NEW!

Key Features

- Integrated drive and controller, which reduces wiring, increases reliability, simplifies installation and reduces setup time
- Torque, position, velocity and contouring modes
- Encoder feedback with trapezoidal six step and Field-Oriented Control (FOC) commutation modes
- Powerful AniBasic (BASIC-like) language with over 200 commands: IO, program flow, data handling, math and motion
- Expanded math functions:
  - SIN, COS, TAN, ASIN, ACOS, ATAN, ABS, SQRT
  - IEEE-754 single-precision floats
- Dual trajectory generators
- Following modes and advanced camming functions
- External encoder input supporting A-quad-B or Step-and-Direction
- User-defined interrupts with 8 priority levels
- Nonvolatile program and data storage
- RS-232 and CANopen interfaces are standard
- 24 VDC compatible I/O, three inputs and two outputs
  - Inputs are drive enable, and two configurable inputs (one can be a 0-10 VDC analog input)

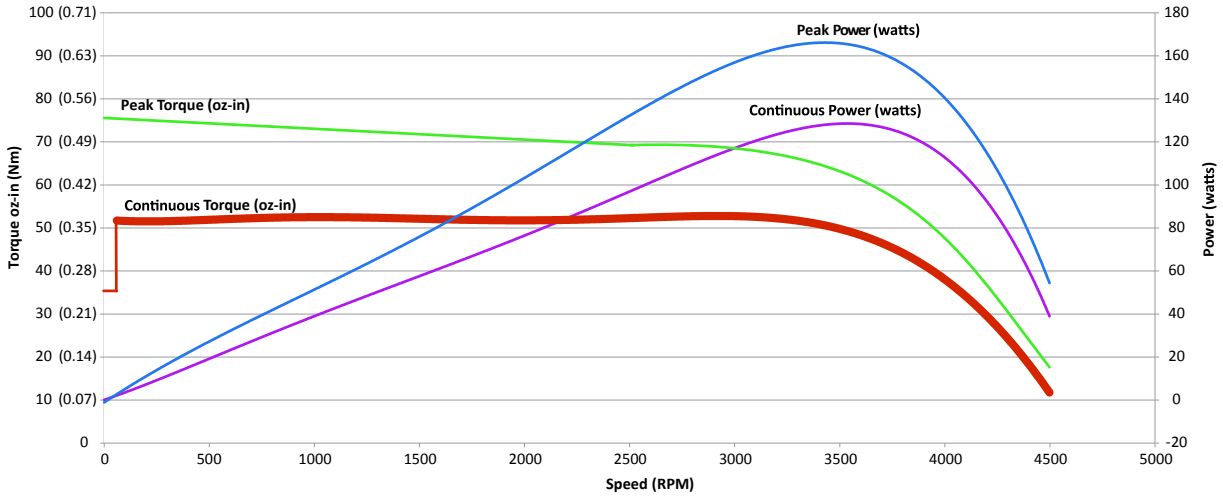
Specifications: 48 VDC at 25°C

SmartMotor™ Series	SL17406D	
Peak Torque	70	oz-in
	.49	N-m
Rated Torque	50	oz-in
	.35	N-m
Rated Shaft Power	130	watts
Speed at Rated Power	3,500	rpm
Encoder Resolution	4,000	counts/rev
Weight	30	oz
	0.850	kg
Shaft Diameter	.197	in
	5	mm
Shaft, Radial Load	8	lb
	3.63	kg
Shaft, Axial Thrust Load	4	lb
	1.81	kg

Rated power measured in MDC mode at 25°C ambient and must be derated at higher ambient temperatures.
Maximum temperature: 100°C at electronics, 125°C at windings.
Recommended ambient temperature range: -20°C to + 70°C.
Storage temperature range: -40°C – 100°C.
Relative humidity: maximum 90%, noncondensing.

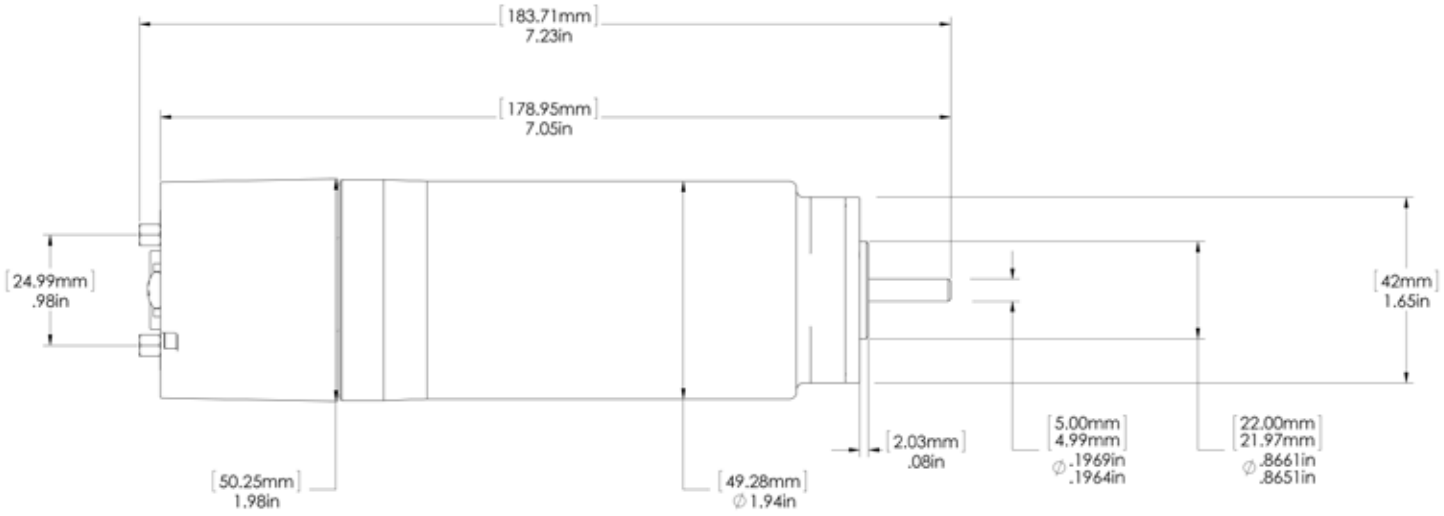
Torque Curves

SL17406D motor Torque vs. Speed, 48 volts, MDC commutation, 25°C ambient (curves are derated at higher ambient)

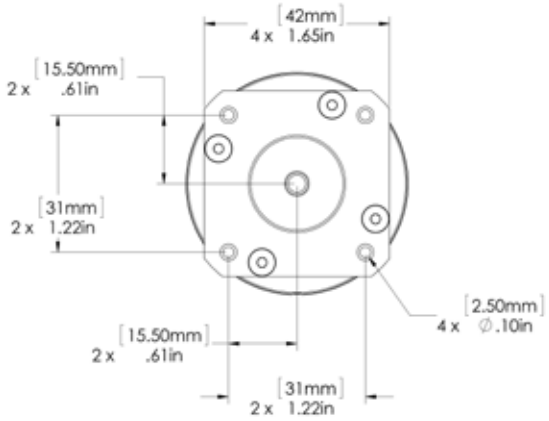


Continuous torque is software limited below 60 RPM. Continuous rating based on 25°C ambient temperature, motor mounted to a 6x6x¼ inch aluminum heat sink, and electronics/windings below maximum temperature. Peak torque is available for 3 seconds at a 10% duty cycle.

Dimension Drawing



in [mm]



Connector Pinouts

PIN	Description	Notes
1	Drive Enable / DNET PWR Detect	Input (24V)
2	Busy	Output* (24V)
3	RS-232 TX	Moog Animatics RS-232 Daisy Chain Support
4	NEG Limit	Input, External Encoder Input (24V)
5	POS Limit	Input, Analog Input, External Encoder Input (24V)
6	CAN Hi	CAN Bus Communication Interface
7	CAN Lo	CAN Bus Communication Interface
8	No Faulted	Output* (24V)
9	RS-232 RX	Moog Animatics RS-232 Daisy Chain Support
10	Control Power (24V Typically)	Nominal 24 or 28 VDC controller power, used directly for the sourcing outputs
11	CAN GND	Isolated CAN Interface GND
12	Chassis (Earth)	Internally electrically tied to motor body
13	Servo PWR Return (GND)	Internally tied, but should be wired separately back to supplies
14	Control PWR Return (GND)	
15	Servo PWR (48V)	DC-Link supply for 3-phase servo

* For proper (industrial standard) 24 Volt sourcing IO, wire a nominal 24 VDC supply at pins 10 and 14.

DE-15 Male Connector