

Side Drive

OS69-120-215-210-12168

Direct-Drive Rotary Motion (DDRM)

Stainless Steel
NEMA 56C Bolt Pattern
IP69k Washdown Safe

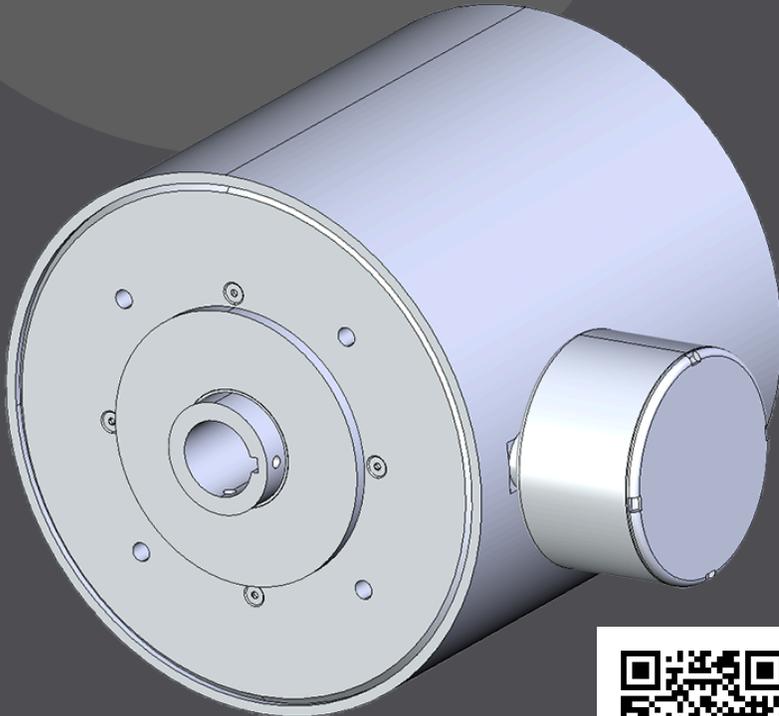
Torque: 40Nm (29.5 ft-lbs)

Peak: 120Nm (88.6 ft-lbs)

Speed Range: 0-300 rpm

Built For Hygienic Washdown Applications
Highly Efficient Permanent Magnetic Arrays
Synchronous Motion Control

Backed by a 3-Year Warranty



Learn More



Designed to Replace
1HP AC Motor + Gearbox Systems
Servo Motor + Gearbox Systems

Perfect Drop-In Retrofit

- Uses existing 56C bolt / torque arm mount
- Works with any VFD supporting PM motors
- 40 Nm continuous / 120 Nm peak torque
- Ideal for start / stop / timing precision
- No encoder / servo drive required

Key Benefits

- True IP69K
- 100% Oil-free
- 3-year warranty
- Proven 6 year+ service life
- Reduction in spare parts
- 56C Face Mount
- Wide speed range

Annual Savings Per Unit

- Up to 55% less energy
- Half-Ton CO₂ emission savings
- 62% less cost of ownership
(Compared to AC Motor + Gearbox)

\$3,846 MSRP

Oil-Free
Gearbox-Free
Zero Maintenance

 **ONE MOTION**

Side Drive

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3-Year Cost Comparison

1 HP AC Motor + Gearbox vs. Side Drive

	Stainless Washdown Motor + Gearbox	One Motion Side Drive	3-year Savings with Side Drive
Initial Purchase Price	\$4,500	\$3,846	\$654
3 Yr. Energy Cost (@ \$0.14 /kWh)	\$1,311	\$591	\$720
Routine Maintenance (seals, bearings)	\$900	\$0	\$900
Motor Replacement (avg. 1 failure /yr)	\$5,000	\$0	\$5,000
3-Year Total Cost	\$11,711	\$4,437	\$7,274

Numbers based on average stainless steel AC Motor + Gearbox setups

Eliminated Contamination Risk

Average Contamination Recall Cost \$10M (FDA)

**IP69K
RATED**



**316
Stainless
Steel**

ZERO COMPROMISES

ONE MOTION

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Gearbox Ratios Replaced for Speed

Inverter Rated Washdown AC Motor	Gearbox Ratio	Min Speed	Max Speed
1 HP	6:1	0 rpm	300 rpm
1 HP	15:1	0 rpm	300 rpm
1 HP	20:1	0 rpm	300 rpm
1 HP	30:1	0 rpm	300 rpm
1 HP	Above +	0 rpm	300 rpm

Gearbox Ratios Replaced for Torque

Inverter Rated Washdown AC Motor	Gearbox Ratio	AC Peak Torque Output	Side Drive Peak Torque Output
1 HP	10:1	40 Nm / 29.5 ft-lb	120 Nm / 88.5 ft-lb
1 HP	15:1	60 Nm / 44.3 ft-lb	120 Nm / 88.5 ft-lb
1 HP	20:1	80 Nm / 59.0 ft-lb	120 Nm / 88.5 ft-lb
1 HP	25:1	100 Nm / 73.8 ft-lb	120 Nm / 88.5 ft-lb
1 HP	30:1	120 Nm / 88.5 ft-lb	120 Nm / 88.5 ft-lb

Variable speed control from 0Hz - 120Hz+

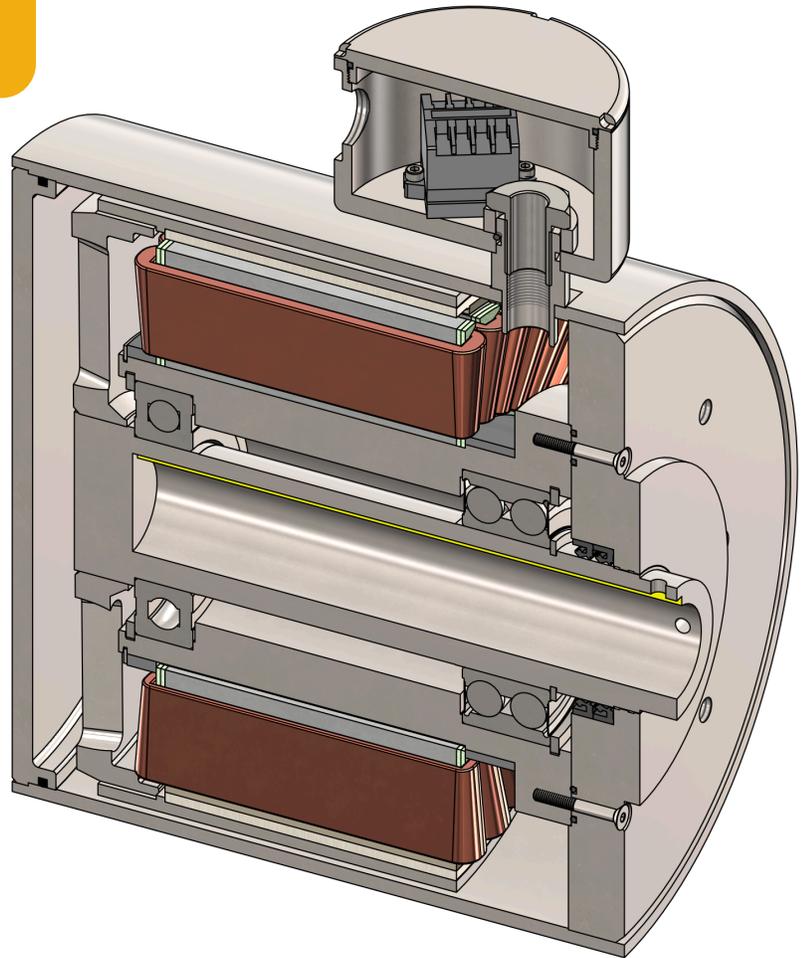
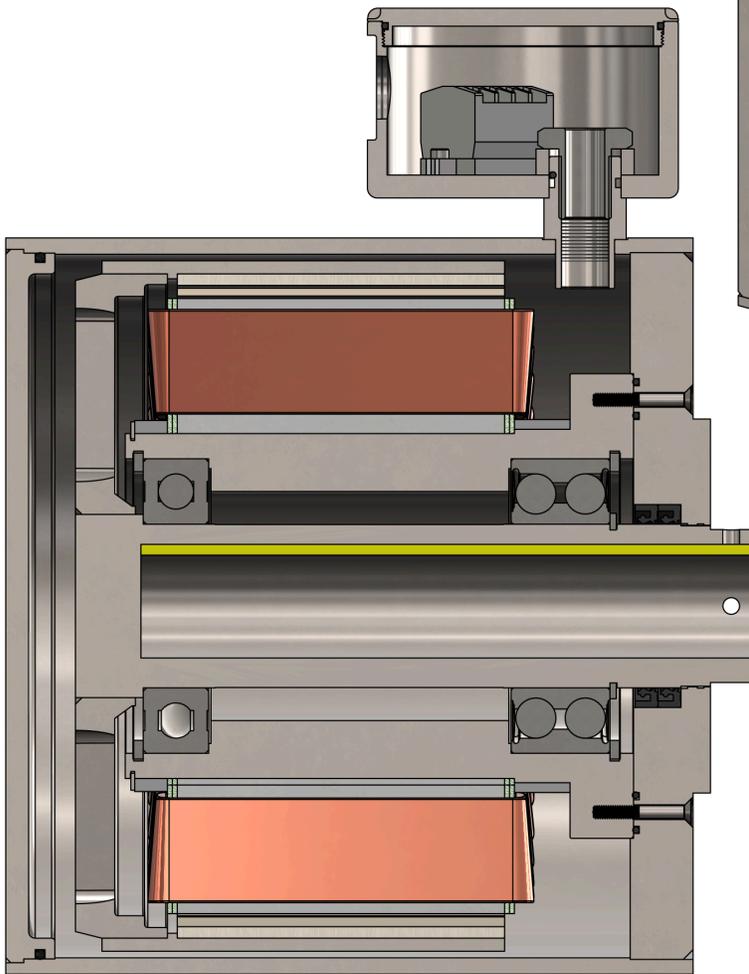
Contact om.support@actionpaq.com for ratios not listed

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Outrunner Design

Oil-Free / Gear-Free / Zero Maintenance
Direct-Drive Rotary Motion (DDRM)



Fully Sealed IP69k
316 Stainless Steel Shell
NEMA 56C Bolt Pattern

No contamination risk due to oil leakage.

No maintenance required.

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Direct Motor Gearbox Replacement

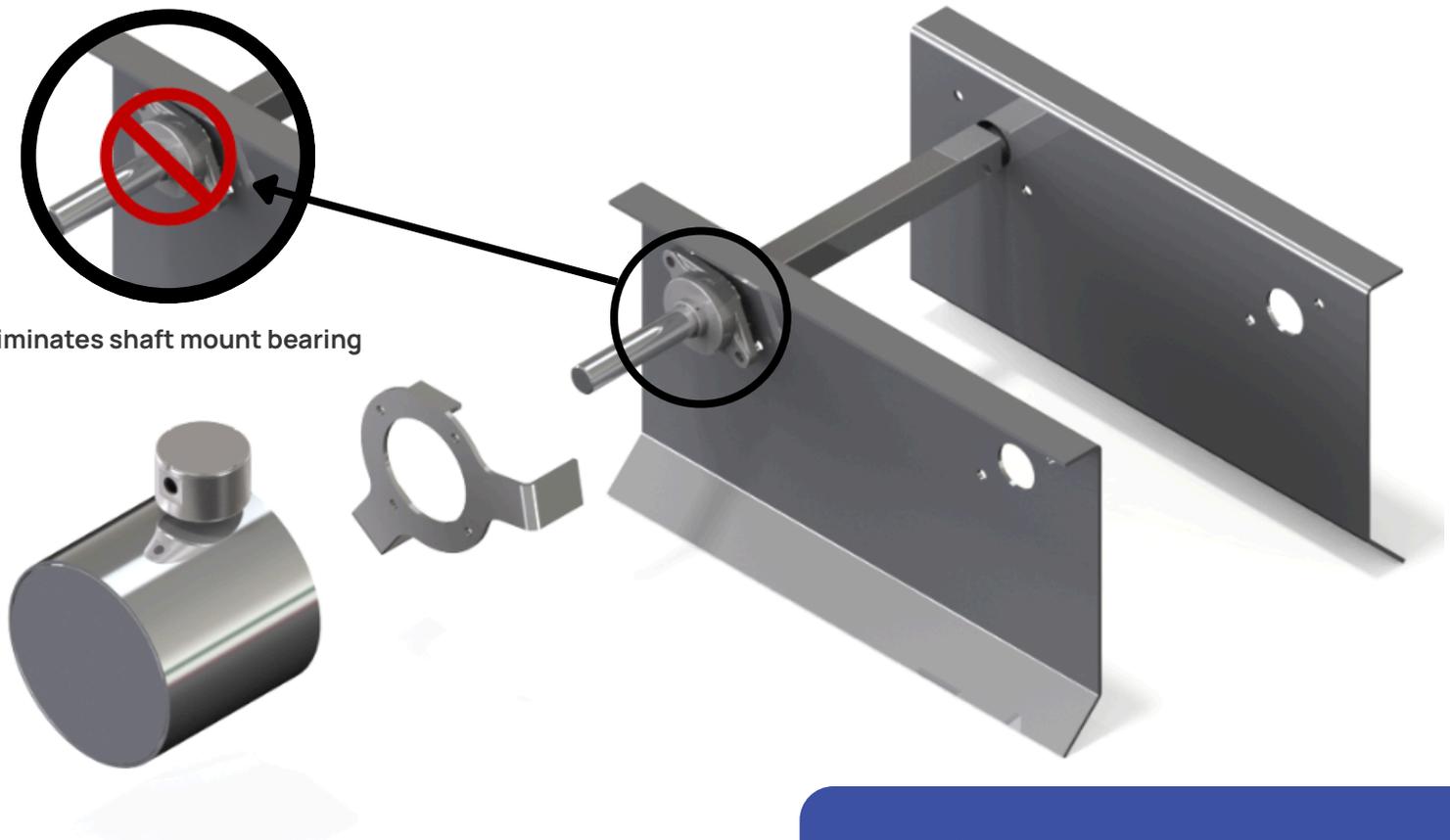
Before



After

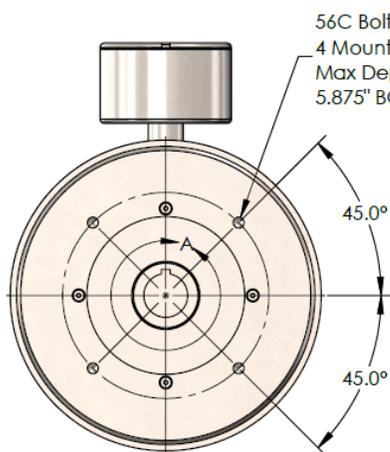
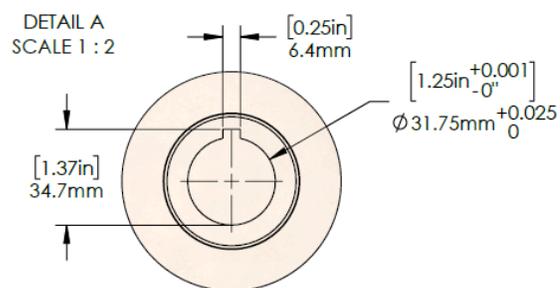


Eliminates shaft mount bearing

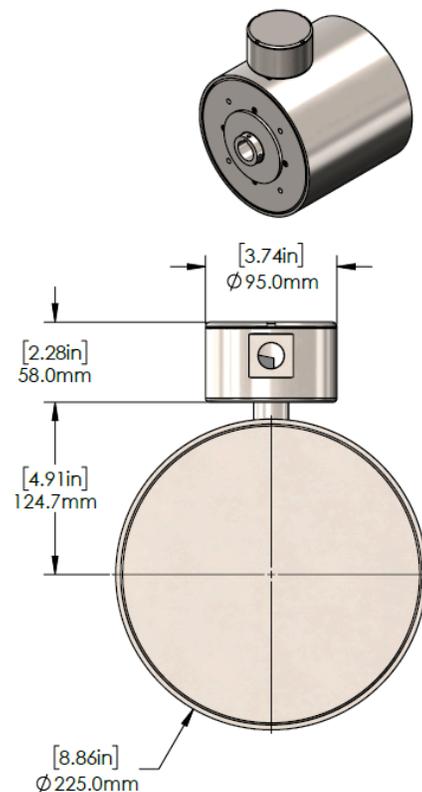
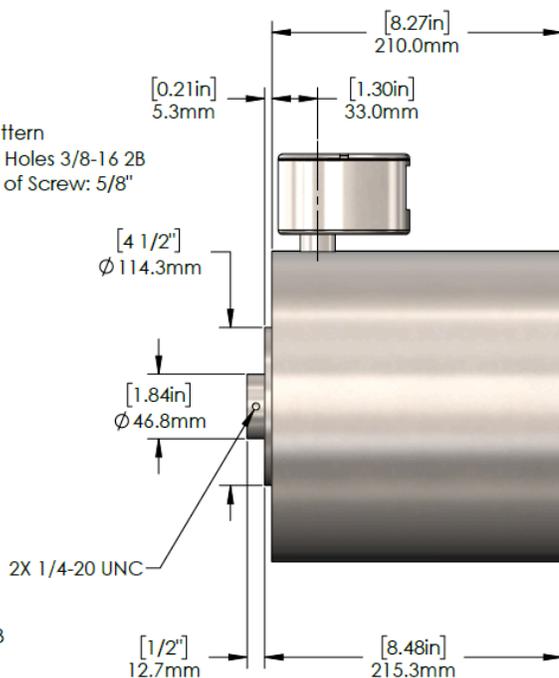


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56C Bolt Pattern
4 Mounting Holes 3/8-16 2B
Max Depth of Screw: 5/8"
5.875" BCD



Mounting Distances

56C Bolt Pattern, 4 Mounting Holes 3/8-16 2B
Maximum Depth of Screw: 5/8"
5.875" BCD

Electrical

IP69k - Junction Box, Conduit Threads: 1/2" NPT
36N/40P, G3.1.2.55

Face

C Face Mounted / Hollow Core

IP Rating

IP69k

UNLESS OTHERWISE SPECIFIED:	
DIMENSIONS ARE IN mm	
TOLERANCES:	
0-6:	±0.1
>6-30:	±0.2
>30-120:	±0.3
>120-400:	±0.4
>400-1000:	±0.5
MATERIAL	
	SS 316
FINISH	
	N/A
DO NOT SCALE DRAWING	

PART NO. OS69-120-215-210-12168

TITLE:

Powered Shaft, IP69k, 120Nm (88.6 ft/lbs), Single Core:
100mm (3.94"), 36N/40P, G3.1.2.55, 215mm (8.5"), 210mm
(8.3"), C Face Mounted / Hollow Core, IP69k-Junction Box,
Conduit Threads: 1/2 NPT, Bolt Mount, Mounting Distance:
0mm (0") Offset #1: 5.3mm (0.21") | Offset #2: 0mm (0")

SIZE

A



SCALE: 1:4 | Weight(kg): 48.85 | SHEET 1 OF 1

Peak Torque: 120Nm (88.6 ft/lbs)

Torque: 40Nm (29.5 ft/lbs)

Belt Pull: N/A

Synchronous Speed: 180 RPM

IP Rating: 69

1. Power: 0.75 / 2.26 / 0.45 kw

2. Current: 2.93 / 8.79 amps

3. Averages: 98.66 Nm / 45.47 RPM / 7.34 amps v

4. BEMF @ 60hz: 229.5 V

5. Name Plate Volts: 460 v

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Electrical Requirements

VFD Requirements:

One Motion permanent magnet synchronous motors can operate with a wide range of VFD ratings and voltages, from 110V - 1P to 460V - 3P.

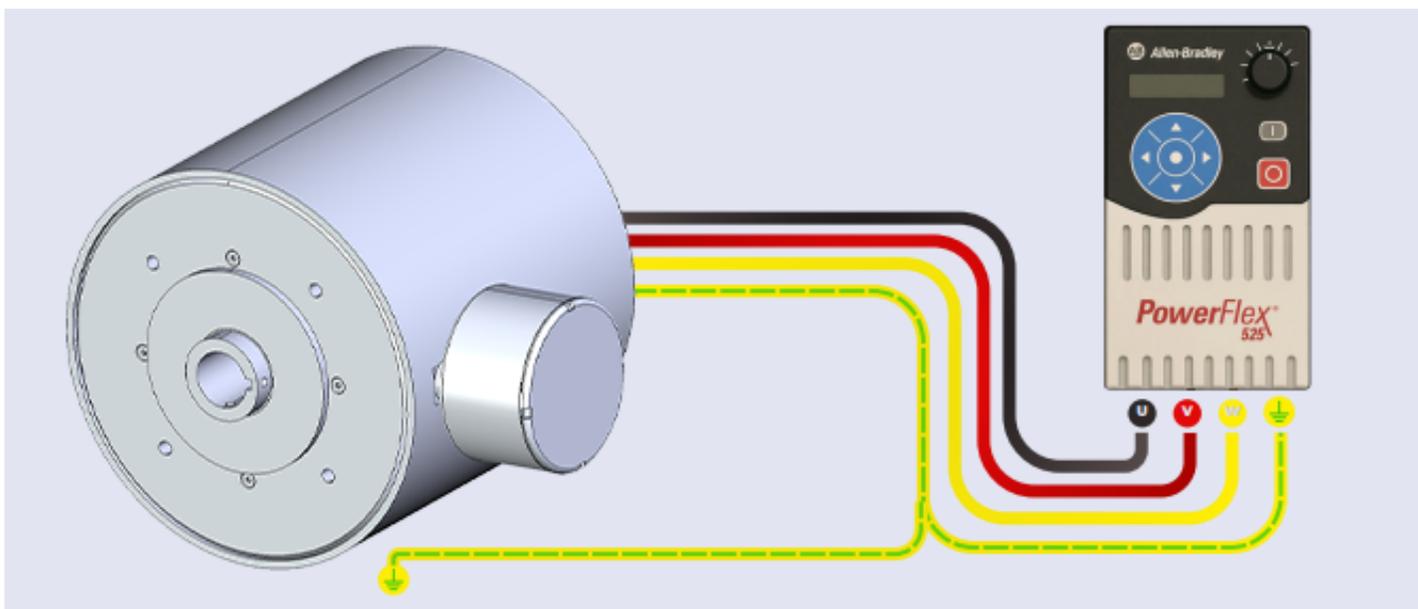
***We recommend the AB525-460V-3HP or comparable for most applications.**

Wire Type:

We recommend a shielded 4-conductor VFD cable rated for up to 600 V.

Specifications:

One Motion is a permanent magnet synchronous motor; it always requires a VFD with a PM mode or sensorless vector control.



Caution : Connecting to main power without a VFD will cause severe damage and void the warranty .