

# New IntelliGen<sup>NT</sup>

GENERAL PURPOSE COMPACT  
GEN-SET CONTROLLER



## Description

New Technology IntelliGen is a comprehensive controller for both single and multiple gen-sets operating in standby or parallel modes. Compact construction is optimized for these purposes; various HW modifications allow the customer to select the optimum type 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.

IntelliGen<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. 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 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



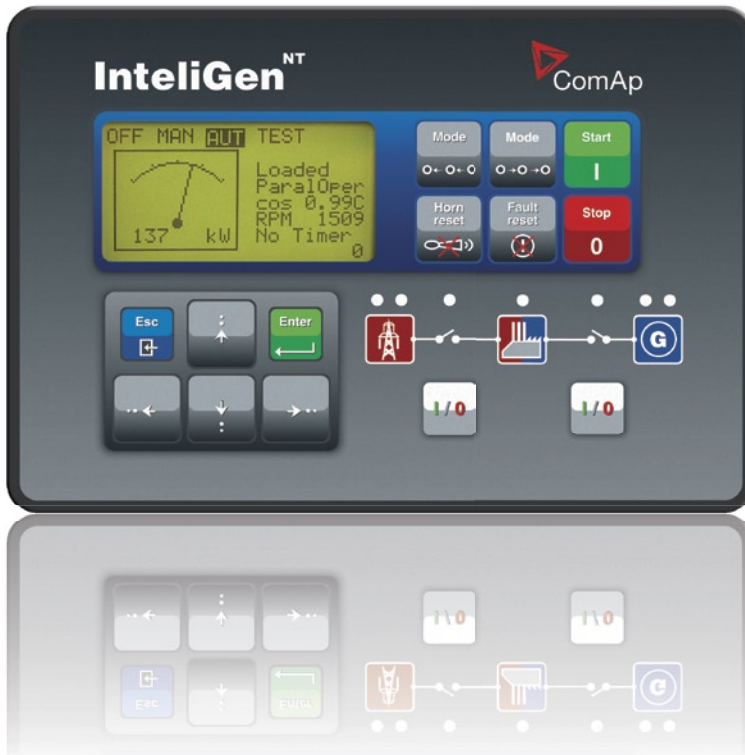
ComAp is a member of AMPS  
(The Association of Manufacturers  
of Power generating Systems).



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

### ▶ IntelliGen<sup>NT</sup>

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

AMF function

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

Baseload, Import/Export

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

Inputs and outputs configurable for various customer needs

RS232/RS485 interface with ModBus support; Analog/GSM/ISDN/CDMA modem support; SMS messages; ECU ModBus interface

Event-based history (up to 500 records) with customer-selectable list of stored values; RTC; statistic values

Integrated PLC programmable functions

Interface to remote display unit (IG-Display)

Dimensions 180x120 mm (front panel)

Sealed to IP65

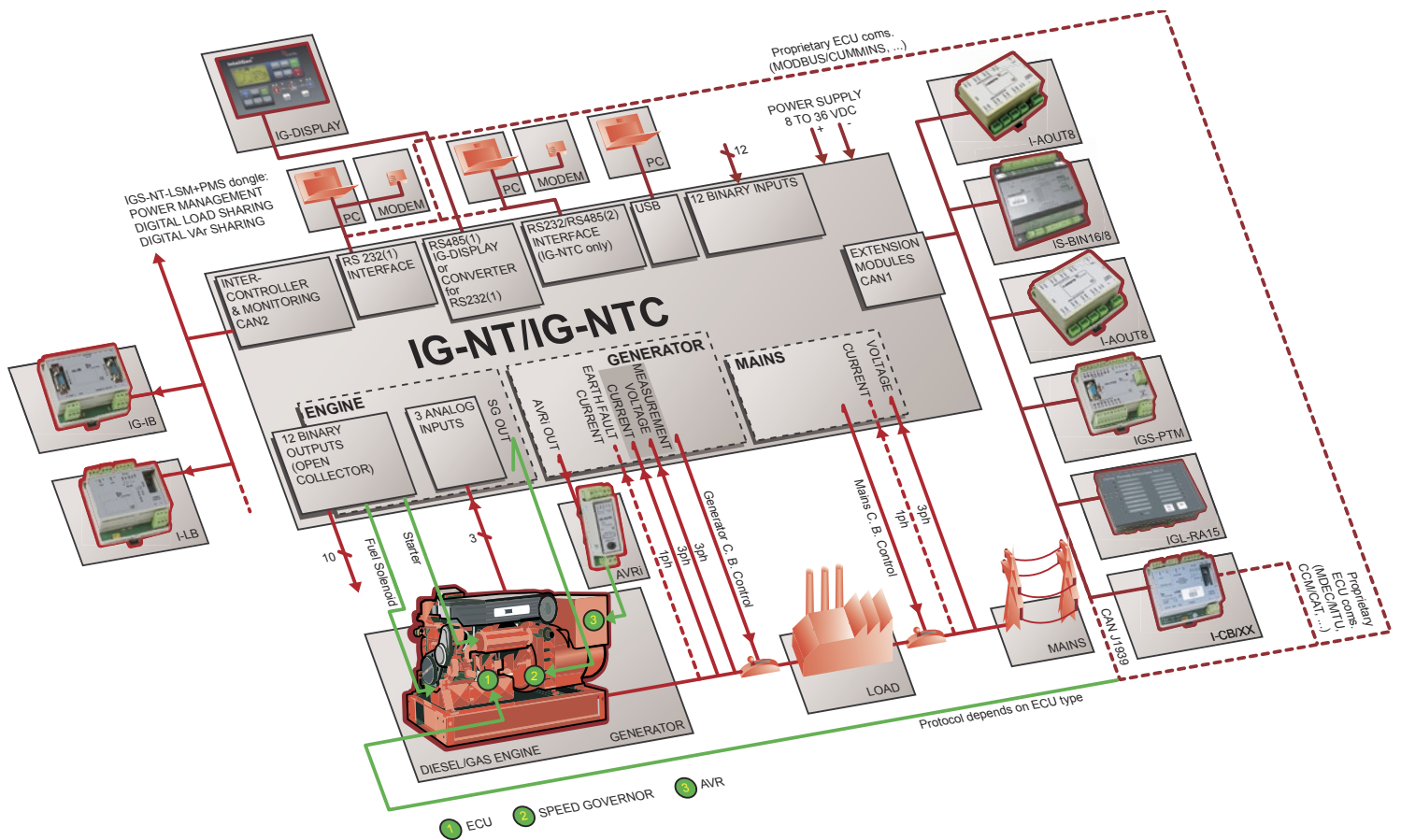
### ▶ IntelliGen<sup>NTC</sup>

All items from IntelliGen<sup>NT</sup> Features list

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

+ Secondary RS232/RS485 interface with the same features as the primary one; additionally, the RS485 converter is isolated

+ USB 2.0 slave interface



## 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)
- ▶ **I-LB/I-LB+** (direct, modem or USB (I-LB+ version only) 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); configurable site structure; easy site overview, common history log; 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 6x **IS-BIN16/8** (16 binary inputs, 8 binary outputs; galvanic separated I/O)
- ▶ up to 4x **I-AOUT8** (8 analogue configurable outputs)
- ▶ up to 4x **IGS-PTM** (4 analogue inputs, 1 analogue outputs; 8 binary inputs, 8 binary outputs)
- ▶ up to 4x **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)
- ▶ **IG-Display**: graphical remote display; distance from the controller up to 1 km; (LT) (GC) (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 IG-NT (LT) (GC) (Marine) or IG-NTC (LT) (GC) (Marine)

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

**GC** = Graphical Characters; one additional font (12x12, e.g. Chinese) can be used on the display

**Marine** = Type approved version for Marine

## 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	1x IG-Display	standard
IG-EEC	6	6	—	—	2x RS232/ RS485, USB	120 / 277 V, 0-1 / 0-5 A	1x IG-Display	standard
IG-NT	12	12	3	—	1x RS232/ RS485	277 V, 0-5 A	1x IG-Display	standard
IG-NTC	12	12	3	—	2x RS232/ RS485, USB	120 / 277 V, 0-1 / 0-5 A	1x IG-Display	standard
IS-NT-BB	16	16	4	1	2x RS232/ RS485, USB	120 / 277 V, 0-1 / 0-5 A	up to 3x IS-Display	extended
IM-NT	6	6	—	—	1x RS232/ RS485	120 / 277, 0-1 / 0-5 A	1x IG-Display	extended



**IntelIGen®** is a comprehensive controller for both single and multiple gen-sets operating in standby or parallel modes.

**IntelISys®** is an expandable controller for both single and multiple gen-sets operating in standby or parallel modes, especially in CHP and other complex applications.

For more information about our products and solutions visit our web-page

[www.comap.cz](http://www.comap.cz)



MANUFACTURER:

**ComAp, spol. s r. o.**  
Czech Republic  
Phone: + 420 266 790 611  
Fax: + 420 266 316 647  
E-mail: [info@comap.cz](mailto:info@comap.cz)  
Internet: [www.comap.cz](http://www.comap.cz)

Manufacturer Representative



**HUEGLI TECH AG (LTD)**  
The Engine & Genset Control Company

Murgenthalstrasse 30  
4900 Langenthal Switzerland  
Tel: +41 82 916 50 30  
Fax: +41 82 916 50 35  
e-mail: [sales@huegli-tech.com](mailto:sales@huegli-tech.com)  
[www.huegli-tech.com](http://www.huegli-tech.com)