

# EU-Type Examination Certificate

- [2] EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 2014/34/EU
- [3] EU-Type Examination Certificate Number: Presafe 18 ATEX 12634X Issue 0
- [4] Product: Enclosure Heater
- [5] Manufacturer: R. Stahl Tranberg AS
- [6] Address: Strandsvingen 6  
4068 Stavanger  
NORWAY
- [7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV GL Nemko Presafe AS, notified body number 2460, 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 reports listed in section 16.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: EN 60079-0:2012/A11:2013, EN 60079-7: 2015, EN 60079-30-1: 2007 and EN 60079-18: 2015
- [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 eb IIC T3-T5 Gb -50°C ≤ Ta ≤ +50°C

II 2 G

Ex eb mb IIC T3-T5 Gb -50°C ≤ Ta ≤ +50°C



Date of issue: 2018-06-19

Arne Hortman

For DNV GL Nemko Presafe AS

The Certificate has been digitally signed.

See [www.presafe.com/digital\\_signatures](http://www.presafe.com/digital_signatures) for more info

*This certificate may only be reproduced in its entirety and without any change, schedule included.*

[13]

## Schedule

[14] **EU-TYPE EXAMINATION CERTIFICATE No.:** Presafe 18 ATEX 12634X Issue 0

[15] **Description of Product**

This certificate is based on the former certificates Nemko 11ATEX1098X (TEF 9206, TEF 9207, TEF 9208, TEF 9209) and Presafe 17 ATEX 9967X (TEF 9202).

This Certificate covers enclosure heater with or without junction box and with or without thermostat. The enclosure heater uses certified parallel self-regulating heating cables:

- Thermon<sup>®</sup> KSX 20-2 OJ
- Thermon<sup>®</sup> RSX 15-2 FOJ
- Raychem<sup>®</sup> 15/20 QTVR1
- Raychem<sup>®</sup> 15/20 QTVR2

The self-regulating heating cable is spliced together with the cold-cable using Splice-kit with Heat-shrinkable tubes/sleeves, tested together with the self-regulating cables in this certificate.

The certificate covers stainless steel heaters: TEF 9206, TEF 9207, TEF 9208 and TEF 9209

The certificate also covers polymer composite heaters: TEF 9202

Some versions are certified for installation inside an enclosure of IP min IP54. Others are certified regardless of the enclosure. This is further described in the user manual.

Suitable ATEX certified glands and blanking elements with the following specifications can be used: IP66 or better, Temperature range: -50°C to +80°C.

### Type designation

Type	Cable	Version description	Temp. regulation	Power @ 0°C	Power @ 0°C
TEF 9206	RSX-15	X	X	X	X
TEF 9207	KSX-20				
TEF 9208	QTVR2				
TEF 9209	QTVR1				
		0-230VAC Integrated powercable 1-230VAC Single with JB 2-230VAC Single with JB and thermostat 3-230VAC Double with JB 4-230VAC Double with JB and thermostat 5-120VAC Integrated powercable 6-120VAC Single with JB 7-120VAC Single with JB and thermostat 8-120VAC Double with JB 9-120VAC Double with JB and thermostat	0-N/A 1- -10°C 2- -5°C 3- 0°C 4- +5°C 5- +10°C 6- +15°C 7- +20°C 8- +25°C 9- +30°C	0- 0W 1-1000W 2-2000W	0-0W 1-100W 2-200W 3-300W 4-400W 5-500W 6-600W 7-700W 8-800W 9-900W

Enclosure heater Type TEF 9206, based on trace heater RSX-15, assign Temperature Class T5.

Enclosure heater Type TEF 9207, based on trace heater KSX-20, assign Temperature Class T3.

Enclosure heater Type TEF 9208, based on trace heater QTVR2, assign Temperature Class T4.

Enclosure heater Type TEF 9209, based on trace heater QTVR1, assign Temperature Class T4.

Type	Model	Voltage	Power
9202	010	240 V	50 W
9202	011	240 V	100 W
9202	050	120 V	50 W
9202	051	120 V	100 W
9202	210	240 V	50 W
9202	211	240 V	100 W

Enclosure heater Type TEF 9202 (model 0XX), based on trace heater QTVR2, assign Temperature Class T4.

Enclosure heater Type TEF 9202 (model 0XX), based on trace heater QTVR1, assign Temperature Class T4.

Enclosure heater Type TEF 9202 (model 2XX), based on trace heater KSX-20, assign Temperature Class T3.

#### Electrical Data

120-250V AC, 50/60Hz

External fuse: Max16A, min breaking capacity 1500A (if thermostat is used. Otherwise according to 60079-30-1)

Max 2000 W (TEF 9206, TEF 9207, TEF 9208, TEF 9209)

Max 100W (TEF 9202)

#### Degrees of protection (IP Code)

TEF 9202 2XX, TEF 9207: IP66 according to EN 60529

TEF 9202 0XX, TEF 9206, TEF 9208, TEF 9209: To be installed inside a certified enclosure with IP min. IP54.

#### Maximum withstand temperature, (Heater is de-energized, thermostat may be energized):

+80°C

**Ex components used:**

Ex component	Certificate	CENELEC Standard	Comment
Self-regulating Heating Cables Type KSX 20-2 OJ	FM 07ATEX0027	EN 60079-0: 2006, EN 60079-7: 2003, EN 62086-1: 2005	Written EC Declaration of Conformity and gap analyse towards EN 60079-0:2012 and EN 60079-30-1:2007 has been made and found compliant.
Self-regulating Heating Cables Type RSX 15-2-FOJ	KEMA 07ATEX0179	EN 60079-0: 2006, EN 60079-30-1: 2007, EN 62086-1: 2005	Written EC Declaration of Conformity and gap analyse towards EN 60079-0:2012 and EN 60079-30-1:2007 has been made and found compliant.
Self-regulating Heating Cables Type QTVR1 and QTVR2	Baseefa 06ATEX0185X	EN 60079-0: 2009, EN 60079-30-1: 2007, EN 62086-1: 2005	Written EC Declaration of Conformity and gap analyse towards EN 60079-0:2012 has been made and found compliant.
Thermostat Type: 50 23 92xx	NEMKO 03ATEX1470X	EN 60079-0: 2012, EN 60079-18: 2009	Gap analyse towards EN 60079-18:2015 has been made and found compliant.
Terminals, type UT2,5/UT6	KEMA 04ATEX2048U	EN 60079-0: 2012, EN 60079-7: 2015	Certified according to the most recent standards.
Terminals, type USLKG10N	KEMA 99ATEX4487U	EN 60079-0: 2009, EN 60079-7: 2007	Gap analyse towards EN 60079-0:2012 and EN 60079-7: 2015 has been made and found compliant.

## Routine tests

Each heater shall be subject to the Dielectric test and verified of rated output according to clause 5.2.1 and 5.2.2 in EN 60079-30-1: 2007.

[16] **Report No.:** D0001805, rev. 2

## [17] Specific Conditions of Use

- The heaters with permanently connected unterminated flying lead cable need an appropriate protection of the free end of the cable (for example terminated in an Ex e junction box).
- The heaters with thermostat shall be connected to a circuit breaker with rated current max. 16A and a breaking capacity of min. 1500A.
- The supply circuit shall include an electrical protection device in conformity with EN 60079-30-1 cl. 4.3.
- Enclosure heaters of type TEF 9206, TEF 9208, TEF 9209 and TEF 9202 OXX shall be installed inside an enclosure with IP min. IP54 (this clause is not applicable for TEF 9207 and TEF 9202 2XX).

### *Additional Conditions for heater Type TEF 9202:*

- Potential electrostatic charging hazard – For cleaning use moist cloth only! No solvent.
- If DIN-rail bracket is used for mounting on a rail, this shall be earthed.

## [18] Essential Health and Safety Requirements

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9

## [19] Drawings and documents

Number	Title	Rev.	Date
TCL6181	Enclosure heaters	1	06.06.2018

## [20] Certificate History

Issue	Description	Issue date	Report no.
0	Original issue	2018-06-19	D0001805, rev 2

END OF CERTIFICATE