



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

Certificate No.: **IECEx EUT 16.0006X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2016-09-22)

Status: **Current** Issue No: 1

Date of Issue: 2020-09-24

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

Equipment: **Submersible electropumps, Series BLUE 90 and BLUE 107**

Optional accessory:

Type of Protection: **Type of protection "ec", liquid immersion "h" and, eventually, sealed device "nC"**

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:

1. This certificate and schedule may only be reproduced in full.
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Certificate issued by:

Eurofins Product Testing Italy S.r.l.
Via Cuorgnè
n.21 - 10156 Torino
Italy



Product Testing



IECEX Certificate of Conformity

Certificate No.: **IECEX EUT 16.0006X**

Page 2 of 4

Date of issue: 2020-09-24

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

Additional manufacturing locations: **Zenit pumps (China) 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 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 60079-7:2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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/ExTR16.0004/01](#)

Quality Assessment Reports:

[CN/CQM/QAR10.0003/07](#)

[NO/DNV/QAR10.0002/05](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx EUT 16.0006X**

Page 3 of 4

Date of issue: 2020-09-24

Issue No: 1

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.

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 floating switch to light of the sun or luminaires.
- 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.



IECEx Certificate of Conformity

Certificate No.: **IECEx EUT 16.0006X**

Page 4 of 4

Date of issue: 2020-09-24

Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Standards update (IEC 60079-0 and IEC 60079-15)

Evaluation for IEC 60079-7 Ed. 5, ISO 80079-36 Ed.1 and ISO 80079-37 Ed.1

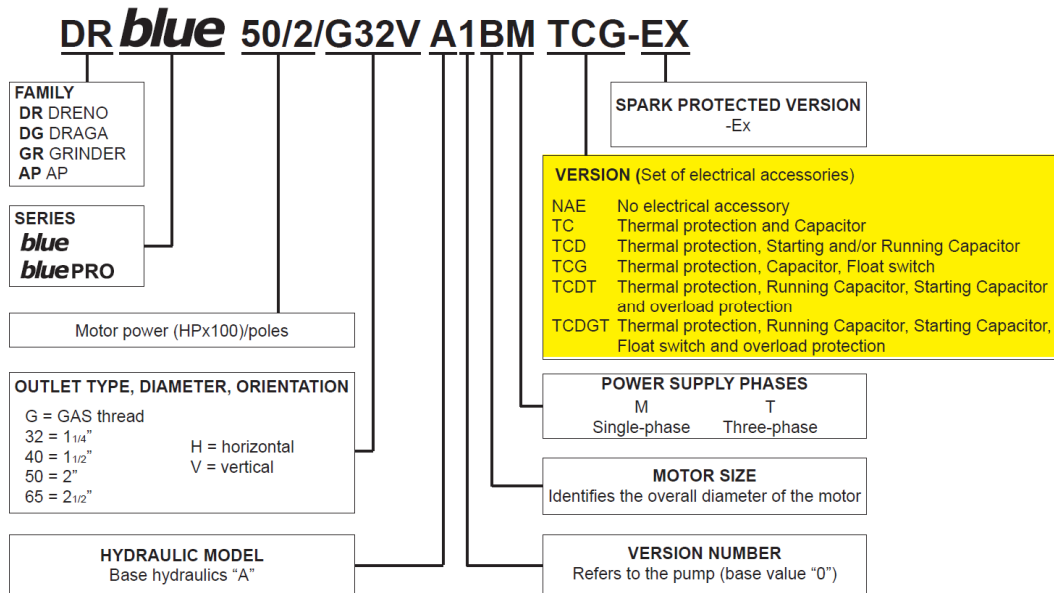
Change of alternative manufacturer's name from "Zenit Pumps Suzhou Co. Ltd." to "Zenit Pumps (China) Co. Ltd"

Supplier change for some non-metallic parts of cable gland

Annex:

[Annex to CoC.pdf](#)

The equipment are identified by a code as follows:



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 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 BLUEPRO 40/2	DR/DG BLUE DR/DG BLUEPRO 50/2	DR/DG BLUE DR/DG BLUEPRO 75/2	DR/DG BLUE 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
Ia/In (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
Ia/In (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 equipment could be designed also with different voltages ($\leq 400V$) maintaining the same current density in the winding and the same induction in the magnetic core. The rated power, losses, temperatures and insulation class have to remain unchanged.

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 "nC" float switch (subject of separate IEC Ex certification) that controls the operation of the motor.

Manufacturer / type: MAC3 S.p.A. / SMALL S-EX and SMALL R-EX

Type of Protection: Ex nC IIC T6 Gc

Certificate no. IECEx CES 12.0018X

Main characteristics: 400 Vmax; 10 Amax

* GR BLUEPRO single phase version has an 80 µF 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.