

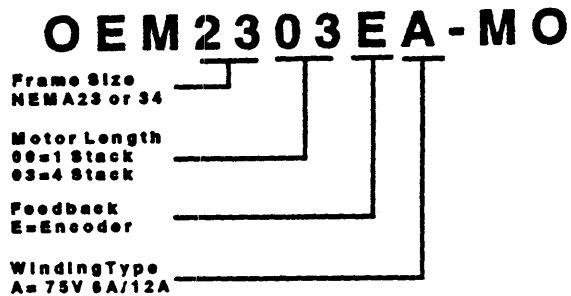
## ③ Motor Specifications

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### Motor Description

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OEM Series motors are high performance 3 phase servo motors that complement the OEM670T. The motors are described by the following numbering system:



The motors are equipped with Hall effect sensors for commutation feedback, as well as additional feedback for the controller and not utilized by the OEM670T. The motors have NEMA flanges for compatibility with standard X-Y stages and gear boxes. The motors use neodymium-boron-iron magnets.

### Motor Specifications and Drawings

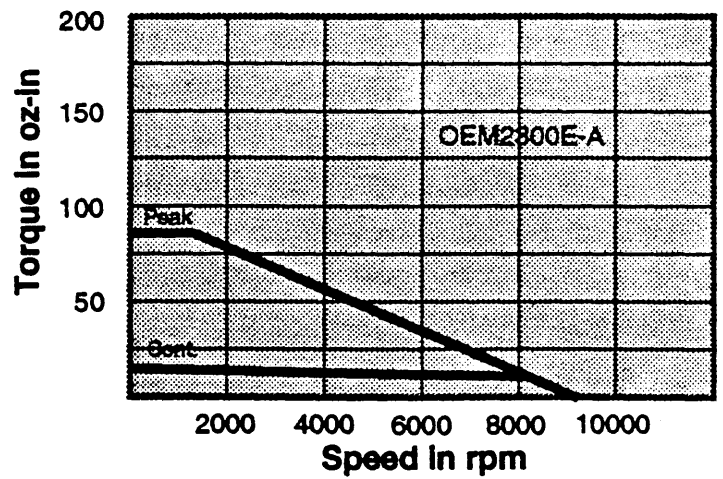
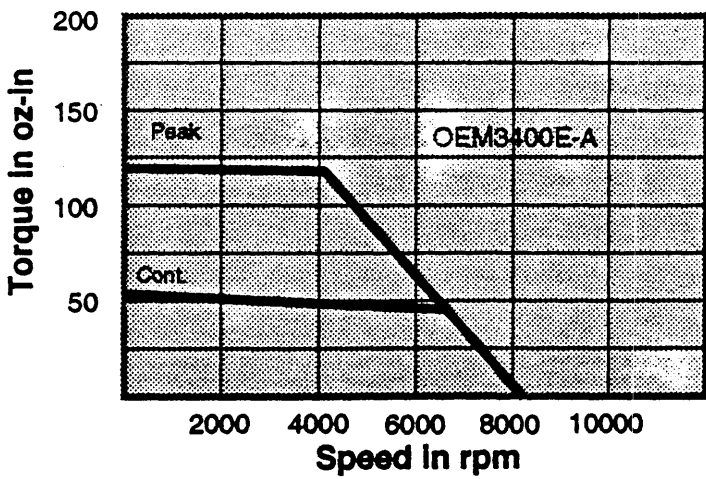
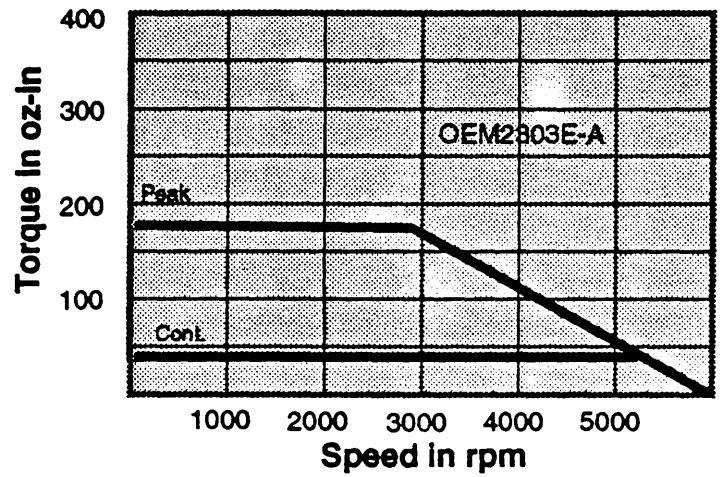
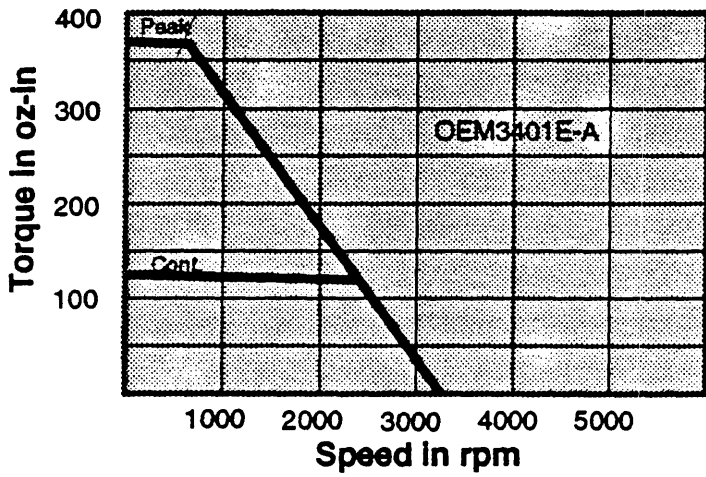
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Speed/Torque curves, specifications, and drawings for each motor size are attached.

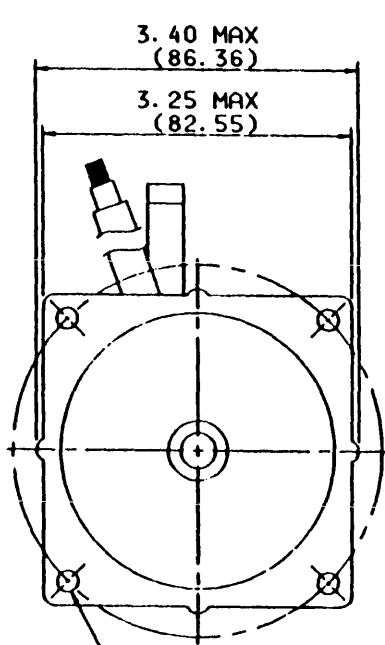
## Motor Specifications\*

	Units	OEM2300E-A	OEM2303E-A	OEM3400E-A	OEM3401E-A
<b>Winding Constants</b>					
Design voltage	volts	70	70	70	70
Peak torque	oz-in	102.3	188.3	142.1	375.96
Continuous torque @115°C rise	oz-in	14.10	55.84	47.9	114.3
Continuous output power @115°C rise	Watts	111.25	272.05	359.3	580.51
No load speed	RPM	11,010	6010	7960	3010
Kt	in-oz/amp	8.52	15.69	11.84	31.33
Kv	v/kRPM	6.30	11.61	8.76	23.17
electrical time constant	msec	0.32	0.72	0.59	1.22
<b>Motor Constants</b>					
Rotor Inertia	In-oz-sec <sup>2</sup>	8.3E-4	3.17 E-3	6.4 E-3	1.27 E-2
Motor weight	Oz	13.73	33.17	36.23	52.96
Thermal resistance	°C/watt	4.18	2.81	1.88	1.68
Terminal resistance	ohms	5.24	1.74	2.09	2.90
Terminal inductance	mH	1.664	1.252	1.234	3.538
mechanical time constant	msec	8.5	3.17	13.56	5.31
# of poles		4	4	4	4

\* Motor specifications for performance at 20°C.



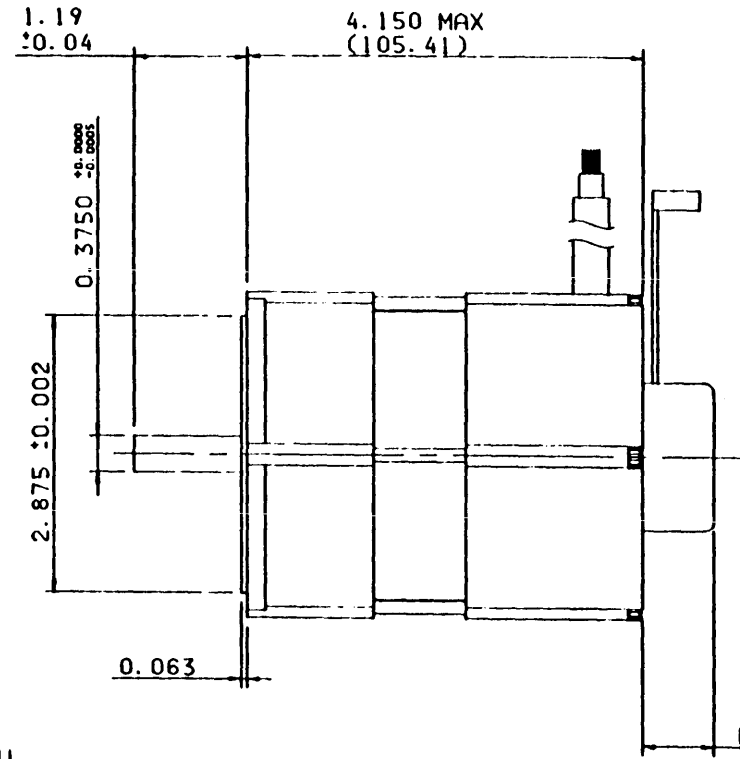
**SPEED/TORQUE CURVES for OEM SERIES SERVO MOTORS**



3.40 MAX  
(86.36)

3.25 MAX  
(82.55)

4x  $\varnothing 0.223 \pm 0.01$  THRU  
EQUALLY SPACED ON  
3.875 B.C.



1.19  
 $\pm 0.04$

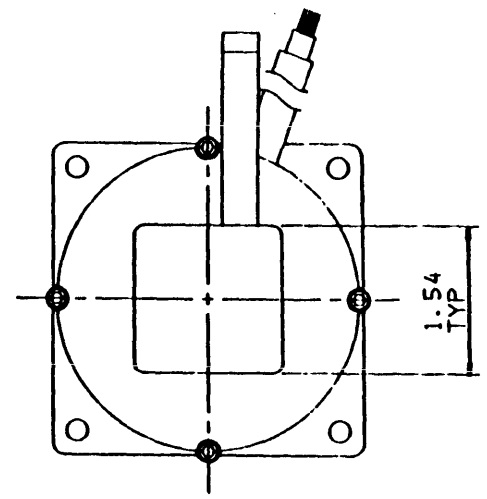
4.150 MAX  
(105.41)

0.3750  
 $\pm 0.0005$

2.875  
 $\pm 0.002$

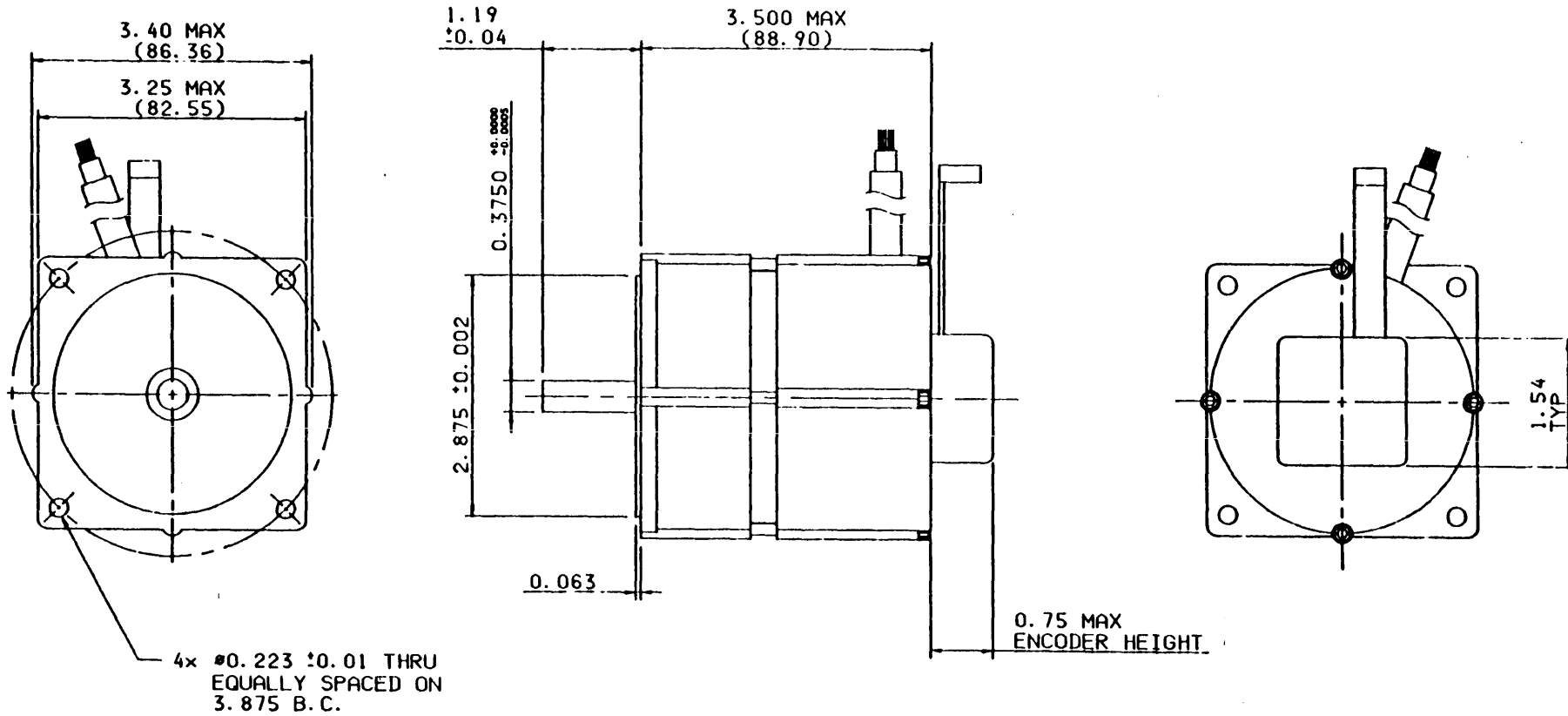
0.063

0.75 MAX  
ENCODER HEIGHT

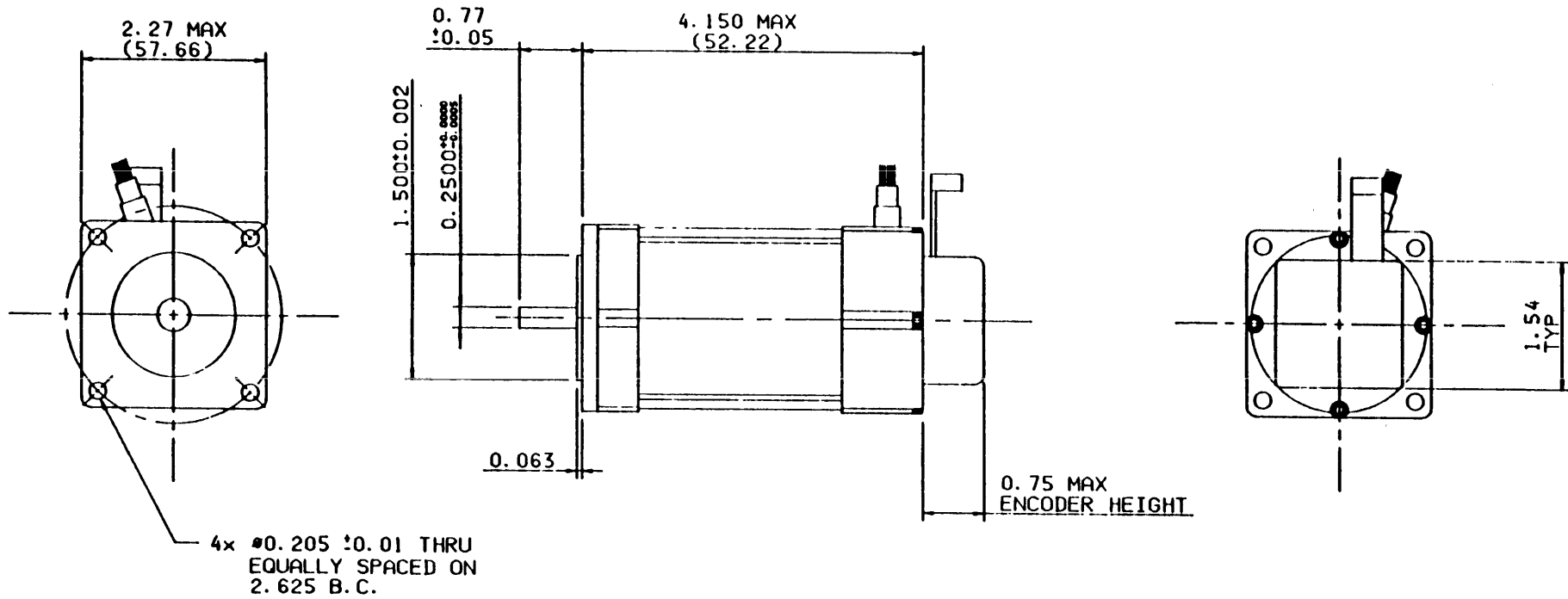


1.54  
TYP

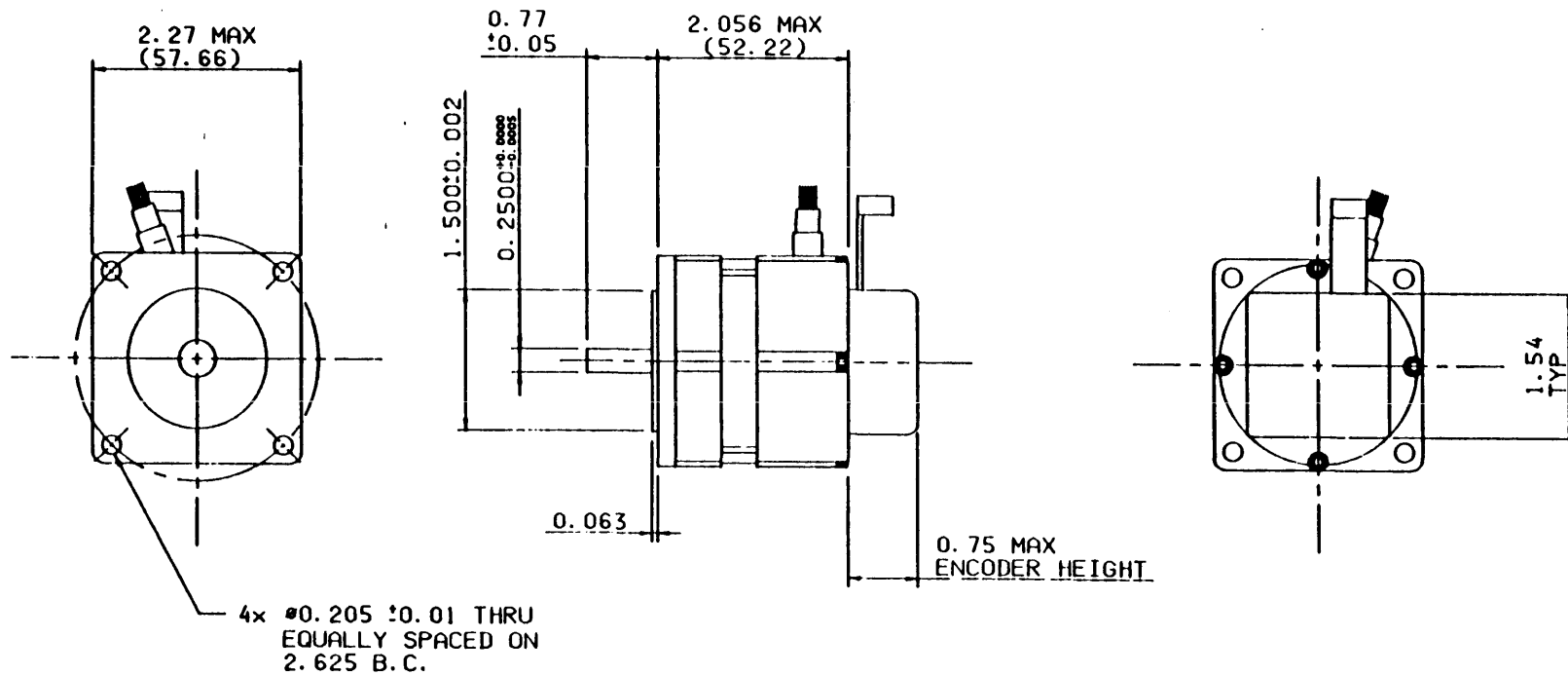
**OEM3401EA-MO DIMENSIONS**



**OEM3400EA-MO DIMENSIONS**



**OEM2303EA-MO DIMENSIONS**



**OEM2300EA-MO DIMENSIONS**