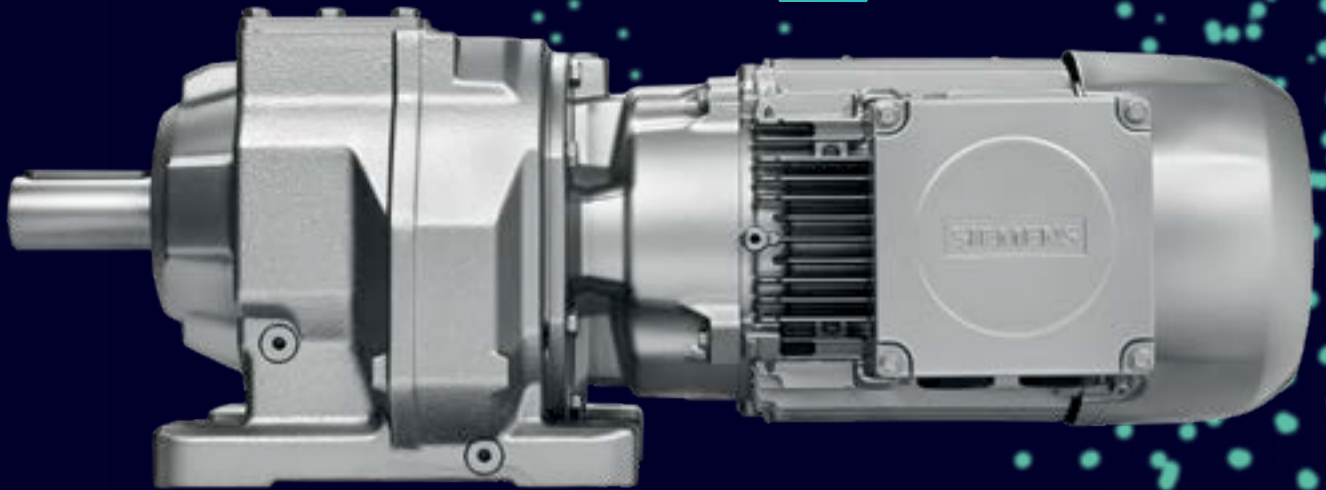


SIEMENS



GEAR UP FOR DEMANDING ENVIRONMENTS

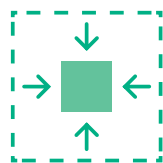
SIMOGEAR

explosion-protected
geared motors

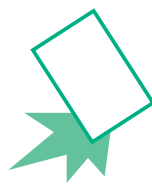
Available now in an integrated version.

SIMOGEAR explosion-protected geared motors

SIMOGEAR explosion-protected geared motors can be operated in hazardous zones. Safety is of paramount importance in these types of environments, and these efficient motors can safely operate under extreme conditions for long periods of time. They are based on rugged, premium quality motors that have been tried and tested worldwide. The result is a seamless range of motors addressing customer requirements with a maximum degree of safety and the highest operational efficiency.



Compact



Rugged



Explosion-protected

SIMOGEAR explosion-protected geared motors are suitable for use in a wide range of applications

As these motors are an integral part of the SIMOGEAR geared motor family, you benefit from the same look & feel, the same tools and our in-depth knowledge for these types of applications – all offering real advantages when engineering the system and in operation.



Explosive environments



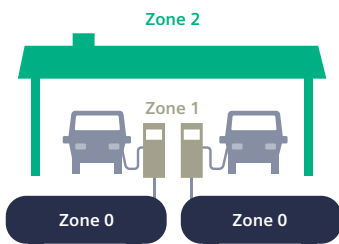
NEW integrated solution



We have expanded the explosion-protected portfolio to include an integrated version where an adapter is not required. These motors are connected to rugged and compact helical, helical bevel, parallel shaft and helical worm gearboxes. This results in an integrated and compact geared motor solution for hazardous zones – where both the motor and gearbox are ATEX certified for the appropriate zone. For applications in Zone 2 (gas) and Zone 22 (dust), an adapter is not required between the motor and gearbox – thus reducing the complexity and making dimensioning and selection easier.



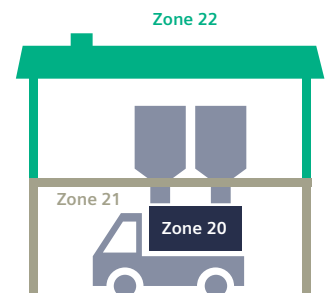
Gas



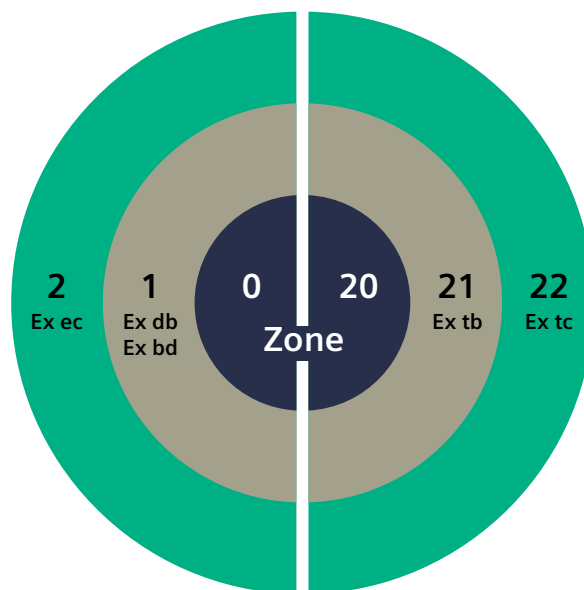
Group II
Gas/Fog zones



Dust



Group III
Dust/Fiber zones



Learn more about the topic

SIMOGEAR geared motor systems for applications in Zone 1 and Zone 21 require the appropriate adapter between the motor and gearbox.



Typical areas of use

Applications & Industries

A wide range of industries have hazardous zones containing explosive atmospheres that can represent considerable risk to human life, the environment and material assets. In the chemical and petrochemical industries, these explosive atmospheres are primarily caused by the presence of flammable gases, vapors or mists. Explosions can occur if an explosive atmosphere and an active source of ignition simultaneously occur at the same location.

Specific solutions for your field of application

These industries place topmost priority on protecting human lives, the environment and material assets – making SIMOGEAR geared motor solutions the optimum fit.

SIMOGEAR explosion-protected geared motors are suitable for use in the following industries

- Oil & gas
- Food and beverage
- Chemical and petrochemical
- Water/wastewater
- Cement
- Agriculture
- Wood industry

Typical applications include various conveyor types such as screw conveyors, grain conveyors, bucket conveyors and apron conveyors. They are also used in flour mills, grain mills, mixers and agitators, screw pumps, centrifuges, compactors and painting systems.

Agriculture grain silos



Wastewater treatment plant



Chemical plant



Biogas plant

Highlights of the new integrated solution

- ✓ Easy selection in one tool – Geared motors are integrated in DT Configurator and TIA Selection Tool¹⁾ so that selection & dimensioning are extremely simple.
- ✓ Full assembly in the factory – An explosion-protected SIMOGEAR geared motor can be ordered as complete solution with just one order number.
- ✓ Compact design – With the integration we save installation space.
- ✓ Readiness for future efficiency requirements – Premium efficiency level IE3 already specified as a standard²⁾.
- ✓ Explosion protection – Certification according to ATEX 2014/314/EU.

Technical data

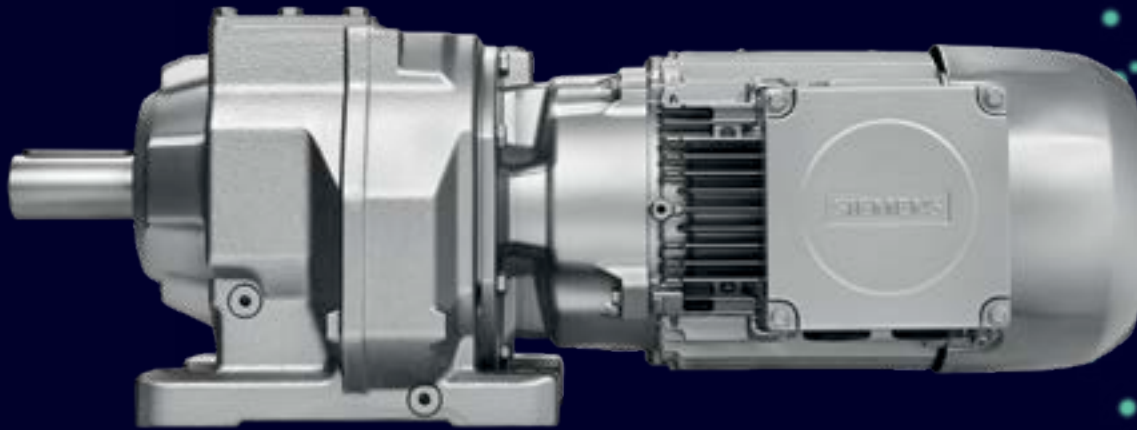
| Ex - Zone | 2 (Gas) | 22 (Dust) |
|-------------------------------------|---|-----------|
| SIMOGEAR code | K72 | K74 |
| Motor shaft height | 71 – 180 | |
| Gearbox size | 29 – 189 | |
| Mounting | All mounting positions available | |
| Power range | 0.25 – 22 kW | |
| Energy efficiency | IE3 standard, IE2 for frame size 71 only | |
| Speed | 4-pole motors only (1500 rpm) | |
| Ambient temperature | -20°C up to +40°C | |
| Converter combination ³⁾ | With options P94 for SINAMICS G120, P95 for SINAMICS S120, P96 for SINAMICS G120D | |



¹⁾ in preparation

²⁾ from 0.55 kW

³⁾ SIMOGEAR explosion-protected geared motors can be operated with a SINAMICS frequency converter to create a variable speed system, which allows you to optimize your overall process. While the SIMOGEAR geared motor may be located inside the hazardous zone, the frequency converter must be installed outside of it.



Tools

Efficient geared motor selection and dimensioning

Drive Technology Configurator

The Drive Technology Configurator (DT Configurator) supports you when selecting the optimum products for your application – from motors through converters up to the relevant options. Comprehensive documentation – from data sheets through operating instructions up to 2D/3D dimension drawings and certificates – can also be called up. The components that you selected can be directly ordered by transferring them into the Industry Mall shopping cart.

www.siemens.com/dt-configurator

TIA Selection Tool

Our dimensioning and engineering tools support you when configuring all of the components necessary for a drive application. You are navigated through the various engineering steps, from the line supply through converter and geared motors up to the control systems. You have extensive engineering options at your disposal as a result of the wide variety of motor configurations as well as the selection of application-oriented drive and control solutions. This tool is extremely user friendly as a result of the intuitive navigation using the workflow and the fact that simple drives up to complex multi-axis applications are handled in the exact same way. The SIZER engineering software is now integrated into the TIA Selection Tool.

www.siemens.com/tst

**Published by
Siemens AG**

Digital Industries
Motion Control
P.O. Box 31 80
91050 Erlangen, Germany

For the U.S. published by
Siemens Industry Inc.
100 Technology Drive
Alpharetta, GA 30005
United States

Article-No. DIMC-B10068-00-7600

Dispo 21500

Printed in Germany

WÜ/1000173743 WS 04210.2

© Siemens AG 2021

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.

For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action (e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit <http://www.siemens.com/industrialsecurity>