InteliGen^NT

GENERAL PURPOSE HIGH-END GEN-SET CONTROLLER

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Description

InteliGen^NT is a comprehensive controller for both single and multiple gen-sets operating in standby or parallel modes. Compact construction is optimized for these purposes and various HW modifications allow customers to select the optimum type for a particular application.

A built-in synchronizer and digital isochronous load sharer allow a 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.

InteliGen^NT supports many standard ECU types and is specially designed to easily integrate new ones.

A powerful graphic display with user-friendly controls allows any user whatever their ability to find the information they need.

ComAp is able to offer customized firmware solutions.

Benefits

▷ Support of engines with ECU (Electronic Control Unit)
▷ Excellent configurability to match customers' needs exactly
▷ 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

Features

InteliGen^NT

▷ 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
▷ Controller redundancy
▷ 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 LT GC)
▷ Dimensions 180 × 120 mm (front panel)
▷ Sealed to IP65

InteliGen^NTC – All items from InteliGen^NT plus:

▷ Selectable measurement ranges for AC voltages and currents – 120 / 277 V, 0–1 / 0–5 A
▷ Secondary isolated RS232 / RS485 interface
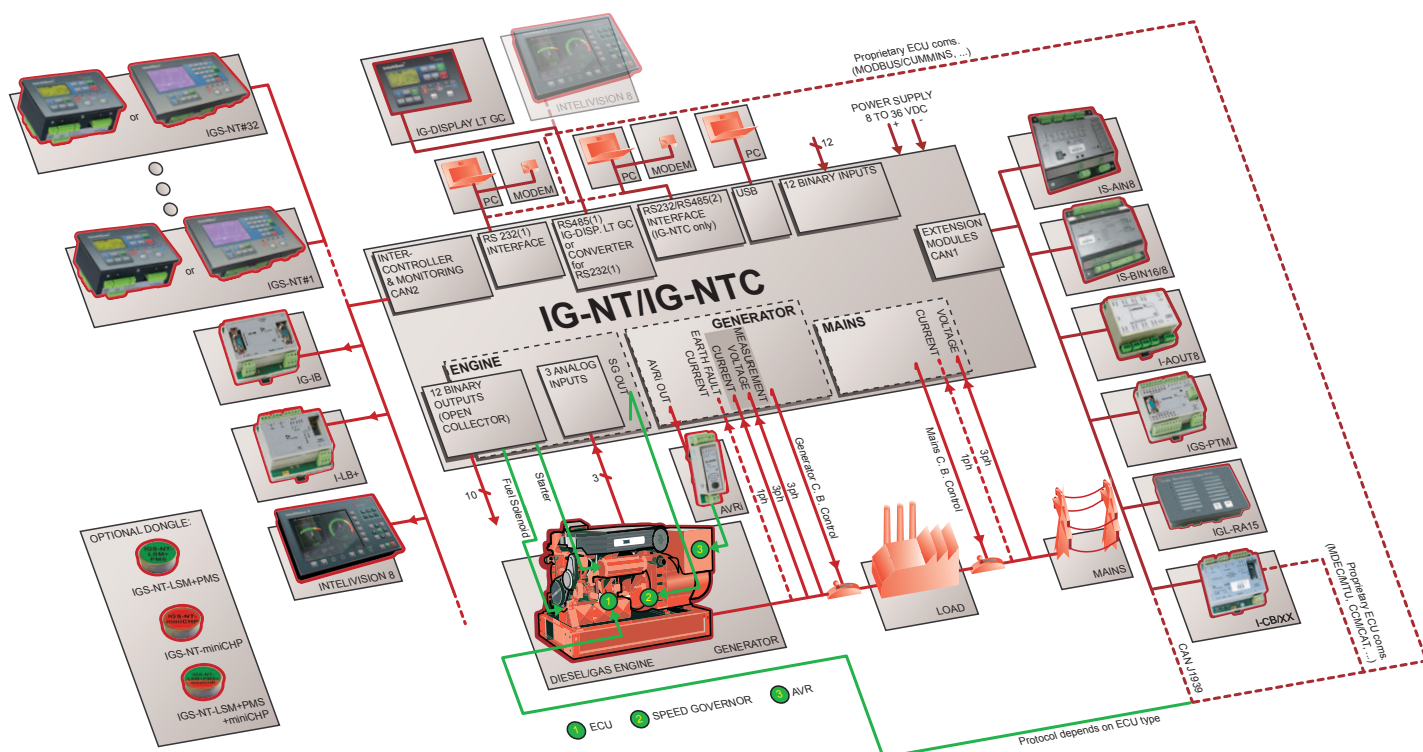▷ USB 2.0 slave interface

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 / analog inputs free configurable for various protection types: HistRecOnly / Alarm Only / Alarm + History indication / Warning / Off load / Slow stop / BreakerOpen&Cooldown / Shutdown / Shutdown override / Mains protect / Sensor fail
▷ Phase rotation and phase sequence protection
▷ Additional 160 programmable protections configurable for any measured value to create customer-specific protections
▷ Application security

ANSI CODES

ANSI code	Protection	ANSI code	Protection
59	Overvoltage	51N+64	Earth
27	Undervoltage	32R	Reverse power
47	Voltage asymmetry	25	Synchronism check
81H	Overfrequency	47	Phase rotation
81L	Underfrequency	37	Undercurrent*
50+51	Overcurrent	55	Power factor*
46	Current unbalance	71	Gas (fuel) level
32	Overload		

* can be created using universal protections

Schematic diagram

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Communication modules and PC tools

▷ **I-CR** – CAN repeater module
▷ **IG-IB** – Internet bridge
▷ **I-LB+** – Local bridge
▷ **I-CB** – ECU communication bridge
▷ **InteliMonitor** – PC monitoring tool
▷ **InteliSupervisor** – PC tool for Gen-set or machines fleet management
▷ **WinScope** – Special graphical controllers' monitoring software
▷ **GenConfig** – PC configuration tool

Extension modules and remote displays

▷ up to 4× **I-AOUT8** – Analog output extension module
▷ **IGL-RA15** – Remote annunciator
▷ up to 4× **IGS-PTM** – Analog/binary input/output module
▷ up to 10× **IS-AIN8** – Analog input module
▷ up to 10× **IS-AIN8TC** – Analogue input module for thermocouples
▷ up to 6× **IS-BIN16/8** – Binary input/output module
▷ up to 5× **InteliVision 8** – Controller colour display unit
▷ **IG-Display LT GC** – Additional remote display

Upgrade kits

▷ **IGS-NT-LSM+PMS dongle:**
  • Enables Multiple isolated parallel or multiple parallel with mains
  • Power management operation (with CAN bus)
  • Digital Load Sharing
  • Digital VAr Sharing
▷ **IGS-NT-miniCHP dongle:**
  • More PLC functions
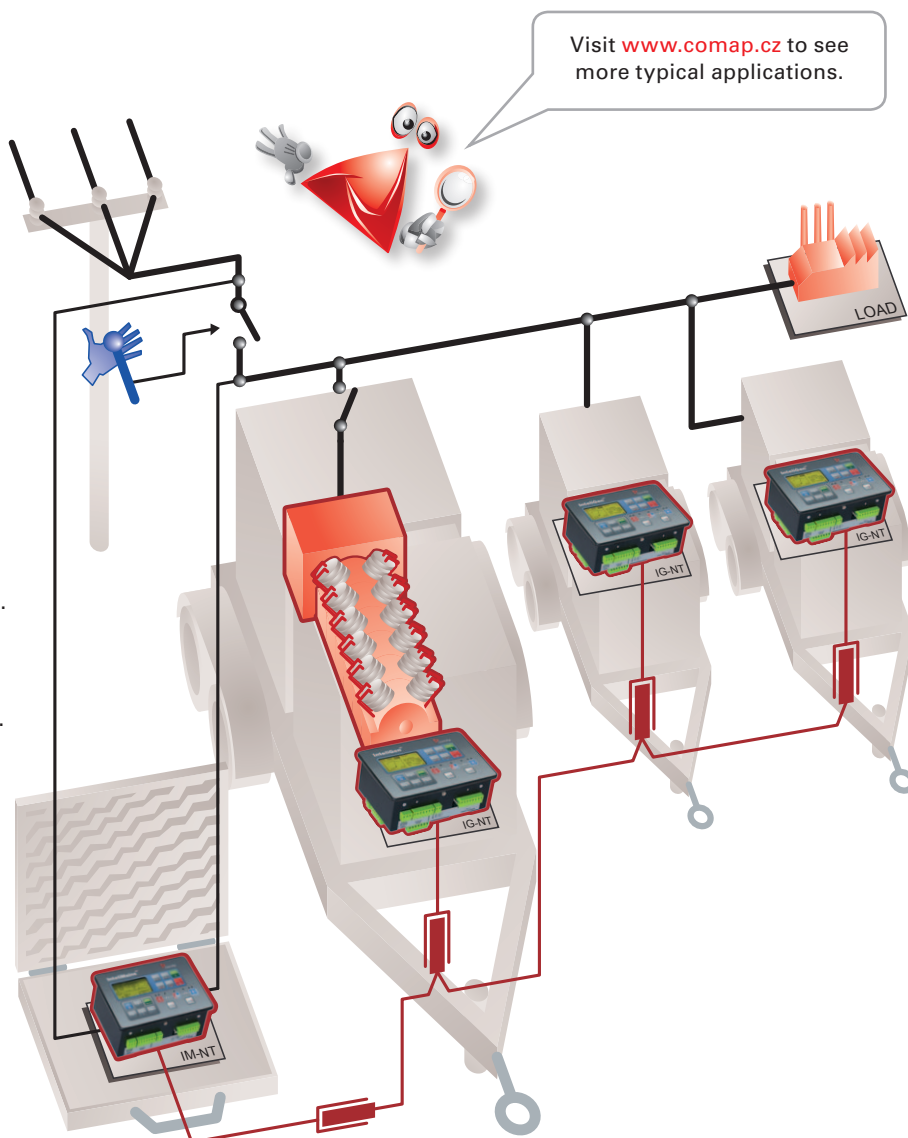▷ **IGS-NT-LSM+PMS+miniCHP dongle:**
  • Combination of the both dongles

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 –40 °C
  GC = Graphical Characters; one additional font (12 × 12, e.g. Chinese or Korean) can be used on the display
  Marine = Type approved version for Marine

Typical application

RENTAL SETS

Description:

▷ Containerized rental gen-sets can be used for maintenance of power lines without interruption of power delivery to end consumer.
▷ Gen-sets are connected one-by-one to mains at the consumer's end and manually loaded. Power line is then manually disconnected and consumer is powered from generators running in parallel.
▷ The group of gen-sets is reverse synchronized to mains after finalization of maintenance on power line. InteliMains^{NT} keeps generators and mains in synchronism enabling manual reconnection to power line.
▷ InteliMains^{NT} is built in a small shock proof suitcase.
▷ Interconnection of containers is done by color coded not-interchangeable connectors.
▷ Each gen-set can be used in Stand-by, Single parallel to mains and Multiple parallel modes according to the position of Mode selector switch.
▷ Frequency selector enables switching between 50Hz/230V and 60Hz/277V mains.

Scope of supply:

▷ 3× InteliGen^{NT}
▷ 3× IGS-NT-LSM+PMS dongle
▷ 3× IG-AVRi
▷ 3× IG-AVRi-TRANS/LV
▷ 1× InteliMains^{NT}

Visit www.comap.cz to see more typical applications.

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InteliGen^{NT} RELATED PRODUCTS

InteliGen^{NT} Marine
HIGH-END MARINE CERTIFIED GEN-SET CONTROLLER

▷ InteliGen^{NT} Marine is a comprehensive controller for both single and multiple gen-sets operating in standby or parallel modes for marine applications.

InteliSys^{NT}
PREMIUM AND COGENERATION GEN–SET CONTROLLER

▷ InteliSys^{NT} is an expandable controller for both single and multiple gen-sets operating in standby or parallel modes, especially in cogeneration (CHP) and other complex applications.
▷ InteliSys^{NT} = IS-NT-BB + IS-Display or IS-NT-BB + InteliVision 8

IS-NT-BB

or

IS-Display

InteliVision 8

InteliSys^{NT} Marine
PREMIUM MARINE CERTIFIED GEN-SET CONTROLLER

▷ InteliSys^{NT} Marine is an expandable controller for both single and multiple gen-sets operating in standby or parallel modes for marine applications.
▷ InteliSys^{NT} Marine = IS-NT-BB + IS-Display Marine or IS-NT-BB + InteliVision 8

IS-NT-BB

or

IS-Display Marine

InteliVision 8

InteliMains^{NT}
MAINS SUPERVISION CONTROLLER

▷ InteliMains^{NT} is designed for multiple (up to 31) gen-sets operating in parallel to mains. The InteliMains^{NT} controller connects the group of gen-sets to the mains. It can serve as a bus-tie synchronizing controller between two groups of gen-sets.

MANUFACTURER:

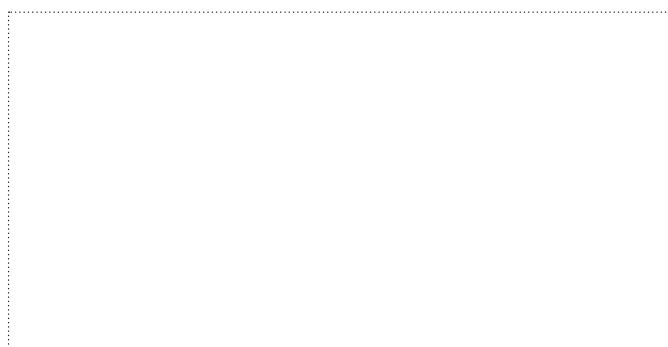**ComAp, spol. s r. o.**

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LOCAL DISTRIBUTOR / PARTNER:

Customer satisfaction is our mission. We continuously develop the best people to succeed in our mission.

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