

Motor Specifications - 170 VDC Motor

Parameters		Size 23 Frame			Size 34 Frame			Size 42 Frame	
		OS2HB	OS21B	OS22B	RS31B	RS32B	RS33B	RS42B	RE42B
Static torque**	oz-in (Nm)	43 (0.30)	82 (0.58)	155 (1.09)	133 (0.93)	267 (1.87)	392 (2.74)	985 (6.90)	1907 (13.35)
Rotor inertia	oz-in ² (kg-cm ²)	0.39 (0.07)	0.66 (0.12)	1.39 (0.25)	3.02 (0.55)	6.56 (1.20)	9.65 (1.77)	61.76 (11.30)	61.76 (11.30)
Drive Current (Apk)(Arms)**	Series Parallel	1.5 (1.0) 3.0 (2.1)	1.8 (1.3) 4.0 (2.8)	2.2 (1.5) 4.0 (2.8)	2.3 (1.6) 4.6 (3.3)	2.8 (2.0) 5.6 (4.0)	3.4 (2.4) 6.9 (4.9)	6.1 (4.3) 12.0 (8.5)	3.4 (2.4) 7.2 (5.1)
Phase Inductance (mH)***	Series Parallel	8.6 2.2	12 3	16.6 4.2	9.4 2.4	11.6 2.9	9.6 2.4	8.2 2.1	42.6 10.7
Drive Bus Voltage	(VDC)	170	170	170	170	170	170	170	170
Detent Torque	oz-in (N-m)	2.5 (0.02)	4.0 (0.03)	7.0 (0.05)	8.8 (0.06)	18.0 (0.13)	27.0 (0.19)	50 (0.35)	81.0 (0.57)
Bearings Information									
Thrust Load	lb (kg)	13 (5.9)	13 (5.9)	13 (5.9)	180 (81.6)	180 (81.6)	180 (81.6)	400 (182)	400 (182)
Radial Load	lb (kg)	20 (9.1)	20 (9.1)	20 (9.1)	35 (15.9)	35 (15.9)	35 (15.9)	140 (63.6)	140 (63.6)
End Play (Reversing load equal to 1 lb)	in (mm)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)
Radial Play (Per 0.5 lb load)	in (mm)	0.0008 (0.02)	0.0008 (0.02)	0.0008 (0.02)	0.0008 (0.02)	0.0008 (0.02)	0.0008 (0.02)	0.0008 (0.02)	0.0008 (0.02)
Motor Weight	lb (kg)	1 (0.5)	1.5 (0.7)	2.5 (1.1)	3.2 (1.5)	5.3 (2.4)	7.6 (3.5)	18.2 (8.3)	18.2 (8.3)
Certifications	UL recognized CE (LVD) CE (EMC & LVD)*	Pending Yes No	Pending Yes No	Pending Yes No	Yes Yes *	Yes Yes *	Yes Yes *	Yes Yes *	Yes Yes *

For ZETA Series Motor Specifications and dimensions, please refer to the E Series Motor Specifications located in the Gemini Section.

Speed-Torque Curves- 170 VDC Motor

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Parameters		Size 34 Frame			Size 42 Frame		
		TS31B	TS32B	TS33B	TS41B	TS42B	TS43B
Static torque**	oz-in (N-m)	455 (3.19)	647 (4.53)	1525 (10.68)	1332 (9.32)	2515 (17.61)	3479 (24.35)
Rotor inertia	oz-in ² (kg-cm ²)	7.80 (1.43)	14.67 (2.68)	21.89 (4.01)	30.22 (5.53)	59.68 (10.92)	88.51 (16.20)
Drive Current (Apk)(Arms)**	Series Parallel	3.3 (2.3) 6.7 (4.7)	3.1 (2.2) 6.2 (4.4)	5.6 (4.0) 12.0 (8.5)	6.4 (4.5) 12.0 (8.5)	6.7 (4.7) 12.0 (8.5)	6.9 (4.9) 12.0 (8.5)
Drive Bus Voltage	(VDC)	170	170	170	170	170	170
Phase Inductance (mH)***	Series Parallel	10.3 2.6	10.3 2.6	13.6 3.4	15.8 3.9	22.0 5.5	30.7 7.7
Detent Torque	oz-in (Nm)	18 (0.13)	36 (0.25)	54 (0.38)	42 (0.30)	84 (0.59)	106 (0.75)

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Motor Specifications - 170 VDC Motor (cont'd)

Parameters	Size 34 Frame			Size 42 Frame		
	TS31B	TS32B	TS33B	TS41B	TS42B	TS43B
Bearings Information						
Thrust Load	lb (kg)	305 (139)	305 (139)	305 (139)	404 (184)	404 (184)
Radial Load	lb (kg)	65 (30)	65 (30)	110 (50)	125 (57)	110 (50)
End Play (Reversing load equal to 1 lb)	in (mm)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)
Radial Play (Per 0.5 lb load)	in (mm)	0.0008 (0.020)	0.0008 (0.020)	0.0008 (0.020)	0.0008 (0.020)	0.0008 (0.020)
Motor Weight	lb (kg)	5.0 (2.3)	8.4 (3.8)	11.9 (5.4)	11.0 (5.0)	18.4 (8.4)
Certifications	UL recognized CE (LVD) CE (EMC & LVD)*	Yes Yes *	Yes Yes *	Yes Yes *	Yes Yes *	Yes Yes *

For ZETA Series Motor Specifications and dimensions, please refer to the E Series Motor Specifications located in the Gemini Section.

Motor Specifications - 340VDC Motor

Parameters	Size 34 Frame			Size 42 Frame		
	Static torque**	oz-in (N-m)	171 (1.21)	292 (2.06)	532 (3.76)	1,266 (8.94)
Rotor inertia	oz-in ² (kg-cm ²)	3.20 (0.59)	6.56 (1.20)	9.65 (1.77)	61.76 (11.30)	92.64 (16.95)
Drive Current (Apk)(Arms)**	Series Parallel	2.2 (1.6) 4.0 (2.8)	2.8 (2.0) 4.0 (2.8)	3.5 (2.5) 4.0 (2.8)	3.2 (2.3) 4.0 (2.8)	3.4 (2.4) 4.0 (2.8)
Phase Inductance (mH)***	Series Parallel	17.4 4.4	26.2 6.6	23.3 5.8	65.4 16.4	55.6 13.9
Drive Bus Voltage	(VDC)	340	340	340	340	340
Detent Torque	oz-in (N-m)	8.8 0.062	18.0 0.130	27.0 0.190	50.0 (0.350)	81.0 (0.570)
Bearings Information						
Thrust Load	lb (kg)	180 (81.6)	180 (81.6)	180 (81.6)	400 (182)	400 (182)
Radial Load	lb (kg)	35 (15.9)	35 (15.9)	35 (15.9)	140 (63.6)	140 (63.6)
End Play (Reversing load equal to 1 lb)	in (mm)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)	0.001 (0.025)
Radial Play (Per 0.5 lb load)	in (mm)	0.0008 (0.02)	0.0008 (0.02)	0.0008 (0.02)	0.0008 (0.02)	0.0008 (0.02)
Motor Weight	lb (kg)	3.2 (1.5)	5.3 (2.4)	7.6 (3.5)	18.2 (8.3)	25.7 (11.7)
Certifications	UL recognized CE (LVD) CE (EMC & LVD)*	Yes Yes *	Yes Yes *	Yes Yes *	Yes Yes *	Yes Yes *

* EMC is a system compliance. To comply with EMC and low-noise (C15PR22/EN55022 Class B or FCC Class B emissions) standards, the following items are required:

- ZETA4-240, ZETA8, or ZETA12 Drive
- CE(LVD) motor for LVD. Compumotor recommends a terminal board (NPS) motor construction for easier EMC installation
- C10 motor accessory (LVD/EMC cable kit)
- ZETA EMC KIT

** Values shown in speed-torque curves

*** Small signal values

Drives & Drive/Controllers

controllers
 drives
 motors