



Overview

Software

C5 D-Style

C5 M-Style

C6 M-Style

C6 Low-Cost

Cables, Etc.

Actuators

Gearheads

Power Supplies

## 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)

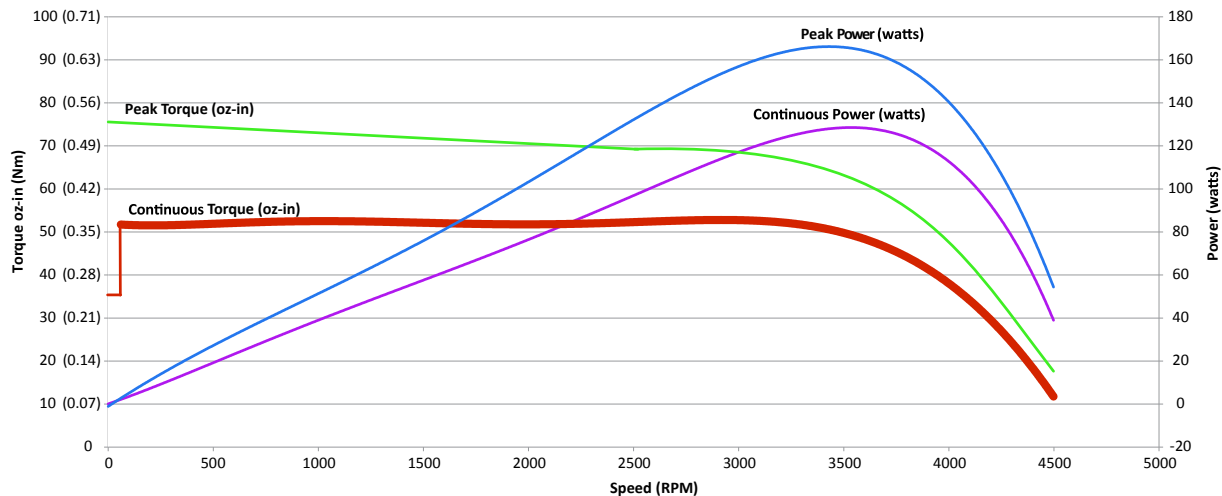
## Specifications: 48 VDC at 25°C

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
Rotor Inertia	0.00066	oz-in-sec <sup>2</sup>
	4.67	10 <sup>-6</sup> kg-m <sup>2</sup>
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.

