

# NEMA Manual Starters for the Construction Market

## NEMA Manual Starters – Overview

- For manual start and stop of motors
- Compact design
- Available as open and enclosed
- UL and CSA approved



**Hazardous  
Location**



**Switch & Pilot Light  
in Type 1 Enclosure**



**Open Starter**

## MS Series Starters – Overview

- **For single-phase motors only, ideal for HVAC applications**
- Interchangeable heater elements ranging from 0.40 amps to 16.0 amps
- The operating handle of the enclosed units can be locked in the OFF position
- Enclosures are offered in NEMA 1, 3, 4 and 5; hazardous location enclosures available

## MS Series Starters – Model Selection

Number of Plates	Horsepower	Voltage	Catalog Number
<i>Open Type</i>			
1	1	120/240V, 277V AC	MST01
	1/4	120/240V DC	
	1/4	32V DC	
2	1	120/240V, 277V AC	MST02
	1	120/240V DC	
	1/4	32V DC	
Number of Plates	Flush Plate Type	Voltage	Catalog Number
<i>Flush Plate (No Enclosure Included)</i>			
1	General Purpose	Switch Only	MST01FN
		Switch with Pilot Light	MST01FN1P
2	General Purpose	Switch Only	MST02FN
		Switch with Pilot Light	MST02FN1P
1	Stainless Steel	Switch Only	MST01DN
		Switch with Pilot Light	MST01DN1P
2	Stainless Steel	Switch Only	MST02DN
		Switch with Pilot Light	MST02DN1P
Number of Plates	Enclosure Type	Voltage	Catalog Number
<i>Enclosed Types</i>			
1	General Purpose Type 1	Switch Only	MST01SN
		Switch with Pilot Light	MST01SN1P
2	General Purpose Type 1	Switch Only	MST02SN
		Switch with Pilot Light	MST02SN1P
1	Hazardous Location <sup>1</sup>	Through Hub	MST01EH
2	Hazardous Location <sup>1</sup>	Through Hub	MST02EH

<sup>1</sup> Includes Type 7D (Type 7, Class I, Group D); 9E, 9F and 9G (Type 9, Class II, Groups E, F and G).

## MS Series Starters – Accessories

Description	Catalog Number
Pilot Light Kit (NEMA 1 Enclosure and Flush Plates)	MSPT
Box, 1 Unit (NEMA 1 Enclosure)	MS1BN
Cover, 1 Unit (NEMA 1 Enclosure)	MS1CN
Flush Plate, 1 Unit (Steel)	MS1FN
Flush Plate, 1 Unit (Stainless Steel)	MS1DN
Handle Guard (Padlockable for NEMA 1 Enclosure and Flush Plates)	MSLG

## MS Series Starters – Heaters

For a full listing of compatible heater elements, see the Control Products & Services Catalog (CA08102001E), Tab 38.

# EATON

Powering Business Worldwide

**B100 Series Starters – Overview**

- For single-phase and three-phase motors with ratings up to 600V AC and 230V DC
- Toggle switch operator and START/STOP pushbutton operator
- Three-pole bimetallic overload relay
- Starters available with red pilot light
- The operating handle of the enclosed units can be locked in the OFF position
- Field-mounted auxiliary contacts
- Available in NEMA 1, 4, 7, 9 and 12 enclosures with toggle operation (NEMA 1 enclosure for pushbutton operator)

**Pushbutton Operated****Toggle Operated****Type 1 Enclosure****B100 Series Starters – Model Selection**

NEMA Size	Open Type Toggle Handle	Enclosed Type			
		NEMA 1 General Purpose	NEMA 4 Watertight, Stainless Steel <sup>1</sup>	NEMA 7D, 9E, 9F, 9G for Hazardous Locations <sup>2,4</sup>	NEMA 12 Dust-Tight
Catalog Number <sup>3</sup>	Catalog Number <sup>3</sup>	Catalog Number <sup>3</sup>	Catalog Number <sup>3</sup>	Catalog Number <sup>3</sup>	Catalog Number <sup>3</sup>
Type B100 Non-Reversing 2-Pole (For Single-Phase Motors and DC)					
M-0	B100M0B	B100S0B	B100W0B	B100U0B	B100J0B
M-1	B100M1B	B100S1B	B100W1B	B100U1B	B100J1B
Type B100 Non-Reversing 3-Pole (For Polyphase Motors)					
M-0	B100M0C	B100S0C	B100W0C	B100U0C	B100J0C
M-1	B100M1C	B100S1C	B100W1C	B100U1C	B100J1C

<sup>1</sup> A one-inch chrome hub is supplied on each end.<sup>2</sup> NEMA 7D = NEMA 7, Class I, Group D; NEMA 9E, 9F and 9G = NEMA 9, Class II, Groups E, F and G.<sup>3</sup> Starter does not include heaters. Select the heater from the Products & Services Catalog (CA08102001E), Tab 38.<sup>4</sup> Tapped for one-inch conduit on each end.**B100 Series Starters – Options**

Description	Catalog Number Suffix <sup>5</sup>
Pushbutton operator (open and NEMA 1 only)	A
Without lockoff (open only)	X

<sup>5</sup> Add suffix letter to starter catalog number (ex. B100M0CA).**B100 Series Starters – Accessories**

Description	Catalog Number
<i>Field Mounting Kits</i>	
1NO elec. auxiliary	B1A
1NC elec. auxiliary	B1B
Red pilot light 120/60 (NEMA 1 enclosure only)	LK-21
Red pilot light 208-240/6 (NEMA 1 enclosure only)	LK-22
Red pilot light 480-600/60 (NEMA 1 enclosure only)	LK-26
<i>For Type 4 and 12 Enclosures Only</i>	
Red pilot light 120V	LK-41
Red pilot light 240V	LK-42

**B100 Series Starters – Specifications**

NEMA Size	Maximum HP for AC Ratings <sup>6</sup>			Maximum HP for DC Ratings	
	120V AC	208 - 240V AC	480 - 600V AC	115V DC	230V DC
<i>2-Pole, Single-Phase</i>					
M-0	1	2	—	1	1-1/2
M-1	2	3	—	1-1/2	2
<i>3-Pole, Three-Phase</i>					
M-0	2	3	5	—	—
M-1	3	7-1/2	10	—	—

<sup>6</sup> Ratings are up to 3 hp, 3-phase suitable for group fusing.