

# QO<sup>®</sup> and QOB Miniature Circuit Breakers with Ground Fault Protection

Integrated design combines UL-approved circuit breaker with 5 mA, 30 mA or 100 mA ground fault protection

Ground faults can occur when electrical equipment is worn, defective or accidentally misused. Square D<sup>®</sup> QO and QOB miniature circuit breakers with ground fault protection provide load level detection that isolates only the affected circuit when a ground leakage occurs. Applying branch breakers with integral ground fault protection allows users to quickly identify the ground leakage's current location and address the problem before it escalates to hazardous levels.

Square D QO EPD 3-pole Miniature Circuit Breaker



Square D QO and QOB miniature circuit breakers with ground fault protection provide enhanced protection of a system's wiring and sensitive electronic components. Low levels of fault current can injure or harm personnel and damage sensitive electronic equipment yet remain insufficient to operate the thermal-magnetic functions of the circuit breaker.

A ground fault exists when an unintended path is established between the normal current carrying conductors and metallic or conductive surfaces, which are bonded to or in direct contact with earth. Ground faults can initially conduct only a low level of current flow that is well below the thermal ampere frame rating of the protective circuit breaker. However, when a ground fault continues undetected, it can escalate causing significant heat and mechanical damage. Sensing and interrupting the flow of low level, phase-to-ground faults provides enhanced protection of personnel and equipment.

In an integrated design, the Square D QO and QOB miniature circuit breakers with ground fault protection provide conventional UL 489-listed circuit breakers with built-in ground fault sensors. No separate modules or devices are required. Three levels of ground fault protection are available to meet your specific application needs. The QO and QOB ground fault circuit interrupter (QOB GFI) meets the UL definition for people protection with the ground fault protection set at 5 mA. For equipment protection, Square D QO and QOB equipment protection devices (QOB EPD) are available with either 30 mA or 100 mA ground fault protection.



Improve system reliability and safety



Save space and installation time



Standardize equipment designs



by Schneider Electric



Square D QO GFI 3-pole  
Miniature Circuit Breaker



## Conductors

Maximum conductor length is 250 feet; wire sizes for box lug include the following:

Amperage	Aluminum (AWG/kcmil)	Copper (AWG/kcmil)
15 – 30	#12 – #8	#14 – #8
40, 50 and 60	#12 – #4	#14 – #6

The Square D QO and QOB GFI and QO and QOB EPD product lines now include 3-pole devices. Please reference the current versions of our Digest (Document Number 0100PL0901) and the QO and QOB Miniature Circuit Breaker Catalog (Document Number 0730CT9801) for more information on these product lines. For the Canadian market, the Schneider Electric Electrical Distribution Catalog (Document Number S0110CT0901EP RO) is also available.

## QOB GFI catalog numbers

All provided with 5 mA setting on ground fault sensors. Omit the “B” in the third position of the catalog number for plug-on type.

Amperage	1-pole		2-pole		3-pole	
	10 kA AIR	22 kA AIR	10 kA AIR	10 kA AIR	10 kA AIR	10 kA AIR
15	QOB115GFI	QOB115VHGFI	QOB215GFI	QOB315GFI	QOB315GFI	QOB315GFI
20	QOB120GFI	QOB120VHGFI	QOB220GFI	QOB320GFI	QOB320GFI	QOB320GFI
25	QOB125GFI	QOB125VHGFI	QOB225GFI	—	—	—
30	QOB130GFI	QOB130VHGFI	QOB230GFI	QOB330GFI	QOB330GFI	QOB330GFI
40	—	—	QOB240GFI	QOB340GFI	QOB340GFI	QOB340GFI
50	—	—	QOB250GFI	QOB350GFI	QOB350GFI	QOB350GFI
60	—	—	QOB260GFI	—	—	—

## QOB EPD catalog numbers

All provided with an AIR of 10 kA. Omit the “B” in the third position of the catalog number for plug-on type.

Amperage	1-pole		2-pole		3-pole	
	30 mA	30 mA	30 mA	30 mA	100 mA	100 mA
15	QOB115EPD	QOB215EPD	QOB315EPD	QOB315EPD	QOB315EPE	QOB315EPE
20	QOB120EPD	QOB220EPD	QOB320EPD	QOB320EPD	QOB320EPE	QOB320EPE
25	QOB125EPD	QOB225EPD	—	—	—	—
30	QOB130EPD	QOB230EPD	QOB330EPD	QOB330EPD	QOB330EPE	QOB330EPE
40	—	QOB240EPD	QOB340EPD	QOB340EPD	QOB340EPE	QOB340EPE
50	—	QOB250EPD	QOB350EPD	QOB350EPD	QOB350EPE	QOB350EPE
60	—	QOB260EPD	—	—	—	—

## Factory installed accessories

### Ring terminals

Replaces standard box lug with a ring terminal on the load side of the device

Suffix	Poles	Amperage
-5237	1, 2, 3	10 – 30
-5238	1, 2	35 – 60
	3	35 – 50

### Auxiliary and alarm switches

120 Vac maximum voltage, 5 A maximum load

Suffix	Function	Contact
-1200	Auxiliary	1A
-1201	Auxiliary	1B
-2100	Alarm	1A



Standard QO and QOB field-installable accessories are also applicable to these devices.