ZeroMag

C·MOTIVE

60 Nm / 1.5 HP @ 180rpm

The industry's only direct drive motor system with zero permanent magnets

C-Motive's electrostatic motor delivers the highest efficiency and torque density available on the market for low-speed industrial applications. This unique technology is ideal for replacing gearmotors, granting users simplicity through an integrated motor/drive system. By using static electricity, C-Motive has removed the need for rare-earth materials and reduced copper use to the bare minimum, enabling an inherently secure and sustainable motor supply chain.

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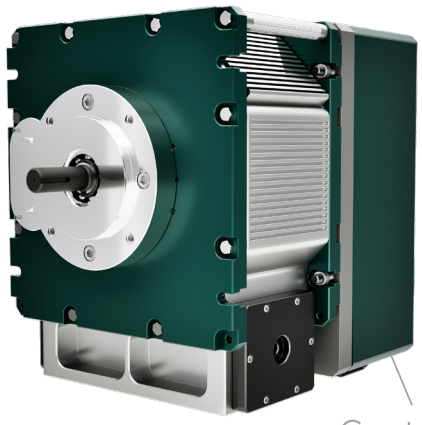
Go gearless with C-Motive's electrostatic technology.
Lower electricity costs. No permanent magnet supply bottlenecks.
Increased uptime & reduced maintenance vs. geared solutions.

Target Applications

- Material conveyance
- HVLS fans
- Industrial pumps
- Compressors

C-Motive's Electrostatic Technology

- Zero magnets and no rare-earth materials
- 90% Less copper
- Exceptional efficiency
- Quiet gearless operation



Product Capabilities

- Product family with designs up to 4 HP
- Integrated motor/drive for simplicity and space savings
- Torque density exceeding traditional geared motors
- Fully sealed motor for excellent environmental protection
- Standard 480V three phase input power (and 240V single phase option)
- High efficiency sine wave controller ensures quiet & smooth operation
- Speed and torque control with programmable settings
- TCP/IP and Industrial Fieldbus support built-in
- Safety chain and Safety torque off built-in
- Vertical and horizontal mounting capability
- Semi-customizable for OEM product integration
- 100% factory tested with run-in test
- C-Motive limited warranty
- Designed & Manufactured in U.S.A. in Middleton, WI

MOTOR	
HP Rating	1-4 HP
Rated Torque	60 N-m
Rated Speed	180 rpm
Max Speed	400 rpm
Motor Rated Efficiency (Efficiency at rated torque, speed)	87%
Total mass motor & controller	43.0 kG/95 Lbs
Overall dimensions with motor and controller (shaft excluded) (H x W x D)	36.2 x 29.8 x 45.5 cm (14.25 x 11.75 x 18 in)
Motor ingress protection	IP 66 IP69K (Optional)
Motor mounting	NEMA 56C
Motor shaft	Standard and customizable shaft options
Operating temperature range	0-40 °C ambient; derating above 35°C
Elevation	2000 m
Noise	<55 dB @ 1 meter

CONTROLLER SPECIFICATIONS	
Line Input	480 Vac three phase /3A 50/60 Hz 240 Vac single phase/10 A 50/60 Hz
Max continuous output power	Up to 1500W/2 HP (software limited to match motor)
Efficiency (at rated motor speed and torque)	97%
Control Mode	Torque or Speed
Safety I/O	STO: Dry contact input, SIL 2/CAT 3
Digital I/O	Input Ch 1-2: 24V Input Output Ch 1-2: 2 Configurable relays (NC,NO)
Analog Inputs	Input Ch 1/2: +/- 10V analog, configurable for 24V digital input
Communications	Built-in dual port Ethernet/IP
Dimensions of controller (HxWxD)	36.2 x 29.8 x 15.9 cm (14.25 x 11.75 x 6.25 in)
Ingress Protection	IP66 control electronics compartment IP54 connector and display panel
Operating temperature range	0 to 40 °C ambient; passive air cooling
Elevation	2000 m
Design Standards	Machinery Directive UL; IEC 61800-5-1; -5-2; EMC Directive EN 61800-3; ROHS, REACH

Torque Speed Capability