Physical-Technical Testing Institute
Ostrava - Radvanice

(1) # Type Examination Certificate

(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_0138_D1_en
18_ATEX_0138_D2_en
18_ATEX_0138_D3_en

(3) Type Examination Certificate number:

FTZÚ 18 ATEX 0138

(4) Product: **Three-phase asynchronous motors types: 1TE1521-..., 1TE1523-..., 1TE1621-..., 1TE1623-..., 1TE1531-..., 1TE1533-..., 1TE1631-..., 1TE1633-..., frame size: -2B..., -2C..., -2D..., -3A... (225 to 315)**

(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:

18/0138 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 tc IIIB T130°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** or **Ex tc IIIB T130°C Dc**

This certificate is valid till: **11.03.2021**

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 0138

(15) Description of Product:

The electric motors type 1TE1521-..., 1TE1523-..., 1TE1621-... and 1TE1623-... are designed for application in explosive dust atmosphere and have explosion protection by cover "tc".

The electric motors type 1TE1531-..., 1TE1533-..., 1TE1631-... and 1TE1633-... 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 axial fan with an aluminium hub and blues made from galvanised steel are used.

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 rotor is made from die-cast aluminium, die-cast cooper or die-cast aluminium with coppers bar g. 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.

The electric motors type 1TE1521-..., 1TE1523-..., 1TE1621-..., 1TE1623-..., 1TE1531-..., 1TE1533-..., 1TE1631-..., 1TE1633-... can be alternatively operated with frequency converter type SINAMICS G120, S120, G180 or comparable converters described in the manufacturer documentation. The motor used in frequency converter supply windings is equipped with temperature sensors PTC. Nominal cut-off temperature of the PTC is +130 °C.

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

General technical parameters:

Ambient temperature: $-20°C \leq Ta \leq +40°C$, or
$-40°C \leq Ta \leq +40°C$ for electrical motors with alternative materials,
$-20°C \leq Ta \leq +60°C$ with decreased output power of electrical motors
$-40°C \leq Ta \leq +60°C$ for electrical motors wit alternative materials and with decreased output power.

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 0138

(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 18.5 kW do 200 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 22 kW to 230 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. 230 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.: 18/0138

(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

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 0138

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

Product: **Three-Phase Asynchronous Motor type:**
1TE1521-..., 1TE1523-..., 1TE1621-..., 1TE1623-...,
1TE1531-..., 1TE1533-..., 1TE1631-..., 1TE1633-...,
frame size: -2B..., -2C..., -2D..., -3A... (225 to 315)

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

Type	400 V 50 Hz				460 V 60 Hz			
	Output [kW]	Current [A]	Speed [min^{-1}]	"nA": T3 "tc": Tx	Output [kW]	Current [A]	Speed [min^{-1}]	"nA": T3 "tc": Tx
2-poles	(3000 min^{-1}) IE2				(3600 min^{-1})			
1TE15.1-2BA2	45	79	2965	120 °C	51	78	3565	120 °C
1TE15.1-2CA2	55	96	2970		62	94	3570	
1TE15.1-2DA0	75	133	2978		84	128	3578	
1TE15.1-2DA2	90	157	2975		101	151	3575	
1TE15.1-3AA0	110	187	2982		123	182	3582	
1TE15.1-3AA2	132	220	2982		148	215	3582	
1TE15.1-3AA4	160	265	2982		180	255	3580	
1TE15.1-3AA5	200	330	2982		224	320	3580	

4-poles	(1500 min^{-1}) IE2				(1800 min^{-1})			
1TE15.1-2BB0	37	65	1470	120 °C	42,5	65	1770	120 °C
1TE15.1-2BB2	45	80	1475		52	80	1775	
1TE15.1-2CB2	55	100	1480		63	99	1780	
1TE15.1-2DB0	75	132	1485		86	130	1785	
1TE15.1-2DB2	90	159	1486		104	158	1785	
1TE15.1-3AB0	110	195	1490		127	195	1788	
1TE15.1-3AB2	132	230	1490		152	230	1788	
1TE15.1-3AB4	160	280	1490		184	275	1788	
1TE15.1-3AB5	200	350	1490		230	350	1790	

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 0138

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

Product: **Three-Phase Asynchronous Motor type:**
1TE1521-..., 1TE1523-..., 1TE1621-..., 1TE1623-...,
1TE1531-..., 1TE1533-..., 1TE1631-..., 1TE1633-...,
frame size: -2B..., -2C..., -2D..., -3A... (225 to 315)

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

Type	400 V 50 Hz				460 V 60 Hz			
	Output [kW]	Current [A]	Speed [min^{-1}]	"nA": T3 "tc": Tx	Output [kW]	Current [A]	Speed [min^{-1}]	"nA": T3 "tc": Tx
6-pole	(1000 min^{-1}) IE2				(1200 min^{-1})			
1TE15.1-2BC2	30	57	980		36	59	1175	
1TE15.1-2CC2	37	70	982		44,5	73	1180	
1TE15.1-2DC0	45	83	985		54	87	1185	
1TE15.1-2DC2	55	99	985	120 °C	66	104	1185	120 °C
1TE15.1-3AC0	75	138	988		90	143	1186	
1TE15.1-3AC2	90	165	988		108	171	1186	
1TE15.1-3AC4	110	196	988		132	200	1186	
1TE15.1-3AC5	132	235	988		158	240	1188	
1TE15.1-3AC6	160	285	988		192	290	1188	

8-pole	(750 min^{-1})				(900 min^{-1})			
1TE15.1-2BD0	18,5	38,5	730		22	38,5	880	
1TE15.1-2BD2	22	44	730		26,5	45	880	
1TE15.1-2CD2	30	59	732		36	60	880	
1TE15.1-2DD0	37	75	736	120 °C	44,5	76	885	120 °C
1TE15.1-2DD2	45	89	738		54	91	885	
1TE15.1-3AD0	55	107	740		66	110	890	
1TE15.1-3AD2	75	143	738		90	147	888	
1TE15.1-3AD4	90	167	740		108	174	890	
1TE15.1-3AD5	110	205	740		132	215	888	
1TE15.1-3AD6	132	250	740	130 °C	158	255	888	130 °C

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 0138

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

Product: **Three-Phase Asynchronous Motor type:**
1TE1521-..., 1TE1523-..., 1TE1621-..., 1TE1623-...,
1TE1531-..., 1TE1533-..., 1TE1631-..., 1TE1633-...,
frame size: -2B..., -2C..., -2D..., -3A... (225 to 315)

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

Type	400 V 50 Hz				460 V 60 Hz			
	Output [kW]	Current [A]	Speed [min^{-1}]	"nA": T3 "tc": Tx	Output [kW]	Current [A]	Speed [min^{-1}]	"nA": T3 "tc": Tx
2-poles	($3000\ min^{-1}$) IE3				($3600\ min^{-1}$)			
1TE15.3-2BA2	45	78	2960	120 °C	51	77	3560	120 °C
1TE15.3-2CA2	55	95	2975		62	92	3575	
1TE15.3-2DA0	75	128	2975		84	125	3575	
1TE15.3-2DA2	90	152	2975		101	149	3575	
1TE15.3-3AA0	110	183	2982		123	179	3582	
1TE15.3-3AA2	132	220	2982		148	215	3852	
1TE15.3-3AA4	160	265	2982		180	255	3582	
1TE15.3-3AA5	200	330	2982		224	320	3582	

4-poles	($1500\ min^{-1}$) IE3				($1800\ min^{-1}$)			
1TE15.3-2BB0	37	66	1478	120 °C	42,5	66	1778	120 °C
1TE15.3-2BB2	45	80	1478		52	81	1778	
1TE15.3-2CB2	55	96	1482		63	97	1782	
1TE15.3-2DB0	75	133	1485		86	131	1785	
1TE15.3-2DB2	90	157	1485		104	158	1785	
1TE15.3-3AB0	110	191	1488		127	191	1788	
1TE15.3-3AB2	132	230	1490		152	225	1788	
1TE15.3-3AB4	160	275	1490		184	275	1788	
1TE15.3-3AB5	200	340	1488		230	345	1788	

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

ANNEX No. 1

to Type Examination Certificate No. FTZÚ 18 ATEX 0138

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

Product: **Three-Phase Asynchronous Motor type:**
1TE1521-..., 1TE1523-..., 1TE1621-..., 1TE1623-...,
1TE1531-..., 1TE1533-..., 1TE1631-..., 1TE1633-...,
frame size: -2B..., -2C..., -2D..., -3A... (225 to 315)

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

Type	400 V 50 Hz				460 V 60 Hz			
	Output [kW]	Current [A]	Speed [min^{-1}]	"nA": T3 "tc": Tx	Output [kW]	Current [A]	Speed [min^{-1}]	"nA": T3 "tc": Tx
6-poles	(1000 min^{-1}) IE3				(1200 min^{-1})			
1TE15.3-2BC2	30	56	982		36	58	1180	
1TE15.3-2CC2	37	67	985		44,5	69	1182	
1TE15.3-2DC0	45	82	988		54	84	1186	
1TE15.3-2DC2	55	99	988		66	104	1186	
1TE15.3-3AC0	75	136	990	120 °C	90	142	1190	120 °C
1TE15.3-3AC2	90	161	990		108	170	1189	
1TE15.3-3AC4	110	199	991		132	205	1190	
1TE15.3-3AC5	132	240	991		158	245	1190	
1TE15.3-3AC6	160	290	991		192	300	1190	

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