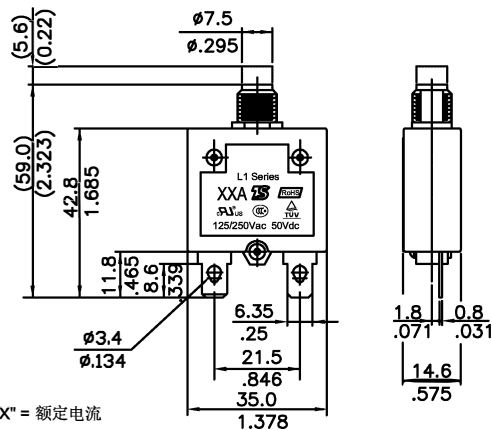


# L1 Series

L1 Series "SERIES TRIP", "PUSH TO RESET" Single Pole circuit breakers represent our largest selling product family. Bases on a proven "SNAP ACTING" bimetallic thermal sensing element system. L1 Series circuit breakers sense Overload conditions and interrupt the flow of Current. The resettable actuator mechanism then remains disengaged until manually reset.

L1 Series offers amperage ratings from **3A to 50A**, and is suitable for a diversity of applications, our products are carefully calibrated and tested to ensure reliable performance under a variety of operating assignments and conditions.

## Outline Dimensions



## Specification

Rated Voltage	AC 125/250V DC 50V
Rated Current	3~50A
Interrupt Capacity	125VacX1000A 250VacX200A
Insulation Resistance	>500 MΩ
Resettable Overload Capacity	Ten Times Rated Current
Dielectric Strength	1,500Vac 1 minute
Weight	Approx 25.0g (0.9 oz.)
Voltage Drop	Less than 0.25V
Reset Time	Within 60 seconds
Method of Operation	R Type and J TYPE

## Typical Resistance VS. Current Rating @ +25°C

Current Rating in Amps	Typical Resistance in Ohms	Current Rating in Amps	Typical Resistance in Ohms
5.0	0.052	15.0	0.017
6.0	0.042	20.0	0.012
7.0	0.036	25.0	0.010
8.0	0.031	30.0	0.008
10.0	0.025	35.0	0.007
12.0	0.021	40.0	0.006

## Ambient Compensation Table

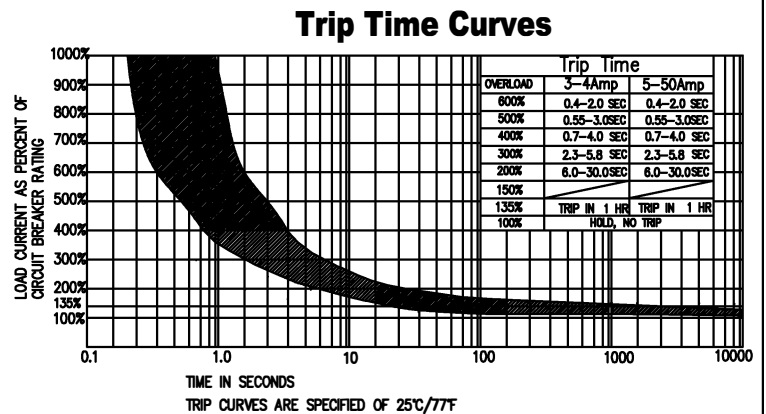
Capacity Correction Factors For Ambient Temperatures										
Current Rating Amps	Temperature									
	*F	+14	+32	+50	+68	+77	+86	+104	+122	+140
	°C	-10	+0	+10	+20	+25	+30	+40	+50	+60
3 to 8A		.70	.80	.92	.98	1.00	1.10	1.25	1.61	2.00
9 to 40A		.74	.78	.83	.90	1.00	1.05	1.15	1.31	1.55

The unit is calibrated for ambient temperature of +25°C. To determine the rated current for a lower or higher ambient Temperature, use a correction factor as above.

## Mechanical / Environmental Data

Operating Temperature Range: -10°C to 60°C  
 Termination: 250" (6.35mm) quick connects or solder terminals  
 Mounting: Various options. See Ordering Information and drawings  
 Temperature Rise at Terminal Block: Less than 65°C at 100% of rated current applied continuously at 25°C  
 Contact Endurance: 125Vac X 150% of rated current >500 Cycles

## Time vs. Current Trip Curve@+25°C



100% of rated current: Hold, No-Trip  
 135% of rated current : Trip in 1 Hour  
 200% of rated current: Within 40 Seconds  
 300% of rated current: Within 10 Seconds

## Approval



Approval	File No.	Rated current range	Rated Voltage	Standard
UL+cUL	E478741	3~50A	125/250VAC 50VDC	UL1077
TUV	50046704	3~40A	125/250VAC 50VDC	EN60934
CCC	2014010307693248	3~50A	125/250VAC 50VDC	GB17701
UL+cUL	E482018	3~50A	125/250VAC 50VDC	UL244A

# L1 Series

## L1 SERIES ORDERING INFORMATION

**L1** — **1 5 0** — **2** **1** **1** **1** — **1** **3** **LCAPA**  
**Series** **Rating** **Voltage** **Button** **Mounting Cap** **Terminal** **Nameplate** **Mounting Hardware** **Waterproof**

① 030-3Amps 1 DC 50V  
 040-4Amps 2 AC 125-250V  
 050-5Amps  
 060-6Amps  
 ⋮  
 500-50Amps

0 Auto Reset	9
1 Black Without Printing	A Red Without Printing
2 Black W/Ver white Print	B Red W/Ver Black Print
3 Black W/Hor white Print	C Red W/Hor Black Print
6 White Without Printing	D
7 White W/Ver Black Print	
8 White W/Hor Black Print	

0 None  
 1 Silver printing on black for M11  
 2 Black printing on Silver for M11  
 3 Black printing on Silver for M12  
 4 Silver printing on white for M12

0=None  
 R=LCAPB  
 F=LCAPA

Panel Hole	M11XP1.0		M12XP1.0		Snap In		3/8" 27T			
Mounting Cap Type	Metal			Plastic				Auto Reset		
	M11XP1.0	M11XP1.0	M12XP1.0	M11XP1.0	M12XP1.0	Snap In	3/8" 27T	Auto Reset No Holder	Auto Reset Holder	
	1	2	3	4	5	6	8	0	7	
Terminal Type	.250 Tab with big hole	.250 Tab with Q.C	90° Bend backward	Screw and lockwasher		90° Bend backward	.250 Tab with Slode	90° Bend Cover	45° bend Cover	
	1	3	4	5	H	L	6	8	A	B
Nameplate Type	0	Black M11	White M11	Black M12	White M12	Waterproof Option	M11XP1.0	M11XP1.0	3/8-27	
	None	1	2	3	4		LCAPA	LCAPB	LCAPC	
Hardware Type	Metal					Plastic				
	1	2	6=1+2		4	5	3			
	Knurlnut M11	Hexnut M11	Knurlnut	Hexnut	Knurlnut M12	Hexnut M12	Integrated Kunrlnut			

### Ordering Note:

Options denoted by "Special Order" in their descriptions are only offered on a special order basis. Other base and button colors and intermediate Amp ratings are also available on a special order basis. Due to ongoing technological advances, consult factory for certification specifics.