

# 23D Series - Standard Stepper Motors



## FEATURES

- **NEMA Size 23 Stepper Motor**
- **1.8° Step Angle**
- **High Torque - Up to 210 oz-in**
- **Best Selection for High Speed Applications**
- **Can be Customized for**
  - **Winding Current**
  - **Shaft Options**
  - **Cables and Connectors**



## DESCRIPTION

The 23D Series Stepper Motors are standard style round-bodied stepper motors. They have lower rotor inertia than square high torque motors which allow them to accelerate faster and offer higher torque at speeds greater than 25 revolutions per second. These motors are an excellent choice to replace many of the round stepper motors that were popular for many years. The motor comes in a standard 6-lead configuration with a broad line of motor windings and stack lengths available off-the-shelf. Anaheim Automation can also customize the winding to perfectly match your voltage, current, and maximum operating speed. Special shaft modifications, cables and connectors are also available upon request. The 23D series is often referred to as “legacy motors,” and a good cross to the Superior Electric Slosyn M061, M062 and M063 series.

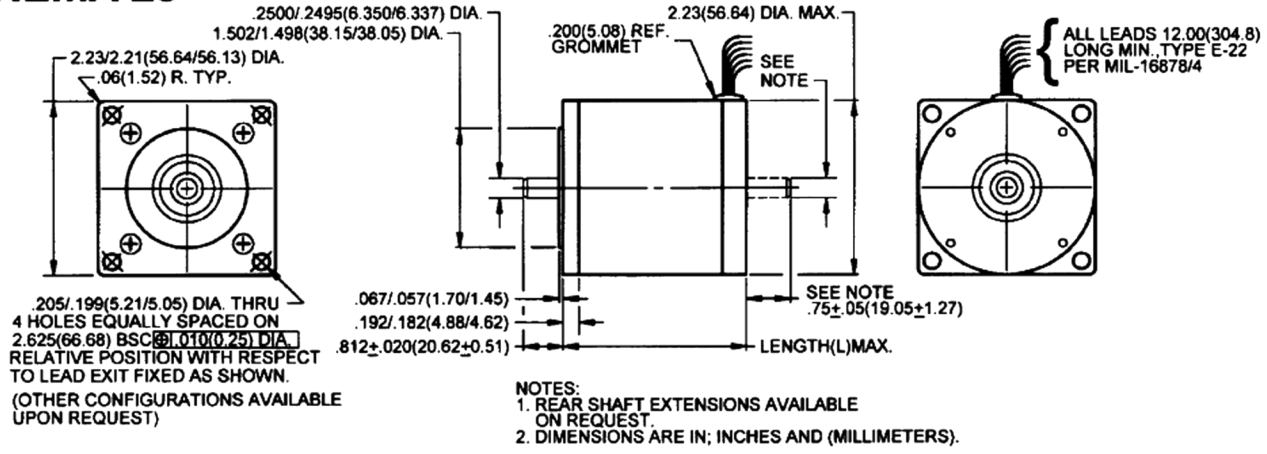
## SPECIFICATIONS

Model #	NEMA Size	Bipolar Torque (oz-in)	Series Current (A)	Unipolar Current (A)	Unipolar Inductance (mH)	Rotor Inertia (oz-in-sec <sup>2</sup> )	Shaft Diameter (in)	# of Lead Wires	Weight (lbs)	L Length (in)
23D102	23	75	0.7	1.0	10.00	.0015	0.25	6	1.3	2.00
23D104	23	75	1.4	2.0	2.50	.0015	0.25	6	1.3	2.00
23D108	23	75	2.7	3.9	0.63	.0015	0.25	6	1.3	2.00
23D204	23	140	1.3	1.8	5.70	.0030	0.25	6	2.0	3.25
23D209	23	140	3.3	4.7	0.80	.0030	0.25	6	2.0	3.25
23D306	23	210	2.0	2.9	2.90	.0045	0.25	6	2.75	4.00
23D309	23	210	3.3	4.6	1.20	.0045	0.25	6	2.75	4.00

Notes: The 7th character “S” denotes a single shaft, use “D” for double shaft. Custom leadwires, cables, connectors, and windings are available upon request. 8 lead wire configurations are also available.

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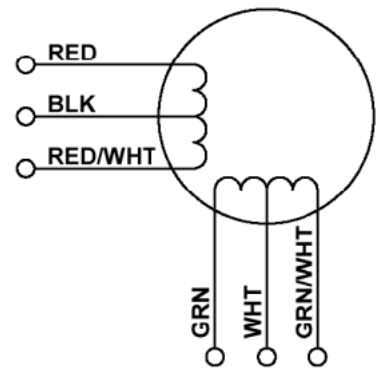
# NEMA 23



(All units are inches)

DIMENSIONS

Connection	Lead Wire Connection	Lead Wire Color
4 - Lead Bipolar Series MBC, MLP or MLA Series Do Not Connect Do Not Connect	Phase 1 (A)	Red
	Phase 3 (A)	Red/White
	Phase 2 (B)	Green (GRN)
	Phase 4 (B)	GRN/WHT
6 - Lead Unipolar BLD, TM Series	Phase 1	Red
	Phase 3	Red/WHT
	Phase 2	Green (GRN)
	Phase 4	GRN/WHT
	Common Phase 1 & 3	Black (BLK)
	Common Phase 2 & 4	White (WHT)



WIRING INFORMATION

Step Angle Accuracy:	+/- 5% of one step
Resistance Accuracy:	+/- 10%
Inductance Accuracy:	+/- 20%
Temperature Rise:	100° C
Ambient Temperature:	-20° C to +50° C
Insulation Type:	Class B
Insulation Resistance:	1000M Ohms at 500VDC

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