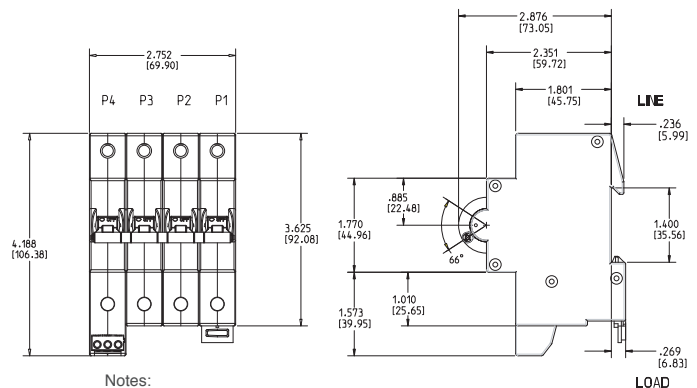


# G-Series Circuit Breaker

Carling Technologies' G-Series hydraulic/magnetic circuit breakers offer the highest quality solution to your circuit protection requirements. The G-Series is designed to sense over-current conditions and protect an electrical system's wires and equipment. When left unchecked over-current conditions will result in fires and costly damage. Hydraulic/magnetic circuit breakers are considered to be temperature stable and not adversely affected by temperature changes in their operating environment. As such, de-rating considerations due to temperature variations are not required, and heat-induced nuisance tripping is avoided.

## Key Features:

- ♦ 1-4 poles
- ♦ 0.02 - 63 Amps
- ♦ 80 VDC, 240 VAC, 480 VAC
- ♦ Mid-trip actuator indication
- ♦ Precise temperature independent operation
- ♦ Wiping contacts – mechanical linkage with two-step actuation – cleans contacts and ensures longer contact life
- ♦ Wide choice of trip time delay curves
- ♦ Optional integrated auxiliary contacts
- ♦ Unique terminal bus connection system
- ♦ DIN rail mounting
- ♦ Finger safe terminals
- ♦ Suitable for reverse feed
- ♦ Common trip linkage between poles – ensures that an overload in one pole will trip all adjacent poles



### Notes:

- 1 All dimensions are in inches [millimeters].
- 2 Tolerance  $\pm 0.020$  [.51] unless otherwise specified.



**Carling Technologies®**

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## Electrical Tables

**Table A:** Lists UL Recognized, CSA Accepted and TUV Certified configurations and performance capabilities as a Component Supplementary Protector.

G SERIES - COMPONENT SUPPLEMENTARY PROTECTOR										
CIRCUIT CONFIGURATION	VOLTAGE			CURRENT	MINIMUM POLES	SHORT CIRCUIT CAPACITY (AMPS)			APPLICATION CODES	
	MAX RATING	FREQ.	PHASE			UL WITHOUT BACKUP FUSE	CSA WITHOUT BACKUP FUSE	TUV WITHOUT BACKUP FUSE	UL	CSA
	SERIES	80	DC	--		63	1	3000	3000	1500
240		50/60	1	63	1	3000	3000	1500	TC1, OL1, U1	TC1, OL1, U1
240		50/60	1	63	2	3000	3000	1500	TC1, OL1, U1	TC1, OL1, U1
480		50/60	3	63	3	1500	1500	415V, 1000	TC1, OL1, U1	TC1, OL1, U1

## Electrical

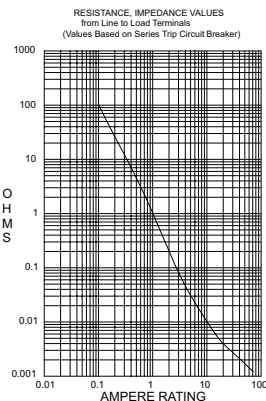
**Maximum Voltage** AC: 240VAC (single pole), 440VAC (3 poles, additional pole shall be dedicated for neutral break)  
 DC: 80VDC (single pole and multipole) 0.2 – 63A. Other ratings available, see Ordering Scheme.

**Current Rating** (optional) Integrated, load side. SPST, 3A – 125Vac, 2A – 30Vdc. Auxiliary switch senses the on & off position of circuit breaker handle, as well as contact arm position. Switch connections are screw terminals.

**Auxiliary Switch Rating** Minimum of 100 Megohms at 500 VDC. UL, CSA: 1960 V 50/60 Hz for one minute between all electrically isolated terminals. G-Series Circuit Breakers comply with the 8mm spacing and 3750V 50/60 Hz dielectric requirements from hazardous voltage to operator accessible surfaces, between adjacent poles and from main circuits to auxiliary circuits per Publications EN 60950 and VDE 0805.

**Insulation Resistance Dielectric Strength** Values from Line to Load Terminal - based on Series Trip Circuit Breaker.

**Resistance, Impedance**



CURRENT (AMPS)	TOLERANCE (%)
0.02 - 5.0	15%
5.1 - 20.0	25%
20.1 - 63.0	35%

## Mechanical

**Endurance** 10,000 ON-OFF operations @ 6 per minute; with rated current & voltage.

**Trip Free** All G-Series circuit breakers will trip on overload, even when actuator is forcibly held in the ON position.

**Trip Indication** The operating actuator moves positively to the OFF position when an overload causes the breaker to trip. With mid-trip, the handle moves to the mid position on electrical trip of the circuit breaker. With mid trip handle with alarm switch, handle moves to the mid position and the alarm switch actuates when the circuit breaker is electrically tripped.

**Fire and smoke** NF F16-101/102, DIN5510 & BS6853 fire and smoke material selection & application for electrical equipment.

## Physical

**Number of Poles** 1 pole ≤ 63A, 2 poles ≤ 63A per pole

**Weight** Approx. 172 grams/pole ( 4.13 oz).

**Standard Colors** Housing: Black

## Environmental

Designed in accordance with requirements of specification MIL-PRF-55629 & MIL-STD-202 as follows:

**Shock** Withstands 100 Gs, 6ms sawtooth while carrying rated current per Method 213, Test Condition "I". Instantaneous and ultrashort curves tested @ 90% of rated current.

**Vibration** Withstands 0.060" excursion from 10-55 Hz & 10 Gs 55-500 Hz, @ rated current per Method 204C, Test Cond. A. Instantaneous & ultrashort curves tested @ 90% of rated current.

**Moisture Resistance** Method 106D, i.e., ten 24-hour cycles @ +25°C to +65°C, 80-98% RH.

**Salt Spray** Method 101, Condition A (90-95% RH @ 5% NaCl Solution, 96 hrs).

**Thermal Shock** Method 107D, Condition A (five cycles @ -55°C to +25°C to +85°C to +25°C).

**Operating Temperature** -40°C to +85°C

\*Manufacturer reserves the right to change product specification without prior notice.



