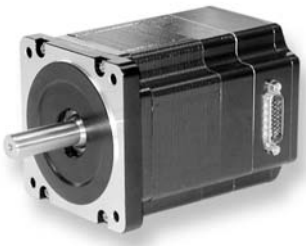
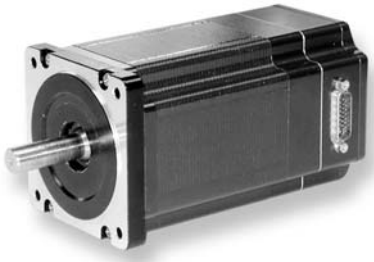
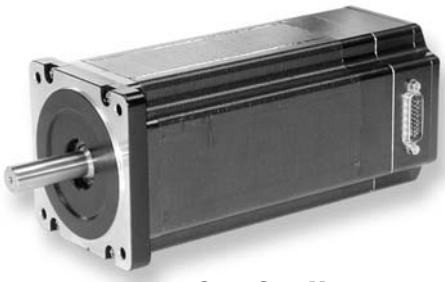
SERVOSTEP SMARTMOTOR ST341, ST342 AND ST343



ServoStep Motor ST341 Series



ServoStep Motor ST342 Series

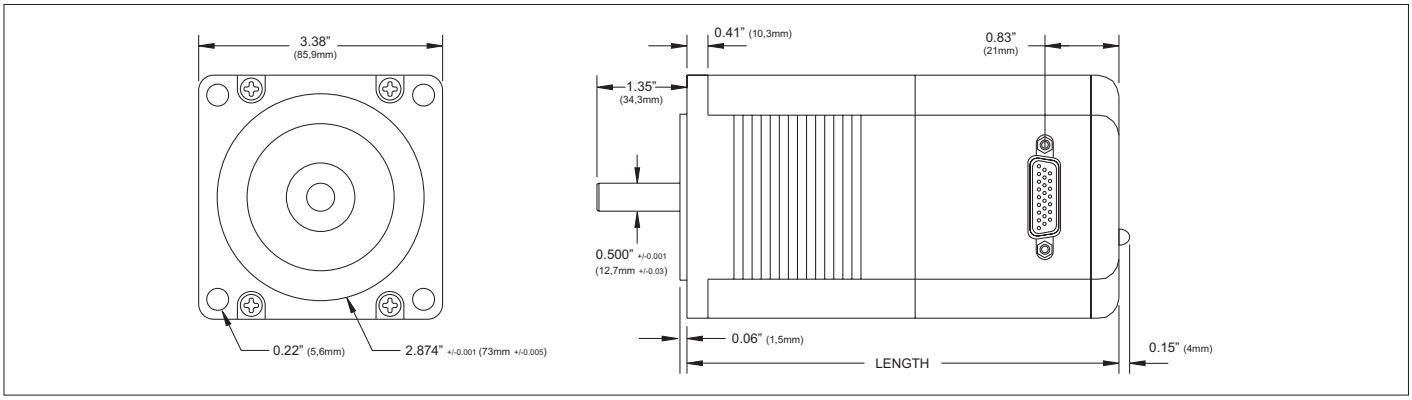


ServoStep Motor ST343 Series

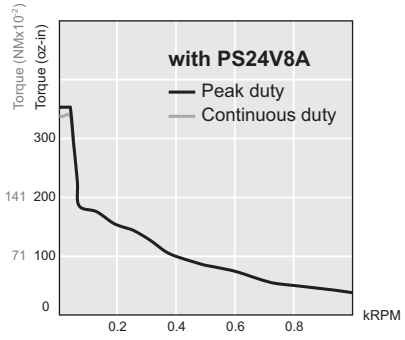
	DESCRIPTION		UNITS	ST341	ST342	ST343
Power	Input		VDC	20 - 80 (max)	20 - 80 (max)	20 - 80 (max)
Environment	Operating Temperature		°F (°C)	32 to 185 (0 to 85)	32 to 185 (0 to 85)	32 to 185 (0 to 85)
	Enclosure Rating (approximate)			IP40	IP40	IP40
	Storage Temperature		°F (°C)	-4 to 185 (-20 to 85)	-4 to 185 (-20 to 85)	-4 to 185 (-20 to 85)
	Humidity (non-condensing)		%	0 to 80	0 to 80	0 to 80
Performance	Peak Torque (Tp)		oz-in (N-m)	372 (2.64)	789 (5.60)	1133 (8.03)
	Continuous Torque (Tc)		oz-in (N-m)	372 (2.64)	729 (5.16)	1105 (7.83)
	No Load Speed		RPM	1600	1600	1500
	Nominal Power		HP (kW)	0.13 (0.10)	0.16 (0.12)	0.14 (0.10)
	Servo Update		Hz	4069	4069	4069
	PWM Frequency		kHz	33.3	33.3	33.3
	Encoder	Type	Incremental	VDC	VDC	VDC
		Resolution	ppr (post-quad)	8000	8000	8000
	Memory	Volatile	kRAM	32	32	32
		Non-volatile	kRAM	28	28	28
Motor	Commutation			6-step Trapezoidal	6-step Trapezoidal	6-step Trapezoidal
	Torque Constant (Kt)		oz-in/Amp (N-m/Amp)	NA	NA	NA
	Rotor Inertia (Jm)		oz-in-s^2 (10^{-5}kg-m^2)	0.0226 (16)	0.0481 (34.00)	0.0707 (50.00)
	Insulation			Class B	Class B	Class B
	Number of Poles (Np)			NA	NA	NA
	Winding Resistance (R)		Ohms	1.4	1.12	1.52
Input/Output	Number (Type)			10 (5VDC TTL)	10 (5VDC TTL)	10 (5VDC TTL)
	Input	Digital		5VDC TTL sinking	5VDC TTL sinking	5VDC TTL sinking
		Analog		Sinking input,10 bit	Sinking input,10 bit	Sinking input,10 bit
	Output	Sourcing	mA	5	5	5
		Sinking	mA	10	10	10
	Encoder/Step & Direct.Input Frequency		mHz	1	1	1
Communications	Type			RS485; Serial (ASCII)	RS485; Serial (ASCII)	RS485; Serial (ASCII)
	Speed		KBaud	2.4 to 38.4	2.4 to 38.4	2.4 to 38.4
Physical	Radial Load		lbs (kg)	15 (6.8)	15 (6.8)	15 (6.8)
	Axial Thrust Load		lbs (kg)	3 (1.4)	3 (1.4)	3 (1.4)
	Width		in (mm)	3.38 (85.9)	3.38 (85.9)	3.38 (85.9)
	Length		in (mm)	5 (127)	6.5 (165)	8.0 (204)
	Weight (Wt)		lbs (kg)	6.18 (2.80)	9.68 (4.39)	13.18 (5.98)
	Shaft Diameter**		in (mm)	0.5 (12.7)	0.5 (12.7)	0.5 (12.7)
	Pilot Diameter**		in (mm)	2.874 (73)	2.874 (73)	2.874 (73)
	Bolt Circle Diameter**		in (mm)	3.876 (98.5)	3.876 (98.5)	3.876 (98.5)

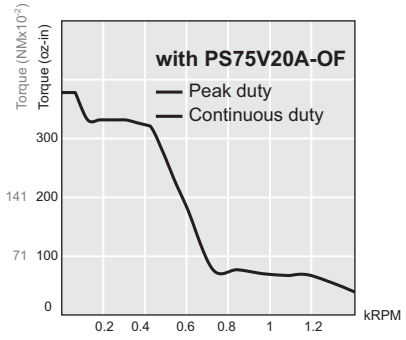
Performance spec based on PS75V6A-OF

***Note**: ** check tolerance in drawings*

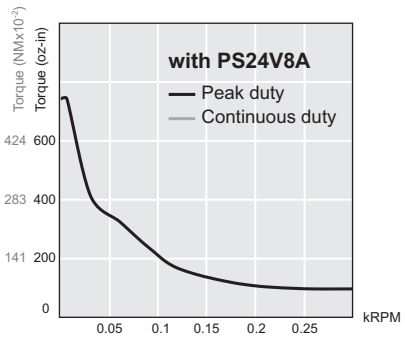


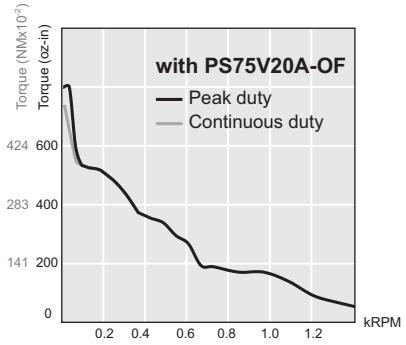
SMARTMOTOR ST341



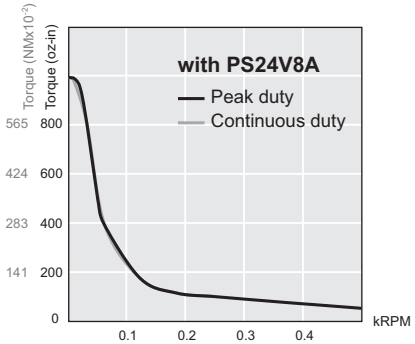


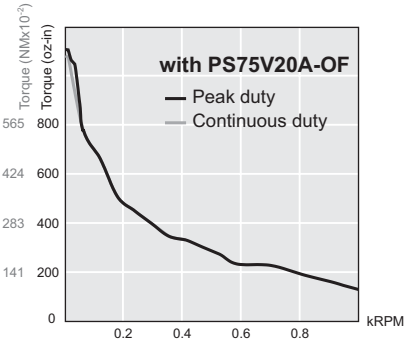
SMARTMOTOR ST342





SMARTMOTOR ST343





Notes:

1. 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.
2. 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.
3. Torque vs. Speed curve data is derived under dynamometer testing using a PS75V6A-OF power supply at an ambient temperature of 27°C (80.6°F).
4. Connector kits and cable options found on pp. 68 and 69.

CE

SmartMotors
ST341, ST342 and ST343
are CE marked

26 Pin, High Density D-Sub I/O Connector