

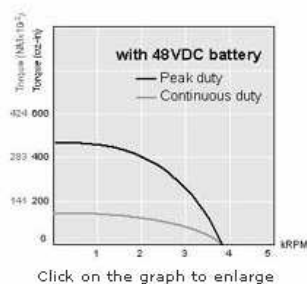
Custom windings are available on select SmartMotors. These special windings allow SmartMotors to achieve higher speeds or greater torque. Please consult factory for specific details.

Custom shaft lengths and diameters are available on select SmartMotors. Flats and keyways are common options found on motor shafts. SmartMotors can be purchased with various versions of these shaft modifications. Please consult factory for available shaft options.

Torque vs. Speed curve data is derived under dynamometer testing using a 48 VDC battery supply at an ambient temperature of 27°C (80.6°F).

Connector kits and cable options are available.

SmartMotor servos have CE certification.



	DESCRIPTION		UNITS	SM3430D
Power	Input		VDC	20 - 48 (max)
Environment	Operating Temperature		°F (°C)	32 to 158 (0 to 70)
	Enclosure Rating (approximate)			IP30
	Storage Temperature		°F (°C)	-4 to 185 (-20 to 85)
	Vibration (peak/continuous)		G	NA/7*
	Humidity (non-condensing)		%	0 to 80
Performance	Peak Torque (Tp)		oz-in (N-m)	575 (4.06)
	Continuous Torque (Tc)		oz-in (N-m)	155 (1.09)
	No Load Speed		RPM	3850
	Nominal Power		HP (kW)	0.3 (0.22)
	Servo Update		Hz	4069
	PWM Frequency		kHz	33.3
	Encoder	Type	Incremental	VDC
		Resolution	ppr (post-quad)	4000
	Memory	Volatile	kRAM	32
Non-volatile		kRAM	32	
Motor	Commutation			6-step Trapezoidal
	Voltage Constant (Kv)		V/kRPM	12.10
	Torque Constant (Kt)		oz-in/Amp(N-m/Amp)	16.4 (0.12)
	Rotor Inertia (Jm)		oz-in-s ² (10-5kg-m ²)	0.019 (13.43)
	Insulation			Class A
	Number of Poles (Np)			4
	Winding Resistance (R)		Ohms	0.9
Input/Output	Type			7(5VDC TTL)
	Input	Digital		5VDC TTL sinking input
		Analog		sinking input, 10 bit
	Output	Sourcing	mA	5
		Sinking	mA	10
Encoder/Step	Input Freq.	MHz	1	
Communi-cations	Primary	Type		RS232; Serial (ASCII)
		Speed	KBaud	2.4 to 38.4
	Secondary	Type		RS485; Serial (ASCII)
Physical	Radial Load		lbs (kg)	15 (6.8)
	Axial Thrust Load		lbs (kg)	3 (1.36)
	Width		in (mm)	3.25 (82.6)
	Length		in (mm)	4.8 (122)
	Weight (Wt)		lbs (kg)	4.5 (2.04)
	Shaft Diameter**		in (mm)	0.375 (9.5)
	Pilot Diameter**		in (mm)	2.876 (73.1)
Bolt Circle Diameter		in (mm)	3.875 (98.4)	

SM3430D Torque vs. Speed with 48V Battery

