

H-Series Motors



H-Series motors use a neodymium-iron-boron magnet to provide low inertias and high accelerations. Available in five frame sizes, the H-Series motors range in continuous torque capability from 0.5 to 50 N-m (5 to 450 lb-in.) and reach speeds up to 6000 RPM. The H-Series motors use an optical 2000-line incremental encoder with a 5000-line option for superior low-speed performance with the ULTRA Series. Typical applications for the H-Series include smart conveyors, packaging machinery, material feeding, pick-and-place machines, and high duty cycle applications. When you install the optional motor shaft seal, the motor meets the IP65 requirements of the IEC standard.

Features

The H-Series motors have the following features:

- Compact design that is mechanically interchangeable with the F-4000 and F-6000 Series motors
- Five frame sizes, twelve models
- Continuous torque from 0.5 to 50 N-m (5 to 450 lb-in.)
- Speeds up to 6000 RPM
- Neodymium-iron-boron permanent magnet rotors provide low inertias for high accelerations
- Internal thermal switch indicates overheating
- Motor-mounted optical encoder included 2000 quadrature pulses, index pulse, and standard commutation channels for trapezoidal drives
- Water tight MS connections are compatible with standard cable assemblies; in addition, the extruded aluminum housing and environmental connectors provide an IP65 package (with the addition of the optional shaft seal kit)
- Economical, compact design ready for harsh environments
- Optional spring-set holding brakes available with 24V DC
- Axially-trapped front bearing in a steel insert for long life at high speeds
- Vibration: 2.5 g peak 30-2000Hz
- Shock: 10.0 g peak 6 ms duration
- UL recognized

Typical Applications

Typical applications for the H-Series motors are:

- Smart conveyors
- Packaging machinery
- Punch press/material feeding
- Robotic pick-and-place
- High duty cycle applications

Characteristics

- High acceleration and peak torques
- High-speed point-to-point positioning
- Environmentally rugged

Selecting a Drive/Motor Combination

The following drive/motor combinations are available for the H-Series motors:

Motor	ULTRA 100	ULTRA 200	ULTRA Plus
H-2005-K-H00AA	1398-DDM-009	1398-DDM-010	1398-PDM-10
H-3007-N-H00AA	1398-DDM-009	1398-DDM-010	1398-PDM-10
H-3016-N-H00AA	1398-DDM-019	1398-DDM-020	1398-PDM-20
			1398-PDM-25
H-4030-M-H00AA	NA	1398-DDM-030	1398-PDM-30
H-4030-P-H00AA	1398-DDM-019	1398-DDM-020	1398-PDM-20
			1398-PDM-25
H-4050-P-H00AA	NA	1398-DDM-030	1398-PDM-30 ¹
		1398-DDM-075	1398-PDM-75
			1398-PDM-50
H-4075-R-H00AA	NA	1398-DDM-030	1398-PDM-30 ²
		1398-DDM-075	1398-PDM-75
			1398-PDM-50
H-6100-Q-H00AA	NA	1398-DDM-075	1398-PDM-75
			1398-PDM-50
H-6200-Q-H00AA	NA	1398-DDM-075	1398-PDM-75
			1398-PDM-100
H-6300-Q-H00AA	NA	1398-DDM-150	1398-PDM-150
H-8350-S-H00AA	NA	1398-DDM-150	1398-PDM-100
H-8500-S-H00AA	NA	1398-DDM-150	1398-PDM-150

¹ Peak torque is limited to 13.5 N-m (119.5 lb-in.).

² Peak torque is limited to 19.8 N-m (175.2 lb-in.).