

A space and cost saving solution that gives maximum performance.

The new AKM synchronous servo motor AKM8 is unbeatable in its class

The AKM8 is an enhancement to the proven AKM Series – giving the best value possible in terms of cogging, electrical power and power loss, and has exceptional features – all in all providing incredible performance. It offers a stall torque up to 150 Nm and a peak torque up to 375 Nm. It is 30 – 50% more compact and weighs 10 – 30% less than motors using conventional technology, but is still designed to achieve the exact same performance. New solutions open up for customers allowing them to make their own machines more compact. Like other small motors, AKM8 motors can also be installed anywhere on a machine and do not need any base mount. The new AKM motors – probably the most compact motors in their torque class – will be on the market in January 2010.

Amazing Advantages

- Highly compact design
- Noticeable performance benefits through its high torque density
- Minimal loss of power through its smaller end windings
- Flexible design options such as electrical connections
- Reinforced high-quality bearings
- Fully encapsulated stator
- Integrated A-flange
- "One piece flow" design and production process leads to a quicker and more flexible production
- Comes with 5 years of AKM experience and know-how
- Price stability guaranteed

Totally Competitive

- As compact as possible at the same or increased torque
- Maximum torque achieved from minimum volume
- Good result when torque and speed are compared
- Acceptable rotor inertia compared with stall torque with extremely short and larger rotor
- Highly flexible, particularly for customer specific windings
- Available worldwide due to a global presence



*Available from January 2010

Total Flexibility and Best Performance for Maximum Power.

Feedback Systems

The motors are fitted with double-pole hollow shaft resolvers as standard. They can also be provided with additional feedback systems:

- Smart Feedback Device (SFD)
- Single Turn Absolute Encoders
- Multi Turn Absolute Encoders

The encoders are available as an optical variant. Interfaces are Endat, Biss and Hiperface.

Special Features

- The A-flange and motor case are in one piece so that high density and strength are produced along with low tolerances
- The fully encapsulated stator delivers high stability, increased lifetime and guarantees improved heat dissipation from the motor
- Powder coating of the motor case offers greater protection from scratching



Additional Options

- Integrated high-performance immobilization spring holding brake with 150 Nm holding torque
- A shaft seal made of Teflon allows Protection type IP 67 to be achieved, with low friction and less lubrication during operation
- The numerous options also include the most diverse range of flange and shaft lengths, bolt circles and pilots as well as shaft diameters
- Reinforced bearing option for doubling the radial forces on the load side

Approvals and Compliance

- CE (Europe)
- UL (North America)
- CCC Release (China)
- GOST-R Certification (Russia)
- Complies with the RoHS & REACH Standards

	AKM82*	AKM83*	AKM84*
Stall torque (Nm)	80	110	150
Peak torque (Nm)	200	275	375
Rated torque (Nm)	50	70	95
Rated speed (min ⁻¹)	2500	2200	2000
Stall current (A)	50	60	65
Rotor inertia (kg.cm ²)	172	333	495
Length without brake (mm)	263	343	424
Length with brake (mm)	329	409	490
Frame size (mm)	260	260	260
Hole circle (mm)	265/300	265/300	265/300
Centering (mm)	230/250	230/250	230/250
Shaft diameter (mm)	42/48	42/48	42/48
Shaft length (mm)	80/110	80/110	80/110

* Measurement according to DIN 42948, IEC 72-1; Performance data applies to conventional cooling, correct as of October 2009