

### Attractive design with simple handling

As further development of the 1LE1 family of motors, the IE4 models offer the same advantages when it comes to installation just like all the other members. Installation, commissioning and motor replacement are speeded up as a result of the diagonally split terminal box with preconfigured terminal board. Integrated eyebolts simplify handling. Encoders, brakes and separately driven fans can also be subsequently mounted. And as a result of the low variance of parts, you simplify your stock inventory so that you can respond more quickly to address new requirements.

### Outstanding quality for the perfect drive

It is good to feel secure: With our IE4 line motors, you can depend on the high quality of Siemens products, renowned worldwide. State-of-the-art development and production processes in conjunction with systematic function tests ensure a long service life and a high degree of ruggedness. Further, the IE4 models are based on motors proven millions of times over – and last but not least on the wealth of experience that Siemens has when it comes to building electric motors, which extends back more than 125 years.

### Everything from a reliable partner

Motor development is a Siemens core business. No matter which sector, application and performance class, from us you always obtain everything from a single source – whether energy-efficient low-voltage motors, powerful high-voltage motors or well-proven DC motors. At the same time, you profit from extensive support. This includes a wide range of tools, for example to calculate the payback time, for selection, dimensioning and engineering as well as for ordering. Further, you have access to our global network of competence and worldwide 24/7 service.

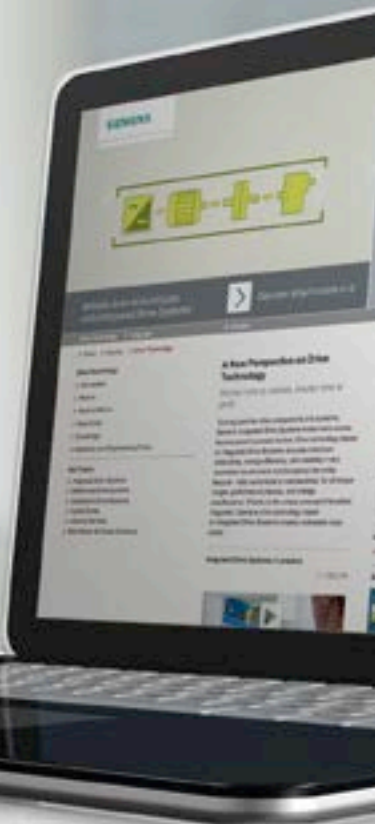
More information on our selection and engineering tools at: [siemens.com/engineering-tools](http://siemens.com/engineering-tools)

Get to know more:

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Experience just how Integrated Drive Systems can boost the competitiveness of production plants and systems and complete companies in each and every sector.

The advantages of Integrated Drive Systems at a glance



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**SIEMENS**



Start  
with  
IE4!

# Innovative high efficiency motors to give you a competitive lead

From very light up to very rugged –  
Super Premium Efficiency low-voltage motors

SIMOTICS GP and SIMOTICS SD

[siemens.com/ie4-motors](https://www.siemens.com/ie4-motors)

# SIMOTICS – Super Premium Efficiency: for your competitive edge

Higher energy savings, lower operating costs and security for the future – you can boost your competitiveness with IE4 low-voltage motors from Siemens. IE4 means up to 14% lower energy costs than IE1, for example. This certainly makes sense when you consider that the capital investment costs for IE4 motors have a 6 month payback time as a result of the energy saved.

## Already think about tomorrow today

Our SIMOTICS GP and SIMOTICS SD motors offer the optimum way forward if you not only want to comply with the legally stipulated IE3 minimum efficiency, but also want to secure or increase your competitiveness: Both series represent the low-voltage motors of the 1LE1 family in an IE4 version. This facilitates plants and systems with higher energy and cost efficiency.

## Broad basis with security for the future

Siemens IE4 motors address a wide range of power ratings and extend from especially lightweight up to especially rugged designs. Just like the complete 1LE1 motor family, IE4 motors are available with aluminum enclosures for general purpose applications – as well as cast-iron enclosures for severe duty applications. IE4 motors with standard power ratings have the same shaft heights as comparable motors in IE1, IE2 and IE3. This means that for retrofit projects, the existing mechanical interface to the driven machine can be kept.

## Highest efficiency – no compromises

Why make compromises if there is a simple solution? In comparison to IE1, IE4 line motors provide you with an efficiency that is up to 14% higher – and up to 3% higher than IE3. Their efficiency is combined with rugged, low maintenance and cost-efficient induction motor technology. The motors have been designed and optimized to be directly connected to the line supply. However, they can also be operated with converters. This means that you remain flexible – and you do not have to keep a stock inventory of separate motors for line and converter operation.

Does it make sense to invest in a high degree of efficiency? This question is becoming increasingly more important when planning a plant or system – as well as for retrofit projects. The free-of-charge SIMOTICS EE-COMPARATOR App provides the answer.

Scan the QR code and download the free-of-charge SIMOTICS EE-COMPARATOR App



Android



iOS

# SIMOTICS GP – IE4: lightweights with the highest efficiency

Use Super Premium Efficiency motors for your general purpose applications: A wide range of SIMOTICS GP motors with aluminum enclosure is available in a high efficiency IE4 version.

## High efficiency motors with aluminum enclosure

IE4 motors with aluminum enclosure that are based on the innovative 1LE1 platform are now available. This means that you can set benchmarks, especially when increasing the energy efficiency in pump, fan and compressor applications. The lightweights from the SIMOTICS GP series are the first choice – not only as a result of their lightweight metal enclosure, but also as a result of their high efficiency.

## From IE1 to IE4 – always the same shaft height

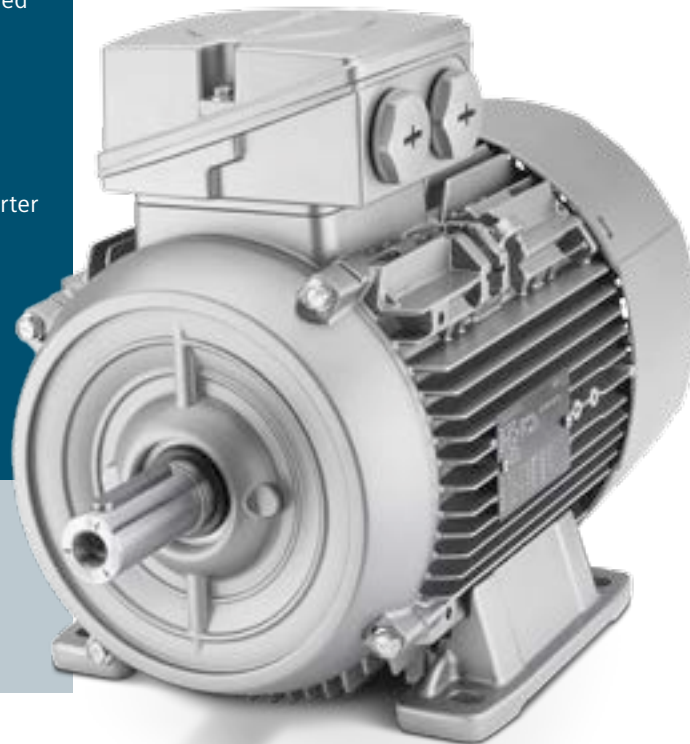
For standard plants and systems, you do not have to reconfigure the mechanical interfaces to your machines. And, when it comes to retrofitting plants and systems, you do not have to redesign or modify them – a potentially costly affair. This is because when developing our IE4 motors we kept the shaft height-power assignments the same.



SIMOTICS GP in IE4 are predestined for pumps, fans and compressors that operate continuously.

## High efficiency IE4 SIMOTICS GP motors – your advantages

- Up to 14% higher efficiency when compared to IE1 motors
- Up to 3% higher efficiency when compared to IE3 motors
- Lower requirements on the statics as a result of the light aluminum enclosure
- Simpler retrofit as IE1, IE2, IE3 and IE4 motors all have the same shaft heights
- Fit for the future through optional converter operation



Scan and find out more about SIMOTICS GP motors!



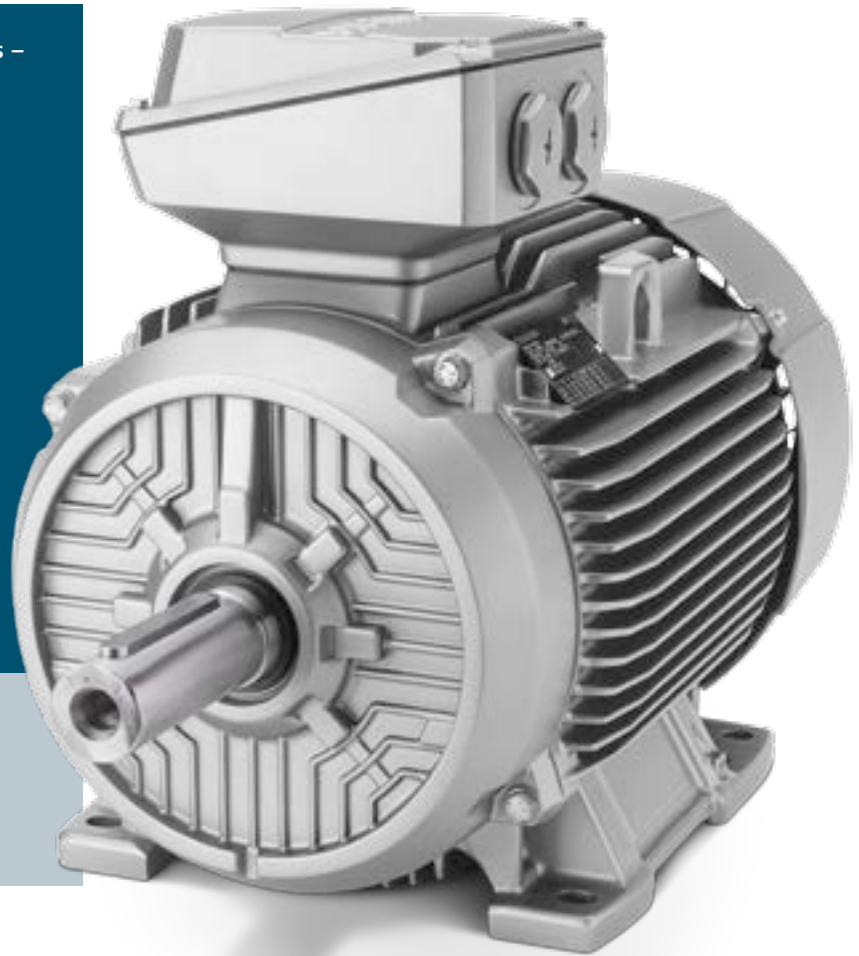
## SIMOTICS GP – data, facts and details

<b>Size</b>	100L – 200L
<b>Power range</b>	2.2 kW – 37 kW
<b>Type of construction</b>	All of the usual types of construction
<b>Efficiency class</b>	IE4 (Super Premium Efficiency)
<b>Pole number</b>	2- and 4-pole (6- and 8-pole on request)
<b>Voltages</b>	Line operation: 230 V – 690 V Converter operation: SH 100 – 160 up to 460 V and SH 180 – 200 up to 500 V
<b>Motor materials</b>	Enclosure and terminal box: aluminum Fan cover: plastic or sheet steel Rating plate: adhesive rating plate or aluminum (stainless steel is optional)
<b>Certificates</b>	CE, UL-S, CSA-S, CSA-E, DoE (CEL, KEMC being processed)
<b>Degree of protection</b>	IP55 (IP65/IP56 optional)
<b>Temperature class</b>	155(F) according to 130(B)

## High efficiency IE4 SIMOTICS SD motors – your advantages

- Up to 14% higher efficiency when compared to IE1 motors
- Up to 3% higher efficiency when compared to IE3 motors
- High degree of ruggedness for use in aggressive ambient conditions
- Simpler retrofit as IE1, IE2, IE3 and IE4 motors all have the same shaft heights
- Fit for the future through optional converter operation

Scan and find out more about SIMOTICS SD motors!



## SIMOTICS SD – data, facts and details

<b>Size</b>	100L – 315L
<b>Power range</b>	2.2 kW – 200 kW
<b>Type of construction</b>	All of the usual types of construction
<b>Efficiency class</b>	IE4 (Super Premium Efficiency)
<b>Number of poles</b>	2- and 4-pole (6- and 8-pole on request)
<b>Voltages</b>	Line operation: 230 V – 690 V Converter operation: SH 100 – 160 up to 460 V and SH 180 – 315 up to 500 V
<b>Motor materials</b>	Enclosure and terminal box: cast iron Fan cover: plastic or sheet steel Rating plate: adhesive rating plate or aluminum (stainless steel optional)
<b>Certificates</b>	CE, UL-S, CSA-S, CSA-E, DoE (CEL, KEMC being processed)
<b>Degree of protection</b>	IP55 (IP65 / IP56 optional)
<b>Temperature class</b>	155(F) according to 130(B)

# SIMOTICS SD – IE4: heavyweights with the highest efficiency

With SIMOTICS SD motors for Severe Duty applications with Super Premium Efficiency you can rely on outstanding performance - even under extreme environmental conditions.

## High efficiency motors that can handle a lot

With our IE4 severe duty motors you can demonstrate your environmental consciousness, save energy and reduce operating costs. Whether for pump, fan, compressor or mill, mixer and conveyor applications in the process industry – in areas where conditions are tough, dusty or where aggressive atmospheres prevail.

## Simply move across to the new efficiency

You can upgrade from IE3 to IE4 just as simply as from IE1 to IE4 – without having to adapt the mechanical design of the machine. This is because also for SIMOTICS SD motors with efficiency class IE4, the shaft height-power assignment does not change. As a consequence, the mechanical interface to the driven machine is identical across all efficiency classes.

The rugged and high efficiency cast iron motors are admirably suited for dusty and harsh environments.

