



Overview - Standard Line

Standard Line

Specifications

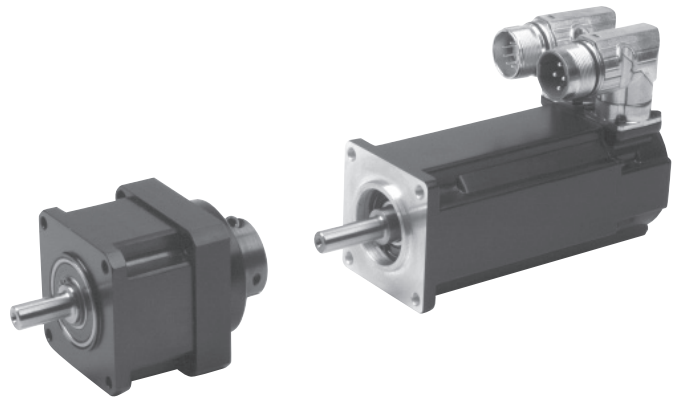
- Up to 662 Nm of peak torque
- 13 arc-min of backlash (1 stage)
- 15 arc-min of backlash (2 stage)

Value

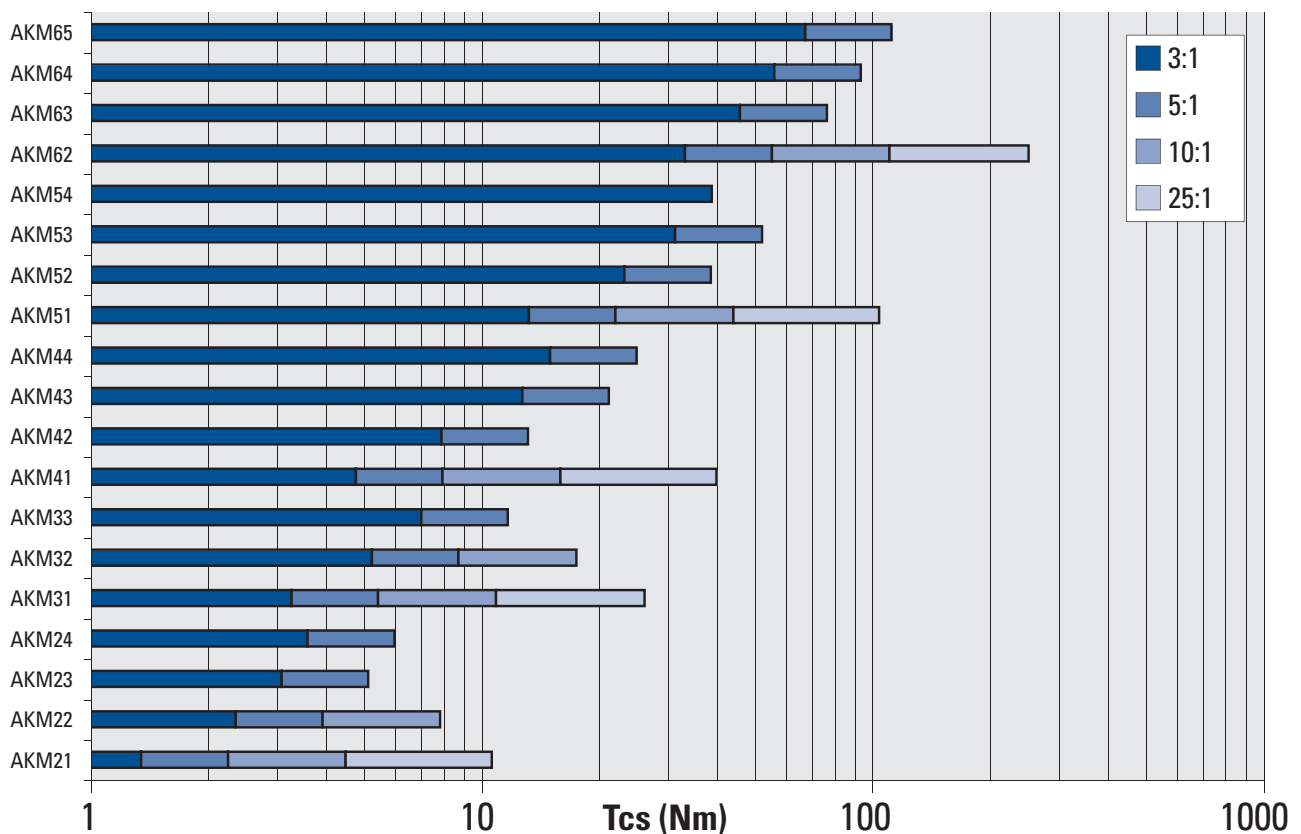
- Reliable performance at a competitive price point
- No additional price adder for assembly of components

All the benefits of a gearmotor system at an economical price

- Inertia matching for large load inertias
- Torque increases through speed reduction
- "Lubed For Life" gearbox without leaking or messy maintenance



Standard Line Continuous Torque



AKM Gearmotor Selection Guide

Performance Data - Standard Line

Model	Max Supply Voltage	Tcs		Tp		Min. Gearmotor Inertia		Max. Gearmotor Inertia	
		Nm	lb-in	Nm	lb-in	Kg-m ²	lb-in-s ²	Kg-m ²	lb-in-s ²
	3Ø VAC								
AKM21	480	10.6	94.0	32.1	284	5.64E-04	4.99E-03	3.54E-02	3.14E-01
AKM22	480	7.9	69.5	25.1	222	6.13E-04	5.42E-03	6.01E-03	5.32E-02
AKM23	480	5.1	45.5	17.5	155	6.62E-04	5.86E-03	1.69E-03	1.50E-02
AKM24	480	6.0	53.0	21.7	192	7.11E-04	6.29E-03	1.83E-03	1.62E-02
AKM31	480	26.1	231	86.3	764	2.30E-03	2.03E-02	1.31E-01	1.16E+00
AKM32	480	17.5	155	65.3	578	2.53E-03	2.24E-02	2.22E-02	1.96E-01
AKM33	480	11.7	104	46.0	407	2.76E-03	2.45E-02	6.53E-03	5.78E-02
AKM41	480	40.0	354	135	1200	2.73E-03	2.41E-02	1.61E-01	1.43E+00
AKM42	480	13.2	117	52.2	462	3.30E-03	2.92E-02	8.02E-03	7.10E-02
AKM43	480	21.2	188	73.3	649	3.88E-03	3.43E-02	9.62E-03	8.52E-02
AKM44	480	25.0	221	91.8	813	4.46E-03	3.94E-02	1.12E-02	9.94E-02
AKM51	480	104	922	255	2260	7.03E-03	6.22E-02	3.95E-01	3.50E+00
AKM52	480	38.7	343	98.6	872	9.55E-03	8.45E-02	2.27E-02	2.01E-01
AKM53	480	52.2	462	135	1200	1.22E-02	1.08E-01	3.00E-02	2.66E-01
AKM54	480	38.9	344	104	918	1.47E-02	1.30E-01	1.47E-02	1.30E-01
AKM62	480	251	2230	646	5720	3.61E-02	3.19E-01	1.98E+00	1.75E+01
AKM63	480	76.5	677	194	1710	4.27E-02	3.78E-01	9.72E-02	8.61E-01
AKM64	480	93.6	828	243	2150	4.93E-02	4.37E-01	1.16E-01	1.02E+00
AKM65	480	112.0	991	293	2600	5.69E-02	5.03E-01	1.37E-01	1.21E+00

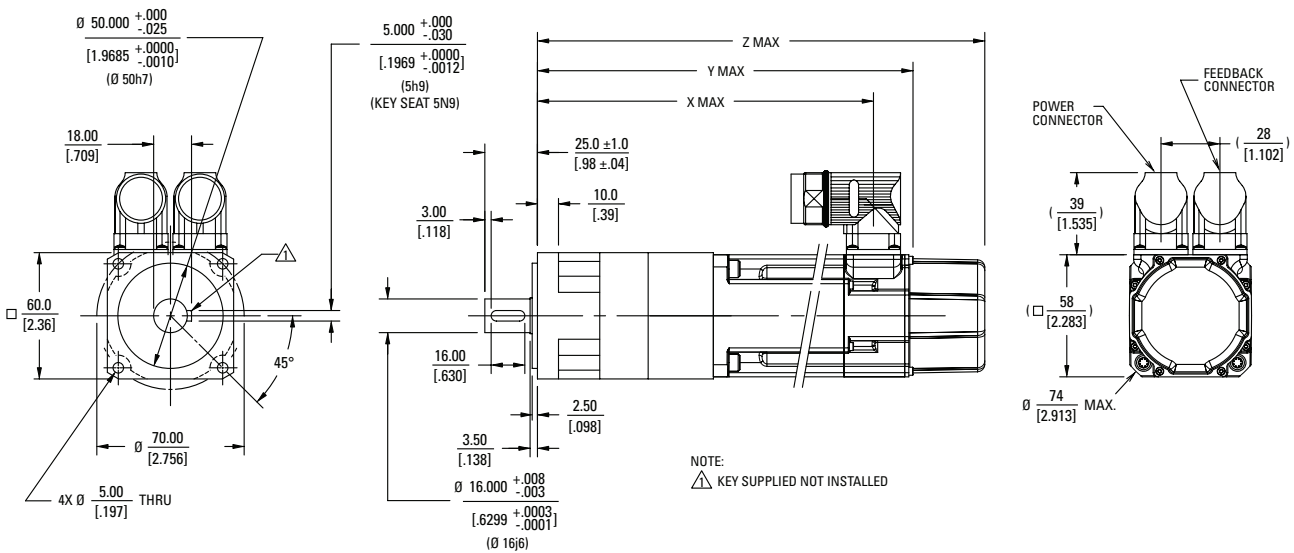
Note: Performance data is based on sinusoidal current commutation using a Kollmorgen drive. System selection should be determined using Micron MOTIONEERING® system sizing software. Over 1500 AKM gearmotor systems are available for selection. See more details on page 17.

Model	Maximum Accel Torque for Ratio:							
	3		5		10		25	
	Nm	lb-in	Nm	lb-in	Nm	lb-in	Nm	lb-in
AKM21	8.10	71.7	8.91	78.9	5.94	52.6	14.4	127
AKM22	8.10	71.7	8.91	78.9	5.94	52.6	-	-
AKM23	8.10	71.7	8.91	78.9	-	-	-	-
AKM24	8.10	71.7	8.91	78.9	-	-	-	-
AKM31	32.6	288	40.7	360	21.6	191	60.5	535
AKM32	32.6	288	40.7	360	21.6	191	-	-
AKM33	32.6	288	40.7	360	-	-	-	-
AKM41	32.6	288	40.7	360	21.6	191	60.5	535
AKM42	32.6	288	40.7	360	-	-	-	-
AKM43	32.6	288	40.7	360	-	-	-	-
AKM44	32.6	288	40.7	360	-	-	-	-
AKM51	60.4	535	40.7	360	41.9	371	107	945
AKM52	60.4	535	40.7	360	-	-	-	-
AKM53	60.4	535	40.7	360	-	-	-	-
AKM54	60.4	535	-	-	-	-	-	-
AKM62	199	1760	219	1940	153	1350	346	3060
AKM63	199	1760	219	1940	-	-	-	-
AKM64	199	1760	219	1940	-	-	-	-
AKM65	199	1760	219	1940	-	-	-	-

• If no value is given, then the system combination must be purchased separately, and is not part of the gearmotor standard offer.



Outline - Standard Line AKM2x



• Refer to the AKM Selection Guide for details about other connector options and feedback availability.

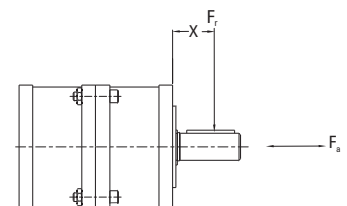
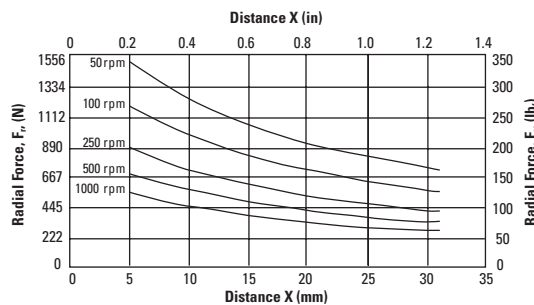
Model/Ratio	"Y" Max. (non-brake)		"Z" Max. (with brake)		"X" Max.	
	3:1 to 10:1	25:1	3:1 to 10:1	25:1	3:1 to 10:1	25:1
AKM21x	179.0 (7.05)	196.5 (7.74)	213.1 (8.39)	230.6 (9.08)	159.7 (6.29)	177.2 (6.98)
AKM22x	198.0 (7.80)	-	232.1 (9.14)	-	178.7 (7.04)	-
AKM23x	217.0 (8.54)	-	251.1 (9.89)	-	197.7 (7.78)	-
AKM24x	236.0 (9.29)	-	270.1 (10.6)	-	216.7 (8.53)	-

- Dimensions are in mm (inches)
- Product designed in metric
- English conversions provided for reference only

Radial and Axial Load Ratings

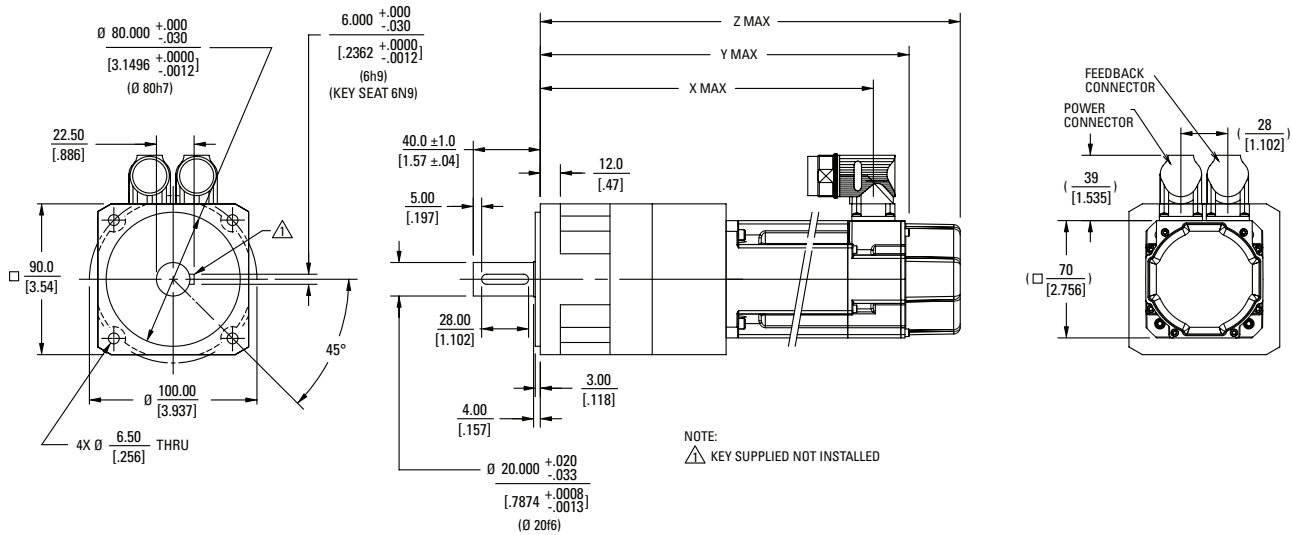
This graph displays the allowable radial load at a given distance (X) from the mounting surface based on an L₁₀ life of 20,000 hours for the mean output speed n_{mout}.

Allowable axial load
F_a = 310 lb_f (1379 N)
 at 250 rpm



AKM Gearmotor Selection Guide

Outline - Standard Line AKM3x



• Refer to the AKM Selection Guide for details about other connector options and feedback availability.

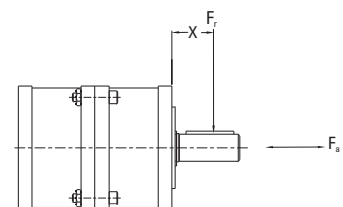
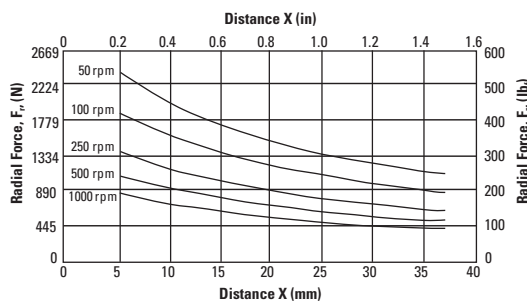
Model/Ratio	"Y" Max. (non-brake)		"Z" Max. (with brake)		"X" Max.	
	3:1 to 10:1	25:1	3:1 to 10:1	25:1	3:1 to 10:1	25:1
AKM31x	220.7 (8.69)	243.6 (9.59)	251.2 (9.89)	274.1 (10.8)	198.8 (7.83)	221.7 (8.73)
AKM32x	251.7 (9.91)	-	282.2 (11.1)	-	229.8 (9.05)	-
AKM33x	282.7 (11.1)	-	313.2 (12.3)	-	260.8 (10.3)	-

- Dimensions are in mm (inches)
- Product designed in metric
- English conversions provided for reference only

Radial and Axial Load Ratings

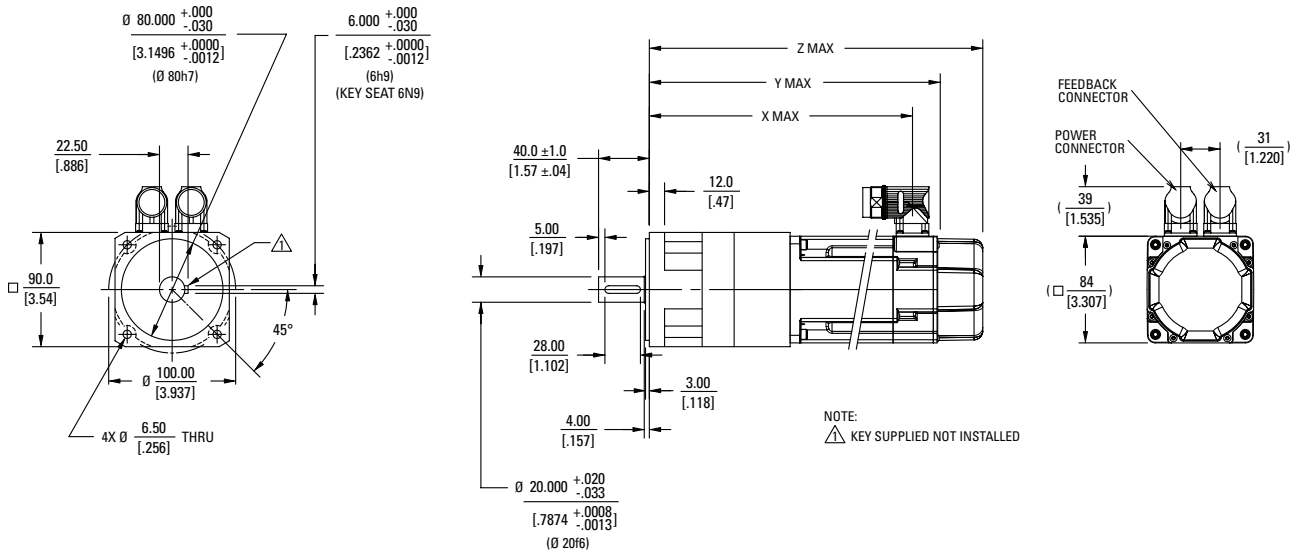
This graph displays the allowable radial load at a given distance (X) from the mounting surface based on an L₁₀ life of 20,000 hours for the mean output speed n_{mout}.

Allowable axial load
 $F_a = 510 \text{ lb}_f (2269 \text{ N})$
 at 250 rpm





Outline - Standard Line AKM4x



• Refer to the AKM Selection Guide for details about other connector options and feedback availability.

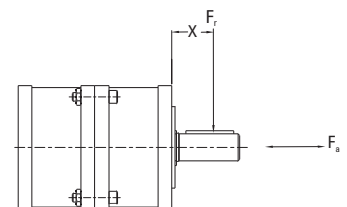
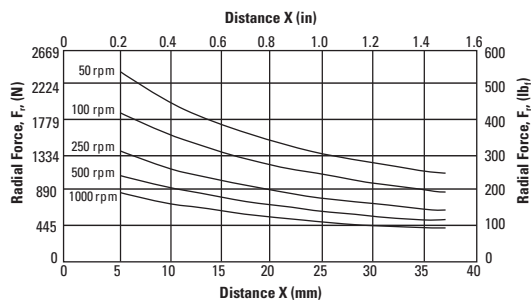
Model/Ratio	"Y" Max. (non-brake)		"Z" Max. (with brake)		"X" Max.	
	3:1 to 10:1	25:1	3:1 to 10:1	25:1	3:1 to 10:1 :	25:1
AKM41x	229.7 (9.04)	252.6 (9.94)	263.2 (10.4)	286.1 (11.3)	207.3 (8.16)	230.2 (9.06)
AKM42x	258.7 (10.2)	-	292.2 (11.5)	-	236.3 (9.30)	-
AKM43x	287.7 (11.3)	-	321.2 (12.6)	-	265.3 (10.4)	-
AKM44x	316.7 (12.5)	-	350.2 (13.8)	-	294.3 (11.6)	-

- Dimensions are in mm (inches)
- Product designed in metric
- English conversions provided for reference only

Radial and Axial Load Ratings

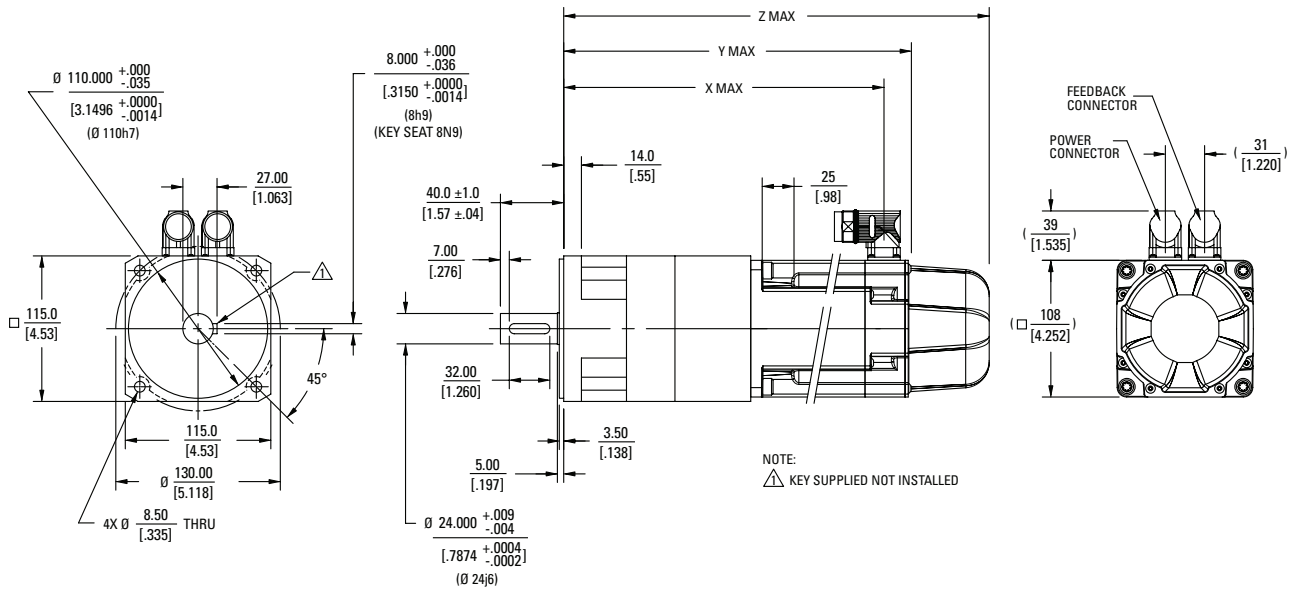
This graph displays the allowable radial load at a given distance (X) from the mounting surface based on an L₁₀ life of 20,000 hours for the mean output speed n_{mout}.

Allowable axial load
F_a = 510 lb_f (2269 N)
at 250 rpm



AKM Gearmotor Selection Guide

Outline - Standard Line AKM5x



• Refer to the AKM Selection Guide for details about other connector options and feedback availability.

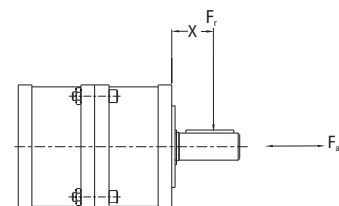
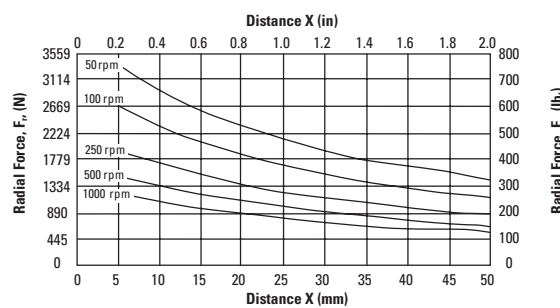
Model/Ratio	Resolver, SFD, Incremental Encoder				Sine Encoder				Any	
	"Y" Max. (non-brake)	"Z" Max. (with brake)	"Y" Max. (non-brake)	"Z" Max. (with brake)	"Y" Max. (non-brake)	"Z" Max. (with brake)	"Y" Max. (non-brake)	"Z" Max. (with brake)	"X" Max.	"X" Max.
AKM51x	275.3 (10.8)	306.5 (12.1)	320.3 (12.6)	351.5 (13.8)	293.8 (11.6)	325.0 (12.8)	336.8 (13.3)	368.0 (14.5)	253.1 (9.96)	284.3 (11.2)
AKM52x	306.3 (12.1)	-	351.3 (13.8)	-	324.8 (12.8)	-	367.8 (14.5)	-	284.1 (11.2)	-
AKM53x	337.3 (13.1)	-	382.3 (15.1)	-	355.8 (14.0)	-	398.8 (15.7)	-	315.1 (12.4)	-
AKM54x	368.3 (14.5)	-	413.3 (16.3)	-	386.8(15.2)	-	429.8 (16.9)	-	346.1 (13.6)	-

- Dimensions are in mm (inches)
- Product designed in metric
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Radial and Axial Load Ratings

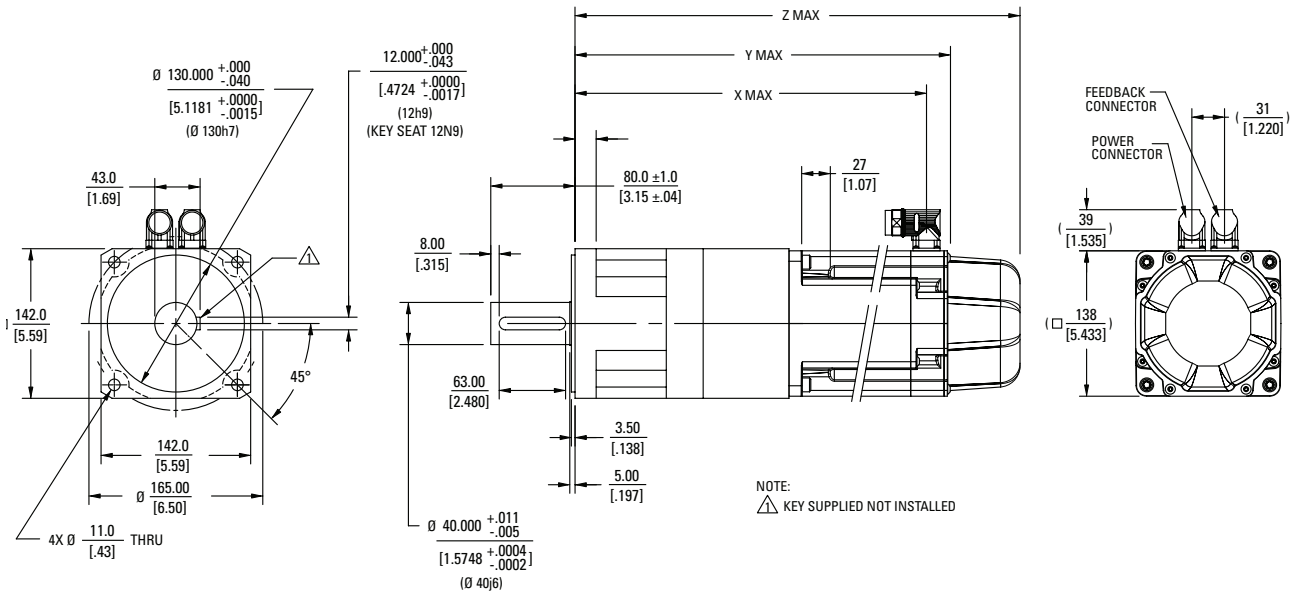
This graph displays the allowable radial load at a given distance (X) from the mounting surface based on an L₁₀ life of 20,000 hours for the mean output speed n_{mout}.

Allowable axial load
F_a = 760 lb_f (3380 N)
 at 250 rpm





Outline - Standard Line AKM6x



• Refer to the AKM Selection Guide for details about other connector options and feedback availability.

Model/Ratio	Resolver, SFD, Incremental Encoder				Sine Encoder				Any	
	"Y" Max. (non-brake)		"Z" Max. (with brake)		"Y" Max. (non-brake)		"Z" Max. (with brake)		"X" Max.	
	3:1 to 10:1	25:1	3:1 to 10:1	25:1	3:1 to 10:1	25:1	3:1 to 10:1	25:1	3:1 to 10:1	25:1
AKM62x	356.4 (14.0)	405.6 (16.0)	403.4 (15.9)	452.6 (17.8)	374.9 (14.8)	424.1 (16.7)	422.4 (16.6)	471.6 (18.6)	333.2 (13.1)	382.4 (15.1)
AKM63x	381.4 (15.0)	-	428.4 (16.9)	-	399.9 (15.7)	-	447.4 (17.6)	-	358.2 (14.1)	-
AKM64x	406.4 (16.0)	-	453.4 (17.9)	-	424.9 (16.7)	-	472.4 (18.6)	-	383.2 (15.1)	-
AKM65x	431.4 (17.0)	-	478.4 (18.8)	-	449.9 (17.7)	-	497.4 (19.6)	-	408.2 (16.1)	-

- Dimensions are in mm (inches)
- Product designed in metric
- English conversions provided for reference only

Radial and Axial Load Ratings

This graph displays the allowable radial load at a given distance (X) from the mounting surface based on an L₁₀ life of 20,000 hours for the mean output speed n_{mout}.

Allowable axial load
F_a = 1790 lb_f (7960 N)
 at 250 rpm

