



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	<b>IECEX EUT 16.0006X</b>	Page 1 of 4	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 3	<a href="#">Issue 2 (2022-06-28)</a>
Date of Issue:	2024-07-12		<a href="#">Issue 1 (2020-09-24)</a>
Applicant:	<b>Zenit Italia S.r.l.</b> Via dell'industria, 11 – 41018 San Cesario sul Panaro (MO) <b>Italy</b>		<a href="#">Issue 0 (2016-09-22)</a>
Equipment:	<b>Submersible electropumps, Series BLUE 90 and BLUE 107</b>		
Optional accessory:			
Type of Protection:	<b>Type of protection "ec", liquid immersion "h" and sealed device "nC"</b>		
Marking:	Ex ec h IIC T3 Gc (version without thermal protection device)		
	or		
	Ex ec nC h IIC T3 Gc (version with thermal protection device)		

Approved for issue on behalf of the IECEx  
Certification Body:

**Dionisio Bucchieri**

Position:

**Head of IECEx CB**

Signature:  
(for printed version)

Date:  
(for printed version)

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**Italy**

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

Manufacturing locations: **Zenit Pumps (China) Co., Ltd**  
49 Pingsheng Road  
Suzhou, Jiangsu Province 215000  
**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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"  
Edition:5.0

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:5.1

[ISO 80079-36:2016](#) Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic methods and requirements  
Edition:1.0

[ISO 80079-37:2016](#) Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres - Non electrical type of protection constructional safety "c", control of ignition source "b", liquid immersion "k"  
Edition:1.0

This Certificate **does not** indicate compliance with 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/EUT/ExTR16.0004/02](#)

Quality Assessment Reports:

[CN/PCET/QAR22.0002/01](#)

[NO/DNV/QAR10.0002/07](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The electropumps series BLUE are suitable for professional use, heavy duty with clean and dirty water. They have the types of protection "Ex ec" and "Ex h" and are suitable for gas group IIC; models with thermal protectors also have type of protection "Ex nC".

The equipment is manufactured with cables permanently connected to it.

### General electrical characteristics:

Rated supply: 230 V ( Single phase) and 400 V (three phase)

Rated power: 0.28 kW to 1.5 kW

Rated frequency: 50/60 Hz

Insulation class: F (155°C)

Duty type. S1

Degree of protection: IP 68 (10m – 168 h)

Maximum immersion depth: 7 m

Ambient temperature. from 0 to +40 °C

Temperature of the liquid from 0 to +40 °C

The equipment is not intended to be supplied through inverter.

See annex for further description

### **SPECIFIC CONDITIONS OF USE: YES as shown below:**

- 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.
- The cable shall be protected against the risk of damage due to mechanical stresses. Do not use the feeding of the floating switch cable to move the pump.
- Do not expose permanently the plastic enclosure of the electropump to light of the sun or luminaires
- The end connection of the feeding cables shall be made in safe area or in according to a type of protection listed in IEC 60079-0 standard suitable for the installation hazardous area.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Production site has changed

**Annex:**

[Annex to CoC\\_1.pdf](#)



Rated power: 0.28 kW to 1.5 kW  
 Rated frequency: 50 Hz or 60 Hz  
 Insulation class: F (155°C)  
 Duty type: S1  
 Degree of protection: IP 68 (10m – 168 h);  
 Maximum immersion depth: 10 m  
 Ambient temperature: From 0 to +40 °C  
 Temperature of the liquid: From 0 to +40 °C

The equipment is not intended to be supplied through inverter.

**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 40/2	DR/DG BLUEPRO 50/2	DR/DG BLUEPRO 50/2	DR/DG BLUEPRO 75/2	DR/DG BLUEPRO 75/2	DR/DG BLUEPRO 100/2	DR/DG BLUEPRO 100/2
Rated power [kW] (50/60Hz)	0.30/0.28	0.37		0.55		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
I <sub>A</sub> /I <sub>n</sub> (50/60 Hz)	1.9/2.3	1.9/2.7	3.2/4.2	2.0/2.3	3.5/4.5	2/2.1	3.4/3.9
Capacitor (50/60 Hz)[µF]	10/10	10/10	-	14/14	-	20/20	-
Rated frequency [Hz]	50/60						
rpm (50/60 Hz)	2900/3400						
Insulation class	F						

**BLUE 107 STANDARD and PROFESSIONAL series (stator Ø = 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
I <sub>A</sub> /I <sub>n</sub> (50/60 Hz)	2.3/2.7	3.6/4.8	2.4/3.1	4.5/5.7	1.9/2.5	4.3/5.7
Capacitor (50/60 Hz)[µF]	25/25		30/40		30/40	
Rated frequency [Hz]	50/60					
Rpm (50/60 Hz)	2900/3400					
Insulation class	F					



The electropumps with type of protection Ex ec nC h IIC T3 Gc are equipped with encapsulated thermal protection devices installed within the stator winding. These protection device do not work during the standard expected operation of the pump but they interrupt the power supply only in conditions of overheating of the motor when abnormal operation occurs. The temperature T3 assigned to the equipment are not depending by the thermal protector device operating.

The equipment (single-phase) can also be provided with a float switch (subject to a suitable separate IECEx full compliance certificate) that controls the operation of the motor; the float switch has nC type of protection, a cable suitable for the cable gland size, it is approved at least for immersion up to 10 m (168 h) and it is suitable for the pumped liquid; it must have ratings (current and voltage) aligned with the ratings of the pump.

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

### **Mounting**

The equipment is intended to be installed in vertical position.

### **Warning label**

None

### **Routine tests:**

The manufacturer shall carry out the routine dielectric tests prescribed at clause 7.1 of IEC 60079-7:2015.