

## Series 53 Overview

The Series 53 Branch Disconnect / Circuit Breaker incorporates into a single device both traditional battery disconnect switching (non-engine) and circuit protection. This unique combination of features in a single rotary switch allows OEM cost savings by eliminating the added components, material and labor of a separate battery switch and circuit breaker/fuse. For the end user or maintenance personnel, the Series 53 provides a quick means to disconnect traditional downstream circuit(s) while preventing unintentional battery drain or allowing for disconnected battery power during storage and/or maintenance.

- Made in the USA
- Combined UL1107 & UL1077
- Ignition Protected
- IP66 & IP67
- CE Marked

## Series 53 Specifications

*This product is not rated for an engine starter circuit*

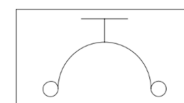
<b>Standard Amp Ratings</b>	10, 15, 20, 30, 35, 40, 45, 50, and 60 Amp (Contact factory for additional amp ratings)
<b>Maximum Voltage Ratings</b>	32VDC
<b>Min / Max Ultimate Trip</b>	Must Hold 100% of rated current at 25°C/77°F Must Trip at 135% of rated current within 1 hour. Unique / specific higher ambient calibrations are available, consult factory
<b>Operating Temperature Range</b>	-40°C (-40°F) to 85°C (185°F)
<b>Dielectric Strength</b>	2000VAC minimum, UL1107*
<b>Interrupt Capacity</b>	Per SAE J553 & UL1077* (U3) at 14 & 28VDC 1.5kA @ 14VDC per ABYC (SAE J553 & UL1077* U3) 3kA @ 14VDC
<b>Endurance (Overload)</b>	Per SAE J553 [100 overload trip cycles at 400% of rated current at 28VDC]
<b>Endurance (Switching)</b>	10-25A: 5000 switching cycles, 30-45A: 4000 switching cycles, 50-60A: 3000 switching cycles, at 110% of rated load, 28VDC, per requirements of UL1107
<b>Effective Current Limit</b>	Per SAE J553
<b>Weight</b>	90 gm
	<b>Environmental</b>
<b>Ignition Protected</b>	Tested to the requirements of ISO 8846, USCG, ABYC, UL1107, UL1500 and SAE J1171
<b>Ingress Protection</b>	IP66 & IP67
<b>Corrosion</b>	Conforms to MIL-STD-202, Method 101, Test Condition A (96 hrs)
<b>Humidity</b>	Conforms to MIL-STD-202, Method 106 (240 hrs)
<b>Shock</b>	Tested to the requirements of UL1107* at 100% rated current
<b>Vibration (sine)</b>	Tested to the requirements of UL1107* at 100% rated current
<b>Vibration (Random)</b>	MIL-STD-202, Method 214, Test Condition I, Letter D (12G), per SAE J1455 at 100%
<b>Regulatory Compliance Summary</b>	Interrupt Capacity: SAE J553, ABYC E-11, UL1077* Ignition Protection: ISO 8846*, USCG, ABYC, UL1500* and SAE J1171 Endurance: SAE J553, UL1107* Dielectric Strength: UL1077*, UL1107* Shock, Vibration, Corrosion, Humidity: MIL-STD-202, UL1077*, UL1107* Ingress Protection: IEC 60529 EU Approvals: CE

*\*tested per methods of standard*

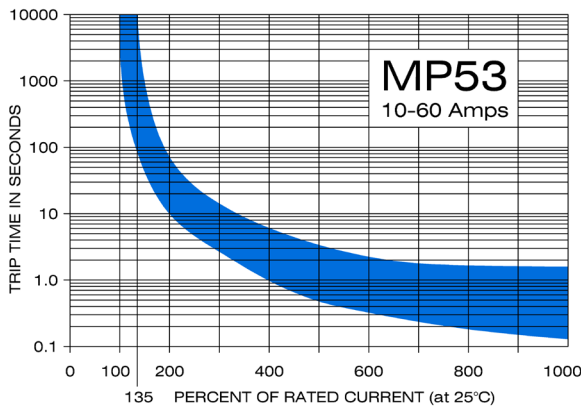
**Switch ON, Continuity** – Breaker is active and circuit is active.

**Switch ON, NO Continuity** – Breaker is tripped. Push the PUSH TO RESET button to reset breaker.

**Switch OFF, NO Continuity** – Breaker out of circuit. Circuit is Off.



## Series 53 Trip Curve



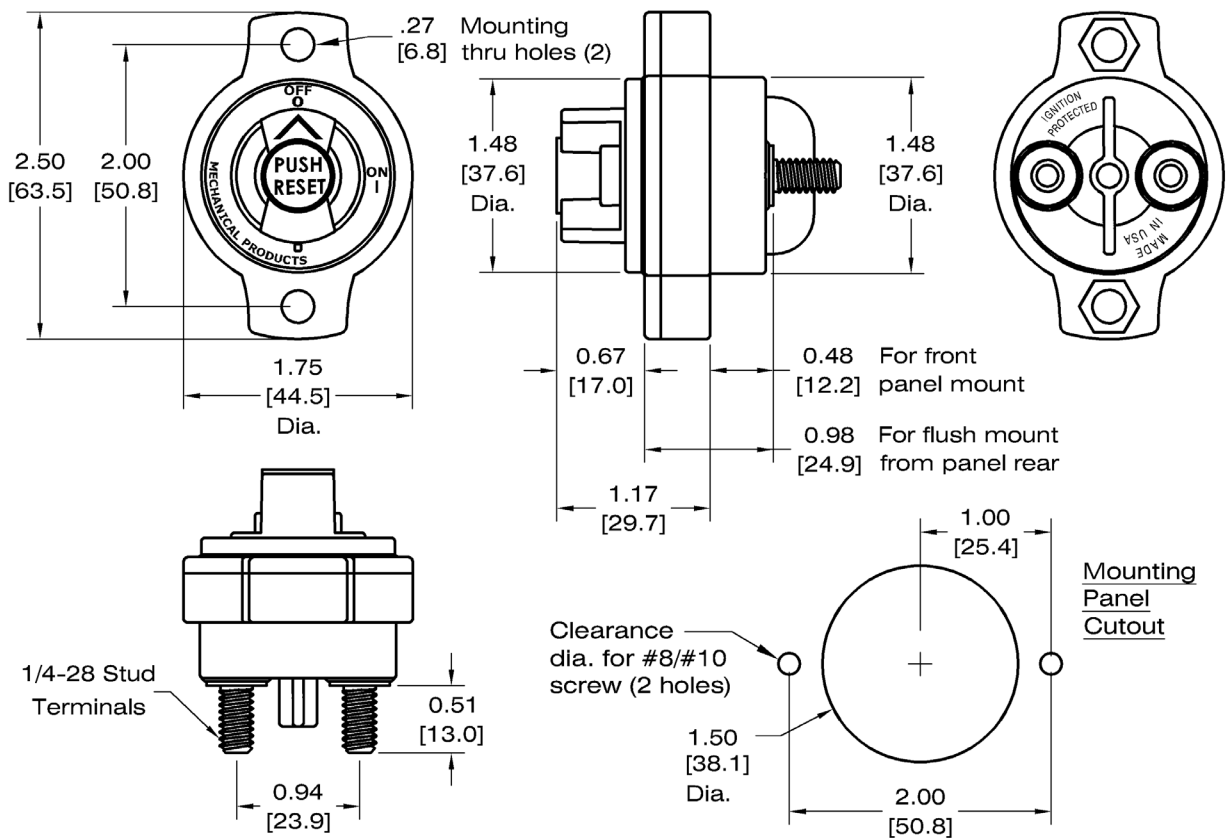
### Typical Overload Trip Time Data (in seconds)

Current Rating	200%	400%	600%	800 %	1000%
10-60 Amps	10-80	1-6	0.35-2	0.18-1.4	0.15-1.3

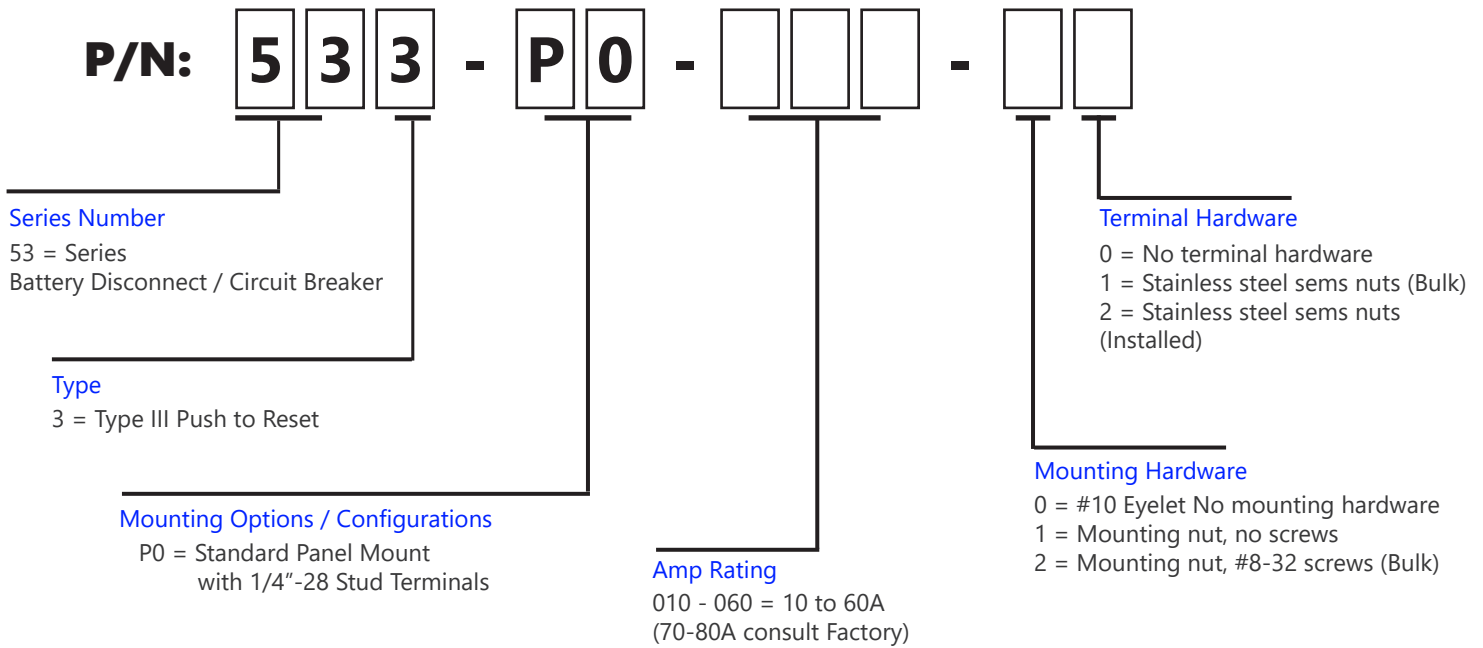
### Typical Ambient Temperature Correction Factor

Current Rating	°F	-65	0	32	77	100	140
	°C	-54	-17	0	25	38	60
10-60 Amps		.83	.87	.93	1.00	1.11	1.25

## Series 53 Physical Configuration



## Series 53 Part Numbering Guide up to 60A



### Branch circuit protection in industrial/commercial vehicles:

- Agricultural
- Trucks
- Automotive Lifts
- Construction
- Buses
- Battery Chargers
- Marine
- Emergency Vehicles
- Recreational Vehicles

### Protect:

- Wiring
- Motors
- Inverters
- Lighting
- Pumps
- Converters
- Components
- Alternators
- Generators
- Batteries
- Air Compressors
- and more





Mechanical Products Company

## BRANCH DISCONNECT CIRCUIT BREAKER

Disconnect & Protect  
to 32VDC

SAE, ABYC Compliant

Tested to  
UL1077, UL1107, UL1500

Ignition-Protected  
IP67 Weatherproof  
Harsh Environments



# SERIES 53

RAISING THE BAR  
MP - COUNT ON IT



# SUPERIOR CIRCUIT PROTECTION

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