

# Declaration of Performance

DoP/BVGREH-F300/004

<b>1 Product</b>	<b>BVGREH-F300</b>
Unique identification code of the product type	Machine-based smoke exhaust and heat extraction unit (smoke exhaust fan)
<b>2 Intended use</b>	Part of a machine-based smoke and heat extraction unit in buildings
<b>3 Manufacturer</b>	TROX X-FANS GmbH Heinz Trox Straße 1 D-36251 Bad Hersfeld Germany
	Phone +49 (0)6621 9500 Fax +49 (0)6621 950100 E-Mail info-xfans@trox.de Internet www.trox-xfans.de
<b>5 System of assessment and verification of constancy of performance</b>	System 1
<b>6 Harmonised standard</b>	EN 12101-3:2015
<b>Notified body/ies</b>	The notified product certification body no. 0370 - Applus - carried out a type test (including sampling) to determine the product type, an initial inspection of the manufacturing plant and of the factory production control as well as the continuous surveillance, assessment and evaluation of factory production control, and issued the certificate of constancy of the product:  0370-CPR-2353

## 7 a) Declared performance as per EN 12101-3:2015

Key features - BVGREH-F300	Performance
<b>Response delay/response time</b>	
• Opening under wind load within a specified time	NPD
• Opening under snow load within a specified time	NPD
<b>Operational reliability</b>	
• Application categories	See Table 7 b)
• Motor rating	H, 100 K
<b>Effectiveness in removing smoke / hot gas</b>	
• Maintenance of the gas volume while checking the removal of smoke and hot gas.	+/- 10%
• Maintenance of the static pressure while checking the removal of smoke and hot gas.	+/- 20%
<b>Fire resistance</b>	
• Classification to EN 13501-4	F300 (60)
<b>Ability to open under ambient conditions</b>	
• Opening under wind load within a specified time	NPD
• Opening under snow load within a specified time	NPD
<b>Operational reliability resistance</b>	H, 100 K

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with regulation (EU) no. 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of TROX X-FANS GmbH:



Bad Hersfeld, 5/17/2021

Frank Wahl • Head of Research and Development

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## 7 b) Appendix: Additional information about the installation process and the application as per Table F.8, EN 12101-3:2015

<b>BVGREH-F300</b>	
<b>Fire resistance</b>	
• Free classification for purely informative purposes	-
<b>Motor manufacturer</b>	WEG
<b>Location of the extraction device and thermal insulation, if available</b>	
Outside of the building without thermal insulation	
Outside of the building with thermal insulation	
Inside the building, outside of the smoke compartment, without thermal insulation	
Inside the building, outside of the smoke compartment, with thermal insulation	
In the smoke compartment	x
<b>Installation</b>	
Fan upright, motor shaft horizontal	
Fan parallel to the wall, motor shaft horizontal	
Fan perpendicular to the wall, motor shaft horizontal	
Fan hanging, motor shaft horizontal	
Fan upright, motor shaft vertical	
Fan parallel to the wall, motor shaft vertical	
Fan perpendicular to the wall, motor shaft vertical	
Fan hanging, motor shaft vertical	x
Motor shaft vertical, impeller under motor	
Motor shaft vertical, impeller above motor	x
Motor upstream	
Motor downstream	
<b>Flexible connecting pieces, tested on the extraction unit</b>	
Flexible inlet duct on the intake side	
Flexible inlet duct on the outlet side	
Flexible inlet duct on the intake and outlet side	
Flexible inlet duct for the cooling air connection	
<b>Cooling air</b>	
The minimum cooling air volume flow rate $C_{Air,\theta}$ depends on the fan's nominal size and nominal power (see operating manual) Maximum cooling air temperature $\theta = 40\text{ °C}$	
<b>Application</b>	
Direct online	x
With frequency inverter type	
• Peak / peak value U in [V]	
• Voltage increase speed $dU/dt$ in [V/ $\mu$ s]	
With dual function	x
As emergency extraction unit only	x
Thermally insulated	
Not thermally insulated	x
<b>Original TROX X-FANS accessories</b>	
Adapter plate for flange connection, horizontal	
Adapter plate for flange connection, vertical	
Roof base, with/without bypass gate, manually/motor drive	
Wall box, insulated with motor drive shutter	
Wall box, insulated with automatic shutter	
Roof base, soundproofed	
Inlet	
Spring travel limiter	
Flexible connecting piece, F300/F400	
Flexible connecting piece, F600	
Mounting bracket	
Mounting feet	
Brackets	
Anti-vibration element	
Deflector	
Diffuser	
Inspection hatch	

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<b>BVGREH-F300</b>	
Circular silencer TSR, with/without core	
Splitter silencer TMKA	
Cover grille	x
Baffle plate	
Shut-off damper, circular, automatic	
Shut-off damper, circular, automatic, insulated	
Shut-off damper, rectangular, automatic	
Shut-off damper, rectangular, automatic, insulated	
Volume flow rate measuring system (VME)	
Flow redresser	
Thermally insulated casing DAX with motor-powered shut-off dampers	
Frequency inverter	
Sinusoidal filter	
Terminal box, with circuit integrity maintenance (ceramic junction plate)	
Terminal box, without circuit integrity maintenance (insulated mounting)	
Terminal box, calcium silicate (cooling air passed)	
Inspection switch, without circuit integrity maintenance (insulated mounting)	
Inspection switch, with circuit integrity maintenance, F300	x
Inspection switch, with circuit integrity maintenance, F400	x
TROX-FANS fan diagnosis system VD	
TROX-FANS bypass case, F300	
Tunnel damper	
Ventilation grille TR-AG	
Weather louvre WG	
Weather louvre WGK	
Weather hood	
First attachment of CE marking	16
Notified body	0370 - Applus