

# CESI



# CERTIFICATE



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Schema di certificazione

# CESI-ATEX

## [1] EC-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use  
in potentially explosive atmospheres  
Directive 94/9/EC**

[3] EC-Type Examination Certificate number:  
**CESI 13 ATEX 035X**

[4] **Equipment:** Three-phase asynchronous motors series M50

[5] **Manufacturer:** FAGGIOLATI PUMPS S.p.A.

[6] **Address:** Via Papa Giovanni XXIII, 31 – 62100 Macerata - Italy

[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] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, 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 n. EX-B3019757.

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

**EN 60079-0: 2012; EN 60079-1: 2007**

[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 EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. 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 2 G Ex d IIB T4 Gb**

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

**Date 19 July 2013 - Translation issued the 19<sup>th</sup> July 2013**

**Prepared**  
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**Verified**  
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PRD N. 018B  
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC  
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

[13]

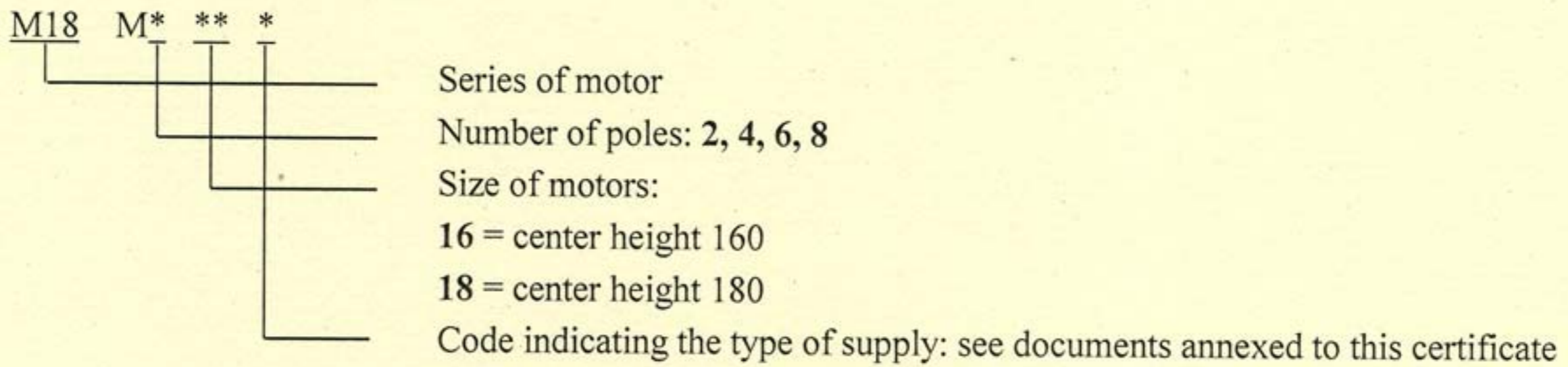
## Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 035X

[15] **Description of equipment**

The three-phase asynchronous motors series M50, subject of these certificate, are used to operate various hydraulic machines, such as submersible pumps, aerators and oxygenators.

The motors are identified by a code as follows:



The motors series M50 are provided with integral cable glands in the enclosure.

The hydraulic machines, coupled to the motor, are not subject of the valuations of this certificate.

### Electrical characteristics

The rated power of the various types of motors as a function of size, type of duty, type of supply and all other electrical characteristics of plate prescribed by EN 60034 standards series are reported in the descriptive documents annexed to this certificate.

- Maximum rated voltage :	995	V
- Maximum rated power:	50.1	kW
- Rated frequency:	50 / 60	Hz
- Insulation class:	F or H	(t. B)
- Maximum rated speed:	3600	rpm
- Ambient temperature:	-20 ÷ +45	°C

Duty:	S1	with motor enclosure completely immersed in the liquid
	S3 13 % - Cycle 60 min.	with motor enclosure not-immersed in the liquid

The motors series M50 are equipped, inside the stator winding, with thermal detectors. The thermal detectors are calibrated for cut off the supply at 130 °C; the resetting of the supply shall not be automatic.

### Warning label

“Warning: see instructions”

“Do not use the feeding cable to move the pump”

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[13]

## Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 035X

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[16] Report n. EX-B3019757

### Routine tests

The manufacturer is exempted from the overpressure test on the motor enclosure, since they have been submitted to an overpressure test at a pressure corresponding to 4 times the reference pressure and respectively:

- 4450 kPa on the motor enclosure with center height 160
- 3700 kPa on the motor enclosure with center height 180

### Descriptive documents (prot. EX-B3019768)

- |   |       |            |
|---|-------|------------|
| - Technical note n. M5001 Rev. 2 (9 pg.)    | dated | 01.07.2013 |
| - Drawing n. serie M50 Rev. 7 (4 pg.)       | dated | 27.06.2013 |
| - Drawing n. Tar_M50 Rev. 4                 | dated | 18.07.2013 |
| - Drawing n. 13431 Rev. 1                   | dated | 22.03.2012 |
| - Drawing n. 16476 Rev. 1                   | dated | 02.03.2012 |
| - Safety instructions n. NETATEX003 (5 pg.) | dated | 07.2013    |
| - Facsimile declaration of conformity       |       |            |

One copy of all documents is kept in CESI files.

[17] Special conditions for safe use (X)

- The flamepaths are specified in the manufacturer drawings. For information regarding the dimensions of the flameproof joints the manufacturer shall be contacted.
- Particular precautions (e.g. level sensors) shall be taken in order to guarantee that the motor, designed for operating in continuous running duty "S1", can operate only when the body is completely immersed in the liquid as shown in the safety instructions.
- The motor provided with cables permanently connected has these cables protected with "PVC" sheath. During cleaning shall be taken into account the risk of electrostatic charges.
- The end connections of the cables permanently connected to the motor shall be made according to one of the types of protection indicated in the EN 60079-0 standard and in accordance with the installation rules in force in the site of installation.

[13]

## Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 035X

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[17] **Special conditions for safe use (X) follows**

- In case of disassembly of the motor the subsequent assembly of the enclosure shall be made using screws in accordance to the ISO 4762 and having the following characteristics.
  - For cast iron enclosure  
“Use screws of property class A2-70 UNI EN ISO 3506-1”
  - For stainless-steel and bronze enclosures  
“Use screws of property class A4-70 UNI EN ISO 3506-1”
  - For Duplex or SuperDuplex stainless-steel enclosures  
“Use screws SAF 2205 F51 with minimum yield stress of 450 MPa and minimum tensile strength of 655 MPa”

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

Covered by the following standards:

- EN 60079-0: 2012 - Regole generali
- EN 60079-1: 2007 - Custodie a prova di esplosione “d”