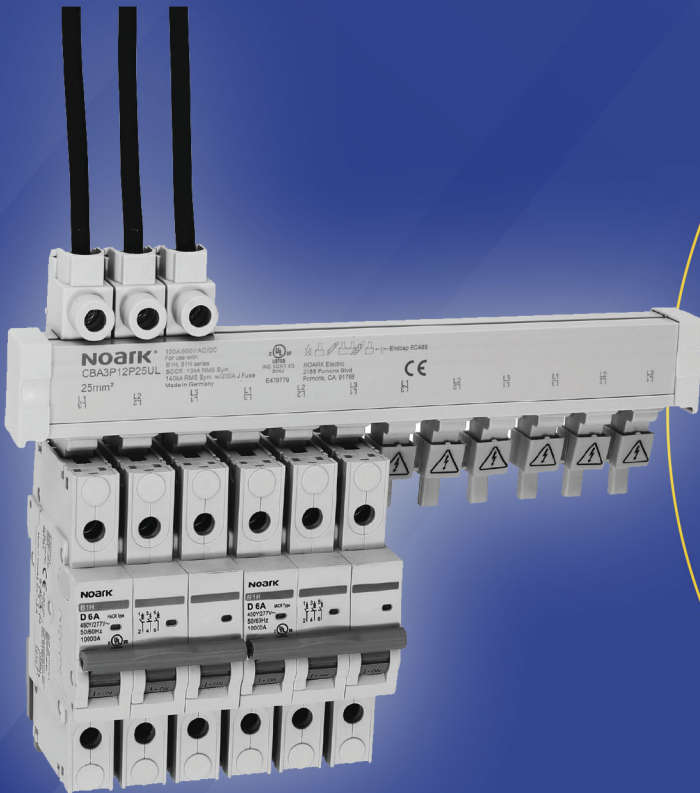




NOARK®

UL 489 Minature Circuit Breakers

ELECTRICAL COMPONENTS



Understanding UL 489 & UL 1077 Devices

Miniature Circuit Breakers (MCBs) provide control as well as thermo-magnetic overcurrent (trip) protection. The key to understanding UL 489 branch protection and UL 1077 supplementary protection requirements is to first understand how to identify the products, the applications they can be used for, and the importance of selecting the correct device in compliance with UL standards and electrical codes.

- A UL 489 device can be used as branch circuit protection or supplementary protection
- UL 1077 devices are only acceptable for providing supplementary protection where there is an upstream branch circuit protection

UL 489 Circuit Breakers and Branch Circuit Overcurrent Devices

The National Electrical Code (NEC) defines a branch circuit as the circuit between the final overcurrent device protecting the circuit and the outlets. An UL 489 circuit breaker intervenes automatically on both overload and short circuit conditions. It also protects wires and cables against overload and short circuit. UL 489 circuit breaker used for branch circuit protection.

UL 489 Circuit Breaker Applications:

- Receptacles and branch lighting
- Control Panels
- Downstream load circuits
- Uninterruptible power supply (UPS)
- Relays
- Heating, ventilation, air conditioning and refrigeration equipment (HVAC/R)
- Variable frequency drives (VFD)
- Branch Circuit Protection
- Motor control circuits
- Power supplies
- Control instrumentation
- Power conditioners



UL 1077 Supplementary Protectors & Overcurrent Devices

An UL 1077 Supplementary Protector is a manually re-settable device designed to open the circuit automatically at a predetermined value over current or voltage in a circuit. A supplementary protective device is intended to provide limited overcurrent protection for specific applications and utilization equipment such as cabinet lighting and appliances.

Note: only use UL 1077 to protect circuits inside the equipment that do not feed external circuits.

UL 1077 Applications:

- Cabinet Lighting
- Appliances
- Control Power Transformers
- Relays
- Control Circuits



Contact ITC for more information regarding UL 1077 supplementary protection MCBs.

Disclaimer: Proper Sizing of an overcurrent protection device is the responsibility of the customer and should be determined using the application standards of the CEC, NEC, or other applicable standards.

UL 489 MCB Product Overview

ITC's UL 489 MCBs are available in three types depending on voltage rating: N-B1N, N-B1H, and N-B1NQ. The B1 UL 489 miniature circuit breakers series are available in a complete range of amperages from 0.5A to 63A. Standard interrupting capacity is 10 kA at 480Y/277 Vac and 10 kA at 125 Vdc.

Features and Specifications:

- Breakers mount on standard 35 mm DIN rail
- Contact position indicator (red/green)
- Field mountable accessories
- **Standard connection:** Cable clamps
 - Available accessory N-RTT31N for ring terminals
- **Module width:** 18mm (0.71") per pole
- Can be used in UL 1077 or CSA C22.2 No.235 applications
- **3 protection curves:** C, D, B



Approvals:

- UL 489, file #E355392
- UL listed to UL489 and CSA Standard C22.2 No. 5 for branch circuit protection
- IEC 60947-2 standard for industrial applications of circuit protection

UL 489 Technical Data - Series N-B1N, N-B1H & N-B1NQ

Standard	N-B1N			N-B1H			N-B1NQ		
	UL 489								
Number of Poles	1	2	3	1	2	3	1	2	
Rated Operational Voltage (V)	240 Vac 60 Vdc	240 Vac 125 Vdc	240 Vac	480Y/277 Vac			120/240 Vac		
Rated Frequency (Hz)	50/60								
Rated Current (A)	0.5-63			0.5-32			1-63		
Instantaneous Tripping Type-Protection curves	B (3-5 In), C (5-10 In), D (10-20 In)								
Interrupting (kA)	120 Vac	10	-	10	-	10	10		
	240 Vac	10			-		-	-	
	277 Vac	-		-		-			
	480Y/277 Vac	-		-		-			
	60 Vdc	10	10	-		-			
125 Vdc	-	10	-		-				
Inverse Time-Delay Over-Current Release Type	Thermal-Magnetic								
Service Life	Electrical	10,000						6,000	
	Mechanical	20,000						10,000	
Protection Degree	IP 20								
Wire AWG*	Single Wire	18-4							
	Two Wires	#18-6 / #14-10							
Operating Temperature Range	-22 °F to 167 °F (-30 °C to +75 °C)								
Insulation Coordination	Rated Insulation Voltage (Vac)	500							
	Rated Impulse Withstand Voltage (kV)	6							
Pollution Degree	Class III								
Over Voltage Category	Class III								
Mounting	35 mm DIN rail / Flush and surface mount available on N-B1NQ with the use of additional mounting clips								
Altitude ft (m)	<6,561 (2,000)								
Environmental Conditions	At 68 °F (+20), the relative humidity does not exceed 90% At 104 °F (+40), the relative humidity does not exceed 50%								

Information subject to change without notice

Protection Curves

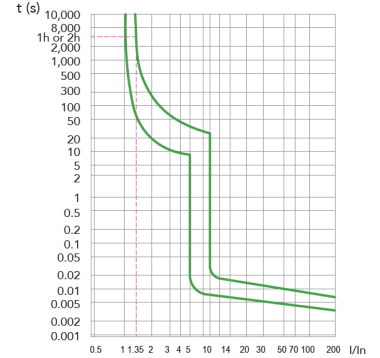
Protection curves indicate the time of intervention of the protection as a function of the value of overcurrent. Miniature circuit breakers have different protection curves to accommodate different applications.

C Curve

In Type C curve applications, the magnetic trip is set between 5-10 times the full-load current. This is the most common protection used for cables, lighting, resistive loads, general purpose applications and when properly sized, for motors.



C Curve (5-10 I_n)

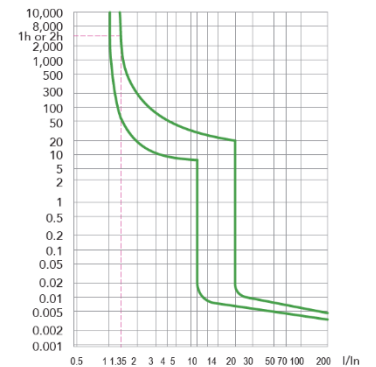


D Curve

Type D curve applications have a higher setting of 10-20 times the full load current due to the inrush current of motor loads and the magnetizing current on the primary of a transformer or solenoid. Application for this curve include motor loads, transformers and solenoids.

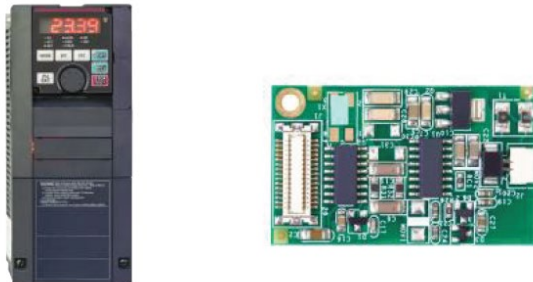


D Curve (10-20 I_n)

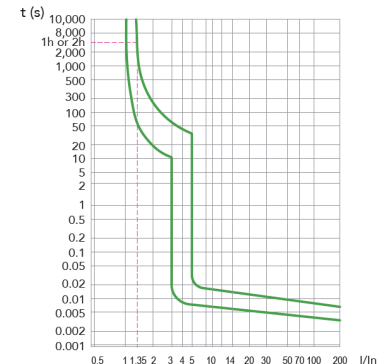


B Curve

Type B curves provide a magnetic trip setting of 3-5 times the full load current. Applications: electronic circuits.



B Curve (3-5 I_n)



Disclaimer: Proper Sizing of an overcurrent protection device is the responsibility of the customer and should be determined using the application standards of the CEC, NEC, or other applicable standards.

Series N-B1N UL 489 240 Vac; 60/125 Vdc 10 kA

N-B1N series of UL 489 MCBs provide 10 kA of interrupting capacity at up to 240Vac and 125Vdc, 1, 2 or 3 poles, 0.5 to 63A.

N-B1N B & C-Curve MCBs (Order by Part Number)

Rated Amperage (A)	1 Pole - 240 Vac / 60 Vdc	2 Poles - 240 Vac / 125 Vdc	3 Poles - 240 Vac	
	Part Number	Part Number	Part Number	
B-Curve (3 ~ 5 In) Electronic	0.5	N-B1N1B0.5	N-B1N2B0.5	N-B1N3B0.5
	1	N-B1N1B1	N-B1N2B1	N-B1N3B1
	1.6	N-B1N1B1.6	N-B1N2B1.6	N-B1N3B1.6
	2	N-B1N1B2	N-B1N2B2	N-B1N3B2
	3	N-B1N1B3	N-B1N2B3	N-B1N3B3
	4	N-B1N1B4	N-B1N2B4	N-B1N3B4
	5	N-B1N1B5	N-B1N2B5	N-B1N3B5
	6	N-B1N1B6	N-B1N2B6	N-B1N3B6
	7	N-B1N1B7	N-B1N2B7	N-B1N3B7
	8	N-B1N1B8	N-B1N2B8	N-B1N3B8
	10	N-B1N1B10	N-B1N2B10	N-B1N3B10
	13	N-B1N1B13	N-B1N2B13	N-B1N3B13
	15	N-B1N1B15	N-B1N2B15	N-B1N3B15
	16	N-B1N1B16	N-B1N2B16	N-B1N3B16
	20	N-B1N1B20	N-B1N2B20	N-B1N3B20
	25	N-B1N1B25	N-B1N2B25	N-B1N3B25
	30	N-B1N1B30	N-B1N2B30	N-B1N3B30
	32	N-B1N1B32	N-B1N2B32	N-B1N3B32
	35	N-B1N1B35	N-B1N2B35	N-B1N3B35
	40	N-B1N1B40	N-B1N2B40	N-B1N3B40
50	N-B1N1B50	N-B1N2B50	N-B1N3B50	
60	N-B1N1B60	N-B1N2B60	N-B1N3B60	
63	N-B1N1B63	N-B1N2B63	N-B1N3B63	
C-Curve (5 ~ 10 In) Standard	0.5	N-B1N1C0.5	N-B1N2C0.5	N-B1N3C0.5
	1	N-B1N1C1	N-B1N2C1	N-B1N3C1
	1.6	N-B1N1C1.6	N-B1N2C1.6	N-B1N3C1.6
	2	N-B1N1C2	N-B1N2C2	N-B1N3C2
	3	N-B1N1C3	N-B1N2C3	N-B1N3C3
	4	N-B1N1C4	N-B1N2C4	N-B1N3C4
	5	N-B1N1C5	N-B1N2C5	N-B1N3C5
	6	N-B1N1C6	N-B1N2C6	N-B1N3C6
	7	N-B1N1C7	N-B1N2C7	N-B1N3C7
	8	N-B1N1C8	N-B1N2C8	N-B1N3C8
	10	N-B1N1C10	N-B1N2C10	N-B1N3C10
	13	N-B1N1C13	N-B1N2C13	N-B1N3C13
	15	N-B1N1C15	N-B1N2C15	N-B1N3C15
	16	N-B1N1C16	N-B1N2C16	N-B1N3C16
	20	N-B1N1C20	N-B1N2C20	N-B1N3C20
	25	N-B1N1C25	N-B1N2C25	N-B1N3C25
	30	N-B1N1C30	N-B1N2C30	N-B1N3C30
	32	N-B1N1C32	N-B1N2C32	N-B1N3C32
	35	N-B1N1C35	N-B1N2C35	N-B1N3C35
	40	N-B1N1C40	N-B1N2C40	N-B1N3C40
50	N-B1N1C50	N-B1N2C50	N-B1N3C50	
60	N-B1N1C60	N-B1N2C60	N-B1N3C60	
63	N-B1N1C63	N-B1N2C63	N-B1N3C63	

Information subject to change without notice

Continued...



N-B1N series D Curve MCBs (Order by Part Number)



Rated Amperage (A)	1 Pole - 240 Vac / 60 Vdc	2 Poles - 240 Vac / 125 Vdc	3 Poles - 240 Vac	
	Part Number	Part Number	Part Number	
D-Curve (10-20 In) Inductive	0.5	N-B1N1D0.5	N-B1N2D0.5	N-B1N3D0.5
	1	N-B1N1D1	N-B1N2D1	N-B1N3D1
	1.6	N-B1N1D1.6	N-B1N2D1.6	N-B1N3D1.6
	2	N-B1N1D2	N-B1N2D2	N-B1N3D2
	3	N-B1N1D3	N-B1N2D3	N-B1N3D3
	4	N-B1N1D4	N-B1N2D4	N-B1N3D4
	5	N-B1N1D5	N-B1N2D5	N-B1N3D5
	6	N-B1N1D6	N-B1N2D6	N-B1N3D6
	7	N-B1N1D7	N-B1N2D7	N-B1N3D7
	8	N-B1N1D8	N-B1N2D8	N-B1N3D8
	10	N-B1N1D10	N-B1N2D10	N-B1N3D10
	13	N-B1N1D13	N-B1N2D13	N-B1N3D13
	15	N-B1N1D15	N-B1N2D15	N-B1N3D15
	16	N-B1N1D16	N-B1N2D16	N-B1N3D16
	20	N-B1N1D20	N-B1N2D20	N-B1N3D20
	25	N-B1N1D25	N-B1N2D25	N-B1N3D25
	30	N-B1N1D30	N-B1N2D30	N-B1N3D30
	32	N-B1N1D32	N-B1N2D32	N-B1N3D32
	35	N-B1N1D0.5	N-B1N2D0.5	N-B1N3D0.5
	40	N-B1N1D1	N-B1N2D1	N-B1N3D1
50	N-B1N1D1.6	N-B1N2D1.6	N-B1N3D1.6	
60	N-B1N1D2	N-B1N2D2	N-B1N3D2	
63	N-B1N1D3	N-B1N2D3	N-B1N3D3	

Information subject to change without notice



Series N-B1H UL 489 480Y/277Vac; 10 kA

N-B1H series of UL 489 MCBs provide 10 kA of interrupting capacity at up to 480Y/277Vac, 1, 2, or 3 poles, 0.5 to 32A.

N-B1H series B & C Curve MCBs (Order by Part Number)

Rated Amperage (A)	1 Pole	2 Poles	3 Poles	
	Part Number	Part Number	Part Number	
B-Curve (3-5 I20 In) Inductive	0.5	N-B1H1B0.5	N-B1H2D0.5	N-B1H3D0.5
	1	N-B1H1B1	N-B1H2D1	N-B1H3D1
	1.6	N-B1H1B1.6	N-B1H2D1.6	N-B1H3D1.6
	2	N-B1H1B2	N-B1H2D2	N-B1H3D2
	3	N-B1H1B3	N-B1H2D3	N-B1H3D3
	4	N-B1H1B4	N-B1H2D4	N-B1H3D4
	5	N-B1H1B5	N-B1H2D5	N-B1H3D5
	6	N-B1H1B6	N-B1H2D6	N-B1H3D6
	7	N-B1H1B7	N-B1H2D7	N-B1H3D7
	8	N-B1H1B8	N-B1H2D8	N-B1H3D8
	10	N-B1H1B10	N-B1H2D10	N-B1H3D10
	13	N-B1H1B13	N-B1H2D13	N-B1H3D13
	15	N-B1H1B15	N-B1H2D15	N-B1H3D15
	16	N-B1H1B16	N-B1H2D16	N-B1H3D16
	20	N-B1H1B20	N-B1H2D20	N-B1H3D20
	25	N-B1H1B25	N-B1H2D25	N-B1H3D25
30	N-B1H1B30	N-B1H2D30	N-B1H3D30	
32	N-B1H1B32	N-B1H2D32	N-B1H3D32	
C-Curve (5-10 In) Inductive	0.5	N-B1H1C0.5	N-B1H2D0.5	N-B1H3D0.5
	1	N-B1H1C1	N-B1H2D1	N-B1H3D1
	1.6	N-B1H1C1.6	N-B1H2D1.6	N-B1H3D1.6
	2	N-B1H1C2	N-B1H2D2	N-B1H3D2
	3	N-B1H1C3	N-B1H2D3	N-B1H3D3
	4	N-B1H1C4	N-B1H2D4	N-B1H3D4
	5	N-B1H1C5	N-B1H2D5	N-B1H3D5
	6	N-B1H1C6	N-B1H2D6	N-B1H3D6
	7	N-B1H1C7	N-B1H2D7	N-B1H3D7
	8	N-B1H1C8	N-B1H2D8	N-B1H3D8
	10	N-B1H1C10	N-B1H2D10	N-B1H3D10
	13	N-B1H1C13	N-B1H2D13	N-B1H3D13
	15	N-B1H1C15	N-B1H2D15	N-B1H3D15
	16	N-B1H1C16	N-B1H2D16	N-B1H3D16
	20	N-B1H1C20	N-B1H2D20	N-B1H3D20
	25	N-B1H1C25	N-B1H2D25	N-B1H3D25
30	N-B1H1C30	N-B1H2D30	N-B1H3D30	
32	N-B1H1C32	N-B1H2D32	N-B1H3D32	
D-Curve (10-20 In) Inductive	0.5	N-B1H1D0.5	N-B1H2D0.5	N-B1H3D0.5
	1	N-B1H1D1	N-B1H2D1	N-B1H3D1
	1.6	N-B1H1D1.6	N-B1H2D1.6	N-B1H3D1.6
	2	N-B1H1D2	N-B1H2D2	N-B1H3D2
	3	N-B1H1D3	N-B1H2D3	N-B1H3D3
	4	N-B1H1D4	N-B1H2D4	N-B1H3D4
	5	N-B1H1D5	N-B1H2D5	N-B1H3D5
	6	N-B1H1D6	N-B1H2D6	N-B1H3D6
	7	N-B1H1D7	N-B1H2D7	N-B1H3D7
	8	N-B1H1D8	N-B1H2D8	N-B1H3D8
	10	N-B1H1D10	N-B1H2D10	N-B1H3D10
	13	N-B1H1D13	N-B1H2D13	N-B1H3D13
	15	N-B1H1D15	N-B1H2D15	N-B1H3D15
	16	N-B1H1D16	N-B1H2D16	N-B1H3D16
	20	N-B1H1D20	N-B1H2D20	N-B1H3D20
	25	N-B1H1D25	N-B1H2D25	N-B1H3D25
30	N-B1H1D30	N-B1H2D30	N-B1H3D30	
32	N-B1H1D32	N-B1H2D32	N-B1H3D32	



Information subject to change without notice



Series N-B1NQ UL 489 120/240 Vac 10 kA



N-B1NQ series of UL 489 MCBs provide 10 kA of interrupting capacity at up to 120/240Vac, 1 or 2 poles, 0.5 to 63A.

N-B1NQ series MCB (Order by Part Number)

Rated Amperage (A)	1 Pole - 120/240 Vac	2 Poles - 120/240 Vac	
	Part Number	Part Number	
B-Curve (3-5 In) Standard	0.5	N-B1NQ1B0.5	N-B1NQ2B0.5
	1	N-B1NQ1B1	N-B1NQ2B1
	1.6	N-B1NQ1B1.6	N-B1NQ2B1.6
	2	N-B1NQ1B2	N-B1NQ2B2
	3	N-B1NQ1B3	N-B1NQ2B3
	4	N-B1NQ1B4	N-B1NQ2B4
	5	N-B1NQ1B5	N-B1NQ2B5
	6	N-B1NQ1B6	N-B1NQ2B6
	8	N-B1NQ1B8	N-B1NQ2B8
	10	N-B1NQ1B10	N-B1NQ2B10
	13	N-B1NQ1B13	N-B1NQ2B13
	15	N-B1NQ1B15	N-B1NQ2B15
	16	N-B1NQ1B16	N-B1NQ2B16
	20	N-B1NQ1B20	N-B1NQ2B20
	25	N-B1NQ1B25	N-B1NQ2B25
	30	N-B1NQ1B30	N-B1NQ2B30
	32	N-B1NQ1B32	N-B1NQ2B32
	35	N-B1NQ1B35	N-B1NQ2B35
	40	N-B1NQ1B40	N-B1NQ2B40
45	N-B1NQ1B45	N-B1NQ2B45	
50	N-B1NQ1B50	N-B1NQ2B50	
60	N-B1NQ1B60	N-B1NQ2B60	
63	N-B1NQ1B63	N-B1NQ2B63	
C-Curve (5-10 In) Inductive	0.5	N-B1NQ1C0.5	N-B1NQ2C1
	1	N-B1NQ1C1	N-B1NQ2C1
	1.6	N-B1NQ1C1.6	N-B1NQ2C1.6
	2	N-B1NQ1C2	N-B1NQ2C2
	3	N-B1NQ1C3	N-B1NQ2C3
	4	N-B1NQ1C4	N-B1NQ2C4
	5	N-B1NQ1C5	N-B1NQ2C5
	6	N-B1NQ1C6	N-B1NQ2C6
	8	N-B1NQ1C8	N-B1NQ2C8
	10	N-B1NQ1C10	N-B1NQ2C10
	13	N-B1NQ1C13	N-B1NQ2C13
	15	N-B1NQ1C15	N-B1NQ2C15
	16	N-B1NQ1C16	N-B1NQ2C16
	20	N-B1NQ1C20	N-B1NQ2C20
	25	N-B1NQ1C25	N-B1NQ2C25
	30	N-B1NQ1C30	N-B1NQ2C30
	32	N-B1NQ1C32	N-B1NQ2C32
	35	N-B1NQ1C35	N-B1NQ2C35
	40	N-B1NQ1C40	N-B1NQ2C40
45	N-B1NQ1C45	N-B1NQ2C45	
50	N-B1NQ1C50	N-B1NQ2C50	
60	N-B1NQ1C60	N-B1NQ2C60	
63	N-B1NQ1C63	N-B1NQ2C63	

Information subject to change without notice

Continued...

B1NQ series MCB (Order by Part Number)

Rated Amperage (A)	1 Pole - 120/240 Vac	2 Poles - 120/240 Vac	
	Part Number	Part Number	
D-Curve (10 20 In) Inductive	0.5	N-B1NQ1D1	N-B1NQ2D1
	1	N-B1NQ1D1.6	N-B1NQ2D1.6
	1.6	N-B1NQ1D2	N-B1NQ2D2
	2	N-B1NQ1D3	N-B1NQ2D3
	3	N-B1NQ1D4	N-B1NQ2D4
	4	N-B1NQ1D5	N-B1NQ2D5
	5	N-B1NQ1D6	N-B1NQ2D6
	6	N-B1NQ1D8	N-B1NQ2D8
	7	N-B1NQ1D10	N-B1NQ2D10
	8	N-B1NQ1D13	N-B1NQ2D13
	10	N-B1NQ1D15	N-B1NQ2D15
	13	N-B1NQ1D16	N-B1NQ2D16
	15	N-B1NQ1D20	N-B1NQ2D20
	16	N-B1NQ1D25	N-B1NQ2D25
	20	N-B1NQ1D30	N-B1NQ2D30
	25	N-B1NQ1D32	N-B1NQ2D32
	30	N-B1NQ1D35	N-B1NQ2D35
	32	N-B1NQ1D40	N-B1NQ2D40
	35	N-B1NQ1D45	N-B1NQ2D45
	40	N-B1NQ1D50	N-B1NQ2D50
50	N-B1NQ1D60	N-B1NQ2D60	
60	N-B1NQ1D63	N-B1NQ2D63	
63	N-B1NQ1D1	N-B1NQ2D1	

Information subject to change without notice





UL 489 MCB Accessories (Order by Part No.)

Part No.	Description	Technical Information
N-FMC31N*	Flush Mount Clip (N-B1NQ only)	1-Pole
N-AL3111N*	Alarm Switch 1NO+1NC	Ratings (50/60 Hz): Vac 480/277 (3A), 240V (6A); Vdc 250V (0.5A), 125V (1A), 24V (6A)
N-AX3111N*	Auxiliary Contact*1NO+1NC	Ratings (50/60 Hz): Vac 480/277 (3A), 240V (6A); Vdc 250V (0.5A), 125V (1A), 24V (6A)
N-SHT31NC*	Shunt Trip	Voltage: 12-24 Vac/dc
N-SHT31NB*	Shunt Trip	Voltage: 48-60 Vac/dc
N-SHT31NA*	Shunt Trip	Voltage: 110-415 Vac/110-130 Vdc
N-SHT3111NC*	Shunt Trip	Voltage: 12-24 Vac/dc; Auxiliary contact: 1NO + 1NC
N-SHT3111NB*	Shunt Trip	Voltage: 48-60 Vac/dc; Auxiliary contact: 1NO + 1NC
N-SHT3111NA*	Shunt Trip	Voltage: 110-415 Vac/110-130 Vdc; Auxiliary contact: 1NO + 1NC
N-UVT3101NA*	Under Voltage Trip	Voltage 240 Vac; Auxiliary contact: ; Auxiliary contact: 1NC
N-UVT3101NB*	Under Voltage Trip	Voltage 48 Vac/dc; Auxiliary contact: 1NC
N-UVT3101NC*	Under Voltage Trip	Voltage 120 Vac; Auxiliary contact: 1NC
N-UVT3110NA*	Under Voltage Trip	Voltage 240 Vac; Auxiliary contact: 1NO
N-UVT3110NB*	Under Voltage Trip	Voltage 48 Vac/dc; Auxiliary contact: 1NO
N-UVT3110NC*	Under Voltage Trip	Voltage 120 Vac; Auxiliary contact: 1NO
N-UVT31NA*	Under Voltage Trip	Voltage 240 Vac
N-UVT31NB*	Under Voltage Trip	Voltage 48 Vac/dc
N-UVT31NC*	Under Voltage Trip	Voltage 120 Vac
N-LK31N*	Padlock*	Lock off only
N-SMC311N*	Surface Mount Clip*	1-Pole
N-SMC312N*	Surface Mount Clip*	2-Pole
N-FMC31N*	Flush Mount Clip	1-Pole (N-B1NQ only)
N-RTT31N	Ring tongue terminal	
111.013	35 mm DIN rail	

Information subject to change without notice;

* Note: These accessories are not compatible with comb bus bar



Auxiliary contact



Shunt / undervoltage Trip



Padlock accessory



Alarm switch



35mm DIN Rail



Flush mount clip



Ring tongue terminal



Surface mount clip 1P

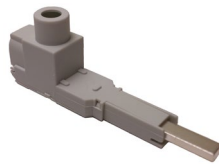
UL 489 MCB Accessories - comb busbars & handles (Order by Part No.)

Part No.	Description	Technical Information
N-CBA1P06P18-UL	Comb busbar, UL489	1 pole, 6 pins, 18mm ²
N-CBA1P12P18-UL	Comb busbar, UL489	1 pole, 12 pins, 18mm ²
N-CBA1P18P18-UL	Comb busbar, UL489	1 pole, 18 pins, 18mm ²
N-CBA1P57P18-UL	Comb busbar, UL489	1 pole, 57 pins, 18mm ²
N-CBA1P06P25-UL	Comb busbar, UL489	1 pole, 6 pins, 25mm ²
N-CBA1P12P25-UL	Comb busbar, UL489	1 pole, 12 pins, 25mm ²
N-CBA1P18P25-UL	Comb busbar, UL489	1 pole, 18 pins, 25mm ²
N-CBA1P57P25-UL	Comb busbar, UL489	1 pole, 57 pins, 25mm ²
N-CBA2P06P18-UL	Comb busbar, UL489	2 pole, 6 pins, 18mm ²
N-CBA2P12P18-UL	Comb busbar, UL489	2 pole, 12 pins, 18mm ²
N-CBA2P18P18-UL	Comb busbar, UL489	2 pole, 18 pins, 18mm ²
N-CBA2P57P18-UL	Comb busbar, UL489	2 pole, 57 pins, 18mm ²
N-CBA2P06P25-UL	Comb busbar, UL489	2 pole, 6 pins, 25mm ²
N-CBA2P12P25-UL	Comb busbar, UL489	2 pole, 12 pins, 25mm ²
N-CBA2P18P25-UL	Comb busbar, UL489	2 pole, 18 pins, 25mm ²
N-CBA2P57P25-UL	Comb busbar, UL489	2 pole, 57 pins, 25mm ²
N-CBA3P06P18UL	Comb busbar, UL489	3 pole, 6 pins, 18mm ²
N-CBA3P12P18UL	Comb busbar, UL489	3 pole, 12 pins, 18mm ²
N-CBA3P18P18UL	Comb busbar, UL489	3 pole, 18 pins, 18mm ²
N-CBA3P57P18UL	Comb busbar, UL489	3 pole, 57 pins, 18mm ²
N-CBA3P06P25UL	Comb busbar, UL489	3 pole, 6 pins, 25mm ²
N-CBA3P12P25UL	Comb busbar, UL489	3 pole, 12 pins, 25mm ²
N-CBA3P18P25UL	Comb busbar, UL489	3 pole, 18 pins, 25mm ²
N-CBA3P57P25UL	Comb busbar, UL489	3 pole, 57 pins, 25mm ²
N-FD35-UL	Comb Bus Bar Top Feed Terminal, UL 489	35 mm ²
N-EC489	Comb busbar Endcap, UL 489	
N-FD50-UL	Comb busbar Bottom Feed Terminal, UL 489	50 mm ²
N-PC489	Comb busbar Protective Caps, UL 489	
N-ERH31L1	Extended Rotary Handle, UL 489	W/ door interlock, 254mm / 10" shaft, Gray/Green
N-ERH31L2	Extended Rotary Handle, UL 489	W/ door interlock, 254mm / 10" shaft, Red/Yellow
N-ERH31S1	Extended Rotary Handle, UL 489	W/outdoor interlock, 152mm / 6" shaft, Gray/Green
N-ERH31S2	Extended Rotary Handle, UL 489	W/outdoor interlock, 152mm / 6" shaft, Red/Yellow

Information subject to change without notice



UL489 Comb Busbar



Top feed Terminal N-FD35



Top feed Terminal N-FD50



Extended rotary handle



ELECTRICAL COMPONENTS

416.663.7223
 www.itcproducts.com
 50 Mural St Unit 8
 Richmond Hill, ON L4B 1E4



DIN Rail



DIN Rail Accessories



Non-Metallic Enclosures



Hinged Enclosures



Thermal Management



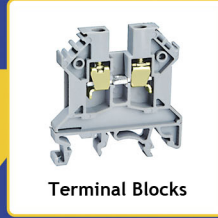
PANEL Lighting



Multipole Connectors



Compact IP68 Connectors



Terminal Blocks



Terminal Strips



22.5mm Pushbuttons



LED Indicators



Control Stations



Limit Switches



Micro Limit Switches



Safety Switches



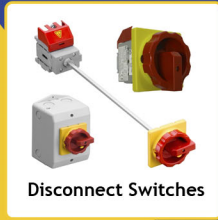
Foot Switches



Circuit Breakers



IEC Contactors



Disconnect Switches



Midget and CC Fuse Holders



Tower Lights



Power Continuity



Ferrules



Colour Coded Lugs



Crimp Terminals



Termination Kits



Cable Glands



Thread Adapters



Cable Entry Systems



Wire Management



DIN Rail Cutters



Assembly Tables



Cutting & Stripping



Crimping Tools



Hole Cutting & Punching Tools

SOME OF OUR MANUFACTURING PARTNERS

