

EU-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- EU-Type Examination Certificate Number:** ITS18ATEX102782X **Issue 00**
- Product:** LFH and XLFH Fan Assisted Convection Heater
- Manufacturer:** EXHEAT Ltd
- Address:** Thexton House, Thexton Road Industrial Estate, Watton, Thetford, Norfolk, IP25 6NG. UK.
- This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Intertek Testing and Certification Limited, Notified Body number 0359 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council dated 26 February 2014, certifies that the 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 of the Directive.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2018, EN 60079-1:2014, EN 60079-7:2015, EN 60079-31:2014, EN 80079-36:2016, EN 80079-37:2016 and EN 14986:2017 except in respect of those requirements referred to within item 14 of the Schedule.
- If the sign "X" is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.
- This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- The marking of the product shall include the following:

II 2 G Ex db eb h IIB+H2 T2...T4 Gb



II 2 D Ex tb IIIC T300°C...T135°C Db IP65

-40°C ≤ Ta ≤ +40°C

Certification Officer: _____ **Date:** 31st January 2019
P Moss

SCHEDULE:

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11. Description of Equipment or Protective System

The XLFH / LFH Fan Heater is to be used to raise the temperature within a room or local area, by operating at its rated voltage and duty when required (see Table 1 operating ratings).

The XLFH/ LFH fan heater consists of a stainless steel housing, which protects a motor with impeller, flameproof enclosure, increased safety enclosure and electric heater elements. The overall dimensions of the fan casing are no greater than 550x630x550mm (LFH) and 650x730x650mm (XLFH). The impellers are built up with an epoxy coated cast aluminium hub with Latishield 66-08A G/25-VOKB1 PA66 blades.

Certified Finned tubular type heating elements are positioned in the air flow and are energised only when the motor is in operation.

The XLFH / LFH fan heater is electrically rated up to 40000W, 690VAC, 4 wire Poly-phase & 277VAC 2 wire single Phase. The equipment has a balance grade of BV3 and is designed to operate in an ambient temperature range of -40°C to +40°C.

Table 1				
XLFH & LFH Fan Heater Range				
The Heater Range	LFH-T2			
	Up to 690V	30 kW max		
	XLFH-T2			
	Up to 690V	40 kW max		
	LFH -T3			
	Up to 690V	18 kW max		
	LFH -T4			
	Up to 690V	10.8 kW max		
	XLFH -T3			
	Up to 690V	24 kW max		
	XLFH -T4			
	Up to 690V	14.5 kW max		
	XLFH with EXHEAT Advanced Controls			
	Up to 690V	40kW	(T3)	
Up to 690V	24kW	(T4)		
Performance Data LFH		50Hz	60Hz	
	Air Flow	2120 m ² /hr	2240 m ² /hr	
	Face Air Velocity	6m/s	6.3m/s	
	Fan Speed	1380 rpm	1460 rpm	
	Motor Rating	1.1 kW	1.1 kW	

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Performance Data XLFH		50Hz	60Hz
	Air Flow	3560 m ² /hr	3760 m ² /hr
	Face Air Velocity	7.5m/s	7.9m/s
	Fan Speed	1380 rpm	1460 rpm
	Motor Rating	1.1 kW	1.1 kW

12. Report Number

Intertek Report: 103232798CHE-001 Dated: 11 December 2018.

13. Special Conditions of Certification

(a). Special Conditions of Use

- Use only suitably approved Ex db eb IIB+H2 Gb/Ex tb IIIC Db minimum rated cable glands with a minimum ambient range of -40°C to +40°C.
- Yield stress of the fasteners used on the flameproof enclosure shall be ≥ 450 MPa.
- Joints on flameproof enclosure are not to be repaired.

(b). Conditions of Manufacture

- Each Fan heater Ex e enclosure shall be subjected to a dielectric strength test of 1000V + (2x Rated Voltage (rms)) applied between Live/Neutral and Case and Element Connections and Case for a period of 60s each. Alternatively, a test shall be carried out at 1.2 times the test voltage, maintained for at least 100ms. Results shall be recorded.
- Line bushing cable shall be suitably rated to -40°C or better.
- Line bushing cable shall be suitably rated for +50.2°C of better

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek Report: 103232798CHE-001 Dated: 11 December 2018.

15. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
XLFH & LFH Fan Heater General Arrangement ATEX & IECEX Certification Drawing	2004-97-01	1	20/06/18
XLFH & LFH Fan Heater Earthing Diagram ATEX & IECEX Certification Drawing	2004-97-05	1	20/06/18
XLFH & LFH Fan Heater Impeller Fitting Diagram ATEX & IECEX Certification Drawing	2004-97-07	1	20/06/18
XLFH & LFH Fan Heater EXE Enclosure Housing ATEX & IECEX Certification Drawing	2004-97-25	1	20/06/18
XLFH & LFH Fan Heater EXD Enclosure Housing ATEX & IECEX Certification Drawing	2004-97-26	1	20/06/18
XLFH & LFH Fan Heater Nameplate Drawing ATEX & IECEX Certification Drawing	2004-97-42	1	20/06/18
Installation, Operation & Maintenance Instructions Manual XLFH & LFH Portable Air Warmers	2004-97- IOM_REV1	1	As Stamped 05 September 2018

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