Physical-Technical Testing Institute
Ostrava - Radvanice

Type Examination Certificate

(1)

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

This Certificate has been extended.
Please download the extensions:
18_ATEX_0136_D1_en
18_ATEX_0136_D2_en
18_ATEX_0136_D3_en

(3) Type Examination Certificate number:

FTZÚ 18 ATEX 0136

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

(5) Manufacturer: **Van Houcke 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:

Ex	**II 3D**	**Ex tc IIIB T120°C Dc** or
Ex	**II 3G**	**Ex nA IIC T3 Gc** or **Ex nA IIB T3 Gc** or
Ex	**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

This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz

(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°C ≤ Ta ≤ +40°C or
-40°C ≤ Ta ≤ +40°C for electrical motors with alternative materials,
-20°C ≤ Ta ≤ +60°C with decreased output power of electrical motors
-40°C ≤ Ta ≤ +60°C for electrical motors wit alternative materials and with decreased output power.

Responsible person:
Dipl. Ing. Lukáš Martinák
Head of Certification Body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s. p. FTZÚ Ex OSTRAVA-RADVANICE

Date of issue: 30.11.2018

This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz

(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 ±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 ±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 ±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:

Dipl. Ing. Lukáš Martinák
Head of Certification Body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. OSTRAVA-RADVANICE

Date of issue: 30.11.2018

This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz

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

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. OSTRAVA-RADVANICE

Date of issue: 30.11.2018

This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz

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

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. OSTRAVA-RADVANICE

Date of issue: 30.11.2018

This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz

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}]
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

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. FTZÚ Ex OSTRAVA-RADVANICE

Date of issue: 30.11.2018

This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz

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-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

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. • OSTRAVA-RADVANICE •

Date of issue: 30.11.2018

This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz