thermal magnetic trip unit

[2] MCCB with electronic trip unit

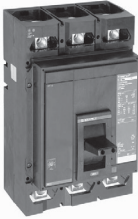

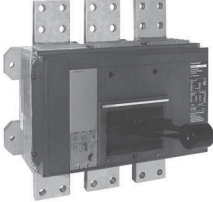
◆ Ungrounded UPS systems only. See page DE3-35

★ Dual CSA/UL and IEC ratings and CE markings on circuit breakers

☆ Not available with electronic trip units

Selection Information

Molded Case Circuit Breakers

	PowerPact 800 A M-Frame		PowerPact 1200 A P-Frame				PowerPact 3000 A R-Frame				
											
Circuit Breaker Type	MG	MJ	PG	PJ	PK	PL	RG	RJ	RK	RL	
Number of Poles	2, 3	2, 3	2, 3, 4	2, 3	2, 3, 4	2, 3	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	
Current Range	300–800	300–800	100–1200	100–1200	100–1200	100–1200	240–3000	240–3000	240–3000	240–3000	
Interrupting Ratings											
UL/CSA/NOM Rating (kA RMS) (50/60 Hz)	240 Vac	65	100	65	100	65	125	65	100	65	125
	480Y/277 Vac	35	65	35	65	50	100	35	65	65	100
	480 Vac	35	65	35	65	50	100	35	65	65	100
	600Y/347 Vac	18	25	18	25	50	25	18	25	65	50
	600 Vac	18	25	18	25	50	25	18	25	65	50
DC Ratings	250 Vdc	—	—	—	—	—	—	—	—	—	—
	500 Vdc▲	—	—	—	—	—	—	—	—	—	—
IEC (kA RMS) Icu/Ics■	240 Vac	50/25	65/35	50/25	65/35	50/25	125/65	50/25	65/35	85/65	125/65
	415 Vac	35/20	50/25	35/20	50/25	50/25	85/45	35/20	50/25	70/55	85/45
Special Ratings											
CCC	X	X	X	X	X	X	X	X	X	X	X
Fed. Specs W-C-375B/GEN	X	X	X	X	X	X	X	X	X	X	X
HACR (2P, 3P)	X	X	X	X	X	X	X	X	X	X	X
Connections/Terminations											
Unit Mount	X	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	—	—	—	—	—	—	—	—	—	—	—
Drawout	—	—	X★	X★	X★	X★	—	—	—	—	—
Optional Lugs	X	X	X	X	X	X	X	X	X	X	X
Accessories and Modifications											
Shunt Trip	X	X	X	X	X	X	X	X	X	X	X
Undervoltage Trip	X	X	X	X	X	X	X	X	X	X	X
Auxiliary Switches	X	X	X	X	X	X	X	X	X	X	X
Alarm Switch	X	X	X	X	X	X	X	X	X	X	X
Motor Operator	—	—	X★	X★	X★	X★	—	—	—	—	—
Handle Operators	—	—	X★	X★	X★	X★	—	—	—	—	—
Mechanical Interlocks (3P)	—	—	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	X	X	X	X	X	X	X	X
Trip System Type											
Thermal-magnetic	—	—	—	—	—	—	—	—	—	—	—
Instantaneous-only (MCP)	—	—	—	X	X	—	—	—	—	—	—
Molded Case Switch (Automatic)	—	—	X	X	X	X	X	X	X	X	X
Electronic	X	X	X	X	X	X	X	X	X	X	X
Enclosures (Pages DE3-46–DE3-49)											
General Purpose (NEMA 1)	X	X	X	X	X	X	—	—	—	—	—
Raintight (NEMA 3R)	X	X	X	X	X	X	—	—	—	—	—
Dust-tight (NEMA 12)	X	X	X	X	X	X	—	—	—	—	—
Watertight (NEMA 4, 4X, 5)	X	X	—	—	—	—	—	—	—	—	—
Explosion Proof (NEMA 7, 9)	—	—	—	—	—	—	—	—	—	—	—
Dimensions (3P Unit Mount)	Height—in. (mm)	12.80 (325)			16.20 (413)			15 (381)			
	Width—in. (mm)	8.30 (210)			8.30 (210)			16.50 (420)			
	Depth—in. (mm)	8.10 (205)			8.10 (205)			14.40 (366)			
Pages (Unit Mount)/(I-Line)	Page DE3-26/Section DE5			Page DE3-27, /Section DE5			Page DE3-28, /Section DE5				

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


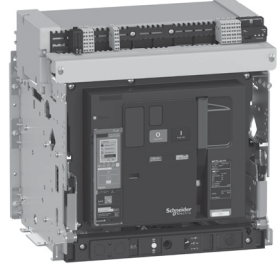
- ▲ Ungrounded UPS systems only. See page DE3-32.
- Dual CSA/UL and IEC ratings and CE markings on circuit breakers.
- ★ 65/50 kA Icu/Ics for 450–600 A ratings.
- ▼ 1000 A and 1200 A only.

DE3 CIRCUIT BREAKERS

Selection Information

Insulated Case Circuit Breakers

DE3 CIRCUIT BREAKERS



		Masterpact 1200 A MTZ1					Masterpact 3000 A MTZ2					Masterpact 6000 A MTZ3			
															
Circuit Breaker Type		MTZ1-N	MTZ1-H	MTZ1-L1	MTZ1 - L	MTZ1 - LF	MTZ2 - N	MTZ2 - H	MTZ2 - L	MTZ2 - LF	MTZ2 - H	MTZ2 - L	MTZ3 - H	MTZ3 - L	
Number of Poles [1]		3, 4	3	3	3	—	3, 4	3, 4	—	—	3, 4	—	3, 4	—	
Current Range, A [1]		160-1600	160-1600	160-1600	160-1600	—	160-2000	160-2000	—	—	480-3000	—	800-6000	—	
Number of Poles [2]		3, 4	3	3	3	3	3, 4	3, 4	3	3	3, 4	3	3, 4	3	
Current Range, A [2]		160-1200	160-1200	160-1200	160-1200	160-1200	160-2000	160-2000	160-2000	160-2000	480-3000	480-3000	800-6000	800-6000	
Interrupting Ratings															
UL/CSA/NOM Rating (kA RMS) (50/60Hz)	240 Vac	50	65	100	200	200	65	100	200	200	100	200	100	200	
	480Y/277 Vac	50	50	65	100	100	65	100	150	150	100	150	100	150	
	480 Vac	50	50	65	100	100	65	100	150	150	100	150	100	150	
	600Y/347 Vac	35	50	—	—	—	50	85	100	100	85	100	85	100	
DC Ratings	600 Vac	35	50	—	—	—	50	85	100	100	85	100	85	100	
	250 Vdc	—	—	—	—	—	—	—	—	—	—	—	—	—	
IEC (kA RMS) Icu/Ics	500 Vdc	—	—	—	—	—	—	—	—	—	—	—	—	—	
	240 Vac	—	—	—	—	—	—	—	—	—	—	—	—	—	
	415 Vac	—	—	—	—	—	—	—	—	—	—	—	—	—	
		—	—	—	—	—	—	—	—	—	—	—	—	—	
Connections/Terminations															
Unit Mount		X	X	X	X	X	X	X	X	X	X	X	X	X	
I-Line™		—	—	—	—	—	—	—	—	—	—	—	—	—	
Rear Connection		X	X	X	X	X	X	X	X	X	X	X	X	X	
Drawout		X	X	X	X	X	X	X	X	X	X	X	X	X	
Optional Lugs		—	—	—	—	—	—	—	—	—	—	—	—	—	
Accessories and Modifications															
Digital Modules		X	X	X	X	X	X	X	X	X	X	X	X	X	
Shunt close (comm and diag)		X	X	X	X	X	X	X	X	X	X	X	X	X	
Shunt Close		X	X	X	X	X	X	X	X	X	X	X	X	X	
Shunt Trip (comm and diag)		X	X	X	X	X	X	X	X	X	X	X	X	X	
Shunt Trip		X	X	X	X	X	X	X	X	X	X	X	X	X	
Undervoltage Trip (diag)		X	X	X	X	X	X	X	X	X	X	X	X	X	
Undervoltage Trip		X	X	X	X	X	X	X	X	X	X	X	X	X	
Auxiliary Switches		X	X	X	X	X	X	X	X	X	X	X	X	X	
Alarm Switch		X	X	X	X	X	X	X	X	X	X	X	X	X	
Motor Operator		X	X	X	X	X	X	X	X	X	X	X	X	X	
Handle Operators		—	—	—	—	—	—	—	—	—	—	—	—	—	
Mechanical Interlocks		X	X	X	X	X	X	X	X	X	X	X	X	X	
Padlock Attachment		X	X	X	X	X	X	X	X	X	X	X	X	X	
Cylinder Lock		—	—	—	—	—	—	—	—	—	—	—	—	—	
Optional GF Protection		X	X	X	X	X	X	X	X	X	X	X	X	X	
Trip System Type															
Thermal-magnetic		—	—	—	—	—	—	—	—	—	—	—	—	—	
Instantaneous-only (MCP)		—	—	—	—	—	—	—	—	—	—	—	—	—	
Molded Case Switch (Automatic)		X	X	X	X	X	X	X	X	X	X	X	X	X	
Electronic		X	X	X	X	X	X	X	X	X	X	X	X	X	
Dimensions															
Dimensions (3P Unit Mount) in. (mm)	Height	12.67 (322)					17.28 (439)					17.28 (439)		17.28 (439)	
	Width	11.25 (286)					17.74 (450)					17.74 (450)		30.94 (786)	
	Depth	13.00 (331)					18.38 (467)					18.38 (467)		18.38 (467)	
Pages		Catalogue 0614CT1701					Catalogue 0614CT1701								

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

- ▲ Tested to show arc flash hazard risk category as reference by NFPA70E
- [1] Fixed version
- [2] Drawout version
- Refer to Catalogue 0614CT1701 for additional ratings and other information

Selection Information

Insulated Case Circuit Breakers

	Masterpact 1200 A NT					Masterpact 3000 A NW-W						Masterpact 6000A NW-Y			
															
Circuit Breaker Type	NT-N	NT-H	NT-L1	NT-L	NT-LF▲	NW-N	NW-H	NW-L	NW-LF▲	NW-H	NW-L	NW-H	NW-L		
Number of Poles	3, 4	3, 4	3	3	3	3, 4	3, 4	3	3	3, 4	3	3, 4	3		
Current Range	100–1200	100–1200	100–1200	100–1200	100–1200	100–2000	100–2000	100–2000	100–2000	640–3000	640–3000	1200–6000	1200–6000		
Interrupting Ratings															
UL/CSA/NOM Rating (kA RMS) (50/60Hz)	240 Vac	50	65	100	200	200	65	100	200	200	100	200	100	200	
	480Y/277 Vac	50	50	65	100	100	65	100	150	150	100	150	100	150	
	480 Vac	50	50	65	100	100	65	100	150	150	100	150	100	150	
	600Y/347 Vac	35	50	—	—	—	50	85	100	100	85	100	85	100	
	600 Vac	35	50	—	—	—	50	85	100	100	85	100	85	100	
DC Ratings	250 Vdc	—	—	—	—	—	—	—	—	—	—	—	—		
	500 Vdc	—	—	—	—	—	—	—	—	—	—	—	—		
IEC ■ (kA RMS) Icu/Ics	240 Vac	—	—	—	—	—	—	—	—	—	—	—	—		
	415 Vac	—	—	—	—	—	—	—	—	—	—	—	—		
Special Ratings															
CCC	—	—	—	—	—	—	—	—	—	—	—	—	—		
Fed. Specs W-C-375B/GEN	—	—	—	—	—	—	—	—	—	—	—	—	—		
HACR (2P, 3P)	—	—	—	—	—	—	—	—	—	—	—	—	—		
Connections/Terminations															
Unit Mount	X	X	X	X	X	X	X	X	X	X	X	X	X		
I-Line™	—	—	—	—	—	—	—	—	—	—	—	—	—		
Rear Connection	X	X	X	X	X	X	X	X	X	X	X	X	X		
Drawout	X	X	X	X	X	X	X	X	X	X	X	X	X		
Optional Lugs	—	—	—	—	—	—	—	—	—	—	—	—	—		
Accessories and Modifications															
Shunt Trip	X	X	X	X	X	X	X	X	X	X	X	X	X		
Undervoltage Trip	X	X	X	X	X	X	X	X	X	X	X	X	X		
Auxiliary Switches	X	X	X	X	X	X	X	X	X	X	X	X	X		
Alarm Switch	X	X	X	X	X	X	X	X	X	X	X	X	X		
Motor Operator	X	X	X	X	X	X	X	X	X	X	X	X	X		
Handle Operators	—	—	—	—	—	—	—	—	—	—	—	—	—		
Mechanical Interlocks	X	X	X	X	X	X	X	X	X	X	X	X	X		
Padlock Attachment	X	X	X	X	X	X	X	X	X	X	X	X	X		
Cylinder Lock	—	—	—	—	—	—	—	—	—	—	—	—	—		
Optional GF Protection	X	X	X	X	X	X	X	X	X	X	X	X	X		
Trip System Type															
Thermal-magnetic	—	—	—	—	—	—	—	—	—	—	—	—	—		
Instantaneous-only (MCP)	—	—	—	—	—	—	—	—	—	—	—	—	—		
Molded Case Switch (Automatic)	X	X	X	X	X	X	X	X	X	X	X	X	X		
Electronic	X	X	X	X	X	X	X	X	X	X	X	X	X		
Enclosures															
General Purpose (NEMA 1)	—	—	—	—	—	—	—	—	—	—	—	—	—		
Raintight (NEMA 3R)	—	—	—	—	—	—	—	—	—	—	—	—	—		
Dust-tight (NEMA 12)	—	—	—	—	—	—	—	—	—	—	—	—	—		
Watertight (NEMA 4, 4X, 5)	—	—	—	—	—	—	—	—	—	—	—	—	—		
Explosion Proof (NEMA 7,9)	—	—	—	—	—	—	—	—	—	—	—	—	—		
Dimensions (3P Unit Mount) in. (mm)	Height	12.67 (322)					17.28 (439)					17.28 (439)		17.28 (439)	
	Width	11.25 (286)					17.74 (450)					17.74 (450)		30.94 (786)	
	Depth	13.00 (331)					18.38 (467)					18.38 (467)		18.38 (467)	
Pages	Catalogue 0613CT0001					Catalogue 0613CT0001									

DE3 CIRCUIT BREAKERS

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

- ▲ Tested to show arc flash hazard risk category as reference by NFPA70E
- See Catalog 0613CT0001 for additional ratings and other information

QO™ and QOU Miniature Circuit Breakers

QO™ Miniature Circuit Breakers

Class 730, 731, 733 / Refer to Catalog 0730CT9801

QO™ miniature circuit breakers are plug-on products for use in QO load centers, NQOD panelboards, NQOD OEM interiors or Speed-D™ switchboard distribution panels. Bolt-on QOB circuit breakers are for use in NQOD panelboards or interiors.▲
The QO exclusive Qwik-Open™ mechanism, with a trip reaction within 1/60th of a second, is standard on all 1P 15 A and 20 A QO circuit breakers.

Plug-On Circuit Breakers

Amperes Rating ■	1P—120/240 Vac	2P—120/240 Vac Common Trip	2P—240 Vac Common Trip ◆	3P—240 Vac Common Trip
	Cat. No.	Cat. No.	Cat. No.	Cat. No.
10 k AIR				
10 A	QO110	QO210	—	QO310
15 A	QO115◆★	QO215◆	QO215H	QO315◆
20 A	QO120◆★	QO220◆	QO220H	QO320◆
25 A	QO125◆	QO225◆	QO225H	QO325◆
30 A	QO130◆	QO230◆	QO230H	QO330◆
35 A	QO135◆	QO235◆	—	QO335◆
40 A	QO140◆	QO240◆	QO240H	QO340◆
45 A	QO145◆	QO245◆	—	QO345◆
50 A	QO150◆	QO250◆	QO250H	QO350◆
60 A	QO160◆	QO260◆	QO260H	QO360◆
70 A	QO170◆	QO270◆	QO270H	QO370◆
80 A	—	QO280◆	QO280H	QO380◆
90 A	—	QO290◆	QO290H	QO390◆
100 A	—	QO2100◆	QO2100H	QO3100◆
110 A	—	QO2110◆	—	—
125 A	—	QO2125◆	—	—
150 A	—	QO2150◆▼▼	—	—
175 A	—	QO2175◆▼▼	—	—
200 A	—	QO2200◆▼▼	—	—
Molded Case Switch 60 A max.—240 Vac		—	QO200	QO300
Molded Case Switch 100 A max.—240 Vac		—	QO2000◆	QO3000◆
22 k AIR◆				
15 A	QO115VH★	QO215VH△	—	QO315VH△
20 A	QO120VH★	QO220VH△	—	QO320VH△
25 A	QO125VH	QO225VH△	—	QO325VH△
30 A	QO130VH	QO230VH△	—	QO330VH△
40 A	—	QO240VH△	—	QO340VH△
50 A	—	QO250VH△	—	QO350VH△
60 A	—	QO260VH△	—	QO360VH△
70 A	—	QO270VH△	—	QO370VH△
80 A	—	QO280VH△	—	QO380VH△
90 A	—	QO290VH△	—	QO390VH△
100 A	—	QO2100VH△□	—	QO3100VH△
110 A	—	QO2110VH△□	—	—
125 A	—	QO2125VH△□	—	—
150 A	—	QO2150VH△▼	—	—
175 A	—	QO2175VH△▼	—	—
200 A	—	QO2200VH△▼	—	—
42 k AIR◆				
40 A	—	QOH240◆	—	—
45 A	—	QOH245◆	—	—
50 A	—	QOH250◆	—	—
60 A	—	QOH260◆	—	—
70 A	—	QOH270	—	—
80 A	—	QOH280	—	—
90 A	—	QOH290	—	—
100 A	—	QOH2100	—	—
110 A	—	QOH2110◆	—	—
125 A	—	QOH2125	—	—
65 k AIR◆				
15 A	QH115★	QH215	—	QH315◆
20 A	QH120★	QH220	—	QH320
25 A	QH125◆	QH225◆	—	QH325◆
30 A	QH130	QH230	—	QH330

QO-QOB Ring Terminal (20% \$ Price Adder)—Factory Installed Only

Ampere Rating	Poles	Suffix
10–30 A	1, 2, 3	5237
35–60 A	1, 2	5238
35–50 A	3	
70–110 A	2	5273
60–100 A	3	

Wire Sizes■

Circuit Breaker Type	Ampere Rating	Wire Size (AWG/kcmil)
QO 1P	10–30 A	14–8 Al/Cu
	10–30 A	(2) 14–10 Cu
QO 2P	35–70 A	8–2 Al/Cu
	10–30 A	14–8 Al/Cu
	10–30 A	(2) 14–10 Cu
	35–70 A	8–2 Al/Cu
QO 3P	80–125 A	4–2/0 Al/Cu
	150–200 A	4–300 Al/Cu
	10–30 A	14–8 Al/Cu, (2) 14–10 Cu
QOB-VH	110–150 A	4–300 Al/Cu
QOT	15–20 A	12–8 Al 14–8 Cu
QO-AFI, QO-GFI & QO-EPD	15–30 A	12–8 Al 14–8 Cu
	40, 50, 60 A	12–4 Al 14–6 Cu
QO-PL	10–60 A	12–2 Al 14–2 Cu

Replacement Tandem Circuit Breakers

For Use in Old Style Non-Class CTL QO Load Centers—10 k AIR

Ampere Rating ■	Cat. No.◆	\$ Price
1P—120/240 Vac—1 Space Required		
15 & 15 A	QO1515	
15 A & 20 A	QO1520	
20 A & 20 A	QO2020	
20 A & 30 A	QO2030	
30 A & 20 A	QO3020	
Two 1P Individual Trip—120/240 Vac—2 Spaces Required		
15 A & 15 A	Order Two QO1515 or QO2020 circuit breakers and handle tie QOTHT for common switching of center two poles.	
15 A & 20 A	—	—
20 A & 20 A	—	—
20 A & 30 A	QO20303020★	—
30 A & 20 A	—	—

- ▲ See Section 1 for load centers, and Section 5 for panelboards and interiors.
 - 10–30 A circuit breakers are suitable for use with 60°C or 75°C conductors. 35–125 A circuit breakers are suitable for use with 75°C con Delta systems.
 - ◆ CSA/UL Listed as HACR type for use with air conditioning, heating and refrigeration equipment having motor group combinations and marked for use with HACR type circuit breakers.
 - ★ CSA/UL Listed as SWD (switching duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.
 - ▼ Requires four spaces (1 AWG–300 kcmil Al/Cu.) Suitable for switching 120 Vac fluorescent lighting loads.
 - △ CSA/UL Listed for use ahead of QO, QO-GFI, QO-EPD, QO-AFI, QOT, QOCAFI, and QO-PL 10 k AIR circuit breakers to permit their application at 22 kA fault level.
 - 100 A maximum branch mounted opposite.
 - ◇ Order only. Contact your local Field Office.
 - ☆ Includes two circuit breakers (one QO2030 and one QO3020) and handle tie QOTHT.
 - ▽ Not suitable for use in 3Ø panels. Use only in 1Ø panel rated 150 A or greater.
- Interrupting Ratings Page DE3-2
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DE3 CIRCUIT BREAKERS



QO 1P
1 Space Required



QOT 1P Tandem
1 Space Required



QO 2P
2 Spaces Required



QO2200 2P 200 A
4 Spaces Required



QO 3P
3 Spaces Required

QO™ and QOU Miniature Circuit Breakers

Class 685, 690, 730, 912, 950 / Refer to Catalog 0730CT9801

QO™ Miniature Circuit Breakers



1P
QO-CAFI

QO™ Arc-Fault Circuit Breaker QO-CAFI



1P
QO-GFI



2P
QO-GFI

QO Combination Arc Fault Circuit Breakers*

Circuit Breaker Type	Ampere Rating	1P 120 Vac	
		10 k AIR	22 k AIR
		1 Space Required	1 Space Required
Combination Arc-fault Interrupter	15 A 20 A	QO115CAFI QO120CAFI	QO115VHCAFI QO120VHCAFI

QO Dual Function Circuit Breaker

Circuit Breaker Type	Ampere Rating	1P 120 Vac 10k AIR		1P 120 Vac 22k AIR	
		1 Space Required	1 Space Required	1 Space Required	1 Space Required
QO Dual Function Circuit Breaker with Pigtail Neutral	15 20	QO115DF	QO115VHDF	QO120DF	QO120VHDF
QO Plug-on Neutral Dual Function Circuit Breaker	15 20	QO115PDF	QO115VHPDF	QO120PDF	QO120VHPDF



3P
QO-GFI

QO-GFI Circuit Breakers

Ampere Rating (A)	Qwik-Gard Circuit Breakers With Ground Fault Circuit Interrupter			
	1P 120 Vac		2P Common Trip 120/240 Vac	
	10 k AIR	22 k AIR	10 k AIR	
	1 Space Required	1 Space Required	2 Spaces Required	
15	QO115GFI	QO115VHGFI	QO215GFI	
20	QO120GFI	QO120VHGFI	QO220GFI	
25	QO125GFI	QO125VHGFI	QO225GFI	
30	QO130GFI	QO130VHGFI	QO230GFI	
40	—	—	QO240GFI	
50	—	—	QO250GFI	
60	—	—	QO260GFI★	



Two-wire
QO-SWN

QO-EPD/EPE

QO-EPD/EPE circuit breakers provide overload and short circuit protection combined with Class B ground fault protection. They are designed to provide ground fault protection of equipment at a 30 milliampere level (EPD) or 100 milliamp level (EPE). They are not designed to protect people from electrical shock.



Three-wire
QO-SWN

QO-EPD Circuit Breakers

Ampere Rating (A)	QO-EPD Circuit Breakers			
	1P 120 Vac	2P Common Trip 120/240 Vac	3P Common Trip 240 Vac	
	10 k AIR	10 k AIR	10 k AIR	
	1 Space Required	2 Spaces Required	3 Spaces Required	
15	QO115EPD	QO215EPD	QO315EPD▼	QO315EPE▼
20	QO120EPD	QO220EPD	QO320EPD▼	QO320EPE▼
25	QO125EPD	QO225EPD	—	—
30	QO130EPD	QO230EPD	QO330EPD▼	QO330EPE▼
40	—	QO240EPD	QO340EPD▼	QO340EPE▼
50	—	QO250EPD	QO350EPD▼	QO350EPE▼
60	—	QO260EPD★	—	—



QO 1P
With Shunt Trip

QO-SWN

Switch Neutral Common Trip 2008 NEC™ 514.11

QO-SWN Circuit Breakers

Ampere Rating	2 Wire 120 Vac		3 Wire 120/240 Vac	
	10 k AIR		10 k AIR	
	2 Spaces Required		3 Spaces Required	
10 A	QO210SWN	—	—	—
15 A	QO215SWN	—	QO315SWN	—
20 A	QO220SWN	—	QO320SWN	—
25 A	QO225SWN	—	—	—
30 A	QO230SWN	—	QO330SWN	—
40 A	QO240SWN	—	QO340SWN	—
50 A	QO250SWN	—	QO350SWN	—



QO-K Key
Operated

QO-HID

HID circuit breakers are for use on circuits feeding fluorescent and high intensity discharge (HID) lighting systems such as mercury vapor, metal halide, or high pressure sodium. These circuit breakers are physically interchangeable with QO circuit breakers.

QO-HID Circuit Breakers

Ampere Rating	1P 120/240 Vac		2P Common Trip 120/240 Vac		3P Common Trip 240 Vac	
	10 k AIR		10 k AIR		10 k AIR	
	1 Space Required		2 Spaces Required		3 Spaces Required	
15 A	QO115HID■	QO215HID	QO315HID	—	—	—
20 A	QO120HID■	QO220HID	QO320HID	—	—	—
25 A	QO125HID	QO225HID	QO325HID	—	—	—
30 A	QO130HID	QO230HID	QO330HID	—	—	—
40 A	QO140HID	QO240HID	—	—	—	—
50 A	QO150HID	QO250HID	—	—	—	—

QO-K

Key operated QO circuit breakers are available in single-pole construction and can be mounted in any single-pole space which will accept a standard QO. These circuit breakers can be turned ON or OFF or to RESET with a special key (catalog number QOK10) included with the circuit breaker. These circuit breakers are UL Listed and available as shown in the table.

QO-K Circuit Breakers

120 Vac—10 k AIR (1 Space Required)	
Ampere Rating	Cat. No.
10 A	QO110K
15 A	QO115K
20 A	QO120K
30 A	QO130K

QO-HM

High magnetic trip circuit breakers are recommended for applications where high initial inrush may occur and for individual dimmer applications.

QO-HM Circuit Breakers

Ampere Rating	1P Cat. No.
120 Vac—10 k AIR	
15 A	QO115HMA■
20 A	QO120HMA■

Non-automatic (Standard) Miniature Switches

Miniature non-automatic switches have the same physical packaging as miniature circuit breakers, but open only when the handle is switched to the OFF position.

Non-automatic 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.

Non-automatic switches are UL Listed per UL 1087 and are CSA certified.

QO, 240 Vac 10 kA

Ampere Rating	2P Cat. No.	3P Cat. No.
60 A	QO200	QO300
100 A	QO2000	QO3000

- ▲ CSA/UL Listed as HACR type for use with air conditioning, heating and refrigeration equipment having motor group combinations and marked for use with HACR type circuit breakers.
- CSA/UL Listed as SWD (switching duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.
- ◆ 10–30 A circuit breakers are suitable for use with 60° C or 75° C conductors. 35–60 A circuit breakers are suitable for use with 75° C conductors.
- ★ Suitable only for feeding 240 Vac and 208 Vac two-wire loads. Does not contain load neutral connection.
- ▼ See note in Instruction Bulletin when using in an enclosure with a QO403 or QON prefix.

Interrupting Ratings Page DE3-2
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DE3 CIRCUIT BREAKERS

QO™ and QOU Miniature Circuit Breakers

QO™ Circuit Breaker Accessories

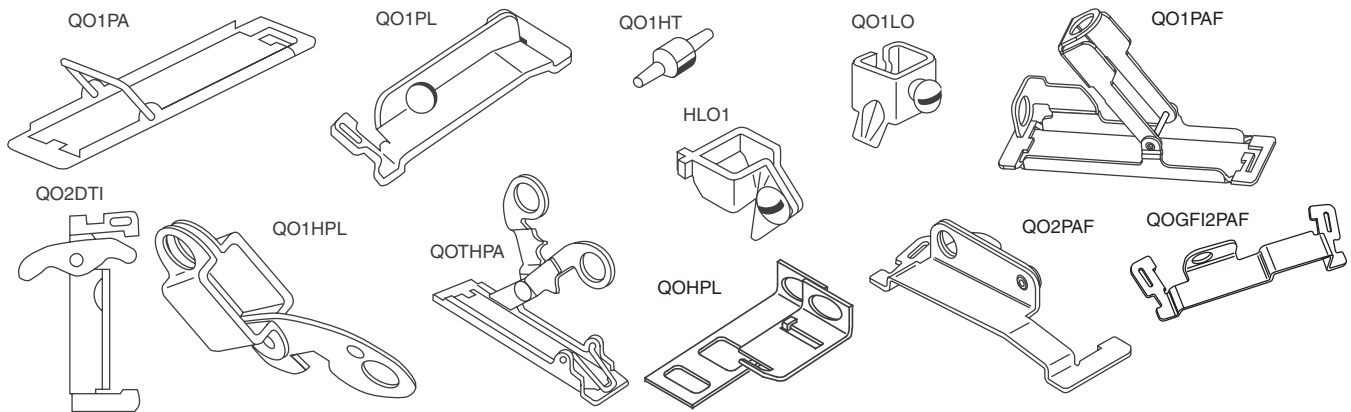
Class 1130 / Refer to Catalog 0730CT9801

Accessories for Use with QO™ and QOB Miniature Circuit Breakers

Handle Attachments	Description	Cat. No.
Handle Tie:	Converts any two adjacent 120/240 Vac 1P QO circuit breakers to independent trip 2P	QO1HT
	Converts any two adjacent 120/240 Vac 1P side-by-side QOT circuit breakers to independent trip 2P	QO1HT
	Handle tie and lock-off for three 1P QO, QOB circuit breakers	QO3HT
Handle Clamp:	Clamp for holding QO 1P handle in ON or OFF position	QO1LO
	Clamp for holding QO or Q1 1P, 2P or 3P circuit breaker handles in ON or OFF position	HLO1
Handle Padlock Attachment: for Padlocking in ON or OFF position	For padlocking 1P QO circuit breaker in ON or OFF position	QO1HT
	Loose attachment	
	Fixed attachment	
	For padlocking 1P side-by-side QOT circuit breaker in ON or OFF position	QO1HT
Handle Padlock Attachment: for Padlocking in OFF position	For padlocking 2P and 3P QO-GFI, QO-EPD, and QO-EPE in either ON or OFF position, fixed attachment.	QO1HT
	For 2P and 3P QO and Q1 standard circuit breakers which require padlocking in either ON or OFF position.	QO1HT
	Loose attachment	QO1HT
	Fixed attachment	QO1HT
Sub-Feed Lugs	For padlocking 1P QO circuit breaker in OFF position only, fixed attachment.	QO1HT
	For padlocking 2P and 3P QO circuit breakers in OFF position only, fixed attachment.	QO1HT
	For padlocking 1P QO-GFI, QO-AFI, QO-CAFI, and QO-EPD circuit breakers in OFF position only, fixed attachment.	QO1HT
	For padlocking 2P and 3P QO-GFI, QO-EPD, and QO-EPE circuit breakers in OFF position only, fixed attachment.	QO1HT
Mechanical Interlock Attachment	60 A 2P plug-on – 2 spaces required (6–2 Al/Cu) 125 A 2P plug-on – 2 spaces required (12–2/0 Al/Cu) 225 A 2P plug-on – 4 spaces required (4–300 Al/Cu) 125 A 3P plug-on – 3 spaces required (12–2/0 Al/Cu)	QO60SL QO2125SL QO2225SL▲ QO3125SL
With Retaining Kit:	For interlocking the handles of two 2P or one 2P and one 1P QO and Q1 circuit breakers mounted side-by-side so that only one circuit breaker can be ON at a time (Not QOU)	QO2DTI
	QO2DTI mechanical interlock attachment with retaining kits for securing two adjacent back-fed circuit breakers in dual power supply applications. Can be used with (2) 2Ps or (1) 2P and (1) 1P QO circuit breakers in QO816L100 load centers.	QO2DTIM

▲ Not suitable for use in 3Ø panels. Use only in 1Ø panel rated 150 A or greater.

DE3 CIRCUIT BREAKERS



Factory-Installed Accessories for Use with QO and QOB Miniature Circuit Breakers

Factory-installed electrical accessories take up an additional pole space on QO™, QO-GFI, QO-EPD, QO-SWN and QOU circuit breakers. All AC electrical accessories shown below are rated for 50/60 Hz. Accessories are not available for QOB-VH (2P 150 A and 3P 110–150 A) circuit breakers or QO, QOU molded case switches. QO circuit breakers will accept only one accessory per circuit breaker. Undervoltage trip is not available on miniature circuit breakers. Factory-installed accessories are not available for QO-AFI or QO-CAFI Arc Fault Circuit Breakers or on QO2150, QO2175, or QO2200 circuit breakers.

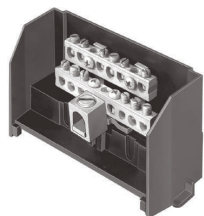
Factory-Installed Accessories

Accessory	Description	Rated Voltage	Coil Burden	Cat. No. Suffix	Accessory	Description	Contact Comb.	Max. Voltage	Max. Load	Cat. No. Suffix		
Shunt Trip	Trips the circuit breaker from a remote location by means of a trip coil energized from a separate circuit. A 120 Vac 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, QO-AFI, QOCAFI. • Shunt trip terminals accept (2) 14–12 AWG Cu.	AC/DC	12 24	60 VA 168 VA	-1042	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.	1A 1B	AC 120 AC 120	5 A 5 A	-1200 -1201	
		AC	120 208 240	72 VA 228 VA 288 VA	-1021							
		Alarm Switches	Used with control circuits and is actuated only when the circuit breaker has tripped. Standard construction includes a normally-open contact. Application • Alarm switch terminals accept (2) 14–12 AWG Cu leads.									

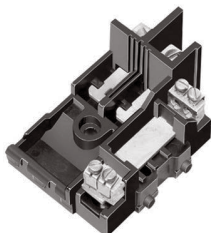
QO™ and QOU Miniature Circuit Breakers

Class 652 / Catalogs 0730CT9801, 0860CT0201

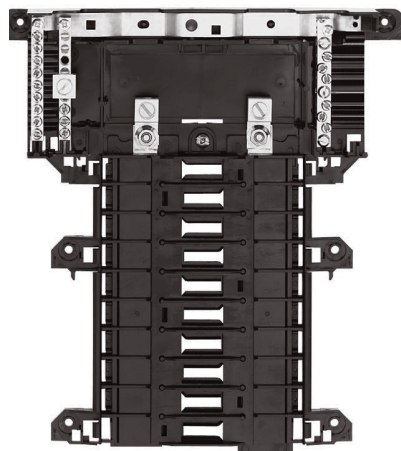
QO™ and Multi 9™ Mounting Bases



SN1215



QON2L40



QON120L1251

QO OEM Mounting Bases

Voltage System	Main Lug Rating	1P Spaces	Max. No. 1P	Mounting Bases	Main Wire Size AWG/kcmil	
				Cat. No.		
QO Plug-On Mounting Bases—For unit mounting QO, QO-GFI, QO-AFI and QO-EPD circuit breakers						
1Ø2W 240 Vac Max. 10 k AIC	70 A	2	2	QON2L70	14–4 Cu, 12–3 Al	
	40 A	2	2	QON2L40	14–6 Cu, 12–6 Al	
	70 A	2	4	QON24L70	14–4 Cu, 12–3 Al	
	100 A	6	12	QON612L100	8–1/0 Cu/Al	
	100 A	8	16	QON816L100	8–1/0 Cu/Al	
	125 A	12	12	QON112L125I	4–2/0 Cu/Al	
	1Ø3W 240 Vac Max. 10 k AIC	125 A	16	16	QON116L125I	4–2/0 Cu/Al
		125 A	20	20	QON120L125I	4–2/0 Cu/Al
		125 A	32	32	QON132L125I	4–2/0 Cu/Al
		200 A	12	12	QON124L200I	4–250 Cu/Al
200 A		12	12	QON12L200FTL ■	4–250 Cu/Al	
225 A		42	42	QON142L225I	4–300 Cu/Al	
3Ø3W 240 Vac Max. 10 k AIC (Without Neutral Assy.)	125 A	12	12	QON312L125	4–2/0 Cu/Al	
	200 A	18	18	QON318L200	4–300 Cu/Al	
	200 A	24	24	QON324L200	4–300 Cu/Al	
	200 A	30	30	QON330L200	4–300 Cu/Al	
3Ø4W 240 Vac Max. 10 k AIC	60 A	3	3	QON403L60N	12–6 Cu/Al	
	125 A	24	24	QON324L125I	4–2/0 Cu/Al	
	200 A	24	24	QON324L200I	4–300 Cu/Al	
QO Plug-On Mounting Bases—For unit mounting QO, QO-GFI and QO-EPD circuit breakers						
1Ø2W 240 Vac Max. 10 k AIC (Without Neutral Assembly)	70 A	1	1	QOMB1	14–4 Cu 12–2 Al	
	70 A	2	2	QOMB2	14–4 Cu 12–2 Al	
	70 A	3	3	QOMB3	14–4 Cu 12–2 Al	
QOB Bolt-On Mounting Bases—For unit mounting QOB, QOB-GFI, QOB-EPD circuit breakers						
3Ø3W 240 Vac Max. 10 k AIC (Without Neutral Assembly)	100 A	3	3	QON3B ♦	12–1 Cu/Al	

- Device comes with factory-installed feed-thru lugs.
- ♦ UL listed only.

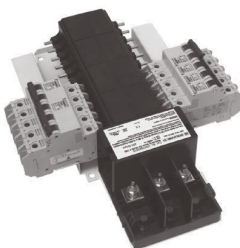
DE3 CIRCUIT BREAKERS

Solid Neutral Assemblies

Main Lug Rating	Number of Branch Neutral Terminals	Cat. No.	\$ Price	Main Neutral Lug Wire Size		Branch Neutral Terminal Wire Size	
				Cu/Al		Cu	Al
125 A	20	SN20		4–2/0 AWG		14–4 AWG	12–4 AWG
200 A	12	SN1200		4 AWG–300 kcmil		14–4 AWG	12–4 AWG
200 A	30	SN30		4 AWG–300 kcmil		14–4 AWG	12–4 AWG

Multi-9 Mounting Bases for CSA C22.2 No. 5/UL489 C60, 240 Vac max.

Description	Poles	Amperes	Length		Cat. No.
			in.	mm	
One-conductor Mounting Base	12	200 A	10.4	264	US11220018
	36		19	483	US13620018
	–		–	–	–
Two-conductor Mounting Base	12	150 A	10.4	264	US21215018
	24	200 A	14.4	366	US22420018
	48		23	584	US24820018
–	–		–	–	
Three-conductor Mounting Base	12	100 A	10.4	264	US31210018
	36	200 A	19	483	US33620018
	60		27.5	699	US36020018



US Mounting Base for CSA C22.2 No. 5/UL489 C60 (3 conductor shown)

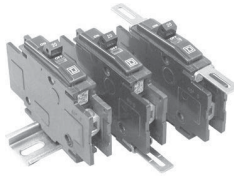
Accessories for US Mounting Base for CSA C22.2 No. 5/UL489 C60

Description	Cat. No.
Terminal cover for US mounting base; provides IP20 ingress protection per IEC 60529; suitable for jumper bars or cable	USMBTC

QO™ and QOU Miniature Circuit Breakers

QOU Miniature Circuit Breakers

Class 720 / Refer to Catalog 0730CT9801



Low Ampere QOU

Low Ampere QOU Miniature Circuit Breakers

QOU unit mount miniature circuit breakers (cable-in/cable-out) are ideal for OEM applications. They have the Square D™ circuit breaker's unique Visi-Trip™ feature and can be DIN rail-mounted or surface- or flush-mounted using mounting feet.

General Specifications Common to All Low Ampere QOU Circuit Breakers

- For convenient flush mount, surface mount or DIN mount (symmetrical rail 35 x 7.5 DIN/EN 50 022)
- Single handle with internal common trip
- Terminal lug wire size (1) 14–2 AWG Cu or Al
- Reversible line and load lugs
- Field-installable quick connectors
- CSA/UL Listed 48 Vdc (5 k AIR)
- CSA/UL Listed as HACR Type: 10–70 A
- High magnetic trip circuit breakers (QOU-HM) are recommended for applications where high initial inrush may occur and for individual dimmer applications.

QOU Low Ampere Miniature Circuit Breakers

Ampere Rating	1P 120/240 Vac	2P 120/240 Vac	2P 240 Vac		3P 240 Vac
	Cat. No.	Cat. No.	Cat. No.▲	\$ Price	Cat. No.
10 k AIR					
10 A	QOU110	QOU210	—		QOU310
15 A	QOU115	QOU215	QOU215H		QOU315
20 A	QOU120	QOU220	QOU220H		QOU320
25 A	QOU125	QOU225	—		QOU325
30 A	QOU130	QOU230	QOU230H		QOU330
35 A	QOU135	QOU235	—		QOU335
40 A	QOU140	QOU240	—		QOU340
45 A	—	QOU245	—		QOU345
50 A	QOU150	QOU250	—		QOU350
60 A	QOU160	QOU260	—		QOU360
70 A	QOU170	QOU270	—		QOU370
22 k AIR					
15 A	QOU115VH	QOU215VH	—		—
20 A	QOU120VH	QOU220VH	—		QOU320VH
25 A	QOU125VH	—	—		—
30 A	QOU130VH	QOU230VH	—		QOU330VH
35 A	—	—	—		—
40 A	QOU140VH	—	—		—
45 A	—	—	—		—
50 A	QOU150VH	QOU250VH	—		—
60 A	QOU160VH	QOU260VH	—		—

▲ QOU-H interrupting rating is 10 kA at 240 Vac.

QOU-HM Miniature Circuit Breakers (10 k AIR)

Ampere Rating	1P 120/240 Vac	2P 120/240 Vac	2P 240 Vac	3P 240 Vac
	Cat. No.	Cat. No.	Cat. No.	Cat. No.
15 A	QOU115HM	—	—	—
20 A	QOU120HM	—	—	—

High Ampere QOU Circuit Breakers

General Specifications Common to All High Ampere QOU Circuit Breakers

- Flush mount, surface mount, and DIN rail mount.
- Internal common trip.
- Non-reversible line and load lugs.
- Terminal lug wire size (1) 12–2/0 AWG Cu or Al.
- UL Listed 60 Vdc per pole (5 k AIR). (**Note:** except switches)
- CSA/UL Listed as HACR type, 80–125 A.
- Non-automatic switches have the same physical packaging as miniature circuit breakers, but provide no overcurrent or short circuit protection. They are UL Listed per UL1087 and are CSA certified.

QOU High Ampere Miniature Circuit Breakers (10 k AIR)

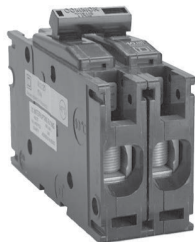
Ampere Rating	1P 120/240 Vac	2P 120/240 Vac	2P 240 Vac	3P 240 Vac
	Cat. No.	Cat. No.	Cat. No.	Cat. No.
80 A	QOU180	QOU280	—	QOU380
90 A	—	QOU290	—	QOU390
100 A	QOU1100	QOU2100	—	QOU3100
125 A	—	QOU2125	—	—

QOU Non-Automatic Switches

Ampere Rating	1P 120 Vac	2P 120/240 Vac	2P 240 Vac	3P 240 Vac
	Cat. No.	Cat. No.	Cat. No.	Cat. No.
60 A	—	—	QOU200	QOU300
100 A	—	—	—	QOU3000
125 A	—	—	—	—

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DE3 CIRCUIT BREAKERS



High Ampere QOU

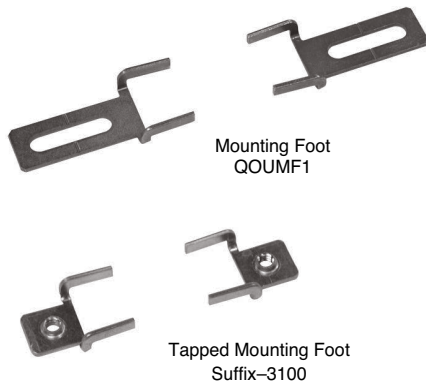
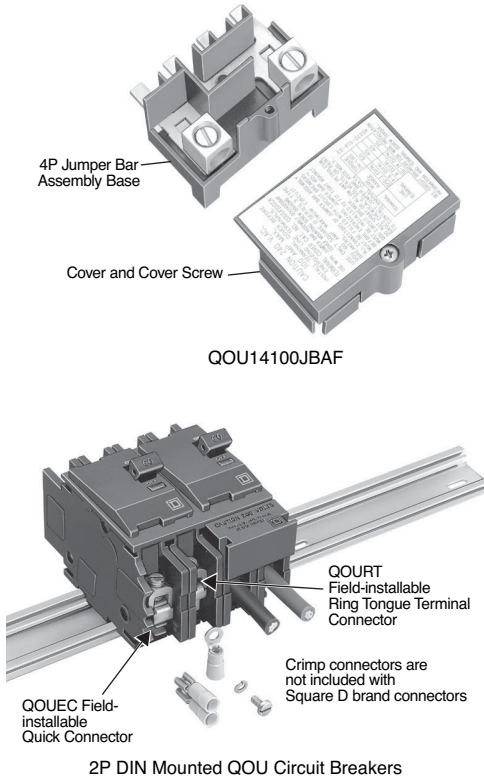
QO™ and QOU Miniature Circuit Breakers

Class 720 / Refer to Catalog 0730CT9801

QOU Accessories

Accessories for QOU Low Ampere Circuit Breakers (Except as Noted)

Description	Order Qty.	Cat. No.
Factory-installed ring tongue terminal, 10–32 screw, for 1P, 2P, 3P QOU, 10–60 A	—	Suffix -5283
Hex drive 5/32 in. wire binding screw for QOU	—	Suffix -5280
For padlocking 1P low ampere QOU circuit breaker in OFF or ON position	—	QOU1PA
For padlocking 2P and 3P low ampere QOU circuit breaker in OFF or ON position	—	QOU1PL
For padlocking 1P low ampere QOU circuit breaker in OFF position only	—	QOU1PAFLA
For padlocking 2P and 3P low ampere QOU circuit breaker in OFF position only	—	QOU2PAFLA
For padlocking 2P and 3P high ampere QOU circuit breaker in OFF position only	—	Suffix -7100
Handle lock-out, ON or OFF position	—	HLO1
4P 100 A Jumper bar assy. w/front wiring with base, cover and screw	1	QOU14100JBAF
4P 100 A Jumper bar assy. w/left side wiring with base, cover and screw	1	QOU14100JBAL
1Ø, 4P, 100 A Jumper bar base with front wiring	40	QOU14100BAFB
1Ø, 4P, 100 A Jumper bar base with left side wiring	40	QOU14100BALB
1Ø, 4P, 100 A Jumper bar base with right side wiring	40	QOU14100BARB
4P Jumper bar cover	40	QOU14100CAB
Mounting screw for jumper bar cover	40	QOU1CM5B
6P 150 A Jumper bar assy. w/front wiring with base, cover and screw	1	QOU16150JBAF
1Ø, 6P, 150 A Jumper bar base with front wiring	40	QOU16150BAFB
1Ø, 6P, 150 A Jumper bar base with left side wiring	40	QOU16150BALB
6P jumper bar cover	40	QOU16150CAB
Vertical rainproof cover 2P and 3P QO, QOU, FA and KA	1 10	BCV▲ BCVB▲
Horizontal rainproof cover 2P QO, QOU, and 3P Q2, EH	1 10	BCH▲ BCHB▲
1P Fingersafe™ cover for high ampere QOU circuit breaker	1 40	QOUHFSC1 QOUHFSC1B
1P Fingersafe cover for low ampere QOU circuit breaker	1 40	QOULFSC1 QOULFSC1B
Field-installable ring tongue terminal adaptor	1 80	QOVRT QOVRTB
Quick connector end connection wiring	1 40	QOUEC QOUECB
1P QOU mounting foot	1 80	QOUMF1▲ QOUMF1B▲
2P QOU mounting foot	1 40	QOUMF2▲ QOUMF2B▲
Tapped mounting foot for QOU, 1P and 2P 10–70 A, 3P 10–60 A Packaged with circuit breaker Individually packaged	1	Suffix -3100 QOUMFS1
Mechanical interlock attachment: Used to interlock two circuit breakers mounted side-by-side so that only one circuit breaker can be ON at a time. A 1P or 2P circuit breaker can be mounted on the left and interlocked with a 2P or 3P circuit breaker on the right.	1	QOU2DTILA■
▲ For use on low and high ampere QOU. ■ 10–70 A 1P and 2P, 10–60 A 3P.		



For QOUQ Low Ampere Circuit Breakers with Four-Point Quick-Connect Terminals

QOUQ low ampere circuit breakers with four-point quick-connect terminals are provided with permanent factory-installed terminals which are affixed to the Load or OFF end of the circuit breaker. This special terminal will accommodate up to four 1/4-inch insulated female quick connect wire terminations. Total ampacity of these connections must not exceed the rating of the circuit breaker.

QOUQ Four-Point Quick-Connect Terminals

	Poles	Order Qty.	Cat. No.
Four-Point Quick-Connect Terminals	1	1	Change QOU to QOUQ
	2	1	
	3	1	

Electrical Accessories for QOU Page DE3-12

DE3 CIRCUIT BREAKERS

Multi 9™ Miniature Circuit Breakers

CSA C22.2 No. 5/UL 489 C60BP/BPR Miniature Circuit Breakers Refer to Catalog LVCATM9OEM

UL 489 / CSA C22.2 No 5 / IEC/EN 60947-2 / GB 14048-2

C60BP/BPR are multi-standard miniature circuit breakers and branch circuit protection as defined by UL 489. It combines following functions:

- circuit protection against short-circuit currents
- circuit protection against overload currents
- tripping and fault indication by the addition of auxiliaries
- IP2X ring tongue terminal connection.



Conformity with product standards

- UL 489 branch circuit protection, document #E215117.
- CSA C22.2 No 5 branch circuit protection, document #E179014.
- IEC/EN 60947-2.
- GB 14048-2.

Catalogue numbers

Tunnel terminal connection								
Type	UL489 and CSA voltages	1P			2P		3P	
Rating (In)		Curve			Curve		Curve	
		Z	C	D (=K)	C	D (=K)	C	D (=K)
C60BP								
0.5	480Y/277 V and 240 V	M9F44170	M9F42170	M9F43170	-	-	-	-
1		M9F44101	M9F42101	M9F43101	M9F42201	M9F43201	M9F42301	M9F43301
2		M9F44102	M9F42102	M9F43102	M9F42202	M9F43202	M9F42302	M9F43302
3		M9F44103	M9F42103	M9F43103	M9F42203	M9F43203	M9F42303	M9F43303
4		M9F44104	M9F42104	M9F43104	M9F42204	M9F43204	M9F42304	M9F43304
5		M9F44105	M9F42105	M9F43105	M9F42205	M9F43205	M9F42305	M9F43305
6		M9F44106	M9F42106	M9F43106	M9F42206	M9F43206	M9F42306	M9F43306
8		M9F44108	M9F42108	M9F43108	M9F42208	M9F43208	M9F42308	M9F43308
10		M9F44110	M9F42110	M9F43110	M9F42210	M9F43210	M9F42310	M9F43310
15		M9F44115	M9F42115	M9F43115	M9F42215	M9F43215	M9F42315	M9F43315
20	M9F44120	M9F42120	M9F43120	M9F42220	M9F43220	M9F42320	M9F43320	
25	M9F44125	M9F42125	M9F43125	M9F42225	M9F43225	M9F42325	M9F43325	
30	M9F44130	M9F42130	M9F43130	M9F42230	M9F43230	M9F42330	M9F43330	
35	M9F44135	M9F42135	M9F43135	M9F42235	M9F43235	M9F42335	M9F43335	
40	240 V only	M9F44140	M9F42140	M9F43140	M9F42240	M9F43240	M9F42340	M9F43340
45		M9F44145	M9F42145	-	M9F42245	-	M9F42345	-
50		M9F44150	M9F42150	-	M9F42250	-	M9F42350	-
63		M9F44163	M9F42163	-	M9F42263	-	M9F42363	-
Ring tongue terminal connection								
Type	UL489 and CSA voltages	1P			2P		3P	
Rating (In)		Curve			Curve		Curve	
		Z	C	D (=K)	C	D (=K)	C	D (=K)
C60BPR								
1	480Y/277 V and 240 V	M9F54101	M9F52101	M9F53101	M9F52201	M9F53201	M9F52301	M9F53301
2		M9F54102	M9F52102	M9F53102	M9F52202	M9F53202	M9F52302	M9F53302
4		M9F54104	M9F52104	M9F53104	M9F52204	M9F53204	M9F52304	M9F53304
6		M9F54106	M9F52106	M9F53106	M9F52206	M9F53206	M9F52306	M9F53306
8		M9F54108	M9F52108	M9F53108	M9F52208	M9F53208	M9F52308	M9F53308
10		M9F54110	M9F52110	M9F53110	M9F52210	M9F53210	M9F52310	M9F53310
15		M9F54115	M9F52115	M9F53115	M9F52215	M9F53215	M9F52315	M9F53315
20		M9F54120	M9F52120	M9F53120	M9F52220	M9F53220	M9F52320	M9F53320
25		M9F54125	M9F52125	M9F53125	M9F52225	M9F53225	M9F52325	M9F53325
30		M9F54130	M9F52130	M9F53130	M9F52230	M9F53230	M9F52330	M9F53330
35	M9F54135	M9F52135	M9F53135	M9F52235	M9F53235	M9F52335	M9F53335	
40	240 V only	M9F54140	M9F52140	M9F53140	M9F52240	M9F53240	M9F52340	M9F53340
45		M9F54145	M9F52145	-	M9F52245	-	M9F52345	-
50		M9F54150	M9F52150	-	M9F52250	-	M9F52350	-
63		M9F54163	M9F52163	-	M9F52263	-	M9F52363	-

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DE3 CIRCUIT BREAKERS



C60BP 1P



C60BP 2P



C60BPR 3P

Multi 9™ Miniature Circuit Breakers

Refer to Catalog LV CATM9OEM

CSA C22.2 No. 235/UL 1077 C60SP Supplementary Protectors

UL 1077 / CSA C22.2 No 235/IEC/EN 60947-2 / GB 14048-2

C60SP are multi-standard miniature circuit breakers and supplementary protection as defined by UL 1077. It combines following functions:

- circuit protection against short-circuit currents
- circuit protection against overload currents
- tripping and fault indication by the addition of auxiliaries.

Conformity with product standards

- UL1077 branch circuit protection, document #E90509.
- CSA C22.2 No 5 branch circuit protection, document #E179014.
- IEC/EN 60947-2.
- GB 14048-2.



C60SP 1P



C60SP 2P



C60SP 3P



C60SP 4P

Catalogue numbers

Tunnel terminal connection						
Type	1P			2P		
Rating (In)	Curve			Curve		
	B	C	D (=K)	B	C	D (=K)
C60SP						
0.5	M9F21170	M9F22170	M9F23170	-	-	-
1	M9F21101	M9F22101	M9F23101	M9F21201	M9F22201	M9F23201
2	M9F21102	M9F22102	M9F23102	M9F21202	M9F22202	M9F23202
3	M9F21103	M9F22103	M9F23103	M9F21203	M9F22203	M9F23203
4	M9F21104	M9F22104	M9F23104	M9F21204	M9F22204	M9F23204
5	M9F21105	M9F22105	M9F23105	M9F21205	M9F22205	M9F23205
6	M9F21106	M9F22106	M9F23106	M9F21206	M9F22206	M9F23206
8	M9F21108	M9F22108	M9F23108	M9F21208	M9F22208	M9F23208
10	M9F21110	M9F22110	M9F23110	M9F21210	M9F22210	M9F23210
13	M9F21113	M9F22113	M9F23113	M9F21213	M9F22213	M9F23213
16	M9F21116	M9F22116	M9F23116	M9F21216	M9F22216	M9F23216
20	M9F21120	M9F22120	M9F23120	M9F21220	M9F22220	M9F23220
25	M9F21125	M9F22125	M9F23125	M9F21225	M9F22225	M9F23225
32	M9F21132	M9F22132	M9F23132	M9F21232	M9F22232	M9F23232
40	M9F21140	M9F22140	M9F23140	M9F21240	M9F22240	M9F23240
45	M9F21145	M9F22145	-	M9F21245	M9F22245	-
50	M9F21150	M9F22150	-	M9F21250	M9F22250	-
63	M9F21163	M9F22163	-	M9F21263	M9F22263	-
Type	3P			4P		
Ratings (In)	Curve			Curve		
	Z	C	D (=K)	C	D (=K)	
C60SP						
0.5	-	-	-	-	-	-
1	-	-	-	-	-	-
2	M9F21302	M9F22302	M9F23302	M9F21402	M9F22402	M9F23402
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	M9F21306	M9F22306	M9F23306	M9F21406	M9F22406	M9F23406
8	M9F21308	M9F22308	M9F23308	M9F21408	M9F22408	M9F23408
10	M9F21310	M9F22310	M9F23310	M9F21410	M9F22410	M9F23410
13	M9F21313	M9F22313	M9F23313	M9F21413	M9F22413	M9F23413
16	M9F21316	M9F22316	M9F23316	M9F21416	M9F22416	M9F23416
20	M9F21320	M9F22320	M9F23320	M9F21420	M9F22420	M9F23420
25	M9F21325	M9F22325	M9F23325	M9F21425	M9F22425	M9F23425
32	M9F21332	M9F22332	M9F23332	M9F21432	M9F22432	M9F23432
40	M9F21340	M9F22340	M9F23340	M9F21440	M9F22440	M9F23440
45	M9F21345	M9F22345	-	M9F21445	M9F22445	-
50	M9F21350	M9F22350	-	M9F21450	M9F22450	-
63	M9F21363	M9F22363	-	M9F21463	M9F22463	-

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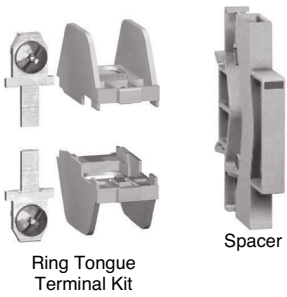
DE3 CIRCUIT BREAKERS

Multi 9™ Miniature Circuit Breakers

C60 Accessories

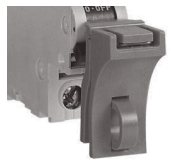
Refer to Catalog LVCATM9OEM

DE3 CIRCUIT BREAKERS

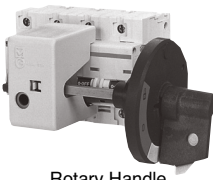


Ring Tongue Terminal Kit

Spacer



C60 Padlock Attachment
(1 per 1P, 2P, 3P or 4P)



Rotary Handle



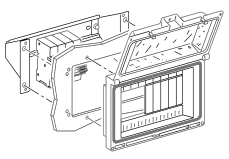
Front Mounting Kit for C60
1P, 2P, 3P, 4P
(1 per circuit breaker)



MGN26380 Locking Device Left Side Mount



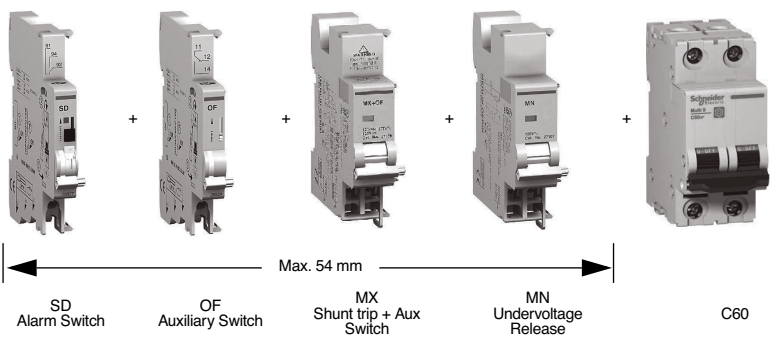
MGN26381 Locking Device Right Side Mount



Multi-pole Front Mounting Kit

Electrical Accessories for C60 Circuit Breakers and Supplementary Protectors

Possible Combinations
Mounted to the left of the circuit breaker with a maximum width of 54 mm.



Multi 9 C60 Electrical Accessories

Descriptions	Control Voltage		Width in 9 mm modules	C60 UL/IEC Cat. No.
	Vac	Vdc		
OF Auxiliary Switch (1a1b)	240-415	24-130	1	M9A26924
SD Alarm Switch (1a1b)	240-415	24-130	1	M9A26927
MX Shunt Trip + OF Auxiliary Switch (1a1b)	12-24	12-24	2	M9A26948
	48	48	2	M9A26947
	100-415	110-130	2	M9A26946
	24	24	2	M9A27108
MN Undervoltage Release	48	48	2	M9A26961
	120	—	2	M9A27107
	220-240	—	2	M9A26960
	115	—	2	M9A26959

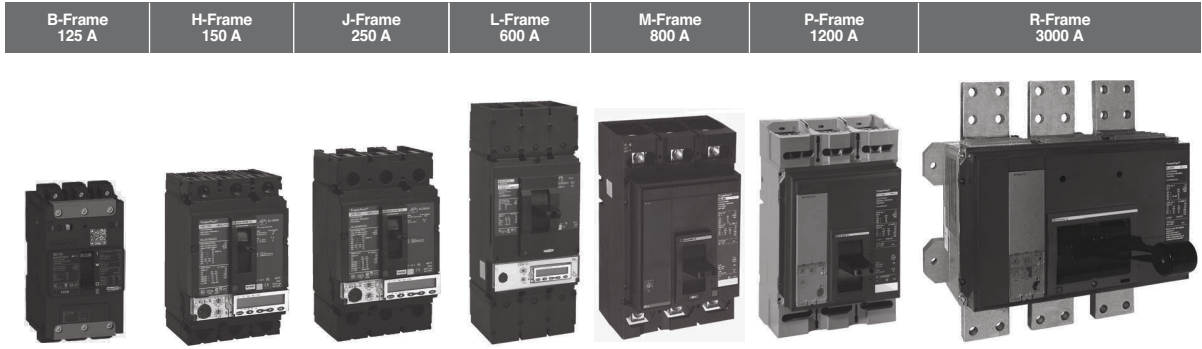
Multi 9 C60 Mechanical Accessories

Descriptions	C60	
	Cat. No.	
Ring Lug terminal kit for UL1077 C60SP	For one pole	17400
Spacer for DIN rail, Not UL Recognized	9 mm wide	MG27062
Padlock Attachment (1 per for 1P, 2P, 3P or 4P)	2 per pack	MG26970
Padlocking Device Left Side Mount, Locks OFF only▲	1 per pack	MGN26380
Padlocking Device Right Side Mount, Locks OFF only■		MGN26381
Front Mounting Kit	1P	MG26983
	2P	MG26984
	3P	MG26985
	4P	MG26989
Terminal Screw Shield (Not UL Recognized) for C60SP only	Bag of two 4P shields	MG26981
Tooth Caps for UL Comb Bus Bar, Bag of 20 for C60SP only		60488
Rotary Handle for C60 (Non UL Recognized)		
Operating Subassembly		MG27046
Door Interlock Handle	2P/3P/4P	MG27047
Fixed Handle (Front or Lateral)		MG27048
Multi-pole Front Mounting Kit		
Rail Support (20 of 9 mm modules)		14211
Hinged Transparent Cover		14210

- ▲ Left-side mounted padlocking device cannot be used in conjunction with accessories SD, OF, MX or MN. Use right-side mounted padlocking device when accessories are required.
- Right-side mounted padlocking device cannot be used in conjunction with VIGI module. Use left-side mounted padlocking device when VIGI Module is required.

The PowerPact Advantage

- **Proven Performance:** Industry-leading circuit breaker innovation and protection for heavy-duty commercial and industrial applications.
- **Smart:** Integrated metering options provide a cost-effective solution to reduce energy consumption, optimize energy costs, and improve energy availability for your facilities.
- **Flexible:** Full range of thermal-magnetic and electronic trip molded case circuit breakers from 15 A to 3000 A, delivering the ratings, configurations, and operators for your unique applications.
- **Simple:** Common catalog numbers, standardized ratings, and a full range of field-installable accessories make product selection, installation and maintenance easier than ever.
- **Common Design Features:** Mounting holes, door trim, and handle accessories.



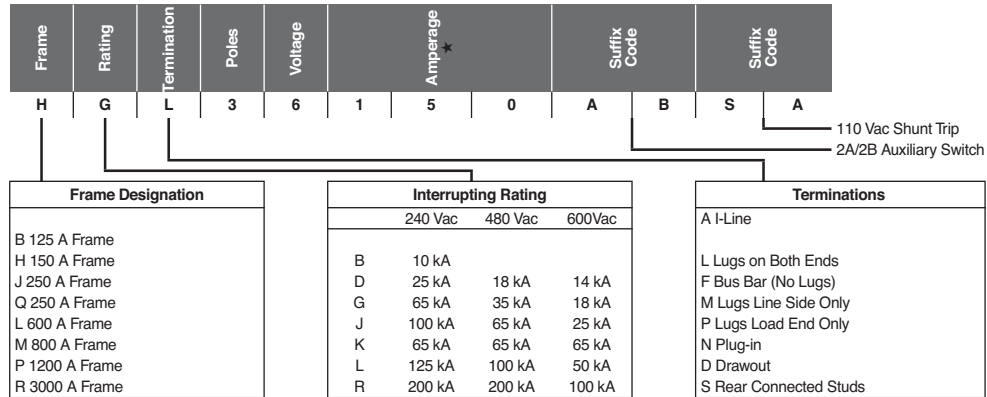
DE3 CIRCUIT BREAKERS

PowerPact Interrupting Ratings

Voltage	Interrupting Rating						
	B	D	G	J	K	L	R
240 Vac	10 kA	25 kA	65 kA	100 kA	65 kA ♦	125 kA	200 kA
480 Vac		18 kA	35 kA	65 kA	65 kA ▲	100 kA	200 kA
600 Vac		14 kA	18 kA	25 kA	65 kA ▲	50 kA ■	100 kA

- ▲ P-frame K interrupting is 50 kA at 480 and 600 Vac.
- P-frame L interrupting is 25 kA at 600 Vac.
- ♦ B-Frame K interrupting rating is 100kA at 240 Vac

Common Catalog Numbering System



* For amperage of M-, P- or R-frame circuit breakers, add a zero to the three amperage digits; for example, 120 = 1200 A.

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PowerPact™ Molded Case Circuit Breakers

B-Frame Circuit Breakers

Class 611 / Refer to Catalog 0611CT1603

PowerPact B-Frame Circuit Breakers



DE3 CIRCUIT BREAKERS

PowerPact B-Frame 125 A Thermal-Magnetic Circuit Breakers, 600Y/347 Vac with EverLink Lugs

Current Rating @ 40°C	Interrupting Rating													
	D				G				J				K	
	1 Pole 347 Vac	2 Pole 600Y/347 Vac	3 Pole 600Y/347 Vac	4 Pole 600Y/347 Vac	1 Pole 347 Vac	2 Pole 600Y/347 Vac	3 Pole 600Y/347 Vac	4 Pole 600Y/347 Vac	1 Pole 347 Vac	2 Pole 600Y/347 Vac	3 Pole 600Y/347 Vac	4 Pole 600Y/347 Vac	1 Pole 347 Vac	2 Pole 600Y/347 Vac
15 A	BDL16015	BDL26015	BDL36015	BDL46015	BGL16015	BGL26015	BGL36015	BGL46015	BJL16015	BJL26015	BJL36015	BJL46015	BKL16015	BKL26015
20 A	BDL16020	BDL26020	BDL36020	BDL46020	BGL16020	BGL26020	BGL36020	BGL46020	BJL16020	BJL26020	BJL36020	BJL46020	BKL16020	BKL26020
25 A	BDL16025	BDL26025	BDL36025	BDL46025	BGL16025	BGL26025	BGL36025	BGL46025	BJL16025	BJL26025	BJL36025	BJL46025	BKL16025	BKL26025
30 A	BDL16030	BDL26030	BDL36030	BDL46030	BGL16030	BGL26030	BGL36030	BGL46030	BJL16030	BJL26030	BJL36030	BJL46030	BKL16030	BKL26030
35 A	BDL16035	BDL26035	BDL36035	BDL46035	BGL16035	BGL26035	BGL36035	BGL46035	BJL16035	BJL26035	BJL36035	BJL46035	—	—
40 A	BDL16040	BDL26040	BDL36040	BDL46040	BGL16040	BGL26040	BGL36040	BGL46040	BJL16040	BJL26040	BJL36040	BJL46040	—	—
45 A	BDL16045	BDL26045	BDL36045	BDL46045	BGL16045	BGL26045	BGL36045	BGL46045	BJL16045	BJL26045	BJL36045	BJL46045	—	—
50 A	BDL16050	BDL26050	BDL36050	BDL46050	BGL16050	BGL26050	BGL36050	BGL46050	BJL16050	BJL26050	BJL36050	BJL46050	—	—
60 A	BDL16060	BDL26060	BDL36060	BDL46060	BGL16060	BGL26060	BGL36060	BGL46060	BJL16060	BJL26060	BJL36060	BJL46060	—	—
70 A	BDL16070	BDL26070	BDL36070	BDL46070	BGL16070	BGL26070	BGL36070	BGL46070	BJL16070	BJL26070	BJL36070	BJL46070	—	—
80 A	BDL16080	BDL26080	BDL36080	BDL46080	BGL16080	BGL26080	BGL36080	BGL46080	BJL16080	BJL26080	BJL36080	BJL46080	—	—
90 A	BDL16090	BDL26090	BDL36090	BDL46090	BGL16090	BGL26090	BGL36090	BGL46090	BJL16090	BJL26090	BJL36090	BJL46090	—	—
100 A	BDL16100	BDL26100	BDL36100	BDL46100	BGL16100	BGL26100	BGL36100	BGL46100	BJL16100	BJL26100	BJL36100	BJL46100	—	—
110 A	BDL16110	BDL26110	BDL36110	BDL46110	BGL16110	BGL26110	BGL36110	BGL46110	BJL16110	BJL26110	BJL36110	BJL46110	—	—
125 A	BDL16125	BDL26125	BDL36125	BDL46125	BGL16125	BGL26125	BGL36125	BGL46125	BJL16125	BJL26125	BJL36125	BJL46125	—	—

B-Frame Termination Options

Termination Letter	
A = I-Line (See Section DE5)	B D L 3 6 1 0 0 For factory-installed termination, letter in the third block of the circuit breaker catalog number.
F = No Lugs (includes terminal nut kit on both ends)	
L = Lugs both ends	
M = Lugs ON end Terminal Nut Kit OFF end	
P = Lugs OFF end Terminal Nut Kit ON end	

Accessories see page DE3-33
Optional Lugs see page DE3-36
Dimensions see page DE3-45
Enclosures see page DE3-46

B-Frame Interrupting Ratings

Voltage	Interrupting Ratings			
	D	G	J	K
240 Vac	25 Ka	65 Ka	100 Ka	100 Ka
480Y/277 Vac	18 Ka	35 Ka	65 Ka	65 Ka
480 Vac	18 Ka	35 Ka	65 Ka	65 Ka
600Y/347 Vac	14 Ka	18 Ka	25 Ka	65 Ka
600 Vac	—	—	—	—
250*Vdc	10 Ka	20 Ka	50 Ka	—

* 125 Vdc for 1P
Accessories see page DE3-33
Optional Lugs see page DE3-36
Dimensions see page DE3-45
Enclosures see page DE3-46

PowerPact™ Circuit Breakers H- and J-Frame Circuit Breakers

Class 611 / Refer to Catalog 0611CT1001



HD and HG 2 Pole Thermal-Magnetic Trip Unit



H-Frame Thermal-Magnetic Trip Unit

H-frame 150 A Thermal-magnetic CSA/UL Current-Limiting ▽ Circuit Breakers (600 Vac) with Factory Sealed Trip Unit Suitable for Reverse Connection ■▲

Current Rating @ 40° C	AC Magnetic Trip Setting		D Interrupting	G Interrupting	J Interrupting ▽	L Interrupting ▽	Terminal Wire Range
	Hold	Trip	Catalogue Number ▲	Catalogue Number ▲	Catalogue Number ▲	Catalogue Number ▲	
2-pole, 600 Vac 50/60 Hz							
15	350	750	HDL26015	HGL26015	HJL26015	HLL26015	AL150HD #14-#3/0 AWG Cu or Al
20	350	750	HDL26020	HGL26020	HJL26020	HLL26020	
25	350	750	HDL26025	HGL26025	HJL26025	HLL26025	
30	350	750	HDL26030	HGL26030	HJL26030	HLL26030	
35	400	850	HDL26035	HGL26035	HJL26035	HLL26035	
40	400	850	HDL26040	HGL26040	HJL26040	HLL26040	
45	400	850	HDL26045	HGL26045	HJL26045	HLL26045	
50	400	850	HDL26050	HGL26050	HJL26050	HLL26050	
60	800	1450	HDL26060	HGL26060	HJL26060	HLL26060	
70	800	1450	HDL26070	HGL26070	HJL26070	HLL26070	
80	800	1450	HDL26080	HGL26080	HJL26080	HLL26080	
90	800	1450	HDL26090	HGL26090	HJL26090	HLL26090	
100	900	1700	HDL26100	HGL26100	HJL26100	HLL26100	
110	900	1700	HDL26110	HGL26110	HJL26110	HLL26110	
125	900	1700	HDL26125	HGL26125	HJL26125	HLL26125	
150	900	1700	HDL26150	HGL26150	HJL26150	HLL26150	
3-pole, 600 Vac 50/60 Hz							
15	350	750	HDL36015	HGL36015	HJL36015	HLL36015	AL150HD #14-#3/0 AWG Cu or Al
20	350	750	HDL36020	HGL36020	HJL36020	HLL36020	
25	350	750	HDL36025	HGL36025	HJL36025	HLL36025	
30	350	750	HDL36030	HGL36030	HJL36030	HLL36030	
35	400	850	HDL36035	HGL36035	HJL36035	HLL36035	
40	400	850	HDL36040	HGL36040	HJL36040	HLL36040	
45	400	850	HDL36045	HGL36045	HJL36045	HLL36045	
50	400	850	HDL36050	HGL36050	HJL36050	HLL36050	
60	800	1450	HDL36060	HGL36060	HJL36060	HLL36060	
70	800	1450	HDL36070	HGL36070	HJL36070	HLL36070	
80	800	1450	HDL36080	HGL36080	HJL36080	HLL36080	
90	800	1450	HDL36090	HGL36090	HJL36090	HLL36090	
100	900	1700	HDL36100	HGL36100	HJL36100	HLL36100	
110	900	1700	HDL36110	HGL36110	HJL36110	HLL36110	
125	900	1700	HDL36125	HGL36125	HJL36125	HLL36125	
150	900	1700	HDL36150	HGL36150	HJL36150	HLL36150	

J-frame 250 A Thermal-magnetic (600 Vac) Factory Sealed Trip Unit Suitable for Reverse Connection ■▲

Current Rating @ 40° C	AC Magnetic Trip Setting		D Interrupting	G Interrupting	J Interrupting ▽	L Interrupting ▽	R Interrupting ▽	Terminal Wire Range
	Low	High	Catalogue Number ▲	Catalogue Number ▲	Catalogue Number ▲	Catalogue Number ▲	Catalogue Number ▲	
2-pole, 600 Vac 50/60 Hz								
150	750	1500	JDL26150	JGL26150	JJL26150	JLL26150	-	AL175JD #4-4/0 AWG Al or Cu
175	875	1750	JDL26175	JGL26175	JJL26175	JLL26175	-	
200	1000	2000	JDL26200	JGL26200	JJL26200	JLL26200	-	AL250JD #3/0-350 kcmil Al or Cu
225	1125	2250	JDL26225	JGL26225	JJL26225	JLL26225	-	
250	1250	2500	JDL26250	JGL26250	JJL26250	JLL26250	-	
3-pole, 600 Vac 50/60 Hz								
150	750	1500	JDL36150	JGL36150	JJL36150	JLL36150	JRL36150	AL175JD #4-4/0 AWG Al or Cu
175	875	1750	JDL36175	JGL36175	JJL36175	JLL36175	JRL36175	
200	1000	2000	JDL36200	JGL36200	JJL36200	JLL36200	JRL36200	AL250JD #3/0-350 kcmil Al or Cu
225	1125	2250	JDL36225	JGL36225	JJL36225	JLL36225	JRL36225	
250	1250	2500	JDL36250	JGL36250	JJL36250	JLL36250	JRL36250	

- See catalogue for circuit breakers with field interchangeable trip units.
- ▲ For 100% rated circuit breakers, add a "C" in the 9th character place (for example, HDL36015C or JDL26150C). 100% rated circuit breakers have copper lugs and can only be used with copper wire.
- ▽ Circuit breakers with J, L, and R interrupting ratings are CSA/UL certified as current limiting.

H- and J-frame Termination Options

- A-I-Line (see Section 5)
- F = No Lugs (includes terminal nut kit)
- L = Lugs both ends
- M = Lugs "ON" end Terminal Nut Kit "Off" end
- P = Lugs "OFF" end Terminal Nut Kit "On" end
- N = Plug-in ♦
- D = Drawout ♦
- S = Rear Connected ♦

♦ For N, D, and S details see page DE3-39, DE3-35

Interrupting Ratings (kA)

Voltage	D	G	J	L	R
240 V	25	65	100	125	200
480 V	18	35	65	100	200
600 V	14	18	25	50	100

Accessories - DE3-33
Dimensions - DE3-45
Enclosures - DE3-46



Plug-in



Drawout



Rear Connected



I-Line®

DE3 CIRCUIT BREAKERS

PowerPact™ Circuit Breakers

H- and J-Frame Circuit Breakers

Class 611 / Refer to Catalog 0611CT1001

H-Frame 150 A and J-Frame 250 A Electronic Trip CSA/UL Current-Limiting▲ Circuit Breakers (600 Vac) With Factory Sealed Trip Unit■ Suitable for Reverse Connection □

Electronic Trip Unit			Sensor Rating	Interrupting Rating (2nd Letter of Catalog Number)					Terminal
Type	Function	Trip Unit		D	G	J▲	L▲	R▲	
				Catalogue Number▼	Catalogue Number▼	Catalogue Number▼	Catalogue Number▼	Catalogue Number▼	
600 Vac, 50/60 Hz, 3P									
Micrologic Standard	LI	3.2△	60 A	HDL36060U31X	HGL36060U31X	HJL36060U31X	HLL36060U31X	HRL36060U31X	AL150HD★
			100 A	HDL36100U31X	HGL36100U31X	HJL36100U31X	HLL36100U31X	HRL36100U31X	
Micrologic Standard	LSI	3.2S△	60 A	HDL36060U33X	HGL36060U33X	HJL36060U33X	HLL36060U33X	HRL36060U33X	AL150HD★
			100 A	HDL36100U33X	HGL36100U33X	HJL36100U33X	HLL36100U33X	HRL36100U33X	
Micrologic Ammeter	LSI	5.2A	60 A	HDL36060U43X	HGL36060U43X	HJL36060U43X	HLL36060U43X	HRL36060U43X	AL150HD★
			100 A	HDL36100U43X	HGL36100U43X	HJL36100U43X	HLL36100U43X	HRL36100U43X	
Micrologic Energy	LSI	5.2E	60 A	HDL36060U53X	HGL36060U53X	HJL36060U53X	HLL36060U53X	HRL36060U53X	AL150HD★
			100 A	HDL36100U53X	HGL36100U53X	HJL36100U53X	HLL36100U53X	HRL36100U53X	
Micrologic Ammeter	LSIG	6.2A	60 A	HDL36060U44X	HGL36060U44X	HJL36060U44X	HLL36060U44X	HRL36060U44X	AL150HD★
			100 A	HDL36100U44X	HGL36100U44X	HJL36100U44X	HLL36100U44X	HRL36100U44X	
Micrologic Energy	LSIG	6.2E	60 A	HDL36060U54X	HGL36060U54X	HJL36060U54X	HLL36060U54X	HRL36060U54X	AL150HD★
			100 A	HDL36100U54X	HGL36100U54X	HJL36100U54X	HLL36100U54X	HRL36100U54X	
			250 A	JDL36250U31X	JGL36250U31X	JJL36250U31X	JLL36250U31X	JRL36250U31X	AL250JD▼

DE3 CIRCUIT BREAKERS

- ▲ Circuit breakers with J, L, and R interrupting ratings are CSA/UL certified as current limiting.
- Refer to catalogue 0611CT1001 for circuit breakers with field-interchangeable trip units
- ◆ For 100% rated circuit breakers, add a "C" in the 9th character place (for example, HGL36150CU31X, JGL36250CU43X)
- ★ 100% rated H- and J-frame circuit breakers have copper lugs and can only be used with copper wire.
- ★ AL150HD wire range is 14–3/0 AWG Al or Cu.
- ▼ AL250JD wire range is 3/0 AWG–350 kcmil Al or Cu.
- △ 3P circuit breakers with this trip unit can be used for 2P applications. LSI trip unit has fixed long time and short time delays.
- For applications requiring communications see page DE3-43

H- and J-Frame Termination Options

Termination Letter	
A - I-Line (See Section 5)	For factory-installed termination, place termination letter in the third block of the circuit breaker catalog number.
F = No Lugs (includes terminal nut kit on both ends)	
L = Lugs both ends	
M = Lugs ON end Terminal Nut Kit OFF end	
P = Lugs OFF end Terminal Nut Kit ON end	
N = Plug-in ◆	
D = Drawout ◆	
S = Rear Connected ◆	
◆ For N and D details, refer to page DE3-44. For S details, refer to page DE3-40.	

HDL36015T



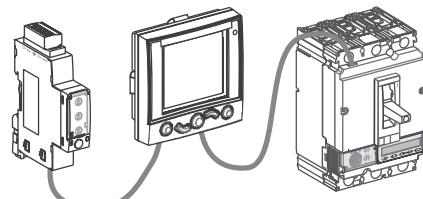
H-Frame Micrologic™ Trip Unit

H- and J-Frame Interrupting Ratings

Voltage	Interrupting Rating				
	D	G	J	L	R
240 Vac	25 kA	65 kA	100 kA	125 kA	200 kA
480 Vac	18 kA	35 kA	65 kA	100 kA	200 kA
600 Vac	14 kA	18 kA	25 kA	50 kA	100 kA



J-Frame Micrologic™ Trip Unit



H-Frame Circuit Breaker with Optional FDM and IFM Modules

Accessories	Page DE3-33
Optional Lugs	Page DE3-36
Micrologic Trip Unit Settings	Page DE3-40
Dimensions	Page DE3-45
Enclosures	Page DE3-46

Moulded Case Circuit Breakers Q-Frame Circuit Breakers

Class **0734** / Refer to Catalogs: **0734CT0201**



QBL 2P
70–250 A



QBL 3P
70–250 A

Q-frame▲—250 A, Thermal-magnetic Circuit Breaker (240 Vac)

Ampere Rating	AC Magnetic Trip Settings		B Interrupting Catalogue Number	D Interrupting Catalogue Number	G Interrupting Catalogue Number	J Interrupting ★ Catalogue Number	Terminal Wire Range ■
	Hold	Trip					
2-pole, 240 Vac							
70	1000	1800	QBL22070	QDL22070	QGL22070	QJL22070	#4 AWG - 300 kcmil Al/Cu
80	1000	1800	QBL22080	QDL22080	QGL22080	QJL22080	
90	1000	1800	QBL22090	QDL22090	QGL22090	QJL22090	
100	1200	2400	QBL22100	QDL22100	QGL22100	QJL22100	
110	1200	2400	QBL22110	QDL22110	QGL22110	QJL22110	
125	1200	2400	QBL22125	QDL22125	QGL22125	QJL22125	
150	1200	2400	QBL22150	QDL22150	QGL22150	QJL22150	
175	1200	2400	QBL22175	QDL22175	QGL22175	QJL22175	
200	1200	2400	QBL22200	QDL22200	QGL22200	QJL22200	
225	1200	2400	QBL22225	QDL22225	QGL22225	QJL22225	
250	1200	2400	QBL22250■	QDL22250■	QGL22250■	QJL22250■	
3-pole, 240 Vac							
70	1000	1800	QBL32070	QDL32070	QGL32070	QJL32070	#4 AWG - 300 kcmil Al/Cu
80	1000	1800	QBL32080	QDL32080	QGL32080	QJL32080	
90	1000	1800	QBL32090	QDL32090	QGL32090	QJL32090	
100	1200	2400	QBL32100	QDL32100	QGL32100	QJL32100	
110	1200	2400	QBL32110	QDL32110	QGL32110	QJL32110	
125	1200	2400	QBL32125	QDL32125	QGL32125	QJL32125	
150	1200	2400	QBL32150	QDL32150	QGL32150	QJL32150	
175	1200	2400	QBL32175	QDL32175	QGL32175	QJL32175	
200	1200	2400	QBL32200	QDL32200	QGL32200	QJL32200	
225	1200	2400	QBL32225	QDL32225	QGL32225	QJL32225	
250	1200	2400	QBL32250■	QDL32250■	QGL32250■	QJL32250■	

- ▲ Replacement lugs and electrical accessories are not available for Q-frame circuit breakers.
- 250 A lugs are suitable for copper conductors only.
- Refer to Catalogue 0734CT0201 for details.

Q-Frame Termination Options

Termination Letter	
A = I-Line (See Section 5)	For factory-installed termination, place termination letter in the third block of the circuit breaker catalog number. Q, G, L, 3, 2, 2, 0, 0 Termination Letter
E = Bolt-on I-Line (See Section 5)	
F = No lugs	
L = Lugs both ends	
M = Lugs ON end, studs on OFF end	
P = Lugs OFF end, studs on ON end	
– Add TS suffix for studs on both ends without nuts and washers. See Catalogue 0734CT0201 for additional information.	

Q-Frame Interrupting Ratings (kA)

Voltage	QB	QD	QG	QJ
240 V	10	25	65	100★
480 V	...	...	...	...
600 V	...	...	...	...

★ 3-pole QJ circuit breakers are rated at 208Y/120 Vac only.

Dimensions DE3-44
Enclosures DE3-47

DE3
CIRCUIT BREAKERS

Moulded Case Circuit Breakers

Q4L - LAL - LHL

Ampere Rating	AC Magnetic Trip Settings Amperes		Two Pole		Three Pole		Standard Lug Kit Wire Range
			Catalogue No.	Price	Catalogue No.	Price	

400 Ampere Frame Q4L Standard Interrupting

	Low		High		240Vac		240Vac		Standard Lug Kit Wire Range
	1250	1500	1500	3000	Catalogue No.	Price	Catalogue No.	Price	
250	1250	1500	1500	3000	Q4L2250		Q4L3250		AL400LA 1-#1-600 kcmil or 2-#1-250 kcmil AL400LA
300	1500	1750	1750	3500	Q4L2300		Q4L3300		
350	1750	2000	2000	4000	Q4L2350		Q4L3350		
400	2000				Q4L2400		Q4L3400		

LAL Standard Interrupting

	Low		High		600Vac, 250Vdc		600Vac, 250Vdc		Standard Lug Kit Wire Range
	625	750	1250	1500	Catalogue No.	Price	Catalogue No.	Price	
125	625	750	1250	1500	LAL26125		LAL36125		AL400LA 1-#1-600 kcmil or 2-#1-250 kcmil
150	750	875	1500	1750	LAL26150		LAL36150		
175	875	1000	1750	2000	LAL26175		LAL36175		
200	1000	1125	2000	2250	LAL26200		LAL36200		
225	1125	1250	2250	2500	LAL26225		LAL36225		
250	1250	1500	2500	3000	LAL26250		LAL36250		
300	1500	1750	3000	3500	LAL26300		LAL36300		
350	1750	2000	3500	4000	LAL26350		LAL36350		
400	2000				LAL26400		LAL36400		

LHL High Interrupting

	Low		High		600Vac, 250Vdc		600Vac, 250Vdc		Standard Lug Kit Wire Range
	625	750	1250	1500	Catalogue No.	Price	Catalogue No.	Price	
125	625	750	1250	1500	LHL26125		LHL36125		AL400LA 1-#1-600 kcmil or 2-#1-250 kcmil
150	750	875	1500	1750	LHL26150		LHL36150		
175	875	1000	1750	2000	LHL26175		LHL36175		
200	1000	1125	2000	2250	LHL26200		LHL36200		
225	1125	1250	2250	2500	LHL26225		LHL36225		
250	1250	1500	2500	3000	LHL26250		LHL36250		
300	1500	1750	3000	3500	LHL26300		LHL36300		
350	1750	2000	3500	4000	LHL26350		LHL36350		
400	2000				LHL26400		LHL36400		



400 A L-Frame

DE3 CIRCUIT BREAKERS

Accessories:

Optional Mechanical Lug Kit for (1) 350-750 kcmil wire Cat. No. AL400LH7
Handle Padlock Attachment (locks ON or OFF) Cat. No. HPALM

CSA Certified Interrupting Rating RMS Symmetrical Amperes

Breaker Cat. No. Prefix	System Voltage AC			DC	
	240	480	600	125	250
Q4L	25k				
LAL	42k	30k	22k	10k	10k
LHL	65k	35k	25k	50k	50k

Enclosures - DE3-47

Dimensions - DE3-45

PowerPact™ Circuit Breakers

L-Frame Circuit Breakers

Class 611 / Refer to Catalogs: 0611CT1001

L-Frame 600 A Circuit Breakers with Lugs and Factory-Sealed Electronic Trip Units Suitable for Reverse Connection▲□

Electronic Trip Unit			Sensor Rating	Interrupting Rating (2nd Letter of Catalog Number)					Terminal	
Type	Function	Trip Unit		D	G	J ◆	L ◆	R ◆		
			Catalogue Number ■	Catalogue Number ■	Catalogue Number ■	Catalogue Number ■	Catalogue Number ■			
600 Vac, 50/60 Hz, 3P										
Micrologic Standard	LI	3.3★	250 A	LDL36250U31X	LGL36250U31X	LJL36250U31X	LLL36250U31X	LRL36250U31X	AL400L61K3▼	
			400 A 600 A	LDL36400U31X LDL36600U31X	LGL36400U31X LGL36600U31X	LJL36400U31X LJL36600U31X	LLL36400U31X LLL36600U31X	LRL36400U31X LRL36600U31X	AL600LS52K3△	
Micrologic Standard	LSI	3.3S★	250 A	LDL36250U33X	LGL36250U33X	LJL36250U33X	LLL36250U33X	LRL36250U33X	AL400L61K3▼	
			400 A 600 A	LDL36400U33X LDL36600U33X	LGL36400U33X LGL36600U33X	LJL36400U33X LJL36600U33X	LLL36400U33X LLL36600U33X	LRL36400U33X LRL36600U33X	AL600LS52K3△	
Micrologic Ammeter	LSI	5.3A	400 A 600 A	LDL36400U43X LDL36600U43X	LGL36400U43X LGL36600U43X	LJL36400U43X LJL36600U43X	LLL36400U43X LLL36600U43X	LRL36400U43X LRL36600U43X	AL600LS52K3△	
Micrologic Energy	LSI	5.3E	400 A 600 A	LDL36400U53X LDL36600U53X	LGL36400U53X LGL36600U53X	LJL36400U53X LJL36600U53X	LLL36400U53X LLL36600U53X	LRL36400U53X LRL36600U53X		
Micrologic Ammeter	LSIG	6.3A	400 A 600 A	LDL36400U44X LDL36600U44X	LGL36400U44X LGL36600U44X	LJL36400U44X LJL36600U44X	LLL36400U44X LLL36600U44X	LRL36400U44X LRL36600U44X		
Micrologic Energy	LSIG	6.3E	400 A 600 A	LDL36400U54X LDL36600U54X	LGL36400U54X LGL36600U54X	LJL36400U54X LJL36600U54X	LLL36400U54X LLL36600U54X	LRL36400U54X LRL36600U54X		
600 Vac, 50/60 Hz, 4P										
Micrologic Standard	LI	3.3	250 A	LDL46250U31X	LGL46250U31X	LJL46250U31X	LLL46250U31X	LRL46250U31X		AL400L61K4▼
			400 A 600 A	LDL46400U31X LDL46600U31X	LGL46400U31X LGL46600U31X	LJL46400U31X LJL46600U31X	LLL46400U31X LLL46600U31X	LRL46400U31X LRL46600U31X	AL600LS52K4△	
Micrologic Standard	LSI	3.3S	250 A	LDL46250U33X	LGL46250U33X	LJL46250U33X	LLL46250U33X	LRL46250U33X	AL400L61K4▼	
			400 A 600 A	LDL46400U33X LDL46600U33X	LGL46400U33X LGL46600U33X	LJL46400U33X LJL46600U33X	LLL46400U33X LLL46600U33X	LRL46400U33X LRL46600U33X	AL600LS52K4△	
Micrologic Ammeter	LSI	5.3A	400 A 600 A	LDL46400U43X LDL46600U43X	LGL46400U43X LGL46600U43X	LJL46400U43X LJL46600U43X	LLL46400U43X LLL46600U43X	LRL46400U43X LRL46600U43X	AL600LS52K4△	
Micrologic Energy	LSI	5.3E	400 A 600 A	LDL46400U53X LDL46600U53X	LGL46400U53X LGL46600U53X	LJL46400U53X LJL46600U53X	LLL46400U53X LLL46600U53X	LRL46400U53X LRL46600U53X		
Micrologic Ammeter	LSIG	6.3A	400 A 600 A	LDL46400U44X LDL46600U44X	LGL46400U44X LGL46600U44X	LJL46400U44X LJL46600U44X	LLL46400U44X LLL46600U44X	LRL46400U44X LRL46600U44X		
Micrologic Energy	LSIG	6.3E	400 A 600 A	LDL46400U54X LDL46600U54X	LGL46400U54X LGL46600U54X	LJL46400U54X LJL46600U54X	LLL46400U54X LLL46600U54X	LRL46400U54X LRL46600U54X		

DE3 CIRCUIT BREAKERS

- ▲ Refer to catalogue 0611CT1001 for circuit breakers with field-interchangeable trip units
- For 100% rated circuit breakers (250 A and 400 A only), add a "C" in the 9th character place (for example, LGL36400CU31X)
- ◆ Circuit breakers with J, L, and R interrupting ratings are CSA/UL certified as current limiting.
- ★ 3P circuit breakers with this trip unit can be used for 2P applications. LSI trip unit has fixed long time and short time delays.
- ▼ AL400L61K3 terminal wire ranges are (1) 2 AWG–600 kcmil Cu or (1) 2 AWG–500 kcmil Al.
- △ AL600LS52K3 terminal wire range is (2) 2/0 AWG–500 kcmil Al/Cu.
- For applications requiring communications see page DE3-43.



L-Frame Circuit Breaker

Termination Options

Termination Letter	Termination Option
A	I-Line (See Section 5)
F	No lugs
L	Lugs both ends
M	Lugs ON end, terminal nut kit OFF end
P	Lugs OFF end, terminal nut kit ON end
N◆	Plug In
D◆	Drawout
S◆	Rear Connected

For factory-installed termination, place termination letter in the third block of the circuit breaker catalog number.

LGL36600U44X
└─ Termination Letter

- ◆ For N and D details, please refer to page DE3-39. For S details, please refer to page DE3-35.

Interrupting Ratings

Voltage	Interrupting Rating				
	D	G	J	L	R
240 Vac	25 kA	65 kA	100 kA	125 kA	200 kA
480 Vac	18 kA	35 kA	65 kA	100 kA	200 kA
600 Vac	14 kA	18 kA	25 kA	50 kA	100 kA

Accessories	page DE3-33
Optional Lugs	page DE3-36
Micrologic Trip Unit Settings	page DE3-39
Dimensions	page DE3-45
Enclosures	page DE3-46

PowerPact™ Circuit Breakers

M-Frame Circuit Breakers

Class 612 / Refer to Catalog 0612CT0101



M-Frame Circuit Breaker

Frame—800 A, Standard Rated, Basic Electronic Trip System Type ET 1.0 ▲Factory Sealed Trip Unit

Ampere Rating	Adjustable Instantaneous Trip Range		G Interrupting	J Interrupting		Terminal Wire Range
	Low	High	Catalogue Number	Catalogue Number	Price	
2-pole, 600 Vac 50/60 Hz						
300	600	3000	MGL26300	MJL26300		AL800M23K 3-3/0 through 500 kcmil Al/Cu
350	700	3500	MGL26350	MJL26350		
400	800	4000	MGL26400	MJL26400		
450	900	4500	MGL26450	MJL26450		
500	1000	5000	MGL26500	MJL26500		
600	1200	6000	MGL26600	MJL26600		
700	1400	7000	MGL26700	MJL26700		
800	1600	8000	MGL26800	MJL26800		
3-pole, 600 Vac 50/60 Hz						
300	600	3000	MGL36300	MJL36300		AL800M23K 3-3/0 through 500 kcmil Al/Cu
350	700	3500	MGL36350	MJL36350		
400	800	4000	MGL36400	MJL36400		
450	900	4500	MGL36450	MJL36450		
500	1000	5000	MGL36500	MJL36500		
600	1200	6000	MGL36600	MJL36600		
700	1400	7000	MGL36700	MJL36700		
800	1600	8000	MGL36800	MJL36800		

▲ The ET 1.0 trip unit cannot be field replaced or have the long-time trip point setting adjusted. It is considered an electronic equivalent of a thermal-magnetic circuit breaker.

Termination Options

Termination Letter	Termination Option
A	I-Line (See Section 5)
F	No lugs
L	Lugs both ends
M	Lugs ON end, terminal nut kit OFF end
P	Lugs OFF end, terminal nut kit ON end

For factory-installed termination, place termination letter in the third block of the circuit breaker catalog number.

MGL36400
└ Termination Letter

M-Frame Interrupting Ratings (kA)

Voltage	G	J
240 V	65	100
480 V	35	65
600 V	18	25

Accessories page DE3-33
 Optional Lugs page DE3-36
 Dimensions page DE3-45
 Enclosures page DE3-48

PowerPact™ Circuit Breakers

P-Frame Circuit Breakers

Class 612 / Refer to Catalog 0612CT0101

P Frame - 1200A, (600 Vac, 50/60 Hz) 3P ▲ Circuit Breaker with Electronic Trip Unit

Electronic Trip Unit			Sensor Rating	G Interrupting		J Interrupting		L Interrupting ♦		K Interrupting		Terminal Wire Range
Type	Function	Trip Unit		Catalogue Number ■	Catalogue Number ■	Catalogue Number ■	Price	Catalogue Number ■	Catalogue Number ■			
Basic Electronic Trip Unit (Not Interchangeable)	Fixed long-time, Adjustable Instantaneous	ET1.0I	600 A	PGL36060	PJL36060	PLL34060			PKL36060	AL800M23K		
			800 A	PGL36080	PJL36080	PLL34080			PKL36080	(3) 3/0 AWG-500 kcmil Al or Cu		
			1000 A	PGL36100	PJL36100	PLL34100			PKL36100	AL1200P25K		
Micrologic Interchangeable Standard Trip Unit	LI	3.0	1200 A	PGL36120	PJL36120	PLL34120			PKL36120	(4) 3/0 AWG-500 kcmil Al or Cu		
			250	PGL36025U31A	PJL36025U31A	PLL34025U31A			PKL36025U31A	AL800M23K		
			400	PGL36040U31A	PJL36040U31A	PLL34040U31A			PKL36040U31A	(3) 3/0 AWG-500 kcmil Al or Cu		
			600	PGL36060U31A	PJL36060U31A	PLL34060U31A			PKL36060U31A	AL1200P25K		
			800	PGL36080U31A	PJL36080U31A	PLL34080U31A			PKL36080U31A	(4) 3/0 AWG-500 kcmil Al or Cu		
			1000	PGL36100U31A	PJL36100U31A	PLL34100U31A			PKL36100U31A	AL800M23K		
	LSI	5.0	1200	PGL36120U31A	PJL36120U31A	PLL34120U31A			PKL36120U31A	(3) 3/0 AWG-500 kcmil Al or Cu		
			250	PGL36025U33A	PJL36025U33A	PLL34025U33A			PKL36025U33A	AL800M23K		
			400	PGL36040U33A	PJL36040U33A	PLL34040U33A			PKL36040U33A	(3) 3/0 AWG-500 kcmil Al or Cu		
			600	PGL36060U33A	PJL36060U33A	PLL34060U33A			PKL36060U33A	AL1200P25K		
			800	PGL36080U33A	PJL36080U33A	PLL34080U33A			PKL36080U33A	(4) 3/0 AWG-500 kcmil Al or Cu		
			1000	PGL36100U33A	PJL36100U33A	PLL34100U33A			PKL36100U33A	AL800M23K		
Micrologic Interchangeable Ammeter Trip Unit	LI	3.0A	1200	PGL36120U41A	PJL36120U41A	PLL34120U41A			PKL36120U41A	(3) 3/0 AWG-500 kcmil Al or Cu		
			250	PGL36025U41A	PJL36025U41A	PLL34025U41A			PKL36025U41A	AL800M23K		
			400	PGL36040U41A	PJL36040U41A	PLL34040U41A			PKL36040U41A	(3) 3/0 AWG-500 kcmil Al or Cu		
			600	PGL36060U41A	PJL36060U41A	PLL34060U41A			PKL36060U41A	AL1200P25K		
			800	PGL36080U41A	PJL36080U41A	PLL34080U41A			PKL36080U41A	(4) 3/0 AWG-500 kcmil Al or Cu		
			1000	PGL36100U41A	PJL36100U41A	PLL34100U41A			PKL36100U41A	AL800M23K		
	LSI	5.0A	1200	PGL36120U43A	PJL36120U43A	PLL34120U43A			PKL36120U43A	(3) 3/0 AWG-500 kcmil Al or Cu		
			250	PGL36025U43A	PJL36025U43A	PLL34025U43A			PKL36025U43A	AL800M23K		
			400	PGL36040U43A	PJL36040U43A	PLL34040U43A			PKL36040U43A	(3) 3/0 AWG-500 kcmil Al or Cu		
			600	PGL36060U43A	PJL36060U43A	PLL34060U43A			PKL36060U43A	AL1200P25K		
			800	PGL36080U43A	PJL36080U43A	PLL34080U43A			PKL36080U43A	(4) 3/0 AWG-500 kcmil Al or Cu		
			1000	PGL36100U43A	PJL36100U43A	PLL34100U43A			PKL36100U43A	AL800M23K		
LSIG	6.0A	1200	PGL36120U44A	PJL36120U44A	PLL34120U44A			PKL36120U44A	(3) 3/0 AWG-500 kcmil Al or Cu			
		250	PGL36025U44A	PJL36025U44A	PLL34025U44A			PKL36025U44A	AL800M23K			
		400	PGL36040U44A	PJL36040U44A	PLL34040U44A			PKL36040U44A	(3) 3/0 AWG-500 kcmil Al or Cu			
		600	PGL36060U44A	PJL36060U44A	PLL34060U44A			PKL36060U44A	AL1200P25K			
		800	PGL36080U44A	PJL36080U44A	PLL34080U44A			PKL36080U44A	(4) 3/0 AWG-500 kcmil Al or Cu			
		1000	PGL36100U44A	PJL36100U44A	PLL34100U44A			PKL36100U44A	AL800M23K			
Micrologic Interchangeable Power Trip Unit	LSI	5.0P	1200	PGL36120U63AE1	PJL36120U63AE1	PLL34120U63AE1			PKL36120U63AE1	(3) 3/0 AWG-500 kcmil Al or Cu		
			250	PGL36025U63AE1	PJL36025U63AE1	PLL34025U63AE1			PKL36025U63AE1	AL800M23K		
			400	PGL36040U63AE1	PJL36040U63AE1	PLL34040U63AE1			PKL36040U63AE1	(3) 3/0 AWG-500 kcmil Al or Cu		
			600	PGL36060U63AE1	PJL36060U63AE1	PLL34060U63AE1			PKL36060U63AE1	AL1200P25K		
			800	PGL36080U63AE1	PJL36080U63AE1	PLL34080U63AE1			PKL36080U63AE1	(4) 3/0 AWG-500 kcmil Al or Cu		
			1000	PGL36100U63AE1	PJL36100U63AE1	PLL34100U63AE1			PKL36100U63AE1	AL800M23K		
	LSIG	6.0P	1200	PGL36120U64AE1	PJL36120U64AE1	PLL34120U64AE1			PKL36120U64AE1	(3) 3/0 AWG-500 kcmil Al or Cu		
			250	PGL36025U64AE1	PJL36025U64AE1	PLL34025U64AE1			PKL36025U64AE1	AL800M23K		
			400	PGL36040U64AE1	PJL36040U64AE1	PLL34040U64AE1			PKL36040U64AE1	(3) 3/0 AWG-500 kcmil Al or Cu		
			600	PGL36060U64AE1	PJL36060U64AE1	PLL34060U64AE1			PKL36060U64AE1	AL1200P25K		
			800	PGL36080U64AE1	PJL36080U64AE1	PLL34080U64AE1			PKL36080U64AE1	(4) 3/0 AWG-500 kcmil Al or Cu		
			1000	PGL36100U64AE1	PJL36100U64AE1	PLL34100U64AE1			PKL36100U64AE1	AL800M23K		
Micrologic Interchangeable Harmonic Trip Unit	LSI	5.0H	1200	PGL36120U73AE1	PJL36120U73AE1	PLL34120U73AE1			PKL36120U73AE1	(3) 3/0 AWG-500 kcmil Al or Cu		
			250	PGL36025U73AE1	PJL36025U73AE1	PLL34025U73AE1			PKL36025U73AE1	AL800M23K		
			400	PGL36040U73AE1	PJL36040U73AE1	PLL34040U73AE1			PKL36040U73AE1	(3) 3/0 AWG-500 kcmil Al or Cu		
			600	PGL36060U73AE1	PJL36060U73AE1	PLL34060U73AE1			PKL36060U73AE1	AL1200P25K		
			800	PGL36080U73AE1	PJL36080U73AE1	PLL34080U73AE1			PKL36080U73AE1	(4) 3/0 AWG-500 kcmil Al or Cu		
			1000	PGL36100U73AE1	PJL36100U73AE1	PLL34100U73AE1			PKL36100U73AE1	AL800M23K		
	LSIG	6.0H	1200	PGL36120U74AE1	PJL36120U74AE1	PLL34120U74AE1			PKL36120U74AE1	(3) 3/0 AWG-500 kcmil Al or Cu		
			250	PGL36025U74AE1	PJL36025U74AE1	PLL34025U74AE1			PKL36025U74AE1	AL800M23K		
			400	PGL36040U74AE1	PJL36040U74AE1	PLL34040U74AE1			PKL36040U74AE1	(3) 3/0 AWG-500 kcmil Al or Cu		
			600	PGL36060U74AE1	PJL36060U74AE1	PLL34060U74AE1			PKL36060U74AE1	AL1200P25K		
			800	PGL36080U74AE1	PJL36080U74AE1	PLL34080U74AE1			PKL36080U74AE1	(4) 3/0 AWG-500 kcmil Al or Cu		
			1000	PGL36100U74AE1	PJL36100U74AE1	PLL34100U74AE1			PKL36100U74AE1	AL800M23K		

- ▲ For 2P and 4P information see Catalog 0612CT0101.
- For 100% rated circuit breakers add a "C" in the 9th character place. For example, the catalog number for a 100% trip unit with LI trip functions at 250A would be PGL36025CU31A. 100% ratings are not available for circuit breakers with ET1.0 Trip Units.
- ♦ P-frame L-interrupting is available in 480 Vac only.

P-Frame Termination Options

Termination Letter	Description
F	No Lugs (Includes terminal nut kit on both ends)
L	Lugs both ends
M	Lugs ON end, terminal nut kit OFF end
P	Lugs OFF end, terminal nut kit ON end
D	Drawout
A	I-Line (See Section 5)

For factory-installed termination, place termination letter in the third block of the circuit breaker catalog number.

PGL36040U41A
└ Termination Letter

P-Frame and R-Frame Interrupting Ratings

Voltage	P-Frame Interrupting Rating				R-Frame Interrupting 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
600 Vac	18 kA	25 kA	50 kA		18 kA	25 kA	65 kA	50 kA

R-frame catalog numbers	Page DE3-28
Dimensions	Page DE3-45
Trip Unit Options	Page DE3-41
Optional Lugs	Page DE3-36
Alternate Rating Plugs	Page DE3-42
Enclosure	Page DE3-48
Accessories	Page DE3-33

PowerPact™ Circuit Breakers

R-Frame Circuit Breakers

Class 612 / Refer to Catalog 0612CT0101

R-frame—3000 A (600 Vac, 50/60 Hz) 3P Δ Circuit Breaker with Electronic Trip Unit

Electronic Trip Unit			Sensor Rating	G Interrupting \blacklozenge	J Interrupting \blacklozenge	L Interrupting \blacklozenge	K Interrupting \blacklozenge
Type	Function	Trip Unit		Catalogue Number \blacksquare	Catalogue Number \blacksquare	Catalogue Number \blacksquare	Catalogue Number \blacksquare
Basic Electronic Trip Unit (Not Interchangeable)	Fixed long-time, Adjustable Instantaneous	ET1.0I	1200 A	RGF36120	RJF36120	RLF36120	RKF36120
			1600 A	RGF36160	RJF36160	RLF36160	RKF36160
			2000 A	RGF36200	RJF36200	RLF36200	RKF36200
			2500 A	RGF36250	RJF36250	RLF36250	RKF36250
Micrologic Interchangeable Standard Trip Unit	LI	3.0	600	RGF36060U31A	RJF36060U31A	RLF36060U31A	RKF36060U31A
			800	RGF36080U31A	RJF36080U31A	RLF36080U31A	RKF36080U31A
			1000	RGF36100U31A	RJF36100U31A	RLF36100U31A	RKF36100U31A
			1200	RGF36120U31A	RJF36120U31A	RLF36120U31A	RKF36120U31A
			1600	RGF36160U31A	RJF36160U31A	RLF36160U31A	RKF36160U31A
			2000	RGF36200U31A	RJF36200U31A	RLF36200U31A	RKF36200U31A
	LSI	5.0	2500	RGF36250U31A	RJF36250U31A	RLF36250U31A	RKF36250U31A
			3000	RGF36300U31A	RJF36300U31A	RLF36300U31A	RKF36300U31A
			600	RGF36060U33A	RJF36060U33A	RLF36060U33A	RKF36060U33A
			800	RGF36080U33A	RJF36080U33A	RLF36080U33A	RKF36080U33A
			1000	RGF36100U33A	RJF36100U33A	RLF36100U33A	RKF36100U33A
			1200	RGF36120U33A	RJF36120U33A	RLF36120U33A	RKF36120U33A
Micrologic Interchangeable Ammeter Trip Unit	LI	3.0A	1600	RGF36160U41A	RJF36160U41A	RLF36160U41A	RKF36160U41A
			2000	RGF36200U41A	RJF36200U41A	RLF36200U41A	RKF36200U41A
			2500	RGF36250U41A	RJF36250U41A	RLF36250U41A	RKF36250U41A
			3000	RGF36300U41A	RJF36300U41A	RLF36300U41A	RKF36300U41A
			600	RGF36060U43A	RJF36060U43A	RLF36060U43A	RKF36060U43A
			800	RGF36080U43A	RJF36080U43A	RLF36080U43A	RKF36080U43A
	LSI	5.0A	1000	RGF36100U43A	RJF36100U43A	RLF36100U43A	RKF36100U43A
			1200	RGF36120U43A	RJF36120U43A	RLF36120U43A	RKF36120U43A
			1600	RGF36160U43A	RJF36160U43A	RLF36160U43A	RKF36160U43A
			2000	RGF36200U43A	RJF36200U43A	RLF36200U43A	RKF36200U43A
			2500	RGF36250U43A	RJF36250U43A	RLF36250U43A	RKF36250U43A
			3000	RGF36300U43A	RJF36300U43A	RLF36300U43A	RKF36300U43A
Micrologic Interchangeable Power Trip Unit	LSI	5.0P	600	RGF36060U63AE1	RJF36060U63AE1	RLF36060U63AE1	RKF36060U63AE1
			800	RGF36080U63AE1	RJF36080U63AE1	RLF36080U63AE1	RKF36080U63AE1
			1000	RGF36100U63AE1	RJF36100U63AE1	RLF36100U63AE1	RKF36100U63AE1
			1200	RGF36120U63AE1	RJF36120U63AE1	RLF36120U63AE1	RKF36120U63AE1
			1600	RGF36160U63AE1	RJF36160U63AE1	RLF36160U63AE1	RKF36160U63AE1
			2000	RGF36200U63AE1	RJF36200U63AE1	RLF36200U63AE1	RKF36200U63AE1
	LSIG	6.0P	2500	RGF36250U63AE1	RJF36250U63AE1	RLF36250U63AE1	RKF36250U63AE1
			3000	RGF36300U63AE1	RJF36300U63AE1	RLF36300U63AE1	RKF36300U63AE1
			600	RGF36060U64AE1	RJF36060U64AE1	RLF36060U64AE1	RKF36060U64AE1
			800	RGF36080U64AE1	RJF36080U64AE1	RLF36080U64AE1	RKF36080U64AE1
			1000	RGF36100U64AE1	RJF36100U64AE1	RLF36100U64AE1	RKF36100U64AE1
			1200	RGF36120U64AE1	RJF36120U64AE1	RLF36120U64AE1	RKF36120U64AE1
Micrologic Interchangeable Harmonic Trip Unit	LSI	5.0H	1600	RGF36160U73AE1	RJF36160U73AE1	RLF36160U73AE1	RKF36160U73AE1
			2000	RGF36200U73AE1	RJF36200U73AE1	RLF36200U73AE1	RKF36200U73AE1
			2500	RGF36250U73AE1	RJF36250U73AE1	RLF36250U73AE1	RKF36250U73AE1
			3000	RGF36300U73AE1	RJF36300U73AE1	RLF36300U73AE1	RKF36300U73AE1
			600	RGF36060U74AE1	RJF36060U74AE1	RLF36060U74AE1	RKF36060U74AE1
			800	RGF36080U74AE1	RJF36080U74AE1	RLF36080U74AE1	RKF36080U74AE1
	LSIG	6.0H	1000	RGF36100U74AE1	RJF36100U74AE1	RLF36100U74AE1	RKF36100U74AE1
			1200	RGF36120U74AE1	RJF36120U74AE1	RLF36120U74AE1	RKF36120U74AE1
			1600	RGF36160U74AE1	RJF36160U74AE1	RLF36160U74AE1	RKF36160U74AE1
			2000	RGF36200U74AE1	RJF36200U74AE1	RLF36200U74AE1	RKF36200U74AE1
			2500	RGF36250U74AE1	RJF36250U74AE1	RLF36250U74AE1	RKF36250U74AE1
			3000	RGF36300U74AE1	RJF36300U74AE1	RLF36300U74AE1	RKF36300U74AE1

Note: R-frame circuit breakers can be bus- or cable-connected. For cable connections, optional terminal pad kit RLTB or equivalent bus structure is required. Each RLTB kit contains terminal pads for one end of the circuit breaker only and has provisions for mounting a maximum of 8 lugs per phase (9 lugs for 3000 A). RLTB kits are included with 2500 A 100% rated circuit breakers. The RL3TB kits are included with the 3000 A, 80% and 100% rated circuit breakers. For other circuit breakers, order terminal pad kit (RLTB) and optional lugs separately. See pages DE3-36–DE3-38.

▲ For 2P and 4P information see Catalog 0612CT0101.

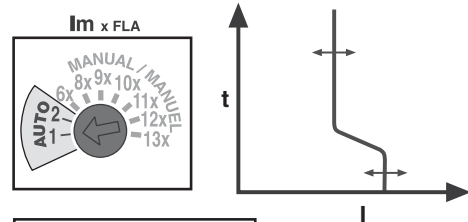
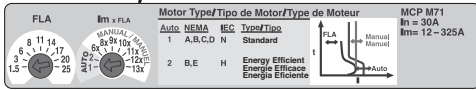
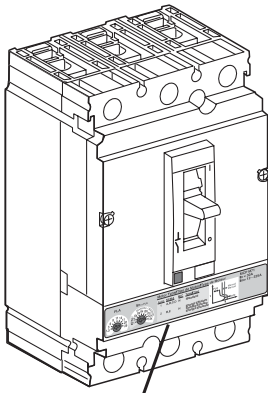
■ Listed catalogue numbers are for 80% rated circuit breakers. For 100% rated circuit breakers add a "C" in the 9th character place. For example, the catalogue number for a 100% standard trip unit with LI trip functions at 2500A would be RGF36250CU31A. 100% ratings are not available for circuit breakers with ET1.0 Trip Units.

◆ See page DE3-27 for interrupting ratings table.

Motor Circuit Protectors and Motor Protector Circuit Breakers

Class 611 / Refer to Catalog 0611CT1001

PowerPact™ H- and J-Frame



Motor Type / Tipo de Motor / Type de Moteur	Auto	NEMA	IEC	Type/Typo
1	A, B, C, D	N	Standard	Standard
2	B, E	H	Energy Efficient	Energie Efficace Energia Efficiente

PowerPact H- and J-frame electronic Motor Circuit Protectors (MCP) are magnetic-only instantaneous-trip circuit breakers. They are designed to offer short circuit protection and are Canadian Electrical Code (CEC) and National Electrical Code (NEC) compliant when installed as part of a combination controller having motor overload protection. MCP circuit breakers accept the same accessories and terminals as the equivalent thermal-magnetic circuit breakers.

Determine the hp rating from the nameplate of the motor. Select a MCP with an ampere rating recommended for the hp and voltage involved. When using the automatic settings the MCP microprocessor automatically adjusts the trip settings for both current and time to align with the start-up characteristic for the motor type, whether it is a standard or energy-efficient motor. This includes a dampening means to accommodate a transient motor in-rush current without nuisance tripping of the circuit breaker.

H- and J-frame Electronic Motor Circuit Protectors (MCP)

Frame	Current	Full Load Amperes Range	Adjustable Instantaneous Trip Range	Suffix	J Interrupting (See SCCR Table Below)	L Interrupting (See SCCR Table Below)	R Interrupting (See SCCR Table Below)
					Cat. No.	Cat. No.	Cat. No.
H-frame	30 A	1.5–25 A	9–325 A	M71	HJL36030M71	HLL36030M71	HRL36030M71
	50 A	14–42 A	84–546 A	M72	HJL36050M72	HLL36050M72	HRL36050M72
	100 A	30–80 A	180–1040 A	M73	HJL36100M73	HLL36100M73	HRL36100M73
	150 A	58–130 A	348–1690 A	M74	HJL36150M74	HLL36150M74	HRL36150M74
J-frame	250 A	114–217 A	684–2500 A	M75	JJL36250M75	JLL36250M75	JRL36250M75

Maximum Rating or Setting of Motor Protective Devices▲

Type of Motor	Percentage of Full-load Current	
	Setting	Not to Exceed ■
A, B, C, D	800%	1300%
B, E	1100%	1700%

- ▲ Based on 2005 NEC Table 430.52.
- See NEC Exception No. 1 to Table 430.52. The NEC 1300% maximum setting may be inadequate for instantaneous trip circuit breakers to withstand current surges typical of the magnetization current of autotransformer type reduced voltage starters, or open transition wye-delta starters during transfer from "start" to "run," constant hp multi-speed motors, and motors labeled "high efficiency."

MCP Selection by HP Ratings◆ of Induction-type Squirrel-Cage and Wound-rotor Motors★

3Ø 60 Hz Voltages ▼				Full-Load Amperes	Suffix
200 Vac	230 Vac	460 Vac	575 Vac		
.5–5	.5–7.5	.75–15	1–20	1.5–25	M71
5–10	5–15	10–30	15–40	14–42	M72
10–25	15–30	25–60	30–75	30–80	M73
20–40	25–50	50–100	60–125	58–130	M74
40–60	50–75	100–150	125–200	114–217	M75

- ◆ Based on 2005 NEC Table 430.250.
- ★ Per NEC 430.3, part-winding motors should select two circuit breakers, each at not more than one-half the allowable trip setting for the horsepower rating. The two circuit breakers should operate simultaneously as a disconnecting means per NEC 430.103.
- ▼ Listed voltages are rated motor voltages. Corresponding system voltages are 200 Vac, 220–240 Vac, 440–480 Vac and 550–600 Vac. Select wire and circuit breakers based on horsepower rather than nameplate full-load current per NEC 430.6 (A) for general motor applications.

Short Circuit Current Rating (SCCR)

Tested to meet NEC and UL508A requirements for short circuit current ratings as part of an approved combination controller.

Short Circuit Current Ratings (SCCR)

Contactor/Starter	J Interrupting			L Interrupting		
	200–240 Vac	480 Vac	600 Vac	200–240 Vac	480 Vac	600 Vac
Tesys D-line and F-line	100 kA	65 kA	25 kA	125 kA	100 kA	50 kA
NEMA Type S	100 kA	65 kA	25 kA	125 kA	100 kA	50 kA

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 Optional Lugs Page DE3-36
 Dimensions Page DE3-45

DE3 CIRCUIT BREAKERS

Motor Protectors

Motor Circuit Protectors and Motor Protector Circuit Breakers

Class 580, 585, 680, 685

Motor Circuit Protectors

Mag-Gard™ Motor Circuit Protectors (MCP) are instantaneous-trip magnetic-only circuit breakers. They have a single adjustment which simultaneously sets the magnetic trip level of each individual pole. Mag-Gard™ circuit breakers comply with CEC/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 CSA/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 circuit breakers. Mag-Gard circuit breakers are available with I-Line construction.★ High-interruption (H) construction Mag-Gard circuit breakers (LHL) are also available.

Magnetic Only 3 Pole, 600 Vac, 50/60 Hz—Three Device Solutions■

Ampere Rating	Trip Unit	Adjustable ▲ Trip Range (A)	250 Vdc Multiplier	Cat. No.
LAL	400	500–1000 A	High = 1.2 Low = 1.4	LAL3640022M
		750–1600 A		LAL3640029M
		1000–2000 A		LAL3640030M
		1125–2250 A		LAL3640031M
		1250–2500 A		LAL3640032M
		1500–3000 A		LAL3640033M
		1750–3500 A		LAL3640035M
		2000–4000 A		LAL3640036M

For PowerPact L- and P-Frames, an instantaneous-only version of the electronic trip circuit breaker is also available for motor circuit protection. These MCPs comply with CEC/NEC® requirements for providing short-circuit protection when installed as part of a Listed combination controller having motor overload protection.

Magnetic Only 3 Pole, 600 Vac, 50/60 Hz—Three Device Solutions■

Sensor Rating	Trip Unit	Adjustable▲ Trip Range (A)	Interrupting Rating				
			G	J	L	R	
			Cat. No.	Cat. No.	Cat. No.	Cat. No.	
PowerPact L-Frame★	400	1.3 M	500–1200%	LGL36400M37X	LJL36400M37X	LLL36400M37X	LRL36400M37X
	600		500–1200%	LGL36600M37X	LJL36600M37X	LLL36600M37X	LRL36600M37X
PowerPact P.JL, PLL★	600		1200–10000 A	—	PJL36060M68	PLL34060M68	—
	800		1200–10000 A	—	PJL36080M68	PLL34080M68	—
	1000		1500–10000 A	—	PJL36100M69	PLL34100M69	—
	1200		1800–10000 A	—	PJL36120M70	PLL34120M70	—

- ▲ CSA/UL magnetic trip tolerances are -20%/+30% from the nominal values shown.
- Three-device solutions are the traditional solutions: motor circuit protector plus motor starter plus overload relay.
- ◆ 250 Vdc ratings are available. No CSA/UL component recognition
- ★ These electronic magnetic only motor circuit protectors are available with I-Line constructions. Consult the factory.

Motor Protector Circuit Breakers

Motor protection circuit breakers provide built-in thermal and magnetic protection. They are used in two-device motor feeder solutions to provide protection against short-circuits, overloads, and phase unbalance.

H-Frame (150 A), J-Frame (250 A) and L-Frame (600 A) Electronic Trip Motor Protector Circuit Breakers (CSA/UL Ratings)—

Two Device Solutions▼

Electronic Trip Unit Type	Frame	Sensor Rating	Trip Unit	Full Load Amperes Range (FLA)	Isd (x FLA)	Interrupting Rating			
						G	J	L	R
						Cat. No.	Cat. No.	Cat. No.	Cat. No.
Standard△	H-Frame	30	2.2 M	14–25	5-13 x FLA	HGL36030M38X	HJL36030M38X	HLL36030M38X	HRL36030M38X
		50		14–42	5-13 x FLA	HGL36050M38X	HJL36050M38X	HLL36050M38X	HRL36050M38X
		100		30–80	5-13 x FLA	HGL36100M38X	HJL36100M38X	HLL36100M38X	HRL36100M38X
		150		58–130	5-13 x FLA	HGL36150M38X	HJL36150M38X	HLL36150M38X	HRL36150M38X
	J-Frame	250		114–217	5-13 x FLA	JGL36250M38X	JJL36250M38X	JLL36250M38X	JRL36250M38X
	L-Frame	400	2.3 M	190–348	5-13 x FLA	LGL36400M38X	LJL36400M38X	LLL36400M38X	LRL36400M38X
		600		312–520	5-13 x FLA	LGL36600M38X	LJL36600M38X	LLL36600M38X	LRL36600M38X

- ▼ Two-device solutions (these electronic motor protector circuit breakers include short circuit and overload protection)
 - 1 electronic motor circuit protector with a Micrologic 2.2 M plus
 - 1 contactor
- △ The standard trip unit offers Class 5, 10 and 20 and phase unbalance or phase loss protection.

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DE3 CIRCUIT BREAKERS

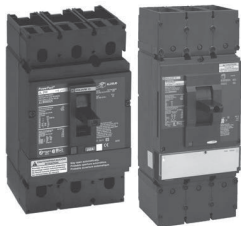


Motor Circuit Protector



Motor Protector Circuit Breaker

Class 600 / Refer to Catalogs 0611CT1603, 0611CT1001, 0612CT0101



J-Frame Switch

L-Frame Switch

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.

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 molded case switches will accept the same lugs and accessories as equivalent thermal-magnetic circuit breakers, with the exception of Q-frame switches which do not have electrical accessories available.

Automatic molded case switches are UL Listed per UL 489 and are CSA Certified.

B-Frame PowerPact™ Automatic Molded Case Switches, 600/347 Vac

Circuit Breaker	Poles	Ampere Rating	D Withstand		G Withstand		J Withstand		Terminal	Wire Range
			Cat. No.	Trip Point	Cat. No.	Trip Point	Cat. No.	Trip Point		
B-Frame	2▲	125 A	BDL26000S12	1625 A	BGL26000S12	1625 A	BJL26000S12	1625 A	LV426973	14–2/0 AWG Cu
	3	125 A	BDL36000S12	1625 A	BGL36000S12	1625 A	BJL36000S12	1625 A	LV426974	14–2/0 AWG Cu

H-Frame, J-Frame, and L-Frame PowerPact™ Automatic Molded Case Switches, 600 Vac

Circuit Breaker	Poles	Ampere Rating	G Withstand		L Withstand		R Withstand		Terminal	Wire Range
			Cat. No.	Trip Point	Cat. No.	Trip Point	Cat. No.	Trip Point		
H- and J-Frame	2	150 A	HGL26000S15▲	2250A	HLL26000S15	2250 A	—	—	AL150HD	14 AWG–3/0 AWG Al/Cu
		175 A	JGL26000S17	3125 A	JLL26000S17	3125 A	—	—	AL175JD	4–4/0 AWG Al/Cu
		250 A	JGL26000S25	3125 A	JLL26000S25	3125 A	—	—	AL250JD	3/0 AWG–350 kcmil Al/Cu
	3	150 A	HGL36000S15	2250 A	HLL36000S15	2250 A	—	—	AL150HD	14 AWG–3/0 AWG Al/Cu
		175 A	JGL36000S17	3125 A	JLL36000S17	3125 A	JRL36000S17	3125 A	AL175JD	4–4/0 AWG Al/Cu
		250 A	JGL36000S25	3125 A	JLL36000S25	3125 A	JRL36000S25	3125 A	AL250JD	3/0 AWG–350 kcmil Al/Cu
L-Frame	3	400 A	LGL36000S40X	4800 A	LLL36000S40X	4800 A	LRL36000S40X	4800 A	AL600LS52K3	(2) 2/0 AWG–500 kcmil Al/Cu
		600 A	LGL36000S60X	6600A	LLL36000S60X	6600 A	LRL36000S60X	6600 A	AL600LS52K3	
	4	400 A	LGL46000S40X	4800 A	LLL46000S40X	4800 A	LRL46000S40X	4800 A	AL600LS52K4	(2) 2/0 AWG–500 kcmil Al/Cu
		600 A	LGL46000S60X	6600A	LLL46000S60X	6600 A	LRL46000S60X	6600 A	AL600LS52K4	

▲ True 2P device. Others are a 2P in a 3P module.

Q-Frame (240 Vac) PowerPact™ Automatic Molded Case Switches

Circuit Breaker	Poles	Ampere Rating	J Withstand		Wire Range
			Cat. No.	Trip Point	
Q-Frame■	2	225 A	QBL22000S22	4500 A	4 AWG–300 kcmil
	3	225 A	QBL32000S22	4500 A	

■ Withstand rating of 10 kA at 240 Vac.

P-Frame and R-Frame PowerPact™ Automatic Molded Case Switches*, 600 Vac

Frame	Poles	Ampere Rating	J Withstand		K Withstand		L Withstand		Terminal	Wire Range
			Cat. No.	Trip Point	Cat. No.	Trip Point	Cat. No.	Trip Point		
P	2	600 A	PJL26000S60	10 kA	PKL26000S60	24 kA	PLL24000S60◆	10 kA	AL800M23K	(3) 3/0 AWG–500 kcmil Al or Cu
		800 A	PJL26000S80	10 kA	PKL26000S80	24 kA	PLL24000S80◆	10 kA		
		1000 A	PJL26000S10	10 kA	PKL26000S10	24 kA	PLL24000S10◆	10 kA		
	3	1200 A	PJL26000S12	10 kA	PKL26000S12	24 kA	PLL24000S12◆	10 kA	AL1200P25K	(4) 3/0 AWG–500 kcmil Al or Cu
		600 A	PJL36000S60	10 kA	PKL36000S60	24 kA	PLL34000S60◆	10 kA		
		800 A	PJL36000S80	10 kA	PKL36000S80	24 kA	PLL34000S80◆	10 kA		
R	2	1000 A	PJL36000S10	10 kA	PKL36000S10	24 kA	PLL34000S10◆	10 kA	AL800M23K	(3) 3/0 AWG–500 kcmil Al or Cu
		1200 A	PJL36000S12	10 kA	PKL36000S12	24 kA	PLL34000S12◆	10 kA		
		1200 A	—	—	RKF26000S12	57 kA	RLF26000S12	48 kA		
		1600 A	—	—	RKF26000S16	57 kA	RLF26000S16	48 kA		
	3	2000 A	—	—	RKF26000S20	57 kA	RLF26000S20	48 kA	AL1200P25K	(4) 3/0 AWG–500 kcmil Al or Cu
		2500 A	—	—	RKF26000S25	57 kA	RLF26000S25	48 kA		
		1200 A	—	—	RKF36000S12	57 kA	RLF36000S12	48 kA		
		1600 A	—	—	RKF36000S16	57 kA	RLF36000S16	48 kA		
		2000 A	—	—	RKF36000S20	57 kA	RLF36000S20	48 kA		
		2500 A	—	—	RKF36000S25	57 kA	RLF36000S25	48 kA		
		3000 A	—	—	RKF36000S30	57 kA	RLF36000S30	48 kA		

◆ P-frame L-interrupting is available in 480 Vac only.

* UL magnetic trip tolerances are -20% / +30% from the nominal values shown.

B-**, H-, J-, L- P-, and R-Frame Withstand Ratings▼

Voltage	Withstand					
	D	G	J	K	L	R
240 Vac	25 kA	65 kA	100 kA	65 kA	125 kA	200 kA
480 Vac	18 kA	35 kA	65 kA	50 kA*	100 kA	200 kA
600 Vac	14 kA	18 kA	25 kA	50 kA*	50 kA	100 kA

▼ 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.

* R-Frame withstand rating is 65kA

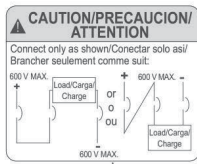
** B-Frame withstand rating at 600Y/347Vac

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500 Vdc Circuit Breakers

CSA/UL Listed 500 Vdc Circuit Breakers

Class 500, 600 / Refer to Catalog 0611CT1001



Connection Diagram

Termination Options

Termination Letter	Termination Option
L	Lugs Both Ends
F	No Lugs (bus bar connection)
S	Rear Connection

JGL37125D81 - Place termination letter in third block of circuit breaker catalog number

The CSA/UL Listed thermal-magnetic molded case circuit breakers shown below are specifically designed for use on ungrounded dc systems having a maximum short-circuit voltage of 500 Vdc or a maximum floating (unloaded) voltage of 600 Vdc. The circuit breakers are suitable for use only with UPS (uninterruptible power supplies).

This two-level voltage rating allows these circuit breakers to be applied to battery sources having a short-circuit availability of 20,000 amperes or 50,000 amperes for PowerPact H-, J-, and L-Frame DC circuit breakers at 500 Vdc.

PowerPact H-frame DC circuit breakers have a fixed magnetic trip system. PowerPact J- and L-frame DC circuit breakers are provided with an adjustable magnetic trip that is readily accessible by means of a single adjustment on the face of the circuit breaker.

PowerPact H- and J-frame circuit breakers are CSA/UL Listed for the interrupting ratings shown only if applied with three poles connected in series (series connection is external to circuit breaker). (See figure for example of diagram.)

PowerPact L-frame circuit breakers are CSA/UL Listed for the interrupting ratings shown with two or three poles connected in series (series connection is external to circuit breaker).

NOTE: Due to external series connection, I-Line™ circuit breakers are not available for this application.

DC Molded Case Circuit Breakers

Ampere Rating	Circuit Breaker Cat. No.	Fixed Magnetic Trip —DC Amperes	Adjustable Magnetic Trip Range—DC Amperes ▲		Interrupting Rating @ 500 Vdc
			Low	High	
30 A	HGL37030D87	450	—	—	20 k AIR
50 A	HGL37050D87	450	—	—	
70 A	HGL37070D87	450	—	—	
100 A	JGL37100D81	—	400	600	20 k AIR
125 A	JGL37125D81	—	400	600	
150 A	JGL37150D81	—	400	600	
175 A	JGL37175D81	—	400	600	
200 A	JGL37200D82	—	500	850	
225 A	JGL37225D82	—	500	850	
250 A	JGL37250D82	—	500	850	20 k AIR
300 A	LGL37030D27	—	750	1500	
350 A	LGL37035D29	—	875	1750	
400 A	LGL37040D30	—	1000	2000	
450 A	LGL37045D31	—	1125	2250	
500 A	LGL37050D32	—	1250	2500	
600 A	LGL37060D33	—	1500	3000	
700 A	LGL47070D35	—	1750	3500	
800 A	LGL47080D36	—	2000	4000	
900 A	LGL47090D86	—	2250	4500	
1000 A	LGL47100D40	—	2500	5000	
1200 A	LGL47120D42	—	3000	6000	
30 A	HLL37030D87	450	—	—	50 k AIR
50 A	HLL37050D87	450	—	—	
70 A	HLL37070D87	450	—	—	
100 A	JLL37100D81	—	400	600	50 k AIR
125 A	JLL37125D81	—	400	600	
150 A	JLL37150D81	—	400	600	
175 A	JLL37175D81	—	400	600	
200 A	JLL37200D82	—	500	850	
225 A	JLL37225D82	—	500	850	
250 A	JLL37250D82	—	500	850	50 k AIR
300 A	LLL37030D27	—	750	1500	
350 A	LLL37035D29	—	875	1750	
400 A	LLL37040D30	—	1000	2000	
450 A	LLL37045D31	—	1125	2250	
500 A	LLL37050D32	—	1250	2500	
600 A	LLL37060D33	—	1500	3000	
700 A	LLL47070D35	—	1750	3500	
800 A	LLL47080D36	—	2000	4000	
900 A	LLL47090D86	—	2250	4500	
1000 A	LLL47100D40	—	2500	5000	
1200 A	LLL47120D42	—	3000	6000	

▲ Magnetic trip tolerances are -20%/+30% from the nominal values shown.


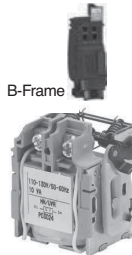

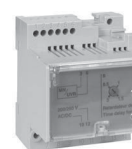
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PowerPact™ Circuit Breaker Accessories

Class 0611, 612 / Refer to Catalogs 0611CT1603, 0611CT1001, 0612CT0101

Electrical Accessories

Electrical Accessories

Accessory	Description	Rated Voltage	B-, H-, J-, and L-Frame				M-, P-, and R-Frame				
			Factory-Installed Cat. Suffix	B-Frame		H- and J-Frame	L-Frame	Factory Installed Cat. Suffix	Field-Installable Cat. No.		
				Field-Installable Cat. No.	Field-Installable Pre-Wired Cat. No.	Field-Installable Cat. No.	Field-Installable Cat. No.				
Auxiliary and Alarm Switches (OF, SD, SDE)  H-, J-, L-, M-, P, and R-Frame	Provides circuit breaker contact status. Note: The location of the accessory in the circuit breaker determines its function.	Standard Min Load = 10mA with 24V	1 auxiliary switch (OF) 1a1b	AA	LV426950	LV426951	S29450	S29450	AA	S29450	
			2 auxiliary switch (OF) 2a2b	AB	—	—	2x S29450	2x S29450	AB	2x S29450	
			3 auxiliary switch (OF) 3a3b	AC	—	—	—	3x S29450	AC	3x S29450	
			Alarm Switch (SD) 1a1b	BC	LV426950	LV426952	S29450	S29450	BC	S29450	
			Overcurrent trip switch (SDE) 1a1b	BD	—	—	—	S29450	BD	S29450	
			Consisting of:	—	—	—	S29450	—	—	—	
			OF Switch	—	—	—	S29451	—	—	—	
			SDE Adapter	—	—	—	S29451	—	—	—	
			Alarm switch and Overcurrent trip switch	BE	—	—	—	2x S29450	BE	2x S29450	
			Consisting of:	—	—	—	2x S29450	—	—	—	
			OF Switch	—	—	—	S29451	—	—	—	
			SDE Adapter	—	—	—	S29451	—	—	—	
			Auxiliary Switch/Alarm Switch/Adapter (OF/SD/SDE) Kit	—	—	—	—	—	—	S33801■	
			Shunt Trip (MX)  B-Frame H-, J-, and L-Frame	Trips the circuit breaker from a remote location by means of a trip coil energized from a separate supply voltage circuit.	AC	24	SK	LV426841	LV426861	S29384	S29384	SK	S33659
48	SL	LV426842				LV426862	S29385	S29385	SL	S33660	
110-130	SA	LV426843				LV426863	S29386	S29386	SA	S33661	
220-240	—	—				—	—	—	—	SC	S33662
208-277	SD	LV426844				LV426864	S29387	S29387	SD	S33663	
380-480	SH	LV426846				LV426866	S29388	S29388	SH	S33664	
525-600	SJ	—				—	S29389	S29389	—	—	
12	SN	—				—	S29382	S29382	SN	S33658	
24	SO	LV426841				LV426861	S29390	S29390	SK	S33659	
30	SU	—				—	S29391	S29391	SK	S33659	
48	SP	LV426842				LV426862	S29392	S29392	SL	S33660	
60	SV	—				—	S29383	S29383	SL	S33660	
125	SR	LV426843				LV426863	S29393	S29393	SA	S33661	
250	SS	LV426844				LV426864	S29394	S29394	SC	S33662	
Undervoltage Trip (MN)  H-, J-, and L-Frame	Instantaneously opens the circuit breaker when the under-voltage trip supply voltage drops to a value between 35% and 70% of its rated voltage. Closing is allowed when the supply voltage of the undervoltage trip reaches 85% of rated voltage.	AC	24	UK	LV426801	LV426821	S29404	S29404	UK	S33668	
			48	UL	LV426802	LV426822	S29405	S29405	UL	S33669	
			110-130	UA	LV426803	LV426823	S29406	S29406	UA	S33670	
			220-240	—	LV426804	LV426824	—	—	UC	S33671	
			208-277	UD	LV426805	LV426825	S29407	S29407	—	—	
			380-415	UF	LV426806	LV426826	—	—	—	—	
			380-480	UH	LV426807	LV426827	S29408	S29408	UH	S33673	
			525-600	UJ	—	—	S29409	S29409	—	—	
			12	UN	—	—	S29402	S29402	—	—	
			24	UO	LV426801	LV426821	S29410	S29410	UK	S33668	
			30	UU	—	—	S29411	S29411	UK	S33668	
			48	UP	LV426802	LV426822	S29412	S29412	UL	S33669	
			60	UV	—	—	S29403	S29403	UL	S33669	
			125	UR	LV426803	LV426823	S29413	S29413	UA	S33670	
250	US	LV426815	LV426835	S29414	S29414	UC	S33671				
Time Delay Unit 	Undervoltage trip with externally mounted adjustable time delay unit for UVR of 0.5, 0.9, 1.5, 3.0 seconds before circuit breaker trips	AC/DC	48	—	S33680▲	—	S33680▲	S33680▲	—	S33680▲	
			100-130	—	S33681▲	—	S33681▲	S33681▲	—	S33681▲	
			220-250	—	S33682▲	—	S33682▲	S33682▲	—	S33682▲	
			380-480	—	—	—	—	—	—	S33683▲	
			48	—	S29426▲	—	S29426▲	S29426▲	—	—	
	Undervoltage trip with externally mounted non-adjustable time delay unit of 0.25 sec before circuit breaker trips.	AC/DC	100-130	—	—	—	—	—	S33684▲		
			200-250	—	—	—	—	—	S33685▲		
			220-240	—	S29427▲	—	S29427▲	S29427▲	—	—	

- ▲ Field-installable kit includes time delay module only. Order undervoltage trip separately.
- P-frame drawout circuit breaker only.
- ◆ SDE Adapter used for H- and J-frame only.
- ★ Not available on electrically operated P-frame.


DE3 CIRCUIT BREAKERS

PowerPact™ Circuit Breaker Accessories

Motor Operators and Rotary Handles

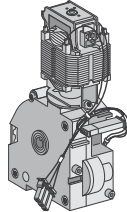
Class 0611, 612 / Refer to Catalogs 0611CT1001, 0612CT0101

Motor Operators for H-, J-, and L-Frame Circuit Breakers

Description	Rated Voltage	Factory Installed Cat. No. Suffix	Field-Installable Kit			
			H-Frame ▲	J-Frame	L-Frame 600 A	
			Cat. No.	Cat. No.	Cat. No.	
 <p>Standard motor for electrically-operated circuit breakers ■</p>	AC	48-60	ML	S29440	S31548	S432639
		110-130	MA	S29433	S31540	S432640
		208-277 220-240	MD	S29434	S31541	S432641
		380-415	MF	—	—	S432642
		440-480	MH	S29435	S31542	S432647
	DC	24-30	MO	S29436	S31543	S432643
		48-60	MV	S29437	S31544	S432644
		110-130	MR	S29438	S31545	S432645
		250	MS	S29439	S31546	S432646
		Communicating motor for electrically-operated circuit breakers ♦	AC	220-240	NC	S429441	S431549	S432652
Locking device	Mounting hardware		—	—	—	S32649
	Ronis lock		—	S41940	S41940	S41940
	Profalux lock		—	S42888	S42888	S42888
	Mounting hardware plus Ronis lock		—	S429449	S429449	—
Operations counter	—	—	—	—	—	S32648
Adapter for I-Line circuit breaker	—	—	S37420	S37420	—	—

Motor Operator

Spring-Charging Motors for Electrically-Operated P-Frame Circuit Breakers

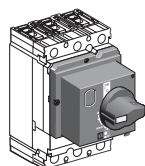
Description	Rated Voltage	Factory Installed		P-Frame (For Field-replacement Only)	Replacement Coils
		Cat. No.	Suffix	Spring Charging Motor Cat. No.	Opening/Closing Coil Cat. No.
 <p>Standard motor for electrically-operated circuit breakers. Factory-installed includes motor and opening/closing coils.</p>	AC	48	ML	S47391	S33660
		100-130	MA	S47395	S33661
		220-240	MC	S47396	S33662
		380-415	MF	S47398	S33664
		24-30	MO	S47390	S33659
	DC	48-60	MV	S47391	S33660
		110-130	MR	S47392	S33661
		200-250	MS	S47393	S33662
		48	NL	S47391	S33034
		100-130	NA	S47395	S33035
<p>Communicating motor mechanism for electrically operated circuit breakers. Factory-installed includes motor and opening/closing coils.</p>	AC	220-240	NC	S47396	S33036
		380-415	NF	S47398	S33038
		24-30	NO	S47390	S33033
		48-60	NV	S47391	S33034
	DC	110-130	NR	S47392	S33035
		200-250	NS	S47393	S33036

Spring-charging Motor

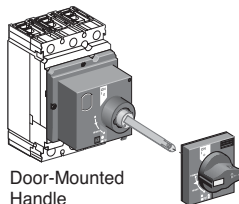
Rotary Operated Handles

Device	Description	B-Frame		H- and J-Frame ▲		L-Frame		P-Frame	
		Factory Installed Cat. No. Suffix	Field Installable Cat. No.	Factory Installed Cat. No. Suffix	Field Installable Cat. No.	Factory Installed Cat. No. Suffix	Field installable Cat. No.	Factory Installed Cat. No. Suffix	
Direct Mounted	Standard black handle	Operating mechanism kit	RD10	LV426930	RD10	S29337	RD10	S32597	RD10
	Standard black handle with	Two early-break and two early make switches	—	—	—	—	—	—	RD16
		One early-break switch	—	—	RD12	S29337 + S29345	RD12	S32597 + S32605	—
	Red handle on yellow bezel	Two early-make switches	—	—	RD13	S29337 + S29346	RD13	S32597 + S29346	—
		Operating mechanism kit	RD20	LV426931	RD20	S29339	RD20	S32599	—
		One early-break switch	—	—	RD22	S29339 + S29345	RD22	S32599 + S32605	—
	MCC conversion accessory	Two early-make switches	—	—	RD23	S29339 + S29346	RD23	S32599 + S29346	—
CNOMO conversion accessory		—	—	—	S429341	—	S32606	—	
Door Mounted	Standard black handle	Operating mechanism kit	—	LV426932	RE10	S29338	RE10	S32598	RE10
	Standard black handle with:	Two early-break and two early make switches	—	—	—	—	—	—	RE16
		Two early make switches	—	—	RE13	S29338 + S29346	RE13	S32598 + S29346	—
Red handle on yellow bezel	Operating mechanism kit	—	LV426933	RE20	S29340	RE20	S32600	—	
Rotary Handle Replacement Kit	—	—	—	—	—	—	—	S33875	
Telescoping	—	—	—	RT10	S29343	RT10	S32603	—	
Accessories	Key lock adapter	—	—	—	S429344	—	S32604	—	
		—	—	—	S41940	—	S41940	—	
	Key locks	Ronis 1351.500	—	—	—	S42888	—	S42888	—
		Profalux KS5 B24 D4Z	—	—	—	S41950	—	S41950	—
		2 Ronis keylocks with 1 key	—	—	—	S42878	—	S42878	—
	Indication Auxiliary Switch	2 Profalux keylocks with 1 key	—	—	—	S29445	—	S32605	—
One early-break switch		—	—	—	S29346	—	S29346	—	

- ▲ Not available in H-frame 2P modules.
- Factory and field-installed standard motor operators for H- and J-frame circuit breakers require the SDE switch and SDE adapter (both included). Factory and field-installed standard motor operators for L-frame circuit breakers require the SDE switch (included).
- ♦ Installation requires BSCM with NSX Cord. See page DE3-43 for ordering information.



Direct-Mounted handle

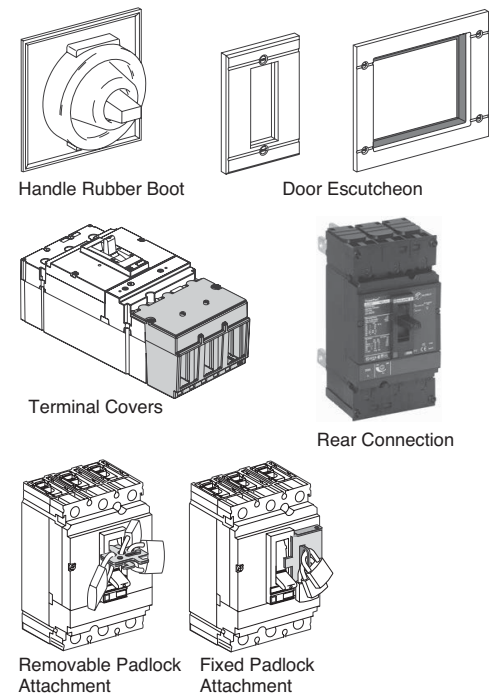


Door-Mounted Handle

Locks, Interlocking

Device	Description	B-Frame		H- and J-Frame		Q-Frame		L-Frame		M- and P-Frame		R-Frame		
		Factory Installed Cat. No. Suffix	Field-Installed Cat. No.	Factory Installed Cat. No. Suffix	Field-Installed Cat. No.	Factory Installed Cat. No. Suffix	Field-Installed Cat. No.	Factory Installed Cat. No. Suffix	Field-Installed Cat. No.	Factory Installed Cat. No. Suffix	Field-Installed Cat. No.	Factory Installed Cat. No. Suffix	Field-Installed Cat. No.	
Handle Padlocking Device	Removable (lock OFF only)	—	S29370	—	S29370	—	—	—	S29370	—	S44936	—	S33996	
	Fixed (lock OFF or ON)	YP	LV426905 LV426907 (I-Line)	YP	S29371▲	YP	QBPA	YP	S32631	YP	S32631	YP	S32631	
	Fixed (lock OFF only)-2P	—	—	YQ	H2PHLA	YQ	—	—	—	—	—	—	—	
	Fixed (lock OFF only)▲	YQ	LV426906 (I-Line)	YQ	S37422	YQ	QBPAF	YQ	NJPAF	YQ	MPRPAF	YQ	MPRPAF	
Interlocking (Not UL listed)	Mechanical for circuit breakers with rotary handles▲	—	—	—	S29369	—	—	—	S32621	—	S33890	—	—	
	Mechanical for circuit breakers with toggles▲	—	LV426909	—	S29354	—	QBMIK	—	S32614	—	—	—	—	
Key Locking	Provision only, vertical mount, 1 or 2 locks	Kirk	—	—	—	—	—	—	—	JA	—	—	—	
	Provisions only, vertical mounting one key interlock including padlock provision, open position only.	Kirk	—	—	—	—	—	—	—	JE▲◆	—	JE◆	—	
	Provision only, horizontal mount 1 lock, M- and P-frame 1 or 2 locks, R-frame	Kirk	—	—	—	—	—	—	—	—	JK	—	JK	—
		Ronis	—	—	—	—	—	—	—	—	JB★	—	JB	—
		Profalux	—	—	—	—	—	—	—	—	JD★	—	JD	—
	Provision and 1 lock, vertical mount	Kirk	—	—	—	—	—	—	—	—	JG	—	—	—
		Kirk	—	—	—	—	—	—	—	—	JL	—	JL	—
		Ronis	—	—	—	—	—	—	—	—	JC★	—	JC	—
Provision and 1 lock, horizontal mount	Profalux	—	—	—	—	—	—	—	—	JF★	—	JF	—	
	Kirk	—	—	—	—	—	—	—	—	JN	—	JN	—	
Provision and 2 locks keyed alike	Kirk	—	—	—	—	—	—	—	—	JP	—	JP	—	
Provision and 2 locks keyed differently	Kirk	—	—	—	—	—	—	—	—	—	—	—	—	

- ▲ Not available in M frame or HD and HG 2P modules.
- ★ Not available for M, P.
- ◆ Not available on I-Line.



Installation Accessories for B-, H-, J-, and L-Frame Circuit Breakers

Description	Field-Installed Cat. No.		
	B-Frame	H- and J-Frame	L-Frame
Front Panel Escutcheon for Toggle Breakers	—	S29315	32556
Front Panel Escutcheon for Rotary Handle, Motor Operator, or extended escutcheon	—	S29317	S32558
Phase Barriers (set of 6)	LV426920	S29329	32570
Handle Rubber Boot★	—	S29319	S32560
Sealing Accessories (for front cover screws)	S29375	S29375	S29375
DIN rail mounting kit (requires 15 mm depth on a 35 mm DIN rail)★	Standard	S29305	—
DIN rail adapter	Standard	—	—
Handle Extensions (set of 5)	—	S29313	S432553
Rear Insulation Kit (2P)	LV426921	—	—
Rear Insulation Kit (3P)	LV426922	—	—
Rear Insulation Kit (4P)	LV426923	—	—
Terminal Extensions-Spreaders (3P)	LV426940	—	—
Terminal Extensions-Spreaders (4P)	LV426941	—	—
5 N-m Torque Limiting Bit, Set of 6	LV426992	—	—
5 N-m Torque Limiting Bit, Set of 8	LV426993	—	—
9 N-m Torque Limiting Bit, Set of 6	LV426990	—	—
9 N-m Torque Limiting Bit, Set of 8	LV426991	—	—

★ Not available in HD and HG 2P modules.

Installation Accessories for M-, P-, and R-Frame Circuit Breakers

Description	Frame	Field-Installed Cat. No.
Door Escutcheon	Accessory Cover	M-, P-Frame S33718
	Toggle Handle	R-Frame S33929
	Drawout	M-, P-Frame S33717
	Drawout	P-Frame S33857
Terminal Covers	P-Frame	Short lug cover 3P S33932
		Short lug cover 4P S33933
		Long lug cover 3P S33934
		Long lug cover 4P S33935
		Standard S33997
Replacement Handle	R-Frame	S33997
	Standard Short	M-, P-Frame S46998
Long	M-, P-Frame S46996	

Rear Connections

Device	Description	H-Frame			J-Frame			L-Frame		
		Poles	Factory-Installed Termination No.	Field-Installable Cat. No.	Poles	Factory-Installed Termination No.	Field-Installed Cat. No.	Poles	Factory-Installed Termination No.	Field-Installed Cat. No.
Mixed Rear Connection Kit▼		2	S	—	2	S	—	3	S	S32477
		3	S	S37432	3	S	S37437	4	S	S32478
Consisting of:	Short rear connections (set of 2)	2 or 3	—	2x S37433	2 or 3	—	2x S37438	—	—	2x S432475
	Long rear connections (set of 2)		—	S37434		—	S37439△	3	—	2x S432476
	Short terminal cover (3P)	3	—	S37436	3	—	S37440	3	—	2x S32562
	Short terminal cover (4P)	4	—	—	—	—	—	4	—	2x S32563

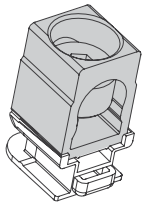
▼ Kit contains 4 short rear connections, 2 long rear connections (4 long rear connections for 4P), hardware, and 2 terminal covers..

△ For use with 3P circuit breakers only.

PowerPact™ Circuit Breaker Accessories

Mechanical Lugs

Class 0611, 612 / Refer to Catalogs 0611CT1603, 0611CT1001, 0612CT0101



J-Frame Lug

Mechanical Lug Kits for B-Frame Circuit Breakers▲

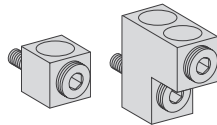
Description	Circuit Breaker Application			Ampere Rating	Number of Wires Per Lug and Wire Range	Factory-Installed Cat. Suffix	Field-Installable Cat. No.	Qty Per Kit
	Standard	Ampere Rating	Optional					
Al Lugs for Use with Al or Cu Wire			BD BG BJ	15 - 125 A	(1) 14-2/0 AWG Al or Cu	LH	LV426966	2
			BD BG BJ	15 - 125 A	(1) 14-2/0 AWG Al or Cu	LH	LV426967	3
Cu Lugs for Use with Cu Wire Only			BD BG BJ	15 - 125 A	(1) 14-1/0 AWG Cu	LC	LV426964	2
			BD BG BJ	15 - 125 A	(1) 14-1/0 AWG Cu	LC	LV426965	3
EverLink Lug	BD BG BJ (1P)	15 - 125 A			(1) 14-2/0 AWG Cu	—	LV426972	1
	BD BG BJ (2P)	15 - 125 A			(1) 14-2/0 AWG Cu	—	—	—
	BD BG BJ (3P)	15 - 125 A			(1) 14-2/0 AWG Cu	—	—	—
	BD BG BJ (4P)	15 - 125 A			(1) 14-2/0 AWG Cu	—	—	—
EverLink Lug with Control Wire Tap		15 - 125 A	BD BG BJ (2P)		(1) 14-2/0 AWG Cu	LU, LV or LW◇	LV426973	1
		15 - 125 A	BD BG BJ (3P)		(1) 14-2/0 AWG Cu	LU, LV or LW◇	LV426974	1
		15 - 125 A	BD BG BJ (4P)		(1) 14-2/0 AWG Cu	LU, LV or LW◇	LV426975	1

Mechanical Lug Kits for H-Frame and J-Frame Circuit Breakers▲

Description	Circuit Breaker Application			Ampere Rating	Number of Wires Per Lug and Wire Range	Kit Cat. No.	Qty Per Kit
	Standard	Ampere Rating	Optional				
Al Lugs for Use with Al or Cu Wire	HD, HG, HJ, HL	15-150 A			(1) 14-3/0 AWG Al or Cu	AL150HD	3
	JD, JG, JJ, JL	150-175 A			(1) 4-4/0 AWG Al or Cu	AL175JD	3
	JD, JG, JJ, JL	200-250 A	JD,JG,JJ,JL	150-175 A	(1) 3/0-350 kcmil Al or Cu	AL250JD	3
Cu Lugs for Use with Cu Wire Only			HD,HG,HJ,HL	15-150 A	(1) 14-2/0 AWG Cu	CU150HD	3
			JD,JG,JJ,JL	150-250 A	(1) 1/0-300 kcmil Cu	CU250JD	3
Control Wire Terminal for H-frame lug kit						S37423	2
Control Wire Terminal for J-frame lug kit						S37424	2

▲ See page DE3-38 for terminal nuts/bus bar connections.

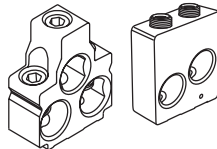
Mechanical Lug Kits for L-Frame Circuit Breakers



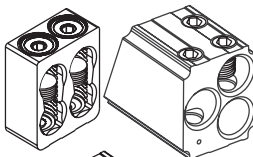
L-Frame Lugs

Description	Circuit Breaker Application				Number of Wires Per Lug and Wire Range	Kit Cat. No.	Qty Per Kit
	Ampere Rating	Poles	Unit Mount	I-Line			
Al Lugs for Use with Al or Cu Wire	250	3	X	X	(1) 2 AWG-500 kcmil Al	AL400L61K3	3
		4	X	—	(1) 2 AWG-600 kcmil Cu	AL400L61K4	4
	400/600	3	X	—	(2) 2/0 AWG-500 kcmil Al or Cu	AL600LS52K3	3
		4	X	—		AL600LS52K4	4
Cu Lugs for Use with Cu Wire Only	400/600	3	X	X	(2) 3/0 AWG-500 kcmil Al or Cu	AL600LF52K3	3
		4	X	X		CU400L61K3	3
	250/400	3	X	—	(1) 2 AWG-600 kcmil Cu	CU400L61K4	4
		4	X	—		CU600LS52K3	3
	400/600	3	X	—	(2) 2/0 AWG-500 kcmil Cu	CU600LS52K4	4
		4	X	—		CU600LF52K3	3

Mechanical Lug Kits for M-Frame, P-Frame and R-Frame Circuit Breakers▼



M- and P-Frame Lugs (800 A and below)



P-Frame Lugs (Above 800 A)

Description	Circuit Breaker Application				Wires per Lug and Wire Range	Cat. No.	Lugs Per Kit
	Standard	Rating	Optional	Ampere Rating			
Al Lugs for AL or Cu Wire	M-, P-Frame	800 A	—	800 A	(3) 3/0 AWG-500 kcmil	AL800M23K	3
						AL800M23K4	4
		1200 A	PG, PJ, PL, PK, MG, MJ	800 A	(4) 3/0 AWG-500 kcmil	AL1200P24K■	1
		—	PG, PJ, PL, PK, MG, MJ	800 A	(2) 3/0 AWG-600 kcmil	AL800P6K■	3
						AL800P6K4■	4
	P-Frame	1200 A	PG, PJ, PL, PK	800 A	(4) 3/0 AWG-500 kcmil	AL800P7K■	3
						AL800P7K4■	4
		—	PG, PJ, PL, PK	800-1200 A	(3) 350-600 kcmil	AL1200P25K◆	3
						AL1200P25K4◆	4
						AL1200P6KU◆	3
PG,PJ,PL	—	PG, PJ, PL, PK	1200 A	(3) 3/0 AWG-750 kcmil 750 kcmil: compact AL only	AL1200P7KU4◆	4	
					AL1200P7KU◆	3	
R-Frame	1200 A	I-Line	—	(4) 3/0 AWG-600 kcmil	AL1200R53K	1	
	2500 A	Unit Mount	—	(1) 3/0 AWG-750 kcmil	AL2500RK★	2	
Cu Lugs for Cu Wire Only	M-, P-Frame	—	PJ	100-150 A	(1) 1-1/0 AWG	CU250P1K△	3
		800 A	MG, MJ, PG, PJ, PL, PK	—	(3) 3/0 AWG-500 kcmil	CU800M23K	3
					CU800M23K4	4	
	1200 A	MG, MJ, PG, PJ, PL, PK	800-1200 A	(4) 3/0 AWG-500 kcmil	CU1200P24K■	1	
	P-Frame	1200 A	PG, PJ, PL, PK	800-1200 A	(4) 3/0 AWG-500 kcmil	CU1200P25K◆	3
R-Frame	1200 A	I-Line	—	(4) 3/0 AWG-500 kcmil	CU1200P25K4	4	

■ Does not fit onto ON end of unit-mount P-frame circuit breakers.

◆ For unit-mount circuit breaker only.

★ All unit-mount R-frame circuit breakers require terminal pads for mounting lugs of any type. See page DE3-43.

▼ For lug with a tapped hole for control wire, add a "T" before the "K" in the catalog number (for example, AL800P6TK).

△ This lug can only be used on low amp PJ frame breakers where the Instantaneous setting must not be turned OFF. The cables must be laced with rope per lug instructions.

□ Not available with tapped hole for control wire.

◇ LU = ON end only, LV = OFF end only, LW = BOTH ends

Compression Lug Kits for PowerPact™ Circuit Breakers

Description	Circuit Breaker Type	Ampere Rating	System Range	Mounting Type	Dimension A (in)	Max. Lugs per Terminal	Cat. No.	Qty. Per Kit
Compression Lug Kits for B-Frame Circuit Breakers								
Aluminum Compression Lug Kits	B-frame	125 A	8-1/0 AWG Al or Cu	Unit	1.3	1	LV426988	2
		125 A	8-1/0 AWG Al or Cu		1.3	1	LV426989	3
Copper Compression Lug Kits	B-frame	125 A	6-1/0 AWG Cu		1.4	1	LV426986	2
		125 A	6-1/0 AWG Cu		1.4	1	LV426987	3
Compression Lug Kits for H-Frame and J-Frame Circuit Breakers								
Aluminum Compression Lug Kits	H-frame	60 A	6-2 AWG Al or Cu	Unit	1.2	1	YA060HD	3
		150 A	1/0-4/0 AWG Al or Cu		2.5	1	YA150HD	3
	J-frame	150 A	1-3/0 AWG Al or Cu		1.2	1	YA150JD	3
250 A		3/0-350 kcmil Al or Cu	2.5		1	YA250J35	3	
Copper Compression Lug Kits	H-frame	60 A	6-1/0 AWG Cu		1.0	1	CYA060HD	3
		150 A	4-2/0 AWG Cu		1.2	1	CYA150HD	3
J-frame	150 A	6-1/0 AWG Cu	0.7	1	CYA150JD	3		
	250 A	2/0-300 kcmil Cu	1.1	1	CYA250J3	3		
Compression Lug Kits for L-Frame Circuit Breakers								
Aluminum Compression Lug Kits	L-frame	400 A	4-300 kcmil Al/Cu	Unit	1.2	1	YA400L31K3	3
		600 A	4-300 kcmil Al/Cu		2.5	2	YA600L32K3	6
		400 A	2/0-500 kcmil Al/Cu		1	1	YA400L51K3	3
		600 A	2/0-500 kcmil Al/Cu		2	2	YA600L52K3	6
		400 A	500-750 kcmil Al		1	1	YA400L71K3	3
		500 kcmil Cu						
		400 A	4-300 kcmil Al/Cu		1	1	YA400L31K4	4
		600 A	4-300 kcmil Al/Cu		2	2	YA600L32K4	8
		400 A	2/0-500 kcmil Al/Cu		1	1	YA400L51K4	4
		600 A	2/0-500 kcmil Al/Cu		1.2	2	YA600L52K4	8
Copper Compression Lug Kits	L-frame	400 A	2/0-300 kcmil Cu	Unit	1.2	1	CYA400L31K3	3
		600 A	2/0-300 kcmil Cu		2.5	2	CYA600L32K3	6
		400 A	250-500 kcmil Cu		1	1	CYA400L51K3	3
		600 A	250-500 kcmil Cu		2	2	CYA600L52K3	6
		400 A	2/0-300 kcmil Cu		1	1	CYA400L31K4	4
		600 A	2/0-300 kcmil Cu		2	2	CYA600L32K4	8
		400 A	250-500 kcmil Cu		1	1	CYA400L51K4	4
		600 A	250-500 kcmil Cu		2	2	CYA600L52K4	8
		400 A	500-750 kcmil Al		1	1	YA400L71K4	4
		500 kcmil Cu						
Compression Lug Kits for M-Frame, P-Frame, and R-Frame Circuit Breakers								
Aluminum Compression Lug Kits	M-, P-frame ♦	250 A	2/0-300 kcmil	Unit	3.7	2	YA250P3	1
		300 A	4/0-500 kcmil		3.9	2	YA300P5	1
		400 A	2/0-300 kcmil		4.3	2	YA400P3	2
		400 A	500-750 kcmil		3.7	2	YA400P7	1
		600 A	4/0-500 kcmil		3.9	2	YA600P5	2
		800 A	500-750 kcmil		4.3	2	YA800P7	2
	R-frame ▲◆	1200 A	2/0-300 kcmil	I-line	3.8	4	YA1200R3	4
		1200 A	4/0-500 kcmil		4.0	4	YA1200R5	4
		1200 A	500-750 kcmil		4.4	4	YA1200R7	4
		2000 A	2/0-300 kcmil		▲	8	YA2000R3	2
Copper Compression Lug Kits	M-, P-frame ♦	400 A	4/0-500 kcmil	Unit	3.3	2	CYA400P5	1
		600 A	4/0-500 kcmil		3.3	2	CYA600P5	2
R-frame ♦	1200 A	4/0-500 kcmil	I-Line	3.5	4	CYA1200R5	4	
	1200 A	500-750 kcmil		3.8	4	CYA1200R7	4	
	2000 A	4/0-500 kcmil		▲	8	YA2000R5	2	
	2500 A	500-750 kcmil		▲	8	YA2500R7	2	

- ▲ All unit-mount R-frame circuit breakers require terminal pads for mounting lugs of any type. See page DE3-43.
- ◆ 9 lugs for 3000 A circuit breakers
- Not for use on I-Line™ circuit breakers unless wire bending space is adequate.

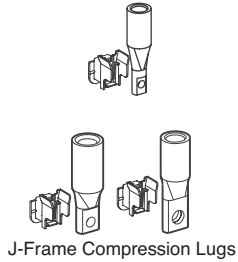
Power Distribution Connectors for B-Frame, H-Frame, J-Frame and L-Frame Circuit Breakers

Use with Circuit Breaker Type	Circuit Breaker Ampere Rating	Wires Per Terminal & Wire Range	Dimension A (in.)	Cat. No.	Qty. Per Kit
BD, BG, BJ	125	(3) 14-2 AWG	1.2	PDC3BD2	3
	125	(6) 14-6 AWG	1	PDC6BD6	3
HD, HG, HJ, HL★	15-150	(6) 14-6 AWG Cu	1.0	PDC6HD6	3
	15-150	(3) 14-2 AWG Cu	1.2	PDC3HD2	3
JD, JG, JJ, JL★	150-250	(6) 14-4 AWG Cu	1.0	PDC6JD4	3
	150-250	(2) 14-1 AWG and (1) 3-2/0 AWG Cu	1.5	PDC3JD20	3
LD, LG, LJ, LL	150-600	(3) 14-1 AWG and (2) 3-2/0 AWG	1.28Δ	PDC5DG20L3	3
	150-600	(12) 14-4 AWG	1.31Δ	PDC12DG4L3	3

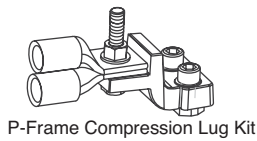
★ OFF end only when OFF end is the load end.

Power Distribution Connectors for M-Frame and P-Frame Circuit Breakers

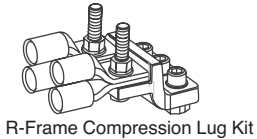
Use for multiple load connections on one circuit breaker in place of standard distribution block to save space and time.	Ampere Rating	(Wires Per Terminal) Wire Range	Cat. No.	Qty Per Kit
• Use on load end of circuit breaker only. • Use in UL508 Industrial Control applications only. • Use in UL1995/CSA C22.2 No. 236 heating and cooling equipment. • For Cu wire only.	250-1200 A	(6) 12-2/0 AWG Cu	PDC6P20	3
		(6) 12-2/0 AWG Cu	PDC6P204	4
▼ Not for use with I-Line™ circuit breakers. Δ Kit includes long terminal shield and cover, which adds 1.65 inches to standard lug with short terminal shield.	250-1200 A	(12) 10-4 AWG Cu	PDC12P4	3
			PDC12P44	4



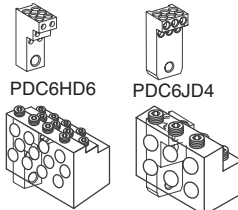
J-Frame Compression Lugs



P-Frame Compression Lug Kit

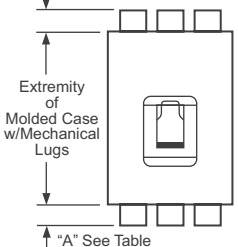


R-Frame Compression Lug Kit

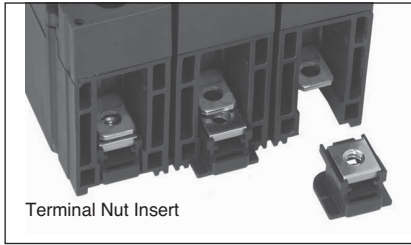


PDC12P4 PDC6P20

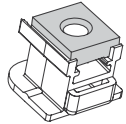
Crimp lug or PDC connectors extension past end or circuit breaker "A" See Table



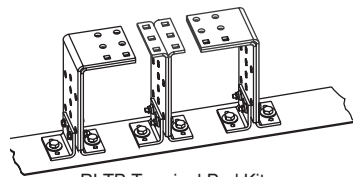
DE3 CIRCUIT BREAKERS



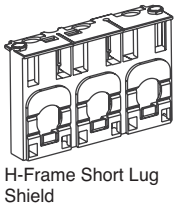
Terminal Nut Insert



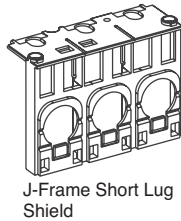
H-Frame Lug With Terminal Nut



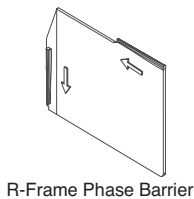
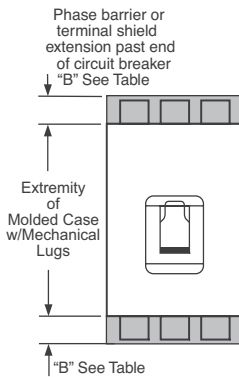
RLTB Terminal Pad Kit



H-Frame Short Lug Shield



J-Frame Short Lug Shield



R-Frame Phase Barrier

Terminal Nuts for Bus Bar Connection of B, H and J-Frame Circuit Breakers

Description	Frame	Tap	Cat. No.	Qty Per Kit
B-Frame Terminal Nut Insert-Metric	BD/BG/BJ (2P)	M6	LV426962	2
B-Frame Terminal Nut Insert-Metric	BD/BG/BJ (3P)	M6	LV426963	3
H-Frame Terminal Nut Insert-English	HD/HG/HJ/HL	1/4-20	S37425	2
H-Frame Terminal Nut Insert-English	HD/HG/HJ/HL	1/4-20	S37444	3
H-Frame Terminal Nut Insert-Metric	HD/HG/HJ/HL	M6	S37426	2
J-Frame Terminal Nut Insert-English	JD/JG/JJ/JL	1/4-20	S37427	2
J-Frame Terminal Nut Insert-English	JD/JG/JJ/JL	1/4-20	S37445	3
J-Frame Terminal Nut Insert-Metric	JD/JG/JJ/JL	M8	S37428	2
Control Wire Terminal for H-Frame Terminal Nut	HD/HG/HJ/HL		S37429	2
Control Wire Terminal for J-Frame Terminal Nut	JD/JG/JJ/JL		S37430	2

Bus Bar Connections Hardware for L-Frame, M-Frame and P-Frame Circuit Breakers

Frame	Description	Term. No.	Poles	Cat. No.
L-Frame	Set of 4 terminal screws and washers for one side	F	4	S36967
M- and P-Frame	Bus Connector Kit for one pole, one end		1	S33928

Terminal Pad Kits for R-Frame Circuit Breakers

R-Frame Circuit Breaker	Terminal Pad Kit		Field-Installable Kits	
	Usage	Lugs per Phase	3P Kit (One End Only) Cat. No.	4P Kit (One End Only) Cat. No.
3000 A, 100% Rated	Required for cable or bus	9	RL3TB	RL3TB4
3000 A, Standard (80% Rated)	Required for cable or bus	8	RLTB	RLTB4
2500 A, 100% Rated	Required for cable or bus			
2500 A, Standard (80% Rated)	Required for cable, optional for bus			
All Other R-Frame Circuit Breakers	Required for cable, optional for bus			

For cable connection to RLTB, use AL2500RK lug. See page DE3-42.

Terminal Shields and Phase Barriers

Used With	Description			Dimension B (in.)	Cat. No.	Qty Per Kit					
H- and J-Frame Mechanical Lugs	Short Lug Shield▲	Frame	Max. Wire Size	0.50	S37446	1					
		H-Frame 60 A	3 AWG								
		H-Frame 150 A	3/0 AWG								
		J-Frame	350 kcmil								
B-, H- and J-Frame Power Distribution Connectors and Compression Lugs	B-Frame Long Lug Shield	Compatible with:			1.9	LV426911 (2P) LV426912 (3P) LV426913 (4P)	1				
		PDC	Compression Lugs								
			Aluminum	Copper							
		PDC6BD2	LV426988	LV426986							
		PDC6BD6	LV426989	LV426987							
		H-Frame Long Lug Shield	PDC6HD6	YA060HD				CYA060HD	2.24	S37449	1
			PDC3HD2	YA150HD				CYA150HD			
		J-Frame Long Lug Shield	PDC6JD4	YA150JD				CYA150JD	1.68	S37450	1
			PDC3JD2	■				CYA250J3			
		L-Frame	3P Short Terminal Shield						LTSS3P	1	
3P Medium Terminal Shield				LTSM3P	1						
3P Long Terminal Shield				LTSL3P	1						
4P Medium Terminal Shield				LTSM4P	1						
4P long Terminal Shield				LTSL4P	1						
M-, P-Frame	Phase Barriers				S33646	3					
R-Frame	Phase Barriers				S33998						

- ▲ Short lug shields provide IP20 protection for mechanical lugs and are compatible with control wire terminals.
- J-frame terminal shield is not compatible with the YA250J35 compression terminal.

Miscellaneous H-, J-, and L-Frame Circuit Breaker Accessories

Accessory	Description	Field-Installed Cat. No.
Spare Parts	Bag of screws for accessory cover, L-frame	S432552
	1 spare toggle extension, L-frame	32595
	Set of 10 identification labels	LV429226

PowerPact™ Circuit Breaker Accessories

Plug-In and Drawout Mountings

Class 611, 612 / Refer to Catalogs 0611CT1001, 0612CT0101



H-Frame and J-Frame Plug-in Mounting



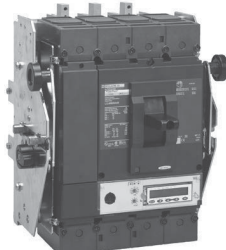
H-Frame and J-Frame Drawout Mounting

Plug-In and Drawout Mountings for H- and J-Frame Circuit Breakers (3P or 2P in a 3P module)

Description		Factory Installed Cat. No.	Field-Installed Cat. No.	
Complete Factory-Assembled Circuit Breakers	Plug-in base shipped with circuit breaker	N		
	Drawout cradle shipped with circuit breaker	D		
Special Order Options for Plug-In and Drawout Circuit Breakers	Plug-In Base	HJ00	S29278	
	Drawout Cradle		S29278 S29282 S29283	
Accessories for Plug-In and Drawout	H-Frame Shutter Kit (set of two)		S37442	
	J-Frame Shutter Kit (set of two)		S37443	
	Secondary Disconnect Blocks	Fixed part 9-wire connector (mounted on base)		S29273
		Moving part 9-wire connector (mounted on circuit breaker)		S29274
		Support for 2-moving connectors		S29275
	Extended escutcheon with extended toggle handle		S29284	
	Two position indicating switches (connected/disconnected)		S29287	
H-Frame Short Terminal Cover (3P)		S37436		
J-Frame Short Terminal Cover (3P)		S37440		



L-Frame Plug-in Mounting



L-Frame Drawout Mounting

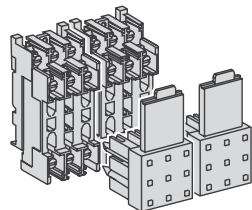
Plug-In and Drawout Mountings for L-Frame Circuit Breakers

Description	Poles	Plug-in Mounting		Drawout Mounting	
		Factory Installed Cat. No.	Field-Installed Cat. No.	Factory Installed Cat. No.	Field-Installed Cat. No.
Kit (stationary and moving parts)	3	N		D	
	4	N		D	
Stationary Part	Plug-in base		S32514		S32514
	Fixed part of chassis		S32515		S32515
Moving Part	Circuit breaker only		HJ00	HJ00	
	Moving part of chassis				S32533
	Short terminal covers	3	2x S32562		2x S32562
	4	2x S32563		2x S32563	

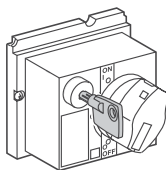
▲ Price shown is for quantity of 1.

Plug-In and Drawout Accessories for L-Frame Circuit Breakers

Description	Field-Installed Cat. No.	
Secondary Disconnecting Blocks	Fixed Part	9-wire connector S29273
	Moving Part	9-wire connector S32523
		Support for 3 moving connectors S32525
	Fixed + Moving	9-wire manual auxiliary connector S29272
Shutters	Two shutters for plug-in base 32521	
Chassis Accessories	Extended escutcheon for toggle S32534	
	Locking device (key lock is not included) S29286	
	Two position indicating switches (connected/disconnected) 29287	



L-Frame Disconnecting Blocks



L-Frame Locking Device

Termination Options

Termination Letter	Description
N = Plug-in	For factory-installed termination, place termination letter in the third block of the circuit breaker catalog number.
D = Drawout	

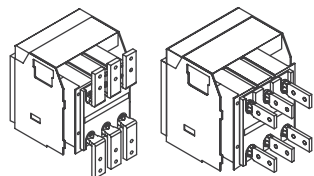
L G L 3 6 4 0 0 U 3 1 X
L Termination No.

Drawout Cradle and Accessories for P-Frame Circuit Breakers

Description	Cat. No.	
Drawout Cradle	Product Selector	
Cradle Connectors	Front Connected Flat (FCF)	SFCF12■
	Rear Connected T Horizontal/Vertical (RCTH/RCTV)	SRCTV12■
	Modbus™ cradle communication module	S33852
	Safety shutters	S48933
	Secondary disconnects terminal shield	S33763
	Cradle position switch 1a/1b Form C—Connected/test/disconnected	S33170
	Low level cradle position switch 1a/1b Form C—Connected/test/disconnected	S33171
	Cell keying kit	S33767
	Disconnected position key locking—provision for Kirk or Federal Pioneer Lock	S33772
	Door interlock kit	S33786
	Racking interior kit	S33788
	Door escutcheon (for replacement only, included with circuit breaker)	S33857
	Transparent cover	S33859
	Push-in terminal kit (3 wires)	S33098
Push-in terminal kit (6 wires)	S33099	
Finger cluster	S33166	
Cluster grease (12 oz. tube)	S48899	

■ Needs 2 kits per cradle.

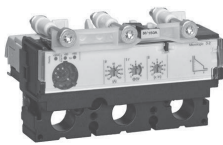
DE3 CIRCUIT BREAKERS



P-Frame Drawout Cradle Connections

New!

PowerPact™ H-, J-, and L-Frame Micrologic™ Trip Units



Micrologic Standard Trip Unit



Micrologic Ammeter and Energy Trip Unit

PowerPact™ H-, J-, and L-frame molded case circuit breakers may be specified with any of the following Micrologic Electronic Trip Units.

Micrologic Standard 3.2/3.3 Trip Units

- True RMS sensing
- LI, LSI trip configurations
- Field-interchangeable trip units
- LED long-time pickup and trip indication
- Test kits available
- Thermal imaging

Micrologic Ammeter 5.2A/5.3A/6.2A/6.3A Trip Units

Includes all features listed for Micrologic standard trip unit, as well as:

- Advanced user interface
- Neutral protection
- Incremental fine tuning of settings
- Up to 12 alarms
- Digital ammeter—phase and neutral (4-pole only)
- Phase loading bar graph
- Maintenance indicators including contact wear, number of operations, operating hours, and load profiles
- Cause of trip information for troubleshooting assistance
- LCD Display
- Zone-selective interlocking (ZSI) (short-time & ground-fault)
- Optional Modbus™ communications—PowerLogic™ compatible

Micrologic Energy 5.2E/5.3E/6.2E/6.3E Trip Units

Includes all features listed for Micrologic ammeter trip unit, as well as:

- Ground-fault trip with programmable ground fault alarm (available on 6.2E/6.3E only)
- Power and energy measurement
- Power quality measurements
- Current demand and power demand measurements

Micrologic Trip Units^Δ for PowerPact H-, J-, and L-Frame Circuit Breakers

x – Standard Feature o – Available Option

Features	Standard		Ammeter		Energy	
	3.2/3.3	3.2S/3.3S	5.2A/5.3A	6.2A/6.3A	5.2E/5.3E	6.2E/6.3E
LI	x					
LSI [▲]		x	x		x	
LSIG / Ground-Fault Trip [■]				x		x
Ground-Fault Alarm/Trip [■]				x		x
Current Setting Directly in Amperes	x	x	x	x	x	x
True RMS Sensing	x	x	x	x	x	x
UL Listed	x	x	x	x	x	x
Thermal Imaging	x	x	x	x	x	x
LED for Long-time Pickup	x	x	x	x	x	x
LED for Green "Ready"	x	x	x	x	x	x
Up to 12 Alarms Used Together			x	x	x	x
Digital Ammeter			x	x	x	x
Zone-selective Interlocking [◆]			x	x	x	x
Communications	o	o	o	o	o	o
LCD Display			x	x	x	x
Front Display Module FDM121			o	o	o	o
Advanced User Interface			x	x	x	x
Neutral Protection [■]			x	x	x	x
Contact Wear Indication [★]			x	x	x	x
Incremental Fine Tuning of Settings			x	x	x	x
Load Profile ^{★, ▼}			x	x	x	x
Power Measurement				x	x	x
Power Quality Measurements					x	x

- ▲ The LSI with 3.2S/3.3S trip units have fixed short time and long time delays.
- Requires neutral current transformer on the three-phase four-wire loads
- ◆ ZSI for H/J frames is only OUT. for L-frame ZSI is In and OUT.
- ★ Indication available using the communication system only.
- ▼ % of hours in 4 current ranges: 0–49%, 50–79%, 80–89%, and >90% In.
- Δ DC not available with electronic trip units.

Micrologic Trip Unit Settings for H- and J-Frame

Model	Trip Function	Trip Unit	Ampere Setting
Standard	LI	3.2	15-20-25-30-35-40-45-50-60 35-40-45-50-60-70-80-90-100 50-60-70-80-90-100-110-125-150 70-80-100-125-150-175-200-225-250
			15-20-25-30-35-40-45-50-60 35-40-45-50-60-70-80-90-100 50-60-70-80-90-100-110-125-150 70-80-100-125-150-175-200-225-250
	LSI	3.2S	15-60 35-100 50-150 70-250
			15-60 35-100 50-150 70-250
Ammeter	LSIG	6.2A	15-60 35-100 50-150 70-250
			15-60 35-100 50-150 70-250
Energy	LSI	5.2E	15-60 35-100 50-150 70-250
			15-60 35-100 50-150 70-250

Micrologic Trip Unit Settings for L-Frame

Model	Trip Function	Trip Unit	Ampere Setting
Standard	LI	3.3	70-80-100-125-150-175-200-225-250 125-150-175-200-225-250-300-350-400 200-225-250-300-350-400-450-500-600
			70-80-100-125-150-175-200-225-250 125-150-175-200-225-250-300-350-400 200-225-250-300-350-400-450-500-600
Ammeter	LSI	5.3A	125-400 200-600
			125-400 200-600
Energy	LSIG	6.3A	125-400 200-600
			125-400 200-600

Micrologic™ Electronic Trip Units

Powerpact P- and R-Frame, and Masterpact Micrologic Electronic Trip Units



Powerpact® P-, R-Frame circuit breakers may be specified with any of the following Micrologic Electronic Trip Units.

Micrologic (Standard) 3.0 and 5.0 Trip Units

- True RMS sensing
- LI, LSI trip configurations
- Field-interchangeable long-time rating plugs
- LED long-time pickup indication
- Test kits available
- Thermal imaging

Micrologic (Ammeter) 3.0A, 5.0A and 6.0A Trip Units

Includes all features listed for Micrologic standard trip unit, as well as:

- LSI trip configurations
- Digital ammeter—phase and neutral
- Phase loading bar graph
- LED trip indication
- Zone-selective interlocking (ZSI) (short-time & ground-fault)
- Optional Modbus™ communications—PowerLogic® compatible

Micrologic (Power) 5.0P and 6.0P Trip Units

Power measurement and advanced protection features includes all features listed for Micrologic ammeter trip unit, as well as:

- LSI trip configuration with programmable ground fault alarm
- LSI (Ground-fault trip) with programmable ground fault alarm
- Incremental “fine tuning” of L, S, I, and G pickup and delay settings
- LCD dot matrix display and LED trip indication
- Advanced user interface
- Advanced protection IDMTL—selectable long-time delay bands
- Neutral protection
- Power measurement
- Contact wear indication
- Modbus communications—PowerLogic compatible
- Local and remote settings

Micrologic (Harmonic) 5.0H and 6.0H Trip Units

Power quality measurement and advanced protection features. Includes all features listed for the Micrologic power trip unit, as well as:

- Enhanced power measurements functions
- Power quality measurements

Adjustable Rating Plugs—Selection

To provide maximum design flexibility, system protection, and field upgradeability, each Micrologic® trip unit is equipped with an interchangeable long-time rating plug. Each trip unit requires an adjustable rating plug to determine the long-time pickup range of the circuit breaker. These plugs are factory-installed on new trip units, or can be ordered separately for field-installable upgrades.

Adjustable rating plugs are offered in eight different ranges of long-time pickup adjustments. The following chart show the ranges of adjustments. Each adjustment times the sensor rating (I_r X I_n) of the circuit breaker sets the long-time pickup value of the circuit breaker.

Long-time Pickup Settings

Rating Plug	Long-time Pickup Settings								
	1.0	.90	.80	.70	.63	.60	.50	.45	.40
A	1.0	.90	.80	.70	.63	.60	.50	.45	.40
B	1.0	.95	.88	.75	.63	.56	.50	.44	.40
C	1.0	.95	.83	.75	.67	.56	.53	.50	.42
D	1.0	.95	.93	.90	.80	.70	.64	.48	.40
E	1.0	.95	.93	.90	.85	.80	.75	.70	.60
F	1.0	.98	.96	.94	.92	.90	.88	.86	.84
G	.82	.80	.78	.76	.74	.72	.70	.68	.66
H	.64	.62	.60	.58	.56	.54	.52	.50	.48

Micrologic Trip Units ✓ – Standard Feature ○ – Available Option

Features	Standard		Ammeter			Power		Harmonic	
	3.0	5.0	3.0A	5.0A	6.0A	5.0P	6.0P	5.0H	6.0H
LI	✓		✓						
LSI (Instantaneous can be turned off)		✓		✓		✓		✓	
LSIG / Ground-Fault Trip					✓		✓		✓
Ground-Fault Alarm (No Trip) ▲■						✓		✓	
Ground-Fault Alarm and Trip ▲■							✓		✓
Adjustable Rating Plugs	✓	✓	✓	✓	✓	✓	✓	✓	✓
True RMS Sensing	✓	✓	✓	✓	✓	✓	✓	✓	✓
UL Listed	✓	✓	✓	✓	✓	✓	✓	✓	✓
Thermal Imaging	✓	✓	✓	✓	✓	✓	✓	✓	✓
Phase Loading Bar Graph			✓	✓	✓	✓	✓	✓	✓
LED for Long-time Pickup	✓	✓	✓	✓	✓	✓	✓	✓	✓
LED for Trip Indication			✓	✓	✓	✓	✓	✓	✓
Digital Ammeter			✓	✓	✓	✓	✓	✓	✓
Zone-selective Interlocking			✓	✓	✓	✓	✓	✓	✓
Communications			○	○	○	✓	✓	✓	✓
LCD Dot Matrix Display						✓	✓	✓	✓
Advanced User Interface						✓	✓	✓	✓
Protective Relay Functions						✓	✓	✓	✓
Neutral Protection ▲						✓	✓	✓	✓
Contact Wear Indication						✓	✓	✓	✓
Incremental Fine Tuning of Settings						✓	✓	✓	✓
Selectable Long-time Delay Bands						✓	✓	✓	✓
Power Measurement						✓	✓	✓	✓
Power Quality Measurements								✓	✓
Waveform Capture								✓	✓

- ▲ Requires neutral current transformer in 3Ø4W systems.
- Requires M2C or M6C Programmable Contact Module.

Micrologic Trip Unit and Options

Model	Protection	Additional Features	Field-Installable Cat. No. ▶	Kit \$ Price / Circuit Breaker \$ Price Adder
2.0 (IEC only)	LSO	None	S132R	
3.0 (UL/ANSI only)	LI		S131A	
5.0	LSI		S133A	
2.0A (IEC only)	LSO	Ammeter	S142R★	
3.0A (UL/ANSI only)	LI		S141A★	
5.0A	LSI		S143A★	
6.0A	LSIG		S144A★	
5.0P	LSI	Metering, Adv. Protection	S163A★▼	
6.0P	LSIG		S164A★▼	
5.0H	LSI	Metering, Adv. Protection & Harmonic Analysis	S173A★▼	
6.0H	LSIG		S174A★▼	

- ◆ The standard rating plug supplied with a trip unit will be the “A” rating plug. To specify an alternative adjustable rating plug, please add the letter designation to the end of the catalog number. Please refer to page DE3-47 for a complete listing of adjustable settings available with each plug. (Example: S143B would specify a “B” rating plug instead of the standard “A” plug.) Use suffix “N” if no rating plug is required.
- ★ When replacing a standard trip unit with Type A (Ammeter), P (Power metering) or H (Harmonic analysis) trip unit, order the 12-pin connector kit S33101 for the Masterpact NW and NT and the PowerPact P-frame drawout circuit breakers or kit S33100 for PowerPact P-frame and R-frame unit-mount and I-Line circuit breakers. See page DE3-47.
- ▼ Requires Circuit Breaker Communications Module.

Special Options

Description	Factory-Installed Suffix	Field-Installable Cat. No.
Ship circuit breaker in closed position	YK	N/A
CT Characterization (Calibrated trip system)	Q	N/A
Alternate Maintenance Setting (AMS) kit (use with 5.0/6.0 A, P or H and 5.3/6.3 a or E Micrologic trip units)	—	84957
Energy Reduction Maintenance Setting (ERMS) kit (use with 5.0/6.0 P or H Micrologic trip units)	—	84956

DE3 CIRCUIT BREAKERS

Micrologic™ Electronic Trip Unit

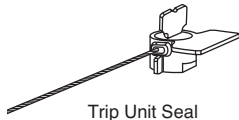
Micrologic™ Trip Unit Accessories

Class 612 / Refer to Catalog 0612CT0101

Adjustable rating plug "A" is installed as standard on all Micrologic trip unit orders. However, an alternative selection may be specified from the "Assembled" table below, and factory-installed with your trip unit order at no additional charge. To order, please attach the appropriate catalog suffix to the end of the trip unit catalog number (after specifying trip unit options). Adjustable rating plugs may also be purchased as field-installable components from the table below.



Full Function Test Kit



Trip Unit Seal



Sensor Plug

Rating Plugs

Rating Plug ▲	Factory-Installed	Field-Installable
	Cat. Suffix	Cat. No.
A	A (standard)	S48818
B	B	S48819
C	C	S48820
D	D	S48836
E	E	S48837
F	F	S48838
G	G	S48839
H	H	S48840

- ▲ Long-time pickup amperes (I_r) = Sensor Rating (I_n) X Setting of rating plug.
- "Fine adjustment tuning" is included on Micrologic Power and Harmonic trip units, allowing for incremental settings of 1 ampere between the plug setting and .40 X Sensor Rating.

Neutral Current Transformers

For Use with Circuit Breaker	Cat. No.	Sensor
H-Frame	S429521	60–100
	S430562	150
	S430563	250
L-Frame	S432575	400–600
	S33575■	250
P-Frame	S33576■	400–1600
	S48916■	250
R-Frame	S34036■	400–1600
	S48896■	2000
	S48182■	3000
All	NCTWIRING	All

- Includes NCTWIRING kit.

Trip Unit Accessories

Device	Frame	Cat. No.
Pocket Tester		S434206
UTA Tester		STRV00910
Spare UTA Tester		STRV00911
BLuetooth/Modbus for UTA Tester	H/J/L	SVW3A8114
Spare Power Supply for UTA Tester 110–120 Vac		TRV00915
Micrologic Cord for UTA Tester		TRV00917
Micrologic 5/6 Cover, Transparent	H/J	S429478
Micrologic 2/3 Cover, Transparent		S429481
Micrologic 5/6 Cover, Transparent	L	S432459
Micrologic 2/3 Cover, Transparent		S432461
LCD Display for Micrologic 5		S429483
LCD Display for Micrologic 6	H/J/L	S429484
Hand-held Test Kit		S33594
Primary Injection Test Adaptor		S33937
Full-function Adapter Kit		S48981
Full-function Test Kit	P/R	S33595
Seven-pin Test Cable (for connection between test kit and trip unit)♦		S48907
Two-pin Test Cable (for connection between test kit and trip unit)★		S48908
230 Vac Filtered Power Cord▼		S48856
120 Vac Filtered Power Cord▼	P/R	S48855
Trip Unit Battery for Trip Indicator Lights		S33593
Power supply with:		
24–30 Vdc input		685823
48/60 Vdc input		685824
125 Vdc input	H/J/L/P/R	685825
110–130 Vac input		685826
200–240 Vac input		685827
380–415 Vac input		685829
Micrologic A Trip Unit Cover, clear		S33592
Micrologic P/H Trip Unit Cover, opaque gray	P/R	S47067
Trip Unit Seal (6 pieces) for compliance with NEC 240.6(c)	H/J/L/P/R	MICROTUSEAL
12-pin Trip Unit Connector for NT/NW Masterpact Circuit Breakers		S33101
12-pin Trip Unit Connector for P- and R-Frame Circuit Breakers	P/R	S33100
Battery Back-up (12 Hours)		685831

- ♦ Used for testing Micrologic trip units. Included in the price of the Hand-held/Full-function Test Kits. Kit for replacement only.
- ★ Used for testing STR trip units. Included in the price of the Hand-held/Full-function Test Kits. Kit for replacement only.
- ▼ Included in the price of the Full-function Test Kit. Kit for replacement only.

Sensor Plugs for P- and R-Frame Circuit Breakers▲◇

Circuit Breaker	Sensor Plug Range	Sensor Plug Catalog No.	Circuit Breaker Frames Accepting Sensor Plug											
			250 A	400 A	600 A	630 A□	800 A	1000 A	1200 A	1250 A□	1600 A			
P-Frame Circuit Breaker														
UL	250 A	S47052	X											
	400 A	S47053		X	X			X						
	600 A	S48823			X			X	X	X				
	800 A	S33092						X	X	X				
	1000 A	S33093								X	X			
IEC	1200 A	S48824									X			
	630 A	S33091				X	X	X			X	X		
	800 A	S33092					X	X			X	X		
	1000 A	S33093						X			X	X		
	1250 A	S33094									X	X		
1600 A	S33095										X	X		
R-Frame Circuit Breaker			600 A	800 A	1000 A	1200 A	1600 A	2000 A	2500 A	3000 A	3200 A			
UL	600 A	S48823	X	X	X	X								
	800 A	S33092		X	X	X	X							
	1000 A	S33093			X	X	X							
	1200 A	S48824				X	X	X	X					
	1600 A	S33095					X	X	X	X	X			
	2000 A	S33982						X	X	X	X			
	2500 A	S33983							X	X	X			
IEC	3000 A	S48825									X	X		
	1600 A	S33095					X	X	X	X	X	X		
	2000 A	S33982						X	X	X	X	X		
	2500 A	S33983							X	X	X	X		
3200 A	S33984										X	X		

- ▲ For use only with circuit breakers with date codes later than 07011.
- IEC Only.
- ◇ See rating plug for long-time pickup range on page DE3-48.

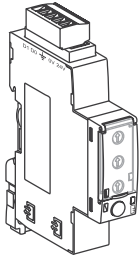
Micrologic™ Electronic Trip Unit Micrologic™ Trip Unit Accessories

Class 0611, 612 / Refer to Catalogs 0611CT1001, 0612CT0101

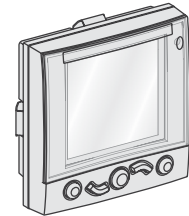
Trip Unit Field-Installable Accessories for P- and R-Frame Circuit Breakers

Description	Factory-Installed Cat. No.	Field-Installable Kit Cat. No.						
		P-Frame				R-Frame		
		Unit Mount	I-Line	Motor Operated	Drawout	With Rotary Handle	Unit Mount	I-Line
Circuit Breaker Communication Module (BCM) (Modbus)	E1	S64205	S64205	S64207	S64206	S64205	S64205	S64205
Two Programmable Contacts Module (M2C)	V	S64273	S64273	S64273	S64273	S64273	S64273	S64273
Six Programmable Contacts Module (M6C)	W	S64204	S64204	S64204	S64202	S64204	S64201	S64201
External Voltage Sensing (EVS)	YV	S64203	S64203	S64210	S64209	S64210	S64208	S64208

New!

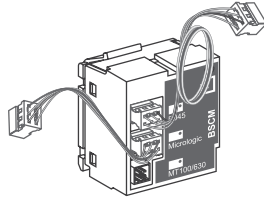


Modbus Interface Module (IFM)

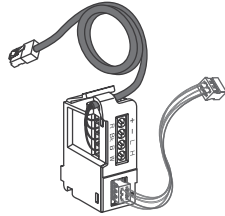


Front Display Module (FDM)

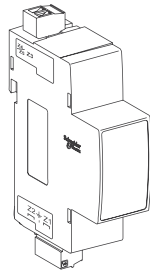
SDTAM Module (Remote indication relay for motor applications)



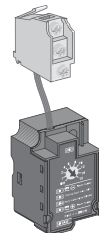
Breaker Status and Control Module (BSCM)



NSX Cord for Modbus Communications



ZSI Interface Module (Connects PowerPact H/J/L circuit breakers to PowerPact P/R and Masterpact NT/NW circuit breakers)



Trip Unit Accessories

Description	Factory-Installed Cat. No. Suffix	Field-Installable Kit Cat. No.
External Accessories		
Modbus Interface Module IFM▲	—	LV434000
Stacking Connections for IFM (10)	—	TRV00217
IFE Interface (Ethernet Module)	—	LV434001
IFE Interface + Gateway (Ethernet and Modbus Gateway)	—	LV434002
I/O Module (Input/Output Programmable Module)	—	LV434063
Circuit Breaker ULP Cord—BCM to COMS	L = 0.35 m (1.15 ft)	—
	L = 1.3 m (4.27 ft)	—
	L = 3 m (9.24 ft)	—
ULP Cable, 10 Cables (Male to Male RJ45)	L = 0.3 m (0.98 ft)	—
	L = 0.6 m (1.97 ft)	—
	L = 1 m (3.28 ft)	—
ULP Cable, 5 Cables (Male to Male RJ45)	L = 2 m (6.56 ft)	—
	L = 3 m (9.84 ft)	—
	L = 5 m (16.40 ft)	—
ULP Cable, 1 Cable (Male to Male RJ45)	—	TRV00850
RJ45 Female/Female Connector, 10 Connectors	—	TRV00870
ULP Line Terminator, 10 Terminators	—	TRV00880
Insulated ULP Module and Circuit Breaker Cord (for System Voltage Greater than 480 Vac) (Cord with Female)	L = 1 m (3.28 ft)	—
	L = 3 m (9.84 ft)	—
Modbus Line Terminator, 2 Terminators	—	VW3A8306DRC
Front Display Module FDM121▲	—	STRV00121
FDM Mounting Accessory (Dia. 22 mm)	—	TRV00128
FDM128 (8 Circuit Breakers to 1 Front Display)	—	LV434128
ZSI Interface Module	—	S434212
Internal Accessories		
NSX Cord ■ (for Modbus Communication)	L = 1.3 m	EA
	L = 3 m	EB
BSCM (Breaker Status and Control Module) with NSX Cord ■	L = 1.3 m	EG▲
	L = 3 m	EHA
Replacement BSCM	—	S434205
NSX Cord for V > 480 Vac ■	L = 1.3 m	ED
	L = 3 m	EE
BSCM with NSX Cord for V > 480 Vac ■	L = 1.3 m	EKA
	L = 3 m	ELA
24 Vdc Terminal Block	—	EN
SDTAM 24/415 Vac/dc Module ◆	—	V
SDX Module 24/415 Vac/dc ★	—	V

- ▲ Require NSX or ULP Cord
- Installation requires IFM for Modbus communication and/or FDM for external display
- ◆ Remote indication relay for motor applications
- ★ Remote indication relay
- ▼ For proper selection, see catalog 0611CT1001.
- △ If using with motor operator requires communicating motor operator (suffix NC).

Wire Harness for H-, J-, and L-Frame Circuit Breakers

Description	Factory-Installed	Field-Installable Kit Cat. No.
	Cat. No. Suffix	Cat. No.
ZSI Wire Harness, H/J Frame	YH3	S434300
ZSI Wire Harness, L-Frame	YH3	S434301
ENCT Wire Harness	YH2	S434302
OF Wire Harness	YH1	S434500
SD/SDE Wire Harness	YH1	S434501
SDx/SDTAM Wire Harness	YH1	S434502
MN Wire Harness	YH1	S434503
MX Wire Harness	YH1	S434504
24 Vdc Terminal Block Wire Harness ◆	YH1	S434505
Motor Operator Wire Harness	YH1	S434506
Communicating Motor Operator Wire Harness	YH1	S434507

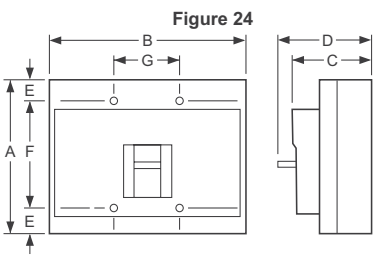
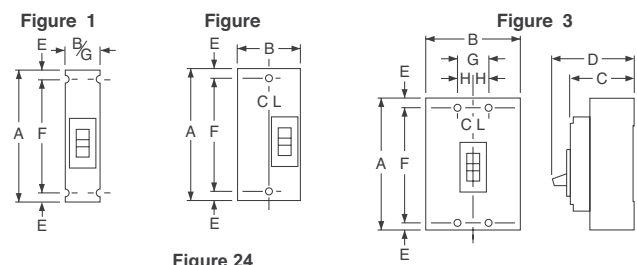
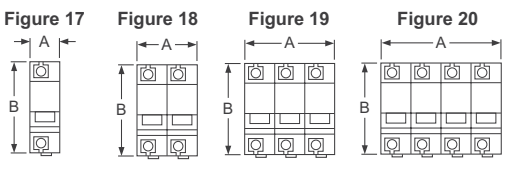
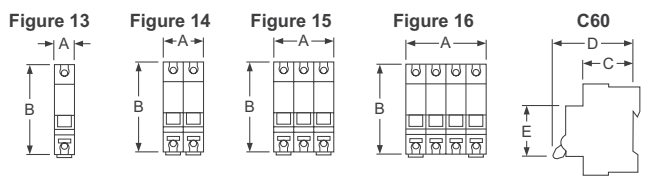
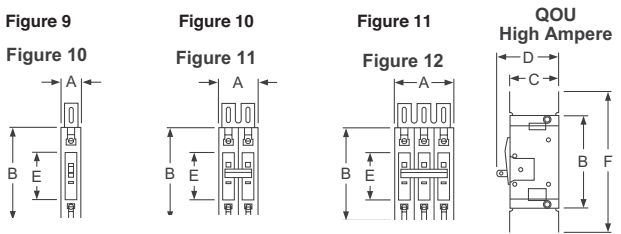
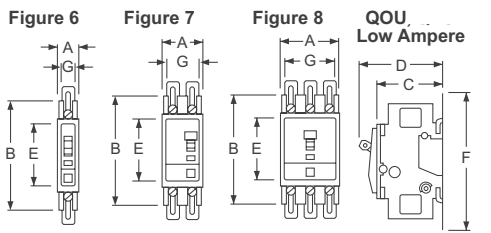
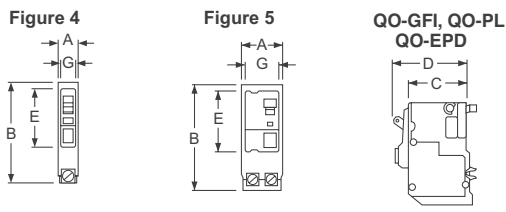
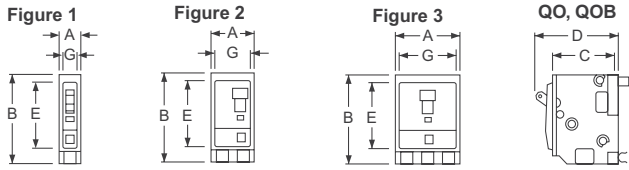
- Wire harness is required for I-Line applications, optional for unit-mount applications
- YH1 = all installed accessories but ZSI and ENCT
- YH2 = ENCT and all installed accessories
- YH3 = ZSI and all installed accessories
- YH4 = ZSI, ENCT and all installed accessories
- ◆ I-Line wire harness is included for communication network accessories. Optional wire harness for unit mount requires YH1 suffix.

DE3 CIRCUIT BREAKERS

Dimensions and Shipping Weights

Miniature and Molded Case Circuit Breakers

DE3 CIRCUIT BREAKERS



QO™, QOU, Multi 9™ Circuit Breakers

Circuit Breaker Catalogue 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 150 A	2	2	3.0	5.72	2.53	4.90	3.78	...	2.85
QOB-VH 110–150 A	3	3	4.50	5.72	2.53	4.90	3.78	...	4.35
QO-PL	1	4	0.75	4.12■	2.31	2.91	2.25	...	0.59
QO-GFI	2	5	1.50	4.12■	2.31	2.91	2.25	...	1.34
QO-EPD	3	5	2.25	4.12■	2.31	2.91	2.25	...	2.09
QOU 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	9	0.75	4.45	2.37	2.96	2.25	6.78	...
	2	10	1.50	4.45	2.37	2.96	2.25	6.78	...
	3	11	2.25	4.45	2.37	2.96	2.25	6.78	...
Multi 9™ C60BP	1	13	0.71	4.06	1.89	2.83	1.77	—	—
	2	14	1.42	4.06	1.89	2.83	1.77	—	—
	3	15	2.13	4.06	1.89	2.83	1.77	—	—
Multi 9™ C6BPR	1	13	0.71	5	1.89	2.83	1.77	—	—
	2	14	1.42	5	1.89	2.83	1.77	—	—
	3	15	2.13	5	1.89	2.83	1.77	—	—
Multi 9™ C60SP	1	13	0.71	3.19	1.73	2.83	1.77	—	—
	2	14	1.42	3.19	1.73	2.83	1.77	—	—
	3	15	2.13	3.19	1.73	2.83	1.77	—	—
	4	16	2.83	3.19	1.73	2.83	1.77	—	—

- ▲ 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.

QB, QD, QG, QJ, Q4, LA, LH Circuit Breakers

Circuit Breaker Catalogue No. Prefix	No. 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
Q4L, LAL, LHL	2 & 3	23	11.00	6.00	4.06	5.84	0.88	9.25	2.00	1.00

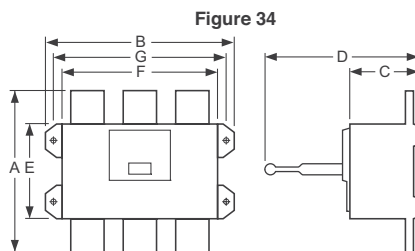
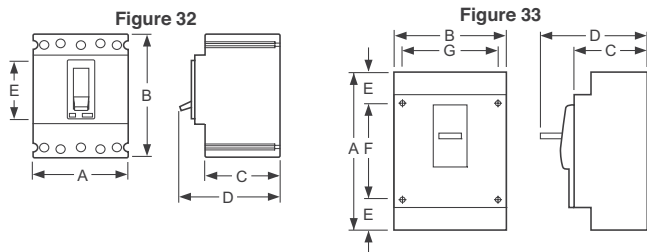
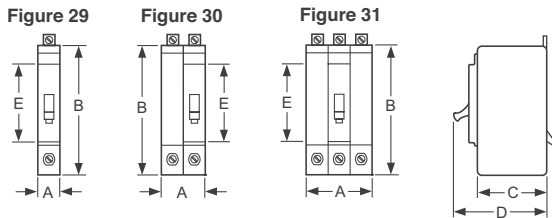
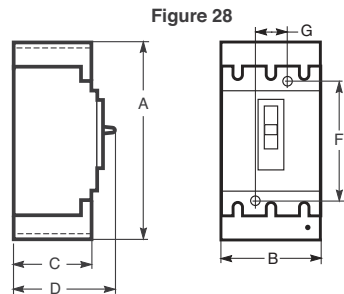
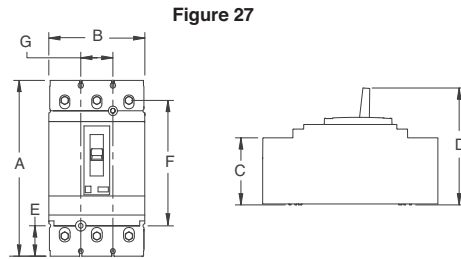
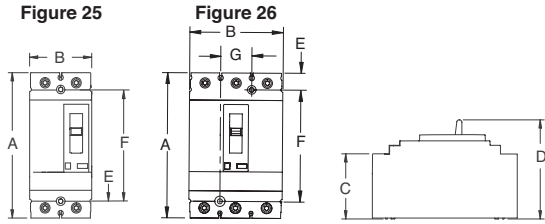
□ Dimensions E are 1.59 in at ON end and 0.63 in at OFF end.

Shipping Weights ◊

Frame Size	Approx. Shipping Weight (Lbs.)	Frame Size	Approx. Shipping Weight (Lbs.)
FAL, FHL 1P	2		
FAL, FHL 2P	3	LAL, LHL	15
FAL, FHL 3P	5		
		Q4L	15
QB, QD, QG, QJ	4		

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

Dimensions and Shipping Weights Molded Case Circuit Breakers



PowerPact B-, H-, J- and L-Frame Circuit Breakers

Circuit Breaker Cat. No. Prefix	No. of Poles	Fig. No.	Dimensions — Inches							
			A	B	C	D	E	F	G	H
B-Frame	1	35	6.79	1.06	3.15	4.01	0.20	6.33	—	5.39
	2	36	6.22	2.12	3.15	4.01	0.86	4.48	—	5.39
	3	37	6.22	3.18	3.15	4.01	0.86	4.48	1.06	5.39
	4	38	6.22	4.25	3.15	4.01	0.86	4.48	2.12	5.39
HD, HG, HJ, HL, HR	2*	25	6.40	2.74	2.87	4.36	0.74	4.92	—	—
	3	26	6.40	4.12	2.87	4.36	0.74	4.92	1.38	—
JD, JG, JJ, JL, JR	3	27	7.52	4.12	2.87	5.00	1.30	4.92	1.38	—
	LD, LG, LJ, LL, LR	3	28	13.38	5.51	3.75	6.61	2.22	7.87	1.77

* - Only HD and HG are in 2P module. The HJ, HL and HR 2P breakers are in 3P modules

ED, EG and EJ Circuit Breakers

Circuit Breaker Catalogue No. Prefix	No. of Poles	Fig. No.	Dimensions — Inches				
			A	B	C	D	E
ED, EG, EJ	1	29	0.98	5.66	3.09	4.05	3.32
	2	30	1.96	5.66	3.09	4.05	3.32
	3	30	2.94	5.66	3.09	4.05	3.32
GJ	3	32	3.54	4.72	2.76	3.94	2.20

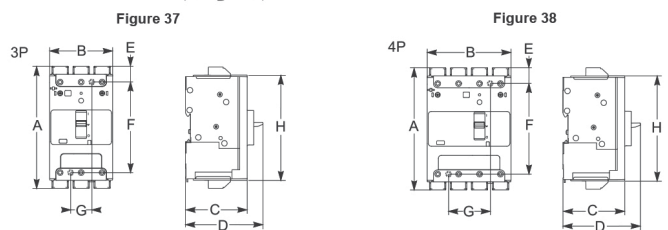
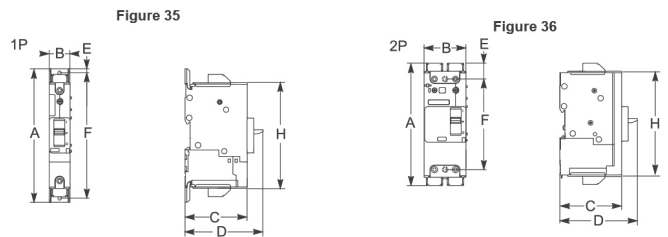
MG, MJ, PG, PJ, PL, RG, RJ and RL Circuit Breakers

Circuit Breaker Cat. No. Prefix	No. of Poles	Fig. No.	Dimensions — Inches						
			A	B	C	D	E	F	G
MG, MJ (800 A and below)	2, 3	33	12.86	8.27	5.77	8.05	2.49	7.87	7.83
PG, PJ, PK, PL (1000–1200 A)	2, 3	33	16.16	8.27	5.77	8.05	4.19	7.87	7.83
RG, RJ, RK, RL	2, 3	34	16.24	16.54	6.63	14.49	8.73	14.25	15.35

Shipping Weights▲

Frame Size	Approx. Shipping Weight (Lbs.)	Frame Size	Approx. Shipping Weight (Lbs.)
HD, HG, HJ, HL 2P	4	JD, JG, JJ, JL, JR	5
HD, HG, HJ, HL, HR 3P	5	LD, LG, LJ, LL, LR	14
ED, EG, EJ 1P	2	MG, MJ	29
ED, EG, EJ 2P	3	PG, PJ, PK, PL	32
ED, EG, EJ 3P	4	RG, RJ, RK, RL (Without RLTB)	52

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



DE3 CIRCUIT BREAKERS

PowerPact B-Frame Circuit Breaker Enclosures

The enclosures' maximum short circuit ratings are 65 kA at 600Y/347 Vac, 65 kA at 480 Vac, 100 kA at 240 Vac and 50 kA at 250 Vdc unless otherwise noted. Enclosures are not suitable for use as Service Entrance Equipment unless otherwise noted. Enclosures accept 100% rated circuit breakers (60A max.)▲

PowerPact B-Frame Circuit Breaker Enclosures

Circuit Breaker			Enclosure Cat. No.			Accessory Cat. No.	
Cat. No. Prefix	Rating	Poles	Type 1 Flush	Type 1 Surface	Type 3R	Neutral Assembly Kit	Service Ground Kit
BDL, BGL, BJL, BKL	15-100 A	2, 3	B125F	B125S	B125RB	SN100FA	PKOGTA2
BDL, BGL, BJL	110-125 A	2, 3				SN225KA	
BDL, BGL, BJL	15-100 A	3	Type 4, 4X, 5 Stainless Steel Type 304	Type 4, 4X, 5 Stainless Steel Type 316	Type 12/3R without knockouts	SN100FA installed	PKOGTA2
BDL, BGL, BJL, BKL	15-100 A	2, 3				B125DS		B125SS	B125AWK	SN100FA
BDL, BGL, BJL	110-125 A	2, 3	—	—	CB125NARB■	SN225KA	PKOGTA2
BDL, BGL, BJL	110-125 A	3				—		—	CB125NAWK■	SN225KA installed

PowerPact H- and J-Frame Circuit Breaker Enclosures

The enclosures' maximum short circuit ratings are 25 kAIR at 600 Vac, 65 kAIR at 480 Vac, 125 kAIR at 240 Vac and 20 kA at 250 Vdc unless otherwise noted. Enclosures are not suitable for use as Service Entrance Equipment unless otherwise noted. Enclosures accept 100% rated circuit breakers unless otherwise noted▲. The enclosures are not compatible with motor operator, earthleakage or ground-fault modules.

PowerPact H- and J-Frame Circuit Breaker Enclosures

Circuit Breaker			Enclosure Cat. No.			Accessory Cat. No.	
Cat. No. Prefix	Rating	Poles	Type 1 Flush	Type 1 Surface	Type 3R	Neutral Assembly Kit	Service Ground Kit
HDL	15-100 A	3	—	HD100S▼△□	—	SN100FA	PKOGTA2
HDL, JDL	110-225 A	3	—	JD250S◇△□	—	SN225KA	PKOGTA2
	110-225 A					SN400LA	
HDL, HGL	15-100 A	2	H150F	H150S	H150R☆	SN100FA	PKOGTH150
	110-150 A	2				SN400LA	
HJL, HLL	15-100 A	2	J250F	J250S▽	J250R★●	SN100FA	PKOGTH150
HDL, HGL, HJL, HLL	15-100 A	3				SN400LA*	
JDL, JGL, JLL, JLL	150-250 A	2, 3	—	CJ250NS■	CJ250NR■	SN400LA*	PKOGTJ250
HDL, HGL, HJL, HLL	110-150 A	3				—	—	SN400LA installed	PKOGTH150
JDL, JGL, JLL, JLL	150-250 A	2, 3	—	—	—	SN400LA installed	PKOGTJ250
			NEMA 4, 4X, 5, Type 304 Stainless Steel	NEMA 4, 4X, 5, Type 316 Stainless Steel	NEMA 12/3R Without Knockouts		
HDL, HGL, HJL, HLL	15-100 A	2, 3	J250DS ^[1]	J250SS ^[1]	J250AWK ^[1]	SN100FA	PKOGTH150
	110-150 A	2, 3				SN400LA*	
JDL, JGL, JLL, JLL	150-250 A	2, 3	—	—	CJ250NAWK■	SN400LA*	PKOGTJ250
HDL, HGL, HJL, HLL	110-150 A	2, 3				—	—	SN400LA*	PKOGTH150
JDL, JGL, JLL, JLL	150-250 A	2, 3	—	—	—	SN400LA*	PKOGTJ250

PowerPact L-Frame Circuit Breaker and Molded Case Switch Enclosures

Enclosures are not suitable for use as Service Entrance Equipment unless otherwise noted. Enclosures accept 100% rated circuit breakers to 400 amps. The enclosures have a blank top end wall and require field-cut openings.

Circuit Breaker			Enclosure Cat. No.		Accessory Catalogue No.		
Cat. No. Prefix	Rating	Poles	Type 4, 4X, 5 Stainless Steel	Type 12/3R without knockouts	Neutral Assembly Kit	Copper Only Neutral Assembly Kit	Service Ground Kit
LDL, LGL, LJL, LLL, LRL	70-400 A	3	—	L600AWK ^[2] [1]	SN400LA	SNC400LX	PKOGTA4
	125-600 A				SN1000MA	SNC800LX	
LDL, LGL, LJL, LLL, LRL	200-600	3	—	CL600NAWK■	SN1000MA installed	—	
LGL◆, LLL◆, LRL◆	400 A	3	—	L600AWKMC★	SN400LA	SNC400LX	
	600 A				SN1000MA	SNC800LX	

- ▲ Use only 90°C (minimum) rated wire sized per ampacity of 75°C rated conductors for 100% rated circuit breakers.
 - Suitable for use as Service Entrance Equipment.
 - ◆ Molded Case Switch.
 - ★ Enclosures accept Molded Case Switches.
 - ▼ Rated for 240 Vac maximum. Short circuit current rating is 25 kAIR at 240 Vac.
 - △ Accepts standard 80% rated circuit breakers only. Not rated for 100% rated circuit breakers.
 - Use copper conductors only.
 - ◇ Rated 480 Vac maximum. Short circuit current rating is 18 kAIR at 480 V.
 - ☆ For conduit entry through the top end wall use one of the following Square D conduit hubs: A200L for 2.00 in., A250L for 2.50 in., A300L for 3.00 in., A350L for 3.50 in. or A400L for 4.00 in. For enclosure suitable for use as Service Equipment use Cat. No. CJ250NR.
 - ▽ Add suffix BE if no knockouts are required on the end walls. For enclosure suitable for use as Service Equipment use Cat. No. CJ250NS.
 - For access to the circuit breaker's standard, ammeter or energy trip unit, add suffix T.
 - * For 200% neutral use copper wire only.
 - ◆ Complete rating is Type 3, 3R [14], 4, 4X, 5, and 12.
 - For Type 3R applications, remove drain screw from bottom endwall.
- [1] Add suffix VW for visibility to the standard, ammeter or energy trip unit of the PowerPact circuit breaker.
- [2] Enclosures accept PowerPact L-frame circuit breakers and Motor Protectors with suffixes M38X.

Q-Frame Circuit Breaker Enclosures

The enclosures for Q Frame Circuit Breaker are cUL listed. The short circuit ratings of these enclosed circuit breakers are equal to the interrupting ratings, at the supply voltage marked on the circuit breaker installed, unless otherwise noted.

Circuit Breaker			Enclosure Cat. No.			Accessory Cat. No.	
Cat. No. Prefix	Rating	Poles	Type 1 Flush	Type 1 Surface	Type 3R	Neutral Assembly Kit	Service Ground Kit
QBL, QDL, QGL, QJL ▲	70-225 A	2, 3	Q23225NFC	Q23225NSC	Q23225NRBC	Installed	PKOGTA2

LA, LH, Q4 Circuit Breaker Enclosures

Circuit Breaker			Enclosure Cat. No.			Accessory Cat. No.	
Cat. No. Prefix	Rating	Poles	Type 1 Flush	Type 1 Surface	Type 3R	Neutral Assembly Kit	Service Ground Kit
LAL, LHL, Q4L	125-225 A 225-400 A	2, 3	LA400F	LA400S	LA400R△	SN100FA	PKOGTA2
LAL	125-400 A	3	—	LA400LS★▼	—	SN225KA	
			Type 4, 4X, 5 Stainless Steel Type 304	Type 4, 4X, 5 Stainless Steel Type 316	Type 12/3R without knockouts		
LAL, LHL, Q4L	125-225 A 225-400 A	2, 3	LA400DS	—	LA400AWK	SN225KA SN400LA	PKOGTA2

- ▲ When 3P QJL circuit breaker is installed in the enclosure, the enclosure is limited to Short Circuit Current ratings of 65 kAIR at 240 V and 100 kAIR at 208 V.
- Complete rating is Type 3, 3R, 4, 4X, 5, and 12.
- ◆ For Type 3R applications, remove drain screw from bottom endwall.
- ★ Use copper conductors only
- ▼ Rated 480 Vac maximum. Short circuit current rating is 30 kA at 480 V.
- △ The LA400R enclosures have a blank top end wall and require field-cut openings.

DE3 CIRCUIT BREAKERS

PowerPact M- and P-Frame Circuit Breaker Enclosures

All enclosures will accept 80% rated circuit breakers. The P1200 enclosures will accept 100% rated circuit breakers to 800 A. If a CT neutral is required, the enclosure will no longer accept a 200% neutral. The M800R and the P1200R enclosures have a blank top end wall and require field-cut openings.

PowerPact M- and P-Frame Circuit Breaker Enclosures

Circuit Breaker			Enclosure Cat. No.						
Cat. No. Prefix	Rating	Poles	Enclosure			Neutral Assembly Kit	200% Neutral Kit	CT Neutral Kit ▲■	Service Ground Kit
			NEMA 1 Flush	NEMA 1 Surface	NEMA 3R				
MGL, MJL, PGL, P JL, PKL, PLL	300-800 A	2, 3	—	M800S	M800R	AL800SN	SN800SNI and 2 each SN1200	S33576MK	PKOGTA4
PGL, P JL, PKL, PLL	250-1200 A	2, 3	—	P1200S	P1200R	SN1200	—	S33576MK	PKOGTA4
			NEMA 4, 4X, 5♦ Type 304 Stainless Steel★	NEMA 4, 4X, 5♦ Type 316 Stainless Steel★	NEMA 12/3R Without Knockouts★				
MGL, MJL, PGL, P JL, PKL, PLL	300-800 A	2, 3	M800DS	M800SS	M800AWK	AL800SN	—	S33576MK	PKOGTA4
PGL, P JL, PKL, PLL	250-1200 A	2, 3	—	—	P1200AWK	SN1200	—	S33576MK	PKOGTA4

- ▲ Order current transformer kit S33576 separately.
- Current transformers applicable only on PowerPact P circuit breakers. Current limitations are 400–800 A and 400–1200 A respectively for the M800 and P1200 family of enclosures.
- ♦ Complete rating is NEMA 3, 3R, 4, 4X, 5, and 12.
- ★ For NEMA 3R applications, remove drain screw from bottom endwall.

PowerPact L-Frame 500 Vdc Circuit Breaker Enclosures

The PowerPact L-frame circuit breaker enclosure's maximum short circuit rating is 20 kAIR at 250 Vdc and 50 kAIR at 500 Vdc. Listed for use ONLY on UPS systems.

DC Circuit Breaker Enclosures for LG and LL DC-Rated Circuit Breakers

Circuit Breaker▼			NEMA 1 Surface Enclosure	Replacement Ground Lugs	Service Ground Kit
Cat. No. Prefix	Ampere Rating	Poles	Cat. No.	Cat. No.	Cat. No.
LGL, LLL	300-600 A	3	L1200S	8010440301	Standard
	700-1200 A	4	L1200S		

- ▼ Use 500 Vdc or 250 Vdc rated circuit breakers only.

Enclosure Accessories

Neutral Kit Terminal Data

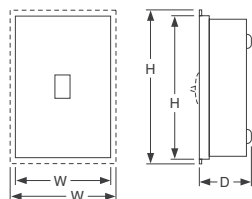
Neutral Kit Catalog Number	Terminal Lug Data - Total Available (Line plus Load) AWG/kcmil AL/CU	All Copper Neutral Terminal Lug Data - Total Available (Line plus Load) AWG/kcmil
100SNA	(2) 14-1/0 Cu or (2) 12-1/0 Al plus (1) 14-4 Cu	—
SN100FA	(4) 14-1/0 Cu or (4) 12-1/0 Al	—
SN225KA	(2) 4-300 Al/Cu, plus (2) 14-1/0 Al/Cu	—
225SNA	(4) 6-350 Al/Cu	—
400SN	(2) 1-600 or (4) 1-250 Al/Cu, plus (2) 4-300 Al/Cu	—
SN400LA	(2) 1-600 or (4) 1-250 Al/Cu, plus (2) 4-300 Al/Cu	—
SN1000MA	(6) 3/0-500 Al/Cu, plus (1) 1-4/0 Al/Cu	—
SNC400LX	—	(2) 2-600 Cu, plus (2) 6-250 Cu
SNC800LX	—	(4) 2-600 Cu, plus (1) 2-4/0 Cu
AL800SN	(6) 3/0-500 Al/Cu, plus (2) 6-350 Al/Cu	—
SN1200	(8) 3/0-750 Al/Cu, plus (2) 6-350 Al/Cu	—
S33576MK	(8) 3/0-500 Al/Cu, plus (2) 4-300 Al/Cu	—

Service Ground Terminal Data

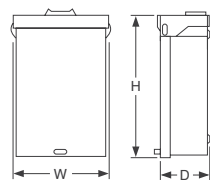
Service Ground Kit Catalog Number	Terminal Data AWG/kcmil	Lugs per kit
PKOGTA2	10-2/0 Cu or 6-2/0 Al	2
PKOGTH150	14-2 Al/Cu	1
PKOGTJ250	6-300 Al/Cu	2
PKOGTA4	6-250 Al/Cu	4

Dimensions (inches)

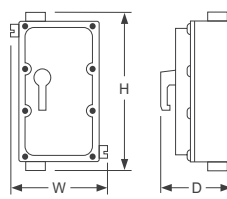
Cat. No.	Series	Enclosure Cat. No.					
		H		W		D	
		in.	mm	in.	mm	in.	mm
B125AWK, CB125NAWK	A1	19.50	495	9.13	232	4.88	124
B125DS	A1	19.50	495	9.13	232	4.88	124
B125F	A1	19.50	495	9.88	251	4.13	105
B125RB, CB125NRB	A1	18.00	457	8.88	226	4.88	124
B125S	A1	18.13	461	8.63	219	4.13	105
HD100S	A01	17.00	431.8	7.90	200.7	4.75	120.7
H150F	A01	32.40	823	15.40	391	6.00	152
H150R	A01	31.50	789	14.47	368	6.28	160
H150S	A01	31.36	797	14.36	365	6.00	152
J250F	A01	32.40	823	15.40	361	6.00	152
J250S, CJ250NS	A01	31.36	797	14.36	365	6.00	152
J250R, CJ250NR	A01	31.05	789	14.47	368	6.28	160
J250DS, J250SS	A01	32.26	819	9.72	247	7.94	202
J250AWK, CJ250NAWK	A01	32.26	819	9.72	247	7.94	202
LA400AWK	E2	42.25	1073	13.75	349	7.25	184
LA400DS	E2	42.25	1073	13.75	349	7.25	184
LA400F	E2	45.63	1159	16.50	419	6.50	165
LA400R	E2	44.00	1118	15.38	391	7.88	200
LA400S	E2	44.50	1130	15.38	391	6.50	165
L600AWK, CL600NAWK	E3	57.50	1461	20.38	518	8.25	210
M800S	A1	40-3/8	1025.52	21	533.4	9-3/4	247.65
M800R	A1	40-3/8	1025.52	21	533.4	9-3/4	247.65
M800DS, M800SS	A1	40-7/8	1036.96	20-3/4	527.05	9-1/2	241.3
M800AWK	A1	40-7/8	1036.96	20-3/4	527.05	9-1/2	241.3
P1200S	A1	52-1/8	1323.98	21	533.4	9-3/4	247.65
P1200R	A1	52-1/8	1323.98	21	533.4	9-3/4	247.65
P1200AWK	A1	53	1346.20	20-3/4	527.05	9-1/2	241.3
Q23225NFC	E5	26.25	667	9.88	251	4.75	121
Q23225NRBC	E5	26.25	667	9.88	251	5.50	140
Q23225NSC	E5	26.25	667	9.88	251	4.75	121



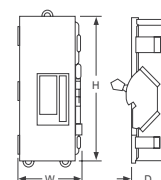
Type 1



Type 3R



Type 7, Type 9



Type 4, 4X, 5, 12, 12K

Moulded Case Circuit Breakers

CDP Breaker Cross to Square D

CDP Connector Kits

The CDP connector kits are used to install Square D breakers into existing Federal Pioneer CDP panels and Switchboard distribution interiors that originally used branch breakers from the Horizon family.

Please note that these connector kits are designed to be applied on CDP interiors with Extruded Bus only, (except HDCMH, JDCMH, and LDCMH that can be also used on CDP interiors with Flat Bus).

Please refer to installation bulletins for detailed information on these kits.

Retrofitting or adding new Square D Breakers into CDP Interiors

Federal Pioneer Horizon Breaker	Amperage	Alternate Square D Breaker	Connector Mounting Hardware
CE Breaker	15A – 100A	15A – 150A Powerpact H ■	HDCMH
	150A – 250A	150A – 250A Powerpact J ■	JDCMH
CJL Breaker	100A – 400A	LA/LH ●	LACMH
CJM Breaker*	300A – 600A	400A-600A PowerPact L ● □	LDCMH
CK	250A – 1200A	Powerpact P ◆	PCDPCMH

- Need to be replaced in pairs, can not mount a CE breaker back to back with a PowerPact breaker. Not suitable for 100% rated and type HR, JR MCCBs.
- Available only as single mount option. Not available as a double mount or Back to back mount due to dimensional constraints.
 - Condition 1: Panel with all single row branch circuits.*
A minimum branch circuit height of 8-1/4" is required.
 - Condition 2: Panel with all double row branch circuits.*
This will require a modification to the trim to remove a section of the trim centre strip in the location where the new breaker is to be installed. A minimum branch circuit height of 9-5/8" is required and the breaker should be located where the centre strip ends. (This space includes one 1 -3/8" wide filler to support the center strip).
If the breaker must be located between two sections of a double row trim then the minimum branch circuit height required is 11". (This space includes two 1-3/8" wide fillers to support both ends of the centre strips)
- The PowerPact L-Frame breaker has an overall height of 5-1/2" but will be fitted with a Cover plate to fill the existing branch circuit space of 8-1/4".
- ◆ Available only for single mount. The CK breaker can not be replaced in existing 12X of branch circuit height, the Square D PowerPact breaker requires space with a 16X branch nominal height.
- * PowerPact L-Frame can also be used to replace Square D LC/LI/LX/LE/LXI installed in CDP panels as a replacement of CJM breakers.

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