

NOARK®

Catalog

B1 series Miniature circuit breakers

B1B



na.noark-electric.com

Company Overview

About us

NOARK Electric is a global manufacturer of low-voltage electrical components for industrial applications. We specialize in motor controls and circuit protection for original equipment manufacturers. Our mission is to provide customers with the highest quality products at an exceptional value and back them with world-class service and support. Every NOARK product is tested and certified to the highest industry standards and covered by our exclusive five-year limited warranty.

Research and Development

The entire portfolio of high-quality NOARK products is designed for manufacturing and assembly (DFMA). Each component is developed in-house by our engineering team to meet the strictest standards and performance requirements. This dedication to excellence has led to the development of patented technology found in many of our products.

World-class Manufacturing

After being thoroughly tested, approved and certified – each NOARK product is sent into production at our state-of-the-art manufacturing facilities. This allows us to maintain strict quality control standards throughout the manufacturing process. In addition, NOARK Electric adheres to a policy of environmental protection and sustainability.

North American Distribution

NOARK's primary distribution center is located in Pomona, CA, with the aim of ensuring prompt and reliable deliveries of the entire product range to our customers all over North America. Our supply chain team works closely with our factories and logistics partners to ensure the availability of our products on the North American market and provide logistics services on the level which our customers expect.

NOARK Electric is a wholly subsidiary of the largest electrical manufacturing group in Asia with over 30 thousand employees and sales revenue of \$15 billion USD. We have corporate facilities in Los Angeles, Shanghai and Prague to service the requirements of individual markets and countries.

140+	300+	20	22	3	10,000,000+	30,000+
Countries	Overseas Distributors	Overseas Subsidiaries	Logistics Centers	R & D Centers	Sq.Ft. Manufacturing Space	Employees Worldwide



Miniature Circuit Breaker

B1B UL489 SC 1000Vdc 10kA

Circuit Breakers

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Miniature Circuit Breaker

Product Overview

Features



Description:

The B1B series circuit breakers, which comply with UL489 standard appendix SC, can be used for overcurrent protection of the main circuit. The maximum voltage of the B1B series is DC 1000V, and it has a high breaking capacity of 10kA, making it the preferred product in the battery power industry.

- Miniature circuit breaker designed specifically for DC applications
- Breaking capacity of 10kA
- UL489 SC certification
- Box terminal connections

Standard and Certification

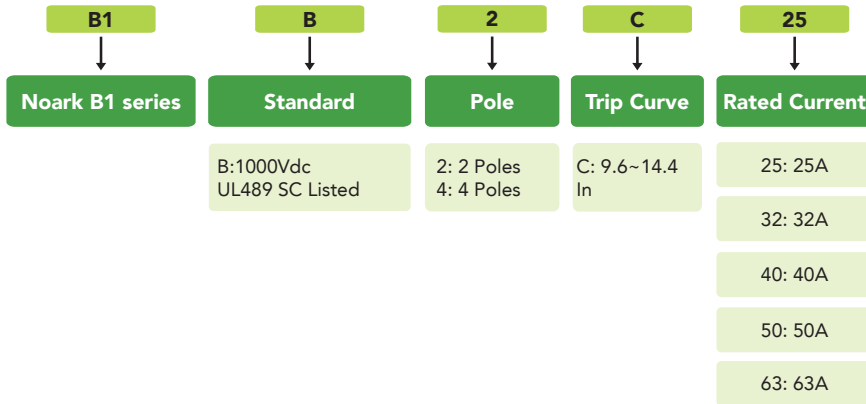
- UL 489 SC
- CE(IEC/EN 60947-2)
- CCC(GB/T 14048.2)



Miniature Circuit Breaker

Product Selection Guide

Product Selection Guide



Rated Amperage (A)		2 Poles-500Vdc		4 Poles-1000Vdc	
		Product	Part Number	Product	Part Number
C Curve (9.6~14.4 In)	25	B1B2C25	1002615	B1B4C25	1002620
	32	B1B2C32	1002616	B1B4C32	1002621
	40	B1B2C40	1002675	B1B4C40	1002622
	50	B1B2C50	1002618	B1B4C50	1002623
	63	B1B2C63	1002619	B1B4C63	1002624

Miniature Circuit Breaker

Specifications



UL 489 SC		B1B	
Number of Poles		2	4
Standard		UL 489 SC	
Rated Current (A)		25~63	
Rated Voltage (Vdc)	Unom	384	800
	Umax	500	1000
Instantaneous Tripping Type		C(9.6~14.4)	
Inverse Time-Delay Over-Current Release Type		Thermal-Magnetic	
Protection Degree		IP 20	
Operations	Electrical	1000	
	Mechanical	20000	
Insulation coordination	Rated Insulation Voltage (Vdc)	1000	
	Rated Impulse Withstand Voltage (kV)	6	
Interrupting (kA)		10	
Operating Temperature Range		-22°F to 167°F(-30°C to 75°C)	
Protection Degree		Class III	
Altitude ft (m)		Does not exceed 6,561 (2,000)	
Atmospheric Conditions		+20 °C: Humidity≤ 90%	
		+40 °C: Humidity≤ 50%	

Miniature Circuit Breaker

Specifications

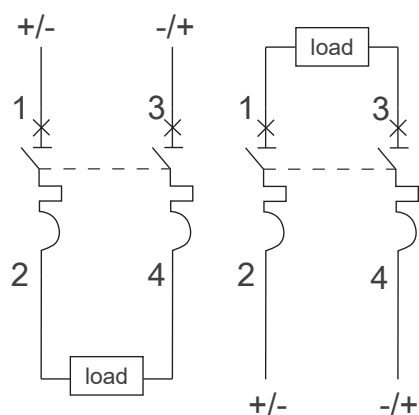


IEC 60947-2		B1B	
Number of Poles		2	4
Standard		IEC 60947-2	
Rated Current (A)		25~63	
Rated Voltage (Vdc)		500	1000
Instantaneous Tripping Type		C(9.6~14.4)	
Inverse Time-Delay Over-Current Release Type		Thermal-Magnetic	
Protection Degree		IP 20	
Operations	Electrical	1500	
	Mechanical	20000	
Rated Insulation Voltage (Vdc)		1000	
Rated Impulse Withstand Voltage (kV)		6	
Ics (kA)		7.5	
Icu (kA)		10	
Operating Temperature Range		-22°F to 167°F(-30°C to 75°C)	
Protection Degree		Class III	
Altitude ft (m)		Does not exceed 6,561 (2,000)	
Atmospheric Conditions		+20 °C: Humidity≤ 90%	
		+40 °C: Humidity≤ 50%	

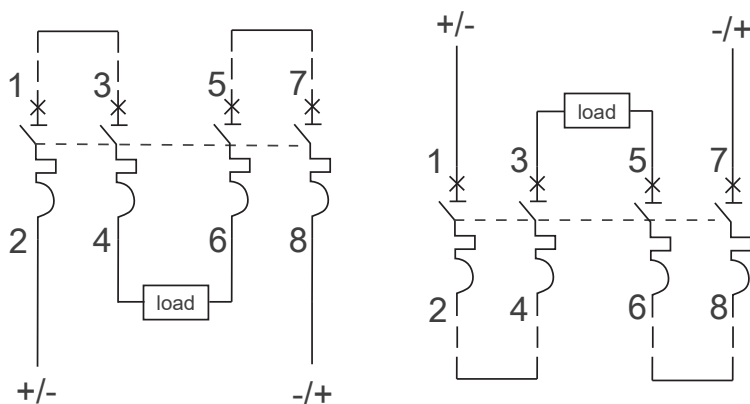
Miniature Circuit Breaker Specifications and Wiring Diagram

Elevation De-rating (B1B)				
Breaker elevation de-rating with dielectric strength above 6,561 ft (2,000 m)				
Elevation ft (m)	6,561 (2,000)	9,842 (3,000)	13,123 (4,000)	16,404 (5,000)
Dielectric Strength (V)	3,000	2,500	2,000	1,800
Max Working Voltage Per Pole (V)	250 Vdc			
Rated Amperes at 86 °F (30 °C) (A)	1 x I _n	0.95 x I _n	0.93 x I _n	0.90 x I _n

Wiring Diagram



2-Pole



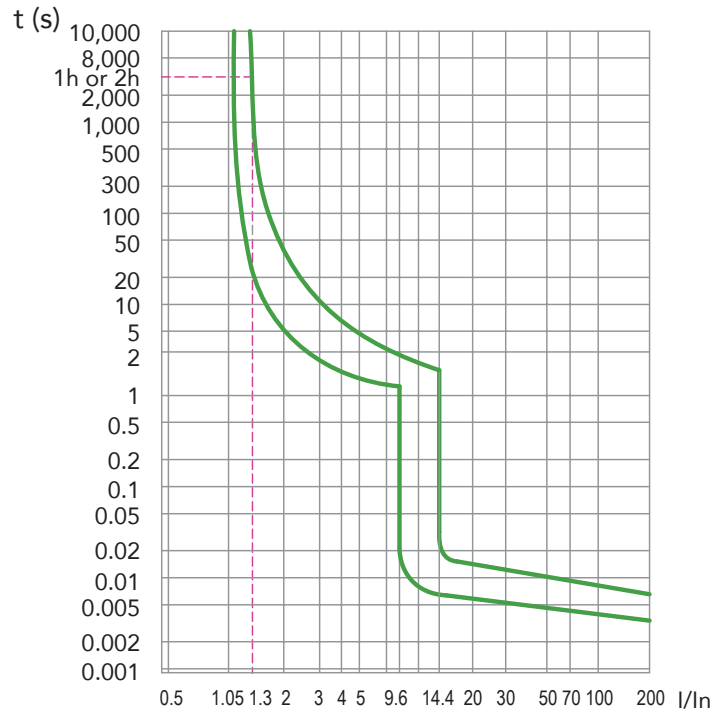
4-Pole

* Please use cables longer than 254mm (10 in) for shorting the 4-pole product.

Miniature Circuit Breaker

Trip Curve

C Curve - 25~63 A
(9.6~14.4 In)



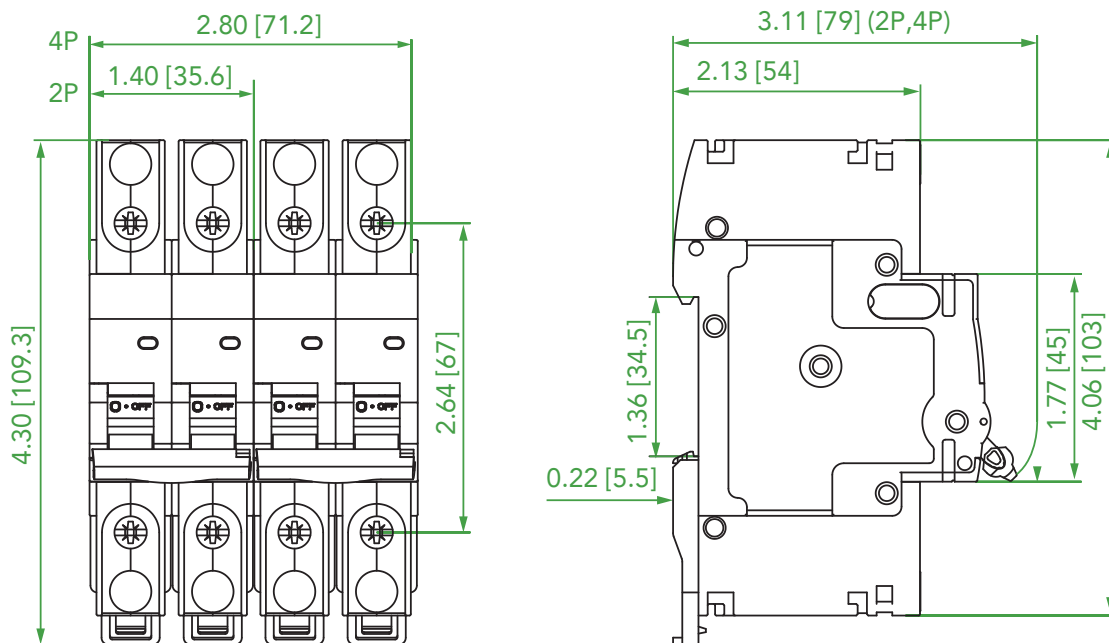
Miniature Circuit Breaker

Dimensions

B1B

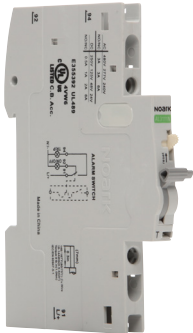
2P/4P

Unit: in [mm]

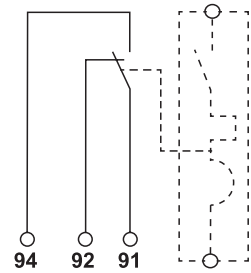


Miniature Circuit Breaker

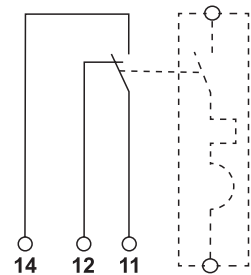
UL 489 Accessories: Alarm Switch, Aux Contact, Shunt



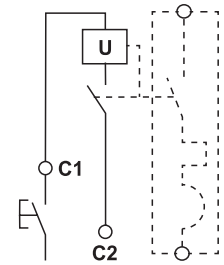
AL31	11	N
Description	Auxiliary Contact	Device Category
Alarm Switch	11: 1NO+1NC	N: UL 489
Accessory Description	Product	Part Number
Alarm Switch	AL3111N	1001201



AX31	11	N
Description	Auxiliary Contact	Device Category
Auxiliary Contact	11: 1NO+1NC	N: UL 489
Accessory Description	Product	Part Number
Auxiliary Contact	AX3111N	1001200

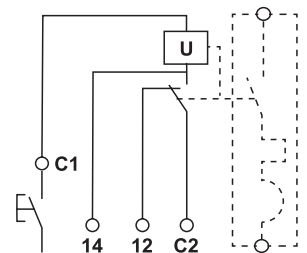


SHT31	11	N	A
Description	Auxiliary Contact	Device Category	Rated Voltage
Shunt Trip	11: 1NO+1NC	N: UL 489	A: 110~415 Vac, 110~130 Vdc
	Blank: No Auxiliary Contact		B: 48 Vac/dc
			C: 12~24 Vac/dc
			D: 6~12 Vac/dc



SHT31

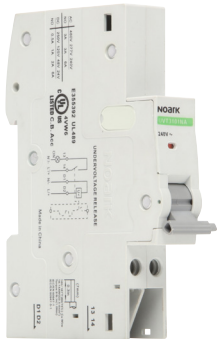
Accessory Description	Product	Part Number
1NO+1NC 110-415 Vac/110-130 Vdc	SHT3111NA	1001208
1NO+1NC 48-60 Vac/dc	SHT3111NB	1001209
1NO+1NC 12-24 Vac/dc	SHT3111NC	1001210
1NO+1NC 6-12 Vac/dc	SHT3111ND	1002614
110-415 Vac/110-130 Vdc	SHT31NA	1001211
48-60 Vac/dc	SHT31NB	1001212
12-24 Vac/dc	SHT31NC	1001213
6-12 Vac/dc	SHT31ND	1002613



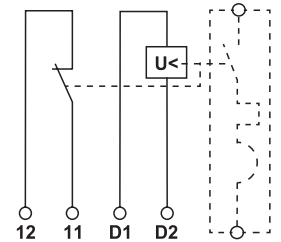
SHT3111

Miniature Circuit Breaker

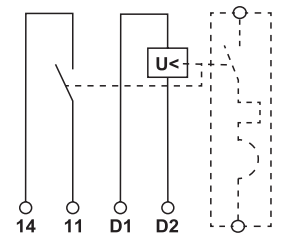
UL 489 Accessories: Under-Voltage Trip and DIN Rail



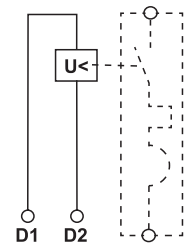
UVT31	01	N	A
Description	Auxiliary Contact	Device Category	Rated Voltage
Under-Voltage Trip	01: 1NC 10: 1NO Blank: No Auxiliary Contact	N: UL 489	A: 240 Vac B: 48 Vac/dc C: 120 Vac



UVT3101



UVT3110



UVT31

Accessory Description	Product	Part Number
Under-Voltage Trip	1NC / 240 Vac	UVT3101NA 1001202
	1NC / 48 Vac/dc	UVT3101NB 1001203
	1NC / 120 Vac	UVT3101NC 1002575
	1NO / 240 Vac	UVT3110NA 1001204
	1NO / 48 Vac/dc	UVT3110NB 1001205
	1NO / 120 Vac	UVT3110NC 1002576
	240 Vac	UVT31NA 1001206
	48 Vac/dc	UVT31NB 1001207
	120 Vac	UVT31NC 1002577

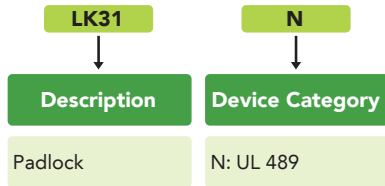


TH	35	A75
Description	Width	Depth
DIN Rail	75: 35 mm	A75: 7.5 mm

Accessory Description	Product	Part Number
35 mm DIN Rail	TH35A75	1001229

Miniature Circuit Breaker

UL 489 Accessories: Padlock



Accessory Description	Product	Part Number
Padlock (Lock Off)	LK31N	1001230

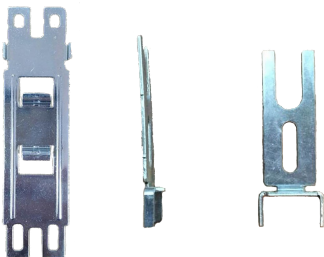
Miniature Circuit Breaker

UL 489 Accessories: RTT and Clips



RTT31	N
↓	↓
Description	Device Category
Ring Tongue Terminal	N: UL 489

Accessory Description	Product	Part Number
Ring Tongue Terminal	RTT31N	1001214



SMC	311N
↓	↓
Description	Poles
SMC: Surface Mount Clips	311N: 1 Pole (Surface Mount)
FMC: Flush Mount Clips	312N: 2 Pole (Surface Mount)
	31N: Flush Mount

Accessory Description	Product	Part Number
Surface Mount Clip - 1 Pole	SMC311N	1002101
Surface Mount Clip - 2 Pole	SMC312N	1002102
Flush Mount Clip	FMC31N	1001251

Miniature Circuit Breaker

UL 489 Accessory Specifications and Dimensions

		Alarm Switch	Auxiliary Contact	Shunt Trip		Under-Voltage Trip	
		AL	AX	SHT	SHT+AX	UVT	UVT+AX
Applicable Standard		UL 489					
Ratings (50/60 Hz)	Vac	480/3 A, 277/3 A, 240/6 A		110~415		120, 240	
	Vdc	250/0.5 A, 125/1 A, 48/2 A, 24/6 A		110~130		-	
	Vac/dc	-		6~12, 48~60, 12~24		48	
Auxiliary Contact Configuration		-	1NO+1NC	-	1NO+1NC	-	1NO+1NC

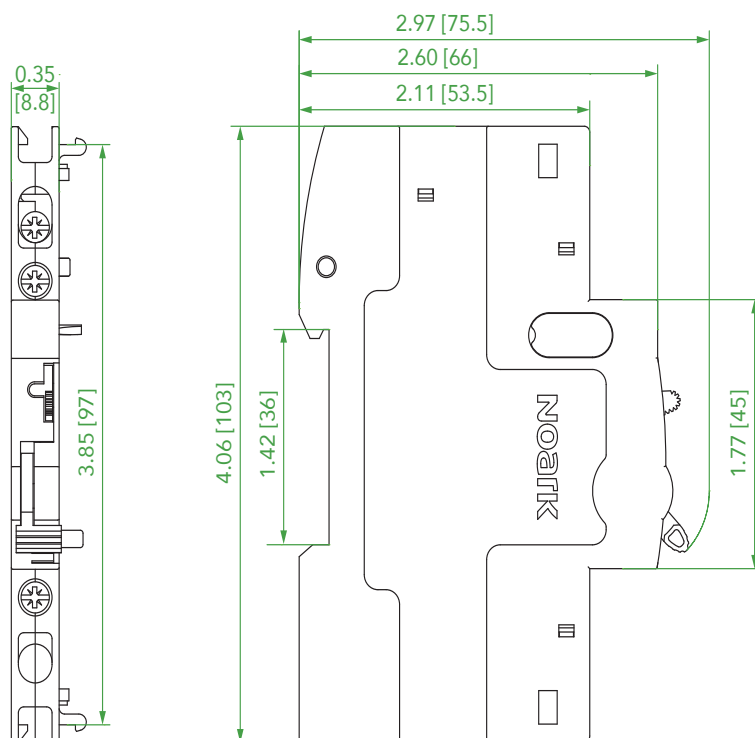
Miniature Circuit Breaker

UL 489 Accessory Dimensions: Alarm/Aux Contact

AL31N/AX31N

Alarm Switch/Auxiliary Contact

Unit: in [mm]



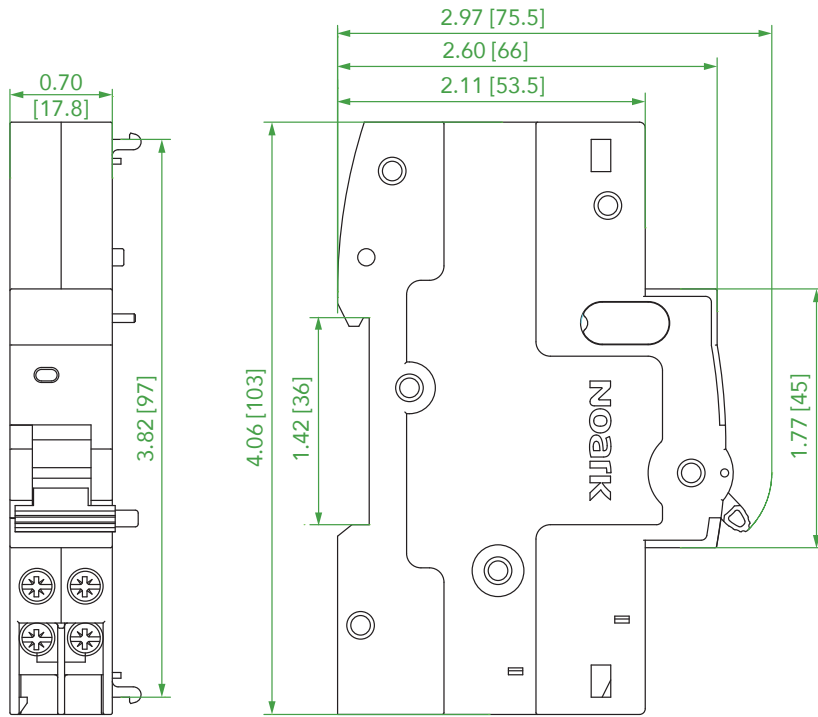
Miniature Circuit Breaker

UL 489 Accessory Dimensions: Shunt/UV Trip & DIN

SHT31N/UVT31N

Shunt Trip/
Under-Voltage Trip

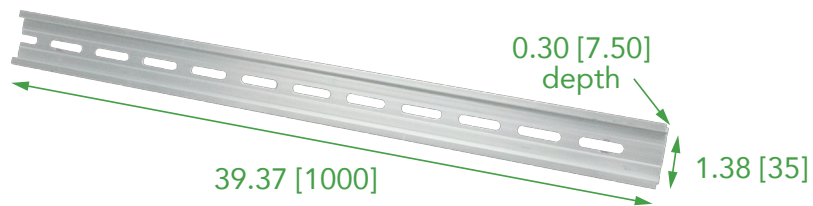
Unit: in [mm]



TH35A75

DIN Rail (35 mm)

Unit: in [mm]



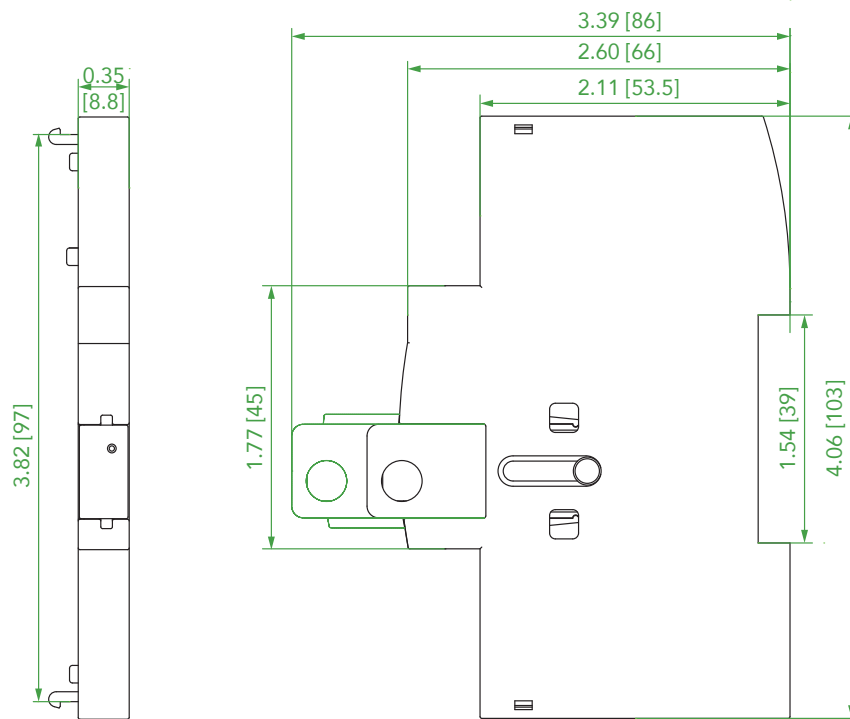
Miniature Circuit Breaker

UL 489 Accessory Dimensions: Handle and Padlock

LK31N

Padlock

Unit: in [mm]



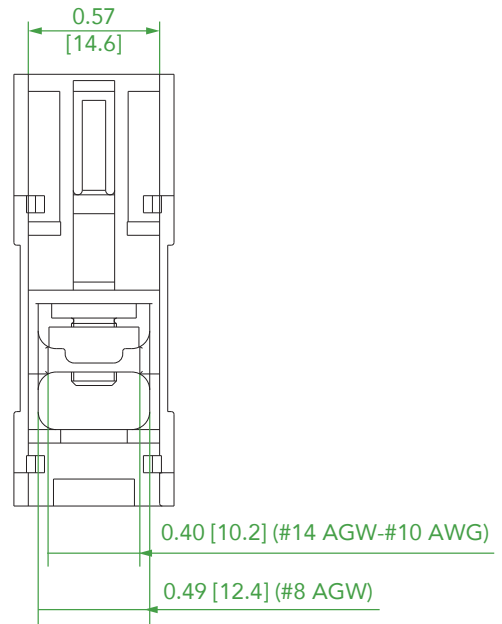
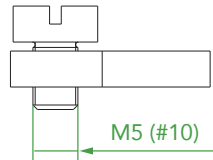
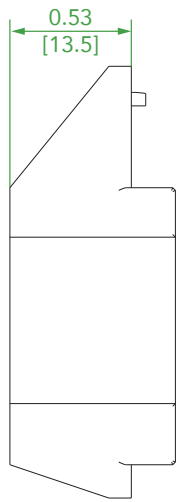
Miniature Circuit Breaker

UL 489 Accessory Dimensions: Shunt/UV Trip & DIN

RTT31N

Ring Tongue Terminal

Unit: in [mm]



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