

**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
<b>10 k AIR</b>				
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]
<b>22 k AIR [4]</b>				
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]	—	—
<b>42 k AIR [4]</b>				
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	—	—
<b>65 k AIR [4]</b>				
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.

**Plug-on Neutral Indoor Load Center Value Packs**

**Table 1.61: Plug-on Neutral Indoor Load Center Value Packs (Compatible with Plug-on and Plug-on Neutral Circuit Breakers)**

	Mains Rating	Spaces	Max. 1P Circuits [1]	Max. Tandem Circuit Breakers	Load Center Box, Interior, Cover and Branch Circuit Breakers		Equipment Ground Bar Kit (Order Separately) Cat. No.	Main Wire Size AWG/kcmil Al/Cu		Box No. [2]	
					Cat. No.	Included Load Center/Circuit Breakers					
INDOOR	QO (Accepts Only QO Plug-On Circuit Breakers) QO—Copper Bus; Convertible Mains—Factory-Installed Main Circuit Breaker, 22 kA Short Circuit Current Rating Convertible appropriate to Main Lugs (See page 1-10) or QOM Main Circuit Breaker (See page 1-21)										
	125 A	24	34	10	QO124L125PGCVP	(1) QO124L125PGC, (3) QO120, (2) QO230	PK15GTA Included	6-2/0		7	
	225 A	42	52	10	QO142L225PGCVP	(1) QO142L225PGC, (3) QO120, (2) QO230	PK23GTA Included	4-300		11	
	Convertible Mains—Factory-Installed Main Circuit Breaker, 22 kA Short Circuit Current Rating Convertible appropriate to Main Lugs or Main Circuit Breaker (See page 1-24)										
	100 A	24	34	10	QO124M100PCVP	(1) QO124M100PC, (3) QO120, (2) QO230	PK15GTA	6-2/0		7	
		32	38	6	QO132M100PCVP	(1) QO132M100PC, (3) QO120, (2) QO230	PK18GTA	6-2/0		8	
	200 A	42	52	10	QO142M200PCVP	(1) QO142M200PC, (3) QO120, (2) QO230	PK23GTA	4-300		11	
		42	52	10	QO142M200PCAFVP	(1) QO142M200PC, (3) QO120, (2) QO230, (3) QO115PCAFI	PK23GTA			11	
	Homeline (Accepts Only HOM Plug-On Circuit Breakers); Convertible Mains—Factory-Installed Main Lugs, 10 kA Short Circuit Current Rating Convertible to appropriate QOM 22 kA Short Circuit Current Rating Main Circuit Breaker (See page 1-24)										
	125 A	12	24	12	HOM1224L125PGCVP	(1) HOM1224L125PGC, (2) HOM120	PK9GTA, PK9GTA W/LK100AN Included	6-2/0	6-1		6
	225 A	30	60	30	HOM3060L225PGCVP	(1) HOM3060L225PGC, (3) HOM120, (2) HOM230	PK18GTAL Included PK9GTA Included	4-300	4-250		10
	Convertible Mains—Factory-Installed Main Circuit Breaker, 22 kA Short Circuit Current Rating Convertible appropriate to Main Lugs or Main Circuit Breaker (See page 1-24)										
	100 A	20	40	20	HOM2040M100PCVP	(1) HOM2040M100PC, (2) HOM120, (1) HOM230	PK18GTA	6-1	6-3		7
		20	40	20	HOM2040M100PC1AVP	(1) HOM2040M100PC, (2) HOM120, (1) HOM230, (1) HOM115PCAFI	PK18GTA	6-1	6-3		7
	150 A	24	48	24	HOM2448M100PCVP	(1) HOM2448M100PC, (3) HOM120, (2) HOM230	PK23GTA	6-2/0	6-1/0		8
		30	30	30	HOM3060M150PCVP	(1) HOM3060M150PC, (3) HOM120, (2) HOM230	PK23GTA	4-250			
	200 A	20	40	20	HOM2040M200PCVP	(1) HOM2040M200PC, (3) HOM120, (2) HOM230	PK18GTA	4-250			9
		30	60	30	HOM3060M200PCVP	(1) HOM3060M200PC, (3) HOM120, (2) HOM230	PK23GTA				10
		30	60	30	HOM3060M200PC1AVP	(1) HOM3060M200PC, (3) HOM120, (2) HOM230, (1) HOM115PCAFI	PK23GTA				10
		30	60	30	HOM3060M200PCAFVP	(1) HOM3060M200PC, (3) HOM120, (2) HOM230, (3) HOM115PCAFI	PK23GTA				10
40		80	40	HOM4080M200PCVP	(1) HOM4080M200PC, (3) HOM120, (2) HOM230	PK27GTA				12	
40		80	40	HOM4080M200PC1AVP	(1) HOM4080M200PC, (3) HOM120, (2) HOM230, (1) HOM115PCAFI	PK27GTA				12	
40	80	40	HOM4080M200PCAFVP	(1) HOM4080M200PC, (3) HOM120, (2) HOM230, (3) HOM115PCAFI	PK27GTA			12			

**Table 1.62: Plug-on Neutral with Qwik-Grip Indoor Load Center Value Packs (Compatible with Plug-on and Plug-on Neutral Breakers)**

	Main Ratings	Spaces	Max. 1P Circuits	Max. Tandem Circuit Breakers	Load Center Box, Interior, Cover and Branch Circuit Breakers		Equipment Ground Bar Kit (Order Separately) Cat. No.	Main Wire Size AWG/kcmil Al/Cu		Box No. [3]	
					Cat. No.	Included Load Center/Circuit Breakers					
INDOOR	QO Convertible Mains—Factory-Installed Main Lugs, up to 65 kA Short Circuit Current Rating—Copper Bus, QOM1 Main Frame Size, Convertible to Main Circuit breaker										
	125 A	24	34	10	QO124L125PQGCVP	(1) QO124L125PQGC, (3) QO120, (2) QO230 and (1) PKQGA Qwik-Grip assembly kit	PK15GTAL Included	6-2/0		7Q	
	QO Convertible Mains—Factory-Installed Main Circuit Breaker, 22 kA Short Circuit Current Rating—Copper Bus, QOM2 Main Frame Size, Convertible to Main Lugs or Main Circuit breaker										
	200 A	42	52	10	QO142M200PQCVP	(1) QO142M200PQC, (3) QO120, (2) QO230 and (1) PKQGA Qwik-Grip assembly kit	PK23GTA (Order separately)	4-250		11Q	
	Homeline Convertible Mains—Factory-Installed Main Circuit breaker, 22kA Short Circuit Current Rating—Copper Bus, QOM1 Main Frame Size, Convertible to Main Lugs or Main Breaker										
	100 A	20	40	20	HOM2040M100PQCVP	(1) HOM2040M100PQC, (2) HOM120, (1) HOM230 and (1) PKQGA Qwik-Grip assembly kit	PK18GTA (Order separately)	6-2/0	6-1		6
200 A	30	60	30	HOM3060M200PQCVP	(1) HOM3060M200PQC, (3) HOM120, (2) HOM230 and (1) PKQGA Qwik-Grip assembly kit	PK23GTA (Order separately)	4-250			10Q	
	40	80	40	HOM4080M200PQCVP	(1) HOM4080M200PQC, (2) HOM120, (1) HOM230 and (1) PKQGA Qwik-Grip assembly kit	PK27GTA (Order separately)	4-250			12Q	

**Table 1.63: Plug-on Neutral Rainproof Load Center Value Packs (Compatible with Plug-on and Plug-on Neutral Circuit Breakers)**

	Main Ratings	Spaces	Max. 1P Circuits	Max. Tandem Circuit Breakers	Load Center Box, Interior, Cover and Branch Circuit Breakers		Equipment Ground Bar Kit (Order Separately) Cat. No.	Main Wire Size AWG/kcmil Al/Cu		Box No. [3]	
					Cat. No.	Included Load Center/Circuit Breakers					
RAINPROOF	Homeline (Accepts Only HOM Plug-On Circuit Breakers)										
	Convertible Mains—Factory-Installed Main Circuit Breaker, 22 kA Short Circuit Current Rating Convertible to Main Lugs or Lower Amperage QOM2 Main Circuit Breaker (See page 1-24)										
	125 A	12	24	12	HOM1224M125PRBVP	(1) HOM1224M125PRB, (3) HOM120, (2) HOM230	PK23GTA	6-2/0	6-1		3R
200 A	30	60	30	HOM3060M200PRBVP	(1) HOM3060M200PRB, (3) HOM120, (2) HOM230	PK23GTA	4-250			7R	

**Table 1.64: Plug-on Neutral Load Center Surge Packs (Compatible with Plug-On and Plug-On Neutral Circuit Breakers)**

	Mains Rating	Max. 1P Circuits	Max. Tandem Circuit Breakers	Load Center Box, Interior, Cover and Branch Circuit Breakers		Equipment Ground Bars Catalog Number	Main Wire Size AWG/kcmil		Box No.
				Catalog Number	Included Load Center / Circuit Breakers / SPD		Al	Cu	
Indoor	225	60	30	HOM3060L225PGCSPV2	(1) HOM3060L225PGC, (1) HOM230, (2) HOM120, (1) Plug-on Neutral HOM250PSPD, Cover & Ground Bar	PK9GTA, PK18GTAL (included)	4-300	4-250	10
Rainproof	200	16	8	HOM816M200PFTRBSP2	(1) HOM816M200PFTRB & (1) Plug-on Neutral HOM250PSPD	PK15GTA (order separately)	4-250		6R

[1] Maximum single pole branch circuits utilizing QO and/or QOT circuit breakers.

[2] See page 1-29 or page 1-31

[3] See page 1-29

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

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

LOAD CENTERS  
1

**Circuit Breakers for CSEDs**

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

Ampere Rating <sup>[68]</sup>	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 <sup>[68]</sup>	Type: QOM1-VH, 2P	Type: QOM2-VH, 2P	Type: QDL, 2P <sup>[69]</sup>
	Cat. No. (DE3D)	Cat. No. (DE3D)	Cat. No. (DE2A)
50	QOM50VH <sup>[70]</sup>	—	—
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	—

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