

## Short Description

# Synchronous Generators GSD-Series



The synchronous generators of the GSD-series were especially developed for use in mining equipment. They are not only resistant to dust and dirt, moisture and extreme mechanical loads, but are also configured for a long service life. The generators can be operated on any diesel engine common to the market.

The coil design is based on state-of-the-art insulation technology for maximum deployment-related stress and contamination from the environment. The category C insulation system enables operation to an upper limit of 220° C where only approx. 155° C (class F) is reached during operation. Special insulation materials minimise damage through partial discharge effects and prolong service life.

Both, the rotor and the housing are designed to deal with high mechanical loads. Through application-specific adaptations to the mounting points, the generators can be mounted simply in an existing chassis and on a diesel engine. The patented bearing design ensures that no harmful bearing currents can occur at all.

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# Technical Data

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### Technical Data

Series	GSD
Bearings	Single bearing (insulated)
Number of poles	8
Design	IM1305 with SAE00 flange preparation
Rated speed	1,800 rpm (max. 2,000 rpm)
Rated power	2,147–3,600 kVA
Type of operation	S1 (100 %)
Rated voltage	1,450 V
Rated current	855–1,435 A
Rated frequency	120 Hz
Weight	4,300–5,400 kg
Insulation category	C (220° C)
Protection class	IP25
Cooling	Open-circuit ventilation (IC17)
Operating temperature	-40° C ... +50° C

### Customer-Specific Adaptations

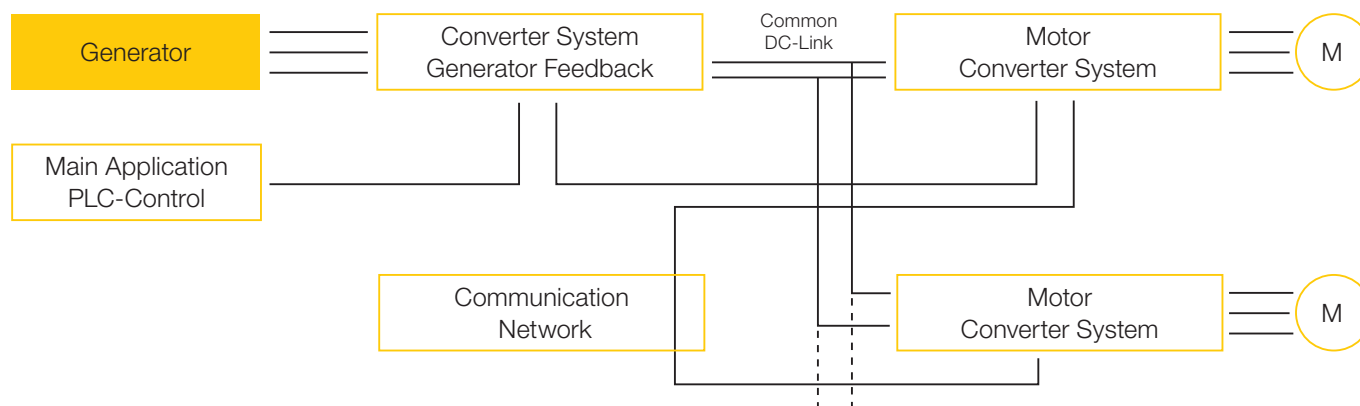
Output in specified performance range can be adapted to customer requirements

Other nominal voltages on request

Adaptation of cooling concept on request

Dual bearing design on request

### System Example



The complete system from Liebherr allows the components to work harmoniously with each other. This offers considerable advantages in terms of integration, maintenance and

operation. The design ensures efficient operating behaviour and, in this way, helps to reduce overall operating costs (i.e. total cost of ownership) significantly.

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