

LX-Series

Hydraulic-Magnetic Circuit Breaker

PRODUCT WEBPAGE



Space Saving Design for Datacom/Telecom

The LX-Series high performance, hydraulic-magnetic circuit breaker is ideal for the confined spaces of datacom/telecom power distribution units and rack systems. The maximum interrupt capacity of LX-Series is upgraded to 10,000 amp to meet higher performance standard.

1-3

Poles

1-20

Amps

415/240

VAC Max

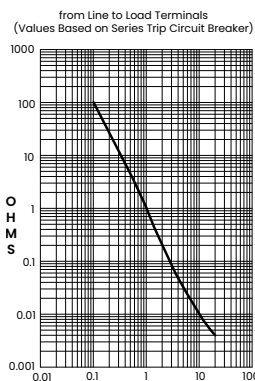
Typical Applications

- Datacom/Telcom: Power Distribution Units, Data Servers, Data Storage

Tech Specs

Electrical

Maximum Voltage	120 / 240VAC (2-3 poles), 240VAC (1-3 poles), 415/240VAC (3 poles)
Current Ratings	1-20A
Dielectric Strength	Meets UL 489 requirements and can withstand 1500 VAC, 60Hz for one minute between all electrically isolated terminals.
Insulation Resistance	Min. of 100 Megohms @ 500VDC
Interrupt Capacity	UL listed, TUV and CCC certified configurations and performance capabilities as Listed Branch Breaker (See Table A)
Resistance, Impedance	Values from Line to Load Terminal, based on Series Trip Circuit Breaker



CURRENT (AMPS)	TOLERANCE (%)
1 - 5.0	+/- 15
5.1 - 20.0	+/- 25

Mechanical

Endurance	6,000 ON-OFF operations @ 6 per minute; with rated current & voltage. 4,000 ON-OFF operations with no load
Trip Free	All 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

Tables

Table A: Voltage and Current Rating

Electrical Ratings								
Circuit Configuration	Voltage			Current Rating	Short Circuit Capacity (Amps)			Notes
	Max Rating	Frequency	Phase	Full Load Amps	UL 489	TUV / CCC		
					Without Backup Fuse	With Backup Fuse	Without Backup Fuse	
Series	120 / 240	50 / 60	1	1.0 – 20.0	10,000	10,000	10,000	2 or 3 Poles
	240				10,000			1 or 2 Poles
	---				---			3 Poles
	415 / 240		---		3 Poles			

Physical

Number of Poles	1 - 3 poles
Termination	Screw Terminals with the following thread sizes: 10-32, 8-32, M5, M4
Mounting	Threaded Insert: #6-32 UNC-2B, or M3X0.5-6H B ISO (2 per pole)
Weight	~84g per pole
Width	0.75 inch Maximum Per Pole

Environmental

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

Operating Temperature	-40° C to +85° C
Vibration	Withstands 0.060 inch excursion from 10 G's 10-500 Hz, at rated current per Method 204C, Test Condition A. Ultrashort curves tested @ 90% of rated current
Shock	Withstands 100 G's, 6ms saw tooth while carrying rated current per Method 213B, Test Condition "I". Ultrashort curves tested @ 90% of rated current
Moisture Resistance	Method 106G, 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) function normal
Thermal Shock	Method 107G, Condition A (five cycles @ -55°C to +25°C to +85°C to +25°C)

Agency Approvals

UL 489
TUV EN 60947-2
CCC GBI4048.2

Time Delay Specs

To view all hydraulic-magnetic breaker time delay values, please visit www.carlingtech.com/HyMag-Time-Delays

Ordering Scheme

Sample Part Number **LX 1 1 - B - 24 - 620 - 2 2 1 - D 3**

Selection 1 2 3 4 5 6 7 8 9 10 11

1. SERIES

LX LX-Series Circuit Breaker

2. ACTUATOR

- 1** Single Color Low Profile Rocker, Vertical Legend
- 2** Single Color Low Profile Rocker, Horizontal Legend
- 3** Single Color Push To Reset Low Profile Rocker, Vertical Legend
- 4** Single Color Push To Reset Low Profile Rocker, Horizontal Legend

3. POLES ¹

- 1** One
- 2** Two
- 3** Three ²

4. CIRCUIT

B Series Trip (current)

5. FREQUENCY & TIME DELAY

- 14** 50 / 60Hz Ultra Short
- 22** 50 / 60Hz Short
- 24** 50 / 60Hz Medium
- 26** 50 / 60Hz Long
- 42** 50 / 60Hz Short, Hi-Inrush
- 44** 50 / 60Hz Medium, Hi-Inrush
- 46** 50 / 60Hz Long, Hi-Inrush

6. CURRENT RATING (AMPERES)

CODE	AMPERES				
420	1.00	435	3.50	480	8.00
512	1.25	440	4.00	485	8.50
415	1.50	445	4.50	490	9.00
517	1.75	450	5.00	495	9.50
420	2.00	455	5.50	610	10.00
522	2.25	460	6.00	710	10.50
425	2.50	465	6.50	611	11.00
527	2.75	470	7.00	711	11.50
430	3.00	475	7.50	612	12.00
				620	20.00

7. TERMINAL

- 1** Screw 8-32 (Bus Type)
- 4** Screw 10-32 (Bus Type)
- E** Screw M4 (Bus Type)
- H** Screw M5 (Bus Type)

8. ACTUATOR COLOR & LEGEND ²

Actuator Color	I-O	ON-OFF	Dual	Legend Color
White	A	B	1	Black
Black	C	D	2	White

9. MOUNTING

- B** 6-32 x .195 inches - Threaded Inserts
- A** 6-32 x .195 inches - Threaded Inserts with Terminal Barrier
- 2** ISO M3 x 5 mm - Threaded Inserts
- B** ISO M3 x 5 mm - Threaded Inserts with Terminal Barrier

10. APPLICATION RATING ³

- C** 120 / 240VAC
- D** 240VAC
- P** 415Y / 240VAC (TUV only)
240VAC 3 phase Delta

11. AGENCY APPROVAL

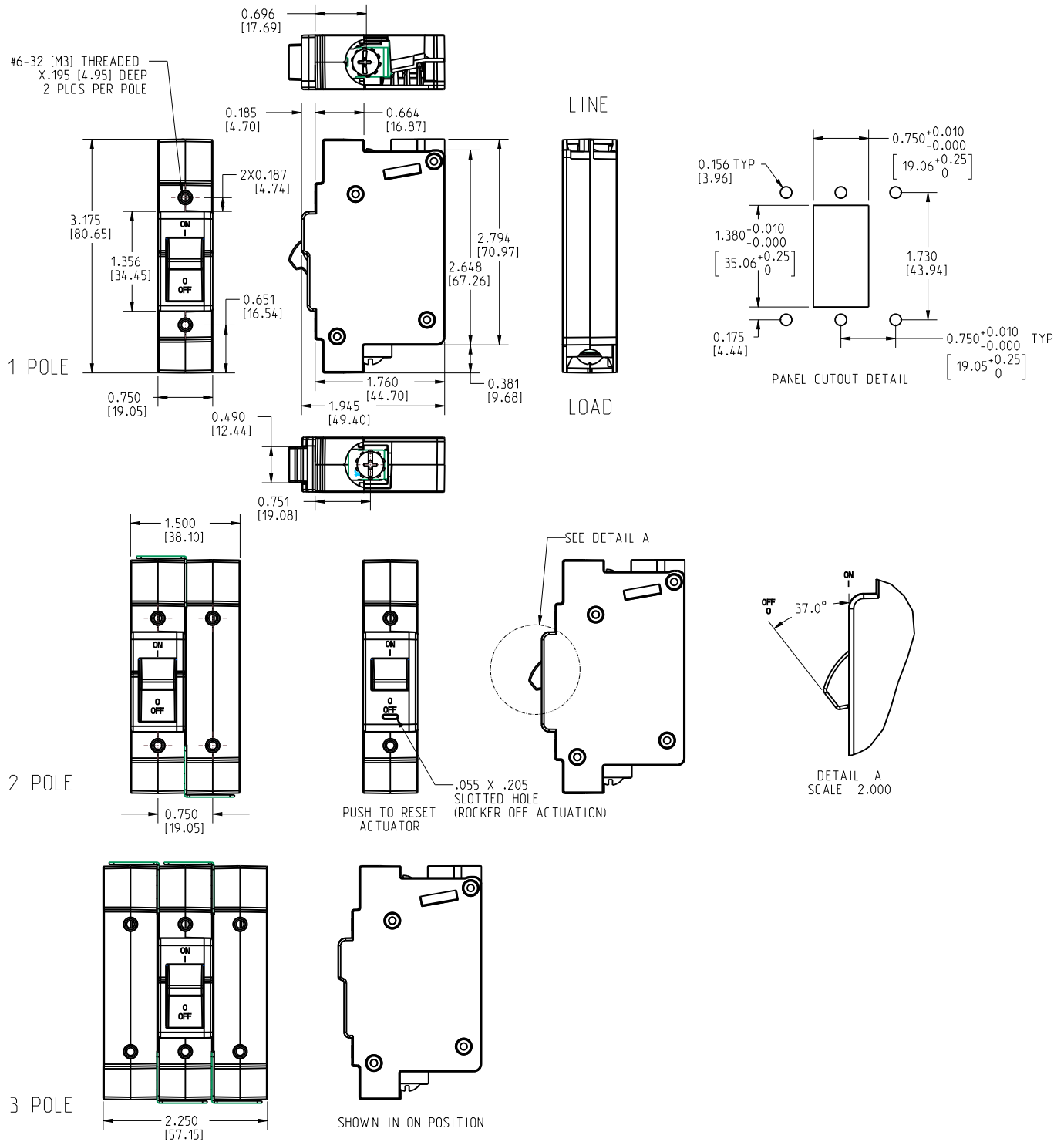
- A** Without Approvals
- G** UL 489 Listed, CCC
- U** TUV Certified, CCC
- 3** UL 489 Listed, TUV Certified, CCC

Notes:

- ¹ 3 Pole units available only when one of three poles is neutral.
- ² For additional actuator color, please consult factory.
- ³ Voltage rating C only available as a 2 or 3 pole device.
Voltage rating D is available up to 3 poles with approval code A&U, up to 2 poles with approval code G & 3.
Voltage rating P only available as a 3 pole device with approval code U.

Dimensional Specs

inches [millimeters]



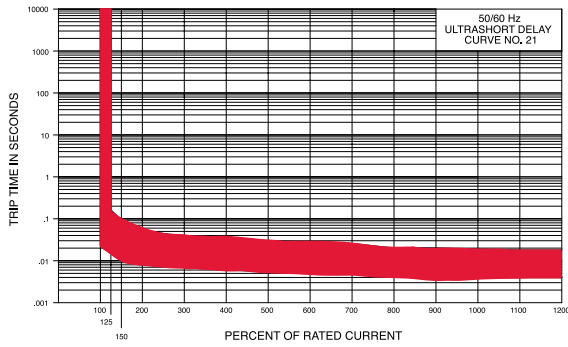
Notes:

- 1 Tolerance ± 0.020 [.51] unless otherwise specified.
- 2 Angles $\pm 1^\circ$

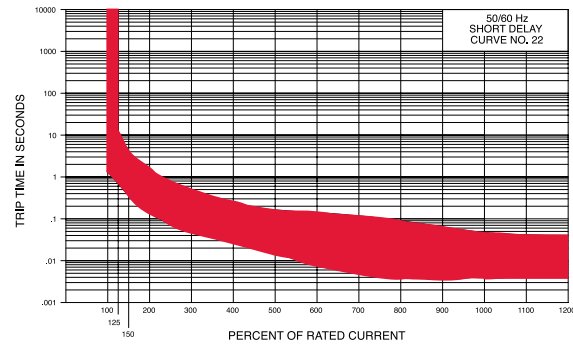
Time Delay

AC

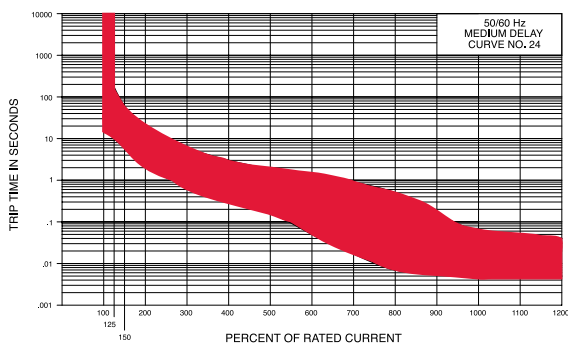
Ultrashort



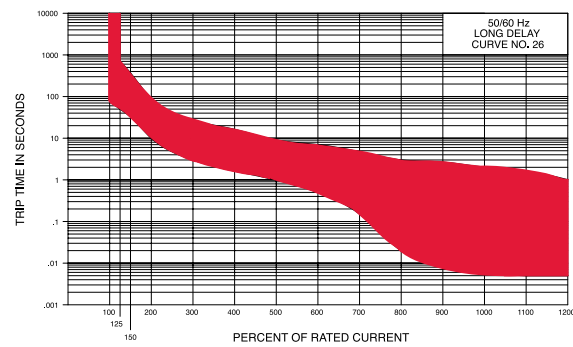
Short



Medium

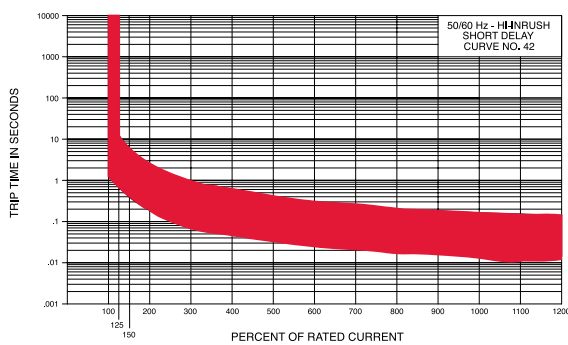


Long

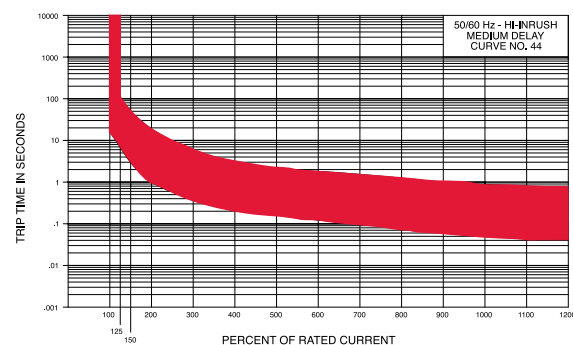


High Inrush AC

Short



Medium



Long

