

FIRE SAFETY CERTIFICATION

PRODUCT APPROVAL

No. **APF-1401**

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:



Product range	"ARMO-A", "ARMO-R", "ARMO-C, "ARMO-TJF" & "ARMO-JP" F300 Axial Fans
Company	BAHÇIVAN HAVALANDIRMA SİSTEMLERİ VE ELEKTRİK MOTORLARI SAN. VE TIC. A.Ş ÖMERLİ MAH. HADIMKÖY CD. No: 147 34555 ARNAVUTKÖY, İSTANBUL, TÜRKİYE
Manufactured	BAHÇIVAN HAVALANDIRMA SİSTEMLERİ VE ELEKTRİK MOTORLARI SAN. VE TIC. A.Ş ÖMERLİ MAH. HADIMKÖY CD. No: 147 34555 ARNAVUTKÖY, İSTANBUL, TÜRKİYE
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 n° 18/17774-1514



Renovation of the initial certificate issued on 7th September 2018

Valid until 30th June 2025

Bellaterra, 26th July 2024

 Applus⁺ LGAI Technological Center, S.A. Xavier Ruiz Peña Product Conformity B. U., Managing Director	
You can check the validity of this certificate on our website: www.appluslaboratories.com/certified_products	

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



APF-1401

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 Feed • Installation inside and outside of the smoke reservoir
	4.2.3	H, 80
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 ₃₀₀ (60)
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, 80

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

PRODUCT

1.- Application:

- Fan tested inside the furnace.
- F300 fan. Tested during 120 minutes.
- Dual purpose ventilator.
- Horizontal/vertical direction of the motor shaft.

3.- Accessories:

- ARMO-JP fans were tested with galvanized covered steel plate silencers filled with stone wool "Earthwool 035 Knaufl" of 20 kg/m³

2.- Characteristics:

- Motor: "W22" by WEG:
 - Rated Voltage: 380 V or 440V (±10%).
 - Motor size from 80 to 225S/M.
 - Frequency 50 or 60 Hz.
 - Power from 0.2 to 45 kW
 - 2, 4, 6 or 8 poles
- Fan size from 315 to 1250.