



AC 038



13ATEX0073X



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This certificate and its  
schedules may only be  
reproduced in its entirety and  
without change

# [1] TYPE EXAMINATION CERTIFICATE

[2] Equipment, protective systems and components intended for use in  
potentially explosive atmospheres - Directive 94/9/EC

[3] Type examination certificate:

**KDB 13ATEX0073X**

[4] Equipment :

**Centrifugal fans type**

**ERF/4-250T II 2G c IIB T3    ERF/4-315T II 2G c IIB T3**  
**ERF/4-355T II 2G c IIB T3    ERF/4-400T II 2G c IIB T3**  
**ERF/4-450T II 2G c IIB T3    ERF/6-450T II 2G c IIB T3**  
**ERF/6-500T II 2G c IIB T3    ERF/6-560T II 2G c IIB T3**

[5] Manufacturer:

**VENTURE Industries Sp. z o.o. POLAND**

[6] Address:

**ul. Mokra 27 05-092 Łomianki - Kielpin**

[7] This equipment and any acceptable variation thereto is specified in the schedule to this  
certificate and the documents therein referred to.

[8] Główny Instytut Górnictwa, Notified Body number 1453 in accordance with Article 9 of  
Directive 94/9/EC of 23 March 1994, certifies that this equipment and protective system has  
been found to comply with the Essential Health and Safety Requirements relating to the  
design and construction of equipment and protective systems intended for use in potentially  
explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report  
KDB No. 13.094 [T-7048]

[9] Compliance with the Essential Health and Safety Requirements has been assured by  
compliance with:

EN 14986:2007; EN 13463-1:2009; EN 13463-5:2011

[10] If the sign „X” is placed after the certificate number, it indicates that the equipment or  
protective system is subject to special conditions for safe use specified in the schedule to this  
certificate.

[11] This type examination certificate relates only to the design and construction of the specified  
equipment and protective system in accordance with Directive 94/9/EC.

Further requirements of the Directive may apply to the manufacturing process and supply of  
this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment shall include the following:

**II 2G c IIB T3**

Specjalista ds. Certyfikacji  
Urządzeń Przeciwwybuchowych

dr inż. Michał Gorny



GŁÓWNY INSTYTUT GÓRNICWA  
KIEROWNIK  
Jednostki Certyfikującej  
dr inż. Dariusz Stefaniak

Date of issue: 28.06.2013

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## SCHEDULE

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### Type Examination Certificate KDB 13ATEX0073X

#### [15] Description:

The ERF... fans are centrifugal fans, designed for mounting on the roof, for circulating air containing gases or flammable liquids vaporous and installation within the explosive hazardous zones endangered by gases and vapors of flammable liquids.

In the fans construction, the rotor-motor units of type RH...M and inlet cones are used, for which manufacturer declares explosion protection in accordance with marking II 2G c IIB T3. Above mentioned units are powered by increased safety motors, II 2G Ex e II T1, T2, T3 or T4 certified.

The body of the fan is made of zinc galvanizing steel. The outlet openings of the fan are protected with the mesh made of stainless steel.

The terminal box of type 8118/..., by STAHL (Ex design in accordance with the marking II 2G Ex e II T6/T5; certificate PTB 99ATEX3103) is used for connection the motor to the installation.

The MK... motors are equipped with thermal protection of the windings (PTC sensors), and in accordance to their certificates, may work in conditions of decreased voltage. The nominal technical data of the motor used in specific fan (nominal voltage, power and rotation speed) are placed on the nominal plate of the fan, and may be different than the nominal motor data.

Only voltage alteration (within the limits determined in manufacturers instruction) is permitted for rotation speed regulation.

#### Technical parameters:

The nominal voltage for all fans is 400V (50Hz)

The detailed data and flow characteristics for all fans are in the manufacturer catalog.

Fan type	ERF/4-250T II 2G c IIB T3
Rotor-motor assembly type	RH31M-4DK.2Y.1R
Flow capacity	up to 2000 m <sup>3</sup> /h
Compression	up to 320 Pa
Motor type	MK085-4DK.07.Y
Nominal data of the motor	P <sub>N</sub> =0,39 kW U <sub>N</sub> =500 V, I <sub>N</sub> =0,51 A, n <sub>N</sub> =990 1/min





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### Type Examination Certificate KDB 13ATEX0073X

Fan type	ERF/4-315T II 2G c IIB T3
Rotor-motor assembly type	RH35M-4DK.4Y.1R
Flow capacity	up to 3000 m <sup>3</sup> /h
Compression	up to 420 Pa
Motor type	MK106-4DK.07.Y
Nominal data of the motor	P <sub>N</sub> =0,50 kW U <sub>N</sub> =500, V I <sub>N</sub> =0,71 A n <sub>N</sub> =1300 1/min

Fan type	ERF/4-355T II 2G c IIB T3
Rotor-motor assembly type	RH40M-4DK.4Y.1R
Flow capacity	up to 4500 m <sup>3</sup> /h
Compression	up to 500 Pa
Motor type	MK106-4DK.07.Y
Nominal data of the motor	P <sub>N</sub> =0,50 kW U <sub>N</sub> =400, V I <sub>N</sub> =0,88 A n <sub>N</sub> =1300 1/min

Fan type	ERF/4-400T II 2G c IIB T3
Rotor-motor assembly type	RH45M-4DK.4Y.1R
Flow capacity	up to 6500 m <sup>3</sup> /h
Compression	up to 620 Pa
Motor type	MK106-4DK.14.Y
Nominal data of the motor	P <sub>N</sub> =0,92 kW U <sub>N</sub> =500, V I <sub>N</sub> =1,49 A n <sub>N</sub> =1370 1/min

Fan type	ERF/4-450T II 2G c IIB T3
Rotor-motor assembly type	RH50M-4DK.6Y.1R
Flow capacity	up to 8500 m <sup>3</sup> /h
Compression	up to 680 Pa
Motor type	MK137-4DK.10.Y
Nominal data of the motor	P <sub>N</sub> =1,3 kW U <sub>N</sub> =480, V I <sub>N</sub> =1,96 A n <sub>N</sub> =1330 1/min

Fan type	ERF/6-450T II 2G c IIB T3
Rotor-motor assembly type	RH50M-6DK.4Y.1R
Flow capacity	up to 6000 m <sup>3</sup> /h
Compression	up to 380 Pa
Motor type	MK106-6DK.10.Y
Nominal data of the motor	P <sub>N</sub> =0,47 kW U <sub>N</sub> =415, V I <sub>N</sub> =0,95 A n <sub>N</sub> =820 1/min

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### Type Examination Certificate KDB 13ATEX0073X

Fan type	ERF/6-500T II 2G c IIB T3
Rotor-motor assembly type	RH56M-6DK.4Y.1R
Flow capacity	up to 8500 m <sup>3</sup> /h
Compression	up to 450 Pa
Motor type	MK106-6DK.14.Y
Nominal data of the motor	$P_N=0,9$ kW $U_N=415$ , V $I_N=1,5$ A $n_N=840$ 1/min

Fan type	ERF/6-560T II 2G c IIB T3
Rotor-motor assembly type	RH63M-6DK.6Y.1R
Flow capacity	up to 12000 m <sup>3</sup> /h
Compression	up to 600 Pa
Motor type	MK137-6DK.20.Y
Nominal data of the motor	$P_N=1,85$ kW $U_N=500$ , V $I_N=3,1$ A $n_N=840$ 1/min

**[16] Test report:**

Sprawozdanie KDB Nr 13.094

**[17] Special condition for safe use:**

- The motor has to be switched off when anyone of PTC sensor of thermal winding protection is activated. Only relay designed for PTC sensors, which is certified as protective device in accordance with ATEX Directive may be used.
- The motor speed regulation using frequency converter is forbidden.
- The motor speed regulation, in the range specified in manual instruction, using electronic voltage controller or transformer is only permitted.
- Where necessary, where the foreign matter can be sucked into the fan, the inlet of the fan should be protected with a grille with a mesh no larger than 12,5 x 12,5 mm.

**[18] Essentials health and safety requirements:**

Met by compliance with standards:

EN 14986:2007; (PN-EN 14986:2009);  
 EN 13463-1:2009; (PN-EN 13463-1:2010);  
 EN 13463-5:2011; (PN-EN 13463-5:2012)