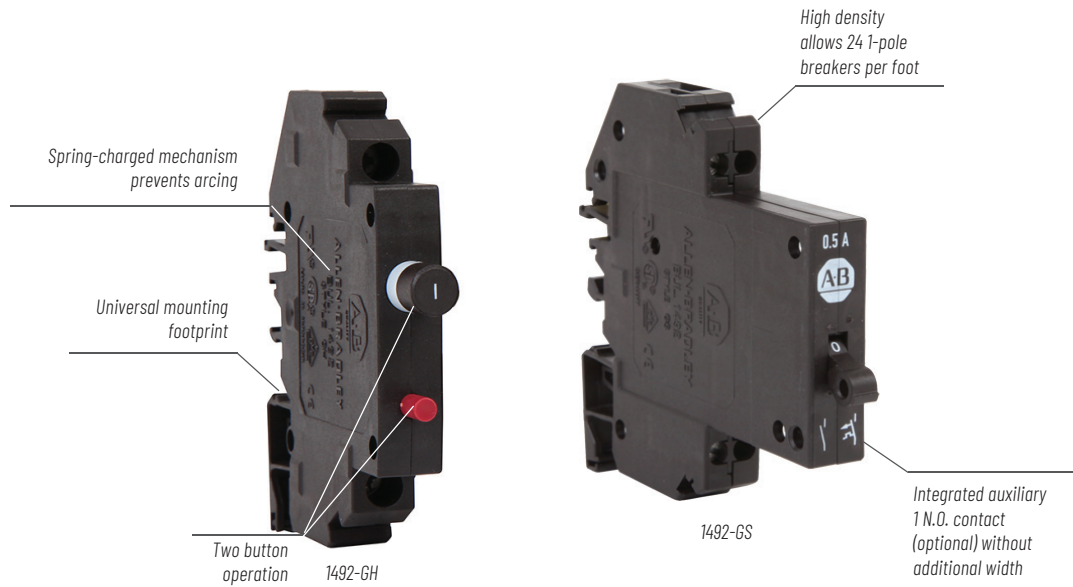


1492-GH/-GS – Supplementary Protectors



Bulletin 1492-GH/GS high density miniature circuit breakers are thermal magnetic type supplementary protectors. These products are a high-density design often used when panel space (width) is a premium. Up to 24 one-pole breakers can be mounted per foot.

- Low current ratings and numerous rated currents for precise circuit requirements
- Can be ordered with auxiliary contacts that do not add any additional space
- AC and DC voltage ratings in one convenient device
- A positively trip-free mechanism (breaker operation cannot be defeated by holding the handle in the ON position)
- Superior shock and vibration resistance capabilities; to help prevent nuisance tripping

1492-GH Supplementary Protectors

Bulletin 1492-GS breakers are 1-pole devices. They use a push-to-set mechanism for circuit actuation and come with a manual trip button for manually opening the circuit.

1492-GS Supplementary Protectors

Bulletin 1492-GS breakers are available in 1-, 2-, and 3-pole devices. They use a toggle style handle mechanism for circuit actuation. These breakers may also be ordered with an internally mounted N.O. auxiliary contact that requires no additional mounting space.

1492-GS/GH Supplementary Protectors	
Rated Voltage	-GH: 250V AC 50/60 Hz -GS: 480Y/277V AC 50/60 Hz
Current Ratings	-GH: 0.2...15 A -GS: 0.2...25 A
Poles	-GH: 1 -GS: 1, 2, 3
Standards Compliance	UL 1077 CSA C22.2 No.235 EN 60934
Certifications	UL Recognized, File No. E65138 CSA Certified, File No. 72348 CE Marked VDE Certified RoHS Compliant

Catalog Number Explanation

Examples given in this section are for reference purposes. This basic explanation should not be used for product selection; some combinations may not produce a valid catalog number.

1492 - **GH** **002**
 a b

a

Poles	
Code	Description
GH	1-Pole

b

Rated Current (I_n)	
Code	Current [A]
002	0.2
005	0.5
008	0.8
010	1
012	1.2
015	1.5
020	2
025	2.5
030	3
040	4
050	5
070	7
100	10
150	15

1492 - **GS1G** **002** **H1**
 a b c

a

Poles	
Code	Description
GS1G	1-Pole
GS2G	2-Pole
GS3G	3-Pole

b

Rated Current (I_n)	
Code	Current [A]
002	0.2
005	0.5
008	0.8
010	1
012	1.2
015	1.5
020	2
025	2.5
030	3
040	4
050	5
060	6
070	7
080	8
100	10
120	12
150	15
160	16
200	20
250	25

c

Auxiliary Contact	
Code	Description
	Can be left blank
H1	With 1 N.O. integrated auxiliary contact

Product Selection

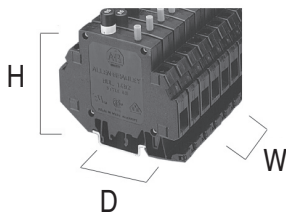
Amperage [A]	1492-GH	1492-GS		
	1-Pole	1-Pole	2-Pole	3-Pole
	Cat. No.	Cat. No.	Cat. No.	Cat. No.
0.2	1492-GH002	1492-GS1G002	1492-GS2G002	1492-GS3G002
0.5	1492-GH005	1492-GS1G005	1492-GS2G005	1492-GS3G005
0.8	1492-GH008	1492-GS1G008	1492-GS2G008	1492-GS3G008
1	1492-GH010	1492-GS1G010	1492-GS2G010	1492-GS3G010
1.2	1492-GH012	–	–	–
1.5	1492-GH015	1492-GS1G015	1492-GS2G015	1492-GS3G015
2	1492-GH020	1492-GS1G020	1492-GS2G020	1492-GS3G020
2.5	1492-GH025	1492-GS1G025	1492-GS2G025	1492-GS3G025
3	1492-GH030	1492-GS1G030	1492-GS2G030	1492-GS3G030
4	1492-GH040	1492-GS1G040	1492-GS2G040	1492-GS3G040
5	1492-GH050	1492-GS1G050	1492-GS2G050	1492-GS3G050
6	–	1492-GS1G060	1492-GS2G060	1492-GS3G060
7	1492-GH070	1492-GS1G070	1492-GS2G070	1492-GS3G070
8	–	1492-GS1G080	1492-GS2G080	1492-GS3G080
10	1492-GH100	1492-GS1G100	1492-GS2G100	1492-GS3G100
12	–	1492-GS1G120	1492-GS2G120	1492-GS3G120
15	1492-GH150	1492-GS1G150	1492-GS2G150	1492-GS3G150
16	–	1492-GS1G160	1492-GS2G160	1492-GS3G160
20	–	1492-GS1G200	1492-GS2G200	1492-GS3G200
25	–	1492-GS1G250	1492-GS2G250	1492-GS3G250
Integrated Auxiliary Contact	–	Add suffix – H1 for integrated N.O. auxiliary (only one may be added per device)		

Specifications

	1492-GH	1492-GS		
	1-Pole	1-Pole	2-Pole	3-Pole
UL/CSA	200 A (Not to exceed 100 x rated A)	0.2...16 A	5 kA C1 (2 kA C1 for 65V DC – 1-pole)	
IEC/EN 60934 (CBE)	–	0.2...5 A	2 kA C1	
		6...25 A	400 A	
Maximum voltage ratings	250V AC 50/60 Hz 65V DC	480Y/277V AC 50/60 Hz 65V DC		
Temperature range	-40...+149 °F (-40...+65 °C) non-condensing			
Operating life	6000 operations @ rated current			
Housing material	Glass-filled Polyamide 6.6			
Shock	25 G, 11 ms duration			
Vibration	5 G (10...500 Hz)			
Dielectric strength	1500V AC	1600V AC		
Insulation resistance	100 MΩ @ 500V DC			
Terminal type	Tubular screw with self-lifting box lug			
Wire size	#22...10 AWG			
Recommended wire strip length	0.44 in. (11.2 mm)	Main terminal – 0.51 in. (13 mm) aux terminal – 0.41 in. (10.4 mm)		
Terminal torque	1.3...1.4 N•m (10...12 lb•in)	0.656 N•m (5 lb•in)		
N.O. auxiliary contact rating	–	1.0 A AC or DC (resistive load)		

Approximate Dimensions

Dimensions are shown in inches (mm). Dimensions are not intended for manufacturing purposes.



	1492-GH	1492-GS		
	1-Pole	1-Pole	2-Pole	3-Pole
Height	3.15 in. (80 mm)	3.15 in. (80 mm)		
Depth	2.89 in. (73.4 mm)	3.48 in. (88.5 mm)		
Width	0.49 in. (12.4 mm)	0.49 in. (12.5 mm)	0.98 in. (25 mm)	1.47 in. (37.5 mm)

Application Information

UL 1077, CSA C22.2 #235

In North America, miniature circuit breakers are recognized as supplementary protectors and are intended for use as overcurrent protection within an appliance or other electrical equipment where branch circuit protection is already provided or not required. Internationally, these products are rated to IEC standards as circuit breakers for equipment (CBE).

Selection Information

High-density supplementary protector/miniature circuit breaker applications include, but are not limited to, the protection of test equipment, control instrumentation, solenoids, and power supplies. The wide range of current values and the use of a thermal magnetic trip system allows for a variety of applications where a very accurate and compact breaker is required.

To select a miniature circuit breaker, use the following procedure:

1. Determine the inrush correction factor from the following table.

Inrush Ratio	1:1 to 1:4	1:5	1:6	1:7	1:8
Factor	1:3	1:4	1:5	1:6	1:7

For resistive loads use an inrush correction factor of 1.0.

2. Determine the temperature correction factor from the following table.

Ambient Temperature	70 °F (21.1 °C)	100 °F (37.8 °C)	120 °F (48.9 °C)	140 °F (60 °C)	160 °F (71.1 °C)	180 °F (82.2 °C)	200 °F (93.3 °C)
Factor	1.0	1.1	1.2	1.3	1.4	1.5	1.6

3. Determine the sealed current of the load being protected.
4. Multiply the sealed current by the two correction factors and select the closest higher ampere rating.

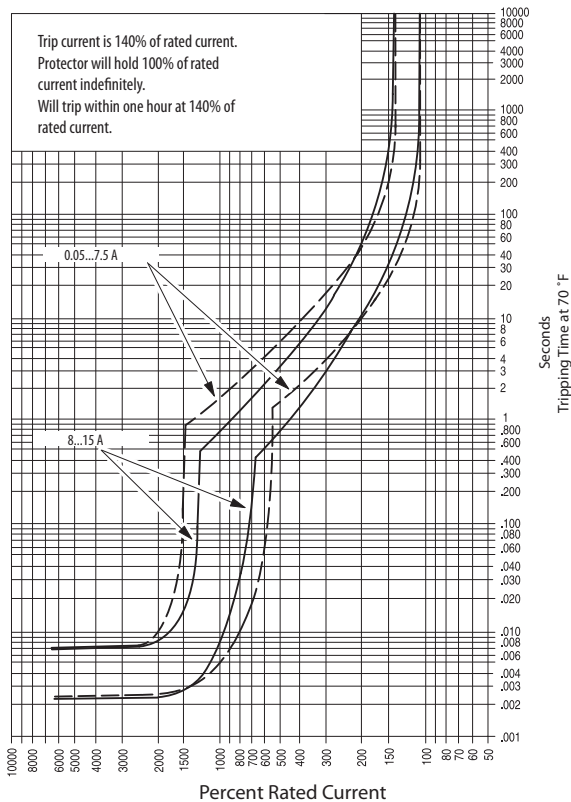
EXAMPLE For a solenoid with sealed current of 0.5 A, an inrush ratio of 1:8, and an ambient temperature of +110 °F, (0.5 x 1.7 x 1.15 = 0.9775), select the 1.0 A miniature circuit breaker. Tripping time of the miniature circuit breaker is determined from the table below. Divide the miniature circuit breaker value by the temperature correction factor from the Ambient Temperature Correction Table to determine the actual rated current referenced in the table below.

Percent Rated Current	100%	200%	300%	400%	500%	600%	1000%	2000% Greater
Tripping Times (Seconds)	No Trip	10...40	3...18	1.5...9	0.8...6	0.003...4	0.009...2	Max. 0.02

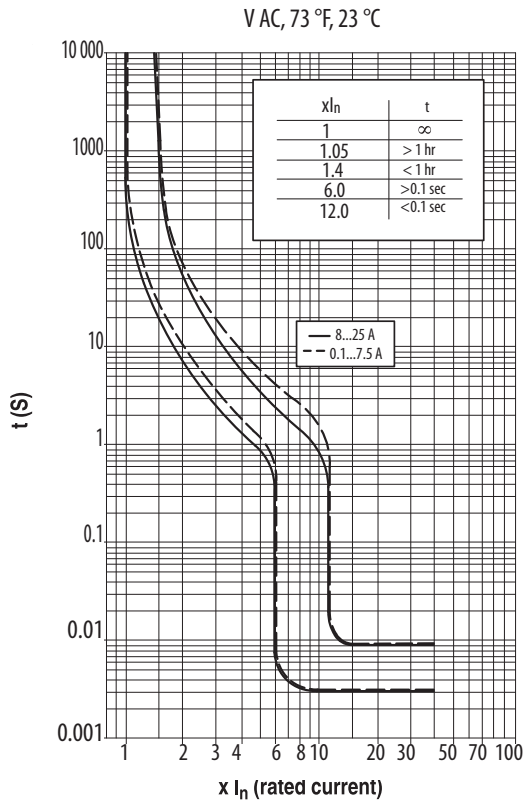
When several breakers are rail mounted adjacent to each other, the no-trip current will be 80% of rated current at 70 °F (21.1 °C). Using selection tables, select Bulletin 1492-GH/GS that allows full load current nearest without exceeding application current. Also, check that inrush current is less than trip range of 6...10 I_n .

Tripping Characteristics

Time Current Curve -1492-GH



Time Current Curve -1492-GS



When several breakers are rail mounted adjacent to each other, the no-trip current will be 80% of rated current at 70 °F (21.1 °C).