



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

Certificate No.: IECEX CML 16.0093X

Issue No: 0

Certificate history:

Issue No. 0 (2017-03-24)

Status: **Current**

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Date of Issue: **2017-03-24**

Applicant: **Swift Energy Sdn Bhd**

Lot 48521 (PT 25145) Jalan Palam 34/17, Section 34, 40460, Shah Alam, Selangor
Malaysia

Equipment: **Silicone Fluid Filled Transformer Type SW-OTRX-EX**

Optional accessory:

Type of Protection: **Ex o, Ex eb**

Marking:

Ex d [ia Ga] eb o IIB T4 Gb

-20°C to +40°C

Note: Combined marking for all certified parts including separately certified Ex d [ia Ga] is shown for clarity.

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

D R Stubbings MIET

Position:

Technical Director

*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:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: **Swift Energy Sdn Bhd**
Lot 48521 (PT 25145) Jalan Palam 34/17, Section 34, 40460, Shah Alam, Selangor
Malaysia

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:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-6 : 2007-03 Edition:3	Explosive atmospheres - Part 6: Equipment protection by oil immersion "o"
IEC 60079-7 : 2015 Edition:5.0	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:

[GB/CML/ExTR17.0027/00](#)

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 Silicone Fluid Filled Transformer Type SW-OTRX-EX is a 300 kVA three phase copper wound transformer. The transformer is rated at a primary voltage of 6,600 V (26.2 A per phase) it has an off load tap changer on the primary voltage which gives the following voltages: 6930 V, 6765 V, 6600 V, 6435 V, 6270 V. The secondary voltage is rated at 440 V 3 phase / 254 V single phase (400 A).

Refer to annex for full description

SPECIFIC CONDITIONS OF USE: YES as shown below:

Tap changer to be operated off circuit only.

Annex:

[Annex IECEx CML 16_0093X.pdf](#)

Annexe to: IECEx CML 16.0093X Issue 00
Applicant: Swift Energy Sdn Bhd
Apparatus: Silicone Fluid Filled Transformer Type SW-OTRX-EX'



Description

The Silicone Fluid Filled Transformer Type SW-OTRX-EX is a 300 kVA three phase copper wound transformer. The transformer is silicone fluid cooled and housed inside a sealed mild steel tank; with bolt on rubber sealed top cover. Forming part of the tank is one mild steel, fluid filled cooling radiator mounted to the side.

The transformer is rated at a primary voltage of 6,600 V (26.2 A per phase) it has an off load tap changer on the primary voltage which gives the following voltages: 6930 V, 6765 V, 6600 V, 6435 V, 6270 V. The secondary voltage is rated at 440 V 3 phase / 254 V single phase (400 A).

Connection to and from the transformer is made by increased safety HV (<6930 V) and LV (<440 V) mild steel connection boxes mounted to either side of the transformer tank. Each connection box has a breather drain and bolt on access cover fitted with rubber seal.

Inside the connection boxes cables pass through the transformer tank walls via ceramic bushings with insulated phase barriers between them. The LV connection box is fitted with a NCT and ZCT for current monitoring purposes. The bottom of both connection boxes are supplied with stainless steel entry plates intended for use with separately certified cable entry devices.

The transformer tank is additionally fitted with a number of monitoring/safety devices. A fluid temperature indicator, fluid level gauge, pressure gauge and pressure relief device (set at 0.8 bar). All monitoring devices including ZCT and NCT are supplied by an intrinsically safe source housed inside the control panel.

The separately certified Ex d [Ia Ga] IIB T6 Gb control box equipment (INERIS 00ATEX0021X / IECEx INE 10.0015X) is mounted to the side of the transformer tank. The control box houses terminations for the monitoring devices, intrinsically safe barriers and an earth leakage relay. Cabling enters the control box by appropriately certified glands.

The transformer tank is fitted with a lockable off circuit tap changer, fluid filling and draining facilities. Lifting and jacking lugs are provided for installation.

Condition of Manufacture

The following are conditions of manufacture

- i. When the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. Each oil filled tank shall be subject to overpressure test in accordance IEC 60079-6:2007 clause 6.1.1.
- iii. Each oil filled tank shall be subject to reduced pressure test in accordance with IEC 60079-6:2007 clause 6.1.2.
- iv. Ex e dielectric strength test on every unit IEC 60079-7:2015 Clause 7.1.

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