

Type CBW57

Thermal Circuit Breaker

Push to Reset – Low Profile



www.optifuse.com (619) 593-5050

Specifications:

Push to Reset - Low Profile
 Amperage Range: 3A - 30A
 Input Voltage: 125 / 250 VAC, 32 / 50 VDC
 Frequency: 50-60 Hz
 Dielectric Strength: >1500 VAC / Minute
 Interrupt Rating: 3-30A 1000A @ 125/250 VAC
 3-20A 400A @ 125/250 VAC
 3-30A 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: within 60 seconds
 Body – Black
 Terminal Finish - Tin Plated
 Operating Ambient Temperature: -10°C to + 60°C
 Torque Rating - plastic nut on plastic thread: 6KGfcm
 metal nut on metal thread: 10KGfcm
 metal nut on plastic thread: 6KGfcm

Agency Standards and Listings:



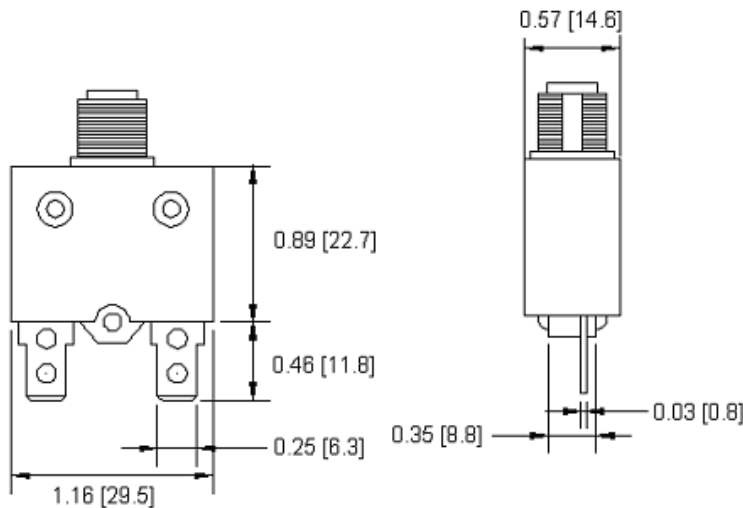
RoHS
Compliant

UR: 3A-30A, 125/250 VAC, 50 VDC
CCC: 3A-20A, 125/250 VAC
TUV: 3A-20A, 125/250 VAC, 32 VDC
VDE: 3A-16A, 125/250 VAC

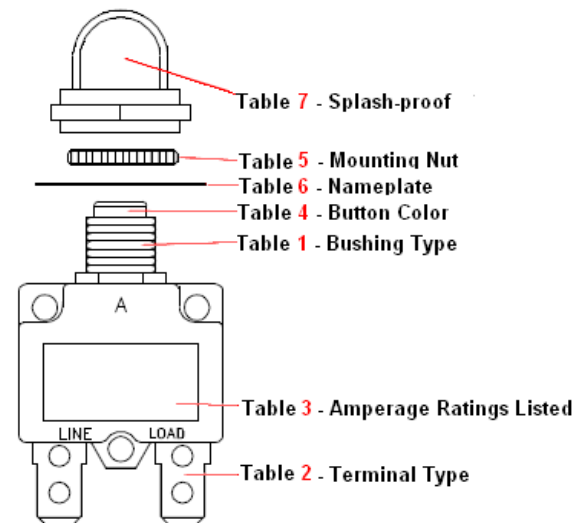
Time-Current Characteristics (at 25°C)

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

Mechanical Dimensions: Inches [mm]



Part / Accessories Descriptions:



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 will damage the device performance.

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Mechanical Dimensions: Inches [mm]

Part Number Information									
CBW57-	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 – 9.6 mm high
B	Metal M11 – 10.8 mm diameter - 9.8 mm pinch point – 9.6 mm high
G	Metal 3/8” 27 Thread – 9.5 mm diameter – 8.5 mm pinch point – 12.5 mm high
P	Plastic M11 – 10.8 mm diameter - 9.8 mm pinch point – 9.6 mm high
Q	Plastic M12 – 11.8 mm diameter – 10.8 mm pinch point – 8.2 mm high
E	Plastic 3/8” 27 Thread – 9.5 mm diameter – 8.5 mm pinch point – 12.5 mm high
S	Plastic – Panel – 8 mm high
C	Plastic – Snap-in – 9.8 mm high
A	Automatic Reset – No Bushing

H - Metal M11XP1.0	B - Metal M11XP1.0	G - Metal 3/8"-27T	P - Plastic M11XP1.0	Measurements	
					A 0.43 [10.8]
					B 0.53 [13.5]
					C 0.39 [9.8]
					D 0.38 [9.6]
					E 0.49 [12.5]
					F 0.32 [8.2]
					G 0.62 [15.8]
					H 0.54 [13.8]
					J 0.33 [8.5]
Q - Plastic M12XP1.0	E - Plastic 3/8"-27T	S - Plastic	C - Plastic Snap in	K 0.37 [9.5]	
				L 0.51 [13.0]	
				M 0.32 [8.2]	
				N 0.46 [11.8]	
A - Automatic, No Bushing					

Bushing Type vs. Panel Hole	H, P	Q	G, E	C

Note: All specifications subject to change without notice.

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Table 2 - Where Y is Terminal Configuration

S	B	R	4	5	6	8
Straight 0.46 [11.8]	90° Bend	90° Reverse Bend	90° Bend Load Pin	90° Bend Line Pin	Straight 0.31 [8]	45° Bend
9	X	F	L	J	L4	
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

03A to 20A (03, 3.5, 04, 05, 06, 07, 7.5, 08, 10, 11, 12, 13, 15, 16, 17, 18, 20, 22, 25, 30)

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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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, P, Q Not available for G or E	For Bushings: H, B, G, P, Q, E	For Bushings: H, B, P, Q Not available for G or E	For Bushings: H, B, G, P, Q, E	For Bushings: H, B, G, P, Q, E Default for G and E	For Bushings: H, B, 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

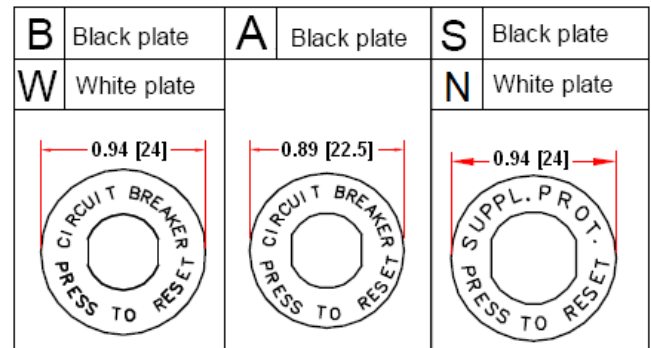


Table 7 - Where S is Splash-proof

Blank – None

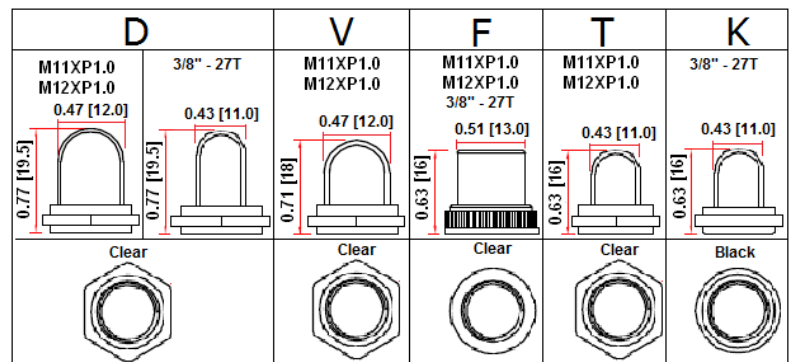
D – For H, B, G, P, Q, E Bushing Styles only

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

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

T – For H, B, P, Q Bushing Styles only

K – For G, E Bushing Styles only



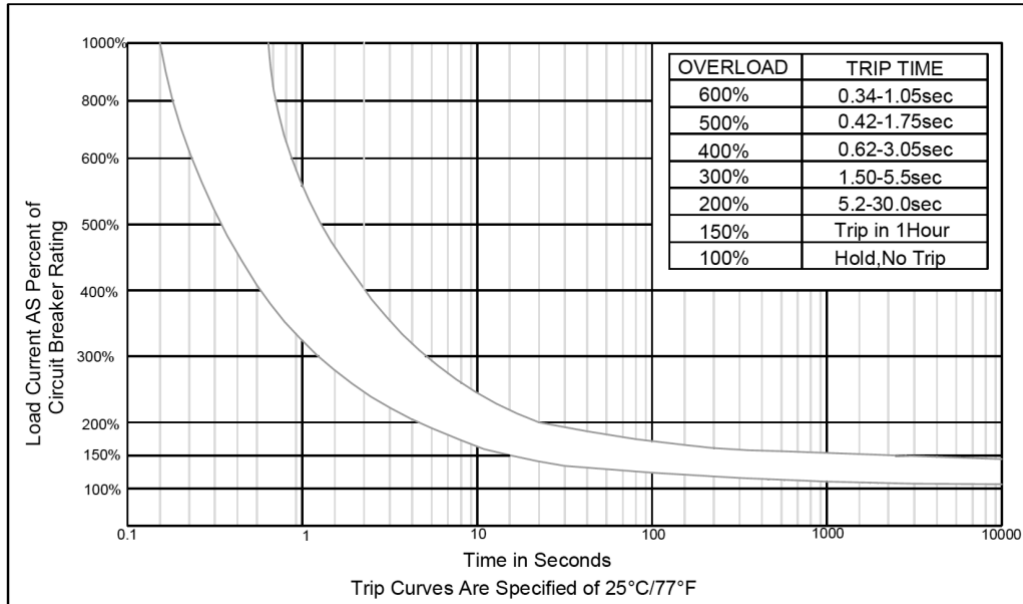
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Trip Time Curve at 25°C



Maximum Internal Resistance	
Current Rating	Maximum Resistance
3A-5A	< 0.225Ω
6A-8A	< 0.175Ω
9A-12A	< 0.125Ω
13A-16A	< 0.050Ω
17A-20A	< 0.040Ω
21A-25A	< 0.030Ω
26A-30A	< 0.020Ω

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.