

NQ and NF Panelboards

Solutions for selectively coordinated systems



by Schneider Electric

NQ/NF selectively
coordinated
panelboards –
simple to select
and easy to specify.



Critical Power
For systems where power
availability is critical



Continuity
Supports continuity
of service



Flexibility
Available in many
configurations



Square D™ NQ and NF panelboards by Schneider Electric are recognized as the market-leading brand. As the leader, Schneider Electric has developed a fully selectively coordinated panelboard solution that saves time by being simple to select and easy to specify.

The construction design process is complicated, involving many revisions of load requirements. NQ/NF panelboards keep this process simple with the availability of the J and L-Frame Powerpact Mission Critical breakers. The new Mission Critical breakers allow total selective coordination via innovative differentiation between downstream breaker let-through and fault current. This new technology is available in LI/LSI trip unit configuration which allows scalability and flexibility for customers. Applying Mission Critical breakers as a main in NQ/NF panelboards provides up to 18kA (J-Frame) and 30 kA (L-Frame) fault current when a system study has been conducted.

Tested to be selectively coordinated with the QO family of miniature circuit breakers and the ED, EG, and EJ circuit breakers, 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 600 A on a 120–240 V, 208Y/120 V, 240 V, and 480Y/277 V system. In conjunction with the QO/E family of branch breakers, the PowerPact® J and L-Frame Mission Critical circuit breaker delivers full selective coordination downstream of Square D low voltage general purpose (LVGP) transformers from 15kVA to 225 kVA .

Use NQ/NF to Meet NEC Mandate

Selective coordination is mandatory per the NEC for the circuit paths of vital loads on specific systems, including:

- Elevators, Dumbwaiters, Escalators, Moving Walks, Platform Lifts, and Stairway Chairlifts 620.62
- Emergency Systems: Article 700.27
- Legally Required Standby Systems: Article 701.18
- Critical Operations Power Systems (COPS): Article 708.54

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	E-Frame	15 – 125 A	240 V	30 kA	
			480Y/277 V	30 kA	

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

AIC Ratings

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

NQ Panelboard with Mission Critical Breakers



Ratings

- Voltage systems: 208Y/120 V
- 70 A through 600 A main circuit breaker
- 150 A maximum branch circuit breakers
- Fully rated: 22,000 A short circuit current ratings (SCCR) maximum
- Series rated: 30,000 A SCCR maximum

Standards

NQ circuit breaker panelboards are designed, manufactured and tested to comply with the following standards:

- UL 67 – Standard for Panelboards
- UL 50 – Enclosures for Electrical Equipment
- NEMA PB 1 – Panelboards
- NFPA 70 – National Electrical Code® (NEC®)
- Federal Specification W-P-115C Type I Class 1- Circuit Breaker Panelboards
- IBC, NFPA 5000, ASCE7 – Seismic Qualification

Features

- Fully- and series-rated systems are available
- Expanded trim cutouts allow ease of access to trip-unit dials for adjusting selective coordination settings
- Interiors are field convertible to top or bottom feed
- Interiors supplied with plated copper bus as standard
- Interiors accept bolt-on and plug-on branch QO® circuit breakers
- Visi-Trip® indication on branch circuit breakers
- Suitable for use as service entrance equipment
- Mono-Flat® front or hinged trims
- 20 in. wide x 8.75 in. deep enclosures

Factory Options

- Main breaker with three sensor sizes: 250 A, 400 A and 600 A
- Main lug interior rated: 100 A, 225 A, 400 A and 600 A
- Optional 200% rated neutrals up to 400 A
- Feed-through lugs
- Sub-feed lugs
- SPD with 80,000 through 240,000 surge current rating
- Type 1 enclosure
- Factory assembled only

NF Panelboard with Mission Critical Breakers



Ratings

- Voltage systems: 480Y/277V
- 70 A through 600 A main circuit breaker
- 125 A maximum branch circuit breakers
- Fully rated: 22,000 A short circuit current ratings (SCCR) maximum
- Series rated: 30,000 A SCCR maximum

Standards

NF circuit breaker panelboards are designed, manufactured, and tested to comply with the following standards:

- UL 67 – Standard for Panelboards
- UL 50 – Enclosures for Electrical Equipment
- UL Listed Class CTL panelboard
- CSA C22.2, No. 29-M1989 – Panelboards and Enclosed Panelboards
- CSA C22.2, No. 94-M91 – Special Purpose Enclosures
- NEMA PB 1 – Panelboards
- NFPA 70 – National Electrical Code® (NEC®)
- Federal Specification W-P-115C Type I Class 1 – Circuit Breaker Panelboards
- 2003 IBC, NFPA 5000, ASCE/SE17 – Seismic Qualification

Features

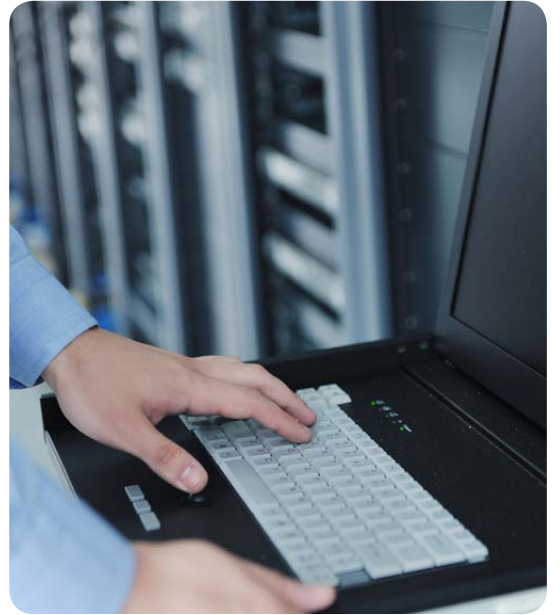
- Fully- and series-rated systems are available
- Expanded trim cutouts allow ease of access to trip-unit dials for adjusting selective coordination settings
- Interiors are field convertible to top or bottom feed
- Interiors supplied with plated copper bus as standard
- Interiors accept bolt-on E-frame circuit breakers
- Visi-Trip® indication on branch circuit breakers
- Suitable for use as service entrance equipment
- Mono-Flat® front or hinged trims
- 20 in. wide x 8.75 in. deep enclosures

Factory Options

- Main breaker with three sensor sizes: 250 A, 400 A and 600 A
- Main lug interior rated: 100 A, 225 A, 400 A and 600 A
- Optional 200% rated neutrals up to 400 A
- Feed-through lugs
- Sub-feed lugs
- SPD with 100,000 through 240,000 surge current rating
- Type 1 enclosure
- Factory assembled only

Applications

- > Healthcare, data centers and commercial buildings with emergency and standby systems
- > New construction, renovations and expansions requiring critical operations power systems





Find out more

Click here for more information about NQ/NF Panelboards.



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.

Schneider Electric USA

1415 S. Roselle Road
Palatine, IL 60067
Tel: 847-397-2600
Fax: 847-925-7500
www.schneider-electric.com