



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

Certificate No.: IECEx LCI 11.0008X issue No.:0 Certificate history:

Status: **Current**

Date of Issue: 2011-04-11 Page 1 of 4

Applicant: **A.T.X.**
E.I.N 35 rue André DUROUCHEZ
CS 98017
80084 AMIENS Cedex 2
France

Electrical Apparatus: **Increased safety enclosure**
Optional accessory:

Type of Protection: **d, e, ia, ib and tD**

Marking: **A.T.X. – APPLETON**
Address :...
Type : JBe (1)
For gas use: Ex ... (2) ... T(3)
For Dust use: Ex tD A21 IP66 T...°C (see temperature table)
IECEX LCI 11.0008X
(1): completed by the model
(2): mode of protection and gas group from the combination of components permitted per temperature class
(3): according to certified component fitted inside the enclosure listed in the attachment
WARNING – DO NOT OPEN WHEN ENERGIZED

Approved for issue on behalf of the IECEx
Certification Body:

Marc GILLAUX

Position:

Ex certification Manager

Signature:
(for printed version)



11 AVR. 2011

Date:

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](http://www.iecex.com).

Certificate issued by:

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



LCIE



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Manufacturer: **A.T.X.**
E.I.N 35 rue André DUROUCHEZ
CS 98017
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:

| | |
|--|--|
| IEC 60079-0 : 2004 Edition: 4.0 | Electrical apparatus for explosive gas atmospheres - Part 0: General requirements |
| IEC 60079-1 : 2003 Edition: 5 | Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd' |
| IEC 60079-11 : 2006 Edition: 5 | Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i" |
| IEC 60079-7 : 2006-07 Edition: 4 | Explosive atmospheres - Part 7: Equipment protection by increased safety "e" |
| IEC 61241-0 : 2004 Edition: 1 | Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements |
| IEC 61241-1 : 2004 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/ExTR11.0008/00

Quality Assessment Report:

FR/LCI/QAR07.0008/04



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

These enclosures are divided in 24 models (depending on enclosure's size).

These enclosures can be joined together or with other increased safety enclosures (or certified flameproof enclosures) which provided an assembly with a minimum IP54 as defined in manufacturer's documents.

All models shall be used as a junction box (with Ex e II compliant terminals or with terminals blocks in compliance with intrinsic safety mode of protection) or wiring accessories boxes (the enclosure could be equipped with control and signal auxiliaries (see tables in attachment))

Junction box (Un max = 1000V): Enclosures shall be equipped with certified terminals Ex e II.

Intrinsic safety junction box : Enclosures shall be equipped with terminals/terminal blocks, usually blue, certified or recognised for this use.

CONDITIONS OF CERTIFICATION: YES as shown below:

- In any case, for all fitted elements, the maximum values of the electrical parameters defined in the manufacturer descriptive documents shall not be over passed.
- The installation of intrinsically safe certified elements ia or ib concerns the relevant EC type examination certificates and the intrinsic safety installation rules shall be respected according manufacturer's documents
- For a selected temperature ambient, the operating temperature of components to be fitted shall not be over passed. (see attachment : IECEx LCI 11.0008X Issue 00-Attachment n°1 Issue n°0.pdf)
- Characteristics of materials shall be adapted in order not to exceed permitted maximal dissipated power. All these elements, as well as enclosures' assemblies conditions are indicated in attachment: IECEx LCI 11.0008X Issue 00-Attachment n°1 Issue n°0.pdf.



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EQUIPMENT(continued):

Wiring accessories boxes

Enclosures could be equipped with control and signal auxiliaries:

| Type | Name of equipment/component | Operating temperature |
|-------------|-------------------------------------|-----------------------|
| CVe | Contact and Pilot light | -40°C up to +75°C |
| FU40 | Fuse holder | -40°C up to +40°C |
| TCe | Operator | -40°C up to +60°C |
| TSN/TSCN | Transformer | -20°C up to +80°C |
| 07-3331-... | Switch | -20°C up to +40°C |
| IT20 | Switch | -20°C up to +80°C |
| IT40U | Circuit breaker and switch | -20°C up to +60°C |
| CBU | Control or protection device | -20°C up to +55°C |
| IT63 | Control or protection device | -30°C up to +60°C |
| IT160 | Control device | -20°C up to +55°C |
| 8008/2 | Control and load interrupter switch | -55°C up to +40°C |
| PCX/EN | Flush mounting sockets | -40°C up to +55°C |

Temperature table

| Temperature classes following combinations of contents | Surface temperature for Dust use |
|--|----------------------------------|
| T6 | 80°C |
| T5 | 95°C |
| T4 | 130°C |
| T3 | 195°C |

Specific parameters

Maximum operating voltage: 11 000 V

Maximum current: 1600A

Intrinsically safe parameters concerns the relevant Ec type examination certificates.

Routine tests:

Each single enclosure, regarding to increased safety elements, shall be submitted to dielectric strength test according to paragraph 7.1 of IEC 60079-7 standard.

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TABLEAU N°1 D'UTILISATION DES COMPOSANTS DANS LES ENVELOPPES "e" TYPE JBe POUR Ta max.= +40°C /
TABLE N°1 OF COMPONENTS USED IN "e" ENCLOSURES JBe TYPE FOR Ta max= +40°C

2/6
ND A51138

| COMPONENTS/COMPONENTS | Type | Classes de températures du coffret suivant les puissances maxi dissipées/ T° rating of enclosure depending on maxi dissipated power | | | | | | | | | | | | | | | | Caractéristiques/Caractéristiques Températures de service/ Operating temperatures |
|------------------------|-------------|---|----|-----------------------|----|-----------------------|----|------------------------|----|------------------------|----|-----------------------|----|------------------------|----|-----------------------|----|---|
| | | JSe10 (150X125X55) | | JBe30 (160X130X55) | | JBe40 (130X370X35) | | JBe45 (150X370X200) | | JBe46 (200X370X200) | | JBe50 (370X370X55) | | JBe57 (260X370X200) | | JBe60 (270X650X55) | | |
| | | T6 | T5 | T6 | T5 | T3 | T4 | T5 | T6 | T3 | T4 | T5 | T6 | T3 | T4 | T5 | T6 | |
| A P L | ≤ 10A | | | | | | | | | | | | | | | | | 40A maxi -25°C à 10 +65°C |
| | ≤ 20A | | | | | | | | | | | | | | | | | |
| | ≤ 30A | | | | | | | | | | | | | | | | | |
| B1 DM | ≤ 16A | | | | | | | | | | | | | | | | | -35°C à 10 +65°C |
| | ≤ 20A | | | | | | | | | | | | | | | | | |
| | ≤ 25A | | | | | | | | | | | | | | | | | |
| | ≤ 32A | | | | | | | | | | | | | | | | | |
| | ≤ 40A | | | | | | | | | | | | | | | | | |
| | ≤ 63A | | | | | | | | | | | | | | | | | |
| T3 / T4 | ≤ 16A | | | | | | | | | | | | | | | | | 650V maxi |
| | ≤ 20A | | | | | | | | | | | | | | | | | |
| | ≤ 25A | | | | | | | | | | | | | | | | | |
| | ≤ 32A | | | | | | | | | | | | | | | | | |
| | ≤ 40A | | | | | | | | | | | | | | | | | |
| | ≤ 63A | | | | | | | | | | | | | | | | | |
| B1 DM | ≤ 16A | | | | | | | | | | | | | | | | | -25°C à 10 +55°C |
| | ≤ 20A | | | | | | | | | | | | | | | | | |
| | ≤ 25A | | | | | | | | | | | | | | | | | |
| | ≤ 32A | | | | | | | | | | | | | | | | | |
| | ≤ 40A | | | | | | | | | | | | | | | | | |
| | ≤ 63A | | | | | | | | | | | | | | | | | |
| T3 / T4 | ≤ 16A | | | | | | | | | | | | | | | | | 650V maxi |
| | ≤ 20A | | | | | | | | | | | | | | | | | |
| | ≤ 25A | | | | | | | | | | | | | | | | | |
| | ≤ 32A | | | | | | | | | | | | | | | | | |
| | ≤ 40A | | | | | | | | | | | | | | | | | |
| | ≤ 63A | | | | | | | | | | | | | | | | | |
| 16A ≤ 50V 16A ≤ 20V | POX / EN 54 | | | | | | | | | | | | | | | | | 16A maxi -45°C à 10 +55°C |
| | POX / EN 54 | | | | | | | | | | | | | | | | | |
| | POX / EN 54 | | | | | | | | | | | | | | | | | |

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TABLEAU N°1 D'UTILISATION DES COMPOSANTS DANS LES ENVELOPPES "e" TYPE JBe POUR Ta max.= + 40°C /
TABLE N°1 OF COMPONENTS USED IN "e" ENCLOSURES JBe TYPE FOR Ta max.= +40°C

3/6
ND A51138

| COMPOSANTS / COMPONENTS | Classes de températures du coffret suivant les puissances maxi dissipées/ T° rating of enclosure depending on maxi dissipated power | | | | | | | | | | | | | Caractéristiques / Characteristics Températures de service / Operating temperatures | | |
|-------------------------------------|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|---|---|---------------------|
| | Type | | T6 | | T5 | | T5 | | T3 | | T3 | | T3 | | Puissance dissipée / Dissipated Power (W) | Classe de T° rating |
| | | JBe10 (120X120X45) | JBe30 (120X130X55) | JBe30 (160X130X55) | JBe30 (160X150X55) | JBe40 (180X170X35) | JBe40 (220X250X150) | JBe45 (180X170X200) | JBe45 (220X170X200) | JBe45 (220X170X200) | JBe45 (220X170X200) | JBe45 (220X170X200) | JBe45 (220X170X200) | JBe60 (270X250X55) | | |
| 32A - 50V | | | | | | 16 | | | | | | | | | 32A max 500V max -40°C à 10 +55°C | |
| Blocs de jonction / Terminal blocks | | | | | | | | | | | | | | | (3) | |

(1) Association obligatoire avec protection thermique du moteur / Obligatory association with thermal protection of the engine

(2) Protection obligatoire avec court-circuit / Obligatory protection with circuit breaker

(3) Blocs de jonction / Terminal blocks

Pour les T° d'utilisation > + 40°C (excepté (4)), la T° de marquage deviendra T5 au lieu de T6, T4 au lieu de T5, T3 au lieu de T4 et T2 au lieu de T3 / Operating T° > +40°C (excepted (4)), T rating will be T5 instead of T6, T4 instead of T5, T3 instead of T4, T2 instead of T3.

IECEx Certificate of Conformity

TABLEAU N°2 D'UTILISATION DES COMPOSANTS DANS LES ENVELOPPES "e" TYPE JBe pour Ta max.= + 40°C; 5/6
 TABLE N°2 OF COMPONENTS USED IN "e" ENCLOSURES JBe TYPE FOR Ta max= +40°C ND A51138

| COMPONENTS | Type | Classes de températures du coffret suivant les puissances maxi dissipées/ T° rating of enclosure depending on maxi dissipated power | | | | | | | | | | | | | | | | Caractéristiques Températures de service/ Operating températures |
|------------|--------|---|----|----|----|---|----|----|----|---|----|----|----|---|----|----|----|--|
| | | JBe55 (370X370X200) JBe70 (370X750X200) | | | | JBe56 (370X270X300) JBe76 (560X560X200) JBe75 (370X750X200) | | | | JBe56 (370X560X200) JBe76 (560X560X200) JBe75 (370X750X300) | | | | JBe56 (370X560X200) JBe76 (560X560X200) JBe75 (370X750X300) | | | | |
| | | T3 | T4 | TE | T5 | T3 | T4 | TE | T5 | T3 | T4 | TE | T5 | T3 | T4 | TE | T5 | |
| 1000 | E 100A | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 16A max 55°C a10 -40°C |
| | E 100B | | | | | | | | | | | | | | | | | 40A max 20°C a10 -65°C |
| | E 100C | | | | | | | | | | | | | | | | | -30°C a10 +50°C |
| | E 100D | | | | | | | | | | | | | | | | | 550V max |
| | E 100E | | | | | | | | | | | | | | | | | -30°C a10 +50°C |
| | E 100F | | | | | | | | | | | | | | | | | 550V max |
| | E 100G | | | | | | | | | | | | | | | | | -20°C a10 +55°C |
| | E 100H | | | | | | | | | | | | | | | | | 550V max |
| | E 100I | | | | | | | | | | | | | | | | | -30°C a10 +55°C |
| | E 100J | | | | | | | | | | | | | | | | | 550V max |
| 1000 | E 100A | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 16A max 55°C a10 -40°C |
| | E 100B | | | | | | | | | | | | | | | | | 40A max 20°C a10 -65°C |
| | E 100C | | | | | | | | | | | | | | | | | -30°C a10 +50°C |
| | E 100D | | | | | | | | | | | | | | | | | 550V max |
| | E 100E | | | | | | | | | | | | | | | | | -30°C a10 +50°C |
| | E 100F | | | | | | | | | | | | | | | | | 550V max |
| | E 100G | | | | | | | | | | | | | | | | | -20°C a10 +55°C |
| | E 100H | | | | | | | | | | | | | | | | | 550V max |
| | E 100I | | | | | | | | | | | | | | | | | -30°C a10 +55°C |
| | E 100J | | | | | | | | | | | | | | | | | 550V max |

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TABLEAU N°2 D'UTILISATION DES COMPOSANTS DANS LES ENVELOPPES "e" TYPE JBe pour Ta max.= + 40°C /
TABLE N°2 OF COMPONENTS USED IN "e" ENCLOSURES JBe TYPE FOR Ta max.= +40°C

0/3

ND A51138

| COMPOSANTS: COMPONENTS | Type | Classes de températures du coffret suivant les puissances maxi dissipées/ T° rating of enclosure depending on maxi dissipated power | | | | | | | | | | | | Caractéristiques: Características Temperatures de service: Operating temperature | | |
|-------------------------------------|------|---|----|----|----|----|----|---|----|----|----|----|----|---|---|--|
| | | JBe55 (370X370X200) JBe65 (370X560X200) JBe75 (370X750X200) | | | | | | JBe88 (370X560X300) JBe78 (560X560X200) JBe76 (560X750X200) JBe86 (750X1130X200) | | | | | | | P Max dissipée / Max dissipated power (W) | |
| | | T3 | T4 | T5 | T6 | T7 | T8 | T3 | T4 | T5 | T6 | T7 | T8 | | | |
| 16A > 50V | D42 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 15A max 500V max -40°C à 0 +55°C |
| 16A > 50V | D42 | | | | | | | | | | | | | | | 32A max 500V max -40°C à 0 +55°C |
| 32A > 50V | L27 | | | | | | | | | | | | | | | |
| Écrous de jonction/ Terminal blocks | (3) | | | | | | | | | | | | | | | (3) |

(1) Association obligatoire avec protection thermique du moteur / Obligatory association with thermal protection of the motor

(2) Protection obligatoire avec coupe-circuit / Obligatory protection with circuit breaker

(3) Blocs de jonction Terminal blocks

Pour les T° d'utilisation > + 40°C (excepté (4)), la T° de marquage deviendra T5 au lieu de T6, T4 au lieu de T5, T3 au lieu de T4 et T2 au lieu de T3 / Operating T° > +40°C (excepted (4)), T rating will be T5 instead of T6, T4 instead of T5, T3 instead of T4, T2 instead of T3.