

Molded Case Circuit Breakers

Thermal-Magnetic Trip Breakers

| Page | | | Panelboard Breakers | | | | | | | | | |
|-----------------------------|--------------------------------------|-----------|----------------------------------|-----------------------|---|-------------------------------|--|------------|------------|---------|---|---|
| | | | BQD, BQD6 ^① | NGB NGB2 ^② | HGB HGB2 ^② | LGB LGB2 ^② | 3VA41 SEAB | 3VA41 MEAB | 3VA41 HEAB | | | |
| Ratings | | | 7-32 | 7-33 | 7-33 | 7-33 | 7-48, 7-49 | 7-48, 7-49 | 7-48, 7-49 | | | |
| AC | Poles | | 1,2,3 | 1,2,3 | 1,2,3 | 1,2,3 | 1, 2, 3 | 1, 2, 3 | 1, 2, 3 | | | |
| | Amperes | | 15-100 | 15-125 | 15-125 | 15-125 | 15-125 | 15-125 | 15-125 | | | |
| | Volts (50/60 Hz) | | 1 Pole | 277 | 347 | 347 | 347 | 347 | 347 | 347 | | |
| | | | 2 Pole | 480/277 | 600/347 | 600/347 | 600/347 | 600/347 | 600/347 | 600/347 | | |
| | | | 3 Pole | 480/277 | 600/347 | 600/347 | 600/347 | 600/347 | 600/347 | 600/347 | | |
| | UL | | 120V | 65,000 | — | — | — | — | — | — | | |
| | | | 240V | 65,000 | 100,000 | 100,000 | 100,000 | 65,000 | 85,000 | 150,000 | | |
| | | | 277V | 14,000 | 25,000 | 35,000 | 65,000 | 25,000 | 35,000 | 65,000 | | |
| | | | 347V | 10,000 | 14,000 | 14,000 22,000 ^② | 14,000 65,000 ^② | 14,000 | 18,000 | 25,000 | | |
| | | | 480/277V | 14,000 | 25,000 | 35,000 | 65,000 | 25,000 | 35,000 | 65,000 | | |
| | | | 480V | — | 25,000 ^② | 35,000 ^② | 65,000 ^② | 25,000 | 35,000 | 65,000 | | |
| | | | 600/347V | 10,000 | 14,000 | 14,000 22,000 ^② | 14,000 25,000 ^② | 14,000 | 18,000 | 25,000 | | |
| | | | 600V | — | — | — | — | — | — | — | | |
| | | | IEC 947-2 50/60Hz | | 220/240V | 2-Pole | I _{CU} 18,000 I _{CS} 9,000 | — | — | — | — | — |
| | | | | | | 2, 3-Pole | I _{CU} 65,000 I _{CS} 33,000 | — | — | — | — | — |
| | 380/415V | 2-Pole | | | I _{CU} — I _{CS} — | — | — | — | — | — | | |
| | | 2, 3-Pole | | | I _{CU} 18,000 I _{CS} 9,000 | — | — | — | — | — | | |
| | 500V | 2-Pole | | | I _{CU} — I _{CS} — | — | — | — | — | — | | |
| | | 2, 3-Pole | | | I _{CU} — I _{CS} — | — | — | — | — | — | | |
| | DC | | 125/250 V DC Interrupting Rating | 2-Pole | 14,000 | 14,000 | 14,000 | 14,000 | — | — | | |
| 3-Pole | | | | — | — | — | — | — | — | | | |
| 125VDC Interrupting Rating | | | 1-Pole | — | — | — | — | 14,000 | 25,000 | 30,000 | | |
| 250VDC Interrupting Rating | | | 2-Pole | — | — | — | — | 50,000 | 85,000 | 100,000 | | |
| 250VDC Interrupting Rating | 3-Pole | — | — | — | — | 50,000 | 85,000 | 100,000 | | | | |
| Dimensions in Inches | Height | | 10-50A | 4.50 | 5.00 5.40 ^② | 5.00 5.40 ^② | 5.00 5.40 ^② | — | — | | | |
| | | | 10-60A | — | — | — | — | — | — | | | |
| | | | 55-125A | 4.50 | 5.00 5.40 ^② | 5.00 5.40 ^② | 5.00 5.40 ^② | 5.1 | 5.1 | 5.1 | | |
| | Width | | 1-Pole | 1.00 | 1.00 | 1.00 | 1.00 | 1.0 | 1.0 | 1.0 | | |
| | | | 2-Pole | 2.00 | 2.00 | 2.00 | 2.00 | 2.0 | 2.0 | 2.0 | | |
| | | | 3-Pole | 3.00 | 3.00 | 3.00 | 3.00 | 3.0 | 3.0 | 3.0 | | |
| Depth | | | 2.69 | 2.71 | 2.71 | 2.71 | 3.6 | 3.6 | 3.6 | | | |
| Overcurrent Devices | Thermal and Fixed magnetic Trip | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | Thermal and Adjustable Magnetic trip | | — | — | — | — | — | — | — | | | |
| | Adjustable Magnetic trip only | | — | — | — | — | — | — | — | | | |
| | Motor Circuit Protector | | — | — | — | — | — | — | — | | | |
| | Molded Case Switch | | — | — | — | — | — | — | — | | | |
| Accessories & Modifications | Undervoltage Trip | | — | — | — | — | ✓ | ✓ | ✓ | | | |
| | Shunt Trip | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | Auxiliary Switch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | Alarm Switch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | Mechanical Interlock | | — | — | — | — | ✓ | ✓ | ✓ | | | |
| | Fungus Proofing (ref. page 7-159) | | ✓ | ✓ | ✓ | ✓ | — | — | — | | | |
| Individual Enclosures | Type 1 - Indoor Surface | | | | | | | | | | | |
| | Type 1 - Indoor, Flush | | | | | | | | | | | |
| | Type 3R - Outdoor-Rainproof | | | | | | | | | | | |

7 MOLDED CASE CIRCUIT BREAKERS



**3VA41 125A
1-Pole**

For inches / millimeters conversion, see Application Data section.
For Plug-in Breakers, see Load Centers & Circuit Breakers section.

① BQD6 CSA certified 10,000A @ 600V/347V 15-70A only.
② When two numbers are shown for the xGB/xGB2 column, the top rating is for xGB and the bottom rating for xGB2.

Molded Case Circuit Breakers

GB Frame

Selection

Type NGB Frame[®] (Panelboard Mount)

| Continuous Current Rating @ 40°C | 1-Pole | 2-Pole | 3-Pole |
|----------------------------------|-------------------------|------------------------|------------------------|
| | Catalog Number | Catalog Number | Catalog Number |
| 15 | NGB1B015B ^{①②} | NGB2B015B ^② | NGB3B015B ^② |
| 20 | NGB1B020B ^{①②} | NGB2B020B ^② | NGB3B020B ^② |
| 25 | NGB1B025B ^② | NGB2B025B ^② | NGB3B025B ^② |
| 30 | NGB1B030B ^② | NGB2B030B ^② | NGB3B030B ^② |
| 35 | NGB1B035B ^② | NGB2B035B ^② | NGB3B035B ^② |
| 40 | NGB1B040B ^② | NGB2B040B ^② | NGB3B040B ^② |
| 45 | NGB1B045B ^② | NGB2B045B ^② | NGB3B045B ^② |
| 50 | NGB1B050B ^② | NGB2B050B ^② | NGB3B050B ^② |
| 60 | NGB1B060B | NGB2B060B | NGB3B060B |
| 70 | NGB1B070B | NGB2B070B | NGB3B070B |
| 80 | NGB1B080B | NGB2B080B | NGB3B080B |
| 90 | NGB1B090B | NGB2B090B | NGB3B090B |
| 100 | NGB1B100B | NGB2B100B | NGB3B100B |
| 110 | NGB1B110B | NGB2B110B | NGB3B110B |
| 125 | NGB1B125B | NGB2B125B | NGB3B125B |



Load lugs are included as standard. HACR rated.

Type HGB[®] (Panelboard Mount)

| Continuous Current Rating @ 40°C | 1-Pole | 2-Pole | 3-Pole |
|----------------------------------|-------------------------|------------------------|------------------------|
| | Catalog Number | Catalog Number | Catalog Number |
| 15 | HGB1B015B ^{①②} | HGB2B015B ^② | HGB3B015B ^② |
| 20 | HGB1B020B ^{①②} | HGB2B020B ^② | HGB3B020B ^② |
| 25 | HGB1B025B ^② | HGB2B025B ^② | HGB3B025B ^② |
| 30 | HGB1B030B ^② | HGB2B030B ^② | HGB3B030B ^② |
| 35 | HGB1B035B ^② | HGB2B035B ^② | HGB3B035B ^② |
| 40 | HGB1B040B ^② | HGB2B040B ^② | HGB3B040B ^② |
| 45 | HGB1B045B ^② | HGB2B045B ^② | HGB3B045B ^② |
| 50 | HGB1B050B ^② | HGB2B050B ^② | HGB3B050B ^② |
| 60 | HGB1B060B | HGB2B060B | HGB3B060B |
| 70 | HGB1B070B | HGB2B070B | HGB3B070B |
| 80 | HGB1B080B | HGB2B080B | HGB3B080B |
| 90 | HGB1B090B | HGB2B090B | HGB3B090B |
| 100 | HGB1B100B | HGB2B100B | HGB3B100B |
| 110 | HGB1B110B | HGB2B110B | HGB3B110B |
| 125 | HGB1B125B | HGB2B125B | HGB3B125B |

Type LGB[®] (Panelboard Mount)

| Continuous Current Rating @ 40°C | 1-Pole | 2-Pole | 3-Pole |
|----------------------------------|-------------------------|------------------------|------------------------|
| | Catalog Number | Catalog Number | Catalog Number |
| 15 | LGB1B015B ^{①②} | LGB2B015B ^② | LGB3B015B ^② |
| 20 | LGB1B020B ^{①②} | LGB2B020B ^② | LGB3B020B ^② |
| 25 | LGB1B025B ^② | LGB2B025B ^② | LGB3B025B ^② |
| 30 | LGB1B030B ^② | LGB2B030B ^② | LGB3B030B ^② |
| 35 | LGB1B035B ^② | LGB2B035B ^② | LGB3B035B ^② |
| 40 | LGB1B040B ^② | LGB2B040B ^② | LGB3B040B ^② |
| 45 | LGB1B045B ^② | LGB2B045B ^② | LGB3B045B ^② |
| 50 | LGB1B050B ^② | LGB2B050B ^② | LGB3B050B ^② |
| 60 | LGB1B060B | LGB2B060B | LGB3B060B |
| 70 | LGB1B070B | LGB2B070B | LGB3B070B |
| 80 | LGB1B080B | LGB2B080B | LGB3B080B |
| 90 | LGB1B090B | LGB2B090B | LGB3B090B |
| 100 | LGB1B100B | LGB2B100B | LGB3B100B |
| 110 | LGB1B110B | LGB2B110B | LGB3B110B |
| 125 | LGB1B125B | LGB2B125B | LGB3B125B |

Shipping Weights

| Number of Poles | Number per Carton | Shipping Weight lbs. (kg) |
|-----------------|-------------------|---------------------------|
| 1 | 1 | 0.9 (0.4) |
| 2 | 1 | 1.9 (0.9) |
| 3 | 1 | 2.9 (1.2) |

Lugs for 60/75°C Wire

| Type | Ampere Rating | Wire Size | Catalog Number |
|-------------------|---------------|---------------|-----------------|
| NGB HGB LGB | 15-30A | #14-#6 AWG Cu | TC1Q1 (qty. 1) |
| | | #12-#6 AWG Al | 3TC1Q1 (qty. 3) |
| | 35-125A | #8-1/0 AWG Cu | 3TC1GG20 |
| | | #8-2/0 AWG Al | |

Interrupting Ratings (max. RMS symmetrical amperes kA)

| | Poles | UL489 | | | | | | | |
|-----|-------|----------|-----|-----|-----|----------|----------|----------|-----------------|
| | | Volts AC | | | | | | Volts DC | |
| | | 120 | 240 | 277 | 347 | 480Y/277 | 600Y/347 | 125 | 125/250 |
| NGB | 1 | 100 | — | 25 | 14 | — | — | 14 | — |
| | 2,3 | — | 100 | — | — | 25 | 14 | — | 14 ^④ |
| HGB | 1 | 100 | — | 35 | 14 | — | — | 14 | — |
| | 2,3 | — | 100 | — | — | 35 | 14 | — | 14 ^④ |
| LGB | 1 | 100 | — | 65 | 14 | — | — | 14 | — |
| | 2,3 | — | 100 | — | — | 65 | 14 | — | 14 ^④ |

① SWD rated.
② HID rated.

③ 2-pole only.
④ 2-pole only or two outer poles of 3-pole breaker
⑤ UL Listed for reverse feed.

For external accessories, please refer to pages 7-163 to 7-168
For internal accessories, please refer to page 7-35