



EXTENSION n. 01/14

to EC-Type Examination Certificate CESI 07 ATEX 055 X



Equipment: Submersible electric pumps for drainage series "Derby EX" and "ID Derby EX"

Manufacturer: Officine di Trevi S.a.s.

Address: SS n. 3 "Flaminia", km. 145
I-06032 Trevi - PG
Italy

Admitted variations

- Updating of the reference standards:
EN 60079-0 (2012), EN 13463-1 (2009), EN 13463-5 (2011), EN 60079-18 (2009),
(* EN 60079-6 (2007), (* EN 60079-7 (2007);
 - The standards written in the first row have been updated since first emission of this certificate, the ones in the second row are the same used for the original certificate.
 - (* The requirements of these standards have not been thoroughly fulfilled but combined in order to have a protection level suitable for category 2G (EPL Gb).
- Addition of the new series *ID Derby EX*:
this new series adopts new types of elastomers and is suitable for pumping hydrocarbons;
- According to the new standards the marking has been changed and the "s" protection erased:

 II 2G Ex mb c IIC T6 Gb
 or
 II 2G Ex mb c IIC T5 Gb

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 07 ATEX 055 X.

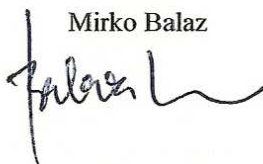
This document may only be reproduced in its entirety and without any change.

Date 28/07/2014 - Translation issued on July 28th 2014

Prepared
Tiziano COLA

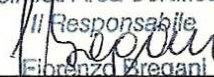


Verified
Mirko Balaz



Approved
Fiorenzo Bregani

CESI S.p.A.
Testing & Certification Division
Business Area Certification

Il Responsabile

 Fiorenzo Bregani Page 1/3



PRD N. 018B
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC
Mutual Recognition Agreements

CESI S.p.A.
Via Rubattino 54
I-20134 Milano - Italy
Tel: +39 02 21251
Fax: +39 02 21255440
e-mail: info@cesi.it
www.cesi.it

Capitale sociale € 8.550.000 interamente versato
C.F. e numero iscrizione Reg. Imprese di Milano 00793580150
P.I. IT00793580150
N. R.E.A. 429222

EXTENSION n. 01/14

to EC-Type Examination Certificate CESI 07 ATEX 055 X

Description of equipment

Submersible electric pumps for drainage, series "Derby EX" and "ID Derby EX", are single-impeller and vertical axis electric pumps, usable in ambient with presence of potentially explosive atmospheres, due to gas, vapours or mists, for the following purposes:

- emptying sumps,
- draining flooded places,
- raising water from wells, pools and basins,
- industrial waterworks,
- draining sewage and cesspool systems,
- pumping hydrocarbons (only series "ID Derby EX")

The electric pumps in subject are formed by an upper cap containing the electrical connections (protection "mb"), a central cylindrical part (ingress protection IP68) holding the electric oil-immersed motor (special protection by combining partial "e" and "o" protections) and the lower hydraulic part (mechanical protection "c").

The usage of three thermal switches with manual reset (one per phase, one out of three logic) guarantees the temperature class even in case of malfunctioning.

The windings of the two-poles electric motor can be made as single-phase or three-phases. In the case of a single-phase winding, the power has to be supplied using a capacitance - having the characteristics shown on the marking plate - placed in safe area and connected by a skilled electrician.

The electric pumps subject of this certificate are identified by the following code (e.g. Derby EX 100):

Derby EX <pp> (Standard series, *the same of the original certificate*)
ID Derby EX <pp> (New series, *models suitable for pumping hydrocarbons*)

➤ <pp>

Power of the pump:

50	0.37 kW (0.50 hp)
75	0.55 kW (0.75 hp)
100	0.75 kW (1.00 hp)
150	1.10 kW (1.50 hp)
200	1.50 kW (2.00 hp)

Equipment characteristics

Single-phase motor (with the starting capacitance to be installed):

Rated power supply voltage	230 V~
Maximum current	12.5 A

Three-phases motor:

Rated power supply voltage	400 V~
Maximum current	3.8 A
Rated frequency	50 Hz

Insulation class

F

Duty

S1 (continuous, constant load)

S4 (20 cycles per hour)

Rated speed

2850 turns per minute

Maximum density of the pumped fluid

1200 kg/m³

Temperature of the pumped fluid

-20°C ÷ +40°C (above the freezing point)

Maximum depth for the usage

15 m

Temperature class:

T6 (with intervention temperature of the protection at 75°C + 5°K)

T5 (with intervention temperature of the protection at 80°C + 5°K or at 85°C + 5°K)

This document may only be reproduced in its entirety and without any change

EXTENSION n. 01/14

to EC-Type Examination Certificate CESI 07 ATEX 055 X

Report n. EX-B4013499

Descriptive documents (prot. EX-B4013500)

Application, document n. 2006/01-03-00-EX DCH rev. 1 (4 pages)	dated 2013/10/15
Document n. 2006/01-03-00-EX RESS rev. 1 (16 pages)	dated 2013/10/15
Document n. 2006/01-03-00-EX AR II rev. 1 (14 pages)	dated 2013/10/15
Document n. 2006/01-03_0-00-EX NT rev. 1 (14 pages + 24 pages annexed)	dated 2013/10/15
Document n. 2006/01-03_00-EX IU rev. 1 (9 pages)	dated 2013/07/08
Document n. 2006/01-03_01-EX IU rev. 0 (9 pages)	dated 2013/07/16
Drawing n. 2006/01-03_1-00-EX DWG rev. 1 (2 pages)	dated 2013/03/25
Drawing n. 2006/01-03_2-00-EX DWG rev. 1 (2 pages)	dated 2013/03/25

One copy of all documents is kept in CESI files.

Routine tests

The manufacturer shall carry out the routine tests foreseen at clause 9 of the standard EN 60079-18 and at clause 7.1 of the standard EN 60079-7.

Special conditions for safe use (X)

- The permanently connected supplying cable shall be properly protected against the risk of mechanical damage. The connection of its terminals shall be made in safe area or adopting one of the protections shown in the standard EN 60079-0;
- The electric pump shall remain completely submerged when operating;
- A flow-switch shall be installed in safe area or with a suitable protection (standard EN 60079-0); it shall disconnect the motor in case of a reduction of the flow rate below 5 l/min;
- Pumps shall be protected with a suitable differential magneto-thermic circuit-breaker which shall cut the supply also in case a single phase current drops to zero (e.g. intervention of a single thermostat);
- Pumps shall operate in the standing position or slightly leaning, 5 degrees at the most;
- In case of intervention of the thermal protection, unless the external reason which caused the overheating is well known, the pump shall be sent to the manufacturer or its authorized centre for oil level and quality check;
- In case of repeated interventions of the thermal protection, the equipment is to be considered not suitable for the kind of usage;
- Pumps cannot be used in case signs of oil leakage are noticed outside the pump;
- Before using the pump, verify the compatibility of the fluid with the materials of the pump.

Essential Health and Safety requirements

Assured by conformity to the standards:

- EN 60079-0: 2012
- EN 13463-1: 2009
- EN 13463-5: 2011
- EN 60079-18: 2009)
- (*) EN 60079-6: 2007
- (*) EN 60079-7: 2007

(*) The requirements of these standards have not been thoroughly fulfilled but combined in order to have a protection level suitable for category 2G (EPL Gb).