

# FIRE SAFETY CERTIFICATION

## PRODUCT APPROVAL

No. **APF-1691**

**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:



<b>Product range</b>	"ARMO-A", "ARMO-C", "ARMO-R", "ARMO-JP" & "ARMO-TJF" F400 Axial fans
<b>Company</b>	<b>BAHÇIVAN HAVALANDIRMA SİSTEMLERİ VE ELEKTRİK MOTORLARI SAN. VE TİC. A.Ş</b> ÖMERLİ MAH. HADİMKÖY CD. No: 147 34555 ARNAVUTKÖY, İSTANBUL, TÜRKİYE
<b>Manufactured</b>	<b>BAHÇIVAN HAVALANDIRMA SİSTEMLERİ VE ELEKTRİK MOTORLARI SAN. VE TİC. A.Ş</b> ÖMERLİ MAH. HADİMKÖY CD. No: 147 34555 ARNAVUTKÖY, İSTANBUL, TÜRKİYE
<b>Standard Reference</b>	EN 12101-3:2015 "Smoke and heat control systems. Part 3: specification for powered smoke and heat control ventilators (fans)".
<b>Product Details and Test Report</b>	Please check at the technical annex file and the range report n° 20/17774-507-2



**Renovation** of the initial certificate issued on 13<sup>th</sup> March 2020

**Valid until 30<sup>th</sup> June 2025**

Bellaterra, 26<sup>th</sup> July 2024

 LGAI Technological Center, S.A. <b>Xavier Ruiz Peña</b> Product Conformity B. U., Managing Director	
You can check the validity of this certificate on our website: <a href="http://www.appluslaboratories.com/certified_products">www.appluslaboratories.com/certified_products</a>	

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

## APF-1691

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)
<b>Response delay</b> - Opening under wind load within a given time; - Opening under snow load within a given time.	4.1.1	NA
		NA
<b>Operational reliability</b> - Application categories; - Motor rating.	4.2.2	<ul style="list-style-type: none"> <li>Thermally uninsulated</li> <li>Dual use</li> <li>Direct/converter Feed</li> <li>Installation inside and outside of the smoke reservoir</li> </ul>
	4.2.3	NPD
<b>Effectiveness of smoke/hot gas extraction:</b> - Gas flow and pressure maintenance during smoke and heat extraction test.	4.3.2	[-20, +50] %
<b>Resistance to fire</b>	4.4	F <sub>400</sub> (120)
<b>Ability to open under environmental conditions</b> - Opening under wind load within a given time; - Opening under snow load within a given time.	4.5	NA
		NA
<b>Durability of operational reliability</b>	4.6	NPD

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

## **APF-1691**

### **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.