

InteliCompact^{NT}

EASY TO USE PARALLELING CONTROLLER



Description

InteliCompact^{NT} models are new integrated controllers for gen-sets operating in both standby and parallel modes. Functionality, optimized for ease of use, installation and configuration, includes built-in synchronizer and digital isochronous load sharer. Native cooperation of up to 32 gen-sets is a standard feature.

The new InteliCompact^{NT} models are coming together with the MainsCompact^{NT} mains controller, which provides synchronization of group of gensets to mains, import export and mains protection.

InteliCompact^{NT} can communicate via standard and proprietary CAN J1939 or MODBUS communication protocols to a wide range of EFI engines, which include Caterpillar, Cummins, Deutz, Detroit Diesel, GM, Iveco, JohnDeere, Perkins, Scania, Sisu, Volvo Penta and others.

The controller comes with PC software enabling the user to freely configure the inputs and outputs to suit individual requirements.

Like all ComAp products, InteliCompact^{NT} features a powerful graphic display providing user friendly information in an easy to understand format.

Real time clock and event and performance history log are priceless when it comes to troubleshooting. Remote control and monitoring is possible via analog / GSM modem or Internet.

Optional instrumentation of internal values on analog gauge makes use easy even for untrained personnel.

Benefits

- ▷ Less wiring and components
- ▷ Less engineering and programming
- ▷ Remote monitoring reduced call-out costs of service engineers
- ▷ DC analog gauge outputs – simple connection to standard panel meters
- ▷ Direct communication with EFI engines
- ▷ Perfect price / performance ratio
- ▷ History log – easy troubleshooting and warranty claim handling



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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.

InteliCompact^{NT}

Features

▶ 3 phase AMF function (only SPtM model)

- Over/Under frequency
- Over/Under voltage
- Vector shift

▶ 3 phase generator protections

- Over/Under frequency
- Over/Under voltage
- Current/Voltage asymmetry
- Overcurrent/Overload

▶ True RMS Voltage measurement

- 3 phase generator and mains/bus voltages
- Voltage range 277 V p-n, 480 V p-p
- Maximal measured voltage 300 V p-n
- PT ratio range 0.1–500

▶ True RMS current measurements

- 3 generator phase currents
- Current range 5 A
- Maximal measured current 10 A
- CT ratio range 1–5000

▶ Power measurements

- Act / React Power and Power Factor per phase
- Active and reactive energy counter

▶ Paralleling functions

- Automatic synchronization and power control
- Voltage and PF control (AVR)
- Active Load Sharing
- VAr Sharing
- Optimizing number of running engines

▶ Event and performance log + RTC

- Event based history
- Reason, Data and Time + all important values are stored
- Battery backed-up RTC
- Test Run scheduler

▶ User interface

- Graphic 128 × 64 pixels display
- 2 languages, user changeable from PC. Default english + chinese
- Setpoints adjustable via keyboard or PC
- Buttons with mechanical feedback

▶ Inputs and outputs

- 3 resistive analog inputs
- 9 Binary inputs
- 8 Binary outputs
- Output to engine speed governor
- Magnetic pick-up input
- D+ pre-excitation terminal
- Optional 8 analog gauge drive outputs,
- Compatible with VDO, Datcon gauges

▶ EFI engine support

- Cummins MODBUS
- Engine specific J1939 for all major manufacturers
- Diagnostic messages in plain text

▶ Communication interfaces

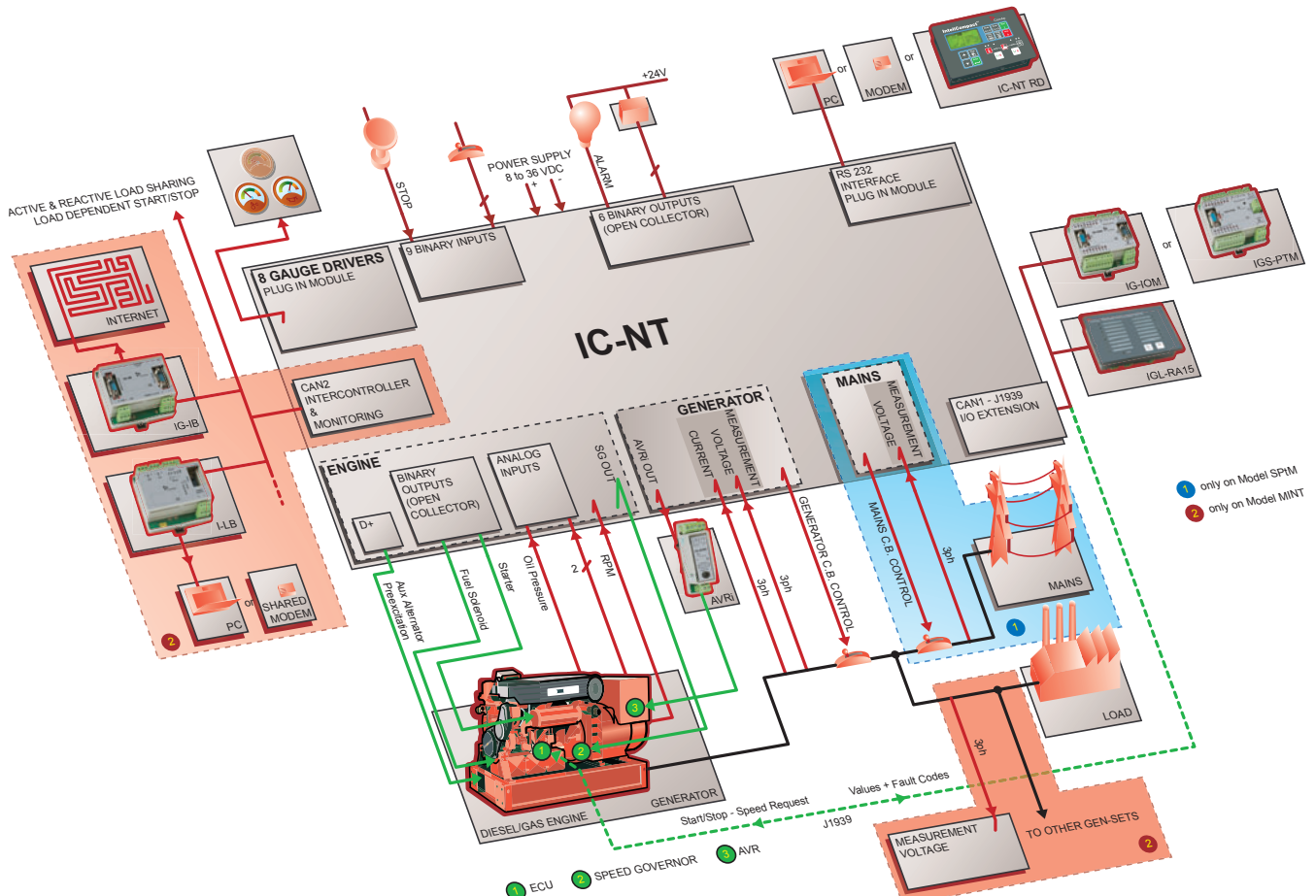
- Optional RS232 and RS485 (including MODEM support) plug-in interface
- Optional USB and ETH (Ethernet) plug-in interface
- MODBUS RTU (requires RS485 interface)
- Internet

▶ Mechanical and operation parameters

- Unit dimension 120 × 180 mm
- Sealed front face rated for IP65
- Hard plexiglass LCD cover
- Operation temperature
-20°C – +70°C standard version
-40°C – +70°C low temperature version
- Power supply voltage 8–36 V
- Voltage drops shorter than 50 ms do not affect operation

Extension modules

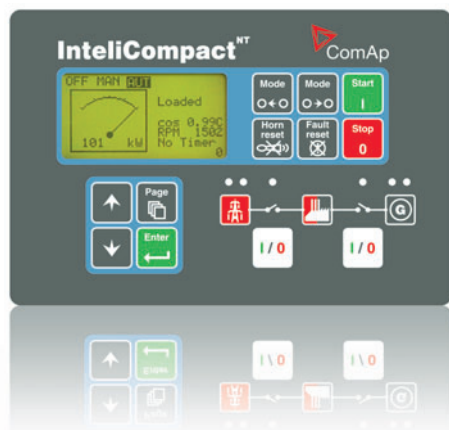
- ▶ IL-NT RS232RS232 plug-in interface
- ▶ IL-NT RS232 + RS485RS232 + RS485 plug-in interface
- ▶ IL-NT S-USBUSB service interface
- ▶ IL-NT AOUT8gauge plug-in interface
- ▶ IL-NT ETH + RS485Ethernet module with RS485 plug-in interface
- ▶ IC-NT RDremote display software for InteliCompact NT controllers
- ▶ IGS-PTMextension I / O module
- ▶ IGS-IOMextension I / O module
- ▶ IGL-RA1515 LED remote annunciator
- ▶ IG-IBshared internet module (only MINT model)
- ▶ I-LBshared communication module (only MINT model)



Available models

SPtM

**SINGLE GENSET IN PARALLEL TO MAINS
CONTROLLER**

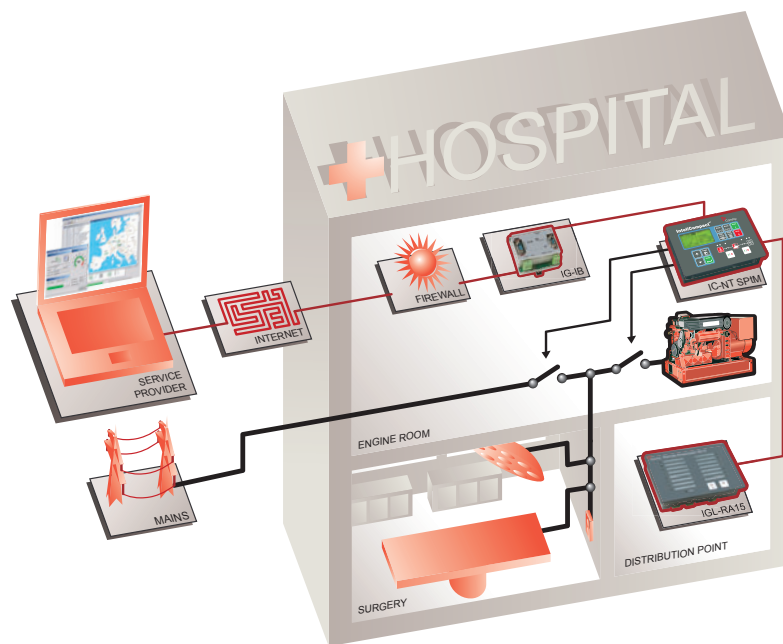


For single gen-set in parallel with mains:

- ▶ AMF Function
- ▶ Automatic synchronizing and power control
- ▶ Interrupt free load transfers
- ▶ Voltage and PF control
- ▶ Baseload power control

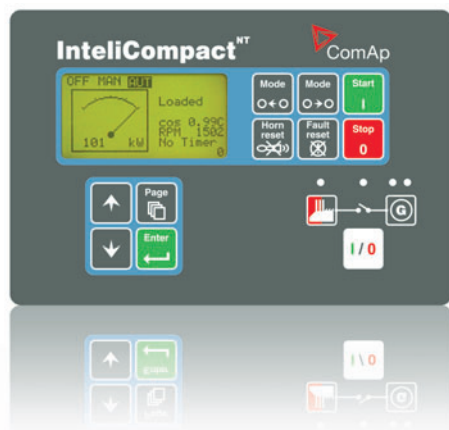
Typical application

Standby system with soft return



MINT

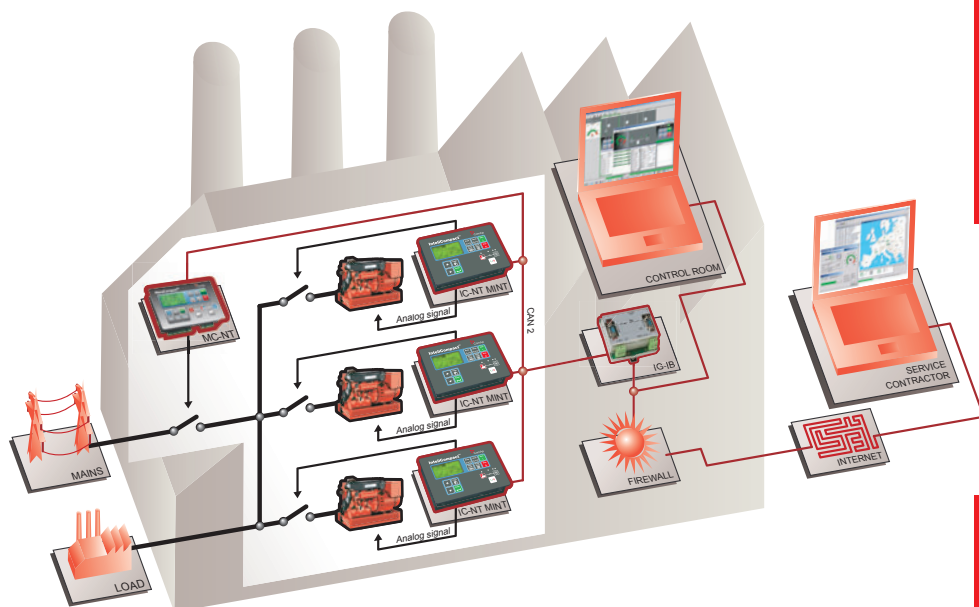
**MULTIPLE PARALLELING GENSETS
WITH INTERNAL LOAD-SHARING
CONTROLLER**



**For multiple gen-sets running in isolated
parallel operation or in parallel with mains:**

- ▶ Automatic synchronizing and power control
- ▶ Voltage and PF control
- ▶ Active load-sharing
- ▶ VAr sharing
- ▶ Power management based on relative load (optimization of running gensets according to the load demand)

Multiple gen-sets in parallel to grid



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Function Overview of IntelliCompact^{NT} and IntelliGen^{NT} Controllers

FUNCTIONS / CONTROLLERS	IC-SPtM	IC-MINT	IG-NT
Binary inputs /outputs	9/8 (17/16)*	9/8 (17/16)*	12/12 (108/60)*
Analog inputs	3 (7)*	3 (7)*	3 (75)*
Voltage measurement Gen / Mains or Bus	3 ph / 3 ph	3 ph / 3 ph	3 ph / 3 ph
Current measurement Gen / Mains or Neutral	3 ph / 0 ph	3 ph / 0 ph	3 ph / 1 ph
History file	•	•	•
RTC with battery	•	•	•
AMF function	•	—	•
Input configuration	•	•	•
Output configuration	•	•	•
Active SMS/E-mail	•	•	•
Bus-tie breaker support	—	—	•
Built-in PLC module	—	—	•
CHP support	—	—	•
Battery charging alternator circuit	•	•	•
J1939 interface	•	•	•
Intercontroller CAN	—	•	•
Modem interface	o	o	•
MODBUS interface	o	o	•
Cummins MODBUS interface	o	o	•
8 analog gauge drivers	o	o	—
Extension modules	2 module **	2 module **	max.16 modules***
Speed governor interface	•	•	•
AVR interface	with IG-AVRi	with IG-AVRi	with IG-AVRi

Key: • included * with IG-IOM or IGS-PTM
 — excluded ** IG-IOM or IGS-PTM and IL-RA15
 o optional (plug-in module required) *** IG-IOM, IGS-PTM, IL-RA15, IS-AIN8, IS-BIN16/8, I-AOUT8



MANUFACTURER:

LOCAL DISTRIBUTOR / PARTNER:



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