Modular Panelboard System

Catalog

03

Class 2010

CONTENTS

a brand of Schneider Electric

SQUARE D

Modular Panelboard System

Product Description

The Modular Panelboard System consists of I-Line® power panelboards and Transformer Assemblies in full-height compartments and NQOD, NF, and NF Powerlink™ G3 lighting and appliance panelboards in stacked, full-height, or column-width compartments. The Modular Panelboard System is a compact electrical distribution equipment package that is suitable for use on ac systems. All panelboards are Underwriters Laboratories (UL®) Listed under File E33139.

To maximize flexibility, equipment space compartments with aluminum back pans are also available for the customer to mount building system equipment, such as comfort controls or lighting contactors. Standard panelboard enclosures are designed to provide easy, unobstructed access to components.

Features and Benefits

Installation and Space Savings

A variety of Modular Panelboard System configurations with stacked, full-height and column-width circuit breaker panelboards, Transformer Assemblies, and equipment space compartments are available. This new approach in modular panelboards reduces installation space and time by preconfiguring and assembling the system in vertical sections at the factory before shipment to the job site.

The Modular Panelboard System eliminates the use of connectors and conduit between power and lighting panels while shortening the service and feeder cables. The outcome is a lowered installation cost and a reduction in construction cycle time; therefore, your store or facility will open sooner, and you will derive revenue on your investment faster.

Features of the Modular Panelboard System include:

- Reduced equipment space
- Reduced installation costs
- Reduced installation time
- Reduced material handling

Modular Panelboard System

Compartmentalization

Structures are compartmentalized and built per UL and National Electrical Code® (NEC®) requirements.

Conduit Space

The structure has ample conduit space within the main and feeder sections. Stacked panelboard sections have a 9.5-inch (241 mm) depth to provide sufficient room for routing branch conductors. Branch conductors can exit out of the top or bottom of most Modular Panelboard System sections.

Modular Panelboard System

Modular Panelboard System

General and Application Information

The Modular Panelboard System consists of stacked and full-height compartments bolted together in a upright position to free up wall and floor space. The system is comprised of 86-inch (2184 mm) high vertical sections arranged according to customer requirements. Lighting panelboards may be stacked two-high maximum. Refer to the Modular Panelboard System Configurations and Ratings table beginning on page 8 to determine which interiors qualify to be stacked.

Panelboard	Description
NQOD	Contains QO(B) circuit breakers and accessories
NF	Contains ED, EG, and EJ circuit breakers and accessories
NF Powerlink G3	Contains ECB-G3 circuit breakers and accessories
I-Line	Contains I-Line circuit breakers and accessories

Equipment space compartments may contain, but are not limited to the following kinds of customer-installed building equipment.

Equipment Space	Description
Comfort controls	Used for HVAC systems
Lighting contactors	Used for lighting control systems
Building management systems	Used for power management

Typical Application

The Modular Panelboard System is suitable for use as the electrical service in the following applications:

- Retail stores/grocery stores
- Office buildings/public buildings
- Shopping malls/strip malls
- Schools/universities
- Restaurants/food service
- Hotels/motels
- Warehouses/factories
- Light manufacturing facilities
- Equipment rooms

Standards

The Modular Panelboard System is manufactured and tested to meet the following standards:

Standard	Description
UL 50	Standard for enclosures for electrical equipment
UL 67	Standard for panelboards
UL 98	Standard for enclosed and dead-front switches
UL 489	Standard for molded case circuit breakers
UL 891	Standard for dead-front switchboards
NFPA 70	National Electrical Code (NEC)
NEMA AB 1	Standard for molded case circuit breakers and molded case switches
NEMA KS 1	Standard for enclosed switches
NEMA PB 1	Standard for panelboards
NEMA 250	Enclosures for electrical equipment

The Modular Panelboard System is manufactured and tested to meet the following federal specifications:

Specification	Description
W–C 375B/GEN	Specification for molded case circuit breakers
W–P 115B Type 1 Class 1	Specification for circuit breaker panelboards

System Configurations

The Modular Panelboard System allows a variety of stacked, full-height, and column-width panelboard configurations containing NF, NQOD, NF Powerlink G3, and equipment space compartments. A full-height I-Line power panelboard or Transformer Assembly typically feeds stacked, full-height, or column-width lighting panelboard sections that can be mounted on the left, right, or both sides of the power panelboard.

Typical Modular Panelboard System

Installation Considerations

- Removable blank top endwalls can only be removed prior to bolting vertical sections together.
- Bottom trim is shortened to allow for up to 1-inch (25 mm) thick flooring material.
- Vertical sections are arranged in a manner that meets NEC and local code requirements for maximum fill of the wiring space for the service, feeder, and branch cables.
- Maximum recommended conduit stub height is 2 inches (51 mm) above the finished floor level.

MPS Layout Guidelines

To comply with the NEC wiring space requirements, Modular Panelboard System layouts shall not exceed the following guidelines:

- Interiors rated 125 A maximum—Up to six sections (12 stacked interiors) on each side of a power panel
- Interiors rated 225/250 A maximum—Up to three sections (six stacked interiors) on each side of a power panel
- Interiors rated 225/250 A maximum—Up to six full-height interiors on each side of a power panel
- Interiors rated 400 A maximum—Up to four full-height interiors on each side of a power panel
- Interiors rated 600 A maximum—Up to two full-height interiors on each side of a power panel

Notes:

- Guidelines are based on:
  - 3P4W interiors
  - Copper conductors sized at 100% of the mains rating
  - Type XHHW copper conductor
  - Conductor sized per NEC table 310.16 (75 degree table)
- The installing contractor must comply with NEC wiring space requirements and local codes as interpreted by the jurisdiction having authority (local inspector).
- For short-circuit current ratings and interrupting ratings, refer to the appropriate panelboard catalog or the *Switchboard/Panelboard Short-Circuit Current Ratings* data bulletin.

MPS Shipping Configuration Options

- MPS Bolted Together (Ahead)—Tubs are shipped ahead to the job site completely bolted together in shipping splits up to 84 in. (2134 mm) wide. Interiors and trims are shipped at a later date.
- MPS Bolted Together (Ship Tog)—Tubs are bolted together at the factory in shipping splits up to 84 in. (2134 mm) wide. Tubs, interiors, and trims are shipped to the job site as one shipment. (Interiors and trims are not factory-installed.)
- MPS Bolted Together (Ship Asy)—Tubs, interiors, and trims are completely assembled at the factory and shipped to the job site in shipping splits up to 84 in. (2134 mm) wide.

  NOTE: These systems also can be factory-wired when the power cable option is selected.
- MPS Individual Section (Ahead)—Tubs are shipped ahead to the job site as individual full-height sections. Interiors and trims are shipped at a later date. With this option, individual sections must be bolted together at the job site.
- MPS Individual Sections (Ship Tog)—Tubs are shipped from the factory as individual sections along with individual interiors and trims. With this option, individual sections must be bolted together at the job site. (Interiors and trims are not factory-installed.)

Modular Panelboard System configurations and ratings are listed below.

Modular Panelboard System Configurations and Ratings

System Voltage (Maximum)	Main	Maximum Number of One-Pole Breakers	Panelboard Location Options
NQOD Stacked			
120/240 V; 1-phase, 3-wire	100 A vertical main circuit breaker	12, 20	Top or bottom
	225 A main lug	30, 42, [54 ❖]	
208Y/120 V; 3-phase, 4-wire 240/120 V; 3-phase, 4-wire	225 A main lug	30, 42, [54 ❖]	
	100 A vertical main circuit breaker	12, 18, 24, 30	
	150 A back-fed main circuit breaker	24, 36, 42	
	225 A vertical main circuit breaker	30 (T)	
NQOD Stacked with 200% Rated Neutral			
208Y/120 V; 3-phase, 4-wire 240/120 V; 3-phase, 4-wire	100 A main lug	30	Top or bottom
	225 A main lug	30, 42, [54 (T) ❖]	
	100 A back-fed main circuit breaker	30, 42, [54 (T) ❖]	
	150 A back-fed main circuit breaker	36, [42 (T)]	
	225 A vertical main circuit breaker	30 (T)	
NQOD Full-Height ♦			
240/120 V; 3-phase, 4-wire 208Y/120 V; 3-phase, 4-wire	225/250 A vertical main circuit breaker	42, [54 ❖]	Full-height
	400 A main lug or main circuit breaker	30, 42, [54 ❖]	
	600 A main lug or main circuit breaker	30, 42, [54 ❖]	
NQOD Full-Height with 200% Rated Neutral ♦			
240/120 V; 3-phase, 4-wire	225/250 A vertical main circuit breaker	42, [54 ❖]	Full-height
	400 A main lug or main circuit breaker	30, 42, [54 ❖]	
NQOB Column-width			
208Y/120 V; 3-phase, 4-wire	100 A main lug or main circuit breaker	30	Full-height
	225 A main lug or main circuit breaker	42	
NF Stacked			
480Y/277 V; 3-phase, 4-wire	125/250 A main lug	30, 42	Top or bottom
	100 A vertical main circuit breaker	12, 18, 30	
	125 A back-fed main circuit breaker	18, 30, 42	
NF Stacked with 200% Rated Neutral			
480Y/277 V; 3-phase, 4-wire	125/250 A main lug	30, 42	Top or bottom
	100 A vertical main circuit breaker	12, 18, 30	
	125 A back-fed main circuit breaker	18, 30, 42	
NF Full-Height ♦			
480Y/277 V; 3-phase, 4-wire	250 A main lug	54 ❖	Full-height
	250 A main circuit breaker	30, 42, [54 ❖]	
	400 A main lug or main circuit breaker	30, 42, [54 ❖]	
	600 A main lug or main circuit breaker	30, 42, [54 ❖]	
NF Full-Height with 200% Rated Neutral ♦			
480Y/277 V; 3-phase, 4-wire	250 A main lug	54 ❖	Full-height
	250 A main circuit breaker	30, 42, [54 ❖]	
	400 A main lug or main circuit breaker	30, 42, [54 ❖]	
	600 A main lug or main circuit breaker	30, 42, [54 ❖]	
NF Column-Width			
480Y/277 V; 3-phase, 4-wire	100 A main circuit breaker	30	Full-height
	225 A main circuit breaker	42	
	125 A main lug	30	
	225 A main lug	42	

Modular Panelboard System Configurations and Ratings

System Voltage (Maximum)	Main	Maximum Number of One-Pole Breakers	Panelboard Location Options
NF Powerlink G3 Stacked ❑ †			
480Y/277 V; 3-phase, 4-wire	125 A back-fed main circuit breaker	42	Top or bottom
	100 A vertical main circuit breaker	30	
	225 A main lug	30, 42	
NF Powerlink G3 Full-Height ♦ ❑ †			
480Y/277 V; 3-phase, 4-wire	250 A main circuit breaker	30, 42, [54 ❖]	Full-height
	400 A main lug only or main circuit breaker	30, 42, [54 ❖]	
	600 A main lug only or main circuit breaker	30, 42, [54 ❖]	
NF Powerlink G3 Column-Width ‡ ❑ †			
480Y/277 V; 3-phase, 4-wire	100 A main circuit breaker	30	Full-height
	225 A main circuit breaker	42	
	125 A main lug	30	
	225 A main lug	42	
I-Line			
600 V	400–1200 A main lug	99-inch and 108-inch mounting without main lug only kit	Full-height
	600–1200 A main circuit breaker	72-inch and 108-inch mounting without main circuit breaker	
Single-Row I-Line			
480Y/277 V; 3-phase, 4-wire	800 A back-fed main circuit breaker or main lug	54-inch mounting without main circuit breaker or main lug only kit	Full-height
Equipment Space			
43 x 20 x 9.5 inches ■	With hinged trim and aluminum back pan		Top or bottom
86 x 10 x 9.5 inches ■			Full-height
86 x 20 x 9.5 inches ■			
86 x 26 x 9.5 inches ■			
Blank Space			
43 x 20 x 9.5 inches ■	With blank covers and box studs; no back pan or elevating brackets		Top or bottom
Wireway			
86 x 10 x 9.5 inches ■	Hinged screw-on cover		Full-height

NOTES:

‡ Column-width slave panel–All branch mounting spaces are available for Powerlink breakers.

♦ Split bus, sub-feed circuit breaker and thru-feed lugs available on full-height only.

■ Height x Width x Depth.

(T) Top located and top feed only.

❑ Master panel–Six branch mounting spaces are unavailable for breakers. [Three (3) spaces for the power supply and three (3) spaces for the controller]

† Slave panel–Six branch mounting spaces are unavailable for Powerlink breakers, but can be used for standard breakers.

❖ Refer to 42-circuit rule–NEC Articles 384-14 and 384-15.

- Copper and/or aluminum bus available.
- Sub-feed lugs are available in full-height only.
- Equipment space available top or bottom located.
- 200% rated neutrals available with NF Powerlink G3.
- If an interior fits in an MH-29-44 box, it is stackable.
- Thru-feed lugs available in stacked configuration only on NQOD, 42-circuit, 225 A panels.

Elevating Brackets

Hole with Edge Guards for Cable Transition

Removable Bottom Plate

Structure (NEMA 1 Enclosure)

Elevating Brackets

Stacked compartments have elevating brackets with removable studs for mounting different interiors, providing maximum flexibility.

Knockouts

Large 4-inch (102 mm) diameter knockouts are provided in each panelboard and equipment space compartment to facilitate cable pulling. Edge guards are provided for each opening to protect conductors.

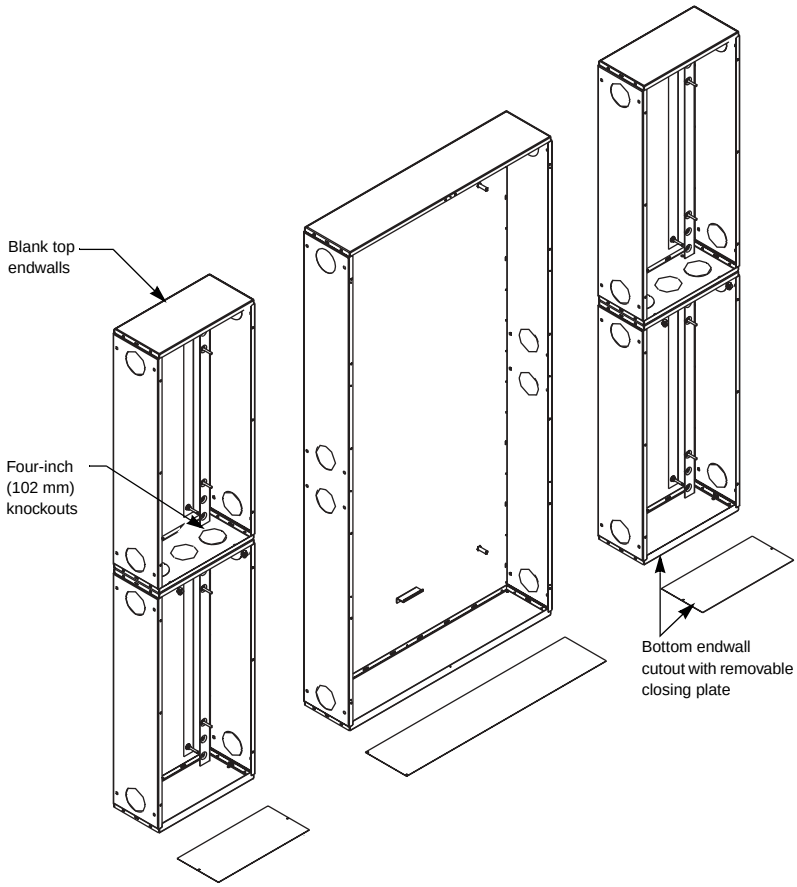
Dimensions

- MPS sections are 86.00 in. (2184 mm) H x 9.50 in. (241 mm) D.
- Stacked interiors have 43-inch (1092 mm) high boxes
- Full-height interiors have 86-inch (2184 mm) high boxes.
- Section widths are: 10.00, 20.00, 26.00, 42.00, and 44.00 inches (254, 508, 660, 1067, 1118 mm)

MPS CAD drawings can be obtained from www.SquareD.com. Search for “Modular Panelboard Systems”.

Endwalls

Blank top endwalls provide the installer with maximum flexibility for positioning conduits. Four-inch (102 mm) knockouts permit cables to be routed between enclosures. Bottom endwalls have a removable plate to accommodate conduits stubbed up from the floor.



Stacked NQOD Panelboard

Full-Height NQOD Panelboard

NQOD Circuit Breaker Panelboard

Type

NQOD circuit breaker panelboards are for use on ac systems and are UL Listed under File E33139. NQOD circuit breaker panelboards accept QO® and QOB branch circuit breakers. Refer to the *NQOD Circuit Breaker Panelboards* catalog or to the Technical Library at http://www.SquareD.com for detailed information.

Features

- 240 Vac maximum
- 600 A maximum main circuit breaker or main lugs
- 150 A maximum branch circuit breakers
- 200 kA maximum RMS symmetrical amperes short-circuit current rating (SCCR)
- Fully-rated or series-rated systems are available
- Interiors available with tin-plated copper or aluminum bus
- An interior accepts bolt-on or plug-on branch circuit breakers
- Interiors may be mounted for top or bottom feed
- VISI-TRIP® indicator on branch circuit breakers
- Suitable for use as service equipment
- Monoflat® trims with locks are standard

Options

- 200% rated neutrals up to 225 A
- 1000 A/in^2 tin-plated copper bus
- 750 A/in^2 tin-plated aluminum bus
- Split bus interiors
- Transient Voltage Surge Suppressor (TVSS)
- Lighting contactors
- Sub feed lugs are available in stacked- or full-height, standard-width enclosures only.
- Thru feed lugs are available in full-height, standard-width enclosures only
- Sub-feed circuit breakers available in full-height, standard-width only
  - — One sub-feed circuit breaker per 225 A main lug or 250 A main breaker interior
  - — Two sub-feed circuit breakers per 400–600 A main breaker interiors

NOTE: Column-width is available using NQOB construction.

Stacked NF Panelboard
(Also Available in Full-Height and Column-Width)

NF Circuit Breaker Panelboard

Type

NF circuit breaker panelboards are for use on ac systems and are UL Listed under File E33139. NF circuit breaker panelboards accept EDB, EGB, and EJB branch circuit breakers. Refer to the *NF Circuit Breaker Panelboards* catalog or to the Technical Library at http://www.SquareD.com for detailed information.

Features

- 480Y/277 Vac maximum
- 600 A maximum main circuit breaker
- 800 A maximum main lugs
- 125 A maximum branch mounted circuit breakers
- 200 kA maximum RMS symmetrical amperes short-circuit current rating (SCCR)
- Fully-rated or series-rated systems are available
- Interiors available with tin-plated copper or aluminum bus
- Interiors may be mounted for top or bottom feed
- VISI-TRIP indicator on EDB, EGB, and EJB branch circuit breakers
- Suitable for use as service equipment
- Monoflat trims with locks are standard

Options

- 200% rated neutrals up to 250 A
- 1000 A/in^2 tin-plated copper bus
- 750 A/in^2 tin-plated aluminum bus
- Sub feed lugs are available in stacked- or full-height, standard-width enclosures only.
- Thru feed lugs are available in full-height, standard-width enclosures only.
- Sub-feed circuit breakers available in full-height, standard-width enclosures only
  - — One sub-feed KA, KH, or KC circuit breaker per 250 A panelboard
  - — Two sub-feed KA, KH, or KC circuit breakers per 400 a panelboard
  - — One sub-feed LA, LH, or LC circuit breaker (400 A maximum) and one KA, KH, or KC circuit breaker **or** two sub-feed KA, KH, or KC circuit breakers per 600 A or 800 A panelboard ‡

  (‡ LC and KC may not be combined.)

Column-Width NF Powerlink G3 Panelboard (NF Powerlink G3 also available in full-height and stacked standard-width configurations)

NF Powerlink G3 Circuit Breaker Panelboards

Type

NF Powerlink G3 circuit breaker panelboards are for use on ac systems and are UL Listed under File E33139. NF Powerlink G3 circuit breaker panelboards accept ECB-G3 and EDB, EGB, and EJB bolt-on circuit breakers. Refer to the *Powerlink™ G3 TM Lighting Control Systems* catalog or to the Technical Library at http://www.SquareD.com for detailed information.

Features: NF Powerlink G3 circuit breaker panel interiors

- 480Y/277 Vac maximum
- 225 A maximum main lugs or main breaker in column-width
- 800 A maximum main lugs (600 A main breaker) in standard-width enclosures
- Copper or aluminum plated bus interiors
- SCCR ratings to 100 kA @ 240 volts and 65 kA at 480Y/277
- Standard or remotely operated branch circuit breakers.
- Copper bus standard
- Interiors may be mounted for top or bottom feed
- Monoflat trims with locks are standard

Features: POWERLINK G3 remotely-operated circuit beaker

- Bolt-on line connectors
- Oversized load terminals
- Integral ON/OFF/trip status position indicator
- Manual override
- Modular control connector
- Rated for 200,000 remote operations
- UL Listed switch duty rated (SWD), and heating, air-conditioning, refrigeration rated (HACR), and high intensity discharge lighting (HID)

Options

- 200% rated neutrals up to 250 A
- 1000 A/in^2 tin-plated copper bus
- Thru-feed lugs available in full-height, standard-width only
- Sub-feed circuit breakers available in full-height, standard-width only
- Sub-feed lugs are available in full-height and stacked, standard-width enclosures only
- TVSS units

I-Line Panelboard Type HCR-U

I-Line® Circuit Breaker Power Distribution Panelboard

Type

I-Line® circuit breaker power distribution panelboards are for use on ac systems and are UL Listed under File E33139. I-Line circuit breaker power distribution panelboards have HCW, HCWM, and HCR-U interiors rated 400–1200 A. Refer to the *I-Line Circuit Breaker Panelboards* catalog or to the Technical Library at http://www.SquareD.com for detailed information.

Features

- 600 Vac maximum
- 1200 A maximum main circuit breaker or main lugs
- UL Listed for use on ac systems up to 200 kA maximum RMS symmetrical amperes available fault current when using current limiting main or branch circuit breakers
- Fully-rated and series-rated systems
- Interiors available with plated aluminum or copper bus
- Interiors may be mounted for top or bottom feed
- Interior, front, and circuit breakers require only a screwdriver for installation
- Circuit breakers do not require any additional external mounting hardware
- Circuit breaker connections are “blow-on” type that draw the plug-on jaws together, providing a firmer grip under high level short-circuit conditions
- Well-suited for rearranging circuits
- Suitable for use as service equipment

Options

- 200% rated neutrals up to 600 A
- 1000 A/in^2 tin-plated copper bus
- Micrologic® microprocessor and/or thermal magnetic main and branch circuit breakers
- Equipment ground fault protection available on main or branch circuit breaker
- Six-circuit QO plug-on distribution panel
- Sub-feed lugs through 1200 A
- Locks are available with optional door kits

Single-Row I-Line Panelboard

Single-Row I-Line® Circuit Breaker Power Distribution Panelboard

Type

I-Line circuit breaker power distribution panelboards are for use on ac systems and are UL Listed under File E33139. Single-row I-Line circuit breaker power distribution panelboards have an HCP5486-8SU interior rated 800 A maximum. Refer to the Technical Library at http://www.SquareD.com for detailed information.

Features

- 480Y/277 Vac maximum
- 800 A maximum main circuit breakers or main lug
- 600 A maximum branch circuit breakers
- Standard tin-plated copper bus
- Fully-rated and series-rated systems up to 65 kA
- Interiors may be mounted for top or bottom feed
- Interior, front, and circuit breakers require only a screwdriver for installation
- Circuit breakers do not require any additional external mounting hardware
- Circuit breaker connections are “blow-on” type that draw the plug-on jaws together, providing a firmer grip under high level short-circuit conditions
- Suitable for use as service equipment

Options

- Micrologic microprocessor and/or thermal magnetic main and branch circuit breakers
- Six-circuit QO plug-on distribution panelboard
- Sub-feed and thru-feed lugs through 800 A
- Locks are available with optional door kits

Transformer Assembly–Uncovered

Transformer Assembly–Covered

Transformer Assemblies

Type

Transformer Assemblies are for use on ac systems and are UL Listed under File E8681. Refer to the *Transformer Assemblies for Power-Style® QED Switchboards* handout or to the Technical Library at http://www.SquareD.com for detailed information.

Features

- 37.5–167 kVA single-phase 480–120/240
- 45–225 kVA three-phase 480 Delta–208Y/120
- H-220C insulation with 150 °C (302 °F) rise
- NEMA 1 enclosure
- Suitable for one or two transformers per enclosure (refer to the Stacking Rules for Stacked and Non-Stacked Transformer Sections table on page 17)
- Provisions for close coupling to MPS lineup

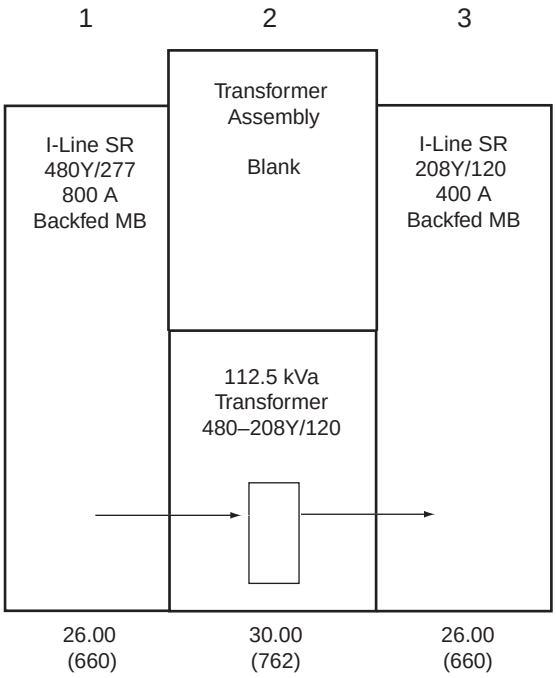
Options

- Factory-supplied cables ready to connect
- Aluminum or copper windings
- General purpose lighting transformers
- Energy-efficient (EE) transformers
- Electrostatic shield
- Stacking configurations
  - — Single-phase transformers
  - — Three-phase transformers
  - — Combination of single- and three-phase transformers

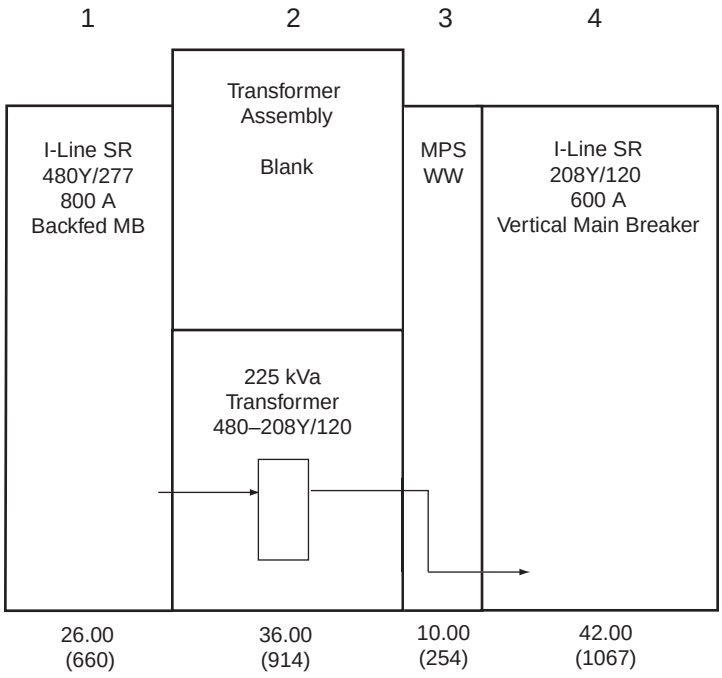
Stacking Rules for Stacked and Non-Stacked Transformer Sections

Single-Phase Transformers kVA Rating					
Top transformer (in kVA)	Blank	Blank	Blank	Blank	Blank
Bottom transformer (in kVA)	37.5	50	75	100	167
Enclosure width/depth (in inches)	24 x 24	24 x 24	30 x 36	30 x 36	36 x 36
Top transformer (in kVA)	37.5	37.5	37.5	37.5	37.5
Bottom transformer (in kVA)	37.5	50	75	100	167
Enclosure width/depth (in inches)	24 x 24	24 x 24	30 x 36	30 x 36	36 x 36
Top transformer (in kVA)		50	50	50	50
Bottom transformer (in kVA)	—	50	75	100	167
Enclosure width/depth (in inches)		30 x 36	30 x 36	30 x 36	36 x 36
Top transformer (in kVA)			75	75	75
Bottom transformer (in kVA)	—	—	75	100	167
Enclosure width/depth (in inches)			30 x 36	30 x 36	36 x 36
Top transformer (in kVA)				100	100
Bottom transformer (in kVA)	—	—	—	100	167
Enclosure width/depth (in inches)				36 x 36	36 x 36
Three-Phase Transformers kVA Rating					
Top transformer (in kVA)	Blank	Blank	Blank	Blank	Blank
Bottom transformer (in kVA)	45	75	112.5	150	225
Enclosure width/depth (in inches)	24 x 24	30 x 36	30 x 36	30 x 36	36 x 36
Top transformer (in kVA)	45	45	45	45	45
Bottom transformer (in kVA)	45	75	112.5	150	225
Enclosure width/depth (in inches)	24 x 24	30 x 36	30 x 36	30 x 36	36 x 36
Top transformer (in kVA)		75	75	75	75
Bottom transformer (in kVA)	—	75	112.5	150	225
Enclosure width/depth (in inches)		30 x 36	30 x 36	30 x 36	36 x 36
Top transformer (in kVA)			112.5	112.5	112.5
Bottom transformer (in kVA)	—	—	112.5	150	225
Enclosure width/depth (in inches)			30 x 36	30 x 36	36 x 36
Combination: Single-Phase on Top/Three-Phase on Bottom kVA Rating					
Top transformer (in kVA)	37.5	37.5	37.5	37.5	37.5
Bottom transformer (in kVA)	45	75	112.5	150	225
Enclosure width/depth (in inches)	24 x 24	30 x 36	30 x 36	30 x 36	36 x 36
Top transformer (in kVA)	50	50	50	50	50
Bottom transformer (in kVA)	45	75	112.5	150	225
Enclosure width/depth (in inches)	24 x 24	30 x 36	30 x 36	30 x 36	36 x 36
Top transformer (in kVA)		75	75	75	75
Bottom transformer (in kVA)	—	75	112.5	150	225
Enclosure width/depth (in inches)		30 x 36	30 x 36	30 x 36	36 x 36
Top transformer (in kVA)			100	100	100
Bottom transformer (in kVA)	—	—	112.5	150	225
Enclosure width/depth (in inches)			36 x 36	36 x 36	36 x 36

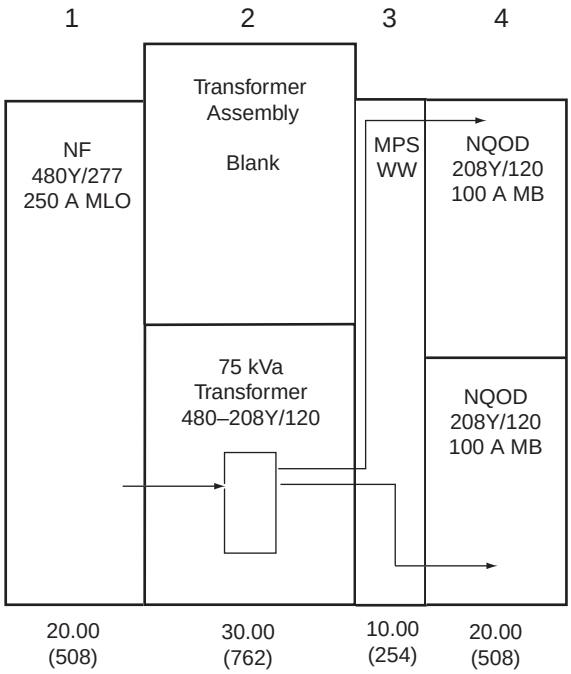
Transformer Assemblies / Stacked and Non-Stacked Layouts



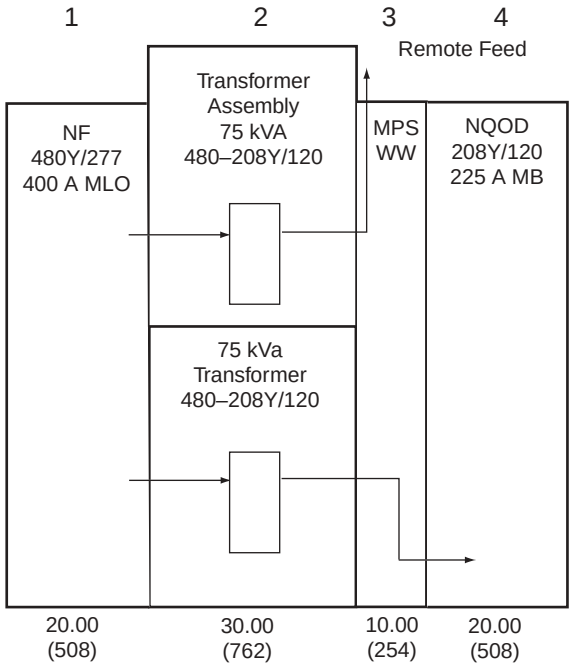
I-Line, HCP-SU, HCP, HCWM, or HCR-U 208Y/120 volt panel with backfed MB does not require MPS wireway



I-Line, HCW 208Y/120 volt panel with vertical main breaker



NQOD stacked panels with main breakers require MPS wireway



NQOD full-height panel with a main breaker requires MPS wireway

Lighting Contactors

Type

Lighting contactors are for use on ac systems and are UL Listed under File E131840 for use in MPS construction. Class 8903 Type L/ LX, Class 8903 Type SM, and Class 8910 Type DPA lighting contactors are available in MPS construction. Refer to the Lighting Contactor Catalogs or to the Technical Library at http://www.SquareD.com for detailed information.

Features

Lighting contactor features are listed below:

- Class 8903, Type L/LX
  - — 30 A ballast lighting rating, 20 A tungsten lighting rating
  - — Voltage systems
    - —120/240 Vac; single-phase, three-wire
    - —208Y/120 Vac; three-phase, four-wire
    - —480Y/277 Vac; three-phase, four-wire
  - — Available with 2 to 12 N.O. poles
  - — Up to 8 N.C. poles maximum
  - — Field-convertible poles (N.O. to N.C.) standard
  - — Contactor status indicator standard
  - — Electrically or mechanically held
- Class 8903, Type SM
  - — 30 A mixed load rating (lighting/motor)
  - — Voltage systems
    - —208Y/120 Vac; three-phase, four-wire
    - —480Y/277 Vac three-phase, four-wire
  - — Available with 2 to 5 N.O. poles
  - — Contactor status indicator standard
  - — Electrically or mechanically held
- Class 8910, Type DPA
  - — 30 A ballast and tungsten lighting rating
  - — Voltage systems
    - —120/240 Vac; single-phase, three-wire
    - —208Y/120 Vac; three-phase, four-wire
    - —277 Vac; three-phase, four-wire (ballast only)
  - — Available with 2 to 4 N.O. poles
  - — Contactor status indicator standard
  - — Electrically held

Type L—Electrically-Held

Type LX—Mechanically-Held

Type SM—Electrically-Held

Type SM—Mechanically-Held

Type DPA—Electrically-Held

Options

Lighting contactor options are listed below:

- Factory-installed contactor options
  - — Lighting contactors (no wiring)
  - — Lighting contactors with lineside wiring (branch breakers to lineside)
  - — Lighting contactors with lineside and loadside wiring (branch breaker to lineside, loadside to terminal blocks)
- Lighting contactor enclosure dimensions
  - — 20 in. (W) x 43 in. (H) x 9.5 in. (D) (508 x 1092 x 241 mm) (stacked)
  - — 10 in. (W) x 86 in. (H) x 9.5 in. (D) (254 x 2184 x 241 mm) (full-height)
  - — 20 in. (W) x 86 in. (H) x 9.5 in. (D) (508 x 2184 x 241 mm) (full-height)
  - — 26 in. (W) x 86 in. (H) x 9.5 in. (D) (660 x 2184 x 241 mm) (full-height)

Refer to data bulletin 2010DB0201, *Lighting Contactors and Terminal Blocks in Modular Panelboard System (MPS) and Integrated Power Center (IPC)* or to the Panelboard Product Selector Help screens for panelboard/lighting contactor short-circuit current ratings.

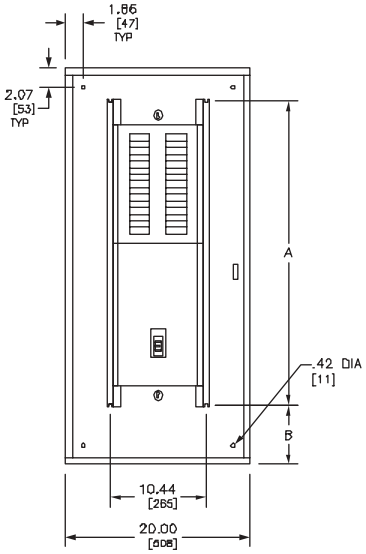
Contactor Layout Guide

Use the following contactor layout guide to determine the correct MPS equipment space for your application.

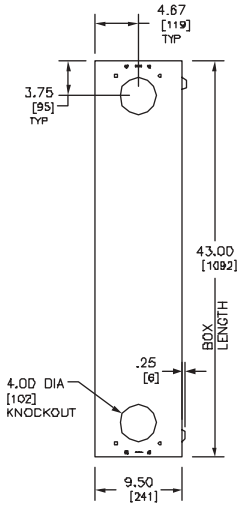
- Class 8903, Type L; 8903 Type SM; or 8910 Type DPA electrically-held contactors with Type 9080 GR6/GC6 terminal blocks:
  - — Eight (8) contactors maximum in a stacked 20 in. (508 mm) (W) x 43 in. (1092 mm) (H) equipment space
  - — Eight (8) contactors maximum in one (1) full-height 10 in. (254 mm) (W) x 86 in. (2184 mm) (H) equipment space
  - — 16 contactors maximum in one (1) full-height 20 in. (508 mm) (W) x 86 in. (2184 mm) (H) equipment space
  - — 16 contactors maximum in one (1) full-height 26 in. (660 mm) (W) x 86 in. (2184 mm) (H) equipment space
- Class 8903, Type LX or Class 8903, Type SM mechanically-held contactors with Type 9080 GR6/GC6 terminal blocks:
  - — Six (6) contactors maximum in a stacked 20 in. (508 mm) (W) x 43 in. (1092 mm) (H) equipment space
  - — Six (6) contactors maximum in one (1) full-height 10 in. (254 mm) (W) x 86 in. (2184 mm) (H) equipment space
  - — 12 contactors maximum in one full-height 20 in. (508 mm) (W) x 86 in. (2184 mm) (H) equipment space
  - — 12 contactors maximum in one full-height 26 in. (660 mm) (W) x 86 in. (2184 mm) (H) equipment space

Dimensions

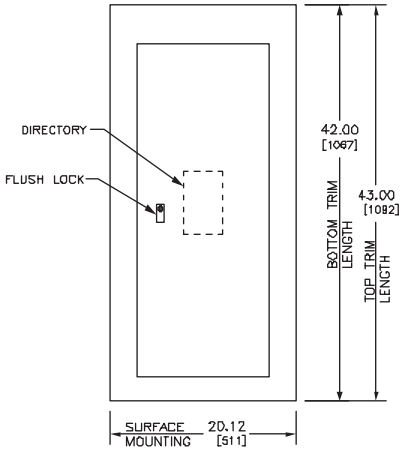
MPS NQOD Panelboard



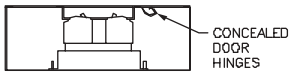
Typical Box with Interior



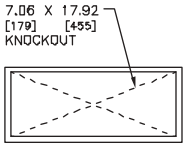
Typical Box
Side View



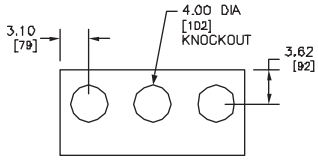
Typical Front



Typical Mounting of
QO, QOB Breakers



Bottom Endwall Cutouts
See Notes



Endwall with Knockouts
See Notes

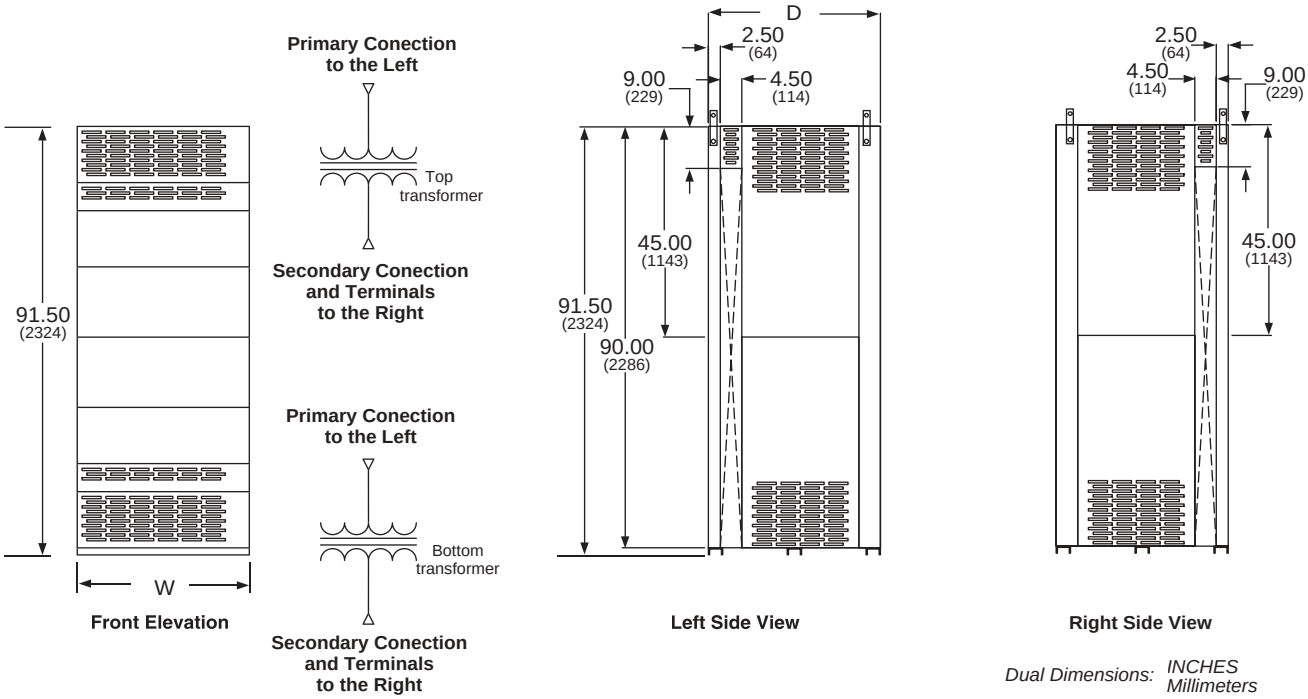
Dual Dimensions: Inches
[Millimeters]

Non-MPS Box Length		A		B Top Box		B Bottom Box	
IN	mm	IN	mm	IN	mm	IN	mm
29.00	737	22.00	559	9.47	241	9.47	241
32.00	813	27.00	686	6.47	164	9.47	241
35.00	889	30.00	762	3.47	88	6.47	164
38.00	965	33.00	838	3.47	88	6.47	164
41.00	1041	36.00	914	3.47	88	3.47	88
44.00	1118	39.00	991	1.57	40	—	—

Notes:
- Refer to catalog class 1630 for additional information.
- MPS NQOD panelboards are UL Listed.
- Box: Code gauge galvanized steel top box has blank top endwall and bottom endwall has knockouts; bottom box has top endwall with knockouts and bottom endwall has cutout.
- Front: Monoflat construction with concealed trim screws and door hinges; ANSI 49 gray baked enamel finish electrodeposited over cleaned phosphatized steel.
- Lock: Flush lock with brushed, stainless steel escutcheon; NSR–251 key change.

Modular Panelboard System
Dimensions

Sample Layout / Transformer Assemblies



Dual Dimensions: *INCHES*
Millimeters

Section Width (W)		Section Depth (D)	
IN	**mm**	**IN**	**mm**
24	610	24	610
30	762	36	914
36	914	36	914

- Width and depth vary based on the kVA rating of the transformers.
- Increased depth and/or width are available when requested.
- Cable feeding the primary terminals of the transformer can enter from the left side or from the right side of the section.
- Transformer secondary cable can exit to the right side or to the left side of the section.
- Transformer terminals face the same direction as the secondary cables exit the section (e.g., secondary cables exit to the right, and the transformer terminals face to the right side of the section).

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