

**Molded Case Circuit Breaker Product Family****Contents**

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

**G-Frame (15–100 Amperes)****Product Description**

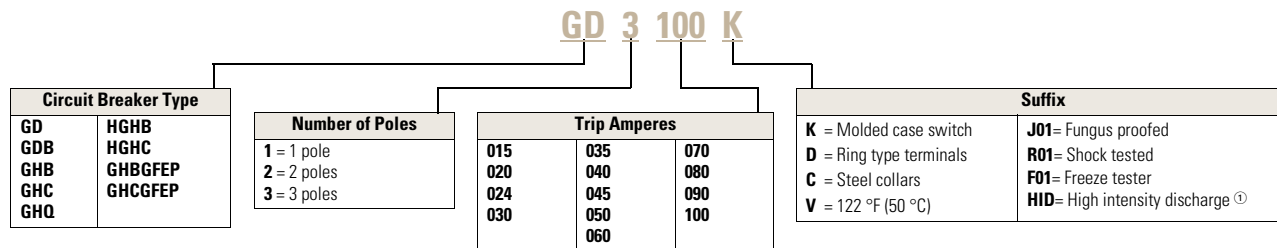
- All two- and three-pole circuit breakers are of the common trip type. On all three-phase delta (240 V) Grounded B phase applications, refer to Eaton
- Single-pole circuit breakers, 15 and 20 amperes. Switching duty rated (SWD) for fluorescent lighting applications
- All G-Frame circuit breakers are 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.

2

#### 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)					125 <sup>②</sup>	250 <sup>③④</sup>
		120	240	277	480	480Y/277		
GDB	2, 3	—	—	—	14	—	—	10
GD	2	—	65	—	14	—	—	10
GD	3	—	65	—	22	—	—	10
GHQ	—	65	—	14	—	—	—	—
GHB	1	65	—	14	—	—	14	—
GHB	2, 3	—	65	—	—	14	14	—
HGHB	1	65	—	25	—	—	14	—
GHC	1	65	—	14	—	—	14	—
GHC	2, 3	—	65	—	—	14	14	—
HGHC	1	65	—	25	—	—	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 <sup>2</sup> ) <sup>⑤</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—GD, GHB, GHC</b>					
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 GHB

2



### Contents

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

### 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** <sup>①</sup>

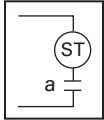
Continuous Ampere Rating at 40 °C	277/480 Vac Maximum, 125 Vdc Maximum <sup>②</sup>	277/480 Vac Maximum, 125/250 Vdc Maximum	277/480 Vac Maximum, 125/250 Vdc Maximum <sup>③</sup>
	Single-Pole Catalog Number	Two-Pole Catalog Number	Three-Pole Catalog Number
15	GHB1015 <sup>④⑤</sup>	GHB2015 <sup>④</sup>	GHB3015 <sup>④</sup>
20	GHB1020 <sup>④⑤</sup>	GHB2020 <sup>④</sup>	GHB3020 <sup>④</sup>
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 <sup>⑥</sup>
20	HGHB1020 <sup>⑥</sup>
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.

**Shunt Trip****Shunt Trip****G-Frame Shunt Trip (LH Three-Pole Only)**

Electrical Ratings				
Volts	Frequency	Amperes	Suffix Number	Catalog Number
120	50/60 Hz	1.1	<b>S1</b>	<b>1373D62G01</b>
240	50/60 Hz	2.1	<b>S2</b>	<b>1373D62G02</b>
12	DC	2.8	<b>S3</b>	<b>1373D62G15</b>
24	DC	5.7	<b>S4</b>	<b>1373D62G16</b>
24	60 Hz	—	<b>S7</b>	<b>1373D62G20</b>

**F-Frame and HMCP (F) Shunt Trip**

Voltage Rating (AC Frequency = 50/60 Hz)	Factory Mounted Connection Type and Location			Factory Installation Kit ①		
	18-Inch (457.2 mm) Pigtail Leads ②			Terminal Block	Pigtail Leads	Terminal Block
	Same Side	Rear ③	Opposite Side	Same Side		
	Suffix Number	Suffix Number	Suffix Number	Suffix Number	Catalog Number	Catalog Number
<b>Left-Pole Mounting AC/DC Ratings</b>						
12–24 Vac or Vdc	<b>S01</b>	<b>S02</b>	<b>S03</b>	<b>S04</b>	<b>SNT1LP03K</b>	<b>SNT1LT03K</b>
48–127 Vac or 48–60 Vdc ④	<b>S05</b>	<b>S06</b>	<b>S07</b>	<b>S08</b>	<b>SNT1LP08K</b>	<b>SNT1LT08K</b>
208–380 Vac or 110–127 Vdc	<b>S09</b>	<b>S10</b>	<b>S11</b>	<b>S12</b>	<b>SNT1LP12K</b>	<b>SNT1LT12K</b>
415–600 Vac or 220–250 Vdc	<b>S13</b>	<b>S14</b>	<b>S15</b>	<b>S16</b>	<b>SNT1LP18K</b>	<b>SNT1LT18K</b>
<b>Right- or Neutral-Pole Mounting AC/DC Ratings ⑤</b>						
12–24 Vac or Vdc	<b>S17</b>	<b>S18</b>	<b>S19</b>	<b>S20</b>	<b>SNT1RP03K</b>	<b>SNT1RT03K ⑥</b>
48–127 Vac or 48–60 Vdc ④	<b>S21</b>	<b>S22</b>	<b>S23</b>	<b>S24</b>	<b>SNT1RP08K</b>	<b>SNT1RT08K ⑥</b>
208–380 Vac or 110–127 Vdc	<b>S25</b>	<b>S26</b>	<b>S27</b>	<b>S28</b>	<b>SNT1RP12K</b>	<b>SNT1RT12K ⑥</b>
415–600 Vac or 220–250 Vdc	<b>S29</b>	<b>S30</b>	<b>S31</b>	<b>S32</b>	<b>SNT1RP18K</b>	<b>SNT1RT18K ⑥</b>

**Notes**

- ① Not listed with Underwriters Laboratories, for field installation.
- ② Pigtail wire size: 18 AWG (0.82 mm<sup>2</sup>).
- ③ Standard pigtail lead exit location.
- ④ 120 Vac marked suitable for ground fault protection devices.
- ⑤ Standard mounting location.
- ⑥ Not for use on four-pole circuit breakers.

G-Frame circuit breakers are factory sealed. Underwriters Laboratories requires that internal accessories be installed at the factory. Internal accessories are UL listed for factory installation under E7819.

Where local codes and standards permit and UL listing is not required, internal accessories can be field installed. Accessory installation should be done before the circuit breaker is mounted and connected.