

CESI

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Capitale sociale 8 550 000 €
interamente versato
Codice fiscale e numero
iscrizione CCIAA 00793580150

Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

Schema di certificazione

CESI-ATEX

Il CESI è stato autorizzato dal governo italiano ad operare quale organismo di certificazione di apparecchi e sistemi destinati a essere utilizzati in atmosfera potenzialmente esplosiva con D.M. 1/3/1983, D.M. 19/6/1990, D.M. 20/7/1998, D.M. 27/9/2000 e D.M. 02/02/2006

CERTIFICATE



[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 06 ATEX 068X

[4] **Equipment:** Three-phase asynchronous motors series M18

[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-A6032848.

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

EN 60079-0: 2006 EN 60079-1: 2004

[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

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

Date 5 December 2006 - Translation issued the 5th December 2006

Prepared

Bruno Pavanati

Verified

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CESI

Centro Elettrotecnico Sperimentale Italiano
Giacinto Motta SpA
Business Unit GENERAZIONE
Il Responsabile

[13]

Schedule

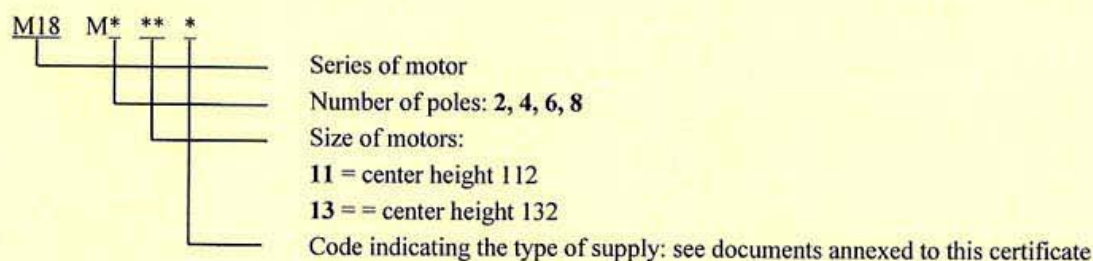
[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 06 ATEX 068X

[15] **Description of equipment**

The three-phase asynchronous motors series M18, subject of these certificate, are used to operate various hydraulic machines, such as submersible pumps, aerators and oxygenators.

The hydraulic machines, integral with the motor shaft, are not subject of the valuations of this certificate; the manufacturer will carry out at the risk assessment and applying one of the procedures provided in the directive 94/9/EC.

The motors are identified by a code as follows:



The motors series M18 are provided with integral cable entries in the enclosure.

Electrical characteristics

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

| | | | | |
|---------------------------|-----------|--------|-------|------------------------|
| - Maximum rated voltage : | 690 | V | ± 10% | with type of duty "S1" |
| - | | | ± 5% | with type of duty "S3" |
| - Maximum rated power: | 16.5 | 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 M18 are equipped, inside the stator winding, with thermal detectors. The thermal detectors are calibrated for an operation temperature of 130 °C.

The operation of the thermal detectors shall guarantee the disconnection of the supply; the resetting of the supply shall not be automatic.

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

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Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 06 ATEX 068X

[15] **Description of equipment** (*follows*)

Warning label

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

For cast iron enclosure

“Use screws of quality A2-70 UNI EN ISO 3506-1”
or in alternative

For stainless-steel and bronze enclosures

“Use screws of quality A4-70 UNI EN ISO 3506-1”

[16] **Report n. EX-A6032848**

Routine tests

The manufacturer shall carry out the routine tests prescribed at paragraph 27 of the EN 60079-0 standard.

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:

- 33 bar on the motor enclosure with center height 112
- 42 bar on the motor enclosure with center height 132

Descriptive documents (prot. EX-A6032854)

| | | |
|---|-------|------------|
| - Technical note n. M1801 (5 pg.) | dated | 24.11.2006 |
| - Drawing n. serie motore M18 Rev. 5 | dated | 23.11.2006 |
| - Drawing n. 13289 codice pezzo 60.13289 Rev. 4 | dated | 23.08.2004 |
| - Drawing n. 13289 codice pezzo 60.13490 | dated | 11.10.2004 |
| - Drawing n. TARGA_ATEX Rev. 1 | dated | 22.11.2006 |
| - Safety instructions n. NETATEX002 (8 pg.) | dated | 05.2006 |

One copy of all documents is kept in CESI files.

[13]

Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 06 ATEX 068X

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

- The motor provided with the cables permanently connected, shall have these cables protected against the risk of damage due to mechanical stresses. The end connections 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.

- 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 documents annexed to this certificate.

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

Covered by standard.