

Series C® G-Frame

- 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.

Interrupting Capacity Ratings

UL489 Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Interrupting Capacity (Symmetrical Amperes) (kA)						Page Number
		Volts Ac (50/60 Hz)				Volts Dc		
		120	240	277	480	125	250 <sup>①②</sup>	
GD	3	–	65	–	22	–	10	26

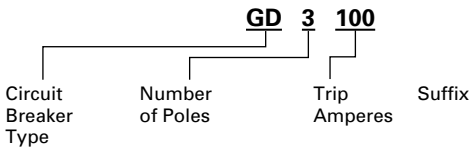
Circuit Breaker Type	Number of Poles	Interrupting Capacity (Symmetrical Amperes) (kA)						Page Number
		Volts Ac (50/60 Hz)				Volts Dc		
		120	240	277	480Y/277	125	125/250	
GB	1	65	–	–	–	14 <sup>③</sup>	–	27
	2, 3	–	65	–	–	–	14	27
GHB	1	65	–	14	–	14 <sup>③</sup>	–	27
	2, 3	–	65	–	14	–	14	27
GC	1	65	–	–	–	14 <sup>③</sup>	–	28
	2, 3	–	65	–	–	–	14	28
GHC	1	65	–	14	–	14 <sup>③</sup>	–	28
	2, 3	–	65	–	14	–	14	28



Catalog Numbering System

This information is presented only as an aid to understanding catalog numbers. It is not to be used to build catalog numbers for circuit breakers or trip units.

Circuit Breaker/Frame Catalog Number



GD	1: 1 Pole	15	K: Molded Case Switch
GB	2: 2 Pole	20	D: Ring Type Terminals
GHB	3: 3 Pole	24	C: Steel Collars
GC		30	V: 50°C
GHC		35	J01: Fungus Proofed
		40	R01: Shock Tested
		45	F01: Freeze Tested
		50	
		60	
		70	
		80	
		90	
		100	

Terminal Types

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

Circuit Breaker Amperes	Terminal Type Material	Screw Head Type	Wire Type	AWG Wire Range	Metric Wire <sup>④</sup> Range (mm <sup>2</sup> )
<b>Standard</b>					
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
<b>Optional</b>					
15-50	Pressure (Steel Body)	Slotted	Cu	–	–

① Two poles of 3-pole circuit breaker.  
 ② Time constant is 8 milliseconds minimum.  
 ③ 15 through 70A breakers only.  
 ④ Not UL listed sizes.

## Series C® G-Frame

## Types GC and GHC Circuit Breakers

15-100 Amperes, 120, 240, 277, 480Y/277V, 50/60 Hz, 125, 125/250 Vdc, 1, 2, and 3 Poles



Typical GC

These breakers meet the requirements of Federal Specification W-C-37b as follows:

Types GC, 120 and 240 Volts:

- 1 Pole: Class 11a
- 2, 3 Poles: Classes 10b, 11b, 12b, 14b, 15b

Type GHC, 277 and 480Y/277 Volts:

- 1 Pole: Classes 12c, 13a
- 2, 3 Poles: Class 13b

## Type GC Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units

Continuous Ampere Rating @ 40°C	240 Vac Maximum, 125 Vdc Maximum <sup>①</sup>	240 Vac Maximum, 125/250 Vdc Maximum	240 Vac Maximum, 125/250 Vdc Maximum <sup>②</sup>
	1-Pole	2-Pole	3-Pole
Catalog Number			
15	GC1015 <sup>③</sup>	GC2015 <sup>③</sup>	GC3015 <sup>③</sup>
20	GC1020 <sup>③</sup>	GC2020 <sup>③</sup>	GC3020 <sup>③</sup>
25	GC1025	GC2025	GC3025
30	GC1030	GC2030	GC3030
35	GC1035	GC2035	GC3035
40	GC1040	GC2040	GC3040
45	GC1045	GC2045	GC3045
50	GC1050	GC2050	GC3050
60	GC1060	GC2060	GC3060
70	GC1070	GC2070	GC3070
80	GC1080	GC2080	GC3080
90	GC1090	GC2090	GC3090
100	GC1100	GC2100	GC3100



## Type GHC Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units

Continuous Ampere Rating @ 40°C	277 Vac Maximum, 125 Vdc Maximum <sup>①</sup>	480Y/277 Vac Maximum, 125/250 Vdc Maximum	480Y/277 Vac Maximum, 125/250 Vdc Maximum <sup>②</sup>
	1-Pole	2-Pole	3-Pole
Catalog Number			
15	GHC1015 <sup>③</sup>	GHC2015 <sup>③</sup>	GHC3015 <sup>③</sup>
20	GHC1020 <sup>③</sup>	GHC2020 <sup>③</sup>	GHC3020 <sup>③</sup>
25	GHC1025	GHC2025	GHC3025
30	GHC1030	GHC2030	GHC3030
35	GHC1035	GHC2035	GHC3035
40	GHC1040	GHC2040	GHC3040
45	GHC1045	GHC2045	GHC3045
50	GHC1050	GHC2050	GHC3050
60	GHC1060	GHC2060	GHC3060
70	GHC1070	GHC2070	GHC3070
80	GHC1080	GHC2080	GHC3080
90	GHC1090	GHC2090	GHC3090
100	GHC1100	GHC2100	GHC3100

Instruction Leaflet/FRED Number 15548

## Type GHCGFEP Cable In/Cable Out 30mA Industrial Ground Fault Circuit Protectors

15-60 Amperes, 277 Volt, 50/60 Hz



Single Phase  
Requires 2 Poles

These circuit breakers meet the requirements of UL489 and UL1053.

Operational voltage 240V to 305V.

### Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Interrupting Capacity (Symmetrical Amperes)
		277 Volts Ac (50/60 Hz)
GHCGFEP	2	14,000

## Type GHBGFEP Bolt-on Panelboard 30mA Industrial Ground Fault Circuit Protectors with Non-Interchangeable Trip Units

Continuous Ampere Rating @ 40°C	One Phase (Requires 2 Poles) 277V, 30mA
	Catalog Number
15	GHBGFEP1015
20	GHBGFEP1020
30	GHBGFEP1030
40	GHBGFEP1040
50	GHBGFEP1050
60	GHBGFEP1060

Instruction Leaflet/FRED Number 29C193

① 15 through 70 ampere circuit breakers only.

② Use (2) outside poles.

③ Uses .190-32 screw type clamp terminals.

## Series C® G-Frame

## Dimensions/Weights

### Dimensions, Inches (mm)

Number of Poles	Width	Height	Depth
1	1.0 (25.33)	4.88 (123.95)	2.81 (71.41)
2	2.0 (50.78)	4.88 (123.95)	2.81 (71.41)
3	3.0 (76)	4.88 (123.95)	2.81 (71.41)

### Approximate Shipping Weight, Lbs. (kg)

Breaker Type	Number of Poles		
	1	2	3
GD	1.0 (.454)	1.5 (.680)	2.25 (1.021)
GHBGFEP	—	1.2 (.545)	—
GHCGFEP	—	1.1 (.499)	—
GB/GHC	Carton Quantity		
	24	12	8
	16 (7.264)	16 (7.264)	16 (7.264)
GC/GHC	Carton Quantity		
	24	12	8
	18 (8.172)	18 (8.172)	18 (8.172)

## Accessories

### Internal

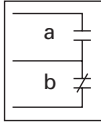
Alarm Switch .....	139
Auxiliary Switch.....	142
Shunt Trip .....	147
Undervoltage Release Mechanism.....	153

### External

Base Mounting Hardware .....	163
Base Mounting Plate .....	167
DIN Rail Adapter .....	167
Key Operated Attachment.....	167
Lock Dog (non-padlockable)....	168
Padlockable Handle .....	168
Handle Mechanisms .....	180

Auxiliary Switch

Auxiliary Switch



General Information

The auxiliary switch provides circuit breaker contact status information by monitoring the position of the molded cross bar which contains the moving contact arms. The auxiliary switch is used for remote indication and interlock system verification,

and consists of one or two SPDT switches housed in a plug-in module. Each SPDT switch has one "a" and one "b" contact. When the circuit breaker contacts are open, the "a" contact is open and the "b" contact is closed.

Ordering Information

G-Frame

Auxiliary (RH only)

Electrical Ratings			Contact Arrangement	Style Number <sup>①②③</sup>	Factory Suffix
Volts	Frequency	Amperes			
240	50/60 Hz	6	1a/1b	1288C74G03	A3
240	50/60 Hz	6	2a/2b	1288C73G03	A6

Instruction Leaflet/FRED Number 15551

F-Frame

Electrical Rating Data<sup>④⑤</sup>

Maximum Voltage	Frequency	Maximum Current Amperes	Dielectric Withstand Voltage
125 <sup>⑥</sup>	50/60 Hz	1	2500
600	50/60 Hz	6	2500
125	Dc	0.50 <sup>⑦</sup>	2200
250	Dc	0.25 <sup>⑦</sup>	2200

Auxiliary Switch

Number of Contacts a and b	Mounting Location (Pole)	Factory Mounted				Field Mounted			
		Connection Type and Location						Field Installation Kits <sup>⑧</sup>	
		18-Inch Pigtail Leads				Terminal Block	Pigtail Leads	Terminal Block	
		Same Side	Rear <sup>⑨</sup>	Opposite Side					
Suffix Number						Catalog Number			
1	Left <sup>⑩</sup>	A01	A02	A03	A04	A1X1PK	A1X1LTK		
	Right or Neutral	A15 <sup>⑪</sup>	A16 <sup>⑪</sup>	A17 <sup>⑪</sup>	—	E1X1PK	—		
		A05	A06	A07	A08	A1X1PK	A1X1RTK <sup>⑫</sup>		
2	Left <sup>⑩</sup>	A09	A10	—	A11	A2X1LPK	A2X1LTK		
	Right or Neutral	A21 <sup>⑪</sup>	A22 <sup>⑪</sup>	—	—	E2X1LPK	—		
		A12	A13	—	A14	A2X1RPK	A2X1RTK <sup>⑫</sup>		
2	Right or Neutral	A23 <sup>⑪</sup>	A24 <sup>⑪</sup>	—	—	E2X1RPK	—		

Instruction Leaflet/FRED Number 29C120

J-Frame

Electrical Rating Data<sup>④⑤</sup>

Maximum Voltage	Frequency	Maximum Current Amperes	Dielectric Withstand Voltage
600	50/60 Hz	6	2500
125	Dc	0.50 <sup>⑦</sup>	—
250	Dc	0.25 <sup>⑦</sup>	—

Auxiliary Switch

Number of Sets of Contacts (1a and 1b)	Mounting Location (Pole)	Factory Mounted				Field Mounted			
		Connection Type and Location						Field Installation Kits <sup>⑩</sup>	
		18-Inch Pigtail Leads				Terminal Block	Pigtail Leads	Terminal Block	
		Same Side	Rear <sup>⑪</sup>	Opposite Side					
Suffix Number						Catalog Number			
1	Left	A01	A02	A03	A04	A1X2PK	A1X2LTK		
	Right <sup>⑫</sup>	A05	A06	A07	A08	A1X2PK	A1X2RTK <sup>⑬</sup>		
2	Left	A09	A10	—	A11	A2X2PK	A2X2LTK		
	Right <sup>⑫</sup>	A12	A13	—	A14	A2X2PK	A2X2RTK <sup>⑬</sup>		

Instruction Leaflet/FRED Number 29C121

- ① Includes 24-inch external pigtail leads, #18 AWG (16-.010).
- ② A maximum of two internal accessories may be mounted in a three-pole circuit breaker.
- ③ Suitable for mounting in right pole only of 2- or 3-pole breaker.
- ④ Endurance: 6000 electrical operations plus 4000 mechanical operations.
- ⑤ Pigtail wire size: No. 18 AWG (0.82 mm<sup>2</sup>).
- ⑥ For use in electronic circuit of 100 micro-amperes and 15 Vdc minimum.
- ⑦ Non-inductive load.

- ⑧ Not listed with Underwriters Laboratories, Inc., for field installation.
- ⑨ Standard pigtail lead exit location.
- ⑩ 125-volt (Max.), 50/60 Hz switch for use in electronic circuit of 100 micro-amp and 15 Vdc minimum.
- ⑪ Listed with Underwriters Laboratories, Inc. for field installation or interchangeable trip unit breakers under E64983.
- ⑫ Standard mounting location – leads exit rear of breaker.
- ⑬ Not for use on 4-pole circuit breakers.



# AB DE-ION Circuit Breakers

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

