

# D Series Motors

## Frameless Motors



Designed to meet the robotic and automation demands of the market. Lightweight for Low Inertia, High Efficiency, High Torque Density and Compact Size.

**Torque Range (Continuous):** .165 Nm to 4.3 Nm

**Torque Range (Peak):** .495 Nm to 12.9 Nm

**Rated Voltages:** 12Vdc – 60Vdc

**Power:** 100 W to 1,000 W

**Warranty:** One-year limited warranty



### Product Features

- High torque to inertia ratio
- High torque density
- Accuracy and resolution to suit your application
- Supported by rigorous testing for performance and reliability
- Small package size with low rotor inertia
- Customizable for drop-in applications

### Product Overview and Options

#### The D Series is designed to provide:

- Cost effective machine frame & bearing design
- Compact size
- Large rotor ID for convenient cable routing
- Direct load coupling
- Low cogging torque
- Class F Insulation
- UL agency recognition
- RoHS compliant
- Machine wound for high reliability

#### Typical Applications:

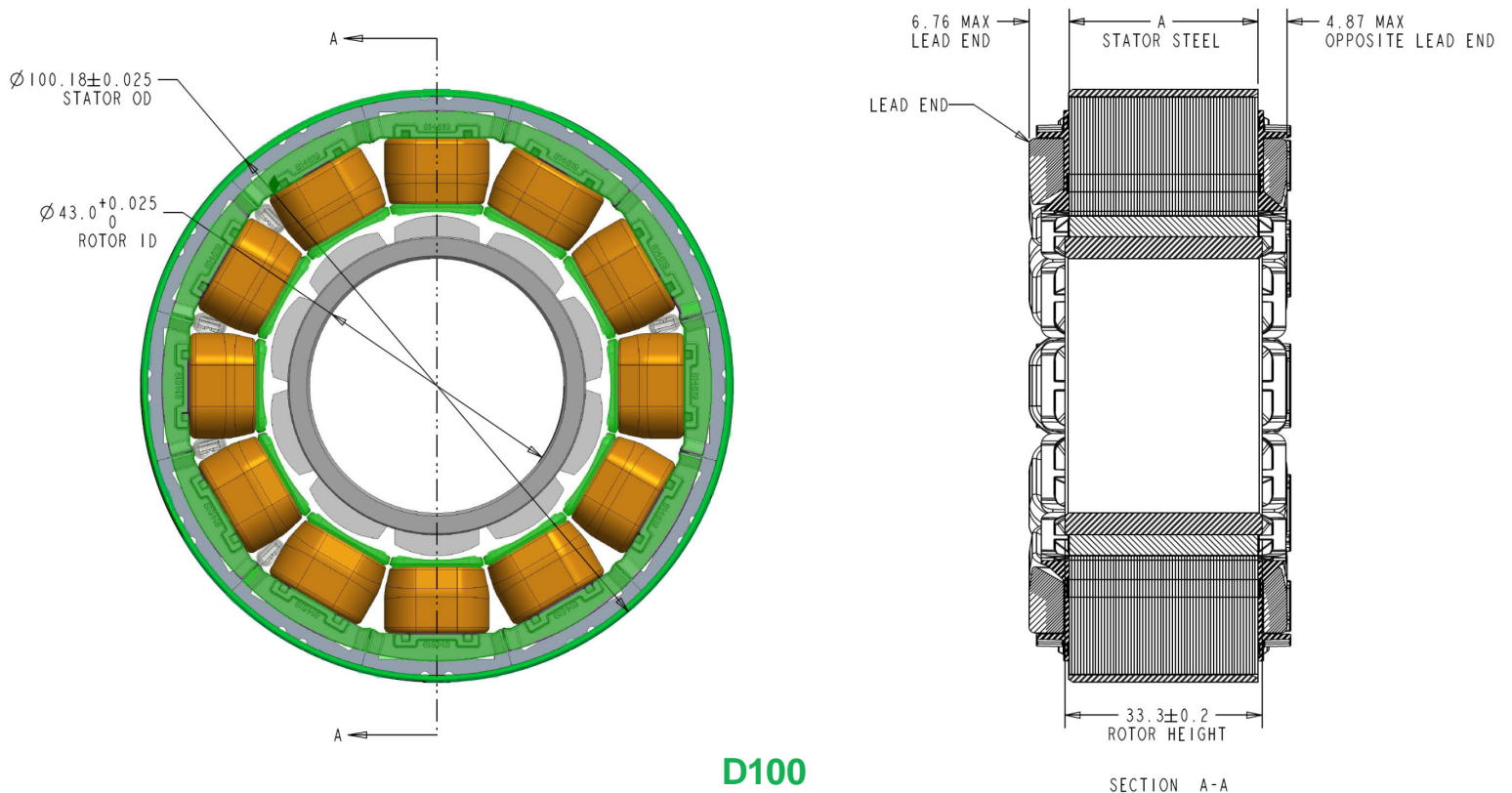
- Robotics
- Packaging equipment
- Medical equipment
- Indexing and positioning
- Pumping
- General purpose equipment



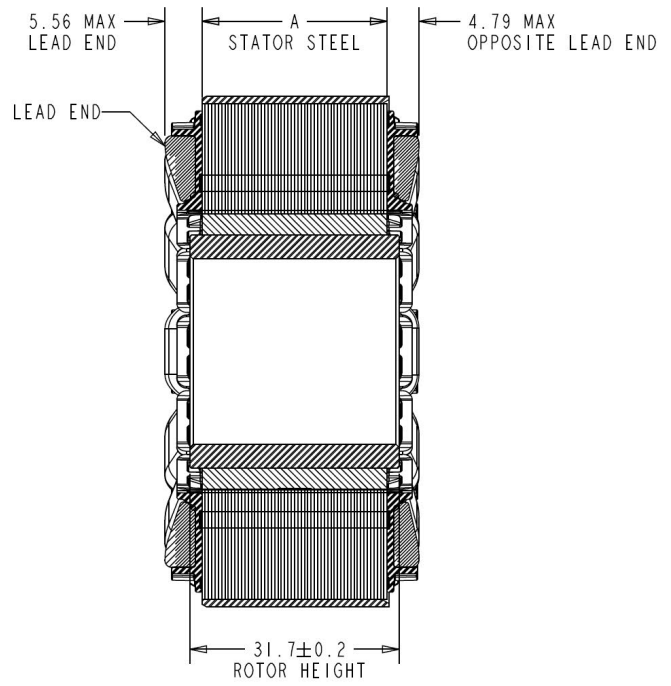
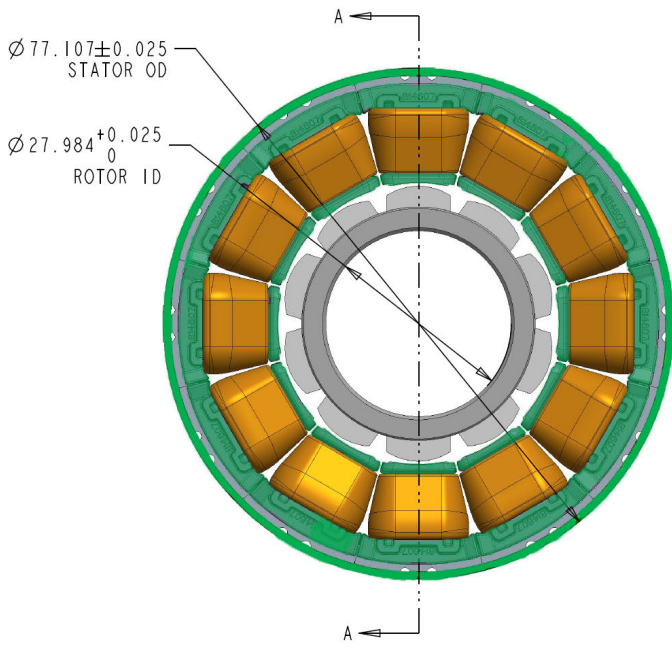
## Specifications

Part Number	D35	D52	D64	D77	D100
Bus voltage (Vdc)	48	48	48	48	48
Stack height range (mm)	15-50	15-50	15-75	15-75	15-75
"A" stack height for data below (mm)	20.5	18.5	25.5	28	32
Rated Speed (RPM)	6000	3000	3000	3000	2000
No-load Speed (RPM)	10250	4450	3450	3250	2880
Rated torque (Nm)	0.15	0.43	1	2.12	4
Peak torque (Nm)	0.375	1.075	2.5	5.3	10
Rated power (kW)	0.09	0.14	0.31	0.67	0.84
Ke (Vrms/kRPM)	3.21	7.42	9.55	10.15	11.44
Kt (Nm/Arms)	0.049	0.113	0.145	0.154	0.174
Rated current (Arms)	3.07	3.81	6.88	13.73	22.98
Peak current (Arms)	7.68	9.52	17.20	34.32	57.45
Standard inertia (kgcm <sup>2</sup> )	0.013	0.047	0.158	0.45	1.6
Insulation rating (deg C)	155	155	155	155	155
Stator weight (kg)	0.077	0.172	0.417	0.635	1.193
Rotor weight (kg)	0.027	0.045	0.099	0.158	0.326
Number of poles	6	6	8	10	10
R (ph-ph) (Ohms)	2.6	1.55	0.74	0.24	0.1
L (ph-ph) (mH)	1	1.92	1.1	0.6	0.42
Air gap (mm)	0.50	0.50	0.50	0.50	0.76

## Motor Dimensions

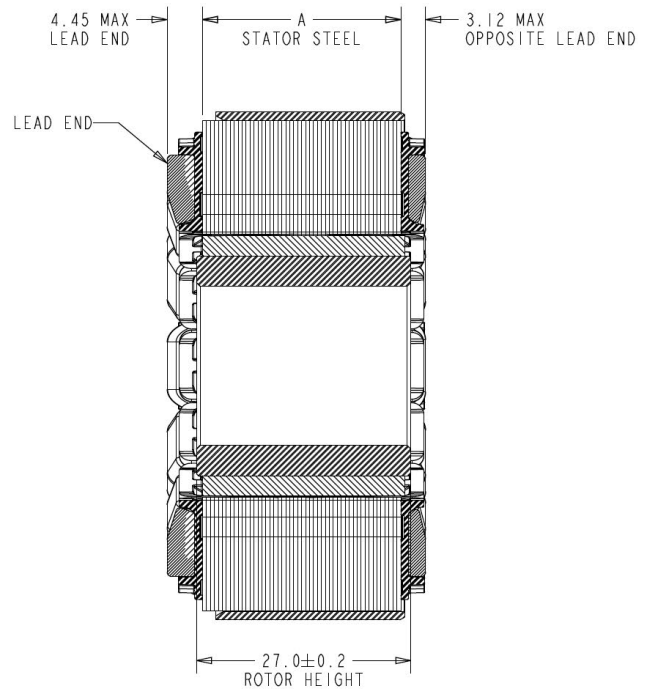
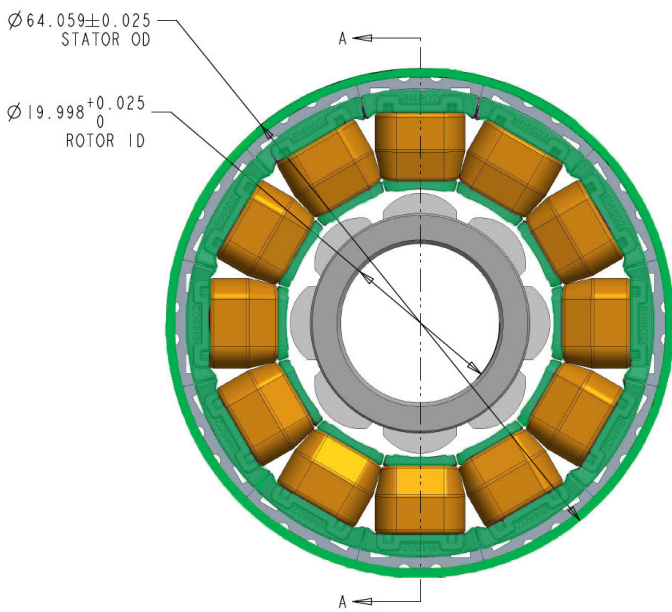


Motor Dimensions



D77

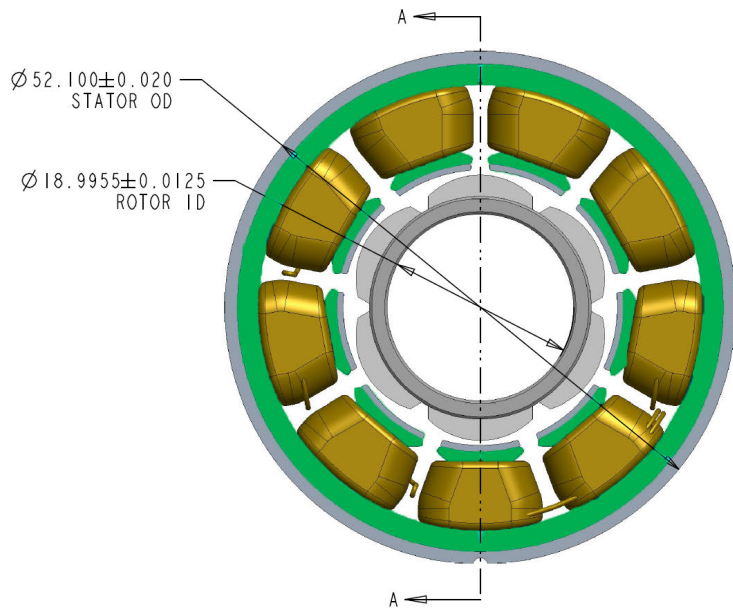
SECTION A-A



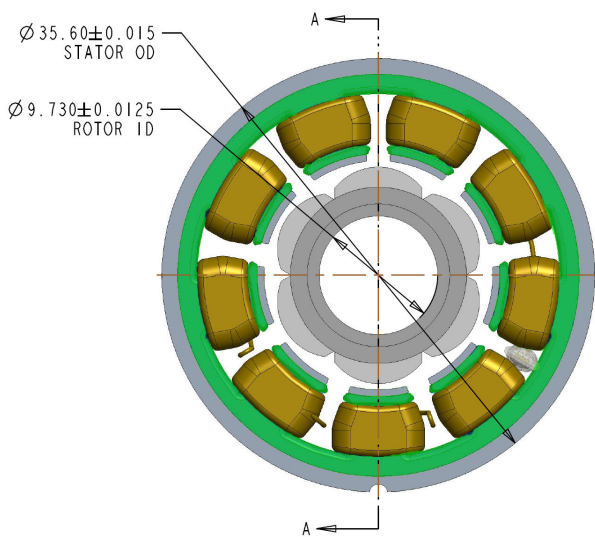
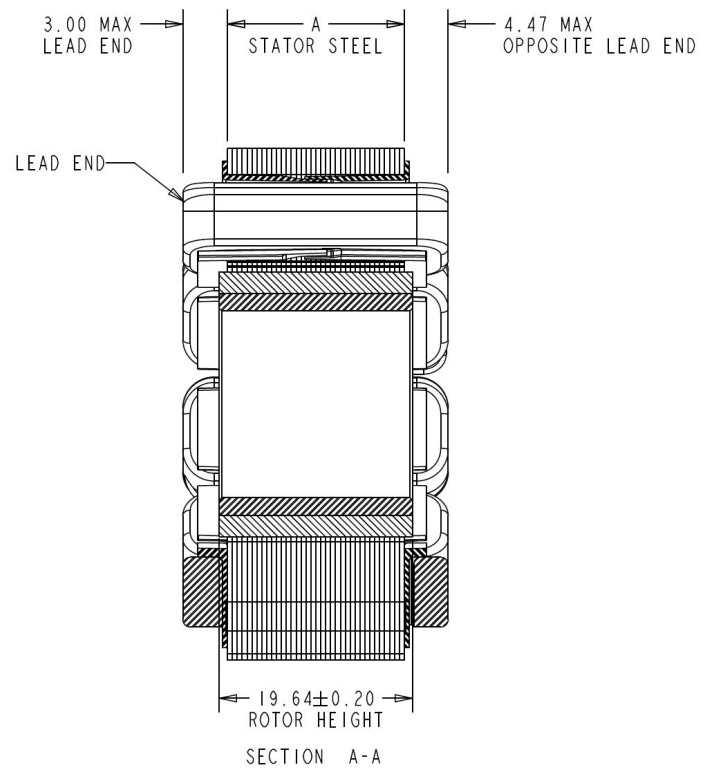
D64

SECTION A-A

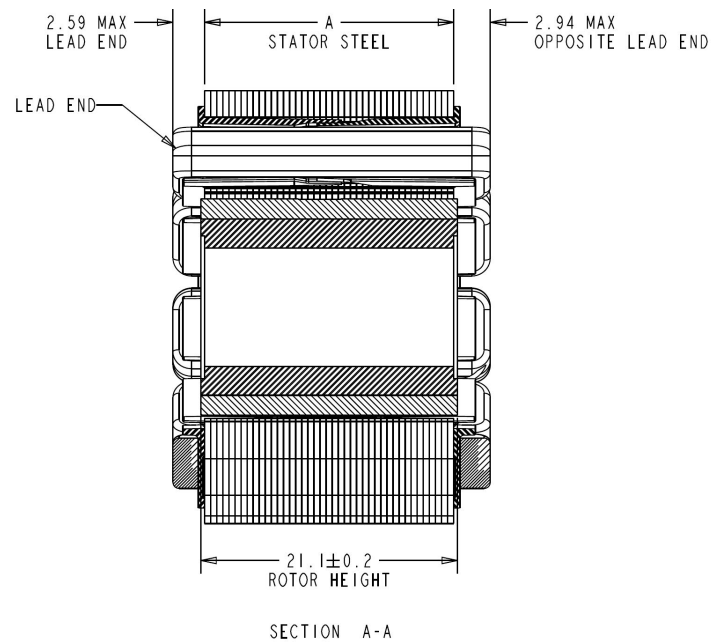
Motor Dimensions



D52



D35



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