NQ Circuit Breaker Panelboards

Catalog
1640CT0801
2008
Class 1640

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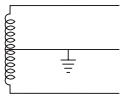
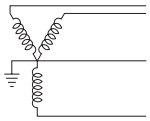
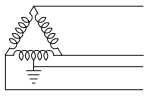
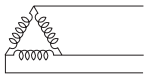
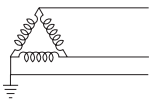
Standards and Ratings

Voltage	System	System Diagram
120/240 Vac	1ϕ3W	
208Y/120 Vac	3ϕ4W	
240/120 Vac	3ϕ4W Delta	
240 Vac	3ϕ3W Delta	
240 Vac	3ϕ3W Grd. Bϕ Delta	

NQ circuit breaker panelboards meet US and Canadian standards, and are marked cULus. NQ circuit breaker panelboards accept QO® and QOB branch circuit breakers.

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
- 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

Ratings

- Main Lugs 100–600 A
- Main Circuit Breaker 100–600 A

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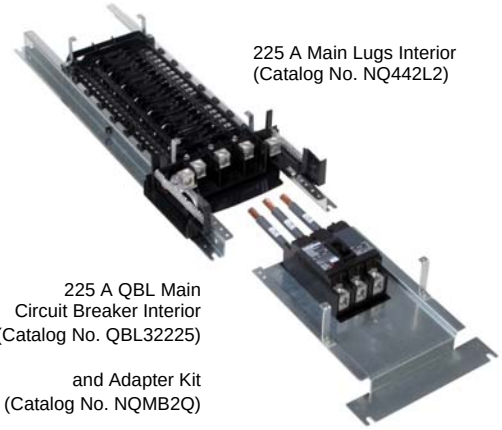
Interiors



225 A Main Lugs Interior
(Catalog No. NQ442L2)

225 A QBL Main
Circuit Breaker Interior
(Catalog No. QBL32225)

and Adapter Kit
(Catalog No. NQMB2Q)

Deadfront Removed

Deadfront Installed

Main Circuit Breaker Interiors

100 A QOB Interior

225 A QBL Interior

- Will accept plug-on or bolt-on branch circuit breakers.
- Merchandised main circuit breaker interiors are suitable for use as service entrance (US only).
- Service entrance barriers are required and available in Canada (factory-assembled only).
- Top- or bottom-feed.
- 65k AIR maximum branch circuit breakers (fully-rated).
- 200k AIR maximum when supplied by I-Limiter circuit breaker (series rated).
- Available with silver-plated copper or tin-plated aluminum bus (aluminum is standard). Tin-plated copper bus is available as an option. Branch connector fingers are all tin-plated copper; silver-plated branch connector fingers are optional.
- 100 A main circuit breaker interiors use a standard main lug interior and an appropriate QOB or QOB-VH main circuit breaker in a branch space; vertical main breaker main breaker interiors are also available.
- 110-225 A main circuit breaker interior consists of:
  - — Standard main lug interior.
  - — Main circuit breaker adaptor kit (NQMB2Q, NQMB2HJ or NQMB2KI).
  - — Appropriate QBL, QDL, QGL, QJL, HDL, HGL, HJL, HLL, JDL, JGL, JJL, JLL, or KIL circuit breaker.
- 250 A main circuit breaker interiors are factory-assembled only.
- 400 A main circuit breaker interiors consist of:
  - — Standard main lug interior
  - — Main circuit breaker adapter kit (Catalog No. NQMB4LA)
  - — Appropriate LAL or LHL circuit breaker
- 600 A main circuit breaker interiors (factory-assembled only) consist of:
  - — Appropriate LCL or LIL circuit breaker

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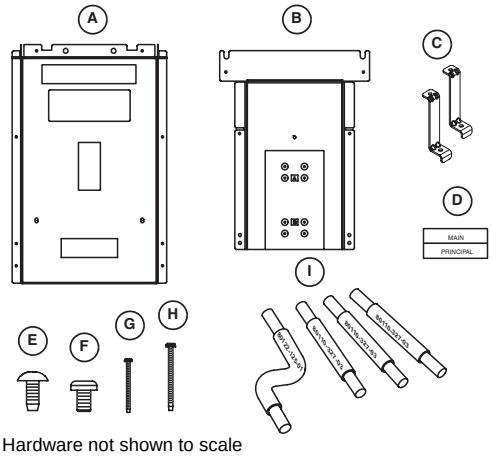
Main Circuit Breaker Adapter Kits
(Order Circuit Breaker Separately)



Hardware not shown to scale

NQMB2Q
Kit Contents

A. Main circuit breaker deadfront cover (1)
B. Main circuit breaker mounting pan (1)
C. Deadfront support brackets (2)
D. “Main” circuit breaker label (1)
E. 10-32 x 7/16-inch tapping screws (2)
F. 10-32 x 5/16-inch tapping screws (6)
G. 8-32 x 2 ¼-inch tapping screws (2)
H. 8-32 x 3 ¼-inch tapping screws (2)
I. Main lug wires (4)

Table 1: Main Circuit Breaker Adapter Kits

Catalog No.	Ampere Rating	Main Circuit Breaker
NQMB2Q	100–225 A	QBL, QDL, QGL, QJL
NQMB2HJ	100–225 A	HDL, HGL, HJL, HLL, JDL, JGL, JJL, JLL
NQMB2KI	110–225 A	KIL
NQMB4LA	125–400 A	LAL, LHL

Main circuit breakers are not included in the adapter kits, order separately.

Table 2: Main Circuit Breakers

Max. Amperes	Circuit Breaker Type
100 A	QOB[1], QOB-VH[a], or FIL
150 A	HDL, HGL, HJL, or HLL
225 A	QBL, QDL, QGL, QJL, JDL, JGL, JJL, JLL, or KIL
250 A[2]	JDL, JGL, JJL, JLL, or KIL
400 A	LAL or LHL
	LC/LI/LX/LXI/LE[b]
600 A	LC/LI/LX/LXI/LE[b]

1 Backfed main circuit breaker

2 Factory assembled only

Table 3: Additional Main Circuit Breaker Information

Ampere Rating	Circuit Breaker Type	Circuit Breaker Catalog Section Class
100	QOB	730
	FIL	820
150	HDL, HGL, HJL, HLL	611
225/250	QBL, QDL, QGL, QJL	734
	JDL, JGL, JJL, JLL	611
	KIL	825
400	LAL, LHL	660

Field-Installable Circuit Breaker Accessories

Field-installable shunt trip, alarm switch, and auxiliary contacts are available for LAL 400 A main circuit breaker interiors. Refer to the Square D Digest for additional information.

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225 A Maximum Main Lug Interior and Deadfront

100–225 A Maximum 600 A Maximum

Main Lug Interiors

Type VCEL VERSAtile™ Compression Equipment Terminals

Main Lug Interiors

- Will accept plug-on or bolt-on branch circuit breakers.
- Top- or bottom-feed.
- 65k AIR maximum branch circuit breakers (fully-rated).
- 200k AIR maximum when supplied by remote I-Limiter® circuit breaker (series rated).
- 100 A and 225 A interiors are suitable for use as service entrance with back-fed QOB circuit breaker (USA only).
- Field-installable sub-feed lug kits for 100–400 A interiors.
- Factory installed main lugs on all interiors.
- 225–400 A main lug interiors are convertible to main circuit breaker by adding a main circuit breaker and adapter kit.
- Available with silver-plated copper or tin-plated aluminum bus (aluminum is standard). Tin-plated copper bus is available as an option. Branch connector fingers are all tin-plated copper; silver-plated branch connector fingers are optional.

Main lugs for MLO Interiors

Table 4: Aluminum Main lugs for MLO Interiors

Amperes	Catalog Number	Lug Wire Range for wire bending space
Aluminum Mechanical		
100	standard	(1) #6-350 kcmil
225	standard	(1) #6-350 kcmil
400	standard	(1) 1/0-750 kcmil, or (2) 1/0-350 kcmil
600	standard	(2) 1/0-750 kcmil
600[1]	NQALM6A	(3) 1/0-250 kcmil
Aluminum Compression		
100	NQALV1	(1) #4-300 kcmil
225	NQALV2	(1) 250-350 kcmil
400	NQALV4	(2) 2/0-500 kcmil
600	NQALV6	(2) 2/0-500 kcmil

[1] Optional lug for 600 A. Can also be used for 400 A.

Table 5: Copper Main lugs for MLO Interiors

Amperes	Catalog Number	Lug Wire Range for wire bending space
Copper Mechanical		
100	NQCUM1	(1) #6-350 kcmil
225	NQCUM2	(1) #6-350 kcmil
400	NQCUM4	(1) 1/0-750 kcmil, or (2) 1/0-350 kcmil
600	NQCUM6	(2) 1/0-750 kcmil
Copper Compression		
100	NQCUV1	(1) #6-350 kcmil
225	NQCUV2	(1) #6-350 kcmil
400	NQCUV4	(1) 400-750 kcmil
600	NQCUV6	(2) 250-500 kcmil

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Interior Accessories

Branch Mounted Sub-Feed Lug Kits, 240 Vac

Table 6: Branch Mounted Sub-Feed Lugs

Rating Amperes	Number of Poles	Type of Connection	Catalog No.	Main Wire Size
125	2	Bolt-On	QOB2125SL	#4-2/0 Al or Cu
	3		QOB3125SL	

Field-Installable Sub-Feed Main Lugs

225 A Main Lug Interior with Sub-Feed Lugs

- 100 A (NQSFL1)
- 225 A (NQSFL2)
- 400 A (NQSFL4)
  NOTE: Refer to the Digest for the correct box size.

Field installable Through-Feed Lugs

- 225 A (NQFLT2L) for 30 or 42 circuit interiors
- 225 A (NQFLT2H) for 54, 72 or 84 circuit interiors
- 400 A (NQFLT4H) for 30 or 42 circuit interiors or less
- 400 A (NQFLT4L) for 54, 72 or 84 circuit interiors
  NOTE: Refer to the Digest for the correct box size.

Field Installable Sub-Feed Circuit Breaker Kits

Table 7: Field Installable Sub-Feed Circuit Breaker Catalog Numbers

Field Ampere Rating	Catalog Number	Number of Sub-Feed Circuit Breakers and Type
225	NQSFB2Q	1 Q-frame
225	NQSFB2HJ	1 H or J-frame
400	NQSFB4Q	2 Q-frame
400	NQSFB4HJ	2 H or J-frame

225 A Main Lug Interior with Feed-Through Lugs

Factory-Installed Options

- Sub-Feed Lugs are available on 1ϕ or 3ϕ, 100–400 A main lug interiors only.
- Feed-Through Lugs are available on 1ϕ or 3ϕ 225–600 A main lug, or 225–600 A main circuit breaker interiors.
- Sub-Feed Circuit Breakers
  - — Available on 1ϕ or 3ϕ main lugs 225–600 A, or main circuit breaker interiors 225–600 A.
  - — One sub-feed circuit breaker for each 225 A panelboard.
  - — Two sub-feed circuit breakers for each 400–600 A panelboard.
  - — Sub-feed circuit breakers may be type HDL, HGL, HJL, HLL, QBL, QDL, QGL, QJL, JDL, JGL, JJL, OR JLL circuit breakers.

Other Accessories Available:

- Split bus
- Lighting contactors
- Compression lugs
- Copper bus
- Phenolic nameplates

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Branch Circuit Breakers (Bolt-on)

Table 8: Branch Circuit Breakers (Plug-on or Bolt-on) [1]

10 k AIR	22 k AIR	65 k AIR	10 k AIR (240 Vac)	42 k AIR
QO, QOB	QO-VH, QOB-VH	QH, QHB	QO-H, QOB-H	QOH
1-Pole 10–70 A	1-Pole 15–30 A	1-Pole 15–30 A	2-Pole 15–100 A	2-Pole 35–125 A
2-Pole 10–125 A	2-Pole 15–150 A	2-Pole 15–30 A		
3-Pole 10–100 A	3-Pole 15–150 A	3-Pole 15–30 A		

[1] Series ratings are also available. Canada: See the Series Rating Guide (data bulletin #S1600PD0302EP) USA: See Switchboard/Panelboard Short-Circuit Current Ratings (data bulletin #2700DB9901), or the Digest

QOB Branch Circuit Breakers

QO Branch Circuit Breakers

Table 9: Branch Circuit Breaker Interrupting Data

Circuit Breaker Catalog Prefix	Max. Vac Rating	Number of Poles	Ampere Rating	Interrupting Rating— RMS Symmetrical Amperes		
				Vac		
				120	120/240	240
QO, QOB	120/240	1	10-70	—	10k	—
	120/240	2	10-125	—	10k	—
	240	3	10-100	—	—	10k
QO-H, QOB-H	240	2	15–125	—	—	10k
QO-VH	120/240	1	15–30	—	22k	—
	120/240	2	15–125	—	22k	—
	240	3	15–100	—	—	22k
QOB-VH	120/240	1	15–30	—	22k	—
	120/240	2	15–150	—	22k	—
	240	3	15–150	—	—	22k
QOH-QOHB	120/240	2	35–125	—	42k	—
QH QHB	120/240	1	15–30	—	65k	—
	120/240	2	15–30	—	65k	—
	240	3	15–30	—	—	65k

Table 10: Additional Branch Circuit Breaker Information

Circuit Breaker Type	Circuit Breaker Catalog Class
QO, QOB	730
QO-AFCI	760
QO-GFI, QOB-GFI	910

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QO® Arc-Fault Circuit Breakers[1]

QO arc-fault circuit breakers provide branch feeder protection (i.e., QO115AFI) or combination protection (i.e. QO115CAFI) as required by the NEC and local code adoption, and comply with UL 1699.

Table 11: QO Arc-Fault Circuit Breaker Catalog Numbers

Circuit Breaker Type	Ampere Rating	1P 120 Vac 10 kAIR 1 Space Required	1P 120 Vac 22 kAIR 1 Space Required
		Catalog Number	Catalog Number
Branch Feeder Arc-Fault Interrupter	15	QO115AFI	QO115VHAFI
	20	QO120AFI	QO120VHAFI
Combination Arc-Fault Interrupter	15	QO115CAFI	QO115VCAFI
	20	QO120CAFI	QO120VHCAFI

Table 12: Branch Circuit Breaker Lug Data

Ampere Rating	Circuit Breaker Type	Wire Size	
		Aluminum	Copper
10–30	QO, QOB	(2) #12-#8	(2) #14-#8
35–50	QO, QOB	(1) #8-#4	(1) #8-#4
60–70	QO, QOB	(1) #6-#2	(2) #6-#2
80–125	QO, QOB	(1) #4-2/0	(1) #4-2/0
150	QOB-VH	(1) #4-300 kcmil	(1) #4-300 kcmil

NOTE:

- Lugs suitable for 75° C wire.
- Torque QOB connector mounting screws to 18–21 lb-in.
- Torque labels are included on the circuit breakers with load side lug torque requirements.

[1] HACR type for use with air conditioning, heating and refrigeration equipment having motor group combinations and marked for use with HACR type circuit breakers.

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Neutrals

100–225 A Neutral Assembly

- All lugs suitable for copper or aluminum wire.100–600 A interiors have split neutral located on same end as mains.
- Bondable for use as service entrance (in Canada, available as factory-assembled only).
- Branch terminals suitable for #12-#4 aluminum and #14-#4 copper.
- Provisions for larger branch terminal lugs with use of auxiliary neutral lugs.
- Suitable lug provided on neutrals for termination of grounding conductor.
- All unused neutral terminals may be used to terminate equipment grounding conductors when panelboard is used as service entrance.
- 100% rated neutrals. One neutral termination provided per circuit in panelboard.
- 200% rated neutrals are available as factory-assembled options or as kits.

Table 13: Field Installable Copper 100% Neutral Kits

Amperes	Catalog Number
100	NQN1CU
225	NQN2CU
400/600[1]	NQN6CU

[1] Not for use with 600 sub-feed lugs, feed-through lugs, or sub-feed circuit breaker

Table 14: Field Installable 200% Neutral Kits

Amperes	Catalog Number
100	NQNL1
225	NQNL2[1]
400	NQNL4[2]

[1] Use NQNL2ACCY when installing on a 225A panel with SFL, SFB, or TFL.

[2] Not to be used with SFL, FTL, or SFB. These combinations are factory-assembled only.

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225 A Interior with Sub-Feed Lugs

200% Neutral Restrictions

225 A, 200% Neutral

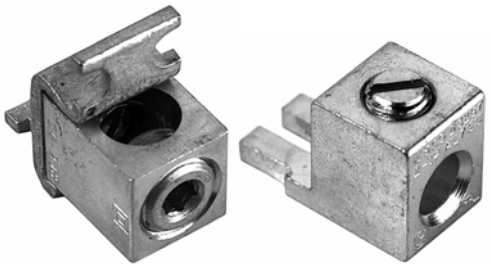
- Integral lighting contactors are not available.
- Crimp neutral line lugs are not available.
- If sub-feed lugs, feed-through lugs, or sub-feed circuit breakers are required, order the following 200% neutral kit: NQNL2ACCY

400 A, 200% Neutral

- Type 3R, 5, and 12 enclosures require copper-bussed interiors.
- Sub-feed circuit breakers are available with main lug interiors in Type 1 enclosures only. Sub-feed circuit breakers are not available in Type 3R, 4, 4X, 5, and 12 enclosures.
- Using a sub-feed circuit breaker restricts standard QO and QOB branches to a maximum of 125 A.
- Integral lighting contactors are not available.
- Crimp neutral line lugs are not available.
- 400 A panelboards equipped with 200% neutrals and sub-feed lugs, feed-through lugs, or sub-feed circuit breakers are only available factory-assembled.

Auxiliary Neutral Lugs

Lugs are suitable for copper or aluminum wire and are field-installable on neutral assembly.



#10–#4 AWG
(Catalog No. QO70AN)

#1–4/0 AWG
(Catalog No. Q1150AN)

Auxiliary Neutral Lugs

Neutral Bonding Provisions

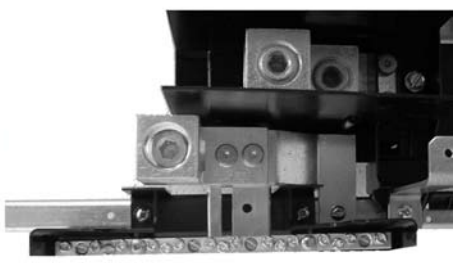
Bonding strap may be field-installed for UL service equipment requirements on 100–400 A interiors (in Canada, available as factory-assembled only).

400 A

600 A

Typical Neutral Assemblies

100–225 A Provision



400 A Provision

Neutral Bonding Provisions

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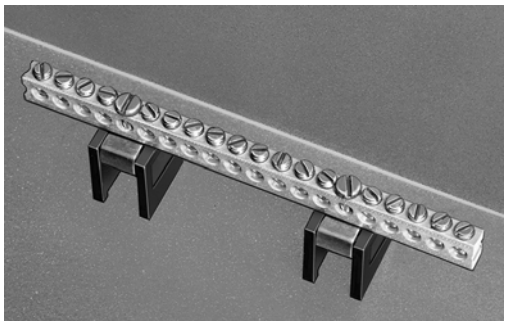
Ground Bar Kits

- Field-installable in all panelboards.
- Suitable for copper or aluminum wire.
- Provisions for mounting up to four ground bar kits per panel.

Equipment Ground Bar

Ground Bar Insulator Kit (Catalog No. PKGTAB)

The insulator kit is field installable and may be used with equipment ground bar kits. NQ panelboard enclosures have equipment ground bar mounting provisions in all four corners.



Ground Bar with Insulator Kit

Technical Information

All PK equipment grounding kits are supplied with mounting screws, necessary installation instructions, and an “Equipment Grounding Terminal” self-adhesive label.

Table 15: Ground Bar Kit Technical Information

Catalog Number	Total Qty	Terminals		Approximate Overall Length in (mm)	Distance Between Mounting Holes in (mm)
		Qty Each Size (For Wire Range see Table 16:)			
		I	II		
PK23GTAL	24	23	1	9.125 (232)	3.125 (79)
PK27GTA	27	27	—	9.125 (232)	3.125 (79)
PK27GTACU	27	27	—	9.125 (232)	3.125 (79)

Table 16: Ground Bar Kit Wire Ranges

Size	Cu	Al
I	(1) #14 to #4 or (2) #14 or #12	(1) #12 to #4 or (2) #12 or #10
II	(1) #1 to 4/0	(1) #1 to 4/0

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Surge Protection

NQ Main Lug interior with integral TVSS

The Surgelogic™ IMA series surge protective device is a modular parallel transient voltage surge suppressor (TVSS). The IMA device is a multi-stage suppression circuit consisting of field-proven, fast-acting, 34 mm metal oxide varistors (MOVs). A surge suppression path is provided for each mode, line-to-neutral (L-N), line-to-line (L-L), line-to-ground (L-G), and neutral-to-ground (N-G). Each surge suppression mode is individually fused and uses circuitry with thermal cutouts to isolate the TVSS and ensure shutdown in the event of MOV damage during severe overvoltages, even when operated on high fault current power systems. The suppression elements are encapsulated in a UL recognized potting material—another performance element that provides additional protection. A filter provides a high level of EMI/RFI noise attenuation. On-line diagnostics continuously monitor the device status, and LEDs signal loss of a suppression circuit. An audible alarm with an enable/disable feature and dry contacts are included in the standard diagnostic package.

Table 17: Surge Protection Ratings

IMA Series Voltage Specifications	UL Suppression Voltage Rating (SVR)				
Service Voltage	**L–N**	**L–G**	**N–G**	**L–L**	**MCOV [1]**
120/240 Vac, 1-phase	400	400	400	800	150
208Y/120 Vac, 3-phase, 4-wire	400	400	400	800	150
240/120 Vac, 3-phase, high-leg delta	800/400	800/400	400	1500/800	275/150

[1] MCOV: maximum continuous operating voltage

Table 18: Surge Protection Performance Features

Surge Capacity	L–N	L–G	N–G (3-phase rating)
100 kA / phase	50 kA	50 kA	100 kA
120 kA / phase	60 kA	60 kA	120 kA
160 kA / phase	80 kA	80 kA	120 kA
200 kA / phase	100 kA	100 kA	200 kA
240 kA / phase	120 kA	120 kA	120 kA

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Table 19: Surge Protection Specifications

Relative Humidity	0 to 95% non-condensing
Operating Frequency	47–63 Hz
Storage Temperature	-40° to +65° C (-40° to +149° F)
Operating Temperature	-40° to +65° C (-40° to +149° F)
Display Operating Temperature	-10° to +50° C (+14° to +122° F)
Standards	UL 1449 Second Edition: UL Category Section 37.3 (200 kA short-circuit current module rating)
Fusing	Individually fused suppression modules
Audible Alarm	Provides audible indication that there is a loss of protection
Dry Contacts	Provides remote indication of the TVSS device's operating status to a computer interface board or emergency management system

Table 20: Other Surge Protection Options

Option	Description
Surge Counter	Displays the combined total number of transient voltage surges detected from L–G, L–L, L–N, and N–G since the counter was last reset.
Remote Monitor	Displays the alarm status of the surge protective device up to 1,000 ft (305 m) away from the unit. This option uses the dry contacts.

Design Features

- Individually fused suppression modules
- Thermal cutout
- Inline, copper bus bar connection
- Solid state bi-directional
- Push-to-Test on-line diagnostic display
- Audible alarm with enable/disable switch
- LED indicators indicate loss of protection, or fully-operational circuit
- High-energy parallel design for IEEE C62.41 category A, B, and C3 applications
- Available in main circuit breaker and main lug only panelboards with sub-feed circuit breakers, feed-through lugs, or sub-feed lugs.
- AC tracking filter with EMI/RFI filtering up to -30 dB from 100 kHz to 100 MHz

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Enclosures

Interior Mounts to Box Studs

MH Box

Front (Type 1) Enclosure
for 400–600 A Interiors

Mono-Flat Front
(Type 1 Enclosure)
for 100–250 A Interiors

Indoor Enclosures

Flush Lock (standard)
(Catalog No. PK4FL)

Key NSR-251
(Catalog No. LP9618)

Sliding Vault Lock (optional)
(Catalog No. PK5FL)

Concealed Hinge
Used on 100–600 A Fronts

Indoor Enclosure Accessories

Table 21: Enclosure Types

Type	Environment	Protects Against
Type 1	Indoor	Contact with the enclosed equipment, falling dirt
Type 2	Indoor	Type 1, plus • Dripping and light splashing of non-corrosive liquids
Type 3R	Outdoor	Type 2, plus • Rain, snow, and sleet
Type 4	Indoor/outdoor	Type 3R, plus • Circulating dust, lint, fibers and flyings • Settling airborne dust, lint, fibers and flyings • Windblown dust • Hosedown and splashing water
Type 4X	Indoor/outdoor	Type 4, plus • Corrosive agents
Type 5	Indoor	Type 2, plus • Settling airborne dust, lint, fibers, and flyings
Type 12	Indoor	Type 2, plus • Circulating dust, lint, fibers, and flyings • Settling airborne dust, lint, fibers, and flyings • Oil and coolant seepage

Indoor Enclosures (Types 1 and 2)

Boxes (MH):

- Galvanized steel with removable endwalls. One is provided with knockouts and the other is blank.
- Standard box sizes:
  - — 20 in. (508 mm) wide x 5.75 in. (146 mm) deep, 600 A main lug interior max. or 400 A main circuit breaker max
  - — 20 in. (508 mm) wide x 8.75 in. (223 mm) deep, 600 A main circuit breaker interior, factory-assembled only
- Box and interior mounting instructions are found in the information manual shipped with the interior.
- Interiors mount directly to studs in the MH box. Interior mounting brackets are not required.
- Type 2 enclosure includes a driphood.
  - — Surface-mounted trim only.

  NOTE: Also available with knockouts / blank endwalls both ends.

Trims:

- Finished with gray baked enamel electrodeposited over cleaned phosphatized steel (ANSI 49).
- Flush or surface mounted (Type 2 surface only).
- Door has flush lock. Uses NSR-251 key.
- Directory card located on the inside of the door.
- Mono-Flat® trims on 100–225 A interiors mount to the interior trim with trim screws. Both trim screws and door hinges are concealed. Trims are not removable with the door closed and locked.
- Trims for 400–600 A interiors are vented and mount to the enclosure with trim screws. Door hinges are concealed.
- Optional hinged trims are available. These meet door-in-door specs.

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Type 3R, 5, and 12 Enclosure

Vault Handle with Lock
(Catalog No. PK4NVL)

Rainproof and Dusttight Enclosure

Rainproof (Type 3R) and Dusttight (Type 5 and 12) Enclosures

- Finished with gray-baked enamel electrodeposited over cleaned phosphatized galvanized steel (ANSI 49).
- Gasketed door has vault handle with lock (uses NSR-251 key).
- Directory card holder on inside of door.
- No knockouts.
- Removable drain screw for Type 3R enclosure rating.
- Trim kit (ordered separately) is required for end and side gutters.
- Provisions for two ground bars.

Corrosion-Resistant Fiberglass-Reinforced Polyester Enclosure

Corrosion-Resistant Fiberglass-Reinforced Polyester Enclosures (Type 4X)

- Watertight and dusttight.
- Gasketed door with optional locking handle.
- Directory card holder on inside of door.

Stainless Steel Enclosure

Stainless Steel Enclosures (Type 4 and 4X)

- Watertight and dust tight.
- Gasketed door with optional locking handle.
- Directory card holder on inside of door.

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Single Row (Column-Width) Panelboards

NQ Column Width Panelboard with Cable Trough and Pull Box

Ratings

- Main lugs: 100–225 A
- Main circuit breaker: 100–225 A

Enclosures

- 8.625 in. (219 mm) wide by 5.00 in. (126.95) deep for 10” WF Beams
- Galvanized Steel
- Removable endwalls
- Finish: gray-baked enamel electrodeposited over cleaned, phosphatized steel

Miscellaneous

- All lugs are suitable for 75° C copper or aluminum wire
- 60 A maximum branch circuit breaker
- Bolt-on QOB/QOB-VH/QHB circuit breakers
- Solid neutral opposite mains, second neutral in pull box

Table 22: Branch Circuit Breakers (Bolt-on) 240 Vac

10 k AIR QOB	22 k AIR QOB-VH	65 k AIR QHB
1 pole, 10-60 A	1 pole, 10-30 A	1 pole, 10-30 A
2 pole, 10-60 A	2 pole, 10-60 A	2 pole, 10-30 A
3 pole, 10-60 A	3 pole, 10-60 A	3 pole, 10-30 A

Cable Trough

- Stackable
- 8.625 in. (219 mm) wide by 5.00 in. (127 mm) deep for 10” WF Beams
- Galvanized steel trough uses enclosure end wall
- Two-piece front trim
  - 15 in. (381mm) long top piece of front trim removable for pull box mounting
- Finish: gray-baked enamel electrodeposited over cleaned, phosphatized steel
- Cable troughs are standard with a trough barrier

Table 23: Cable Troughs

Length of Cable Trough	Catalog Number
36 inch (9914 mm)	MTX836
48 inch (1219 mm)	MTX848
56 inch (1422 mm)	MTX856
66 inch (1676 mm)	MTX866

Pull Box

- Mounts on cable trough
- 20 in. (508 mm) wide by 5.00 in. (127.00 mm) deep by 15 in. (381 mm) high
- Finish: gray-baked enamel electrodeposited over cleaned, phosphatized steel
- Removable end walls with knockouts
- Solid neutral included with 42 circuits
- Pull Box catalog number MPX81542

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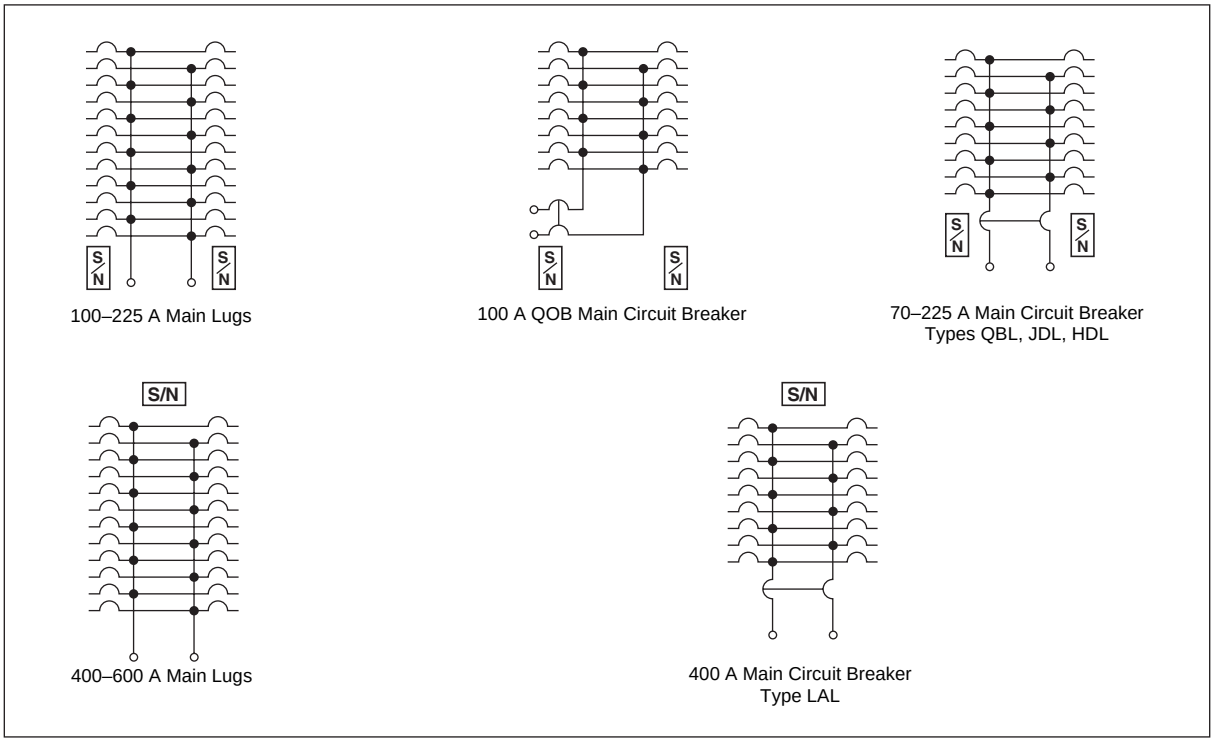
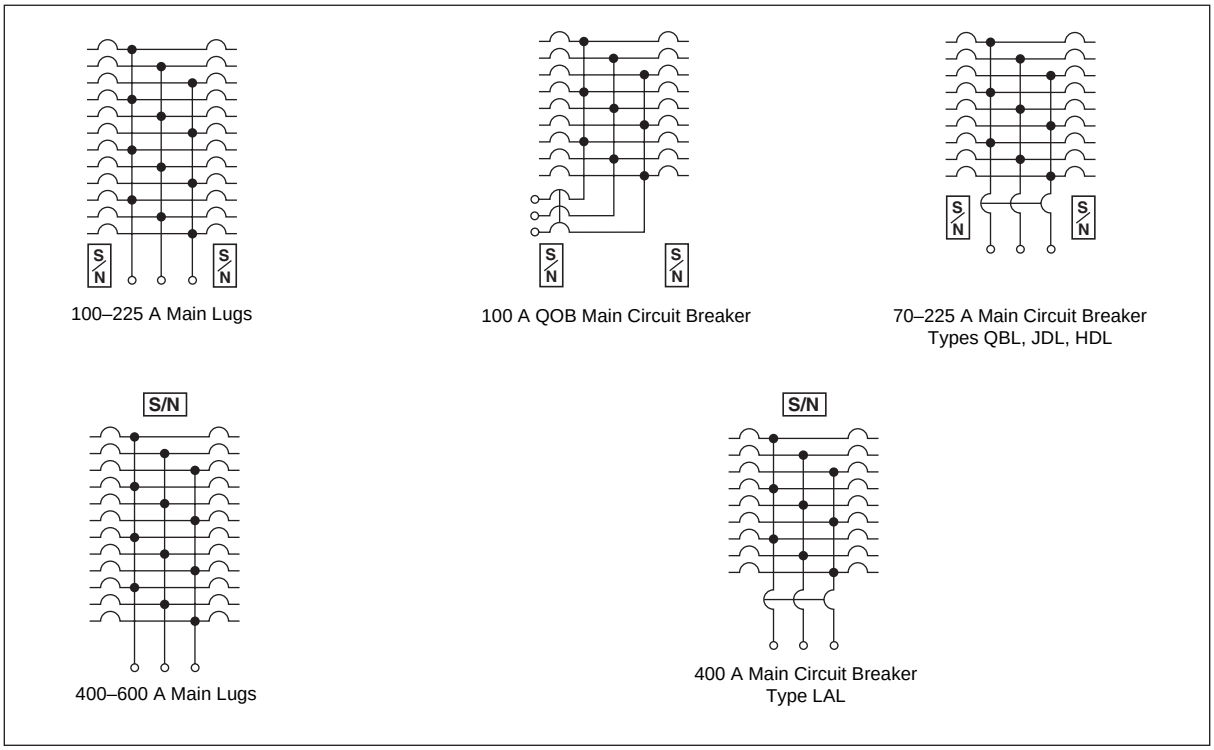
Typical Wiring Diagrams



1-Phase, 3-Wire



3-Phase, 4-Wire

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