



# 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](http://www.iecex.com)

Certificate No.: IECEx KTL 16.0017X Issue No: 0 Certificate history:  
Issue No. 0 (2016-12-07)

Status: **Current** Page 1 of 3

Date of Issue: **2016-12-07**

Applicant: **Power-Genex Ltd.**  
99, Eunbong-ro, Namdong-gu, Incheon, Korea  
**Korea, Republic of**

Equipment: **Solenoid Valve, ESV series**  
Optional accessory:

Type of Protection: **Flameproof enclosure "d", Dust ignition protection by enclosure "t"**

Marking:  
Ex d IIC T6/T5/T4 Gb  
Ex tb IIIC T85 °C/T100 °C/T135 °C Db

Approved for issue on behalf of the IECEx  
Certification Body:

Park Jong-koo

Position:

Certification Manager

Signature:  
(for printed version)

Date:

2016-12-07

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:

**Korea Testing Laboratory**  
87, Digital-ro, 26-gil, Guro-gu  
Seoul  
Korea, Republic of





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Manufacturer: **Power-Genex Ltd.**  
99, Eunbong-ro, Namdong-gu, Incheon, Korea  
**Korea, Republic of**

Additional Manufacturing location(s):

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 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-1 : 2007-04** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:6

**IEC 60079-31 : 2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

*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:

[KR/KTL/ExTR16.0017/00](#)

Quality Assessment Report:

[KR/KTL/QAR11.0002/03](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

ESV series solenoid valve is composed of a terminal box cover, a terminal box, a coil box, a coil box cover, an armature seat bolt and an armature vent body. Cylindrical joints and threaded joints are applied to the equipment. One entry is located on the terminal box and thread type can be G 1/2(Only for type of protection "d"), NPT 1/2 or M20 × 1.5 as described in the manual. The equipment provides a degree of protection IP66 in accordance with IEC 60529. The guidance to the user on the proper selection of cable and cable gland is provided.

### Thermal data

The temperature class depends on the ambient temperature.

Tamb: -30 °C to +50 °C (T6/T85 °C), Tamb: -30 °C to +65 °C (T5/T100 °C), Tamb: -30 °C to + 80 °C (T4/135 °C)

### Electrical data

Rated voltage: (110/220) Vac, (50/60) Hz, 24 Vdc

Rated power: 9.7 VA(220 Vac), 9.9 VA(110 Vac), 4.8 W(24 Vdc)

### Model configuration

ESV-ab-cd-Fe

a(operating type): S(single), D(double), 3(3 way), 31(3 way spool)

b(material): blank(body and valve: ALDC12.1), S(body: ALDC12.1, valve: SUS316), C(body and valve: SUS316)

c(voltage): A220(220 Vac), A110(110 Vac), D24(24 Vdc)

d(pipe thread): P(G 1/2, only for type of protection "d"), N(NPT 1/2), M(M20 × 1.5)

F(protection class, IECEx)

e(coil class): blank(F class), H(H class )

### CONDITIONS OF CERTIFICATION: YES as shown below:

Fasteners with property class A2-50 shall be used.