



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **KIWA 19ATEX0049X** Issue: **2**

4 Equipment: **Indoor Air conditioning unit, Type AR-050/I...**

5 Applicant: **Artidor Explosion Safety B.V.**

6 Address: **Emopad 38, 5663 PB Geldrop
The Netherlands**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 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.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0: 2012 + A11: 2013 EN 60079-1: 2014 EN 60079-7: 2015 + A1: 2018
EN 60079-11: 2012 EN ISO 80079-36: 2016 EN ISO 80079-37: 2016

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2 G
Ex db eb h ia IIB T4 Gb or
Ex db eb h ia IIC T4 Gb
Ta = -20°C to +55°C

Project Number 80066870

Signed: J A May

Title: Director of Operations

CSA Group Netherlands B.V.
Utrechtseweg 310, Building B42
6812 AR Arnhem The Netherlands



SCHEDULE

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Issue 2

13 DESCRIPTION OF EQUIPMENT

The Indoor Air conditioning unit, Type AR-050/I... is designed to condition air. Air is forced through a heat exchanger with cold or warm fluid.

The unit consists of a sheet steel enclosure with a heat exchanger, Ex d or Ex de certified fan motor with aluminium or plastic fan, Ex e certified connection box and a remote control and temperature switch assembly powered by intrinsically safe devices.

For temperature setting and thermal protection of the airco unit, ordinary temperature devices are used (thermostat and clixons) but that are connected to an intrinsically safe device (barrier). The devices are simple devices (switches) and the power is limited for IIC by the barriers.

The power is very low (50 mW) and the EN 60079-14, clause 16.4 mentions that for simple switches max. 40 K rise needs to be considered. This is sufficient for T4 and Ta 55 °C.

Model code: AR-050/I abcd

a. code for cooling capacity (kW):	02, 03, 04, 05, 05, 06, 07, 10, 12 or 14
<u>b</u> power supply	1 = 230 Vac single phase 2 = 400 Vac 3 phase
<u>c</u> unit type	1 = block 2 = ceiling 3 = ceiling compact 4 = ceiling comfort
<u>d</u> number of fans	1, 2 or 3

Technical Data

Fan motor: 230 single-phase or 400 Vac three-phase, 0,09 to 0,55 kW

Cooling capacity: 2 - 14 kW

Remote control and temperature switch assembly:

In type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:

$U_i = 20 \text{ V}$, $I_i = 100 \text{ mA}$, $P_i = 100 \text{ mW}$, $C_i = 0 \text{ }\mu\text{F}$, $L_i = 1 \text{ }\mu\text{H}$.

Variation 1 - This variation introduced the following changes:

- i. Extension from IIB to IIC, the marking was amended accordingly.
- ii. The product description was amended to reflect this change

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

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14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
1	29 November 2019	190500846	The release of the prime certificate.
2	31 March 2021	R80066870A	The introduction of Variation 1.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 Electrostatic charge of the remote-control enclosure shall be prevented by suitable measures.
- 15.2 The materials used in the construction may contain levels of Mg, Ti and Zi that exceed the values allowed for EPL Gb. The equipment shall therefore be protected from impact and friction when installed.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira/CSA Certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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Certificate Annexe



Certificate Number: KIWA 19ATEX0049X

Equipment: Indoor Air conditioning unit, Type AR-050/I...

Applicant: Artidor Explosion Safety B.V.

Issue

Drawing	Sheets	Rev.	Date	Title
ATEX-DSN-AR-050_indoor_unit	1 to 4	2	2019-09-02	General description
ATEX-EX-AR-050_indoor_unit (TF)	1 to 19	2	2019-09-02	Description and motivation
	1 to 13	-	September 2019	User manual
	1 to 3	1.0	13 November 2019	Visual inspection and dielectric strength test
	1 to 2	-	-	Risk analysys AR_050_indoor_unit
AS19xxxx-x	1 to 4	C	10-07-2019	Electrical diagram

Issue 2

Drawing	Sheets	Rev.	Date (Stamp)	Title
ATEX-DSN-AR-050_indoor_unit	1 to 4	3	03 Mar 2021	General description
ATEX-EX-AR-050_indoor_unit	1 to 16	4	03 Mar 2021	Description and motivation
-	1 to 16		03 Mar 2021	User Manual
-	-	1 of 1	03 Mar 2021	Example of marking of the AR-050
ATEX-RA-AR-050 Indoor Unit	1 to 2	2	03 Mar 2021	Ignition Hazzerd Assessment AR-050 Indoor Unit
-	1 of 1	-	03 Mar 2021	List of documents
-	1 to 4	-	03 Mar 2021	Risk analysis AR_050 Indoorunit, 10-2020

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