

# EC-TYPE EXAMINATION CERTIFICATE



- [1]
- [2] **Equipment or Protective System intended for use  
in Potentially Explosive Atmospheres  
Directive 94/9/EC**
- [3] EC-Type Examination Certificate Number: **DEMKO 10 ATEX 0910365X Rev. 5**
- [4] Equipment or Protective System: **Model FE2 Electric Air Heaters**
- [5] Manufacturer: **CCI Thermal Technologies Inc.**
- [6] Address: **5918 Roper Road, Edmonton, AB T6B 3E1 Canada**
- [7] This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S, notified body number 0539 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.  
The examination and test results are recorded in confidential report no. **4786947266**
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN 60079-0:2012+A11:2013      EN 60079-1:2007**
- [10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- [11] This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system.  
These are not covered by the certificate.
- [12] The marking of the equipment or protective system shall include the following:

II 2 G      Ex d IIB T3 Gb

**Certification Manager**  
Jan-Erik Storgaard

This is to certify that the sample(s) of the Equipment described herein ("Certified Equipment") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. This certificate and test results obtained apply only to the equipment sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured equipment. UL has not established Follow-Up Service or other surveillance of the equipment. The Manufacturer is solely and fully responsible for conformity of all equipment to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

**Date of issue:** 2010-07-20  
**Re-issued:** 2015-08-31



**Notified Body**

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark  
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# Schedule

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## EC-TYPE EXAMINATION CERTIFICATE No.

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### Description of Equipment or protective system

The Model FE2 heaters are fan-type permanently installed ceiling mounted electric heaters. They are provided with thermally protected motors and temperature limiting thermostats.

Nomenclature for type FE2:

FE2 -  $\frac{SD}{II}$  -  $\frac{220}{III}$   $\frac{1}{IV}$   $\frac{50}{V}$  -  $\frac{025}{VI}$  -  $\frac{W}{VII}$  -  $\frac{I}{VIII}$

I – Series Designation

FE2 – Common to all

II – Designates optional feature

SD – Severe Duty (Shunt Trip Option with Circuit Breaker)

III – Designates rated voltage

220 – 220 V

230 – 230 V

240 – 240 V

380 – 380 V

400 – 400 V

415 – 415 V

440 – 440 V

480 – 480 V

IV – Designates number of phases

1 – Single phase

3 – Three phase

V – Designates voltage frequency

50 – 50 Hz

60 – 60 Hz

VI – Designates nominal wattage

025 – 2.5 kW

028 – 2.8 kW

030 – 3.0 kW

037 – 3.7 kW

042 – 4.2 kW

046 – 4.6 kW

050 – 5.0 kW

063 – 6.3 kW

069 – 6.9 kW

075 – 7.5 kW

084 – 8.4 kW

092 – 9.2 kW

093 – 9.3 kW

100 – 10.0 kW

125 – 12.5 kW

126 – 12.6 kW

138 – 13.8 kW

139 – 13.9 kW

149 – 14.9 kW

150 – 15.0 kW

167 – 16.7 kW

168 – 16.8 kW

185 – 18.5 kW

187 – 18.7 kW

200 – 20.0 kW

209 – 20.9 kW

224 – 22.4 kW

231 – 23.1 kW

250 – 25.0 kW

252 – 25.2 kW

262 – 26.2 kW

294 – 29.4 kW

300 – 30.0 kW

350 – 35.0 kW

210 – 21.0 kW

VII – Designates type

F – Flanged core

W – Welded core



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VIII – Designates special application or optional features (one or more combinations)

- A – Stainless Steel Cabinet
- D - Built-in disconnect
- T – Thermostat, regulating type
- B - Minimum Ambient less than -20°C
- U – Continuous Fan
- C – Heresite Coated Panels
- M25 – M25 supply connection

Temperature range

The ambient temperature and temperature class is as follows:

**Ambient temperature range**  
-50 °C to +40 °C for models with suffix "B"  
-20°C to +40 °C for other models.

**Temperature class**  
T3  
T3

Electrical data

Model	V	Frequ. (Hz)	Phase	kW	Motor Hp	A		Thermal Power (kW)	Min. Circuit A	Max. Fuse	Supply Wire Size, AWG
						Motor	Line				
FE2-220150-025	220	50	1	2.5	1/2	3.46	11.4	2.27	14.3	15	14
FE2-220150-042	220	50	1	4.2	1/2	3.46	19.1	3.95	23.9	25	10
FE2-220150-063	220	50	1	6.3	1/2	3.46	28.6	6.05	35.8	40	8
FE2-220150-084	220	50	1	8.4	1/2	3.46	38.2	8.14	47.8	50	6
FE2-220150-126	220	50	1	12.6	1/2	3.46	57.3	12.1	71.6	75	2
FE2-220160-025	220	60	1	2.5	1/2	3.46	11.4	2.27	14.3	15	14
FE2-220160-042	220	60	1	4.2	1/2	3.46	19.1	3.95	23.9	25	10
FE2-220160-063	220	60	1	6.3	1/2	3.46	28.6	6.05	35.8	40	8
FE2-220160-084	220	60	1	8.4	1/2	3.46	38.2	8.14	47.8	50	6
FE2-220160-126	220	60	1	12.6	1/2	3.46	57.3	12.1	71.6	75	2
FE2-230150-028	230	50	1	2.8	1/2	3.3	12.2	2.48	15.3	20	12
FE2-230150-046	230	50	1	4.6	1/2	3.3	20.0	4.31	25.0	25	10
FE2-230150-069	230	50	1	6.9	1/2	3.3	30.0	6.61	37.5	40	8
FE2-230150-092	230	50	1	9.2	1/2	3.3	39.0	8.90	49.9	50	6
FE2-230150-138	230	50	1	13.8	1/2	3.3	59.9	13.2	74.9	80	2
FE2-230160-028	230	60	1	2.8	1/2	3.3	12.2	2.48	15.3	20	12
FE2-230160-046	230	60	1	4.6	1/2	3.3	20.0	4.31	25.0	25	10
FE2-230160-069	230	60	1	6.9	1/2	3.3	30.0	6.61	37.5	40	8
FE2-230160-092	230	60	1	9.2	1/2	3.3	39.0	8.90	49.9	50	6
FE2-230160-138	230	60	1	13.8	1/2	3.3	59.9	13.2	74.9	80	2
FE2-240150-030	240	50	1	3.0	1/2	3.13	12.5	2.7	15.6	20	12
FE2-240150-050	240	50	1	5.0	1/2	3.13	20.8	4.7	26.0	30	10
FE2-240150-075	240	50	1	7.5	1/2	3.13	31.3	7.2	39.1	40	8
FE2-240150-100	240	50	1	10	1/2	3.13	41.7	9.7	52.1	60	6
FE2-240150-150	240	50	1	15.0	1/2	3.13	62.5	14.4	78.1	80	2
FE2-240160-030	240	60	1	3	1/2	3.13	12.5	2.7	15.6	20	12
FE2-240160-050	240	60	1	5	1/2	3.13	20.8	4.7	26.0	30	10
FE2-240160-075	240	60	1	7.5	1/2	3.13	31.3	7.2	39.1	40	8
FE2-240160-100	240	60	1	10	1/2	3.13	41.7	9.7	52.1	60	6
FE2-240160-150	240	60	1	15	1/2	3.13	62.5	14.4	78.1	80	2
FE2-380350-025	380	50	3	2.5	½ or ¾	1.68	3.8	2.27	4.8	5	16
FE2-380350-042	380	50	3	4.2	½ or ¾	1.68	6.4	3.95	8.0	10	16
FE2-380350-063	380	50	3	6.3	½ or ¾	1.68	9.6	6.05	12.0	15	14
FE2-380350-084	380	50	3	8.4	½ or ¾	1.68	12.8	8.14	16.0	20	12
FE2-380350-125	380	50	3	12.5	½ or ¾	1.68	19.0	12.1	23.8	25	10
FE2-380350-167	380	50	3	16.7	½ or ¾	1.68	25.4	16.2	31.8	35	8
FE2-380350-209	380	50	3	20.9	½ or ¾	1.68	31.8	20.3	39.8	40	8
FE2-400350-028	400	50	3	2.8	½ or ¾	1.6	4.0	2.48	5.0	5	16
FE2-400350-046	400	50	3	4.6	½ or ¾	1.6	6.6	4.31	8.3	10	16
FE2-400350-069	400	50	3	6.9	½ or ¾	1.6	10.0	6.61	12.5	15	14
FE2-400350-093	400	50	3	9.3	½ or ¾	1.6	13.4	8.9	16.8	20	12
FE2-400350-139	400	50	3	13.9	½ or ¾	1.6	20.1	13.2	25.1	30	10
FE2-400350-185	400	50	3	18.5	½ or ¾	1.6	26.7	17.8	33.4	35	8
FE2-400350-231	400	50	3	23.1	½ or ¾	1.6	33.3	22.2	41.6	45	8
FE2-415350-037	415	50	3	3.7	½ or ¾	1.54	5.1	3.51	6.4	10	16
FE2-415350-075	415	50	3	7.5	½ or ¾	1.54	10.4	7.24	13.0	15	14

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Model	V	Frequ. (Hz)	Phase	kW	Motor Hp	A		Thermal Power (kW)	Min. Circuit A	Max. Fuse	Supply Wire Size, AWG
						Motor	Line				
FE2-415350-149	415	50	3	14.9	½ or ¾	1.54	20.7	14.5	25.9	30	10
FE2-415350-187	415	50	3	18.7	½ or ¾	1.54	26.0	18.1	39.0	40	8
FE2-415350-224	415	50	3	22.4	½ or ¾	1.54	31.2	21.8	39.0	40	8
FE2-415350-262	415	50	3	26.2	½ or ¾	1.54	36.4	25.6	45.6	45	8
FE2-440350-042	440	50	3	4.2	½ or ¾	1.45	5.5	3.95	6.9	10	16
FE2-440350-084	440	50	3	8.4	½ or ¾	1.45	11.0	8.14	13.8	15	14
FE2-440350-168	440	50	3	16.8	½ or ¾	1.45	22.0	16.3	27.6	35	8
FE2-440350-210	440	50	3	21	½ or ¾	1.45	27.6	20.3	34.4	35	8
FE2-440350-252	440	50	3	25.2	½ or ¾	1.45	33.1	24.4	41.3	45	8
FE2-440350-294	440	50	3	29.4	½ or ¾	1.45	38.6	28.5	48.3	50	6
FE2-440360-042	440	60	3	4.2	½ or ¾	1.45	5.5	3.95	6.9	10	16
FE2-440360-084	440	60	3	8.4	½ or ¾	1.45	11.0	8.14	13.8	15	14
FE2-440360-168	440	60	3	16.8	½ or ¾	1.45	22.0	16.3	27.6	35	8
FE2-440360-210	440	60	3	21	½ or ¾	1.45	27.5	20.3	34.4	35	8
FE2-440360-252	440	60	3	25.2	½ or ¾	1.45	33.1	24.4	41.3	45	8
FE2-440360-294	440	60	3	29.4	½ or ¾	1.45	38.6	28.5	48.3	50	6
FE2-480360-030	480	60	3	3	½ or ¾	1.36	3.6	2.7	4.5	15	14
FE2-480360-050	480	60	3	5	½ or ¾	1.36	6.0	4.7	7.5	15	14
FE2-480360-075	480	60	3	7.5	½ or ¾	1.36	9.0	7.2	11.3	15	14
FE2-480360-100	480	60	3	10	½ or ¾	1.36	12.0	9.7	15.0	15	14
FE2-480360-150	480	60	3	15	½ or ¾	1.36	18.0	14.4	22.5	25	10
FE2-480360-200	480	60	3	20	½ or ¾	1.36	24.1	19.4	30.1	35	8
FE2-480360-250	480	60	3	25	½ or ¾	1.36	30.1	24.2	37.6	40	8
FE2-480360-300	480	60	3	30	½ or ¾	1.36	36.1	29.2	45.1	50	6
FE2-480360-350	480	60	3	35	½ or ¾	1.36	42.1	34.2	52.6	60	6

Installation instructions

- The instructions designate the opening intended for supply connections along with the thread type and size.
- The instructions specify that an Ex d stopping box certified for the same gas groups as the apparatus shall be provided by the installer.
- Unused apertures shall be closed with suitable flameproof "d" blanking elements. All cable entry devices shall be certified as flameproof "d", suitable for the conditions of use and correctly installed.
- Fasteners used on thermostat housing must have a minimum yield strength of 92,000 psi.

Mounting instructions

Refer to "Instructions".

Routine tests

Routine tests are required for assembled core per Pneumatic Test Pressure, Drawing No. HPSC434.

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Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this EC-Type Examination Certificate.

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Specific conditions of use:

- Specific guidance noted to contact the original manufacturer for information on the dimensions of the flameproof joints.

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Essential Health and Safety Requirements

Concerning ESRs this Schedule verifies compliance with the Annex III of ATEX directive only. By placing the product on the market, the manufacturer declares compliance with other relevant Directives, and all other safety related requirements including those of Annex II of this Directive.

Additional information

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

