

# CERTIFICATE

## (1) EC-Type Examination

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 10ATEX0155 X** Issue Number: **2**

(4) Equipment: **Submersible Pump, Series TP..., CTP... GRP..., V..., VX... and MX... including motor Type .AM 136.../. ..DEX**

(5) Manufacturer: **HOMA Pumpenfabrik GmbH**

(6) Address: **Industriestrasse 1, 53819 Neunkirchen-Seelscheid, Germany**

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

(8) DEKRA Certification 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 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 test report number NL/KEM/ExTR10.0079/xx.

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

**EN 60079-0 : 2006  
EN 13463-1 : 2009**

**EN 60079-1 : 2007  
EN 13463-5 : 2003**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment 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 according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:



**II 2 G Ex c d IIB T4, T3**

This certificate is issued on 12 August 2013 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.

  
R. Schuller  
Certification Manager

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Integral publication of this certificate and adjoining reports is allowed. This Certificate may only be reproduced in its entirety and without any change.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 10ATEX0155 X**

Issue No. 2

(15) **Description**

Submersible Pump, Series TP..., CTP..., GRP..., V..., VX... and MX... including motor Type .AM136.../. ..DEX, consists of a pump and a three-phases motor assembly. The motor is provided with a permanently connected unterminated supply cable.

The motors series .AM136.../. ..DEX are cooled by submersion in the fluid.

A thermal protector in the stator windings with a nominal switching temperature of 140 °C (150 °C for Motor Type AM136.4,0/4 DEX) is used for direct temperature control.

Ambient temperature range: -20 °C to +40 °C

Maximum fluid temperature: +40 °C

For motors supplied by a frequency converter the temperature class is T3.

**Electrical data**

The rated frequency as indicated on the nameplate is the max. operating frequency if a frequency converter is used.

Motor type	AM 136.4,0/2 DEX	AM 136.5,2/2 DEX	AM 136.3,4/4 DEX
Rated input (kW)	4,0	5,2	3,4
Rated voltage (V ± 5 %)	400	400	400
Rated current (A)	6,6	9,0	6,2
Power factor	0,89	0,87	0,8
Rated frequency (Hz ± 2 %)	50	50	50
Rated speed (rpm)	2815	2835	1376
Insulation class	F	F	F
Duty cycle	S1	S1	S1

Motor type	AM 136.4,0/4 DEX	AM 136.3,1/6 DEX
Rated input (kW)	4	3,1
Rated voltage (V ± 5 %)	400	400
Rated current (A)	7,4	6,0
Power factor	0,8	0,79
Rated frequency (Hz ± 2 %)	50	50
Rated speed (rpm)	1450	900
Insulation class	F	F
Duty cycle	S1	S1

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 10ATEX0155 X**

Issue No. 2

Motor type	CAM 136.3,2/4 DEX	CAM 136.4,0/2 DEX
Rated input (kW)	3,2	4,0
Rated voltage (V $\pm$ 5 %)	400	400
Rated current (A)	6,5	7,0
Power factor	0,87	0,90
Rated frequency (Hz $\pm$ 2 %)	50	50
Rated speed (rpm)	1430	2850
Insulation class	F	F
Duty cycle	S1	S1

Any voltage from 190 V up to and including 725 V is allowed if the electrical and thermal load are equal to those of the tested motor (a lower or the same current- and flux density).

The rated voltage may fluctuate to  $\pm$  5 % and the rated frequency to  $\pm$  2 % in accordance with EN 60034-1 zone A.

**Installation instructions**

The instructions provided with the equipment shall be followed in detail to assure safe operation.

The free end of the permanently connected unterminated power supply cable shall be connected either by using a suitable certified junction box when the connection is made inside the hazardous area or by using any suitable junction box when the box is placed outside the hazardous area.

For connection of an external earthing or bonding conductor a cable lug shall be used. The conductor shall be mounted so that it is secured against loosening and twisting.

(16) **Test Report**

No. NL/KEM/ExTR10.0079/xx.

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

For motors supplied by a frequency converter the built-in winding PTC thermistors of 140 °C (150 °C for Type AM 136.4,0/4 DEX) in accordance with DIN 44 082 in combination with a protective device shall be installed in the motorcircuits in such a way that operation of the PTC thermistors leads to switching-off of the motor.

The resetting of the supply shall be manually.

Contact the manufacturer for information on the dimensions of the flameproof joints.

The motors are provided with special fasteners of property class A2-70.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 10ATEX0155 X**

Issue No. 2

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. NL/KEM/ExTR10.0079/xx.