



[1]

EC TYPE EXAMINATION CERTIFICATE

[2] **Equipments or protective systems or components intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] Number of EC Type examination certificate:

EUM1 12 ATEX 0743

[4] Equipment: Asynchronous Motors

Series: PSM

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

[6] Address: **Via Mantova, n. 93 - 43122 PARMA (Italia)**

[7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents reported in it.

[8] EUROFINS-MODULO UNO S.p.A., notified body n. 2049 in accordance with Article 9 of the Council Directive 94/9/CE of 23th March 1994, certifies that this component have been found to comply with the Essential Health and Safety Requirements relating to the design and construction of component 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. M1.12.REL.01/48070

[9] Compliance with the essential health and safety is assured by compliance with:

EN 60079-0:2009; EN 60079-1:2007; EN 60079-7:2007;


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

[11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, the exam and the tests of the equipment specified, in accordance with the Directive 94/9/CE.

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

II 2G Ex ed IIB T3 Gb	Tamb -40°C + 55°C	<i>Ex e motor with terminal enclosure Ex d</i>
II 2G Ex d IIB T3 Gb	Tamb -40°C + 55°C	<i>Capacitor enclosure usable with the motor</i>
II 2G Ex eb db IIB T3	Tamb -40°C + 55°C	<i>Ex e motor with terminal enclosure Ex d</i>
II 2G Ex db IIB T3	Tamb -40°C + 55°C	<i>Capacitor enclosure usable with the motor</i>

Turin, 14 May 2012


Dionisio Bucchieri
Directive Responsible
Paolo Dentis
Notified Body Manager

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- Three phases and single phase asynchronous motors, squirrel cage with axis height from 71 to 90 mm
- Totally closed with Protection degree IP 54.
- Class F insulation
- 2, 4 poles
- Voltage supply: Until 500V
- Frequency 50/60 Hz
- Service S1, S3
- Optional use of thermic protectors installed on the windings (n.2 for three phases motors, n.1 for single phase motors);
- In case of single phase motors the capacitors must be external to the motor and located in safe zone or introduced inside their "Ex d" enclosure

The terminals enclosure, made of aluminium will be able to contain the following devices:

- Standard terminal board for motors
- Power relay for motor control (coil V_{AC} : 12-24-48-110-230-380 V_{DC} :6-12-24-48-60-110)
- Power minicontactor for motor control (coil V_{AC} : 12-24-48-110-230-380 V_{DC} :6-12-24-48-60-110)
- Single phase motor capacitor

When the capacitor has remarkable dimensions will be used a special enclosure with "Ex d" type of protection (IIB group, also in the scope of this certificate).

The motor cable entries appropriate for use in gas or vapour potentially explosive atmosphere shall conform to EN 60079-0 e EN 60079-1 standards.

Motor terminal enclosure - there are the following possibilities:

- PSM cable gland integrated in motor terminal enclosure (included in the scope of this certificate).
- Commercially available cable glands, certified in conformity with above listed standards

Capacitor enclosure - there are the following possibilities:

- PSM cable gland integrated in motor terminal enclosure(included in the scope of this certificate)..
- Commercially available cable glands, certified in conformity with above listed standards



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Identification motors table

	PSM	M	71	4	075	23	5	1	R	F
Motor series (Petrol Station Motor)										
Tipo										
M Single Phase										
T Three Phases										
Motor dimensions:										
71 Internal diameter 110mm										
80 Internal diameter 125mm										
90 Internal diameter 135mm										
Polarity:										
2, 4 Poles										
Motor power (kW):										
Examples										
075 0,75 kW										
110 1,1 kW										
Nominal voltage (V):										
Examples										
23 230 V										
40 400 V										
Nominal frequency (Hz):										
5 50 Hz										
6 60 Hz										
Shaft (diameter in mm and possible thread):										
1 12 SPECIAL										
2 11-M4										
3 10										
4 14-M5										
5 10-M6										
Control										
R Relay (with thermal protection)										
C Contactor (with thermal protection)										
B Terminal board										
T Terminal board + thermal protection										
Capacitor										
0 In case of three Phase motor										
F Internal capacitor										
G External capacitor										

Temperature range of use included between -40 e + 55° C; the related indication is in the marking plate.

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Notified Body Manager

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Resuming table of motors included in the certificate

Type	Class	Phases	Poles	kW	V	Hz	Service
PSM-M90-2-180-22-5	T3	1	2	1,8	230	50 (o 60)	S1
PSM-M71-4-012-22-5	T3	1	4	0,12	230	50 (o 60)	S1
PSM-M71-4-025-22-5	T3	1	4	0,25	230	50 (o 60)	S1
PSM-M71-4-037-22-5	T3	1	4	0,37	230	50 (o 60)	S1
PSM-M71-4-055-22-5	T3	1	4	0,55	230	50 (o 60)	S1
PSM-M80-4-075-22-5	T3	1	4	0,75	230	50 (o 60)	S1
PSM-M90-4-100-22-5	T3	1	4	1,00	230	50 (o 60)	S1
Type	Class	Phases	Poles	kW	V	Hz	Service
PST-T71-2-025-40-5	T3	3	2	0,25	400	50 (o 60)	S1
PST-T80-2-150-40-5	T3	3	2	1,5	400	50 (o 60)	S1
PST-T90-2-220-40-5	T3	3	2	2,2	400	50 (o 60)	S1
PST-T71-4-025-40-5	T3	3	4	0,25	400	50 (o 60)	S1
PST-T71-4-037-40-5	T3	3	4	0,37	400	50 (o 60)	S1
PST-T71-4-055-40-5	T3	3	4	0,55	400	50 (o 60)	S1
PST-T71-4-065-40-5	T3	3	4	0,65	400	50 (o 60)	S1
PST-T71-4-075-40-5	T3	3	4	0,75	400	50 (o 60)	S1
PST-T80-4-100-40-5	T3	3	4	1	400	50 (o 60)	S1
PST-T80-4-110-40-5	T3	3	4	1,1	400	50 (o 60)	S1
PST-T90-4-150-40-5	T3	3	4	1,5	400	50 (o 60)	S1

[16] Assessment report n° M1.12.REL.01/48070

This EC Type certificate is released after the positive result of the conformity assessment of the Council Directive 94/9/CE and to harmonized technical standard EN 60079-0:2009; EN 60079-1:2007, EN 60079-7:2007, performed by the notified body Eurofins-Modulo Uno SpA, and reported in the assessment report above cited.

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EC TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0743
Descriptive Documents

Name	Description	Date	Rev.	N. page	Listed
Nota Tecnica Motori PSM	Technical note series PSM motors	17/4/2012	0	8	--
IS - Serie PSM IT-EN	Assembling and safety instructions series PSM motors	17/4/2012	0	3	--
Assieme PSM71	Overall drawing motor size 71	17/4/2012	0	1	√
Assieme PSM80	Overall drawing motor size 80	17/4/2012	0	1	√
Assieme PSM90	Overall drawing motor size 90	17/4/2012	0	1	√
Copribasetta	Terminal board cover	17/4/2012	0	1	√
Pressacavo PSM	PSM motors cable gland	17/4/2012	0	1	√
Custodia condensatore	Capacitors enclosure for PSM series motors	17/4/2012	0	1	√
Targa ATEX	ATEX plate for PSM series motors	17/4/2012	0	1	√

Individual tests

No routine test have to be performed in accordance with EN 60079-1 and EN 60079-7.

[17]

Special condition for a safe use

No special conditions for safe use are required.

[18]

Essential Health and Safety Requirements

Guaranteed by the conformity to the harmonized standards; Requirement 1.2.7 of the Directive 94/9/CE is not covered by this certificate

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Certificate History

This Certificate is at its first issue.

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Notified Body Manager



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EC TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0743**[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 Directive;
- Changes or amendments in the standards which form the basis for documenting compliance with the essential requirements of the 94/9/EC directive.