



Marine & Offshore

Certificate number: 41434/B3 BV

File number: AP4643

Product code: 2658H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

ComAp a.s.

Praha 7 Holesovice - CZECH REPUBLIC

for the type of product

GENERATOR CONTROL AND PROTECTION UNITS

Modular controllers for generators, generator sets and switchgears

InteliGen, InteliSys, InteliMains

InteliGen 1000 Marine (E27), InteliMains 1010 Marine (E27)

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

Bureau Veritas Rules NR 659

IACS UR E27 Rev.1 (Sep 2023) Cyber resilience of on-board systems and equipment

EC Code: 33

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 08 Nov 2026

For Bureau Veritas Marine & Offshore,

At BV PRAGUE, on 23 Jul 2025,

Pavel Jr. Stepanek

This certificate was created electronically and is valid without signature



This certificate remains valid until the date stated above, 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 Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <https://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=fiyrfusp7e>

BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The **InteliGen, InteliGen 1000 Marine, InteliSys, InteliMains** and **InteliMains 1010 Marine** are microprocessor base control and monitoring devices for single and multiple low voltage generator and generator set applications driven by four-stroke diesel engines.

Modular equipment platform designed for cabinet or rack installation on a DIN rail, with a cut-out in the panel door to accommodate the display components:

1.1 - Devices

Model 2) 1)	Description
IS-NTC-BB	InteliSys NTC BaseBox, Generator/generator-set controller
IG-NT(C)-(LT)-(GC) Marine	InteliGen NT, Generator/generator-set controller with display
IG-NT(C)-BB	InteliGen NTC BaseBox, Generator/generator-set controller
InteliGen 1000 Marine	Generator-set controller for paralleling applications
InteliMains 1010 Marine	Mains supervision/Utility breaker controller
IM-NT(C) (GC) (LT)	InteliMains NT, Mains/bus breaker control - controller with display
IM-NT(C)-BB	InteliMains NT BaseBox, Mains/bus breaker control - controller
InteliVision 5.2 Marine	Colour display, 5" TFT, 800x480 pixels, soft key buttons
InteliVision5 CAN Backlit	Colour display, 5,7" TFT, 320x240 pixels, soft key buttons
InteliVision 8 Marine	Colour display, 8" TFT, 800x600 pixels, soft key buttons
InteliVision 12 Touch OEM	Color display, 12,1" LCD, 1280x800 pixels, multi-touch, RS485, CAN, Ethernet and USB; (HW vers.: 1.0; SW vers.: 1.4.x)
IGS-LSM+PMS Dongle	HW key
I-AOUT8	Extension module, 8 analogue outputs
Inteli-IO8/8	Extension module, 8 binary inputs, 8 binary outputs
Inteli-AIN8	Extension module, 8 analogue inputs
Inteli-AIN8TC	Extension module, 8 analogue inputs for thermocouple sensors
Inteli-DC4/4	Extension module, for DC low voltage and current measurements
IS-AIN8	Extension module, 8 analogue inputs
IS-AIN8TC	Extension module, 8 analogue inputs for thermocouple sensors
IS-BIN16/8	Extension module, 16 binary inputs, 8 binary outputs
IGS-PTM	Extension module, analogue/binary IOModule, configurable
IGL-RA15	Remote annunciator
I-CB	ECU communication module (see item 4.6)
I-CR	CAN repeater communication module (see item 4.6)
I-CR-R	CAN redundancy communication module (see item 4.6)
I-CB	Communication bridge module (see item 4.6)
IB-NT	Internet bridge communication module (see item 4.6)
I-RB16	Relay board, 16 outputs
I-RB8	Relay board, 8 outputs
I-RB8-231	Relay board, 8 outputs
I-LBA	Low battery adaptor
IG-MTU 2:1	Mains transformer unit
IG-MTU/MARINE	Mains transformer unit
IG-AVRi-Marine	AVR Interface
IG-AVRi-TRANS-Marine	Power supply transformer
CM2-4G-GPS	4G & GPS plug-in communication module
EM-AV3ph	Plug-in module for accommodating three phase AC voltage measuring input.
EM-BIO8-EFCP	Plug-in module for accommodating one AC current (CT) measuring input and up to 8 binary inputs or outputs.
CM-RS232-485	RS232 and RS485 communication plug-in module.
EP300	Electronic Potentiometer
Inteli AIO9/1	CAN extension module 9analog inputs, 1 analog output
Inteli Amplifier	Module for DC low voltage measurement and current measurement.

- 1) InteliGen 1000 Marine and InteliMains 1010 Marine meet the requirements NR659 and IACS UR E27 Rev.1. including components as listed in document "*Test procedure of security capabilities, Power management system, InteliGen 1000 Marine, InteliMains 1010 Marine*" Rev. C final Report dated 5.2.2025 with exeption of "*InteliVision 13 Touch*" not part of present certificate.
- 2) Software version of controllers (exept IG1000 and IM1010): 3.x.x
Software version of IG1000 and IM1010: 1.x.x

1.2 - Main characteristics

Power supply: 24V DC
 Degree of protection: IP20 for the modules
 IP65 for the front of displays

2. DOCUMENTS AND DRAWINGS:

- IGS-NT Installation Guide 08-2014; IGS-NT Operator Guide 01-2014;
- Datasheets: IntelliGen NT BaseBox dated 19.1.2015; IntelliGen NTC BaseBox dated 19.1.2015; IntelliMains NT BaseBox 05-2014; IntelliMains NT 05-2014; IntelliMains NTC 05-2014; IntelliSys NTC BaseBox dated 19.1.2015
- Descriptions: 2012-07/CPLEIV5C, 2013-04/CPLEIVI8
- Internet Bridge Reference Guide, last update on 9.2.2015
- Accessory Modules, Reference Guide dated February 2015
- Circuit diagrams filed in AP4643 and MPA1501122

For B0 version:

- IntelliGen 1000 1.2.0 Global Guide; IntelliGen 1000 Datasheet dated 5/28/2020
- IntelliVision 12Touch & IntelliVision 12Touch OEM Global Guide; | IntelliVision 12Touch OEM Datasheet dated 2019-01-15
- TTM_2.1.1_GL_SOFTWARE DEVELOPMENT Rev. 3 dated 11.6.2020

For B1 version:

- Data sheets: IntelliMains 1010 Marine dated 9/19/2023; IntelliVision 5.2 Marine dated 8/1/2023; Intelli DC4/4 dated 2/29/2024; IntelliIO8/8 HW1 dated 6/30/2023; IntelliIO8/8 HW2 dated 4/12/2024

For B2 version:

- Data sheets: Intelli AIO9-1 date of issue 6/30/2023; Intelli Amplifier 1.0.0_V1 date of issue 5/23/2024; M-AV3ph Datasheet date of issue 7/3/2024; CM2-4G-GPS - datasheet v1 date of issue 5/17/2024; User Guide/ Quick-guide: EP300-v.3 August 2024; EM-BIO8-EFCP; CM-RS232-485 -v2

3. TEST REPORTS:

- Electrotechnical testing institute of Praha:
 402975-01/01 dated 23/09/2004; 402956-01/01 dated 06/10/2004;
 603501-01/01 dated 30.11.2006; 403941-01/01 dated 15.9.2014; 603501-01/02 dated 30.11.2006;
 603501-01/03 dated 16.11.2006; 603501-01/04 dated 30.11.2006; 302523-01/01 dated 26.7.2013;
 400326-01/02 dated 20.2.2014; 302523-01/02 dated 24.7.2013; 400328-01/02 dated 20.2.2014;
 405338-01/01 dated 2.12.2014; 301356-01/02 dated 14.5.2013; 305245-01/01 dated 19.11.2013;
 203069-01/01 dated 23.8.2012; 901598-01/02 dated 15.10.2009; 100733-01/01 dated 17.3.2011;
 403346-01/02 dated 11.9.2014; 304982-01/02 dated 31.10.2013; 901598-01/03 dated 26.11.2009;
 502171-01/01 dated 14.7.2015; 103598-01/01 dated 15.3.2012; 004726-01/01 dated 19.4.2011;
 - TÜV SÜD Auto CZ: 260314-09-TAC dated 22.Oct.2009; 260303-11-TAC dated 25May2011;
 260305-11-TAC dated 25Oct.2011

For B0 version:

- ezu: 021497-01/01 dated 26.6.2020; 021208-01/02 dated 29.6.2020; 211062-01/01 dated 24.5.2021;
 210677-01/01 dated 14.4.2021; 210677-01/02 dated 3.5.2021
- VZLU: P-VZLUTEST-205/20 dated 08/07/2020
- ezu: 210942-01/04 dated 27.4.2021; 210942-01/02 dated 27.4.2021; 210942-01/03 dated 27.4.2021

For B1 version:

- ezu: 212366-01/01 dated 8.11.2021; 802796-01/01 dated 15.8.2018; 803404-01/03 dated 23.11.2018;
 803724-01/01 dated 3.12.2018; 231797-01/02 dated 22.8.2023; 231799-01/01 dated 4.8.2023; 221424-01/02 dated 12.7.2022
- VZLU: P-VZLUTEST-342/18 dated 27/11/2018; P-VZLUTEST-158/23 dated 10.07.2023

For B2 version:

- 241347-01/01 dated 23.7.2024; 241355-01/01 dated 29.7.2024; 241355-01/01 dated 25.7.2024;
 241170-01/01 - C1 dated 19.7.2024; 241660-01/01 dated 5.8.2024; 241659-01/01 dated 5.8.2024;
 241533-01/01 dated 25.7.2024;
 P-VZLUTEST-197/24 dated 26/06/2024; P-VZLUTEST-342/21 dated 8.10.2021; P-VZLUTEST-319/24 dated 27/09/2024;
 P-VZLUTEST-196/24 dated 28/06/2024; P-VZLUTEST-233/24 dated 30/07/2024; P-VZLUTEST-230/24 dated 30/07/2024;
 P-VZLUTEST-234/24 dated 30/07/2024; P-VZLUTEST-316/24 dated 27/09/2024

4. APPLICATION/LIMITATION:

- 4.1 - Bureau Veritas Rules for the Classification of Steel Ships
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - Bureau Veritas Environmental Category, **EC Code: 33**
- 4.4 - The colour displays IntelliVision 5 and 8 fulfils the EMC requirements for installation on the bridge and deck zone.
- 4.5 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev9.
- 4.6 - Internal combustion engines safety system and generator protection system required by the Rules and based on data processing techniques requires a redundant safety/protection unit.
- 4.7 - Remote data access via communication module is part of a project related examination.
- 4.8 - In accordance with IACS UR E22 and as applicable to programmable devices for computer based systems of Category II or III, for each ship application:
 - Ship specific documentation is to be submitted including software documentation and categorization of the computer based system.
 - Inspection and testing before installation onboard is to be performed under the surveillance of the Society.
- 4.9 - Any modification of program contents and data, as well as a change of software version, shall be documented and submitted to the Society's examination.
- 4.10 - Functional/Integration tests are to be performed at each generator set under Type Approval Certification.
- 4.11 - This product according note 1) has been assessed in compliance with IACS UR E27 (Sep 2023) as described in Annex.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The above mentioned devices are to be supplied by **ComAp a.s.** in compliance with the type described in this certificate.
- 5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
- 5.3 - **ComAp a.s.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.
- 5.4 - For information, **ComAp a.s.** has declared to Bureau Veritas the following production site:

ComAp a.s.
U Uranie 1612/14a
170 00 PRAHA 7 Holesovice
CZECH REPUBLIC

6. MARKING OF PRODUCT:

- Manufacturer's name or trademark
- Date of manufacture and/or serial number
- Equipment type number or model identification
- The title and version of each software element included in the installed software system shall be either marked or displayed on command on the equipment.
- When the title and version of the software are indicated only on a display, such information shall also be included in the equipment manual.

7. OTHERS:

- 7.1 - It is the responsibility of **ComAp a.s.** to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
- 7.2 - This certificate supersedes the Type Approval Certificate N° 41434/B2 BV issued on 14 Apr 2025 by the Society.

*** END OF CERTIFICATE ***

**BUREAU
VERITAS**

Marine & Offshore

Attestation number: 79803/A0 BV

File number: TCE07_133

Product code: RA-CYBER

*This attestation is not valid when presented without the full attached schedule
composed of 7 sections*

REVIEW ATTESTATION

This attestation is issued to

ComAp a.s.

Praha 7 Holesovice - CZECH REPUBLIC

for

CYBERSECURITY REVIEW

ComAp IntelliGen 1000 Marine & IntelliMains 1010 Marine

Requirements:

NR659 Bureau Veritas Rules on Cyber Security for the Classification of Marine Units
IACS UR E27 Rev.1(Sep 2023) Cyber resilience of on-board systems and equipment

This document is issued to attest that BUREAU VERITAS Marine & Offshore reviewed the technical documentation submitted for the equipment identified above. Details of this review are to be found in the "Schedule of Review" in the subsequent pages of this attestation.

For Bureau Veritas Marine & Offshore,

At BV PRAGUE, on 28 Mar 2025,

Pavel Jr. Stepanek

***This attestation was created electronically and is valid without
signature***



This attestation will not be valid if the applicant makes any changes or modifications to the product which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. This attestation is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgment, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

SCHEDULE OF REVIEW

1. PRODUCT DESCRIPTION :

ComAp IntelliGen 1000 Marine & IntelliMains 1010 Marine are described in the certificate 41434/XX BV.

2. DOCUMENTS AND DRAWINGS :

Filename	Reference
Product Cyber Security Guide - Nov 2024.pdf	V2.0
IntelliMains 1010 Marine Datasheet.pdf	V1.0
IntelliGen 1000 Marine Datasheet.pdf	V1.0
ComAp_Controller_Topology.pdf	V1.0
TTM_2.1.1_Flowchart_SW Development.pdf	V3.0
TTM_2.1_WI_G1_Security update management.pdf	V1.0
TTM_2.1_WI_G2_Security guidelines.pdf	V1.0
TTM_2.1_WI_G3_Firmware integrity.pdf	V1.0
TTM_2.1.1_SW Development.pdf	V2.1
IG1000M-1939_No 18 - Malicious code protection.pdf	V1.0
IG1000M-1940_No 20 - Deterministic output.pdf	V1.0
IG1000M-1938_No 16 - Timestamps.pdf	V1.0
IG1000M-1937_No 13 - Auditable events.pdf	V1.0
IG1000M-1936_No 7 - Authenticator feedback.pdf	V1.0
IG1000M-1943_No 27 - System recovery and reconstitution.pdf	V1.0
IG1000M-1942_No 30 - Least Functionality.pdf	V1.0
IG1000M-1941_No 21 - Information confidentiality.pdf	V1.0
IG1000M-1944_No 32 - Software process and device.pdf	V1.0
IG1000M-1945_No 33 - Unsuccessful login attempts.pdf	V1.0
IG1000M-1947_No 37 - Remote session termination.pdf	V1.0
IG1000M-1946_No 35 - Access via Untrusted Networks.pdf	V1.0
IG1000M-1964_No 6 - Strength of password-based authentication.pdf	V1.0
cloud identity registration guide en.pdf	V1.0
IG1000M-1965_No 4 - Authenticator management.pdf	V1.0
websupervisor 5.8.0 global guide.pdf	V5.8
CR_1_1_RE2_ComAp-API-CCI-usage-guide-EN_new.pdf	V1.0
CR_1_1_RE2_AirGate2 General description.pdf	V1.0
CR_1_1_RE2_ComAp-Cloud-Identity-registration-guide-EN.doc.pdf	V1.0
CR_1_1_Password reset procedure v.001.pdf	V1.0
CR_1_1_User and access management, type 2, v.001.pdf	V1.0
CR_1_5_User authentication with credentials type 1, v.001.pdf	V1.0
CR_1_2_ComAp Crypto Suite, type 2, v.001.pdf	V1.0
CR_1_1_User and access management, type 4, v.001.pdf	V1.0
CR_1_11_Password break protection, type 3 v.001.pdf	V1.0
CR_1_13_Ethernet interface function requirement,v.001.pdf	V1.0
CR_1_13_Zone model v.001.pdf	V1.0
CR_2_5_Access Lock v.001.pdf	V1.0
CR_2_11_RE1_Synchronization from NTP v.001.pdf	V1.0
CR_3_1_ComAp Crypto Suite, type 2, v.001.pdf	V1.0
CR_7_1_Ethernet load tests.pdf	V1.0
SD4_Guidelines for designing control.pdf	V1.0
TCE07_133_BV_E27_Graphic annexes_v1.pdf	V1.0
IntelliGen 1000 Marine DC - Global Guide-1.2.3.1.pdf	V1.2
IntelliMains 1010 Marine SCCB Global Guide-1.2.1.1.pdf	V1.2
IG1000Marine_Test procedure of security capabilities revC	rev. C
2025-2-5_BV_Signed..pdf	

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform

the Society of any modification or changes to these documents and drawings.

3. TEST REPORTS :

Test report 'IG1000Marine_Test procedure of security capabilities revC 2025-2-5_BV_Signed' was witnessed by a qualified BV Surveyor on the 29/01/2025:

The following subjects were investigated :

- SR 1.1 – Human user identification and authentications
- SR 1.3 - Account management
- SR 1.5 - Authenticator management
- SR 1.11 - Unsuccessful login attempts
- SR 2.6 – Remote session Termination
- SR 6.1 - Audit Log Accessibility
- SR 2.11 - Timestamps
- SR 2.8 – Auditable events
- SR 3.6 – Deterministic Output
- SR 7.3 - System Backup
- SR 7.4 - System Recovery and Reconstitution

4. APPLICATION / LIMITATION :

4.1 This attestation is an intermediate document and does not constitute by itself a BV Type Approval Certificate. This attestation is limited to cyber resilience of product described in 1. as per UR E27 Rev. 1 dated Sept.2023.

4.2 This attestation is only valid when attached to the valid Type Approval Certificate 41434.

4.3 This attestation has been issued based on the review of documentation provided for the Type Approval Certificate 41434/B2 BV. It is manufacturer's responsibility to inform the Society of any modification or changes which could impact the validity of this attestation.

4.4 Only Hardware and Firmware / Software successfully tested together in compliance with the Rules as referred to in page one, according to the declaration of the manufacturer are covered by this attestation.

4.5 The installation shall comply with the Manufacturer's recommendation described in the above-referenced documentation.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - For information, ComAp a.s, has declared to Bureau Veritas the following production sites:

U Uranie 1612/14a

170 00 Praha 7 Holesovice

CZECH REPUBLIC

6. MARKING OF PRODUCT :

N/A - Software.

7. OTHERS :

7.1 It is ComAp s.a responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

***** END OF ATTESTATION *****