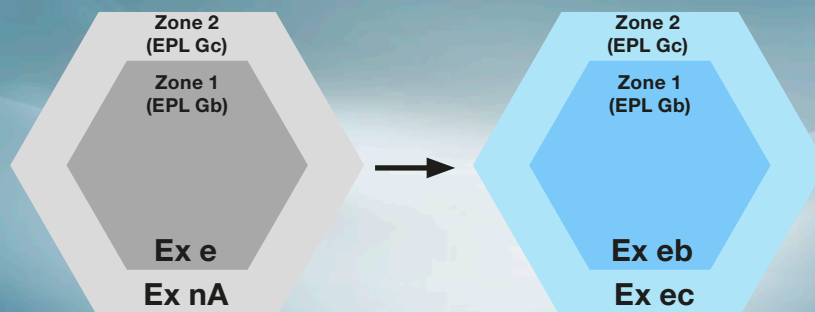


WEG ALIGNED WITH THE NEWEST Ex MARKING FOR MOTORS DESIGNED FOR HAZARDOUS AREAS



As a global supplier for the Oil & Gas market, WEG is in fully compliance with the new increased safety (Ex ec and Ex eb) marking, according to IEC/EN 60079-7:2015, including the product certificates IECEx, ATEX and INMETRO.

Changes on the IEC Standards

The updated IEC 60079-7:2015 standard has incorporated the requirements of IEC 60079-15:2010, requiring a new marking for the electric motors incorporating the following changes already in place.

	From	To
Marking	Ex nA	Ex ec
Type of protection	Non sparking	Increased safety Level of protection "ec"
Zone	2 (EPL Gc)	2 (EPL Gc)
Standard	IEC 60079-15:2010 / EN 60079-15:2010	IEC 60079-7:2015 / EN 60079-7:2015

	From	To
Marking	Ex e	Ex eb
Type of protection	Increased safety	Increased safety Level of protection "eb"
Zone	1 (EPL Gb)	1 (EPL Gb)
Standard	IEC 60079-7:2006 / EN 60079-7:2007	IEC 60079-7:2015 / EN 60079-7:2015

Modifications in Electric Motors

Electric motor manufacturers shall update their product portfolio certifications by applying the new marking accordingly, although, there is no impact on the motor performance neither on its technical requirements.

For motors already manufactured, in operation and/or in warehouse, there is no need to take any action and/or marking any replacement.

For new orders, the recommendation is to comply to the new standards/markings, building the motor accordingly.

Users, contractors and OEMs shall be aware about the standards modifications, adapting their specifications, documentation requirements in accordance with the new requirements.

The Oil & Gas industry recognizes "increased safety" protection as synonymous of products operating at zone 1. Within the IEC updates on type of protection nomenclature, it is important to note although named as increased safety "e", the products with level of protection "ec" (EPL "Gc") cannot operate in zone 1.

WEG products portfolio is in fully compliance with the new requirements as follows:



WEG Product Portfolio for Hazardous Areas

Flameproof Enclosures – Level of Protection “db” (EPL Gb)

- Low and medium voltage
- Cast iron frame enclosure
- Degree of protection up to IP66
- Optional Increased Safety Terminal Box - Level Protection “eb”
- Intended for operation in hazardous area Zone 1 and Zone 2
- Gas group IIA and IIB (IIC optional)
- Temperature class T3 and T4 (T5 and T6 under request)

Increased Safety – Level of Protection “eb” (EPL Gb)

- Low voltage (medium voltage under request)
- Cast iron or steel plate frame enclosure
- Degree of protection up to IP66
- Intended for operation in hazardous area Zone 1 and Zone 2
- Gas group IIA, IIB and IIC
- Temperature class T3 (T4 under request)

Increased Safety – Level of Protection “ec” (EPL Gc)

- Low and medium voltage
- Cast iron or steel plate frame enclosure
- Degree of protection up to IP66
- Optional Increased Safety Terminal Box - Level Protection “eb”
- Intended for operation in hazardous area Zone 2
- Gas group IIA, IIB and IIC
- Temperature class T3 (T4 and T5 under request)

Pressurized Enclosure – Level of Protection “pxb” (EPL Gb) and “pzc (EPL Gc)

- Low and medium voltage
- Cast iron or steel plate frame enclosure
- Degree of protection up to IP66
- Optional Increased Safety Terminal Box – Level Protection “eb”
- Intended for operation in hazardous area Zone 1 and Zone 2
- Gas group IIA, IIB and IIC
- Temperature class T3 and T4 (T5 under request)

Dust Ignition Protection – Level of Protection “tb” (EPL Db) and “tc” (EPL Dc)

- Low and medium voltage
- Cast iron or steel plate frame enclosure
- Degree of protection up to IP66
- Intended for operation in hazardous area Zone 21 and Zone 22
- Dust group IIIA, IIIB and IIIC
- Maximum surface temperature T125 °C or T160 °C (other temperatures under request)

Note: synchronous machines can be provided with the specified type of protection (Ex ec, Ex pxb, Ex pzc, Ex tb or Ex tc) for operation in gas (Zone 1&2) or dust (Zone 21&22) environments.



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