



[1]

EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment and Protective System intended for use in potentially explosive atmospheres
Directive 2014/34/EU – Annex III**

[3] Certificate Number: **EPT 17 ATEX 2588 X** Issue 0

[4] Equipment: **Electric motor**

Series: **O-M**

[5] Manufacturer: **ELPROMTECH S.r.l.**

[6] Address: **Via Mantova n° 93, 43122 Parma - Italia**

[7] This equipment and its accepted variations are specified in the annex to this Certificate.

[8] Eurofins Product Testing Italy S.r.l., Notified Body n. 0477 in accordance with Article 21 of the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II of the Directive.

The examination and test results are recorded in the confidential Report N° EPT.17.REL.02/54408


[9] Compliance with the essential health and safety requirements is assured through the verification of them and by compliance with the standards:

EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-31:2014, EN 60079-7:2015

[10] If the sign "X" is placed after the Certificate number, it indicates that the equipment is subject to the special conditions for safe use specified in the annex to this Certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, the exam and the tests of the specified equipment.

Further requirements of the Directive 2014/34/EU apply to the manufacture and supply of this equipment. These requirements are not object of this Certificate.

[12] The equipment shall include the sign  and at least one of the following string:

II 2G Ex db IIC T3 Gb	or	II 2G Ex db IIC T3	-40°C ≤ T _{amb} ≤ +60°C
II 2G Ex db e IIC T3 Gb	or	II 2G Ex db eb IIC T3	-40°C ≤ T _{amb} ≤ +60°C
II 2G Ex db IIC T4 Gb	or	II 2G Ex db IIC T4	-40°C ≤ T _{amb} ≤ +60°C
II 2G Ex db e IIC T4 Gb	or	II 2G Ex db eb IIC T4	-40°C ≤ T _{amb} ≤ +60°C
II 2G Ex db IIC T5 Gb	or	II 2G Ex db IIC T5	-40°C ≤ T _{amb} ≤ +40°C
II 2G Ex db e IIC T5 Gb	or	II 2G Ex db eb IIC T5	-40°C ≤ T _{amb} ≤ +40°C
II 2D Ex tb IIC T125°C			-40°C ≤ T _{amb} ≤ +60°C

Place and date of issue:
Torino, 2017-02-06



Dionisio Bucchieri

Dionisio Bucchieri
Directive Responsible

Paolo Trisoglio

Paolo Trisoglio
Managing Director



SGQ N° 133A
PRD N° 119B
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
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This Certificate has 4 pages and is reproducible only in its entirety. Conditions of validity are reported below.

[13]

ANNEX

[14]

EU-TYPE EXAMINATION CERTIFICATE N. EPT 17 ATEX 2588 X

Issue 0


[15] Equipment description

The three-phase and single-phase asynchronous squirrel cage rotors motors, series O-M, supplied by mains or inverter, are identified by a code as follows:

Motor Type		OD	063	A	4	H	230	5	P	4	U
MD	Single Phase Ex d	ME	Single Phase Ex de								
OD	Three Phase Ex d	OE	Three Phase Ex de								
Shaft height											
56, 63, 71, 80, 90, 100, 112, 132, 160, 180											
Stator Dimensions											
A, B	56, 63, 71, 80										
S, L	90 – 132 – 160 – 180										
K, M	100 – 132 – 160 – 180										
Poles											
2, 4, 6	Single phase motor										
2, 4, 6, 8	Three phase motor 1 speed										
3, 5, 7, 9	Three phase motor 2 speed 2/4, 4/8, 4/6, 6/8 poles – constant torque										
C, D, E, F	Three phase motor 2 speed 2/4, 4/8, 4/6, 6/8 poles – quadratic torque										
Mounting System (See technical note)											
Supply Voltage											
For two voltage motors is indicated the lower (ex. 230 for 230/400)											
Frequency											
5	50Hz										
6	60Hz										
7	50/60Hz										
Protection (IP and Ex)											
P	Motor 2G										
Q	Motor 2GD										
Temperature class											
3	Temperature class T3 (200°C)										
4	Temperature class T4 (135°C)										
5	Temperature class T5 (100°C)										
Thermal protectors											
-	Without protectors										
3	Protector (PTO) – temperature class T3										
4	Protector (PTO) – temperature class T4										
5	Protector (PTO) – temperature class T5										
P	PTC – temperature class T3										
U	PTC – temperature class T4										
V	PTC – temperature class T5										

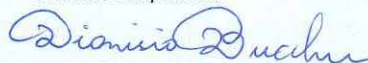


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The three phase and single-phase asynchronous motors series O-M are made of aluminum (the paint used has a maximum thickness of 0.2 mm) with separate components: motor enclosure, terminal box for supply and a capacitor enclosure (optional). The motors are suitable for group IIC and group IIIC.

The motor enclosure has types of protection "Ex d" and "Ex t";

The terminal box can have types of protection "Ex d" and "Ex t" or "Ex e" and "Ex t";

The capacitor enclosure has types of protection "Ex d" and "Ex t";

All the parts of the flameproof enclosures have flameproof joints independent from each other.

The motors can be equipped with auxiliary devices (heaters, thermal protectors, capacitor).

The anti-condensation heater can be activate only when the motor is not powered.

In case of single phase motors the capacitors have to be placed in the appropriate enclosure or in safe zone.

Electrical characteristics:

Mains Supply

Maximum rated voltage: 850 V

Maximum rated power: 30 kW

Rated frequency: 50/60 Hz

Insulation class: F or H

Duty: S1, S2, S3, S9

Poles: 2, 4, 6, 8, 2/4, 4/8, 4/6, 6/8

Degree of protection: IP 66

Ambient temperature: $-40 \div +40$ °C (till $+60$ °C for T3, T4 class of temperature)

Temperature classes and Maximum surface temperature:

T5, T4, T3, T 125°C as a function of the ambient temperature and of the electrical characteristics as indicated in the technical note n. MOTORI ASINCRONI SERIE O – M.

Inverter supply

Possibility of supply through inverter exclusively with the use of thermal protectors applied on the windings.

Such protectors may be either PTO and PTC and they shall be connected to an appropriate protection device conforming to EN 50495.

Activation temperature related to the temperature class:

- 90°C for temperature class T5;
- 130°C for temperature class T4;
- 150°C for temperature class T3.

Ventilation

The motors can be ventilated and not ventilated (with half power in respect to the ventilated corresponding motors so to maintain a T3 temperature class).

Ventilation can be made by fan, who is fitted directly on the shaft, or by using an auxiliary motor.

The auxiliary motor belongs to O-M series. It will be a two poles 63 motor (for shaft height from 80 to 132) or a two poles 71 motor (for shaft height from 160 to 180).

Impellers for Ex db motors, which have a peripheral speed below 50 m/s, are made of plastic material.

Impellers for Ex tb or Ex db tb or Ex db motors (which have a peripheral speed below 50 m/s) are made by plastic dissipative material or metallic material.

The degree of protection (IP) of ventilation openings are:

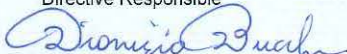
- IP 20 on the air inlet side
- IP 10 on the air outlet side



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Issue 0

Cable entries

The cable entries integrated in motor body, terminal box, capacitor box are part of this certification.

All the other cable entries devices used on the enclosures are already properly certified.

The accessories used for cable entries and for unused holes must be subjected of a separate ATEX certification according to the applicable standards IEC 60079-31 and IEC 60079-1 or IEC 60079-7.

Warning label

"Flameproof joints cannot be repaired"

"Use screws quality 8.8"

[16] Assessment Report n° EPT.17.REL.02/54408

This EU-Type Examination Certificate is released after the positive result of the conformity assessment of the Council Directive 2014/34/EU and to harmonized technical standards listed in this Certificate; performed by the Notified Body Eurofins Product Testing Italy S.r.l., and reported in the Assessment Report above cited.

[17] Special condition for a safe use

Supply voltage must be within:

- $\pm 5\%$ of the nominal value for temperature class T5;
- $\pm 10\%$ of the nominal value for temperature class T3 or T4.

[18] Essential Health and Safety Requirements

Assured by compliance with harmonized standards.

[19] Descriptive documents

The equipment objects of this Certificate is described by the following documents.

Scheduled documents are indicated with the symbol "✓". They cannot be modified without the explicit authorization of the Notified Body.

Document	Name	Rev.	Date	Scheduled
Technical Note	Nota Tecnica Motori Serie O-M	01	2016-12-07	✓
Safety instructions	Motori Serie O-M Istruzioni sicurezza installazione e manutenzione	04	2016-12-07	✓
Assembly drawing _motor_Exd	Assieme_motore_Exd	00	2016-10-03	✓
Assembly drawing _motor_Exde	Assieme_motore_Exde	00	2016-10-03	✓
Drawing – capacitor enclosures	Custodie condensatore Exd IIC	00	2016-10-03	✓

[20] Terms and conditions

The product liability rests with the Manufacturer, his representative or, in the absence of a representative, with the importer, in accordance with the General Product Safety Directive 2001/95/EC.

The following conditions may render this certificate invalid:

- changes in the design or construction of the product;
- changes or amendments to the 2014/34/EU Directive;
- changes or amendments in the standards which form the basis for documenting compliance with the essential requirements of the 2014/34/EU Directive.

[21] Certificate History

This Certificate is at its first issue and replace the EC-TYPE EXAMINATION CERTIFICATE n. EUM1 10 ATEX 0350 and its supplements n. 1 and 2.

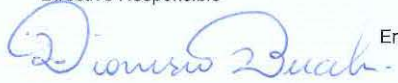


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End of Certificate

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