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Find the *Parker ES32B-DNR10* at our website: *Click HERE*

Specifications

ES Series Stepper Motor Specifications Size 23 & 34 Frame

Parameters		Size 23 Frame ES21B	ES22B	ES23B	Size 34 Frame ES31B	ES32B	ES33B
Static torque	oz-in	117	196	264	255	502	655
	(N-m)	(0.8)	(1.4)	(1.9)	(1.8)	(3.5)	(4.6)
Rotor inertia	$oz\text{-}in^2$	0.546	1.1	1.69	3.47	6.76	10.47
	($kg\text{-}m^2 \times 10^{-2}$)	(9.998)	(20.1)	(30.9)	(63.4)	(124)	(191)
Phase Inductance	Series	17.37	18.5	17	10	10.5	9.2
	Parallel	4.34	4.62	4.25	2.5	2.62	2.3
Drive Bus Voltage	VDC	170	170	170	170	170	170
Detent Torque	oz-in	1.4	2.08	2.78	1.94	4.03	5.55
	(N-m)	(0.01)	(0.01)	(0.02)	(0.01)	(0.03)	(0.04)
Bearings							
Thrust load	lb	25	25	25	50	50	50
	(kg)	(11.3)	(11.3)	(11.3)	(22.6)	(22.6)	(22.6)
Radial load	lb	15	15	15	25	25	25
	(kg)	(6.8)	(6.8)	(6.8)	(11.3)	(11.3)	(11.3)
End play	in	0.005	0.005	0.005	0.005	0.005	0.005
Reversing load	(cm)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Equal to 1 lb							
Radial play	in	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
Per 0.5 lb load	(cm)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Weight (net)							
Motor+Cable	lb	1.6	2.4	3.2	3.8	5.1	8.3
+Connector	(kg)	(0.7)	(1.1)	(1.5)	(1.7)	(2.3)	(3.8)
Motor Cable							
Wire size	AWG	24	24	24	22	22	22
	(mm^2)	(0.25)	(0.25)	(0.25)	(0.34)	(0.34)	(0.34)
Drive Current	Apk (Arms)						
GT	Series	1.76 (1.24)	1.75 (1.24)	2.63 (1.86)	2.76 (1.95)	3.49 (2.47)	4.0 (2.83)
	Parallel	3.5 (2.48)	3.51 (2.48)	5.26 (3.72)	5.51 (3.90)	6.99 (4.94)	8.0 (5.66)
ZETA	Series	1.76 (1.24)	2.01 (1.42)	2.63 (1.86)	2.76 (1.95)	3.63 (2.57)	4.0 (2.83)
	Parallel	3.5 (2.48)	4.0 (2.83)	5.16 (3.65)	5.42 (3.83)	7.23 (5.11)	8.0 (5.66)

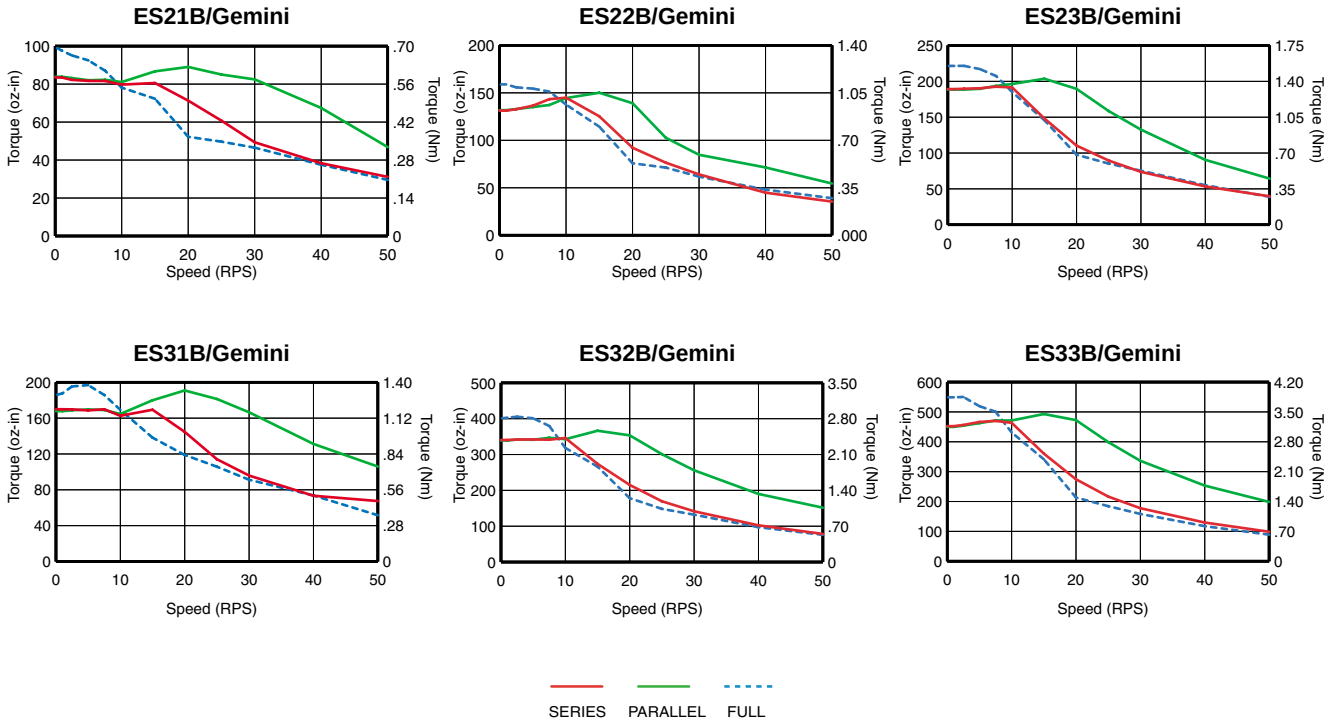
All motors: Cable length = 10 feet (3 m); attached connector is prewired for series current.

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Motor Speed-Torque Performance Curves

GT Drive with ES Series motors – 23 and 34 frame
(previously ZETA and S Series motors)



Parallel connected motors are limited to 50% duty cycle when operated above 5 rps. For greater than 50% duty cycle above 5 rps, connection must be made to the motor in series. Fan cooling the motor will increase duty cycles above 5 rps.

Viscous damper is not required to achieve speed-torque curves.

Note: ±10% torque variance due to motor tolerance

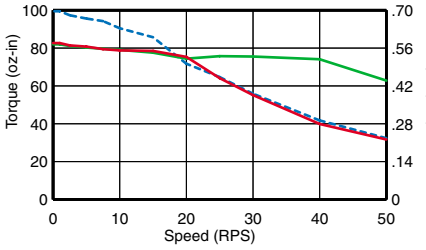
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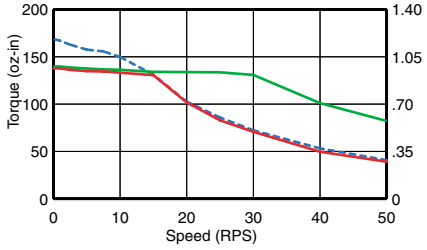
Motor Speed-Torque Performance Curves

ZETA with ES motors – 23 and 34 frame
(previously ZETA and S Series motors)

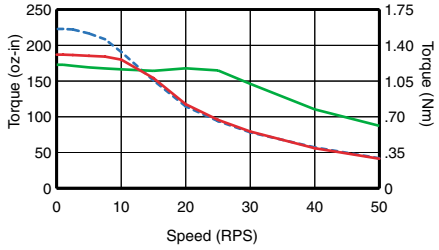
ES21B/ZETA



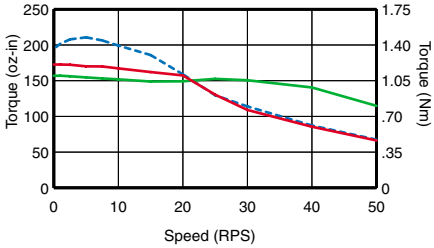
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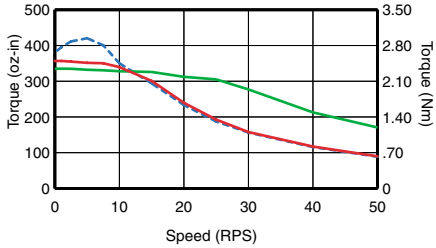
ES23B/ZETA



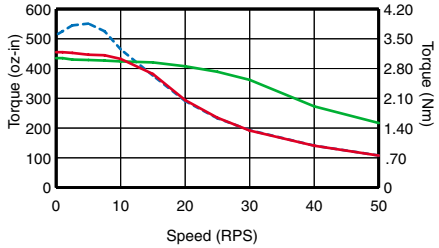
ES31B/ZETA



ES32B/ZETA



ES33B/ZETA





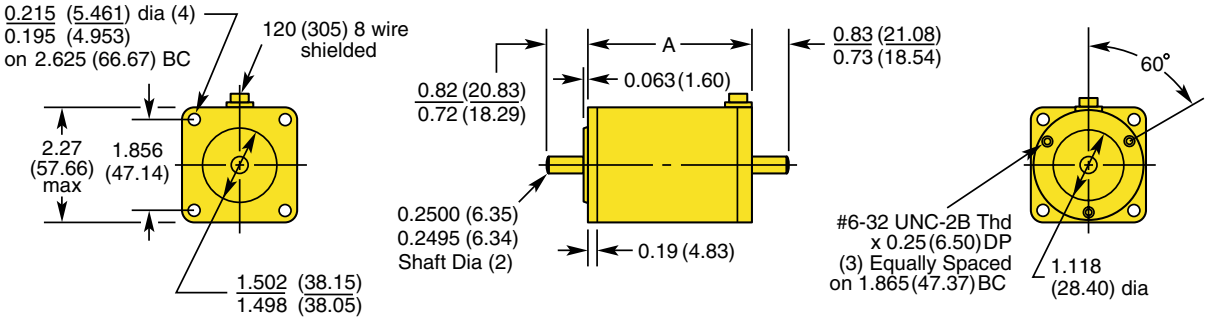
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ES Series Dimensional Drawings

Size 23 Frame

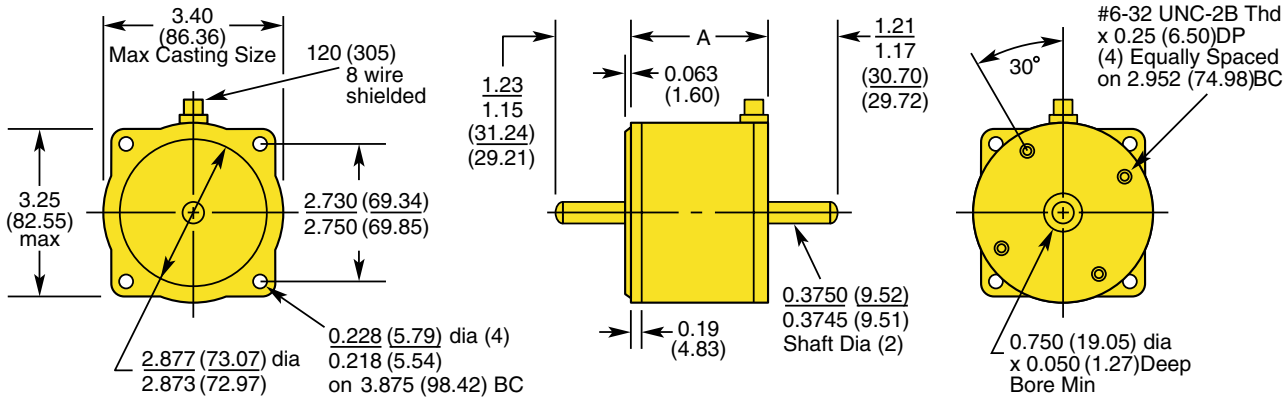
Dimensions in inches (mm)



Model	A
ES21B (ZETA 57-51)	2.0 (50.23)
ES22B (ZETA 57-83)	3.1 (75.23)
ES23B (ZETA 57-102)	4.0 (101.6)

Size 34 Frame

Dimensions in inches (mm)



Model	A
ES31B (ZETA 83-62)	2.5 (62.0)
ES32B (ZETA 83-93)	3.7 (93.98)
ES33B (ZETA 83-135)	5.2 (129.0)

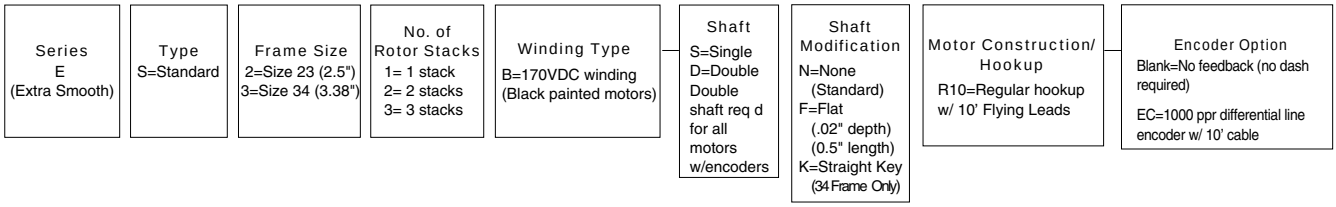
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Motor Ordering Information

ES Series

The ES Series Size 23 and Size 34 Frame motors are available in a B Winding (170VDC). These motors are designed for use with Gemini GT, ZETA Series, ZETA4-240 (@120VAC).



E Series Part Number Example

ES _ _ B - _ K _____ - _____
ES31B-SKNPS
E 43B-DKS10

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