

G-Frame

Contents

<i>Description</i>	<i>Page</i>
Product Description	12-6
Technical Data and Specifications	12-6
Product Selection	12-7
Type GD Thermal-Magnetic Circuit Breakers with Non-interchangeable Trip Units	12-8
Type GD Molded Case Switches	12-8
Type GB, GHB and HGHB Bolt-On Panelboard Circuit Breakers	12-9
Type GHBGFEP Bolt-On Panelboard Ground Fault Circuit Protectors	12-10
Types GC, GHC and HGHC Circuit Breakers	12-11
Type GHCGFEP Ground Fault Circuit Protectors	12-12
Special Purpose GC and GHC Circuit Breakers	12-13

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

