



E27

**Synchronous gearless motors
for elevators**



LEROY-SOMER™

Nidec
— All for dreams

E 27 is the new compact and silent gearless motor covering the applications from 450 kg up to 1000 kg payloads.

Design to ease the mechanical installation of the motor and to answer to the constraints linked to the Machine Room-Less (MRL) configuration, this new range brings also new functionalities and an increased quality of ride.

Benefits for

> **Manufacturers**

> **Installers**

> **Users**

- **Ease of mechanical installation**
- **Quick electrical connection**
- **Increased quality of ride**
- **Safety and optimized maintenance**

- **Design with central sheave and separated end-shields:**
 - forces applied on 2 end-shields in the same direction as the load
 - simplification of the chassis

- **Brake independent from the motor:**
 - secured static braking torque
 - dismounting and reassembling without losing the encoder phasing

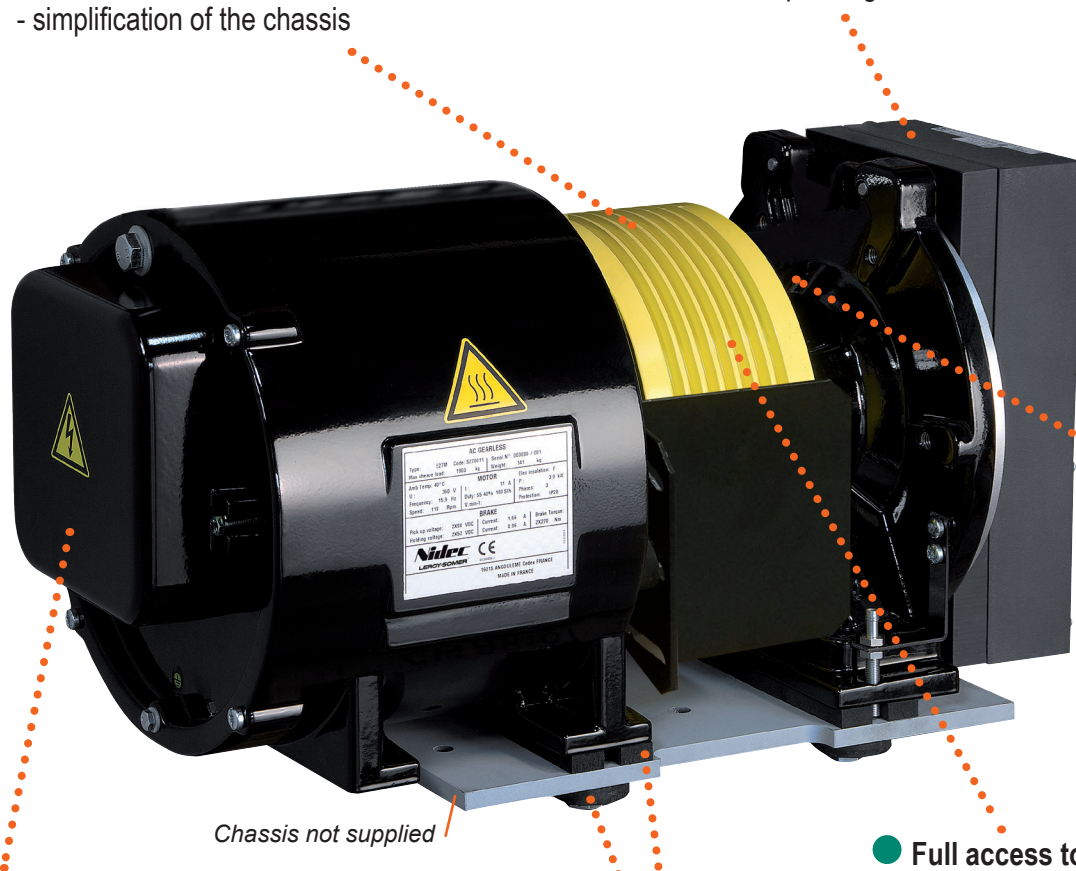
- **Connector for brake supply**

- **Additional speed feedback***

- **Connecting box:**
 - - equipped with connectors for power and thermal sensor
 - encoder protected

- **Flexible pads**

- **Full access to the sheave and traction ropes**



Chassis not supplied

*option

Technical characteristics

Type	E 27 S	E 27 M	E 27 L
Sheave diameter (mm)	160	160	180
Sheave usable width (mm)	87	87	113
Shaft Load (kg)	1500	1500	2500
Number of poles	24	24	24
Max. speed (min ⁻¹)	400	400	400
Nominal torque (Nm)	125	175	305
Maximum torque (Nm)	190	260	445
Number of brakes	2	2	2
Static torque per brake (Nm)	120	170	290
Dynamic torque per brake (Nm)	140	190	325
Motor weight (kg)	93	106	167
Rotor inertia (kg.m ²)	0.11	0.15	0.26

Examples of applications

Roping 2:1 - Travel 30m - Counterweight ratio: 50% - Grid Voltage: 400V - Single Wrap - No rope compensation

Motor	Cabin Load (kg)	Speed (m/s)	Number of ropes Ø 6.5mm	Torque (Nm)	I nominal (A)	I acceleration (A)	Power (kW)	Max Cabin Weight (kg)	E200/E300 suggested
E 27 S	450	1.0	6	125	7.6	13.3	3.2	900	E200/300 034 00078A
E 27 M	630	1.0	8	175	9.5	16.6	4.4	950	E200/300 034 00100A
E 27 L	1000	1.0	10	300	16.5	28.8	6.8	1600	E200/300 044 00172A

GENERAL

- Motor protection: IP 20
- Encoder protection: IP 40
- Brakes protection: IP 00
- Insulation: Class F
- Sheave standard hardness: 50 HRC
- Thermal protection: PTC thermistor

In compliance with:

EN 81-1: 1998 + A3: 2009
EN 81-20/50

BRAKE

- TÜV listed
- Pick-up voltage: 207 V DC per brake
- Holding voltage: 104 V DC per brake
- Connection: separate
- Microswitch: 1NO/NC per brake

ENCODER

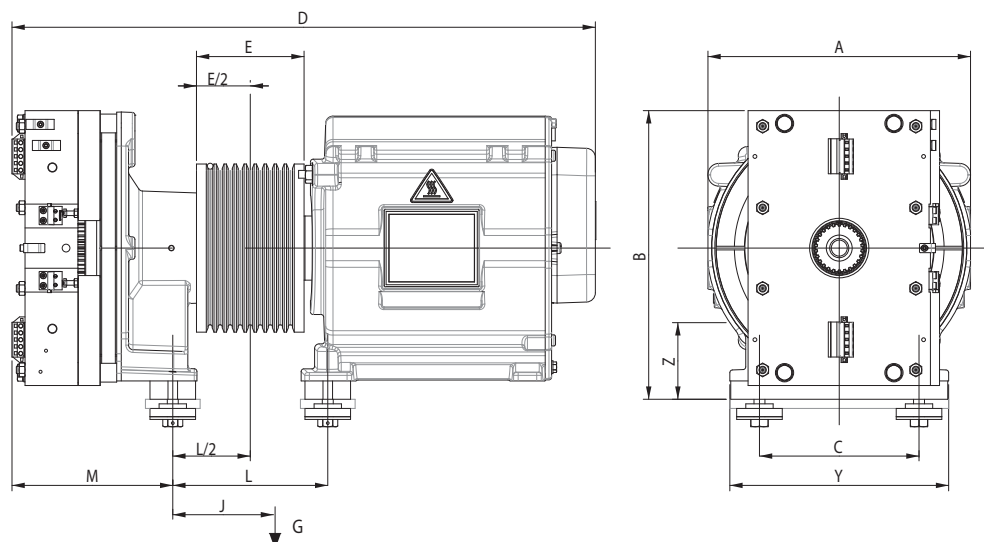
- Absolute encoder
- Resolution: 2048 ppr

FLEXIBLE PADS

- Included in standard

OPTIONS

- Connecting cables for motor supply, thermal sensor, brakes, encoder (2 m, 6 m, 10 m)
- Sheave cover
- Brake cover
- Second speed feedback
- Brake Control Unit (BCU) for electronic handlever



Motor	A	B	C	D	E	J	L	M	Y	Z	Weight (kg)
E 27 S	288	309	175	536	92	136	150	160	240	83	93
E 27 M	288	309	175	536	92	141	150	160	240	83	106
E 27 L	288	315	175	626	118	151	170	163	240	83	167

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