

# MINIATURE CIRCUIT BREAKERS

## PRODUCT PROFILE

ATC Diversified offers a comprehensive line of **Miniature Circuit Breakers** designed and manufactured to meet the needs of the machine builder. We promise durable products at a price that gives you an edge, and we guarantee same-day shipping. Check out all the features of our UL489 & UL 1077 Miniature Circuit Breakers below!



### DELIVERING SUPERIOR PRODUCT QUALITY AND MANUFACTURING EXCELLENCE

✓ <b>Proven</b>	Our Miniature Circuit Breakers are UL Listed and Recognized, and CE marked to meet global standards requirements and are compliant to the RoHS directives.	
✓ <b>Compact Design</b>	17.5mm wide per pole construction for reduced panel size, allowing for smaller control panels.	
✓ <b>Easy to Install</b>	35mm DIN rail mounting for fast and easy installation and removal.	
✓ <b>Visible Markings</b>	High visibility labels and markings; product part number, amperage, and UL & IEC short circuit ratings can be seen from the front and side of the device for easy identification.	
✓ <b>Added Safety</b>	Line and load side IP20 guarded finger-safe terminals prevent accidental contact with live parts, while allowing ring, fork, and bare wire connections.	

### UNIQUE FEATURES

#### Full Range Circuit Protection

- Available in single pole, two pole, and three pole constructions and includes both thermal and magnetic trip elements for overload and short circuit protection.

#### Industry-Leading Short Circuit Rating

- 10kA @ 480Y/277V short circuit current rating on all multi-pole constructions – the highest interruption rating available in the market.

#### Trip-Free Design

- Holding the operating handle in the ON position will not prevent the miniature circuit breaker from tripping.

#### Easy Wiring

- Captive screws make it impossible to lose screws when wiring and our box lug design terminals will accept a wide-range of copper wire sizes. Line/load wiring is reversible for ease of use.

#### Visible Markings & Status Indication

- High visibility labels and markings can be seen from the front and side of the device for easy installation. Color-coded status window for clear visual of the breaker status.

MCB				1
<b>Operating Current</b>				
2.0 Amp	2			
3.0 Amp	3			
5.0 Amp	5			
10 Amp	10			
15 Amp	15			
20 Amp	20			
<b>Device Type</b>				
UL 489 Miniature Circuit Breaker	CB			
UL 1077 Miniature Supplementary Protector *	SP			
<b>Number of Poles</b>				
Single Pole	1			
Two Pole **	2			
Three Pole **	3			
<b>Trip Characteristics</b>				
Trip Curve C ***	C			
Trip Curve D ****	D			
<b>Frame Size</b>				
17.5mm Frame per Pole				1

\* 3 Amp [3], 5 Amp [5], and 10 Amp [10] only

\*\* 10 Amp [10], 15 Amp [15], 20 Amp [20], and UL 489 Miniature Circuit Breaker [CB] only

\*\*\* 2 Amp [2], 3 Amp [3], 5 Amp [5], 10 Amp [10], and Single Pole [1] only

\*\*\*\* 10 Amp [10], 15 Amp [15], 20 Amp [20], and UL 489 Miniature Circuit Breaker [CB] only

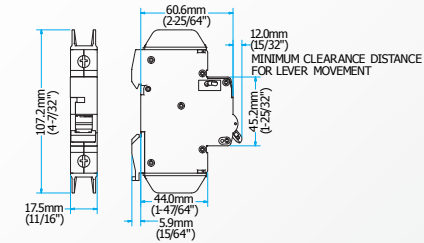
# MINIATURE CIRCUIT BREAKERS

## SPECIFICATIONS

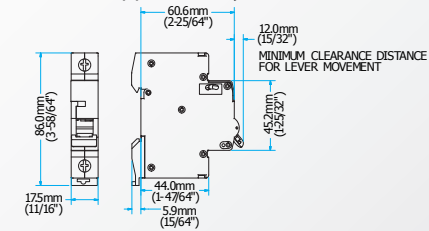
UL 489 BRANCH CIRCUIT BREAKERS				
	UNITS	1 POLE	2 POLE	3 POLE
<b>ELECTRICAL GENERAL</b>				
Rated Operating Current	A		0.5 ~ 63	
Operating Frequency	Hz		50/60	
Electrical Life	Ops.		6,000	
Line/Load Wiring		Suitable for reverse feed		
<b>ELECTRICAL UL/CSA APPLICATIONS</b>				
Conformity to Standards		cULus, UL 489, CSA C22.2 No. 5		
AC Rated Operating Voltage	V	277		480Y/277
DC Rated Operating Voltage (wired in series)	V	48	96	—
<b>MAXIMUM SHORT CIRCUIT RATING</b>				
@ 120 VAC	kA		10	
@ 240 VAC	kA		10	
@ 277 VAC	kA		10	
@ 480Y/277 VAC	kA		10	
@ 48 VDC	kA	10	10	—
@ 96 VDC (wired in series)	kA	—	10	—
<b>ELECTRICAL IEC APPLICATIONS</b>				
Conformity to Standards		IEC 60947-2, IEC 60898		
<b>ULTIMATE SHORT CIRCUIT BREAKING CAPACITY (Icu)</b>				
@ 240 VAC	kA		10	
@ 415 VAC	kA		10	
<b>RATED SERVICE SHORT CIRCUIT BREAKING CAPACITY (Ics)</b>				
@ 240 VAC	kA		10	
@ 415 VAC	kA		10	
<b>CONSTRUCTION - CONDUCTOR SIZE</b>				
UL/CSA	AWG		1 x #14 ~ #3	
Solid, Stranded, Fine Stranded	mm <sup>2</sup>		1 x 2.08 ~ 26.7	
<b>ROHS COMPLIANCE</b>				
UL 1077 SUPPLEMENTARY PROTECTORS				
	UNITS	1 POLE	2 POLE	3 POLE
<b>ELECTRICAL GENERAL</b>				
Rated Operating Current	A		0.5 ~ 63	
Operating Frequency	Hz		50/60	
Electrical Life	Ops.		6,000	
Line/Load Wiring		Suitable for reverse feed		
<b>ELECTRICAL UL/CSA APPLICATIONS</b>				
Conformity to Standards		cURus, UL 1077, CSA C22.2 No. 235		
AC Rated Operating Voltage	V	277		480Y/277
DC Rated Operating Voltage (wired in series)	V	48	96	—
<b>MAXIMUM SHORT CIRCUIT RATING</b>				
@ 120 VAC	kA		10	
@ 240 VAC	kA		10	
@ 277 VAC	kA		10	
@ 480Y/277 VAC	kA		10	
@ 48 VDC	kA	10	10	—
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<b>ROHS COMPLIANCE</b>				

## DIMENSIONS

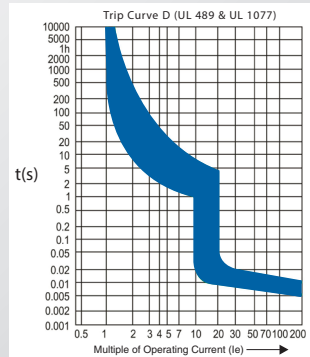
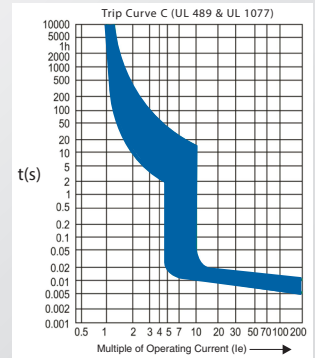
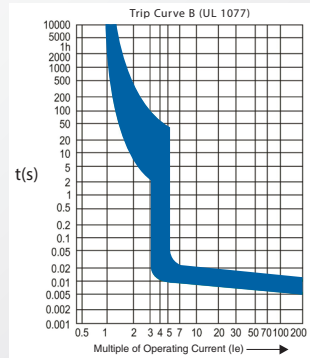
UL 489 Branch Circuit Breaker - 1 Pole



UL 1077 Supplementary Protector - 1 Pole



## TRIP CURVES



## CERTIFICATIONS

**Conformity to Standards:**

UL 489  
UL 1077  
UL 508  
CSA C22.2 No. 5, No. 235  
IEC 60947-2, IEC 60898

**Certifications:**

UL File#: E496118  
UL File#: E496119  
UL File#: E508090  
CE Marked (per EU Low Voltage Directive 2006/95/EC and RoHS Directive 2011/65/EU)

