



Marine & Offshore  
Division

Certificate number: 41434/A0 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 - CZECH REPUBLIC

*for the type of product*

### GENERATOR CONTROL AND PROTECTION UNITS

Modular controllers for generators, generator sets and switchgears  
InteliGenNT, InteliSysNT and InteliMainsNT

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 33

*This certificate is issued to attest that BUREAU VERITAS 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: 06 Nov 2020**

**For BUREAU VERITAS,**

At BV HAMBURG, on 06 Nov 2015,

Dirk Hoepfner



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. 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 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 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.

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BV Mod. Ad.E 530 October 2014

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### **1. PRODUCT DESCRIPTION:**

The **InteliGenNT**, **InteliSysNT** and **InteliMainsNT** are microprocessor based control and monitoring devices for single and multiple low voltage generator and generator set applications driven by four-stroke diesel engines.

The modular structure is complemented by displays, extension modules, communication modules and other devices.

Installation of the devices takes place within a cabinet or rack on DIN rail and the displays in a cut-out of a panel door.

#### **1.1 - Devices**

<b>Model</b>	<b>Description</b>
IS-NT-BB Marine	InteliSys NT BaseBox, Generator/generator-set controller
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
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
IS-Display (LT) Marine	InteliSys display, monochromatic display
IG-Display Marine	InteliGen display, monochromatic display
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
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
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-LB+	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

Software version of controllers: 3.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: InteliGen NT BaseBox dated 19.1.2015; InteliGen NTC BaseBox dated 19.1.2015; InteliMains NT BaseBox 05-2014; InteliMains NT 05-2014; InteliMains NTC 05-2014; InteliSys 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

**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

**4. APPLICATION/LIMITATION:**

- 4.1 - Bureau Veritas Rules and Regulations 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 - 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.
- 4.6 - Remote data access via communication module is part of a project related examination.
- 4.7 - Drawings and documents relating to each application are to be submitted to the Society's examination prior to fitting on board.
- 4.8 - Depending on the application, Factory Acceptance and On-board Tests are to be performed in accordance with requirements for system category II or III equipment.
- 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.

**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.
- 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 :

**ComAp a.s.**  
**Kundratka 2359/17**  
**180 00 PRAHA 8**  
**CZECH REPUBLIC**

- 5.4 - Each equipment is to be supplied with manual (s) for installation, use and maintenance.

**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 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the modules at any time and that **ComAp a.s. - CZECH REPUBLIC**, will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

\*\*\* END OF CERTIFICATE \*\*\*