

Fire Safety Certification Product Approval

LGAI Technological Center S.A. (APPLUS), according to the requirements of the SPC-102 Ed. 8, certifies the performances stated in the technical annex following the reference standard for:

COMPANY

Bahçivan Havalandırma Sistemleri Ve Elektrik Motorları San. Ve Tic. A.S

Ömerli Mah. Hadimköy Cd. No: 147
34555 Arnavutköy / İstanbul / Türkiye

Manufactured

Ömerli Mah. Hadimköy Cd. No: 147
34555 Arnavutköy / İstanbul / Türkiye

PRODUCT

"ARMO-JR 50" F400 Radial Jet

STANDARD REFERENCE

EN 12101-3:2015

"Smoke and heat control systems. Part 3: specification for powered smoke and heat control ventilators (fans)".

PRODUCT DETAILS AND TEST REPORT

Please check at the technical annex file and the range report nº 19-20704-2384 and IC-19-20704-2384

This document is not valid without its technical annex; whose number coincides with that of the certificate.

No. APF-1692

Date issued: 04/07/2025

First issue date: 13/03/2020

Modification date: 04/07/2025

Validate date: 30/06/2026



Xavier Ruiz Peña
Managing Director
Conformity Assessment

Applus⁺
certification

LGAI Technological Center S.A. (APPLUS)
Campus UAB. Ronda de la Font del Carme s/n
08193 Bellaterra, Barcelona (Spain)



Check the status
of this certificate

Certificate

Technical Annex

Annex according to EN 12101-3:2015

Smoke and heat control systems. Part 3: specification for powered smoke and heat control ventilators (fans)

Certified performances

Essential characteristics	Clauses in this European standard	Mandated level(s) or class(es)
Response delay - Opening under wind load within a given time; - Opening under snow load within a given time.	4.1.1	NA
		NA
Operational reliability - Application categories; - Motor rating.	4.2.2	<ul style="list-style-type: none"> ▪ Thermally uninsulated ▪ Dual use ▪ Direct/ Converter Feed ▪ Installation inside and outside of the smoke reservoir
		F, 80 K
Effectiveness of smoke/hot gas extraction: - Gas flow and pressure maintenance during smoke and heat extraction test.	4.3.2	[-10, +25] % V
Resistance to fire	4.4	F ₄₀₀ (120)
Ability to open under environmental conditions - Opening under wind load within a given time; - Opening under snow load within a given time.	4.5	NA
		NA
Durability of operational reliability	4.6	F, 80 K

PASS; NPD = No Performance Determined; NA = Not Applicable

Product

1.- Application:

- Extractor tested inside the furnace.
- Extractor F400. Tested during 120 min.
- Vertical inlet and horizontal outlet of the direction of air flow.
- 7 Galvanized steel blades.
- Inlet air flow in vertical direction and the outlet air flow in horizontal direction.

2.- Characteristics:

- Motor: "90S-08/04" by WEG:
 - Rated Voltage: 400V ($\pm 10\%$).
 - Motor size 90S.
 - Frequency 50 Hz.
 - Power 0.3/1.2 kW.
 - 8/4 poles.

3.- Accessories:

- The impeller is coupled directly with the electric motor.
- The motor is plugged to electric net by means of high temperature resistant cable model VSH 1200.
- Protection grid.
- Power terminal.
- Frequency converter

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Bahçivan Havalandırma Sistemleri Ve Elektrik Motorları San. Ve Tic. A.S

Ömerli Mah. Hadimköy Cd. No: 147
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Manufactured

Ömerli Mah. Hadimköy Cd. No: 147
34555 Arnavutköy / İstanbul / Türkiye

PRODUCT

“ARMO-A”, “ARMO-C”, “ARMO-R”, “ARMO-JP” & “ARMO-TJF” F400 Axial fans

STANDARD REFERENCE

EN 12101-3:2015

“Smoke and heat control systems. Part 3: specification for powered smoke and heat control ventilators (fans)”.

PRODUCT DETAILS AND TEST REPORT

Please check at the technical annex file and the range report nº 20/17774-507-2

This document is not valid without its technical annex; whose number coincides with that of the certificate.

No. APF-1691

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Xavier Ruiz Peña
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Applus⁺
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LGAI Technological Center S.A. (APPLUS)
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Certificate

Technical Annex

Annex according to EN 12101-3:2015

Smoke and heat control systems. Part 3: specification for powered smoke and heat control ventilators (fans)

Certified performances

Essential characteristics	Clauses in this European standard	Mandated level(s) or class(es)
Response delay - Opening under wind load within a given time; - Opening under snow load within a given time.	4.1.1	NA
		NA
Operational reliability - Application categories; - Motor rating.	4.2.2	<ul style="list-style-type: none"> ▪ Thermally uninsulated ▪ Dual use ▪ Direct/ Converter Feed ▪ Installation inside and outside of the smoke reservoir
	4.2.3	H, 105 K
Effectiveness of smoke/hot gas extraction: - Gas flow and pressure maintenance during smoke and heat extraction test.	4.3.2	[-20, +50] %
Resistance to fire	4.4	F ₄₀₀ (120)
Ability to open under environmental conditions - Opening under wind load within a given time; - Opening under snow load within a given time.	4.5	NA
		NA
Durability of operational reliability	4.6	H, 105 K

PASS; NPD = No Performance Determined; NA = Not Applicable

Product

1.- Application:

- Extractor tested inside and outside the furnace.
- Extractor F400. Tested during 120 min.
- ARMO-A: Axial Duct Fans
- ARMO-R: Roof fans
- ARMO-C: Axial Cabinet Fans
- ARMO-JP: Axial Jet Fans
- ARMO-TJF: Tunnel Jet Fans.

2.- Characteristics:

- Motor: "W22" by WEG:
 - Rated Voltage: 400V ($\pm 10\%$).
 - Motor size from 80 to 250.
 - Frequency 50 Hz (also valid for 60 Hz D.O.L in models with 4p or higher number of poles).
 - Up to 45 kW.
 - 2, 4, 6, 2/4, 4/6, 4/8 poles
- Fan size from 315 to 1250.

3.- Accessories:

- Terminal box references "M32", "M25" ÖZ-ER Elektrik.
- Terminal block reference "MIM5 MOTOR KLEMENSI" by Megisan Elektrik.
- Dome reference "ARMOR40005".
- Protection grille reference "ARMOR40002".
- Mount flange reference "ARMOR40001".
- Silencers.
- Diffuser.
- Frequency converter.