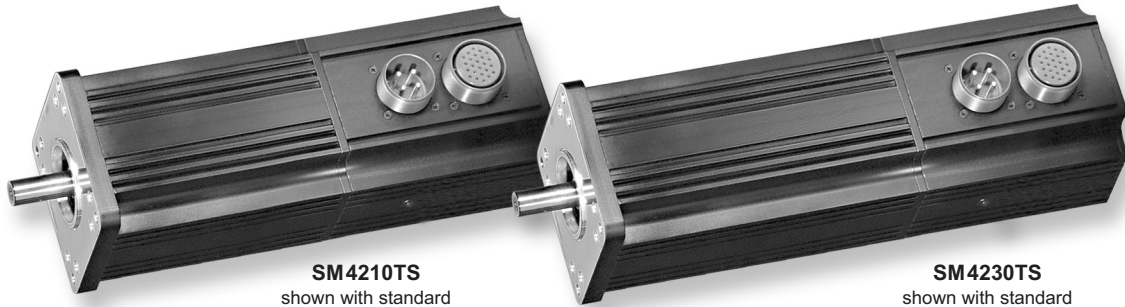


LEGEND SERIES SMARTMOTOR SM4200 SERIES



SM4210TS
shown with standard
Military style connector

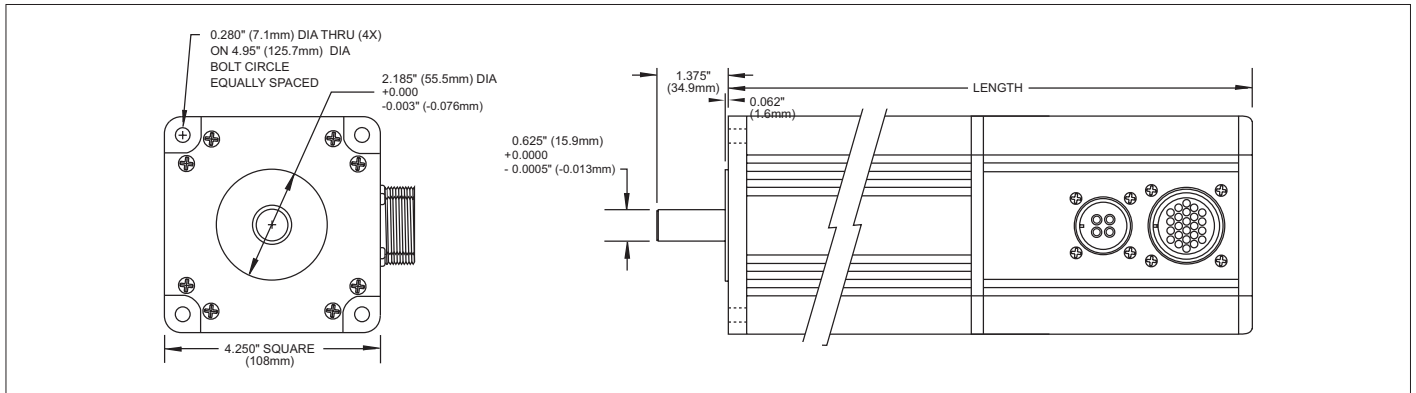
SM4230TS
shown with standard
Military style connector

DESCRIPTION		UNITS	SM4210TS	SM4220TS	SM4230TS	
Power	Input	VAC	110V to 240V	110V to 240V	110V to 240V	
	Operating Temperature	°F (°C)	32 to 158 (0 to 70)	32 to 158 (0 to 70)	32 to 158 (0 to 70)	
Environment	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)	
	Vibration (peak / continuous)	G	NA	NA	NA	
	Humidity (non-condensing)	%	0 to 80	0 to 80	0 to 80	
Performance	Peak Torque (Tp)	oz-in (N-m)	1180 (8.39)	1046 (7.39)	1176 (8.31)	
	Continuous Torque (Tc)	oz-in (N-m)	275 (1.94)	327 (2.31)	430 (3.04)	
	No Load Speed	RPM	2400	3300	2500	
	Nominal Power	HP (kW)	0.49 (0.37)	0.82 (0.61)	0.74 (0.55)	
	Servo Update	Hz	4069	4069	4069	
	PWM Frequency	kHz	33.3	33.3	33.3	
	Encoder	Type	VDC	VDC	VDC	VDC
		Resolution	ppr (post-quad)	4000	4000	4000
	Memory	Volatile	kRAM	32	32	32
		Non-volatile	kRAM	32	32	32
Motor	Commutation		6-step Trapezoidal	6-step Trapezoidal	6-step Trapezoidal	
	Voltage Constant (Kv)	V/kRPM	128	96	128	
	Torque Constant (Kt)	oz-in/Amp (N-m/Amp)	172.8 (1.22)	129.6 (0.92)	172.8 (1.22)	
	Rotor Inertia (Jm)	oz-in-s ² (10 ⁻⁵ kg-m ²)	0.0288 (20.35)	0.0416 (29.40)	0.0544 (38.45)	
	Insulation		Class F	Class F	Class F	
	Number of Poles (Np)		4	4	4	
	Winding Resistance (R)	Ohms	10	3.2	3.7	
Input/Output	Number (Type)		7 (5VDC TTL)	7 (5VDC TTL)	7 (5VDC TTL)	
	Input	Digital	5VDC TTL sinking input	5VDC TTL sinking input	5VDC TTL sinking input	
		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	Primary	Type	RS232	RS232	RS232	
		Speed	KBaud	2.4 to 38.4	2.4 to 38.4	2.4 to 38.4
	Secondary	N/A	RS45	RS45	RS45	
Physical	Radial Load	lbs (kg)	25 (11.3)	25 (11.3)	25 (11.3)	
	Axial Thrust Load	lbs (kg)	10 (4.54)	10 (4.54)	10 (4.54)	
	Width	in (mm)	4.25 (108)	4.25 (108)	4.25 (108)	
	Length	in (mm)	12.2 (310)	13.7 (348)	15.2 (386)	
	Weight (Wt)	lbs (kg)	22 (9.98)	27 (12.25)	32 (14.51)	
	Shaft Diameter**	in (mm)	0.625 (15.9)	0.625 (15.9)	0.625 (15.9)	
	Pilot Diameter**	in (mm)	2.185 (55.5)	2.185 (55.5)	2.185 (55.5)	
	Bolt Circle Diameter**	in (mm)	4.95 (125.7)	4.95 (125.7)	4.95 (125.7)	

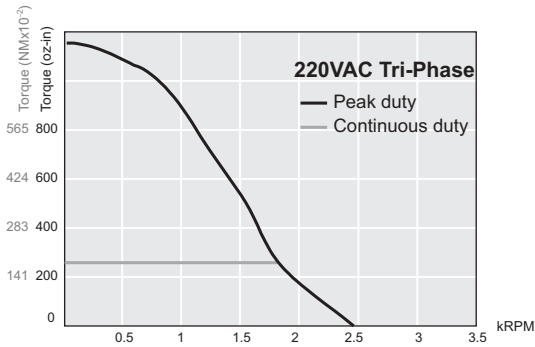
Performance data is theoretical based on 220 VAC, 3-Phase supply

Note: **check tolerance in drawings

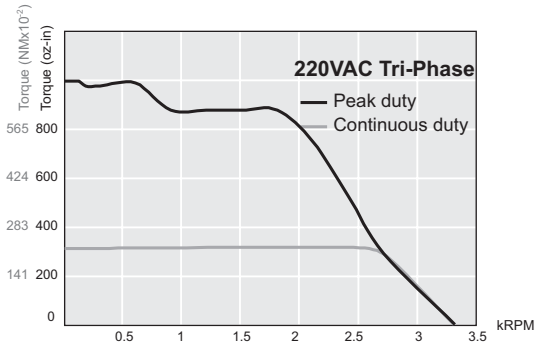
LEGEND SERIES SMARTMOTOR SM4200 SERIES



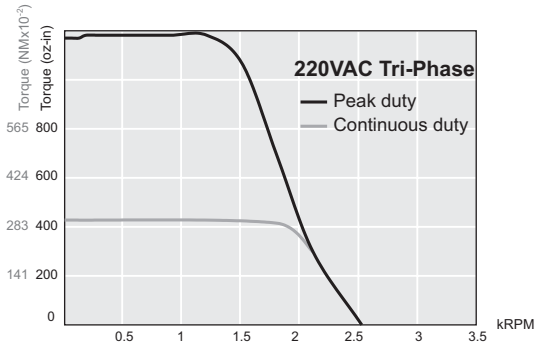
SMARTMOTOR SM4210TS-PLS



SMARTMOTOR SM4220TS-PLS



SMARTMOTOR SM4230TS-PLS



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 derived is theoretical based on 220 VAC, 3-phase.
4. Connector kits and cable options found on pp. 52 and 57.

