Motors: the heart of your machine.

One thing is certain: you need to be able to rely on your motors. They convert electrical energy into mechanical energy and therefore represent the central drive component in your machine. Since they play such an important part, we offer you motors with optimum drive behaviour and application-oriented options. A fast and reliable solution.

MQA asynchronous servo motors: massive power thanks to high levels of torque and impressive dynamics.

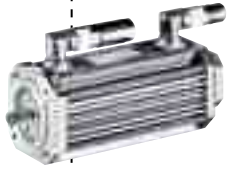**SDSGS synchronous servo motors:** perfect for sensitive environments.

MDxKS synchronous servo motors: keep a cool head, even in high torque ranges.

MCS synchronous servo motors: ensure top performance in even the tightest of spaces.

MCA asynchronous servo motors: the ideal solution for dynamic applications.

SDSGA asynchronous servo motors: provide the necessary drive in sensitive environments.

MF three-phase AC motors: more compact and efficient drive applications.

MH three-phase AC motors: extremely efficient motors.

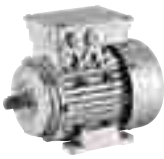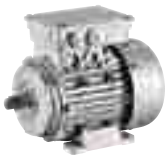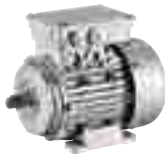**MD three-phase AC motors:** standard motors with modular options.

Lenze Smart Motor m300: A single motor for many applications.

Basic MD/MH three-phase AC motors: optimal for basic industrial applications.

Motors

	Basic MD/MH three-phase AC motors	Lenze Smart Motor m300	MD three-phase AC motors	MH three-phase AC motors	MF three-phase AC motors
Power range	0.06 to 45 kW		0.12 to 22 kW	0.75 to 45 kW	0.55 to 22 kW
Rated torque	0.43 to 290 Nm	1.75 and 5.0 Nm	0.8 to 49.2 Nm	5.08 to 290 Nm	1.53 to 59.2 Nm
Setting range	Mains operation	Mains operation	1 : 17.5	1 : 17.5	1 : 24
Axis height	56, 63, 71, 80, 90, 100, 112, 132, 160, 180, 200, 225	63, 80	63, 71, 80, 90, 100, 112, 132, 160, 180	80, 90, 100, 112, 132, 160, 180, 200, 225	63, 71, 80, 90, 100, 112, 132
Number of different frame sizes available	12	2	10	9	7
Enclosure	IP54/IP55	IP54/IP55	IP54/IP55	IP54/IP55	IP54 / IP55
Mass inertia	Medium	Medium	Medium	Medium	Medium
Overload capacity	Medium	High	Medium	Medium	Medium
Power density	Medium	Medium	Medium	Medium	High
Cooling					
Forced-ventilated			□	□	□
Naturally ventilated					
Integrated cooling	●	●	●	●	●
Feedback					
Resolver			□	□	□
Incremental encoder			□	□	□
SinCos encoder			□	□	□
Brake					
Spring-applied brake		□	□	□	□
Permanent magnetic brake					
Electronic nameplate					
Ideally suited to	Mains operation and applications that do not require typical options such as blowers or brakes.	Applications in the field of horizontal materials handling that are operated at constant speed but require high starting torque. Selecting the speed directly allows the number of different versions to be reduced.	Mains and inverter operation, for universal use in the field of machine building and systems engineering.	Mains and inverter operation, for universal use in the field of machine building and systems engineering.	Inverter operation, for systems that require large setting ranges in tight installation spaces.

● = standard   □ = option   ▲ = version

SDSGA asynchronous servo motors	MCA asynchronous servo motors	MQA asynchronous servo motors	SDSGS synchronous servo motors	MDXKS synchronous servo motors	MCS synchronous servo motors
0.075 to 0.6 kW	0.8 to 53.8 kW	9.6 to 95 kW	0.14 to 0.75 kW	1.1 to 5.9 kW	0.25 to 15.8 kW
0.27 to 1.9 Nm	2 to 75 Nm	75 to 480 Nm	0.45 to 2.2 Nm	0.6 to 16.2 Nm	0.5 to 72 Nm
Ø 75, 85, 95 mm	56, 71, 80, 90, 100, 112, 132	100, 112, 132, 160	Ø 65, 75, 85, 95 mm	56, 71, 80, 90, 100	60, 90, 120, 140, 190
3	7	4	4	5	5
IP54/IP55	IP23/IP5 /IP65	IP23	IP54/IP55	IP54/IP65	IP54 / IP65
High	Low	Very low	Low	Very low	Very low
High	Very high	Very high	Very high	Very high	Very high
Medium	High	Very high	High	Very high	Very high
	□	●		□	□
	●			●	●	●
□	□	□	□	□	□
□	□	□		□	□
	□	□	□	□	□
□		□	□		
	□			□	□
					●
Processes that must comply with hygiene requirements.	Environments which require compact units and a high degree of intrinsic operational reliability.	Applications with high motor loads.	Processes that must comply with hygiene requirements.	Applications that require the best possible dynamic performance.	Applications that require high dynamic performance, precision and compact dimensions.