

[1] EC-TYPE EXAMINATION CERTIFICATE

**[2] Component intended for use on/in equipment or protective system
intended for use in potentially explosive atmospheres
Directive 94/9/EC**

- [3] EC-Type Examination Certificate Number: Nemko 09ATEX1103U**
- [4] Equipment or Protective System: Encapsulated electronic ballast for fluorescent light**
[5] Applicant and Manufacturer: Barel A/S
[6] Address: Kaiveien 2
N-9917 Kirkenes
NORWAY
- [7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.**
- [8] Nemko AS, notified body number 0470 in accordance with Article 9 of 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 the 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. 123605**
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:**
CENELEC EN 60079-0:2006, CENELEC EN 60079-7:2007 and CENELEC EN 60079-18:2004
- [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 this certificate.**
- [12] The marking of the equipment or protective system shall include the following:**

**II 2 G****Ex e mb II T5**

Oslo, 2009-09-21



Rolf Hoel
Certification Manager, Ex-products

Revised issue due to correction of the battery voltage data. This certificate replaces the issue dated 2009-07-03.

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[13] Schedule**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 09ATEX1103U****[15] Description of Component**

Encapsulated electronic ballast type HFX and encapsulated electronic ballast type HFXE with inverter for emergency light. The ballast is for use in equipment with type of protection "e". The temperature of the Tc point must not be exceeded.

Terminals on ballast are suitable for connection of wires 1.0-2.5mm².

Type:

HFX

Type	Voltage(V)	Power factor	Ambient temperature(° C)	Tc point(°C)	Lamps(W)
HFX 118 E1004	110-127	0,96	-30 to +60	80	1X18
HFX 218 E1004	110-127	0,96	-30 to +60	80	2X18
HFX 136 E1004	110-127	0,96	-30 to +60	80	1X36
HFX 236 E1004	110-127	0,96	-30 to +60	80	2X36
HFX 158 E1004	110-127	0,96	-30 to +70	85	1X58
HFX 118 E1003	220-250	0,96	-30 to +75	85	1X18
HFX 218 E1003	220-250	0,96	-30 to +75	85	2X18
HFX 136 E1003	220-250	0,96	-30 to +75	82	1X36
HFX 236 E1003	220-250	0,96	-30 to +75	89	2X36
HFX 158 E1003	220-250	0,96	-30 to +70	91	1X58
HFX 258 E1003	220-250	0,96	-30 to +65	92	2X58

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Type:HFXE

Type	Voltage(V)	Power factor	Ambient temperature(° C)	Tc point(°C)	Lamps(W)	Batt voltage(Vdc)	Battery capacity(Ah)
HFXE 118 E1004	110-127	0,95	-25 to +68	84	1X18	4,8-8,4	4
HFXE 218 E1004	110-127	0,95	-25 to +68	84	2X18	4,8-8,4	4
HFXE 136 E1004	110-127	0,95	-25 to +68	84	1X36	4,8-8,4	4
HFXE 236 E1004	110-127	0,95	-25 to +58	73	2X36	4,8-8,4	4
HFXE 158 E1004	110-127	0,95	-25 to +68	84	1X58	8,4	4
HFXE 118 E1003	220-250	0,95	-25 to +75	90	1X18	4,8-8,4	4
HFXE 218 E1003	220-250	0,95	-25 to +75	90	2X18	4,8-8,4	4
HFXE 136 E1003	220-250	0,95	-25 to +75	90	1X36	4,8-8,4	4
HFXE 236 E1003	220-250	0,95	-25 to +75	90	2X36	4,8-8,4	4
HFXE 158 E1003	220-250	0,95	-25 to +60	91	1X58	8,4	4
HFXE 258 E1003	220-250	0,95	-25 to +60	91	2X58	8,4	4

[16] Report No.: 123605

Descriptive Documents

Name/Title	Drawing No.	Rev.	Date	Sheets
HFX, /205J	11410611	J	27.02.2009	1
HFX E1003 /205J	11410604	J	10.02.2009	1
HFXE 1124-PCB-224f	11410704	f	09.07.2008	2
HFXE v2 1124-SCH-224 f 400	224f	f		1
Label: HFXE 118 E1003	2-001	1	07.05.2009	1
Label: HFXE 218 E1003	2-002	1	07.05.2009	1
Label: HFXE 136 E1003	2-003	1	07.05.2009	1
Label: HFXE 236 E1003	2-004	1	07.05.2009	1
Label: HFXE 158 E1003	2-005	1	07.05.2009	1
Label: HFXE 258 E1003	2-006	1	07.05.2009	1
Label: HFXE 118 E1004	2-007	1	07.05.2009	1

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Label: HFXE 218 E1004	2-008	1	07.05.2009	1
Label: HFXE 136 E1004	2-009	1	07.05.2009	1
Label: HFXE 236 E1004	2-010	1	07.05.2009	1
Label: HFXE 158 E1004	2-011	1	07.05.2009	1
Label: HFX T8 118 E1003	1-021	1	07.05.2009	1
Label: HFX T8 218 E1003	1-022	1	07.05.2009	1
Label: HFX T8 136 E1003	1-023	1	07.05.2009	1
Label: HFX T8 236 E1003	1-024	1	07.05.2009	1
Label: HFX T8 158 E1003	1-025	1	07.05.2009	1
Label: HFX T8 258 E1003	1-026	1	07.05.2009	1
Label: HFX T8 118 E1004	1-031	1	07.05.2009	1
Label: HFX T8 218 E1004	1-032	1	07.05.2009	1
Label: HFX T8 136 E1004	1-033	1	07.05.2009	1
Label: HFX T8 236 E1004	1-034	1	07.05.2009	1
Label: HFX T8 158 E1004	1-035	1	07.05.2009	1
Stykkliste HFXE 136 E1003	224F	4	05.05.2009	2
Stykkliste HFXE 236 E1003	224F	12	05.05.2009	2
Stykkliste HFXE 158 E1003	224F	6	05.05.2009	2
Stykkliste HFXE 2X58 E1003	224F	9	05.05.2009	2
Stykkliste HFXE 2X18 E1003	224F	9	05.05.2009	2
Stykkliste HFXE 118 E1003	224F	4	05.05.2009	2
Stykkliste HFXE 158 E1004	224F	6	05.05.2009	2
Stykkliste HFXE 218 E1004	224F	5	05.05.2009	2
Stykkliste HFXE 118 E1004	224F	4	05.05.2009	2
Stykkliste HFXE 136 E1004	224F	6	05.05.2009	2
Stykkliste HFXE 236 E1004	224F	11	05.05.2009	2
Stykkliste HFX 118 E1003 EOL	205J	1	19.03.2009	1
Stykkliste HFX 136 E1003 EOL	205J	1	19.03.2009	1
Stykkliste HFX 158 E1003 EOL	205J	2	14.04.2009	1
Stykkliste HFX 218 E1003 EOL	205J	1	19.03.2009	1
Stykkliste HFX 236 E1003 EOL	205J	1	19.03.2009	1
Stykkliste HFX 258 E1003 EOL	205J	2	05.05.2009	1
Stykkliste HFX 236 E1004 EOL	205J	1	19.03.2009	1
Stykkliste HFX 118 E1004 EOL	205J	1	19.03.2009	1
Stykkliste HFX 136 E1004 EOL	205J	1	19.03.2009	1
Stykkliste HFX 158 E1004 EOL	205J	1	14.04.2009	1
Stykkliste HFX 218 E1004 EOL	205J	1	19.03.2009	1

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Routine Test

Routine test that shall be carried out by the manufacturer on all units:

Electrical strength test according to relevant parts of clause 9 in CENELEC EN 60079-18.

Each ballast shall be subjected to a visual inspection.

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9



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