

# *NQ, NF, I-Line® and QMB Panelboard Products*

Reliable, Versatile and  
Convenient Solutions



# Square D<sup>®</sup> Panelboard Family

*Developed with customer input, Square D panelboards are built to last, featuring design innovations that make these products easy to install. Supported by the largest distribution, sales and service organization in the industry, Square D panelboards are readily available to meet the needs of contractors, consultants and end-users.*

Application					
	Commercial	Industrial	O.E.M.	Utility	Residential
<b>NQ</b>	<ul style="list-style-type: none"> <li>• Schools/Universities</li> <li>• Public Buildings</li> <li>• Restaurants</li> <li>• Strip Malls</li> <li>• Hotels/Motels</li> <li>• Nursing Homes</li> </ul>	<ul style="list-style-type: none"> <li>• Hospitals</li> <li>• Factories</li> <li>• Chemical Plants</li> <li>• Water Treatment Plants</li> </ul>	<ul style="list-style-type: none"> <li>• Computer Power</li> <li>• HVAC</li> <li>• Panelboard Assemblers</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment Rooms</li> <li>• Municipal Water/Wastewater Facilities</li> </ul>	<ul style="list-style-type: none"> <li>• High-Rises</li> <li>• Apartments</li> <li>• Duplexes</li> </ul>
<b>NF</b>	<ul style="list-style-type: none"> <li>• High Bay Lighting</li> <li>• Shopping Malls</li> <li>• Office Buildings</li> </ul>	<ul style="list-style-type: none"> <li>• Automotive</li> <li>• Refineries</li> <li>• Textile Mills</li> <li>• Wastewater Treatment Plants</li> </ul>	<ul style="list-style-type: none"> <li>• Integrated Generator Enclosures</li> <li>• Panelboard Assemblers</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment Rooms</li> <li>• Power Generation Facilities</li> <li>• Municipal Water/Wastewater Facilities</li> </ul>	—
<b>I-Line</b>	<ul style="list-style-type: none"> <li>• Office Buildings</li> <li>• Strip Malls</li> <li>• Retail Stores</li> <li>• Grocery Stores</li> <li>• Nursing Homes</li> </ul>	<ul style="list-style-type: none"> <li>• Automotive</li> <li>• Paper Mills</li> <li>• Hospitals</li> <li>• Factories</li> </ul>	<ul style="list-style-type: none"> <li>• Panelboard Assemblers</li> <li>• HVAC</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment Rooms</li> <li>• Power Generation Facilities</li> </ul>	—
<b>QMB</b>	<ul style="list-style-type: none"> <li>• Strip Malls</li> <li>• Retail Stores</li> <li>• Grocery Stores</li> </ul>	<ul style="list-style-type: none"> <li>• Automotive</li> <li>• Manufacturing Facilities</li> <li>• Refineries</li> <li>• Textiles</li> </ul>	<ul style="list-style-type: none"> <li>• Food Service Industry</li> <li>• Panelboard Assemblers</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment Rooms</li> <li>• Power Generation Facilities</li> </ul>	—

Product Table						
Features	NQ	NF	Column-Width		I-Line	QMB
			NQ	NF		
AC Voltage (max)	240	600Y/347	240	600Y/347	600	600
DC Voltage (max)	48	—	—	—	250	250
Main Device Amps (max)	600	600	225	225	1200	800
Main Lugs Amps (max)	600	800	225	225	1200	1600
SCCR Amps x 1000 (max)	200	200	65	200	200	200
Plug-On/Bolt-On Branch	Both	Bolt	Bolt	Bolt	Plug	Plug
Top or Bottom Feed	Yes	Yes	Yes	Yes	Yes	Yes
UL and cUL Service Equipment	Yes	Yes	Yes	Yes	Yes	Yes
Enclosure Types	1, 3R, 4, 4X, 5, 12	1, 3R, 4, 4X, 5, 12	1	1	1, 3R, 4, 4X, 5, 12	1, 3R, 4, 4X, 5, 12

# NQ and NF Lighting Panelboards



*The NF and NQ families of lighting panelboards have been redesigned to meet the evolving needs of our customers. Easier to install, improved availability and greater installation flexibility all combine to make these panels state of the art in lighting panelboards.*

## NF and NQ Panelboard Improvements

- 66, 72 and 84 circuit interiors that fit in a single enclosure that will be allowed by the 2008 National Electric Code® (NEC®)
- 50% fewer enclosures to reduce complexity and installation errors
- Common trims for NF and NQ to simplify inventory
- Simplified and more pictorial installation instructions to save installation time
- Broad range of new, field-installable, ready-to-install kits available from local distributor stock:
  - NQ: Thru-feed and sub-feed lugs
  - NQ: Sub-feed circuit breakers
  - NF and NQ: Transient Voltage Surge Suppression (TVSS) interiors
  - NF and NQ: 200% neutrals
  - NF and NQ: Copper neutrals and ground
- NF and NQ: 6", 12" and 18" rail and dead front extension
- Plastic filler plates in place of "twist-outs" to reduce branch circuit breaker installation time

**Designed with extensive customer input**

## Available Branch Circuit Count in a Single Enclosure

	18	30	42	54	*66	*72	*84
NQ	X	X	X	X		X	X
NF	X	X	X	X	X		X

\* Available in U.S. locations that have adopted the 2008 National Electrical Code





# NQ Lighting Panelboards



*Developed with electrical contractor input, the NQ family of lighting and appliance panelboards sets new standards for ease of installation and durability. Plus, new design innovations increase the availability of these panelboards by offering complete ready to install products.*

## Features

- 240Vac, 48Vdc maximum
- 600A maximum main circuit breakers or main lugs
- 150A maximum branch circuit breakers
- 10,000A through 200,000A SCCR
- Both fully rated and series rated systems are available
- Interiors are field convertible to top or bottom feed
- Interiors are available in plated copper or aluminum bus
- Interiors accept both bolt-on and plug-on branch circuit breakers
- Complete line of UL/cUL listed interiors with 200% rated neutrals for non-linear loads
- Suitable for use as service entrance equipment
- 20" wide trims and boxes common for NQ and NF panelboards
- Mono-flat® or hinged trims

## Factory Options

- 1P3W or 3P4W – 600A main lugs and main breaker panelboards
- Sub-feed and thru-feed lugs
- Sub-feed circuit breakers
- Optional 200% rated neutrals up to 400A
- Split bus bars
- TVSS
  - 100,000A – 240,000A surge current rating
  - All voltage systems
- Lighting contactors
- Customer equipment space

## “Ready-to-Install” Panels and Kits Available from Stock

- 100A – 600A MLO 1P3W and 3P4W Interiors
- NEMA 1 and 3R/12 enclosures
- 100A – 400A main circuit breaker kits
- TVSS interiors
  - 120,000A or 160,000A surge current ratings
- 100A – 400A sub-feed and thru-feed lugs
- Sub-feed circuit breaker kits
  - 1 – 225A sub-feed circuit breaker per 225A panelboard
  - 2 – 225A sub-feed circuit breakers per 400A panelboard
- 200% neutral kits up to 400A
- Copper neutrals and equipment ground bars





# NF Lighting Panelboards



*The NF panelboard offers superior performance and application flexibility for commercial and industrial electrical systems up to 600Y/347Vac. This versatile lighting and power distribution panelboard features a wide selection of circuit breakers, accessories and ready-to-install kits, as well as 200% rated neutrals for non-linear loads.*

## Features

- 600Y/347Vac maximum
- 600A maximum main circuit breaker, 800A maximum main lugs
- 14,000A through 200,000A SCCR
- Sub-feed circuit breakers are vertically mounted
- 125A maximum branch mounted circuit breakers (110A for 600Y/347V)
- Interiors are field convertible to top or bottom feed
- Bolt-on branch circuit breakers attach with captive screws
- Visi-Trip® indication on branch circuit breakers
- Suitable for use as service equipment
- Complete line of UL/cUL listed interiors with 200% rated neutrals for non-linear loads
- 20" wide trims and boxes common for NF and NQ panelboards
- Mono-flat or hinged trims
- Vertically mounted main breakers available, all amperages
- Branch circuit filler plates provide fast and easy installation

## Factory Options

- 1P3W or 3P4W – 800A main lugs and 600A main breaker panelboards
- Sub-feed and thru-feed lugs
- Sub-feed circuit breakers
- Optional 200% rated neutrals through 600A
- Split bus bars
- TVSS
  - 100,000A – 240,000A surge current rating
  - All voltage systems
- Lighting contactors
- Customer equipment space

## “Ready-to-Install” Panels and Kits Available from Stock

- 100A – 600A MLO 3P4W interiors
- Type 1 and 3R/12 enclosures
- 100A – 400A main circuit breaker kits
- 120,000A or 160,000A surge current ratings
- 100A – 400A sub-feed and thru-feed lugs
- Sub-feed circuit breaker kits
  - 1 – 250A sub-feed circuit breaker per 250A panelboard
  - 2 – 250A sub-feed circuit breakers per 400A or 600A panelboard
- 200% neutral kits up to 400A
- Copper neutrals and equipment ground bars



# I-Line Power Panelboards



*Our I-Line® power distribution panel is the most versatile on the market. It's used to feed NQ and NF lighting and appliance panelboards. I-Line panelboards can also feed large motors and HVAC systems.*

## Features

- 600Vac, 250Vdc maximum
- 1200A main circuit breaker or main lugs
- 1200A maximum branch circuit breaker
- 200,000A SCCR when using current limiting main or branch circuit breakers
- Fully rated and series rated systems available
- Interiors available in plated copper or aluminum bus
- Suitable for use as service entrance equipment
- Complete line of UL/cUL listed interiors with 200% rated neutrals for non-linear loads
- Sub-feed or through-feed lugs through 1200A
- Interiors accept plug-on thermal magnetic or solid state branch circuit breakers
- Interior, front and most circuit breakers only require a screwdriver for installation
- Branch circuit breaker mounting not restricted by location on bus stack
- Capable of mounting 15A branch circuit breaker across from or next to a 1200A branch circuit breaker
- Branch circuit breakers have no loose mounting hardware and install in as little as 20 seconds with only a screw driver
- Branch circuit breakers are simple to rearrange in the field, limited restrictions on mounting locations
- 100,000A – 240,000A field installable plug-in TVSS units
- Available with or without door, or with hinged trim
- Broad range of field installable kits available from stock

## Factory Options

- Split bus bar
- Sub-feed/thru-feed lugs through 1200A
- Optional 200% rated neutrals through 1200A
- Thermal-mag or solid state circuit breakers
- Plated copper or aluminum bus
- Optional customer metering with PowerLogic® power meters or circuit monitors
- Plug-in TVSS modules
- 100,000A – 240,000A plug-in TVSS
- Door in door or hinged trim
- Six circuit QO 240V plug-in distribution module
- Ground fault protection available on main or branch circuit breakers
- Current density-rated panelboard bus





# QMB Power Panelboards



*When specifications or electrical codes call for a fusible panelboard, the QMB family offers unbeatable performance and time-saving installation features. The QMB power distribution panelboard feeds motors, transformers and lighting systems.*

## Features

- 600Vac, 250Vdc maximum
- Maximum main lugs 1600A
- Maximum main switch 800A
- Fusible switches are rated for 200K RMS symmetrical amperes with appropriate Class J, L, R or T fuses installed
- Main lug or main switch interiors suitable for top or bottom feed
- Main lugs and solid neutral mounted in same compartment
- Front and branch devices simply require a screwdriver for installation
- Branch devices include 30A – 800A fusible switches, 15A – 400A circuit breakers
- Time savings during installation because switches plug on to the bus
- Visible blades provided on 30A – 800A switches provide visual verification of blade status
- Fuse pullers provided on 30A – 100A switches
- Field-installable accessories include Class R fuse kits, Versa-Crimp® lugs and electrical interlocks
- 100,000A – 200,000A TVSS surge current ratings

## Fuse Selection Guide for Main and Branch Switches

UL Class	Voltage	Ampere Ratings	AIC	Fuse Type	Loads
H	600V	1 – 600A	10,000A	One-time	Miscellaneous loads
J	600V	1 – 600A	200,000A	Time-delay	Motors, welders, etc.
J	600V	1 – 600A	200,000A	Fast-acting	Non-motor loads
L	600V	601 – 800A	200,000A	Time-delay	All type loads
L	600V	601 – 800A	200,000A	Fast-acting	Non-motor loads
RK1	600V	1 – 400A	200,000A	Dual element time-delay	All type loads
RK1	600V	401 – 600A	100,000A	Dual element time-delay	All type loads
RK5	600V	1 – 400A	200,000A	Dual element time-delay	Motors, welders, transformers
RK5	600V	401 – 600A	100,000A	Dual element time-delay	Motors, welders, transformers
T	600V	1 – 800A	200,000A	Fast-acting	Non-motor loads



Features	Panelboard Types					Benefits
	NQ	NF	Column-Width	I-Line	QMB	
Complete ready-to-install product offering	Yes	Yes	Yes	Yes	Yes	Products available from local distributor stock
Main circuit breaker ready-to-install kits	Yes	Yes	—	—	—	Creates flexible inventory
Vertically mounted main breakers available	Yes	Yes	Yes	Yes	—	Allows quick main breaker identification as a result of vertical handle motion
Field installable cULus listed 200% neutral for non-linear loads	Yes	Yes	—	Yes	—	Field installable 200% neutral now available
Plug-on and bolt-on branches	Both	Bolt-on	Bolt-on	Plug-on	—	Allows flexibility in breaker selection which eliminates duplicate stock
Branch breakers equipped with captive hardware	Yes	Yes	Yes	Yes	Yes	Saves time, keeps screws from getting lost
Ready-to-install hinged trim option	Yes	Yes	—	Yes	—	Provides economical alternative to door-in-door construction
Simple enclosure mounting	Yes	Yes	Yes	Yes	Yes	Reduces installation time and eliminates hardware required
Field convertible from bottom to top feed	Yes	Yes	Yes	Yes	Yes	Allows flexibility for installation
Plated bus as standard	Yes	Yes	Yes	Yes	Yes	Provides for superior bus to breaker electrical connection
Galvanized box	Yes	Yes	Yes	Yes	Yes	Provides superior corrosion resistance
Direct connection between branch device and bus	Yes	Yes	Yes	Yes	Yes	Eliminates additional connections, saving installation time
Push-to-trip feature	—	—	—	Yes	—	Provides convenient means to periodically test the breaker
Visi-Trip® indication	Yes	Yes	Yes	—	—	Provides positive indication of a tripped breaker
Split neutral	Yes	Yes	—	—	—	Allows uniform branch wire termination, reducing waste
Dual cover interlocks	—	—	—	—	Yes	Prevents opening of cover when switch is ON or turning switch to ON while cover is open. Interlocks may be manually overridden
True blade and jaw construction	—	—	—	—	Yes	Provides a firm electrical connection
Dual colored operating handles	—	—	—	—	Yes	Allows for quick visual inspection of switch handle for ON or OFF indication (red and black handle)

Federal Specifications	Descriptions
W-C-375B/GEN	Molded Case Circuit Breakers
W-C-865C	Fusible Switches
W-P-115B Type I Class I	Circuit Breaker Panelboards
W-P-115B Type II Class I	Fusible Switch Panelboards

Codes	Descriptions
NEC Article 384	Panelboards
NFPA 70	National Electrical Code (NEC)
2003 IBC, NFPA 5000, ASCE/SE17	Seismic Qualification

Standards	Descriptions
UL 50	Enclosures for Electrical Equipment
UL 67	Panelboards
UL 98	Enclosed and Deadfront Switches
UL 489	Molded Case Circuit Breakers
NEMA AB 1	Molded Case Circuit Breakers and Molded Case Switches
NEMA KS 1	Enclosed Switches
NEMA PB 1	Panelboards
NEMA 250	Enclosures for Electrical Equipment
C22.2 No.4	Enclosed Switches
C22.2 No.5	Moulded Case Circuit Breakers
C22.2 No.29	Panelboards and Enclosed Panelboards
C22.2 No.94	Special Purpose Enclosures

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