



i AM87xx | Servomotors with anodised housing

The anodised servomotors from the AM8700 series combine the advantages of the highly dynamic AM8000 standard servomotors with the requirements of the packaging and food industries.

Like the AM8800 motors, the AM8700 motors meet hygienic design requirements and are therefore intended for use in the food, pharmaceutical and chemical industries. Due to the specially treated aluminium housing of the AM8700 motors, the housing surface can also withstand harsh operating conditions, but nevertheless offers ideal thermal conductivity, so that there is no derating of the motor power. In comparison with the stainless steel housing the aluminium housing is very light and therefore offers a further benefit, e.g. when moving axes.

The windings of the AM8700 series are implemented using salient pole-wound technology. The benefit is a high copper fill factor. High torques can be attained due to the high slot fill factor. The fully potted stator provides for a thermally ideal transition from the windings to the motor housing. Another advantage of full potting is mechanical protection of the winding wires against vibrations.

The AM8700 motors have IP 69K protection (not including the output shaft) as standard and can be equipped with a sealing air connection to prevent condensate formation. The OCT direct cable outlet is also implemented in hygienic design. All lubricants used are FDA-certified as food-safe.

For a wide performance range the anodised motors are offered in the flange sizes F3 to F6, each in three different overall lengths.

Technical data	
Motor type	permanent magnet-excited three-phase synchronous motor
Magnet material	neodymium-iron-boron
Insulation class	thermal class F (155 °C)
Design form	flange-mounted according to IM B5, IM V1, IM V3
Protection class	IP 69K not including shaft feed-through, FKM shaft seal
Cooling	convection, permissible ambient temperature 40 °C
Materials	aluminium silver anodised
Temperature sensor	integrated in stator winding
Connection method	direct cable outlet via cable gland with connected M23 speedtec® coupling plug or direct connection for AX5000 or AX8000
Life span	L _{10h} = 30,000 hrs for ball bearings
Approvals	CE
Feedback system	absolute encoder single-turn and multi-turn, OCT

Options	AM87xx
Feather key groove	according to DIN 6885 P1
Holding brake backlash-free	permanent magnet single-surface brake, suitable only as holding brake

Accessories	
AG2800	Planetary gear units for AM8800 stainless steel servomotors
ZK45xx-8xxx	Supply cables AM8000, AM8500, AM8800

i Product announcement	estimated market release 2nd quarter 2019
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