

Section 13

Obsolescent Panelboards

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QMB Main Lugs and Main Switch Interiors and Accessories

Table 13.1: QMB Main Lugs Interiors, Boxes and Fronts

Total Branch Unit Mounting Space (Inches)	Ampere Rating of Mains	Component Selection			Box Height (inches)	Box Width (inches)
		Interior Assembly—3-pole with Main Lugs	Front (4-piece Standard)	Box		
		Catalog No.	Catalog No.	Catalog No.		
60	225	QMB60902	QM38902TS	QM3890B	90	38
45	400	QMB45754	QM38756TS	QM3875B	75	
45	600	QMB45756	QM38756TS	QM3875B	75	
45	800	QMB45908	QM38908TS	QM3890B	90	38
45	1200	QMB459012	QM389012TS	QM3890B		
60	600	QMB60906	QM38906TS	QM3890B		

Table 13.2: QMB Main Switch Interiors, Boxes and Fronts

Total Branch Unit Mounting Space (inches)	Ampere Rating of Mains	Maximum Voltage (ac)	Component Selection			Box Height (inches)	Box Width (inches)
			Interior Assembly—3-pole with Main Switch	Front (4-Piece Standard)	Box		
			Catalog No.	Catalog No.	Catalog No.		
51	200	240	QMB5190324M	QM38902TS	QM3890B	90	38
45	400		QMB4590325M	QM38906TS	QM3890B		
	600		QMB4590326M				
51	200	600	QMB5190364M	QM38902TS	QM3890B	90	38
45	400		QMB4590365M	QM38906TS	QM3890B		
	600		QMB4590366M				

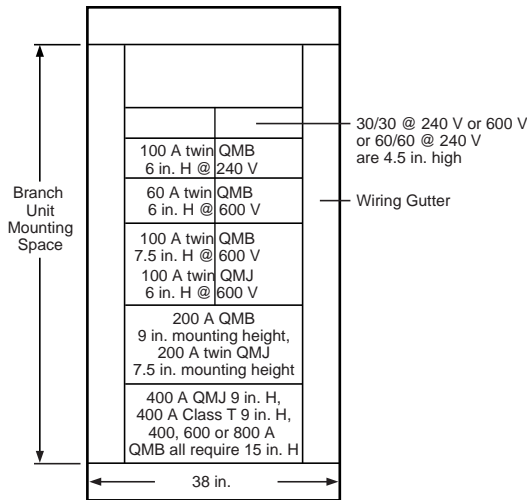
Table 13.3: Accessories [1]

Blanks		Solid Neutral Assembly	
Height	Catalog No.	Ampere Rating	Catalog No.
1.5	QMB1BLW	225	QMB2SN
3	QMB3BLW	400	QMB4SN2
6	QMB6BLW	600	QMB6SN
15	QMB15BLW	800	QMB8SN
—	—	1200	QMB12SN

Table 13.4: QMB Branch Circuit Breaker Units 600 Vac

Unit Ampere Rating	Unit Height (Inches)	Catalog No. [2]	Description
15 –150	6	QMBHW[3]	Mounts (1) or (2) 3-pole HDL circuit breakers
150 –225	6	QMBJW[4]	Mounts (1) 3-Pole JDL circuit breaker
400	7.5	QMB3400LAW[5]	Includes (1) 3-Pole LAL circuit breaker

QMB Layout Information



13 OBSOLETE PANELBOARDS

[1] Equipment Ground Bar—PK32DGTA
 [2] Circuit breakers not included. Order HDL or JDL circuit breakers from Digest.
 [3] Order one catalog number S37444 for each circuit breaker.
 [4] Order catalog number S37445 with QMBJW.
 [5] For trip ratings above 400A, contact your local Schneider Electric sales office.

Main Switch Replacement Units

Table 13.5: Main Switch Replacement Units (Replaces Series E1)

Ampere Rating	Standard—Class H, R, K Fuse Spacing	Class T Fuse Spacing		Class J Fuse Spacing	
	Catalog No.	Catalog No.		Catalog No.	
3-Pole, 240 Vac					
100	QMB323MW	—	—	—	—
200	QMB324MW	—	—	—	—
400	QMB325MW	—	—	—	—
600	QMB326MW	—	—	—	—
800	—	—	—	—	—
3-Pole, 600 Vac					
100	QMB363MW	—	—	—	—
200	QMB364MW	—	—	—	—
400	QMB365MW	{	QMB365MW[6]	{	QMB365MW[6]
			QMB400T6		QMB400J
600	QMB366MW	{	QMB366MW	{	QMB366MW
			QMB600T6		QMB600J
800	QMB367MW	{	QMB367MW[6]	{	—
			QMB800T6		—
Example:	{	QMB365MW QMB400T6	constitutes a complete device.		

Table 13.6: Main Switch Interior Lug Data

Mains Ampere Rating	Conductors Per Phase	Mechanical Lugs		VCEL Compression Lugs			
		Wire Range Wire Bending Space per NEC Table 373-6	Lug Wire Range	Conductors Per Phase	Wire Range Wire Bending Space per NEC Table 373-6	Catalog No.	Lug Wire Range
200	(1)	#6–300 kcmil Al or Cu	#6–300 kcmil Al or Cu	(1)	#4–300 kcmil Al or Cu	VCEL030516H1	#4–300 kcmil Al or Cu
400	(2)	3/0–500 kcmil Al or Cu	3/0–600 kcmil Al or Cu	(2)	2/0–600 kcmil Al or Cu	VCEL05012H1	2/0–500 kcmil Al or Cu
						VCEL07512H1	500–750 kcmil Al
600	(2)	3/0–500 kcmil Al or Cu	3/0–600 kcmil Al or Cu	(2)	2/0–500 kcmil Al or Cu	VCEL05012H1	3/0–500 kcmil Al or Cu
800	(3)	3/0–500 kcmil Al or Cu	3/0–600 kcmil Al or Cu	(3)	2/0–500 kcmil Al or Cu	VCEL05012H1	3/0–500 kcmil Al or Cu

[6] Both catalog numbers are required for a complete device.

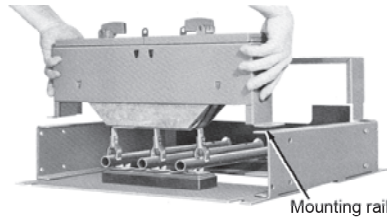
Guidelines

STEP 1: Determine the panelboard interior type. If the date of manufacture is not known, compare your switch with the pictures below to determine the mounting rail direction. Only mounting rails that face outward will accept the Series D2 switch and its required mounting rail extension bracket.

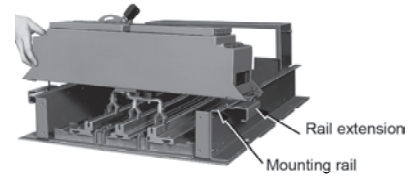
STEP 2: Order a replacement switch from 30–200 A Obsolete Switch Units—Series D2, page 13-5.

Table 13.7: Panelboard Interiors

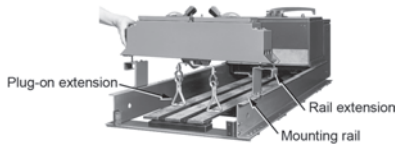
Illustration No.	Interior Catalog No. Prefix	Designed For Switch Type	Switch Availability/Order Information
1	Type QM in 31-inch wide box built before 1961.	Series 1-4 30–200 A Maximum	NOT AVAILABLE Series D2 switches are not compatible replacements for this application.
2	Type QM in 31-inch wide box built after 1961 and before 1984.	Series 1-4 30–200 A Maximum	NOT AVAILABLE Order Series D2 switch from page 13-5.
		Series D2 30–200 A Maximum	Order Series D2 switch from page 13-5. (Many still stocked in DS.)
3	Type QW in 38-inch wide box built before 1984.	Series 1-4 30–200 A Maximum	NOT AVAILABLE Order Series D2 switch and plug-on extension assembly from page 13-5.
		Series 1-4 400–600 A	NOT AVAILABLE QMB3400LA available order only from Lexington.
		Series D2 30–200 A Maximum	Order Series D2 switch and plug-on extension assembly from page 13-5.
4	Type QMB in 35-inch or 38-inch wide box built after 1984.	Series E1 or E2 30–800 A	Order from Digest Section 9.



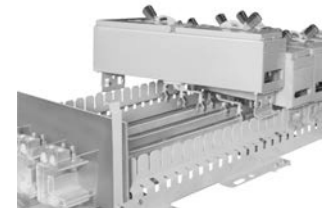
Type QM (31-inch Wide)
Manufactured Before 1961
Panelboards manufactured before 1961 have the interior mounting rails facing inward (toward the bus). Switches and circuit breakers that fit in this interior type are obsolete.



Type QM (31-inch Wide)
Manufactured After 1961 But Before October 1984
Panelboards manufactured after 1961 have the interior mounting rails facing outward (away from the bus). This interior accepts Series 1-4 switches and Series D2 switches (shown above with required rail extensions). Order the Series D2 switch (includes mounting rail extensions) from page 13-5.



Type QW (38-inch Wide)
Manufactured Before 1984
Type QW panelboards were built to accept bolt-on 400 A and 600 A Series 1-4 switches. 30-200 A Series D2 switches may be installed as shown using the plug-on extension assembly from page 13-5.



Type QMB
Manufactured After October 1984
Series E1 panelboards will accept only Series E1 or E2 switches. Order from Digest Section 9.

30–200 A Obsolete Switch Units—Series D2
Available In DS Stock, except where noted.

All Series D2 switches require that rail extension assemblies be attached to the interior side rails in order to mount the switch. These rail extension assemblies are packaged with every Series D2 switch. If a rail extension is lost or missing, contact the nearest Schneider Electric™ sales office to order a replacement.

Plug-on extension assemblies must also be ordered when installing 30–200 A plug-on units in blank spaces of a QW interior in the 38-inch wide box. These plug-on extension assemblies (which extend the bus) are NOT the same as the rail extension assemblies packaged with every Series D2 switch (which extend only the mounting rails).

Table 13.8: Branch Units—Three Pole

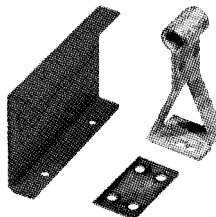
Ampere Rating	Unit Height (inches)	Obsolete [7]/Series 1–4 Catalog No.	Replaced By Series D2 Catalog No.	Class R Fuse Kits	
				No. Kits Req'd.	Catalog No.
240 Vac					
30-30	4.50	QMB3203T	QMB321T ^[8]	2	HRK30
60-60	4.50	QMB306T	QMB322TD	1	QMB36R
100-100	6.00	QMB310T	QMB323TD	1	QMB100R
200	9.00	QMB3220	QMB324	1	HRK1020
600 Vac					
30-30	4.50	QMB3603T	QMB361T ^[8]	1	QMB36R
30-30	6.00		QMB362T1		
60-60	6.00	QMB3606T	QMB362T	1	QMB60R
100-100	7.50	QMB3610T	QMB363T	2	HRK1020
200	9.00	QMB3620	QMB364	1	

Table 13.9: Obsolete Circuit Breaker Units [9]

Catalog No.
QMB3400LA ^[10]

Table 13.10: Plug-On Extension Assemblies [11]

Ampere Rating	Switch Mounting Height (inches)	Catalog No.
30-30 Switch	3	QMB303LEX
30-30 Switch	4.5	QMB306LEX
30-30 Switch	6	QMB306EX
60-60 Switch	4.5	QMB306LEX
60-60 Switch	6	QMB306EX
100-100 Switch	6	QMB310LEX
100-100 Switch	7.5	QMB310EX
200 Switch	9	QMB320EX
LA Circuit Breaker	7.5	QMB310EX



Plug-On Extension Assembly

Table 13.11: Obsolete Main Switch Units [12]

Ampere Rating	Unit Height (inches)	Catalog No.	Replaces Series 4 Unit Catalog No.
3-pole 240 Vac			
100	9	QMB323M ^[13]	QMB3210M
200		QMB324M	QMB3220M
3-pole 600 Vac			
100	9	QMB363M ^[13]	QMB3610M
		QMB363MJ	QMB3610MJ
200	9	QMB364M	QMB3620M
		QMB364MJ	QMB3620MJ

[7] These switch units are no longer available; the catalog number is provided only for cross referencing to Series D2 units.

[8] When this Series D2 switch is used as a replacement for a Series 1-4 3-inch switch, a blank filler plate is also required. Purchase the blank filler plate from a local sheet-metal fabricator.

[9] Circuit breaker units are designed for use in all QMB interior types manufactured between 1961 and October 1984.

[10] Includes a 3-pole, LA type circuit breaker. For other ampere ratings, contact the Schneider Electric Customer Information Center.

[11] Bus extensions are required on all 30–200 A switches. They are also required on all circuit breaker units used in switchboards or in QW type panelboards with a 38-inch wide box.

[12] Replace Series 4 Units

[13] Order only from the Lexington plant.

Application

For use on three-phase ac systems—208, 240, or 480 volts. UL® Listed.

Starters

Line Voltage Type

- Non-Reversing—Twin Units: Sizes 0 through 3—Class 8536, Types SB, SC, SD and SE.
- Reversing—Single Units: Sizes 0 through 3—Class 8736, Types SB, SC, SD and SE



QMB Motor Starter Panelboard

Table 13.12: Starter Units—Not stocked in DS. Order only from the Peru plant.

NEMA Size	Coil Voltage [14]	Class 8536—Types SB, SC, SD and SEq Type S—Non-Reversing (see Digest page 16-16)		Class 8736—Types SB, SC, SD and SE [15] Reversing (see Digest page 16-51)	
		Unit Height (Inches)	Twin-Starter Unit (Two Non-Reversing Starters)	Unit Height (Inches)	Single-Starter Unit (One Reversing Starter)
			Catalog No. [16]		Catalog No. [16]
0	120	9	QMBS8536100120W	9	QMBS873610120W
	208		QMBS8536100208W		QMBS873610208W
	240		QMBS8536100240W		QMBS873610240W
	480		QMBS8536100480W		QMBS873610480W
1	120	9	QMBS8536111120W	9	QMBS873611120W
	208		QMBS8536111208W		QMBS873611208W
	240		QMBS8536111240W		QMBS873611240W
	480		QMBS8536111480W		QMBS873611480W
2	120	10-1/2	QMBS8536222120W	10-1/2	QMBS873622120W
	208		QMBS8536222208W		QMBS873622208W
	240		QMBS8536222240W		QMBS873622240W
	480		QMBS8536222480W		QMBS873622480W
3	120	18	QMBS8536333120W	18	QMBS873633120W
	208		QMBS8536333208W		QMBS873633208W
	240		QMBS8536333240W		QMBS873633240W
	480		QMBS8536333480W		QMBS873633480W

Table 13.13: UL Listed Short Circuit Ratings @ 600 V Maximum

Starter Size	Fusible Switch (with Class R or J fuse) RMS Sym. Amperes	Thermal-Magnetic Circuit Breaker RMS Sym. Amperes
0	100,000	5,000
1		
2		
3		

[14] See motor starter section of the current Digest for complete ratings.
 [15] Space and drilling are provided for field addition of control voltage transformer and fuse base.
 [16] Catalog numbers include starters, but do not include overload relay thermal units.

Selection of Components

1. List required motor starter units (reversing or non-reversing) from the tables above.
2. Specify the HP, voltage, phase, frequency and full load current rating of the motor.
3. Specify the unit mounting space.
4. Determine the circuit breaker or fusible switch rating for motor branch circuits from the selection tables on Digest page 13-16.
5. For motor starter voltages other than standard voltages of 120, 208, 240 and 480 volts, contact the nearest Schneider Electric sales office.

Starter Data

- Line voltage coils are furnished as standard on all starters.
- Twistouts are provided in starter covers for start-stop push buttons, selector switches and pilot lights. See accessories table below.
- Starter door interlocks are furnished with motor starter enclosures.
- Type S starter enclosures include drillings for the next smaller size.
- All Type S starters have provisions for three overload relay thermal units, as required by NEC® Table 430.37 for three phase ac motor circuits.

Accessories

Accessories listed below are available for field installation on all units. Go to the sections shown for prices.

Table 13.14: Field Installable Accessories

Description	Digest Section
Push Buttons and Selector Switches: Class 9001, Type K	Push Buttons and Operator Interface
Pilot Lights: Class 9001, Type KP	
Electrical Interlocks: Class 9999, Types SX6, SX7	NEMA-Definite Purpose Type Contactors and Starters
Industrial Control Transformers: Class 9070	Supplemental Digest, Transformers
Type EO1; Starter Size: 0 and 1, Non-Reversing	
Type EO2; Starter Size: 0, 1 and 2, Reversing	
Type EO3; Starter Size: 3	
Type EO4; Starter Size: 4	
Control Circuit Fuse Block: Class 9080, Type PF1	Terminal Blocks

Trim Clamps and Screws, Circuit I.D. Numbers, Locks

Table 13.15: Trim Clamps and Screws

Application	Catalog No.
NEHB Panelboards: All fronts up through 400 A	PK3TC

Table 13.16: Circuit I.D. Numbers

Circuit Number Description	NEHB and NEHB Column Width Catalog No.
1 through 54	8004332501

Table 13.17: Locks—Type 1 Enclosures

Application	Catalog No.
NEHB Panelboards	
All main lug fronts and all main circuit breaker fronts up to 225 A	
Lock only	PK4FL
Complete assembly	PK7FL
All 400 A main circuit breaker fronts	PK5FL
Telephone Cabinets	
Fronts on boxes up to 30 inches wide	PK4FL (Before November 1997) PK22FL (After November 1997)
Fronts on boxes 36 inches or wider	PK5FL



Catalog No. PK3TC



Catalog No. PK4FL



Catalog No. PK5L

Series Ratings

This page contains UL Tested and Certified series combination ratings for panelboards. These ratings apply to either an integral main located in the same enclosure or a remote main located in a separate enclosure. NOTE: Where QO(B) GFI circuit breakers are shown above, QO (B) EPD circuit breakers may also be used.

Table 13.18: NQOD Series Ratings

Maximum System Voltage AC [1]	Maximum Short Circuit Current Rating (RMS Sym.)	Integral or Remote Main Circuit Breakers and Remote Main Fuses	Branch Circuit Breaker Designations and Allowable Ampere Ranges [2] [3]				
			Type	1-pole	2-pole	3-pole	
120/240 1Ø	22k	MG	QO (B)	15-30 A	—	—	
	42k	HD, JD	QO (B) PL	15-30 A	15-60 A	15-30 A	
	65k	HG, JG					
	100k	HJ, JJ					
	125k	HL, JL					
120/240 1Ø 208Y/120	100k	DJ 400 A	QO (B)	15-70 A	15-125 A	—	
			QO (B) GFI	15-30 A	40-60 A	—	
			QO (B) VH	—	150 A	15-150 A	
			QO (B) AFI	15-20 A	—	—	
		QJ	QO (B)	15-70 A	15-125 A	15-30 A	
			QO (B) AS	15-30 A	15-30 A	15-30 A	
			QO (B) GFI	15-30 A	15-60 A	—	
			QO (B) PL	15-30 A	15-60 A	15-30 A	
			QO (B) VH	—	150 A	35-150 A	
			QO (B) AFI	15-20 A	—	—	
			QO (B) AFI	15-20 A	—	—	
208Y/120	18k	LA/LH (L) 34200MC, LA/LH (L) 34225MC, LA/LH (L) 34250MC, LA/LH (L) 34400MC	QO (B)	15-30 A	15-30 A	15-30 A	
240	22k	QO (B) VH	QO (B)	15-70 A	15-125 A	15-100 A	
			QO (B) AS	15-30 A	15-30 A	15-30 A	
			QO (B) GFI	15-30 A	15-60 A	—	
			QO (B) PL	15-30 A	15-30 A	—	
			QO (B) AFI	15-20 A	—	—	
		Q2-H[4]	QO (B)	15-70 A	15-100 A	15-30 A	
			QO (B) GFI	15-30 A	15-30 A	—	
			QO (B) AFI	15-20 A	—	—	
			QO (B)	15-70 A	15-125 A	15-30 A	
			QO (B) AS	15-30 A	15-30 A	15-30 A	
240	25k	QD	QO (B) GFI	15-30 A	15-60 A	—	
			QO (B) PL	15-30 A	15-60 A	15-30 A	
			QO (B) VH	—	150 A	35-150 A	
			QO (B) AFI	15-20 A	—	—	
			ED, FD[4]	QO (B)	15-70 A	15-125 A	15-100 A
				QO (B) GFI	15-30 A	15-60 A	—
				QO (B) AFI	15-20 A	—	—
				QO (B)	15-70 A	15-125 A	15-100 A
		KD[4]	QO (B) AS	15-30 A	15-30 A	15-30 A	
			QO (B) GFI	15-30 A	15-60 A	—	
			QO (B) AFI	15-20 A	—	—	
			QO (B)	15-70 A	15-125 A	15-100 A	
		HD, JD	QO (B) VH	—	—	35-150 A	
			QO (B) GFI	15-30 A	15-60 A	—	
			QO (B) AFI	15-20 A	—	—	
			QO (B) H	—	15-100 A	—	
			QOB2150VH	—	150 A	—	
			Q2L-H[4]	—	110-225 A	110-225 A	
			QDL	—	70-225 A	70-225 A	
			QO (B) VH	15-30 A	15-30 A	15-30 A	
240	42k	LA, MA	QO (B) PL	15-30 A	15-60 A	15-30 A	
			QO (B)	15-70 A[5]	—	—	
			QO (B) VH	15-30 A	15-125 A	15-100 A (3P 208 V Max.)	
		LC 600 A Maximum	QO (B) GFI	15-30 A[6]	15-60 A	—	
			QO (B) AFI	15-20 A	—	—	
			QO (B) VH	15-30 A	15-125 A	15-100 A (3P 208 V Max.)	
			QO (B) GFI	15-30 A[6]	—	—	
240	65k	LC 600 A Maximum	QO (B) AFI	15-20 A	—	—	
			QO (B) VH	15-30 A	15-125 A	15-100 A (3P 208 V Max.)	
			QO (B) GFI	15-30 A[6]	—	—	
		DJ 400 A	QO (B)	15-70 A	15-125 A	—	
			QO (B) VH	—	150 A	15-150 A	
			QO (B) H	—	15-100 A	—	
			QO (B)	15-70 A	15-125 A	15-100 A	
EG, FG[4], KG[4]	QO (B)	15-70 A	15-125 A	15-100 A			

[1] For shown circuit breakers rated less than this maximum voltage, the indicated short circuit current rating also applies, but at the voltage rating of the circuit breaker.
 [2] Suffixes HID, SWD and SWN may also be applied to the applicable branch circuit breakers shown above, except suffix SWN may NOT be applied in combination with LC main circuit breakers.
 [3] Where QO (B) circuit breakers are shown above, QO (B) H, QO (B) VH, and QH (B) circuit breakers may also be used.
 [4] Obsolete. Contact the Schneider Electric local Field Sales Office for the replacement circuit breaker. One-pole FJ circuit breakers are still available.
 [5] Only 15-30 A circuit breakers may be used when the LC circuit breaker is rated 450, 500 or 600 A.
 [6] Circuit breakers may not be used when the LC circuit breaker is rated 450, 500 or 600 A.

Table 13.18 NQOD Series Ratings (cont'd.)

Maximum System Voltage AC [7]	Maximum Short Circuit Current Rating (RMS Sym.)	Integral or Remote Main Circuit Breakers and Remote Main Fuses	Branch Circuit Breaker Designations and Allowable Ampere Ranges [8] [9]			
			Type	1-pole	2-pole	3-pole
		QG	QO (B) GFI	15–30 A	15–60 A	—
			QO (B) AFI	15–20 A	—	—
			QO (B)	15–70 A	15–125 A	15–30 A
			QO (B) AS	15–30 A	15–30 A	15–30 A
		QG, HG, JG	QO (B) VH	—	—	35–150 A
			QO (B) GFI	15–30 A	15–60 A	—
			QO (B) PL	15–30 A	15–60 A	15–30 A
			QO (B) AFI	15–30 A	—	—
		HG, JG	QO (B)	15–70 A	15–125 A	15–100 A
			QO (B) VH	—	—	35–150 A
			QO (B) H	—	15–100 A	—
		400 A Max. Class J or T6 Fuses	QOB2150VH	—	150 A	—
			QO (B)	15–70 A	15–100 A	15–100 A
			QO (B) AS	15–30 A	15–30 A	15–30 A
			QO (B) GFI	15–30 A	15–30 A	—
			QO (B) AFI	15–20 A	—	—
QO (B) VH	15–30 A		15–125 A	15–100 A		
QOB-VH	—		150 A	—		
QO (B) AFI	15–20 A		—	—		
240	100k	FC24	QO (B)	15–70 A	15–100 A	15–100 A
		KC24	QO (B) AS	15–30 A	15–30 A	15–30 A
		FC34	QO (B) GFI	15–30 A	15–30 A	—
		KC34	QO (B) AFI	15–20 A	—	—
		200 A Max. Class T3 Fuses	QO (B) AFI	15–20 A	—	—
			QO (B)	15–70 A	15–125 A	15–100 A
		EJ, FJ[7]	QO (B) GFI	15–30 A	15–60 A	—
			QO (B) AFI	15–20 A	—	—
			QO (B)	15–70 A	15–125 A	15–100 A
			QO (B) VH	—	—	35–150 A
240	125k	HL, JL	QO (B) GFI	15–30 A	15–60 A	—
			QO (B) PL	15–30 A	15–60 A	15–30 A
			QO (B) AFI	15–20 A	—	—
			QO (B) H	—	15–100 A	—
240	200k	FI, KI	QOB2150VH	—	150 A	—
			QO (B)	15–70 A	15–125 A	15–100 A
			QO (B) AS	15–30 A	15–30 A	15–30 A
			QO (B) GFI	15–30 A	15–60 A	—
		Maximum Fuses 200 A Class J or T6 400 A Class T3	QO (B) AFI	15–20 A	—	—
			QO (B)	15–70 A	15–125 A	15–100 A
			QO (B) AS	15–30 A	15–30 A	15–30 A
			QO (B) GFI	15–30 A	15–60 A	—

NQOD Merchandised Pricing Procedure

1. List circuit breakers required, either plug-on or bolt-on. See appropriate pages for catalog numbers.
2. Determine equivalent number of pole spaces required.
3. Select proper main lugs interior or main lugs exterior and main circuit breaker adapter kit based on equivalent number of poles and ampere rating from appropriate page. Interiors include solid neutral and are field convertible to top feed.
4. Select enclosure from appropriate page.
Type 1—Select box and front catalog number corresponding to interior catalog number. Types 3R, 5, 12—Select enclosure, front included.
5. For complete price, add the component prices. Include panelboard accessories.
6. Apply appropriate discount schedule.

NQOD Merchandised Example

Table 13.19: 208Y/120 Vac, 3Ø4W, 10 kAIR, 225 A, MLO, Type 1 surface mount, bolt-on branch circuit breakers, main sub-feed lugs

Branches	Page No.	Catalog Number	Spaces
225 A MLO Interior	NQOD 20-inch Wide Enclosures—240 Vac, 48 Vdc, page 13-10	NQOD430L225CU	30
Box	NQOD 20-inch Wide Enclosures—240 Vac, 48 Vdc, page 13-10	MH32	—
Cover	NQOD 20-inch Wide Enclosures—240 Vac, 48 Vdc, page 13-10	MHC32S	—
Main Sub-Feed Lugs	NQOD 20-inch Wide Enclosures—240 Vac, 48 Vdc, page 13-10	NQOD225SFL	—

[7] For shown circuit breakers rated less than this maximum voltage, the indicated short circuit current rating also applies, but at the voltage rating of the circuit breaker.
 [8] Suffixes HID, SWD and SWN may also be applied to the applicable branch circuit breakers shown above, except suffix SWN may NOT be applied in combination with LC main circuit breakers.
 [9] Where QO (B) circuit breakers are shown above, QO (B) H, QO (B) VH, and QH (B) circuit breakers may also be used.
 [7] Obsolete. Contact the Schneider Electric local Field Sales Office for the replacement circuit breaker. One-pole FJ circuit breakers are still available.

NQOD 20-inch Wide Main Lug Interiors and NQOD Accessories

Table 13.20: Main Lug Interiors—Accepts plug-on and bolt-on circuit breakers

Max. No. of Single Pole QO™/QOB Circuit Breakers	Mains Rating	Interior Only (Order Branch Circuit Breakers Separately) Catalog No. [9][10]	Type 1 Enclosure			Height (In.)
			Box 20"W x 5.75"D [8]	Mono-Flat™ Front [8]	Types 3R, 5, 12 Enclosures Enclosure 20"W x 6.5"D	
20" Wide Cabinet—Single Phase 3-Wire						
20	100	NQOD20L100CU	MH23	MHC23 ()	MH23WP	23
30	225	NQOD30L225CU	MH32	MHC32 ()	MH32WP	32
42		NQOD42L225CU	MH35	MHC35 ()	MH35WP	35
42		NQOD42L225CUTF [11]	MH41	MHC41 ()	MH41WP	41
54		NQOD54L225CU	MH41	MHC41 ()	MH41WP	41
30	400	NQOD30L400CU	MH50	MHC50V ()	MH50WP	50
42		NQOD42L400CU	MH53	MHC53V ()	MH53WP	53
54		NQOD54L400CU	MH59	MHC59V ()	MH59WP	59
30	600 [12]	NQOD30L600	MH53	MHC53V ()	MH656WP	53/65
42		NQOD42L600	MH56	MHC56V ()	MH686WP	56/68
42		NQOD42L600TFL [11]	MH62	MHC62V ()	MH746WP	62/74
54		NQOD54L600	MH62	MHC62V ()	MH746WP	62/74
20" Wide Cabinet—Three Phase 4-Wire						
24	100	NQOD424L100CU	MH23	MHC23 ()	MH23WP	23
30	225	NQOD430L100CU	MH26	MHC26 ()	MH26WP	26
30		NQOD430L225CU	MH23	MHC32 ()	MH32WP	32
42		NQOD442L225CU	MH35	MHC35 ()	MH35WP	35
42		NQOD442L225CUTF [11]	MH41	MHC41 ()	MH41WP	41
54	400	NQOD454L225CU	MH41	MHC41 ()	MH41WP	41
30		NQOD430L400CU	MH50	MHC50V ()	MH50WP	50
42		NQOD442L400CU	MH53	MHC53V ()	MH53WP	53
54	600 [12]	NQOD454L400CU	MH59	MHC59V ()	MH59WP	59
30		NQOD430L600	MH53	MHC53V ()	MH656WP	53/65
42		NQOD442L600	MH56	MHC56V ()	MH686WP	56/68
42		NQOD442L600TFL [11]	MH62	MHC62V ()	MH746WP	62/74
54	NQOD454L600	MH62	MHC62V ()	MH746WP	62/74	

Table 13.21: NQOD Accessories [13]

Description	Catalog No.
Sub-feed lug kits—main lugs only—1Ø or 3Ø [14]	
100 A	NQOD100SFL
225 A	NQOD225SFL
Sub-feed: Bolt-on: 2-pole	QOB2125SL
3-pole	QOB3125SL
Equipment ground bars: 12 circuit 225 A max.	PK9GTA
20 circuit 225 A max.	PK12GTA
24 circuit 225 A max.	PK15GTA
30 circuit 225 A max.	PK18GTA
54 circuit 225 A max.	PK23GTA
54 circuit 600 A max.	PK27GTA
PK15GTA with #1 to 4/0 Al/Cu lug	PK15GTAL
PK18GTA with #1 to 4/0 Al/Cu lug	PK18GTAL
PK23GTA with #1 to 4/0 Al/Cu lug	PK23GTAL
Ground bar insulator kit	PKGTAB
Filler plate	QOFP
Circuit I.D. number strips	
1-102 odd/even (left side numbered 1,3,5 ... 101)	NQ102OE
103-204 odd/even (left side numbered 103,105,107 ... 203)	NQ204OE
1-102 sequential (left side numbered 1,2,3 ... 102)	NQ102S
103-204 sequential (left side numbered 103,104,105 ... 204)	NQ204S
Directory cards	8003115801
Plastic stick-on directory pouch	8003115901
Lock—for Mono-Flat fronts	PK22FL
Key—NSR-251 (for all locks)	LP9618
Touch-up paint USAS #49 Gray (Aerosol can)	PK49SP
Handle attachments—branch circuit breakers:	
Handle lock-off	HLO1
Handle tie - (QO and QOB only)	QO1HT
Handle padlock attachment - 1-pole	QO1PA
2- and 3-pole	QO1PL
Combination handle tie and lock-off for three 1-pole (QO, QOB)	QO3HT
Neutral or Ground Lugs: #10 to #2 Al or #14 to #4 Cu	
#4 to #1/0 Al/Cu	QO70AN
#1 to #4/0 Al/Cu	Q1100AN
	Q1150AN
Endwalls for MH Boxes	
Blank	8011010501

[8] Embossed mounting holes add a 0.25 inch standoff to back of MH box.
 [9] "CU" suffix indicates copper bussing. NQOD RTI interiors with aluminum bus are no longer available. Order copper bussed equivalent with a "CU" suffix when ordering replacement interior.
 [10] Add "F" for flush, "S" for surface.
 [11] Feed-thru lug interior.
 [12] Copper bus standard on 600 A interiors.
 [13] For Door-in-door (hinged) trim see the Supplemental & Obsolescence Digest, Section 4.
 [14] 42 circuit MLO panelboard requires MH38 box, 54 circuit panelboard requires MH44 box.

Table 13.21 NQOD Accessories^[13.21] (cont'd.)

Description	Catalog No.
With Knockouts	8011010401
Elevating Nuts (4 required)	2322000003

NQOD 20–inch Wide Main Circuit Breaker Interiors and Adapter Kits

Table 13.22: Main Circuit Breaker Interiors—Accepts plug-on and bolt-on circuit breakers

Max. No. of One-pole QO™/QOB Circuit Breakers	Mains Rating	Main Circuit Breaker Adapter Kit	Interior Only (Order Branch Circuit Breakers Separately)	Type 1 Enclosure		Types 3R, 5, 12 Enclosures ^[15]	
				Box 20"W x 5.75"D ^[16]	Mono-Flat™ Front ^[16]	Enclosure 20"W x 6.5"D	Height (In.)
		Catalog No.	Catalog No. ^[17]	Catalog No.	Catalog No.	Catalog No.	
20" Wide Cabinet—Single Phase 3-Wire							
20	100	Factory Installed Backfed QOB Main Circuit Breaker	NQOD20M100CU	MH26	MHC26 ()	MH26WP	26
30	225	NQODQB or NQODJK	NQOD30L225CU	MH44	MHC44 ()	MH44WP	44
42			NQOD42L225CU	MH50	MHC50 ()	MH50WP	50
42			NQOD42L225CUTF ^[18]	MH56	MHC56 ()	MH56WP	56
54			NQOD54L225CU	MH56	MHC56 ()	MH56WP	56
30	400	NQOD4	NQOD30L400CU	MH65	MHC65V ()	MH65WP	65
42			NQOD42L400CU	MH68	MHC68V ()	MH68WP	68
42			NQOD42L600TFL ^[18]	MH77	MHC77V ()	MH77WP	77
54			NQOD54L400CU	MH74	MHC74V ()	MH74WP	74
20" Wide Cabinet—Three Phase 4-Wire							
24	100	Factory Installed Backfed QOB Main Circuit Breaker	NQOD424M100CU	MH26	MHC26 ()	MH26WP	26
30	225	NQODQB or NQODJK	NQOD430M100CU	MH29	MHC29 ()	MH29WP	29
30			NQOD430L225CU	MH44	MHC44 ()	MH44WP	44
42			NQOD442L225CU	MH50	MHC50 ()	MH50WP	50
42			NQOD442L225CUTF ^[18]	MH56	MHC56 ()	MH56WP	56
54	400	NQOD4	NQOD454L225CU	MH56	MHC56 ()	MH56WP	56
30			NQOD430L400CU	MH65	MHC65V ()	MH65WP	65
42			NQOD442L400CU	MH68	MHC68V ()	MH68WP	68
42			NQOD442L600TFL ^[18]	MH77	MHC77V ()	MH77WP	77
54	NQOD454L400CU	MH74	MHC74V ()	MH74WP	74		

Table 13.23: Main Circuit Breaker Adapter Kits (Less Circuit Breaker)

Amperes	Catalog Number	Circuit Breaker Frame ^[19]
225	NQODQB	QBL, QDL, QGL, QJL
225	NQODJK	JDL, JGL, JJL, JLL, KIL
400	NQOD4	LAL, LHL, Q4L

NQOD 14–inch Wide Main Lug and Circuit Breaker Interiors

Table 13.24: Main Lug Interiors—Accepts plug-on and bolt-on circuit breakers

Max. No. of Single Pole QO™/QOB Circuit Breakers	Mains Rating	Interior Only (Order Branch Circuit Breakers Separately)	Type 1 Enclosure		Types 3R, 5, 12 Enclosures	
			Box 14 in. W x 5.75 in. D ^[20]	Mono-Flat™ Front ^[21]	Enclosure 20 in. W x 6.5 in. D	Height (In.)
		Catalog No. ^[17]	Catalog No.	Catalog No.	Catalog No.	
14-inch Wide Cabinet—Single Phase 3-Wire						
12	100	NQOD12L100CU	NQB520	NQC20 ()	Use 20-inch Wide Enclosure for Types 3R, 5, 12	20
20		NQOD20L100CU	NQB523	NQC23 ()		23
30	225	NQOD30L225CU	NQB532	NQC32 ()	Use 20-inch Wide Enclosure for Types 3R, 5, 12	32
42		NQOD42L225CU	NQB535	NQC35 ()		35
54		NQOD54L225CU	NQB541	NQC41 ()		41
14-inch Wide Cabinet—Three Phase 4-Wire						
12	100	NQOD412L100CU	NQB520	NQC20 ()	Use 20-inch Wide Enclosure for Types 3R, 5, 12	20
24		NQOD424L100CU	NQB523	NQC23 ()		23
30		NQOD430L100CU	NQB526	NQC26 ()		26
30	225	NQOD430L225CU	NQB532	NQC32 ()	Use 20-inch Wide Enclosure for Types 3R, 5, 12	32
42		NQOD442L225CU	NQB535	NQC35 ()		35
54		NQOD454L225CU	NQB541	NQC41 ()		41

^[15] Enclosure includes trim kit.

^[16] Embossed mounting holes add a 0.25 inch standoff to back of MH box.

^[17] "CU" suffix indicates copper bussing. NQOD RT1 interiors with aluminum bus are no longer available. Order copper bussed equivalent with a "CU" suffix when ordering replacement interior.

^[18] Feed-thru lug interior.

^[19] Circuit breaker interrupting ratings, see Digest Section 7 under The PowerPact Advantage.

^[20] 14-inch wide cabinets accept 100 A max. branch circuit breakers.

^[21] Add "F" for flush, "S" for surface.

Table 13.25: Main Circuit Breaker Interiors—Accepts Plug-On and Bolt-On Circuit Breakers

Max. No. of One Pole QO/QOB Circuit Breakers	Mains Rating	Main Circuit Breaker Adapter Kit	Interior Only (Order Branch Circuit Breakers Separately)	Type 1 Enclosure		Types 3R, 5, 12 Enclosure	
				Box 14 in. W x 5.75 in. D ^[22]	Mono-Flat Front ^[23]	Enclosure 20 in. W x 6.5 in. D	Height (In.)
				Catalog No.	Catalog No. ^[24]	Catalog No.	
14-inch Wide Cabinet—Single Phase 3-Wire							
12	100	Factory Installed QOB Main Circuit Breaker	NQOD12M100CU	NQB523	NQC23 ()	Use 20-inch Wide Enclosure for Types 3R, 5, 12	23
20			NQOD20M100CU	NQB526	NQC26 ()		26
30	225	NQODJK or NQODQB	NQOD30L225CU	NQB544	NQC44 ()	Use 20-inch Wide Enclosure for Types 3R, 5, 12	44
42			NQOD42L225CU	NQB550	NQC50 ()		50
54			NQOD54L225CU	NQB556	NQC56 ()		56
14-inch Wide Cabinet—Three Phase 4-Wire							
12	100	Factory Installed QOB Main Circuit Breaker	NQOD412M100CU	NQB523	NQC23 ()	Use 20-inch Wide Enclosure for Types 3R, 5, 12	23
24			NQOD424M100CU	NQB526	NQC26 ()		26
30			NQOD430M100CU	NQB529	NQC29 ()		29
30	225	NQODJK or NQODQB	NQOD430L225CU	NQB544	NQC44 ()	Use 20-inch Wide Enclosure for Types 3R, 5, 12	44
42			NQOD442L225CU	NQB550	NQC50 ()		50
54			NQOD454L225CU	NQB556	NQC56 ()		56

Table 13.26: Main Circuit Breaker Adapter Kits (Less Circuit Breaker)

Amperes	Catalog No.	Circuit Breaker Frame ^[25]
225	NQODQB	QBL, QDL, QGL, QJL
225	NQODJK	JDL, JGL, JLL, JLL, KIL

For Non-Linear Loads (200% Rated Neutral)

Table 13.27: Main Lug Interiors—Accepts plug-on and bolt-on circuit breakers

Max. No. of Single Pole QO/QOB Circuit Breakers	Mains Rating	Main Lugs Interior Only (Order Branch Circuit Breakers Separately)	Type 1 Enclosure		Types 3R, 5, 12 Enclosures ^[26]		
			Box 20"W x 5.75"D ^[27]	MONO-FLAT [®] Front ^[23]	Enclosure 20"W x 6.5"D	Height (In.)	
			Catalog No. ^[24]	Catalog No.	Catalog No.		
20" Wide Cabinet—3 Phase 4-Wire							
30	100	NQOD430L100CUNL	MH29	MHC29 ()	MH29WP	29	
42	225	NQOD442L225CUNL	MH38	MHC38 ()	MH38WP	38	
42	400	NQOD442L400CUNL	MH53	MHC53V ()	MH53WP	53	

[22] 14-inch wide cabinets accept 100 A max. branch circuit breakers.

[23] Add "F" for flush, "S" for surface.

[24] "CU" suffix indicates copper bussing. NQOD RTI interiors with aluminum bus are no longer available. Order copper bussed equivalent with a "CU" suffix when ordering replacement interior.

[25] Circuit breaker interrupting ratings, see Digest Section 7 under The PowerPact Advantage.

[26] Enclosure includes trim kit.

[27] Embossed mounting holes add a 0.25 inch standoff to back of MH box.

Table 13.28: Main Circuit Breaker Interiors

Max. No. of Single Pole QO/QOB Circuit Breakers	Mains Rating	Main Circuit Breaker Adapter Kit [28]	Main Lugs Interior Only (Order Branch Circuit Breakers Separately)	Type 1 Enclosure		Types 3R, 5, 12 Enclosures [29]	
				Box 20"W x 5.75"D	MONO-FLAT Front [30]	Enclosure 20"W x 6.5"D	Height (In.)
		Catalog No.	Catalog No. [31]	Catalog No.	Catalog No.	Catalog No.	
20" Wide Cabinet—3 Phase 4-Wire							
30	100	QOB Main Circuit Breaker	NQOD430M100CUNL	MH32	MHC32 ()	MH32WP	32
42	225	NQODJK NQODQB	NQOD442L225CUNL	MH50	MHC50 ()	MH50WP	50
42	400	NQOD4	NQOD442L400CUNL	MH68	MHC68V ()	MH68WP	68

Table 13.29: Main Circuit Breaker Adapter Kits (Less Circuit Breaker) [28]

Amperes	Catalog Number	Circuit Breaker Frame [32]
225	NQODQB	QBL, QDL, QGL, QJL
225	NQODJK	JDL, JGL, JLL, JLL, KIL
400	NQOD4	LAL, LHL

Table 13.30: NQOD Main Neutral Conductors—Required Size and Quantity [33]

Panelboard Ampacity	Neutral Conductors Required [34]	Actual Lug Wire Range
100/125	(2) 1/0 Cu or Al	(2) #4–300 kcmil
225	(2) 4/0 Cu or (2) 300 kcmil Al	(2) #4–300 kcmil
400	(4) 3/0 Cu or (4) 250 kcmil Al (2) 600 kcmil Cu (2) 750 kcmil Al	(2) 1/0–300 kcmil or (1) 750 kcmil

[28] Order main circuit breaker separately

[29] Enclosure includes trim kit.

[30] Add "F" for flush, "S" for surface.

[31] "CU" suffix indicates copper bussing. NQOD RT1 interiors with aluminum bus are no longer available. Order copper bussed equivalent with a "CU" suffix when ordering replacement interior.

[32] Main neutral conductors must be copper or aluminum conductors of minimum size and quantity shown to maintain UL Listing. Requirement is based on heat rise testing.

[33] Neutral conductors must be of size and quantity per table above.

[34] Main neutral conductors must be copper or aluminum conductors of minimum size and quantity shown to maintain UL Listing. Requirement is based on heat rise testing.

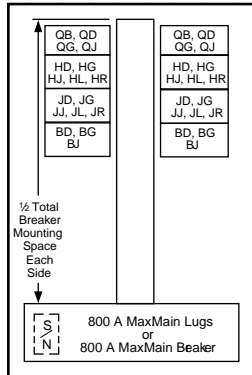
I-Line HCN

Table 13.31: Interiors, Boxes and Fronts

Total Circuit Breaker Mounting Space (In.)	Mains Ampere Rating	Interior Assembly (Less Branch Circuit Breakers)	Front [1]		Box [2]		Box Height (In.)
			4 Piece Trim Without Door	Trim With Door[3]	Type 1	NEMA 3R/5/12 [4] (Includes Front)	
			Catalog Number	Catalog Number	Catalog Number	Catalog Number	
HCN Main Lugs Only 3-pole—Suitable for use as service equipment when provided with a main circuit breaker. [5]							
27	225 A	HCN14522N	HCN52T()	HCN52T()D	HC2652B	HC2652WP	52
	400 A	HCN14524					
	600 A	HCN14526					
45	225 A	HCN23652N	HCN65T()	HCN65T()D	HC2665B	HC2665WP	65
	400 A	HCN23654					
	600 A	HCN23656					
63	225 A	HCN32742N	HCN74T()	HCN74T()D	HC2674B	HC2674WP	74
	400 A	HCN32744					
	600 A	HCN32746					
81	225 A	HCN41832N	HCN83T()	HCN83T()D	HC2683B	HC2683WP	83
	400 A	HCN41834					
	600 A	HCN41836					
99	225 A	HCN50922N	HCN92T()	HCN92T()D	HC2692B	HC2692WP	92
	400 A	HCN50924					
	600 A	HCN50926					
HCN Main Circuit Breaker [6] [7] Includes 3-pole, vertically mounted main circuit breaker—Suitable for use as service equipment							
27	400 A	HCN14654M	HCN65T()	HCN65T()D	HC2665B	HC2665WP	65
36	100 A	HCN18651MN	HCN65T()	HCN65T()D	HC2665B	HC2665WP	65
	225 A	HCN18652MN					
45	400 A	HCN23744M	HCN74T()	HCN74T()D	HC2674B	HC2674WP	74
54	100 A	HCN27741MN					
	225 A	HCN27742MN	HCN83T()	HCN83T()D	HC2683B	HC2683WP	83
63	225 A	HCN32832MN					
	400 A	HCN32834M	HCN92T()	HCN92T()D	HC2692B	HC2692WP	92
81	400 A	HCN41924M					
90	225 A	HCN45922MN					

TYPE HCM

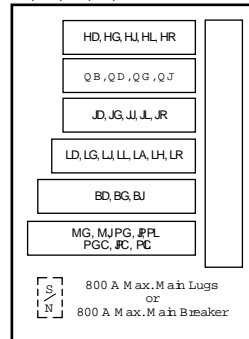
250 A max. branch circuit breaker
BD, BG, BJ, FA, FH, FY, QB, QD, QG, QJ, QH, HD, HG, HJ, HL, HR, JD, JG, JJ, JL, JR



Box Size:
32 in. Wide, 8.25 in. Deep

TYPE HCP-SU [8]

800 A max. main circuit breaker
600 A max. branch circuit breaker
BD, BG, BJ, FY, FA, FH, LA, LD, LG, LJ, LL, LH, LR, MG, MJ, PG, PJ, PL, PGC, PJC, PLC [9], QB, QD, QG, QJ, HD, HG, HJ, HL, JD, JG, JJ, JL



Box Size:
26 in. Wide, 9.5 in. Deep

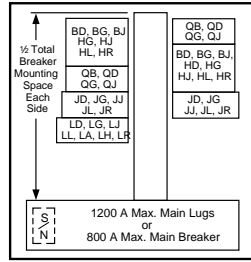
13

OBSCURE PANELBOARDS

[1] Add "F" for flush mount, "S" for surface mount.
 [2] For Type 1 applications, order interior, front, and box. For Type 3R/5/12 applications, order interior and box only. The front is included with the box.
 [3] For Type 1 applications order interior, trim and box. For type 3R/5/12, order interior and box only.
 [4] Remove drain screws for Type 3R rating.
 [5] Suitable for use as service equipment if equipped with an integral main circuit breaker or when not more than six main disconnecting means are provided and the panelboard is not used as a lighting and appliance branch circuit panelboard.
 [6] Bottom feed standard.
 [7] Circuit breaker interrupting ratings, see Digest Section 7 under The PowerPact Advantage.
 [8] For main circuit breaker panel, order plug-on I-Line type PG, PJ, PL, MG, or MJ circuit breakers from 9-47 through 9-48 and backfeed as the main breaker (order solid neutral from 9-37).
 [9] PG, PJ, PL circuit breakers are available with both thermal-magnetic equivalent and MicroLogic trip. The MicroLogic circuit breakers are available 80% and 100% rated. "C" suffix denotes a 100% rating.

TYPE HCP

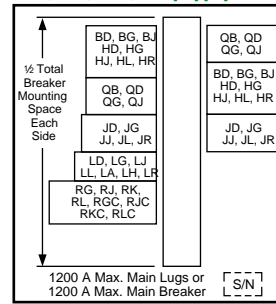
800 A max. branch circuit breaker
FA [10], BD, BG, BJ, FA, FH, QB, QD, QG, QJ, HD, HG, HJ, HL, HR, JD, JG, JJ, JL, JR, LA, LH, LD, LG, LJ, LL, LR, MG, MJ, PG, PJ, PL, PGC, PJC, PLC [11]



Box Size: 42 in. Wide, 9.5 in. Deep

TYPE HCR-U Universal Mains

1200 A max. branch circuit breaker
FA [10], BD, BG, BJ, FA, FH, QB, QD, QG, QJ, HD, HG, HJ, HL, HR, JD, JG, JJ, JL, JR, LA, LH, LD, LG, LJ, LL, LR, MG, MJ, PG, PJ, PK, PL, RG, RJ, RK, RL, PGC, PJC, PKC, PLC, RGC, RJC, RKC, RLC [12] [11]



Box Size: 44 in. Wide, 9.5 in. Deep

Table 13.32: Circuit Breaker / Sub-feed Lug Kit Mounting Space Requirement

Type of Circuit Breaker	Maximum Ampacity	No. of Poles	Inch Mounting Requirements
FY	30	1	1.5
FA, FH	100	1	1.5
FA, FH		2	3
FA, FH, SL-100		3	4.5
FI		2, 3	4.5
LC, LI, LXI	600	2, 3	7.5

Accessories

Table 13.33: Sub-feed Lug Kits [13][14][15]

Ampere Rating	Height		Catalog Number	Max. Short Circuit System Ratings RMS Symmetrical Amperes			Protected by Circuit Breaker	For Use in I-Line Panelboard Types
	In.	(mm)		240 Vac	480 Vac	600 Vac		
100 A	4.5	114	SL100	100,000	65,000	18,000	FA, FH, FD, FG, FJ	HCM, HCP, HCP-SU, HCR-U

Table 13.34: Sub-feed Lug kit terminal data

Catalog No. (Prefix)	No. Poles	Ampere Rating	Standard Lug Wire Size [16]
SL100	3	100	#14–1/0 AWG Cu or #12–1/0 AWG Al

[10] FA and JDA circuit breakers with field installable ground fault kits may be mounted in type HCP, HCP-SU, and HCR-U panelboards as shown, and require L-frame mounting space.
 [11] PG, PJ, and PL circuit breakers are available with both thermal-magnetic equivalent and MicroLogic trip. The MicroLogic circuit breakers are available 80% and 100% rated. "C" suffix denotes a 100% rating.
 [12] When RL main circuit breakers with equipment ground fault are applied on a 3Ø4W system, order solid neutral catalog number HCR12SNCT. The HCR12SNCT includes a neutral current transformer.
 [13] Plug-on in same manner as a branch circuit breaker
 [14] For other ratings, see the latest edition of I-Line Information Manual, #80043-309-xx.
 [15] SL400 cannot be used in HCJ panelboards due to inadequate wire bending space.
 [16] Unless otherwise specified, wire sizes apply to both aluminum and copper conductors.



KI362502- and 3-pole
4.5 in. (114 mm) Mounting Height

2 KI breakers

Table 13.35: K-frame—250 A, Thermal-magnetic, Current Limiting (600 Vac)

Ampere Rating	AC Magnetic Trip Settings		Current Limiting Catalog Number	Terminal Wire Range
	Low	High		
2-pole, 600 Vac, 250 Vdc [1]				
110 A	550	1100	KI26110()	AL250KA one #4 AWG– 350 kcmil Al or Cu
125 A	625	1250	KI26125()	
150 A	750	1500	KI26150()	
175 A	875	1750	KI26175()	
200 A	1000	2000	KI26200()	
225 A	1125	2250	KI26225()	AL250KI one #1/0 AWG– 350 kcmil Al or Cu
250 A	1250	2500	KI26250()	
3-pole, 600 Vac, 250 Vdc				
110 A	550	1100	KI36110	AL250KA one #4 AWG– 350 kcmil Al or Cu
125 A	625	1250	KI36125	
150 A	750	1500	KI36150	
175 A	875	1750	KI36175	
200 A	1000	2000	KI36200	
225 A	1125	2250	KI36225	AL250KI one #1/0 AWG– 350 kcmil Al or Cu
250 A	1250	2500	KI36250	

2 LC, LI

Table 13.36: L-frame—600 A, Thermal-magnetic (600 Vac)[2]



LC
2- and 3-pole
7.5 in. (190 mm)
Mounting Height

Ampere Rating	AC Magnetic Trip Settings		Extra High Interrupting Catalog Number	Current Limiting Catalog Number	Terminal Wire Range
	Low	High			
2-pole, 600 Vac [1]					
300 A	1500	3200	LC26300()	LI26300()	AL600LI5 two #4/0 AWG–500 kcmil AL or Cu
350 A	1750		LC26350()	LI26350()	
400 A	2000	4200	LC26400()	LI26400()	
450 A	2250		LC26450()	LI26450()	
500 A	2500		LC26500()	LI26500()	
600 A	3000		LC26600()	LI26600()	
3-pole, 600 Vac					
300 A	1500	3200	LC36300	LI36300	AL600LI5 two #4/0 AWG–500 kcmil AL or Cu
350 A	1750		LC36350	LI36350	
400 A	2000	4200	LC36400	LI36400	
450 A	2250		LC36450	LI36450	
500 A	2500		LC36500	LI36500	
600 A	3000		LC36600	LI36600	

For QMB/QMJ Panelboards and Switchboards

Table 13.37: QMB Branch Switch Units

Unit Ampere Rating	Unit Height (in.)	Catalog Number	Class R Fuse Kits		Electrical Interlock Kit Catalog Number [2]	Horsepower Ratings [1]													
			No. Kits Req'd.	Catalog Number		240 Vac				480 Vac				600 Vac				250 Vdc	
					1Ø	3Ø	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø			
2-pole, 240 Vac, 250 Vdc																			
30 A-30 A	4.5	QMB221TW	2	HRK30	QMB300EK (1 or 2)	1.5	3	3	7.5	—	—	—	—	—	—	5			
30 A-Blank		QMB221HW [3]				—	—	—	—	—	—	—	—	—	—	—	—	5	
60 A-60 A		QMB222TW				1	QMB36R	QMB300EK (1 or 2)	3	7.5	10	15	—	—	—	—	—	—	10
60 A-Blank		QMB222HW [3]							—	—	—	—	—	—	—	—	—	—	—
100 A-100 A	6	QMB223TW	1	QMB100R	QMB610EK (1 or 2)	7.5	15	15	30	—	—	—	—	—	—	20			
100 A-Blank		QMB223HW [3]				—	—	—	—	—	—	—	—	—	—	—	—	20	
200 A	9	QMB224W	1	HRK1020	QMB200EK (1 or 2)	—	25	15	60	—	—	—	—	—	—	40			
400 A	15	QMB225W		QMB4060R	—	—	—	—	—	—	—	—	—	—	—	—			
	9	QMB225WT3 [4]		—	—	—	—	—	—	—	—	—	—	—	—	—			
600 A	Use 3-pole devices for 2-pole application.												—	—	—	—			
3-pole, 240 Vac																			
30 A-30 A	4.5	QMB321TW	2	HRK30	QMB300EK (1 or 2)	—	3	—	7.5	—	—	—	—	—	—	—			
30 A-Blank		QMB321HW [3]				—	—	—	—	—	—	—	—	—	—	—	—	—	
60 A-60 A		QMB322TW				1	QMB36R	QMB300EK (1 or 2)	—	7.5	—	15	—	—	—	—	—	—	—
60 A-Blank		QMB322HW [3]							—	—	—	—	—	—	—	—	—	—	—
100 A-100 A	6	QMB323TW	1	QMB100R	QMB610EK (1 or 2)	—	15	—	30	—	—	—	—	—	—	—			
100 A-Blank		QMB323HW [3]				—	—	—	—	—	—	—	—	—	—	—	—	—	
200 A	9	QMB324W	1	HRK1020	QMB200EK (1 or 2)	—	25	—	60	—	—	—	—	—	—	—			
400 A	15	QMB325W		QMB4060R	—	—	—	—	—	125	—	—	—	—	—	—			
	9	QMB325WT3 [4]		—	—	—	—	—	—	—	—	—	—	—	—	—			
600 A	15	QMB326W	1	QMB4060R	—	—	—	—	150	—	—	—	—	—	—	—			
	9	QMB326WT3 [4]				—	—	—	—	—	—	—	—	—	—	—	—	—	

[1] 2-pole circuit breaker catalog numbers are completed by adding required phase connection letters as suffix to catalog number. See Digest Section 9.
 [2] Type LC and LI circuit breakers are NOT recommended for use on single-motor branch circuits.
 [1] Horsepower rating applicable to 480Y/277 V system only.
 [2] "1" indicates one normally open and one normally closed contact.
 "2" indicates two normally open and two normally closed contacts.
 [3] Blank units cannot be modified to accept a switch interior.
 [4] Use 300 Vac Class T fuses only.

Table 13.37 QMB Branch Switch Units (cont'd.)

Unit Ampere Rating	Unit Height (In.)	Catalog Number	Class R Fuse Kits		Electrical Interlock Kit	Horsepower Ratings [5]															
			No. Kits Req'd.	Catalog Number		Catalog Number [6]	240 Vac				480 Vac				600 Vac				250 Vdc		
					Std.		Max.		Std.		Max.		Std.		Max.						
					1Ø		3Ø	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø				
800 A		QMB327WT3 [5]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
2-pole, 600 Vac, 250 Vdc [6]																					
30 A-30 A	4.5	QMB261TW	1	QMB36R	QMB300EK (1 or 2)	1.5	—	3	—	3	5	7.5	15	3	—	10	—	5			
30 A-Blank		QMB261HW [7]				—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
60 A-60 A		QMB262TW				QMB60R	QMB610EK (1 or 2)	3	—	10	—	5	15	20	30	10	—	25	—	10	—
60 A-Blank		QMB262HW [7]						—	—	—	—	—	—	—	—	—	—	—	—	—	—
100 A-100 A	6	QMB263TW	2	HRK1020	QMB610EK (1 or 2)	7.5	—	15	—	10	25	30	60	15	—	40	—	20			
100 A-Blank		QMB263HW [7]																	—	—	—
200 A	9	QMB264W	1	HRK1020	QMB200EK (1 or 2)	15	—	—	—	25	50	50	125	30	—	50	—	40			
400 A	Use 3-pole devices for 2-pole application.				—	—	—	—	—	—	—	—	—	—	—	—	—	—			
600 A					—	—	—	—	—	—	—	—	—	—	—	—	—	—			
3-pole, 600 Vac, 250 Vdc [6]																					
30 A-30 A	4.5	QMB361TW	1	QMB36R	QMB300EK (1 or 2)	—	3	—	7.5	—	5	—	15	—	7.5	—	20	—			
30 A-Blank		QMJ361T	—	—		—	—	—	—	—	—	—	—	—	—	—	—	20	5		
60 A-60 A	6	QMB361HW [7]	1	QMB36R	QMB610EK (1 or 2)	—	3	—	7.5	—	5	—	15	—	7.5	—	20	—			
60 A-Blank		QMB362TW				—	QMB60R	—	7.5	—	15	—	15	—	30	—	15	—	50	—	
60 A-Blank		QMJ362T	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	10		
60 A-30 A		QMB362HW [7]	1	QMB60R and QMB36R		—	7.5	—	15	—	15	—	30	—	15	—	50	—	—		
100 A-100 A	QMB362T21W	—			—	—	—	—	—	—	—	—	—	—	—	—	—	—			
100 A-100 A	7.5	QMB363TW	2	HRK1020	QMB610EK (1 or 2)	—	15	—	30	—	25	—	60	—	30	—	75	—			
100 A-Blank	6	QMJ363T	—	—		—	—	—	—	—	—	—	—	—	—	—	—	20			
100 A-Blank	7.5	QMB363HW [7]	1	HRK1020		—	15	—	30	—	25	—	60	—	30	—	75	—			
100 A-Blank	6	QMJ363H [7]	—	—		—	—	—	—	—	—	—	—	—	—	—	—	20			
100 A-30 A	7.5	QMB363T31W	1	QMB36R	QMB610EK (1 or 2)	—	—	—	—	—	—	—	—	—	—	—	—	—			
100 A-60 A		QMB363T32W				—	QMB60R	—	—	—	—	—	—	—	—	—	—	—	—	—	
200 A	9	QMB364W	1	HRK1020		QMB200EK (1 or 2)	—	25	—	60	—	50	—	125	—	60	—	150	—		
200 A-200 A	7.5	QMJ364T	—	—		QMB610EK (1 or 2)	—	25	—	60	—	50	—	125	—	60	—	150	40		
200 A-Blank		QMJ364H [7]	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—			
400 A [8]	15	QMB365W	1	QMB4060R	—	—	—	—	—	100	—	250	—	125	—	350	50				
400 A	9	QMJ365	—	—	QMB200EK (1 or 2)	—	50	—	125	—	100	—	250	—	125	—	350	50			
400 A [8]		QMB365WT6 [9]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
600 A [8]		QMB366W	1	QMB4060R	—	—	—	—	—	150	—	400	—	250	—	500	—	—			
600 A	15	QMJ366	—	—	—	—	75	—	150	—	—	—	—	—	—	—	—	—			
800 A		QMB367W	—	—	—	—	—	—	—	150	—	400	—	250	—	500	—	—			

NOTE: See the Supplemental Digest for merchandised motor starter units, QMB RTI panelboards, and replacement switches for Series 1–4 and D2 QMB panelboards.

NOTE: For series E1 and E2, QMJ switches may be used in 400 A–1200 A interiors in a NEMA 1 without door only. QMJ switches cannot be used in series E1 and E2, 225 A panelboards. QMJ switches cannot be used in NEMA 1 with door or any NEMA 3R/12 enclosure.

Fusible—600 Vac, 250 Vdc

Table 13.38: Available QMB Accessories

Electrical Interlocks		
1NO and 1NC Electrical Interlocks on Main Switches		
2NO and 2NC Electrical Interlocks on Main Switches		
Equipment Ground Bars		
Standard Ground Bar		
Copper Ground Bar		
Insulated/Isolated Ground Bar		
Name Plates		
Copper Neutral		
Copper Neutral		
125–400A		
600A		
800A		
Enclosure Modifications		
Hinged Trim		
Weatherproof - NEMA 3R		
Lugs		
Mechanical Lugs - Standard		
Copper Mechanical Lugs		
Copper Compression Lugs		
Aluminum Compression Lugs		
VCEL Lugs		
UL Listed Short Circuit Ratings for QMB Starters		
Starter Size	Fusible switch-600V Max. (with Class R or J Fuses) RMS Sym. Amps	Thermal-Magnetic Bircuit Breaker 600V Max. Rms Sym. Amps
0	100,000	5,000

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[5] Horsepower rating applicable to 480Y/277 V system only.

[6] "1" indicates one normally open and one normally closed contact. "2" indicates two normally open and two normally closed contacts.

[7] Use 300 Vac Class T fuses only.

[8] Class J fuse provisions—to field modify switch, move load side fuse base to position indicated in switch. Not available on 100-30, 100-60, or 800 A switch units.

[9] Blank units cannot be modified to accept a switch interior.

[8] 250 Vdc rating.

[9] Use 600 Vac Class T fuses only.

Refer to Catalog 2110CT9701, 4620CT9601

Table 13.38 Available QMB Accessories (cont'd.)

1	100,000	5,000
2	100,000	5,000
3	100,000	5,000

QMB Layout Information

To maximize the quantity of branch switches, use QMJ switches from page 13-16. Class J fuses are available in time delay construction suitable for motor and transformer loads.

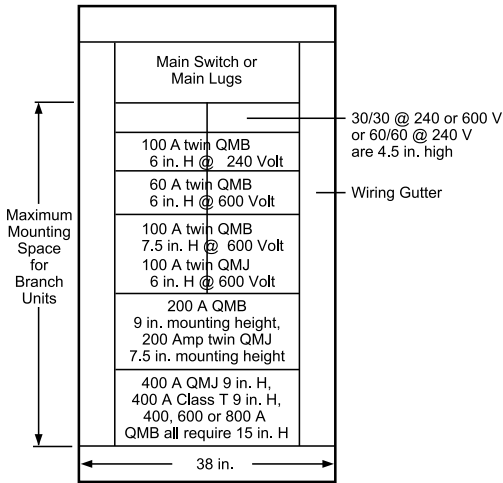


Table 13.39: I-Line™ Panelboard Split Bus Bars

Ampacity MLO	Additional Mounting Height Required On Split Bus Section [10]	
	Split Bus	
225 A	7.5 in.	
400 A	9 in.	
600 A	12 in.	
800 A	12 in.	
1200 A	18 in.	

NOTE: For applications with main circuit breaker panelboards, contact your local Schneider Electric representative or distributor.

I-Line Terminal Data

Table 13.40: Standard Mechanical Lugs—Main Lugs

Panel Type	Ampere Rating	Wire Range Wire Bending Space per NEC Table 312-6 [1]
I-Line	100 A	—
	225 A	(1) #6–300 kcmil Al or Cu
	400 A	(1) #2–600 kcmil Al or Cu (2) #2–500 kcmil Al or Cu
	600 A	(2) #2–500 kcmil Al or Cu
	800 A	(3) 3/0–500 kcmil Al or Cu
	1200 A	(4) 3/0–500 kcmil Al or Cu

Table 13.41: Standard Mechanical Lugs—Main Circuit Breaker

Panel Type	Ampere Rating	Circuit Breaker Type	Wire Range Wire Bending Space per NEC Table 312-6 [1]
I-Line	125 A	BD, BG, BJ	(1) #14–#2/0 AWG Al or Cu
	150 A	HD, HG, HJ, HL	(1) #14–3/0 Al or Cu
	250 A	JD, JG, JJ, JL	(1) #1/0–300 kcmil Al or Cu
	400 A	LA, LH	(1) #1–600 kcmil Al or Cu
	800 A	MG, MJ, PG, PJ, PL	(3) 3/0–500 kcmil Al or Cu
	1200 A	PG, PJ, PL, RGC, RJC, RLC	(4) 3/0–500 kcmil Al or Cu

[10] For I-Line panelboards, dimension includes height of "SL" sub-feed lug kit from Digest, plus 3 in. from available branch mounting space.

[1] (#) = Number of conductors per phase.