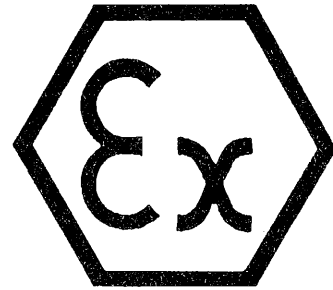


Institut Scientifique de Service Public



(1) **EC TYPE EXAMINATION CERTIFICATE**

(2) **Equipment or protective system intended for use
in potentially explosive atmospheres
Directive 94/9/EC**

(3) EC type examination certificate number: **ISSeP03ATEX144X**

(4) Equipment or protective system:
Solar Panel type SPA120

(5) Applicant **JCE (Aberdeen) Ltd** Manufacturer **JCE Group**

(6) Address: **Blackburn Business Park
Aberdeen AB21 OPS
U.K.**

(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) ISSeP, notified body n° 492 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 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 n° 02067.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014 : 1997 + A1 and A2 : 1999
EN 50028 : 1987
EN 50019 : 2000

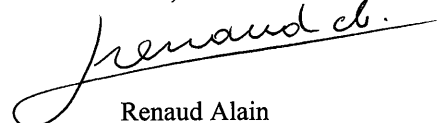
(10) If the symbol "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(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 this Directive may 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 indications:

 II 2 G EEx me II T5

Colfontaine, the 19.12.2003



Renaud Alain
Manager of Colfontaine division

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC
Zoning A. Schweitzer, rue de la Platinerie
B-7340 COLFONTAINE (Wasmès)
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(13)

SCHEDULE

(14)

EC TYPE EXAMINATION CERTIFICATE N^R ISSeP03ATEX144X

(15) Description of the equipment or protective system:

Solar Panel type SPA120

Electrical parameters : U_{max} : 22 V
I_{max} : 7.5 A

Routine tests :

- The manufacturer shall make the routine verifications and tests necessary to ensure that the electrical apparatus produced complies with the specification submitted to the testing station together with the prototype or sample (EN 50014 - clause 24).
- Each produced apparatus shall be submitted to the tests as indicated at clauses 7.1, 7.2 and 7.3 of EN 50028.
- Each junction box shall be submitted to a voltage test under 500 V during 1 min.

Eventual prescriptions : None.

(16) Report n^r 02067 of 15.12.2003

Composed in total of 25 pages, completed by the following descriptive documents :

The manual : "SPA 120 Solar Panel"

Number	Rev.	Date	Pages	Description
16333-100	2	18.08.2003	7	EExme Solar Panel
AC-562059		07.10.1998		Solar Module

(17) Special conditions for safe use:

- The rear face shall be protected against all mechanical impact except if the protection back plate is installed.
- All metallic parts shall be earthed.
- The solar panel shall be completely covered by opaque material during the installation, the connection of the cable and before each connection box opening.

(18) Essential Health and Safety Requirements: covered by the Standards listed in (9).

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