



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx CES 10.0009X** issue No.: **0** Certificate history:

Status: **Current**

Date of Issue: **2010-07-30** Page 1 of 3

Applicant: **Zenit Italia S.r.l.**
Via dell'Industria, 11
I - 41018 San Cesario sul Panaro (MO)
Italy

Electrical Apparatus: **Submersible pumps motors series BLUE 90 and BLUE 107**
Optional accessory:

Type of Protection: **Type of protection "n"**

Marking: **Ex nA IIC T3**
Ex nA nC IIC T3


Approved for issue on behalf of the IECEx
Certification Body:

M. Balaz

Position:

Head of IECEx CB

Signature:
(for printed version)


30 LUG. 2010

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

CESI
Centro Elettrotecnico
Sperimentale Italiano S.p.A.
Via Rubattino 54
20134 Milano
Italy





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Manufacturer: **Zenit Italia S.r.l.**
Via dell'Industria, 11
I - 41018 San Cesario sul Panaro (MO)
Italy

Manufacturing location(s):

**Zenit pumps (Suzhou)
Co., Ltd**
26 Wupu Road, Shengpu
District, SIP Jiangsu, P.R.
China
Post Code: 215216
China

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2004 Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
Edition: 4.0

IEC 60079-15 : 2005-03 Electrical apparatus for explosive gas atmospheres Part 15: Construction, test and Marking of Type of Protection "n" electrical apparatus
Edition: 3

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

IT/CES/ExTR10.0002/01

Quality Assessment Report:

CN/CQM/QAR10.0003/00

NO/DNV/QAR10.0002/00

B0022082



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The single-phase and the three-phase asynchronous motors subject of this document are designed to operate hydraulic machines identified as series BLUE submersible pumps (BLUE 90 and BLUE 107).

The submersible pumps series BLUE are suitable for professional use, heavy duty with clean and dirty water. They are mainly identified in function of the hydraulic family, of the standard or professional version and of the electrical parameters of the motors.

General electrical characteristics:

Rated supply: 230 V 50/60 Hz (single phase) and 400 V 50/60 Hz (three phase)

Rated power: 0,28 kW to 1,5 kW

Ambient temperature: from 0 °C to +40 °C

(maximum temperature of the pumped liquid +40 °C)

Ingress protection: minimum IP54 as required by the standard

Maximum immersion depth: 20 m

See annex for further description.

CONDITIONS OF CERTIFICATION: YES as shown below:

- It is a condition of manufacture that the motor enclosure shall be adequately sealed to prevent ingress of the pumping media, for the intended conditions of use.
- The submersible pump shall operate only completely submersed. A suitable separate protection device shall be installed to prevent the pump from operating when not fully submersed
- Do not use the feeding cable to move the pump. The cable shall be protected against the risk of damage due to mechanical stresses.
- The end connection of the feeding cable shall be made in safe area or shall be made according to one of the type of protection listed in IEC 60079-0 standard suitable for the installation in hazardous area.

Annexe: ANNEX to IECEx_10.0009X pumps BLUE 90-107_Zenit.pdf

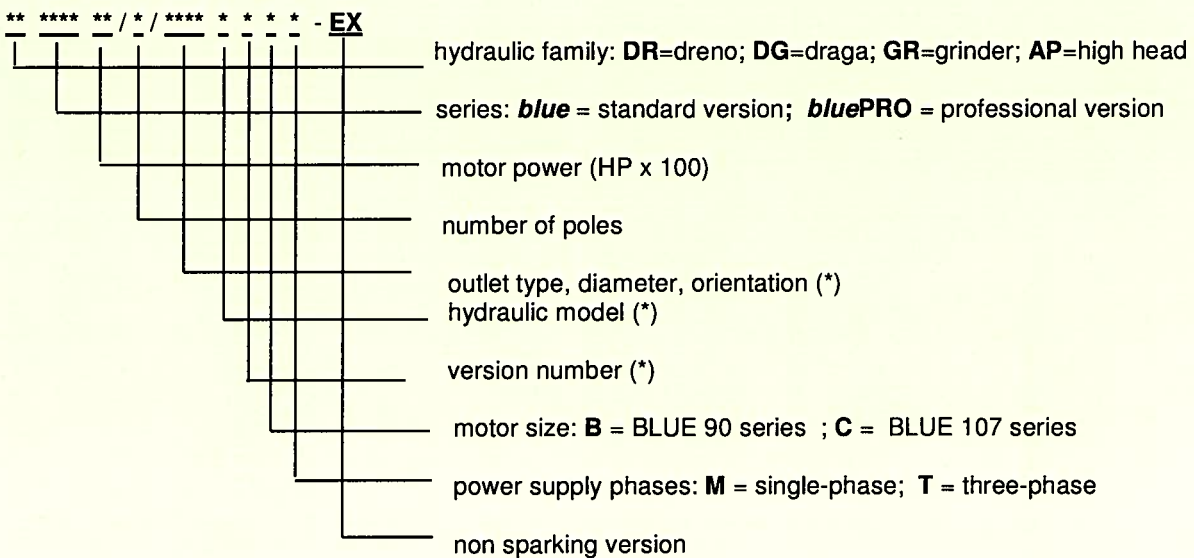


Prot: B0022082

Annex to certificate: IECEX CES 10.0009X Issue No.0 of 2010-07-30
Applicant: Zenit Italia S.r.l.
Electrical Apparatus: Via dell'Industria, 11 – 41018 San Cesario sul Panaro (MO) - Italy
 Submersible pumps motors series BLUE 90 and BLUE 107

Description of equipment

The submersible pumps motors series BLUE 90 and BLUE 107 are identified by a code as follows:



(*) codes irrelevant as regard the type of protection - for details see manufacturer's documents.

The pumps series BLUE 90 are manufactured by Zenit in China.
 The pumps series BLUE 107 are manufactured by Zenit in Italy.

Electrical characteristics

BLUE 90 STANDARD and PROFESSIONAL series (stator Ø = 90 mm)

Pump type	DR/DG BLUE	DR/DG BLUE		DR/DG BLUE		DR/DG BLUE	
	DR/DG BLUEPRO	DR/DG BLUEPRO	DR/DG BLUEPRO	DR/DG BLUEPRO	DR/DG BLUEPRO	DR/DG BLUEPRO	DR/DG BLUEPRO
	40/2	50/2	50/2	75/2	75/2	100/2	100/2
Rated power [kW]	0.28	0.37	0.37	0.55	0.55	0.74	0.74
N° of phases	1	1	3	1	3	1	3
Connection	-	-	Y	-	Y	-	Y
Rated voltage [V]	230	230	400	230	400	230	400
Current absorbed [A]	2.3	2.8	1.15	4.1	1.45	5.6	2.15
Capacitor (50/60 Hz)[µF]	8/10	8/10	-	14/16	-	20	-
Rated frequency [Hz]	50/60						
rpm (50/60 Hz)	2900/3400						



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CESI

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Applicant: Zenit Italia S.r.l.
Via dell'Industria, 11 – 41018 San Cesario sul Panaro (MO) - Italy
Electrical Apparatus: Submersible pumps motors series BLUE 90 and BLUE 107

Electrical characteristics (follows)

BLUE 107 STANDARD and PROFESSIONAL series (stator $\varnothing = 107$ mm)

Pump type	GR/AP BLUEPRO 100/2		DR/DG BLUEPRO GR+/AP BLUEPRO 150/2		DR/DG BLUEPRO GR+/AP BLUEPRO 200/2	
	Rated power [kW]	0.74		1.1		1.5
N° of phases	1	3	1	3	1	3
Connection	-	Y	-	Y	-	Y
Rated voltage [V]	230	400	230	400	230	400
Current absorbed [A]	5.5	2.7	7.5	3.2	10	4.3
Capacitor (50/60 Hz) [μ F]	25/40	-	30/40	-	30/40	-
Rated frequency [Hz]	50/60					
Rpm (50/60 Hz)	2900/3400					

Motors could be designed also with different voltages (≤ 400 V) maintaining the same current density in the winding and the same magnetic induction in the lamination. The rated power, losses, temperatures and insulation class have to remain unchanged.

The pumps with type of protection Ex nA nC IIC T3 are equipped with encapsulated thermal protection devices installed within the stator winding. These protection devices do not work during the standard expected operation of the pump but they interrupt the power supply only in conditions of overheating of the pump when an abnormal operation occurs. The temperature class T3 assigned to the equipment is not result from the operating of the thermal protection devices.

* GR BLUEPRO single phase pump version has an 80 μ F external starting capacitor which works in parallel to the standard inner capacitor. Positioning and connection of the starting capacitor is provided by the user and must be performed in a safe area according manufacturer's instructions.