

G-Frame

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Product Description

- All two- and three-pole circuit breakers are of the common trip type. On all 3-phase Delta (240V) Grounded B phase applications, refer to Cutler-Hammer.
- Single-pole circuit breakers, 15 and 20 amperes. Switching duty rated (SWD) for fluorescent lighting applications.
- All G-Frame circuit breakers are suitable for reverse feed use.
- HACR rated.

Technical Data and Specifications

Interrupting Capacity Ratings

Table 12-2. UL489 Interrupting Capacity Ratings

| Circuit Breaker Type | Number of Poles | Interrupting Capacity (Symmetrical Amperes) (kA) | | | | | |
|----------------------|-----------------|--|-----|-----|-----|-----------|--------|
| | | Volts AC (50/60 Hz) | | | | Volts DC | |
| | | 120 | 240 | 277 | 480 | 125/250 ② | 250 ①② |
| GD | 2 | — | 65 | — | 14 | 10 | — |
| | 3 | — | 65 | — | 22 | — | 10 |

① Two poles of 3-pole circuit breaker.
② Time constant is 8 milliseconds minimum.

Table 12-3. UL489 Interrupting Capacity Ratings (Continued)

| Circuit Breaker Type | Number of Poles | Interrupting Capacity (Symmetrical Amperes) (kA) | | | | | |
|----------------------|-----------------|--|-----|-----|----------|----------|---------|
| | | Volts AC (50/60 Hz) | | | | Volts DC | |
| | | 120 | 240 | 277 | 480Y/277 | 125 | 125/250 |
| GB | 1 | 65 | — | — | — | 14 ③ | — |
| | 2, 3 | — | 65 | — | — | — | 14 |
| GQ | | | | | | | |
| GHB | 1 | 65 | — | 14 | — | 14 ③ | — |
| | 2, 3 | — | 65 | — | 14 | — | 14 |
| HGHB | 1 | 65 | — | 25 | — | 14 | — |
| GC | 1 | 65 | — | — | — | 14 ③ | — |
| | 2, 3 | — | 65 | — | — | — | 14 |
| GHC | 1 | 65 | — | 14 | — | 14 ③ | — |
| | 2, 3 | — | 65 | — | 14 | — | 14 |
| HGHC | 1 | 65 | — | 25 | — | 14 | — |

③ 15 through 70A breakers only.

Terminal Types

For line and load-side. Terminals are UL listed as suitable for wire type and size given below.

Table 12-4. Terminal Types

| Circuit Breaker Amperes | Terminal Type Material | Screw Head Type | Wire Type | AWG Wire Range | Metric Wire ④ Range (mm ²) |
|---------------------------|--------------------------|-----------------|-----------|----------------|--|
| Standard | | | | | |
| 15 – 20 | Clamp (Plated Steel) | Slotted | Cu/Al | 14 – 10 | 2.5 – 4 |
| 25 – 100 | Pressure (Aluminum Body) | Slotted | Cu/Al | 10 – 1/0 | 4 – 50 |
| Optional — GD Only | | | | | |
| 15 – 100 | Pressure (Steel Body) | Slotted | Cu | 14 – 3 | — |

④ Not UL listed sizes.

G-Frame

Types GB, GHB and
HGHB Bolt-On Panelboard
Circuit Breakers



Typical GB

Standards and Certifications

These breakers meet the requirements of Federal Specification W-C-375b as follows:

- Types GB, GHB, 120 and 240V:
 - 1 Pole: Class 11a
 - 2, 3 Poles: Classes 10b, 11b, 12b, 14b, 15b
- Type GHB, 277 and 480Y/277V:
 - 1 Pole: Classes 12c, 13a
 - 2, 3 Poles: Class 13b
- Type HGHB 277V
- Type GQ 277V

Product Selection

Table 12-8. Type GB Thermal-Magnetic Circuit Breakers with Non-interchangeable Trip Units

| Continuous Ampere Rating @ 40°C | 120V AC Maximum, 125V DC Maximum ① | | 240V AC Maximum, 125/250V DC Maximum | | 240V AC Maximum, 125/250V DC Maximum ② | |
|---------------------------------|------------------------------------|---------------|--------------------------------------|---------------|--|---------------|
| | 1-Pole | | 2-Pole | | 3-Pole | |
| | Catalog Number | Price U.S. \$ | Catalog Number | Price U.S. \$ | Catalog Number | Price U.S. \$ |
| 15 | GB1015 ③ | 77.50 | GB2015 ③ | 199.00 | GB3015 ③ | 304.00 |
| 20 | GB1020 ③ | 77.50 | GB2020 ③ | 199.00 | GB3020 ③ | 304.00 |
| 25 | GB1025 | 77.50 | GB2025 | 199.00 | GB3025 | 304.00 |
| 30 | GB1030 | 77.50 | GB2030 | 199.00 | GB3030 | 304.00 |
| 35 | GB1035 | 77.50 | GB2035 | 199.00 | GB3035 | 304.00 |
| 40 | GB1040 | 77.50 | GB2040 | 199.00 | GB3040 | 304.00 |
| 45 | GB1045 | 77.50 | GB2045 | 199.00 | GB3045 | 271.00 |
| 50 | GB1050 | 77.50 | GB2050 | 199.00 | GB3050 | 304.00 |
| 60 | GB1060 | 77.50 | GB2060 | 199.00 | GB3060 | 304.00 |
| 70 | GB1070 | 157.00 | GB2070 | 316.00 | GB3070 | 430.00 |
| 80 | GB1080 | 157.00 | GB2080 | 316.00 | GB3080 | 430.00 |
| 90 | GB1090 | 157.00 | GB2090 | 316.00 | GB3090 | 430.00 |
| 100 | GB1100 | 157.00 | GB2100 | 316.00 | GB3100 | 430.00 |

- ① 15 through 70 ampere circuit breakers only.
- ② Use (2) outside poles.
- ③ Uses .190-32 screw type clamp terminals.

Table 12-9. Type GHB Thermal-Magnetic Circuit Breakers with Non-interchangeable Trip Units ⑦

| Continuous Ampere Rating @ 40°C | 277/480V AC Maximum, 125V DC Maximum ④ | | 277/480V AC Maximum, 125/250V DC Maximum | | 277/480V AC Maximum, 125/250V DC Maximum ⑤ | |
|---------------------------------|--|---------------|--|---------------|--|---------------|
| | 1-Pole | | 2-Pole | | 3-Pole | |
| | Catalog Number | Price U.S. \$ | Catalog Number | Price U.S. \$ | Catalog Number | Price U.S. \$ |
| 15 | GHB1015 ⑥ | 93.00 | GHB2015 ⑥ | 232.00 | GHB3015 ⑥ | 409.00 |
| 20 | GHB1020 ⑥ | 93.00 | GHB2020 ⑥ | 232.00 | GHB3020 ⑥ | 409.00 |
| 25 | GHB1025 | 93.00 | GHB2025 | 232.00 | GHB3025 | 409.00 |
| 30 | GHB1030 | 93.00 | GHB2030 | 232.00 | GHB3030 | 409.00 |
| 35 | GHB1035 | 94.00 | GHB2035 | 232.00 | GHB3035 | 409.00 |
| 40 | GHB1040 | 94.00 | GHB2040 | 232.00 | GHB3040 | 409.00 |
| 45 | GHB1045 | 94.00 | GHB2045 | 232.00 | GHB3045 | 409.00 |
| 50 | GHB1050 | 94.00 | GHB2050 | 232.00 | GHB3050 | 409.00 |
| 60 | GHB1060 | 94.00 | GHB2060 | 232.00 | GHB3060 | 409.00 |
| 70 | GHB1070 | 196.00 | GHB2070 | 463.00 | GHB3070 | 560.00 |
| 80 | GHB1080 | 196.00 | GHB2080 | 463.00 | GHB3080 | 560.00 |
| 90 | GHB1090 | 196.00 | GHB2090 | 463.00 | GHB3090 | 560.00 |
| 100 | GHB1100 | 196.00 | GHB2100 | 463.00 | GHB3100 | 560.00 |

- ④ 15 through 70 ampere circuit breakers only.
- ⑤ Use (2) outside poles.
- ⑥ Uses .190 (4.83) -32 screw type clamp terminals.
- ⑦ 480Y/277V, circuit breakers (Type GHB) not suitable for 3-phase Delta (480V).

Note: Instruction Leaflet/FRED Number 15547

Table 12-10. Type HGHB Thermal-Magnetic Circuit Breakers with Non-interchangeable Trip Units

| Continuous Ampere Rating @ 40°C | 277V AC Maximum, 125V DC Maximum | |
|---------------------------------|----------------------------------|---------------|
| | 1-Pole | |
| | Catalog Number | Price U.S. \$ |
| 15 | HGHB1015 | 116.00 |
| 20 | HGHB1020 | 116.00 |
| 25 | HGHB1025 | 116.00 |
| 30 | HGHB1030 | 116.00 |

Note: Instruction Leaflet/FRED Number 15547

Table 12-11. Type GQ Thermal-Magnetic Circuit Breakers with Non-interchangeable Trip Units

| Continuous Ampere Rating @ 40°C | 277V AC Maximum, No DC Rating | |
|---------------------------------|-------------------------------|---------------|
| | 1-Pole | |
| | Catalog Number | Price U.S. \$ |
| 15 | GQ1015 | ⑧ 93.00 |
| 20 | GQ1020 | ⑧ 93.00 |

- ⑧ Contact factory for availability.

Discount Symbol CB-2



AB DE-ION Circuit Breakers

Types GB, GHB, GC, GHC 15-100 Amperes, 2 and 3 Poles

