

L-Series Circuit Breaker

Carling Technologies is pleased to introduce the new L-Series Circuit Breaker, a compact, high performance breaker ideally suited for the rigors and confined spaces found in today's telecom/ datacom power distribution units and rack systems.

The L-Series provides best in class performance in an innovative low profile, space saving package. The slick design complements the overall spatial objectives now required by telecommunications and data-communications systems designers in their quest to reduce the overall size of equipment, while increasing transmission capacity. Further, a patent pending flush rocker actuator design and optional push-to-reset guard offers additional protection against accidental switching.



Features:

- ♦ Ultra low profile design saves valuable space
- ♦ Optional handle guard actuator
- ♦ UL 489 LISTED Branch Circuit breaker
- ♦ Designed for worldwide datacenter compatibility with up to 240VAC ratings

Applications:

- ♦ Telecom/Datacom Industry
- ♦ Power Distribution Units
- ♦ Data Servers
- ♦ Data Storage



Carling Technologies®

Innovative Designs. Powerful Solutions.

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**Product Bulletin #138
December 2011**

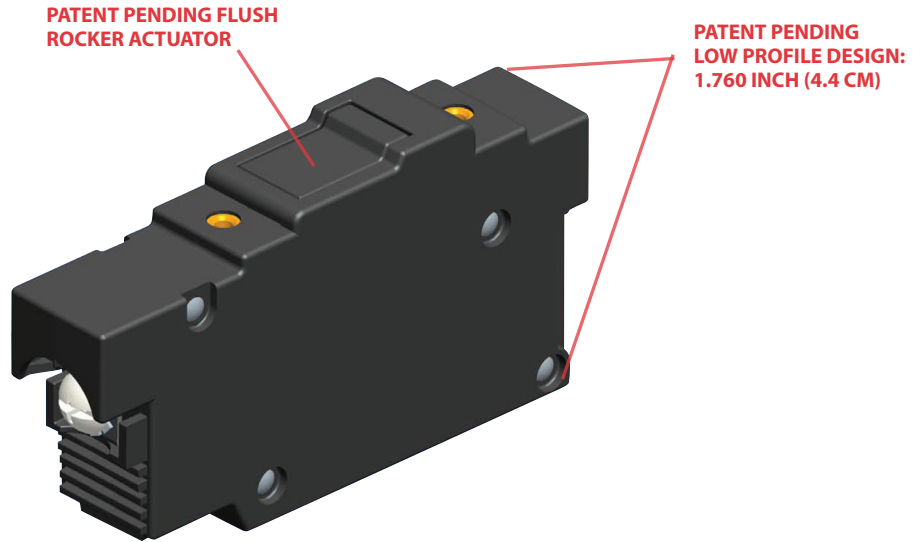
Carling Technologies, Inc.

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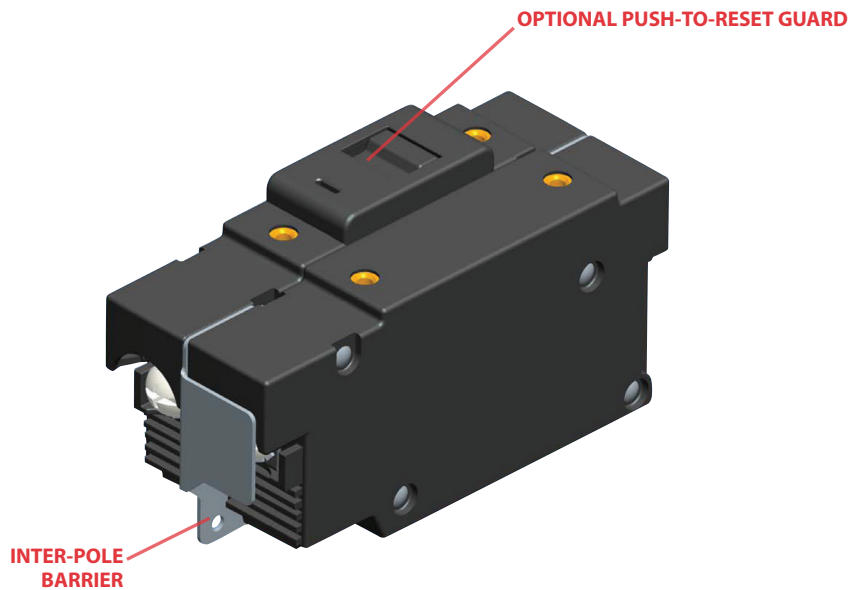
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1-Pole Configuration Low Profile Rocker



2-Pole Configuration with Push-To-Reset Guard



Electrical

Voltage and Current Ratings

Voltage (VAC)	Current (A)	Number of Poles
240	0.1 - 30	1
120/240	0.1 - 30	2
120/240	0.1 - 30	3*

* 3rd pole to be neutral break

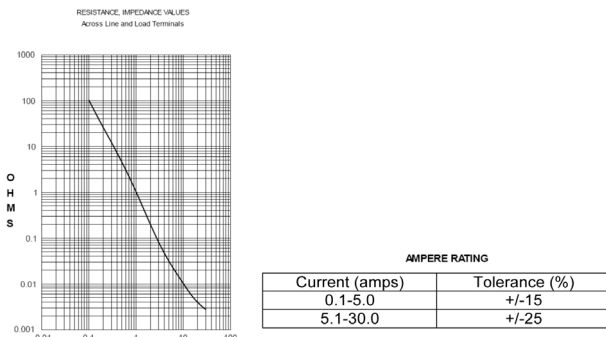
Time Delay

Delay Curve Number	VOLTAGE	DESCRIPTION
21	50/60 Hz	Ultrashort
22	50/60 Hz	Short
24	50/60 Hz	Medium
26	50/60 Hz	Long
42	50/60 Hz	Hi-inrush, Short
44	50/60 Hz	Hi-inrush, Medium
46	50/60 Hz	Hi-inrush, Long

Dielectric Strength

UL, CSA-1960V 50/60 Hz for one minute between all electrically isolated terminals. Comply with the 8mm spacing and 3750V 50/60 Hz dielectric requirements from hazardous voltage to operator accessible surfaces and between main circuits of adjacent poles and from main circuit to auxiliary circuits per Publications EN 60950 and VDE 0805.

Impedance



Insulation Resistance Overload
Interrupt Capacity

Minimum of 100 Megohms@500VDC
50 operations @ 600% of rated current
5000 AMPs

Mechanical

Endurance

10,000 "On-Off" Operations @ 6 per minute; 6000 cycles with rated Current and Voltage; 4000 cycles without electrical load.

Trip Free

Trips 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.

Environmental

Environmental

MIL-PRF-55629 and MIL-STD-202G

Operating Temperature

-40°C to +85 °C

Vibration

Withstands 0.06" excursion from 10-55 Hz and 10Gs 55-500 Hz at rated current per MIL-PRF-55629 and MIL-STD-202G, Method 204D, Test Condition A. Instantaneous and ultra-short curves tested at 90% of rated current.

Shock

Withstands 100 Gs, 6 ms saw tooth while carrying rated current per MIL-PRF-55629 and MIL-STD-202G, Method 213B, Test Condition "I". Instantaneous and ultra short curves tested at 90% of rated current.

Thermal Shock

MIL-PRF-55629 and MIL-STD-202G, Method 107G, Condition A (5-cycles at -55°C to +25°C to +85°C to +25°C).

Moisture Resistance

MIL-PRF-55629 and MIL-STD-202G, Method 106G, i.e., Ten 24-hour cycles at +25°C to +65°C, 80-98% RH.

Salt Spray

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

Physical

Number of Poles Termination

1-3 poles

Termination Barrier Mounting

Screw Terminals with the following thread sizes: 10-32, 8-32, M5, M4 Standard for 2 & 3 poles constructions. Threaded Insert: #6-32 UNC-2B, or M3X0.5-6H B ISO (2 per Pole)

Actuator Internal Circuit Config. Materials

Rocker, with or without guard. Series Trip Housing - Glass Filled Polyester Rocker - Nylon 6/6

Weight Standard Color

~107 Grams (~3.76 Ounces) per pole. Housing - Black, Rocker - Black

Regulatory Compliance

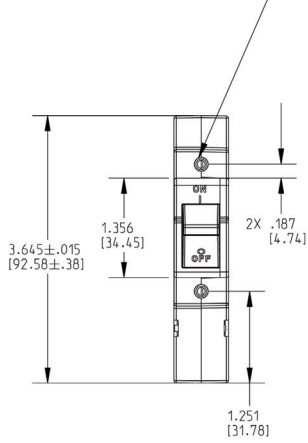
Agency Approvals

UL 489, cUL, TUV (EN60934-2)

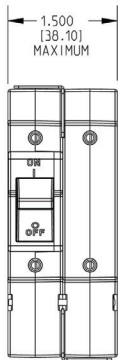
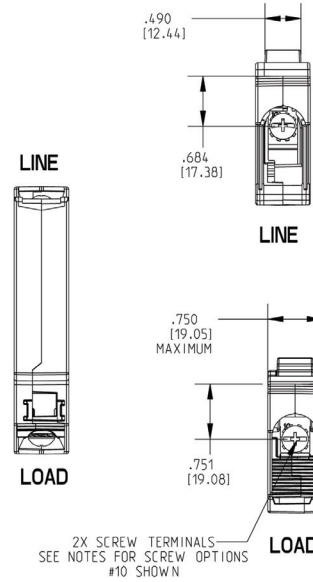
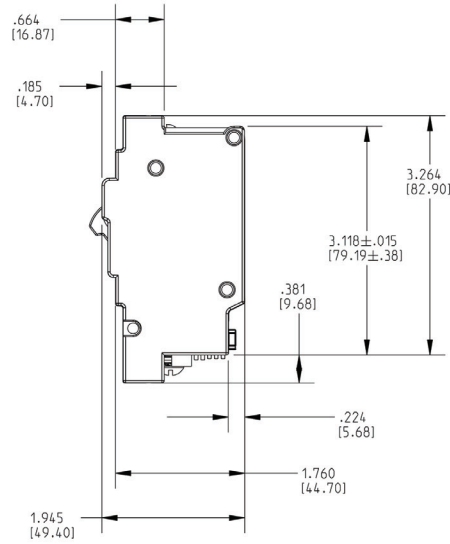
*Manufacturer reserves the right to change product specification without prior notice.

4 | L-Series Circuit Breaker - Dimensional Specifications in.[mm]

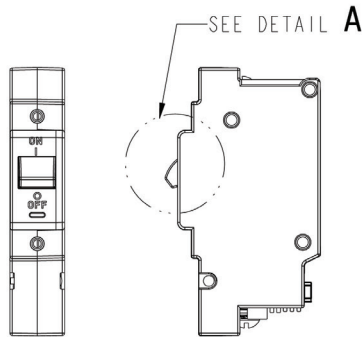
2X INSERT, 6-32 OR M3 X 0.195[4.95] DEEP
SEE MOUNTING SECTION FOR THREAD OPTIONS



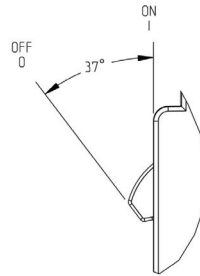
1 POLE



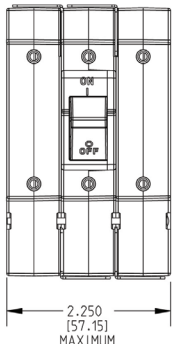
2 POLE



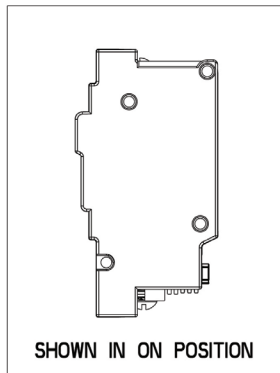
PUSH TO RESET ACTUATOR



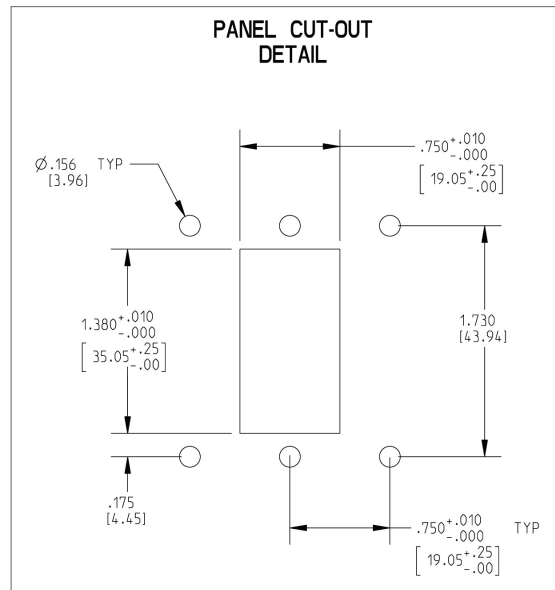
DETAIL A



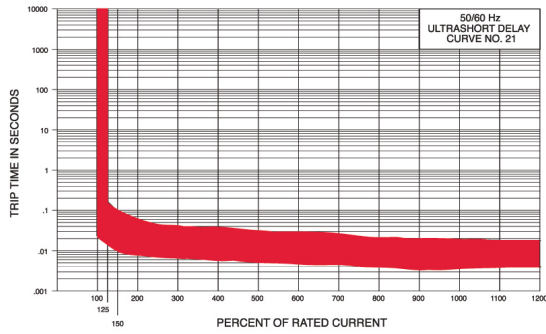
3 POLE



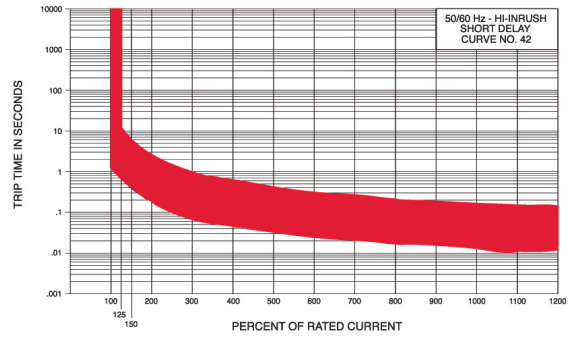
SHOWN IN ON POSITION



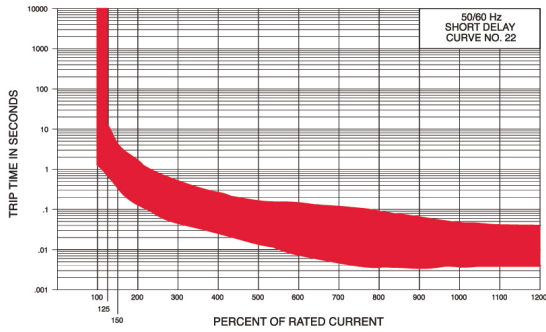
Ultrashort - AC



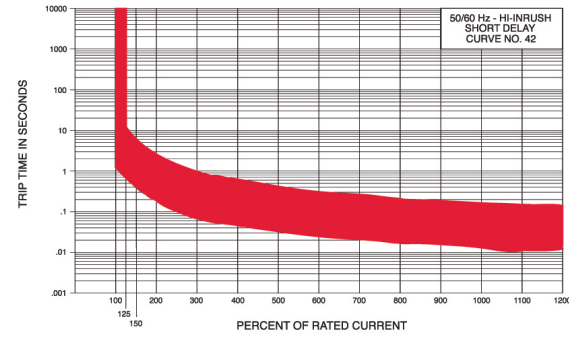
Short - High Inrush AC



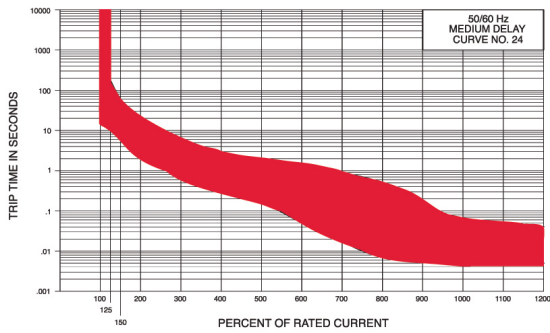
Short - AC



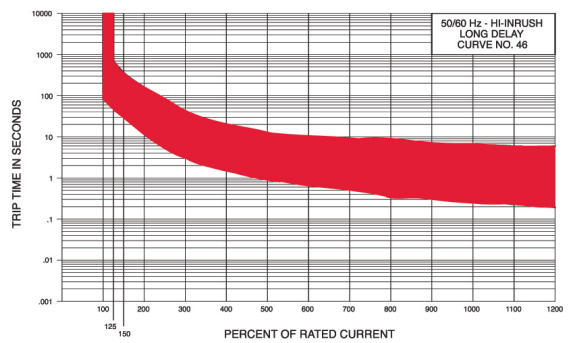
Medium - High Inrush AC



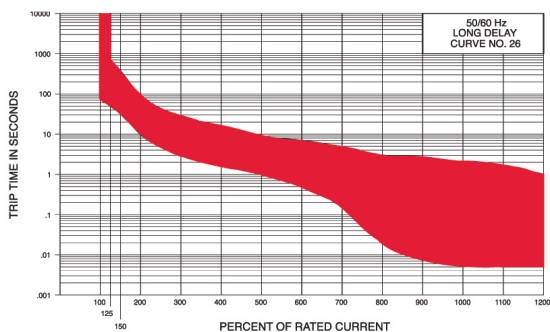
Medium - AC



Long - High Inrush AC



Long - AC



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