



TYPE APPROVAL CERTIFICATE

Certificate No:
TAA00000CY
Revision No:
1

This is to certify:

That the Hands Free Voice Talk Back System and Public Address System

with type designation(s)
ETB-100A

Issued to
ZENITEL NORWAY AS AVD HORTEN
HORTEN, Norway

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft
IMO Res. A.694(17) General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids

Application :

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Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2021-05-18**

for **DNV**

This Certificate is valid until **2026-05-17**.

DNV local station: **Sandefjord**

Approval Engineer: **Steinar Kristensen**

Marta Alonso Pontes
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

ETB-100A is a Hands Free Voice Talk Back System and Public Address System consisting of the following modules ¹⁾:

Module	Article no	Location
Centrals	ETB-100A	Protected
Talk Back Substations	STB-1	Protected
	STB-2	Exposed
	STB-3	Exposed
	STB-5	Protected
	STB-6	Protected
	STB-6GN	Protected
	HE-112M	Exposed
PA power Amplifiers	AW8121- 120W	Protected
	AW8241 - 240W	Protected
	P8501-500W	Protected
	VPA-120	Protected
	VPA-240	Protected
	VPA-400	Protected
Emergency PA Call station	VMT-603	Protected
	VMP-603	Protected
Talk Back and General PA microphones	MB-30G	Protected
	ETC-1-TB	Protected
Power Supply unit	PRO-M 24VDC/5A	Protected

¹⁾ Actual installation may vary based on requirements for individual installations. Only modules listed in certificate are approved for installation.

Application/Limitation

The scope of this approval is limited to use of the system for:

1. Two-way voice communication onboard small vessels not requiring more than 3 extensions and not requiring simultaneous calls between substations.
2. PA system onboard small cargo vessels. The audibility of the PA system shall be tested for each installation.
3. The system is also tested based on the manufacturer's definition of Talk Back system and found to be in accordance with the stated functionality in the manuals. The system cannot be used for Hands-free two-way voice communication system as required by DNVGL Rules

Type Approval documentation

DNV No.	Document ID	Rev.	Description
1	16 911 007	1.0/7. Sep. 2007	Manual: Vingtor, Installation and Operational Manuals, VPA Public Address Amplifiers, VPA-120/240/400
2	E501412-1	-	Report: Delta, Environmental Test report DANAK-197395
3	A100K11162	V1	Manual: Vingtor, Command Talk-Back & Public Address System ETB-5 / ETB-10 / ETB-10A / ETB-100 / ETB-100A
4		10-2-06	Report: DNV, Performance test for ETB for DNV Type Approval, Rev 10_2_06
5	20793	0	Report: Applica, EMC testing of Vingtor ETB100A according to IEC60945
6	5P05968	2016-02-26	Report: SP, Clima test, Vibrationtest and Compass safe distance test of ETB-100A according to IEC60945
7	DANAK-19/17422	A	Report: DELTA, Test for Marine Type Approval of STB-2, STB-3, HE-112M and SB-4

Tests carried out

- Environmental testing: IEC 60945 (2002) incl. Corr.1 (2008)
- Performance tests: Functional tests according to DNV Type Approval program 848.22

Marking of product

The name and contact address of the manufacturer and type designation of the product shall be affixed to the equipment in a clearly visible location. In addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage and reference to the Type Approval certificate number.

Periodical assessment

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

The scope of the periodical/renewal assessment is to verify that the production quality conditions stipulated for the type approval are complied with and that no alterations are made to the product design or its components and/or materials without appraisal by the Society.

This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://www.dnv.com/maritime/approval-finder.html>