

UniDrive[®] Motor

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The UniDrive[®] motor has just one moving part, operates almost silently and gives you unprecedented flexibility in manufacturing lead time.

The new UniDrive[®] motor is a solution offering greater reliability and design freedom. The system is remarkably simple and cost effective. It consists of an externally-mounted direct drive brushless DC motor and an electronic speed control.

Extreme Reliability: 300,000 Hour Bearing Life

The new UniDrive[®] system uses an extremely reliable 4 $\frac{5}{8}$ -inch diameter brushless DC servo-motor with an electronically-controlled operating speed of just 280 rpm. It produces high torque at low speed without using failure-prone gear reducers, linkages or drive chains. The net result of the low speed combined with the robust bearings is a 310,000 hour calculated bearing life (L_{10} ANSI/AFBMA Std 9-1978.)

Almost Silent Operation

The UniDrive[®] motor is almost silent in operation at full power. There are no gears, drive chains or other moving parts to generate noise.

Plug and Play Simplicity

The UniDrive[®] motor controller is a rugged, reliable device that gives you a simple plug and play connection. You control your manufacturing lead-time.

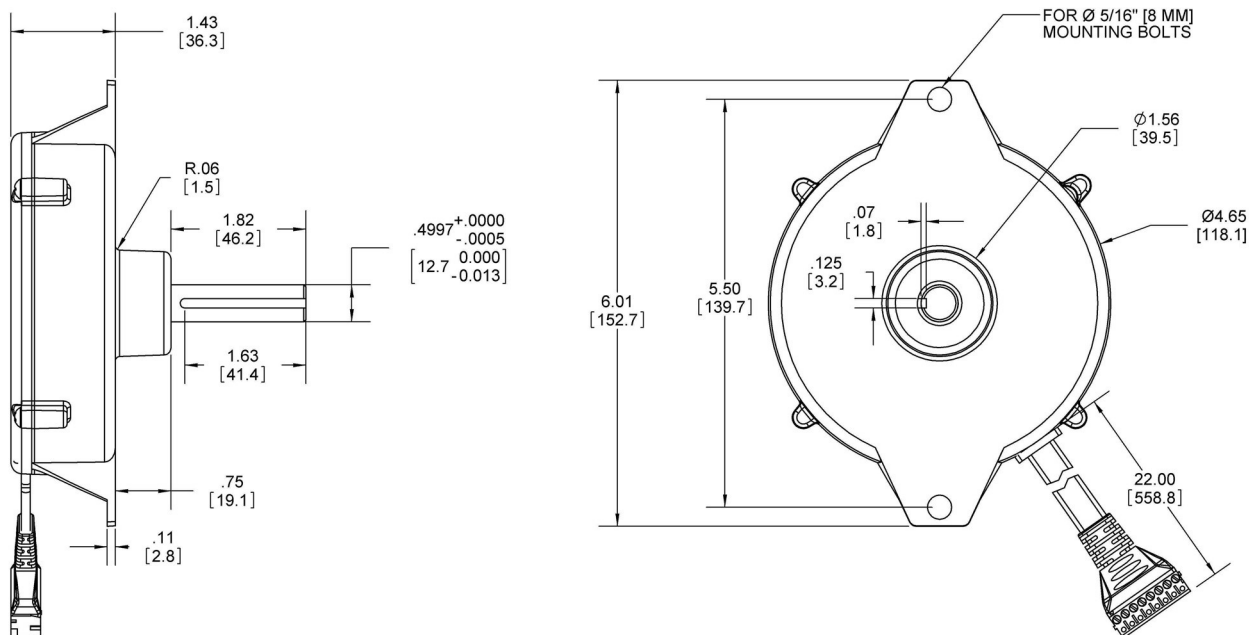
Simple to Service

If a motor ever fails, it is easy to replace because it's mounted externally. Only one part number needs to be stocked for spares and repairs.

Features

- 24V brushless DC motor
- 4.63" \varnothing x 1.5"L
- Shaft 0.5" \varnothing x 1.8"L with keyway
- 22" leads with connector
- 4-100W input
- 56-280 RPM
- 15 in-lbf continuous torque
- Compatible with PowerCube[™] assembly

Specifications



US Patent 7,537,107

Motor Series	100W24			
Description	US Units		Metric Units	
Input Power				
Voltage (rated)	24	VDC	24	VDC
Amperage (rated)	4	Amps	4	Amps
Amperage (no-load)	0.17	Amps	0.17	Amps
Watts (rated)	96	Watts	96	Watts
Output				
Speed (rated)	280	RPM	29.3	r/s
Speed (minimum)	56	RPM	5.9	r/s
Torque (continuous)	15	In·lbf	1.69	N·m
Torque (starting)	42	In·lbf	4.75	N·m
Motor Constants				
K_E (Back EMF)	67.0	V/kRPM	0.64	V/r/s
K_T (Torque/Amp)	90.6	In·oz/A	0.64	N·m/A
R_T (Terminal Resistance)	1.7	Ohms	1.7	Ohms

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Simplicity in Motion