

NEMA Motor Starters

N101 Series



- ✓ 24 Vdc Control Power— Safe, Reliable Global Standard
- ✓ Unique Pulse Width Modulated (PWM) Coil Controller Minimizes Coil Power Consumption
- ✓ Microprocessor-Based Control
- ✓ Phase Loss and Current Unbalance Protection, User Selectable
- ✓ Ambient Compensated Overload
- ✓ Motor Temperature and Power-Up Protection with Thermal Memory
- ✓ Easily Accessible Mounting Feet for Panel Mounting
- ✓ LED Status Indication— Trip, Trip Class, Motor Thermal State, Reset, Overload State
- ✓ Unique “Alarm Without Trip” Option for Critical Must Run Applications
- ✓ -40 to 65°C (-40 to 149°F) Operating Temperature
- ✓ Wide 3.2:1 Current Adjustment Range
- ✓ Exclusive Internal 24-Bit Floating Point Math Calculations with RMS Calibrated Current Measurement
- ✓ Meets or Exceeds Global Standards for EMC (Electromagnetic Compatibility) Immunity and Emissions
- ✓ IP20 Finger Protection
- ✓ Motor Running Thermal Utilization Indication
- ✓ Manual, Automatic or Remote Reset
- ✓ DIN Rail Mountable, Size 00 to 2
- ✓ Solid-State Alarm Output Indication



N101BS0G3A shown smaller than actual size.

The Cutler-Hammer® Electro-Mechanical Starter consists of an electro-mechanical contact block or contactor and electro-mechanical solid-state overload relay as a full voltage non-reversing (FVNR) device. Size 00 to 2 motor starters are factory assembled.

SPECIFICATIONS

Dimensions:

Size 00 and 0: 45 W x 127 H x 63 mm D (1.8 x 5.0 x 2.5")

Size 1: 54 W x 138 H x 63 mm D (2.1 x 5.4 x 2.5")

Size 2: 76 W x 150 H x 79 mm D (3.0 x 5.9 x 3.1")

Mounting Hole Spacing:

Size 00 and 0: 33.8 W x 117.3 mm H (1.33 x 4.62")

Size 1: 37 W x 128 mm H (1.46 x 5.04")

Size 2: 24 W x 73 mm H (0.94 x 2.87")

Weight:

Size 00 and 0: 0.40 kg (0.9 lb)

Size 1: 0.53 kg (1.2 lb)

Size 2: 1.32 kg (2.9 lb)

Mechanical Operating Rate (No Load Condition):

Size 00 and 0: 3/sec

Size 1: 3/sec

Size 2: 2/sec

Mechanical Life (Operations):

Size 00 and 0: 10,000,000

Size 1: 10,000,000

Size 2: 8,000,000

Humidity: 95% non-condensing

Insulation Voltage (Ui): 690V

Impulse Withstand Voltage (Uimp): 6 kV

Coil Voltage (Nominal): 24 Vdc

Coil Operating Voltage Range: 20 to 28 Vdc

Operating Temperature: -40 to 65°C (40 to 149°F)

Storage Temperature: -50 to 80°C (-58 to 176°F)

Shock/Vibration: 15G/5G

Pull-In Time @ 24V—No Debounce:

Size 00 and 0: 15 ms

Size 1: 15 ms

Size 2: 25 ms

Pull-In Time @ 24V—With Debounce:

Size 00 and 0: 75 ms

Size 1: 80 ms

Size 2: 88 ms

**FULL VOLTAGE NON-REVERSING DC-OPERATED, OPEN TYPE STARTERS (SIZE 00 TO 2)
WITH 3-POLE SOLID STATE OVERLOAD PROTECTION**

MODEL NO.	NEMA SIZE	CONTINUOUS AMPERE RATING	OVERLOAD ADJUSTMENT RANGE (AMPERES)	MAX UL HORSEPOWER (HP) 60 HZ 3-PHASE				MAX UL HORSEPOWER (HP) 50 HZ 3-PHASE
				200V/ 208V	230V/ 240V	460V/ 480V	575V/ 600V	380V
N101BSAA3A	00	9	0.25 to 0.8	1.5	1.5	2	2	1.5
N101BSAB3A	00	9	0.59 to 1.9	1.5	1.5	2	2	1.5
N101BSAC3A	00	9	1.4 to 4.4	1.5	1.5	2	2	1.5
N101BS0C3A	0	18	1.4 to 4.4	3	3	5	5	5
N101BS0D3A	0	18	2.8 to 9.0	3	3	5	5	5
N101BS0G3A	0	18	6.3 to 20	3	3	5	5	5
N101CS1B3A	1	27	0.59 to 1.9	7.5	7.5	10	10	10
N101CS1C3A	1	27	1.4 to 4.4	7.5	7.5	10	10	10
N101CS1D3A	1	27	2.8 to 9.0	7.5	7.5	10	10	10
N101CS1F3A	1	27	5.0 to 16	7.5	7.5	10	10	10
N101CS1H3A	1	27	8.4 to 27	7.5	7.5	10	10	10
N101DS2H3A	2	45	8.4 to 27	10	15	25	25	25
N101DS2K3A	2	45	14 to 45	10	15	25	25	25

24 Vdc POWER SUPPLY REQUIREMENTS @ 20°C (68°F)

MODEL NO.	NEMA SIZE	SEALED IN		INRUSH		
		WATTAGE	AMPS	WATTAGE	AMPS	DURATION (MS)
N101BSAA3A	00	3.2	0.13	80	3.3	50
N101BSAB3A	00	3.2	0.13	80	3.3	50
N101BSAC3A	00	3.2	0.13	80	3.3	50
N101BS0C3A	0	3.2	0.13	80	3.3	50
N101BS0D3A	0	3.2	0.13	80	3.3	50
N101BS0G3A	0	3.2	0.13	80	3.3	50
N101CS1B3A	1	3.6	0.15	90	3.8	50
N101CS1C3A	1	3.6	0.15	90	3.8	50
N101CS1D3A	1	3.6	0.15	90	3.8	50
N101CS1F3A	1	3.6	0.15	90	3.8	50
N101CS1H3A	1	3.6	0.15	90	3.8	50
N101DS2H3A	2	5	0.21	130	5.4	65
N101DS2K3A	2	5	0.21	130	5.4	65



N101BS0G3A shown smaller than actual size.

MODEL NO.	DESCRIPTION
N101BSAA3A	Full voltage non-reversing, size 00 starter with 0.25 to 0.8 A overload range
N101BSAB3A	Full voltage non-reversing, size 00 starter with 0.59 to 1.9 A overload range
N101BSAC3A	Full voltage non-reversing, size 00 starter with 1.4 to 4.4 A overload range
N101BS0C3A	Full voltage non-reversing, size 0 starter with 1.4 to 4.4 A overload range
N101BS0D3A	Full voltage non-reversing, size 0 starter with 2.8 to 9.0 A overload range
N101BS0G3A	Full voltage non-reversing, size 0 starter with 6.3 to 20.0 A overload range
N101CS1B3A	Full voltage non-reversing, size 1 starter with 0.59 to 1.9 A overload range
N101CS1C3A	Full voltage non-reversing, size 1 starter with 1.4 to 4.4 A overload range
N101CS1D3A	Full voltage non-reversing, size 1 starter with 2.8 to 9.0 A overload range
N101CS1F3A	Full voltage non-reversing, size 1 starter with 5.0 to 16.0 A overload range
N101CS1H3A	Full voltage non-reversing, size 1 starter with 8.4 to 27.0 A overload range
N101DS2H3A	Full voltage non-reversing, size 2 starter with 8.4 to 27.0 A overload range
N101DS2K3A	Full voltage non-reversing, size 2 starter with 14.0 to 45.0 A overload range

Comes complete with wiring diagram and quick set-up guide.

Ordering Examples: N101BSAC3A, full voltage non-reversing, size 00 starter with a 1.4 to 4.4 A overload range.

N101CS1H3A, full voltage non-reversing, size 1 starter with an 8.4 to 27.0 A overload range.