

Features

- Compact, trip-free, rocker-actuated design.
- 5 to 20 amp ratings.
- Provides circuit protection and power switching in a single unit.
- Available with optional indicator lamp.
- Snaps into the same cutout as many common power switches
- Various color, marking and termination options.

Agency Approvals

W51 series is UL 1077 Recognized as Supplementary Protectors, File E69543, for Canada and the United States. Approved to VDE 0642/EN60934 (Circuit Breakers for Equipment) License Number 40017023 (for AC loads only). CCC mark compliant, certificate 2004010307123223.

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Electrical Data @ 25°C

Calibration: Will continuously carry 100% of rating.

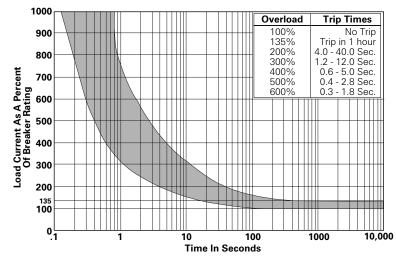
May trip between 101% and 134%, but must trip at 135% of rating within one hour at +25°C.

Dielectric Strength: 1,500VAC (60 seconds).

Insulation Resistance: 100 megohms.

Maximum Operating Voltages: 50VDC; 125 or 250VAC, 50/60 Hz. (model dependent).

Time vs. Current Trip Curve @ +25°C



Ambient Compensation Table

Ambient Temperature in °C	Rating Correction Factor					
	5-6A Models	7-20A Models				
10	.80	.80				
20	.90	.90				
25	1.00	1.00				
30	1.10	1.05				
40	1.25	1.15				
50	1.61	1.25				
60	2.15	1.40				

To use this chart: Divide the breaker rating by the correction factor to determine the compensated rating. Calculate the overloads in terms of the compensated rating to use the published trip curve.

Do not use these devices outside their specified operating temperature ranges.

Dimensions are in inches over

(millimeters) unless otherwise

W51 series

Rocker-Actuated Thermal Circuit Breaker/Power Switch With Optional Indicator Lamp



Interrupt Capacity: 1,000 amps in accordance with UL standard 1077. Resettable Overload Capacity: Ten times rated current. Switch Endurance Cycling: Typically 6,000 operations at 100% of rating. Reset Time: 60 seconds.

Typical Resistance vs. Current Rating @ +25°C

Current Rating in Amps	ating Resistance Rating		Typical Resistance in Ohms		
5.0	0.050	10.0	0.025		
6.0	0.042	15.0	0.017		
7.0	0.036	20.0	0.0125		
8.0	0.031				

Mechanical/Environmental Data

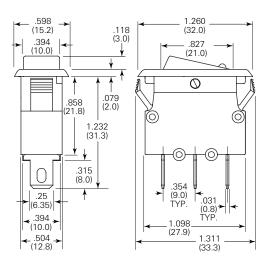
Operating Temperature Range: 0°C to +60°C.

Termination: .250" (6.35mm) quick connects, solder terminals or right angle PC terminals.

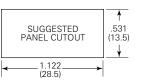
Mounting: Snaps into 1.122 x .531 (28.5 x 13.5) panel cutout.

Approximate Weight: 0.37 oz. (10.5g).

Outline Dimensions



Recommended Panel Cutout



Panel Thickness

W51 series circuit breakers accommodate panel thicknesses from 0.030 in. to 0.118 in. (0.75 mm - 3.0 mm).

Dimensions are shown for

112 reference purposes only.

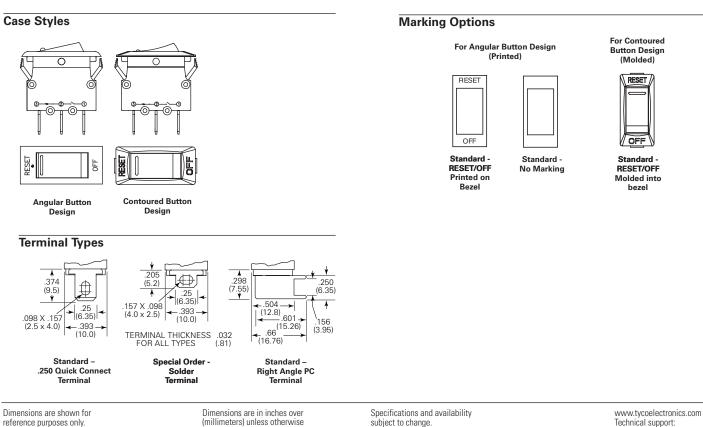
specified. Downloaded from <u>Elcodis.com</u> electronic components distributor Specifications and availability subject to change.

Electronics		Issue	d 3-03 (PDF	Revised 4-0	7)					P&
Ordering Information										
	Typical Part No. 🕨	W	51	-A	1	2	1	В	1	-5
I. Designator: W = Circuit breaker										
2. Series Number: 51 = Switchable, Single Po	le, Rocker-Actuated Therma	al Model								
3. Terminals: A = Quick connect .250" (6		= Printed Circ	uit - right a	angle						
 Breaker Style & Base Col 1 = Angular button design B = Countoured button design 	(see drawing below), black		or							
 5. Rocker Color: 1 = Amber (translucent) 2 = Red (translucent) 3 = Green (translucent) 4 = White (opaque - for use 5 = Black (opaque - for use 6 = Red (opaque - for use 7 = Gray (opaque - for use 8 = Black (opaque) with rea 9 = Black (opaque) with green 	on non-illuminated models on non-illuminated models) on non-illuminated models d (translucent) indicator (on	s) Iy available or				٦)				
Maximum Operating Vol 1 = 125VAC $2 = 250$										
A = Non-illuminated	B = Illuminate	ed						-		
 Marking option: 0 = No marking 1 = RESET/OFF printed 	2 = RESET/OFF molded	(only availabl	e on mode	I with conto	ured butto	on)			-	
. Specify Amp Rating:										-

Our authorized distributors are more likely to stock the following items for immediate delivery.

W51-A121B1-5	W51-A121B1-15	W51-A122B1-5	W51-A122B1-15	W51-A152A1-5	W51-A152A1-15
W51-A121B1-10	W51-A121B1-20	W51-A122B1-10	W51-A122B1-20	W51-A152A1-10	W51-A152A1-20
VV51-A121B1-10	VV51-A121B1-20	VV51-A122B1-10	VV51-A122B1-20	VV51-A15ZA1-10	VV51-A152A1-20

ORDERING NOTE: Some options illustrated below are not listed in the "Ordering Information" chart above. Options denoted by "Special" or "Special Order" in their descriptions are only offered on a special order basis. Other base and button colors and intermediate amp ratings are also available on a special order basis. All special order items are subject to extended leadtimes and significant minimum order quantities. Your Tyco Electronics sales engineer must consult with the factory before providing price and availability information regarding items with these options.



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