

# Specifications

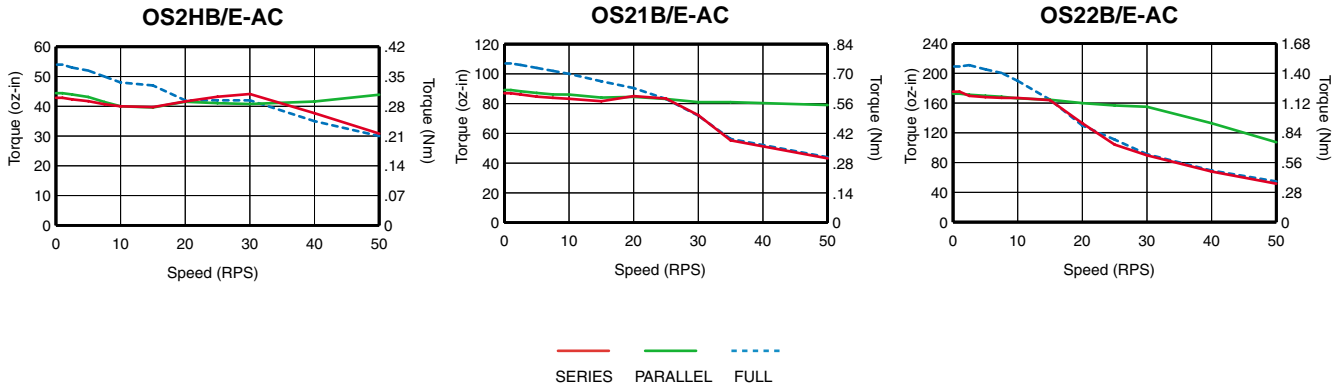
## OS Series Motor Specifications Size 23 Frame

Parameters		OS2HA	OS21A	OS22A	OS2HB	OS21B	OS22B
Static torque	oz-in	49.1	114	186	61.35	126.5	238
	(Nm)	(0.35)	(0.81)	(1.31)	(0.43)	(0.84)	(1.68)
Rotor inertia	oz-in <sup>2</sup>	0.39	0.66	1.39	0.39	0.66	1.39
	(kg-cm <sup>2</sup> )	(0.07)	(0.12)	(0.25)	(0.07)	(0.12)	(0.25)
Phase Inductance (mH)	Series	1.7	1.8	2.8	8.6	12	16.6
	Parallel	NA	NA	NA	2.2	3	4.2
Detent Torque	oz-in (N-m)	2.5 (0.02)	4.0 (0.03)	7.0 (0.05)	2.5 (0.02)	4.0 (0.03)	7.0 (0.05)
<b>Bearings Information</b>							
Thrust Load	lb (kg)	13 (5.9)	13 (5.9)	13 (5.9)	13 (5.9)	13 (5.9)	13 (5.9)
Radial Load	lb (kg)	20 (9.1)	20 (9.1)	20 (9.1)	20 (9.1)	20 (9.1)	20 (9.1)
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)
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)
Motor Weight	lb (kg)	1 (0.5)	1.5 (0.7)	2.5 (1.1)	1 (0.5)	1.5 (0.7)	2.5 (1.1)
Certifications	UL recognized	Pending	Pending	Pending	Pending	Pending	Pending
	CE (LVD)	Yes	Yes	Yes	Yes	Yes	Yes
	CE (EMC & LVD)	No	No	No	No	No	No
Drive Current	Apk (Arms)						
E-AC	Series	NA	NA	NA	1.76 (1.24)	1.88 (1.33)	2.38 (1.68)
	Parallel	NA	NA	NA	3.25 (2.30)	3.5 (2.47)	3.5 (2.47)
E-DC	Series	3.0 (2.12)	4.8 (3.39)	4.8 (3.39)	NA	NA	NA
	Parallel	NA	NA	NA	NA	NA	NA
GT	Series	NA	NA	NA	1.7 (1.2)	1.8 (1.3)	2.4 (1.7)
	Parallel	NA	NA	NA	3.4 (2.4)	3.6 (2.6)	4.8 (3.4)
OEM750	Series	2.65 (1.9)	3.3 (2.3)	3.8 (2.7)	NA	NA	NA
	Parallel	5.3 (3.7)	6.6 (4.7)	7.5 (5.3)	NA	NA	NA
ZETA	Series	NA	NA	NA	1.8 (1.3)	1.9 (1.3)	2.4 (1.7)
	Parallel	NA	NA	NA	3.6 (2.6)	3.8 (2.6)	4.8 (3.4)

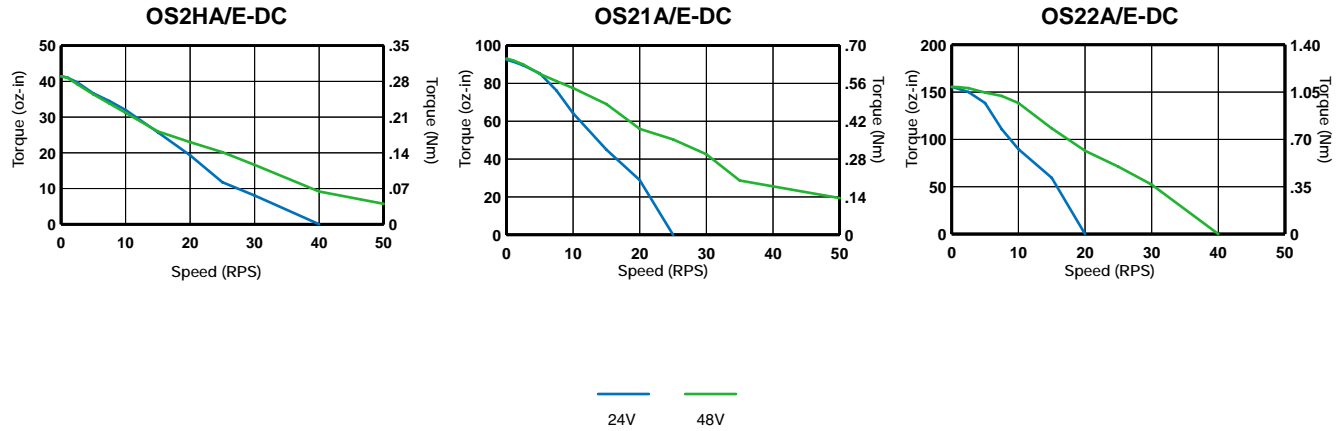
## Speed-Torque Curves

### Motor Speed-Torque Performance Curves

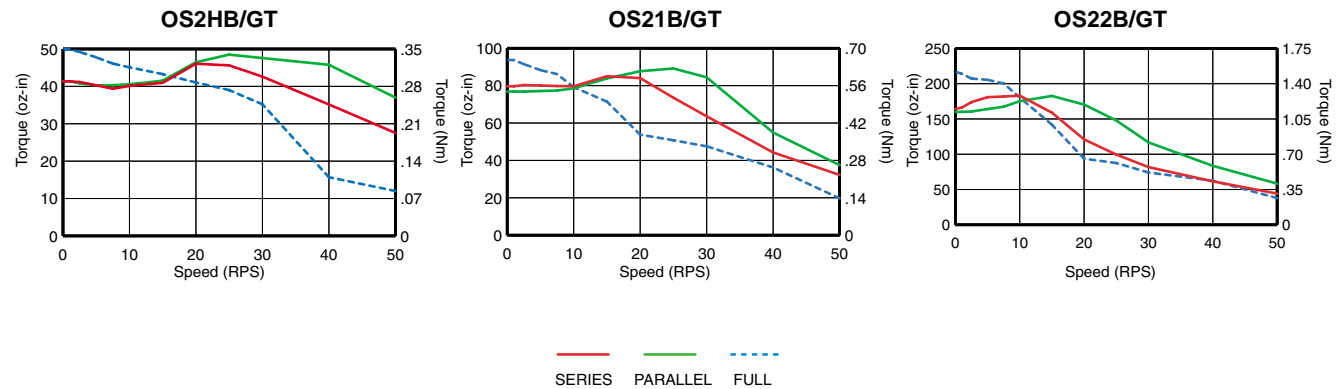
#### E-AC Drive with OS Series Motors – 23 frame



#### E-DC Drive with OS Series Motors – 17 and 23 frame



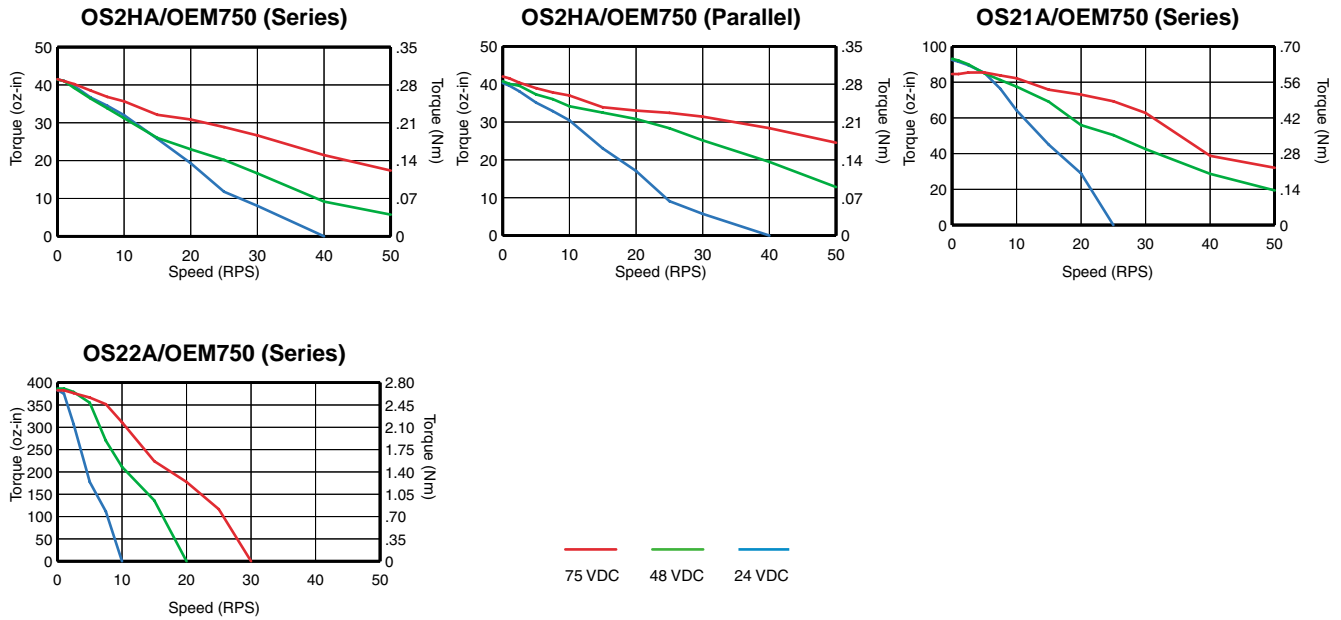
#### GT Drive with OS Series Motors – 23 frame



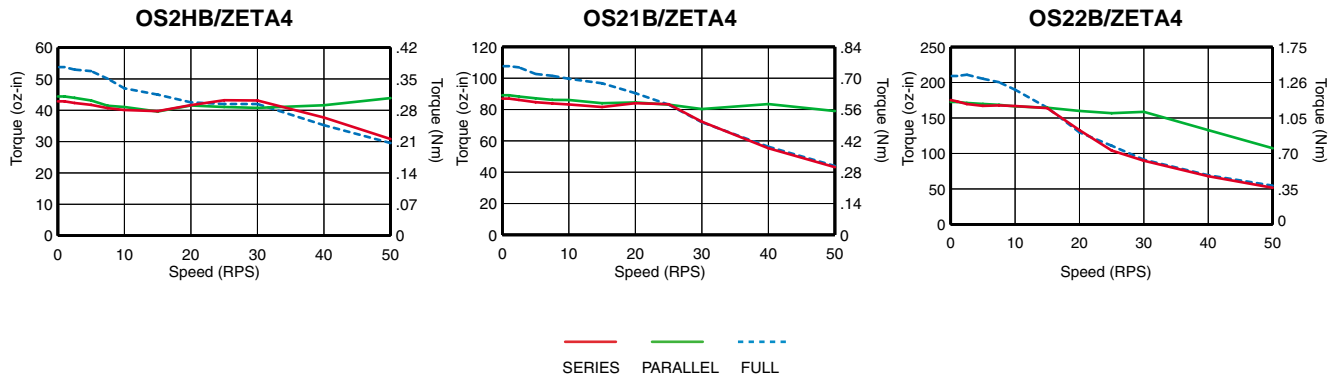
## Speed-Torque Curves

### Motor Speed-Torque Performance Curves

#### OEM750 Drive with OS Motors – 23 frame, 24, 48 and 75 VDC



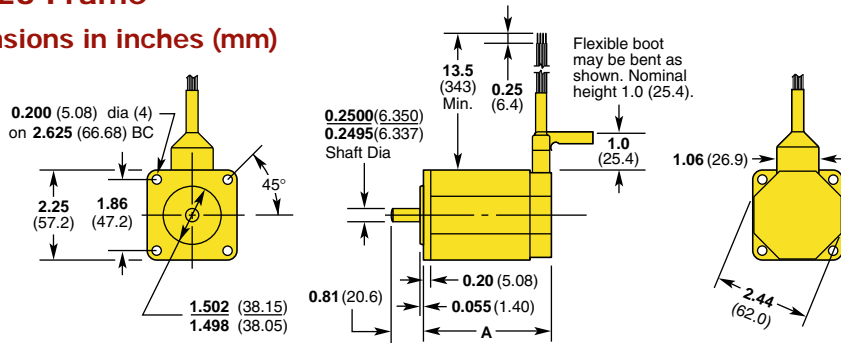
#### ZETA Drive with OS Series Motors – 23 frame



# OS Dimensional Drawings

## Size 23 Frame

Dimensions in inches (mm)



Model	A
OS2H (OEM57-40)	1.60 (40.6)
OS21 (OEM57-51)	2.06 (52.3)
OS22 (OEM57-83)	3.10 (87.7)

# Motor Ordering Information

## OS Series (CE(LVD), UL Pending)

The OS Series Size 23 Frame motors with A Winding (75VDC) are designed for use with the OEM750 and E-DC Series drives. The OS Series Size 23 Frame motors with B Winding (170VDC) are designed for use with E-AC, GT and ZETA Series.

Series O (Octagonal)	Type S=Standard	Frame Size 2=Size 23	No. of Rotor Stacks H=Half stacks 1=1 stack 2=2 stacks	Winding Type A=75VDC winding (Gray painting motors) B=170VDC winding (Black painted motors)	Shaft S=Single D=Double (Double shaft req d for all motors with encoders)	Shaft Modification N=Standard smooth F=Flat (.02" depth) (0.5" length)	Motor Construction/ Hookup FLY=Regular construction with flying (8) leads, 12" L10= Regular construction with 10' LVD cable	Encoder Option Blank=No feedback (no dash required) HJ=512 ppr single-ended kit encoder w/12" flying leads (only available on A winding motors) RE=1000 ppr differential kit encoder w/ line driver & 13" braided shield cable (w/ FLY only) RC=1000 ppr differential kit encoder w/ line driver & 10' cable
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**OS Series Part Number Example:**

OS2 \_ \_ - \_ \_ \_ \_ - \_ \_  
 OS2HA-SNFLY  
 OS22B-DNL10-RC