

# Woodward Engineered Components

## Product Specification BLDC Motors Size 11 & 15

### Standard Motor Features

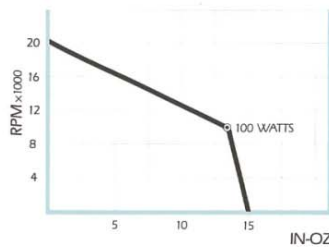
- High torque to inertia ratio
- Rare earth magnets
- All stainless steel construction with matched coefficient of thermal expansion
- ABEC Class 7 bearings
- High temperature analog commutation sensor or Hall Effect
- Stator located windings for optimal thermal dissipation
- AGMA Class 12 precision pinions and precision mounting arrangements
- -55° to +225° C operating range
- MIL-STD-810 environments

### Optional Motor Features

- Customer specified pinion and mounting
- Matched gearing and/or feedback devices, electrically actuated brakes
- Complete actuator packages (rotary and linear output) including synchros, resolvers, RVT's and other feedback devices
- Alternate no load speeds for direct drive/slow speed applications

Note: All the data appearing on these pages represent actual test data of existing designs. The allowable performance for continuous duty shaft power varies widely with mounting, ambient environment and torque-duty cycle. Consult our sales engineering staff regarding your specific application.

D

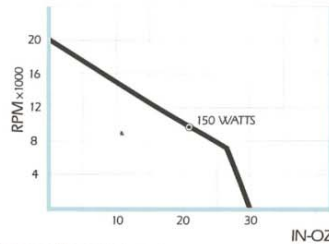


Motor Type: D-Short

Weight: 4.5 oz | Rotor Inertia:  $5.4 \times 10^{-5}$  in-oz-s<sup>2</sup>

Motor Constant: 1.6 in-oz/√watt

A: 1.062" B: .875" D: .6250" d: .110"  
S: .2497" P: .125" T: .187" L1: — L2: 1.58"



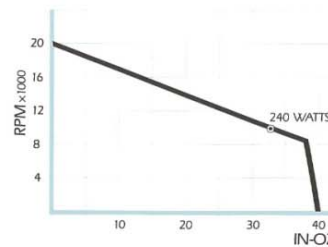
Motor Type: D-Long

Weight: 5.5 oz | Rotor Inertia:  $8.1 \times 10^{-5}$  in-oz-s<sup>2</sup>

Motor Constant: 2.8 in-oz/√watt

A: 1.062" B: .875" D: .6250" d: .110"  
S: .2497" P: .125" T: .187" L1: — L2: 1.87"

E

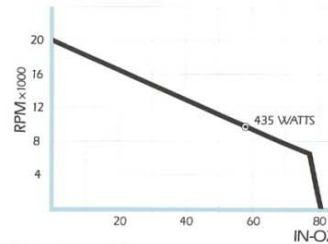


Motor Type: E-Short

Weight: 9 oz | Rotor Inertia:  $1.32 \times 10^{-4}$  in-oz-s<sup>2</sup>

Motor Constant: 3.8 in-oz/√watt

A: 1.437" B: 1.187" D: .7500" d: .129"  
S: .2497" P: .125" T: .250" L1: 1.31" L2: 1.89"

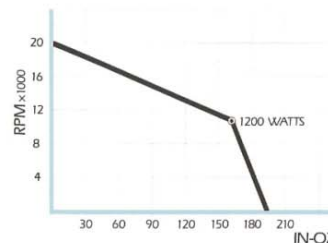


Motor Type: E-Long

Weight: 12 oz | Rotor Inertia:  $2.46 \times 10^{-4}$  in-oz-s<sup>2</sup>

Motor Constant: 6.0 in-oz/√watt

A: 1.437" B: 1.187" D: .7500" d: .129"  
S: .2497" P: .125" T: .250" L1: 1.80" L2: 2.38"



Motor Type: E-Double Long

Weight: 20 oz | Rotor Inertia:  $4.4 \times 10^{-4}$  in-oz-s<sup>2</sup>

Motor Constant: 10.0 in-oz/√watt

A: 1.500" B: 1.250" D: .7500" d: .149"  
S: .2497" P: .125" T: .250" L1: 2.77" L2: 3.35"

