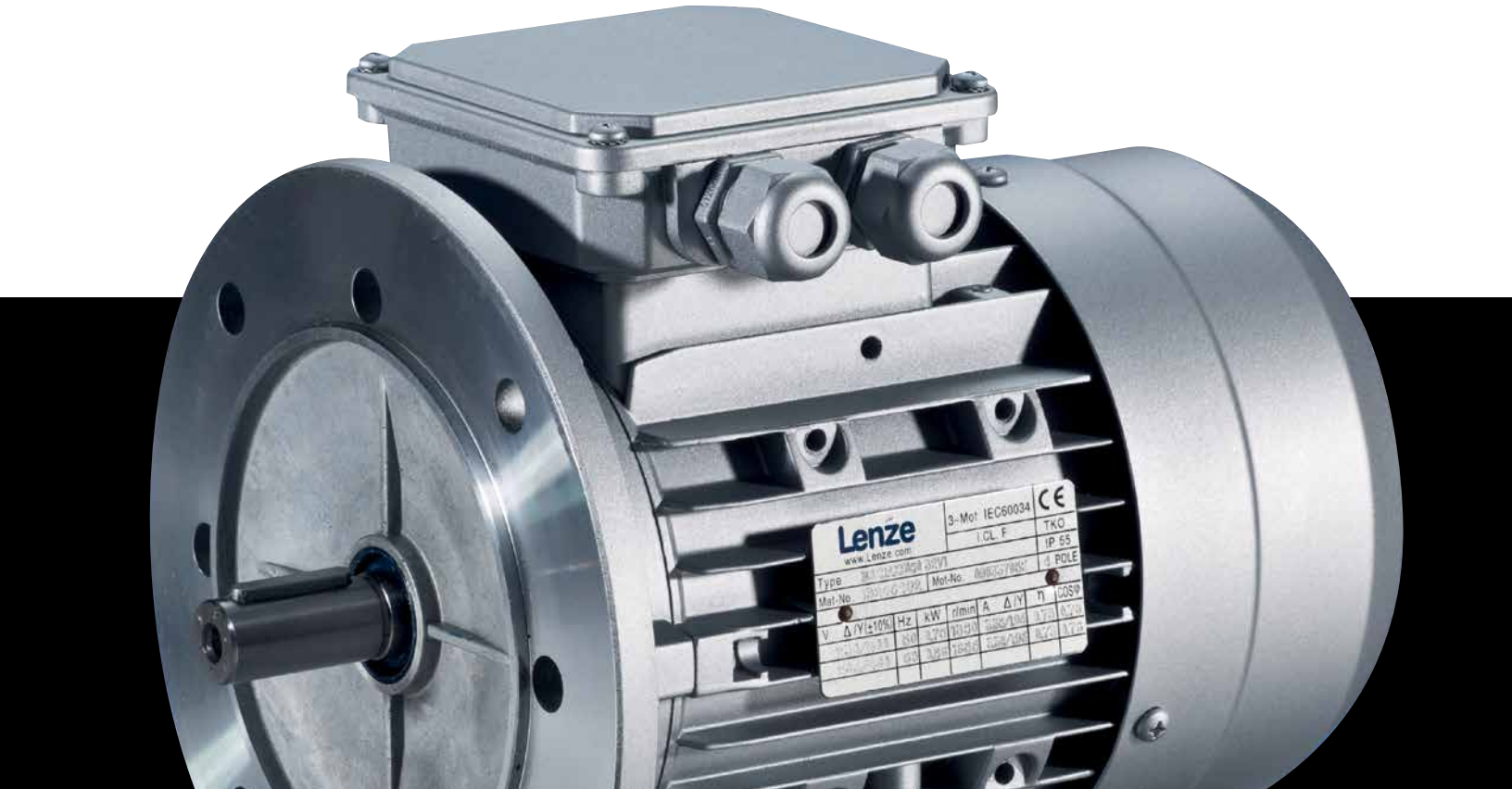
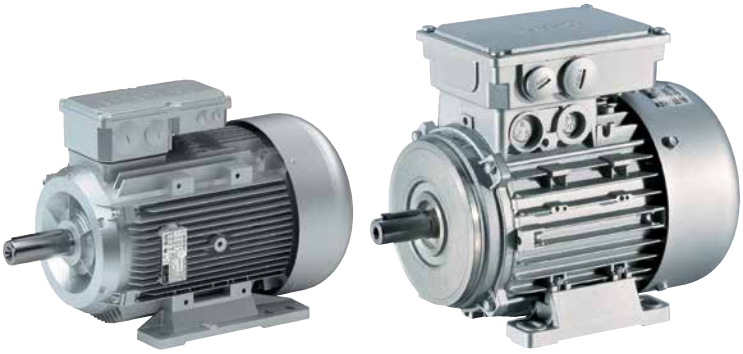
Motors: the heart of your machine.



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

Servo motors



Inverter-operated three-phase AC motors

Mains-operated three-phase AC motors

Three-phase AC motors

	Mains-operated three-phase AC motors	Lenze Smart Motor m300	Inverter-operated three-phase AC motors	MF three-phase AC motors
				
Power range	0.08 to 60 Hp (0.06 to 45 kW)		0.16 to 60 Hp (0.119 to 45 kW)	0.75 to 30 Hp (0.55 to 22 kW)
Rated torque	3.8 to 2566.7 lb-in (0.43 to 289.9 Nm)	15 to 44 lb-in (1.75 to 5.0 Nm)	7.08 x 2567 lb-in (0.8 to 290 Nm)	13.5 to 524 lb-in (1.53 to 59.2 Nm)
Efficiency class	IE1,2,3		IE1,2,3	
Setting range	Mains operation	Mains operation	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, 200, 225	63, 71, 80, 90, 100, 112, 132
Number of different frame sizes available	12	2	15	62 [7]
Degree of protection	IP54/IP55 and IP65/IP66	IP54/IP55	IP54/IP55 and IP65/IP66	IP54/IP55 and IP65/IP66
Mass inertia	Medium	Medium	Medium	Medium
Overload capability	Medium	High	Medium	Medium
Power density	Medium	Medium	Medium	High
Cooling				
Forced-ventilated			□	□
Naturally ventilated				
Integrated cooling	●	●	●	●
Feedback				
Resolver			□	□
Incremental encoder			□	□
SinCos encoder			□	□
Brake				
Spring-applied brake	□	□	□	□
Permanent magnet brake				
Electronic nameplate				
Ideally suited to	Applications with a constant speed in mains-operated mode.	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.	Applications which require moderate dynamic performance and a wide setting range despite limited assembly space.

●= standard □ = option ▲= version

Servo motors

MCA **asynchronous servo motors**	**MQA** **asynchronous servo motors**	**MCM** **synchronous servo motors**	**MCS** **synchronous servo motors**
			
1.38 to 93.07 Hp (1.03 to 69.4 kW)	14.2 to 80.7 Hp (10.6 to 60.2 kW)	0.255 to 3.35 Hp (0.19 to 2.5 kW)	0.33 to 34.9 Hp (0.25 to 26 kW)
17.7 x 2478 lb-in (2 to 280 Nm)	584 x 2275 lb-in (66 to 257 Nm)	5.3 x 70.8 lb-in (0.6 to 8 Nm)	4.4 to 637 lbs-in (0.5 to 72 Nm)
100, 130, 140, 170, 190,210, 200, 220, 260	200, 220, 260	60, 90, 120	60, 90, 120, 140, 190
9	3	3	44 [5]
IP23/IP54/IP65	IP23	IP54	IP54/IP65
Low	Low	Low	Low
Very high	Very high	High	Very high
High	Very high	High	Very high
▲ (200, 220, 260)	●		□
●		●	●
□	□	□	□
▲ (200, 220, 260)	□		□
□	□	□	□
	□	□	
□			□
			●
Environments which require compact units and a high degree of intrinsic operational reliability.	Applications with high motor loads.	Applications which require high dynamic performance, precision and compact dimensions.	Applications which require the highest degree of dynamic performance, precision and compact dimensions.