

# AKM® Servo Motor Family

**Kollmorgen's AKM family of servo motors gives you unprecedented choice and flexibility from a wide range of standard products so you can select the best servo motor for your application.**

With the broad range of AKM and AKM2G motors that support voltages up to 480 Vac, washdown, food grade, and the AKMH stainless steel hygienic motor for the toughest environments- Kollmorgen has a standard motor solution that can meet your needs right from the catalog.

Still need more? For your truly unique motion control applications, work with our engineering team to customize a solution for your machine design. Either way, standard product or customized, we can help you choose the motion control solution that meets your exact requirements.





## The Benefits of AKM® Servo Motors

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### Best-in-Class Performance

- » Industry-leading motor power density
- » Same size AKM/AKD system delivers up to 47% more shaft power
- » Compensation for stiff and compliant transmissions and couplings
- » Exceptionally low cogging

### Flexibility to Find an Exact-fit Solution in a Standard Product

- » AKM offers 28 frame-stack combinations and 120 standard windings in a single motor line
- » 4.8 million possible AKM part number combinations and growing
- » Simplifies or eliminates mechanical modifications and engineering adaptation
- » Available with single cable technology with digital feedback (Digital Resolver SFD3 or HIPERFACE® DSL)
- » Washdown and Food Grade options for AKM
- » Higher torque models up to 180 Nm of continuous torque

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### Ease-of-Use and Faster Commissioning

- » Plug-and-play motor recognition drive commissioning
- » Reduce cycle time and sensor-and-wiring costs by eliminating traditional homing methods
- » Reduction in set-up time for each servo system

# AKM<sup>®</sup> Brushless Servo Motor

## AKM Motors Offer Extremely High Torque Density and High Acceleration

The AKM high-performance motor series offers a wide range of mounting, connectivity, feedback and other options. These motors offer superb flexibility to meet application needs with:

- 8 frame sizes (40 to 260 mm)
- 28 frame-stack length combinations
- More than 120 standard windings



### Features

#### Torque

0.16 to 180 Nm continuous stall torque (1.4 to 1590 lb-in) in 28 frame/stack combinations. Specific torques are often available from multiple frame sizes to optimize mounting and inertia matching capabilities.

#### Speed

Speeds up to 8000 rpm meet high speed application requirements. Windings tailored to lower speeds are also available.

#### Voltage

AKM motors can be applied to all standard global voltages. Windings are specifically tailored to work with drives powered by 75 Vdc, 120, 240, 400 or 480 Vac.

#### Mounting

Multiple mounting standards are available to meet common European, North American, and Japanese standards.

#### Feedback

AKM motors include resolver, encoder (commutating), Sine-Absolute encoder or SFD (Smart Feedback Device) feedback options to meet specific application requirements.

#### Smoothness

Smooth performance results from low-cog, low-harmonic distortion magnetic designs.

#### Connectivity

Rotatable IP65 connectors, straight IP67 connectors or low cost IP20 Molex plugs are both available to provide flexibility. Single connectors/plugs (combined power and feedback) are also available to minimize motor and cable cost (SFD and DSL only).

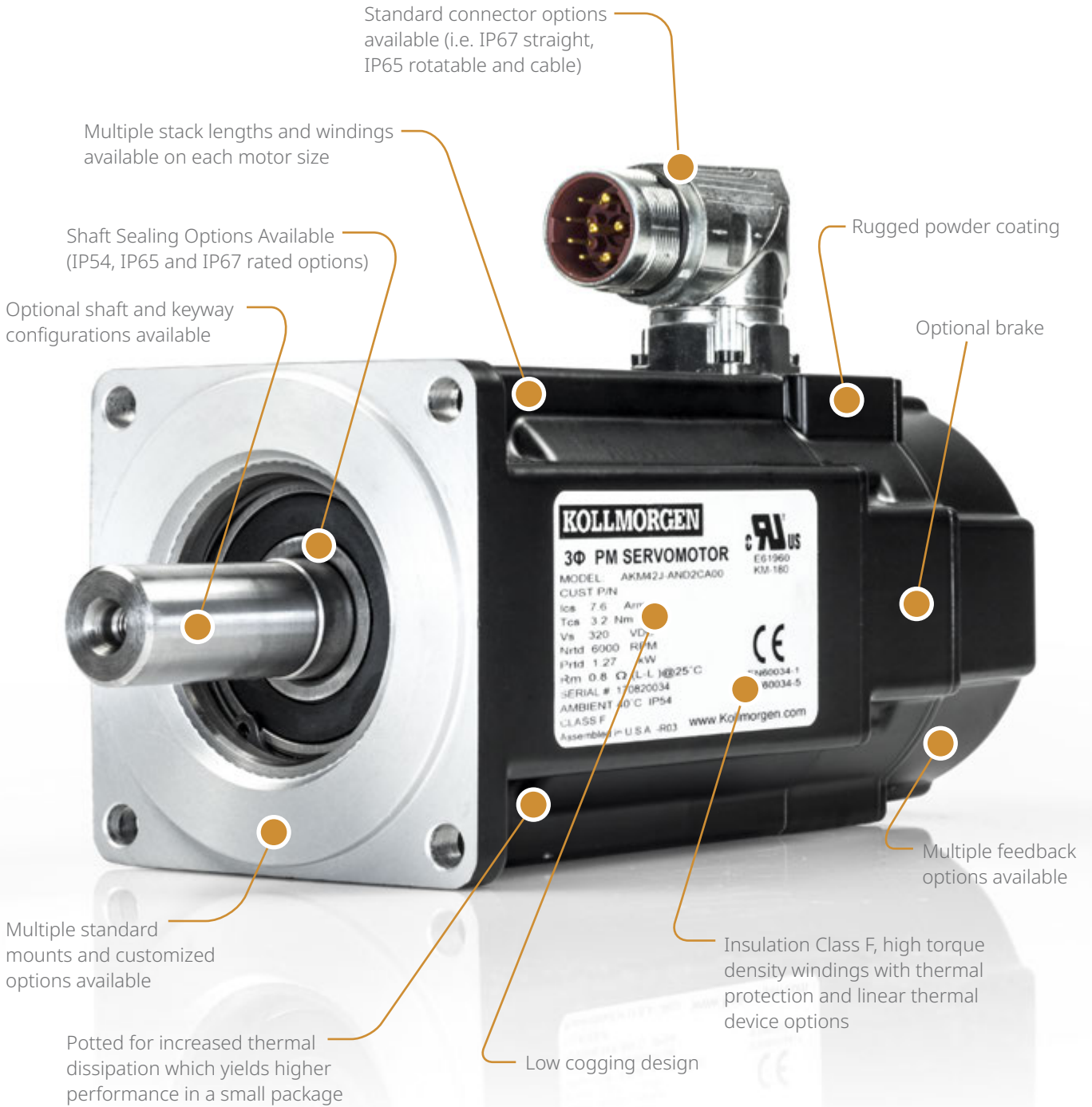
#### Thermal

Windings are rated conservatively at 100°C rise over a 40°C ambient while using 155°C (class F) insulation materials. Motors meet applicable UL, CSA, and CE requirements and include thermistors.

#### Additional Options:

- » Holding Brakes
- » Shaft and mounting variations
- » Shaft sealing options available
- » Custom windings
- » Feedback devices
- » Connectivity

## Kollmorgen AKM Configurable Servo Motor Features



**CE cULus**  
 EN60034-1  
 EN60034-5  
 E61960  
 E103510  
 PS155-1  
 KM-180

# AKM® Washdown and Food Grade

## AKM® Washdown and Food Grade

These motor variants are used in applications that are subject to strict hygiene regulations in which it is essential that the formation of nuclei and corrosion are avoided and in which machines must be cleaned cyclically. These motors are based on the standard types AKM2 – AKM6 with special modifications for use in the food-processing industry, in the packaging industry, or even outdoors. An option for AKM Washdown and Food Grade motors is to coat the flange.

### AKM® Washdown Performance Data

Part Numbers:

AKMxxx-xxxx-0W: Washdown with unpainted flange

AKMxxx-Wxxxx-0W: Washdown with painted flange

Note: The AKM Washdown motors must not come into contact with any unpacked food.

Application Area:	Harsh Environments, Outdoors
Application Examples:	Transport in the food and packaging area without contact with food, radar stations, and wind turbines
Standards:	UL, CE, RoHS
Surface:	Gray 2K paint
Immunity:	Against tested industrial cleaning agents*, corrosion-resistant
Degree of Protection:	IP67
Shaft:	303 Stainless steel (CSN417029)
Rotary Shaft Seal:	PTFE
Lubricant:	Industrial bearing grease, non-food-grade
Connector:	Stainless steel, smooth surface
Screws:	Stainless steel
Name Plate:	Engraved, additional name plate in the package



### AKM® Food Grade

Part Numbers:

AKMxxx-xxxx-0F: Food Grade with unpainted flange

AKMxxx-Wxxxx-0F: Food Grade with painted flange

Note: The surface of the AKM Food Grade food motor has passed all tests as per FDA Global Migration for indirect contact with food. Any direct contact with unpacked food is not permitted.

Application Examples:	Food and beverages industries; cutting, packing, and filling without direct contact with food; motor positioned laterally or below the food.
Standards:	UL, CE, RoHS, FDA
Surface:	White 2K FDA compliant paint**
Immunity:	Against tested industrial cleaning agents*, corrosion-resistant
Degree of Protection:	IP67
Shaft:	303 Stainless steel (CSN417029)
Rotary Shaft Seal:	PTFE as per FDA
Lubricant:	Food grade as per FDA
Connector:	Stainless steel, smooth surface
Screws:	Stainless steel
Name Plate:	Engraved, additional name plate in the package



\* Resistance of the AKM Washdown and AKM Food Grade surfaces to the following industrial cleaning agents has been tested: P3-topactive DES, P3-topactive LA, P3-topax 56, P3-topax 66, P3-topax 91

\*\*Meets FDA global migration standards

# AKM<sup>®</sup> Servo Motor Quick Guide

## AKM, AKM Washdown, and AKM Food Grade

### Performance Data

AKM Servo Motor	Flange size [mm]	Cont. Torque at Stall Tcs [Nm]	Continuous Current I <sub>c</sub> [A]	Peak Torque at stall Tps [Nm]	75 Vdc			120 Vac (160 Vdc)			240 Vac (320 Vdc)			400 Vac (560 Vdc)			480 Vac (640 Vdc)			Inertia (Jm) [kg·cm <sup>2</sup> ]	Weight [kg]
					Rated Speed N <sub>rtcd</sub> [RPM]	Rated Torque T <sub>rtcd</sub> [Nm]	Rated Power P <sub>rtcd</sub> [kW]	Rated Speed N <sub>rtcd</sub> [RPM]	Rated Torque T <sub>rtcd</sub> [Nm]	Rated Power P <sub>rtcd</sub> [kW]	Rated Speed N <sub>rtcd</sub> [RPM]	Rated Torque T <sub>rtcd</sub> [Nm]	Rated Power P <sub>rtcd</sub> [kW]	Rated Speed N <sub>rtcd</sub> [RPM]	Rated Torque T <sub>rtcd</sub> [Nm]	Rated Power P <sub>rtcd</sub> [kW]	Rated Speed N <sub>rtcd</sub> [RPM]	Rated Torque T <sub>rtcd</sub> [Nm]	Rated Power P <sub>rtcd</sub> [kW]		
11B	40	0.18	1.16	0.61	-	-	-	4000	0.18	0.08	8000	0.17	0.14	-	-	-	-	-	-	0.017	0.35
11C	40	0.18	1.45	0.61	-	-	-	6000	0.18	0.11	-	-	-	-	-	-	-	-	-	0.017	0.35
11E	40	0.18	2.91	0.61	6000	0.18	0.11	-	-	-	-	-	-	-	-	-	-	-	-	0.017	0.35
12C	40	0.31	1.51	1.08	-	-	-	4000	0.30	0.13	8000	0.28	0.23	-	-	-	-	-	-	0.031	0.49
12E	40	0.31	2.72	1.08	3000	0.31	0.10	8000	0.28	0.23	-	-	-	-	-	-	-	-	-	0.031	0.49
13C	40	0.41	1.48	1.46	-	-	-	3000	0.41	0.13	8000	0.36	0.30	-	-	-	-	-	-	0.045	0.63
13D	40	0.40	2.40	1.44	2000	0.40	0.08	7000	0.36	0.27	-	-	-	-	-	-	-	-	-	0.045	0.63
21C	60	0.48	1.58	1.47	-	-	-	2500	0.46	0.12	8000	0.39	0.32	-	-	-	-	-	-	0.11	0.82
21E	60	0.50	3.11	1.49	2000	0.48	0.10	7000	0.41	0.30	-	-	-	-	-	-	-	-	-	0.11	0.82
21G	60	0.50	4.87	1.51	4000	0.46	0.19	-	-	-	-	-	-	-	-	-	-	-	-	0.11	0.82
22C	60	0.84	1.39	2.73	-	-	-	1000	0.83	0.09	3500	0.78	0.29	8000	0.68	0.57	8000	0.68	0.57	0.16	1.10
22E	60	0.87	2.73	2.76	1000	0.85	0.09	3500	0.81	0.30	8000	0.70	0.59	-	-	-	-	-	-	0.16	1.10
22G	60	0.88	4.82	2.79	2500	0.83	0.22	7000	0.74	0.54	-	-	-	-	-	-	-	-	-	0.16	1.10
23C	60	1.13	1.41	3.77	-	-	-	1000	1.11	0.12	2500	1.08	0.28	5500	0.99	0.57	7000	0.95	0.70	0.22	1.38
23D	60	1.16	2.19	3.84	-	-	-	1500	1.12	0.18	5000	1.03	0.54	8000	0.92	0.77	8000	0.92	0.77	0.22	1.38
23E	60	1.16	2.78	3.86	-	-	-	2500	1.1	0.29	6500	0.98	0.67	-	-	-	-	-	-	0.22	1.38
23F	60	1.18	4.31	3.88	1500	1.15	0.18	4500	1.07	0.50	8000	0.94	0.79	-	-	-	-	-	-	0.22	1.38
24C	60	1.38	1.42	4.67	-	-	-	-	-	-	2000	1.32	0.28	4500	1.25	0.59	5500	1.22	0.70	0.27	1.66
24D	60	1.41	2.21	4.76	-	-	-	1500	1.36	0.21	4000	1.29	0.54	8000	1.11	0.93	8000	1.11	0.93	0.27	1.66
24E	60	1.40	2.79	4.79	-	-	-	2000	1.34	0.28	5500	1.24	0.71	-	-	-	-	-	-	0.27	1.66
24F	60	1.42	3.89	4.82	1000	1.39	0.15	3000	1.33	0.42	8000	1.12	0.94	-	-	-	-	-	-	0.27	1.66
31C	80	1.15	1.37	3.88	-	-	-	-	-	-	2500	1.12	0.29	5000	1.00	0.52	6000	0.91	0.57	0.33	1.55
31E	80	1.20	2.99	4.00	750	1.19	0.09	2500	1.17	0.31	6000	0.95	0.60	-	-	-	-	-	-	0.33	1.55
31H	80	1.23	5.85	4.06	2000	1.20	0.25	6000	0.97	0.61	-	-	-	-	-	-	-	-	-	0.33	1.55
32C	80	2.00	1.44	6.92	-	-	-	-	-	-	1500	1.95	0.31	3000	1.86	0.58	3500	1.83	0.67	0.59	2.23
32D	80	2.04	2.23	7.10	-	-	-	1000	2.00	0.21	2500	1.93	0.51	5500	1.65	0.95	6000	1.58	0.99	0.59	2.23
32E	80	2.04	2.82	7.11	-	-	-	-	-	-	3500	1.87	0.69	7000	1.41	1.03	7000	1.22	1.02	0.59	2.23
32H	80	2.10	5.50	7.26	1200	2.06	0.26	3000	1.96	0.62	7000	1.45	1.06	-	-	-	-	-	-	0.59	2.23
33C	80	2.71	1.47	9.76	-	-	-	-	-	-	1000	2.64	0.28	2000	2.54	0.53	2500	2.50	0.65	0.85	2.9
33E	80	2.79	2.58	9.96	-	-	-	-	-	-	2000	2.62	0.55	4500	2.34	1.10	5000	2.27	1.19	0.85	2.9
33H	80	2.88	5.62	10.22	800	2.82	0.24	2500	2.66	0.70	5500	2.27	1.31	-	-	-	-	-	-	0.85	2.9
41C	90	1.95	1.46	6.12	-	-	-	-	-	-	1200	1.88	0.24	3000	1.77	0.56	3500	1.74	0.64	0.81	2.44
41E	90	2.02	2.85	6.28	-	-	-	1200	1.94	0.24	3000	1.82	0.57	6000	1.58	0.99	6000	1.58	0.99	0.81	2.44
41H	90	2.06	5.6	6.36	1000	1.99	0.21	3000	1.86	0.58	6000	1.62	1.02	-	-	-	-	-	-	0.81	2.44
42C	90	3.35	1.40	11.3	-	-	-	-	-	-	-	-	-	1500	3.10	0.49	2000	3.02	0.63	1.5	3.39
42E	90	3.42	2.74	11.3	-	-	-	-	-	-	1800	3.12	0.59	3500	2.81	2.35	4000	2.72	1.14	1.5	3.39
42G	90	3.53	4.80	11.5	-	-	-	-	-	-	3500	2.90	1.06	6000	2.35	1.48	6000	2.35	1.48	1.5	3.39
42H	90	3.54	6	13.34	-	-	-	2000	3.2	0.67	-	-	-	-	-	-	-	-	-	1.5	3.39
42J	90	3.56	8.4	11.6	-	-	-	3000	3.03	0.95	6000	2.36	1.50	-	-	-	-	-	-	1.5	3.39
43E	90	4.70	2.76	15.9	-	-	-	-	-	-	1500	4.24	0.67	2500	3.92	1.03	3000	3.76	1.18	2.1	4.35
43G	90	4.80	4.87	16.1	-	-	-	-	-	-	2500	4.00	1.05	5000	3.01	1.58	6000	2.57	1.61	2.1	4.35
43H	90	4.82	3.86	16.1	-	-	-	1200	4.46	0.56	3000	3.86	1.21	5500	2.81	1.62	6000	2.58	1.62	2.1	4.35
43K	90	4.90	9.60	16.4	-	-	-	2500	4.08	1.07	6000	2.62	1.65	-	-	-	-	-	-	2.1	4.35
43L	90	4.73	3.78	16.0	-	-	-	3000	3.78	1.19	6000	2.53	1.59	-	-	-	-	-	-	2.1	4.35
44E	90	5.76	2.90	19.9	-	-	-	-	-	-	1200	5.22	0.66	2000	4.80	1.01	2500	4.56	1.19	2.7	5.3
44G	90	5.88	5.00	20.2	-	-	-	-	-	-	2000	4.90	1.03	4000	3.76	1.57	5000	3.19	1.67	2.7	5.3
44H	90	5.89	5.6	20.0	-	-	-	1000	5.44	0.57	2500	4.66	1.22	4500	3.48	1.64	5500	2.93	1.69	2.7	5.3
44J	90	6.00	8.80	20.4	-	-	-	-	-	-	4000	3.84	1.61	6000	2.75	1.73	6000	2.75	1.73	2.7	5.3
44K	90	5.88	10.1	23.7	-	-	-	2500	4.08	1.38	5000	3.18	1.67	-	-	-	-	-	-	2.7	6.3
51E	115	4.70	2.75	11.6	-	-	-	-	-	-	1200	4.41	0.55	2500	3.98	1.04	3000	3.80	1.19	3.4	4.2
51G	115	4.75	4.84	11.7	-	-	-	-	-	-	2500	4.02	1.05	5000	2.62	1.37	6000	1.94	1.22	3.4	4.2
51H	115	4.79	6.00	11.7	-	-	-	-	-	-	3000	3.87	1.22	6000	1.95	1.23	6000	1.95	1.23	3.4	4.2
51K	115	4.90	9.40	11.9	-	-	-	2500	4.15	1.09	5500	2.35	1.35	-	-	-	-	-	-	3.4	4.2
51L	115	4.89	11.9	12	-	-	-	3000	3.95	1.24	6000	2.00	1.26	-	-	-	-	-	-	3.4	4.2

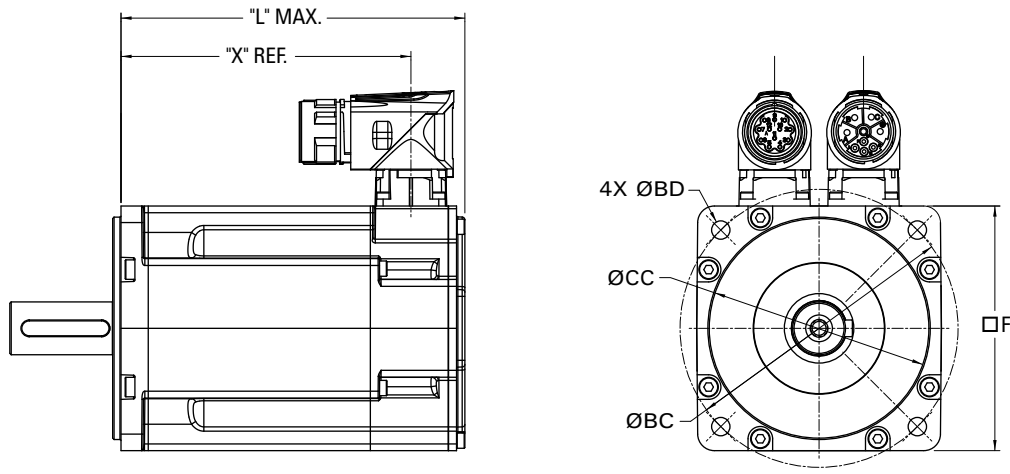
Performance curves can be generated using our online Performance Curve Generator Tool: <https://pcgh.kollmorgen.com/>

## Performance Data (continued)

AKM Servo Motor	Frame size [mm]	Cont. Torque at Stall Tcs [Nm]	Continuous Current I <sub>0</sub> [A]	Peak Torque at stall Tps [Nm]	120 Vac (160 Vdc)			240 Vac (320 Vdc)			400 Vac (560 Vdc)			480 Vac (640 Vdc)			Inertia (Jm) [kg·cm <sup>2</sup> ]	Weight [kg]
					Rated Speed Nrtld [RPM]	Rated Torque Trtd [Nm]	Rated Power Prtd [kW]	Rated Speed Nrtld [RPM]	Rated Torque Trtd [Nm]	Rated Power Prtd [kW]	Rated Speed Nrtld [RPM]	Rated Torque Trtd [Nm]	Rated Power Prtd [kW]	Rated Speed Nrtld [RPM]	Rated Torque Trtd [Nm]	Rated Power Prtd [kW]		
52E	115	8.34	2.99	21.3	-	-	-	-	-	-	1500	7.61	1.20	2000	7.28	1.52	6.2	5.8
52G	115	8.43	4.72	21.5	-	-	-	1200	7.69	1.21	2500	7.06	1.85	3000	6.66	2.09	6.2	5.8
52H	115	8.48	5.90	21.6	-	-	-	1800	7.53	1.42	3500	6.26	2.30	4000	5.77	2.42	6.2	5.8
52K	115	8.60	9.30	21.9	-	-	-	3000	6.80	2.14	5500	3.90	2.25	6000	3.25	2.04	6.2	5.8
52L	115	8.67	11.6	22.0	1500	7.89	1.24	3500	6.40	23.5	6000	3.27	2.06	6000	3.27	2.03	6.2	5.8
52M	115	8.60	13.1	21.9	-	-	-	4500	5.20	2.45	-	-	-	-	-	-	6.2	5.8
53G	115	11.4	4.77	29.7	-	-	-	1000	10.7	1.12	2000	9.85	2.06	2400	9.50	2.39	9.1	7.4
53H	115	11.5	6.60	30.0	-	-	-	-	-	-	3000	8.63	2.77	3500	8.23	3.02	9.1	7.4
53K	115	11.6	9.40	30.3	-	-	-	2000	10.1	2.12	4000	7.65	3.20	4500	6.85	3.23	9.1	7.4
53L	115	11.6	11.8	30.3	1200	13.0	1.63	2500	9.59	2.51	5000	6.00	3.14	6000	4.05	2.55	9.1	7.4
53M	115	11.4	13.4	29.7	-	-	-	3000	8.72	2.74	-	-	-	-	-	-	9.1	7.4
53P	115	11.4	19.1	29.8	-	-	-	5000	5.88	3.08	-	-	-	-	-	-	9.1	7.4
53Q	115	11.57	21.1	42.6	2500	9.58	2.51	5500	4.99	2.87	-	-	-	-	-	-	9.1	7.4
54G	115	14.3	5.00	38.0	-	-	-	-	-	-	1500	12.9	2.03	2000	12.3	2.57	12	9
54H	115	14.2	5.50	37.5	-	-	-	-	-	-	1500	12.6	2.38	2000	12.2	2.56	12	9
54K	115	14.4	9.7	38.4	-	-	-	1800	12.7	2.39	3500	10.0	3.68	4000	9.25	3.87	12	9
54L	115	14.1	12.5	37.5	-	-	-	2500	11.5	3.00	4500	8.13	3.83	-	-	-	12	9
54N	115	14.1	17.8	37.6	-	-	-	3500	9.85	3.61	-	-	-	-	-	-	12	9
54P	115	14.36	19.6	54.5	-	-	-	4000	9.23	3.87	-	-	-	-	-	-	12	9
62G	142	11.9	4.9	29.7	-	-	-	-	-	-	1800	10.4	1.96	2000	10.2	2.14	17	8.9
62H	142	11.9	5.4	29.6	-	-	-	1000	10.8	1.17	2000	10.2	2.14	2400	9.9	2.49	17	8.9
62K	142	12.2	9.6	30.2	-	-	-	2000	10.4	2.18	3500	9.00	3.30	4500	8.00	3.77	17	8.9
62L	142	12.2	12.0	30.1	-	-	-	2500	10.0	2.62	5000	7.42	3.89	6000	5.74	3.61	17	9.8
62M	142	12.2	13.4	30.2	-	-	-	3000	9.50	2.98	6000	5.70	3.58	6000	5.70	3.58	17	8.9
62P	142	12.3	18.8	30.3	-	-	-	4500	8.10	3.82	-	-	-	-	-	-	17	8.9
62Q	142	12.0	21.8	29.8	-	-	-	5500	6.5	3.74	-	-	-	-	-	-	17	8.9
63G	142	16.5	4.5	42.1	-	-	-	-	-	-	1200	14.9	1.87	1500	14.6	2.29	24	11.1
63H	142	16.6	5.6	42.1	-	-	-	-	-	-	1500	14.6	2.29	1800	14.2	2.68	24	11.1
63K	142	16.8	9.9	42.6	-	-	-	1500	14.9	2.34	3000	12.9	4.05	3500	12.0	4.40	24	11.1
63L	142	16.8	11.1	42.6	-	-	-	1500	14.2	2.23	3000	12.9	4.05	3500	12	4.4	24	11.1
63M	142	17.0	13.8	43.0	-	-	-	2000	14.3	2.99	4000	11.3	4.73	4500	10.5	4.95	24	11.1
63N	142	17.0	17.4	43.0	-	-	-	3000	13.0	4.08	5000	9.60	5.03	6000	7.00	4.40	24	11.1
63Q	142	16.7	22.4	42.4	-	-	-	3500	11.9	4.36	-	-	-	-	-	-	24	11.1
64K	142	20.8	9.2	53.5	-	-	-	1200	18.8	2.36	2000	17.2	3.60	2500	16.3	4.27	32	13.3
64L	142	21.0	12.8	54.1	-	-	-	1500	18.4	2.89	3000	15.6	4.90	3500	14.4	5.28	32	13.3
64P	142	20.4	18.6	52.9	-	-	-	2500	16.0	4.19	4500	11.9	5.62	5500	9.00	5.18	32	13.3
64Q	142	20.0	20.7	53.2	-	-	-	3000	15.3	4.81	5000	10.7	6.45	6000	7.40	4.65	32	13.3
65K	142	24.8	9.8	64.5	-	-	-	1000	22.8	2.39	2000	20.2	4.23	2200	19.7	4.54	40	15.4
65L	142	25.0	12.2	65.2	-	-	-	1300	22.4	3.05	2500	19.2	5.03	2800	18.6	5.37	40	15.4
65M	142	25.0	13.6	65.2	-	-	-	1500	21.9	3.44	2500	19.2	5.03	3000	18.1	5.69	40	15.4
65N	142	24.3	17.8	63.7	-	-	-	2000	19.8	4.15	3500	16.0	5.86	4000	14.7	6.16	40	15.4
65P	142	24.5	19.8	64.1	-	-	-	2400	19.1	4.8	4000	14.9	6.24	5000	11.6	6.08	40	15.4
72K	180	29.7	9.3	79.4	-	-	-	-	-	-	1500	25.1	3.94	1800	24.0	4.52	65	19.7
72L	180	30	11.5	79.5	-	-	-	-	-	-	1500	25.3	3.97	1800	24.3	4.58	65	19.7
72M	180	30.0	13.0	79.8	-	-	-	-	-	-	2000	23.6	4.94	2500	22.1	5.79	65	19.7
72P	180	29.4	18.7	78.5	-	-	-	1800	23.8	4.49	3000	20.1	6.31	3500	18.2	6.67	65	19.7
72Q	180	29.5	23.5	78.4	-	-	-	2000	23.2	4.89	4000	16.3	6.83	4500	14.1	6.65	65	19.7
73L	180	42.0	12.1	113	-	-	-	-	-	-	1400	34.4	5.04	1500	33.8	5.31	92	26.7
73M	180	42.0	13.6	112	-	-	-	-	-	-	1500	33.8	5.31	1800	32.1	6.05	92	26.7
73P	180	41.6	19.5	111	-	-	-	1300	34.7	4.72	2400	28.5	7.16	2800	26.3	7.71	92	26.7
73Q	180	41.5	24.5	111	-	-	-	1500	33.4	5.25	3000	25.2	7.92	3500	22	8.07	92	26.7
74L	180	53.0	12.9	143	-	-	-	-	-	-	1200	43.5	5.47	1400	41.5	6.08	120	33.6
74P	180	52.5	18.5	142	-	-	-	-	-	-	1800	39.6	7.46	2000	35.9	7.52	120	33.6
74Q	180	52.2	26.1	141	-	-	-	1300	41.9	5.71	2500	31.5	8.25	3000	27.3	8.58	120	33.6
82T	260	75	48	210	-	-	-	-	-	-	2500	47.5	12.4	3000	38.0	11.9	172	49
83T	260	130	62	456	-	-	-	-	-	-	2200	70.0	16.1	2500	60.0	15.7	334	73
84T	260	180	67	668	-	-	-	-	-	-	1800	105	19.8	2000	93.0	19.5	495	97

# AKM<sup>®</sup> Servo Motor Family Dimensions

## AKM2G-xx General Dimensions for Brake and Non-Brake Models



All measurement specifications in mm

Model	No Brake				Brake				Flange □F	Bolt Circle ØBC	Bore Dia. ØBD	Pilot Dia. ØCC
	X	Resolver / SFD3 / Comcoder L	DSL / EnDat 2.2/22 L	EnDat 2.2/01 / BiSS L	X	Resolver / SFD3 / Comcoder L	DSL / EnDat 2.2/22 L	EnDat 2.2/01 / BiSS L				
AKM2G-21	90.75	111.15	118.15	111.15	129.75	150.15	157.15	150.15	58	63	5.5	40
AKM2G-22	110.00	130.40	137.40	130.40	149.00	169.40	176.40	169.40	58	63	5.5	40
AKM2G-23	129.25	149.65	156.65	149.65	168.25	188.65	195.65	188.65	58	63	5.5	40
AKM2G-24	148.50	168.90	175.90	168.90	187.50	207.90	214.90	207.90	58	63	5.5	40
AKM2G-31	101.10	121.40	129.40	121.40	142.30	162.60	170.60	162.60	72	75	5.5	60
AKM2G-32	132.25	152.55	160.55	152.55	173.45	193.75	201.75	193.75	72	75	5.5	60
AKM2G-33	163.40	183.70	191.70	183.70	204.60	224.90	232.90	224.90	72	75	5.5	60
AKM2G-41	104.30	124.60	132.60	124.60	152.10	172.40	180.40	172.40	88	100	6.6	80
AKM2G-42	130.55	150.85	158.85	150.85	178.35	198.65	206.65	198.65	88	100	6.6	80
AKM2G-43	156.80	177.10	185.10	177.10	204.60	224.90	232.90	224.90	88	100	6.6	80
AKM2G-44	183.05	203.35	211.35	203.35	230.85	251.15	259.15	251.15	88	100	6.6	80
AKM2G-51	120.10	142.80	148.40	163.90	177.10	199.80	205.40	220.90	114	130	9.0	110
AKM2G-52	149.50	172.20	177.80	193.30	206.50	229.20	234.80	250.30	114	130	9.0	110
AKM2G-53	178.90	201.60	207.20	222.70	235.90	258.60	264.20	279.70	114	130	9.0	110
AKM2G-54	208.30	231.00	236.60	252.10	265.30	288.00	293.60	309.10	114	130	9.0	110
AKM2G-62	144.40	168.10	178.40	189.20	210.10	233.80	244.10	254.90	142	165	10.9	130
AKM2G-63	166.45	190.15	200.45	211.25	232.15	255.85	266.15	276.95	142	165	10.9	130
AKM2G-64	188.50	212.20	222.50	233.30	254.20	277.90	288.20	299.00	142	165	10.9	130
AKM2G-65	210.55	234.25	244.55	255.35	276.25	299.95	310.25	321.05	142	165	10.9	130
AKM2G-71	143.90	169.10	181.10	189.20	221.35	246.55	258.55	266.65	192	215	13.4	180
AKM2G-72	177.85	203.05	215.05	223.15	255.35	280.55	292.55	300.65	192	215	13.4	180
AKM2G-73	211.80	237.00	249.00	257.10	289.30	314.50	326.50	334.60	192	215	13.4	180
AKM2G-74	245.75	270.95	282.95	291.05	323.25	348.45	360.45	368.55	192	215	13.4	180
AKM2G-71	149.60	181.10	181.10	189.20	227.05	258.55	258.55	266.65	192	215	13.4	180
AKM2G-72	183.55	215.05	215.05	223.15	261.05	292.55	292.55	300.65	192	215	13.4	180
AKM2G-73	217.50	249.00	249.00	257.10	295.00	326.50	326.50	334.60	192	215	13.4	180
AKM2G-74	251.45	282.95	282.95	291.05	328.95	360.45	360.45	368.55	192	215	13.4	180

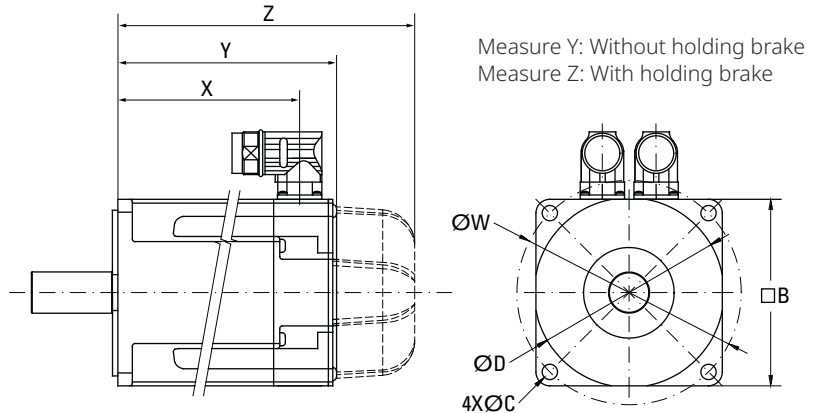
Small Connector  
Large Connector



# AKM, AKM Washdown, and AKM Washdown Food

## Model with Power and Signal Connector

Dimensional drawing for AKM11 - AKM84



All measurement specifications in mm – Measure Y: Measurement without holding brake, Measure Z: Measurement with holding brake

Model	X	Resolvers		Comcoder		Biss/Endat		Hiperface		Drive Cliq		Flange	Bolt circle	Bore diameter	Centering collar
		Y	Z	Y	Z	Y	Z	Y	Z	Y	Z	□B	ØW	ØC	ØD
AKM11	56.1	69.6	106.6	79.0	-	-	-	79	116	-	-	40	46	4.3	30
AKM12	75.1	88.6	125.6	98.0	-	-	-	98	135	-	-	40	46	4.3	30
AKM13	94.1	107.6	144.6	117.0	-	-	-	117	154	-	-	40	46	4.3	30
AKM21	76.1	95.4	129.5	95.4	129.5	95.4	129.5	113.4	147.1	-	-	58	63	4.8	40
AKM22	95.1	114.4	148.5	114.4	148.5	114.4	148.5	132.4	166.1	-	-	58	63/65 (1)	4.8	40
AKM23	114.1	133.4	167.5	133.4	167.5	133.4	167.5	151.4	185.1	-	-	58	63/65 (1)	4.8	40
AKM24	135.1	152.4	186.5	152.4	186.5	152.4	186.5	170.4	204.1	-	-	58	63/65 (1)	4.8	40
AKM31	87.9	109.8	141.3	109.8	141.3	109.8	141.3	125.3	159.3	-	-	70	75/85 (2)	5.8	60
AKM32	118.9	140.8	172.3	140.8	172.3	140.8	172.3	156.3	190.3	-	-	70	75/85 (2)	5.8	60
AKM33	149.9	171.8	203.3	171.8	203.3	171.8	203.3	187.3	221.3	-	-	70	75/85 (2)	5.8	60
AKM41	96.4	118.8	152.3	118.8	152.3	118.8	152.3	136.8	170.3	152.3	170.3	84	90/100 (3)	7	60/80 (3)
AKM42	125.5	147.8	181.3	147.8	181.3	147.8	181.3	165.8	199.3	181.3	199.3	84	90/100 (3)	7	60/80 (3)
AKM43	154.4	176.8	210.3	176.8	210.3	176.8	210.3	194.8	228.3	210.3	228.3	84	90/100 (3)	7	60/80 (3)
AKM44	183.4	205.8	239.3	205.8	239.3	205.8	239.3	223.8	257.3	239.3	257.3	84	90/100 (3)	7	60/80 (3)
AKM51	105.3	127.5	172.5	127.5	172.5	145.0	189.0	145.0	189.0	146.0	189.0	108	115/130 (4)	7	95/110 (4)
AKM52	136.3	158.5	203.5	158.5	203.5	177.0	220.0	177.0	220.0	177.0	220.0	108	115/130 (4)	7	95/110 (4)
AKM53	167.3	189.5	234.5	189.5	234.5	208.0	251.0	208.0	251.0	208.0	251.0	108	115/130 (4)	7	95/110 (4)
AKM54	198.3	220.5	265.5	220.5	265.5	239.0	282.0	239.0	282.0	239.0	282.0	108	115/130 (4)	7	95/110 (4)
AKM62	130.5	153.7	200.7	153.7	200.7	172.2	219.7	172.2	219.7	172.2	219.7	138	165	11	130
AKM63	155.5	178.7	225.7	178.7	225.7	197.2	244.7	197.2	244.7	197.2	244.7	138	165	11	130
AKM64	180.5	203.7	250.7	203.7	250.7	222.2	269.7	222.2	269.7	222.2	269.7	138	165	11	130
AKM65	205.5	228.7	275.7	228.7	275.7	247.2	294.7	247.2	294.7	247.2	294.7	138	165	11	130
AKM72	164.5	192.5	234.5	192.5	234.5	192.5	234.5	192.5	234.5	201.7	253.3	188	215	13.5	180
AKM73	198.5	226.5	268.5	226.5	268.5	235.7	287.3	235.7	287.3	235.7	287.3	188	215	13.5	180
AKM74	232.5	260.5	302.5	260.5	302.5	269.7	321.3	269.7	321.3	269.7	321.3	188	215	13.5	180
AKM82	170	267	333	267	333	267	333	267	333	-	-	260	300	18.5	250
AKM83	250.5	347.5	413.5	347.5	413.5	347.5	413.5	347.5	413.5	-	-	260	300	18.5	250
AKM84	331	428	494	428	494	428	494	428	494	-	-	260	300	18.5	250

(1) ØW = 63 mm AKM2xx-Ax  
ØW = 65 mm AKM2xx-Dx

(2) ØW = 75 mm AKM3xx-Ax  
ØW = 85 mm AKM3xx-Cx

(3) ØW = 100 mm, ØV = 80 mm AKM4xx-Ax  
ØW = 90 mm, ØV = 60 mm AKM4xx-Cx

(4) ØW = 130 mm ØV = 110 mm AKM5xx-Ax  
ØW = 115 mm ØV = 95 mm AKM5xx-Ax