

# Thermal-Magnetic / Magnetic Only Molded Case Circuit Breakers

## Introduction

**Table 8: Breakdown of Typical Catalog Number**

	FA	L	3	6	050	V	2100
<p><b>Breaker Family</b></p> <p>FY - 30 Ampere Frame</p> <p>FA - 100 Ampere Frame</p> <p>KA - 250 Ampere Frame</p> <p>LA - 400 Ampere Frame</p> <p>MA 1000 Ampere Frame</p> <p>NA - 1200 Ampere Frame</p>							
<p><b>NOTE:</b></p> <p>"A" is replaced by letter "H" for High Interrupting</p> <p>"A" is replaced by letter "C" for Extra High Interrupting</p> <p>"A" is replaced by letter "I" for Current Limiting. (FA, KA, LA circuit breakers only)</p>							
<p><b>Description</b></p> <p>NO LETTER - (I-Line<sup>®</sup>) Plug-on Breaker</p> <p>B - (I-Line) Bolt-on Breaker (400 ampere frame maximum)</p> <p>F - Terminal Pads Only (No Lugs)</p> <p>L - Lugs on Both Ends (Merchandised - Universal Breaker)</p> <p>P - Lugs OFF End Only</p> <p>R - Plug-on Breaker (I-Line Type DO with Plug-on Line and Load connectors)</p>							
<p><b>Poles</b></p> <p>1 - 1-Pole</p> <p>2 - 2-Pole</p> <p>3 - 3-Pole</p>							
<p><b>Voltage Rating</b></p> <p>2 - 240 Vac</p> <p>4 - 480 Vac</p> <p>6 - 600 Vac</p>							
<p><b>Ampere Rating</b></p> <p>015-090 - 15-90 Ampere Rating</p> <p>100-900 - 100-900 Ampere Rating</p> <p>1000-1200 - 1000-1200 Ampere Rating</p> <p>000 or 0000 - Molded Case Switch</p> <p>000X or 000XX - Molded Case Switch</p>							
<p><b>Suffix</b></p> <p>The suffix indicates a special feature of the circuit breaker.</p> <p>A, B, C - indicated I-Line Phase Connections</p> <p>CV - Indicates Visi-Blade<sup>®</sup></p> <p>M - Indicates Automatic Molded Case Switch</p> <p>XXM - Indicated Instantaneous Trip Only (Mag-Gard<sup>®</sup>) (i.e., 18M is 300-1100 ampere adjustable trip range)</p> <p>XXT - Indicates adjustable magnetic trip with responsive thermal (mining breakers)</p> <p>G - Indicates Ground Fault Shunt Trip accessory</p> <p>XXXX - i.e., 2100 Indicates a factory installed accessory</p>							

## Thermal-Magnetic / Magnetic Only Molded Case Circuit Breakers Accessories

### ■ Field Installable Accessories

Field installable accessories can be installed, interchanged or replaced in the field without affecting the circuit breaker's UL listing or interrupting ratings. Field installable accessories cannot be used in a mounting location or a pole that has a factory installed only accessory. Field installable electrical accessories and circuit breakers are shipped separately. The following thermal-magnetic circuit breakers, magnetic only circuit breakers and molded case switches accept UL Listed, Square D® field installable accessories:

- Q4, LA, and LH Series 4 and higher
- LI and LC Series 1 and higher
- MA and MH Series 2 and higher
- PA, PH, and PC Series 4 and higher
- NA and NC Series 1 and higher

### Shunt Trip

The shunt trip accessory is used to trip the circuit breaker from a remote location by using a trip coil energized from a separate circuit. When energized by a push button or other pilot device, the shunt trip causes the circuit breaker to trip. The trip coil has coil clearing contacts to break the coil circuit when the circuit breaker opens.

Shunt trips are available for 2- and 3-pole thermal-magnetic circuit breakers, magnetic only circuit breakers and molded case switches with standard control voltage ratings to 480 Vac or 24 Vdc. Additional ac control voltage ratings to 600 Vac are supplied with a 120 Vac rated coil and a control voltage transformer for user mounting. Control voltages above 480 Vac are not UL Listed. A 120 Vac shunt trip operates at 55% or more of rated voltage and all other shunt trips operate at 75% or more of rated voltage.

### Ground Fault Shunt Trip

A ground fault shunt trip operates in the same manner as a standard shunt trip, except that since the trip coil is rated for continuous duty, no coil clearing contact is needed. This accessory was designed for use with the Micrologic® Ground Fault Module (GFM).

**Table 54: Shunt Trip—Selection Data**

	Control Voltage	Factory Installed Shunt Trip Suffix	Field Installable Shunt Trip Catalog Number★
Shunt Trip	24 Vac 50/60 Hz	1042	( ) 1042
	48 Vac 50/60 Hz	1048	( ) 1048
	120–240 Vac 50/60 Hz	1021	( ) 1021
	120–240 Vac 400 Hz	1046▲	( ) 1046▲
	208–480 Vac 50/60 Hz	—	( ) 1086■
	277–480 Vac 50/60 Hz	1037	( ) 1037★★
	600 Vac 50/60 Hz	1026▲	( ) 1026▲
	6 Vdc	1040	( ) 1040
	12 Vdc	1039	( ) 1039
	24 Vdc	1027	( ) 1027
	48 Vdc	1028	( ) 1028
	72 Vdc	1038	( ) 1038
	125 Vdc	1029	( ) 1029
	250 Vdc	1030	( ) 1030
Ground Fault Shunt Trip	24 Vac 50/60 Hz	G	( ) G★★

★ Complete accessory catalog number by adding appropriate circuit breaker prefix (LA1, MA1, NA1, or PA1).

▲ Not UL Listed

■ PA1 prefix only.

★★ Not available with PA1 prefix.