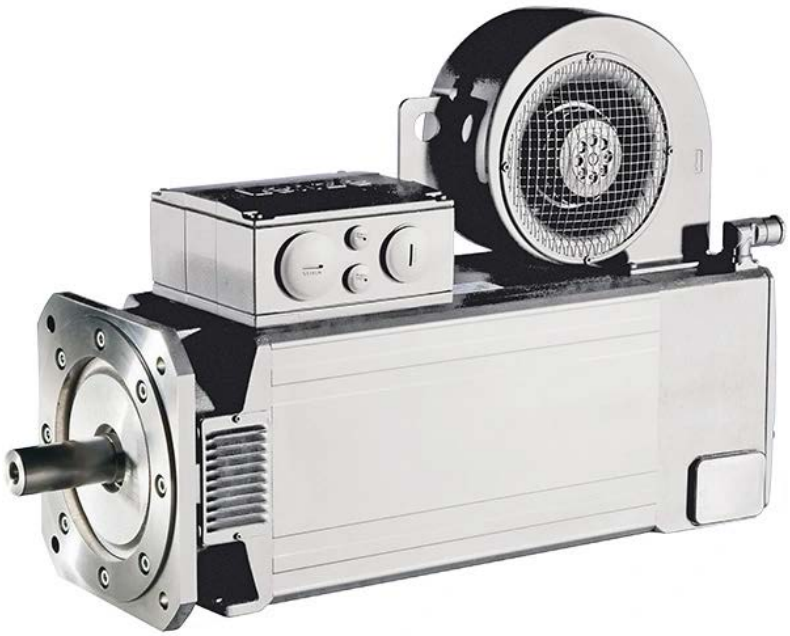


Asynchronous Servo motors

Lenze MQA

Servo motors - dynamic and robust

With synchronous motors and asynchronous motors, our servo motors offer the right solution, even for highly dynamic, sensitive or compact applications. They are optimally designed for operation with our servo inverters.

Typical application fields

- Positioning
- Robotics
- Packaging technology
- Handling systems
- Environments where hygiene matters.
- And many more

Features

- Robust drive behavior
- Safe control behavior
- Optimal smooth running characteristic
- One Cable Technology (OCT)
- Easy mounting
- Low moments of inertia

The benefits for you

- Optimized for Lenze servo inverters
- Easy mounting
- Highly dynamic, sensitive or compact application areas
- Precise and robust requirements
- High operational reliability
- Solutions for heavy motor loads

Features at a glance

Robust behavior

High degree of protection and/or smooth surfaces enable operation in harsh environments.

Drives with a protection class of up to IP65 can be used there.

Safely controlled

The servo motors are perfectly matched to the i750 cabinet and i950 cabinet servo inverters.

With these servo inverters, the servo motor is safely controlled in every operating state. Both components can be easily adapted to the application using the inverter's auto-tuning function.

Optimal concentricity

Very smooth running characteristics of the servo motors lead to optimal work results.

For example, a film can be processed safely and continuously.

One Cable Technology (OCT)

The MCS and m850 servo synchronous motors are equipped with a digital absolute value encoder (HIPERFACE-DSL®) as standard.

This makes wiring easier and reduces the costs.

Easy to mount

The servo motors are equipped with commercially available connectors as standard.

The bayonet lock enables quick and secure installation. This also enables very short machine downtimes when servicing is required.

Low mass inertia

The internal design of the rotors serves the dynamic and precise requirements of the machine.

The materials used ensure precise operation with a low mass moment of inertia.

Servo motors

Is your application dynamic and demanding With synchronous motors and asynchronous motors, our servo motors offer the right solution, even for highly dynamic, sensitive or compact applications. They are optimally designed for operation with our servo inverters.

You can easily call up a lot of information online when selecting a product:

- Use the EASY Product Finder to configure your required version of the product in next to no time (simply click on the icon).
- For further technical details such as data sheets, CAD data or EPLAN data, please contact our support team simply click on the icon).

Product overview

	MCS synchronous servo motor	m850 synchronous servo motor	SDSGA asynchronous servo motor	MCA asynchronous servo motor	MQA asynchronous servo motor
					
Degree of protection	IP5, IP65	IP54, IP65	IP54	IP23s, IP54, IP65	IP23s

Power range

	MCS	m850	SDSGA	MCA	MQA
Standstill torque	0.8 ... 86 Nm	0.18 ... 67 Nm	0.3 ... 2.2 Nm	2.3 ... 290 Nm	76 ...325 Nm
Rated torque	0.5 ... 72 Nm	0.12 ... 35 Nm	0.27 ... 1.9 Nm	2.0 ... 280 Nm	66.2 ... 296 Nm
Rated speed	1050 ... 6000 1/min	2520 ... 9000 1/min	2700 ... 2825 1/min	550 ... 4160 1/min	550 ... 2935 1/min
Max. torque	2.4 ... 190 Nm	0.7 ... 200 Nm	1.0 ... 8.0 Nm	10 ... 1100 Nm	250 ... 1100 Nm
Power range	0.31 ... 15.8 kW	0.11 ... 9.2 kW	0,075 ... 0.6 kW	0.8 ... 53.8 kW	10.6 ... 60.2 kW

Feedback

	MCS	m850	SDSGA	MCA	MQA
Digital absolute value encoder One Cable Technology (OCT)	✓	✓	-	-	-
Resolver	✓	✓	✓	✓	✓
Resolver for functional safety	✓	✓	-	✓	✓
TTL incremental encoder	✓	-	-	✓	✓
SinCos absolute value encoder	✓	✓	✓	✓	✓
SinCos absolute value encoder for functional safety	✓	✓	-	-	-

Market approvals

	MCS	m850	SDSGA	MCA	MQA
CE	✓	✓	✓	✓	✓
UKCA	✓	✓	✓	✓	✓
UL	✓	✓	✓	✓	✓
CSA	✓	✓	✓	✓	✓
CCC	✓	✓	✓	✓	✓
RoHs	✓	✓	✓	✓	✓

MQA asynchronous servo motors

The MQA asynchronous servo motors with radial fan are particularly suitable for applications with heavy motor loads.

Standstill torque	76 ... 325 Nm
Rated torque	66.2 ... 296 Nm
Rated speed	550 ... 2935 1/min
Max. torque	250 ... 1100 Nm
Power range	10.6 ... 60.2 kW

Highlights

- Low moments of inertia
- Plug connections for quick mounting and easy serviceability
- Can be combined with the i750 cabinet and i950 cabinet servo inverters

MQA asynchronous servo motors

MQA, externally cooled, 3 x 400V

	M_0	M_{rated}	M_{max}	n_{rated}	n_{max}	P_{rated}	I_{rated}	m	H x L x T			ID
	[Nm]	[Nm]	[Nm]	[1/min]	[1/min]	[kW]	[A]	[kg]	[mm]			
MQA 20X29H	76.0	66.2	250.0	2930	6500	20.3	46.9	63.0	376 x 577 x 196			16207850
MQA 20X14H	76.0	71.3	250.0	1420	6500	10.6	26.5	63.0	376 x 577 x 196			16157287

	M_0	M_{rated}	M_{max}	n_{rated}	n_{max}	P_{rated}	I_{rated}	m	H x L x T			ID
	[Nm]	[Nm]	[Nm]	[1/min]	[1/min]	[kW]	[A]	[kg]	[mm]			
MCA 22P29H	156.0	125.0	500.0	2935	6500	38.4	86.0	102.0	448 x 691 x 220			16216315
MCA 22P17H	156.0	130.0	500.0	1670	6500	22.7	50.3	102.0	448 x 691 x 220			16201237
MCA 22P14H	156.0	135.0	500.0	1425	6500	20.1	45.6	102.0	448 x 691 x 220			16180928
MCA 22P08H	156.0	145.0	500.0	760	6500	11.5	27.6	102.0	448 x 691 x 220			16583363

	M_0	M_{rated}	M_{max}	n_{rated}	n_{max}	P_{rated}	I_{rated}	m	H x L x T			ID
	[Nm]	[Nm]	[Nm]	[1/min]	[1/min]	[kW]	[A]	[kg]	[mm]			
MCA 26T22H	325.0	257.0	1100.0	2235	5500	60.2	138.0	193.0	523 x 841 x 260			16189397
MCA 26T12H	325.0	282.0	1100.0	1200	5500	35.4	88.8	193.0	523 x 841 x 260			16479837
MCA 26T10H	325.0	288.0	1100.0	1030	5500	31.1	76.2	193.0	523 x 841 x 260			16214587
MCA 26T05H	325.0	296.0	1100.0	550	5500	17.0	44.5	193.0	523 x 841 x 260			16217016

The motors listed are equipped with resolvers as feedback.

MQA asynchronous servo motors – options

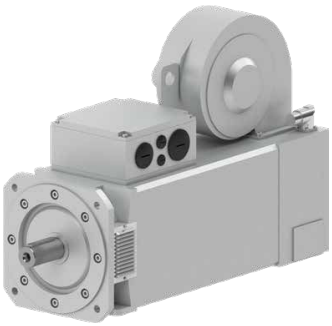
Connections


M23 connector Resolver


M23 connector Encoder


M17 connector External cooling


Terminal box




Solid shaft with feath-erkey


Solid shaft without feath-erkey


Shaft seal

Brake


24 V permanent mag-net brake


205 V permanent mag-net brake

Feedback


Resolver


SinCos absolute value encoder


Incremental encoder

Cooling


External cooling

Operation


Degree of protection


Surface and corrosion protection


Colors

Connections

Connector	2 x M23 connector Power connection/resolver connection	Included as standard
	M40/M23 connector: Power connection/resolver connection	Included as standard
	2 x M23 connector Power connection/encoder connection	
	M40/M23 connector: Power connection/encoder connection	
	2 x M23 connector Power connection/Endat connection	
	M40/M23 connector: Power connection/Endat connection	
	M17 connector: External cooling	
Terminal box	For power, feedback, and blower connection	

Brake

24 V spring-applied brake	MQA 20	F1: Braking torque 90 Nm
		F2: Braking torque 150 Nm
	MQA 22	F1: Braking torque 150 Nm
		F2: Braking torque 300 Nm
	MQA 26	F1: Braking torque 300 Nm
205-V spring-applied brake	MQA 20	FG: Braking torque 90 Nm
		FH: Braking torque 150 Nm
	MQA 22	FG: Braking torque 150 Nm
		FH: Braking torque 300 Nm
	MQA 26	FG: Braking torque 300 Nm

Feedback

Resolver	Resolver RS0	Included as standard
	Resolver for functional safety RV03	
Encoder	HIPERFACE® SinCos absolute value encoder AM1024-8V-H, multi-turn, 1024 pulses	
	HIPERFACE® SinCos absolute value encoder AS1024-8V-H, single-turn, 1024 pulses	
Endat	SinCos absolute value encoder AM32-5V-E, multi-turn, 32 pulses	
	SinCos absolute value encoder AM2048-5V-E, multi-turn, 2048 pulses	
	SinCos absolute value encoder AS2048-5V-E, single-turn, 2048 pulses	
Incremental encoder	SinCos incremental encoder IG1024-5V-V3 for functional safety, 1024 pulses	
	SinCos incremental encoder IG2048-5V-S, 2048 pulses	
	TTL incremental encoder IG2048-5V-T, 2048 pulses	
	TTL incremental encoder IG4096-5V-T, 4096 pulses	

Cooling

External cooling	For MQA 20	
	For MQA 22	
	For MQA 26	

Operation

Surface and corrosion protection	G: primed	Included as standard
	S: Indoor installation, 90% air humidity	
	M: Covered outdoor installation, 95% air humidity	
	L: Outdoor installation, 95% air humidity	
Color	primed, RAL 9005 (jet black)	Included as standard
	RAL colors	

Machine connections

Shaft	Solid shaft with featherkey	Included as standard
	Solid shaft without featherkey	
Shaft seal	Simple seal	Included as standard
	Oil-tight seal	
	Dust-tight seal	

MQA asynchronous servo motors – accessories

Cooling

Dust filter for external cooling	For MQA 20	
	For MQA 22	
	For MQA 26	

System cables

Motor cables	See brochure "Accessories for frequency and servo inverters"
Feedback cables	See brochure "Accessories for frequency and servo inverters"
Blower cables	See brochure "Accessories for frequency and servo inverters"

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