CERTIFICATE

(1) EU-Type Examination

- (2) Equipment or protective systems intended for use in potentially explosive atmospheres Directive 2014/34/EU
- (3) EU-Type Examination Certificate Number: DEKRA 18ATEX0119 X Issue Number: 0
- (4) Product: Power distribution, switchgear and control box Series TBE
- (5) Manufacturer: Rose Systemtechnik GmbH
- (6) Address: Erbeweg 13-15, D-32457 Porta Westfalica, Germany
- (7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential test report number/NL/DEK/ExTR19.0014/00.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0 : 2018 /// EN 60079-1 / 2014

EN 60079-31 : 2014

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except in respect of those requirements listed at item 18 of the Schedule

- (10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- (11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- (12) The marking of the product shall include the following:



II 2 G Ex db ... IIB or /IC T4, T5 or T6 Gb II 2 D Ex tb ... IIIC T85 °C / T100 °C or T135 °C / Db

Date of certification: 27 September 2019

DEKRA Certification B.V

R. Schuller Certification Manager



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(13) **SCHEDULE**

(14) to EU-Type Examination Certificate DEKRA 18ATEX0119 X

Issue No. 0

(15) **Description**

Power distribution, switchgear and control assembly Series TBE, made of aluminium, stainless steel or cast iron with a threaded cover, with or without display window, are intended to be used in potentially explosive atmospheres. Inside and in the walls or cover of the enclosure electrical apparatus such as terminals, switching-, control-, regulating-, measuring- and indicating devices can be mounted.

The TBE series consist of 6 types:

- TBE 100T, TBE 130T and TBE 160T: enclosures in 3 different sizes, without display window;
- TBE 100TW, TBE 130TW and TBE 160TW: enclosures in 3 different sizes, with display window.

Marking

Where applicable, the equipment making is completed by the types / levels of protection "i", "[i]" and/or "m".

The equipment is marked with Group IIB if at least 20% of each internal cross-sectional area remains free; it may be marked with Group IIC if at least 40% of each internal cross-sectional area remains free.

Ambient temperature range

Maximum ambient temperature range (for details see table below):

- Enclosure without display window: -60 °C to +110 °C
- Enclosure with 12 mm thick display window: -60 °C to +75 °C
- Enclosure with 8 mm thick display window: -20 °C to +75 °C

Degree of ingress protection

Degree of protection IP66 according to EN 60529 and EN 60079-0.

Electrical ratings

The electrical ratings are dependent on the built-in components and equipment, but do not exceed 1.1 kV ac/dc nominal, 125 A and 35 mm². Actual ratings are stated on the nameplate.

Options

The threaded flamepaths may be provided with a max. 0.008 mm thick electro-plating.

The enclosures may be supplied in natural finish, electro-plated, powder coated or liquid painted. The painting thickness does not exceed 0.18 mm.



(13) **SCHEDULE**

(14) to EU-Type Examination Certificate DEKRA 18ATEX0119 X

Issue No. 0

Thermal data

The relation between TBE type, temperature class, maximum surface temperature, maximum ambient temperature and maximum allowed power dissipation is given in the table below.

		Temperature class:	Т6	Т5	Τ4	Т6	Т5	Τ4
		Maximum surface temperature*:	T85 °C	T100 °C	T135 °C	T85 °C	T100 °C	T135 °C
	Dimensions	Maximum ambient	+40 °C	+55 °C	+90 °C	+60 °C	+75 °C	+110 °C
Туре	(H X W x D) (mm)	temperature:						
TBE								
100T	130 x 116 x 98		20 W			12 W		
130T	160 x 148 x 107	Maximum	29 W			15 W		
160T	190 x 180 x 116	allowed power	41 W			24 W		
100TW	130 x 116 x 110	dissipation:	20 W		Х	12 W		X
130TW	160 x 148 x 124		29 W		Х	15 W		X
160TW	190 x 180 x 134		41 W		Х	24 W		X
* : values have been determined without a dust layer X =TW types are not suitable for T4 / T135 °C								

Installation instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

No. NL/DEK/ExTR18.0014/00

(17) Specific conditions of use

- 1. For enclosures provided with a powder coating, liquid painting or provided with a non-metallic nameplate and/or tagplate and intended for use in Group III applications, the user shall minimize the risk from electrostatic discharge by suitable selection and installation.
- 2. The threaded flame path of the cover is more than required by EN 60079-1. Contact the manufacturer for information on the dimensions of the flameproof joints.

(18) Essential Health and Safety Requirements

Covered by the standards listed at item (9).

(19) Test documentation

As listed in Report No. NL/DEK/ExTR18.0014/00

(20) Certificate history

Issue 0 - 222966700 initial certificate