



Type Examination Certificate

(1)

(2)

Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 2014/34/EU)

(3) Type Examination Certificate number:

FTZÚ 18 ATEX 0136

This Certificate has been extended.
Please download the extensions:

[18_ATEX_0136_D1_en](#)

[18_ATEX_0136_D2_en](#)

(4) Product:

**Three-phase asynchronous motors types:
1TE1531-..., 1TE1521-..., 1TE1533..., 1TE1523...
frame size: -0C..., -0D..., -0E... (71 to 90)**

(5) Manufacturer: **Van Houske NV**

(6) Address: **Vlamingveld 32, 8490 Jabbeke, Belgium**

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

(8) The Physical-Technical Testing Institute certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26.02.2014.

The examination and test results are recorded in confidential Report number:

18/0136 dated 27.11.2018

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

EN 60079-0:2012+A11:2013, EN 60079-15:2010; EN 60079-31:2014


(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use specified in the schedule to this certificate.

(11) This type examination certificate relates only to the design of the specified product and not to specific items of equipment subsequently manufactured.

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

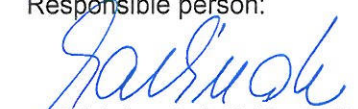
 **II 3D Ex tc IIIB T120°C Dc or**

 **II 3G Ex nA IIC T3 Gc or Ex nA IIB T3 Gc or**

 **II 3GD Ex nA IIC T3 Gc
Ex tc IIIB T120°C Dc**

This certificate is valid till: **11.03.2021**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 30.11.2018

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Annex: 1 (4 pages)

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This certificate may only be reproduced in its entirety and without any change, schedule included.



Physical-Technical Testing Institute
Ostrava - Radvanice

(13)

Schedule

(14)

Type Examination Certificate No. FTZÚ 18 ATEX 0136

(15) Description of Product:

The electric motors type 1TE1521-..., 1TE1523-..... are designed for application in explosive dust atmosphere and have explosion protection by cover "tc".

The electric motors type 1TE1531-..., 1TE1533-... are designed for application in gas explosive atmosphere with "nA" type of protection. These motors are alternatively designed to match requirements of both types of protections "nA" and "tc".

Electric motors are low voltage asynchronous squirrel cage motors. They have surface cooling with external fan fastened on shaft of electric motor.

Basic materials for mechanical parts of motor are cast iron (housing, terminal box, bearing end shields) and steel (shaft, fan cover). The shaft is fastened in roller bearings. The fans are made of plastic or steel plate or aluminium alloy.

The connection design of particular parts and used sealing materials ensure degree of protection provided by cover minimally IP 55 for type of protection "nA" and minimally IP 65 for type of protection by cover "tc". For sealing of contact surfaces of electric motor body and terminal box and detachable parts of terminal box are used gaskets or special profile silicone sealing. For sealing of shaft of electric motor are alternatively used radial shafts sealing rings or shaft V-rings (FPM, FKM, HNBR, NBR).

The squirrel cage is made of aluminium by die casting. Insulation system matches thermal class F.

The electric connection is made in terminal box that is equipped with connection terminals. Alternatively permanently connected cable can be used. For both variants the entry of cable into the terminal box provide Ex cable glands.

The electric motor windings could be optionally equipped with temperature sensors PTC, KTY, or resistance temperature sensors. Inside of electric motor can be also installed heating units for prevention of wet air condensation when the electric motor is switched off.

Electrical parameters of basic versions of electric motors are given in annex No. 1 to this certificate.

General technical parameters:

Ambient temperature: $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ or
 $-40^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ for electrical motors with alternative materials,
 $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ with decreased output power of electrical motors
 $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ for electrical motors with alternative materials and with decreased output power.

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



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**Physical-Technical Testing Institute
Ostrava - Radvanice**

(13) **Schedule**

(14) **Type Examination Certificate No. FTZÚ 18 ATEX 0136**

(15) Description of Product: - continuation

Motors supplied by voltage with frequency 50 Hz:

Voltage: from 200 V to 690 V; voltage tolerances $\pm 10\%$
 Outputs: from 0,09 kW to 2,2 kW
 Duty type: S1
 Number of poles: 2, 4, 6, 8

Motors supplied by voltage with frequency 60 Hz:

Voltage: from 220 V to 690 V; voltage tolerances $\pm 10\%$
 Outputs: from 0,105 kW to 2,55 kW
 Duty type: S1
 Number of poles: 2, 4, 6, 8

General technical parameters of motors operated with frequency converter.

The motors of the above mentioned models series cover the following max. rated data:

Rated voltage: max. 690V $\pm 10\%$ (input of converter)
 Outputs: max. 2,55 kW
 Duty type: S9
 Frequency: from 2 Hz to 100 Hz
 Ambient temperature: same as described in basic certificate
 Maximum surface temperature: T3; T120°C

Motors for converter supply will be equipped with second name plate with converter and load dates.

(16) Report Number.: 18/0136

(17) Specific Conditions of Use:
None.

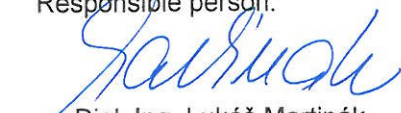
(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (9) of this certificate.

(19) Drawings and Documents:

| Number | Sheets | Issue | Date | Description |
|----------------|--------|-------|------------|--|
| -- | 70 | -- | -- | Installation, Operation & Maintenance Instructions |
| VH-0001-182211 | 1 | -- | 22.11.2018 | Rating plates – ATEX Motors |

Responsible person:


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Date of issue: 30.11.2018

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Physical-Technical Testing Institute
Ostrava - Radvanice

ANNEX No. 1

to Type Examination Certificate No. FTZÚ 18 ATEX 0136

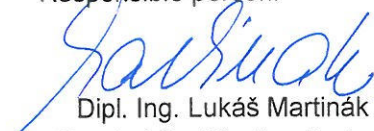
Manufacturer: **Van Houcke NV**
Address: **Vlamingveld 32, 8490 Jabbeke, Belgium**
Product: **Three-phase asynchronous motors types:
1TE1531-..., 1TE1521-..., 1TE1533..., 1TE1523...
frame size: -0C..., -0D..., -0E... (71 to 90)**

Rated parameters of basic versions of electric motors **Ex nA IIC T3 Gc, Ex tc IIIB T120°C Dc:**

| Type | 400 V 50Hz | | | 460 V 60Hz | | |
|--------------|-------------------------------|-------------|----------------------------|---------------------------|-------------|----------------------------|
| | Output [kW] | Current [A] | Speed [min ⁻¹] | Output [kW] | Current [A] | Speed [min ⁻¹] |
| 2-poles | (3000 min ⁻¹) IE2 | | | (3600 min ⁻¹) | | |
| 1MB15.1-0CA2 | 0,37 | 0,95 | 2770 | 0,43 | 0,93 | 3370 |
| 1MB15.1-0CA3 | 0,55 | 1,34 | 2780 | 0,63 | 1,34 | 3380 |
| 1MB15.1-0DA2 | 0,75 | 1,67 | 2805 | 0,86 | 1,7 | 3410 |
| 1MB15.1-0DA3 | 1,1 | 2,4 | 2835 | 1,27 | 2,3 | 3430 |
| 1MB15.1-0EA0 | 1,5 | 3,15 | 2885 | 1,75 | 3,1 | 3480 |
| 1MB15.1-0EA4 | 2,2 | 4,5 | 2890 | 2,55 | 4,35 | 3485 |

| Type | 400 V 50Hz | | | 460 V 60Hz | | |
|--------------|-------------------------------|-------------|----------------------------|---------------------------|-------------|----------------------------|
| | Output [kW] | Current [A] | Speed [min ⁻¹] | Output [kW] | Current [A] | Speed [min ⁻¹] |
| 4-poles | (1500 min ⁻¹) IE2 | | | (1800 min ⁻¹) | | |
| 1MB15.1-0CB2 | 0,25 | 0,76 | 1395 | 0,29 | 0,75 | 1695 |
| 1MB15.1-0CB3 | 0,37 | 1,02 | 1380 | 0,43 | 1,04 | 1680 |
| 1MB15.1-0DB2 | 0,55 | 1,39 | 1440 | 0,63 | 1,42 | 1735 |
| 1MB15.1-0DB3 | 0,75 | 1,79 | 1440 | 0,86 | 1,82 | 1740 |
| 1MB15.1-0EB0 | 1,1 | 2,5 | 1425 | 1,27 | 2,45 | 1725 |
| 1MB15.1-0EB4 | 1,5 | 3,3 | 1435 | 1,75 | 3,3 | 1730 |

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Physical-Technical Testing Institute
Ostrava - Radvanice

ANNEX No. 1

to Type Examination Certificate No. FTZÚ 18 ATEX 0136

Manufacturer: Van Houcke NV, Vlamingveld 32, 8490 Jabbeke, Belgium

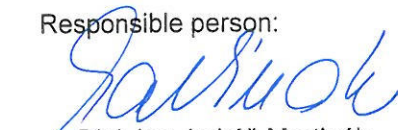
Product: Three-phase asynchronous motors types:
1TE1531-..., 1TE1521-..., 1TE1533-..., 1TE1523-...
frame size: -0C..., -0D..., -0E... (71 to 90)

Rated parameters of basic versions of electric motors Ex nA IIC T3 Gc, Ex tc IIIB T120°C Dc - continue:

| Type | 400 V 50Hz | | | 460 V 60Hz | | |
|--------------|-------------------------------|-------------|----------------------------|---------------------------|-------------|----------------------------|
| | Output [kW] | Current [A] | Speed [min ⁻¹] | Output [kW] | Current [A] | Speed [min ⁻¹] |
| 6-poles | (1000 min ⁻¹) IE2 | | | (1200 min ⁻¹) | | |
| 1MB15.1-0CC2 | 0,18 | 0,68 | 875 | 0,21 | 0,72 | 1075 |
| 1MB15.1-0CC3 | 0,25 | 0,84 | 870 | 0,29 | 0,87 | 1070 |
| 1MB15.1-0DC2 | 0,37 | 1,14 | 925 | 0,43 | 1,22 | 1125 |
| 1MB15.1-0DC3 | 0,55 | 1,65 | 935 | 0,63 | 1,76 | 1135 |
| 1MB15.1-0EC0 | 0,75 | 2,05 | 935 | 0,86 | 2,1 | 1135 |
| 1MB15.1-0EC0 | 0,75 | 1,95 | 935 | 0,86 | 2,05 | 1135 |
| 1MB15.1-0EC4 | 1,1 | 2,9 | 935 | 1,27 | 3,05 | 1135 |

| Type | 400 V 50Hz | | | 460 V 60Hz | | |
|--------------|--------------------------|-------------|----------------------------|--------------------------|-------------|----------------------------|
| | Output [kW] | Current [A] | Speed [min ⁻¹] | Output [kW] | Current [A] | Speed [min ⁻¹] |
| 8-poles | (750 min ⁻¹) | | | (900 min ⁻¹) | | |
| 1MB15.1-0CD2 | 0,09 | 0,5 | 630 | 0,11 | 0,53 | 790 |
| 1MB15.1-0CD3 | 0,12 | 0,65 | 640 | 0,14 | 0,69 | 795 |
| 1MB15.1-0DD2 | 0,18 | 0,93 | 690 | 0,21 | 0,97 | 840 |
| 1MB15.1-0DD3 | 0,25 | 1,3 | 705 | 0,29 | 1,27 | 855 |
| 1MB15.1-0ED0 | 0,37 | 1,34 | 675 | 0,43 | 1,33 | 830 |
| 1MB15.1-0ED4 | 0,55 | 1,74 | 665 | 0,63 | 1,77 | 820 |

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**Physical-Technical Testing Institute
Ostrava - Radvanice**

ANNEX No. 1

to Type Examination Certificate No. FTZÚ 18 ATEX 0136

Manufacturer: **Van Houcke NV, Vlamingsveld 32, 8490 Jabbeke, Belgium**

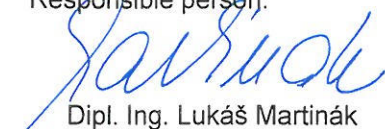
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frame size: -0C..., -0D..., -0E... (71 to 90)**

Rated parameters of basic versions of electric motors **Ex nA IIC T3 Gc, Ex tc IIIB T120°C Dc** - continue:

| Type | 400 V 50Hz | | | 460 V 60Hz | | |
|--------------|-------------------------------|-------------|----------------------------|---------------------------|-------------|----------------------------|
| | Output [kW] | Current [A] | Speed [min ⁻¹] | Output [kW] | Current [A] | Speed [min ⁻¹] |
| 2-pole | (3000 min ⁻¹) IE3 | | | (3600 min ⁻¹) | | |
| 1MB15.3-0CA2 | 0,37 | 0,95 | 2850 | 0,43 | 0,97 | 3445 |
| 1MB15.3-0CA3 | 0,55 | 1,34 | 2850 | 0,63 | 1,35 | 3450 |
| 1MB15.3-0DA2 | 0,75 | 1,56 | 2850 | 0,86 | 1,63 | 3450 |
| 1MB15.3-0DA3 | 1,1 | 2,25 | 2885 | 1,27 | 2,25 | 3480 |
| 1MB15.3-0EA0 | 1,5 | 3 | 2910 | 1,75 | 2,95 | 3510 |
| 1MB15.3-0EA4 | 2,2 | 4,2 | 2910 | 2,55 | 4,2 | 3510 |

| Type | 400 V 50Hz | | | 460 V 60Hz | | |
|--------------|-------------------------------|-------------|----------------------------|---------------------------|-------------|----------------------------|
| | Output [kW] | Current [A] | Speed [min ⁻¹] | Output [kW] | Current [A] | Speed [min ⁻¹] |
| 4-pole | (1500 min ⁻¹) IE3 | | | (1800 min ⁻¹) | | |
| 1MB15.3-0CB2 | 0,25 | 0,68 | 1395 | 0,29 | 0,69 | 1695 |
| 1MB15.3-0CB3 | 0,37 | 0,99 | 1410 | 0,43 | 0,99 | 1710 |
| 1MB15.3-0DB2 | 0,55 | 1,26 | 1440 | 0,63 | 1,25 | 1740 |
| 1MB15.3-0DB3 | 0,75 | 1,75 | 1450 | 0,86 | 1,72 | 1750 |
| 1MB15.3-0EB0 | 1,1 | 2,4 | 1440 | 1,27 | 2,35 | 1740 |
| 1MB15.3-0EB4 | 1,5 | 3,15 | 1445 | 1,75 | 3,15 | 1740 |

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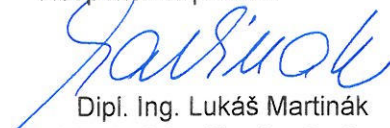
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Rated parameters of basic versions of electric motors Ex nA IIC T3 Gc, Ex tc IIIB T120°C Dc - continue:

| Type | 400 V 50Hz | | | 460 V 60Hz | | |
|--------------|-------------------------------|-------------|----------------------------|---------------------------|-------------|----------------------------|
| | Output [kW] | Current [A] | Speed [min ⁻¹] | Output [kW] | Current [A] | Speed [min ⁻¹] |
| 6-pole | (1000 min ⁻¹) IE3 | | | (1200 min ⁻¹) | | |
| 1MB15.3-0CC2 | 0,18 | 0,59 | 885 | 0,21 | 0,57 | 1085 |
| 1MB15.3-0CC3 | 0,25 | 0,76 | 885 | 0,29 | 0,74 | 1085 |
| 1MB15.3-0DC2 | 0,37 | 1,1 | 940 | 0,43 | 1,09 | 1140 |
| 1MB15.3-0DC3 | 0,55 | 1,53 | 935 | 0,63 | 1,44 | 1135 |
| 1MB15.3-0EC0 | 0,75 | 1,96 | 945 | 0,86 | 1,87 | 1140 |
| 1MB15.3-0EC4 | 1,1 | 2,85 | 940 | 1,27 | 3,05 | 1140 |

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