

CERTIFICATE

of
EC Type-examination (Module B)

Certificate No: 182120013/AA/00

Product Category: MED/5.17

With respect to Marine Equipment Directive 2014/90/EU and the implementing Regulation (EU) 2018/773, Telefication Notified Body 0560 declares that the equipment:

Product description: **Portable Survival craft VHF radiotelephone**

Trademark: **McMurdo**

Type designation: **R5 GMDSS**

Software version: **2.00.XX**

Manufacturer: **Thrane & Thrane A/S**

Address: **Lundtoftegaardsvej 93 D**

City: **2800 Kongens Lyngby**

Country: **Denmark**

Complies with the international instruments and test standards as listed in the Annex.

This certificate is granted to:

Name: **Thrane & Thrane A/S**

Address: **Lundtoftegaardsvej 93 D**

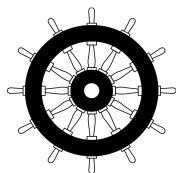
City: **2800 Kongens Lyngby**

Country: **Denmark**

Validity of this certificate expires on date: **22 October 2023**

This certificate has THREE Annexes.

Zevenaar, 22 October 2018



Willem Jan Jong
Manager Product Certification



General conditions

- Each product to which this certificate relates shall be provided with Marine markings. The Marine marking consist of symbol in the form of a wheel followed by the identification number of the responsible Notified Body for module D, E, F or G, and by the last two digits of the number of the year in which the mark is affixed.
- The holder of this Certificate has drawn up a Declaration of conformity to type with Directive 2014/90/EU and Implementing Regulations, declaring that the product(s) described in this EC Type- examination certificate, satisfy the requirements that apply to them.
- Each product shall be identified by means of type, batch and/or serial numbers and the name of the manufacturer and/or importer.
- If the equipment is to be modified, Telefication shall be notified immediately. Depending on the modifications, Telefication may have additional examinations carried out in consultation with the applicant.
- Enforcement of a new Implementing Regulation may void the validity of this certificate regarding (re)placement of the product onboard ships.

Remarks and observations

The following conditions are applicable:

The R5 GMDSS may also be utilized for on-board communication. For this purpose a rechargeable 1800mAh Lithium-ion battery, model TT-1707A, is available.

The supplied battery charger, model TT-1704A, in combination with AC/DC switching power adapter, model OH-1048A1200500U-VDE or OH-1048A1201200U-VDE and dual battery charger, model TT-1705A, in combination with AC/DC switching power adapter, model OH-1048A1201200U-VDE have been part of the type approval test.

Documentation lodged for this EC type-examination

Test Reports:

- Telefication B.V.: 99788230 Rev 2.0, 03 April 2007
- Telefication B.V.: 99788220, 05 April 2007
- Delta: Danak-19K0457, 15 June 2007
- Delta: Danak-19K0469, 18 September 2007
- Delta: Danak-19/18030, 26 June 2017

Product Documentation:

- Assembly drawings
- Bill of materials
- Block diagram
- Electrical diagrams
- Internal photos
- External photos
- Manual
- Risk assessment

International Instruments and test standards

The equipment complies with:

EN 300 225	December, 2015	V1.5.1
EN 301 843-2	March, 2016	V2.1.1
EN 60945	October, 2002	Edition 4
IEC 60945/Corrigendum 1	April, 2008	Edition 4
IMO Resolution A.694(17)	1991	
ITU-R M.489-2	October, 1995	
MSC Resolution 149(77)	June, 2003	

Technical features and characteristics

The product includes the following features and characteristics:

VHF equipment

- Operating frequency range: Transmitter: 155.000-161.450MHz; Receiver: 155.000-163.425MHz
- Modulation method(s): 16K0G3E
- Maximum output power: 2 Watt rated
- Primary battery: Lithium Iron Disulfide 3000mAh; Temperature range: -20°C to +55°C; Channel separation: 25 kHz

Trademarks and Type designations:

The product as described in this EC type-examination includes the following type designations:

- Product description: Portable Survival craft VHF radiotelephone
- Trademark: McMurdo
- Type designation: R5 GMDSS
- Software version: 2.00.XX