

- 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 ^{①②} | |
| GD | 3 | – | 65 | – | 22 | – | 10 | 26 |

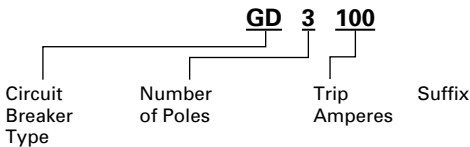
| Circuit Breaker Type | Number of Poles | Interrupting Capacity (Symmetrical Amperes) (kA) | | | | | | Page Number |
|----------------------|-----------------|--|-----|-----|----------|-----------------|---------|-------------|
| | | Volts Ac (50/60 Hz) | | | | Volts Dc | | |
| | | 120 | 240 | 277 | 480Y/277 | 125 | 125/250 | |
| GB | 1 | 65 | – | – | – | 14 ^③ | – | 27 |
| | 2, 3 | – | 65 | – | – | – | 14 | 27 |
| GHB | 1 | 65 | – | 14 | – | 14 ^③ | – | 27 |
| | 2, 3 | – | 65 | – | 14 | – | 14 | 27 |
| GC | 1 | 65 | – | – | – | 14 ^③ | – | 28 |
| | 2, 3 | – | 65 | – | – | – | 14 | 28 |
| GHC | 1 | 65 | – | 14 | – | 14 ^③ | – | 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 ^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 | | | | | |
| 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 ^① | 240 Vac Maximum, 125/250 Vdc Maximum | 240 Vac Maximum, 125/250 Vdc Maximum ^② |
|---------------------------------|---|--------------------------------------|---|
| | 1-Pole | 2-Pole | 3-Pole |
| Catalog Number | | | |
| 15 | GC1015 ^③ | GC2015 ^③ | GC3015 ^③ |
| 20 | GC1020 ^③ | GC2020 ^③ | GC3020 ^③ |
| 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 ^① | 480Y/277 Vac Maximum, 125/250 Vdc Maximum | 480Y/277 Vac Maximum, 125/250 Vdc Maximum ^② |
|---------------------------------|---|---|--|
| | 1-Pole | 2-Pole | 3-Pole |
| Catalog Number | | | |
| 15 | GHC1015 ^③ | GHC2015 ^③ | GHC3015 ^③ |
| 20 | GHC1020 ^③ | GHC2020 ^③ | GHC3020 ^③ |
| 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

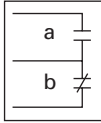
| | |
|--|-----|
| Alarm Switch | 139 |
| Auxiliary Switch..... | 142 |
| Shunt Trip | 147 |
| Undervoltage Release Mechanism..... | 153 |

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 ^{①②③} | 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^{④⑤}

| Maximum Voltage | Frequency | Maximum Current Amperes | Dielectric Withstand Voltage |
|------------------|-----------|-------------------------|------------------------------|
| 125 ^⑥ | 50/60 Hz | 1 | 2500 |
| 600 | 50/60 Hz | 6 | 2500 |
| 125 | Dc | 0.50 ^⑦ | 2200 |
| 250 | Dc | 0.25 ^⑦ | 2200 |

Auxiliary Switch

| Number of Contacts a and b | Mounting Location (Pole) | Factory Mounted | | | | Field Mounted | | | |
|----------------------------|--------------------------|------------------------------|-------------------|------------------|-----------|----------------------|----------------------|--------------------------------------|--|
| | | Connection Type and Location | | | | | | Field Installation Kits ^⑧ | |
| | | 18-Inch Pigtail Leads | | | | Terminal Block | Pigtail Leads | Terminal Block | |
| | | Same Side | Rear ^⑨ | Opposite Side | Same Side | | | | |
| Suffix Number | | | | | | Catalog Number | | | |
| 1 | Left ^⑩ | A01 | A02 | A03 | A04 | A1X1PK | A1X1LTK | | |
| | Right or Neutral | A15 ^⑩ | A16 ^⑩ | A17 ^⑩ | — | E1X1PK | — | | |
| | | A05 | A06 | A07 | A08 | A1X1PK | A1X1RTK ^⑪ | | |
| 2 | Left ^⑩ | A18 ^⑩ | A19 ^⑩ | — | — | — | — | | |
| | Right or Neutral | A09 | A10 | — | A11 | A2X1LPK | A2X1LTK | | |
| | | A21 ^⑩ | A22 ^⑩ | — | — | E2X1LPK | — | | |
| A12 | | A13 | — | A14 | A2X1RPK | A2X1RTK ^⑪ | | | |
| | | A23 ^⑩ | A24 ^⑩ | — | — | E2X1RPK | — | | |

Instruction Leaflet/FRED Number 29C120

J-Frame

Electrical Rating Data^{④⑤}

| Maximum Voltage | Frequency | Maximum Current Amperes | Dielectric Withstand Voltage |
|-----------------|-----------|-------------------------|------------------------------|
| 600 | 50/60 Hz | 6 | 2500 |
| 125 | Dc | 0.50 ^⑦ | |
| 250 | Dc | 0.25 ^⑦ | |

Auxiliary Switch

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

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 mm²).
- 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

