

E-Series

High Efficiency Compact Brushless DC Motors



Nidec Motor Corporation's E-Series motors provide a versatile and torque-dense platform for a wide variety of applications. This high efficiency platform lends itself well to demanding applications, while also providing an impact- and shock-resistant design.

Peak Torque Range: .495Nm to 1.35Nm

Rated Torque Range: .165Nm to .45Nm

Radial Load: **E35:** 7N and **E52:** 50N

Axial Load: **E35:** 2.2N and **E52:** 13N

Rated Voltages: 12Vdc-60Vdc

Warranty: One year limited warranty



Product Features

- Lightweight with low rotor inertia
- High efficiency design
- High torque density
- Compact design that is machine wound for reliability
- Low cogging torque
- High accuracy and resolution to suit your application
- ROHS compliant
- UL Recognized Component



E-Series Motor

Part Number	E35	E52
Stack height range (mm)	15-35	15-35
Input voltage	24V	24V
Ref stack height for data below	20.5	18.5
Continuous stall torque (Nm)	0.175	0.55
Peak torque (Nm)	0.495	1.35
Standard inertia (kgcm ²)	.013	.047
Insulation rating (deg C)	155	155
Stator weight (kg)	0.077	0.172
Rotor weight (kg)	0.027	0.045
Number of poles	6	6
Ke @ 1000 rpm (V/krpm)	3.3	7
Kt @ 1000 rpm (Nm/A)	0.045	0.11
Rated torque (Nm)	0.165	0.45
Stall current (A)	3.8	4.5
Rated power (kW)	0.1	0.14
R (ph-ph) (Ohms)	2.6	1.55
L (ph-ph) (mH)	1	1.92

Product Overview and Options

Additional Features and Options:

- Shock and vibration resistant design
- Option of hall effect sensors
- 155 C rating for continuous operation
- Ease of installation
- Customizable for drop-in applications
- Available with wiring harness, connectors or wiring leads

Typical Applications:

- Robotics
- Industrial applications
- Pumps
- General purpose
- Medical equipment
- Packaging equipment
- Indexing and positioning

Motor Model	Length	Shell Diameter
E35	16 mm	37.1 mm
E52	27 mm	51.1 mm



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Nidec
NIDEC MOTOR CORPORATION

8050 W. Florissant Avenue | St. Louis, MO 63136
Phone: 833-266-4332