QO Plug-On Circuit Breakers

Class **730, 731, 733** / Refer to Catalog: **0730CT9801**

SQUARE D by Schneider Electric
www.schneider-electric.us

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.▲
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


QOT 1P Tandem
1 Space Required


QO 2P
2 Spaces Required


QO2200 2P 200 A
4 Spaces Required


QO 3P
3 Spaces Required

Table 1.1: Plug-On Circuit Breakers

Amperes Rating ■	1P—120/240 Vac		2P—120/240 Vac Common Trip		2P—240 Vac ♦ Common Trip		3P—240 Vac Common Trip	
	Cat. No.	$ Price	Cat. No.	$ Price	Cat. No.	$ Price	Cat. No.	$ Price
10 k AIR								
10 A	QO110		QO210		—	—	QO310	
15 A	QO115★▼		QO215★		QO215H		QO315★	
20 A	QO120★▼		QO220★		QO220H		QO320★	
25 A	QO125★		QO225★		QO225H		QO325★	
30 A	QO130★		QO230★		QO230H		QO330★	
35 A	QO135★		QO235★		—		QO335★	
40 A	QO140★		QO240★		QO240H		QO340★	
45 A	QO145★		QO245★		—		QO345★	
50 A	QO150★		QO250★		QO250H		QO350★	
60 A	QO160★		QO260★		QO260H		QO360★	
70 A	QO170★		QO270★		QO270H		QO370★	
80 A	—	—	QO280★		QO280H		QO380★	
90 A	—	—	QO290★		QO290H		QO390★	
100 A	—	—	QO2100★		QO2100H		QO3100★	
110 A	—	—	QO2110★		—	—	—	—
125 A	—	—	QO2125★		—	—	—	—
150 A	—	—	QO2150★△◒		—	—	—	—
175 A	—	—	QO2175★△◒		—	—	—	—
200 A	—	—	QO2200★△◒		—	—	—	—
Molded Case Switch 60 A max.–240 Vac			—	—	QO200		QO300	
Molded Case Switch 100 A max.–240 Vac			—	—	QO2000☆		QO3000☆	
22 k AIR★								
15 A	QO115VH ▼		QO215VH□		—	—	QO315VH□	
20 A	QO120VH ▼		QO220VH□		—	—	QO320VH□	
25 A	QO125VH		QO225VH□		—	—	QO325VH□	
30 A	QO130VH		QO230VH□		—	—	QO330VH□	
40 A	—	—	QO240VH□		—	—	QO340VH□	
50 A	—	—	QO250VH□		—	—	QO350VH□	
60 A	—	—	QO260VH□		—	—	QO360VH□	
70 A	—	—	QO270VH□		—	—	QO370VH□	
80 A	—	—	QO280VH□		—	—	QO380VH□	
90 A	—	—	QO290VH□		—	—	QO390VH□	
100 A	—	—	QO2100VH□◊		—	—	QO3100VH□	
110 A	—	—	QO2110VH□◊		—	—	—	—
125 A	—	—	QO2125VH□◊		—	—	—	—
150 A	—	—	QO2150VH△□◒		—	—	—	—
175 A	—	—	QO2175VH△□◒		—	—	—	—
200 A	—	—	QO2200VH△□◒		—	—	—	—
42 k AIR★								
40 A	—	—	QOH240☆		—	—	—	—
45 A	—	—	QOH245☆		—	—	—	—
50 A	—	—	QOH250☆		—	—	—	—
60 A	—	—	QOH260☆		—	—	—	—
70 A	—	—	QOH270		—	—	—	—
80 A	—	—	QOH280		—	—	—	—
90 A	—	—	QOH290		—	—	—	—
100 A	—	—	QOH2100		—	—	—	—
110 A	—	—	QOH2110☆		—	—	—	—
125 A	—	—	QOH2125		—	—	—	—
65 k AIR★								
15 A	QH115▼		QH215		—	—	QH315★	
20 A	QH120▼		QH220		—	—	QH320	
25 A	QH125☆		QH225☆		—	—	QH325☆	
30 A	QH130		QH230		—	—	QH330	

▲ See Digest Section 1 for load centers, and Section 9 for panelboards and interiors.
■ 10–30 A circuit breakers are suitable for use with 60oC or 75oC conductors. 35–125 A circuit breakers are suitable for use with 75oC conductors.
♦ UL Listed 5 k AIR on corner grounded Delta systems.
★ 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.
▼ UL Listed as SWD (switching duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.
△ Requires four spaces (1 AWG–300 kcmil Al/Cu.) Suitable for switching 120 Vac fluorescent lighting loads.
□ 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.
◊ 100 A maximum branch mounted opposite.
☆ Order only. Contact your local Field Office.
▽ Includes two circuit breakers (one QO2030 and one QO3020) and handle tie QOTHT.
◒ Not suitable for use in 3Ø panels. Use only in 1Ø panel rated 150 A or greater.

Table 1.2: QO/QOB Ring Terminal

(20% $ Price Adder)—Factory-installed only

Ampere Rating	Poles	Suffix
10–30 A	1, 2, 3	5237
35–60 A	1,2	5238
35–50 A	3	
70–110 A	2	5273
60–100 A	3	

Table 1.3: Wire Sizes■

Circuit Breaker Type	Ampere Rating	Wire Size (AWG/kcmil)
QO 1P	10–30 A	14–8 Al/Cu
	10–30 A	(2) 14–10 Cu
	35–70 A	8–2 Al/Cu
QO 2P	10–30 A	14–8 Al/Cu
	10–30 A	(2) 14–10 Cu
	35–70 A	8–2 Al/Cu
	80–125 A	4–2/0 Al/Cu
	150–200 A	4–300 Al/Cu
QO 3P	10–30 A	14–8 Al/Cu, (2) 14-10 Cu
	35–70 A	8–2 Al/Cu
	80–125 A	4–2/0 Al/Cu
QOB-VH	110–150 A	4–300 Al/Cu
QOT	15–20 A	12–8 Al 14–8 Cu
QO-AFI, QO-GFI or QO-EPD	15–30 A	12–8 Al 14–8 Cu
	40, 50, 60 A	12–4 Al 14–6 Cu
QO-PL	10–60 A	12–2 Al 14–2 Cu

Table 1.4: QOT Tandem Circuit Breakers

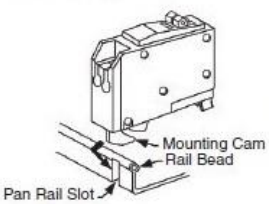
Ampere Rating■	Cat. No.★	$ Price
1P—120/240 Vac		
15 A and 15 A	QOT1515	
15 A and 20 A	QOT1520	
20 A and 20 A	QOT2020	
2P—120/240 Vac Common Trip		
Order two QOT1515 or QOT2020 circuit breakers and handle tie QOTHT for common switching of center two poles.		

Table 1.5: Replacement Tandem Circuit Breakers

For use in Old Style Non-Class CTL QO Load Centers—10 k AIR

Ampere Rating■	Cat. No.★	$ Price
1P—120/240 Vac—1 Space Required		
15 A and 15 A	QO1515	
15 A and 20 A	QO1520	
20 A and 20 A	QO2020	
20 A and 30 A	QO2030	
30 A and 20 A	QO3020	
Two 1P Individual Trip—120/240 Vac—2 Spaces Required		
15 A and 15 A 15 A and 20 A	Order Two QO1515 or QO2020 circuit breakers and handle tie QOTHT	
20 A and 20 A	—	—
20 A and 30 A	QO20303020▽	
30 A and 20 A	—	—

QOT Tandem



Current limiting QOT tandem circuit breakers have a mounting cam as shown. Installation into a QO load center can only be made in those positions having a mounting pan rail slot. Meets Paragraph 408.15 of the NEC®. UL Listed as Class CTL

1P
QO-AFI

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 1.6: QO Arc Fault Circuit Breakers▲

Circuit Breaker Type	Ampere Rating	1P 120 Vac 10 k AIR 1 Space Required		1P 120 Vac 22 k AIR 1 Space Required	
		Cat. No.	$ Price	Cat. No.	$ Price
Combination Arc-fault Interrupter	15	QO115CAFI		QO115VHCAFI	
	20	QO120CAFI		QO120VHCAFI	

1P
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 1.7: QO-GFI Circuit Breakers *New!*

Ampere Rating♦	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	
	Cat. No.	$ Price	Cat. No.	$ Price	Cat. No.	$ Price	Cat. No.	$ Price
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★		—	—

QO-K Key Operated

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 1.8: QO-EPD Circuit Breakers *New!*

Ampere Rating♦	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			
	Cat. No.	$ Price	Cat. No.	$ Price	Cat. No.	$ Price	Cat. No.	$ Price
15	QO115EPD		QO215EPD		QO315EPD▼		QO315EPE▼	
20	QO120EPD		QO220EPD		QO320EPD▼		QO320EPE▼	
25	QO125EPD		QO225EPD		—		—	
30	QO130EPD		QO230EPD		QO330EPD▼		QO330EPE▼	
40	—	—	QO240EPD		QO340EPD▼		QO340EPE▼	
50	—	—	QO250EPD		QO350EPD▼		QO350EPE▼	
60	—	—	QO260EPD★		—	—	—	—

QO
1P
With Shunt Trip

Two-wire
QO-SWN

QO-SWN

Switch Neutral Common Trip 2008 NEC® 514.11

Table 1.9: QO-SWN Circuit Breakers

Ampere Rating♦	2 Wire 120 Vac 10 k AIR 2 Spaces Required		3 Wire 120/240 Vac 10 k AIR 3 Spaces Required	
	Cat. No.	$ Price	Cat. No.	$ Price
10	QO210SWN		QO310SWN	
15	QO215SWN		QO315SWN	
20	QO220SWN		QO320SWN	
25	QO225SWN		QO325SWN	
30	QO230SWN		QO330SWN	
40	QO240SWN		QO340SWN	
50	QO250SWN		QO350SWN	

Three-wire
QO-SWN

QO-HID

HID circuit breakers are for use on circuits feeding fluorescent and high intensity discharge (HID) lighting systems such as mercury vapor, metal halide, or high pressure sodium. These circuit breakers are physically interchangeable with QO circuit breakers.

Table 1.10: QO-HID Circuit Breakers

Ampere Rating♦	1P 120/240 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	
	Cat. No.	$ Price	Cat. No.	$ Price	Cat. No.	$ Price
15	QO115HID■		QO215HID		QO315HID	
20	QO120HID■		QO220HID		QO320HID	
25	QO125HID		QO225HID		QO325HID	
30	QO130HID		QO230HID		QO330HID	
40	QO140HID		QO240HID		—	—
50	QO150HID		QO250HID		—	—

QO-K

Key operated QO circuit breakers are available in single-pole construction and can be mounted in any single-pole space which will accept a standard QO. These circuit breakers can be turned ON or OFF or to RESET with a special key (catalog number QOK10) included with the circuit breaker. These circuit breakers are UL Listed and available as shown in the table.

Table 1.11: QO-K Circuit Breakers

120 Vac—10 k AIR (1 Space Required)		
Ampere Rating ♦	Cat. No.	$ Price
10	QO110K	
15	QO115K	
20	QO120K	
25	QO125K	
30	QO130K	

QO-HM

High magnetic trip circuit breakers are recommended for applications where high initial inrush may occur and for individual dimmer applications.

Table 1.12: QO-HM Circuit Breakers

Ampere Rating♦	120 Vac—10 k AIR 1P	
	Cat. No	$ Price
15 A	QO115HM▲■	
20 A	QO120HM▲■	

Non-automatic (Standard) Miniature Switches

Miniature non-automatic switches have the same physical packaging as miniature circuit breakers, but open only when the handle is switched to the OFF position.

Non-automatic switches provide no overcurrent protection or short circuit protection. They must not be used on systems that have an available fault current greater than the values listed in the table.

Non-automatic switches are UL Listed per UL 1087 and are CSA certified.

Table 1.13: QO Non-Automatic Miniature Switches, 240 Vac 10 kA

Ampere Rating	2P		3P	
	Cat. No.	$ Price	Cat. No.	$ Price
60	QO200		QO300	
100	QO2000		QO3000	

▲ 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.

■ UL Listed as SWD (switching duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.

♦ 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.

★ Suitable only for feeding 240 Vac and 208 Vac two-wire loads. Does not contain load neutral connection.

▼ See note in Instruction Bulletin when using in an enclosure with a QO403 or QON prefix.

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