

MINIATURE CIRCUIT BREAKERS

series
1100

c3controls' line of Series 1100 Miniature Circuit Breakers provide reliable short circuit and overload protection for all your branch and downstream device circuit protection. Our branch circuit breakers and supplementary protectors offer a wide range of pole sizes, amperage ranges, and trip curves—providing superior performance and flexible application environments.



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PROVEN



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#: E336563
UL File#: E508090
CE Marked (per EU Low Voltage Directive 2006/95/EC and
RoHS Directive 2011/65/EU)

Visit www.c3controls.com to download product certifications.

MINIATURE CIRCUIT BREAKERS

c3controls 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 Series 1100 Miniature Circuit Breakers below!

DELIVERING SUPERIOR PRODUCT QUALITY AND MANUFACTURING EXCELLENCE

✓ Proven	Our Series 1100 Miniature Circuit Breakers are UL Listed and Recognized, and CE marked to meet global standards requirements and are compliant to the RoHS directives.	  
✓ Easy to Install	35mm DIN rail mounting for fast and easy installation and removal.	
✓ Visible Markings	High visibility labels and markings; product part number, amperage, and UL & IEC short-circuit ratings can be seen from front and side of the device for easy identification.	
✓ Compact	Control panel sizes can be reduced because the small size, 17.5mm width per pole, allows for smaller control panels.	
✓ Added Safety	Line and load side IP20 guarded finger-safe terminals prevent accidental contact with live parts.	
✓ Limited Lifetime Warranty*	Every product is backed by our limited lifetime warranty—unmatched in the industry—bringing you quality components that perform in the most demanding applications.	
✓ Guaranteed Same-Day Shipping*	Product availability reduces inventory, and improves cash-flow—saving you money. With c3controls any order for standard catalog items received by 6:00pm ET is guaranteed to ship same-day.	
✓ Advantage Pricing	Our approach to product development, manufacturing, and focus on servicing the OEM and Electrical Equipment Builder reduces cost. The result—the best value in the industry.	

*See c3controls Terms & Conditions

“The reliability of components and overnight delivery is crucial to our profitability, and counting on c3controls to deliver at the time of need makes them a good fit for the packaging industry.”

Jim Kidder, Engineering Manager • **Eriez Magnetics**

UL 489 Branch Circuit Breaker



UL 1077 Supplementary Protector

**UNIQUE PRODUCT LINE FEATURES****FULL-RANGE CIRCUIT PROTECTION**

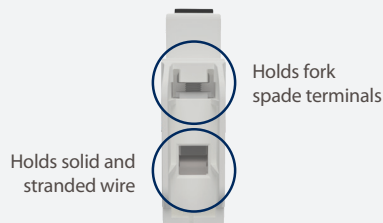
Available in multiple poles, up to 3 plus neutral, and trip curves to meet our customers needs, all of which are available for Guaranteed Same-Day shipping.

SHORT CIRCUIT CURRENT RATING

10kA @ 480Y/277V short circuit current rating on all constructions.

TRIP-FREE DESIGN

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

WIRING MADE EASY

Captive screws make it virtually 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.

SAFETY

All c3controls miniature circuit breakers have built-in IP20 finger-safe protection from accidental contact. Also, breaker status is clearly indicated via the color-coded status window.

ACCESSORIES & BUS BARS

Snap-on accessories are easily installed without the use of tools, further the bus bars also help lower assembly and installation costs.

FIND IT FAST

Miniature Circuit Breakers



- Certifications
- Specifications
- Dimension Drawings
- Installation Instructions
- Easy to Buy

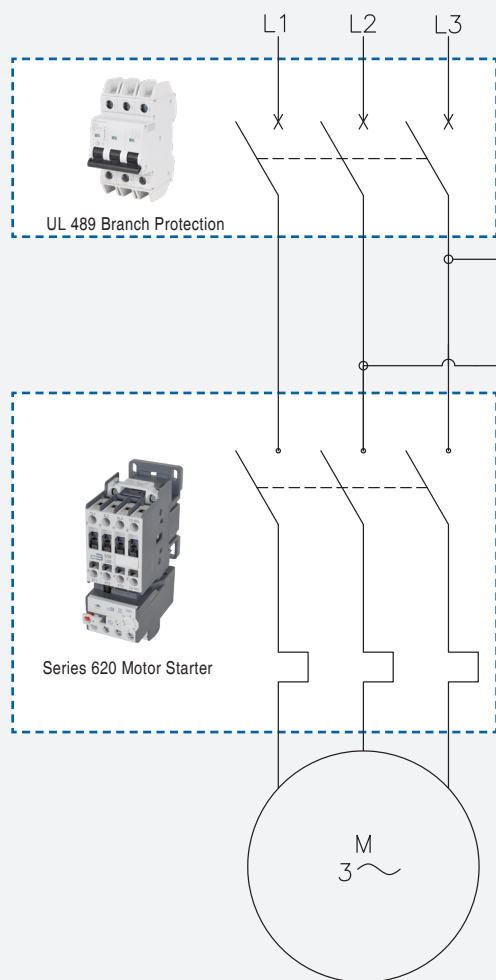
www.c3controls.com

THE DIFFERENCES BETWEEN UL 489 BRANCH PROTECTION AND UL 1077 SUPPLEMENTARY PROTECTION

Power Circuit

UL 489 Branch Circuit Breakers

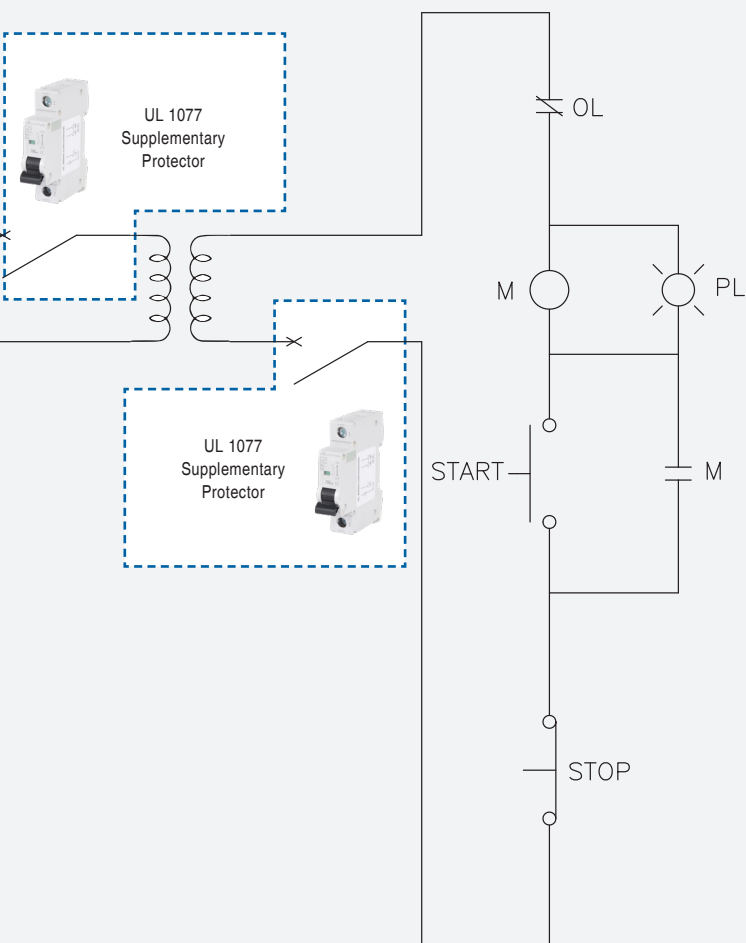
UL 489 Branch Circuit Breakers are designed to serve as the primary overcurrent and short-circuit upstream circuit protection of an electrical panel. In addition to downstream equipment and systems, branch protectors guard the connected wires and cables against improper pole spacings. UL 489 miniature circuit breakers can be used in both UL 489 and UL 1077 applications.



Control Circuit

UL 1077 Supplementary Protectors

UL 1077 Supplementary Protectors, while not the primary device of circuit protection, can be used within or directly upstream from single electrical equipment devices to open the circuit or provide supplementary protection. One common method to test whether or not a supplementary protector is being used properly is by evaluating the circuit integrity when it is removed from the circuit. If a UL 1077 type circuit breaker can be removed and maintain proper protection due to upstream protective devices, then the UL 1077 Miniature Circuit Breaker is used correctly. UL 1077 supplementary protectors can only be used in UL 1077 applications.



UL 489 BRANCH CIRCUIT BREAKERS

c3controls Series 1100 Miniature Circuit Breakers include both thermal and magnetic trip elements for overload and short circuit protection. Our Series 1100-CB circuit breakers provide branch circuit protection and fully meet UL 489 circuit breaker standards. They are available in one, one + neutral, two, three, and three + neutral configurations with current ratings from 0.5A to 63A. In addition, cULus and CE Markings make them suitable for use anywhere in the world.

Product features include:

- Line/load reversible construction makes field wiring error-proof.
- Combination head terminal screws allow the use of “straight”, “phillips”, or “posidrive” screwdrivers for fast and reliable wiring.
- Compact 17.5mm width per pole construction reduces panel size and mounts onto 35mm DIN rail.
- Dual style terminals accept stranded wire 0.8mm² – 2.67mm² (#18 - #3 AWG) and busbar stabs, and are IP20 guarded against accidental contact with live parts.
- Trip-free design provides assurance that holding the operating handle in the ON position will not prevent the miniature circuit breaker from tripping.
- Up to 21 unique current rating configurations from 0.5 to 63A for a broad range of applications.
- Flexible for use in both alternating current and direct current applications.
- Suitable for use per IEC 60947-2 and IEC 60898.
- Dual trip curve offering (Trip Curves C & D) provides protection for a broad range of AC applications. C trip curves have a low thermal trip delay and a mid-range magnetic trip function to protect low inrush motors, resistive loads, and control circuits. D trip curves have a high thermal trip delay and a very high magnetic trip point to protect high inrush motors, heaters, transformers, and reactive loads while preventing nuisance tripping. DC applications include uninterruptable power supplies (UPS), computer hardware, and telecommunication equipment.



UL 1077 SUPPLEMENTARY PROTECTORS



c3controls Series 1100 Miniature Circuit Breakers include both thermal and magnetic trip elements for overload and short circuit protection. Our Series 1100-SP circuit breakers provide downstream device protection and fully meet UL 1077 supplementary protector standards. They are available in one, one + neutral, two, three, and three + neutral configurations with current ratings from 0.5A to 63A. In addition, cURus and CE Markings make them suitable for use anywhere in the world.

Product features include:

- Line/load reversible construction makes field wiring error-proof.
- Combination head terminal screws allow the use of “straight”, “phillips”, or “posidrive” screwdrivers for fast and reliable wiring.
- Compact 17.5mm width per pole construction reduces panel size and mounts onto 35mm DIN rail.
- Dual style terminals accept stranded wire 0.8mm² – 26.7mm² (#18 - #3 AWG) and busbar stabs, and are IP20 guarded against accidental contact with live parts.
- Trip-free design provides assurance that holding the operating handle in the ON position will not prevent the miniature circuit breaker from tripping.
- Up to 21 unique current rating configurations from 0.5 to 63A for a broad range of applications.
- Flexible for use in both alternating current and direct current applications.
- Suitable for use per IEC 60947-2 and IEC 60898.
- Triple trip curve offering (Trip Curves B, C, & D) provides protection for a broad range of AC applications. B trip curves are specialized for resistive and slightly inductive loads such as lighting and coils. C trip curves have a low thermal trip delay and a mid-range magnetic trip function to protect low inrush motors, resistive loads, and control circuits. D trip curves have a high thermal trip delay and a very high magnetic trip point to protect high inrush motors, heaters, transformers, and reactive loads while preventing nuisance tripping. DC applications include uninterruptable power supplies (UPS), computer hardware, and telecommunication equipment.

IT'S EASY TO BUILD YOUR OWN CIRCUIT BREAKER

Simply pick the code number from each of the sections below and combine them to build your part number.

Miniature Circuit Breakers UL 489 Branch Circuit Breakers

1100 – CB I II III IV 2 VI

Example: To build one of our most popular UL 489 Miniature Circuit Breakers, the part number would be **1100 + CB + III + IV + 2 + VI** or **1100-CB1C2U10**



I. PRODUCT TYPE

CODE	DESCRIPTION
1100	Series 1100 Miniature Circuit Breaker

II. DEVICE TYPE

CODE	DESCRIPTION
CB	UL 489 Circuit Breaker

III. NUMBER OF POLES

CODE	DESCRIPTION	LIST
1	Single Pole	\$ 58.00
1N	Single Pole + Neutral*	\$116.00
2	Two Pole	\$116.00
3	Three Pole	\$174.00
3N	Three Pole + Neutral*	\$232.00

*NOTE: Consult factory for neutral pole availability.

IV. TRIP CHARACTERISTICS

CODE	DESCRIPTION
C	Trip Curve C
D	Trip Curve D

V. FRAME SIZE

CODE	DESCRIPTION
2	17.5mm Frame per Pole

VI. OPERATING CURRENT

CODE	DESCRIPTION
C50	0.5A
D10	1.0A
D16	1.6A
D20	2.0A
D30	3.0A
D40	4.0A
D50	5.0A
D60	6.0A
D70	7.0A
D80	8.0A
U10	10A
U13	13A
U15	15A
U16	16A
U20	20A
U25	25A
U30	30A
U32	32A
U40	40A
U50	50A
U63	63A

DISCOUNT
SCHEDULE **F**

SOME OF OUR POPULAR CONFIGURATIONS:

MINIATURE CIRCUIT BREAKERS, UL 489 BRANCH CIRCUIT BREAKERS

CATALOG NUMBER	DESCRIPTION	LIST
1100-CB1C2U10	Miniature Circuit Breaker, 1 Pole, 10A, Trip Curve C, UL 489, IEC 60947-2, IEC 60898	\$ 58.00
1100-CB1C2D60	Miniature Circuit Breaker, 1 Pole, 6A, Trip Curve C, UL 489, IEC 60947-2, IEC 60898	\$ 58.00
1100-CB1D2U10	Miniature Circuit Breaker, 1 Pole, 10A, Trip Curve D, UL 489, IEC 60947-2, IEC 60898	\$ 58.00
1100-CB1D2D60	Miniature Circuit Breaker, 1 Pole, 6A, Trip Curve D, UL 489, IEC 60947-2, IEC 60898	\$ 58.00
1100-CB2C2U10	Miniature Circuit Breaker, 2 Pole, 10A, Trip Curve C, UL 489, IEC 60947-2, IEC 60898	\$116.00
1100-CB2D2D40	Miniature Circuit Breaker, 2 Pole, 4A, Trip Curve D, UL 489, IEC 60947-2, IEC 60898	\$116.00
1100-CB3C2U20	Miniature Circuit Breaker, 3 Pole, 20A, Trip Curve C, UL 489, IEC 60947-2, IEC 60898	\$174.00
1100-CB3D2U10	Miniature Circuit Breaker, 3 Pole, 10A, Trip Curve D, UL 489, IEC 60947-2, IEC 60898	\$174.00

IT'S EASY TO BUILD YOUR OWN CIRCUIT BREAKER

Simply pick the code number from each of the sections below and combine them to build your part number.

Miniature Circuit Breakers UL 1077 Supplementary Protectors

1100 – SP **2**

I II III IV V VI

Example: To build one of our most popular UL 1077 Miniature Circuit Breakers, the part number would be **1100 + SP + III + IV + 2 + VI** or **1100-SP1B2U10**

**I. PRODUCT TYPE**

CODE	DESCRIPTION
1100	Series 1100 Miniature Circuit Breaker

II. DEVICE TYPE

CODE	DESCRIPTION
SP	UL 1077 Supplementary Protector

III. NUMBER OF POLES

CODE	DESCRIPTION	LIST
1	Single Pole	\$ 29.00
1N	Single Pole + Neutral*	\$ 58.00
2	Two Pole	\$ 58.00
3	Three Pole	\$ 87.00
3N	Three Pole + Neutral*	\$116.00

*NOTE: Consult factory for neutral pole availability.

IV. TRIP CHARACTERISTICS

CODE	DESCRIPTION
B	Trip Curve B
C	Trip Curve C
D	Trip Curve D

V. FRAME SIZE

CODE	DESCRIPTION
2	17.5mm Frame per Pole

VI. OPERATING CURRENT

CODE	DESCRIPTION
C50	0.5A
D10	1.0A
D16	1.6A
D20	2.0A
D30	3.0A
D40	4.0A
D50	5.0A
D60	6.0A
D70	7.0A
D80	8.0A
U10	10A
U13	13A
U15	15A
U16	16A
U20	20A
U25	25A
U30	30A
U32	32A
U40	40A
U50	50A
U63	63A

DISCOUNT
SCHEDULE **F**

SOME OF OUR POPULAR CONFIGURATIONS:**MINIATURE CIRCUIT BREAKERS, UL 1077 SUPPLEMENTARY PROTECTORS**

CATALOG NUMBER	DESCRIPTION	LIST
1100-SP1C2D60	Miniature Circuit Breaker, 1 Pole, 6A, Trip Curve C, UL 1077 Supplementary Protector, IEC 60947-2, IEC 60898	\$ 29.00
1100-SP1C2U10	Miniature Circuit Breaker, 1 Pole, 10A, Trip Curve C, UL 1077 Supplementary Protector, IEC 60947-2, IEC 60898	\$ 29.00
1100-SP1D2D60	Miniature Circuit Breaker, 1 Pole, 6A, Trip Curve D, UL 1077 Supplementary Protector, IEC 60947-2, IEC 60898	\$ 29.00
1100-SP1D2U10	Miniature Circuit Breaker, 1 Pole, 10A, Trip Curve D, UL 1077 Supplementary Protector, IEC 60947-2, IEC 60898	\$ 29.00
1100-SP2C2U10	Miniature Circuit Breaker, 2 Pole, 10A, Trip Curve C, UL 1077 Supplementary Protector, IEC 60947-2, IEC 60898	\$ 58.00
1100-SP2D2D50	Miniature Circuit Breaker, 2 Pole, 5A, Trip Curve D, UL 1077 Supplementary Protector, IEC 60947-2, IEC 60898	\$ 58.00
1100-SP3C2U10	Miniature Circuit Breaker, 3 Pole, 10A, Trip Curve C, UL 1077 Supplementary Protector, IEC 60947-2, IEC 60898	\$ 87.00
1100-SP3C2U16	Miniature Circuit Breaker, 3 Pole, 16A, Trip Curve C, UL 1077 Supplementary Protector, IEC 60947-2, IEC 60898	\$ 87.00

SIDE MOUNTED AUXILIARY CONTACT



Our side mounted auxiliary contacts allow remote indication of the status of a circuit breaker or supplementary protector to which it is attached. These contacts come with IP20 guarded terminals and snap onto the left side of the circuit breaker or supplementary protector without the use of tools.

Ratings: AC12 - 6A @ 240V AC (50/60Hz)
DC12 - 1A @ 130V DC
2A @ 48V DC
6A @ 24V DC

CODE	DESCRIPTION	LIST
1100-SA211	1 Normally Open and 1 Normally Closed	\$ 52.60

SIDE MOUNTED SHUNT-TRIP MODULES



Shunt-trip modules enable the circuit breaker or supplementary protector to trip, there by cutting off the power supply to any machine or equipment remotely. These modules snap onto the right side of the circuit breaker or supplementary protector without the use of tools. IP20 guarded terminals protect against accidental contact with live parts and can be used in conjunction with auxiliary contacts.

CODE	DESCRIPTION	LIST
1100-SRXD	110V AC, 50/60Hz	\$ 96.20
1100-SRXF	230V AC, 50/60Hz	\$ 96.20

SIDE MOUNTED AUXILIARY CONTACTS WITH ALARM



This accessory provides remote indication when a circuit breaker or supplementary protector is tripped. The trip can be a result of an overload, short-circuit, operation of shunt-trip accessory, or undervoltage/ overvoltage module. Features IP20 guarded terminals to protect against accidental contact with live parts and snaps-on and installs without the use of tools.

Ratings: AC12 - 3A @ 400V AC (50/60Hz)
6A @ 230V AC (50/60Hz)

CODE	DESCRIPTION	LIST
1100-STA211	1 Normally Open and 1 Normally Closed	\$ 67.60

DISCOUNT
SCHEDULE

F

SIDE MOUNTED UNDER VOLTAGE MODULES



Our under voltage modules can be attached on the right side of the circuit breaker or supplementary protector. The circuit breaker or supplementary protector will be forced to trip when the voltage is below ~30% of nominal voltage. These modules feature IP20 guarded terminals to protect against accidental contact with live parts and can be used in conjunction with auxiliary contacts.

CODE	DESCRIPTION	LIST
1100-URXD	110V AC, 50/60Hz	\$184.80
1100-URXF	230V AC, 50/60Hz	\$184.80

HEAVY DUTY LOCK-OFF ATTACHMENT

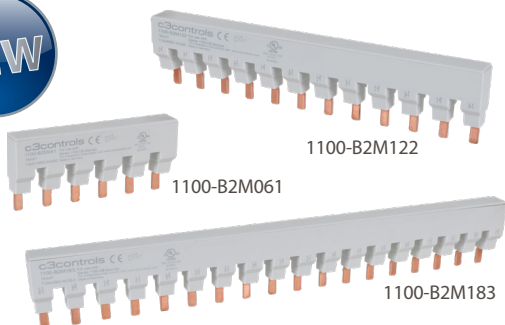


This lock-off attachment when used with a padlock ensures that no unauthorized person switches the circuit breaker or supplementary protector to the ON state after a trip.



CODE	DESCRIPTION	LIST
1100-L01	Lock-Off Attachment	\$ 9.80

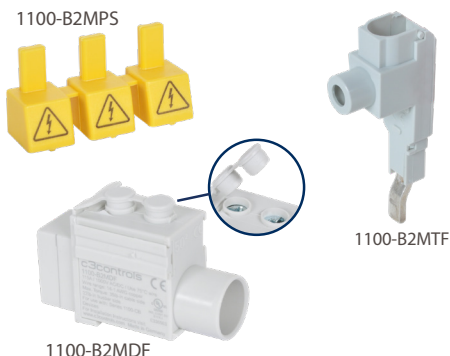
115A BUS BARS FOR USE WITH UL 489 DEVICES



CODE	NO. OF PINS	NO. OF BREAKERS	PHASE	LIST
FOR USE WITH 1 POLE DEVICES				
1100-B2M061	6	6	1	\$ 30.70
1100-B2M121	12	12	1	\$ 53.70
1100-B2M181	18	18	1	\$ 82.80
FOR USE WITH 2 POLE DEVICES				
1100-B2M062	6	3	2	\$ 33.80
1100-B2M122	12	6	2	\$ 65.90
1100-B2M182	18	9	2	\$ 98.10
FOR USE WITH 3 POLE DEVICES				
1100-B2M063	6	2	3	\$ 35.30
1100-B2M123	12	4	3	\$ 69.00
1100-B2M183	18	6	3	\$104.20

DISCOUNT
SCHEDULE **F**

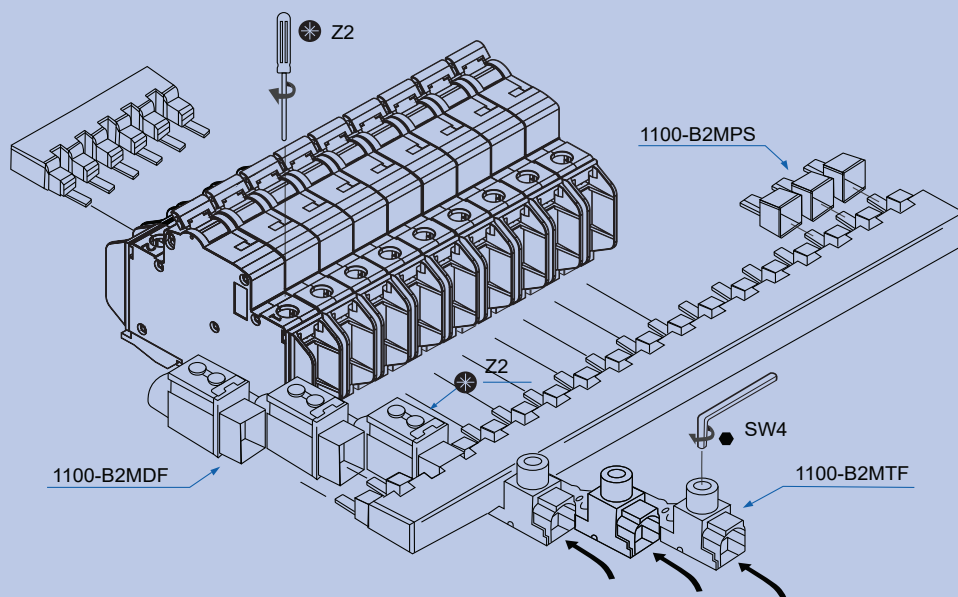
ACCESSORIES FOR USE WITH BUS BARS FOR UL 489 DEVICES



CODE	DESCRIPTION	LIST
1100-B2MPS	Protective Shroud (for 3 unused pins)	\$ 6.00
1100-B2MTF	Terminal Power Feed, 35mm ²	\$ 38.40
1100-B2MDF	Dedicated Power Feed, 50mm ²	\$ 38.40

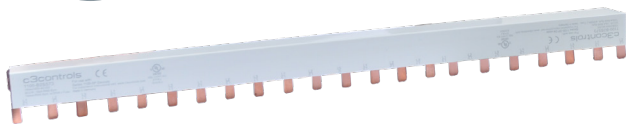
DISCOUNT
SCHEDULE **F**

BUS BAR SYSTEM FOR SERIES 1100-CB UL 489 DEVICES



**100A BUS BARS FOR USE WITH
UL 1077 DEVICES**

NEW



CODE	NO. OF PINS	NO. OF BREAKERS	PHASE	LIST
1100-B2S571	57	57	1	\$ 86.30
1100-B2S562	56	28	2	\$161.60
1100-B2S573	57	19	3	\$242.50

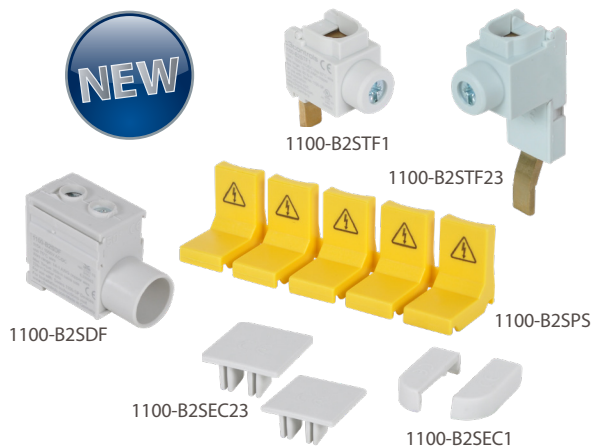
Note: Bus bars may be cut to appropriate size.

DISCOUNT
SCHEDULE

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**ACCESSORIES FOR USE WITH
BUS BARS FOR UL 1077 DEVICES**

NEW

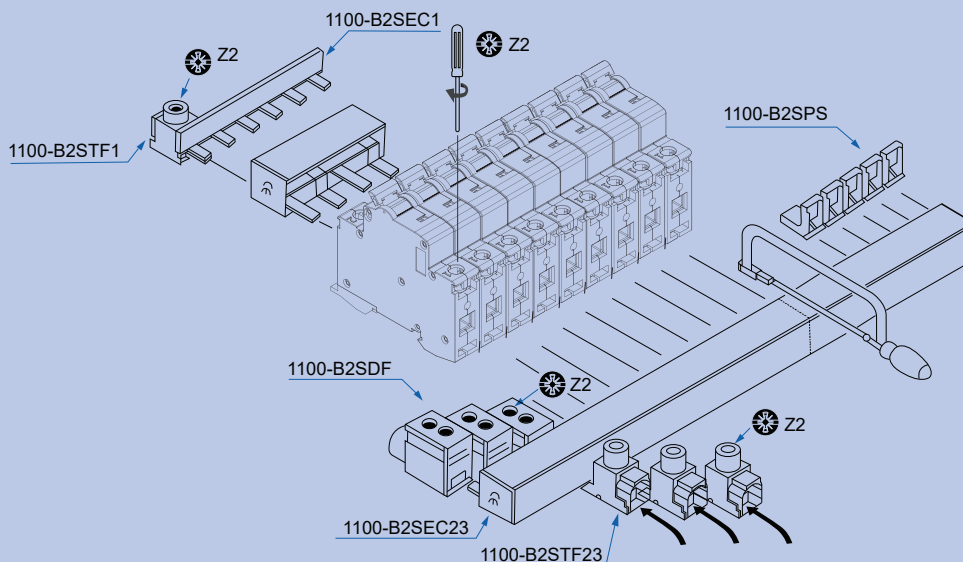


CODE	DESCRIPTION	QTY./PKG.	LIST
1100-B2SPS	Protective Shroud (for 5 unused pins)	1	\$ 6.80
1100-B2STF1	Terminal Power Feed, 35mm ² (for 1 pole supplementary protectors)	1	\$36.20
1100-B2STF23	Terminal Power Feed, 35mm ² (for 2 & 3 pole supplementary protectors)	1	\$36.20
1100-B2SDF	Dedicated Power Feed, 50mm ²	1	\$36.20
1100-B2SEC1	End Caps (for 1 pole supplementary protectors)	1 pair	\$ 6.00
1100-B2SEC23	End Caps (for 2 & 3 pole supplementary protectors)	1	\$ 3.00

DISCOUNT
SCHEDULE

F

BUS BAR SYSTEM FOR SERIES 1100-SP UL 1077 DEVICES



SPECIFICATIONS:

UL 489 BRANCH CIRCUIT BREAKERS ELECTRICAL SPECIFICATIONS

		1 POLE	1 + N POLE	2 POLE	3 POLE	3 + N POLE
ELECTRICAL GENERAL						
	UNITS					
Rated Operating Current	A	0.5 - 63				
Operating Frequency	Hz	50/60				
Electrical Life	Ops.	6,000				
Line/Load Wiring		Suitable for reverse feed				
ELECTRICAL UL/CSA APPLICATIONS						
Conformity to Standards		cULus, UL 489, CSA C22.2 No. 5				
AC Rated Operating Voltage	V	277		480Y/277		
DC Rated Operating Voltage	V	60*	—	125* (wired in series)	—	—
MAXIMUM SHORT CIRCUIT RATING						
@ 120 VAC	kA	10				
@ 240 VAC	kA	10				
@ 277 VAC	kA	10				
@ 480Y/277 VAC	kA	10				
@ 60 VDC	kA	10	—	10	—	—
@ 125 VDC (wired in series)	kA	—	—	10	—	—
ELECTRICAL IEC APPLICATIONS						
Conformity to Standards		IEC 60947-2, IEC 60898				
ULTIMATE SHORT CIRCUIT BREAKING CAPACITY (I_{co})						
@ 240 VAC	kA	10				
@ 415 VAC	kA	10				
RATED SERVICE SHORT CIRCUIT BREAKING CAPACITY (I_{cs})						
@ 240 VAC	kA	10				
@ 415 VAC	kA	10				

*NOTE: Available on request, please consult factory.

UL 489 BRANCH CIRCUIT BREAKERS MECHANICAL, ENVIRONMENTAL & CONSTRUCTION SPECIFICATIONS

		1 POLE	1 + N POLE	2 POLE	3 POLE	3 + N POLE
MECHANICAL						
	UNITS					
Mechanical Endurance	Ops.	20,000				
ENVIRONMENTAL						
Ambient Operating Temperature	°C/°F	-25 to 55 / -13 to 131				
Ambient Storage Temperature	°C/°F	-40 to 80 / -40 to 176				
Calibration Temperature	°C/°F	40 / 104				
Altitude	m/ft.	2,000 / 6,562				
Shock	G	15				
CONSTRUCTION						
INGRESS PROTECTION						
Line & Load Terminations	IP	20				
WEIGHT		kg	0.125	0.25	0.25	0.37
	lbs	0.275	0.55	0.55	0.825	1.10
CONDUCTOR SIZE						
UL/CSA	AWG	1 x #18 ~ #3, 2 x #18 ~ #10				
Solid, Stranded, Fine Stranded	mm ²	1 x 0.8 ~ 26.7				
TERMINAL WIRING CONNECTION						
Wire Type		Copper wire only, 60/75° C				
TERMINAL TORQUE						
	Nm/lb.-in.	2.5 / 22.2				
ROHS COMPLIANCE		For RoHS compliance documentation by product, refer to www.c3controls.com				

SPECIFICATIONS:

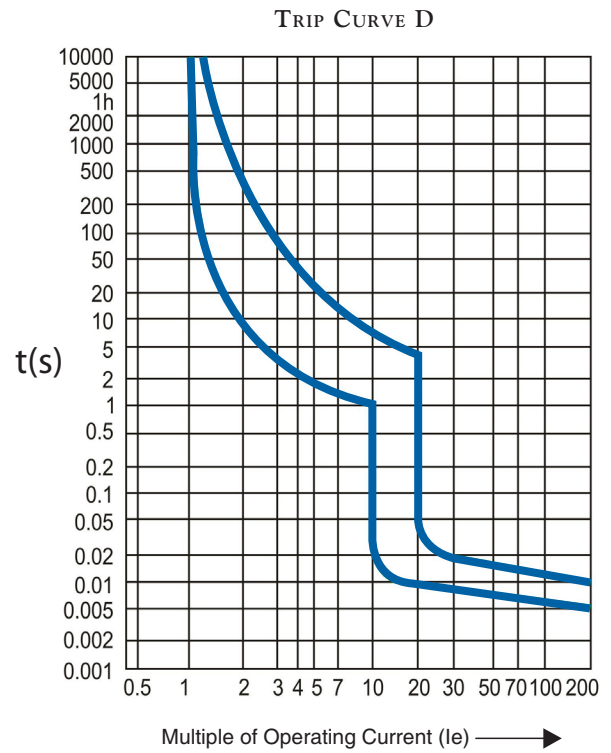
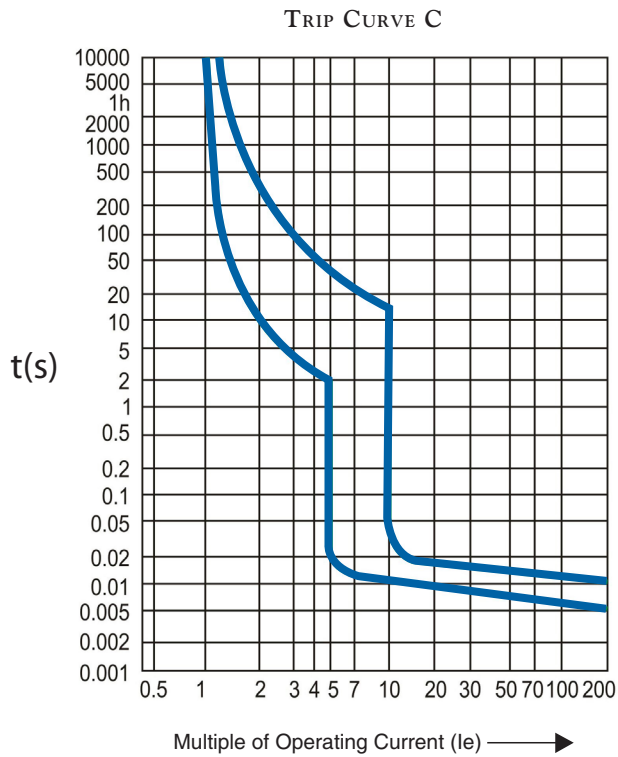
UL 1077 SUPPLEMENTARY PROTECTORS ELECTRICAL SPECIFICATIONS

		1 POLE	1 + N POLE	2 POLE	3 POLE	3 + N POLE
ELECTRICAL GENERAL						
	UNITS					
Rated Operating Current	A	0.5 ~ 63				
Operating Frequency	Hz	50/60				
Electrical Life	Ops.	6,000				
Line/Load Wiring		Suitable for reverse feed				
ELECTRICAL UL/CSA APPLICATIONS						
Conformity to Standards		cURus, UL 1077, CSA C22.2 No. 235				
AC Rated Operating Voltage	V	277		480Y/277		
DC Rated Operating Voltage	V	60*	—	125* (wired in series)	—	—
MAXIMUM SHORT CIRCUIT RATING						
@ 120 VAC	kA	10				
@ 240 VAC	kA	10				
@ 277 VAC	kA	10				
@ 480Y/277 VAC	kA	10				
@ 60 VDC	kA	10	—	10	—	—
@ 125 VDC (wired in series)	kA	—	—	10	—	—
ELECTRICAL IEC APPLICATIONS						
Conformity to Standards		IEC 60947-2, IEC 60898				
ULTIMATE SHORT CIRCUIT BREAKING CAPACITY (I _{cs})						
@ 240 VAC	kA	10				
@ 415 VAC	kA	10				
RATED SERVICE SHORT CIRCUIT BREAKING CAPACITY (I _{cs})						
@ 240 VAC	kA	10				
@ 415 VAC	kA	10				
*NOTE: Available on request, please consult factory.						

UL 1077 SUPPLEMENTARY PROTECTORS MECHANICAL, ENVIRONMENTAL & CONSTRUCTION SPECIFICATIONS

		1 POLE	1 + N POLE	2 POLE	3 POLE	3 + N POLE
MECHANICAL						
	UNITS					
Mechanical Endurance	Ops.	20,000				
ENVIRONMENTAL						
Ambient Operating Temperature	°C/°F	-25 to 55 / -13 to 131				
Ambient Storage Temperature	°C/°F	-40 to 80 / -40 to 176				
Calibration Temperature	°C/°F	40 / 104				
Altitude	m/ft.	2,000 / 6,562				
Shock	G	15				
CONSTRUCTION						
INGRESS PROTECTION						
Line & Load Terminations	IP	20				
WEIGHT						
	kg	0.12	0.24	0.24	0.36	0.48
	lbs	0.265	0.53	0.53	0.795	1.06
CONDUCTOR SIZE						
UL/CSA	AWG	1 x #18 ~ #3, 2 x #18 ~ #10				
Solid, Stranded, Fine Stranded	mm ²	1 x 0.8 ~ 26.7				
TERMINAL WIRING CONNECTION						
Wire Type		Copper wire only, 60/75° C				
TERMINAL TORQUE						
	Nm/lb-in.	2.5 / 22.2				
ROHS COMPLIANCE		For RoHS compliance documentation by product, refer to www.c3controls.com				

UL 489 BRANCH CIRCUIT BREAKER TRIP CHARACTERISTICS

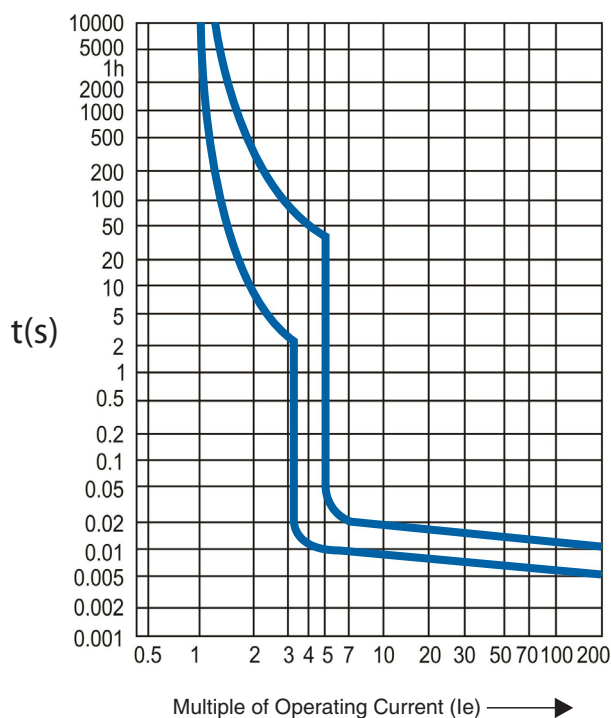


UL 489 BRANCH CIRCUIT BREAKER OPERATING POSITION

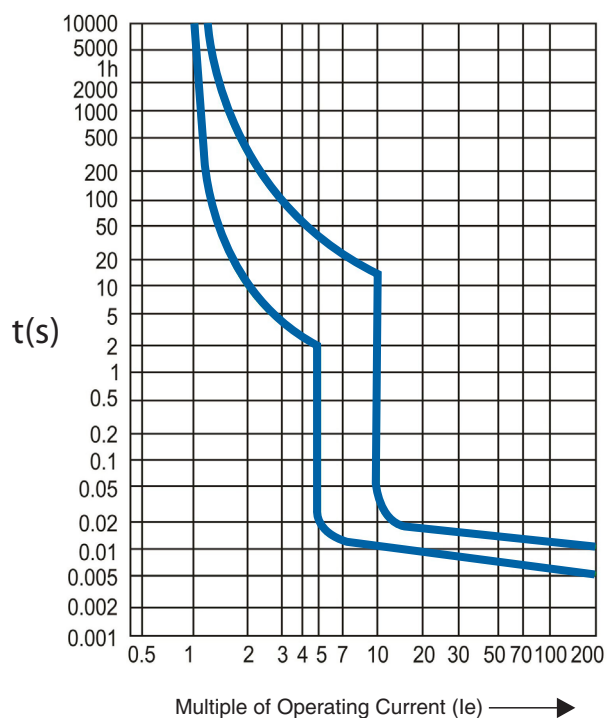


**UL 1077 SUPPLEMENTARY PROTECTOR
TRIP CHARACTERISTICS**

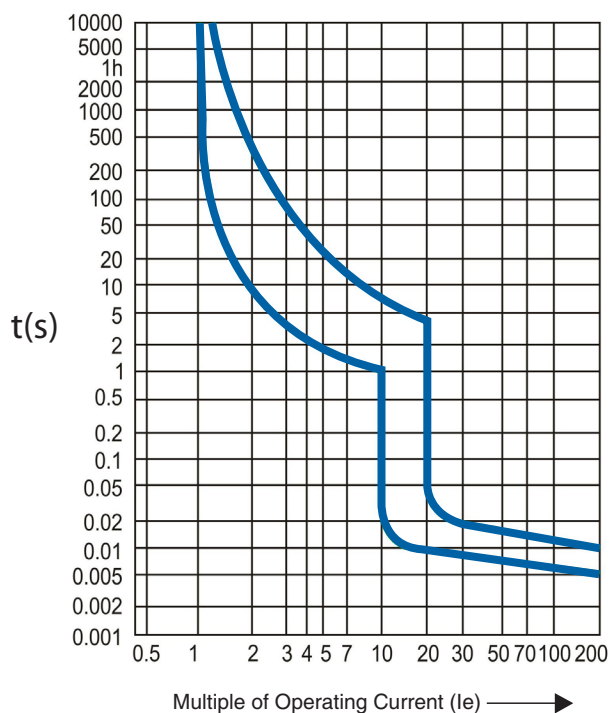
TRIP CURVE B



TRIP CURVE C



TRIP CURVE D

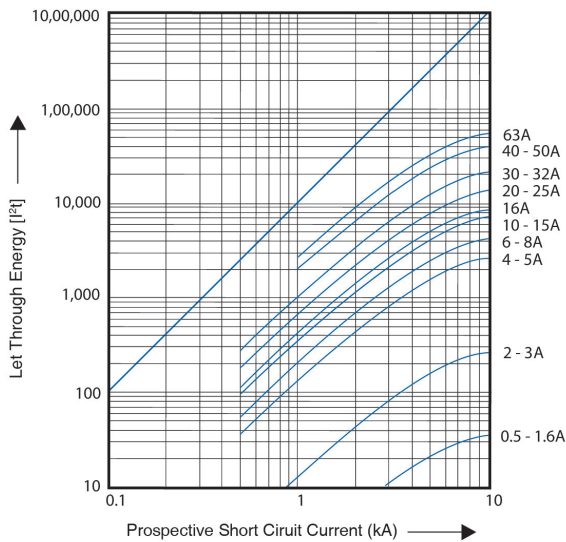


**UL 1077 SUPPLEMENTARY
PROTECTOR OPERATING
POSITION**



**UL 489 BRANCH CIRCUIT BREAKER
& UL 1077 SUPPLEMENTARY PROTECTOR
LET THROUGH ENERGY CURVES**

THREE POLE BREAKER WITH TRIP CURVE C

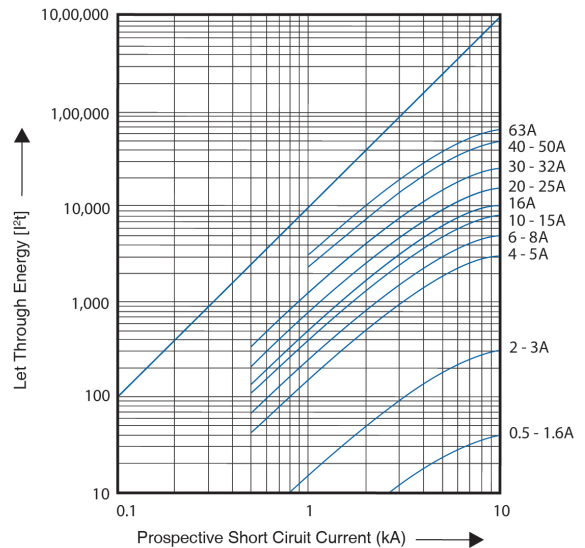


Multipliers for other poles

1 Pole Curve Values = 0.77×3 Pole Curve Values

2 Pole Curve Values = 0.66×3 Pole Curve Values

THREE POLE BREAKER WITH TRIP CURVE D



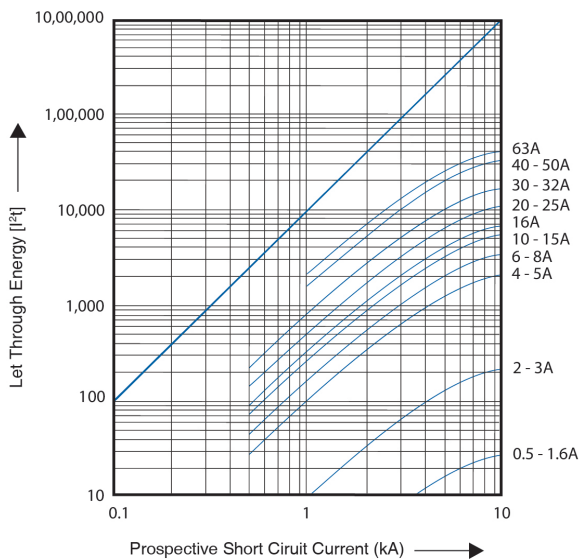
Multipliers for other poles

1 Pole Curve Values = 0.92×3 Pole Curve Values

2 Pole Curve Values = 0.81×3 Pole Curve Values

**UL 1077 SUPPLEMENTARY PROTECTOR
LET THROUGH ENERGY CURVE**

THREE POLE BREAKER WITH TRIP CURVE B

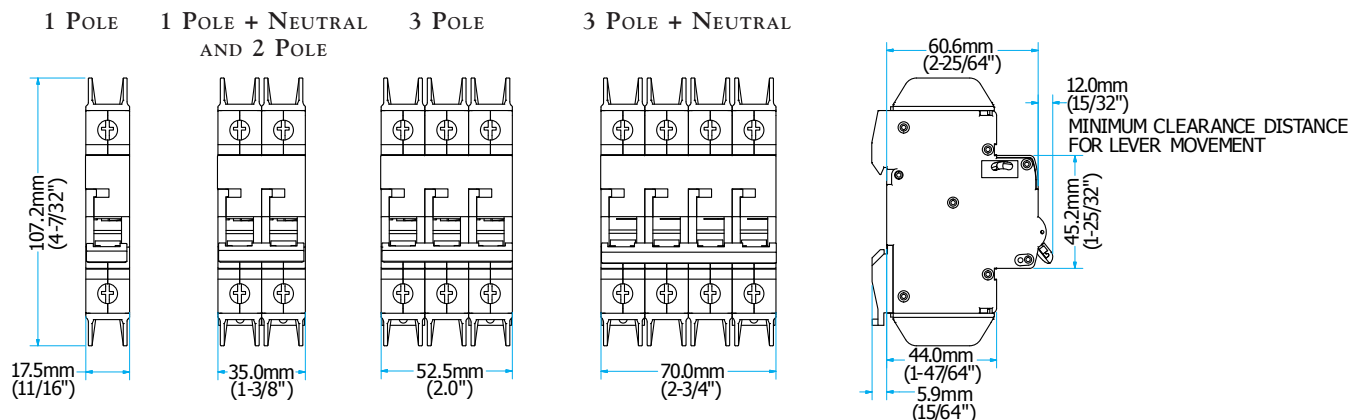


Multipliers for other poles

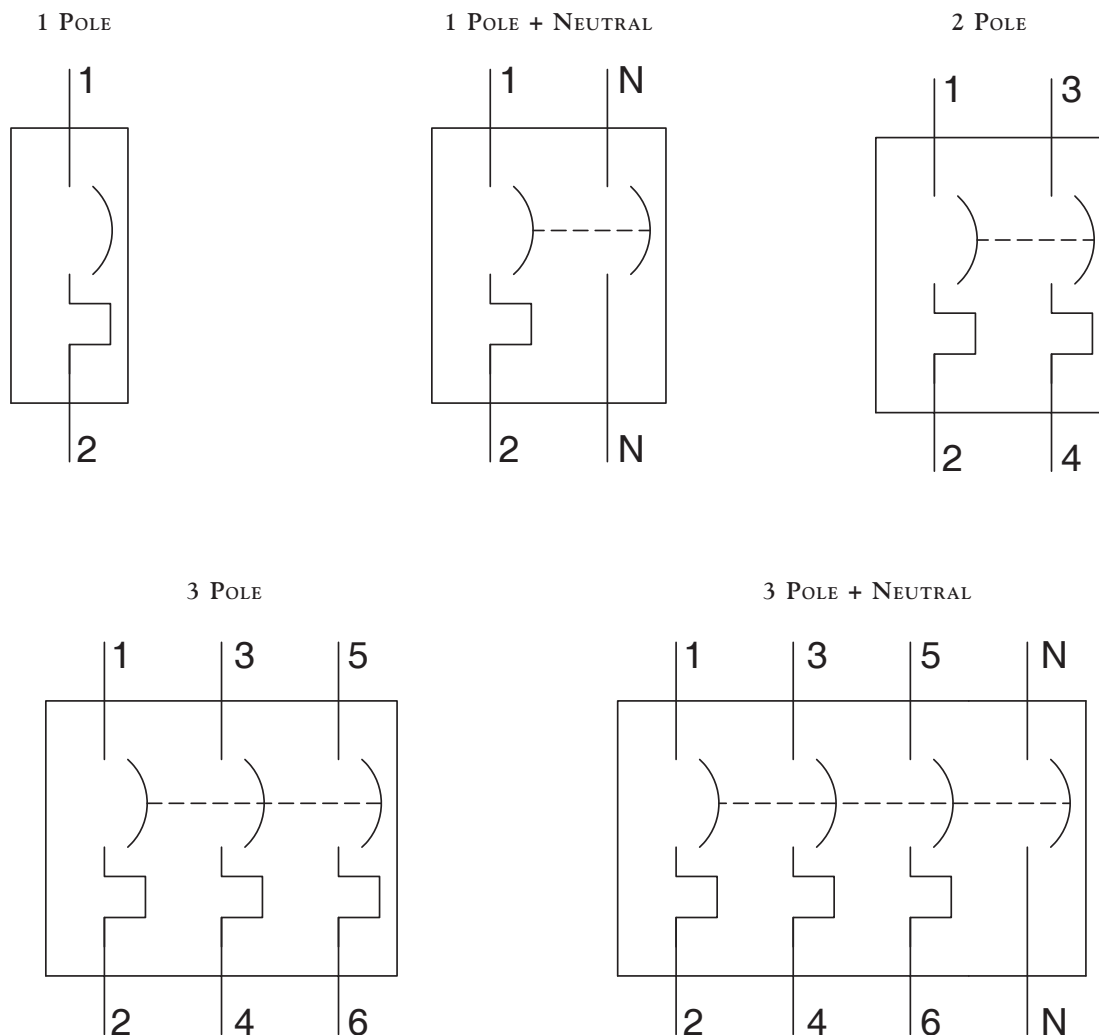
1 Pole Curve Values = 0.68×3 Pole Curve Values

2 Pole Curve Values = 0.63×3 Pole Curve Values

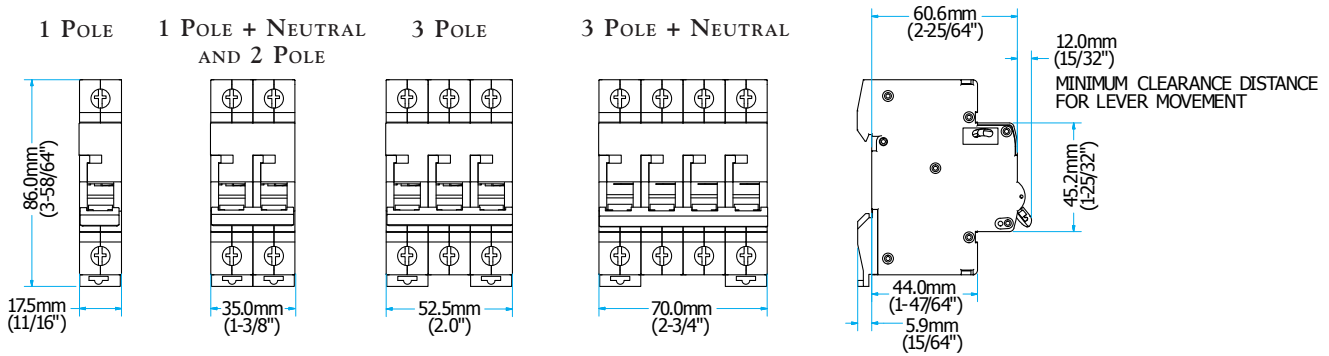
UL 489 BRANCH CIRCUIT BREAKER DIMENSIONS



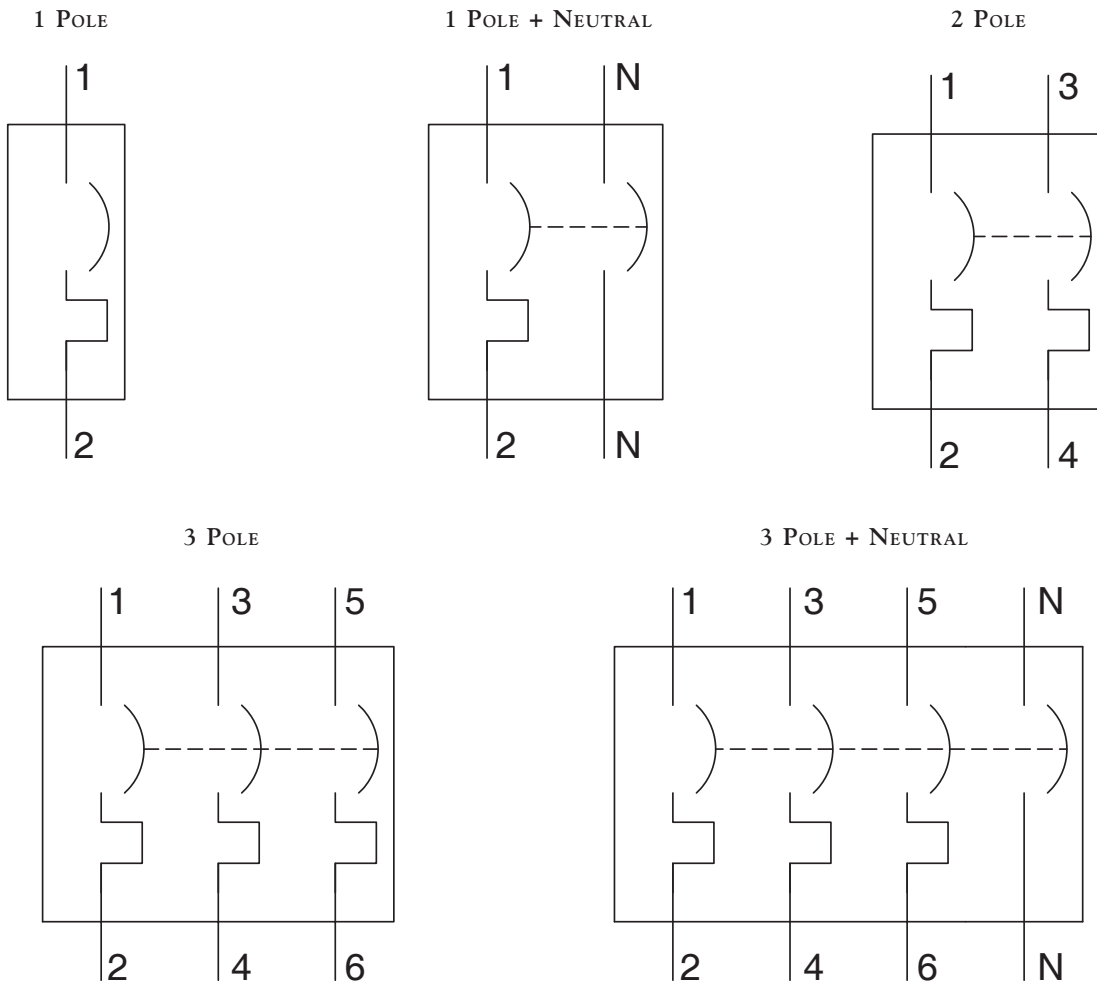
UL 489 BRANCH CIRCUIT BREAKER CIRCUIT DIAGRAMS



**UL 1077 SUPPLEMENTARY PROTECTOR
DIMENSIONS**

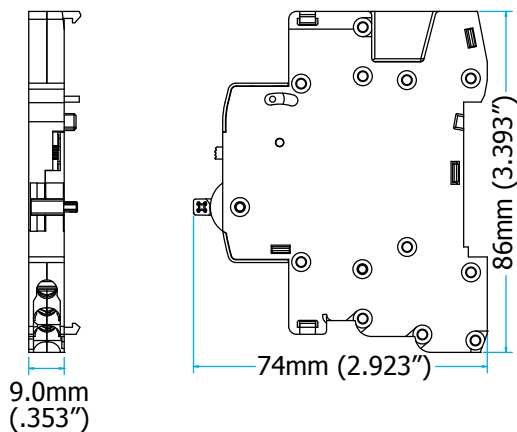


**UL 1077 SUPPLEMENTARY PROTECTOR
CIRCUIT DIAGRAMS**



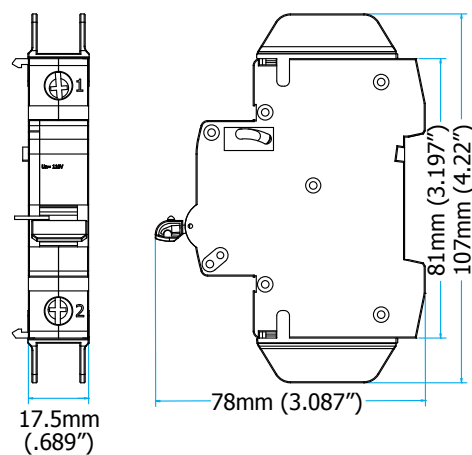
***SIDE MOUNTED
AUXILIARY CONTACT***

1100-SA211



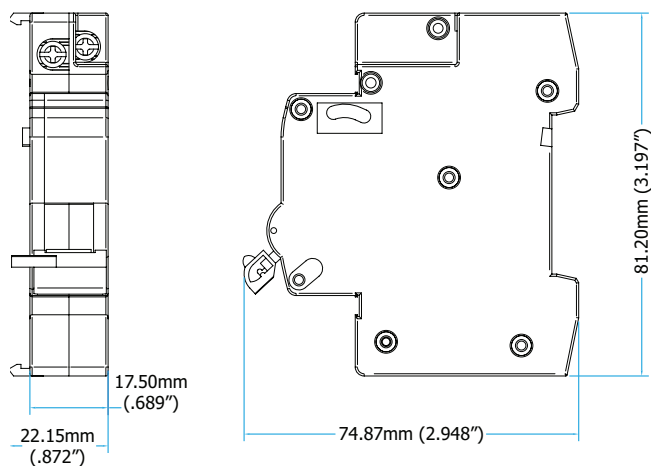
***SIDE MOUNTED
SHUNT-TRIP MODULES***

1100-SRXD & 1100-SRXF



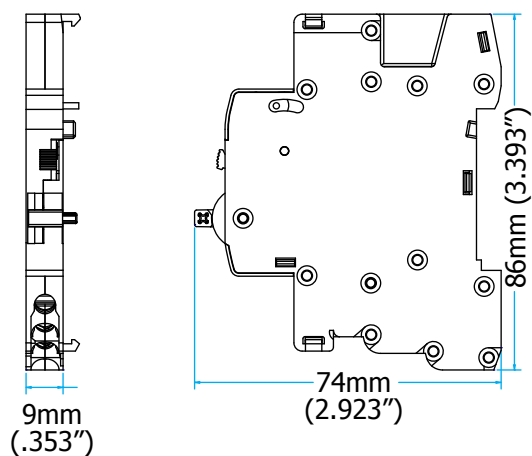
***SIDE MOUNTED
UNDER VOLTAGE MODULES***

1100-URXD & 1100-URXF



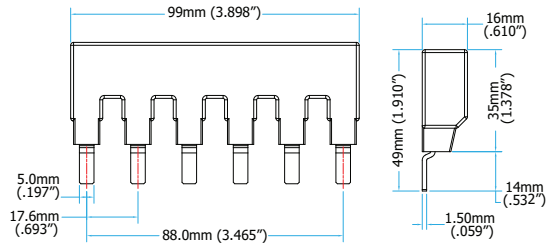
***SIDE MOUNTED AUXILIARY
CONTACTS WITH ALARM***

1100-STA211



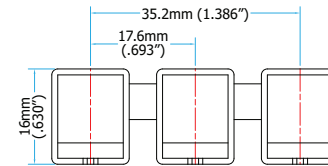
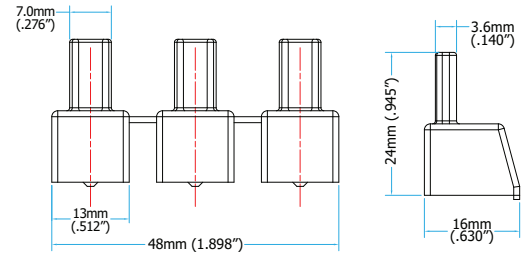
BUS BARS - 115A, 6 PINS
(1100-B2M061, B2M062 & B2M063)

FOR USE WITH UL 489 DEVICES



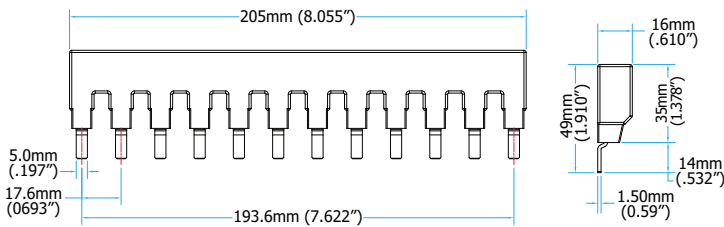
PROTECTIVE SHROUD

1100-B2MPS



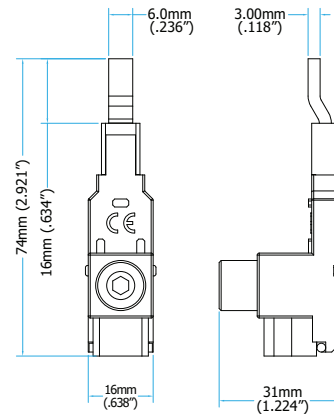
BUS BARS - 115A, 12 PINS
(1100-B2M121, B2M122 & B2M123)

FOR USE WITH UL 489 DEVICES



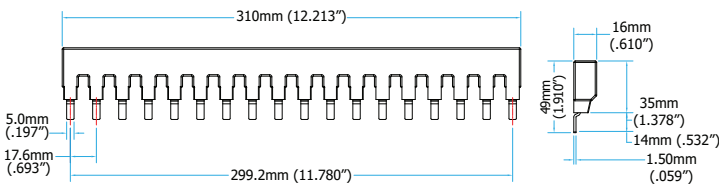
TERMINAL POWER FEED

1100-B2MTF



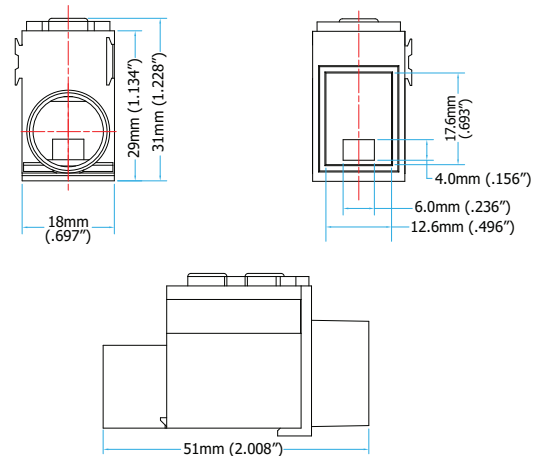
BUS BARS - 115A, 18 PINS
(1100-B2M181, B2M182 & B2M183)

FOR USE WITH UL 489 DEVICES



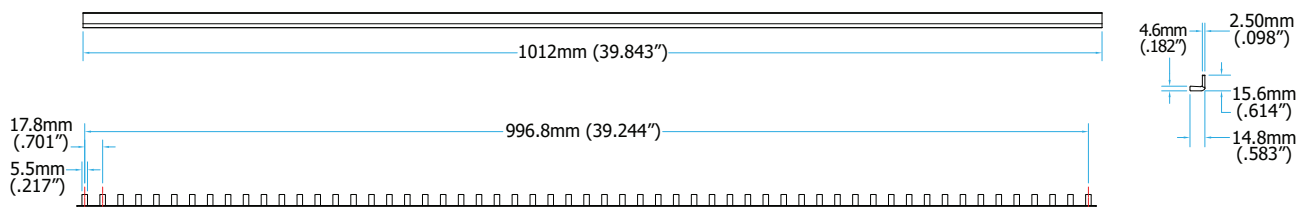
DEDICATED POWER FEED

1100-B2MDF

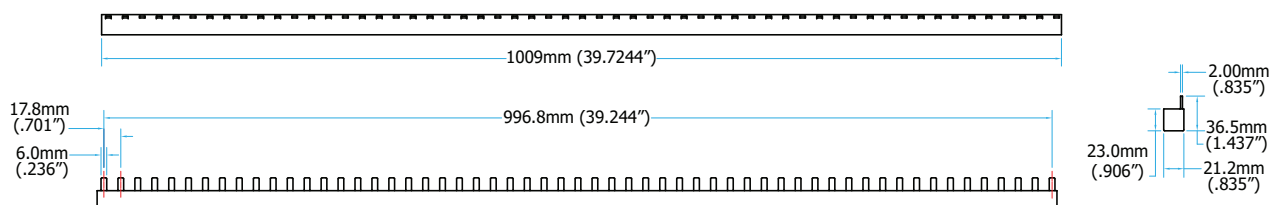


BUS BARS - 100A, 57 PINS

1100-B2S571 (FOR USE WITH UL 1077 1-POLE DEVICES)

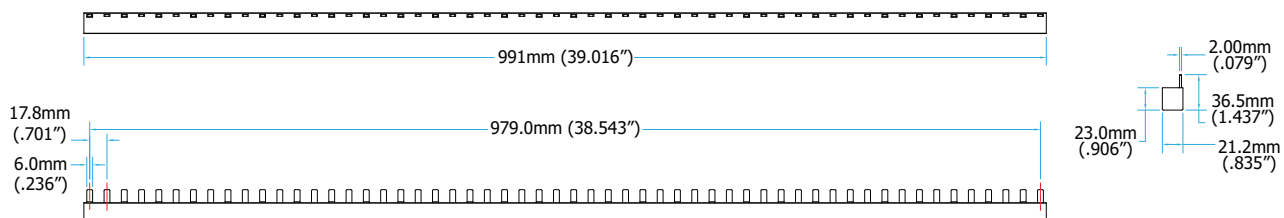


1100-B2S573 (FOR USE WITH UL 1077 3-POLE DEVICES)



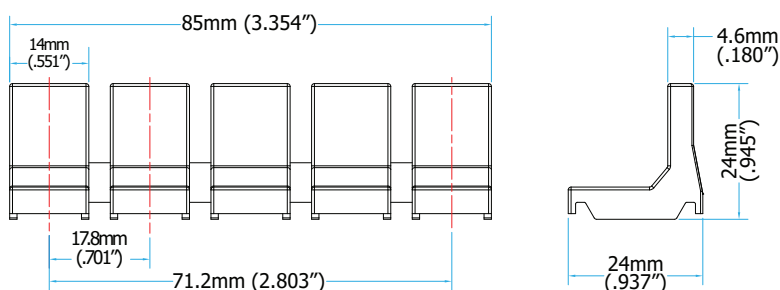
BUS BARS - 100A, 56 PINS

1100-B2S562 (FOR USE WITH UL 1077 2-POLE DEVICES)



PROTECTIVE SHROUD

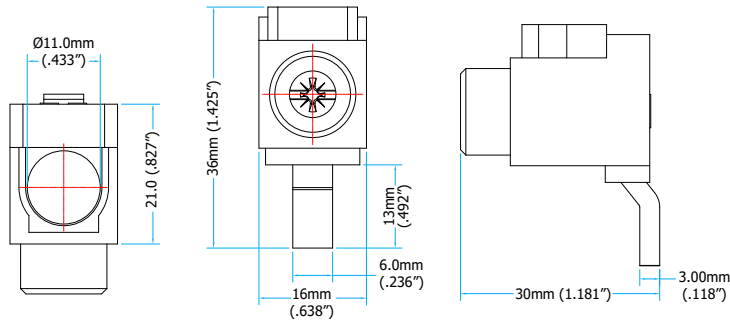
1100-B2SPS



TERMINAL POWER FEED

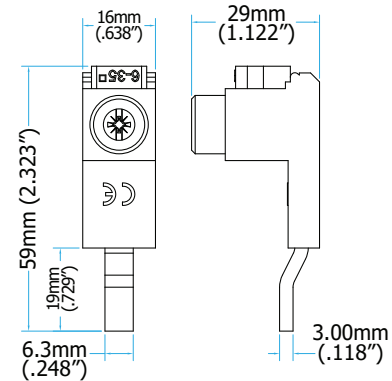
1100-B2STF1

(FOR USE WITH BUS BARS FOR 1-POLE DEVICES)



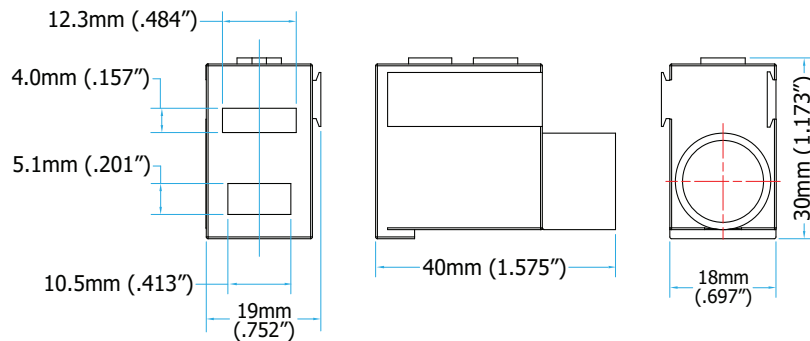
1100-B2STF23

(FOR USE WITH BUS BARS FOR 2 & 3-POLE DEVICES)



DEDICATED POWER FEED

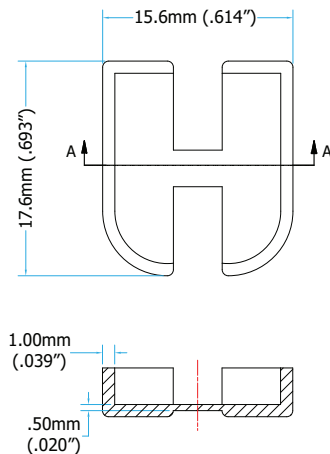
1100-B2SDF



END CAPS

1100-B2SEC1

(FOR USE WITH BUS BARS FOR 1-POLE DEVICES)



1100-B2SEC23

(FOR USE WITH BUS BARS FOR 2 & 3-POLE DEVICES)

