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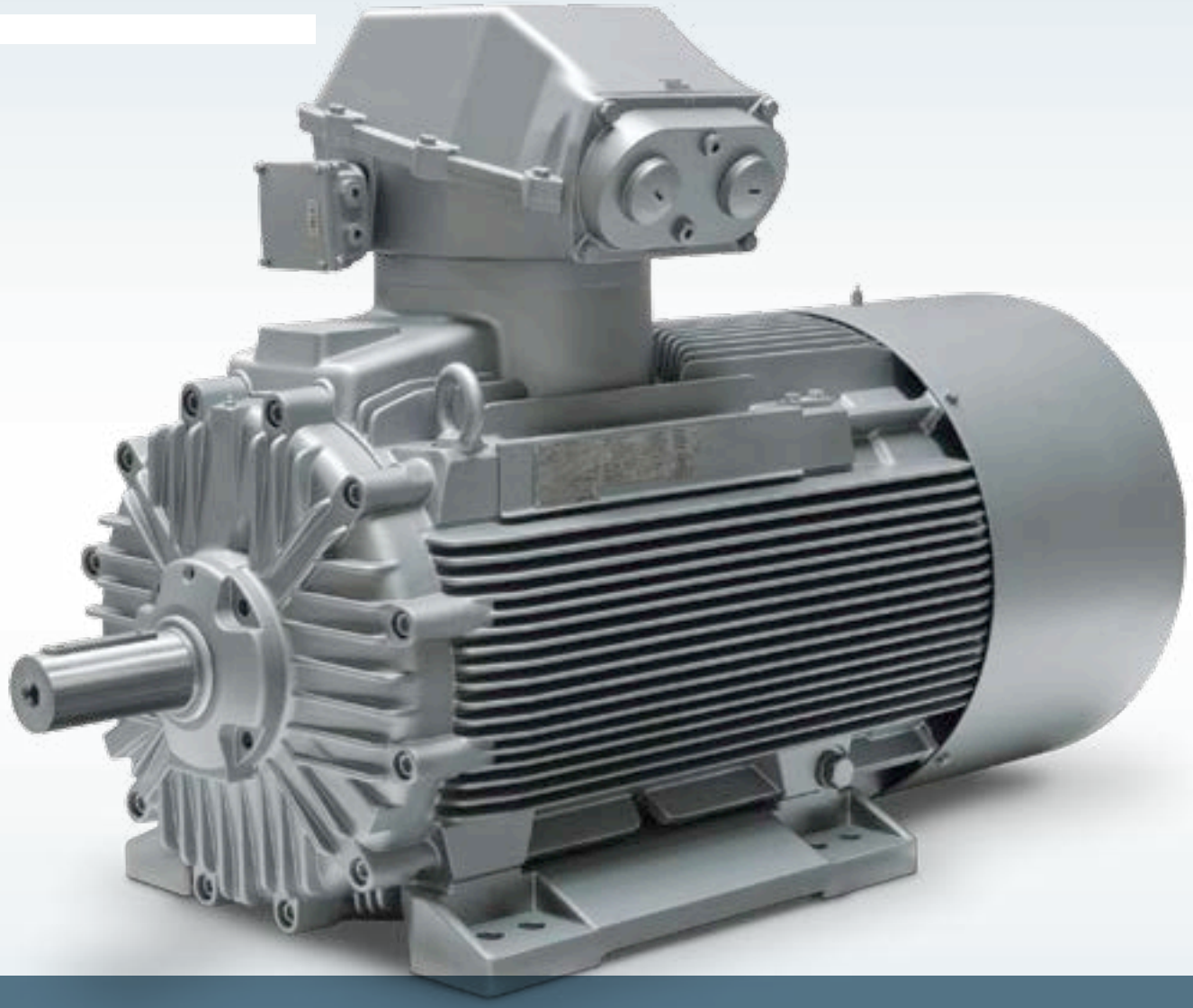

SIMOTICS XP Motors Flame Proof Design (Ex d)

Strong performance and high energy efficiency in the most rugged conditions.

siemens.com/simotics

Answers for Industry.

Flame proof motors: Maximum safety, extremely rugged

Motors in hazardous applications like chemical, petrochemical and oil & gas have to meet maximum safety standards for the protection of man, machine and the environment. With a high efficiency design and solid construction, our flame proof design motors ensure maximum safety along with strong performance and energy efficient operation.

SIMOTICS XP explosion-proof motors are highly efficient, sustainable and can be seamlessly integrated. With the explosion-protected motors, SIMOTICS XP from Siemens, you are going further than the basic safety requirements: our rugged Ex motors operate with complete reliability even under the most extreme conditions – and this has been proven worldwide a hundred thousand times over. The flame proof design Ex d is specifically engineered to withstand potential explosion pressure, while preventing possible ignition from the inside to the surrounding atmosphere.

High performance motors in flame proof design Ex d:

- Available in frame sizes 071 to 355
- Reliable operation in environments with explosive atmospheres (Zone 1)
- Motor series 1MD5
- IE2 High efficiency standards
- Easy use with inverter family SINAMICS

Quality-tested

Our Ex d explosion-protected motors for the IEC market are developed, produced and certified in accordance with the 94/9/EC (ATEX 95) Directive. Furthermore, they are tested and certified by German DEKRA EXAM. As a result they offer certified reliability and efficiency for each and every drive application.

Extremely long lifetime

Explosion-protected motors are extremely rugged, have a long product lifecycle and operate without interruptions, even when subject to the harshest conditions. Also, there are no gaps in our Ex motor range, as they meet all safety and efficiency requirements.

Extremely safe

The SIMOTICS motors portfolio has the optimum motor, whether your application requires dust explosion protection, flame proof enclosure (Ex d), non-sparking (Ex nA) or increased safety (Ex e). The motors are suitable for inverter operation and in some cases are available in graduated efficiency classes.

With the introduction of the new motor series 1MD5, the SIMOTICS XP family continues to expand and meet evolving application challenges.

The SIMOTICS XP family of motors includes both IEC type spectrum and NEMA type spectrum.

IEC type spectrum

Our explosion-protected motors fulfill the ATEX 95 Directive:

- Motors in type protection
  - Increased safety "e" (Ex e II)
  - Flame proof enclosure "d" (Ex de IIC)
  - Non-sparking "n" (Ex nA II T3)
  - Dust explosion protection "T" (Ex tD, Zone 21/22)
- Seamless series of explosion-protected motors
- VIK versions optionally possible

NEMA type spectrum

Explosion-protected motors fulfill the strict requirements according to:

- Class I, Group C&D
- Class I, Group D, Div. 1
- Class II, Groups F&G
- Division 1, hazardous areas

	Increased Safety "e"	Flame Proof "d"	Non-Sparking "n"	Dust Explosion Protection	NEMA Ex
Power range	0.12 - 165 kW	0.25 - 460 kW	0.09 - 1,000 kW	0.06 - 1,000 kW	1 - 300 HP
Voltage range	All commonly used voltages				230, 460 & 575 V with 60 Hz
Frame size	63 M - 315 L	71 B - 355 M	63 M - 450	63 M - 450	140 - 440
Design	All common construction types				
Rated speed	750 - 3,600 min^{-1}				900-3,600 min^{-1}
Rated torque	0.3 - 10,300 Nm				1.5-1,772 lb-ft
Application area	Ex-Zone 1 II 2G Ex e II T1-T3	Ex-Zone 1 II 2G Ex de IIC T4	Ex-Zone 2 II 3G Ex nA II T3	Ex-Zone 21/22 Ex t _ T120°C	Class I, Group D, Class II, Groups F&G Division 1 hazardous areas

There’s more to it

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Discover in detail how Integrated Drive Systems boost your competitive edge and improve your time to profit.

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