AKMH™
Hygienic Stainless Steel Servo Motors

For more than 70 years, Kollmorgen has been developing special motors for use in difficult environments. For example, the remotely controlled submarine vehicle called the Jason Jr. discovered the wreck of the Titanic with the help of Kollmorgen motors developed especially for this purpose.

Reduced recall risk. In the food production industry extremely strict hygiene regulations apply so that public health is not compromised. The stainless-steel AKMH servo motors meet the most demanding requirements in relation to hygiene standards and reduce the risk of product contamination and costly recalls.

Faster cleaning and reduced maintenance times. The stainless steel AKMH servo motors are designed to protection class IP69K and satisfy the requirements of the EHEDG and 3A hygiene regulations. Only materials are used that are FDA-approved and suitable for use with food. These characteristics of the AKMH series enable quick, hygienic cleaning, reduce maintenance times, and therefore increase the overall equipment effectiveness of your production line.

The bottom line. The stainless steel AKMH series of motors has been designed for hygienic machine applications. The large product range with 19 standard motor frame sizes, multiple standard windings, and numerous connection, brake, and cable options makes it easier to choose a motor that satisfies the requirements of the highest standards in the food, beverage, and pharmaceutical industries.

The Advantages of AKMH Hygienic Stainless Steel Servo Motors

Increase in Overall Equipment Effectiveness (OEE)	
Faster and environmentally friendly cleaning	• Open, hygienic machine design without protective housings • Considerably lower consumption of cleaning agents; less dirty water
No machine downtimes as a result of cleaning or corrosion	• Protection class IP69K for motor housing, cable gland, and shaft seal • Designed for regular high-pressure and high-temperature cleaning • Cable and sealing components are resistant to common cleaning agents • No corrosion inside the motor: Pressure compensation through the cable prevents moisture in the motor
Lower operating costs	• Higher machine availability due to quicker cleaning • Faster cleaning reduces the consumption of cleaning agents and energy • High energy efficiency due to motor / servo drive combination with a high degree of efficiency
Higher throughput	• Quick and precise drives in combination with the AKD servo drives • Process monitoring and optimization with Kollmorgen's software tools
Lower risk of recalls	
Hygiene-optimized housing design	• Housing in 1.4404 stainless steel with smooth surface prevents the build-up of pathogens • Fluids drained with vertical installation thanks to convex cover • No contamination trap formations – motor housing without edges and external installation components • No color solutions on the rating plate thanks to laser engraving
Use of approved hygiene components	• Bearing lubrication and shaft seals FDA-approved • Observance of the EHEDG and 3A Sanitary Certificate hygiene regulations
Hygienic connection technology	• FDA-approved cable option suitable for use with food, with silicone tube sheathing • Low cabling costs due to single-cable technology without cable ducts • Easy cleaning prevents contamination traps in the cabling
Reduced development times and design freedom	
Ideal drive design	• Large selection of standard motors in practically staggered performance categories • 19 frame sizes, flange and shaft measurements as per IEC and NEMA • Continuous torques up to 22 Nm, peak torques up to 92 Nm • Speeds up to 8000 rpm^{-1} • SFD3 and Hiperface DSL digital feedback systems • Brake and cable options
Simple start-up and parameterization	• Plug-and-play connection with pre-assembled connectable cables, no screw connections • Simple machine architecture due to single-cable and decentralized connection technology • Digital rating plate for quick start-up • Software tools for parameterization and drive monitoring
Low energy consumption	• High efficiency due to permanent magnet technology • 20% less derating due to special motor design
Kollmorgen development support	• Comprehensive consulting by the Kollmorgen support team
Co-engineering	• Development of special drive solutions in cooperation with the customer or in a customer order

AKMH Hygienic Stainless Steel Servo Motors

The new stainless steel AKMH motors have been designed for hygienic machine applications in wet areas with food contact in accordance with the EHEDG regulations and they comply with 3A, USDA* and NFS hygiene standards. Short cleaning times and the high degree of reliability due to special design measures ensure noticeably greater overall equipment effectiveness.

* In preparation

Higher Productivity Due to Quicker Cleaning

- Ideal for machines with an open design
- No costly protective equipment; no hard-to-reach contamination traps
- Quick, easy, yet safe cleaning

Reduced Recall Risk

- Lubricants and seals meet FDA standards.
- Round, stainless steel housing with a roughness of < 0.8 µm and the design of all edges with radii of R1.5 prevent dirt deposits

High Degree of Operational Safety

- Version in protection class IP69K: Safe with high-pressure cleaning with water pressure up to 100 bar
- No plug connections susceptible to faults thanks to fixed mounted cables
- Single-cable technology with digital feedback (SFD3 or HIPERFACE® DSL digital resolvers)

Outstanding Efficiency Thanks to Novel Motor Design

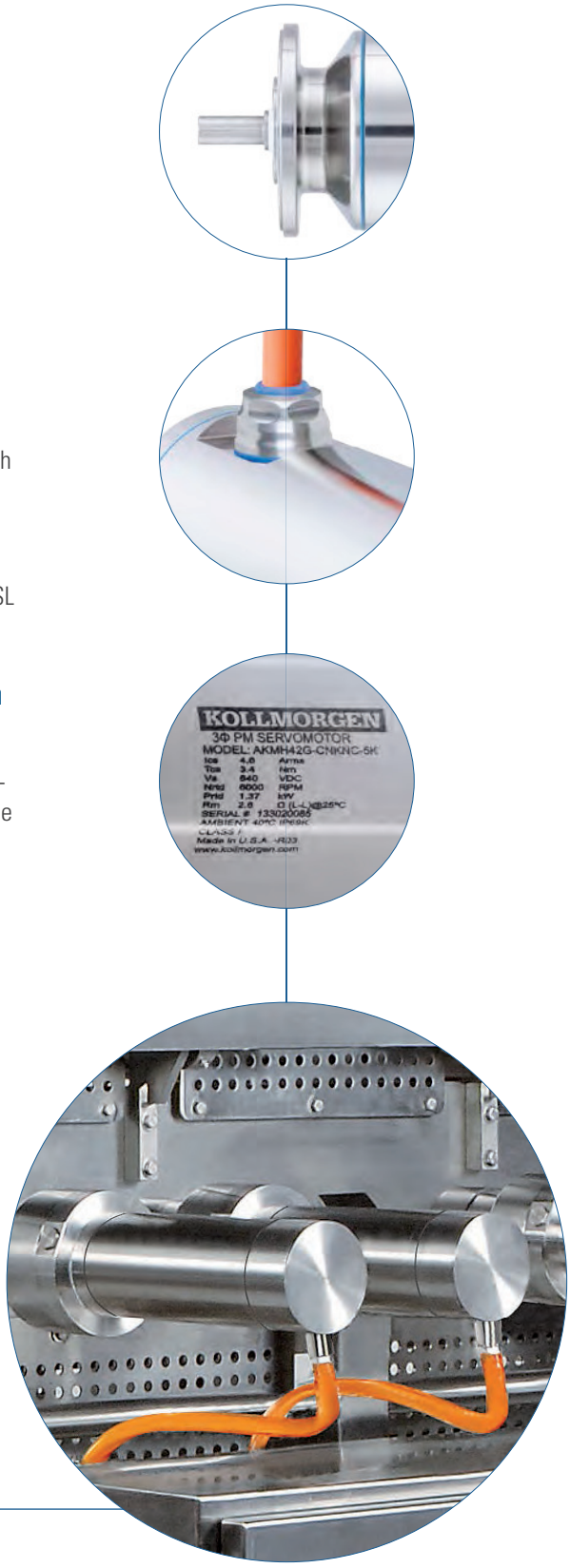
- Torque derating under 20%
- High speeds of up to 8000 min^{-1} offer more flexibility for gearhead attachment and higher productivity due to higher output speeds with the same torque
- AKMH2 is the most compact hygienic servo motor on the market

Ideal Drive Design Thanks to 19 Frame Sizes

- 5 sizes each with 4 rotor lengths and winding options for perfect adaptation to servo drives
- Two housing shapes for front and flange mounting

One Source for Your Complete Automation Solution

- The Kollmorgen Automation Suite provides all the tools for motion and PLC programming and for drive management in operation
- AKD-PDMM multi-axis controller: The 3-in-1 solution combines servo drive, motion controller, and PLC in one device



Thanks to the open machine design without protective housings, machines can also be cleaned quickly and safely using high-pressure and high-temperature processes.

AKMH Hygienic Stainless Steel Servo Motors

The main advantages of the AKMH are:

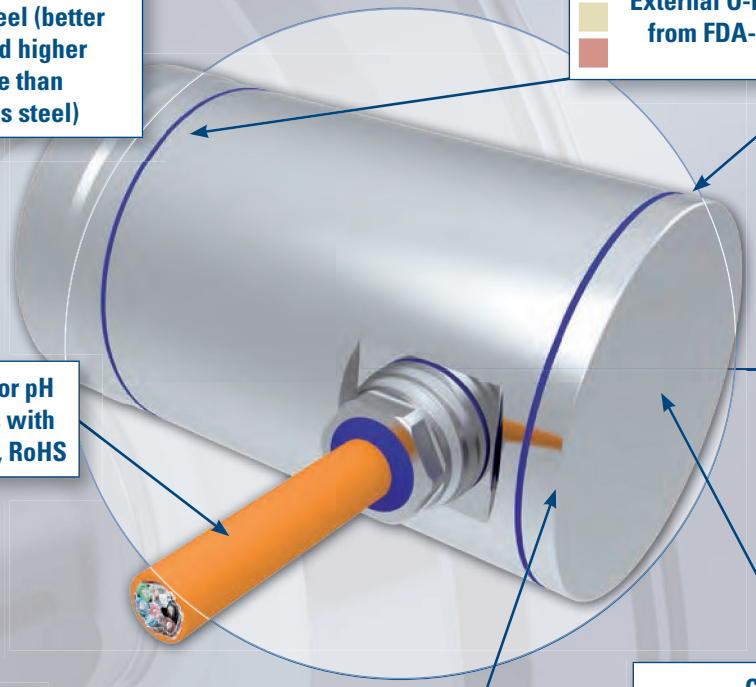
- Reduced risk of food recalls
- High degree of reliability in all cleaning processes
- Reduced cleaning time: Higher overall equipment effectiveness (OEE)

Open machine design without protective housings – quick and safe cleaning

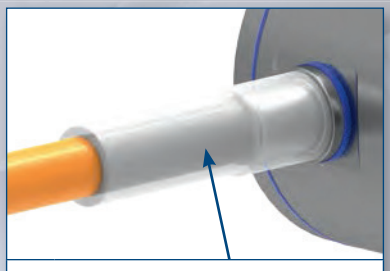
The smooth surface meets EHEDG and 3A requirements, promotes rapid cleaning and no harboring of pathogens

All exposed surfaces are produced from 1.4404 stainless steel (better hygiene properties and higher corrosion resistance than 1.4301/1.4305 stainless steel)

External O-ring and gasket made from FDA-approved materials



Chemical-resistant cable for pH values of 2 to 12, complies with IEC 60364-5-52, UL, CSA, CE, RoHS

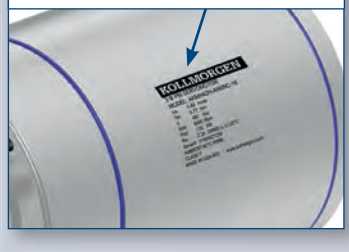


FDA-approved sheathing suitable for use with foods

Convex cover for hindering droplet formation, also with vertical assembly

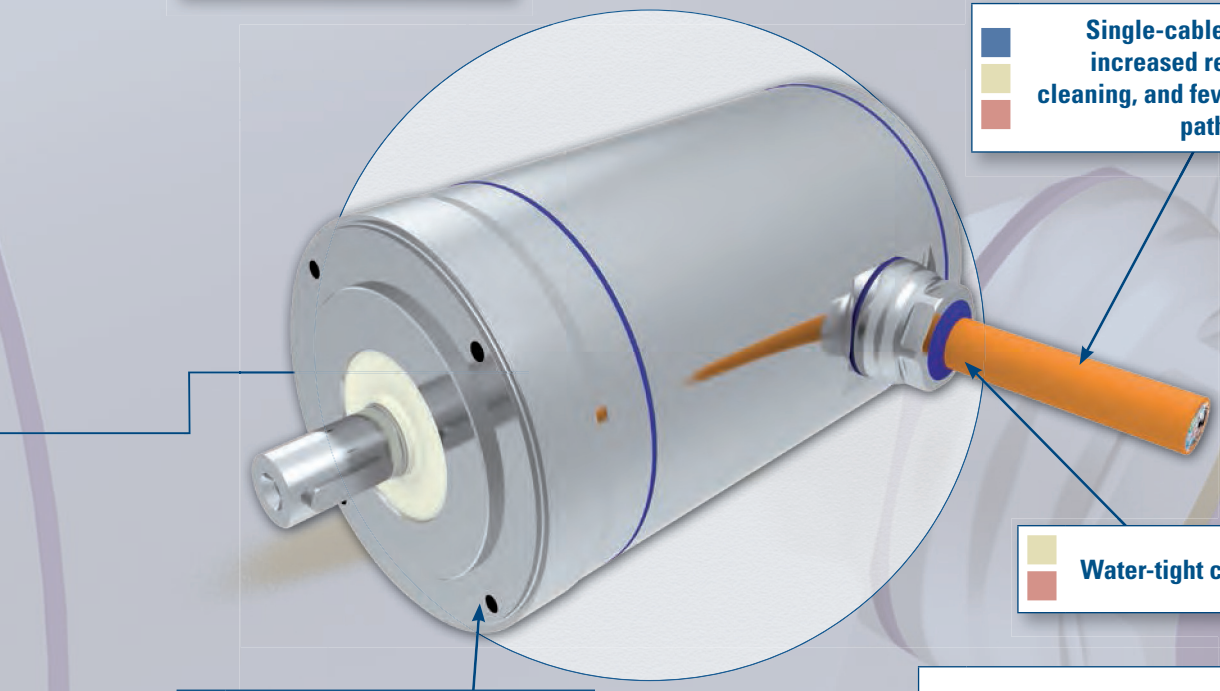
No external fixing components (no screws or washers)

Hygienic rating plate for the prevention of contamination trap formation



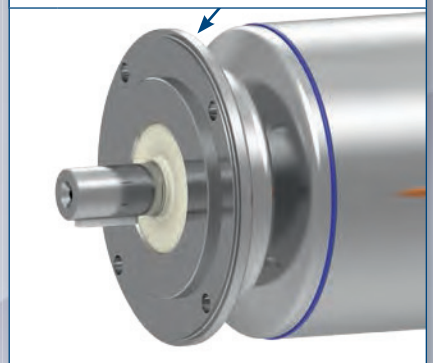
Unique design technique to eliminate condensation

Single-cable technology for increased reliability, faster cleaning, and fewer places to harbor pathogens

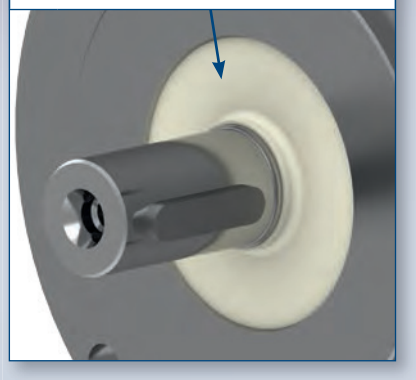


Water-tight cable exit

Effortless assembly thanks to two variants with front or flange installation



Hygienic IP69K shaft seal with long service life



AKMH Hygienic Stainless Steel Servo Motors

Performance Data

AKMH type ...	Standstill torque M_0 [Nm] ①②③	Standstill current I_0 [A] ①②③	Peak torque M_0max [Nm] ①②③	75 V DC			160 V DC			320 V DC V			560 V DC			640 V DC			Moment of inertia [kg·cm²]	Weight [kg]
				Rated speed n_n [min-1]	Rated torque M_n [Nm] ①②③	Rated power P_n [kW] ①②③	Rated speed n_n [min-1]	Rated torque M_n [Nm] ①②③	Rated power P_n [kW] ①②③	Rated speed n_n [min-1]	Rated torque M_n [Nm] ②③④	Rated power P_n [kW] ①②③	Rated speed n_n [min-1]	Rated torque M_n [Nm] ①②③	Rated power P_n [kW] ①②③	Rated speed n_n [min-1]	Rated torque M_n [Nm] ①②③	Rated power P_n [kW] ①②③		
21C	0.317	1.31	1.57	–	–	–	2500	0.311	0.08	8000	0.255	0.21	8000	0.255	0.21	8000	0.255	0.21	0.107	3.6
21E	0.329	2.56	1.59	2000	0.324	0.068	7000	0,28	0.21	–	–	–	–	–	–	–	–	–	0.107	3.6
21G	0.335	4.04	1.60	4000	0.318	0.13	–	–	–	–	–	–	–	–	–	–	–	–	0.107	3.6
22C	0.633	1.18	3.03	–	–	–	1000	0.627	0.07	3500	0.583	0.21	8000	0.40	0.34	8000	0.40	0.34	0.161	4.1
22E	0.654	2.33	3.07	1000	0.647	0.07	3500	0.601	0.22	8000	0,41	0.35	–	–	–	–	–	–	0.161	4.1
22G	0.661	4.09	3.09	2500	0.632	0.17	7000	0.473	0.35	–	–	–	–	–	–	–	–	–	0.161	4.1
23D	0.897	1.88	4.35	–	–	–	1500	0.881	0.14	5000	0.765	0.40	8000	0.58	0.49	8000	0.58	0.49	0.216	4.6
23E	0.904	2.36	4.37	–	–	–	2500	0.865	0.23	6500	0.688	0.47	–	–	–	–	–	–	0.216	4.6
23F	0.917	3.67	4.41	1500	0.900	0.14	4500	0.806	0.38	8000	0.593	0.50	–	–	–	–	–	–	0.216	4.6
24D	1.12	1.90	5.50	–	–	–	1500	1.11	0.17	4000	1.04	0.44	8000	0.83	0.70	8000	0.83	0.70	0.27	5.1
24E	1.12	2.39	5.51	–	–	–	2000	1.10	0.23	5500	0.98	0.57	–	–	–	–	–	–	0,27	5.1
24F	1.13	3.34	5.53	1000	1.12	0.12	3000	1.09	0.34	8000	0.839	0.70	–	–	–	–	–	–	0,27	5.1
31C	1.00	1.29	4.41	–	–	–	–	–	–	2500	0,95	0,25	5000	0,86	0.45	6000	0.82	0.51	0.33	4.1
31E	1.04	2.76	4.52	750	1.03	0.08	2500	0,96	0,25	6000	0,86	0.54	8000	0,74	0.62	–	–	–	0,33	4.1
31H	1.08	5.51	4.59	2000	1.04	0.22	6000	0.88	0,55	–	–	–	–	–	–	–	–	–	0,33	4.1
32C	1.72	1.30	8.10	–	–	–	–	–	–	1500	1.66	0.26	3000	1.57	0.49	3500	1.52	0.56	0,59	5.0
32E	1.77	2.56	8.24	–	–	–	–	–	–	3500	1.57	0.57	7000	1.10	0.81	8000	0.92	0,77	0,59	5.0
32H	1.82	4.98	8.39	1200	1.78	0.22	3000	1.66	0.52	7000	1.13	0,83	–	–	–	–	–	–	0,59	5.0
33C	2.25	1.27	11,5	–	–	–	–	–	–	1000	2.22	0.23	2000	2.14	0.45	2500	2.09	0.55	0,85	5.9
33E	2.32	2.20	11,7	–	–	–	–	–	–	2000	2.20	0.46	4500	1.82	0,86	5000	1.72	0.90	0,85	5.9
33H	2.38	4.80	11.9	800	2.35	0.20	2500	2.20	0.58	5500	1.64	0.94	8000	0.88	0,74	–	–	–	0,85	5.9
41C	1.85	1.54	6.82	–	–	–	–	–	–	1200	1.78	0.22	3000	1.68	0.53	3500	1.65	0,60	0.81	6.1
41E	1.90	2.89	6.95	–	–	–	1200	1.85	0.23	3000	1.74	0,55	6000	1.44	0,90	6000	1.44	0,90	0.81	6.1
41H	1.94	5.82	7.00	1000	1.89	0.20	3000	1.77	0.56	6000	1,47	0.92	–	–	–	–	–	–	0.81	6.1
42C	3.19	1.42	12.6	–	–	–	–	–	–	–	–	–	1500	2.98	0.47	2000	2.91	0.61	1.45	7.4
42E	3.27	2.77	12.8	–	–	–	–	–	–	1800	2.99	0.56	3500	2.72	1.00	4000	2.62	1.10	1.45	7.4
42H	3.40	6.10	13.1	–	–	–	2000	3.09	0.65	4500	2.63	1.24	6000	2.21	1.39	6000	2.21	1.39	1.45	7.4
42J	3.43	8.56	13.1	–	–	–	3000	2.94	0.92	6000	2.23	1.40	–	–	–	–	–	–	1.45	7.4
43E	4.56	2.79	18.3	–	–	–	–	–	–	1500	4.15	0.65	2500	3.83	1.00	3000	3.68	1.16	2.09	8.8
43H	4.68	5.52	18.7	–	–	–	–	–	–	3000	3.77	1.18	6000	2.44	1.53	6000	2.44	1.53	2.09	8.8
43L	4.59	11.4	18.4	–	–	–	3000	3.69	1.16	6000	2.39	1.50	–	–	–	–	–	–	2.09	8.8
44E	5.64	2.89	23.5	–	–	–	–	–	–	1200	5.13	0.64	2000	4.76	1.00	2500	4.52	1.18	2.73	10.2
44H	5.77	5.68	23.5	–	–	–	–	–	–	2500	4.59	1.20	5000	3.13	1.64	6000	2.58	1.62	2.73	10.2
44K	5.76	10.2	23.5	–	–	–	2000	4.83	1.01	5000	3.10	1.62	6000	2.55	1.60	–	–	–	2.73	10.2
51E	3.3	2.28	15.0	–	–	–	–	–	–	1200	3.11	0.39	2500	2.83	0.74	3000	2.68	0.84	3.42	8.9
51H	3.39	5.02	15.0	–	–	–	–	–	–	3000	2.75	0,86	5500	1.41	0.81	5500	1.41	0.81	3.42	8.9
51L	3.47	10.0	15,2	–	–	–	3000	2.82	0.89	5500	1.45	0.84	–	–	–	–	–	–	3.42	8.9

① Motor winding excess temperature, ΔT = 100 K with ambient temperature = 40°C

② All specifications refer to sinusoidal supply

③ Rated data with reference flange (aluminum, dims (mm): AKMH2, AKMH3, AKMH4: 254 x 254 x 6.35 AKMH5: 305 x 305 x 12.7 AKMH6: 457 x 457 x 12.7)

Performance Data

AKMH type ...	Standstill torque M_0 [Nm] ①②③	Standstill current I_0 [A] ①②③	Peak torque M_{max} [Nm]	75 V DC			160 V DC			320 VDC			560 V DC			640 V DC			Moment of inertia [kg·cm²]	Weight [kg]
				Rated speed n_n [min-1]	Rated torque M_n [Nm] ①②③	Rated power P_n [kW] ①②③	Rated speed n_n [min-1]	Rated torque M_n [Nm] ①②③	Rated power P_n [kW] ①②③	Rated speed n_n [min-1]	Rated torque M_n [Nm] ①②③	Rated power P_n [kW] ①②③	Rated speed n_n [min-1]	Rated torque M_n [Nm] ①②③	Rated power P_n [kW] ①②③	Rated speed n_n [min-1]	Rated torque M_n [Nm] ①②③	Rated power P_n [kW] ①②③		
52E	6.15	2.43	28.9	–	–	–	–	–	–	–	–	–	1500	5.39	0.85	2000	5.08	1.06	6.22	11.1
52H	6.29	4.81	29.1	–	–	–	–	–	–	1800	5.32	1.00	3500	3.44	1.26	4000	2.44	1.02	6.22	11.1
52L	6.45	9.50	29,5	–	–	–	–	–	–	3500	3.53	1.29	4500	1.19	0.56	4500	1.19	0.561	6.22	11.1
52M	6.39	10.7	29.4	–	–	–	–	–	–	4500	1.18	0.556	–	–	–	–	–	–	6.22	11.1
53H	8.60	5.29	41.8	–	–	–	–	–	–	–	–	–	3000	4.06	1.28	3500	2.12	0.78	9.12	13.4
53L	8.68	9.43	42.0	–	–	–	–	–	–	3000	4.09	1.28	3500	2.14	0.78	3500	2.14	0.78	9.12	13.4
53P	8.49	15.2	41,7	–	–	–	–	–	–	3500	2.09	0.77	–	–	–	–	–	–	9.12	13.4
54H	10.5	4.35	53.3	–	–	–	–	–	–	1000	9.31	3.00	1800	7.62	1.44	2000	7.09	1.48	11.92	15.7
54L	10.4	9.82	53.3	–	–	–	–	–	–	2500	5.13	1.34	3000	2.47	0,78	–	–	–	11.92	15.7
54P	10.6	15.3	53.9	–	–	–	–	–	–	3000	2.52	0.79	–	–	–	–	–	–	11.92	15.7
62H	10.6	5.3	39.8	–	–	–	–	–	–	1000	10.5	1.10	1800	9.93	1.87	2000	9.86	2.07	16.9	19.6
62L	10.8	11.7	40.1	–	–	–	–	–	–	2500	9.61	2.52	5000	4.95	2.59	5500	3.31	1.91	16.9	19.6
62M	10.9	13.1	40.2	–	–	–	–	–	–	3000	9.10	2.86	5500	3.33	1.92	5500	3.33	1.92	16.9	19.6
63H	14.6	5.2	57.9	–	–	–	–	–	–	–	–	–	1500	13.6	2.14	1800	13.2	2.49	24.2	23.1
63L	14.8	10.6	58.4	–	–	–	–	–	–	1800	13,4	2.53	3000	11.1	3.49	3500	9.60	3.52	24.2	23.1
63M	15.0	13.0	58.8	–	–	–	–	–	–	2000	13.3	2.79	4000	7.90	3.31	4500	5.70	2.69	24.2	23.1
64K	18.7	8.7	75.1	–	–	–	–	–	–	1200	17,1	2.15	2000	15,6	3.27	2500	14.2	3.72	31.6	26.7
64L	19.0	12.1	75.6	–	–	–	–	–	–	1500	16.8	2.64	3000	12.5	3.93	3500	10.0	3.67	31.6	26.7
64K	21.9	9.1	91.4	–	–	–	–	–	–	1000	20.2	2.12	2000	17.7	3.71	2500	17.1	3.94	40.0	30.2
64L	22.2	11.3	92.0	–	–	–	–	–	–	1300	19.7	2.68	2500	16.0	4.19	2800	14,5	4.25	40.0	30.2
64M	22.2	12.6	92.0	–	–	–	–	–	–	1500	19.4	3.44	2700	15.1	4.27	3000	13.5	5.69	40.0	30.2

① Motor winding excess temperature, ΔT = 100 K with ambient temperature = 40°C

② All specifications refer to sinusoidal supply

③ Rated data with reference flange (aluminum, dims (mm): AKMH2, AKMH3, AKMH4: 254 x 254 x 6.35 AKMH5: 305 x 305 x 12.7 AKMH6: 457 x 457 x 12.7)

Flange / Shaft Combinations

Type	AC	AN	BK	BN	CC	CN	DK	DN	GC	GN	HC	HN
Mounting	Flange	Flange	Flange	Flange	Front	Front	Front	Front	Flange	Flange	Front	Front
Standard	IEC	IEC	NEMA	NEMA	IEC	IEC	NEMA	NEMA	IEC	IEC	IEC	IEC
Shaft	Cl. groove	Smooth	Op. groove	Smooth	Cl. groove	Smooth	Op. groove	Smooth	Cl. groove	Smooth	Cl. groove	Smooth
AKMH 2x	●	●	–	●	●	●	–	●	–	–	–	–
AKMH 3x	●	●	–	–	●	●	–	–	–	–	–	–
AKMH 4x	●	●	●	●	●	●	●	●	–	–	–	–
AKMH 5x	●	●	●	●	●	●	●	●	●	●	●	●
AKMH 6x	●	●	–	–	●	●	●	●	–	–	–	–

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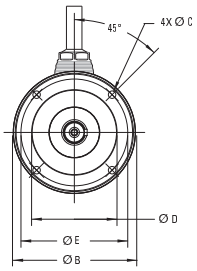
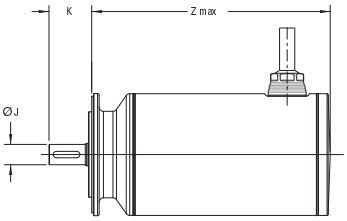
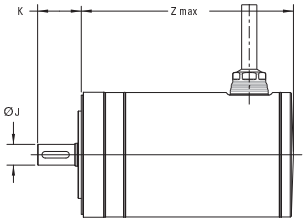
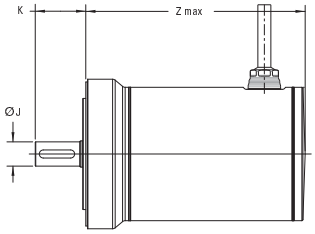




AKMH flange mounting

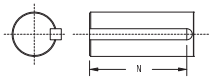


AKMH front mounting

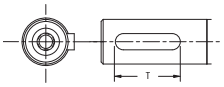


Only AKMH5x front mounting

Open keyway (BK, CN, DK versions)



Closed keyway (AC, BN, GC, HC versions)



Dimensions (mm)

Model	Z max. SFD3 digital resolver		Z max. Hiperface DSL		Flange
	without brake	with brake	without brake	with brake	ØB
AKMH21	167.2	201.2	180.2	214.2	79
AKMH22	186.2	220.2	199.2	233.2	79
AKMH23	205.2	239.2	218.2	252.2	79
AKMH24	224.2	258.2	237.2	271.2	79
AKMH31	166.5	198.0	182.5	214.0	89
AKMH32	197.5	229.0	213.5	245.0	89
AKMH33	228.5	260.0	244.5	276.0	89
AKMH41	166.7	201.0	182.7	217.0	113
AKMH42	195.7	230.0	211.7	246.0	113
AKMH43	224.7	259.0	240.7	275.0	113
AKMH44	253.7	288.0	269.7	304.0	113
AKMH51	187.4	229.4	198.4	240.4	148
AKMH52	218.4	260.4	229.4	271.4	148
AKMH53	249.4	291.4	260.4	302.4	148
AKMH54	280.4	322.4	291.4	333.4	148
AKMH61	209.9	256.5	220.9	267.5	186
AKMH62	234.9	281.5	245.9	292.5	186
AKMH63	259.9	306.5	270.9	317.5	186
AKMH64	284.9	331.5	295.9	342.5	186

Dimensions (mm)

AKMH XX-		AC	AN	BK	BN	CC	CN	DK	DN	GC	GN	HC	HN
Mounting		Flange		Flange		Front	Front	Front	Front	Flange	Flange	Front	Front
Standard		IEC		NEMA		IEC	IEC	NEMA	NEMA	IEC	IEC	IEC	IEC
Shaft		Cl. groove	Smooth	Op. groove	Smooth	Cl. groove	Smooth	Op. groove	Smooth	Cl. groove	Smooth	Cl. groove	Smooth
AKMH 2x	Ø C	4.80		–	5.10	M4 x 0.7 x 8.0		–	UNF10-32	–		–	
	Ø D	40		–	38.10	40		–	38.1	–		–	
	Ø E	63		–	66.68	63		–	66.68	–		–	
	Ø J	11		–	9.524	11		–	9.524	–		–	
	K	30		–	31.8	30.0		–	31.8	–		–	
	N/T	T = 16	NA	–	NA	T = 16	NA	–	NA	–		–	
AKMH 3x	Ø C	5.80		–		M5 x 0.8 x 10.0		–		–		–	
	Ø D	60		–		60		–		–		–	
	Ø E	75		–		75		–		–		–	
	Ø J	14		–		14		–		–		–	
	K	30		–		30.0		–		–		–	
	N/T	T = 16	NA	–		T = 16	NA	–		–		–	
AKMH 4x	Ø C	7.0		6.91		M6 x 1 x 12		UNC 1/4 - 20 x 12.3		–		–	
	Ø D	80		73.025		80		73.025	73	–		–	
	Ø E	100		98.43		100		98.43		–		–	
	Ø J	19		15.875		19		15.875		–		–	
	K	40.0		52.40		40.0		52.40		–		–	
	N/T	T = 25	NA	N = 34.93	NA	T = 25	NA	N = 34.93	NA	–		–	
AKMH 5x	Ø C	9		8.33		M8 x 1.25 x 16.0		UNC 3/8 - 16 x 19.05		9		M8 x 1.25 x 16.0	
	Ø D	110		55.560		110		55.563		95		95	
	Ø E	130		125.73		130		125.73		115		115	
	Ø J	24		19.05		24		19.05		24		24	
	K	50.0		57.15		50.0		57.15		50.0		50.0	
	D	T = 36	NA	N = 38.1	NA	T = 36	NA	N = 38.1	NA	T = 36	NA	T = 36	N = 38.1
AKMH 6x	Ø C	11.00		–		M10 x 1.5 x 20.0		UNC 3/8 - 16 x 19.05		–		–	
	Ø D	130		–		130		114.3		–		–	
	Ø E	165.0		–		165.0		149.23		–		–	
	Ø J	32		–		32		28.580		–		–	
	K	58		–		58		69.9		–		–	
	D	40	NA	–		T = 40	NA	N = 38.10	NA	–		–	

Model Nomenclature

AKMH Hygienic Stainless Steel Servo Motor

AKMH 4 2 E – AN K N CA 1 K

AKMH Series

Motor Frame Size
2, 3, 4, 5, 6

Rotor Length
1, 2, 3, 4, 5

Winding Type
A, B, C, D, etc.
S = Special

Flange, Shaft

AC	Flange mounting IEC, shaft: Closed keyway
AN	Flange mounting, IEC, smooth shaft
BK	Flange mounting NEMA, shaft: Open keyway
BN	Flange mounting NEMA, smooth shaft
CC	Front mounting IEC, shaft: Closed keyway
CN	Front mounting IEC, smooth shaft
DK	Front mounting NEMA, shaft: Open keyway
DN	Front mounting NEMA, smooth shaft
S	Special

Cable

B	Cable with IP67 Speedtec connector
G	Cable with IP67 Speedtec connector in silicone tube
K	**Pre-assembled cable for connection to AKD**
L	Dual-cable version with open cable ends
M	Dual-cable version with open cable ends in silicone tube
T	Pre-assembled cable in silicone tube for connection to AKD
V	Cable with IP69 Speedtec connector
W	Cable with IP69 Speedtec connector in silicone tube

Shaft Seal

K	**IP69K shaft ring**

Cable Length
1 to F (1 to 15 meters)

Feedback Unit

C-	SFD2
CA	**Smart Feedback Device (SFD3)**
DA*	EnDAT 2.1 single-turn, optical
DB*	EnDAT 2.1 multi-turn, optical
GA*	Hiperface SKS36 single-turn
GB*	Hiperface SKM36 multi-turn
GE	Hiperface DSL encoder single-turn
GF	Hiperface DSL encoder multi-turn
GG*	Hiperface SRS50 single-turn
GH*	Hiperface SRM50 multi-turn
LA*	EnDAT 2.1 single-turn, inductive
LB*	EnDAT 2.1 multi-turn, inductive
R	Resolver
2-	Comcoder 2048 incr./rev

* In preparation

Brake

2	24 V DC holding brake
N	**No brake**
S	Special