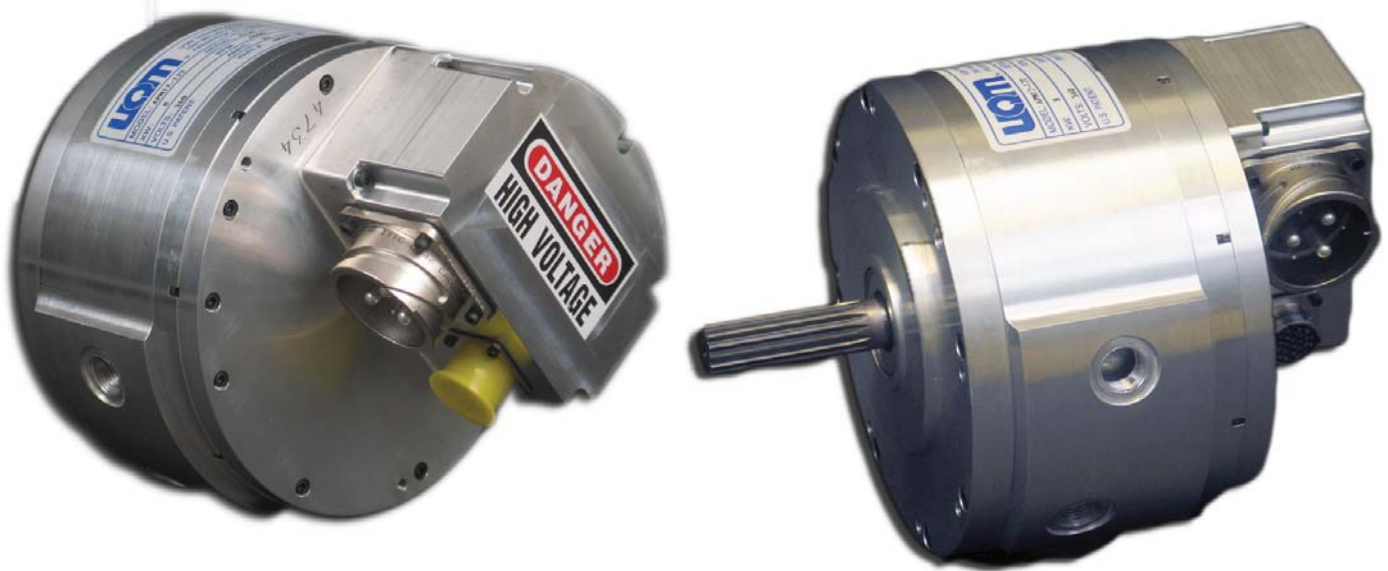




APM 12 Motor

For Fuel Cell Compressors



Design Incorporates:

- Brushless Permanent Magnet Motor Technology
- Liquid cooling
- High efficiency
- High energy neodymium iron boron magnets
- Motor temperature sensing

Key Features:

Hall element feedback

Ideal for auxiliary applications

Custom winding possibilities

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Note - Motor output is a function of controller current rating, which is assumed and recommended to be 100 A pk

Electrical Characteristics

Nominal Voltage 320 VDC
 Recommended Voltage 250 to 450 VDC

Physical Characteristics

Length (excl. shaft) 7.00 in 177.8 mm
 Diameter 7.00 in 177.8 mm
 Shaft 2.5 in. splined
 Motor Weight 22 lb 10 kg
 Rotor Inertia 6.8 lb-in² .002 kg-m²

Liquid Cooled System

Coolant Type 50/50 Water/Glycol Mix
 Max. Coolant Temp. 167° F 75° C
 Minimum Coolant Flow 3L/min

Motor winding is 3-phase wye.

Performance - Winding A

Peak Power 20 hp 15 kW
 Continuous Power 12 hp 9 kW
 Peak Torque 30 Nm 266 lbf-in
 Continuous Torque 16 Nm 142 lbf-in
 Maximum Speed (at 320 VDC) 7,000 rpm
 Peak Efficiency 95%

Performance - Winding B

Peak Power 23 hp 17 kW
 Continuous Power 16 hp 12 kW
 Peak Torque 20 Nm 177 lbf-in
 Continuous Torque 14.3 Nm 127 lbf-in
 Maximum Speed (at 320 VDC) 11,000 rpm
 Peak Efficiency 95%

