

Molded Case Circuit Breaker Product Family



Contents

Description	Page
Product Overview	V4-T2-220
Standards and Certifications	V4-T2-221
Quick Reference	V4-T2-222
G-Frame (15–100 Amperes)	
Catalog Number Selection	V4-T2-226
Technical Data and Specifications	V4-T2-226
F-Frame (10–225 Amperes)	V4-T2-239
J-Frame (70–250 Amperes)	V4-T2-257
K-Frame (70–400 Amperes)	V4-T2-265
L-Frame (125–600 Amperes)	V4-T2-289
M-Frame (300–800 Amperes)	V4-T2-315
N-Frame (400–1200 Amperes)	V4-T2-326
R-Frame (800–2500 Amperes)	V4-T2-341
Motor Circuit Protectors (MCP)	V4-T2-360
Motor Protection Circuit Breakers (MPCB)	V4-T2-371
Type ELC Current Limiter Attachment (Size 0–4)	V4-T2-373
Current Limiting Circuit Breaker Module	V4-T2-374
Internal Accessories	V4-T2-377
External Accessories	V4-T2-410

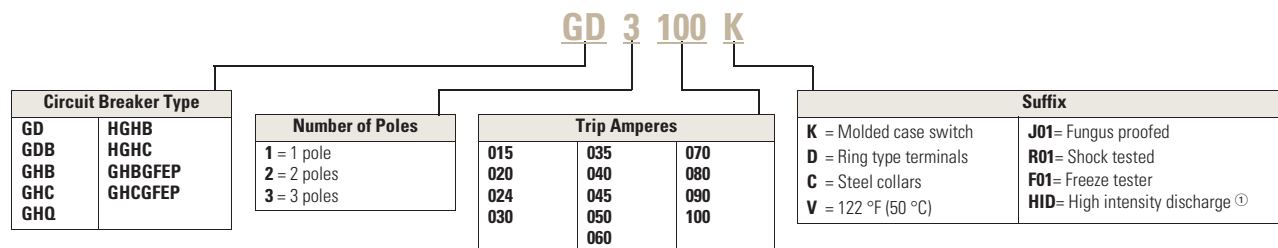
G-Frame (15–100 Amperes)

Product Description

- All two- and three-pole circuit breakers are of the common trip type. On all three-phase delta (240 V) Grounded B phase applications, refer to Eaton
- 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

Catalog Number Selection

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**Technical Data and Specifications****UL 489 Interrupting Capacity Ratings**

Circuit Breaker Type	Number of Poles	Interrupting Capacity (kA Symmetrical Amperes)						Volts DC	
		Volts AC (50/60 Hz)					480Y/277	125 ^②	250 ^{③④}
		120	240	277	480				
GDB	2, 3	—	—	—	14	—	—	—	10
GD	2	—	65	—	14	—	—	—	10
GD	3	—	65	—	22	—	—	—	10
GHQ	—	65	—	14	—	—	—	—	—
GHB	1	65	—	14	—	—	14	14	—
GHB	2, 3	—	65	—	—	14	14	14	—
HGHB	1	65	—	25	—	—	14	14	—
GHC	1	65	—	14	—	—	14	14	—
GHC	2, 3	—	65	—	—	14	14	14	—
HGHC	1	65	—	25	—	—	14	14	—

Terminal Types

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

Terminal Types

Circuit Breaker Amperes	Terminal Type Material	Screw Head Type	Wire Type	AWG Wire Range	Metric Wire Range (mm ²) ^⑤
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, GHB, GHC					
15–100	Pressure (steel body)	Slotted	Cu	14–3	—

Notes

- ① HID suffix only applies to the GHB and GHC single-pole, 15–20 A circuit breakers.
- ② Single-pole breakers can be applied in DC systems up to 70 A.
- ③ Time constant is 8 milliseconds minimum.
- ④ Two poles of three-pole circuit breaker.
- ⑤ Not UL listed sizes.

Typical G-Frame Circuit Breaker



Contents

Description

	Page
Product Overview	V4-T2-220
Standards and Certifications	V4-T2-221
Quick Reference	V4-T2-222
G-Frame (15–100 Amperes)	V4-T2-225
F-Frame (10–225 Amperes)	V4-T2-239
J-Frame (70–250 Amperes)	V4-T2-257
K-Frame (70–400 Amperes)	V4-T2-265
L-Frame (125–600 Amperes)	V4-T2-289
M-Frame (300–800 Amperes)	V4-T2-315
N-Frame (400–1200 Amperes)	V4-T2-326
R-Frame (800–2500 Amperes)	V4-T2-341
Motor Circuit Protectors (MCP)	V4-T2-360
Motor Protection Circuit Breakers (MPCB)	V4-T2-371
Type ELC Current Limiter Attachment (Size 0–4)	V4-T2-373
Current Limiting Circuit Breaker Module	V4-T2-374
Internal Accessories	V4-T2-377
External Accessories	V4-T2-410

Type GD Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units (15–100 Amperes)

Product Description

- Cable in, cable out
- Includes mounting hardware and BMHE

Standards and Certifications

- UL/CSA



Product Selection

Type GD Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units

Maximum Continuous Ampere Rating at 40 °C	480 Vac Maximum, 250 Vdc		Includes Binding Head Screws and Clamps 10–32 x 0.312
	14 kAIC at 480 Vac Includes Line and Load Terminals	22 kAIC at 480 Vac	
	Two-Pole Catalog Number	Three-Pole Catalog Number	Three-Pole Catalog Number
15	GD2015	GD3015	GD3015D
20	GD2020	GD3020	GD3020D
25	GD2025	GD3025	GD3025D
30	GD2030	GD3030	GD3030D
35	GD2035	GD3035	GD3035D
40	GD2040	GD3040	GD3040D
45	GD2045	GD3045	GD3045D
50	GD2050	GD3050	GD3050D
60	—	GD3060	GD3060D
70	—	GD3070	GD3070D
80	—	GD3080	GD3080D
90	—	GD3090	GD3090D
100	—	GD3100	GD3100D

Type GDB Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units

Maximum Continuous Ampere Rating at 40 °C	480 Vac Maximum, 250 Vdc 14 kAIC at 480 Vac Includes Line and Load Terminals	
	Two-Pole Catalog Number	Three-Pole Catalog Number
15	GDB2015	GDB3015
20	GDB2020	GDB3020
25	GDB2025	GDB3025
30	GDB2030	GDB3030
35	GDB2035	GDB3035
40	GDB2040	GDB3040
45	GDB2045	GDB3045
50	GDB2050	GDB3050
60	—	GDB3060
70	—	GDB3070
80	—	GDB3080
90	—	GDB3090
100	—	GDB3100

Type GD Molded Case Switches

Type GD Molded Case Switches—Three-Pole

Maximum Continuous Ampere Rating at 40 °C	480 Vac Maximum, 250 Vdc Catalog Number (Includes Line and Load Terminals)	
60	GD3060K	
60	GD3060KC ^①	
100	GD3100K	
100	GD3100KD ^②	

Notes

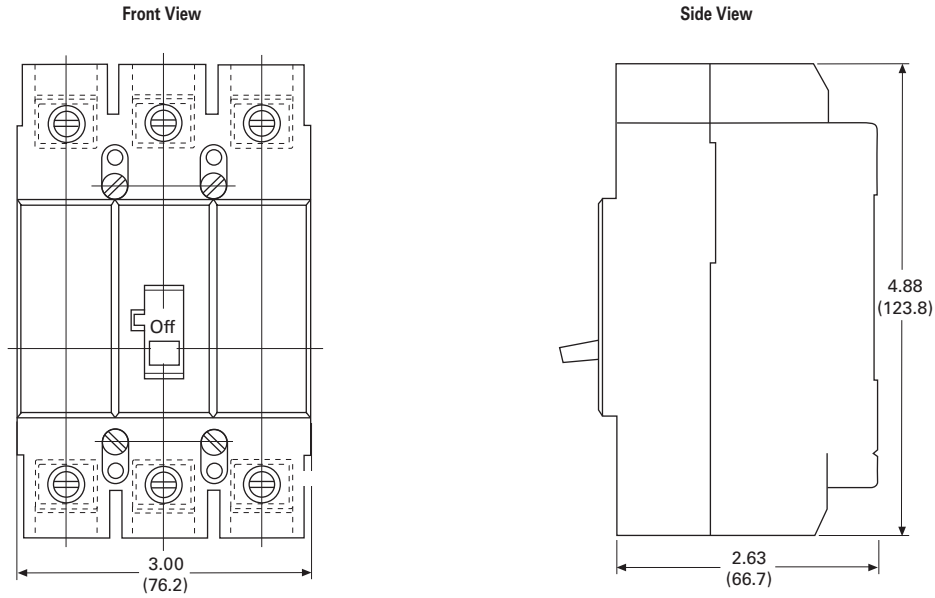
^① Includes line and load steel terminals.

^② Includes binding head screws and clamps 10–32 x 0.312.

Molded case switches may open above 1300 amperes.

Dimensions

Approximate Dimensions in Inches (mm)

GD-Frame, Three-Pole

Typical GHB

2



Contents

Description

	<i>Page</i>
Product Overview	V4-T2-220
Standards and Certifications	V4-T2-221
Quick Reference	V4-T2-222
G-Frame (15–100 Amperes)	V4-T2-225
F-Frame (10–225 Amperes)	V4-T2-239
J-Frame (70–250 Amperes)	V4-T2-257
K-Frame (70–400 Amperes)	V4-T2-265
L-Frame (125–600 Amperes)	V4-T2-289
M-Frame (300–800 Amperes)	V4-T2-315
N-Frame (400–1200 Amperes)	V4-T2-326
R-Frame (800–2500 Amperes)	V4-T2-341
Motor Circuit Protectors (MCP)	V4-T2-360
Motor Protection Circuit Breakers (MPCB)	V4-T2-371
Type ELC Current Limiter Attachment (Size 0–4)	V4-T2-373
Current Limiting Circuit Breaker Module	V4-T2-374
Internal Accessories	V4-T2-377
External Accessories	V4-T2-410

Types GHB and HGHB Bolt-On Panelboard Circuit Breakers (15–100 Amperes)

Standards and Certifications

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

- Type GHB, 120 and 240 V:
 - Single-pole: Class 11a
 - Two-, three-pole: Classes 10b, 11b, 12b, 14b, 15b
 - UL/CSA
- Type GHB, 277 and 480Y/277V:
 - Single-pole: Classes 12c, 13a
 - Two-, three-pole: Class 13b
- Type HGHB 277V
- Type GHQ 277V



Product Selection

Typical GHB

Type GHB Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units ^①

Continuous Ampere Rating at 40 °C	277/480 Vac Maximum, 125 Vdc Maximum ^②	277/480 Vac Maximum, 125/250 Vdc Maximum	277/480 Vac Maximum, 125/250 Vdc Maximum ^③
	Single-Pole Catalog Number	Two-Pole Catalog Number	Three-Pole Catalog Number
15	GHB1015 ^{④⑤}	GHB2015 ^④	GHB3015 ^④
20	GHB1020 ^{④⑤}	GHB2020 ^④	GHB3020 ^④
25	GHB1025	GHB2025	GHB3025
30	GHB1030	GHB2030	GHB3030
35	GHB1035	GHB2035	GHB3035
40	GHB1040	GHB2040	GHB3040
45	GHB1045	GHB2045	GHB3045
50	GHB1050	GHB2050	GHB3050
60	GHB1060	GHB2060	GHB3060
70	GHB1070	GHB2070	GHB3070
80	GHB1080	GHB2080	GHB3080
90	GHB1090	GHB2090	GHB3090
100	GHB1100	GHB2100	GHB3100

Type HGHB Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units

Continuous Ampere Rating at 40 °C	277 Vac Maximum, 125 Vdc Maximum Single-Pole Catalog Number
15	HGHB1015 ^⑥
20	HGHB1020 ^⑥
25	HGHB1025
30	HGHB1030

Notes

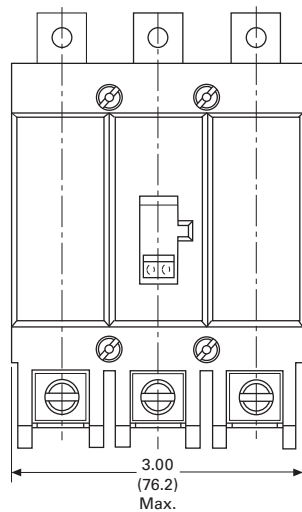
- ① 480Y/277 V, circuit breakers (Type GHB) not suitable for three-phase delta (480 V).
- ② Single-pole breakers can be applied in DC systems from 15 through 70 amperes; 80 through 100 amperes devices are not suitable for DC application.
- ③ Use two outside poles.
- ④ Uses 0.190 (4.83) –32 screw type clamp terminals.
- ⑤ Add suffix HID for High Intensity Discharge (HID) applications. 15 and 20 ampere, single-pole are SWD rated.
- ⑥ 15 and 20 ampere, single-pole are SWD rated.

Dimensions

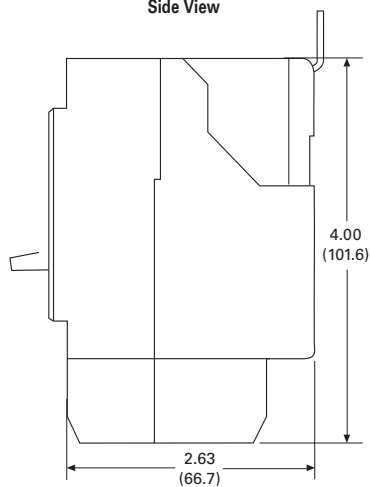
Approximate Dimensions in Inches (mm)

2**GDB-Frame, Three-Pole**

Front View



Side View



Single-Phase (requires two poles)



Contents

Description

	Page
Product Overview	V4-T2-220
Standards and Certifications	V4-T2-221
Quick Reference	V4-T2-222
G-Frame (15–100 Amperes)	V4-T2-225
F-Frame (10–225 Amperes)	V4-T2-239
J-Frame (70–250 Amperes)	V4-T2-257
K-Frame (70–400 Amperes)	V4-T2-265
L-Frame (125–600 Amperes)	V4-T2-289
M-Frame (300–800 Amperes)	V4-T2-315
N-Frame (400–1200 Amperes)	V4-T2-326
R-Frame (800–2500 Amperes)	V4-T2-341
Motor Circuit Protectors (MCP)	V4-T2-360
Motor Protection Circuit Breakers (MPCB)	V4-T2-371
Type ELC Current Limiter Attachment (Size 0–4)	V4-T2-373
Current Limiting Circuit Breaker Module	V4-T2-374
Internal Accessories	V4-T2-377
External Accessories	V4-T2-410

Type GHBGFEP Bolt-On Panelboard 30 mA Industrial Ground Fault Circuit Protectors (15–100 Amperes)

Product Description

- 15–60 amperes, 277 V, 50/60 Hz
- Operational voltage 240 V to 305 V

Standards and Certifications

These circuit breakers meet the requirements of UL 489 and UL 1053.



Product Selection

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

Continuous Ampere Rating at 40 °C	Single-Phase (Requires Two Poles) 277 Vac, 30 mA Catalog Number
15	GHBGFEP1015
20	GHBGFEP1020
30	GHBGFEP1030
40	GHBGFEP1040
50	GHBGFEP1050
60	GHBGFEP1060

Technical Data and Specifications

Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Interrupting Capacity (Symmetrical Amperes) 277 Vac (50/60 Hz)
GHBGFEP	1	14,000

2.4

Molded Case Circuit Breakers

Series C

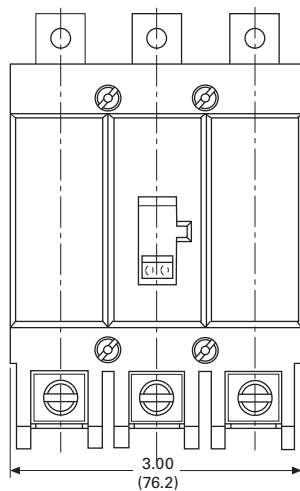
Dimensions

Approximate Dimensions in Inches (mm)

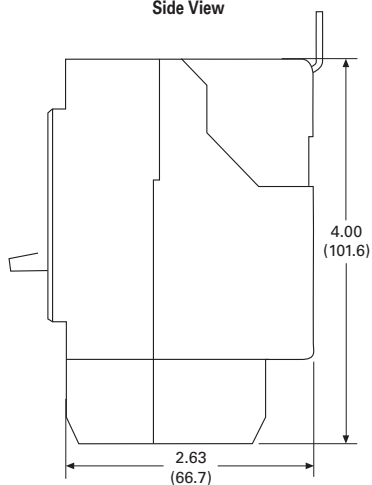
2

GHB-Frame, Three-Pole

Front View



Side View



Typical GHC



Contents

Description	Page
Product Overview	V4-T2-220
Standards and Certifications	V4-T2-221
Quick Reference	V4-T2-222
G-Frame (15–100 Amperes)	V4-T2-225
F-Frame (10–225 Amperes)	V4-T2-239
J-Frame (70–250 Amperes)	V4-T2-257
K-Frame (70–400 Amperes)	V4-T2-265
L-Frame (125–600 Amperes)	V4-T2-289
M-Frame (300–800 Amperes)	V4-T2-315
N-Frame (400–1200 Amperes)	V4-T2-326
R-Frame (800–2500 Amperes)	V4-T2-341
Motor Circuit Protectors (MCP)	V4-T2-360
Motor Protection Circuit Breakers (MPCB)	V4-T2-371
Type ELC Current Limiter Attachment (Size 0–4)	V4-T2-373
Current Limiting Circuit Breaker Module	V4-T2-374
Internal Accessories	V4-T2-377
External Accessories	V4-T2-410

Types GHC and HGHC Circuit Breakers (15–100 Amperes)

Product Description

- 15–100 amperes
- 120, 240, 277, 480Y/277V, 50/60 Hz, 125, 125/250 Vdc
- Single-, two- and three-pole
- Cable in, cable out
- Does not include mounting hardware

Standards and Certifications

- These breakers meet the requirements of Federal Specification W-C-37b as follows:
- Type GHC, 277 and 480Y/277V:
 - Single-pole: Classes 12c, 13a
 - Two-, three-pole: Class 13b
 - UL/CSA



Product Selection

2

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

Continuous Ampere Rating at 40 °C	277 Vac Maximum, 125 Vdc Maximum ^① Single-Pole Catalog Number	480Y/277 Vac Maximum, 125/250 Vdc Maximum Two-Pole Catalog Number	480Y/277 Vac Maximum, 125/250 Vdc Maximum ^② Three-Pole Catalog Number
15	GHC1015 ^{③④}	GHC2015 ^③	GHC3015 ^③
20	GHC1020 ^{③④}	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

Type HGHC Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units

Continuous Ampere Rating at 40 °C	277 Vac Maximum, 125 Vdc Maximum Single-Pole Catalog Number
15	HGHC1015 ^⑤
20	HGHC1020 ^⑤
25	HGHC1025
30	HGHC1030

Notes

- ① 15 through 70 ampere circuit breakers only.
- ② Single-pole breakers can be applied in DC systems from 15 through 70 ampere; 80 through 100 ampere devices are not suitable for DC application.
- ③ Uses 0.190–32 screw type clamp terminals.
- ④ Add suffix HID for High Intensity Discharge (HID) applications. 15 and 20 ampere, single-pole are SWD rated.
- ⑤ 15 and 20 ampere, single-pole are SWD rated.

Single-Phase (requires two-pole spaces)



Contents

Description

	Page
Product Overview	V4-T2-220
Standards and Certifications	V4-T2-221
Quick Reference	V4-T2-222
G-Frame (15–100 Amperes)	V4-T2-225
F-Frame (10–225 Amperes)	V4-T2-239
J-Frame (70–250 Amperes)	V4-T2-257
K-Frame (70–400 Amperes)	V4-T2-265
L-Frame (125–600 Amperes)	V4-T2-289
M-Frame (300–800 Amperes)	V4-T2-315
N-Frame (400–1200 Amperes)	V4-T2-326
R-Frame (800–2500 Amperes)	V4-T2-341
Motor Circuit Protectors (MCP)	V4-T2-360
Motor Protection Circuit Breakers (MPCB)	V4-T2-371
Type ELC Current Limiter Attachment (Size 0–4)	V4-T2-373
Current Limiting Circuit Breaker Module	V4-T2-374
Internal Accessories	V4-T2-377
External Accessories	V4-T2-410

Type GHCGFEP Cable-In/Cable-Out 30 mA Industrial Ground Fault Circuit Protectors (15–100 Amperes)

Product Description

- 15–60 amperes, 277 V, 50/60 Hz
- Operational voltage 240–305 V

Standards and Certifications

These circuit breakers meet the requirements of UL 489 and UL 1053.



Product Selection

Type GHCGFEP 30 mA Industrial Ground Fault Circuit Protectors with Non-Interchangeable Trip Units

Continuous Ampere Rating at 40 °C	Single-Phase (Requires Two Poles) 277V, 30 mA Catalog Number
15	GHCGFEP1015
20	GHCGFEP1020
30	GHCGFEP1030
40	GHCGFEP1040
50	GHCGFEP1050
60	GHCGFEP1060

Technical Data and Specifications

Interrupting Capacity Ratings

Circuit Breaker Type	Number of Poles	Interrupting Capacity (Symmetrical Amperes) 277 Vac (50/60 Hz)
GHCGFEP	1	14,000

Special Purpose Circuit Breakers

2



Contents

Description	Page
Product Overview	V4-T2-220
Standards and Certifications	V4-T2-221
Quick Reference	V4-T2-222
G-Frame (15–100 Amperes)	V4-T2-225
F-Frame (10–225 Amperes)	V4-T2-239
J-Frame (70–250 Amperes)	V4-T2-257
K-Frame (70–400 Amperes)	V4-T2-265
L-Frame (125–600 Amperes)	V4-T2-289
M-Frame (300–800 Amperes)	V4-T2-315
N-Frame (400–1200 Amperes)	V4-T2-326
R-Frame (800–2500 Amperes)	V4-T2-341
Motor Circuit Protectors (MCP)	V4-T2-360
Motor Protection Circuit Breakers (MPCB)	V4-T2-371
Type ELC Current Limiter Attachment (Size 0–4)	V4-T2-373
Current Limiting Circuit Breaker Module	V4-T2-374
Internal Accessories	V4-T2-377
External Accessories	V4-T2-410

Special Purpose GHC Circuit Breakers (15–100 Amperes)

Product Description

Eaton's Type GHC circuit breakers have binding head screw-type terminals on line and load side. These circuit breakers with screw-type terminals (0.190–32) will be marked "Special purpose breaker not for general use." To order this special breaker, use the catalog number from the tables on this page.

Product Selection

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

Continuous Ampere Rating at 40 °C	277 Vac Maximum, 125 Vdc Maximum ^① Single-Pole Catalog Number	480Y/277 Vac Maximum, 125/250 Vdc Maximum Two-Pole Catalog Number	480Y/277 Vac Maximum, 125/250 Vdc Maximum ^② Three-Pole Catalog Number
25	GHC1025D	GHC2025D	GHC3025D
30	GHC1030D	GHC2030D	GHC3030D
35	GHC1035D	GHC2035D	GHC3035D
40	GHC1040D	GHC2040D	GHC3040D
45	GHC1045D	GHC2045D	GHC3045D
50	GHC1050D	GHC2050D	GHC3050D
60	GHC1060D	GHC2060D	GHC3060D
70	GHC1070D	GHC2070D	GHC3070D
80	GHC1080D	GHC2080D	GHC3080D
90	GHC1090D	GHC2090D	GHC3090D
100	GHC1100D	GHC2100D	GHC3100D

Type GHB and GHC Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units for HID Lighting Applications

Type	Continuous Ampere Rating at 40 °C	277 Vac Maximum Single-Pole Catalog Number
Cable-in	15	GHC1015HID
	20	GHC1020HID
Bolt-on	15	GHB1015HID
	20	GHB1020HID

Notes

- ① Single-pole breakers can be applied in DC systems from 15 through 70 amperes; 80 through 100 amperes devices are not suitable for DC application.
- ② Use two outside poles.