



## UniDrive® Motor

110190

**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: 250,000 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 350 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 248,000 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.

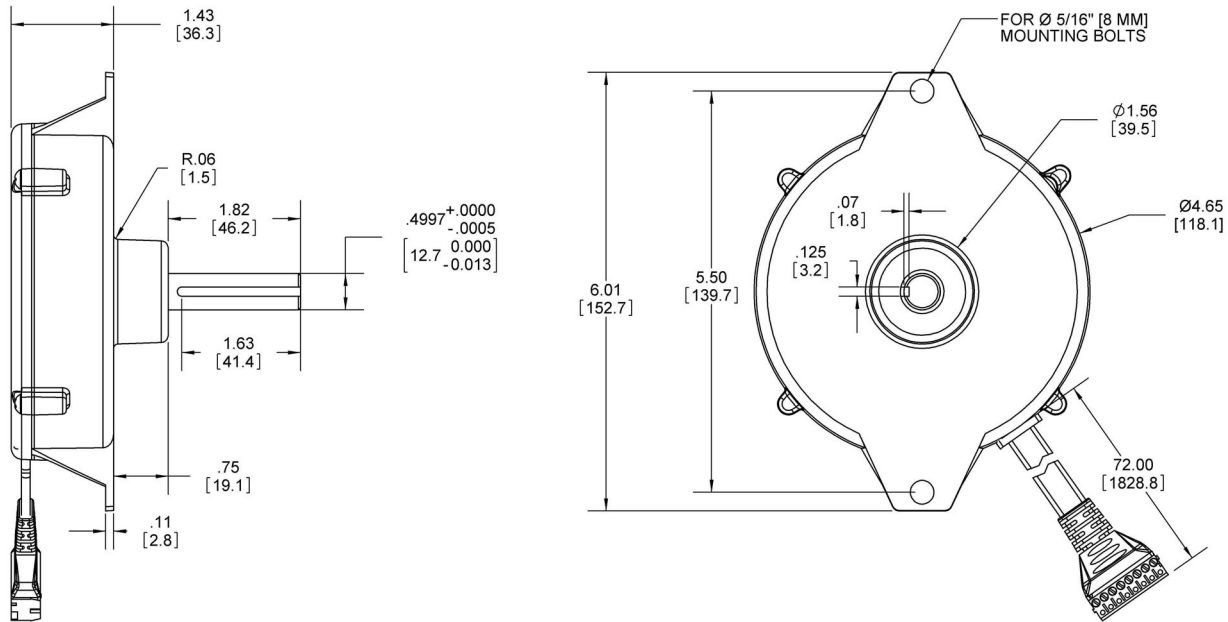
### **Simple to Service**

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
- 72" leads with connector
- 5-125W input
- 70-350 RPM
- 15 in-lbf torque
- Compatible with PowerCube™ assemblies

# Specifications



US Patent 7,537,107

Motor Series	125W24			
Description	US Units		Metric Units	
Input Power				
Voltage (rated)	24	VDC	24	VDC
Amperage (rated)	5	Amps	5	Amps
Amperage (no-load)	0.21	Amps	0.21	Amps
Watts (rated)	120	Watts	120	Watts
Output				
Speed (rated)	350	RPM	36.7	r/s
Speed (minimum)	70	RPM	7.3	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)	53.2	V/kRPM	0.51	V/r/s
$K_T$ (Torque/Amp)	71.9	In·oz/A	0.51	N·m/A
$R_T$ (Terminal Resistance)	1.1	Ohms	1.1	Ohms

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*Simplicity in Motion*