



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx LCI 08.0023X issue No.:0 Certificate history:

Status: Current

Date of Issue: 2008-12-12 Page 1 of 4

Applicant: **A.T.X.**  
E.I.N. rue André DUROUCHEZ  
80084 AMIENS CEDEX 2  
France

Electrical Apparatus: **Flameproof enclosure**  
Optional accessory:

Type of Protection: **d, tD**

Marking: **A.T.X. - APPLETON**  
Address: ...  
Type: CF...  
Serial Number: ....; Year of construction: ...  
Ex d IIB or IIC T6 to T4 or  
Ex d[ia] or d[ib] IIB or IIC T6 to T4  
Ex tD A21 T80°C, T95°C or T130°C  
**WARNING - DO NOT OPEN WHEN ENERGIZED**  
**AFTER DE-ENERGIZING, DELAY X\* MINUTES BEFORE OPENING**  
**DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT (when a**  
**battery is using)**  
Cable entry temperature : \*\*°C  
IECEX LCI 08.0023 X  
\*: see descriptive notice

Approved for issue on behalf of the IECEx  
Certification Body:

Marc GILLAUX

Position:

Ex Certification Manager

Signature:  
(for printed version)

Date:

**12 DEC. 2008**

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

**Laboratoire Central des Industries Electriques (LCIE)**  
33 Avenue du General Leclerc  
FR-92260 Fontenay-aux-Roses  
France





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Manufacturer: **A.T.X.**  
A.I.N. rue André DUROUCHEZ  
80084 AMIENS CEDEX 2  
**France**

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

#### STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

<b>IEC 60079-0 : 2004</b> Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 61241-0 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
<b>IEC 61241-1 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

#### TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:

[FR/LCI/ExTR08.0020/00](#)

Quality Assessment Report:

[FR/LCI/QAR07.0008/00](#)



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## Schedule

### EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The enclosures are made of aluminium alloy.

The CF range is divided in 2 families:

- CF10 to 70 B (group IIB) --> 7 types

- CF10, 30, 50, 70 C (group IIC) --> 4 types

Each type, inside the corresponding family, has its own models (e.g. CF11B, CF12B...)

These enclosures can be jointed together or with certified increased safety enclosures. These enclosures may be equipped with actuators on cover or sides.

Various electrical parts can be fitted inside each enclosure regarding the internal volume.

Details of the possibilities are defined in the manufacturer's technical file.

Low voltage equipment (terminals, transformer, contactor...):  $U_{max} = 1000V AC / 1500V DC$

High voltage equipment (Ignition transformer):  $U_{max} = 20kV$

Maximal dissipated power: 60W up to 1550W according to each model and its contents

Insulator for high voltage connection: 11kV

For the general or specific contents, see manufacturer documents.

### CONDITIONS OF CERTIFICATION: YES as shown below:

According to the content, the dissipated power, the ambient temperatures ranges, a dedicated marking per type enclosure is defined in the attached tables

Temperature range:

Group of gas	Type of enclosure	Temperature range
IIB	CF10B	-40°C to +55°C
	CF20B	-40°C to +55°C
	CF30B	-20°C to +55°C
	CF40B	-40°C to +55°C
	CF50B	-40°C to +55°C
	CF60B	-50°C to +55°C
	CF70B	-20°C to +55°C
IIC	CF10C	-40°C to +55°C
	CF30C	-40°C to +55°C
	CF50C	-40°C to +55°C
	CF70C	-20°C to +55°C

The addition of intrinsically safe elements shall conform to the conditions described in the manufacturer documents.



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## Additional information:

### ROUTINE TESTS

Each enclosure shall be submitted to an overpressure routine test for at least 10 seconds without exceeding 1 minute at the value which is in the following table:

CF10B and CF10C are exempted

Type of enclosure	Values (bars) for temperature used		
	-50°C to +55°C	-40°C to +55°C	-20°C to +55°C
CF20B		11	11
CF30B			8,3
CF40B		14,6	11,1
CF50B		15,2	10,7
CF60B	10,44		9
CF70B			8,4
CF30C		14,1	11,1
CF50C		16,8	12,9
CF70C			13

### TEMPERATURE

Surface temperature for dust application are directly linked with the maximum permitted surface temperature of the corresponding gas temperature class :

Temperature Class	Surface temperature
T6	80°C
T5	95°C
T4	130°C

The temperature tables are in attachment "CLASSIFICATION TABLES" on IECEx site ([www.iecex.com](http://www.iecex.com)).