

L-force

MCA and MQA servo motors



Dynamic, powerful, compact

NEW

Lenze

MCA asynchronous servo motors | with greater power

The key features of the MCA motors are high torque and dynamics in compact dimensions. Generously proportioned roller bearings ensure a long service life and high availability, even under the heaviest of loads.

And this series of motors with a power range of 0.8 kW to 20 kW has now been extended to include two new motors (sizes 20 and 22), pushing the upper limit to 31 kW. Size 22 can be supplied with an IP54 (surface-ventilated) or IP23 (through-blown) enclosure.

Size 20 is designed with an IP23 enclosure (enclosed-ventilated), while size 22 employs insulated bearings as standard to prevent potentially hazardous bearing currents.

Advantages

- ▶ High power density
- ▶ Exceptionally smooth running characteristics
- ▶ Optional upgraded bearings
- ▶ Insulated bearings as standard
- ▶ Three-piece terminal box with terminal block as standard for easy commissioning
- ▶ Encoder and fan are connected via SpeedTec connectors
- ▶ CE and RoHS compliant
- ▶ cUR and GOST in preparation



MCA 22 with axial-flow fan

Rated mains connection 400 V

Motor type	Switching	n_N [min ⁻¹]	M_0 ²⁾ [Nm]	M_N [Nm]	M_{max} ³⁾ [Nm]	P_N [kW]	$\cos\phi$	J ¹⁾ [kgcm ²]
MCA20X14 (IP23)	Y	1420	68.0	61.0	250	9.1	0.81	170.6
MCA20X29 (IP23)	Y	2930	68.0	53.5	250	16.4	0.75	170.6
MCA22P08 (IP23)	Y	760	135.0	120	500	9.6	0.83	486.7
MCA22P08 (IP54)	Y	760	120.0	110	500	8.8	0.83	486.7
MCA22P14 (IP23)	△	1425	135.0	115	500	17.2	0.80	486.7
MCA22P14 (IP54)	△	1425	120.0	105	500	15.7	0.80	486.7
MCA22P17 (IP23)	Y	1670	135.0	112	500	19.6	0.80	486.7
MCA22P17 (IP54)	Y	1670	120.0	107	500	18.7	0.79	486.7
MCA22P29 (IP23)	△	2935	135.0	110	500	33.8	0.78	486.7
MCA22P29 (IP54)	△	2935	120.0	100	500	30.7	0.79	486.7

¹⁾ Without brake, with resolver

²⁾ Motor flange-mounted to an uncooled steel plate with size (LxWxH):
450 x 450 x 35 mm

³⁾ Mechanically permissible maximum torque

MQA asynchronous servo motors | the new series

The units in the new MQA series (through-blown) excel through their high torque and dynamics in a compact form. Generously proportioned roller bearings ensure a long service life and high availability, even under the heaviest of loads, and the bearings are insulated as standard to prevent potentially hazardous bearing currents.

These motors are designed with an IP23 enclosure (with radial-flow fan).

Advantages

- ▶ High power density
- ▶ Exceptionally smooth running characteristics
- ▶ Optional upgraded bearings
- ▶ Insulated bearings as standard
- ▶ Three-piece terminal box with terminal block as standard for easy commissioning
- ▶ In B5 form, can be interchanged with the existing MDFQA series of motors
- ▶ CE and RoHS compliant
cUR and GOST in preparation



MQA 22 with radial-flow fan

Rated mains connection 400 V

Motor type	Switching	n_N [min ⁻¹]	M_0 ²⁾ [Nm]	M_N [Nm]	M_{max} ³⁾ [Nm]	P_N [kW]	$\cos\varphi$	J ¹⁾ [kgcm ²]
MQA20L14	Y	1420	76	71.3	250	10.6	0.84	170.6
MQA20L29	Y	2930	76	66.2	250	20.3	0.80	170.6
MQA22P08	Y	760	156	145	500	11.5	0.86	486.7
MQA22P14	△	1425	156	135	500	20.1	0.82	486.7
MQA22P17	Y	1670	156	130	500	22.7	0.83	486.7
MQA22P29	△	2935	156	125	500	38.4	0.79	486.7

¹⁾ Without brake, with resolver

²⁾ Motor flange-mounted to an uncooled steel plate with size (LxWxH):
450 x 450 x 35 mm

³⁾ Mechanically permissible maximum torque