

Type CBW58

Thermal Circuit Breaker

Push to Reset – Standard Profile



www.optifuse.com

(619) 593-5050

Specifications:

Push to Reset – Standard Profile

Amperage Range: 3A - 50A

Input Voltage: 125 / 250 VAC, 32 / 50 VDC

Frequency: 50-60 Hz

Dielectric Strength: 1500 VAC / 1 Minute

Interrupting Rating: 3-50A 1000A @ 125/250VAC

3-30A 400A @ 125/250 VAC

3-50A 300A @ 50 VDC

Marine **Ignition Protected** to SAE J1171 and UL1500

Insulation Resistance: > 100M Ω (500 VDC)

Contact Endurance: 125 VAC @ 150% of Rated Current-500 Cycles.

Reset Time: 60 seconds

Body – Black

Terminal Finish – Tin Plated

Operating Ambient Temperature: -10°C to +60°C

Time-Current Characteristics (at 25°C)

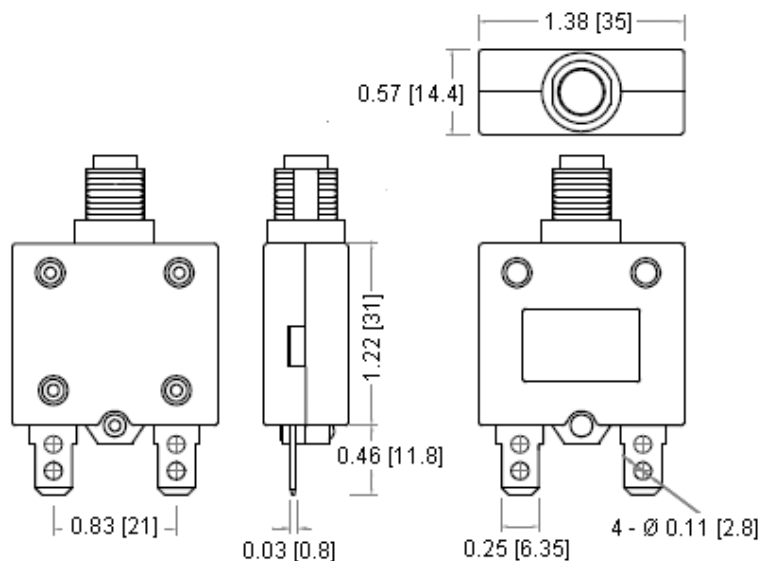
100%	150%	200%	300%
No trip	Trip within 1hr	5-30 sec trip	1.5-5 sec trip

Torque Rating - plastic nut on plastic thread: 6KGfcm

metal nut on metal thread: 10KGfcm

metal nut on plastic thread: 6KGfcm

Mechanical Dimensions: Inches [mm]



Agency Standards and Listings:



RoHS
Compliant

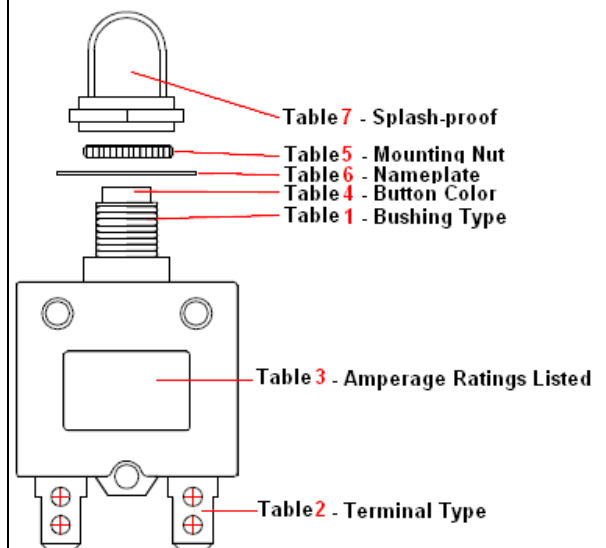
UR: 3A-50A, 125/250 VAC

CCC: 3A-30A, 125/250 VAC

TUV: 3A-30A, 125/250 VAC, 32 VDC

VDE: 3A-16A, 125/250 VAC

Part / Accessories Descriptions:



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Part Number Information

CBW58-	X	Y	-	ZZ	-	B	N	P	S
	Table 1	Table 2		Table 3		Table 4	Table 5	Table 6	Table 7

Mechanical Dimensions: Inches [mm]

Table 1 - Where X is Bushing Style

H	Metal M11 – 10.8 mm diameter - 9.8 mm pinch point – 12.6 mm high
B	Metal M11 – 10.8 mm diameter - 9.8 mm pinch point – 12.6 mm high
V	Metal M12 - 11.8 mm diameter – 10.7 mm pinch point – 12.6 mm high
G	Metal 3/8” 27 Thread – 9.5 mm diameter – 8.5 mm pinch point – 12.6 mm high
P	Plastic M11 – 10.8 mm diameter - 9.8 mm pinch point – 12.6 mm high
Q	Plastic M12 – 11.8 mm diameter – 10.7 mm pinch point – 12.6 mm high
E	Plastic 3/8” 27 Thread – 9.5 mm diameter – 8.5 mm pinch point – 12.6 mm high
A	Automatic Reset – No Bushing
S	Plastic Snap In

H - Metal M11XP1.0	B - Metal M11XP1.0	V - Metal M12XP1.0	G - Metal 3/8"-27T	Measurements A 0.43 [10.8] B 0.53 [13.5] C 0.39 [9.8] D 0.50 [12.6] E 0.46 [11.8] F 0.42 [10.7] G 0.62 [15.8] H 0.54 [13.8] J 0.33 [8.5] K 0.37 [9.5] L 0.43 [11.0] M 0.05 [1.2] N 0.15 [3.8] X 0.16 [4.0] Y 0.06 [1.5] Z 0.06 [1.6]							
P - Plastic M11XP1.0	Q - Plastic M12XP1.0	E - Plastic 3/8"-27T	A - Automatic, No Bushing								
S - Plastic Snap in											
<table><tr><td rowspan="2">Bushing Type vs. Panel Hole</td><td>H, B, P</td><td>V or Q</td><td>G or E</td></tr><tr><td></td><td></td><td></td></tr></table>					Bushing Type vs. Panel Hole	H, B, P	V or Q	G or E			
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Note: All specifications subject to change without notice.

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Mechanical Dimensions: Inches [mm]

Table 2 - Where Y is Terminal Configuration

S	B	R	4	5	6	7
Straight 0.46 [11.8]	90° Bend	90° Reverse Bend	90° Bend Load Pin	90° Bend Line Pin	Straight 0.31 [8]	90° Bend Reverse Bend
8	9	X	F	L	J	L4
45° Bend	45° Reverse Bend	Straight 0.13 [3.2]	Screw #8-32	Screw #8-32 90° Bend	Screw #8-32 90° Reverse Bend	Screw #8-32 90° Bend Line Pin

Table 3 - Where ZZ is Amperage

3-50A (03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 15, 16, 18, 20, 22, 25, 30, 35, 40, 45, 50)

See comments on first page for approvals information.

The above represents only standard current rates. Please contact factory for additional ratings.

Table 4 - Where B is Button Color

Blank	Black Button	
W	White Button	
R	Red Button	
1	Black Button w/ Amperage in White	
5	White Button w/ Amperage in Black	
6	Red Button w/ Amperage in White	

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Mechanical Dimensions: Inches [mm]

Table 5 - Where N is Nut Type

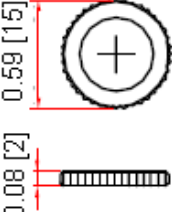
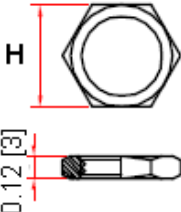
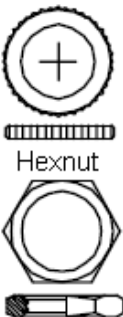
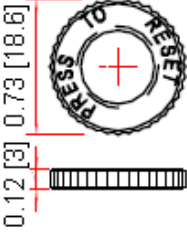
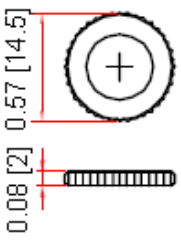
Blank	H	C	P	Q	X
Metal Knurlnut	Metal Hexnut (M11xP1.0) H=0.55[14] (M12xP1.0) H=0.59[15]	Metal Knurlnut	Plastic Integrated Knurlnut	Plastic Knurlnut	Plastic Integrated Knurlnut
					
For Bushings: H, B, V, P, Q Not available for G or E	For Bushings: H, B, V, G, P, Q, E	For Bushings: H, B, V, P, Q Not available for G or E	For Bushings: H, B, V, G, P, Q, E	For Bushings: H, B, V, G, P, Q, E Default for G and E	For Bushings: H, B, V, G, P, Q, E

Table 6 - Where P is Nameplate

Blank = None		
B	Black nameplate	Circuit Breaker Press to Reset
W	White nameplate	Circuit Breaker Press to Reset
A	Black nameplate	Circuit Breaker Press to Reset
S	Black nameplate	Suppl. Prot. Press to Reset
N	White nameplate	Suppl. Prot. Press to Reset

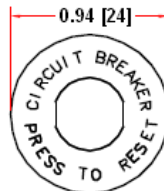
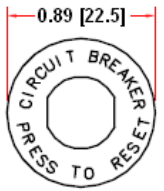
B	Black plate	A	Black plate	S	Black plate
W	White plate			N	White plate
					

Table 7 - Where S is Splash-proof

Blank – None

D - For H, V, B, G, P, Q, E Bushing Styles only

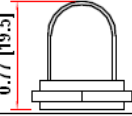
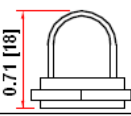
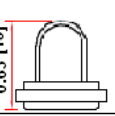
V - For H, B, V, P, Q Bushing Styles only

F - For H, V, B, G, P, Q, E Bushing Styles only

K - For G, E Bushing Styles only

IP55 for D, V, K

IP52 for F

D	V	F	K
M11XP1.0 M12XP1.0	M11XP1.0 M12XP1.0	M11XP1.0 M12XP1.0 3/8" - 27T	3/8" - 27T
			
Clear	Clear	Clear	Black
			

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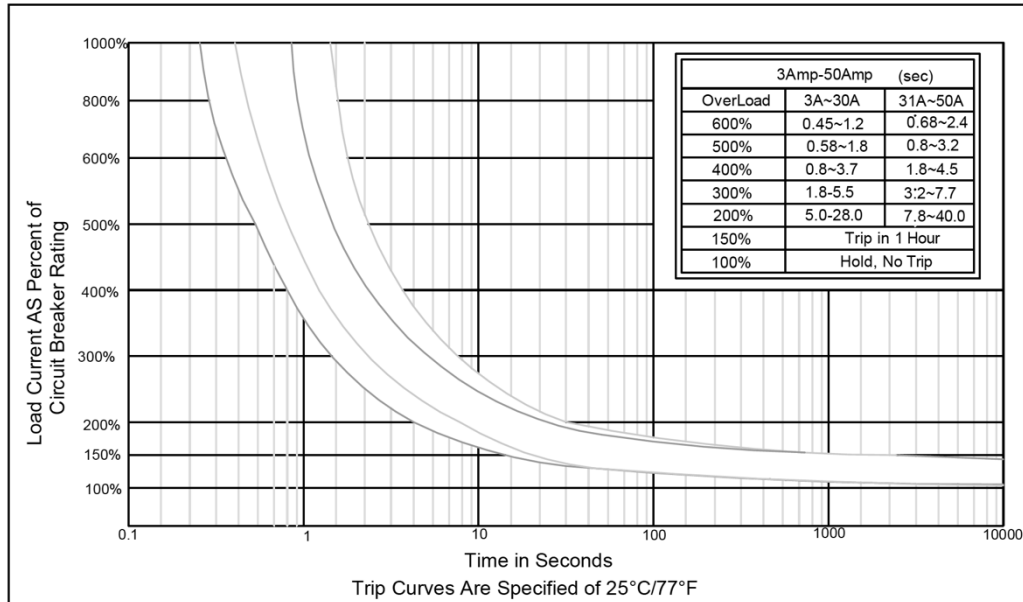
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Trip Time Curve at 25°C



Maximum Internal Resistance

Current Rating	Maximum Resistance
3A-5A	< 0.225 Ω
6A-8A	< 0.175 Ω
9A-11A	< 0.125 Ω
12A-13A	< 0.050 Ω
14A-17A	< 0.040 Ω
18A-24A	< 0.030 Ω
25A-35A	< 0.020 Ω
36A-50A	< 0.010 Ω

Ambient Temperature Correction Factor:

Ambient Temperature	-10°C	0°C	10°C	25°C	35°C	40°C	50°C	60°C
Division Factor	1.30	1.20	1.10	1.00	0.94	0.85	0.73	0.68

The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please divide the current breaker current ratings by the derating factor shown above.

Warning:



- Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.
- Devices are intended for occasional overcurrent protection. Applications for repeated overcurrent condition and/or prolonged trip are not anticipated.
- Avoid contact of device with chemical solvent. Prolonged contact may damage the device performance.

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