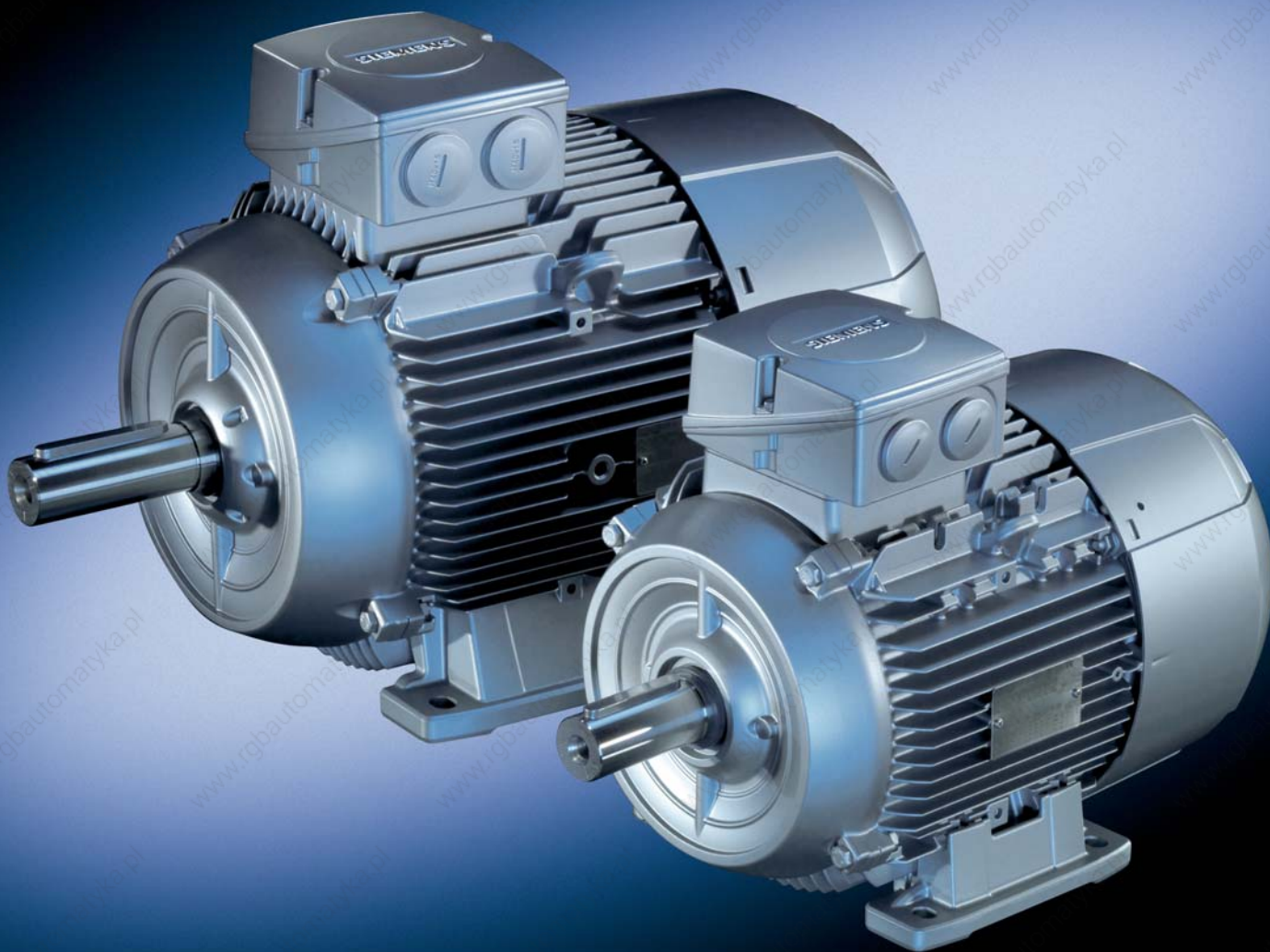


**Innovation and efficiency –
more drive from our new range of motors**

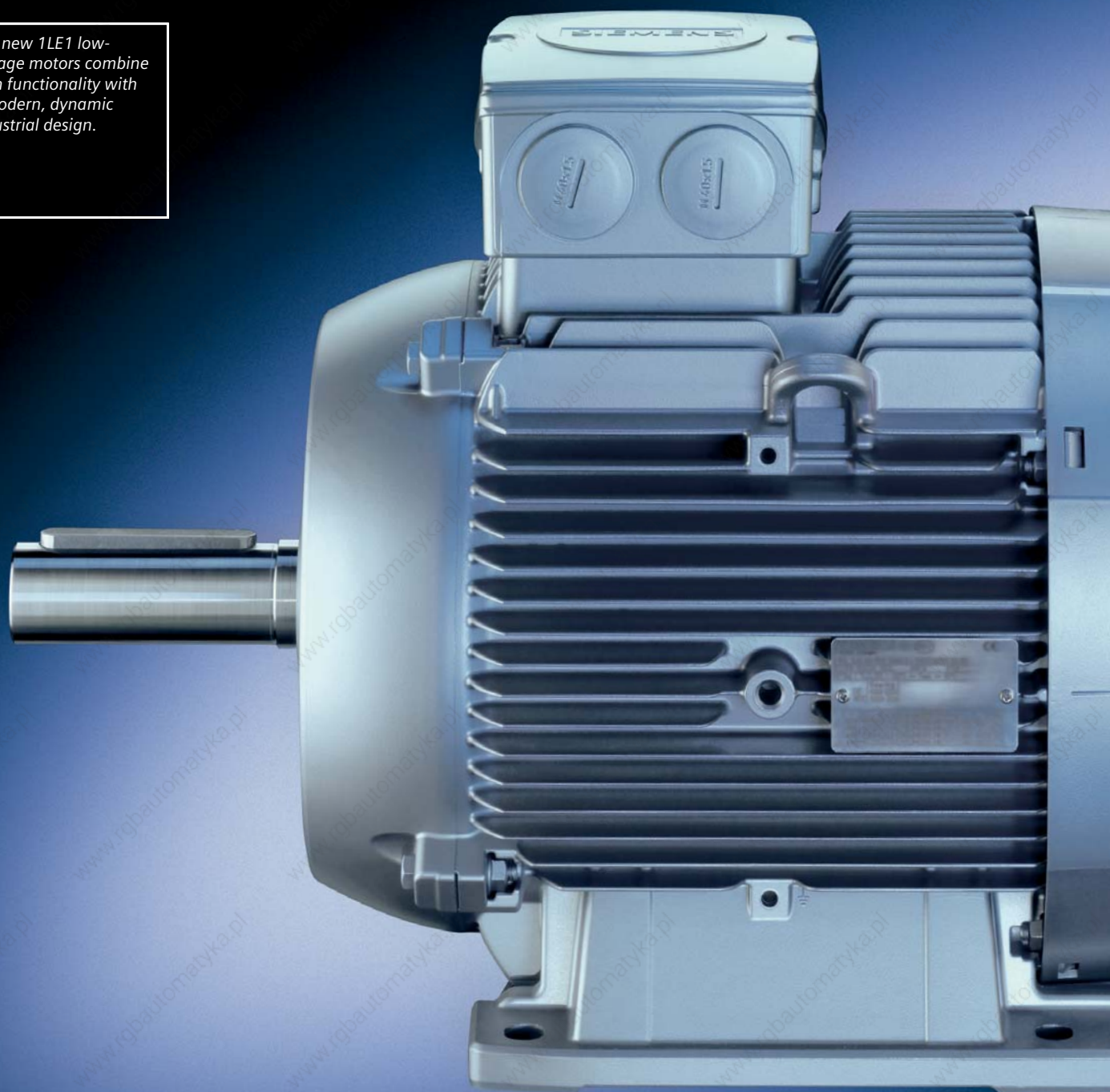


low-voltage MOTORS 1LE1

SIEMENS

Attractive design – and highly functional

Our new 1LE1 low-voltage motors combine high functionality with a modern, dynamic industrial design.



Added value in every respect – overview of the new features

Our new 1LE1 low-voltage motor range has a lot of potential. As the further development of our existing motors, the 1LE1 motors offer a variety of advantages:

Increased efficiency

Instead of cast-aluminum rotors, copper technology is now used in the EFF1 motors. As a result, the motors have considerably smaller dimensions. The EFF2 and EFF1 motors are thus based on the same housing. When changing to the higher class of efficiency – from EFF2 to EFF1 – it is no longer necessary to redesign the machine, saving time and costs. Even more: with our EFF1 motors you can significantly save energy because they have up to 40% less power losses in comparison with EFF2 motors. Energy-saving potential and life cycle costs of the motors can be calculated using our SinaSave software™. In addition, our 1LE1 motors boast a very long lifetime and because of their low weight assist in retrofitting of the unit.

Better design

The new, optimized housing in a modern EMC design provides attractiveness and increased functionality. This is ensured by means of easily accessible terminal boxes, integrated lifting eyebolts, screw-on type feet and reinforced bearing shields.

More power

With the same housing, our motors with increased output power offer higher kilowatts than standard power. And even better, we have also consistently pursued improved energy efficiency here. The motors are supplied in high-efficiency and improved efficiency versions based on the CEMEP classification.

More flexibility

The optimized design and architecture of the motors facilitate installation. As an option, terminal boxes and feet can be freely mounted and attached. In addition encoders, brakes and external fans can be added with minimal effort. The low number of different parts means that inventory is simplified and motor partners can react more quickly to customer demands. All motors can be run at up to 500 V either connected to the line or operated with inverter, without any additional steps.

1 Dynamic air-optimized industrial design

2 New terminal boxes – with diagonally split lid and non-detachable seal



Data, facts and details – the new generation of motors

Innovations combined with past successes Trust in the technology leader

Even though our 1LE1 range of motors opens up a world of innovations and improvements, there are also many things that are staying as they were: our tried and tested, reliable and global service in more than 130 countries. Profit from our complete product families, from the motor to the controller – for integrated systems from a single source. Also, as one of the world leaders in automation and drives technology we know the needs of our customers and incorporate these into all of our new developments. Be one of the first to gain more drive with our 1LE1 low-voltage motors!

1LE1 motors – technical overview

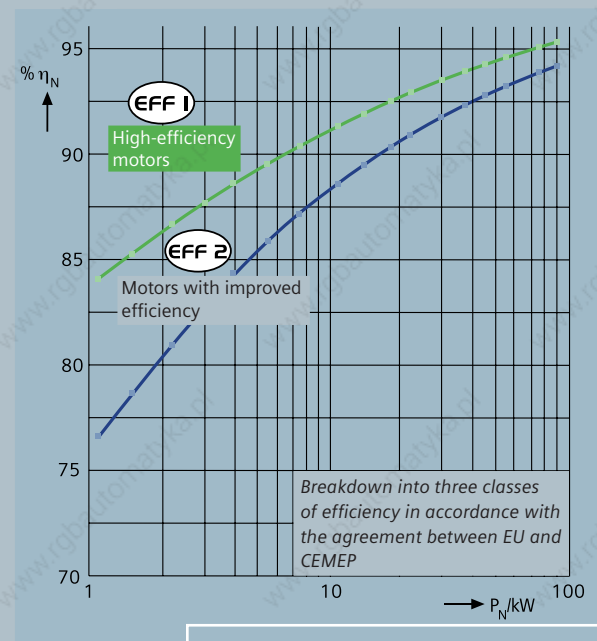
Frame size	100L to 160L
Power range	0.75 kW to 18.5 kW, 1 HP to 25 HP
Number of poles	2/4/6/8
Versions	Self-cooled energy-saving motors with improved efficiency (EFF2) Self-cooled energy-saving motors with high efficiency (EFF1) Self-cooled energy-saving motors with improved efficiency (with increased output power) Self-cooled energy-saving motors with high efficiency (with increased output power) Force-cooled motors without external fan and fan hood with improved efficiency (EFF2) Force-cooled motors without external fan and fan hood with high efficiency (EFF1)
Designation	– EU/CEMEP efficiency classification, EFF1: 2 and 4 poles, EFF2: 2 and 4 poles – EPACT US federal law: 2, 4 and 6 poles
Degree of protection	IP55
Voltages	All standard voltages
Frequency	50 Hz and 60 Hz
Type of construction	All standard types
Cooling type	Surface cooling
Heat class	F utilized in accordance with B
Isolation	DURIGNIT® IR 2000, converter-suitable up to 500 V
Modular mounting concept	Rotary pulse encoder, brake, external fan or prepared for fittings
Integrated concept	Integral cast housing feet, optionally screwed on and exchangeable. Terminal boxes diagonally split and rotatable by 4*90 degrees. Identical bearings on DE and NDE, optionally bearing size 63

Efficiency and drive – profit from new technology

Increasing energy costs mean that energy consumption is of increasing significance in drive technology. It is essential to fully exploit potential for minimizing these costs in order to remain competitive now and in the future. Lower energy consumption also benefits the environment.

It is against this background that we are developing a new generation of low-voltage motors, enabling you to do more with your motors. Innovative copper rotors developed and produced by us create the very best basis for highly efficient motors. The new motors for EFF1 (high efficiency) thereby offer large energy savings and are better for the environment. Also, the modular design concept provides full flexibility: each motor is based on a standardized concept for all international markets.

Our motors are produced according to the most modern ecological perspectives and give machines and plants more drive – around the world and for every application. The ecological balance sheet over the entire life cycle of our motors clearly speaks in favour of these new motors, especially to use the 1LE1 in the EFF1 version. And everyone is in a position to profit from this – machine engineers, plant operators but also, of course, the environment. Our new 1LE1 range of motors is being gradually introduced into the market.



Our 1LE1 motors comprise the EFF1 efficiency class (high efficiency) and the EFF2 (improved efficiency).



- 1 Optimized housing concept – standardized across all shaft heights
- 2 Innovative copper rotor technology for high-efficiency motors in extremely small housings

Interested?

You can find additional information on our products relating to industrial drives on the Internet at:

Motors	www.siemens.com/low-voltage-motors www.siemens.com/gearedmotors
Frequency inverters	www.siemens.com/sinamics-g110 www.siemens.com/sinamics-g120 www.siemens.com/micromaster
Distributed drive technology	www.siemens.com/et200s-fc www.siemens.com/combimaster
Contacts	www.siemens.com/automation/partners
Current catalog for download	www.siemens.com/motors/printmaterial

Siemens AG

Automation and Drives
Standard Drives

www.siemens.com/drives

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.