

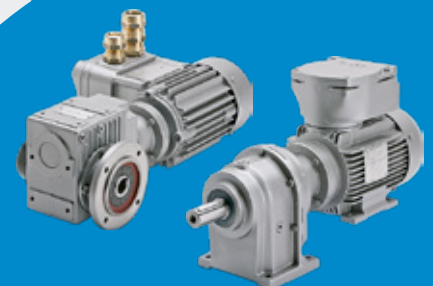


ATEX-EU-DIRECTIVE 2014/34/EU

Gearboxes and geared motors



- Comply all defined requirements
- Reliable in hazardous areas
- Conform to EU-Directive 2014/34/EU
- Category 2 or 3
- Zone 1 or 2 for gases (G)
- Zone 21 or 22 for dust (D)
- Equipment Protection Level EPL
„Gb“, „Db“, „Gc“, „Dc“
- Gearbox ignition protection type „h“
- Protection class IP55, IP65 or higher
- Permissible temperature class up to T4 for gas and suitable
for max. surface temperature T120 °C with dust
- Motors type of protection
„db“, „dc“, „eb“, „ec“, oder „nA“



**success based on
quality and reliability**

Safe and reliable drives
for hazardous areas

rehfuss.com

ATEX-EU-DIRECTIVE 2014/34/EU



Which zone has to be considered in the specific plant component will be defined by the plant operator together with the supervising authority according to directive 99/92/EG.

Frequency of occurrence of the explosive mixture	Zone designation of the air mixture with	
	Gas (G)	Dust (D)
Permanent and long-time*	0	20
Occasionally at normal operation	1	21
Seldom, short time	2	22

The classification of which equipment is to be classified in which category is carried out by the equipment manufacturer. Usability and safety in case of failure are the criteria.

Category	Potential sources of error	Premises for gearbox and motors
1*	Safety of equipment guaranteed in normal operation and 2 independently of each other appearing errors.	1G (Gas): usable in zone 0, 1 and 2 1D (Dust): usable in zone 20, 21 and 22
2	Safety of equipment guaranteed in normal operation and 1 error appearing	2G (Gas): usable in zone 1 and 2 2D (Dust): usable in zone 21 und 22
3	Safety of equipment guaranteed in normal operation	3G (Gas): usable in zone 2 3D (Dust): usable in zone 22

* Corresponding equipment is not offered by REHFUSS. Details are under reserve. Issued 01/2020

Gearboxes conform to 2014/34/EU for gas and dust

Protection by safe construction (constructive safety) and by liquid encapsulation, protection class "h"

Gearbox conformity according to categories 2G and 2D	
Gearboxes category 2	Safety of equipment guaranteed in normal operation and 1 error appearing 2G (Gas): usable in zone 1 and 2 2D (Dust): usable in zone 21 and 22
REHFUSS supplies for gearboxes of this category 2 a declaration of conformity for Gas and Dust. The technical declaration is deposited in named place.	

Gearbox conformity according to categories 3G and 3D	
Gearboxes category 3	Safety of equipment guaranteed in normal operation 3G (Gas): usable in zone 2 3D (Dust): usable in zone 22
REHFUSS supplies for gearboxes of this category 3 a declaration of conformity for Gas and Dust.	

Gearbox – Equipment Protection Level EPL					
These equipment protection levels indicate the applicability of the equipment in the hazardous areas according to the zone classification.					
Gas (G)			Dust (D)		
EPL	Category	Zone	EPL	Category	Zone
Gb	2G	1 and 2	Db	2D	21 and 22
Gc	3G	2	Dc	3D	22

Motors conform to 2014/34/EU for gas and dust

Protection by pressure resistant enclosure, protection class „db“, „dc“

Protection by extended safety, protection class „eb“, „ec“

Protection by non sparking, protection class „nA“

Motors – conformity according to category 2G	
Motors category 2	Safety of equipment guaranteed in normal operation and 1 error appearing 2G (Gas): usable in zone 1 and 2, EPL „Gb“
Motors – conformity according to categories 3G und 3D	
Motors category 3	Safety of equipment guaranteed in normal operation 3G (Gas): usable in zone 2, EPL „Gc“ 3D (Dust): usable in zone 22, EPL „Dc“

Rehfuss Drive Solutions GmbH

Tel.: +49 7432 7015-0
Fax: +49 7432 7015-90
E-Mail: info@rehfuss.com

rehfuss.com