



# 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 INE 16.0042X

Issue No: 0

Certificate history:

[Issue No. 0 \(2017-03-17\)](#)

Status: **Current**

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Date of Issue: **2017-03-17**

Applicant: **Swift Energy Sdn Bhd**  
Lot 48521 (PT 25145) Batu 6  
Off Jalan Bukit Kemuning  
Section 34  
40460 Shah Alam  
Selangor Darul Ehsan  
**Malaysia**

Equipment: **Zone 1 AC/DC LV Switchrack Model: SWRK-...-...-Ex**

*Optional accessory:*

Type of Protection: **Ex d e**

Marking:  
Ex d e IIB T4 Gb

*Approved for issue on behalf of the IECEX  
Certification Body:*

Thierry HOUEIX

*Position:*

Ex Certification Officer

*Signature:  
(for printed version)*

*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](#).

Certificate issued by:

**INERIS**  
Institut National de l'Environnement Industriel  
et des Risques, BP n2  
Parc Technologique ALATA  
France



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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 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:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2007-04</b> Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-7 : 2006-07</b> Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*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:

[FR/INE/ExTR16.0045/00](#)

Quality Assessment Report:

[NL/DEK/QAR11.0005/04](#)



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## Schedule

### EQUIPMENT:

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

The switchrack is modular design, floor mounting and self-supporting.

The incomer is constructed of Ex d enclosure type EJB manufactured by TECHNOR ITALSMEA and certified IECEX INE 10.0015X (Ex d IIB T4 Gb).

The busbar section is constructed from single or multiple adjoining unit of Ex e junction box manufactured by Swift Energy Sdn Bhd and certified IECEX INE 14.0062X (Ex e IIC T4 Gb).

The outgoing section is constructed of Ex d enclosure type EJB manufactured by TECHNOR ITALSMEA and certified IECEX INE 10.0015X (Ex d IIB T4 Gb).

The termination block for the field cable is achieved inside the functional unit enclosure or inside additional separate Ex e terminal junction box manufactured by Dynamis S.r.l. and certified IECEX IMQ 14.0006X (Ex e IIC T4 Gb).

If require, the metering with Ex e certification are mounted on this additional terminal junction box. Alternatively, the metering can also be mounted inside EJB boxes with viewing window.

The assembly installation is in accordance with the standard IEC 60079-14:2013 and IECEX ExTAG DS 2015/001A , the following clauses remain under the responsibility of the end user for the installation in site:

- 6.3 Danger from exposed and extraneous conductive parts
- 6.6 Lightning protection
- 7. Electrical protection
- 8. Switch-off and electrical isolation
- 9. Cables and wiring systems (for the incoming and outgoing of the electrical lines)

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

Special conditions for safe use are described into the corresponding IECEX certificates and instructions of the different pieces of equipment which compose the final assembly.

### Annex:

[IECEX INE 16.0042X-00\\_Annex\\_v2.pdf](#)



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Annex: IECEx INE 16.0042X-00\_Annex.pdf

## PARAMETERS RELATING TO THE SAFETY

System	AC	DC
Earthing System	TNS/IT	TNS/IT
External connection	L1, L2, L3, N, PE	+ve / -ve
Rated Voltage (Un):	Up to 690Vac	Up to 690Vdc
Rated frequency (fn):	50 Hz, 60 Hz	
Rated Current (In)	Up to 1000A	Up to 800A

The electrical parameters of the different pieces of equipment which compose the assembly are those described into the corresponding IECEx certificates.

Item	Manufacturer	Type	Ex Marking code	Certificates	IEC Standards
Ex d enclosures	TECHNOR ITALSMEA	EJB	Ex d IIB T4 Gb IP66 - 50°C to 60°C	IECEx INE 10.0015X	IEC 60079-0 : 2011 IEC 60079-1 : 2007-04
LV Busbar Junction Box	Swift Energy Sdn Bhd	SWRKBUSBAREx	Ex e IIC T4 Gb IP66 -30°C to +55°C	IECEx INE 14.0062X	IEC 60079-0 : 2011 IEC 60079-7 : 2006-07
Terminal junction box	Dynamim S.r.l.	DSX...	Ex e IIC T4 Gb IP66 -60°C to +65°C	IECEx IMQ 14.0006X	IEC 60079-0 : 2011 IEC 60079-7 : 2006-07
	TECHNOR ITALSMEA	SB...	Ex e IIC T4 Gb IP66 -50°C to +60°C	IECEx IMQ 15.0002X	IEC 60079-0 : 2011 IEC 60079-7 : 2006-07
Stopper (barrier) Single seal cable glands for unarmoured cables	TECHNOR ITALSMEA	PSFAX/PSMAX (cable glands sizes 7 and 8 excluded)	Ex db / eb IIC IP66 -52°C to 110°C	IECEx INE 14.0046X	IEC 60079-0 : 2011 IEC 60079-1 : 2007-04 IEC 60079-7 : 2006-07
Line Bushing Including RADOX 125 cable	QUINTEX GmbH	LB* * * * * / ...	Ex db eb IIC T4 IP66 -50°C to 115°C	IECEx EPS 11.0004X	IEC 60079-0 : 2011 IEC 60079-1 : 2014-06 IEC 60079-7 : 2015
Standard cable bushing	Technor asa	TNDLD	Ex d II -40°C and 110°C	IECEx NEM 09.0012U	IEC 60079-0 : 2004 * IEC 60079-1 : 2007-04



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Item	Manufacturer	Type	Ex Marking code	Certificates	IEC Standards
Sealing fittings	CORTEM S.p.A.	series EYS, EZS	Ex d IIC Gb IP66 -20°C to +100°C	IECEX CES 14.0019X	IEC 60079-0 : 2011 IEC 60079-1 : 2007-04
3 Pcs Union Joint	CORTEM S.p.A.	Type RB with SI/50 Gasket	Ex d IIB Gb IP66/67 -20°C to 150°C	IECEX CES 10.0002U	IEC 60079-0 : 2011 IEC 60079-1 : 2007-04
Nipple	CORTEM S.p.A.	Type NP with SI/50 Gasket	Ex d IIC Gb Ex e IIC Gb IP66/67 -40°C to 150°C	IECEX CES 10.0001X	IEC 60079-0 : 2011 IEC 60079-1 : 2007-04 IEC 60079-7 : 2006-07
Adapter	RCN	Type A with silicone gasket or without gasket  Type A with EPDM or Nylon gasket	Ex d IIC Gb Ex e IIC Gb IP66 -65°C to 220°C  -40°C to 100°C	IECEX INE10.0014X	IEC 60079-0 : 2011 IEC 60079-1 : 2007-04 IEC 60079-7 : 2006-07

(\*) : Statement of the differences between the older standard and IEC 60079-0:2011 : Not impacted by the major technical changes

## **MARKING**

Marking has to be readable and indelible; it has to include the following indications:

- SWIFT Energy
- Shah Alam, Selangor  
Malaysia
- SWRK-...-...-Ex (\*)
- IECEX INE 16.0042X
- (Serial number)
- Ex d e IIB T4 Gb IP66
- Tamb: -20°C to +55°C
- The individual types of protection are given in the marking and CoCs for the incorporated equipment

(\*) Type is completed by letters and/or numbers corresponding to the manufacturing variations.

Marking may be carried out in the language of the country of use.

The equipment has also to carry the marking normally stipulated by its construction standards.



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## ROUTINE EXAMINATIONS AND TESTS

None.

## CONDITIONS OF CERTIFICATION

The following conditions remain under the responsibility of the end user for the installation in site and maintenance:

Item		Conditions of certification
Ex d enclosures	TECHNOR ITALSMEA	The gap and diametrical clearance of the flamepath are less than the values specified in the Tables of the IEC 60079-1 standard.
		The length of the flameproof joint is superior to these specified in Tables of IEC 60079-1 standard.
		The screws used for the lid fastening must have a tensile strength higher or equal to 800 N/mm <sup>2</sup> .