AIR HEATERS DESIGNED FOR INSTALLATION IN POTENTIALLY EXPLOSIVE ATMOSPHERES

*SAFETY INSTRUCTIONS FOR THE USE OF THE **ATLAS - A** SERIES AIR HEATERS*

SABIANA
IL CLIMA AMICO
A company of Arbonia Group
ARBONIA

Via Piave, 53 · 20011 Corbetta (MI) · Italy
Tel. +39.02.97203.1 ric. autom.
info@sabiana.it · www.sabiana.it

03/2026
Cod. 4050583

1. DESCRIPTION

The ATLAS-A series air heaters are appliances designed for the heating of various types of environments, and are made up of:

- *pre-painted and galvanised plate casing*
- *finned heat exchange coil, with aluminium fins and iron tubes (Atlas-A) or copper tubes (Atlas-A Super)*
- *outlet air louvers made from pre-painted galvanised plate*
- *three-phase electric motor, 4, 6 or 8 poles, voltage 400V, certified separately*
- *motor-fan assembly safety guard and support, made form 2.8 mm. diameter iron wire, gap 10 mm.*
- *axial-flow fan with aluminium blades riveted onto radial iron spokes. Coupling hub to motor shaft made from iron or aluminium.*

The ATLAS-A series air heaters are group II appliances, for use in zones classified with the presence of gas (category 2 G). These are designed and built in compliance with the ATEX directive 2014/34/EU and U.K. Regulation S.I. 2016 No. 1107 (as amended), according to the European standards: EN 1127-1:2019, EN ISO 80079-36, EN ISO 80079-37 and EN 14986:2017.

The motor is certified separately, II 2 G Ex db / Ex db eb IIB T4 Gb, suitable for use in zones classified (zone 1 and zone 2) with the presence of group IIB gases.

The rating plate of the air heaters shows the markings envisaged by the ATEX directive 2014/34/EU and U.K. Regulation S.I. 2016 No. 1107 (as amended) (also see section 3).

2. TECHNICAL SPECIFICATIONS

Ambient temperature: - 20 °C ÷ + 40 °C

Operating pressure	*Max 10 bars*
Max operating temperature	*Max 130 °C (T4) with Tmax = 135 °C or alternatively Max 180 °C (T3) with Tmax = 185 °C*
Primary fluid (coil)	*Water / Steam*
Secondary fluid	*Air*

3. MARKINGS

CE Ex II 2 G Ex h IIB T4…T3 Gb ATJA22 ATEX0034

II 2	= *group II (surface), category 2*
G	= *explosive atmosphere with the presence of gas, vapour or mist*
Ex h	= *type of protection*
IIB	= *gas group*
T4...T3	= *temperature class according to max fluid temperature*
Gb	= *EPL*
S/N	= *serial number*
dd/mm/yy	= *date of fabrication (day/month/year)*
- 20 °C to + 40 °C	= *room temperature*
ATJA 22 ATEX 0034	= *reference to the Technical File kept at the NB. in compliance with the VIII annex of the ATEX Directive 2014/34/UE and Part 6 - Schedule 3A of U.K.S.I. 2019 No. 696 (U.K. Regulation S.I. 2016 No. 1107)*

Temperature class	Maximum temperature of the primary fluid
T4	≤130°C
T3	> 130°C ≤ 180°C

Relation between danger zones, substances and categories and EPL

Danger zone		Categories	EPL
Gas, vapour or mist	Zone 0	1G	Ga
Gas, vapour or mist	Zone 1	2G or alternatively 1G	Gb or alternatively Ga
Gas, vapour or mist	Zone 2	3G, 2G or alternatively 1G	Gc, Gb or alternatively Ga
Dusts	Zone 20	1D	Da
Dusts	Zone 21	2D or alternatively 1D	Db or alternatively Da
Dusts	Zone 22	3D, 2D or alternatively 1D	Dc, Db or alternatively Da

4. SAFETY INSTRUCTIONS FOR INSTALLATION IN DANGER ZONES

Before installation, carefully read the user and maintenance manual.

The ATLAS-A series air heaters must be installed and maintained in accordance with the installation and maintenance standards for environments classified against the risk of explosion due to the presence of gases (example: EN 60079-14, EN 60079-17 or alternatively other national standards).

All maintenance operations must be carried out according to the information described on the maintenance charts.

Earth the electric motor and the entire metal structure of the appliance using the special connector; the connection must be secured and not subject to loosening and rotation.

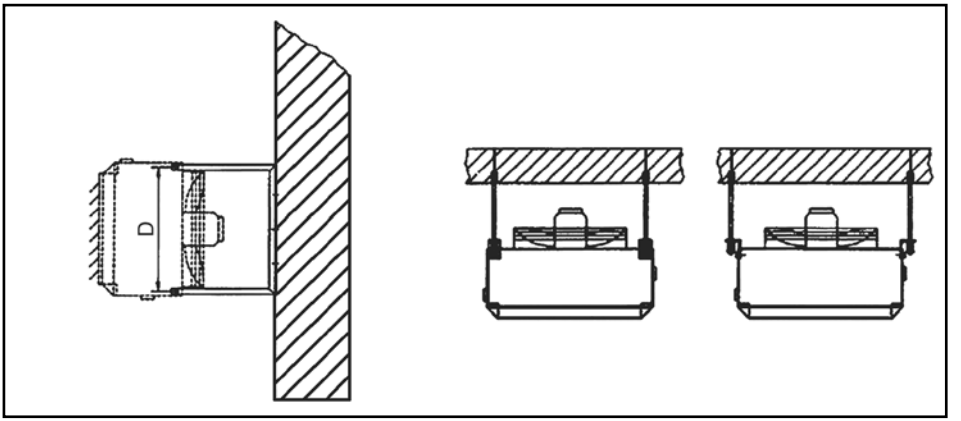
The maximum temperature of the primary fluid must in any case be less than 130 °C for air heaters in temperature class T4, and less than 180 °C per air heaters in temperature class T3; in this regard, suitable temperature checks must be performed to ensure the limits envisaged by the temperature class of the substances used are respected, with the following characteristics:

- *GAS OR VAPOURS OF FLAMMABLE LIQUIDS: calibration at a maximum value equal to 80% of the maximum start-up temperature.*

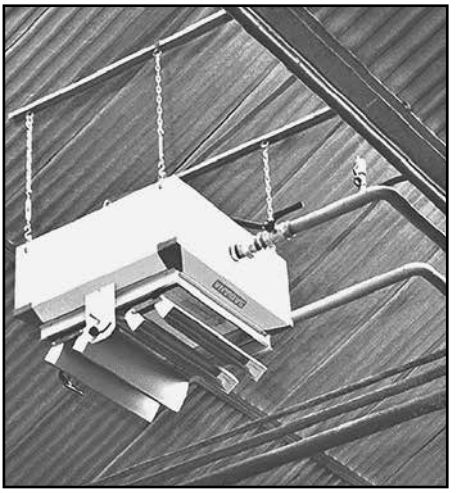
The fans can reach a speed of 1400 RPM. Do not insert objects in the electric fan and check that there are no objects located above or near the fan that may, when falling, enter between the rings of the safety guard and consequently be a source of sparks. If necessary, the installer must assemble a shelf above the appliance. This however must not block the free circulation of the air and thus affect the performance of the air heater.

5. EXAMPLE OF INSTALLATION

WALL-MOUNTED INSTALLATION *CEILING INSTALLATION*







Wall-mounted installation is performed by hanging the air heater on the wall, or to a pillar, using brackets that are inserted in the corresponding slots on the sides of the appliance. The appliances can be hung from the ceiling using rods and chains. Sabiana can provide both types of accessories.

6. RANGE

The range of Atlas-A air heaters is made up 10 sizes, which differ in terms of the front dimensions, each available with ex 1, 2 or 3 row changer coil.

*The air heaters with coils made from steel tubes and aluminium fins are identified by the suffix "**SX**" (Simplex) or **BTA**.*

*The air heaters with coils made from copper tubes and aluminium fins are identified by the suffix "**SP**" (Super) or **BTC**.*

Each air heater can be fitted with motors with different polarity; 4 or 6 poles on sizes 1/6, 6 or 8 poles on sizes 7/10.

Meaning of the codes identifying the air heaters:

4	**A**	**2**	**3**	**SX (BTA)**
No. Poles	*Atlas-A*	*Size*	*No. Rows*	*Simplex (iron coil)*

(e.g. 4 A 23 SX refers to an Atlas-A air heater with steel and aluminium coil, size 2, 3 rows with 4-pole motor)

***Recommended accessories**:*

AMP *- air heater wall-mounting support shelf*

AS *- air heater ceiling hanging supports*

AD *- deflector with adjustable louvers*

JETSTREAM *- inductive flow optimiser (in the version with manual adjustment of the louvers)*

7. ELECTRIC MOTORS TECHNICAL DATA

ATLAS 4 POLES ATEX						
SIZE	Rated Output (kW)	Current Input (A)	Starting Current (A)	Power Factor	Motor IP	Motor Thermal insulation Class
1-2	0,18	0,67	4,2	0,65	IP55	CLASSE F
3-4	0,25	0,8	3,1	0,78	IP55	CLASSE F
5	0,37	1,1	3,5	0,72	IP55	CLASSE F
6	0,55	1,6	4	0,71	IP55	CLASSE F

ATLAS 6 POLES ATEX						
SIZE	Rated Output (kW)	Current Input (A)	Starting Current (A)	Power Factor	Motor IP	Motor Thermal insulation Class
1-2-3-4	0,09	0,65	2	0,52	IP55	CLASSE F
5	0,18	0,92	3,7	0,51	IP55	CLASSE F
6	0,26	1	3,4	0,63	IP55	CLASSE F
7	0,37	1,6	3,1	0,58	IP55	CLASSE F
8	0,55	1,8	2,8	0,65	IP55	CLASSE F
9	0,75	2,2	3	0,71	IP55	CLASSE F
10	1,1	3,35	3,4	0,65	IP55	CLASSE F

ATLAS 8 POLES ATEX						
SIZE	Rated Output (kW)	Current Input (A)	Starting Current (A)	Power Factor	Motor IP	Motor Thermal insulation Class
6	0,15	0,57	2,1	0,75	IP55	CLASSE F
7	0,18	0,97	3,4	0,52	IP55	CLASSE F
8	0,25	1	3,3	0,6	IP55	CLASSE F
9	0,37	1,3	2,2	0,55	IP55	CLASSE F
10	0,55	1,9	2,1	0,52	IP55	CLASSE F

RATED OPERATING VOLTAGE 400VAC 3PH @ 50HZ