

QO Standard 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 and 20 A QO circuit breakers.

Table 1.1: Standard QO 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	—	QOH260 [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 for Interrupting Ratings, Accessories, and Dimensions.



QO 1P
1 Space Required



QO 2P
2 Spaces Required



QO 3P
3 Spaces Required



QO2200 2P 200 A
4 Spaces Required

[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 having 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.

Table 1.80: All-in-One Combination Service Entrance Devices

Surface and Semiflush Mount ^[61]																
Ring Type, Homeline																
300 A	Class 320 Manual	UG	—	25 kA	SU3040D300CB ^{[62][63]} _[64]	1	QDL22200 ^[65] QDL, QGL, QJL ^[66]	200 A 100 A	30	40	10	200 A	A-L	(2) Studs	4-250	100, 4
					SU3040D300FB ^{[62][63]} _[64]											
400 A	None	UG	UG	25 kA	SU3040D400CN ^[62] _[63]	1	QDL22200 ^[65] QDL, QGL, QJL ^[66]	200 A 200 A	30	40	10	200 A	A-L	(2) Studs	4-250	100, 4
					SU3040D400FN ^{[62][63]} _[64]											
400 A	Class 320 Manual	UG	—	25 kA	SU3040D400CB ^{[62][63]} _[64]	1	QDL22200 ^[65]	200 A	30	40	10	200 A	A-L	(2) Studs	4-250	100, 4
					SU3040D400FB ^{[62][63]} _[64]											
Ringless, Homeline																
400 A	Class 320 Lever	UG	—	25 kA	RU3040D400CL ^{[63][67]} _[64]	1	QDL22200 ^[65]	200 A	30	40	10	200 A	A-L	(2) Studs	4-250	100, 4
					RU3040D400FL ^{[63][67]} _[64]											
400 A	K-4 Bolt-on	UG	—	25 kA	RU3040D400CK ^[63] _[64]	1	QDL22200 ^[65] QDL, QGL, QJL ^[66]	200 A 200 A	30	40	10	200 A	A-L	(2) Studs	4-250	100, 4
					RU3040D400FK ^{[63][64]}											

LOAD CENTERS
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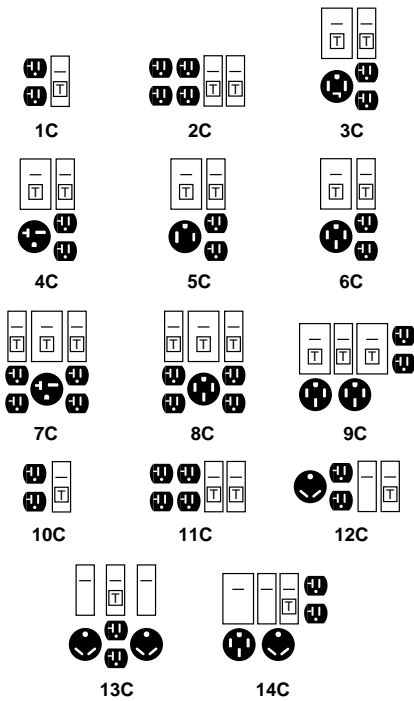
Circuit Breakers for CSEDs

Table 1.81: Circuit Breakers for use with Meter Mains and All-In-One Devices

Ampere Rating ^[68]	Type: HOM, 1P	Type: HOM, 2P	Type: QO, 1P	Type: QO, 2P	Type: QO-VH, 1P	Type: QO-VH, 2P
	Cat. No. (DE3D)	Cat. No. (DE3D)	Cat. No. (DE2A)	Cat. No. (DE2A)	Cat. No. (DE2A)	Cat. No. (DE2A)
10	—	—	QO110	—	—	—
15	HOM115	—	QO115	—	QO115VH	—
20	HOM120	—	QO120	—	QO120VH	—
25	HOM125	—	QO125	—	QO125VH	—
30	HOM130	HOM230	QO130	QO230	QO130VH	QO230VH
35	—	HOM235	QO135	QO235	—	—
40	HOM140	HOM240	QO140	QO240	—	QO240VH
45	—	HOM245	QO145	QO245	—	—
50	HOM150	HOM250	QO150	QO250	—	QO250VH
60	—	HOM260	QO160	QO260	—	QO260VH
70	—	HOM270	QO170	QO270	—	QO270VH
80	—	HOM280	—	QO280	—	QO280VH
90	—	HOM290	—	QO290	—	QO290VH
100	—	HOM2100	—	QO2100	—	QO2100VH
110	—	HOM2110	—	QO2110	—	QO2110VH
125	—	HOM2125	—	QO2125	—	QO2125VH
150	—	HOM2150BB	—	QO2150	—	QO2150VH
175	—	HOM2175BB	—	QO2175	—	QO2175VH
200	—	HOM2200BB	—	QO2200	—	QO2200VH

Ampere Rating ^[68]	Type: QOM1-VH, 2P	Type: QOM2-VH, 2P	Type: QDL, 2P ^[69]
	Cat. No. (DE3D)	Cat. No. (DE3D)	Cat. No. (DE2A)
50	QOM50VH ^[70]	—	—
60	QOM60VH	—	—
70	QOM70VH	—	QDL22070
80	QOM80VH	—	QDL22080
90	QOM90VH	—	QDL22090
100	QOM100VH	QOM2100VH	QDL22100
110	QOM110VH	—	QDL22110
125	QOM125VH	QOM2125VH	QDL22125
150	—	QOM2150VH	QDL22150
175	—	QOM2175VH	QDL22175
200	—	QOM2200VH	QDL22200
225	—	QOM2225VH	—

[61] UL short circuit current rating is equal to the lowest interrupting rating of any circuit breaker installed.
 [62] For use only on 120/240 Vac 1Ø3W system (4-jaw meter socket).
 [63] Knockout provided in cover for use with barrel lock kit SCBRLLLOCK (see Accessories).
 [64] Device configuration is not included in EUSERC standards. Consult applicable utility for acceptance.
 [65] Service disconnect supplied factory-installed.
 [66] Additional service disconnect for field-installation: order prefix QBL at 10 kA, QDL at 25 kA, QGL at 65 kA, or QJL at 100 kA. Order separately. For complete circuit breaker catalog number, see Digest Section 7.
 [67] 5th jaw factory-installed.
 [68] Do not exceed mains rating of device
 [69] For additional interrupting rating circuit breakers, order circuit breaker prefix QBL at 10 kA, QGL at 65 kA or QJL at 100 kA.
 [70] Reference National Electrical Code Article 230-79.



Power Outlet Panels for Construction Sites

- Provide temporary power at construction sites.
- Each receptacle protected by QO-GFI circuit breaker in compliance with NEC® requirements.
- Each enclosure is rainproof.
- 10 kA short circuit current rating.
- UL Listed as suitable for use as temporary site service equipment.
- Provided with neutral bonding provisions.
- Boxes have provisions for type "B" hubs to be field-installed.

Table 1.99: Construction Site Panels

Power Outlet Configuration	Service [1]	Mains Ampere Rating	Circuit Breaker (Included)	Receptacles (Included)					Cat. No. [2]	Main Wire Size AWG [3]	
				A	C	D	E	F		Cu	Al
1C	1Ø2W	40 A	(1) QO120GFI	1					PAK10C1	14-6	12-6
2C	1Ø2W	40 A	(2) QO120GFI	2					PAK11C [4]	14-6	12-6
3C	1Ø3W	70 A	(1) QO120GFI (1) QO230GFI	1			1		PAK31CGFI	8-1	8-1
4C	1Ø3W	70 A	(1) QO120GFI (1) QO220GFI	1		1			PAK36C1GFI	8-1	8-1
5C	1Ø3W	70 A	(1) QO120GFI (1) QO250GFI	1			1		PAK51CGFI	8-1	8-1
6C	1Ø3W	70 A	(1) QO120GFI (1) QO250GFI	1	1				PAK55CGFI	8-1	8-1
7C	1Ø3W	70 A	(2) QO120GFI (1) QO220GFI	2		1			PAK72CGFI	8-1	8-1
8C	1Ø3W	70 A	(2) QO120GFI (1) QO250GFI	2	1				PAK76CGFI	8-1	8-1
9C	1Ø3W	100 A	(1) QO120GFI (2) QO250GFI	1	2				PAK1004CGFI	14-1	12-1

Power Outlet Panels for Recreational Vehicle Parks

- Provide electrical power to individual recreational vehicle park sites.
- Each receptacle protected by appropriate GFI or Standard QO™ circuit breaker.
- All receptacles and circuit breakers included.
- 10 kA short circuit current rating.
- UL Listed.
- All enclosures are rainproof.
- No neutral bonding provisions.
- Loop-feed provisions.

Table 1.100: Recreational Vehicle Park Panels

Power Outlet Configuration	Service [1]	Mains Ampere Rating	Circuit Breaker (Included)	Receptacles (Included) [5]			Cat. No.	Main Wire Size AWG/kcmil [6]	
				A	B	C		Phase and Neutral	
Underground or Overhead Loop-Feed Terminals—Non-Pedestal [2] [7]									
11C	1Ø2W	40 A	(2) QO120GFI	2			PAK11CTG		
12C	1Ø2W	50 A	(1) QO120GFI (1) QO130	1	1		PAK41CTG [8]	14-6	12-6
			(2) QO130						12-1
14C	1Ø3W	100 A	(1) QO120GFI (1) QO250 (1) QO130	1	1	1	PAK75CTG (Not Loop Feed) [8]	14-1	12-1
Pedestal Mounted—Underground Loop-Feed Terminals [9] [10]									
11C	1Ø2W	40 A	(2) QO120GFI	2			PAK11PG		
12C	1Ø2W	50 A	(1) QO120GFI (1) QO130	1	1		PAK41PG [8]		
13C	1Ø2W	75 A	(1) QO120GFI (2) QO130	1	2		PAK61PG [8]	(2)6-250	(2)6-250
14C	1Ø3W	100 A	(1) QO120GFI (1) QO250 (1) QO130	1	1	1	PAK75PG [8]		

A		20 A 125 V 2W and Grd. NEMA 5-20R
B		30 A 125 V 2W and Grd ANSI 73.13
C		50 A 125/250 V 3W and Grd. NEMA 14-50R
D		20 A 250 V 2W and Grd. NEMA 6-20R
E		30 A 125/250 V 3W and Grd. NEMA 14-30R
F		50 A 250 V 2W and Grd. NEMA 6-50R

All non-pedestal devices have provisions to field-install a Type "B" hub on the bottom endwall for bottom feed from a conduit riser. Order Type "B" bolt-on hub (B250 Max.) and two mounting screws (Cat. No. 8002505501) and two hex nuts (Cat. No. 2340102000).

[1] (1Ø2W 120 Vac) (1Ø3W 120/240 Vac)
 [2] Devices have a bolt-on factory-installed closing cap. Order type "B" bolt-on hub separately from page 1-18.
 [3] Equipment ground terminal suitable for (2) 14 or 12 AWG Cu or (2) 12 or 10 AWG Al.
 [4] Receptacles in this device are in bottom endwall and are accessible with outer door padlocked. "Order Only" from Lexington—Minimum order quantity is 50 devices.
 [5] 20 A receptacles protected by 20 A GFI circuit breaker.
 [6] Two wires each per phase, neutral, and equipment ground—for loop feed (except PAK75CTG).
 [7] Equipment ground terminal suitable for (2) 14-12 AWG Cu or (2) 12-10 Al.
 [8] GFI circuit breaker can be substituted for standard 30 A circuit breaker. Add suffix "FI" to catalog number. Example: PAK41CTGFI.
 [9] Stabilizer foot available for use in unstable ground, order HNP5F.
 [10] Equipment ground terminals suitable for (2) 10-2/0 AWG Cu or (2) 6-2/0 AWG Al.