

# LD330 Series

## Low Voltage Grade Brush Motors



### Performance Features

- Low Voltage windings, 12, 24, 36 and 48 Vdc
- Continuous Torques from 7.5 to 14 lb-in
- High Peak Torque capability
- Speeds up to 6000 rpm
- 2 Pole Ceramic Magnet Structure
- Transaxle and NEMA 34 mounting
- Mounting for optional 24V Parking Brake
- High current Brush and Commutator Structure
- Smooth, Low Cogging design
- 18 inch heavy Duty cabled Motor Leads

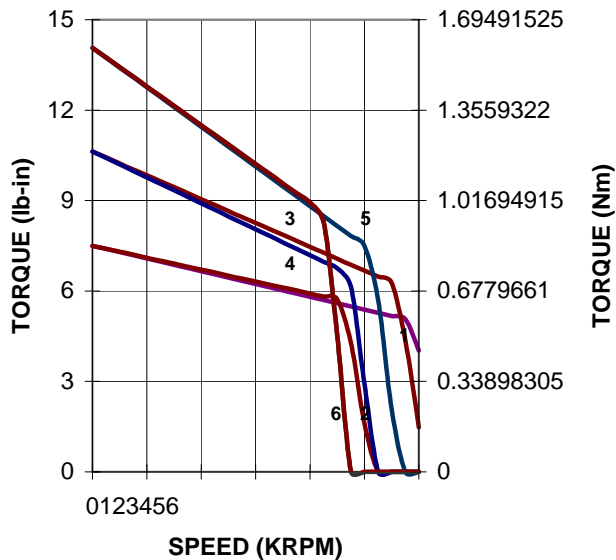
### Options

- NEMA 34 Flange Mount
- 24V, 35 lb-in Parking Brake w/ Mechanical Release
- Cable Power Fast-ons

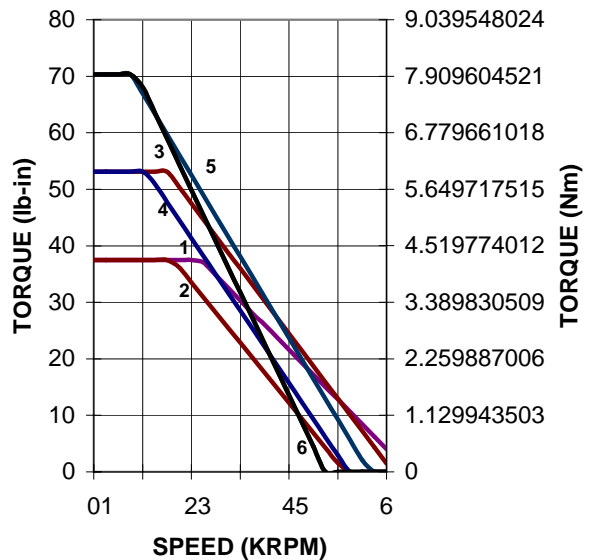
### Customer Defined Options

- Custom Shafts and Mounting
- Brake Coils, 12, 36, 48 Vdc
- Special Motor Winding (Ke)
- Special Connectors

Cont. Torque LD330 Series @ 36 Vdc

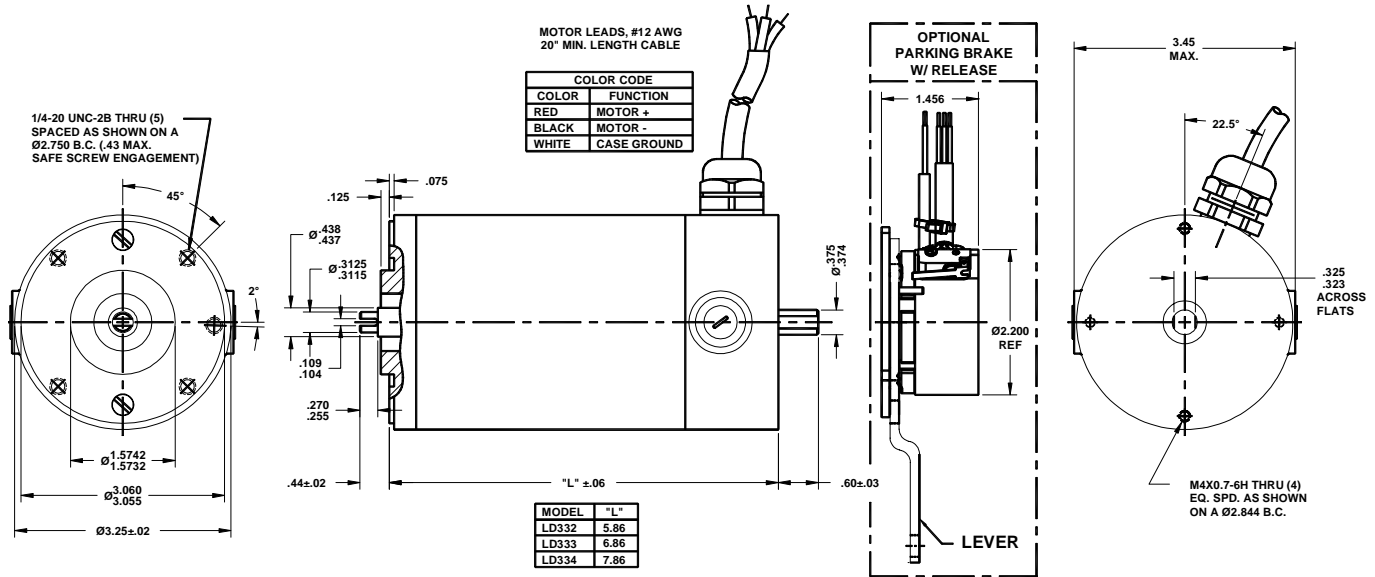


Peak Torque LD330 Series @ 36 Vdc



1 = LD332-F 2 = LD332-H 3 = LD333-D  
 4 = LD333-E 5 = LD334-C 6 = LD334-D

# DIMENSIONS



| GENERAL                       | Condition  | Units                                      | LD332           |                | LD333          |                | LD334           |                |
|-------------------------------|------------|--|-----------------|----------------|----------------|----------------|-----------------|----------------|
| Continuous Stall Torque       | 1)         | Nm / lb-in                                 | 0.85 / 7.5      |                | 1.2 / 10.6     |                | 1.59 / 14.1     |                |
| Peak Stall Torque             | 1)         | Nm / lb-in                                 | 4.2 / 37.5      |                | 6 / 53.1       |                | 7.94 / 70.3     |                |
| WINDING                       |            |  | FH              |                | D              | E              | CD              |                |
| Torque Constant               | (+ / -10%) | Nm / A<br>lb-in / A                        | 0.053<br>0.465  | 0.066<br>0.583 | 0.055<br>0.490 | 0.065<br>0.575 | 0.060<br>0.532  | 0.072<br>0.634 |
| Voltage Constant (back EMF)   | (+ / -10%) | V / kRPM<br>V / rad / s                    | 5.50<br>0.053   | 6.90<br>0.066  | 5.80<br>0.055  | 6.80<br>0.065  | 6.30<br>0.060   | 7.50<br>0.072  |
| Current at Cont. Stall Torque | 1)         | A  | 17.9            | 14.3           | 24.0           | 20.5           | 29.4            | 24.7           |
| Current at Peak Torque        |            | A  | 89.6            | 71.4           | 120.4          | 102.7          | 146.7           | 123.2          |
| Terminal Resistance           | (+ / -15%) | ohms                                       | 0.20            | 0.26           | 0.17           | 0.21           | 0.16            | 0.18           |
| Inductance                    | (+ / -15%) | mH   | 0.33            | 0.52           | 0.23           | 0.32           | 0.19            | 0.28           |
| Maximum Terminal Voltage (Vt) |            | V dc                                       | 48              | 48             | 48             | 48             | 48              | 48             |
| Maximum Speed (no load)       |            | RPM  | 6000            | 6000           | 6000           | 6000           | 6000            | 6000           |
| Rated Speed @ 24 Vdc          |            | RPM  | 3700            | 3000           | 3450           | 2900           | 3100            | 2600           |
| Rated Speed @ 36 Vdc          |            | RPM  | 5900            | 4700           | 5500           | 4650           | 4950            | 4200           |
| MECHANICAL                    |            |  |                 |                |                |                |                 |                |
| Armature Inertia              |            | kg-cm <sup>2</sup><br>lb-in-s <sup>2</sup> | 2.33<br>0.00206 |                | 3.39<br>0.0030 |                | 4.45<br>0.00394 |                |
| Thermal Resistance            |            | °C/W                                       | 2.2             |                | 1.9            |                | 1.7             |                |
| Environmental Protection      |            | IP   | 42              |                | 42             |                | 42              |                |
| Weight                        |            | Kg/lb                                      | 3.27 / 7.2      |                | 3.99 / 8.8     |                | 4.76 / 10.5     |                |

1) 155°C winding temperature, all others at 25°C

## HOW TO ORDER

**L D 3 3** - **X T 3 B A**

**Models**

LD332

LD333

LD334

**Winding Letter**

**Mounting Flange - Drive End**

T3 - Transaxle Mount

N4 - NEMA 34 Flange and HD Shaft

**Mounting Flange - Option End**

B1 - Std. Brake Mount Surface w/o Brake

BA - w/ 24V Std Mech. Release Brake