Data Sheet

Electrostatic Motor/Drive system for low speed industrial applications

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 by 90%, enabling an inherently secure and sustainable motor supply chain.

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

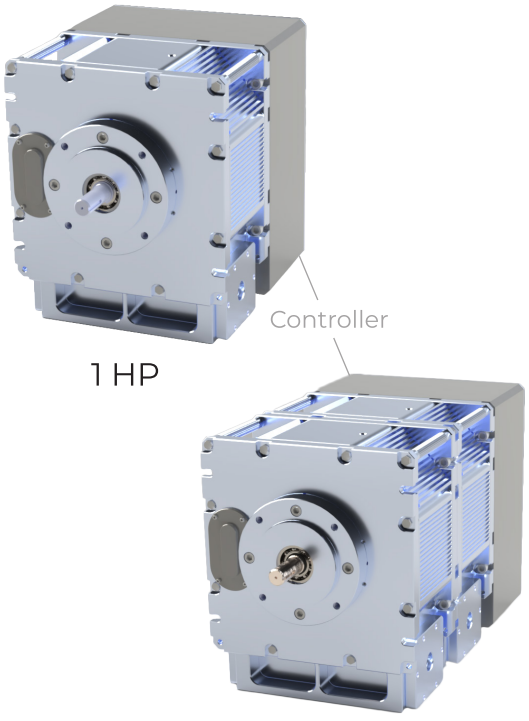
- Material conveyance
- HVLS fans
- Industrial pumps
- Compressors

C-Motive's Electrostatic Technology

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

Product Capabilities

- Available in both 1 & 2 HP versions
- 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 Middleton, WI, USA



1 HP

2 HP

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MOTOR		
	1 HP	2 HP
Rated Torque	40 N-m	80 N-m
Rated Speed	180 rpm	
Max Speed	400 rpm	
Motor Rated Efficiency (Efficiency at rated torque, speed)	87%	
Total mass motor & controller	31.8 kG/70 Lbs	60.6 kG /133 Lbs
Overall dimensions motor with shaft and controller (H x W x D)	36.2 x 29.8 x 42.9 cm (14.25 x 11.75 x 16.9 in)	36.2 x 29.8 x 60 cm (14.25 x 11.75 x 23.6 in)
Motor ingress protection	IP66 IP69K (Optional)	
Motor mounting	NEMA 56C	
Motor shaft	Standard and hollow shaft options	
Operating temperature range	0-40 degC ambient; derating above 35C	
Elevation	2000 m	
Noise	<60 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	750 W/ 1 HP 1500 W/ 2 HP
Efficiency (at rated motor speed and torque)	97%
Control Mode	Torque or Speed
Safety I/O	STO: Dry contact input E-STOP: Dry contact output
Digital I/O	Input Ch 1-2: 24V Input Output Ch 1-2: 2 Configurable relays (NC,NO)
Analog I/O	Input Ch 1/2: bipolar voltage/ current Output Ch 1: 1 unipolar voltage
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 degC 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, 1 & 2 HP