



Certificate Number
QPS 19ATEX0001X

CERTIFICATE OF COMPLIANCE

(1) **Type Examination**

(2) **Product intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) Type Examination Certificate Number: QPS 19ATEX0001X Issue Number: 2

(4) Product: **Zone 2 Heat Exchanger for computer and electronics equipment enclosure.**
Models Number: IQ675HE-Z2, IQ700HE-Z2, IQ800HE-Z2, IQ900HE-Z2, IQ2200HE-Z2, IQ6100HE-Z2, IQ7400HE-Z2 and IQ10000HE-Z2

(5) Manufacturer: Ice Qube, Inc.

(6) Address: 141 Wilson Ave. Greensburg, PA, 15601, USA

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) QPS Evaluation Services Inc., certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential test report no. ATX1692-3

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
 EN IEC 60079-0:2018, EN IEC 60079-7:2015:A1:2018

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.

(12) The marking of the product shall include the following:



II 3 G II 3G Ex ec IIC T6/T5/T4 Gc
 Ta= -40°C to +80°C (See Annex #1 for detail)



QPS Evaluation Services Inc
Testing, Certification and Field Evaluation Body
Accredited in Canada, the USA, and Internationally

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(13) **SCHEDULE**

(14) **to Type Examination Certificate**

Issue No. 2

(15) **Description**

Ice Qube Heat Exchangers are closed-loop systems that have been designed to provide cooling for computer and electronics enclosures in environments where the enclosure temperature may be maintained at temperatures at least 5 degrees Fahrenheit above ambient. Heat Exchangers have only two moving parts. They are maintenance-free fans or blowers, which are used to move air over the heat exchanger core. The enclosure fan moves hot air from the top of enclosure, through the heat exchanger core where the heat is dissipated and the cool air returns to the bottom of the enclosure. The ambient fan moves cool air from near the bottom of the heat exchanger through the core where the heat from the enclosure is absorbed and dissipated to the ambient air out of the top of the heat exchanger. They are inside a metallic enclosure with ingress protection IP66.

Electrical data

24 Vdc or 48 Vdc
 120 Vac 50/60 Hz, 230 Vac 50/60Hz, see Annex #1 for detail.

Installation instructions

Heat Exchanger Operation and Installation - QD-ENG.

(16) **Report Number:** ATX1692-3

(17) **Specific conditions of use**

1. Read the "Heat Exchanger Operation and Installation"

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. ATX1692-3, and ATX35450-4

(20) **Certificate history**

Issue 0 - initial certificate
 Issue 1 - Review update the heat exchanger to the compliance of IEC 60079-7: 2015/AMD 1: 2017.
 Issue 2 - Added alternate Blowers for use with models of IQ2200HE-Z2, IQ6100HE-Z2 , IQ7400HE-Z2 and IQ10000HE-Z2

Issued By: D. Adams, P.Eng.
 Manager, Hazardous Locations Department [Ex Equipment]

Signature: 

Date: June 21, 2022



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Annex #1 Electrical and T code Rating for Zone 2 Heat Exchanger

Model	Input Voltage	Current (A)	FREQUENCY	Ambient Temperature (T _{amb} = -40°C to				
				+60°C	+65°C	+70°C	+75°C	+80°C
				T Code				
IQ675HE-Z2	24 VDC	1.86	N/A	T6	T5	T5	*	*
	48 VDC	0.94						
IQ700HE-Z2	24 VDC	0.7	N/A	T6	T5	T5	*	*
	48 VDC	0.25						
	120 VAC	0.24	50/60 Hz				T4	T4
	230 VAC	0.13						
IQ800HE-Z2	24 VDC	2.94	N/A	T6	T5	T5	*	*
	48 VDC	1.48						
IQ900HE-Z2	24 VDC	0.66	N/A	T6	T5	T5	*	*
	48 VDC	0.42						
	120 VAC	1.00	50/60 Hz				T4	T4
	230 VAC	0.50						
IQ2200HE-Z2	24 VDC	7.00	N/A	T6	T5	T5	T5	*
	48 VDC	4.00						
	120 VAC	2.80	50/60 Hz			T5	T4	T4
	230 VAC	0.96						
IQ6100HE-Z2	24 VDC	8.82	N/A	T6	T5	*	*	*
	48 VDC	*6.2						
	120 VAC	3.70	50/60 Hz		*	*	*	*
	230 VAC	1.80						
IQ7400HE-Z2	24 VDC	8.82	N/A	T6	T5	*	*	*
	48 VDC	*6.2						
	120 VAC	3.70	50/60 Hz		*	*	*	*
	230 VAC	1.80						
IQ10000HE-Z2	24 VDC	*14.5	N/A	T6	T5	*	*	*
	48 VDC	*8.3						
	120 VAC	5.02	50/60 Hz		*	*	*	*
	230 VAC	*2						

* Corresponding models are not suitable at this ambient.