

# SM3016 NEMA23 183oz-in STEPPER MOTOR

## PRODUCT SPECIFICATION

### Features:

- NEMA23 Frame Size
- Single or double ended shaft
- 6 Wire lead type
- 183 oz-in holding torque
- 3.0A per phase, 1.00 ohm, 1.6mH
- 0.25 Shaft diameter
- High quality aluminum/steel construction
- Length 2.21in, 1.54lbs

### Overview

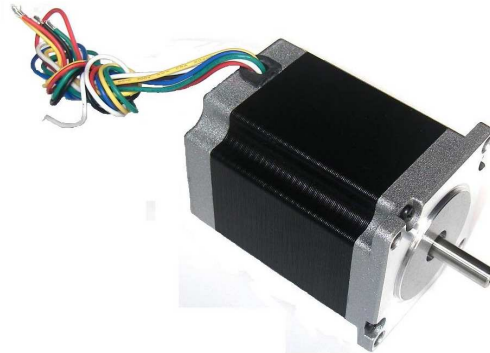
The SM3016A/B is a NEMA23 1183 oz-in stepper motor that can be wired in a unipolar or bipolar configuration. The low inductance and resistance of this motor allows it to reach a peak speed of 4500 steps per second and beyond. In conjunction with the MK4/MM130 microstepping controller the SM3016 is able to achieve 72,000 microsteps per second. See next page for torque vs speed curve and dimensional data.

### Specifications

<b>SOC Part No.:</b>	<b>SM3016A or SM3016B</b>
Price:	\$65.00
Frame Size:	NEMA23
Step Angle:	1.8 degree
Voltage:	3.0V
Current:	3.0A/phase
Resistance:	1.00Ohm/phase
Inductance:	1.6mH/phase
Holding torque:	13.5Kg-cm 183 oz-in
Rotor inertia:	480g-cm <sup>2</sup>
Detent torque:	0.68kg-cm
Number of wire leads:	6 (See color code diagram)
Weight:	2.20lb (1.0kg)
Length:	2.99" (76mm)
Shaft:	SM3016A - Single ended, 1/4" dia. SM3016B - Double ended, 1/4" dia.

### Top View

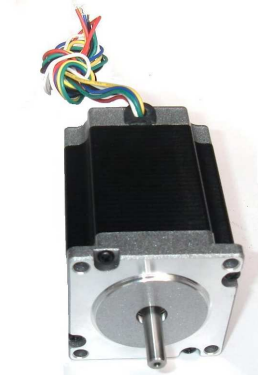
Showing doubled ended shaft version.



### Wiring Scheme



### Front View



### Ordering Information

The **SM3016** is available in a single shaft or double shaft configuration:

<b>SM3016A</b>	NEMA23 183oz-in Stepper Motor
<b>SM3016B</b>	NEMA23 183oz-in Stepper Motor (Doubled ended shaft)

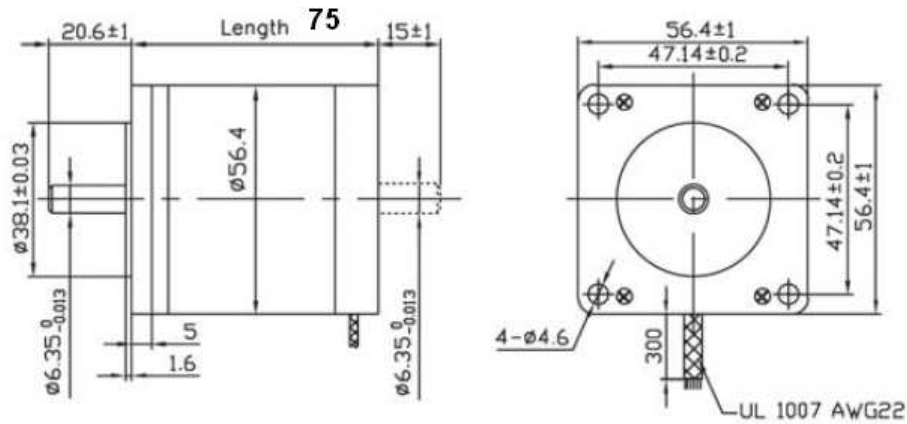
Orders may be placed directly with SOC Machines using the online the web site: [www.soc-robotics.com](http://www.soc-robotics.com), by calling (604) 628-7227 or by contacting one of our sales representatives or distributors.

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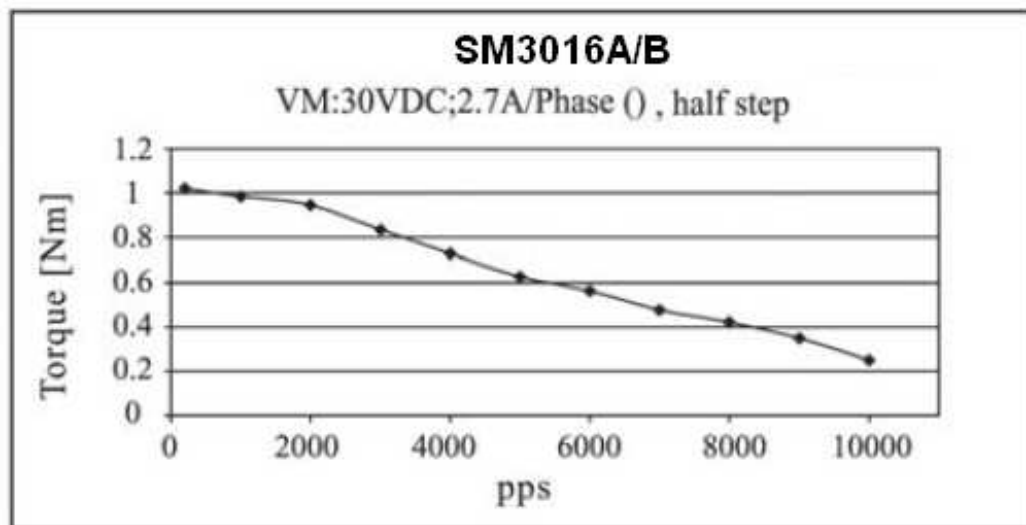
## PRODUCT SPECIFICATION



### Dimensions (in mm)



### Holding Torque Curve



### SOC Stepper Motor Product Family

SM2006	NEMA23	125 oz-in
SM3006	NEMA23	125 oz-in
SM3016	NEMA23	183 oz-in
SM3928	NEMA34	640 oz-in
SM4216	NEMA34	1050 oz-in
SM4804	NEMA34	1200 oz-in
SM5024	NEMA34	1690 oz-in

Motor default configuration is double ended drive shafts - single shaft versions are special order.

