SIEMENS

Overview

From the safety philosophy, this motor is identical to the Ex d industrial motor.
What makes it special is the fact that it has been specifically designed for applications in the chemical and petrochemical industry.

Especially the Loher Chemstar series guarantees the maximum degree of safety, highest availability and low operating costs for low and medium power ratings. For power ratings up to 315 kW, this motor is the ideal drive component - as here it fulfills all of the demands and requirements of the chemical and petrochemical industry.

A sector-specific design takes into account the location - not only for hazardous zones (explosive areas) but also in non-hazardous zones. For instance a high quality paint finish and galvanized fan cowl provide protection against aggressive atmospheres.

Anti-condensation heating is often no longer required - even for high levels of air humidity. Loher Chemstar motors operate perfectly at temperatures from -55 °C up to +70 °C. These motors are even optimally suited for operation in desert and polar regions. When required, these motors can be equipped with corrosion-resistant stainless steel screws and bolts. Shaft seals in IP66 protect against water and dust. The degree of protection extends up to IP67.

The enclosure is manufactured out of rugged gray cast iron and is therefore extremely resistant to corrosion, dampens vibration and has a high strength. Reinforced bearings and PTC thermistors - no problem.These adapted motors fulfill almost all user requirements and specifications.

Benefits

- Accepted by Shell, DOW, BAYER, Statoil, BP, ABB Lumus, Technip, and many more
- Complies with almost all applications and specifications
- Parameter-optimized motors (adapted winding versions and rotors) achieve extremely high efficiencies with the best power factors and low starting currents
- Complete power range
- Also suitable for converter-based variable-speed drives

Application

- Pumps
- Compressors
- Fans
- Extruders
- Can be universally used as a drive machine

Technical specifications

Motors:	1PS5 (industrial motor) Loher name: DNGW
Shaft heights:	Frame sizes 071 - 315 mm (area of standard motors)
Power range: (50 Hz types)	Up to 250 kW (thermally utilized according to temperature class B at T_U = 40 °C)
Number of poles:	2 - 6 pole
Voltage range:	All of the usual low voltages and voltage ranges acc. to IEC 60038
Rated voltages:	380 - 400 - 420 V / D +- 5 % 655 - 690 - 725 V / S +- 5 % 500 V +- 5 %
Operating mode:	S1 line operation or S9 converter operation
Degree of protection:	IP55, IP56
Cooling type:	IC 411, IC 416
Type of construction:	IM B3 IM B5, IM B35, IM V1, IM V3, IM V5, IM V18, IM B14, IM B34 (special)
Enclosure:	Gray cast iron
Bearings:	Ball bearings (standard) and special bearings for high axial (thrust) and radial forces

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Standards:	IEC, EN, DIN, VDE
Types of protection:	Zone 1: II 2 G Ex de IIC temperature class T4 dust explosion protection (max. surface temperature 120 °C):II 2 G Ex de IIC + II 2 D
Noise level:	≤ 77 dB(A) + 3 dB(A) tolerance low-noise version for 2-pole motors (GG3) possible

Features

Options:

- Designed for ambient temperatures from - 55 °C up to + 70 °C
- Larger connection system
- Various fan materials
- SPM nipple from FS 132
- Regreasing system from FS 160; SPM nipple from FS 132; stainless steel screws / bolts - larger connection system
- Additional terminal box from FS 132; anti-condensation heating from FS 132; condensation water drain from FS 132
- PTC thermistor as the only protection (TMS) up to and including FS 250
- PTC thermistor as additional protection (TMS)
- Also available for 60 Hz, special voltages and pole-changing
- All motors with insulating material class H
- All motors are available with an electrical design according to "NEMA Standards Publication No MG1"
- Flanged motors can be designed and implemented with flange and shaft end in accordance with NEMA

Availability

- Fast track (own production line): Quickly available within just a few working days (for standard versions)