

Mission Critical Circuit Breakers

Solutions for selectively coordinated systems



by Schneider Electric

When power availability is critical, rely on Square D Mission Critical Circuit Breakers by Schneider Electric.



Critical Power
For systems where power availability is critical



Continuity
Supports continuity of service



Flexibility
Available in many configurations

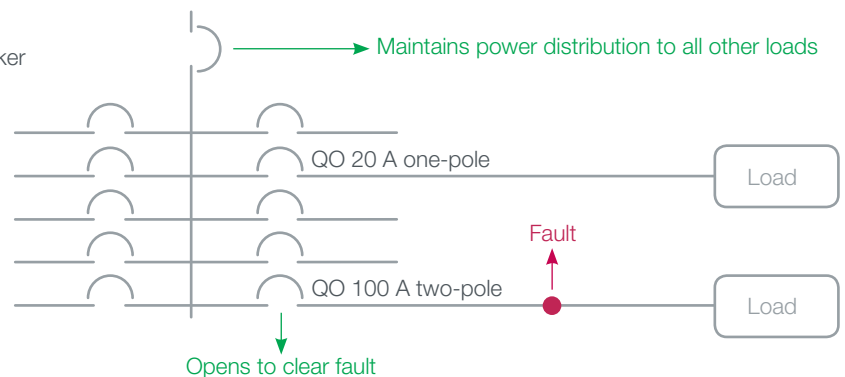


Designed for selectively coordinated systems, Square D PowerPact Mission Critical Circuit Breakers maximize continuity of the electrical service by allowing the branch circuit breaker to clear the fault.

Mission Critical Circuit Breakers are engineered to optimize current, time, and energy selectivity so the fault is cleared by the circuit breaker immediately upstream of the occurrence. This technology (Figure 1) allows the remaining areas of the electrical system to continue operating without disruption. In addition to unique design attributes, PowerPact™ Mission Critical Circuit Breakers have also undergone rigorous testing procedures to certify the coordination with downstream breakers — combining innovative engineering with validated test results.

Apply PowerPact Mission Critical Circuit Breakers in emergency power distribution systems, data centers, hospitals, or anywhere continuity of service is desired.

Figure 1
PowerPact J-Frame 250 A
Mission Critical Circuit Breaker



PowerPact J-Frame Mission Critical



The Square D™ PowerPact J-Frame Mission Critical Circuit Breaker delivers high levels of selective coordination in a flexible design that is easily configured for a variety of applications. Tested to be selectively coordinated with the QO™ family of miniature circuit breakers and the ED, EG, and EJ circuit breakers up to 18 kA fault current, this solution provides peace of mind when power availability is critical. An electronic trip unit provides adjustable long-time trip settings, allowing coverage from 70 A through 250 A on a 120 – 240 V, 208Y/120 V, 240 V, and 480Y/277 V system.

Ratings

- UL® 489 listed
- CSA® certified
- Voltage: 120 – 240 V, 208Y/120 V, 240 V, 480Y/277 V
- Trip unit settings: 70 A – 250 A

Available Configurations

- One size: 250 A
- I-Line™ panel construction
- Main breaker in NQ and NF panelboards
- Unit mount for OEM users
- Plug-in base for OEM users

AIC Ratings

	D	G	J	L
240 V	25	65	100	125
480 V	18	35	65	100

Catalog Numbering

—	J	L	L	3	4	250	w	—	—		
Brand Square D Schneider Electric	Frame J J-Frame		Terminations L Lugs Line/Load Side M Lugs Line Side P Lugs Load Side F Bus Bar A I-Line S Rear Connected N Plug-in D Drawout K Reverse I-Line	Poles 3 3P		Amperage 250 250 A		Voltage 480 Vac	Mission Critical	Trip Unit Micrologic™ Electronic Trip Units U31X LI Standard Protection U33X LSI Standard Protection U43X LSI Plus Ammeter U44X LSI Plus Ammeter U53X LSI Plus Energy Management U54X LSI Plus Energy Management	I-Line Phasing - ABC (3P) 6 CBA (3P) 1 AB (2P) 2 AC (2P) 3 BA (2P) 4 BC (2P) 5 CA (2P) 6 CB (2P)
											See AIC ratings table above

L-Frame Mission Critical



When higher levels of selective coordination in an emergency system are required, Square D PowerPact L-Frame Mission Critical Circuit Breakers provide a flexible design that is easily configured for a variety of applications. The L-Frame breaker is tested to be selectively coordinated with the QO family of miniature circuit breakers and the ED, EG, and EJ circuit breakers up to 30 kA fault current, providing peace of mind when power availability is critical. The PowerPact L-Frame trip unit has the flexibility to cover a range of amperages from 70 A to 600 A in three sensor sizes in 120 – 240 V, 208Y/120 V, 240 V, and 480Y/277 V system.

Ratings

- UL 489 listed
- CSA certified
- Voltage: 120 – 240 V, 208Y/120 V, 240 V, 480Y/277 V
- Trip unit settings: 70 A – 600 A

Available Configurations

- I-Line panel construction
- Main breaker in NQ and NF panel construction
- Unit mount for OEM users

AIC Ratings

	D	G	J	L
240 V	25	65	100	125
480 V	18	35	65	100

Catalog Numbering

—	L	L	L	3	4	250	w	—	—		
Brand Square D Schneider Electric	Frame L L-Frame		Terminations L Lugs Line/Load Side M Lugs Line Side P Lugs Load Side F Bus Bar A I-Line S Rear Connected N Plug-in D Drawout K Reverse I-Line	Poles 3 3P 4 4P		Amperage 250 250 A 400 400 A 600 600 A		Voltage 480 Vac	Mission Critical	Trip Unit Micrologic Electronic Trip Units U31X LI Standard Protection U33X LSI Standard Protection U43X LSI Plus Ammeter U44X LSI Plus Ammeter U53X LSI Plus Energy Management U54X LSI Plus Energy Management	I-Line Phasing - ABC (3P) 6 CBA (3P) 1 AB (2P) 2 AC (2P) 3 BA (2P) 4 BC (2P) 5 CA (2P) 6 CB (2P)

See AIC Ratings table above

Selective Coordination Levels

J-Frame Selectivity with QO and E-Frame Circuit Breakers¹

Circuit Breaker			Voltage	Current	One-Line Diagram
Main	Branch				
J-W, 250 A	QO(B) QO(B)-H QO(B)-VH QH	1P, 2P	10 – 30 A	240/120 V 120 V	18 kA
			35 – 60 A		15 kA
			70 – 125 A		12 kA
		3P	10 – 30 A	240 V 208 V	15 kA
			35 – 60 A		13 kA
			70 – 125 A		10 kA
J-W, 250 A	E-Frame	1P, 2P, 3P	15 – 125 A	240 V	18 kA
			15 – 60 A	480Y/277 V	10 kA
			70 – 125 A		7 kA

¹ Including AFI, CAFI, EPD, and GFI circuit breakers.

L-Frame Selectivity with QO and E-Frame Circuit Breakers¹

Circuit Breaker			Voltage	Current	One-Line Diagram
Main	Branch				
L-W, 250 A	QO(B) QO(B)-H	10 – 60 A	240 V	18 kA	
	QO(B)-VH QH	70 – 125 A		10 kA	
L-W, 400 A L-W, 600 A	QO(B) QO(B)-H QO(B)-VH QH	15 – 150 A	240 V	30 kA	
L-W, 250 A L-W, 400 A L-W, 600 A	E-Frame	15 – 125 A	240 V	30 kA	
			480Y/277 V	30 kA	

¹ Including AFI, CAFI, EPD, and GFI circuit breakers.



Go online for a smarter, more dependable way to selectively coordinate your critical systems.

Build a selectively coordinated system with the new Schneider Electric™ Selective Coordination online tool. Using your existing one-line information, select the breakers based on either a two- or three-tier system.

- Easy to use and intuitively designed
- Includes cable data calculator
- Option to print reports or save as a PDF file
- Online convenience

Take a few minutes to test the Selective Coordination online tool.

[Click here to visit now.](#)

NEMA Breaker Selectivity Analysis Data Base Version: V1.0
Last Update Date: 8/8/2012 1:33:12 PM

Top/Source Down 2 Tier
 Bottom/Load Up 3 Tier

Help | Print Page

System Setup

Voltage: Volts

Max Rating for Square D Equipment = 200 KA @480 V

Source

Zone 1 3-Phase Source Short Circuit Amps

Zone 2 3-Phase Source Short Circuit Amps

Zone 3 3-Phase Source Short Circuit Amps

Load

Breaker Selection

Poles:

Size:

Breaker:

Zone 1

Fault Current Entry Method: Cable Data Manual

Cable Data: Copper in Plastic, THHW

Size: #Runs: #Length (F):

Fault Current (RMS Sym Amps):

Zone 2

Fault Current Entry Method: Cable Data Manual

Cable Data: Copper in Plastic, THHW

Size: #Runs: #Length (F):

Fault Current (RMS Sym Amps):

Zone 3

Fault Current Entry Method: Cable Data Manual

Cable Data: Copper in Plastic, THHW

Size: #Runs: #Length (F):

Fault Current (RMS Sym Amps):





Find out more

For more information about Mission Critical Circuit Breakers, visit www.schneider-electric.us/go/MissionCritical



Explore the PowerPact Circuit Breakers 3D Interactive Model!

[Click here](#) or scan this QR code with your smartphone to download the iTunes® 3D Interactive Model app.

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