



CONFORMITY ASSESSMENT

April 2010

Articles [◀ back](#) | [next ▶](#)

First motors to receive IECEx Conformity Mark License

Motors for drilling platforms, export terminals, onshore processing facilities or pipelines for the oil and gas industry are designed to operate in extreme conditions. They need very strict and specific safeguards against fires, explosions and other hazards associated with explosive atmospheres.

IECEX, the IEC System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres, through testing and certification, provides the Ex industry with assurances that such motors have the appropriate protection.

Hazardous area protection types include:

- **Flameproof protection**, which prevents flame propagation outside the enclosure. The motor itself is 'explosion proof', which means that any explosion inside the motor is contained. The maximum surface temperature outside the motor does not exceed the temperature class for which the motor is certified
- **Non-sparking protection**, which is designed to prevent sparking, overheating or foreseeable ignition sources that can occur during normal operation. The specific design and the materials selected for the relevant components prevent spark occurrences
- **Pressurized protection**, which ensures that within the enclosure, the motor is protected by safe air or inert gas overpressure to prevent the presence of explosive atmospheres
- **Dust tight protection**, which provides an enclosure that tightly protects the motor from infiltration of combustible dust.

The IECEx Conformity Mark, introduced in 2008, shows that a product has been granted an IECEx Certificate of Conformity. IECEx Certification confirms that the product has the appropriate protection for use in explosive atmospheres and that it has been manufactured under systems subject to ongoing surveillance by IECEx CBs (Certification Bodies). The IECEx Certificate of Conformity is underpinned by independent IECEx testing and is recognized among countries participating in the IECEx System, without the need for repeat testing and assessment.

IECEX Conformity Mark Licenses are issued by approved CBs in IECEx participating countries.

Ex Mark for ABB motors

ABB is the first motor manufacturer to be granted an IECEx Conformity Mark to demonstrate the IECEx Certification for a wide range of low- and high-voltage motors used in explosive atmospheres. The hazardous area protection types provided by these motors include:

- Flameproof Ex d
- Non-sparking Ex nA



The Ex Conformity Mark shows that a product has been granted an IECEx Certificate of Conformity

- Pressurized Ex p
- Dust tight Ex tD

ABB has permission to display the IECEx Conformity Mark on these products, their packaging and promotional materials. It is expected that this will considerably enhance ABB's ability to market its products globally. It complements ABB's existing ATEX approval, which is based on two EU Directives governing the use of equipment in potentially explosive atmospheres

The IECEx Conformity Mark License for ABB motors was issued by:

- [LCIE-Bureau Veritas](#). LCIE has been providing product certification services within the IECEx System since 2002. It was granted approval to issue IECEx Conformity Mark Licenses in 2008.
- [VTT Expert Services Ltd.](#) VTT has been operating within the IECEx System for certification of products since 2006. It gained the necessary approval to issue IECEx Conformity Mark Licenses in 2008.

LCIE

LCIE is widely recognized at both the European and international levels for its expertise in the fields of testing, certification, audits, inspections and training. Operating as a key partner in the areas of electrical and electronic product safety assessment, LCIE guides organizations in a diverse range of industries through all the phases from design to product sales.

VTT

VTT Technical Research Centre of Finland is a leading applied research organization in northern Europe and part of the Finnish innovation system. Operating under the domain of Finland's Ministry of Employment and Economy, VTT offers services such as assessments, testing, certifications and inspections.

ABB Group

ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group operates in around 100 countries and employs about 120 000 people.

Articles [◀ back](#) | [next ▶](#)

RELATED INFORMATION

IEC links

IECEX:
IEC System for Certification to Standards relating to
Equipment for use in Explosive Atmospheres

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