

# New IntelliSys<sup>NT</sup>

HIGH-END GEN-SET CONTROLLER

VERSION 1.1



## Description

New Technology IntelliSys is an expandable controller for both single and multiple gen-sets operating in standby or parallel modes, especially in CHP and other complex applications. Detachable construction is optimized for easy installation, many different extension modules are available based on the customer requirements for a particular application.

Built-in synchronizer and digital isochronous load sharer allow total integrated solution for gen-sets in standby, island parallel or mains parallel. Native cooperation of up to 32 gen-sets is a standard feature.

IntelliSys<sup>NT</sup> supports many standard ECU types and is especially designed to easily integrate new ones.

Powerful graphic display with user-friendly control allows even new users to find quickly the required information. The display in a basic version is capable to display the graphical languages (e.g. Chinese).

ComAp is open to various customized firmware solutions.

## Benefits

- ▶ Support of engines with ECU (Electronic Control Unit)
- ▶ Excellent configurability allows matching exactly the customer's needs
- ▶ Complete integrated gen-set solution, using of built-in PLC and signal sharing via CAN bus – minimum external components needed
- ▶ Many communication options – easy remote supervising and servicing
- ▶ Perfect price/performance ratio
- ▶ Gen-set performance log for easy problem tracing



ComAp is a member of AMPS  
(The Association of Manufacturers  
of Power generating Systems).



ComAp products meet the highest standards, with every stage of production undertaken in accordance with the ISO certification obtained in 1998.

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## Integrated fixed and configurable protections

- ▶ 3 phase integrated generator protections (U + f)
- ▶ IDMT overcurrent + Shortcurrent protection
- ▶ Overload protection
- ▶ Reverse power protection
- ▶ Earth fault protection
- ▶ 3 phase integrated mains protections (U + f)
- ▶ Vector shift protection
- ▶ All binary/analogue inputs free configurable for various protection types: HistRecOnly / Alarm Only / Warning / Off load / Slow stop / BreakerOpen & Cooldown / Shutdown / Mains protect / Sensor fail
- ▶ Additional 160 programmable protections configurable for any measured value to create customer-specific protections

## Features

### ▶ InteliSys<sup>NT</sup>

CHP support (programmable PID loops and other built-in PLC functions)

Support of engines with ECU (J1939, ModBus and other proprietary interfaces); alarm codes displayed in text form

Automatic synchronizing and power control (via speed governor or ECU)

Baseload, Import/Export, TempByPower

Peak shaving

Voltage and PF control (AVR)

Generator measurement: U, I, Hz, kW, kVAr, kVA, PF, kWh, kVAhr

Mains measurement: U, I, Hz, kW, kVAr, PF

Selectable measurement ranges for AC voltages and currents – 120 / 277 V, 0-1 / 0-5 A

Inputs and outputs configurable for various customer needs

2x RS232/RS485 interface with ModBus protocol support; Analog/GSM/ISDN/CDMA modem communication support; SMS messages;

Event-based history (up to 1000 records) with customer-selectable list of stored values; RTC; statistic values

Integrated PLC programmable functions

Interface to remote display units (3x IS-Display)

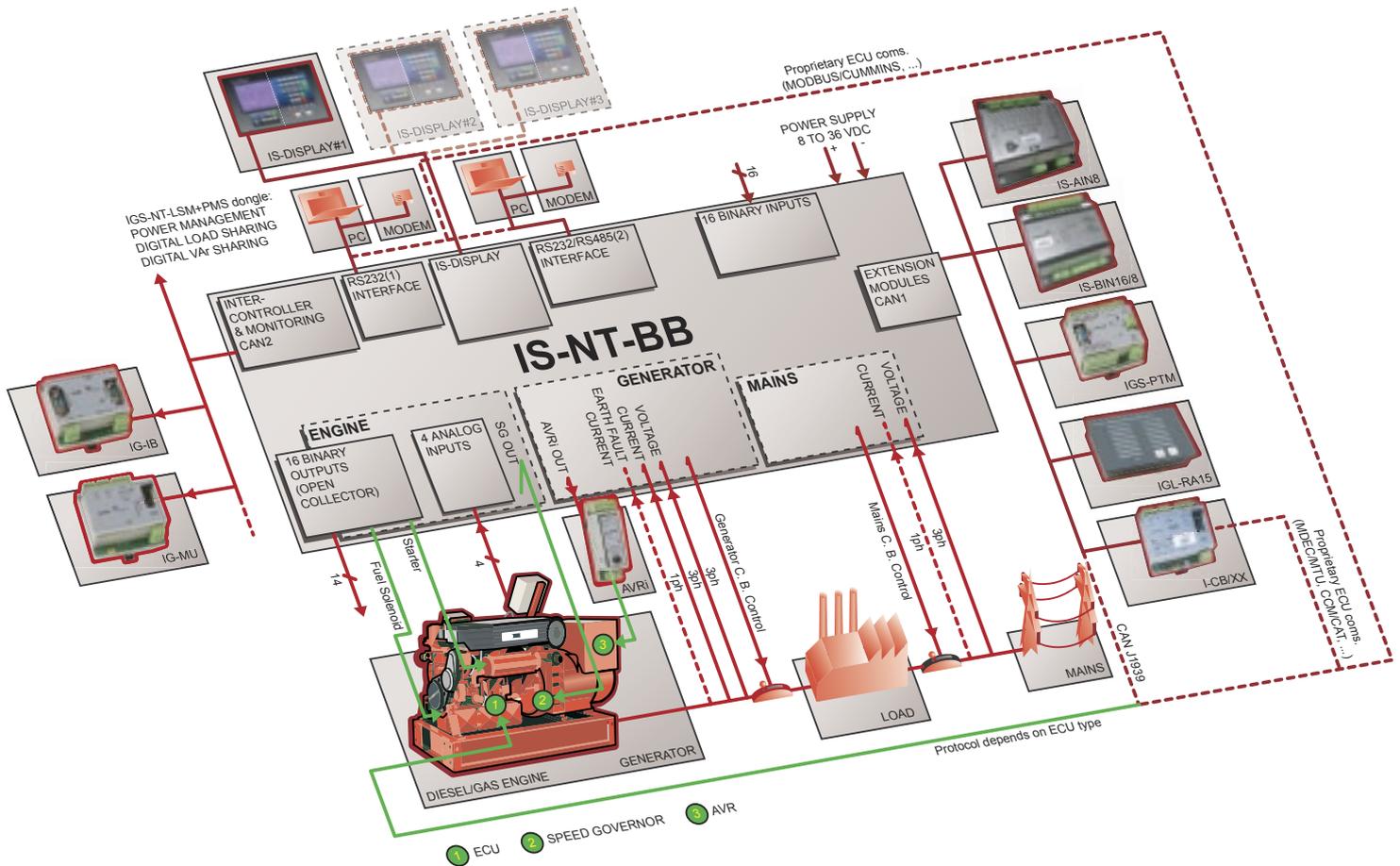
Dimensions 284x180 mm (front panel)

Sealed to IP65



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## Communication extension features

- ▶ **IG-IB** (Ethernet/Internet communication support; multiple gen-set control via Internet; active e-mails on gen-set failure; Internet dial-up / callback function)
- ▶ **IG-MU** (direct, modem or USB connection; control of multiple gen-sets; RS485 / ModBus support for direct connection; Analog/GSM/ISDN/CDMA modem support; modem callback function)
- ▶ **I-CR** (CAN Repeater module; allows an extension of the standard CAN bus length)
- ▶ **InteliMonitor** – free PC SCADA software for supervision of single or multiple controllers (IG/IS-NT, IG, IS, ID); easy site overview; direct / modem / Internet connection
- ▶ **GenConfig** – free configuration tool for IG/IS-NT controllers; allows full configuration of an NT controller and it's peripherals

## Extension features

- ▶ up to 10x **IS-AIN8** (8 analogue configurable inputs; 2 or 3 wire resistive sensors; voltage, current sensors; thermocouples)
- ▶ up to 4x **IS-BIN16/8** (16 binary inputs, 8 binary outputs, 2 pulse/frequency inputs; galvanic separated I/O)
- ▶ up to 4x **IGS-PTM** (4 analogue inputs, 1 analogue outputs; 8 binary inputs, 8 binary outputs)
- ▶ **IGL-RA15** (15 green / amber / red LED indicators)
- ▶ **I-CB** interface to electronic engine control units not compatible with protocol J1939 (e.g. MDEC/MTU, CCM/CAT)
- ▶ **IS-Display** - graphical remote / attached display; distance from the controller up to 1 km; also supports languages with graphical characters (e.g. chinese); (LT) (Marine) modifications available

## Upgrade kit

### IGS-NT-LSM+PMS dongle:

- Enables multiple isolated parallel or multiple parallel with mains operation (with CAN bus)
- ▶ Digital Load Sharing
  - ▶ Digital VAr Sharing
  - ▶ Optimizing number of running engines: Power management; kW, kVA or % load based

## HW modification codes

Order code IS-NT (LT) – product that consists of two other products:

- ▶ IS-Display (LT) – local or remote display
- ▶ IS-NT-BB – Base Box; the unit without display for switchboard mounting

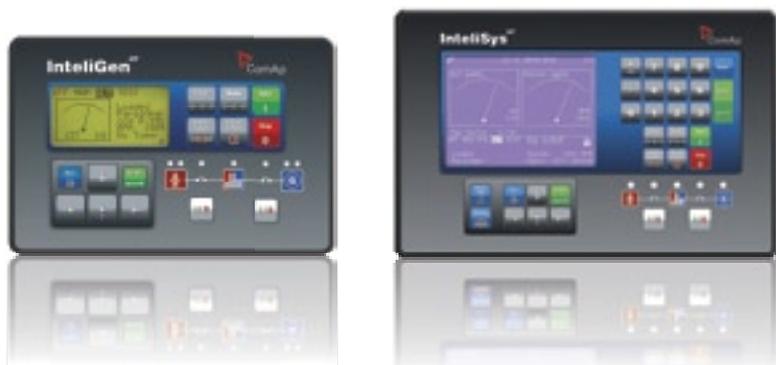
**LT** = Low Temperature; display equipped with heating foil for operation down to -30°C



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## NEW TECHNOLOGY RANGE OF CONTROLLERS

BASIC TYPE TABLE	BINARY INPUTS	BINARY OUTPUTS	ANALOG INPUTS	ANALOG OUTPUTS	COMMUNICATION PORTS	AC MEASUREMENT RANGES (GEN., MAINS/BUS)	REMOTE DISPLAYS	INTEGRATED PLC
IG-EE	6	6	—	—	1x RS232/ RS485	277 V, 0-5 A	—	standard
IG-NT	12	12	3	—	1x RS232/ RS485	277 V, 0-5 A	—	standard
IS-NT-BB	16	16	4	1	1x RS232	120 / 277 V, 0-1 / 0-5 A	up to 3× IS-Display	extended



**InteliGen<sup>NT</sup>**® is a comprehensive controller for both single and multiple gen-sets operating in standby or parallel modes.

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MANUFACTURER:

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