



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 EPS 20.0071X** Page 1 of 5 Certificate history:
Status: **Current** Issue No: 1 Issue 0 (2021-04-15)
Date of Issue: 2022-07-28
Applicant: **Traco Power Solutions Ltd.**
Whitemill Industrial Estate
Whitemill Road Wexford, Y35 YH66
Ireland
Equipment: **Power Supply (built-in): TIB 080-112EX; TIB 080-124EX; TIB 080-148EX; TIB 120-112EX; TIB 120-124EX; TIB 120-148EX; TIB 240-124EX; TIB 240-148EX; TIB 480-124EX; TIB 480-148EX; TIB 240-124SP/EX; TIB 480-124SP/EX**
Optional accessory: SP = Enhanced Surge protection model, all ratings are equivalent to standard models. Models can be additionally marked with xxxaaaa, where 'x' or 'a' can be any alphanumeric, blank or dash; no impact on safety.
Type of Protection: **ec nC**
Marking: Ex ec nC IIC T3/T4 Gc

Approved for issue on behalf of the IECEx
Certification Body:

Position:

Signature:
(for printed version)

Date:
(for printed version)

Ulrich Foike

Certification Manager



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 www.iecex.com or use of this QR Code.



Certificate issued by:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany





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Manufacturer: **Traco Power Solutions Ltd.**
Whitemill Industrial Estate
Whitemill Road Wexford, Y35 YH66
Ireland

Manufacturing locations: **Traco Power Solutions Ltd.** **Traco Electronic AG**
Whitemill Industrial Estate Sihlbruggstrasse 111, 6340 Baar
Whitemill Road Wexford, Y35 YH66 **Switzerland**
Ireland

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 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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:

DE/EPS/ExTR20.0071/01

Quality Assessment Report:

DE/EPS/QAR21.0009/02



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

<u>TIB 080-112EX</u> Input: AC 100–240V 2–0.9 A 45–65Hz DC 100–250V 1.0 – 0.39A Output: DC 12V 6.7A Derate linearly above +60°C at a rate of 2%/°C Ambient temperature range: -40°C to +70°C	<u>TIB 080-124EX</u> Input: AC 100–240V 2–0.9A 45–65Hz DC 100–250V 1.0–0.39A Output: DC 24V 3.4A Derate linearly above +60°C at a rate of 2%/°C Ambient temperature range: -40°C to +70°C
<u>TIB 080-148EX</u> Input: AC 100–240V 2–0.9A 45–65Hz DC 100–250V 1.0–0.39A Output: DC 48V 1.7A Derate linearly above +60°C at a rate of 2%/°C Ambient temperature range: -40°C to +70°C	<u>TIB 120-112EX</u> Input: AC 100–240V 1.5–0.78A 45–65Hz DC 100–250V 1.40–0.56A Output: DC 12V 10A Derate linearly above +60°C at a rate of 2%/°C Ambient temperature range: -40°C to +70°C
<u>TIB 120-124EX</u> Input: AC 100–240V 1.5–0.78A 45–65Hz DC 100–250V 1.40–0.56A Output: DC 24V 5A Derate linearly above +60°C at a rate of 2%/°C Ambient temperature range: -40°C to +70°C	<u>TIB 120-148EX</u> Input: AC 100–240V 1.5–0.78A 45–65Hz DC 100–250V 1.40–0.56A Output: DC 48V 2.5A Derate linearly above +60°C at a rate of 2%/°C Ambient temperature range: -40°C to +70°C
<u>TIB 240-124EX</u> Input: AC 100–240V 2.89–1.27A 45–65Hz DC 100–250V 2.85–1.10A Output: DC 24V 10A Derate linearly above +60°C at a rate of 2%/°C Ambient temperature range: -40°C to +70°C	<u>TIB 240-148EX</u> Input: AC 100–240V 2.89–1.27A 45–65Hz DC 100–250V 2.85–1.10A Output: DC 48V 5A Derate linearly above +60°C at a rate of 2%/°C Ambient temperature range: -40°C to +70°C

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP54 in accordance with IEC 60079-0 and IEC 60079-15.
- The equipment shall only be used in an area of not more than pollution degree 2, as defined in IEC 60664-1.
- Do not operate voltage adjustment unless the area is known to be non-hazardous.
- PE conductor must be connected to apparatus (input terminal).
- Ambient temperature range is $-40\text{ °C} < T_{\text{amb}} < +70\text{ °C}$; the following de-rating conditions must be considered:

All models, except TIB 480-148EX:

- linear derating of 2%/°C above +60°C

Only TIB 480-148EX:

- linear derating of 1.4%/°C above +55°C for input voltage range of AC 100-132V.
- linear derating of 2%/°C above +60°C for input voltage range of AC 132-240V.
- Power supply is suitable for following temperature classes: T4

All models, except TIB 480-124EX & TIB 480-124SP/EX:

- temperature class T3 for input voltage range of AC 100–216V.
- temperature class T4 for input voltage of AC 240V \pm 10%.



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Equipment (continued):

TIB 480-124Ex

Input:

AC 100–240V | 5.8–2.5A | 45–65Hz

DC 100–250V | 2.85–1.10A

Output:

DC 24V | 20A

Derate linearly above +60°C at a rate of 2%/°C

Ambient temperature range: -40°C to +70°C

TIB 480-148EX

Input:

AC 100–240V | 5.8– 2.5A | 45–65Hz

DC 100–250V | 5.65–2.20A

Output:

DC 48V | 10A

Derate linearly above +55°C at a rate of 1.4%/°C (Vin: 85–132V)

Derate linearly above +60°C at a rate of 2%/°C (Vin: 132–264V)

Ambient temperature range: -40°C to +70°C

TIB 240-124SP/EX

Input:

AC 100–240V | 2.89–1.27A | 45–65Hz

DC 100–250V | 5.65–2.20A

Output:

DC 24V | 10A

Derate linearly above +60°C at a rate of 2%/°C

Ambient temperature range: -40°C to +70°C

TIB 480-124SP/EX

Input:

AC 100–240V | 5.8–2.5A | 45–65Hz

DC 100–250V | 5.65–2.20A

Output:

DC 24V | 20A

Derate linearly above +60°C at a rate of 2%/°C

Ambient temperature range: -40°C to +70°C



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Update to current version of standards used. Update of ExTR to current version. Minor editorial changes to manufacturer's documents. New type label. No tests performed.