



Italia

CERTIFICATE

[1] **TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or Protective System intended for use
in potentially explosive atmospheres
Directive 2014/34/EU**

[3] Type Examination Certificate number:

TÜV IT 13 ATEX 042 X Rev.2

[4] Equipment or Protective System:

[5] Manufacturer: MT Motori Elettrici S.r.l.

[6] Address: Via Bologna 175 (S.S. N. 568)
I-40017 San Giovanni in Persiceto (BO) - ITALIA

[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] TÜV Italia 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. R 13 EX 025 Rev.2

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018; EN IEC 60079-7: 2015 + A1:2018; EN60079-31:2014

[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 TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. 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 3G Ex ec IIC T4...T3 Gc
II 3G Ex tc IIIC T135°C...T200°C Dc**

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Issue date: :20th December 2021



TÜV Italia S.r.l.

Alberto Carelli
Alberto Carelli

**Industry Service - Real Estate & Infrastructure
Managing Director**

TÜV Italia has been authorized by Italian government to operate as notified body for the certification of equipment or protective system intended for use in potentially explosive atmospheres. This document is not valid without official signature and logo. The internal reference code is 722269325

pagina 1 di 4

PEX-01-M034_r04 del 02/08/2018

[13]

SCHEDULE

[14]

**TYPE EXAMINATION CERTIFICATE
No. TÜV IT 13 ATEX 042 X Rev.2**

Italia

Certificate History

Revision:	Description:	Report no:	Issue Date:
-	First emission	-	02/10/2013
1	Standard updated	1	16/12/2016
2	Standard updated	2	20/12/2021

[15] **Description of equipment**

The motors are asynchronous three-phase or single-phase with squirrel cage rotor, with external ventilation. They are provided with sealing rings on shaft and seals on the cap of the terminal box. The motors can be self-braking (F and FP series) when not powered, by action of springs that push a mobile armature against a brake disc. When the motors are powered an electromagnet attracts the armature, against the spring force and canceling the braking action. The braking action, when used in potentially explosive atmosphere, is limited in the maximum number of interventions and in the energy of braking.

Some versions of engines can be supplied by inverter since they are in fact equipped with three passive thermal protections embedded in the windings (one per phase), to be connected to a control unit "fail safe", which ensures not to exceed the temperature limits.

Type:

- TN = standard three phase motor
- DN = three phase motor with dual polarity
- MN = standard single phase motor
- XN = single phase motor with high starting torque
- TF = standard three phase brake motor
- DF = three phase brake motor with dual polarity
- MF = standard single phase brake motor
- XF = single phase brake motor with high starting torque
- TFP = three phase brake motor with high braking momentum
- DFP = three phase brake motor with dual polarity high braking momentum

Sizes: 56, 63, 71, 80, 90, 100, 112, 132, 160, 180, 200

Number of poles: TN-TF-TFP = 2, 4, 6, 8
 DN-DF-DFP = 2/4, 4/6, 4/8, 2/6, 2/8, 6/8
 MN-XN-MF-XF = 2, 4, 6

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page 2 of 4

PEX-01-M034_r02 del 25/05/2016

[13]

SCHEDULE

[14]

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Rated characteristics

Ambient temperature	-20°C ... +40°C
Mains supply	
Service	S1
Maximum surface temperature / Temperature class	135°C / T4
Insulating class	F resp H
Voltage	max 600 V
Frequency	50/60 Hz
RPM Max	3600 1/min
Brake coil rated voltage	103 V DC resp. 230/400 V AC 50 Hz
Inverter supply	
Maximum surface temperature / Temperature class	200°C / T3
Insulating class	H
Voltage	500 V
Frequency	5 to 100 Hz resp. 5 to 50 Hz
RPM Max	4000 1/min
Brake coil rated voltage	103 V DC resp. 230/400 V AC 50 Hz
Thermal protection shut-off temperature	150°C

Warning label

WARNING: DON'T OPEN WHEN ENERGIZED

[16] **Report no.** R 13 EX 025 Rev.1**Routine tests**

Dielectric strength test specified at paragraph 7.1 of EN 60079-7

[17] **Special conditions for safe use**

Maximum number of braking operations, their duration and energy permitted, are indicated in the safety instructions.

Brake power supply must not be separated from the motor power supply.

Motors supplied by frequency converter must use three thermal passive protections embedded in the windings (one each phase).

The temperature of the cable must be at least 80 ° C.

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[13]

SCHEDULE

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[18] **Essential Health and Safety Requirements**

Assured by compliance with the standards set out in the [9].

[19] **Drawings and Documents**

Listed documents (prot. 722117348 + 722269325)

Title:	Description:	Pages:	Rev:	Date:
n.a.	Integrazione fascicolo tecnico	03	1	18/10/2016
n.a.	Fascicolo tecnico	96	0	28/05/2012
n.a.	Manuale d'uso e manutenzione	16	1	12/11/2021
n.a.	Appendice fascicolo tecnico	2	0	16/11/2021

One copy of all documents is kept in TÜV Italia files.

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