



Marine Equipment Directive Module B Type Examination Certificate

This is to certify that TÜV SÜD BABT did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the Radiocommunication requirements of Marine Equipment Directive 96/98/EC as amended by Commission Directive 2013/52/EU and that the equipment of

Thrane & Thrane A/S

of

Lundtoftegaardsvej 93 D
DK-2800 Kgs. Lyngby
Denmark

known as

SAILOR MF/HF System 6000B (150W)

conforms to the relevant requirements for the following equipment as listed in Marine Equipment Directive Annex A.1:

Annex A.1/5.5 HF Marine Safety Information Equipment
Annex A.1/5.10 MF Radio capable of DSC and Radiotelephony
Annex A.1/5.11 MF DSC Watchkeeping Receiver
Annex A.1/5.14 MF/HF Radio capable of DSC, NBPD and Radiotelephony
Annex A.1/5.15 MF/HF DSC Scanning Watchkeeping Receiver

as defined in Commission Directive 2013/52/EU

on the basis of the Technical Data and information detailed in the Annex to this certificate.

Signed:

Issue Date: 06 August 2015

On Behalf of TÜV SÜD BABT

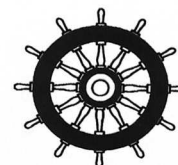
Number: BABT-MED000075 Issue: 01

This certificate has been issued in accordance with the Certification Regulations of TÜV SÜD BABT (Notified Body Number 0168) and constitutes page 1 of the combined Certificate and Annex

This certificate is valid from 06 August 2015 until not later than 05 August 2020

The Conditions for the validity of this certificate are listed in the Annex.
For further details related to this certification please contact BABT@TUV-SUD.co.uk

TÜV SÜD BABT • TÜV SÜD Group
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Marine Equipment Directive Module B Type Examination Certificate

Description of Equipment

This certificate covers the following 150W System 6000B versions:

- 150W MF/HF SSB radiotelephone with integrated Class-A DSC controller and 2187.5kHz watchkeeping receiver
- 150W MF/HF SSB radiotelephone with integrated Class-A DSC controller and 6 channel scanning watchkeeping receiver
- 150W MF/HF SSB radiotelephone with integrated Class-A DSC controller, NBDP controller and 6 channel scanning watchkeeping receiver

Model: SAILOR MF/HF 6310*
SAM MF/HF 6310
HIGHLANDER MF/HF 6310

*SAILOR is the brand name for Cobham SATCOM maritime products manufactured by Thrane & Thrane A/S.

System Components:

	SAILOR 6310 System	SAM 6310 System	HIGHLANDER 6310 System
Antenna Tuning Unit	SAILOR 6384B TT-6384B: 406384B	SAM 6384B TT-6384B: 406384B-SAM	HIGHLANDER 6384B TT-6384B: 406384B-BHL
Transceiver Unit	SAILOR 6365B TT-6365B: 406365B	SAM 6365 TT-6365B: 406365B-SAM	HIGHLANDER 6365 TT-6365B: 406365B-BHL
MF/HF Control Unit	SAILOR 6301 TT-6301A: 406301A	SAM 6301 TT-6301A: 406301A-SAM	HIGHLANDER 6301 TT-6301A: 406301A-BHL
Handset	SAILOR 6201 TT-6201A: 406201A	SAILOR 6201 TT-6201A: 406201A	SAILOR 6201 TT-6201A: 406201A
Alarm Panel	SAILOR 6103 TT-6103A: 406103A	SAILOR 6103 TT-6103A: 406103A	SAILOR 6103 TT-6103A: 406103A
Message Terminal	SAILOR 6006 TT-6006A: 406006A	SAILOR 6006 TT-6006A: 406006A	SAILOR 6006 TT-6006A: 406006A
Control Panel	SAILOR 6004 TT-6004A: 406004A	SAILOR 6004 TT-6004A: 406004A	SAILOR 6004 TT-6004A: 406004A
Printer	SAILOR H1252B H1252B/TT-3608A: 8012520006	SAILOR H1252B H1252B/TT-3608A: 8012520006	SAILOR H1252B H1252B/TT-3608A: 8012520006
Keyboard	SAILOR 6001 TT-6001A: 406001A	SAILOR 6001 TT-6001A: 406001A	SAILOR 6001 TT-6001A: 406001A
Accessory Connection Box	SAILOR 6209 TT-6209A: 406209A	SAILOR 6209 TT-6209A: 406209A	SAILOR 6209 TT-6209A: 406209A
CU Connection Box	SAILOR 6208 TT-6208A: 406208A	SAILOR 6208 TT-6208A: 406208A	SAILOR 6208 TT-6208A: 406208A
Power Supply	SAILOR 6080 TT-6080A: 406080A	SAILOR 6080 TT-6080A: 406080A	SAILOR 6080 TT-6080A: 406080A
Loudspeaker	SAILOR 6270 TT-6270A: 406270A	SAILOR 6270 TT-6270A: 406270A	SAILOR 6270 TT-6270A: 406270A

Compliance Matrix For MED Item A.1/5.5, A.1/5.10, A.1/5.11, A.1/5.14 and A1/5.15

IMO Resolutions	International Testing Standards	
IMO Res. A.699(17) IMO Res. A.700(17) IMO Res. A.804(19) IMO Res. A.806(19) IMO Res MSC 68(68) IMO Res. A.694(17) IMO Res. MSC.36(63) IMO Res. MSC.97(73) IMO COMSAR Circ.32	EN 60945 (2002) inc Corr.1	General Requirements for Marine Navigation Equipment (Inc. Corr1:2008)
	ETSI EN 300 373-1 V1.4.1 (2013-09)	Maritime mobile transmitters and receivers for use in the MF and HF bands
	ETSI EN 300 338-1 V1.3.1 (2010-02)	Electromagnetic compatibility and Radio spectrum Matters (ERM); Technical characteristics and methods of measurement for equipment for generation, transmission and reception of Digital Selective Calling (DSC) in the maritime MF, MF/HF and/or VHF mobile service; Part 1: Common requirements
	ETSI EN 300 338-2 V1.3.1 (2010-02)	Part 2: Class A/B DSC
	ETSI EN 301 033 V1.4.1 (2013-09)	Technical characteristics and methods of measurement for shipborne watchkeeping receivers for reception of Digital Selective Calling (DSC) in the maritime MF, MF/HF and VHF bands
	ETSI EN 300067 Ed.1 (1990-11) ETSI EN 300067 /A1 Ed.1 (1993-10)	Radio Equipment and Systems Radiotelex equipment operating in the maritime MF/HF service. Technical characteristics and methods of measurement
	EN 301 843-5 V1.1.1 (2004-06)	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for marine radio equipment and services; Part 5: Specific conditions for MF/HF radiotelephone transmitters and receivers
	EN 61162-1 (2011)	Maritime navigation and radiocommunication equipment and systems — Digital interfaces Part 1: Single talker and multiple listeners
	IMO MSC/Circ.862	Clarifications Of Certain Requirements In IMO Performance Standards For GMDSS Equipment

Manufacturer:

Name: As Holder
Address: As Holder

Relevant Technical Documentation

User Guide:

98-130890-D Nov 2013	SAILOR 6000 MF/HF 150/250/500 W System, Installation Manual
98-133081-B Oct 2013	SAILOR 630x MF/HF Control Unit, Installation guide
98-131070-THR-D Jun 2015	SAILOR 6000 MF/HF DSC 150/250/500W, User Manual
98-132519-B Oct 2011	SAILOR 6300 MF/HF Radiotelex, User Manual
98-130981-B Aug 2013	SAILOR 6101 and 6103 Alarm Panel, Installation and user manual
98-131070-NEU-C Aug 2013	TT-6300A MF/HF DSC 150W/150W FCC/250W/500W User manual

Test report numbers:

EN 60945 (2002) inc Corr.1	T209922, 2015-01-19 (Delta)
	E12207.00, 2012-11-19 (Nemko)
	138930-3, 2010-11-23 (Nemko)
	173410-2, 2011-06-09 (Nemko)
	E11129.01, 2015-04-08 (Nemko)
	173410-2, 2011-06-09 (Nemko)
	75928859 Report 02 Issue 1, 2015-07-10
	Delta T209922, 2015-01-19
	20103937200 Rev 1.0, 2011-06-22
	Corrosion Statement, 2011-01-06
	Corrosion Statement, 2015-03-23
	Corrosion Statement, 2012-12-19
	E12207.00, 2012-11-19
	TT-6101/6103, 2010-06-03
	E10178.05, 2011-05-04
EN 301 843-5 V1.1.1 (2004-06)	75928859 Report 08 Issue 1, 2015-07-10
	75928859 Report 09 Issue 1, 2015-07-10
	75928859 Report 10 Issue 1, 2015-07-10
ETSI EN 300 373-1 V1.4.1 (2013-09)	75928859 Report 01 Issue 3, 2015-08-05
	75928859 Report 05 Issue 2, 2015-08-05
	75928859 Report 06 Issue 2, 2015-08-05
ETSI EN 300067 Ed.1 (1990-11) ETSI EN 300067 /A1 Ed.1 (1993-10)	75928859 Report 04 Issue 2, 2015-08-05
	75928859 Report 07 Issue 2, 2015-08-05
	75928859 Report 11 Issue 2, 2015-08-05
	Telefication report 20103937309, 2011-05-31
ETSI EN 301 033 V1.4.1 (2013-09)	75928859 Report 08 Issue 1, 2015-07-10
EN 61162-1 (2011)	75928859 Report 03 Issue 1, 2015-04-30
ETSI EN 300 338-1 V1.3.1 (2010-02) ETSI EN 300 338-2 V1.3.1 (2010-02)	20103937307, 2011-05-30
	20103937308, 2011-05-30
	20103937311, 2011-05-30
	N.01.11, 2011-02-04
	75928859 Report 01 Issue 2, 2015-07-01

Approved Software: Version 2.05^{Note 1}

Approved Hardware : Bill of materials:

Antenna Tuning Unit 150-250W	57-139983 ATU.pdf	2015-04-13
Control Unit	57-127962 Controle.pdf	2015-04-22
	57-127963 HMI.pdf	08-04-2015
	57-127964 Interconnection.pdf	08-04-2015
Transceiver Unit 150W	57-122882.pdf	2015-04-08
	57-123936 PA and filter.pdf	2015-04-23

**Options:**

MED Annex Reference	Options	
A.1/5.10 & A.1/5.11	Default	21875kHz Watchkeeping Receiver.
A.1/5.10, A.1/5.11 & A.1/5.15	HF DSC	6 Channel Watchkeeping Receiver enabled.
A.1/5.10, A.1/5.11 & A.1/5.15, A.1/5.5, A.1/5.14	HF DSC with NBDP	6 Channel Watchkeeping Receiver enabled. NBDP Enabled: Requires additional hardware: TT-6006A Message Terminal; TT-6001A Keyboard TT-1252B/TT-3608 Printer

Notes:

- 1 This approval remains valid for equipment including subsequent minor software amendments which have been formally accepted in accordance with the Certification Regulations of TÜV SÜD BABT.

Conditions of Validity

This issue of the Annex to the referenced Marine Equipment Module B Certificate relates to Issue 1 of the Certificate.

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with TÜV SÜD BABT or a person appointed by TÜV SÜD BABT to perform that role.

Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be reapproved prior to it/them being placed on board vessels to which the amended regulations or standards apply.

The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E, or F) of ANNEX B of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

Signed: *Nathan Evers*

on behalf of TÜV SÜD BABT

Date: 6th AUGUST 2015