



## PRODUCTS

### Series S

#### Low Capacity Toggles



- [Download Specifications](#)
- [Configure This Switch!](#)

#### Medium Capacity Toggles



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- [Configure This Switch!](#)

#### Medium/High Capacity Toggles

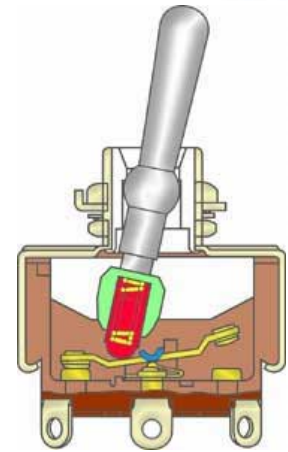


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#### High Capacity Toggles



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#### Standard Size Toggle Switches

These standard size toggles come in low, medium, and high capacity models with ratings ranging from 5A to 30A @ 125V AC. Sturdy construction with high torque bushings and zinc plated steel covers. The 12mm bushing is designed for panel mount applications; mounting hardware is included with each switch. 1 through 4 poles with 6 circuits available. Case of heat resistant resin meets UL 94V-0 flammability standard and provides high arc and insulation resistance. Varied design of contact mechanisms in these models assures long life. Solder lug, screw lug, and quick connect terminals are available.

## GENERAL SPECIFICATIONS FOR S31 ~ S49

### Electrical Capacity (Resistive & Inductive Load)

**Power Level:** Shown in the following tables

### Other Ratings

**Contact Resistance:** 10 milliohms maximum  
**Insulation Resistance:** 1,000 megohms minimum @ 500V DC  
**Dielectric Strength:** 2,000V AC minimum for 1 minute minimum  
**Mechanical Life:** 50,000 operations minimum  
**Electrical Life:** 25,000 operations minimum  
**Angle of Throw ( $\alpha$ ):** Shown on following tables

### Materials & Finishes

**Toggle:** PBT resin for flatted lever; brass with chrome plating for all others  
**Bushing:** Brass with chrome plating  
**Case:** Phenolic resin  
**Case Cover:** Steel with chromate plating over zinc plating  
**Movable Contactor:** Copper with silver plating  
**Movable Contacts:** Silver alloy capped on copper with silver plating  
**Stationary Contacts:** Silver alloy capped on copper with silver plating  
**Terminals:** Brass with silver plating

### Environmental Data

**Operating Temp Range:** -10°C through +70°C (+14°F through +158°F)

### Installation

**Mounting Torque:** 2.94Nm (26 lb•in) for double nut  
**Maximum Panel Thickness:** Shown beneath panel cutout in switch dimension drawings  
**Soldering Time & Temperature:** Manual Soldering: See Profile A in Supplement section.







### Standards & Certifications

**UL Recognized:** Designated with UL recognized symbol beside part numbers on following pages. See Supplement section to find UL rating details. UL File No. WOYR2.E44145  
 Add "/U" to end of part number to order UL mark on switch.

**C-UL Recognized:** Designated with C-UL recognized symbol beside part numbers on following pages. See Supplement section to find C-UL rating details. C-UL File No. WOYR8.E44145  
 Add "/C-UL" to end of part number to order C-UL mark on switch.

**CSA Certified:** Designated with CSA certified symbol beside part numbers on following pages. See Supplement section to find CSA rating details. File No. 023535-0-000  
 Add "/C" to end of part number to order CSA mark on switch.

### THREE POLE WITH QUICK CONNECT

*See Supplement section for UL detail			Toggle Position/Connected Terminals					Electrical Capacity				α = Angle of Throw
Model	Approvals	Pole & Throw	Down	Center	Up	Resistive			Inductive			
			Keyway 			AC 125V	AC 250V	DC 30V	AC 125V PF 0.6			
<b>S31F</b>		3PST	ON 1-3 4-6 7-9	NONE	OFF —	25A	9A	20A	10A	25°		
<b>S32F</b>		3PDT	ON 2-3 5-6 8-9	NONE	ON 2-1 5-4 8-7	25A	9A	20A	10A	25°		
<b>S33F</b>		3PDT	ON 2-3 5-6 8-9	OFF	ON 2-1 5-4 8-7	25A	9A	20A	10A	30°		

Throw & Schematics:

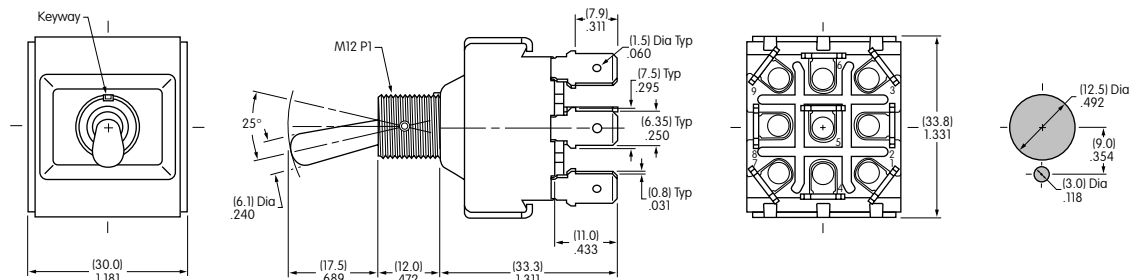


Note: Terminal numbers are on the switch

• Standard Hardware: AT503M Face Hex Nut, AT506 Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.









S32F



S31F does not have terminals 2, 5, & 8

Maximum Panel Thickness: .181" (4.6mm)

### FOUR POLE WITH QUICK CONNECT

*See Supplement section for UL detail			Toggle Position/Connected Terminals					Electrical Capacity				α = Angle of Throw
Model	Approvals	Pole & Throw	Down	Center	Up	Resistive			Inductive			
			Keyway 			AC 125V	AC 250V	DC 30V	AC 125V PF 0.6			
<b>S41F</b>		4PST	ON 1-3 4-6 7-9 10-12	NONE	OFF —	25A	9A	20A	10A	25°		
<b>S42F</b>		4PDT	ON 2-3 5-6 8-9 11-12	NONE	ON 2-1 5-4 8-7 11-10	25A	9A	20A	10A	25°		
<b>S43F</b>		4PDT	ON 2-3 5-6 8-9 11-12	OFF	ON 2-1 5-4 8-7 11-10	25A	9A	20A	10A	30°		

Throw & Schematics:

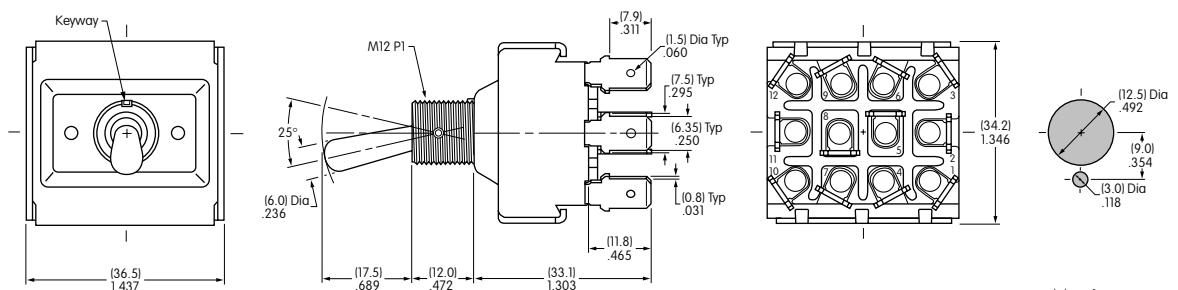


Note: Terminal numbers are on the switch

• Standard Hardware: AT503M Face Hex Nut, AT506 Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.



S42F



S41F does not have terminals 2, 5, 8, & 11

Maximum Panel Thickness: .181" (4.6mm)