## ZONE 2 ENVIRONMENT ENCLOSURE COOLING SYSTEMS THE EVOLUTION SERIES (EVZ2)

An environment classified as IECEx Zone 2, or ATEX Category 3, is a space where an explosive atmosphere is not likely to occur in normal operation, but may occur for short periods. These atmospheres may occur in industries such as oil and gas, food and beverage, and pharmaceuticals. Selecting the proper equipment for use in areas where there may be explosive gases can be a complex and time-consuming procedure, assuring personnel safety, safe operation of equipment and to mitigate liability by selecting equipment employing documented agency approved methods of protection. A mistake or oversite could cause loss of life and/or a disaster that might cost millions, or even billions of dollars.

Select equipment manufacturers should be able to provide documentation or certification that their equipment is safe for operation in the classified area. Two of the most common certifications for hazardous area equipment are ATEX and IECEx. ATEX, from the French "ATmosphères Explosibles", based upon European Equipment Directive 2014/34/EU, which establishes requirements for equipment, and protective systems intended for use in potentially explosive atmospheres. ATEX certification is accepted throughout the **European Union** and is a prerequisite for equipment in the European Economic Area. ATEX Declaration of Conformity (DOC) can be issued by the manufacturer to declare that they are in possession of necessary documents and reports, or the DOC may be issued by a 3rd party Notified Body. DOC issuance may depend on product category whereas ATEX category 2 and 3 equipment do not require a 3rd party Notified Body certification.

The International Electrotechnical Commission (IEC) is a leading global organization that prepares and publishes international standards for all electrical, electronic, and related technologies. The IECEx System is to promote and simplify **international trade** of equipment and services for use in explosive areas while maintaining the required level of safety. The IECEx System oversees the certification and approval for use of electrical equipment in these hazardous environments through ExCBs. These hazardous environment certifying bodies (ExCB) must complete the IECEx assessment process for approval to operate within the IECEx certified equipment scheme and to issue IECEx Test Reports (ExTRs), IECEx Quality Assessment Reports (QARs) and the online Certificate of Conformity.



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The IECEx System is based upon the use of *international* standards, such as the IEC Standards. These standards are committed to providing guidelines for safe use and operation of equipment in these environments where potential of a fire or explosion may exist. Evaluation of equipment components, product testing, review of the manufacturing procedures, and periodic auditing are all part of a manufacturer achieving and maintaining product certification.



For example, the standard that addresses the general requirements for equipment is IEC 60079-0. Equipment found to comply with the general requirements is then evaluated to standards relating to the methods of protection used by the equipment to achieve safe operation in the specified hazardous environment.

Ice Qube's years of experience with Class I Division 2 air conditioners for North America independently 3rd party certified by UL, has allowed them to expand their product line to include a line of equipment enclosure air conditioners certified for operation in International **Zone 2 hazardous environments.** These air conditioners by QPS, 3rd party certified Nationally Recognized Testing Laboratory (NRTL) and ExCB. Models range in cooling capacity from 1000 to 20000 Btu per hour (293 to 5861 watts) and are available at a variety of voltages for 50Hz and 60Hz operation. These models comply with standards IEC 60079-0: 2011 Edition 6.0, IEC 60079-15: 2010 Edition 4, and ATEX Directive 2014/34/EU. With this 3rd party certification you can be confident the air conditioner will be safe for operation in the Zone 2 environment.

Ice Qube's ExTRs and ExQARs are available for viewing on the IECEx website.

## http://iecex.com/ or Call Ice Qube +1-724-837-7600

and request a copy of the air conditioner's Certificate of Conformity.



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