

Specifications

Parameter

Value

Performance	Repeatability	DR5000A ±5 arc-sec	DR5000B ±10 arc-sec
	Accuracy	±45 arc-sec	±90 arc-sec
	Max stepping rate	1,600,000 steps/sec	1,400,000 steps/sec
Power	Volts	200VAC, 3 Phase, 50/60 Hz	230VAC, 1 Phase, 50/60 Hz
	Range	+10% to -15%	+10% to -15%
	Current	20 Amps	20 Amps
Inputs (all models)	Command interface	Step and direction-Position control ±10VDC velocity control; ±8VDC torque control low going pulse, 150 nanosecond minimum pulse width Logic high = CW rotation Logic low = CCW rotation	
	<ul style="list-style-type: none"> • Step input • Direction • Analog input Other inputs (gain selection, servo on, etc.)	±10VDC max 5 to 24 volts pullup	
Outputs (all models)	Encoder output	A, B Quadrature signal (400KHz max) Z Channel-"A": to 104 pulses/rev-"B": to 68 pulses/rev TTL	
	Other outputs (in position, alarm, etc.)		
Environmental		Driver	Motor
	Weight	24 lbs (11 kg)	See Table below
	<ul style="list-style-type: none"> • DR5000A • DR5000B Operating	13.2 lbs (6 kg)	See Table below
	<ul style="list-style-type: none"> • Temperature • Humidity Storage	0-50°C 20-90%-Non-condensing	0-45°C 20-85%-Non-condensing
	<ul style="list-style-type: none"> • Temperature • Humidity Environment	-20-85°C 20-90%-Non-condensing	-20-85°C 20-85%-Non-condensing
		No corrosive gases. Dust-free atmosphere. The Dynaserv is not waterproof, oil proof or dust proof.	

DR5000 Series-Motor Data

		Model 5030B	Model 5070B	Model 5300A	Model 5500A	
Peak torque	ft-lbs	22	52	221	369	
	(Nm)	(30)	(70)	(300)	(500)	
Rated speed	rps	4	4	1.5	1.5	
Rotor inertia	oz-in ² x10 ²	4.4	19.7	185.9	251.5	
	(kgm ²)x10 ⁻³	(8)	(36)	(340)	(460)	
Resolution	Steps/rev	278,528	278,528	425,984	425,894	
Motor weight	lbs	15.4	38.5	121	165	
	(kg)	(7)	(17.5)	(55)	(75)	
Maximum static axial load**						
	• Compression	lbs	6600	6600	8800	8800
	• Tension	lbs	2200	2200	4400	4400
Maximum static overhung load**	ft-lb	148	148	296	296	
Maximum power consumption	KVA	3.6	3.6	5.5	7.5	

Application	De-rate Factor
Smooth, rotary motion	1/3
Intermittent press loading	1/5
Repetitive shock loading	1/10

* Drive weight is 13.2 lbs (6 kgs)
 ** When designing a system, de-rate the maximum load to the value as shown at the left:

controllers

drives

motors