

## FIRE TESTING OF CONSTRUCTION ELEMENTS

According to the European standard EN 12101-3 : 2002-09

### CERTIFICATE OF APPROVAL

**Subject** : A range of electric motors devoted to fit smoke extraction ventilators

**Tests n°** : 03-H-320  
03-H-323

**Carried out on** : September, 16<sup>th</sup>, 2003  
September, 18<sup>th</sup>, 2003

**Test report n°** : 03-H-323

**Sponsor** : VEM motors GmbH  
Carl-Friedrich Gauss-Strasse 1  
D-38855 WERNIGERODE

**Scope** : A range of low-voltage, three-phase, asynchronous, squirrel cage electric motors with the following features :

- manufacturer : VEM
- reference : K11R 132 bis 280 FV4-2
- positions : from vertical to horizontal
- frame sizes : from 132 up to 280
- electrical ratings : 220 up to 690 V - 50 Hz - from 3 kW up to 75 kW
- rotational speeds : ≤ 3000 rpm
- insulation class/temperature rise class/specifications : H/F/EN 60034-1
- frame material : cast iron
- end covers material : cast iron
- cooling fan material : aluminium


**Bearing features:**

• Bearing type	/ arrangement	/ class of fit	/ lubricant DE :
ball bearing	/ floating bearing	/ C3	/ RHB 53-402 (KLÜBER)
• Bearing type	/ arrangement	/class of fit	/lubricant NDE :
ball bearing	/ fixed bearing	/ C3	/ RHB 53-402 (KLÜBER)

The motors were tested in association with a generator, axial and radial loads according to the annex D of the European standard EN 12101-3.

**Operating ability** : **OPERATING TEMPERATURE** : FOUR HUNDRED CELSIUS (400°C)  
**OPERATING TIME** : ONE HUNDRED and TWENTY MINUTES (120 min)  
**APPLICATION CLASS** : DUAL PURPOSE

Maizières-lès-Metz, France, November, 20<sup>th</sup>, 2003



**Roman CHIVA**  
Engineer in Charge of Tests

This certificate of approval is for information only. Only a full copy of the test report will allow the conformity checking necessary for the validity of the object.