



EU Type Examination Certificate CML 16ATEX6153X Issue 2


- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Air 1A, Air 1B & Air 1C Portable Air Conditioning System**
- 3 Manufacturer **Elecex Ltd.**
- 4 Address 1 Castle Road
Falkirk
FK2 7UY
UK
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V. , Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN 60079-0:2012+A11:2013

EN 60079-7:2015

EN ISO 80079-36:2016

- 10 The equipment shall be marked with the following:

 II 2 G

Ex db eb ia [ia IIC] mb pxb IIB/IIB+H₂* T** Gb

Ex h IIB/IIB+H₂* T** Gb

Ta = -20°C to +50°C

* The Air 1A and Air 1B are suitable for IIB. The Air 1C is suitable for IIB+H₂.

** The Air 1A is suitable for temperature class T3. The Air 1B and Air 1C are suitable for temperature class T3 or T4

Note: The manufacturer chose to mark all the symbols for the protection concepts for clarity.

A Snowden



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11 Description

The Air 1A, Air 1B and Air 1C Portable Air Conditioning Systems are direct expansion air conditioning machines comprising an evaporator duct, a condenser duct, a compressor and controls.

In the evaporator duct air is drawn through the duct by a steel evaporator fan, the duct also houses a particulate filter and a manually adjustable volume control damper. Also within the unit is the condenser duct which has sand/dust filters on the inlet and outlet sides. The condenser duct houses an axial fan which draws air through this duct. The unit also houses a compressor and a flameproof enclosure containing electronics which are used to control the operation of the unit.

The entire unit is housed within a metal frame with metal panels on all faces, forming an external enclosure. Two of the panels on either side of the unit are hinged doors and can be opened to gain access to internal parts. The mains power cable exits the machine on the top face of the unit and there is a condensed water drain recessed into the base.

There is a control panel on one side of the external enclosure, featuring a digital display, an emergency-stop button, a mode selection switch and a remote thermostat socket, all of which are accessible from outside the enclosure.

All electrical parts are previously ATEX certified, and electrical connections between the various parts are made via certified cable glands. In addition to the above main parts of the system, there are several other previously certified parts included, which are relied on for the operation of the system.

Variation 1

This variation introduces the following modifications:

- i. Introduction of alternative options for the constituent parts which the complete units include.
- ii. Introduction of the option to replace the unit's constituent parts with equivalent parts which meet a specific criteria.
- iii. Introduction of alternative wiring options.
- iv. Introduction of drawing changes. Some of these changes are to allow different versions of the units to be constructed.
- v. Introduction of the Model 'Air 1C'. The gas group for this model is 'IIB+H₂'; the certificate has been updated to show this marking option.
- vi. Addition of standard BS EN ISO 80079-36:2016 to the certificate.

Variation 2

This variation introduces the following modifications:

- i. The change of manufacturer's address.
- ii. The issue of a CML B.V. certificate.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	08 Feb 2017	R1220A/00	Report for the certificate issue
1	26 Apr 2018	R11713A/00	Introduction of Variation 1
2	08 Nov 2018	R12049A/00	Introduction of Variation 2

Note: Drawings that describe the equipment or component are listed in the Annex.



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13 Conditions of manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- 13.1 The product incorporates certified parts or safety critical components. The manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- 13.2 The increased safety wiring of all units shall be subjected to a routine dielectric strength test in accordance with EN 60079-7:2015, clause 7.1. The test voltage and duration shall be selected based on the rated voltage of the circuit being tested and in accordance with EN 60079-15:2015, clauses 7.1 and 6.1. No breakdown or flashover shall occur.
- 13.3 The Air Conditioning System assemblies comprise several previously ATEX certified parts. All of these parts shall be installed in accordance with EN 60079-14, in accordance with any special conditions for safe use/conditions of certification defined on their ATEX certificate (which are relevant in manufacturing the unit) and in accordance with their instruction manuals.
- 13.4 Any special conditions for safe use/conditions of certification which appear on the ATEX certificates for the previously certified parts forming the system, which are relevant to the models used and which are relevant to the end-user, shall appear in the instruction manual for the overall assembly.
- 13.5 It shall be ensured that the temperature class limit of the previously equipment certified parts installed shall be no higher than that which is marked on the overall assembly.
- 13.6 All wiring to the compressor shall be suitable for a service temperature range of -20°C to +90°C.

14 Special Conditions for Safe Use (Conditions of Certification)

The following conditions relate to safe installation and/or use of the equipment.

- 14.1 There are conditions specified in the instruction manual for the assembly which relate to the correct installation, operation and maintenance of the constituent parts forming the Air Conditioning System assemblies. These conditions shall be observed and complied with in order to ensure safe use of the equipment.

Certificate Annex



Certificate Number CML 16ATEX6153X
Equipment Air 1A, Air 1B & Air 1C Portable Air Conditioning System
Manufacturer Elecex Ltd.

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
003-D1-A	1 to 3	A	08 Feb 2017	Elecex Air Schedule GA
003-D2-A	1 to 4	A	08 Feb 2017	Elecex Air schedule document book
003-D3-B	1 of 1	B	08 Feb 2017	ATEX/IECEX Label Drawing 003-D3-B
003-R2-A	1 to 17	-	08 Feb 2017	Air Product Main Component Bill of Materials

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
003-D1-B	1 to 3	B	26 Apr 2018	Elecex Air Schedule GA
003-D2-B	1 to 8	B	26 Apr 2018	Elecex Air schedule document book
003-D3-C	1 of 1	C	26 Apr 2018	ATEX/IECEX Label Drawing 003-D3-B
003-R2-B	1 to 16	B	26 Apr 2018	Air Product Main Component Bill of Materials

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Drawing No	Sheets	Rev	Approved date	Title
003-D3	1 of 1	D	08 Nov 2018	ATEX/IECEX Label Drawing