

POWERPACT® Q-Frame Circuit Breakers in Panelboards Customer Benefits and Specifications

Retain for future use.

INTRODUCTION

New POWERPACT® Q-Frame molded case circuit breakers include QB, QD, QG, and QJ frames. The new breakers offer improved short-circuit current ratings at a competitive price and comply with Square D's circuit breaker interrupting rating strategy. They are price competitive alternatives to KA, KH, and KC circuit breakers for certain applications at 240 Vac.

These thermal/magnetic circuit breakers are the result of a major redesign of existing Q2 products. They were developed to provide a modern, high performance, and robust line of circuit breakers and to offer a wider range of ampere ratings and higher AIR ratings in both two-pole and three-pole applications.

The new circuit breakers are available with a variety of terminations, with either unit-mount or I-LINE® plug-on construction.

Ideal applications for the Q-Frame circuit breakers include:

- Main circuit breaker and sub-feed circuit breaker in an NQOD panelboard
- Main circuit breaker in NQOB panelboards
- Back-fed main and branch circuit breaker in I-LINE panelboards and OEM I-LINE interiors

CUSTOMER BENEFITS

Figure 1: POWERPACT® QB 225 A
Circuit Breaker



- New and increased series ratings:
 - Comparable to K-Frame circuit breaker series ratings
- Increased range of continuous current ratings at 40 °C from 70–225 A
- Increased short circuit (AIR) performance from 10–100 kA
- More competitively priced than existing KA, KH, and KC circuit breakers at 240 Vac
- Push-to-Test button appears on circuit breaker face of all products
- Modern appearance:
 - Compatible with other POWERPACT products
- No change to form, fit, or function for Q2 users:
 - Dimensions and terminations remain the same
 - New Q-Frame circuit breakers can be installed in existing panelboard equipment
- Factory-installed padlock attachment accessories
- Mechanical interlock kit accessory

SPECIFICATIONS

Products Replaced

With the introduction of the new Q-Frame circuit breakers, Square D will relegate the Q2, Q2-H, Q2H, KD, and KG circuit breakers in panelboards to the obsolescence phase.

- New QB, QD, QG, and QJ circuit breakers will replace KD, KG, Q2, Q2-H, and Q2H circuit breakers in NQOD panelboards as main breakers and sub-feed breakers.
- QB circuit breakers will also replace Q2 circuit breakers as the main circuit breaker in NQOB panelboards.
- QB, QD, QG, and QJ circuit breakers will replace Q2, Q2H, and Q2-H circuit breakers in I-LINE panelboard interiors as back-fed main circuit breakers and branch breakers.

Series Ratings

Refer to the updated, electronic “Digest Sections 8–Panelboards” for the appropriate series ratings.

Continuous Current Ratings (at 40 °C)

Ratings include: 70, 80, 90, 100, 110, 125, 150, 175, 200, and 225 A.

Interrupting Ratings

New Circuit Breaker Types	New Two-Pole	New Three-Pole	Old Circuit Breaker Types	Old Two-Pole	Old Three-Pole
QB	10 kA	10 kA	Q2	10 kA	10 kA
QD	25 kA	25 kA	Q2_H	22 kA	22 kA
QG	65 kA	65 kA	Q2H	42 kA	
QJ	100 kA	100 kA ¹	—	—	—
QD	25 kA	25 kA	KD	25 kA	25 kA
QG	65 kA	65 kA	KG	65 kA	65 kA

¹ Three-pole 100 kA is rated at 208Y/120.

Voltages

- 240 Vac
- Corner-grounded Delta (240 Vac; two-pole only)

Connections

- I-LINE for both plug-on and bolt-on applications
- Lugs at either or both ends (not field-replaceable)
- Terminal studs at either or both ends

Dimensions

Dimensions ¹	Unit Mount/ 2-Pole	I-LINE/ 3-Pole
Height	6.44 in (164 mm)	8.82 in (224 mm)
Width	3.00 in. (76 mm)	4.50 in. (114 mm)
Depth (including handle)	3.91 in. (99 mm)	5.10 in. (130 mm)

¹ Dimensions are identical to those of existing Q2 products.

Accessories

- Padlock attachments for both ON and OFF positions
- Padlock attachment for OFF position only
- Mechanical interlock kit

SALES STRATEGY

Sales Strategy	Results / Solutions
Increased short-circuit (AIR) performance	Now offering 10, 25, 65, and 100 kA
Increased continuous current ratings	Now offering 70, 80, 90, 100, 110, 125, 150, 175, 200, 225 A
Increased series ratings	New series ratings similar to the K-Frame circuit breakers at 240 Vac. Refer to the updated, electronic "Digest Section 8-Panelboards" for the appropriate series ratings.
Competitive pricing	QB- and QD-Frames: Priced the same as its equivalent Q2-Frame circuit breakers.
	QG- and QJ-Frames: Priced lower than the equivalent K-Frame circuit breakers.
Consistent interrupting rating platform	B = 10 kA, D = 25 kA, G = 65 kA, and J = 100 kA at 240 Vac
Flexible / simplified offering	Achieved by combining the three current product lines (Q2 and KD/KG) into one Q-Frame line
	Example: Existing lighting contactor series rating for Q2H and KG circuit breakers in MPS applications—now available with new QD- and QG-Frames
Market segments / applications for selling and distribution	Commercial: Office buildings, strip malls, retail stores, grocery stores, nursing homes, hospitals, universities, and data centers
	Industrial: Automotive plants, paper mills, manufacturing facilities, refineries, textile plants, and chemical plants
	OEM: Panel builders, system integrators, and machinery manufacturers

Figure 2: POWERPACT QB 70 A Series Circuit Breakers



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