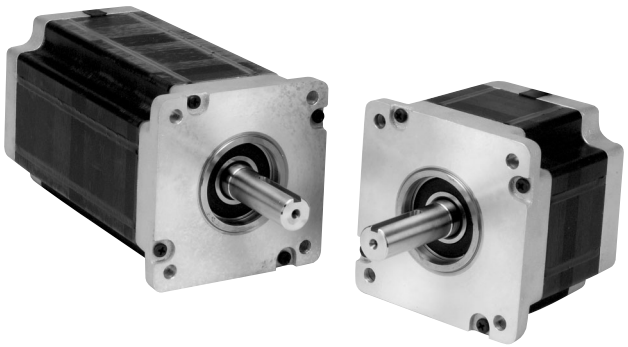
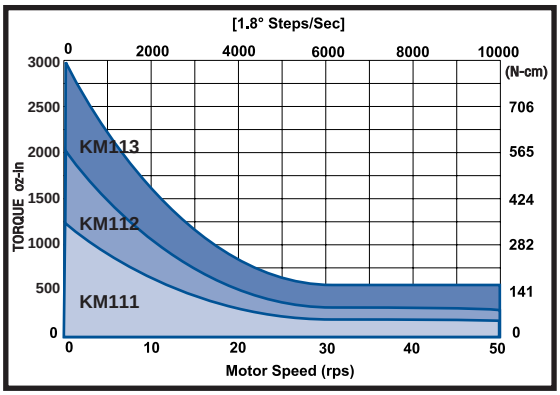
KM11

High Torque 170mm Frame Size (NEMA Size 42)



Performance Envelope

(see page 17 for detailed torque-speed curves)

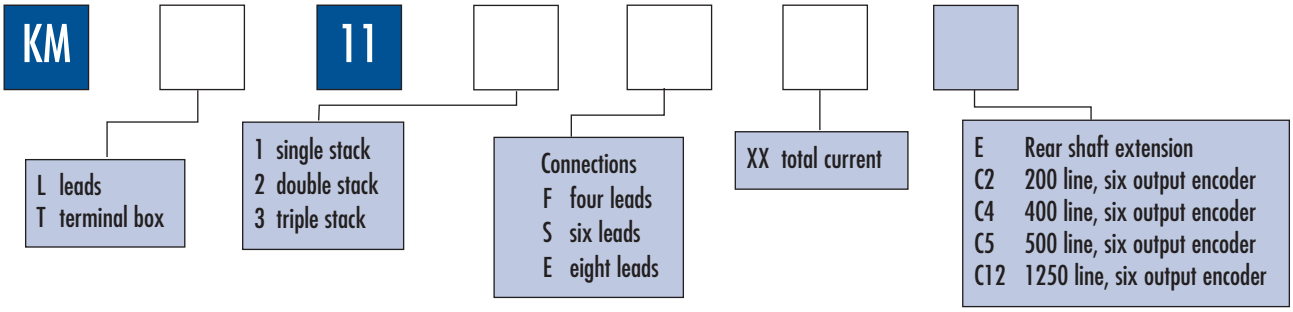


- Up to 200% rated torque reserve capacity
- ±5% typical step accuracy
- Standard terminal box, encoders, and precision gearheads available
- Available with four, six, or eight leads
- Customized configurations available

Motor Frame	Minimum Holding Torque		Rotor Inertia	*Weight		Maximum Shaft Load		Minimum Residual Torque
	Unipolar 2Ø on	Bipolar 2Ø on		Net	Ship	Overhang	Thrust	
	oz-in (N-cm)	oz-in (N-cm)	oz-in-s² (kg-cm²)	lb (kg)	lb (kg)	lb (kg)	lb (kg)	oz-in (N-cm)
KML111	1,030 (730)	1,450 (1,020)	0.078 (5.5)	11.0 (5.0)	12.2 (5.5)	75 (34.0)	130 (59.0)	42 (30)
KML112	1,950 (1,380)	2,750 (1,940)	0.155 (10.9)	18.4 (8.3)	19.6 (8.9)	75 (34.0)	160 (72.6)	84 (59)
KML113	2,650 (1,870)	3,750 (2,650)	0.229 (16.2)	25.7 (11.7)	26.9 (12.2)	75 (34.0)	160 (72.6)	106 (75)

* Weight for motor with leads.

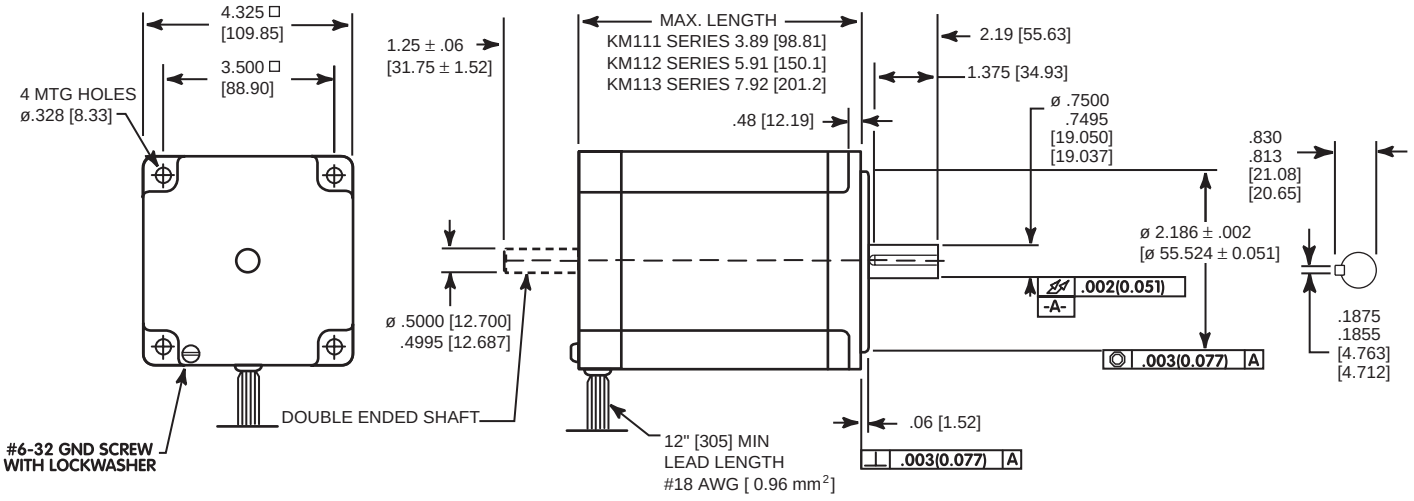
KM11



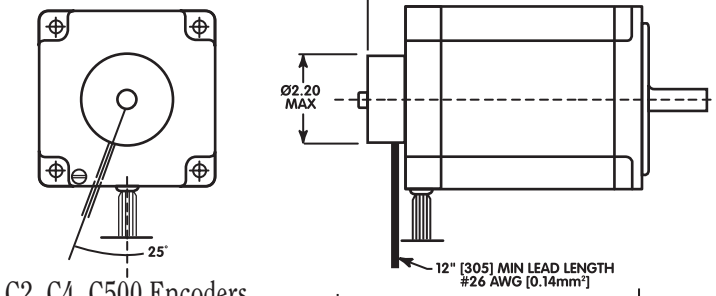
4-CONNECTION STEP MOTORS				
Model Number	Winding Specifications			
See Next page for options	Voltage (VDC)	Current (amperes)	Resistance (ohms)	Inductance (mH)
KM□111F05	6.3	2.7	2.33	40.4
KM□111F09	4.1	4.4	0.93	15.8
KM□111F11	3.2	5.5	0.58	10.1
KM□111F17	2.0	8.7	0.23	3.9
KM□111F21	1.7	10.7	0.16	2.8
KM□112F06	7.7	3.2	2.41	51.1
KM□112F08	6.0	4.0	1.51	31.2
KM□112F10	5.0	4.9	1.02	22
KM□112F13	3.2	7.9	0.41	8.4
KM□112F16	3.8	6.4	0.6	12.8
KM□112F20	2.5	9.9	0.25	5.5
KM□112F32	1.6	15.8	0.1	2.1
KM□113F06	10.2	3.1	3.29	78.5
KM□113F08	7.9	4.0	1.98	44.2
KM□113F10	6.5	4.9	1.32	30.7
KM□113F12	5.1	6.2	0.82	19.6
KM□113F16	4.0	8.0	0.5	11
KM□113F20	3.3	9.9	0.33	7.7
KM□113F31	2.2	15.4	0.14	3.2

8-CONNECTION STEP MOTORS								
Model Number	Winding Specifications							
	Bipolar Series				Bipolar Parallel			
See Next page for options	Voltage (VDC)	Current (amperes)	Resistance (ohms)	Inductance (mH)	Voltage (VDC)	Current (amperes)	Resistance (ohms)	Inductance (mH)
KM□111E08	6.3	2.7	2.33	40.4	3.2	5.5	0.58	10.1
KM□111E12	4.1	4.4	0.93	15.8	2.0	8.7	0.23	3.9
KM□111E15	3.3	5.3	0.63	11.1	1.7	10.7	0.16	2.8
KM□112E09	7.7	3.2	2.41	51.1	3.8	6.4	0.6	12.8
KM□112E11	6.0	4.0	1.51	31.2	3.1	8.1	0.38	7.8
KM□112E14	5.0	4.9	1.02	22	2.5	9.9	0.25	5.5
KM□112E22	3.2	7.9	0.41	8.4	1.6	15.8	0.1	2.1
KM□113E09	10.2	3.1	3.29	78.5	5.1	6.2	0.82	19.6
KM□113E11	7.9	4.0	1.98	44.2	4.0	8.0	0.5	11
KM□113E14	6.5	4.9	1.32	30.7	3.3	9.9	0.33	7.7
KM□113E22	4.2	7.7	0.55	13	2.2	15.4	0.14	3.2

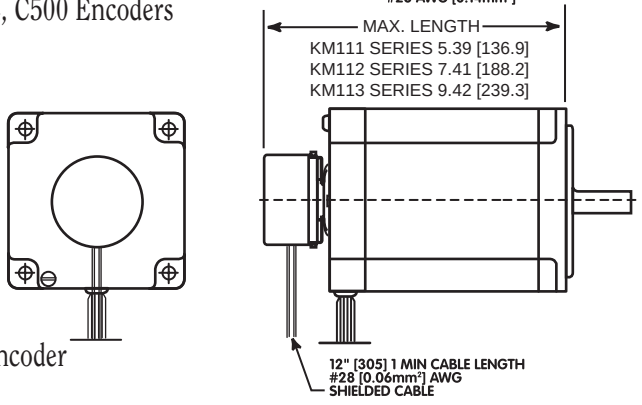
KM11: Motor Dimensions



Encoder



C2, C4, C500 Encoders



C12 Encoder

Add to Model Number:

C2	200 lines per rev.
C4	400 lines per rev.
C5	500 lines per rev.
C12	1250 lines per rev.

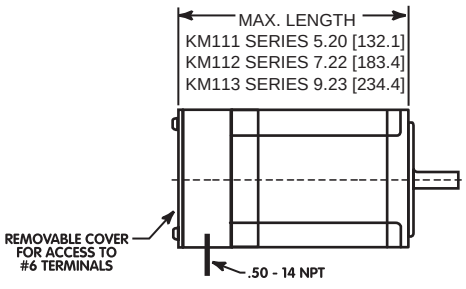
Outputs: A, B, Index,

$\overline{A}$, $\overline{B}$, $\overline{Index}$,

Differential Line Drivers supplied
Example: KML113F08C5

For encoder specification see pages 22-23

Terminal Box



Change to Model Number:

Example: KMT113F08 (triple stack, terminal box, four leads, 4 amp winding)

KM11

72 V Bipolar - Microstep

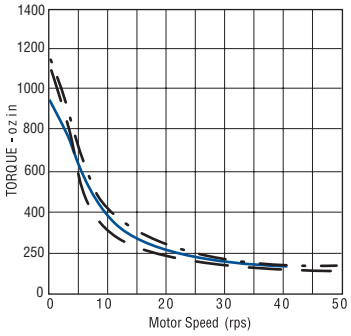
72 volt data measured with MD808 Modular Drive

170 V Bipolar - Microstep

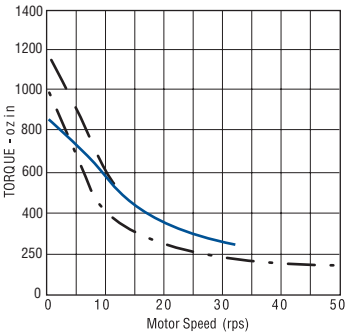
170 volt data measured with SS2000D3, D3i, D6, or D6i Packaged Drive

340 V Bipolar - Microstep

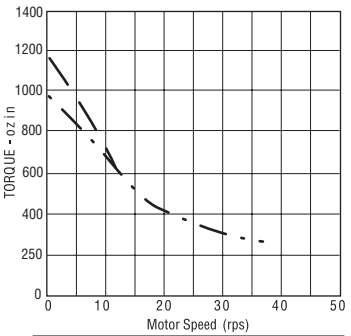
KM111



KM□111F09 - 5.7 A peak - or KM□111E12 series
KM□111F11 - 7.1 A peak - or KM□111E08 parallel
KM□111F11 - 5.7 A peak - or KM□111E08 parallel

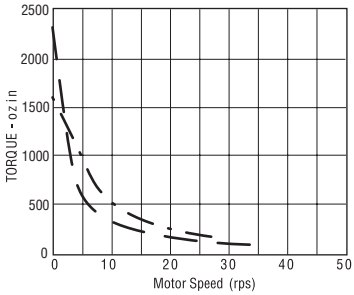


KM□111F09 - 6 A peak - or KM□111E12 series
KM□111F05 - 3 A peak - or KM□111E08 series
KM□111F09 - 4 A peak - or KM□111E12 series

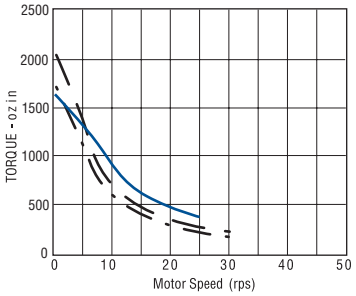


KM□111F05 - 3.9 A peak - or KM□111E08 series
KM□111F05 - 3 A peak - or KM□111E08 series

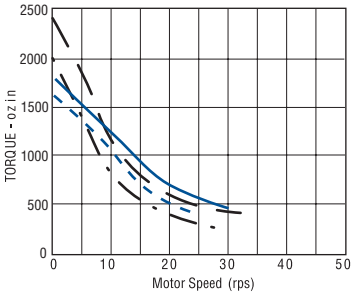
KM112



KM□112F10 - 7.1 A peak - or KM□112E14 series
KM□112F16 - 7.1 A peak - or KM□112E22 series

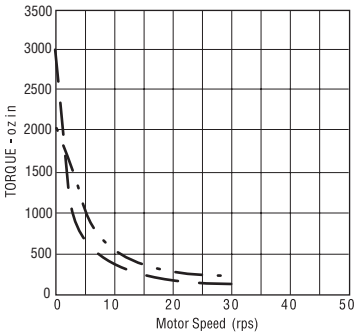


KM□112F10 - 6 A peak - or KM□112E14 series
KM□112F08 - 4 A peak - or KM□112E11 series
KM□112F13 - 6 A peak - or KM□112E09 parallel

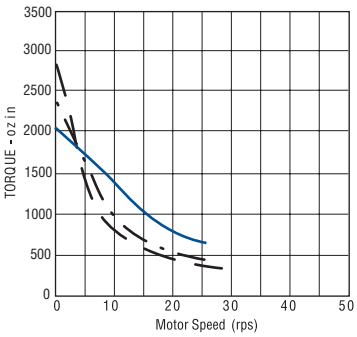


KM□112F08 - 6 A peak - or KM□112E11 series
KM□112F06 - 3.9 A peak - or KM□112E09 series
KM□112F10 - 5 A peak - or KM□112E14 series
KM□112F08 - 3.9 A peak - or KM□112E11 series

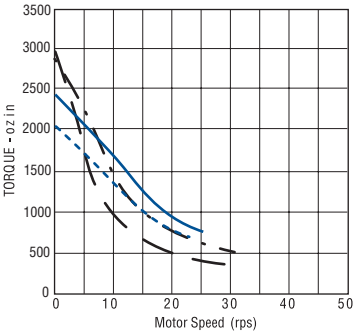
KM113



KM□113F10 - 7.1 A peak - or KM□113E14 series
KM□113F16 - 7.1 A peak - or KM□113E11 parallel



KM□113F10 - 6 A peak - or KM□113E14 series
KM□113F12 - 6 A peak - or KM□113E09 parallel
KM□113F20 - 8 A peak - or KM□113E14 parallel



KM□113F06 - 3.9 A peak - or KM□113E09 series
KM□113F10 - 6 A peak - or KM□113E14 series
KM□113F12 - 6 A peak - or KM□113E09 parallel
KM□113F10 - 3.9 A peak - or KM□113E14 series

- The curves do not show system resonances which will vary with system mechanical parameters.
- Duty cycle is dependent on torque, speed, drive parameters, and heat sink conditions. Maximum case temperature is 100°C.