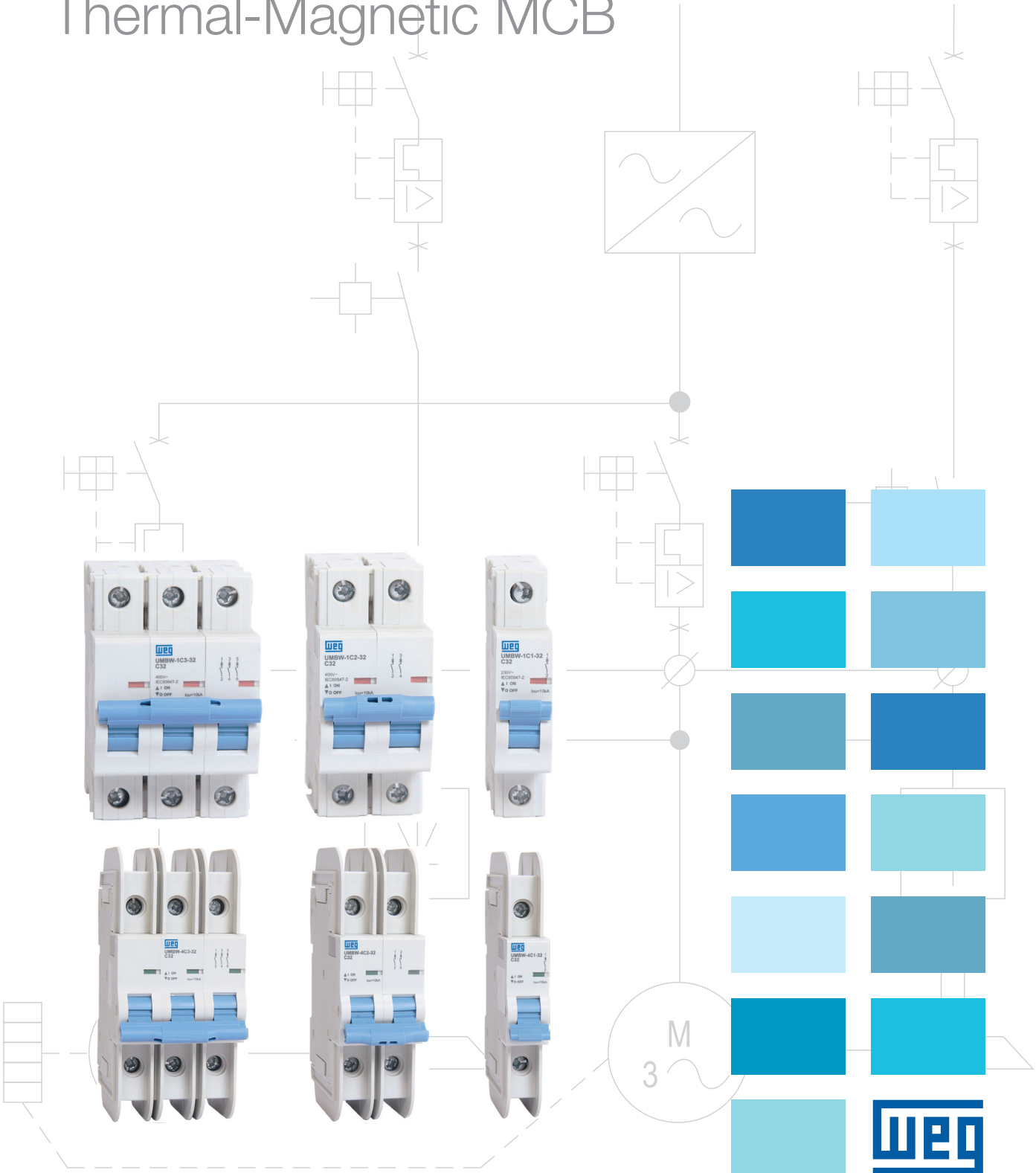


UMBW

UL489 and UL1077 Thermal-Magnetic MCB



UMBW SERIES MCB

UL489 AND UL1077

Circuit Protection

Overview:

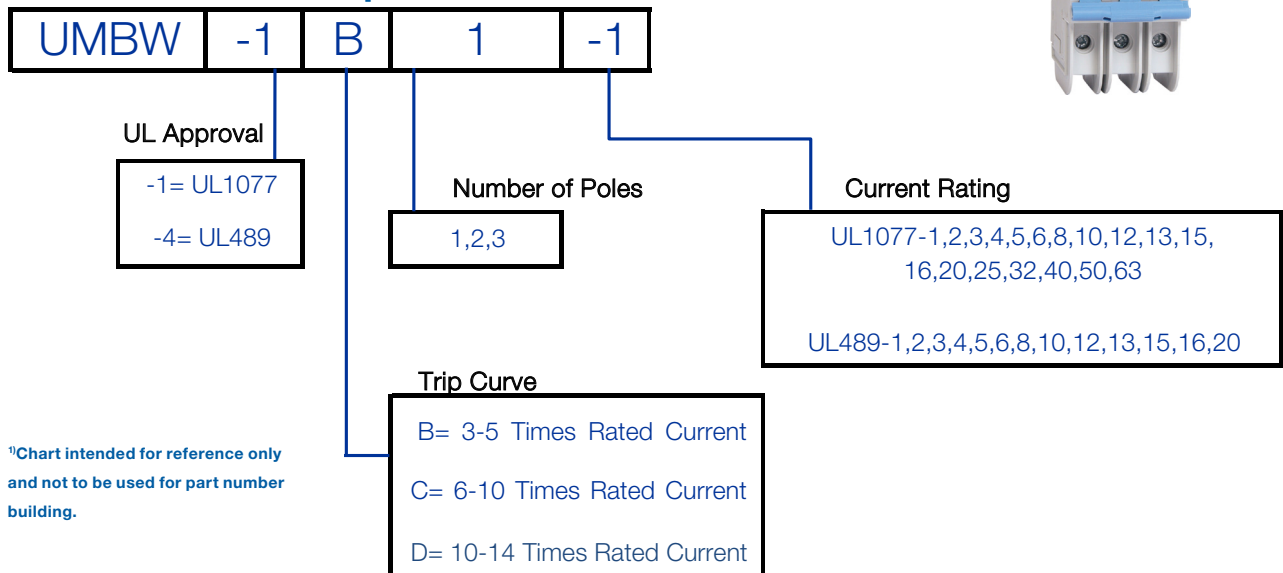
Single pole and multi-pole thermal-magnetic miniature circuit breakers (MCBs) in accordance with EN 60947-2, UL 1077 and UL 489 for DIN rail mounting with toggle actuation, visual status indication and high interrupt capacity. A positively trip-free snap action mechanism ensures reliable switching behavior. A range of trip characteristics and add-on accessories make the UMBW suitable for a variety of applications.

Technical Data:

Current rating & rated voltage	
IEC/EN 60974-2	1...63A 1P (AC 230 V); 2P, 3P (AC 400V)
UL 1077	1...63 A 1P (AC 277 V) 2P, 3P (AC 480Y/277V)
UL 489	1...32A 1P (AC 120 V); 2P, 3P (AC 240 V) 1...20 A 1P (AC 277 V) 2P, 3P (AC 480Y/277V) 1...32 A 1P (DC 60V); 2P (DC 125 V)
Trip Curves	B, C, D (according to EN 60947-2)






Part Number Description ¹⁾






UMBW SERIES MCB

UL489 CIRCUIT PROTECTION

UMBW-4 Series UL 489		B CURVE	C CURVE	D CURVE		
Number Poles	Ampacity	Part number			Max Voltage	List Price
1 POLE 	1	UMBW-4B1-1	UMBW-4C1-1	UMBW-4D1-1		
	2	UMBW-4B1-2	UMBW-4C1-2	UMBW-4D1-2		
	4	UMBW-4B1-4	UMBW-4C1-4	UMBW-4D1-4		
	6	UMBW-4B1-6	UMBW-4C1-6	UMBW-4D1-6	277 VAC / 60 VDC	
	10	UMBW-4B1-10	UMBW-4C1-10	UMBW-4D1-10		\$53.00
	16	UMBW-4B1-16	UMBW-4C1-16	UMBW-4D1-16		
	20	UMBW-4B1-20	UMBW-4C1-20	UMBW-4D1-20		
	25	UMBW-4B1-25	UMBW-4C1-25	UMBW-4D1-25	120 VAC / 60 VDC	
	32	UMBW-4B1-32	UMBW-4C1-32	UMBW-4D1-32		
	2 POLE 	1	UMBW-4B2-1	UMBW-4C2-1	UMBW-4D2-1	
2		UMBW-4B2-2	UMBW-4C2-2	UMBW-4D2-2		
4		UMBW-4B2-4	UMBW-4C2-4	UMBW-4D2-4		
6		UMBW-4B2-6	UMBW-4C2-6	UMBW-4D2-6	277/480 VAC 125 VDC	
10		UMBW-4B2-10	UMBW-4C2-10	UMBW-4D2-10		\$107.00
16		UMBW-4B2-16	UMBW-4C2-16	UMBW-4D2-16		
20		UMBW-4B2-20	UMBW-4C2-20	UMBW-4D2-20		
25		UMBW-4B2-25	UMBW-4C2-25	UMBW-4D2-25	240 VAC / 125 VDC	
32		UMBW-4B2-32	UMBW-4C2-32	UMBW-4D2-32		
3 POLE 		1	UMBW-4B3-1	UMBW-4C3-1	UMBW-4D3-1	
	2	UMBW-4B3-2	UMBW-4C3-2	UMBW-4D3-2		
	4	UMBW-4B3-4	UMBW-4C3-4	UMBW-4D3-4		
	6	UMBW-4B3-6	UMBW-4C3-6	UMBW-4D3-6	277/480 VAC 125 VDC	
	10	UMBW-4B3-10	UMBW-4C3-10	UMBW-4D3-10		\$158.00
	16	UMBW-4B3-16	UMBW-4C3-16	UMBW-4D3-16		
	20	UMBW-4B3-20	UMBW-4C3-20	UMBW-4D3-20		
	25	UMBW-4B3-25	UMBW-4C3-25	UMBW-4D3-25	240 VAC / 125 VDC	
	32	UMBW-4B3-32	UMBW-4C3-32	UMBW-4D3-32		
	Accessories	UMBW-AUX	UMBW AUXILIARY CONTACT 1NC			
UMBW-BAC		UMBW BELL ALARM CONTACT 1NC/1NO				\$68.00
UMBW-ST12DC		UMBW SHUNT TRIP 1NC/NO 12VDC				\$95.00
UMBW-ST24DC		UMBW SHUNT TRIP 1NC/1NO 24VDC				\$95.00
UMBW-ST120AC		UMBW SHUNT TRIP 1NC/1NO 120VAC				\$95.00
UMBW-ST240AC		UMBW SHUNT TRIP 1NC/1NO 240VAC				\$95.00



UMBW SERIES MCB UL1077 CIRCUIT PROTECTION

UMBW-1 Series UL 1077		B CURVE	C CURVE	D CURVE		
Number Poles	Ampacity	Part number			Max Voltage	List Price
1 POLE 	1	UMBW-1B1-1	UMBW-1C1-1	UMBW-1D1-1		
	2	UMBW-1B1-2	UMBW-1C1-2	UMBW-1D1-2		
	4	UMBW-1B1-4	UMBW-1C1-4	UMBW-1D1-4		
	6	UMBW-1B1-6	UMBW-1C1-6	UMBW-1D1-6		
	10	UMBW-1B1-10	UMBW-1C1-10	UMBW-1D1-10		
	16	UMBW-1B1-16	UMBW-1C1-16	UMBW-1D1-16	277 VAC	\$25.00
	20	UMBW-1B1-20	UMBW-1C1-20	UMBW-1D1-20		
	25	UMBW-1B1-25	UMBW-1C1-25	UMBW-1D1-25		
	32	UMBW-1B1-32	UMBW-1C1-32	UMBW-1D1-32		
	40	UMBW-1B1-40	UMBW-1C1-40	UMBW-1D1-40		
	50	UMBW-1B1-50	UMBW-1C1-50	UMBW-1D1-50		
	63	UMBW-1B1-63	UMBW-1C1-63	UMBW-1D1-63		
	2 POLE 	1	UMBW-1B2-1	UMBW-1C2-1	UMBW-1D2-1	
2		UMBW-1B2-2	UMBW-1C2-2	UMBW-1D2-2		
4		UMBW-1B2-4	UMBW-1C2-4	UMBW-1D2-4		
6		UMBW-1B2-6	UMBW-1C2-6	UMBW-1D2-6		
10		UMBW-1B2-10	UMBW-1C2-10	UMBW-1D2-10		
16		UMBW-1B2-16	UMBW-1C2-16	UMBW-1D2-16	277/480 VAC	\$48.00
20		UMBW-1B2-20	UMBW-1C2-20	UMBW-1D2-20		
25		UMBW-1B2-25	UMBW-1C2-25	UMBW-1D2-25		
32		UMBW-1B2-32	UMBW-1C2-32	UMBW-1D2-32		
40		UMBW-1B2-40	UMBW-1C2-40	UMBW-1D2-40		
50		UMBW-1B2-50	UMBW-1C2-50	UMBW-1D2-50		
63		UMBW-1B2-63	UMBW-1C2-63	UMBW-1D2-63		
3 POLE 		1	UMBW-1B3-1	UMBW-1C3-1	UMBW-1D3-1	
	2	UMBW-1B3-2	UMBW-1C3-2	UMBW-1D3-2		
	4	UMBW-1B3-4	UMBW-1C3-4	UMBW-1D3-4		
	6	UMBW-1B3-6	UMBW-1C3-6	UMBW-1D3-6		
	10	UMBW-1B3-10	UMBW-1C3-10	UMBW-1D3-10		
	16	UMBW-1B3-16	UMBW-1C3-16	UMBW-1D3-16	277/480 VAC	\$65.00
	20	UMBW-1B3-20	UMBW-1C3-20	UMBW-1D3-20		
	25	UMBW-1B3-25	UMBW-1C3-25	UMBW-1D3-25		
	32	UMBW-1B3-32	UMBW-1C3-32	UMBW-1D3-32		
	40	UMBW-1B3-40	UMBW-1C3-40	UMBW-1D3-40		
	50	UMBW-1B3-50	UMBW-1C3-50	UMBW-1D3-50		
	63	UMBW-1B3-63	UMBW-1C3-63	UMBW-1D3-63		
	Accessories	UMBW-AUX	UMBW AUXILIARY CONTACT 1NC			
UMBW-BAC		UMBW BELL ALARM CONTACT 1NC/1NO				\$68.00
UMBW-ST12DC		UMBW SHUNT TRIP 1NC/NO 12VDC				\$95.00
UMBW-ST24DC		UMBW SHUNT TRIP 1NC/1NO 24VDC				\$95.00
UMBW-ST120AC		UMBW SHUNT TRIP 1NC/1NO 120VAC				\$95.00
UMBW-ST240AC		UMBW SHUNT TRIP 1NC/1NO 240VAC				\$95.00

UMBW SERIES MCB

UL489 and UL1077 CIRCUIT PROTECTION

Breaker Technical Data

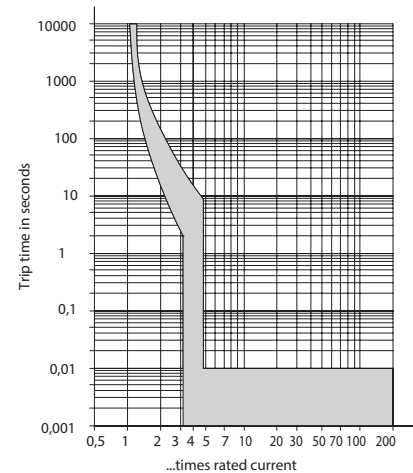
Electrical Ratings

Approval	Poles	Voltage	Ampacity	Interrupting
IEC 60947-2	1 Pole	230VAC	1A - 63A	10kA
	2, 3 Pole	400VAC	1A - 63A	10kA
UL1077	1 Pole	240VAC	1A - 63A	7.5kA
	1 Pole	277VAC	1A - 63A	5kA
	2, 3 Pole	240VAC	1A - 63A	5kA
	2, 3 Pole	480VAC	1A - 63A	5kA
UL489	1 Pole	120VAC	1A - 32A	10kA
	2, 3 Pole	240VAC	1A - 32A	10kA
	2, 3 Pole	480VAC	1A - 20A	10kA
	1 Pole	60VDC	1A - 32A	10kA
	2 Pole	125VDC	1A - 32A	10kA

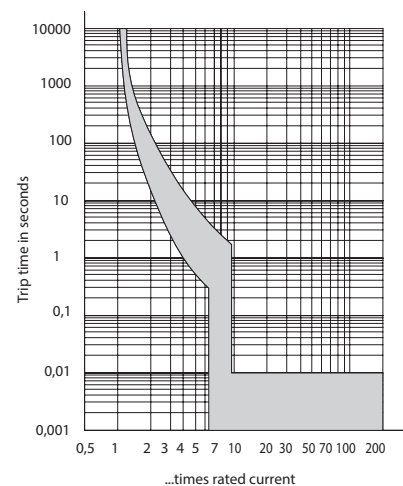
Mechanical Ratings

Torque	2 Nm, 1.48 ft lbs Maximum
Cable Cross Section	35mm sq, 2 Awg Maximum
Ambient Temperature	-35 deg C to +70 deg C
Mass	UL1077 - 116 grams per pole UL489 - 131 grams per pole
Protection Class	IP20
Mechanical Operations	10,000
Vibration (sinusoidal) Test to IEC 60060-2-6 Test to Fc	+/- .38mm (10-57HZ), 5g (57-500HZ) 10 frequency cycles per axis
Shock Test to IEC60068-2-27, Test Ea	30g (11ms)
Corrosion Test to IEC60068-2-11 Test Ka	96hrs in 5% salt mist
Humidity Test to IEC60068-2-78 Test Cab	48hrs at 95% RH, Temp +40 deg C
Terminals	Screw with Bus Bar Connections

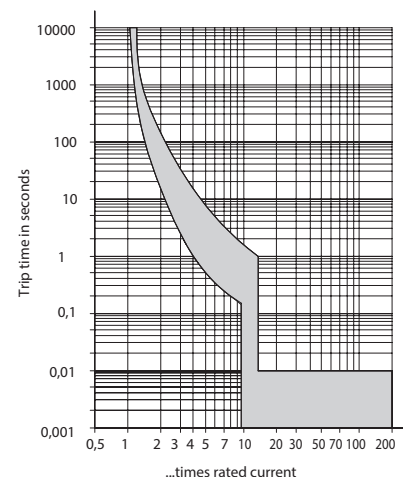
B Curve



C Curve



D Curve



UMBW SERIES MCB

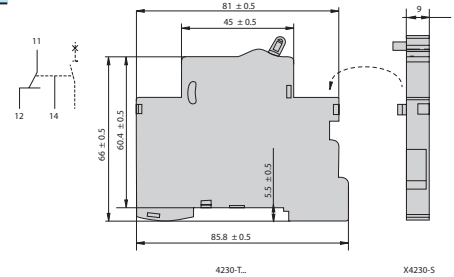
UL489 and UL1077 CIRCUIT PROTECTION

Accessory Technical Data

Auxillary Contact

A 9mm module that mounts on the left side of the breaker and provides signaling contacts. The module has a set of contacts that open and close with the breaker and provide both open and close status.

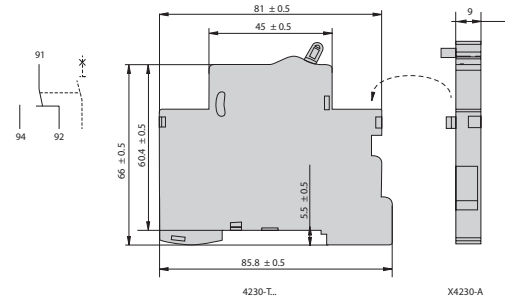
	Voltage	Amperage
Load Ratings	12-240VAC	6A
	277VAC	3A
	12-24VDC	6.0A
	48VDC	3.0A
	110-220VDC	1.5A
Mechanical Operations	20,000	
Torque	1Nm, .74ft lbs	
Mass	29g	



Bell Alarm Contact

A 9mm module that mounts on the left side of the breaker and provides breaker trip status. The module has a set of contacts that indicate when the breaker is in the tripped mode and drives alarm devices.

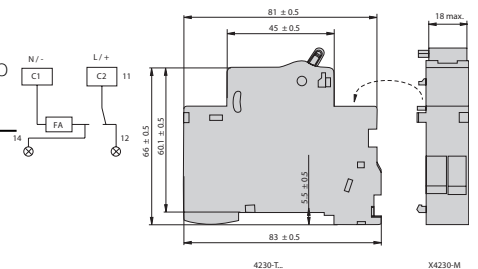
	Voltage	Amperage
Load Ratings	12-240VAC	6A
	277VAC	3A
	12-24VDC	6.0A
	48VDC	3.0A
	110-220VDC	1.5A
Mechnaical Operations	10,000	
Torque	1Nm, .74ft lbs	
Mass	29g	



Shunt Trip

A 18mm module that mounts on the left side of the breaker and provides a means to remotely trip the breaker. The module will open the breaker when remote power is applied.

	Operating Voltage	Operating Amperage	Power Consumption	Minumum Trip Voltage
Electrical Ratings	240VAC	6A	200W	160VAC
	120VAC	6A	200W	80VAC
	24VDC	6A	200W	16VDC
	12VDC	6A	200W	8VDC
Mechnaical Operations			20,000	
Torque			1Nm, .74ft lbs	
Mass			60g	



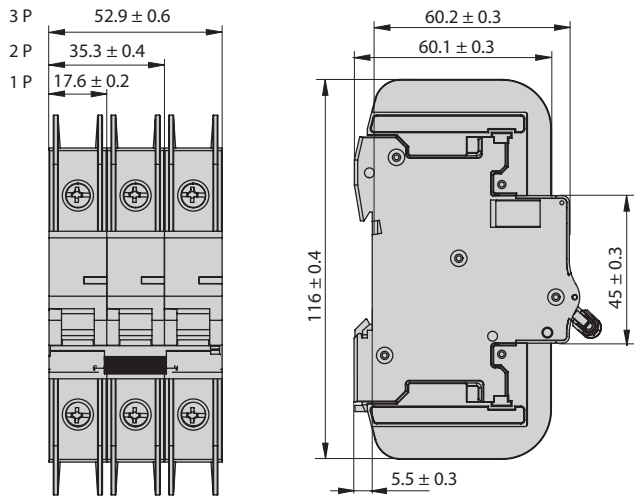
UMBW SERIES MCB

UL489 and UL1077 CIRCUIT PROTECTION

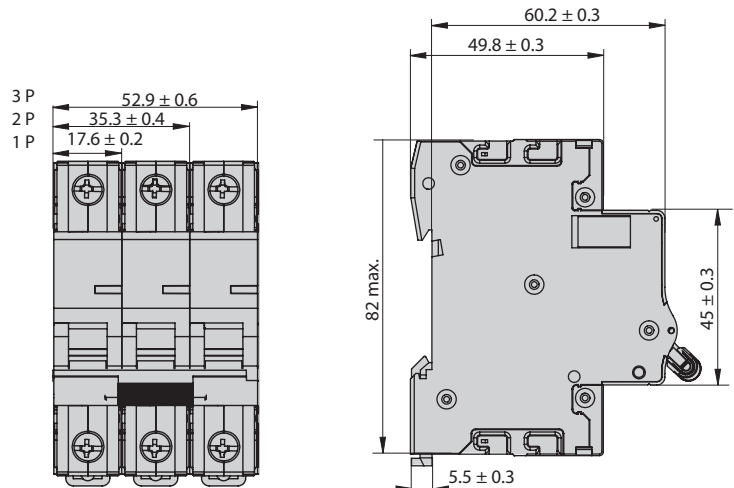
Operating Ampacity Based on Ambient Temperature (Degree C)

Amps	-35	-30	-25	-20	-15	-10	-5	0	+5	+10	+15	+20	+25	+30	+35	+40	+45	+50	+55	+60	+65	+70
1	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8
2	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.8	1.8	1.7	1.7	1.6	1.5
4	5.1	5.0	4.9	4.8	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.2	4.1	4.0	3.9	3.8	3.6	3.6	3.4	3.3	3.2	3.1
6	7.7	7.6	7.5	7.3	7.2	7.1	7.0	6.8	6.7	6.6	6.4	6.3	6.1	6.0	5.8	5.7	5.5	5.4	5.2	5.0	4.8	4.6
10	13.9	13.6	13.4	13.1	12.8	12.5	12.2	11.9	11.6	11.3	11.0	10.7	10.3	10.0	9.6	9.2	8.9	8.5	8.0	7.6	7.1	6.6
16	20.8	20.4	20.1	19.8	19.4	19.1	18.7	18.3	18.0	17.6	17.2	16.8	16.4	16.0	15.6	15.1	14.7	14.2	13.7	13.2	12.7	12.8
20	25.7	25.3	24.9	24.5	24.1	23.6	23.2	22.8	22.3	21.9	21.4	21.0	20.5	20.0	19.5	19.0	18.4	17.9	17.3	16.7	16.1	15.5
25	32.2	31.7	31.2	30.7	30.2	29.7	29.1	28.6	28.0	27.4	26.8	26.2	25.6	25.0	24.3	23.7	23.0	22.3	21.6	20.8	20.0	19.2
32	41.0	40.5	39.8	39.2	38.5	37.8	37.2	36.5	35.8	35.0	34.3	33.5	32.8	32.0	31.2	30.3	29.5	28.7	27.7	26.8	25.8	24.8
40	51.6	50.9	50.0	40.2	48.4	47.5	46.6	45.7	44.8	43.9	43.0	42.0	41.0	40.0	38.9	37.9	36.8	35.6	34.4	33.2	32.0	30.6
50	64.9	64.0	62.9	61.9	60.8	59.7	58.5	57.4	56.2	55.1	53.8	52.6	51.3	50.0	47.8	46.2	44.8	43.3	41.8	40.2	38.6	35.8
63	83.5	82.1	80.6	79.2	77.7	76.2	74.7	73.1	71.5	69.9	68.2	66.5	64.8	63.0	60.1	58.2	56.2	54.2	52.0	49.8	47.5	43.1

UL489



UL1077





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- 3-1500HP
- Oriented start-up
- Built-in bypass contactor
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- Network communications: Profibus-DP, DeviceNet, Modbus-RTU
- Complete Line of options and accessories
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- IEC Contactors
- Thermal Overload Relays
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