

FEATURES:

- Available with a 50 N·cm, 160 N·cm stepper motor, 145W, 216W servomotor or no motor
- Resolution for 50 N·cm motor is 0.15 mm/step (.006) in half-step mode; for 160 N·cm motor is 0.075 mm/step (.003) and 0.0075mm/pulse (.0003) with standard servomotor
- Maximum speed: 1.5 m/s (4.9 ft./s)
- Carriage rides on two Ø8 mm (.31) precision ground steel shafts that are supported along the entire length of travel to minimize deflection
- Belt is 3 mm (.12) HTD®, 9 mm (.35) wide. HTD® belt profile helps reduce backlash
- Home and end reference switch repeatable to < 0.1 mm (.003)
- Lengths up to 3 meters (9.8 ft)



ZF1 BELT DRIVE SELECTION

CATALOG NUMBER

HL3105MP 0

ZF1 Belt Drive Slide

LOAD and MOMENT DATA

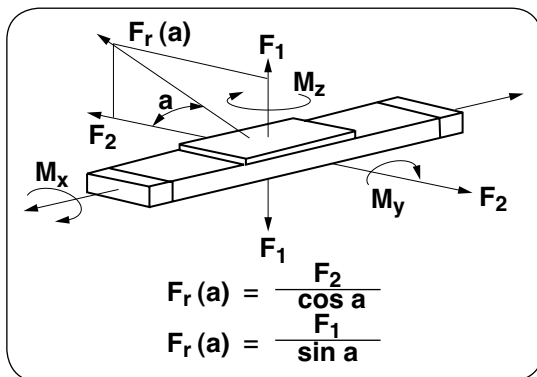
F1 Stat	2648.0 N	(595.3 lbf)
F1 Dyn	1382.7 N	(310.8 lbf)
F2 Stat	3061.5 N	(688.3 lbf)
F2 Dyn	1598.1 N	(359.3 lbf)
Mx Stat	37.2 N·m	(329.2 lb·in)
My Stat	98.8 N·m	(874.4 lb·in)
Mz Stat	114.3 N·m	(1011.6 lb·in)
Mx Dyn	19.4 N·m	(171.7 lb·in)
My Dyn	51.6 N·m	(456.7 lb·in)
Mz Dyn	59.7 N·m	(528.3 lb·in)

Code

030
040
050
060
068
070
080
100
150
180
200
250
300

Motor Type

V 216W Servomotor, 2:1 Ratio
L 145W Servomotor, 2:1 Ratio
R 50 N·cm Stepper Motor
S 160 N·cm Stepper Motor, 2:1 Ratio
X No Motor
Y 2:1 Ratio Assembly, No Motor (Includes Pulley for Motor)



Code	L Length mm (in)	Travel mm (in)
030	298 (11.7)	153 (6)
040	398 (15.7)	253 (10)
050	498 (19.6)	353 (13.9)
060	598 (23.5)	453 (17.8)
068	675 (26.6)	530 (20.9)
070	698 (27.5)	553 (21.8)
080	798 (31.4)	653 (25.7)
100	998 (39.3)	853 (33.6)
150	1498 (59)	1353 (53.3)
180	1798 (70.8)	1653 (65.1)
200	1998 (78.7)	1853 (73)
250	2498 (98.3)	2353 (92.6)
300	2998 (118)	2853 (112.3)

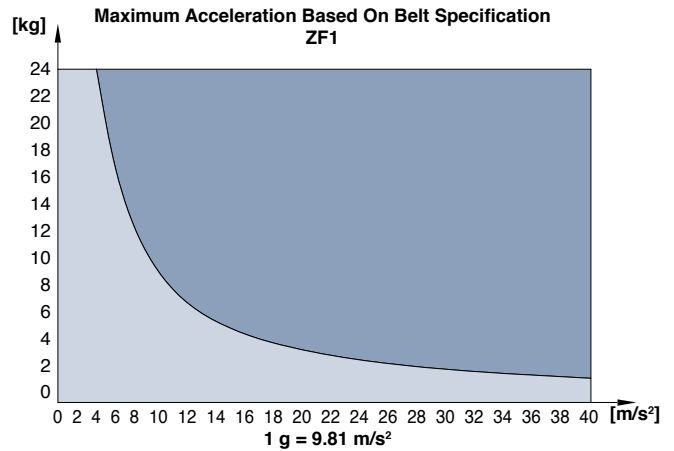
NOTE: Dimensions in () are inch unless otherwise specified

For mating connectors and cables, see page 119. For motor standoffs and couplings, see page 107.

Technical Data

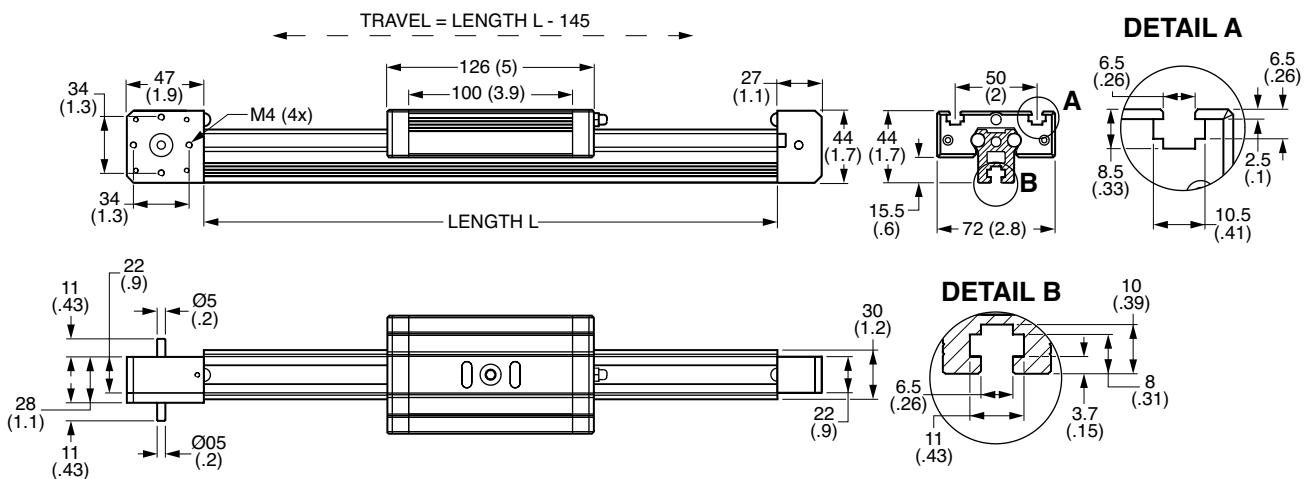
- Belt type: 3 mm HTD® (.12), 9 mm (.35) wide
- Mass of bearing carriage = 0.43 kg (.95 lb)
- Weight without motor module: ≈ 3.00 kg/1000 mm (6.6 lb/39.4 in)
- Specific mass of belt: 0.0225 kg/m (.05 lb/39.4 in)
- Diameter of pulley: 19.10 mm (.75)
- Pulley mass moment of inertia: $5.585 \times 10^{-7} \text{ kg}\cdot\text{m}^2$
- Effective circumference: 60 mm (2.4)

NOTE: One revolution of motor shaft produces 60 mm (2.4) of linear travel. This determines travel resolution. When NEMA 23 frame stepper or servomotor is used, two revolutions of motor shaft produces 60 mm (2.4) of linear travel.



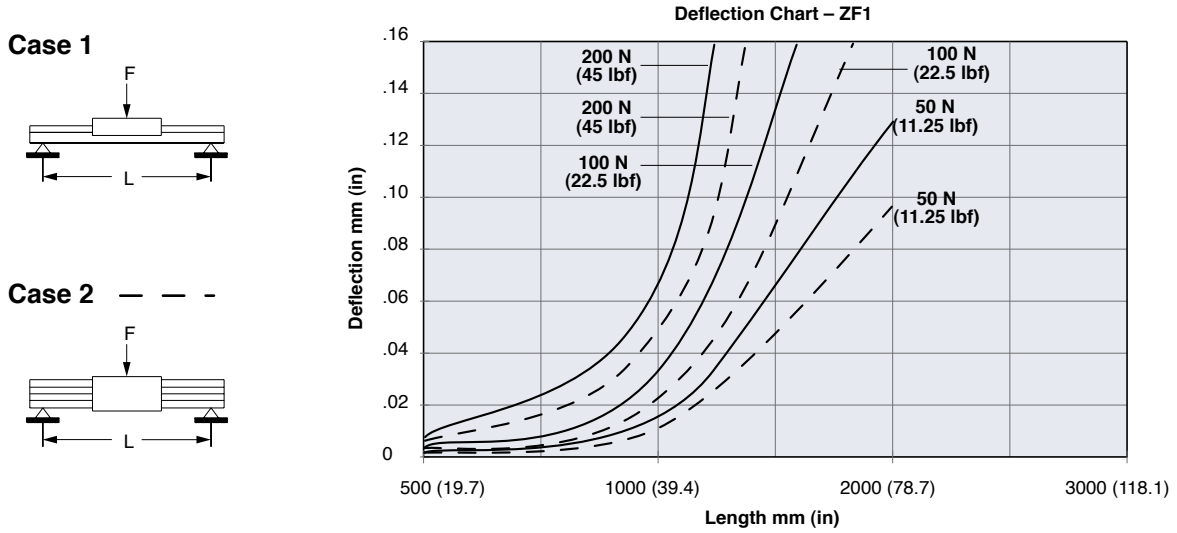
No load speed (rpm)	No load torque N·m (oz·in)
500	0.06 (8.5)
1500	0.09 (12.7)
3000	0.13 (18.4)

Bearing Carriage



See Web site for complete CAD drawings

Deflection Data & Motor Options

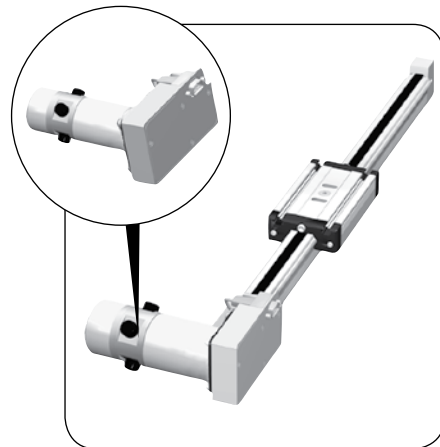
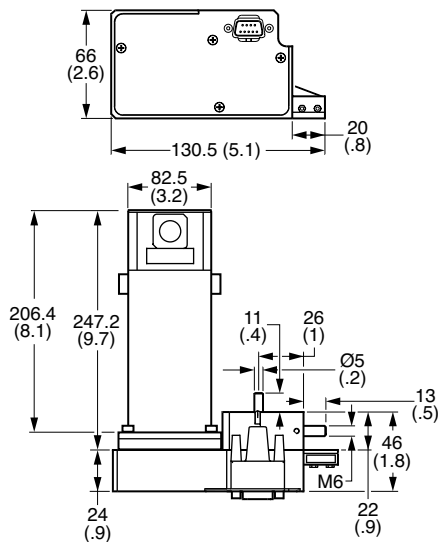


DC Servomotor

CATALOG NUMBER: HZ2600M05NEMA23V

SPECIFICATIONS

Power	200W	Maximum Terminal Voltage	60V
Maximum Operating Speed	6000 rpm	Peak Stall Torque	350 oz·in (2.47 N·m)
Continuous Stall Torque	50 oz·in (.35 N·m)	Maximum Pulse Current	31A
Maximum Continuous Current	4.5A	Operating Temperature	0°C to 40°C (32°F to 104°F)

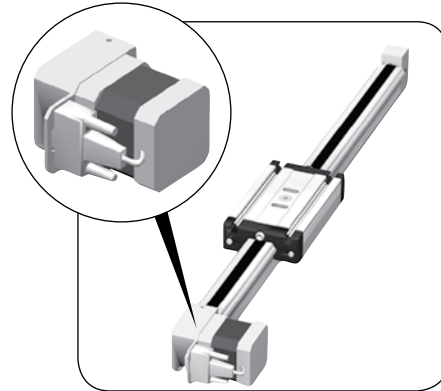
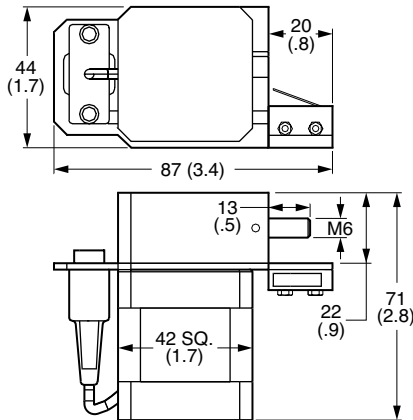


NOTE: Dimensions in () are inch

50 N·cm Stepper Motor

CATALOG NUMBER: HL2600M05NEMA17

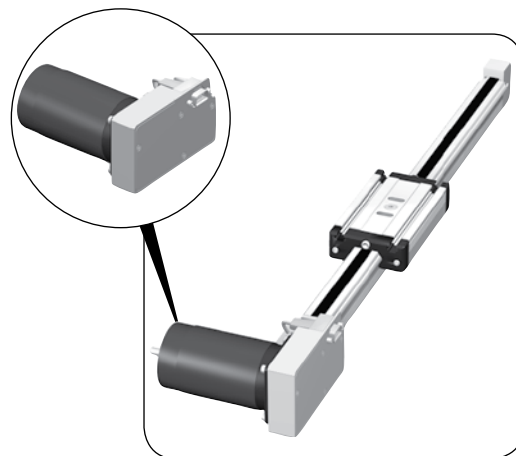
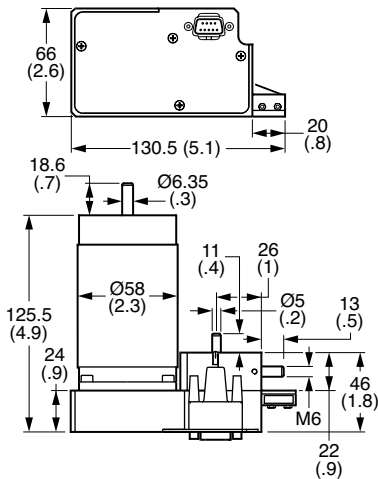
SPECIFICATIONS	
Holding Torque	50 N·cm
Step Size: Full	1.8°
Half	0.9°
Voltage – bipolar	3.2V
Resistance	1.1 Ω
Inductance	1.85mH
Current – bipolar	1.8A



160 N·cm Stepper Motor

CATALOG NUMBER: HL2600M05NEMA23

SPECIFICATIONS	
Holding Torque	160 N·cm
Step Size: Full	1.8°
Half	0.9°
Voltage – bipolar	1.7V
Resistance	1.2 Ω
Inductance	2.2mH
Current – bipolar	4.1A



NOTE: Dimensions in () are inch