

# EU-Type Examination Certificate

## 0470-RED-173601

In compliance with Directive (EU) No 2014/53 of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment (RED), this certificate applies to the product(s)

### **Simplex/semi duplex radiotelephone for maritime communication Model: TT-6248A, TT-6248A Highlander**

Placed on the market under the name or trademark of  
**Thrane & Thrane A/S**  
**Industrivej 30**  
**9490 Pandrup**  
**Denmark**

This certificate attests that all provisions concerning the assessment and verification of performance described in the standard(s)

**Art 3.1a: EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013**  
**EN 60950-22:2006**  
**Art 3.1b: EN 60945:2002**  
**EN 301 843-2 V2.1.1**  
**Art 3.2: EN 300 698 V2.1.1**  
**EN 301 925 V1.4.1**

as per Annex III (Module B) for the performance set out in this certificate, are applied.

Certificate issued Sept 18, 2017  
Certificate was first issued Sept 18, 2017

Certificate revision: 1.0

**For NEMKO (Notified Body 0470)**  
Authorized signatory: Espen Eriksen



This certificate has been granted by Nemko AS, Gaustadalleen 30, NO-0373 Oslo, Norway

This certificate remains valid, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Nemko. Should the specified regulations or standards be amended, the products are to be re-approved prior to being placed on the market. Nemko is designated by the Norwegian Notified Authority as a Notified Body under the terms of the Norwegian regulations. This certificate is issued within the scope of the "Provisions for certification - Electrical products - Radio Equipment Directive 2014/53/EU" (Nemko C355), which is available on request.

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## ANNEX 1 – PRODUCT SPECIFICATIONS

### PRODUCT DESCRIPTION

Equipment type: **Simplex/semi duplex radiotelephone for maritime communication**  
Model/type: **TT-6248A / TT-6248A Highlander  
Fixed mounted VHF radio telephone**  
Brand/trade name: **SAILOR 6248 VHF**  
Supply voltage: **12V DC**  
Rated power: **Max. 84 W**

### TECHNICAL CHARACTERISTICS

Transmitter type: **Simplex / semi duplex maritime VHF radio**  
Intended purpose: **Maritime communication**  
Frequency range: **Tx: 156.000 MHz – 157.425 MHz  
Rx: 156.000 MHz – 163.425 MHz**  
Transmit power: **Hi / Lo: 25W / 1W**  
Modulation type: **25 kHz: 16K0G3E, 12,5 kHz: 10K0G3E**  
Channel separation: **12,5 kHz / 25 kHz**  
Antenna type: **External. Mounted at least 400 cm above the highest deck where people may stay during radio transmission**  
Maximum antenna gain: **4 dBi**

### MANUFACTURER

Name: **Thrane & Thrane A/S**  
Address: **Industrivej 30  
9490 Pandrup  
Denmark**

**ADDITIONAL INFORMATION**

**Equipment included in this opinion**

<b>Item no.</b>	<b>Type</b>	<b>Designation</b>	<b>Manufacturer</b>
1	TT-6248A	SAILOR 6248 VHF	Thrane & Thrane A/S
1A	TT-6248A	SAM 6248 VHF	Thrane & Thrane A/S
1B	TT-6248A	Highlander 6248 VHF	Thrane & Thrane A/S
2	TT-6201A	SAILOR 6201 Handset	Thrane & Thrane A/S
3	TT-6203A	SAILOR 6203 Handset WP	Thrane & Thrane A/S
4	TT-6202A	SAILOR 6202 Hand microphone	Thrane & Thrane A/S
5	TT-6204A	SAILOR 6204 Control Speaker Microphone	Hytera (China)
6	TT-6207A	SAILOR 6207 Connection box	Thrane & Thrane A/S
7	TT-6208A	SAILOR 6208 CU Connection box	Thrane & Thrane A/S
8	TT-6209A	SAILOR 6209 Connection box	Thrane & Thrane A/S
9	TT-6103A	SAILOR 6103 Multi Alarm panel	Thrane & Thrane A/S
10	SAILOR N163S	SAILOR N163S Power Supply (AC/DC)	Thrane & Thrane A/S
11	SAILOR N420	SAILOR N420 (DC/DC)	Thrane & Thrane A/S
12	TT-6090A	SAILOR 6090 Power Converter	Thrane & Thrane A/S
13	TT-6270A	SAILOR 6270 Loudspeaker	Thrane & Thrane A/S
14	TT-6197A	SAILOR 6197 Ethernet switch	Moxa Inc.

**Nemko Norway**

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 ENTERPRISE NUMBER NO974404532

## ANNEX 2 - SCHEDULE OF APPROVAL

### SCOPE OF EXAMINATION

<input checked="" type="checkbox"/> Protection of Health and Safety, according to Article 3(1)(a).	COMPLIES
<input checked="" type="checkbox"/> Electromagnetic Compatibility (EMC), according to Article 3(1)(b).	COMPLIES
<input checked="" type="checkbox"/> Radio Spectrum Use, according to Article 3(2).	COMPLIES
<input checked="" type="checkbox"/> Special Radio Features, according to Article 3(3)(a)-(f).	N/A

### APPLICATIONS/LIMITATIONS

No limitations

### MARKING OF PRODUCT

The Manufacturer and Type Designation shall be applied to the product in a visible location.  
The equipment shall carry the CE marking of the European Union.

### TYPE EXAMINATION DOCUMENTATION

Article	Standard	Test report number	Issued by
3.1a	EN 60950	177602	Nemko AS
3.1b	EN 60945	177602/4	Nemko AS
	EN 301-843	DANAK-19/18030	Delta
3.2	EN 300 698	158780/3	Nemko AS
	EN 301 925	158780/3	Nemko AS

### Additional documentation

- RED technical file by Thrane & Thrane, dated: 2017-08-31

### ADDITIONAL INFORMATION

None.

<< End of certificate >>

### Nemko Norway

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