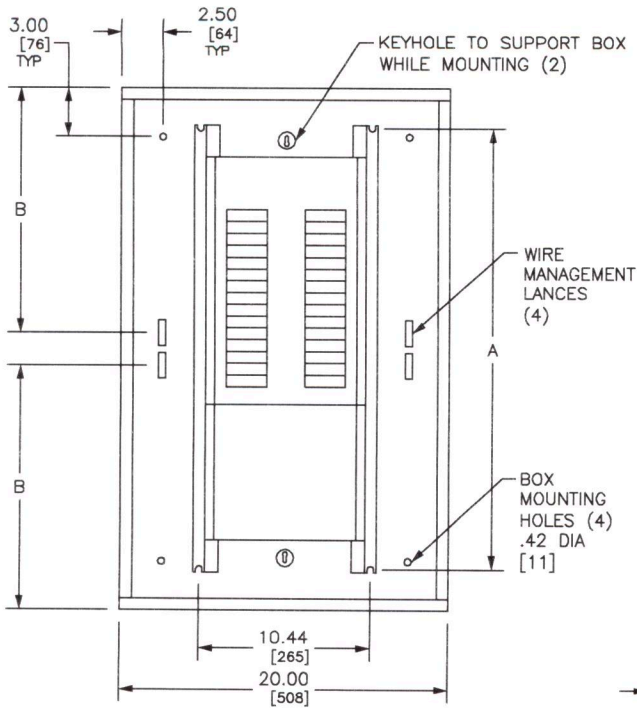
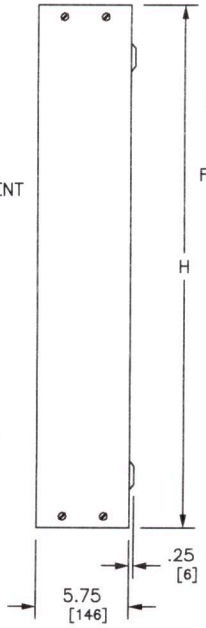
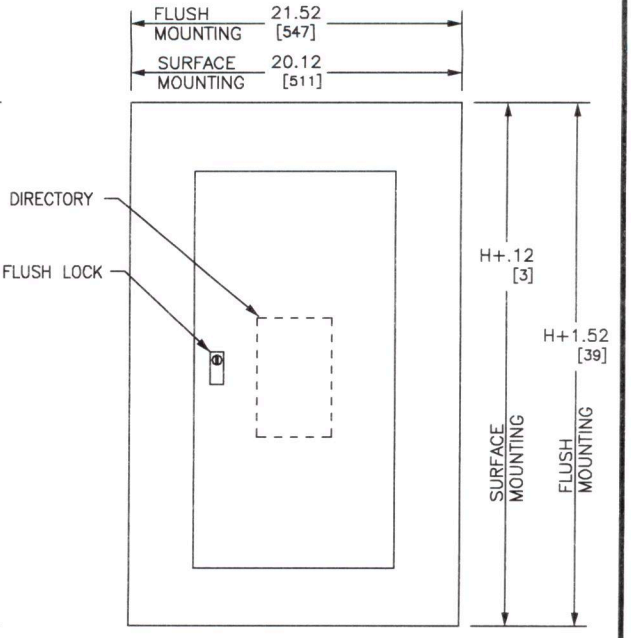
REV	DESCRIPTION	BY	DATE
–	----	--	--/--/--
–	----	--	--/--/--



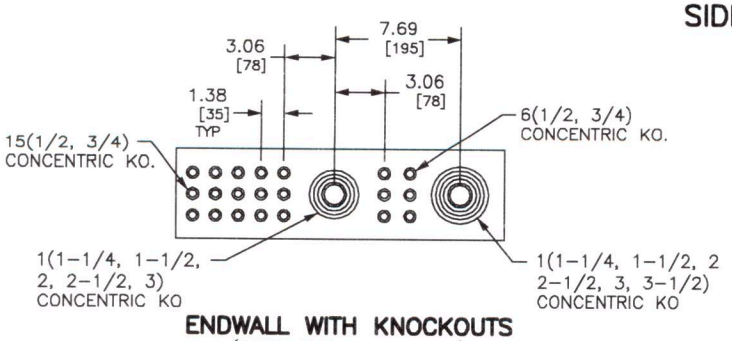
TYPICAL BOX WITH INTERIOR



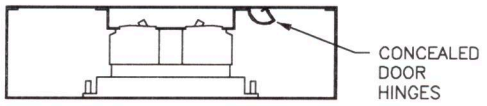
TYPICAL BOX
SIDE VIEW



TYPICAL FRONT



ENDWALL WITH KNOCKOUTS
(OTHER ENDWALL IS BLANK)



TYPICAL MOUNTING OF
QO, QOB BREAKERS

DUAL DIMENSIONS: INCHES
MILLIMETERS

MAXIMUM MAIN LUGS AMPERE RATING	MAXIMUM NUMBER OF CIRCUITS	H		A		B	
		IN	MM	IN	MM	IN	MM
100A	18	26.00	660	21.00	533	11.00	279
	30	32.00	813	27.00	686	15.00	381
225A	30	32.00	813	27.00	686	15.00	381
	42 & 54	38.00	965	33.00	838	15.00	381
	72	44.00	1118	39.00	991	15.00	381
	84	50.00	1270	45.00	1143	15.00	381
100A WITH SUB FEED LUGS OR FEED THRU LUGS	18	26.00	660	21.00	533	15.00	381
	30	32.00	813	27.00	686	15.00	381
225A WITH SUB FEED LUGS	30	38.00	965	33.00	838	15.00	381
	42 & 54	44.00	1118	39.00	991	15.00	381
	72	50.00	1270	45.00	1143	15.00	381
	84	56.00	1422	51.00	1295	15.00	381
225A WITH FEED THRU LUGS	30 & 42	38.00	965	33.00	838	15.00	381
	54	44.00	1118	39.00	991	15.00	381
	72	50.00	1270	45.00	1143	15.00	381
	84	56.00	1422	51.00	1295	15.00	381
225A WITH SUB FEED BREAKER	30	50.00	1270	45.00	1143	15.00	381
	42 & 54	56.00	1422	51.00	1295	15.00	381
	72	62.00	1575	57.00	1448	15.00	381
	84	68.00	1727	63.00	1600	15.00	381

REFER TO DP CATALOG CLASS 1640 FOR ADDITIONAL INFORMATION

FOR TYPE 3R APPLICATIONS USE IN CONJUNCTION WITH PBA711

NQ PANELBOARDS MEET THE APPLICABLE REQUIREMENTS OF UL AND CSA.

BOX: CODE GAUGE GALVANIZED STEEL. ONE ENDWALL IS BLANK, THE OTHER HAS KNOCKOUTS.

FRONT: MONO-FLAT 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.

NQ18L1C

JOB NAME:	---	EQUIPMENT DESIGNATION:	---
JOB LOCATION:	---	EQUIPMENT TYPE:	NQ MLO 100A/225A TYPE 1
DRAWN BY:	---	DRAWING TYPE:	---
ENGR:	---		
DATE:	AUGUST 2007		
DRAWING STATUS:	---	DWG# PBA701A	PG 01 OF 01 REV –

SQUARE D
Schneider Electric

QO Plug-On Circuit Breakers

Square D brand QO miniature circuit breakers are plug-on products for use in QO load centers, NQOD and NQ panelboards, NQOD and NQ OEM interiors or Speed-D™ switchboard distribution panels. Bolt-on QOB circuit breakers are for use in NQOD and NQ panelboards or interiors. *[1]*

The Square D exclusive Qwik-Open™ mechanism, with a trip reaction within 1/60th of a second, is standard on all 1P 15 A and 20 A QO circuit breakers.

QO 1P
1 Space Required

QO 2P
2 Spaces Required

QO 3P
3 Spaces Required

QO2200 2P 200 A
4 Spaces Required

Table 7.1: Plug-On Circuit Breakers

Amperes Rating *[2]*	1P—120/240 Vac	2P—120/240 Vac Common Trip	2P—240 Vac *[3]* Common Trip	3P—240 Vac Common Trip
10 k AIR				
10 A	QO110	QO210	—	QO310
15 A	QO115 *[4] [5]*	QO215 *[4]*	QO215H	QO315 *[4]*
20 A	QO120 *[4] [5]*	QO220 *[4]*	QO220H	QO320 *[4]*
25 A	QO125 *[4]*	QO225 *[4]*	QO225H	QO325 *[4]*
30 A	QO130 *[4]*	QO230 *[4]*	QO230H	QO330 *[4]*
35 A	QO135 *[4]*	QO235 *[4]*	—	QO335 *[4]*
40 A	QO140 *[4]*	QO240 *[4]*	QO240H	QO340 *[4]*
45 A	QO145 *[4]*	QO245 *[4]*	—	QO345 *[4]*
50 A	QO150 *[4]*	QO250 *[4]*	QO250H	QO350 *[4]*
60 A	QO160 *[4]*	QO260 *[4]*	QO260H	QO360 *[4]*
70 A	QO170 *[4]*	QO270 *[4]*	QO270H	QO370 *[4]*
80 A	—	QO280 *[4]*	QO280H	QO380 *[4]*
90 A	—	QO290 *[4]*	QO290H	QO390 *[4]*
100 A	—	QO2100 *[4]*	QO2100H	QO3100 *[4]*
110 A	—	QO2110 *[4]*	—	—
125 A	—	QO2125 *[4]*	—	—
150 A	—	QO2150 *[4] [6] [7]*	—	—
175 A	—	QO2175 *[4] [6] [7]*	—	—
200 A	—	QO2200 *[4] [6] [7]*	—	—
Molded Case Switch 60 A max.–240 Vac		—	QO200	QO300
Molded Case Switch 100 A max.–240 Vac		—	QO2000 *[8]*	QO3000 *[8]*
22 k AIR *[4]*				
15 A	QO115VH *[5]*	QO215VH *[9]*	—	QO315VH *[9]*
20 A	QO120VH *[5]*	QO220VH *[9]*	—	QO320VH *[9]*
25 A	QO125VH	QO225VH *[9]*	—	QO325VH *[9]*
30 A	QO130VH	QO230VH *[9]*	—	QO330VH *[9]*
40 A	QO140VH	QO240VH *[9]*	—	QO340VH *[9]*
50 A	QO150VH	QO250VH *[9]*	—	QO350VH *[9]*
60 A	QO160VH	QO260VH *[9]*	—	QO360VH *[9]*
70 A	QO170VH	QO270VH *[9]*	—	QO370VH *[9]*
80 A	—	QO280VH *[9]*	—	QO380VH *[9]*
90 A	—	QO290VH *[9]*	—	QO390VH *[9]*
100 A	—	QO2100VH *[9] [10]*	—	QO3100VH *[9]*
110 A	—	QO2110VH *[9] [10]*	—	—
125 A	—	QO2125VH *[9] [10]*	—	—
150 A	—	QO2150VH *[6] [9] [7]*	—	—
175 A	—	QO2175VH *[6] [9] [7]*	—	—
200 A	—	QO2200VH *[6] [9] [7]*	—	—
42 k AIR *[4]*				
40 A	—	QOH240 *[8]*	—	—
45 A	—	QOH245 *[8]*	—	—
50 A	—	QOH250 *[8]*	—	—
60 A	—	QOH26 *[8]*	—	—
70 A	—	QOH270	—	—
80 A	—	QOH280	—	—
90 A	—	QOH290	—	—
100 A	—	QOH2100	—	—
110 A	—	QOH2110 *[8]*	—	—
125 A	—	QOH2125	—	—
65 k AIR *[4]*				
15 A	QH115 *[5]*	QH215	—	QH315 *[4]*
20 A	QH120 *[5]*	QH220	—	QH320
25 A	QH125 *[8]*	QH225 *[8]*	—	QH325 *[8]*
30 A	QH130	QH230	—	QH330

Refer to page 7-2 for Interrupting Ratings, Accessories, and Dimensions.

[1] See Digest Section 1 for load centers, and Section 9 for panelboards and interiors.
[2] 10–30 A circuit breakers are suitable for use with 60°C or 75°C conductors. 35–125 A circuit breakers are suitable for use with 75°C conductors.
[3] UL Listed 5 k AIR on corner grounded Delta systems.
[4] UL Listed as HACR type for use with air conditioning, heating and refrigeration equipment haing motor group combinations and marked for use with HACR type circuit breakers.
[5] UL Listed as SWD (switching duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.
[6] Requires four spaces (1 AWG–300 kcmil Al/Cu.) Suitable for switching 120 Vac fluorescent lighting loads.
[7] Not suitable for use in 3Ø panels. Use only in 1Ø panel rated 150 A or greater.
[8] Order only. Contact your local Field Office.
[9] UL Listed for use ahead of QO, QO-GFI, QO-EPD, QOT, QO-AFI, and QO-PL 10 k AIR circuit breakers to permit their application at 22 kA fault level.
[10] 100 A maximum branch mounted opposite.

1P
QO-CAFI
Plug-On Neutral

1P
QO-CAFI
Pigtail

QO Arc-Fault Circuit Breaker

QO arc-fault circuit breakers provide protection for Series and Parallel Type Arcing as required by the NEC and local code adoption, and comply with UL1699.

Table 7.6: QO Arc Fault Circuit Breakers (One-Pole)

Circuit Breaker Type [15]	Ampere Rating	One–Pole 120 Vac		Two–Pole 120/240 Vac	
		10 k AIR 1 Space Required	22 k AIR 1 Space Required	10 k AIR 2 Space Required	22 k AIR 2 Space Required
Combination Arc-fault Interrupter (Pigtail Neutral)	15 20	QO115CAFI QO120CAFI	QO115VHCAFI QO120VHCAFI	QO215CAFI [16] QO220CAFI [16]	QO215VHCAFI [16] QO220VHCAFI [16]
Plug-On Neutral Combination Arc-fault Interrupter	15 20	QO115PCAFI QO120PCAFI	QO115VHPCAFI QO120VHPCAFI		

1P QO-DF
Plug-on Neutral

1P QO-DF
Pigtail

QO-Dual Function Circuit Breaker

QO Combination Arc Fault and Ground Fault Circuit Interrupters (Dual Function) provide overload and short circuit protection, plus arc fault and ground fault protection in accordance with the NEC, UL1699 and UL943.

Table 7.7: QO-Dual Function Arc Fault Circuit Breakers

Circuit Breaker Type [17]	Ampere Rating	1P 120 Vac 10 k AIR 1 Space Required	1P 120 Vac 22 k AIR 1 Space Required
Combination Arc-fault and Ground Fault Circuit Interrupter (Pigtail Neutral)	15 20	QO115DF QO120DF	QO115VHDF QO120VHDF
Plug-On Neutral Combination Arc-fault and Ground Fault Circuit Interrupter	15 20	QO115PDF QO120PDF	QO115VHPDF QO120VHPDF

1P
QO-GFI

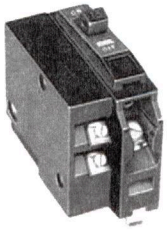
2P
QO-GFI

QO-GFI

Qwik-Gard™ circuit breakers provide overload and short circuit protection, combined with Class A ground fault protection. Class A denotes a ground fault circuit interrupter that will trip when a fault current to ground is 6 mA or more, for people protection. Do not connect to more than 250 feet of load conductor for the total one-way run to prevent nuisance tripping.

Table 7.8: QO-GFI Circuit Breakers

Ampere Rating [18]	Qwik-Gard Circuit Breakers With Ground Fault Circuit Interrupter			
	1P 120 Vac		2P Common Trip 120/240 Vac	3P Common Trip 208Y/120 Vac
	10 k AIR 1 Space Required	22 k AIR 1 Space Required	10 k AIR 2 Spaces Required	10 k AIR 3 Spaces Required
15	QO115GFI	QO115VHGFI	QO215GFI	QO315GFI
20	QO120GFI	QO120VHGFI	QO220GFI	QO320GFI
25	QO125GFI	QO125VHGFI	QO225GFI	—
30	QO130GFI	QO130VHGFI	QO230GFI	QO330GFI
40	—	—	QO240GFI	QO340GFI
50	—	—	QO250GFI	QO350GFI
60	—	—	QO260GFI [19]	—



QO 1P
With Shunt Trip

QO-EPD/EPE

QO-EPD/EPE circuit breakers provide overload and short circuit protection combined with Class B ground fault protection. They are designed to provide ground fault protection of equipment at a 30 mA level (EPD) or 100 mA level (EPE). They are not designed to protect people from electrical shock.

Table 7.9: QO-EPD Circuit Breakers

Ampere Rating [20]	1P 120 Vac 10 k AIR 1 Space Required	2P Common Trip 120/240 Vac 10 k AIR 2 Spaces Required	3P Common Trip 240 Vac 10 k AIR 3 Spaces Required	
15	QO115EPD	QO215EPD	QO315EPD [21]	QO315EPE [21]
20	QO120EPD	QO220EPD	QO320EPD [21]	QO320EPE [21]
25	QO125EPD	QO225EPD	—	—
30	QO130EPD	QO230EPD	QO330EPD [21]	QO330EPE [21]
40	—	QO240EPD	QO340EPD [21]	QO340EPE [21]
50	—	QO250EPD	QO350EPD [21]	QO350EPE [21]
60	—	QO260EPD [22]	—	—

[15] UL Listed as HACR type for use with air conditioning, heating and refrigeration equipment haing motor group combinations and marked for use with HACR type circuit breakers.
[16] For 120/240 V only, not for 208Y/120 V.
[17] UL Listed as HACR type for use with air conditioning, heating and refrigeration equipment haing motor group combinations and marked for use with HACR type circuit breakers.
[18] 10–30 A circuit breakers are suitable for use with 60°C or 75°C conductors. 35–60 A circuit breakers are suitable for use with 75°C conductors.
[19] Suitable only for feeding 240 Vac and 208 Vac two-wire loads. Does not contain load neutral connection.
[20] 10–30 A circuit breakers are suitable for use with 60°C or 75°C conductors. 35–60 A circuit breakers are suitable for use with 75°C conductors.
[21] See note in Instruction Bulletin when using in an enclosure with a QO403 or QON prefix.
[22] Suitable only for feeding 240 Vac and 208 Vac two-wire loads. Does not contain load neutral connection.