

**heart:**

The emotion, soul and passion of the business. The centre of everything.

# The heart of smart control

**smart:**

Our solutions are intelligent, but intelligence can be seen as 'academic', but 'smart' is seen be practical and 'real-world'.

**control:**

The type of services, solutions and expertise we provide and what customers and end-users gain as a result.





*“At ComAp, we collaborate closely with you to fulfil your requirements, that’s a given. It’s our knowledge of focused markets, which we gain through unrivalled local expertise that allows us to deliver intelligent electronic control solutions that anticipate your needs. That’s why we’re the heart of smart control.”*

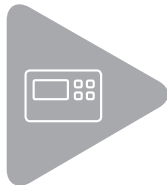
Peter Sandin,  
ComAp CEO



## The ComAp Difference

page 5

Why use ComAp Products?



## The Products

page 9

An overview of the ComAp Product Range.



## About ComAp

page 85

A brief introduction to ComAp.



**Did you  
know ComAp  
has a YouTube  
Channel?**

There you'll find videos about some of our most interesting installations from around the world, as well as videos about ComAp the company and our staff.

We're always uploading videos to our channel, so make sure you subscribe to ensure that you're up-to-date with all things ComAp.

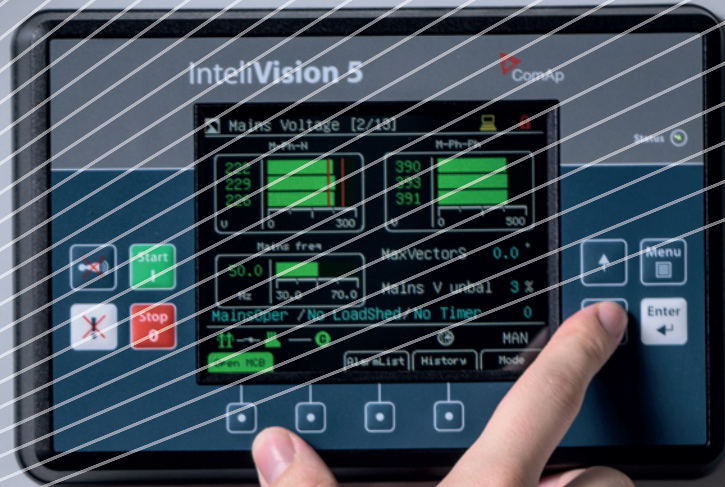
[www.youtube.com/ComApControlSystem](http://www.youtube.com/ComApControlSystem)

0:24 / 3:28





# The ComAp Difference





**ComAp specializes in creating electronic control and management solutions for use in the power generation industries and drive power markets. Our portfolio of products, software and accessories is designed to support emergency power, standby power generation and engine driven applications all over the world.**





Our subsidiaries in key geographic regions throughout the world, coupled with our extensive distributor network ensures that ComAp is always close to our most important partners; our customers. This local presence is a point of difference with ComAp. It is our focus on local presence that allows us to ensure that we always have the most up-to-date and relevant market information, but, more importantly, that we always have close contact with our customers – helping us remain at

**The heart of smart control.**



# ComAp's Capabilities



Power generation system design and supply



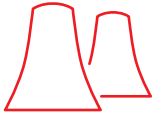
Complex standby systems, synchronisation and load share including multiple incoming mains



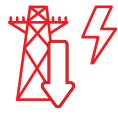
Co-generation, combined heat and power (CHP) and tri-generation control systems



Parallel with mains operation



Power stations



Mains, feeder and load shedding control systems



BMS, SCADA and remote monitoring



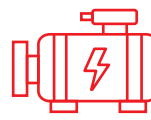
Mains protection (decoupling relays)



Aircraft ground power control systems



Hydraulic system control including power management



Engine driven compressors and pumps



Marine certified systems



Mining, agricultural and military vehicle control systems



Renewable hybrid systems (solar, wind, hydroelectric)



Water pump and dredging control systems



Bi-fuel (gas and diesel) conversion



Control systems



Design, supply and commissioning



Consultancy



Specification Development



Design



Engineering



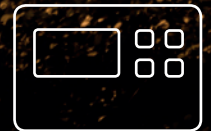
Panel Building



Training and technical support



# Products



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# Gen-set controllers

Suitable for:



Rental

0110  
0101  
0010

Datacenters



Telecom



Hospitals

The ComAp range of gen-set controllers is a comprehensive family of configurable controllers suitable for managing simple, everyday applications or even the most complex CHP applications. In addition, all ComAp gen-set controllers now feature one piece of configuration software making them universally compatible with most of the leading manufacturers of electronic engines. With additional features including added communication, I/O and GPS, ComAp's gen-set controllers are the ideal choice for many industries.



# InteliNano<sup>NT</sup> MRS

Manual Remote Start (MRS)  
Gen-set Controller



- > Controller for single gen-set operating in prime power applications
- > 3 Phase generator voltage measurement
- > Connection type and voltage auto detect
- > Various generator and engine protections
- > Icon menu, no text
- > Automatic or manual GCB control
- > „Zero“ power consumption mode
- > Battery voltage, Service time and Running hours indication
- > All setpoints and I/Os configurable via front panel
- > Light Tower mode supported
- > Event log (10 events)
- > Up to 3 analog inputs (shared with binary inputs)
- > COM terminal for analog measurement
- > Up to 6 binary inputs (1 binary input is shared with binary output)
- > 2 high side – high current outputs
- > 2 high side binary outputs
- > D+ pre-excitation terminal
- > ECU support (CAN J1939)
- > USB one-cord power supply and programming
- > Standard cut-out dimension 96 × 96 mm
- > Outside dimension 118 × 108 mm
- > IP 65
- > UL recognized

Order code  
**IN-NT MRS**



# InteliNano<sup>NT</sup> Plus

AMF and MRS controller with current measurement and support of EFI engines.



- > AMF and MRS controller in one model
- > 1/3 Phase generator voltage measurement (3/3 phase when used as MRS controller)
- > 1 Phase generator current measurement
- > 3 Phase mains voltage measurement
- > Connection type and voltage auto detect
- > Various generator and engine protections
- > Icon menu, no text
- > Automatic or manual MCB and GCB control
- > „Zero“ power consumption mode
- > Battery voltage, Service time and Running hours indication
- > All setpoints and I/Os configurable via front panel
- > Light Tower mode supported
- > Event log (10 events)
- > Up to 3 analog inputs (shared with binary inputs)
- > COM terminal for analog measurement
- > Up to 6 binary inputs (1 binary input is shared with binary output)
- > 2 high side – high current outputs
- > 4 high side binary outputs
- > D+ pre-excitation terminal
- > ECU support (CAN J1939)
- > USB one-cord power supply and programming
- > Standard cut-out dimension 96 × 96 mm
- > Outside dimension 118 × 108 mm
- > IP 65

Order code  
**IN-NT PLUS**

# InteliLite<sup>NT</sup> MRS 3

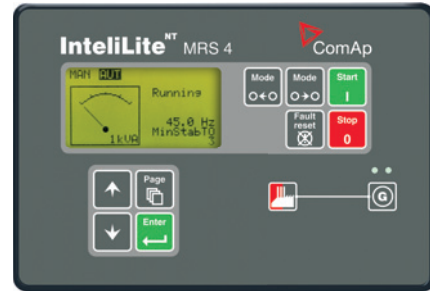
Manual Remote Start (MRS)  
Gen-set Controller



- > Compact gen-set controller for single operating gen-set
- > Manual and remote start (MRS) applications
- > Easy to setup
- > Wide gen-set monitoring and protection
- > Running hours event and performance log
- > Multiple languages (user changeable) in controller, even more in installation suite
- > Plug-in extension modules capability
- > Automatic SMS on alarm or event & gen-set control over SMS\*
- > Automatic GCB control
- > D+ preexcitation terminal
- > True RMS measurement
- > 3 phase power measurement
- > 3 configurable analog inputs
- > 4 binary inputs
- > 4 binary outputs
- > ModBus support
- > Optional version available with integrated USB port

# InteliLite<sup>NT</sup> MRS 4

Manual Remote Start (MRS)  
Gen-set Controller



- > Compact gen-set controller for single operating gen-set
- > Manual and remote start (MRS) applications
- > Easy to setup
- > Wide gen-set monitoring and protection
- > Outstanding EFI engine support with diagnostic messages in plain text via J1939
- > Running hours event and performance log
- > Multiple languages (user changeable) in controller, even more in installation suite
- > Plug-in extension modules capability
- > Automatic SMS on alarm or event & gen-set control over SMS\*
- > Automatic GCB control
- > D+ preexcitation terminal
- > True RMS measurement
- > 3 phase power measurement
- > 3 configurable analog inputs
- > 4 binary inputs
- > 4 binary outputs
- > ModBus support
- > Optional version available with integrated USB port

Order code  
**IL-NT MRS 3**

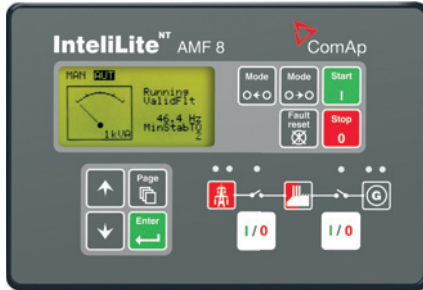
\* Plug-in module required

Order code  
**IL-NT MRS 4**

\* Plug-in module required

# InteliLite<sup>NT</sup> AMF 8

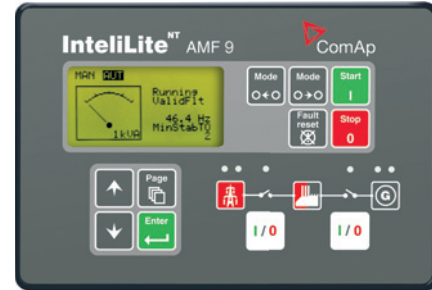
Auto Mains Failure (AMF)  
Gen-set Controller



- > Compact gen-set controller for single gen-set operating in standby mode
- > Meets all requirements for Auto Mains Failure (AMF) applications
- > Easy to setup
- > Wide gen-set monitoring and protection
- > Running hours event and performance log
- > Multiple languages (user changeable) in controller, even more in installation suite
- > Plug-in extension modules capability
- > Automatic SMS on alarm or event & gen-set control over SMS\*
- > Supports prime power (MRS) applications
- > Automatic and manual GCB and MCB control
- > D+ preexcitation terminal
- > True RMS measurement
- > 3 phase power measurement
- > 3 configurable analog inputs
- > 4 binary inputs
- > 6 binary outputs
- > ModBus Support
- > Optional version available with integrated USB port

# InteliLite<sup>NT</sup> AMF 9

Auto Mains Failure (AMF)  
Gen-set Controller



- > Compact gen-set controller for single gen-set operating in standby mode
- > Meets all requirements for Auto Mains Failure (AMF) applications
- > Easy to setup
- > Wide gen-set monitoring and protection
- > Outstanding EFI engine support with diagnostic messages in plain text via J1939
- > Running hours event and performance log
- > Multiple languages (user changeable) in controller, even more in installation suite
- > Plug-in extension modules capability
- > Automatic SMS on alarm or event & gen-set control over SMS\*
- > Supports prime power (MRS) applications
- > Automatic and manual GCB and MCB control
- > D+ preexcitation terminal
- > True RMS measurement
- > 3 phase power measurement
- > 3 configurable analog inputs
- > 4 binary inputs
- > 6 binary outputs
- > ModBus Support
- > Optional version available with integrated USB port

Order code  
**IL-NT AMF 8**

\* Plug-in module required

Order code  
**IL-NT AMF 9**

\* Plug-in module required

# InteliLite MRS 11

Next generation of Manual & Remote Start (MRS) gen-set controller



- > Direct communication with EFI engines
- > Total remote monitoring and control
- > Easy to install, configure and use
- > Wide range of communication capabilities including:
  - connection via RS232, RS485, CAN or USB
  - internet access using Ethernet, GPRS or 4G/LTE
  - support for ModBus RTU and TCP
- > Internal PLC support with PLC editor and PLC monitor included in LiteEdit
- > Active SMS and emails in different languages
- > 2x 10 A binary outputs for cranking and fuel solenoid
- > 3 analog inputs / 6 binary inputs / 6 binary outputs on board
  - Option for additional I/Os over modules
- > Flexible event based history with up to 350 events
- > Tier 4 final support
- > Activation of binary outputs based on analog inputs
- > Comprehensive gen-set protections
- > Multipurpose flexible timers
- > True RMS measurement

Order code

**IL3MRS11BAA**

# InteliLite MRS 16

Next generation of the most advanced Manual & Remote Start (MRS) gen-set controller



- > Direct communication with EFI engines
- > Total remote monitoring and control
- > Cloud-based monitoring and control via WebSupervisor
- > Geo-fencing and tracking via WebSupervisor
- > Easy to install, configure and use
- > Wide range of communication capabilities including:
  - connection via RS232, RS485, CAN or USB
  - internet access using Ethernet, GPRS or 4G/LTE
  - support for ModBus and SNMP protocols
- > Internal PLC support with PLC editor and PLC monitor included in LiteEdit
- > Active SMS and emails in different languages
- > 2x 10 A binary outputs for cranking and fuel solenoid
- > 4 analog inputs / 7 binary inputs / 7 binary outputs on board
  - Option for additional I/Os over modules
- > Flexible event based history with up to 350 events
- > Tier 4 final support
- > Load shedding and dummy load
- > Activation of binary outputs based on analog inputs
- > Comprehensive gen-set protections
- > Multipurpose flexible timers
- > True RMS measurement
- > Version for low temperature also available

Order code  
**IL3MRS16BAA**

# InteliLite AMF 20

Next generation of Auto Mains Failure (AMF) gen-set controller



- > Direct communication with EFI engines
- > Total remote monitoring and control
- > Easy to install, configure and use
- > Wide range of communication capabilities including:
  - connection via RS232, RS485, CAN or USB
  - internet access using Ethernet, GPRS or 4G/LTE
  - support for ModBus RTU and TCP
- > Internal PLC support with PLC editor and PLC monitor included in LiteEdit
- > Active SMS and emails in different languages
- > 2x 10 A binary outputs for cranking and fuel solenoid
- > 4 analog inputs / 8 binary inputs / 8 binary outputs on board
  - Option for additional I/Os over modules
- > Flexible event based history with up to 350 events
- > Tier 4 final support
- > Activation of binary outputs based on analog inputs
- > Comprehensive gen-set protections
- > Multipurpose flexible timers
- > True RMS measurement
- > Version for low temperature also available

Order code

**IL3AMF20BAA**

# InteliLite AMF 25

Next generation of the most advanced Auto Mains Failure (AMF) gen-set controller

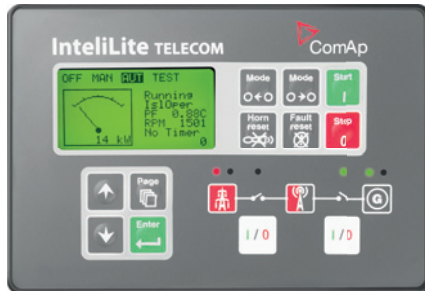


- > Direct communication with EFI engines
- > Total remote monitoring and control
- > Cloud-based monitoring and control via WebSupervisor
- > Geo-fencing and tracking via WebSupervisor
- > Easy to install, configure and use
- > Wide range of communication capabilities including:
  - connection via RS232, RS485, CAN or USB
  - internet access using Ethernet, GPRS or 4G/LTE
  - support for ModBus and SNMP protocols
- > Internal PLC support with PLC editor and PLC monitor included in LiteEdit
- > Active SMS and emails in different languages
- > 2x 10 A binary outputs for cranking and fuel solenoid
- > 4 analog inputs / 8 binary inputs / 8 binary outputs on board
  - Option for additional I/Os over modules
- > Flexible event based history with up to 350 events
- > Tier 4 final support
- > Load shedding and dummy load
- > Activation of binary outputs based on analog inputs
- > Comprehensive gen-set protections
- > Multipurpose flexible timers
- > True RMS measurement
- > Version for low temperature also available

Order code  
**IL3AMF25BAA**

# InteliLite Telecom

Auto Mains Failure (AMF) Gen-set  
Controller for Telecommunications



- > Smart battery cycling management for lower OPEX
- > WebSupervisor and AirGate support\*
- > Automatic SMS on alarm or event & gen-set control over SMS\*
- > On-line control and monitoring over web pages (embedded web server) via plug & play IB-Lite
- > Optional GSM/GPRS modem/wireless Internet via IL-NT GPRS
- > Fuel theft protection and Total fuel consumption monitoring
- > Air-conditioning control
- > Full gen-set monitoring and protection
- > Outstanding EFI engine support with diagnostic messages in plain text via J1939
- > Detailed RTC event and performance log
- > Multiple languages (user changeable) in controller, even more in installation suite
- > Plug-in and CAN bus extension modules capability
- > Earth fault current protection\*
- > A/B start battery support
- > Alternative switchable configuration
- > Dual mutual stand-by (Dual AMF) support

# InteliLite Telecom DC

DC Gen-set Controller for  
Telecom Tower Applications



- > Smart battery charging and cycling management for lower OPEX
- > Complete monitoring, control and protection of the system
- > Uses variable or single speed DC generators to charge batteries
- > WebSupervisor and AirGate support\*
- > Automatic SMS on alarm\*
- > Fuel measurement function
- > Automatic Start and Stop according to the accumulator voltage and charging current
- > Charging current/voltage regulated by speed (variable speed engines, dual speed engines) or excitation (single speed engines)
- > Voltage compensation according to battery temperature
- > Charging time limitation and other protection
- > Circuit-breaker control
- > Main screen layout adapted for DC applications
- > Service cycle allows the maintenance people to trigger the charging manually
- > ComAp SCADA compatible
- > History log

Order code  
**IL-NT TLC**

\* Plug-in module required

Order code  
**IL-NT TLC-DC**

\* Plug-in module required



# Gen-set controllers: Parallel

Suitable for:



Events



Datacentres



Mining



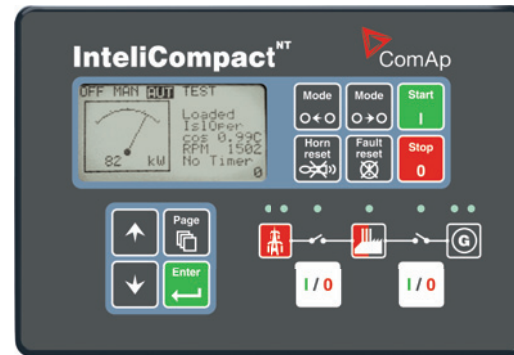
Hospitals

ComAp's gen-set paralleling controllers allow users to have multiple generators running at the same time, and ensure that they are all running at optimum efficiency. Whether you are running an emergency back-up system, running multiple generators in sync with the mains grid, or using different sizes and models of generators in a single installation, ComAp has a product that will provide you with the control you require.



# InteliCompact<sup>NT</sup> SPTM

Gen-set Controller for Gen-sets in  
Parallel to Mains Applications

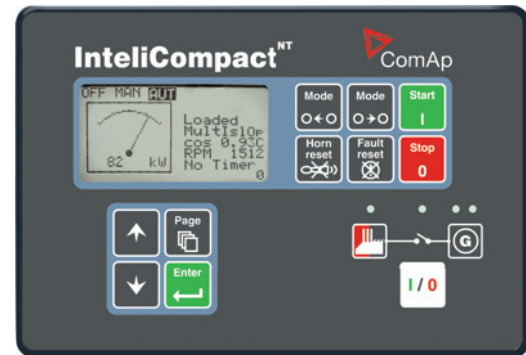


- > Built in power management for smart gen-set start/stop according to the load, gen-set nominal power and gen-set running hours
- > Compact gen-set controller for single gen-set operating in parallel to mains mode or Auto Mains Failure (AMF) mode with no-break transfers
- > Meets all requirements for AMF applications
- > Forward and reverse synchronizing
- > Peak shaving, Peak lopping
- > Load, speed, voltage and power factor control
- > High tariff avoidance
- > Mains import/export
- > Full gen-set monitoring and protection
- > Possibility to connect up to 8 gauges to display engine values
- > True voltage and current RMS measurement
- > Outstanding EFI engine support (CAN/J1939, RS232/ModBus) with diagnostic messages in plain text
- > 3 phase generator voltage and current measurement
- > 3 phase mains voltage measurement
- > 3 phase power measurement
- > 1 phase mains current measurement
- > Additional 7 binary inputs/outputs via IC-NT CT-BIO7 (in total up to 16 inputs/15 outputs)
- > 3 analog inputs
- > RS232, RS485, USB, ModBus, GSM/Analog Modem, Internet communication
- > GPRS communication and IC-NT RD (remote display) software
- > AirGate and WebSupervisor support
- > Support of active SMS Events or Commands
- > Event and performance log
- > 2 languages (user changeable)

Order code  
**IC-NT SPTM**

# InteliCompact<sup>NT</sup> MINT

Gen-set Controller for Gen-sets in Multiple Parallel Applications

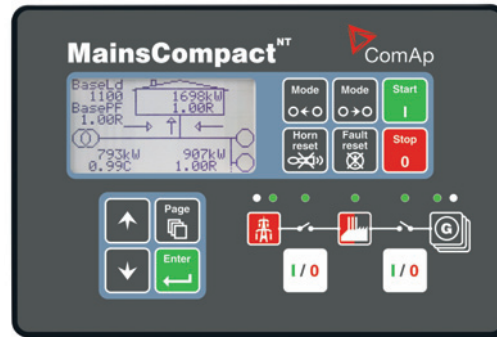


- > Compact gen-set controller for gen-sets operating in multiple island and/or parallel to mains mode (together with MainsCompact<sup>NT</sup>)
- > Built-in automatic load dependent start/stop system (power management)
- > Active Load and VAR sharing
- > Running Hours equalization
- > Full gen-set monitoring and protection
- > Possibility to connect up to 8 gauges to display engine values
- > True voltage and current RMS measurement
- > Outstanding EFI engine support (CAN/J1939, RS232/ModBus) with diagnostic messages in plain text
- > 3 phase generator voltage and current measurement
- > 3 phase busbar voltage measurement
- > 3 phase power measurement
- > 3 analog inputs
- > RS232, RS485, USB, ModBus, GSM/Analog Modem, Internet communication
- > GPRS communication and IC-NT RD (remote display) software
- > AirGate and WebSupervisor support
- > Support of active SMS Events or Commands
- > Event and performance log
- > 2 languages (user changeable)

Order code  
**IC-NT MINT**

# MainsCompact<sup>NT</sup>

Mains Controller for IntelliCompact<sup>NT</sup>  
MINT Gen-set Controllers



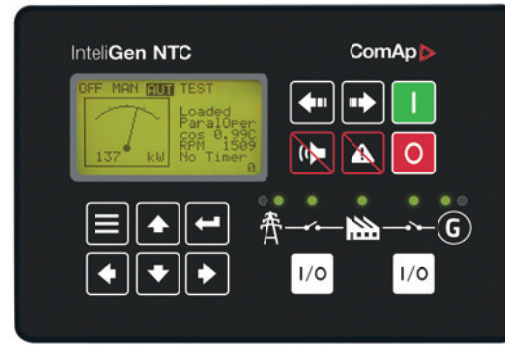
- > Mains controller for multiple systems equipped with IntelliCompact<sup>NT</sup> MINT gen-set controllers
- > Mains monitoring and protection
- > Mains circuit breaker control
- > Optional Master Generator circuit breaker control
- > AMF function (automatic start of the gen-set group after mains is failed)
- > True voltage and current RMS measurement
- > 3 phase mains voltage and current measurement
- > 3 phase busbar voltage measurement
- > 3 phase mains import measurement
- > RS232, RS485, USB, ModBus, GSM/Analog Modem, Internet communication
- > GPRS communication
- > AirGate and WebSupervisor support
- > Event and performance log
- > 2 languages (user changeable)

Order code  
**MC-NT**



# InteliGen NTC

## Complex Parallel Gen-set Controller



- > The IntelliGen NTC, an enhanced version of ComAp's bestseller – IntelliGen<sup>NT</sup>, is a high-end controller suitable for any complex single or multiple gen-sets paralleling application operating in standby or island mode. It is a perfect unit for mission-critical installations such as datacenters, power stations or rental applications
- > IntelliGen NTC features ComAp's powerful in-built PLC delivering high-level of flexibility, advanced history log and fully configurable protections.
- > Gen-set controller for single or multiple generating sets operating in standby or parallel modes
- > Support of engines with ECU (Electronic Control Unit)
- > Many communication options – easy remote supervising and servicing
- > Gen-set performance log for easy problem tracing
- > Automatic synchronizing and power control (via speed governor or ECU)
- > AMF function, Baseload, Import / Export, Peak shaving, Voltage and PF control (AVR)
- > Generator measurement, Mains measurement
- > Inputs and outputs configurable for various customer needs
- > Controller redundancy
- > Event-based history (up to 500 records) with customer-selectable list of stored values; RTC; statistic values
- > Integrated PLC programmable functions
- > Integrated fixed and configurable protections
- > Selectable measurement ranges for AC voltages and currents – 120 / 277 V, 0–1 / 0–5 A
- > Secondary isolated RS232 / RS485 interface
- > Support of external colour displays
- > USB 2.0 slave interface

Order code  
**IG-NTC GC**

# InteliGen<sup>NTC</sup> BaseBox

Complex Parallel Gen-set Controller with  
Optional Detachable Colour Display

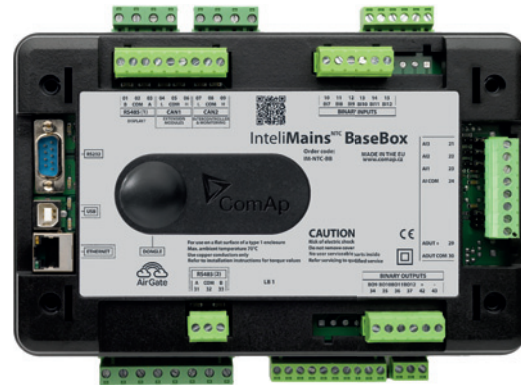


- > InteliGen<sup>NTC</sup> BaseBox is a comprehensive gen-set controller for both single and multiple gen-sets operating in standby or paralleling modes. The detachable modular construction allows easy installation with the potential for many different extension modules designed to suit individual customer requirements.
- > To be used in conjunction with colour displays InteliVision 5 or InteliVision 8
- > Support of engines with ECU (Electronic Control Unit)
- > Complete integrated gen-set solution and signal sharing via CAN bus – minimum external components needed
- > Many communication options – easy remote supervising and servicing
- > AirGate support, Ethernet connection (RJ45), USB 2.0 slave interface, 1x RS232 / 2x RS485 interface with ModBus protocol support; Analog / GSM / ISDN / CDMA modem communication support; SMS messages; ECU ModBus interface; secondary RS485 converter is isolated
- > Automatic synchronizing and power control (via speed governor or ECU)
- > AMF function, Baseload, Import / Export, Peak shaving, Voltage and PF control (AVR)
- > Generator measurement: U, I, Hz, kW, kVA, kVA, PF, kWh, kVAhr
- > Mains measurement: U, I, Hz, kW, kVA, 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
- > Bipolar binary outputs – possibility to use BO as High or Low side switch
- > Controller redundancy
- > Event-based history (up to 1000 records) with customer-selectable list of stored values; RTC; statistic values
- > Integrated PLC programmable functions
- > Integrated fixed and configurable protections
- > DIN-Rail mount
- > Customized firmware solution

Order code  
**IG-NTC-BB**

# IntelMains<sup>NTC</sup> BaseBox

Mains Supervision Controller Base Unit  
with Extended Communications for  
Use with Detachable Colour Display



- > For multiple up to 31 gen-sets operating in parallel to mains (or isolated parallel)
- > To be used in conjunction with colour displays IntelVision 5, IntelVision 5 RD or IntelVision 8
- > Many different power control modes available
- > System Baseload with limited export or minimal import
- > Import/Export power control of gen-set group
- > Temperature of the system by power control
- > Dynamic changes of required system power via analog input
- > Reverse synchronization of the loaded gen-set group to mains
- > Forward synchronization of Mains to gen-set group
- > Coupling of several synchronized mains to a common bus
- > Allows to build complex applications with more mains incomers, bus-tie breakers, and load management
- > AMF function, Peak shaving
- > Mains measurement: U, I, Hz, kW, kVAr, kVA, PF, kWh, kVAhr
- > Bus measurement: U, Hz (kW, kVAr, PF – via CAN from gen-set group)
- > Selectable measurement ranges for AC voltages and currents – 120 / 277 V, 0–1 / 0–5 A
- > Inputs and outputs configurable for various customer needs
  - 12 binary Inputs
  - 12 binary Outputs
  - 3 analog Inputs
  - 1 analog Output
- > Bipolar binary outputs – possibility to use BO as High or Low side switch
- > Many communication options – easy remote supervising and servicing
  - 1x RS232 / 1x RS485 interface with ModBus protocol support
  - Analog / GSM / ISDN / CDMA modem communication support
  - SMS messages
  - RS485 converter is isolated (one RS485 Display-dedicated port)
  - AirGate support
  - Ethernet connection (RJ45)
  - USB 2.0 slave interface
- > Controller redundancy
- > Event-based history (up to 1000 records) with customer-selectable list of stored values
- > RTC

Order code  
**IM-NTC-BB**

# InteliSys<sup>NTC</sup> BaseBox

Premium and Cogeneration (CHP)  
Gen-set Controller



- > Premium gen-set controller for both single and multiple gensets operating in standby or parallel modes.
- > Support of complex applications for power production in data centres, hospitals, banks and also CHP applications
- > Support of engines both with electronic unit – ECU and mechanical engines.
- > Complete control of the engine, alternator and controlled technology from one unit, including synchronisation, provides access to all measured data in a coherent and time corresponding way.
- > Wide range of communication interfaces allows smooth integration into local monitoring systems (BMS, etc.)
- > Internal built-in PLC interpreter allows you to configure customised logic to meet demanding customer requirements on your own without extra programming knowledge and in a fast way.
- > Configurable event-based history (up to 4000 records) with extra Pre-mortem part is a valuable tool for troubleshooting and performance analysis.
- > Plug & Play Local and Remote monitoring from a range of ComAp HMI display units and dedicated PC tools or Web based services, including the AirGate technology, offers you an easy and constant monitoring of the controlled fleet, site or technology.
- > Force value function allows to use alternative configuration setting based on actual condition, allows better control of the gen-set or related technology based on its actual situation.
- > All analogue and binary I/Os are freely configurable to suit every application requirement, and to use just the right amount of I/Os or I/O expansion modules which saves customer costs.

Order code  
**IS-NTC-BB**



# InteliSys Gas

Controller for Gas Gen-set Applications



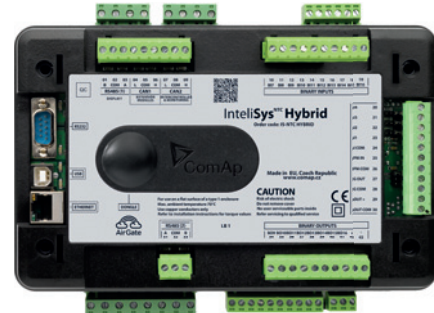
- > The InteliSys Gas is an industrial grade controller for gas engine generator sets mainly used in CHP (Cogeneration) and power generation applications. The InteliSys Gas controls, monitors and protects the generator set according defined setpoints and its configuration.
- > Preconfigured functions, scalable and configurable I/Os, broad communication capabilities and an easy-to-change software allows to adapt the controller to various applications without greater efforts.
- > The InteliSys Gas and its accessories gives you the perfect solution for your gas engine generator set application.
- > Predefined adjustable functions tailored to gas engine specific needs.
- > Read in of all relevant mechanical and electrical signals via Sensors, Voltage and Current Transformers to control the entire generator set.
- > Full control of the circuit breakers like Generator Breaker and Mains Breaker.
- > Automatic Synchronization and kW/kVAr Control to safely connect your generator to the bus and run in stable operation.
- > Baseload control, Peak Shaving, Import & Export Power Control to and from the grid e.g. to keep the Electrical Power within the limits as agreed with the distribution system operator (DSO).

Order code  
**IS2GASXXBAB**

► Gen-set controllers ► Parallel

# InteliSys<sup>NTC</sup> Hybrid

Hybrid system controller



- > InteliSys<sup>NTC</sup> Hybrid is a standalone controller for PV/diesel hybrid applications that combine reciprocating gen-sets with renewable sources of power. It is suitable for off-grid (microgrids) as well as on-grid installations.
- > Continuous monitoring and control of all sources of energy including solar, wind or hydro, and gen-sets
- > Interface to PV inverters via ModBus RTU or TCP\*
- > Interface to ComAp InteliGen and InteliSys gen-set controllers\*\* via CAN
- > Optimized system efficiency by minimizing the necessary dynamic spinning reserve while keeping reliability during the PV output drops; the InteliSys<sup>NTC</sup> Hybrid controller calculates and distributes the dynamic spinning reserve to the gen-set controllers
- > Extensive flexibility due to built-in PLC to cover complex sites control and various operating scenarios
- > Export/import limitation control to fulfill the utilities needs in on-grid application
- > AirGate connection and WebSupervisor offer remote monitoring and full control of the whole site
- > Data acquisition from all power sources provides detailed statistics about energy yield in selected interval (day, week, month) and gen-set fuel consumption and savings
- > Synchronization, efficient power management and load sharing is carried out by gen-set controllers, which select particular gen-sets to run according to their sizes and running hours with respect to minimizing fuel consumption and maximizing maintenance intervals.

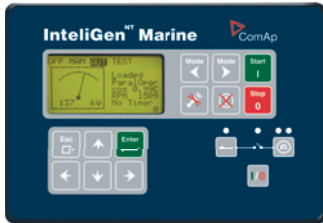
Order code  
**IS-NTC HYBRID**

\* the ModBus master ability is achieved via additional PLC module (Product name: UC-7112-LX Plus, order code: CM17112LBGE)

\*\* IGS-NT-Hybrid 1.2.0 fw and Hybrid sw key must be used for compatibility and to ensure prevention from gen-set underloading

## InteliGen<sup>NT</sup> Marine

High-end marine certified gen-set controller



- > Marine certified gen-set controller for single or multiple generating sets operating in standby or parallel modes
- > Approved by DNV, GL, LR and CRS Registers
- > Support of engines with ECU (Electronic Control Unit)
- > Many communication options – easy remote supervising and servicing
- > Gen-set performance log for easy problem tracing
- > Automatic synchronizing and power control (via speed governor or ECU)
- > AMF function, Baseload, Import / Export, Peak shaving, Voltage and PF control (AVR)
- > Generator measurement, Mains measurement

Order code  
IG-NT MARINE

## InteliGen<sup>NTC</sup> BaseBox Marine

High-end marine certified gen-set controller



- > Gen-set controller for both single and multiple gen-sets operating in standby or paralleling modes
- > Support of engines with ECU (Electronic Control Unit)
- > Complete integrated gen-set solution and signal sharing via CAN bus – minimum external components needed
- > Many communication options – easy remote supervising and servicing
  - AirGate support, Ethernet connection (RJ45), USB 2.0 slave interface, 1x RS232 / 2x RS485 interface with ModBus protocol support; Analog / GSM / ISDN / CDMA modem communication support; SMS messages; ECU ModBus interface; secondary RS485 converter is isolated

Order code  
IG-NTC-BB

## InteliMains<sup>NTC</sup> BaseBox Marine

Controller for mains application



- > Mains supervision controller base unit
- > Many different power control modes available:
  - System Baseload with limited export or minimal import
  - Import/Export power control of gen-set group
  - Temperature of the system by power control
  - Dynamic changes of required system power via analog input
- > Reverse synchronization of the loaded gen-set group to mains
- > Forward synchronization of Mains to gen-set group
- > Coupling of several synchronized mains to a common bus
- > Allows to build complex applications with more mains incomers, bus-tie breakers, and load management

Order code  
IM-NTC-BB

## InteliSys<sup>NTC</sup> BaseBox Marine

Premium marine certified gen-set controller



- > Marine Certified premium gen-set controller for both single and multiple gen-sets operating in standby or parallel modes
- > Support of cogeneration (CHP) and other complex applications
- > To be used in conjunction with colour displays IntelliVision 8 or IntelliVision 5
- > Support of engines with ECU (Electronic Control Unit)
- > Complete integrated gen-set solution and signal sharing via CAN bus – minimum external components needed
- > Many communication options – easy remote supervising and servicing
- > Gen-set performance log for easy problem tracing
- > Automatic synchronizing and power control (via speed governor or ECU)

Order code  
IS-NTC-BB MARINE



# Generator and ATS controllers

Suitable for:



Telecom



Marine



Datacenters



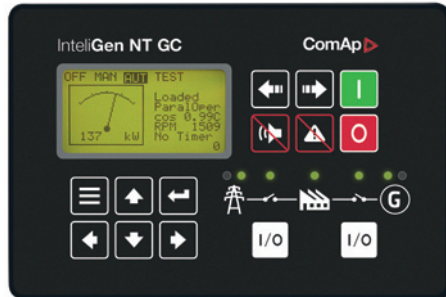
Mining

GeCon controllers provide comprehensive generator protection and control for single or multiple gen-sets based on field proven IntelliGen<sup>NT</sup> and IntelliSys<sup>NT</sup> platforms. The primary function of the generator controller is to manage and protect the generator in preference to the engine, which is not a direct concern.



# InteliGen NT GC

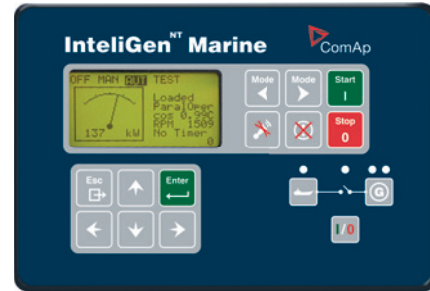
Complex Parallel Generator Controller



- > Generator controller for single or multiple generating sets operating in standby or parallel modes
- > Many communication options – easy remote supervising and servicing
- > Generator performance log for easy problem tracing
- > Automatic synchronizing and control breaker
- > AMF function, Baseload, Import / Export, Peak shaving, Voltage and PF control (AVR)
- > Generator measurement, Mains measurement
- > Inputs and outputs configurable for various customer needs
- > Controller redundancy
- > Event-based history (up to 500 records) with customer-selectable list of stored values; RTC; statistic values
- > Integrated PLC programmable functions
- > Integrated fixed and configurable protections

# InteliGen<sup>NT</sup> Marine GeCon

High-End Marine Certified Generator Controller



- > Marine certified generator controller for single or multiple generating sets operating in standby or parallel modes
- > Many communication options – easy remote supervising and servicing
- > Generator performance log for easy problem tracing
- > Automatic synchronizing and control breaker
- > AMF function, Baseload, Import / Export, Peak shaving, Voltage and PF control (AVR)
- > Generator measurement, Mains measurement
- > Inputs and outputs configurable for various customer needs
- > Controller redundancy
- > Event-based history (up to 500 records) with customer-selectable list of stored values; RTC; statistic values
- > Integrated PLC programmable functions
- > Integrated fixed and configurable protections
- > Marine approved by DNV, GL, Lloyd's Register and CRS

Order code  
**IG-NT GC**

Order code  
**IG-NT MARINE**

# InteliGen<sup>NTC</sup> BaseBox GeCon

Complex Parallel Generator Controller  
with Optional Colour Display



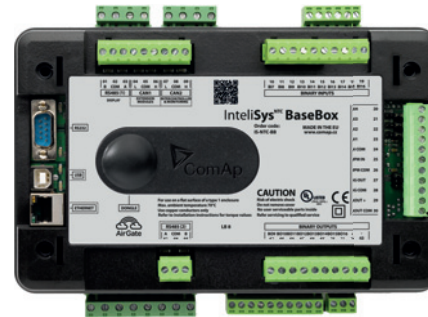
- > Comprehensive generator controller for both single and multiple gen-sets operating in standby or paralleling modes
- > To be used in conjunction with colour displays InteliVision 5 or InteliVision 8
- > Complete integrated gen-set solution and signal sharing via CAN bus – minimum external components needed
- > Many communication options – easy remote supervising and servicing
- > Generator performance log for easy problem tracing
- > Automatic synchronizing and control breaker
- > AMF function, 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
- > Selectable measurement ranges for AC voltages and currents – 120 / 277 V, 0–1 / 0–5 A
- > Inputs and outputs configurable for various customer needs
- > Bipolar binary outputs – possibility to use BO as High or Low side switch
- > 1× RS232 / 2× RS485 interface with ModBus protocol support; Analog / GSM / ISDN / CDMA modem communication support; SMS messages; secondary RS485 converter is isolated
- > AirGate support

Order code  
**IG-NTC BB**

► Generator and ATS controllers ► Generator controllers

# InteliSys<sup>NTC</sup> BaseBox GeCon

Premium and Cogeneration (CHP)  
Generator Controller



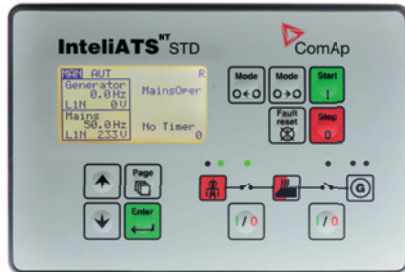
- > Premium generator controller for both single and multiple gen-sets operating in standby or parallel modes
- > Support of cogeneration (CHP) and other complex applications
- > To be used in conjunction with colour displays InteliVision 8 or InteliVision 5
- > Complete integrated generator solution and signal sharing via CAN bus – minimum external components needed
- > Many communication options – easy remote supervising and servicing
- > Generator performance log for easy problem tracing
- > Automatic synchronizing and control breaker
- > 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
- > Bipolar binary output – possibility to use BO as High or Low side switch
- > 1× RS232 / 2× RS485 interface with ModBus protocol support; Analog / GSM / ISDN / CDMA modem communication support; SMS messages; secondary RS485 converter is isolated

Order code  
**IS-NTC BB**



# InteliATS<sup>NT</sup> STD

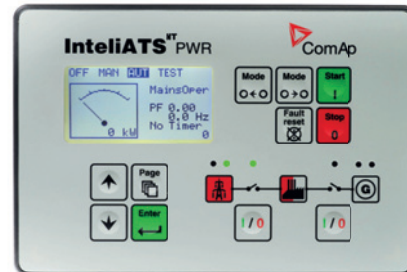
Automatic Transfer Switch  
(ATS) Controller



- > Mains monitoring (1 or 3 phases) for under and over voltage, under and over frequency and voltage unbalance
- > Remote generating set start
- > Change over for mains and generator contactors
- > True voltage and current RMS measurement
- > Simple Test Run scheduler
- > WebSupervisor and AirGate support\*
- > 2 languages (user changeable)
- > 4 binary inputs
- > 4 binary outputs
- > UL Recognised
- > IEC 60947-6-1 compliant

# InteliATS<sup>NT</sup> PWR

Automatic Transfer Switch  
(ATS) Controller



- > Mains monitoring (1 or 3 phases) for under and over voltage, under and over frequency and voltage unbalance
- > Remote generating set start
- > Change over for mains and generator contactors
- > True voltage and current RMS measurement
- > Test Run scheduler
- > 3 phase power measurement
- > Detailed RTC event and performance log
- > WebSupervisor and AirGate support\*
- > 2 languages (user changeable)
- > 7 binary inputs
- > 7 binary outputs
- > UL listed
- > IEC 60947-6-1 compliant

Order code  
**IA-NT STD**

\* Plug-in module required

Order code  
**IA-NT PWR**

# Mains protections

Suitable for:



Renewables



Mining



Hybrid



Telecom

A family of mains protection modules that provide the necessary protection functions to meet the requirements of all applications where generators operate in parallel with the mains.



## InteliPro

Utility Protection Relay



- > InteliPro is a highly flexible mains decoupling relay with extensive range of protective functions to meet the strictest utility interconnection requirements. It can be used in various distributed generation applications, next to cogeneration units, renewable energy sources or as a redundant /back-up protection for gen-sets
- > Extensive frequency, voltage and current protections
- > Optional features enable to meet particular requirements of utilities
- > Compliant with G59/3, G10, G83, IEEE 1547 and VDE-AR-N 4105
- > Certified according to IEC 60255, VDE 0126-1-1 and BDEW
- > Applicable for requirements of G59/3, G10, G83 and IEEE1547 and VDE-AR-N 4105

Order code  
INTELIPRO

## InteliPro SYNC

Synchronization and protection relay



- > InteliPro SYNC is a highly reliable protection relay designed for synchronization in parallel to mains applications, such as generators, gen-sets and cogeneration units connected to distribution network. InteliPro SYNC is an ideal substitute for manual synchronizing relay.
- > Synch check, over/undervoltage and reverse power protection in one unit
- > Over/underfrequency, Instantaneous overcurrent, IDMT overcurrent and Earth Fault protection as optional features
- > Extensive flexibility for various applications through set of optional functions

Order code  
IP1SYNXCBA

## MainsPro

Mains Decoupling Relay



- > MainsPro is a protection relay for parallel-to-mains applications including generator sets, cogeneration units, micro turbines or renewable energy sources such as photovoltaic plants or wind turbines. It provides adjustable voltage, frequency and loss of mains protections to safeguard both the distribution network and the generators.
- > User friendly interface with easy settings (no SW tool needed)
- > Simple wiring with detachable connectors
- > Integrated mechanical lock, history track and watchdog protection
- > Compliant with G59/3, G83, UL508
- > Certified according to IEC 60255, CEI 0-21, IEn NR 005/2012, VDE V 0126-1-1 and VDE-AR-N 4105

Order code  
MAINSPRO

## MainsPro LITE

Mains Decoupling Relay



- > MainsPro LITE combines simple installation and usability with valuable mains protection
- > True RMS measurement for increased accuracy and reliable evaluation of failures
- > Compact design for installation in restricted spaces
- > Suitable for low voltage installations
- > Simple wiring with detachable connectors
- > Two-stage over/under voltage protection
- > Two-stage over/under frequency protection
- > Floating average overvoltage protection
- > Phase supervision
- > Freely assignable variety of binary inputs and outputs
- > Event history log
- > Auto fault reset
- > CB Failure protection

Order code  
MAINSPRO LITE



# Engine controllers

Suitable for:



Agriculture



Mining



Marine



Telecom

The ComAp family of engine controllers offers innovative and universal system integration for a wide range of engine driven platforms and applications. With a proven track record of working in the most demanding environments, IntelliDrive controllers deliver unparalleled command, control and communication advantages.



# InteliDrive Nano WP

Engine Controller for Pumps  
and Compressors



- > Simple engine Start / Stop controller for constant speed engines
- > Automatic Start / Stop and Speed control for variable speed engines
- > Manual Engine Speed setting by Speed Trim, panel Up/Down buttons or remotely just by switch
- > Automatic engine RPM control by e.g. pressure loop
- > Analog interface for mechanical engines
- > Intuitive graphical display with Icons
- > Overspeed, Oil Pressure, Coolant temperature, Fuel Level, and other adjustable protections
- > 10 items graphical history log including the SPN/FMI codes
- > Battery voltage, Service time and Running hours indication
- > CAN J1939 interface for EFI engines
- > Configuration from panel or by PC DriveEdit tool over USB interface
- > 1 RPM input
- > 4 Binary inputs
- > 4 Binary outputs (2 Relays – up to 10Amps)
- > 8 Analog inputs – 3x VDO, 3x 20 mA, 1x ohm
- > 2 Analog outputs 5 VDC

Order code  
**ID-NANO-WP**

# InteliDrive Telecom

Engine Controller for Telecom  
Tower Applications



- > Engine controller for telecom tower applications
- > Control, monitoring and protection for both mechanical and electronic diesel/gas engines in one unit
- > Automatic or manual start/stop of the engine
- > Programmable On/Off panel button
- > Support of engines with Electronic Control Unit (ECU) – J1939 or Cummins ModBus
- > Analog gauge (VDO, Datcon and others) outputs – operator friendly
- > Smooth engine speed control
- > 7 configurable binary inputs
- > 7 configurable binary outputs
- > 7 configurable analog inputs (3 resistive, 4 voltage) + 2 not configurable voltage inputs
- > Selectable protections alarm/shutdown
- > 3 level of password protection
- > USB, RS485/RS232/Modem/ModBus communication
- > Automatic SMS on alarm
- > On-line control and monitoring over web pages (embedded web server) via IB-Lite
- > Optional GSM/GPRS modem/wireless Internet via IL-NT GPRS

Order code  
**ID2TELCOAAA**

# InteliDrive IPU

Industrial Power Unit Controller



- > Engine controller for land-based and marine Tier 4 applications
- > Control, monitoring and protection for both mechanical and electronic diesel/gas engines in one unit
- > Automatic, manual or remote start/stop of the engine
- > Support of engines with Electronic Control Unit (ECU) – J1939 or Cummins ModBus
- > Analog oil pressure, water temperature, fuel level, battery voltage, engine speed (pick-up)
- > Smooth engine speed control by Up/Down controller buttons, binary inputs for predefined speed options, Speed Up/Down binary inputs or one analog input
- > Selectable protections alarm/shutdown
- > 3 levels of password protection
- > Ethernet, USB, GSM/GPRS, RS485 or RS232/Modem/ModBus communication
- > Automatic SMS on alarm
- > On-line control and monitoring over web pages (embedded web server)
- > 2 languages (user changeable)
- > Real time clock and event history log
- > Push buttons for simple control, lamp test
- > Front panel sealed to IP65

Order code

**ID2IPUXXBAA**

► Engine controllers

# InteliDrive IPC

Irrigation Pump Controller



- > Engine and pump controller for land-based and marine Tier 4 applications
- > Control, monitoring and protection for both mechanical and electronic diesel/gas engines in one unit
- > Automatic, manual or remote start/stop of the engine
- > Support of engines with Electronic Control Unit (ECU) – J1939 or Cummins ModBus
- > Analog oil pressure, water temperature, fuel level, battery voltage, engine speed (pick-up)
- > Smooth engine speed control by Up/Down controller buttons, binary inputs for predefined speed options, Speed Up/Down binary inputs or one analog input
- > Pump functionalities: flow meter, flow switch, set of flexible timers
- > Selectable protections alarm/shutdown
- > 3 levels of password protection
- > Ethernet, USB, GSM/GPRS, RS485 or RS232/Modem/ModBus communication
- > Automatic SMS on alarm
- > On-line control and monitoring over web pages (embedded web server)
- > 2 languages (user changeable)
- > Real time clock and event history log
- > Front panel sealed to IP65

Order code

**ID2IPCXXBAA**

# InteliDrive WP

Engine controller for land-based and marine applications

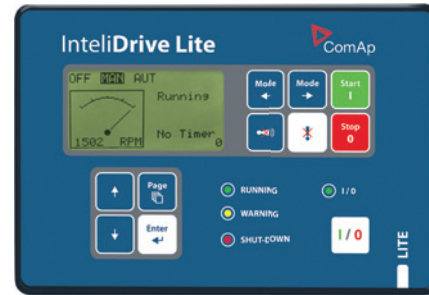


- > Control, monitoring and protection for both mechanical and electronic diesel/gas engines in one unit
- > Automatic or manual start/stop of the engine
- > Support of engines with Electronic Control Unit (ECU) - J1939
- > Analog gauge (VDO, Datcon and others) output – operator friendly
- > Smooth engine speed control
- > 5 configurable binary inputs
- > 5 configurable binary outputs (2 relays - up to 10A)
- > 9 configurable analog inputs
- > 1 configurable analog output 5 VDC
- > Selectable protections alarm/shutdown
- > 3 level of password protection
- > USB port for programming
- > 2 languages (user changeable)
- > Real time clock and event history log
- > Control functions: PID loop, Comparators, Timers
- > Dust and water protection IP 65 (front and rear panel)
- > Operating temperature: -20 to +70°C
- > EN certifications

Order code  
**ID2C1000BEC**

# InteliDrive Lite

Engine Controller for Pumps and Compressors



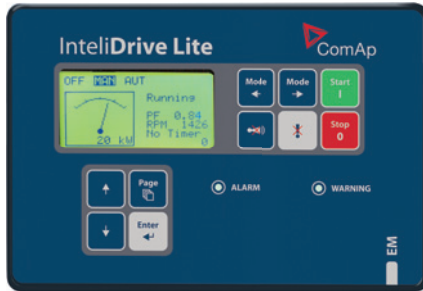
- > Engine controller for land-based and marine Tier4 applications
- > Control, monitoring and protection for both mechanical and electronic diesel/gas engines in one unit
- > Automatic or manual start/stop of the engine
- > Programmable On/Off panel button
- > Support of engines with Electronic Control Unit (ECU) – J1939 or Cummins ModBus
- > Analog gauge (VDO, Datcon and others) outputs – operator friendly
- > Smooth engine speed control
- > 7 configurable binary inputs
- > 7 configurable binary outputs
- > 7 configurable analog inputs (3 resistive, 4 voltage) + 2 not configurable voltage inputs
- > Selectable protections alarm/shutdown
- > 3 level of password protection
- > USB, RS485/RS232/Modem/ModBus communication
- > Automatic SMS on alarm
- > On-line control and monitoring over web pages (embedded web server) via IB-Lite
- > Optional GSM/GPRS modem/wireless Internet via IL-NT GPRS
- > AirGate support
- > 2 languages (user changeable)
- > Real time clock and event history log
- > PLC functions: PID loop, Comparators, Timers
- > Push buttons for simple control, lamp test
- > Front panel sealed to IP65
- > EN, UL certifications

Order code  
**ID-FLX-LITE**



# InteliDrive Lite EM

Engine Controller for Electric Asynchronous Motors



- > Electric Motor control, monitoring and protection
- > All common ways to start asynchronous motor: direct, Y-D, SoftStarter starting
- > 7 configurable binary inputs and outputs
- > 3 configurable analog inputs
- > Selectable protections alarm/shutdown
- > Setpoints adjustable via keyboard or PC
- > USB, RS485 or RS232, GSM/GPRS, ModBus communication
- > Real time clock and event history log
- > Automatic or manual start/stop of the motor
- > Push buttons for simple control, lamp test
- > Graphic back-lit LCD display 128 x 64 pixels
- > LED indicators
- > Front panel sealed to IP65
- > Power supply 8–36 VDC
- > 3 phase protections

Order code

**INTELIDRIVE EM**

► Engine controllers

# InteliDrive Lite FPC

Engine Controller Designed for Diesel Driven Fire Pump Applications



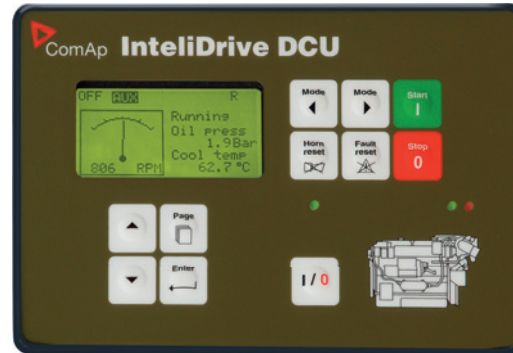
- > Modular engine controller designed for diesel driven fire pump applications based on the NFPA 20 standard
- > Automatic and manual starting sequence based on two batteries according to NFPA 20 standard
- > Support of engines equipped with Electronic Control Unit (ECU) – J1939 or Cummins ModBus interface
- > Analog gauge (VDO, Datcon) outputs – operator friendly
- > Engine speed control
- > 3 configurable analog inputs + 2 analog inputs of battery voltage measurement
- > 7 configurable binary inputs and outputs
- > 6 LED indicators (Alarm, Warning, Not Ready, Running, Battery A, Battery B)
- > Selectable protections alarm/shutdown
- > 1 level of password protection
- > USB, RS485/RS232/Modem/ModBus communication
- > Automatic SMS on alarm
- > On-line control and monitoring over web pages (embedded web server) via IB-Lite
- > 2 languages (user changeable)
- > Real time clock and event history log

Order code

**ID-FLX FPC**

# InteliDrive DCU Industrial

Engine Controller for Pumps and Compressors

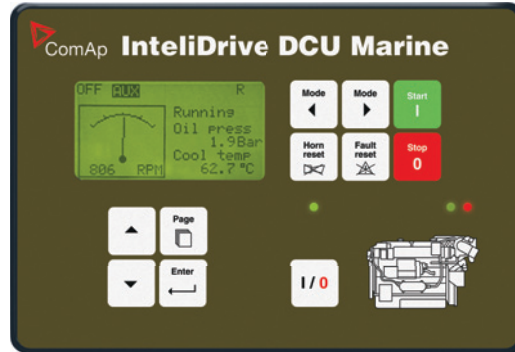


- > Engine controller for land-based applications powered by engine driven compressors and pumps
- > Control, monitoring and protection for both mechanical and electronic diesel/gas engines as well as peripheral equipment in one unit
- > Support of engines with EFI (ECU) – CAN/ J1939 or Cummins ModBus
- > Event driven History record
- > Speed control
- > Engine measurement from sensors or via J1939
- > 14 binary inputs, 14 binary outputs, 8 analog inputs
- > Over 100 binary inputs and outputs is available via additional modules
- > 3 level password protection
- > Remote control and monitoring via analog/ GSM modem, SMS or Internet
- > Configurable PLC functions (Logical, Mathematical, Comparators, Analog switch, PID loops, Counters, Timers, Delay and others)
- > Load sharing for propulsion engines
- > Integrated clutch control
- > Running hours meter, number of starts counter
- > RS232, Modem, ModBus, Internet communication
- > Push buttons for simple control, lamp test
- > Front panel sealed to IP65
- > EN, UL, CSA, NFPA certifications

Order code  
**ID-DCU**

# InteliDrive DCU Marine

Modular Certified Engine Controller  
for Marine Applications



- > Control, monitoring and protection for marine engines
- > Support of engines with EFI (ECU) – CAN/J1939 or Cummins ModBus
- > For Emergency, Auxiliary, Harbor and Propulsion engines
- > Redundant architecture: Main unit + Backup module
- > Backup ID-RPU module with hardwired protections
- > Connection to engine via primary J1939 and backup J1587 buses
- > Symmetrical load sharing for propulsion engines with J1939 (via CAN bus)
- > Event driven History record
- > Speed/load control via J1939 or J1587 buses
- > 14 binary inputs, 14 binary outputs, 8 analog inputs
- > Remote monitoring via ModBus, Ethernet, TCP/IP and AirGate
- > Configurable PLC functions
- > Configurable ModBus and ModBus TCP support for easy integration into the ship's control system
- > Load sharing for propulsion engines
- > Integrated clutch control
- > Switching between primary and secondary battery
- > Slave panels for remote control
- > RS232, Modem, ModBus, Internet communication
- > WebSupervisor support from version InteliDrive DCU Marine-W 2.2

Order code  
**ID-DCU MARINE**



# InteliDrive Mobile

Electronic Controller for Off-road Vehicles and Machinery



- > Diesel/gas engine control, monitoring and protection for off-road applications such as construction, quarrying and engineering equipment
- > Control of hydraulic systems and engine driven compressors and pumps
- > Designed for harsh environments – the unit construction features a fully environmentally sealed enclosure and connector
- > Plug & Play EFI (ECU) engine support (CAN/J1939)
- > Master Slave Concept Support
- > Remote monitoring support
- > Fleet management via GPRS/GPS, GeoFencing
- > Integrated PLC functions: Analog switches, Comparators with delay or hysteresis, Counters, Delay functions, Filters, Linear interpolation, Logical and Mathematical functions, PID loops, Timers
- > Built-in event & Performance Log
- > History log out – monitoring of wide range of parameters
- > 4 Binary inputs with detection of broken wire
- > 12 Binary bi-directional inputs for contacts switching
- > 8 Binary configurable switches (High-side/Low-side 3A, PWM 3A, DC motor driver)
- > 8 Binary Hi-side switches with max. current 3A and detection of broken wire

Order code

**ID-MOBILE**

# InteliDrive Mobile Logger

Data Logger for Diesel Engine Driven Mobile and Industrial Applications



- > Data logger – outstanding, monitoring and history tracking for diesel engines as well as peripheral equipment
- > Plug and play support of engines with ECU – access to all available values
- > Built-in Event & Performance Log
- > Remote monitoring support
- > Fleet management program with GSM/GPS localization and Geofencing
- > History log out
- > Engine measurement by sensors and actuators or via J1939
- > 8 Binary inputs
- > 11 Configurable analog inputs
- > 1 × Frequency input for RPM measurement
- > 2 × Impulse inputs
- > LED status indication
- > Communication Interface RS485, 2× CAN, J1939
- > Possibility to connect with external displays
- > Running-hours meter, number of starts counter, battery voltage measurement
- > Integral fuel consumption measuring

Order code

**ID-MOBILE LOGGER**



# Bi-fuel products

Suitable for:



Mining



Power Generation



Trucks



Oil & Gas



ComAp, a market leader in engine control solutions, have developed an easy to fit bi-fuel management package including a range of IntelliBifuel controllers for use as a standard control platform for diesel generators. The new control system is ideally suited to generator packagers and original equipment manufacturers (OEMs) looking to deliver more economically beneficial power packages.



# InteliBifuel LITE

Bi-fuel/dual fuel control system  
for low-powered engines



- > InteliBifuel LITE package is a cost effective, compact solution designed for single speed Bi-fuel applications at nominal output power up to 100 or 200kW.
- > Perfectly suitable for the Rental market or any other Power generation applications using any type of gas
- > High or low pressure single point gas injection technology, gas injected before or after the turbocharger
- > NEW algorithm with automatic compensation for gas quality changes
- > Easy installation and commissioning
- > Harsh environmental design
- > IP-69 enclosure fits to any application
- > Compatible with InteliVision 5, and InteliVision 8 displays

Order code 100 kW:

**IB2SL1XCBDK**

Order code 200 kW:

**IB2SL2XCBDK**

# InteliBifuel

Bi-fuel/dual fuel control system  
for single speed engines



- > InteliBifuel package is a fully programmable solution designed for any single speed Bi-fuel application, with its features perfectly suitable for Oil & Gas, Mining and Rental applications
- > New algorithm with automatic compensation for gas quality changes
- > Enable factory setting of Bi-fuel system
- > Simplified installation and commissioning
- > Extended PLC logic and history
- > Optional GPRS/GMS and GPS monitoring
- > IP-69 enclosure fits to any application
- > Optional high pressure single point gas injection after turbocharger
- > Compatible with InteliVision 5, and InteliVision 8 displays

Order code

**IB2SGXDCBDK**



# InteliBifuel MOBILE

Bi-fuel/dual fuel control system  
for mobile variable speed engines



- > InteliBifuel MOBILE package is a fully programmable solution designed for any mobile variable speed applications as Mine haul trucks, Frack trucks, Locomotives or Marine propulsion engines.
- > Fully configurable 3D maps
- > IP-69 Harsh environmental design allows full integration in applications with limited space
- > Remote monitoring
- > GPRS/GSM remote monitoring
- > GPS Location
- > Extended PLC logic
- > Extensive history records
- > Optional high or low pressure single point gas injection technology; gas injected before or after the turbocharger
- > Compatible with InteliVision displays

# InteliBifuel DENOX

Bi-fuel anti-knocking device



- > Unique anti knocking engine protection controller specifically designed for Bi-fuel applications, ensure proper detonation is always maintained during Bi-fuel operation.
- > Suitable for engines up to 20 cylinders
- > Suitable for variable speed engines
- > Individual cylinder knocking detection
- > Individual cylinder misfiring detection
- > Integrated 2x Inteli AIN8TC up to 16 thermocouples
- > Harsh environmental design IP69K
- > Full communication and direct CAN interface to InteliBifuel LITE, InteliBifuel and InteliBifuel MOBILE
- > Operating temperature: -40°C to +80°C > CE, UL, CSA

Order code

**IB2SMXDXCBDK**

Order code

**BIFUEL DENOX**

# Gas Train

Low pressure gas train for HSC



- > Assembly of components necessary to reduce and control gas flow into the engine.
  - > Suitable for High Speed engine Conversions
  - > Ended with electronic throttle valve
  - > Low pressure output 10 – 30mbar
  - > Inlet pressure range 150 – 350 mbar
  - > According gen-set power there are several types (dimensions):
  - > Code name      Note
- |           |   |
|-----------|---|
| IBF-GT25  | DN25, Outlet 1× 1BSP, up to 250kWe      |
| IBF-GT40  | DN40, Outlet 2× 1BSP, 250 – 650 kWe     |
| IBF-GT50  | DN50, Outlet 2× 5/4BSP, 600 – 1000 kWe  |
| IBF-GT50A | DN50, Outlet 4× 1BSP, 600 – 1000 kWe    |
| IBF-GT65  | DN65, Outlet 4× 5/4BSP, 1000 – 1650 kWe |
| IBF-GT80  | DN80, Outlet 4× 5/4BSP, 1650 – 2200 kWe |



# Colour Displays



Remote displays provide users with a choice of improved data visibility and the ability to communicate over greater distances.



# InteliVision 12Touch

12,1" Colour Display Unit Touchscreen

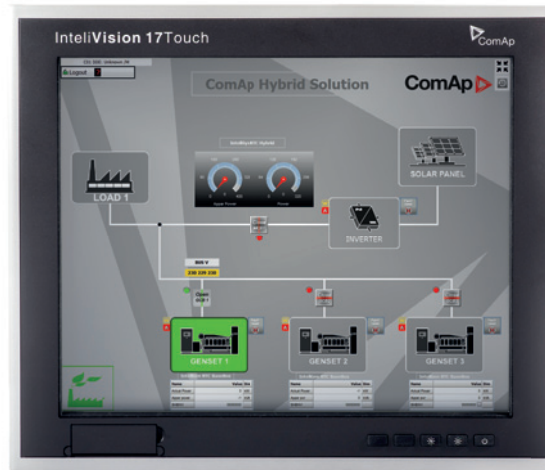


- > InteliVision 12Touch, industrial operator panel equipped with 12,1" colour, multi-touch screen
- > 12,1" color, multi-touch screen, TFT display unit with resolution of 1280 x 800 pixels
- > Touch based Graphical User Interface, support for multi-touch gestures
- > Plug & Play operation (auto configuration based on controller application)
- > Complete access to all control and monitoring functions
- > Fast and intuitive navigation
- > Extended trends monitoring screen
- > Compatible with Screen Editor software
- > USB flash disk file storage (export/import trends, history, archive of controller and InteliVision 12Touch firmware and others to USB stick)
- > User's pictures import
- > Adaptive and colour alarm list
- > Large History screen
- > Adjustable setpoints help
- > Multilanguage support
- > Communication connection via RS-485
- > Integrated easy to use mounting system
- > Designed to be mounted in either monitoring or engine room
- > Industrial and robust design
- > Rugged housing manufactured from a single piece of aluminium alloy
- > Chemically strengthened front glass (8 times as strong as normal glass)
- > Sun-readable display (1000 cd/m<sup>2</sup>)
- > Automatic brightness control
- > Operating temperature: -30 to + 70°C
- > Face is sealed to IP65
- > EMC, climatic and mechanical tests
- > CE certification

Order code  
**RD1V12TBZH**

# InteliVision 17Touch

17" Touchscreen Display Unit



- > The new InteliVision 17Touch is 17" Touchscreen display unit designed for complete monitoring and control of multiple controllers or cogeneration installation
- > Hardware features:
  - > 17" touch SXGA (1280 × 1024) TFT LCD Display with LED backlight
  - > Intel Celeron 827E Processor, Fanless Cooling System
  - > IP-65 NEMA 4 Aluminium Die Cast Front Bezel
  - > Two easy access front USB ports
  - > Over and under voltage protection
  - > Polarity protection
  - > Extended temperature range from -20 up to 60°C
  - > UL certified
- > SOFTWARE FEATURES
  - > IntelliMonitor / IGS-LOG (included for free)
  - > Multiple controllers monitoring
  - > Mode change feature for any connected controller
  - > Start/Stop any connected gen-set manually
  - > Control/Monitor of all GCBs / MCBs controlled by ComAp units
  - > Setpoints configurable from one device
  - > History logs of all controllers
  - > Fullscreen mode with lock protection / PIN
  - > Onscreen keyboard

Order code  
**IV17T2**

# InteliVision 5

## Colour Display Unit



- > Colour display unit for localized visualisation
- > InteliVision 5 is compatible with the following product line of controllers: InteliGen<sup>NT</sup>, InteliSys<sup>NT</sup> and InteliMains<sup>NT</sup>
- > 5,7" Colour TFT Display with resolution 320 × 240 pixels
- > Local and Remote display for single controller monitoring
- > Plug and play operation (auto configuration based on controller application)
- > Direct connection to the controller (converters are not needed)
- > Simple, fast and intuitive control
- > Easy drag and drop screen configuration in graphical editor
- > Five active buttons – fast access to important data
- > Configurable active buttons
- > Support of Tiers 4 icons
- > Mounting screw available at the rear face of InteliVision 5 to mount a compatible controller
- > Same language support as the controller including graphic languages
- > Communication connection via RS-485 (galvanically separated)
- > Same cut out as InteliGen<sup>NT</sup>
- > Operating temperature: –40 to +70°C

Order code

**INTELVISION 5**



# InteliVision 8

8" Colour Display Unit for InteliSys<sup>NT</sup>, InteliGen<sup>NT</sup>, InteliMains<sup>NT</sup>, InteliDrive DCU and InteliDrive Mobile Controllers



- > 8" color TFT display with resolution of 800 × 600 pixels
- > Plug & Play operation (auto configuration based on controller application)
- > Complete access to all control and monitoring functions
- > Fast and intuitive navigation
- > Trends monitoring screen
- > USB flash disk file storage (export/import trends, history, archive of controller and InteliVision 8 firmware to USB stick)
- > Quick auto login with USB stick
- > User's pictures import
- > Easy Drag & Drop screen configuration in graphical editor
- > Adaptive and colour alarm list
- > Configurable soft keys buttons:
- > Binary signal activation – S/R button / toggle button / pulse generator
- > Association to various Gen-set commands
- > Large History screen

Order code  
**INTELVISION 8**

# InteliVision 5 CAN

Colour Display Unit with CAN Bus Interface



- > Colour display unit for localized visualisation
- > InteliVision 5 is compatible with the following product line of controllers: InteliGen<sup>NT</sup>, InteliSys<sup>NT</sup> and InteliMains<sup>NT</sup>
- > 5,7" Colour TFT Display with resolution 320 × 240 pixels
- > Local and Remote display for single controller monitoring
- > Plug and play operation (auto configuration based on controller application)
- > Direct connection to the controller (converters are not needed)
- > Simple, fast and intuitive control
- > Easy drag and drop screen configuration in graphical editor
- > Five active buttons – fast access to important data
- > Configurable active buttons
- > Support of Tiers 4 icons
- > Mounting screw available at the rear face of InteliVision 5 to mount a compatible controller
- > Same language support as the controller including graphic languages
- > Communication connection via RS-485 (galvanically separated)
- > Same cut out as InteliGen<sup>NT</sup>
- > Operating temperature: -40 to +70°C

Order code

**INTELVISION 5 CAN**

# InteliVision 8 Marine

Marine Approved Colour Display Unit for InteliGen<sup>NT</sup>/InteliSys<sup>NT</sup> and InteliDrive Family of Controllers



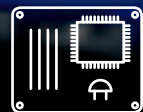
- > Marine approved display unit for either InteliGen<sup>NT</sup> / InteliSys<sup>NT</sup> or InteliDrive controllers
- > 8" colour TFT display with resolution of 800 × 600 pixels
- > Controlled by active buttons
- > Trends monitoring screen as a standard feature
- > Simpler, faster and more intuitive control
- > More information in less time
- > Same language support as InteliGen<sup>NT</sup> / InteliSys<sup>NT</sup> and InteliDrive controller
- > Screen configuration by customer – export to XML format with subsequent manual screen modification and import back to the controller (as IS-Display)
- > Direct connection to the controller (converters are not needed)
- > The same dimensions as IS-Display / InteliSys<sup>NT</sup> (including cut out dimensions)
- > It is possible to mount InteliSys<sup>NT</sup> BaseBox to the rear side of InteliVision
- > Can be used as a replacement for (or an alternative to) IG-Display, IS-Display or I-RD-CAN

Order code

**INTELVISION 8 MARINE**

## Extension Modules and Accessories

The comprehensive family of extension modules and control accessories enable users to custom design control systems to meet individual project requirements and bring wider scope and flexibility to ComAp control products.



## InternetBridge-NT

Communication Module with Cellular/Ethernet Connection



- > Internet connection for one or more ComAp controllers, either by Ethernet cable or by built in 3.75G Cellular modem
- > Wireless high speed GPRS/UMTS modem built in
- > Supports all cellular packet data systems from GPRS to HSPA (2.5G to 3.75G)
- > Full Multiband support – modem works globally
- > Ethernet wired connection for local LAN connection
- > Single module can be used for multiple controllers on the same site (connected via CAN or RS485)
- > ModBus/TCP, SNMP protocol support – direct connection to building management and other systems
- > Includes ComAp AirGate technology – easy plug-and-play connection anywhere (no fixed IP needed)

Order code  
IB-NT

## InternetBridge-NT 4G

Communication Module with Cellular/Ethernet Connection

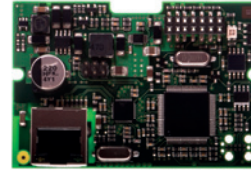


- > Ethernet/Internet connection module
- > For single or multiple controllers, connection via CAN2, RS485 or RS232 (single)
- > 100Mbps ethernet port for wired ethernet connection
- > Built-in cellular modem for wireless Internet connection
- > Supports all cellular network types up to LTE (4G)
- > Two variants of the product for usage in different geographical areas
- > Communication with all ComAp tools directly or via AirGate
- > SNMP, ModBus/TCP available on ethernet port
- > Sends important controller events as active e-mails and/or SMS

Order code  
CM2IB4GABFB  
CM2IB4GEBFB

## CM-Ethernet

Internet / Ethernet plug-in communication module



- > Plug-in module for functional extension of new IntelliLite controllers.
- > Internet / Ethernet module with 10/100 Mbit interface over RJ45 socket
- > Embedded webserver for monitoring and basic adjustments
- > ModBus TCP support
- > Full SNMP V1/V2C support
- > ComAp TCP for remote access and full control over LiteEdit
- > SMTP protocol with authentication for active e-mails sending
- > AirGate technology support for easy connection – no need of public and static IP address

Order code  
CM2ETHERXB

## CM-4G-GPS

4G & GPS plug-in communication module



- > Plug-in module for functional extension of new IntelliLite controllers
- > Communication module providing wireless internet connectivity
- > 4G – LTE
- > 3G – WCDMA, HSDPA, HSUPA, HSPA+
- > 2G – GPRS, EDGE
- > GSM (850 / 900 / 1800 / 1900 Mhz)
- > Remote monitoring and control capabilities via LiteEdit, WebSupervisor and active SMS / Emails alerts and control
- > WebSupervisor system support for web based monitoring and control of one or multiple controllers at the same time
- > AirGate technology support for easy connection
- > Automatic SMS message on alarm events
- > SMS control of gen-set/engine
- > GPS location with geofencing and tracking

Order code  
CM14GGPSXB



## CM-GPRS

GPRS plug-in communication module

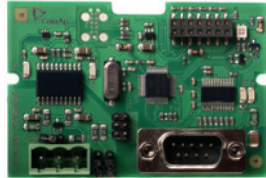


- > Plug-in module for functional extension of new IntelliLite controllers.
- > Communication module providing wireless internet connectivity over GPRS and GSM communication
- > Remote monitoring and control capabilities via LiteEdit, WebSupervisor and active SMS / Emails alerts and control
- > WebSupervisor system support for web based monitoring and control of one or multiple controllers at the same time
- > AirGate technology support for easy connection
- > Automatic SMS message on alarm events
- > SMS control of gen-set/engine

Order code  
CM2GPRSXXBX

## CM-RS232-485

Dual port (RS232 & RS485) plug-in communication module



- > Plug-in module for functional extension of new IntelliLite controllers
- > Communication module with dual port for RS232 and RS485 providing 2 separate and independent COM channels
- > Supports ModBus RTU, ECU link and direct connect to LiteEdit2015

Order code  
CM223248XXBX

## IB-Lite

Internet / Ethernet Module including Web Server



- > Plug-in communication module for IntelliATS<sup>NT</sup>, IntelliLite<sup>NT</sup>, IntelliCompact<sup>NT</sup> and IntelliDrive Lite controllers used with a standard firmware
- > 10/100 MBit ethernet interface in RJ45 socket
- > Web interface for basic monitoring and adjustment of the controller
- > ComAp/TCP protocol for remote access from LiteEdit or IntelliMonitor
- > ModBus/TCP protocol for integration of the controller into building management systems or other remote monitoring purposes
- > SNMP v1 Agent
- > SMTP protocol with authentication for sending of active e-mails
- > Web-based configuration and firmware upgrade of the module
- > Simply connected using AirGate technology

Order code  
IB-Lite

## IL-NT GPRS

GSM / GPRS Modem Plug-In Module

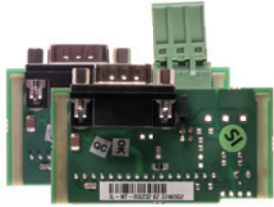


- > Plug-in communication module for IntelliLite<sup>NT</sup>, IntelliCompact<sup>NT</sup> and IntelliDrive Lite controllers GSM Modem function for dial-up connection
- > GPRS support for wireless internet connection
- > WebSupervisor system support for web based monitoring and control of one or multiple controllers at the same time
- > AirGate technology support for easy connection over GPRS, overcomes many of the issues traditionally experienced with internet connection to embedded systems
- > WebSupervisor and AirGate support
- > Remote access from LiteEdit or IntelliMonitor
- > Mobile and wireless solution

Order code  
IL-NT-GPRS

## IL-NT RS232 / IL-NT RS232-485

RS232 Extension Board /  
Dual Port Extension Board



- > Extension board containing RS232 port for IntelliLite<sup>NT</sup>, IntelliCompact<sup>NT</sup> and IntelliDrive Lite controllers
- > Dual port module with RS232 and RS485 interfaces at independent COM channels
- > The RS232 is connected to COM1 and RS485 to COM2
- > Compatible with IntelliLite<sup>NT</sup>, IntelliCompact<sup>NT</sup> and IntelliDrive Lite.

Order code  
IL-NT-RS232  
IL-NT-232-485

## IL-NT S-USB

Service USB Module



- > Easily removable plug-in communication module with USB device interface
- > For IntelliLite<sup>NT</sup>, IntelliCompact<sup>NT</sup>, IntelliDrive Lite controllers

Order code  
IL-NT-S-USB

## ID-Mobile GPS / ID-Mobile GPRS

GPS Plug-In Module /  
GSM / GPRS Modem  
Plug-In Module



- > Plug-in GPS module for IntelliDrive Mobile / Mobile Logger controllers
- > GPS function of exact controller location
- > Enables protection against unwanted manipulation of the controller (GeoFencing)
- > Module is supplied with antenna connector
- > GSM Modem function for dial-up connection
- > GPRS support for wireless internet connection
- > WebSupervisor and Airgate support
- > Remote access from DriveMonitor or IntelliMonitor
- > Automatic SMS message on alarms or events
- > SMS control of gen-set

Order code  
ID-MOBILE GPS  
ID-MOBILE GPRS

## ID-COM

Communication Module



- > Communication module for multiple engine installations, remote displays and redundancy communication
- > Interface for CAN1 Extension and J1939 modules
- > Interface for CAN2 Inter-controller and I-RD-CAN modules
- > Interface for J1708 redundancy line
- > Approved by ABS, BV, CCS, DNV, GL, KR, LR, PRS, RINA, RS
- > UL certified

Order code  
ID-COM

## I-LB+

Local Bridge



- > Communication bridge for sites with multiple controllers for local or remote monitoring and control
- > Direct (RS232,RS485), modem, ModBus or USB connection to multiple controllers
- > Communication speed up to 57600 bps (including ModBus mode)
- > Analog / GSM / ISDN / CDMA modem support

Order code  
I-LB+

## I-CB/ModBus

ModBus RTU  
Communication Bridge



- > Versatile programmable interface unit between IntelliGen<sup>NT</sup>, IntelliSys<sup>NT</sup> or IntelliDrive controllers and any ModBus RTU device
- > Predefined databases of values for Cummins PCC, CAT EMCP, CAT PL1000 and other devices
- > Suitable for monitoring circuit breakers, flow meters, PLCs etc. with ModBus RTU protocol
- > RS485/RS232 interfaces
- > I-CB/ModBus together with the controller act as a ModBus master

Order code  
I-CB/MTU SIAM4000

## I-CR-R

CAN Redundancy Module



- > Provides intercontroller CAN bus redundancy by adding parallel RS485 communication bus
- > Provides intercontroller bus extension as well
- > Intended for achieving high reliability of the intercontroller communication in complex applications where the parts of the technology are separated from each other and the intercontroller bus is exposed to a risk of interruption
- > I-CR-R may be used as a redundancy module for a maximum of 20 controllers (counted all controllers on the CAN2 bus)
- > UL Certified

Order code  
I-CR-R

## I-CR

CAN Repeater Module

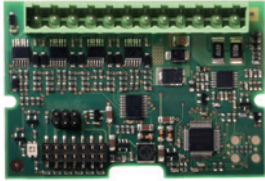


- > Intercontroller CAN bus extension (where the maximum distance limit would be exceeded)
- > Intercontroller CAN bus bus-tie bridging – makes groups of controllers in segments A and B “invisible” one for another depending on bus-tie breaker state, keeping the PC communication in function for all controllers
- > One or more I-CR modules can be used
- > UL certified

Order code  
I-CR

## EM-BIO8-EFCP

Binary I/O plug-in module with earth fault current protection measurement

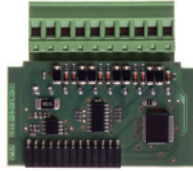


- > Plug-in module for functional extension of new IntelliLite controllers
- > Extension module with 8 configurable binary terminals for inputs or outputs
- > Possibility to connect a current transformer for earth fault current measurement and protection

Order code  
EM2BIO8EXBX

## IC-NT CT-BIO7

Hybrid Current Input & Binary Input/Output Extension Module

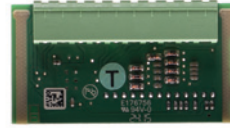


- > Hybrid current input & binary input/output module
- > Applicable to IntelliCompact<sup>NT</sup> SPtM v. 1.2 and higher, IntelliCompact<sup>NT</sup> MINT v. 1.3 and higher
- > One additional AC current (CT) measuring input
- > Up to 7 configurable additional binary inputs or outputs

Order code  
IC-NT-CT-BIO7

## IL-NT BIO8

Binary Input/Output Module

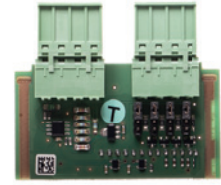


- > Hybrid binary input/output module
- > Applicable to IntelliLite<sup>NT</sup> v1.5 and higher, IntelliCompact<sup>NT</sup> v1.2 and higher, IntelliATS<sup>NT</sup> v2.0 and higher and IntelliDrive Lite v1.6 and higher
- > Up to 8 additional configurable binary inputs or outputs

Order code  
IL-NT-BIO8

## IL-NT AIO

Analog Input/Output Module



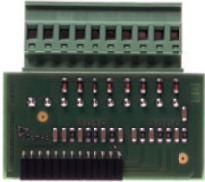
- > Gauge driver plug-in interface
- > Applicable to IntelliLite<sup>NT</sup>, IntelliCompact<sup>NT</sup> and IntelliDrive Lite
- > Up to 8 gauges (such as VDO, Datcon) can be driven by one controller

Order code  
I-CB/MTU SIAM4000



## IL-NT AOUT8

Analog Outputs for PWM Gauges Module

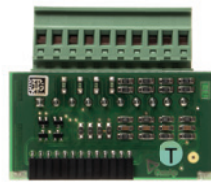


- > Extension plug-in module increasing the number of analog inputs and output of selected engine controllers
- > 4 configurable analog inputs for the sensors (in range 0 – 2400 ohm; 0/4-20mA; 0-4VDC)
- > 1 configurable analog output for the sensor (in range 0/4–20mA; 0-4,5VDC; PWM 5V/500Hz)

Order code  
IL-NT-AOUT8

## IL-NT IO1

Analog Output and Binary Input Module



- > Extension plug-in module increasing the number of analog outputs and binary inputs of selected engine controllers
- > 4 configurable analog outputs (output range: 0 to +VBatt  $\pm$ 1V)
- > 4 configurable binary inputs

Order code  
IL-NT-IO1

## IntelI AIN8

8 Analog Input Channels and 1 RPM/Impulse Input Module



- > IntelI AIN8 module allows users to expand the amount of analog inputs for sensors and add Impulse/RPM input that can be attached to a controller
- > Up to 8 configurable inputs (sensors) can be attached to the controller, and up to ten of the IntelI AIN8 modules can be connected to IntelISys<sup>NT</sup>, IntelIGen<sup>NT</sup>, IntelIMains<sup>NT</sup> controllers (up to four in case IntelIDrive DCU controller)
- > The IntelI AIN8 is determinate for the IntelISys<sup>NT</sup>, IntelIGen<sup>NT</sup>, IntelIMains<sup>NT</sup> and IntelIDrive DCU controllers
- > Analog inputs:
- > Supported sensors:
- > Resistor 3-wire input
- > Common resistor: 0-250 $\Omega$ , 0-2400 $\Omega$ , 0-10k $\Omega$
- > Temperature sensor: Pt100, Pt1000, Ni100, Ni1000

Order code  
I-AIN8

## IntelI AIN8TC

8 Analog Channels Module



- > IntelI AIN8TC extension module allows customers up to 8 analog input channels for measuring temperature by thermocouples
- > The IntelI AIN8TC is useful in situations where extremely accurate temperature readings is required
- > Up to 10 modules can be connected to a each controller, making accurate temperature readings both simple and reliable
- > It is compatible with J, K and L types of thermocouples and cold junction compensation is supported
- > Up to 10 IntelI AIN8TC can be attached to the controller (in case of IntelISys<sup>NT</sup>, IntelIGen<sup>NT</sup>, IntelIMains<sup>NT</sup>)

Order code  
I-AIN8TC

## Intel IO8/8

Binary Inputs/Outputs and Analog Outputs Module



- > The extension module Intel IO8/8 offers users more binary inputs and outputs for ComAp controllers
- > The unit offers the user the flexibility to configure the unit to have 8 binary inputs, 8 binary outputs, and 2 analog outputs, or 16 binary inputs, 0 binary outputs and 2 analog outputs via switches inside the controller
- > The Intel IO8/8 is compatible with the IntelliDrive DCU, IntelliMains<sup>NT</sup>, IntelliGen<sup>NT</sup> and IntelliSys<sup>NT</sup> ranges of controllers
- > Up to 12 Intel IO8/8 module (in configuration 8/8) can be connected to the controller (IntelliSys<sup>NT</sup> / IntelliGen<sup>NT</sup> / IntelliMains<sup>NT</sup>)
- > Up to 6 Intel IO8/8 module (in configuration 16/0) can be connected to the controller (IntelliSys<sup>NT</sup> / IntelliGen<sup>NT</sup> / IntelliMains<sup>NT</sup>)

Order code  
I-IO8/8

## Intel AIO9/1

Analog Input Output Module



- > Intel AIO9/1 module is designed for applications where DC measurement of current and voltage is necessary – such as Hybrid applications
- > Module is equipped with:
- > Analog inputs:
- > 4 channels for differential voltage measurement: range  $\pm 65V$  DC (for example battery voltage measurement)
- > 4 channel equipment sensors: thermocouples J,K,L ,  $\pm 75mV$  (for current measurement via resistor shunts)
- > 1 channel for resistance measurement 0-2400 $\Omega$  (sensors: 0-2400 $\Omega$ , PT1000 or NI1000)
- > Analog output with options: 0-20mA, 0-10V or PWM
- > Currently this module is supported in the software IGS-NT 3.1.1, IIM-NT 3.1.1 or higher

Order code  
I-AIO9/1

## I-AOUT8

Analog Output Module



- > 8 configurable analog outputs
- > Outputs are configurable to:
- > 0-10VDC or
- > 0/4-20mA range or
- > 1200 Hz pwm
- > Up to four I-AOUT8 can be connected to one controller
- > UL certified

Order code  
I-AOUT8

## IGS-PTM

Analog/Binary Input/Output Module

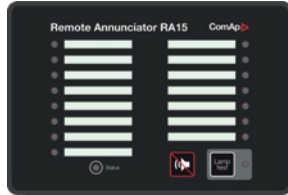


- > Configurable 8 binary and 4 analog inputs
- > Configurable 8 binary and 1 analog output
- > LEDs indicate the state of binary inputs/outputs
- > Measures values from Pt100 and Ni100 sensors
- > Analog inputs (resistance range 0-250 Ohms, voltage range 0-100mV, current range 0-20mA – selectable via jumper)
- > Up to 4 IGS-PTM can be connected to the controller
- > UL certified

Order code  
IGS-PTM

## IGL-RA15

Remote Annunciator



- > 15 programmable LEDs with configurable colors red-green-yellow
- > Customizable labels
- > Local horn output
- > Lamp test function
- > Maximal distance 200m from the controller
- > Up to 4 units can be connected to the controller
- > UL certified

Order code  
EM2IGLRABAA

## IG-AVRi

AVR Interface



- > Interface ensuring voltage matching between IntelliGen<sup>NT</sup> or IntelliSys<sup>NT</sup> controller and generator AVR
- > 4 kV electric insulation between controller and AVR
- > DIN rail design

Order code  
IG-AVRi

## ECON-4

Digital speed governor



- > ECON-4 is digital speed governor dedicated for speed control of gas or diesel engines
- > ECON-4 guarantees precise and fast speed control in variable load applications (island operation) and precise load control in network parallel operation
- > ECON-4 can control different types of actuators (linear, bridge, low voltage signal) providing up to 8A continuous signal which makes it a general speed controller for almost every actuator on the market for engines in range up to few MWeI
- > Additionally ECON-4 can be connected with the gen-set control system via CAN line which significantly reduce and simplify the wiring and commissioning work
- > Isochronous/droop mode
- > Actuator position feedback utilisation

Order code  
ECON-4

## ID-SCM

Speed Control Module



- > Interface module for IntelliDrive DCU Industrial, IntelliDrive CCU and IntelliDrive DCU Marine controllers for full support of internal PLC (programmable logic) in wide range of applications
- > Module is mounted directly on the controller body
- > Inputs and outputs:
- > RPM1, RPM2: inputs for frequency measuring – up to 8 kHz
- > IMP1, IMP2: inputs for integral (consumption) measuring up to 60 Hz
- > AOUT1, AOUT2: analog outputs 0 – 10VDC or 0 – 20 mA
- > Speed Governor Output:  $\pm 10VDC$  or  $\pm 10VDC$  via 10k $\Omega$  or PWM (1,6kHz)
- > UL certified

Order code  
ID-SCM

## ID-RPU

Redundant Protection Unit



- > Redundant engine protection unit for IntelliDrive DCU Marine controller
- > Backup module for marine engines
- > Automatic switchover between primary and secondary power supply
- > Monitors function of main IntelliDrive unit
- > In case of main unit failure switches to the backup mode and protects the engine
- > RPM input with hardwired overspeed protection
- > 5 shutdown channels with Broken Wire detection
- > Fuel and Stop solenoids with BW detection

Order code  
ID-RPU

## I-STEP

Stepper motor driver



- > Stepper motor driver, dedicated to control various flaps, actuators, e.g. Air/Fuel ratio Mixers which ensures precise position control of such a device.
- > Capable to control 2 stepper motors from one unit at once, both independently, which makes it ideal for all engine sizes and arrangements (in-line and V-type)
- > Capable to operate in various modes, ranging from mode with position feedback or based on calibration end-points
- > Fully supported over CAN communication in specific ComAp controllers and firmware – e.g. IntelliSys Gas which makes the wiring simple and all parameters and values are accessed from the main control unit

Order code  
I-STEP

## EP250 / EP300

Electronic Potentiometer



- > Microprocessor-controlled device designed for control and regulation systems
- > 3 binary inputs (increase, decrease, init), one 2-pole output of variable resistance
- > Position of the wiper is controlled by binary inputs
- > Current percentage value is indicated by LED bar graph on the front panel
- > Setpoints (position change rate and init position) are adjustable via DIP switches
- > 3 binary inputs (increase, decrease, init), one 3-pole output of variable resistance (potentiometer)
- > Current percentage value is indicated by LED display on the front panel
- > Setpoints (position change rate, position limits, init position and others) are adjustable via buttons and LED display on the front panel

Order code  
EP250  
EP300

## IntelliCharger 60 12-A / 60 24-A

Automatic Battery Chargers



- > Sealed electronic construction
- > Protection: short circuit / overload / over voltage / over temperature / reverse battery
- > Universal AC input ranges
- > Low ripple output
- > Naturally cooled
- > Voltage adjust potentiometer
- > Optional fail alarm relay<sup>1)</sup>
- > Charger can be used as a standalone power supply

<sup>1)</sup> This feature is available with IntelliCharger 60 12-AF and IntelliCharger 60 24-AF models, also offered by ComAp.

Order code  
12A - ICHG-60-12-A  
24A - ICHG-60-24-A



## InteliCharger 500

Automatic Battery Charger



- > 20 A nominal outputs
- > High power and efficiency
- > High reliability
- > Suits all battery types
- > Fully automatic operation
- > 24 V nominal outputs
- > Naturally cooled – fan less design
- > Optional alarms (& bi-colour LEDs)
- > Optional intelligent multi-stage charge profile with auto equalise
- > Optional boost charging system

Order code  
ICHG-500

## InteliCharger 240 24

Automatic Battery Charger



- > 24 V / 10 A nominal output
- > Adjustable voltage and current output
- > Microprocessor controlled charging algorithm
- > Protections: short circuit / overload / over temperature / reverse battery / battery under voltage
- > Universal AC input range
- > Naturally cooled
- > Fail alarm relays
- > Charger can be used as a standalone power supply

Order code  
ICHG-240 24

## InteliCharger 120 12

Automatic Battery Charger



- > 12 V / 10 A nominal output
- > Adjustable voltage and current output
- > Microprocessor controlled charging algorithm
- > Protections: short circuit / overload / over temperature / reverse battery / battery under voltage
- > Universal AC input range
- > Naturally cooled
- > Fail alarm relays
- > Charger can be used as a standalone power supply
- > Intelligent support for charging Open Lead Acid, Sealed Lead Acid and Lead Gel batteries

Order code  
ICHG-120 12

## InteliCharger 120 12-24

Automatic Battery Charger



- > 24 V / 5 A or 12 V / 6 A nominal output (dual voltage)
- > Adjustable voltage and current output
- > Microprocessor controlled charging algorithm
- > Protections: short circuit / overload / over temperature / reverse battery / battery under voltage
- > Universal AC input range
- > Naturally cooled
- > Fail alarm relay
- > Charger can be used as a standalone power supply

Order code  
ICHG-120 12-24





**PC  
monitoring and  
configuration  
software**

ComAp's dedicated PC software and configuration tools ensure operating and monitoring generators and engine controllers is both easy and accessible. The software is custom designed to ensure the optimum performance of ComAp controllers and helps users configure, supervise and monitor as well as manage and interpret trend information.



# InteliMonitor

PC Monitoring Tool  
for Intel Controllers

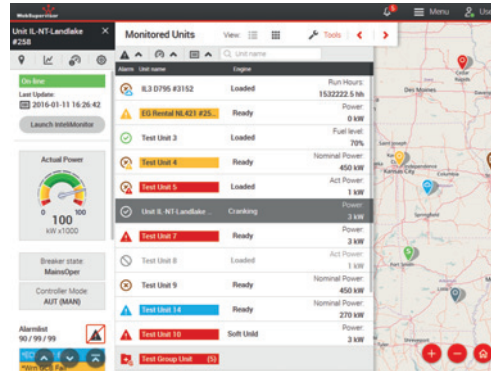


- > InteliMonitor is Windows software which provides following main functions:
- > Online monitoring of a controller or site
- > Fully customizable SCADA diagram
- > Browsing of all measured and computed values
- > Browsing of controller history records
- > Adjusting setpoints
- > Receiving active calls
- > PLC Monitor is also included
- > InteliMonitor can be connected to the controller or site:
  - directly using a serial cable
  - remotely via modems
  - remotely via Internet (ethernet)
  - remotely via AirGate
  - offline (browsing previously saved data)



# WebSupervisor

Cloud-based System for Remote Monitoring of ComAp Controllers



Overview of all your assets' actual status, alarm notifications, asset location on a map, detailed logging of data, historical trends, machine control and management – all on one screen using WebSupervisor.

From your PC, tablet or mobile phone you can instantly reach the most important and relevant data. The responsive design ensures easy to use operation on any screen size.

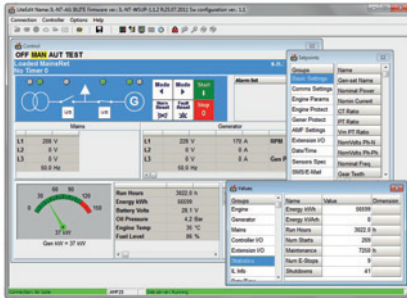
- > Map view of assets
- > Table view with alerts
- > Quick detailed view
- > Historical graphs and trends
- > Automatic weekly&monthly reports
- > Fast GUI
- > Single machine or group control
- > Quick connection to PC tools
- > Storage of history records from controller

The flexible system provides a high level of security, with the central administrator able to determine users' access rights for specific equipment within the fleet as well as appropriate information. In addition, event generated e-mails can be created and sent to specific users to give fast and efficient notification to improve decision making or react to additional revenue generating opportunities.

For more information please visit [www.websupervisor.net](http://www.websupervisor.net)

# LiteEdit

PC Configuration and Monitoring Tool



- > LiteEdit is Windows software which provides following main functions:
- > To be used with IntelliATS<sup>NT</sup>, IntelliLite<sup>NT</sup>, IntelliCompact<sup>NT</sup>, MainsCompact<sup>NT</sup>, IntelliDrive Lite and IntelliPro controllers
- > Remote control and monitoring, parameters adjustment
- > Controller configuration and programming, controller firmware upgrade, cloning of configuration
- > Support of electronic engines
- > Controller language translation
- > Connection via USB, RS232, modem, internet or AirGate

# LiteEdit 2015

PC Configuration and Monitoring Tool



- > New generation of the LiteEdit PC Configuration and Monitoring Tool supporting latest IntelliLite controllers
- > Remote control, monitoring and On-line / Off-line parameters adjustment with 3 levels of password protection
- > Controller and module configuration, programming and cloning
- > Built in PLC Editor and PLC Monitor
- > Power format and ECU unit selection
- > Gen-set and ECU Alarm monitoring + complete real time history
- > Custom 'Welcome' screen editor
- > Search tool
- > Embedded manuals
- > Auto-hiding of unused setpoints

# GenConfig

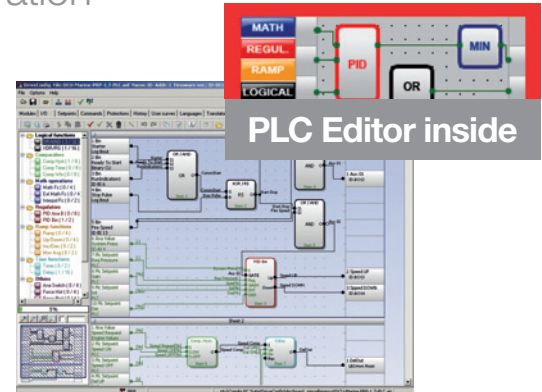
PC Configuration Tool for IG/IS-NT Controllers



- > GenConfig is Windows based software which provides following main functions:
- > Modify the controller configuration – i.e. define peripheral modules, assign functions and/or protections to inputs and outputs, create PLC program and other
- > Controller firmware upgrade
- > Adjust initial values of setpoints
- > Read/write configuration from/into the controller
- > Load configuration from file, save it to file
- > GenConfig 2.4 and higher contains the powerful graphic editor for user-friendly creating the PLC program
- > GenConfig 2.6.1 and higher contains Screen Editor, that allows you to personalise the interface on colour displays by managing screen type, selecting instruments and creating backgrounds from a toolbox of graphical elements.

# DriveConfig

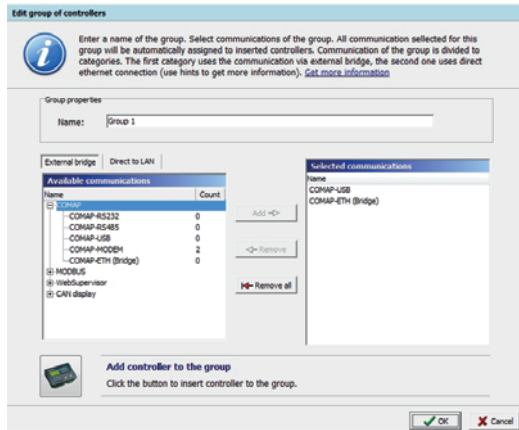
PC Tool for IntelliDrive Controllers Configuration



- > DriveConfig is Windows based software which provides following main functions:
- > Modify the controller configuration – i.e. define peripheral modules, assign functions and/or protections to inputs and outputs, create PLC program and other
- > Controller firmware upgrade
- > Adjust initial values of setpoints
- > Read/write configuration from/into the controller
- > Load configuration from file, save it to file
- > DriveConfig 2.0 and higher contains the powerful graphic editor for user-friendly creating the PLC program.
- > DriveConfig 3.1 and higher contains ScreenEditor, that allows you to personalise the interface on colour displays by managing screen type, selecting instruments and creating backgrounds from a toolbox of graphical elements.

# RemoteCommGuide

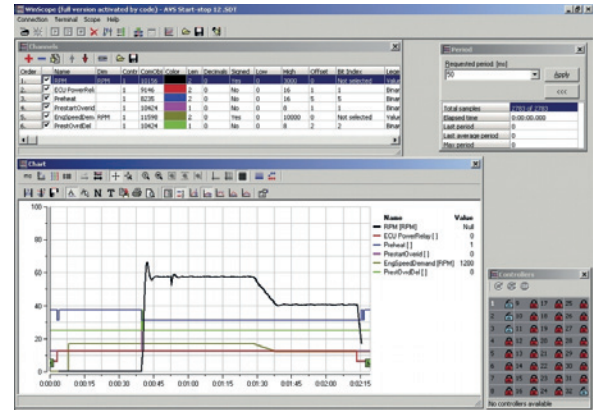
Communication Guide for Most  
ComAp Gen-Set Controllers



- > RemoteCommGuide is interactive communication guide for most ComAp gen-set controllers. It is a part of ComAp PC Suite
- > This useful tool helps you to easily select the proper gen-set controller according to required application and communications
- > RemoteCommGuide solves problem with projecting of communications and checks the wiring and settings during the commissioning
- > Easier finding of required information
- > See only relevant information
- > Automatically check the accessibility of required communications
- > Wizard for first steps with RemoteCommGuide makes easier to understand the logic of SW
- > Make Remote communications more understandable – need of less technical support
- > Information about all controllers in one place together

# WinScope

Special Graphical Controllers'  
Monitoring Software



- > Monitoring and archiving of ComAp controllers' parameters and values
- > View of actual/historic trends in the controller
- > On-line change of controller's parameters for easy regulator setup
- > Supports connection to all Intel-line controllers
- > Enables parameter setting of ECON and INCON controllers
- > Enables parameter setting of EMCON5 controller
- > The software is a part of Installation Packages of ComAp gen-set and engine controllers
- > NOTE: There are 3 levels of WinScope activation:
- > Without any activation WinScope works in Demo Mode, where there you can only browse previously saved data
- > Basic version allows monitoring of only one controller and max 4 channels



# Product Comparison Tables



# Controllers for single gen-set applications

	InteliNano <sup>NT</sup> PLUS	InteliLite <sup>NT</sup> MRS 3	InteliLite <sup>NT</sup> MRS 4	InteliLite <sup>NT</sup> AMF 8
Binary inputs / outputs	6 / 6 <sup>2)</sup>	4 / 6	4 / 6	7 / 7
Analog inputs	3	3	3	3
2 × 10 A binary outputs	–	–	–	–
Input / output configurations	● / ●	● / ●	● / ●	● / ●
D+ battery charging alternator circuit	●	●	●	●
Magnetic pickup	–	–	–	●
AMF / MRS functions	● / ●	● / ●	● / ●	● / ●
GCB / MCB control with feedback	● / ●	● <sup>6)</sup> / ● <sup>6)</sup>	● <sup>6)</sup> / ● <sup>6)</sup>	● / ●
3ph voltage measurement Gen. / Mains	● <sup>4)</sup> / ●	● / ●	● / ●	● / ●
3ph current measurement	– <sup>5)</sup>	●	●	●
Frequency measurement Gen. / Mains	● / ●	● / ●	● / ●	● / ●
kW / kWh / kVA measurement	– / – / ●	● / ● / ●	● / ● / ●	● / ● / ●
Generator protections	●	●	●	●
Earth fault current protections	–	–	–	–
History file	●	●	●	●
RTC / Battery	– / –	– / –	– / –	– / –
PLC	–	–	–	–
Remote control	–	○	○	○
4G/LTE	–	–	–	–
Tracking & Geofencing	–	–	–	–
Active SMS / E-mails	–	○	○	○
AirGate	–	–	–	○
WebSupervisor	–	–	–	●
USB integrated	●	○ <sup>7)</sup>	○ <sup>10)</sup>	○
ECU support via CAN	●	–	●	–
ModBus support / SNMP support / SNMP traps	– / – / –	○ / – / –	○ / – / –	○ / – / –
Plug-in modules	–	○ <sup>8)</sup>	○ <sup>9)</sup>	○ <sup>12)</sup>
Manual speed control <sup>1)</sup>	–	–	–	–
Total fuel consumption	–	–	–	–
Fuel pump	–	–	–	–
Dummy load / Load shedding	–	–	–	●
Auto. temperature based heating & cooling	–	–	–	●
Analog calibration	–	–	–	●
Connection type autodetect	–	–	–	–
Tier 4 Final support	–	–	–	–

KEY ● Included  
 – Excluded  
 ○ Optional – plug-in module required

GCB: Generator circuit breaker  
 MCB: Mains circuit breaker  
 1) For ECU engines  
 2) 1 binary input is shared with binary output

3) Analog inputs are shared with binary inputs  
 4) 1 ph; 3 ph when used as MRS controller  
 5) 1 ph is available

6) Manual / Automatic GCB and MCB control, but without feedback  
 7) Only for model with order code: IL1A8USBXAB

InteliLite<sup>NT</sup> AMF 9

InteliLite MRS 11

InteliLite MRS 16

InteliLite AMF 20

InteliLite AMF 25









InteliLite <sup>NT</sup> AMF 9	InteliLite MRS 11	InteliLite MRS 16	InteliLite AMF 20	InteliLite AMF 25
7 / 7	6 / 6	7 / 7	7 / 7	8 / 8
3	3	4	3	4
-	•	•	•	•
• / •	• / •	• / •	• / •	• / •
•	•	•	•	•
•	•	•	•	•
• / •	- / •	- / •	• / •	• / •
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○ / ○ / ○	○ / - / -	○ / ○ / ○	○ / - / -	○ / ○ / ○
○ <sup>13)</sup>	○ <sup>14)</sup>	○ <sup>14)</sup>	○ <sup>14)</sup>	○ <sup>14)</sup>
-	•	•	•	•
•	-	•	-	•
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-	•	•	•	•
-	•	•	•	•

8) IL-NT RS232, IL-NT RS232-485, IL-NT GPRS, IL-NT S-USB, IL-NT AOUT8, IL-NT BIO8  
9) Available in Q4 2017

10) Only for model with order code: IL1A9USBXAB  
11) Plug-in module required  
12) The same as 8) plus IB-Lite

13) The same as 8) plus IB-Lite and IC-NT CT-BIO7  
14) CM-RS232-485, CM-GPRS, CM-4G-GPS, CM-Ethernet, EM-BIO8-EFCP

# Controllers for parallel gen-set applications

	IntelCompact <sup>NT</sup> SPtM	IntelCompact <sup>NT</sup> MINT	IntelGen NTC	IntelGen <sup>NT</sup> BaseBox	IntelGen <sup>NTC</sup> BaseBox	IntelSys <sup>NTC</sup> BaseBox
						
Binary Inputs / Outputs	9 / 8 (up to 25/24) <sup>2)</sup>	9 / 8 (up to 25/24) <sup>2)</sup>	12 / 12 (108 / 108) <sup>10)</sup>	12 / 12 (108 / 108) <sup>10)</sup>	12 / 12 (108 / 108) <sup>10)</sup>	16 / 16 (112 / 112) <sup>10)</sup>
Analog Inputs / Outputs	3 / 0 (up to 7 <sup>3)</sup> / 9 <sup>4)</sup>	3 / 0 (up to 7 <sup>3)</sup> / 9 <sup>4)</sup>	3 / 0 (83 / 32) <sup>10)</sup> (configurable as tristate)	3 / 0 (83 / 32) <sup>10)</sup> (configurable as tristate)	3 / 0 (83 / 32) <sup>10)</sup> (configurable as tristate)	4 / 1 (84 / 33) <sup>10)</sup> (configurable as tristate)
AMF function	•	• <sup>9)</sup>	•	•	•	•
GCB control with feedback	•	•	•	•	•	•
Integrated PLC	–	–	Standard <sup>11)</sup>	Standard <sup>11)</sup>	Standard <sup>11)</sup>	Extended
Input configuration	•	•	•	•	•	•
Output configuration	•	•	•	•	•	•
Voltage measurement Gen / Mains (bus)	3 ph / 3 ph 277V	3 ph / 3 ph 277V	3 ph / 3 ph 277V	3 ph / 3 ph 277V	3 ph / 3 ph 120V / 277V	3 ph / 3 ph 120V / 277V
Current measurement	3 ph + 1 <sup>5)</sup> , IDMT overcurrent 5A	3 ph + 1 <sup>5)</sup> , IDMT overcurrent 5A	3ph + 1 / 6w IDMT overcurrent 1A / 5A	3ph + 1 / 6w IDMT overcurrent 5A	3ph + 1 / 6w IDMT overcurrent 1A / 5A	3ph + 1 / 6w IDMT overcurrent 1A / 5A
kW / kWh / kVA measurement	• / • / •	• / • / •	• / • / •	• / • / •	• / • / •	• / • / •
Extension modules	• <sup>6)</sup>	• <sup>6)</sup>	• <sup>12)</sup>	• <sup>12)</sup>	• <sup>12)</sup>	• <sup>12)</sup>
Extension plug-in modules	IL-NT AOUT8, IL-NT BIO8, IC-NT CT-BIO7 <sup>7)</sup>	IL-NT AOUT8, IL-NT BIO8, IC-NT CT-BIO7	–	–	–	–
Remote displays	IC-NT RD (SW)	IC-NT RD (SW)	IntelVision 5, IntelVision 8, IntelVision 12Touch, IntelVision 17Touch	IntelVision 5, IntelVision 8, IntelVision 12Touch, IntelVision 17Touch	IntelVision 5, IntelVision 8, IntelVision 12Touch, IntelVision 17Touch	IntelVision 5, IntelVision 8, IntelVision 12Touch, IntelVision 17Touch
Communication modules (via CAN)	InternetBridge-NT, I-LB+	InternetBridge-NT, I-LB+	InternetBridge-NT, I-LB+, I-CR, I-CR-R, I-CB	InternetBridge-NT, I-LB+, I-CR, I-CR-R, I-CB	InternetBridge-NT, I-LB+, I-CR, I-CR-R, I-CB	InternetBridge-NT, I-LB+, I-CR, I-CR-R, I-CB
Communication plug-in modules	IB-Lite, IL-NT GPRS, IL-NT RS232, IL-NT RS232-485, IL-NT S-USB	IB-Lite, IL-NT GPRS, IL-NT RS232, IL-NT RS232-485, IL-NT S-USB	–	–	–	–
Communication interfaces	CAN1, CAN2, RS232 <sup>8)</sup> , RS485 <sup>8)</sup> , USB <sup>8)</sup> , Ethernet <sup>8)</sup> , GPRS <sup>8)</sup> , ModBus <sup>8)</sup> , ModBus TCP <sup>8)</sup> , AirGate <sup>8)</sup> , Web server <sup>8)</sup>	CAN1, CAN2, RS232 <sup>8)</sup> , RS485 <sup>8)</sup> , USB <sup>8)</sup> , Ethernet <sup>8)</sup> , GPRS <sup>8)</sup> , ModBus <sup>8)</sup> , ModBus TCP <sup>8)</sup> , AirGate <sup>8)</sup> , Web server <sup>8)</sup>	CAN1, CAN2, RS232, 2x RS485, USB, Ethernet <sup>8)</sup> , ModBus RTU, SNMP <sup>13)</sup> , AirGate <sup>13)</sup> , Web server <sup>13)</sup>	CAN1, CAN2, RS232, RS485, Ethernet <sup>8)</sup> , ModBus RTU, SNMP <sup>13)</sup>	CAN1, CAN2, RS232, 2x RS485, USB, Ethernet, ModBus RTU, ModBus TCP, SNMP, AirGate, Web server	CAN1, CAN2, RS232, 2x RS485, USB, Ethernet, ModBus RTU, ModBus TCP, SNMP, AirGate, Web server



	IntelliCompact <sup>NT</sup> SPtM	IntelliCompact <sup>NT</sup> MINT	IntelliGen NTC	IntelliGen <sup>NT</sup> BaseBox	IntelliGen <sup>NTC</sup> BaseBox	IntelliSys <sup>NTC</sup> BaseBox
ECU support	•	•	•	•	•	•
SMS / Email Alerts	○ / •	○ / •	•	•	•	•
Forward / Reverse synchronizing / Mains parallel operation	• / • / •	• / • <sup>9)</sup> / • <sup>9)</sup>	• / • / •	• / • / •	• / • / •	• / • / •
Multiple operation / Power Management System	–	•	• <sup>14)</sup>	• <sup>14)</sup>	• <sup>14)</sup>	• <sup>14)</sup>
Display	LCD 128x64	LCD 128x64	LCD 128x64	External	External	External
History (max records) <sup>1)</sup>	200	200	500	1000	1000	4000

KEY

- Included
- Excluded
- Optional – plug-in module required

CAN1 For peripheral modules and ECU (J1939)

CAN2 Intercontroller can; monitoring

1) Depends on number of values in history record

2) With IL-NT BIO8 and IG-IOM or IGS-PTM

3) With IG-IOM or IGS-PTM

4) With IL-NT AOUT8 and IG-IOM or IGS-PTM

5) With IC-NT CT-BIO7

6) IGL-RA15, IG-IOM, IGS-PTM

7) IC-NT CT-BIO7 is already included in the controller

8) With communication modules

9) With MainsCompact<sup>NT</sup>

10) With extension modules, see 12)







11) More PLC blocks may vary according to the used firmware

12) Intelli AIN8, Intelli AIN8TC, Intelli IO8/8, Intelli AIO9/1, IS-AIN8, IS-AIN8TC, IS-BIN16/8, I-AOUT8, IGL-RA15, IGS-PTM

13) With InternetBridge-NT

14) With IGS-NT-LSM+PMS dongle

# Controllers for engine driven and bi-fuel applications

	IntelDrive IPC	IntelDrive Lite	IntelDrive DCU Industrial	IntelDrive DCU Marine	IntelDrive Mobile	IntelBifuel
						
Binary inputs	5x Digital inputs 1x RPM	7x Digital inputs 1x RPM	14x Digital inputs 1x RPM	14x Digital inputs 1x RPM	16 Digital inputs (4x BW detection) 4x RPM 2x Impulse inputs	9 Digital inputs 3x RPM inputs 3x Impulses Inputs
Total binary inputs (with additional modules)	13	15	78	78	80	73
Binary outputs	5	7	14	14	8x Hi-side 3 A switches with BW detection 8x 3 A switches configurable as: • Hi-side switches • Low-side • PWM	8x Hi side 0,5 A 8x Hi-Side/Low Side or PWM switches 3A 2x Hi-Side Safety switches 3A
Total binary outputs (with additional modules)	13 + 15 (IGL-RA15)	14 + 15 (IGL-RA15)	78	78	80	82
Analog inputs	6 Configurable (V, Ω)	9x Configurable (V, Ω)	8 configurable (V, mA, Ω, thermocoupler, PT100/1000)	8 configurable (V, mA, Ω, thermocoupler, PT100/1000)	16 configurable (V, mA, Ω, PT100/1000)	10 configurable (0 – 5 V, 0 – 20 mA, 0 – 24 V, 0 – 2500 Ohm, PT1000, isolated thermocouple)  3 Non isolated thermocouple inputs
Total analog inputs (with additional modules)	6x + 4x (IL-NT AIO)	9x + 4x (IL-NT AIO)	40	40	48	53
Analog outputs	On external modules (1x IL-NT AIO or 8x IL-NT AOUT8)	On external modules (1x IL-NT AIO or 8x IL-NT AOUT8)	On external modules (e.g. 2x ID-SCM, 8x I-AOUT8)	On external modules (e.g. 2x ID-SCM, 8x I-AOUT8)	8x configurable (V, mA)  1x Speed Governor (V, PWM)	6x configurable (0 – 10 V, 0 – 20 mA)  1x PWM 5V 450-3000Hz
Total analog outputs (with additional modules)	8	8	32	32	41	38
External communication modules	IB-Lite, IL-NT S-USB, IL-NT RS232, IL-NT RS232-485, IL-NT GPRS	IB-Lite, IL-NT S-USB, IL-NT RS232, IL-NT RS232-485, IL-NT GPRS	InternetBridge-NT, I-CB, I-LB+, I-CR	InternetBridge-NT, I-CB, I-LB+, I-CR	InternetBridge-NT, I-CB, I-LB+, I-CR	InternetBridge-NT, I-CB, I-LB+, I-CR
Modem	External	External	External	External	Internal (Option)	Internal (Option)
GPS	–	–	External	External	Internal (Option)	Internal (Option)
Communication interfaces	1x CAN, 1x RS232, 1x RS485, 1x USB, 1x Ethernet	1x CAN, 1x RS232, 1x RS485, 1x USB, 1x Ethernet	2x CAN, 1x RS232, 1x J1708	2x CAN, 1x RS232, 1x J1708	2x CAN, 1x RS485	2xCAN, 1x RS485, USB

	InteliDrive IPC	InteliDrive Lite	InteliDrive DCU Industrial	InteliDrive DCU Marine	InteliDrive Mobile	InteliBifuel
ECU values	Fix set	Fix set	Configurable	Configurable	Configurable	Configurable
ECU – fault codes	Displays text or/and numeric codes	Displays text or/and numeric codes	Displays text or/and numeric codes	Displays text or/and numeric codes	Displays text or/and numeric codes	Displays text or/and numeric codes
Displays	Graphic back-lit LCD display 128 x 64	Graphic back-lit LCD display 128 x 64	Graphic back-lit LCD display 128 x 64	Graphic back-lit LCD display 128 x 64, external: 5,7" / 8"	External: 5,7" / 8"	External: 5,7" / 8"
PLC – programmable functions	–	–	•	•	•	•
PC software	LiteEdit, InteliMonitor	LiteEdit, InteliMonitor	InteliMonitor, DriveConfig	InteliMonitor, DriveConfig	InteliMonitor, DriveConfig	InteliMonitor, Drive Config, Logger History, WebSupervisor
IP	Front panel IP 65 Rear side IP 20	Front panel IP 65 Rear side IP 20	Front panel IP 65 Rear side IP 20	Front panel IP 65 Rear side IP 20	IP 69K	IP69K
Engine network capability	Up to 32 engines	Up to 32 engines	Up to 32 engines	Up to 32 engines	Up to 32 engines	Up to 32 engines
History log out	•	•	•	•	•	• (Long history)

KEY     • Included  
           – Excluded

# Color displays

InteliVision 5

InteliVision 5 CAN

InteliVision 8

InteliVision 8 Marine

InteliVision 12Touch

InteliVision 17Touch



Type	TFT	TFT	TFT	TFT	TFT (IPS)	TFT
Size	5,7"	5,7"	8"	8"	12,1"	17"
Resolution	320 × 240 px	320 × 240 px	800 × 600 px	800 × 600 px	1280 × 800 px	1280 × 1024 px
Touch Layer	–	–	–	–	PCAP	RES
Backlit Display / Intensity control	● / –	● / ●	● / –	● / –	● / ●	● / ●
Front Panel Dimensions	245 × 164 mm	245 × 164 mm	289,5 × 186 mm	289,5 × 186 mm	337 × 232 mm	420 × 358 mm
IP65 Protection – Front / Rear	● / –	● / ●	● / –	● / –	● / –	● / –
Voltage Supply	8–36 VDC	8–36 VDC	8–36 VDC	8–36 VDC	8–36 VDC	9–30 VDC
Consumption	0,7A at 8 VDC	0,7A at 8 VDC	1A at 8 VDC	1A at 8 VDC	2A at 12 VDC	max. 41W at 24V
Operating Temp.	–40 to +70°C	–20 to +70°C	–20 to +70°C	–20 to +70°C	–30 to +70°C	–20 to +60°C
Plug and Play	●	●	●	●	●	●
CAN	–	●	●	●	● <sup>1)</sup>	–
RS485	○	–	●	●	●	–
RS232	○	–	●	●	–	4x
USB Port A / B	– / –	– / –	● / ●	● / ●	2x / ●	4x / –
ETH	–	–	–	–	● (not used)	2x
NFC	–	–	–	–	● <sup>1)</sup>	–
IP65 Connector	–	○	–	–	–	–
Multiple Gen-Set Monitoring	–	–	–	–	–	●
Soft Keys	●	●	●	●	–	–
Internal Buzzer	–	●	–	–	●	–
I/O	–	1 × BO (Horn)	–	–	1 × AI (Backlight) 1 × BO (Horn)	–
Backlit Buttons	–	○	–	–	–	–
Screen Editor	●	●	●	●	● <sup>1)</sup>	–
IntelliMonitor	–	–	–	–	–	●
Trends	–	–	●	●	●	●
History	●	●	●	●	●	●
Alarm List	●	●	●	●	●	●
Easy Login	–	–	●	●	● <sup>1)</sup>	–
NFC Tag Management	–	–	–	–	● <sup>1)</sup>	–



	InteliVision 5	InteliVision 5 CAN	InteliVision 8	InteliVision 8 Marine	InteliVision 12Touch	InteliVision 17Touch
User Images	-	-	•	•	•	•
Adjustable Service Screen	-	-	-	-	•	-
Adjustable Status Screen	-	-	-	-	•	-
Editable Setpoint Description	-	-	-	-	•	-
Extended Import / Export Functions	-	-	-	-	•	-
Screen Login Mask	-	-	-	-	•	-
Skins	-	-	-	-	•	-
UL	•	•	•	•	• <sup>1)</sup>	•
Marine certification	-	-	-	•	-	-
Display compatibility	Gen / Sys	•	•	•	• <sup>2)</sup>	•
	Drive DCU	-	•	•	• <sup>1)</sup>	•
	Mobile / Bifuel	•	•	•	-	•

KEY • Included  
 - Excluded  
 ◦ Optional

1) Available in Q2 2016  
 2) InteliVision 12Touch is only compatible with selected InteliSys models. Please visit [www.comap-control.com](http://www.comap-control.com) for details.

Gen / Sys: InteliGen<sup>NT</sup>, InteliGen<sup>NT</sup> BaseBox, InteliGen<sup>NTC</sup> BaseBox, InteliSys<sup>NT</sup>, InteliSys<sup>NTC</sup> BaseBox. Other models from the InteliGen and InteliSys range are also compatible with this product, please visit [www.comap-control.com](http://www.comap-control.com) for more details.

Drive DCU: InteliDrive DCU Industrial, InteliDrive DCU Marine  
 Mobile / Bifuel: InteliDrive Mobile, InteliBifuel

# Mains protection

	ANSI	IntelPro	MainsPro	MainsPro Lite
Under/overvoltage and asymmetry (two stage setting)	27, 59, 47	•	•	•
Overfrequency, Underfrequency (two stage setting)	81H, 81L	•	•	•
Instantaneous over current, Time over current	50, 51	•	–	–
Current asymmetry	46	•	–	–
Earth fault current	50N + 51N	•	–	–
Ground surge current	50GS + 51GS	•	–	–
Directional/Reverse power with time delay	32	•	–	–
Breaker failure		•	•	•
Phase sequence supervision		•	•	•
Auto fault reset		•	•	•
Battery voltage protection		•	•	•
Synch Check	25	• <sup>1)</sup>	–	–
Time over current with voltage control	51V	• <sup>1)</sup>	–	–
ROCOF (rate of change frequency)		•	•	–
Vector Shift		•	•	–

KEY • Included  
– Excluded

<sup>1)</sup> Optional feature, activation via ComAp application. Please contact your nearest ComAp distributor to get more information.

# Communication and extension modules

		ATS	Lite	Compact	Gen / Sys	IntelliPro	Drive DCU	Mobile / Bifuel
Communication	CM-4G-GPS	4G Modem / Wireless Internet Module	–	● <sup>1)</sup>	–	–	–	–
	CM-Ethernet	Internet / Ethernet Plug-in Module including Web Server	–	● <sup>1)</sup>	–	–	–	–
	CM-GPRS	GSM Modem / Wireless Internet Module	–	● <sup>1)</sup>	–	–	–	–
	CM-RS232-485	Dual Port Extension Board	–	● <sup>1)</sup>	–	–	–	–
	I-CR	CAN Repeater Module	–	–	–	●	–	●
	I-LB+	Local Bridge	–	–	●	●	–	●
	IB-Lite	Internet / Ethernet Module including Web Server	●	●	●	–	●	–
	ID-COM	Communication Module	–	–	–	–	–	●
	IL-NT GPRS	GSM / GPRS Modem Plug-In Module	●	●	●	–	●	–
	IL-NT RS232	RS232 Extension Board	●	●	●	–	●	–
	IL-NT RS232-485	Dual Port Extension Board	●	●	●	–	●	–
	IL-NT S-USB	Service USB Module	●	●	●	–	●	–
	InternetBridge-NT	Communication Module with Cellular / Ethernet Connection	–	–	●	●	–	●
Extension	EM-BIO8-EFCP	Hybrid Current Input & Binary Input / Output Extension Module	–	● <sup>1)</sup>	–	–	–	–
	I-AOUT8	Analog Output Module	–	–	–	●	–	●
	IC-NT CT-BIO7	Hybrid Current Input & Binary Input/Output Extension Module	–	● <sup>2)</sup>	●	–	●	–
	ID-RPU	Redundant Protection Unit	–	–	–	–	–	●
	ID-SCM	Speed Control Module	–	–	–	–	–	●
	IG-IOM	Analog / Binary Input / Output Module	–	● <sup>2)</sup>	–	●	●	–
	IGL-RA15	Remote Annunciator	–	●	●	●	–	●
	IGS-PTM	Analog / Binary Input / Output Module	–	● <sup>2)</sup>	●	●	●	●
	IL-NT AIO	Analog Input / Output Module	–	● <sup>2)</sup>	–	–	●	–
	IL-NT AOUT8	Analog Outputs for PWM Gauges Module	●	●	●	–	–	–
	IL-NT BIO8	Binary Input / Output Module	●	●	●	–	–	–
	IL-NT IO1	Analog Output and Binary Input Module	–	● <sup>2)</sup>	–	–	–	–
	Intelli AIN8	8 Analog Input Channels and 1 RPM/Impulse Input Module	–	–	–	●	–	●
	Intelli AIN8TC	8 Analog Channels Module	–	–	–	●	–	●
	Intelli AIO9/1	Analog Input Output Module	–	–	–	●	–	●
	Intelli IO8/8	Binary Inputs / Outputs and Analog Outputs Module	–	–	–	●	–	●

KEY ● Included  
– Excluded

- 1) The product is suitable only for new generation of IntelliLite models: IntelliLite MRS 11, IntelliLite MRS 16, IntelliLite AMF 20, IntelliLite AMF 25
- 2) The product is suitable only for selected models from the IntelliLite<sup>NT</sup> and IntelliDrive Lite range. Please visit [www.comap-control.com](http://www.comap-control.com) for more details.

ATS: IntelliATS<sup>NT</sup>  
Lite: IntelliLite<sup>NT</sup> AMF 25, IntelliLite<sup>NT</sup> MRS 16, IntelliDrive Lite.  
Other models from the IntelliLite<sup>NT</sup> and IntelliDrive Lite range could be also compatible with this product, please visit [www.comap-control.com](http://www.comap-control.com) for more details.

Compact: IntelliCompact<sup>NT</sup>

Gen / Sys: IntelliGen<sup>NT</sup>, IntelliGen<sup>NT</sup> BaseBox, IntelliGen<sup>NTC</sup> BaseBox, IntelliSys<sup>NT</sup>, IntelliSys<sup>NTC</sup> BaseBox. Other models from the IntelliGen and IntelliSys range are also compatible with this product, please visit [www.comap-control.com](http://www.comap-control.com) for more details.  
Drive DCU: IntelliDrive DCU Industrial, IntelliDrive DCU Marine  
Mobile / Bifuel: IntelliDrive Mobile, IntelliBifuel

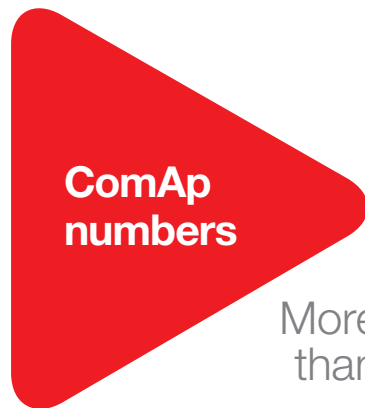


# About ComAp





ComAp is a dynamic international company with a solid reputation for delivering innovative electronic solutions to the power generation, industrial engine and equipment markets. By providing customers with state-of-the-art products, ComAp has built a name for delivering excellent reliability and good value.



**1** Global Distributor Network

More than **25** Years of Success and Experience



**9** Subsidiaries



**▶ 1991**

ComAp is established. Two room office – 25 m<sup>2</sup>.

**▶ 1994**

MX controller, the second generation of ComAp's gen-set control systems, is launched.

**▶ 2000**

InteliGen, the first member of the Inteli family and flagship of their gen-set control systems, is released.

**▶ 2002**

InteliSys, a top end product dedicated to CHP and large engine control applications, is released. New mid-range product InteliLite is launched for AMF and – InteliDrive controllers for non gen-sets, engine driven applications is released.

**▶ 2006**

ComAp LLC – ComAp subsidiary to promote products in the USA and Canada is established.

**▶ 1993**

Successful commissioning of four Gen-set Control Systems made by ComAp on several islands in the Mediterranean.

**▶ 1996**

PX, the revolutionary gen-set controller with configurable input and outputs, is developed.

**▶ 2001**

ComAp Ltd. – The first foreign ComAp subsidiary is established close to Bristol in the UK.

**▶ 2004**

Moved to bigger offices.

**▶ 2007**

InteliVision 8 – the first color display unit in the power generation field.

 **300+**  
Employees

 **1** Global Headquarters  
**Prague**  
Czech Republic

 **250+**  
Products and  
Accessories

 **100+**  
Countries

 **2008**

InteliCompact – controller for simple paralleling gen-sets is launched. Passed 100 employees.

 **2010**

InteliVision 5 and InteliGen<sup>NT</sup> BaseBox controller concept are released.

 **2012**

Application for Apple iOS<sup>®</sup> devices and Google Android<sup>®</sup> devices is launched allowing product control via smartphones and tablets. InteliDrive Nano released. Opened new Training facility in Prague.

 **2014**

ComAp's WebSupervisor is translated into its 10<sup>th</sup> language: Portuguese. InteliSys<sup>NTC</sup> Hybrid controller released. Passed 300 employees.

 **2016**

ComAp moves to bigger offices.

 **2009**

Winner 2013 Best Employer in the Czech Republic.

 **2011**

Launched InteliGen BaseBox and InteliVision 5. Celebrated ComAp's 20<sup>th</sup> anniversary.

 **2013**

Passed 200 employees.

 **2015**

Released a new touchscreen display InteliVision 12Touch and a new version of the

industry standard InteliLite controller. Opened a new subsidiary in China.

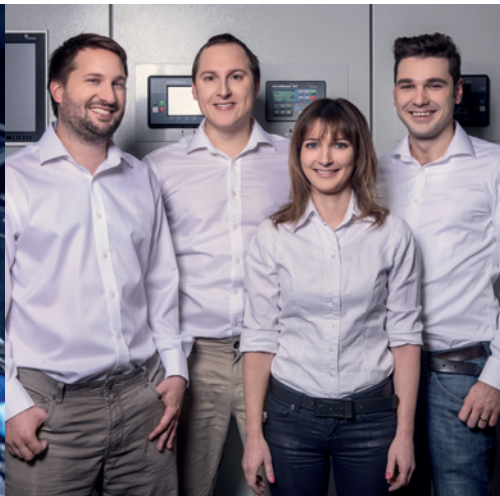
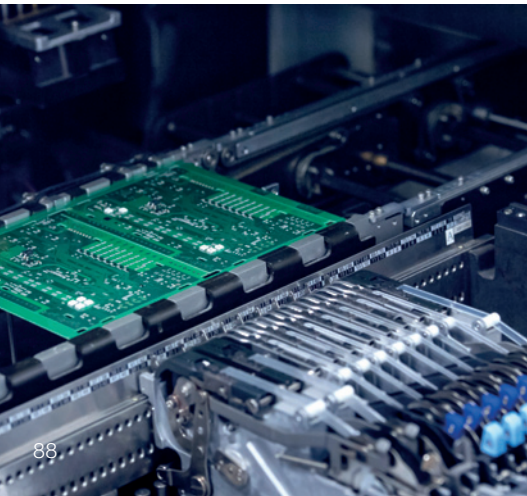
# Close to our customers

## To address specific needs

- ▶ Our culture of excellence delivers consistently high standards of technical support to customers locally, enabled by our global expertise.
- ▶ Our focus on local presence and being close to our customers is a clear differentiator in our industry.
- ▶ We're leading the way in providing intelligent electronic control products and solutions that are highly flexible, intuitive and scalable.

## Research and Development

- ▶ We deliver product excellence and technical performance.
- ▶ We have one of the largest in-house development teams in our industry.

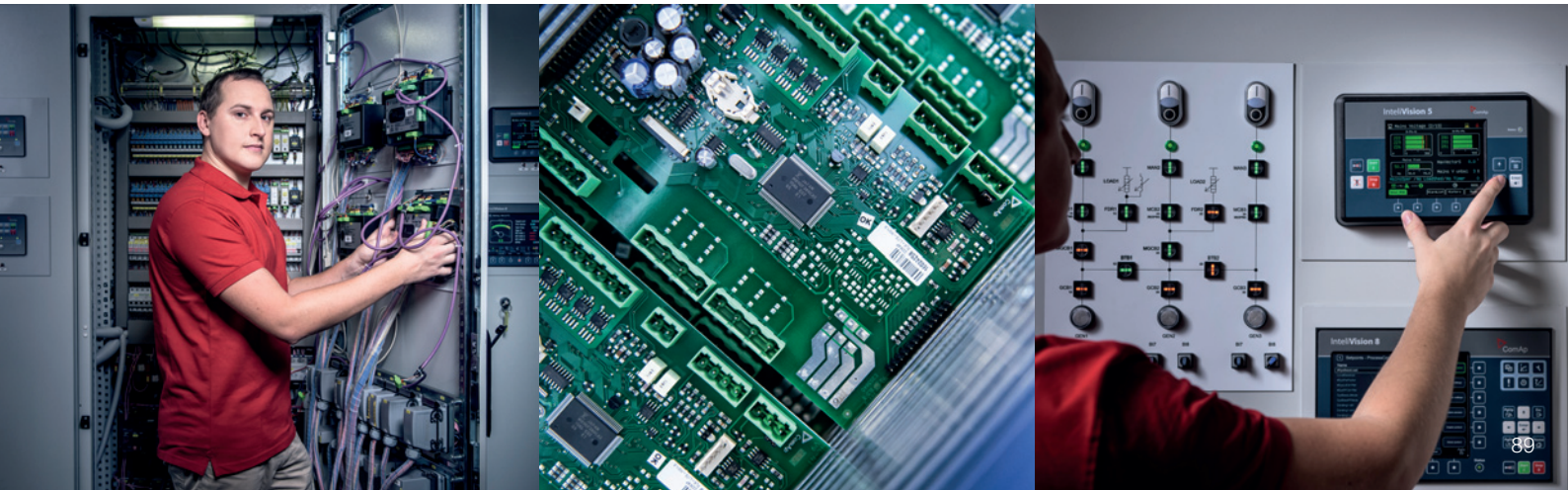


# Our culture of excellence attracts the very best people

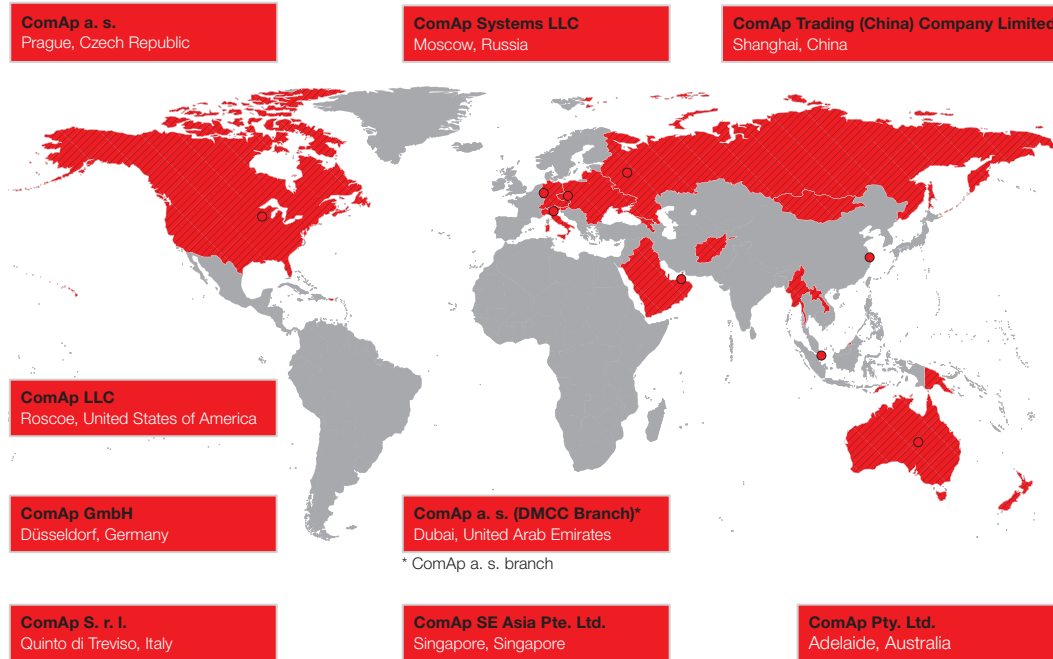
- ▶ We have freedom and support to create and deliver innovative electronic control solutions.
- ▶ We are at the heart of smart control.

## Manufacturing to higher standards

- ▶ The majority of our products are manufactured in facilities in Europe.
- ▶ For higher manufacturing standards and better supply chain control.



# ComAp Subsidiaries and Distributors



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▶ Our subsidiaries are located in key strategic regions around the world ensuring our customers benefit from local availability coupled with global reach.

▶ ComAp's extensive global distributor network means that products are locally available in more than 100 countries, spanning every continent in the world.



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	Egypt <a href="http://www.elmotahdagroup.com">www.elmotahdagroup.com</a>		Latvia <a href="http://www.comap-control.com/cee">www.comap-control.com/cee</a>		Peru <a href="http://www.comap-control.com">www.comap-control.com</a>		Turkey <a href="http://www.betex.com.tr">www.betex.com.tr</a>
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	Faroe Islands <a href="http://www.ptech.dk">www.ptech.dk</a>		Lesotho <a href="http://www.fardiesel.com">www.fardiesel.com</a>		Poland <a href="http://www.comap-control.com/cee">www.comap-control.com/cee</a>		United Arab Emirates <a href="http://www.comap-control.com">www.comap-control.com</a>
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	France <a href="http://www.h-t-f.fr">www.h-t-f.fr</a>		Lithuania <a href="http://www.comap-control.com/cee">www.comap-control.com/cee</a>		Qatar <a href="http://www.comap-control.com">www.comap-control.com</a>		United States <a href="http://www.comapllc.com">www.comapllc.com</a>
	Georgia <a href="http://www.comap-control.com/cee">www.comap-control.com/cee</a>		Luxembourg <a href="http://www.controlin.nl">www.controlin.nl</a>		Romania <a href="http://www.comap-control.com/cee">www.comap-control.com/cee</a>		Uruguay <a href="http://www.servintel.com">www.servintel.com</a>
	Germany <a href="http://www.comap-control.com/de">www.comap-control.com/de</a>		Macedonia <a href="http://www.koch.ba">www.koch.ba</a>		Russia <a href="http://www.comap-russia.ru">www.comap-russia.ru</a>		Venezuela <a href="http://www.comap-control.com">www.comap-control.com</a>
	Ghana <a href="http://www.comap-control.com">www.comap-control.com</a>		Malaysia <a href="mailto:sunpower.ee@gmail.com">sunpower.ee@gmail.com</a>		Saudi Arabia <a href="http://www.comap-control.com">www.comap-control.com</a>		Vietnam <a href="http://www.dp-consulting.com.vn">www.dp-consulting.com.vn</a>
	Greece <a href="http://www.sapounas.gr">www.sapounas.gr</a>		Mexico <a href="http://www.dwppon.com">www.dwppon.com</a>		Serbia <a href="http://www.koch.ba">www.koch.ba</a>		Yemen <a href="http://www.comap-control.com">www.comap-control.com</a>
	Greenland <a href="http://www.ptech.dk">www.ptech.dk</a>		Moldova <a href="http://www.comap-control.com/cee">www.comap-control.com/cee</a>		Singapore <a href="http://www.comap-control.com">www.comap-control.com</a>		Zimbabwe <a href="http://www.fardiesel.com">www.fardiesel.com</a>
	Hong Kong <a href="http://www.jones.com.hk">www.jones.com.hk</a>		Mongolia <a href="http://www.comap-control.com/cee">www.comap-control.com/cee</a>		Slovakia <a href="http://www.comap-control.com/cee">www.comap-control.com/cee</a>		
	Hungary <a href="http://www.comap-control.com/cee">www.comap-control.com/cee</a>		Morocco <a href="http://www.h-t-f.fr">www.h-t-f.fr</a>		Slovenia <a href="http://www.comap-control.com/cee">www.comap-control.com/cee</a>		
	India <a href="http://www.madhura.net">www.madhura.net</a>		Mozambique <a href="http://www.fardiesel.com">www.fardiesel.com</a>		South Africa <a href="http://www.fardiesel.com">www.fardiesel.com</a>		
	Indonesia <a href="http://www.fspowercontrol.co.id">www.fspowercontrol.co.id</a>		Myanmar <a href="http://www.comap-control.com">www.comap-control.com</a>		South Korea <a href="http://www.booyoung.com">www.booyoung.com</a>		
	Iran <a href="http://www.dornamehr.com">www.dornamehr.com</a>		Namibia <a href="http://www.fardiesel.com">www.fardiesel.com</a>		Spain <a href="http://www.seyber.com">www.seyber.com</a>		
	Iraq <a href="http://www.comap-control.com">www.comap-control.com</a>		Nepal <a href="http://www.comap-control.com">www.comap-control.com</a>		Sri Lanka <a href="http://www.comap-control.com">www.comap-control.com</a>		
	Ireland <a href="http://www.ipu.co.uk">www.ipu.co.uk</a>		Netherlands <a href="http://www.controlin.nl">www.controlin.nl</a>		Sudan <a href="http://www.comap-control.com">www.comap-control.com</a>		
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	Italy <a href="http://www.comap-control.com/it">www.comap-control.com/it</a>		New Zealand <a href="http://www.comap.com.au">www.comap.com.au</a>		Sweden <a href="http://www.industrimarin.com">www.industrimarin.com</a>		
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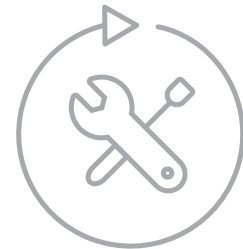
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