



**ELECTRIC DRIVES**  
FOR EVERY DEMAND

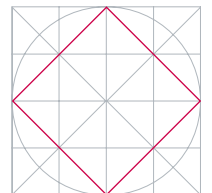


## Explosion-protected motors

Type of protection “n” (non sparking)  
Efficiency classes IE1, IE2 and IE3

**VEM**  **CHEM**  
ex motors

[www.vem-group.com](http://www.vem-group.com)





# Explosion-protected motors

## Type of protection “n” (non sparking)

## Efficiency classes IE1, IE2 and IE3

Drives for the chemical and power generation industries

### Safe drives in case of explosion hazards

Situations in which explosive gas or vapour/air mixtures can be formed, or where combustible dusts can arise, call for special electric drives. VEM is able to supply drives to suit your particular needs, because


- › highly qualified specialists are at hand to advise our customers
- › VEM has many decades of experience in high-quality explosion-protected drives
- › production in our factories is governed by a quality management system certified by IBExU Freiberg
- › machines are available for use in hazardous areas in zone 2, equipment group II, category 3G
- › VEM drives of this type are already operating reliably at renowned European and global chemical and power enterprises.

### Quality tested and certified

The motors of the VEM type series are tested and certified by IBExU Institut für Sicherheitstechnik GmbH Freiberg (*Notified Body* no. 0637) or by manufacturer's declaration, and comply with the directive 94/9/EC – ATEX 95.

The test certificates are recognised by all member states of the European Union, and are additionally accepted by those CENELEC members which do not belong to the EU.

In the case of special versions influencing explosion protection (pole-changing motors, other frequencies, outputs or coolant temperatures, converter operation, etc.), supplementary or renewed approval is required.

<b>Type</b>	<b>KPER/KPR/IE1-KPR/KPER/IE2-KPR/KPER K1.R/IE1-K1.R/IE2-W.1R/IE3-W41R/IE3-W42R</b>	
Size	56 to 400	
Power range	0.06 – 650 kW	
Efficiency class	IE1, IE2 and IE3 acc. to IEC/EN 60034-30-1 in the power range 0.75 ...650 kW, 2-, 4-, 6- and 8-pole	
Type of protection	IP 54, IP 55, IP 56, IP 65 acc. to IEC/EN 60034-5	
Type of construction	IM B3, IM B35, IM B5 and derived types of construction acc. to IEC/EN 60034-7	
Type of cooling	IC 411 acc. to IEC/EN 60034-6 Mounting dimensions and performances acc. to EN 50347	



Explosion-protected motors with protection rating “n” (non-sparking) are used above all in the chemical industry, but at the same time also in many areas of power generation.

When installing motors in types of construction with vertical shaft it must be prevented that foreign objects can fall in the air inlets (protective cover).

Temperature class T2, T3 or T4

Ambient temperatures -40 °C up to + 40 °C (+55 °C)  
(for shaft size 56 – 112: -20 °C up to +55 °C)

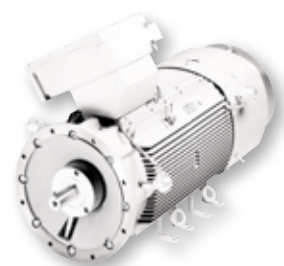
Explosion-protected design complying with equipment group II, category 3  
EN 60079-0 General requirements  
EN 60079-15 Type of protection “n” (non sparking)

For the design of the motors the following type examination certificates are available:

Design series and sizes	Type examination certificate
KPR 56 – 112	IBExU06ATEXB001
KPR 63 – 132T	IBExU06ATEXB002
(IE1-)K1.R 112 – 355	IBExU09ATEXB006
(IE2-)W.1R 112 – 355	IBExU03ATEXB004
(IE3-)W.1R 112 – 355	IBExU03ATEXB004
(IE-)W.1R 400	Manufacturer's Declaration of Conformity

Example of identification mark: Ex nA IIC T3 Gc

Please refer to our catalogues for technical details. The catalogues are available in printed or in digital version on DVD. They are also available in the internet.



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#### **High voltage**

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E-Mail: [sachsenwerk@vem-group.com](mailto:sachsenwerk@vem-group.com)

#### **Drive systems**

Phone: +49 30 9861-2104  
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For detailed information  
please visit our website.