

Mains-operated motors

Three-phase AC motors

Easy yet efficient.



Mains-operated motors

Lenze offers mains-operated three-phase AC motors for basic tasks, covering a power range from 0.12 to 45 kW.

These drives differ in terms of efficiency class and can be used for the versions required for mains operation.

Customer benefits

- Different efficiency classes for the greatest economic benefit
- Space-saving thanks to compact direct attachment to Lenze drives
- Perfectly adjusted brake reaction thanks to optional holding and service brakes
- Optional overheating protection provided by temperature monitoring

	Power range	Mains voltage	Mains frequency
IE1 motors	0.12 ... 22 kW	230/400 and 460 V	50 and 60 Hz
IE2 motors	0.75 ... 45 kW	230/400 and 460 V	50 and 60 Hz
IE3 motors	0.75 ... 45 kW	230/400 V	50 Hz
Lenze Smart Motor m300	1.75 and 5 Nm	400 ... 460 V	50 ... 60 Hz

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Features

Degree of protection	IP55, IP65 and IP66
EN 60529	
Energy efficiency	
IEC 60034-30-1	IE1, IE2, IE3, Lenze Smart Motor: IES2 according to EN 50598-2
Approvals	cURus, EAC, CCC and UkrSepro
Temperature class	
IEC / EN 60034-1 utilisation	B
IEC / EN 60034-1 insulation system	F
Climatic conditions	
Storage temperature	-30°C to +60°C
Operating temperature	-20°C to +40°C

Specifications at 400 V, 50 Hz, 4-pole

IE1 motors MD

Size		063	071	080	090	100	112	132	160	180
Rated power	P [kW]	0.12 0.18 0.25	0.25 0.37 0.55	0.55 0.75 1.1	1.1 1.5	2.2 3	4	5.5 7.5	11 15	18.5 22
Output current	I [A]	0.49 0.58 0.82	0.75 0.95 1.4	1.4 1.9 2.8	2.8 3.8	5.3 7.2	9.3	11.7 16.5	21 27.8	32.8 38.8
Rated torque	M [Nm]	0.8 1.26 1.74	1.74 2.51 3.74	3.8 5.1 7.5	7.56 10.1	14.6 20.5	26.3	36.2 49.2	71.9 98.1	120 144

30 kW available in size 180 as geared motor.

IE2 motors MH

Size		080	090	100	112	132	160	180	200	225
Rated power	P [kW]	0.75	1.1 1.5	2.2 3	4	5.5 7.5	11 15	18.5 22	30	37 45
Output current	I [A]	1.8	2.7 3.3	5 7	8.4	11.9 15.6	21.8 29.1	34 39.8	53.9	65 79
Rated torque	M [Nm]	5.08	7.35 10	14.5 19.8	26.3	35.7 49.1	71.5 97.4	120 143	196	238 290

30 kW available in size 180 as geared motor.

IE3 motors m240-P

Size		080	090	100	112	132	160	180	200	225
Rated power	P [kW]	0.75	1.1 1.5	2.2 3	4	5.5 7.5	11 15	18.5 22	30	37 45
Output current	I [A]	1.7	2.4 3.3	4.5 6.3	8	11.1 14.8	22 28.6	34.1 39.9	55.3	68.9 83
Rated torque	M [Nm]	5	7.3 10	14.5 19.7	26.4	36.2 49.4	71.8 97.6	121 143	194	238 290

30 kW available in size 180 as geared motor.

Lenze Smart Motores m300

Size		063	080
Rated torque	M [Nm]	1.75	5
Max. torque	Mmax [Nm]	7	20
Speed range	n [rpm]	500 ... 2600	500 ... 2600
Mains voltage	U [V]	3AC 400 ... 460	3AC 400 ... 460