



# Double Torque Same Size SM2315DT

	DESCRIPTION	UNITS	SM2315DT	
<b>Power</b>	Input	VDC	20 - 48 (max)	
<b>Environment</b>	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/NA	
	Humidity (non-condensing)	%	0 to 80	
<b>Performance</b>	Peak Torque (Tp)	oz-in (N-m)	112 (0.79)	
	Continuous Torque (Tc)	oz-in (N-m)	57 (0.40)	
	Rated Torque	oz-in (N-m)	40.5 (0.286)	
	Rated Speed	RPM	3720	
	No Load Speed	RPM	4700	
	Nominal Power	HP (kW)	0.15 (0.11)	
	Servo Update	Hz	4069	
	PWM Frequency	kHz	33.3	
	Encoder	Type	Incremental	VDC
		Resolution	count/rev (post-quad)	2000
Memory	Non-volatile	kRAM	32	
<b>Motor</b>	Commutation		6-step Trap	
	Voltage Constant (Kv)	V/kRPM	9.08	
	Torque Constant (Kt)	oz-in/Amp (N-m/Amp)	12.28	
	Rotor Inertia (Jm)	oz-in-s <sup>2</sup> (10 <sup>-5</sup> kg-m <sup>2</sup> )	0.0010 (0.727)	
	Insulation		Class A	
	Number of Poles (Np)		8	
	Winding Resistance (R)	Ohms	0.74	
<b>Input/Output</b>	Type		7 (5Vdc TTL)	
	Input	Digital	+5Vdc TTL sinking input	
		Analog	sinking input, 10 bit	
	Output	Sourcing	mA	5
		Sinking	mA	10
Encoder/Step & Direct.Input Frequency	MHz		1	
<b>Communications</b>	Primary	Type	RS232; Serial (ASCII)	
		Speed	KBaud	2.4 to 38.4
	Secondary	Type		N/A
<b>Physical</b>	Radial Load	lbs (kg)	7 (3.18)	
	Axial Thrust Load	lbs (kg)	3 (1.36)	
	Width	in (mm)	2.25 (57.2)	
	Length	in (mm)	2.30 (58)	
	Weight (Wt)	lbs (kg)	1.3 (0.61)	
	Shaft Diameter**	in (mm)	0.25 (6.4)	
	Pilot Diameter**	in (mm)	1.498 (38)	
	Bolt Circle Diameter**	in (mm)	2.625 (66.7)	

Performance spec based on PS42V20AF110

Notes: \* tested at RMS acceleration for 20 minutes, \*\* check tolerance in drawings

