

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) Equipment or protective system intended for use in potentially explosive atmospheres - Directive 94/9/EC

(3) EC-Type Examination Certificate Number: **KEMA 03ATEX2525**

(4) Equipment or protective system: **Fan Type VDD .../. EX**

(5) Manufacturer: **Helios Ventilatoren GmbH & Co**

(6) Address: **Lupfenstraße 8, 78056 Villingen-Schwenningen, Germany**

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or 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 no. 2037650.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014 : 1997 + A1, A2

EN 50018 : 2000 + A1

EN 50019 : 2000

EN 13463-1 : 2002

EN 13463-5 : 2003

(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 EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment or protective system according to the Directive 94/9/EC. Further requirements of the directive 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 or protective system shall include the following:



**II 2 G EEx ed IIC T3 or EEx e II T3
c T3**

Arnhem, 22 April 2005
KEMA Quality B.V.



C.G. van Es
Certification Manager

© This Certificate may only be reproduced in its entirety and without any change

SCHEDULE

(13)

(14) to EC-Type Examination Certificate KEMA 03ATEX2525

(15) **Description**

The fan type VDD .../. EX for fixed installation is an aluminium fan with a three-phase motor mounted into a polyester enclosure. The motor is connected to a certified motor switch or certified terminals inside a terminal box that is fitted on the outside of the enclosure.

Ambient temperature range $-20\text{ }^{\circ}\text{C}$... $+40\text{ }^{\circ}\text{C}$.

Electrical data

The electrical data for each fan type must be taken from the EC-Type Examination Certificates of the used motors as mentioned in the table below.

Fan type (nominal speed 1500 rpm)	Motor type	EC-Type Examination Certificate
VDD 200/4 EX	ENFY63/4C-11	PTB 00ATEX3373
VDD 200/4 Ex	5RE63M04k	KEMA 00ATEX2081
VDD 225/4 Ex	ENFY63/4C-11	PTB 01ATEX3373
VDD 225/4 Ex	5RE63M04k	KEMA 00ATEX2081
VDD 250/4 Ex	5RE71M04	KEMA 00ATEX2082
VDD 315/4 Ex	5RE71M04	KEMA 00ATEX2082
VDD 400/4 Ex	5RE90S04	KEMA 00ATEX2084
Fan type (nominal speed 1000 rpm)		
VDD 225/6 Ex	5RE71M06	KEMA 00ATEX2082
VDD 250/6 Ex	5RE71M06	KEMA 00ATEX2082
VDD 315/6 Ex	5RE71M06	KEMA 00ATEX2082
VDD 400/6 Ex	5RE71M06	KEMA 00ATEX2082
VDD 450/6 Ex	ENFY80/6D-11	PTB 00ATEX3232
VDD 500/6 Ex	5RE90L06	KEMA 00ATEX2084
VDD 560/6 Ex	5RE112M06	KEMA 00ATEX2086

Installation instructions

The motor of the fan shall be provided with a three-phases inverse-delay overload protective device that not only monitors the motor current but also disconnects the stalled motor within the times t_E .

The fan shall only be used for continuous service, involving easy and infrequent starts which do not produce appreciable additional heating.

For external earthing or bonding connection a cable lug shall be used so that the conductor is secured against loosening and twisting and that contact pressure is permanently secured.

Routine tests

Each fan type VDD .../. EX shall be subjected to the electric strength test of EN 50019 Clause 7 using a test voltage of $(1000\text{ V} + \text{twice the rated voltage}) + 20\%$ with a minimum of 1500 V for 3 seconds between terminals and earth.

(16) **Report**

KEMA No. 2037650.

(17) **Special conditions for safe use**

None

SCHEDULE

(13)

(14)

to EC-Type Examination Certificate KEMA 03ATEX2525

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

1. EC-Type Examination Certificate KEMA 03ATEX2017

dated

2. Description (4 pages)
