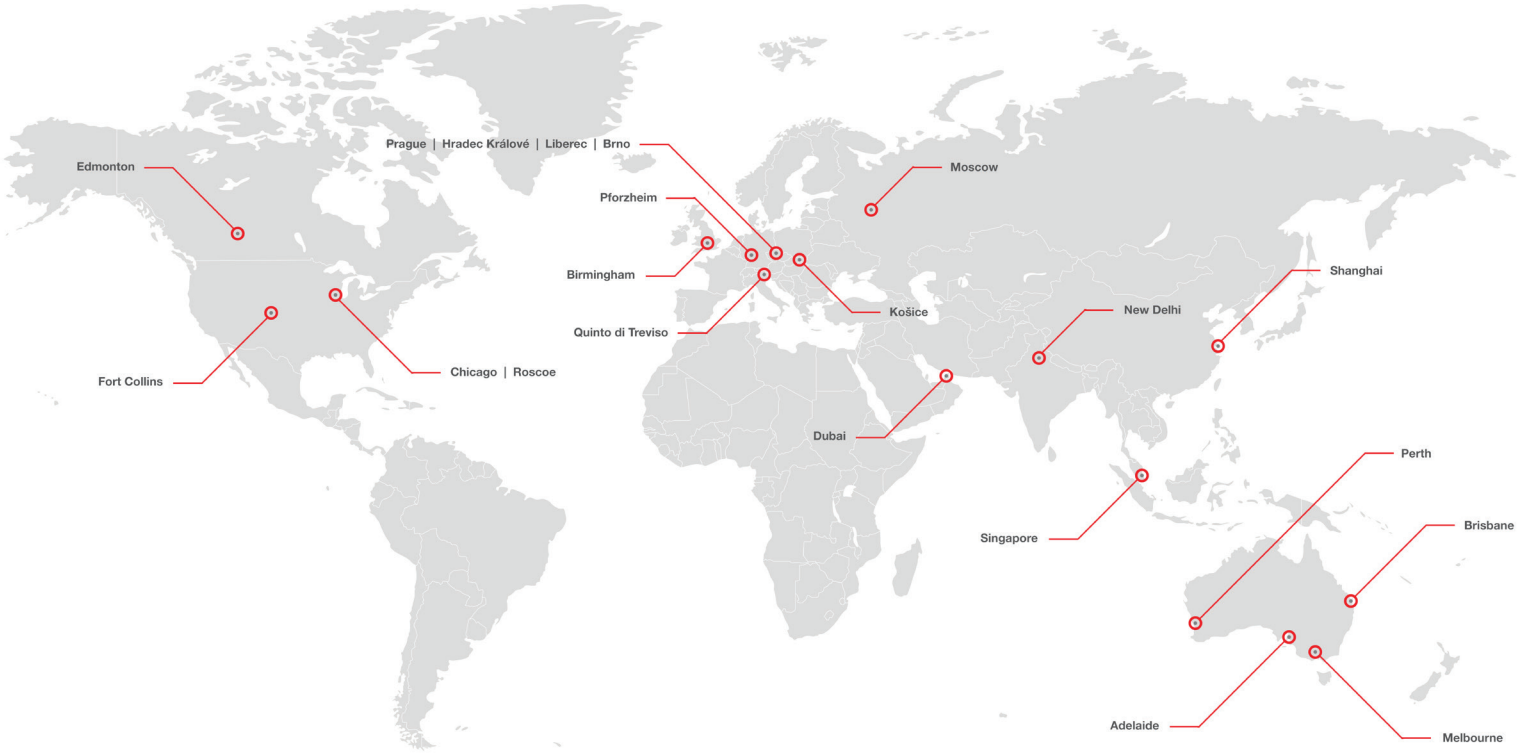
ComAp
The heart of smart control

Data Center Power Control Solutions

ComAp specialises 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, renewable and hybrid microgrids, marine and engine driven applications all over the world.

Offices



400+ Employees

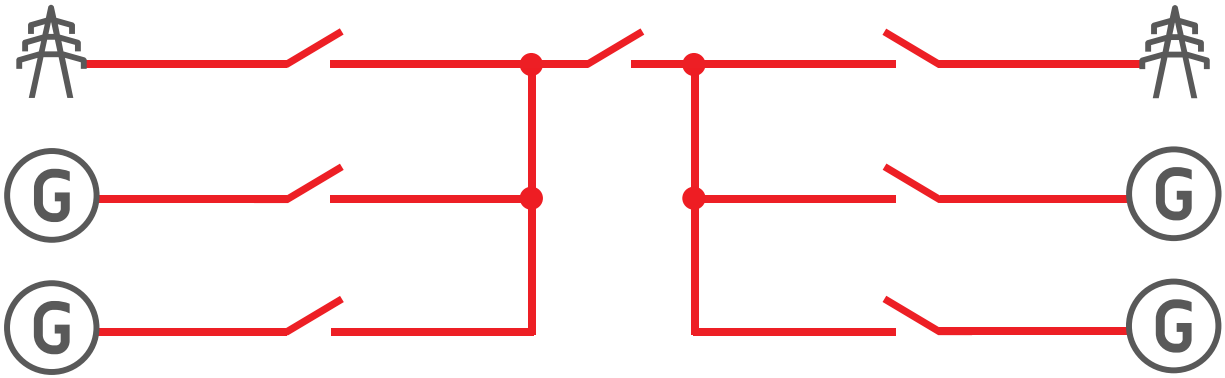
21 Offices

60+ Distributors

Smart Control Solutions

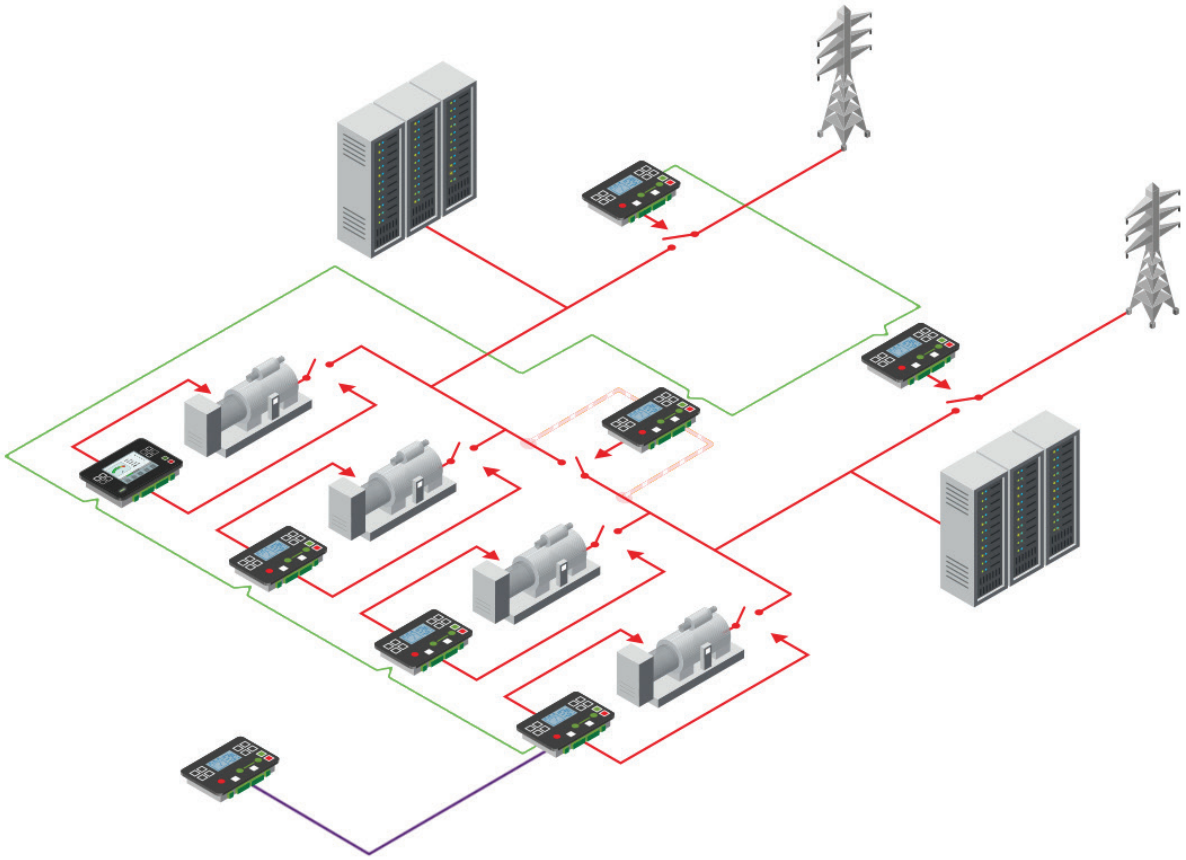
Constant source of power and peace-of-mind

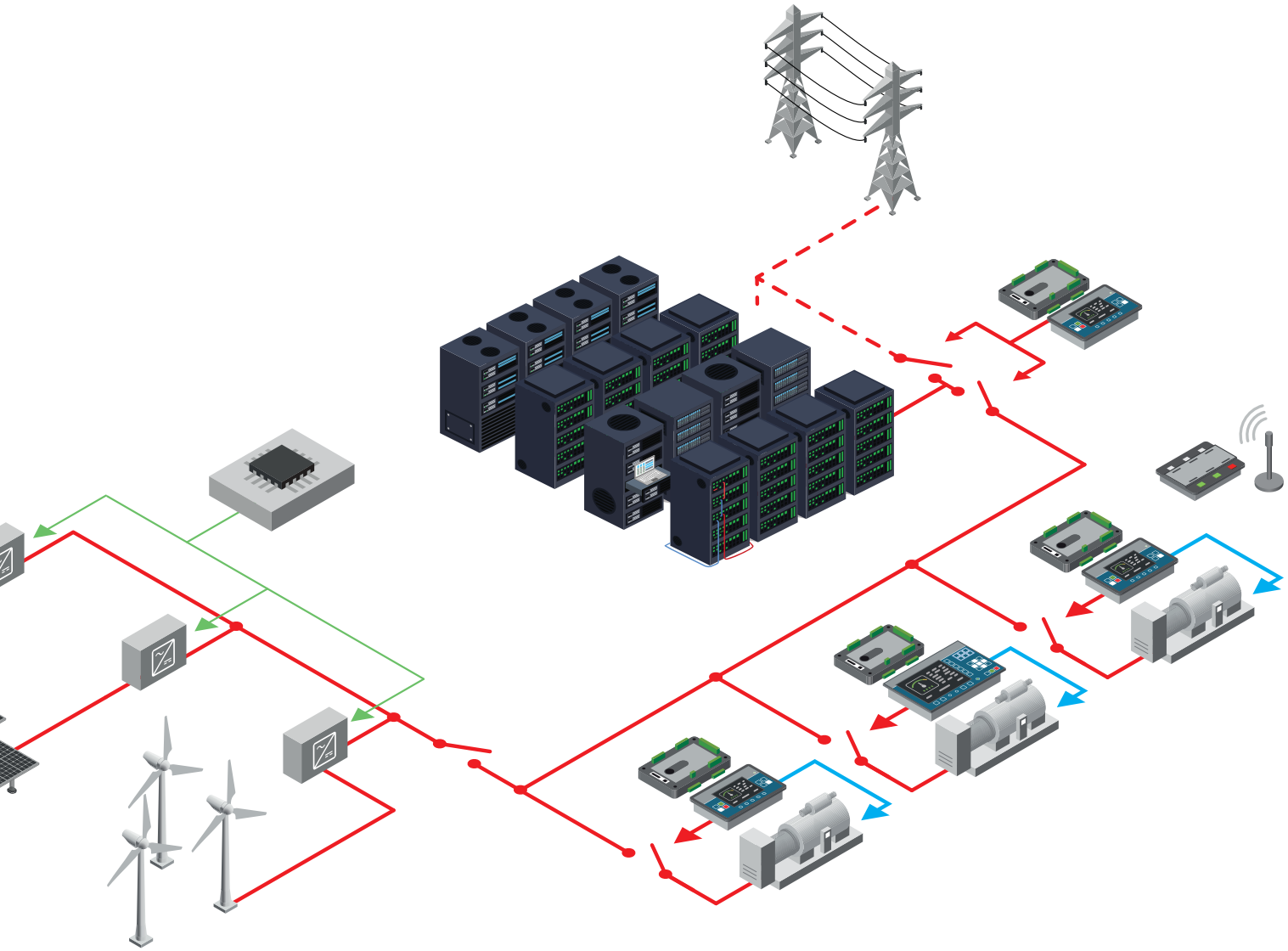
At ComAp we understand that our customers want a solution for their paralleling requirements that is reliable and effective. It does not matter if this is a single backup gen-set or a complex installation for a hospital, bank or data center. ComAp paralleling controllers represent reliable and easy to use products for every application, of whatever size, complexity and requirement.

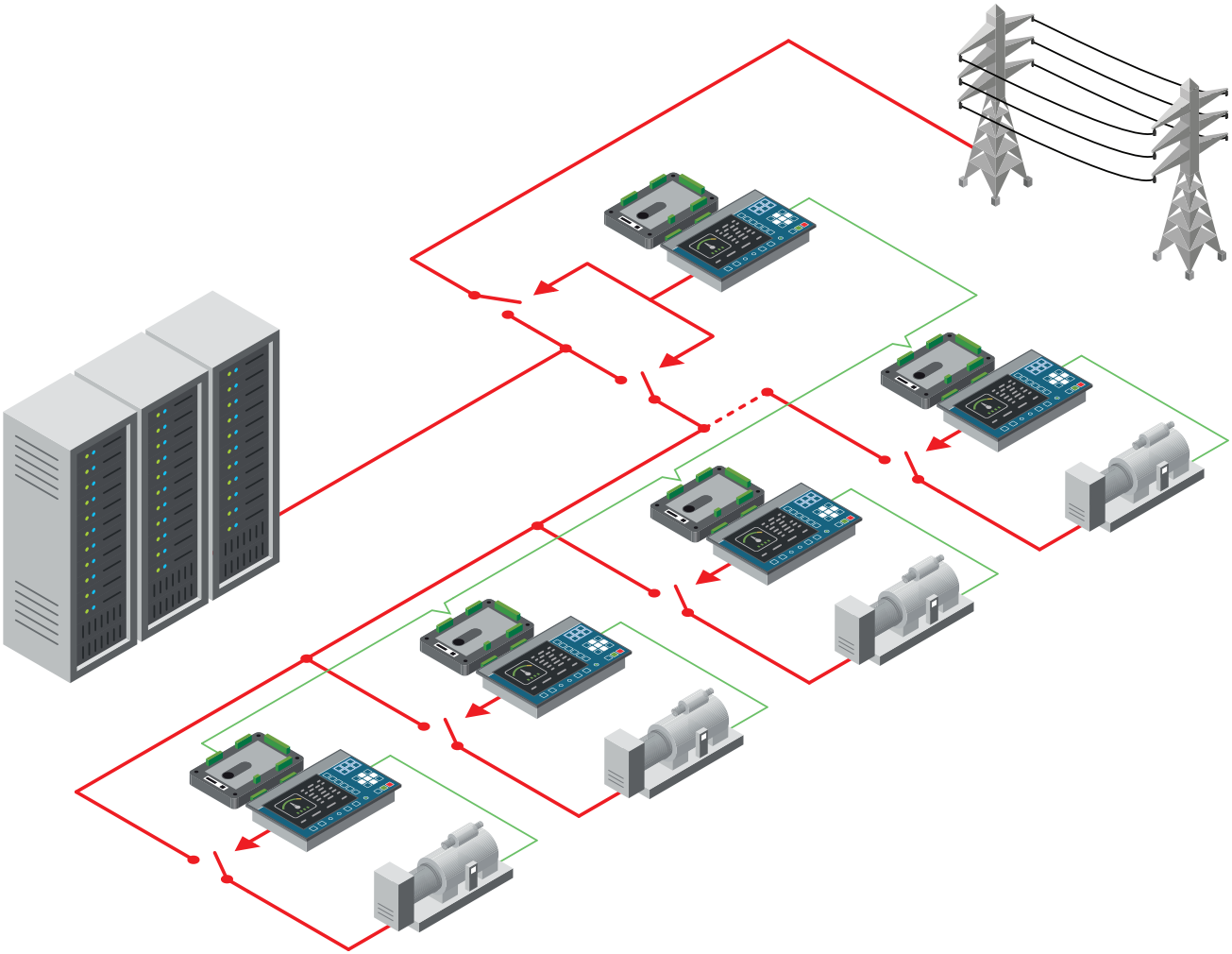


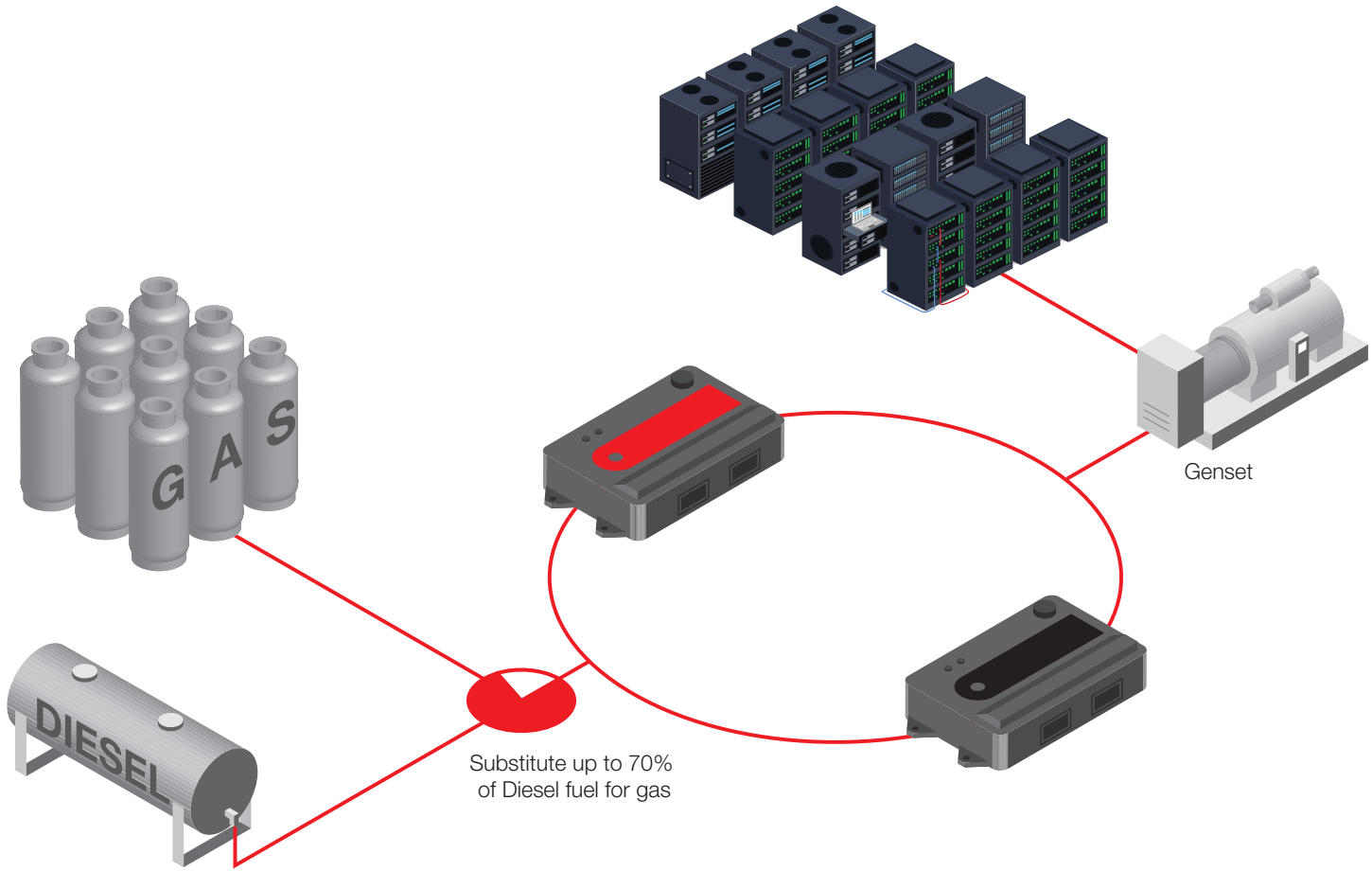
Application Examples

Data centers







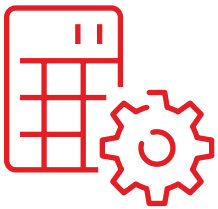

GAS
DIESEL
Genset
Substitute up to 70%
of Diesel fuel for gas

Independent Power Production

The mains power infrastructure is not available.

Independent Power Production (IPP) sites are being built in many places where the mains power infrastructure is not available or reliable, or does not provide enough power. These sorts of installations are typical in mines, remote villages, islands or holiday resorts.

ComAp paralleling controllers ensure that the correct amount of gen-sets are available based on the current power demand. This reduces unnecessary use of the gen-sets and also reduces the amount of fuel that is used. It is also possible to incorporate a renewable source of power into this type of application, further reducing operational expenses.



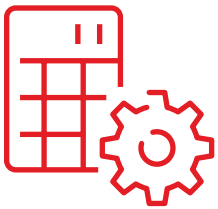
ComAp's products help customers optimise the use of their gen-sets and therefore reduce OPEX and reduce emissions.

Backup Power System

Backup Power | Start up Synchronization

A backup power system is a mains-independent source of electricity for use when the mains power becomes unavailable due to a black-out event or other loss or instability in the mains power. A backup system is typically in use when a power outage represents a serious threat to people, property or controlled processes and applications. Examples of use include hospitals, data centers, shopping malls, and government infrastructure.

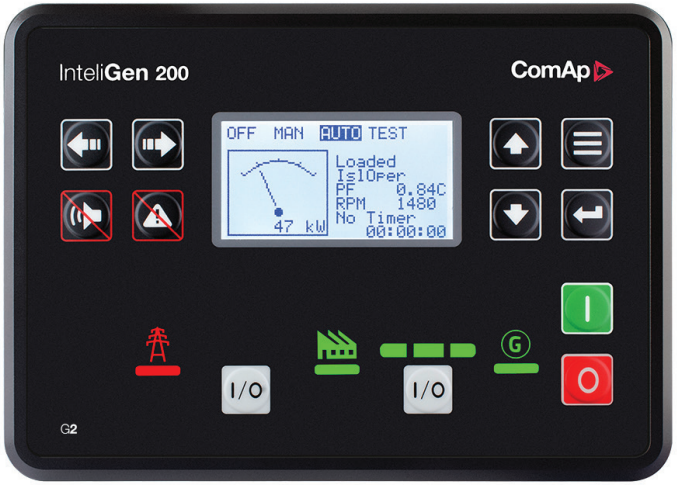
ComAp's paralleling controllers feature Start Up Synchronisation, which allows the system to recover power from a bank of gen-sets in a very short amount of time. ComAp products also allow seamless synchronisation and transfer back to the mains power once it becomes available again. ComAp's paralleling controllers are the perfect solution for mission critical power applications.



ComAp solution helps customers to optimise the running profile of the gen-sets and hence save the OPEX and reduce the emissions production.

InteliGen 200

Parallel Gen-set Controller



- Synchronising - Optimize your gen-set usage or parallel different sizes and brands of generators
- PLC - Utilise our unique, and easy to use PLC drag-and-drop blocks for configuration
- New design - Flexibility to change the application e.g. SPtM and MINT
- Built in AVRi - You no longer need a separate AVRi interface in your installation
- Plug-in modules - Customize your controller with our plug-in extension and communic tion modules
- 4G/LTE - Connect to your gen-set via 4G/LTE for alerts or use ComAp's WebSupervisor
- GPS - Always know the location of your gen-set using geofencing for theft or movement alert
- InteliConfig - Our new configuration and monitoring PC tool (based on new LiteEdit) will offer you multi gen-set control and monitoring as well as easy set-up
- Remote Display available
- Low Temperature version available (order code IG3200XXBLA)
- Easy switching between parallel to mains or multiple genset applications
  - Multiple gensets in parallel to mains available together with InteliMains 210 controller
- Two types of synchronisations: Phase Match or Slip Synchro
- Two types of Load/VAr Sharing: Isochronous (CAN) or Droop, including Emergency Droop
- Direct communication with EFI engines including Tier 4 Final support
- Total remote monitoring and control
  - InteliConfig for configuration, single genset or mutli genset/site monitoring
  - WinScope for precise tuning of PID regulators exactly according to gen-set type and application needs
  - WebSupervisor for cloud based monitoring and control of your whole gen-set fleet
- Internal PLC support with PLC editor and monitor included in InteliConfig
- Active SMS and emails in different languages
- Wide range of communication and connection capabilities including:
  - USB, CAN and RS485 on board
  - USB master for configuration or firmware upload or download
  - RS232 and additional RS485 via plug-in module
  - internet access using Ethernet, GPRS/3G/4G via plug-in modules
  - configurable Modbus RTU or TCP and support of SNMP protocols v2
- Geofencing and tracking via WebSupervisor
- 2 x 10 A binary outputs for cranking and fuel solenoid, powered by separated E-Stop input
- Option for additional inputs/outputs
- Flexible event based history with up to 350 events
- Load shedding, dummy load capability
- Comprehensive gen-set protections
- Multipurpose flexible timers
- UL listed

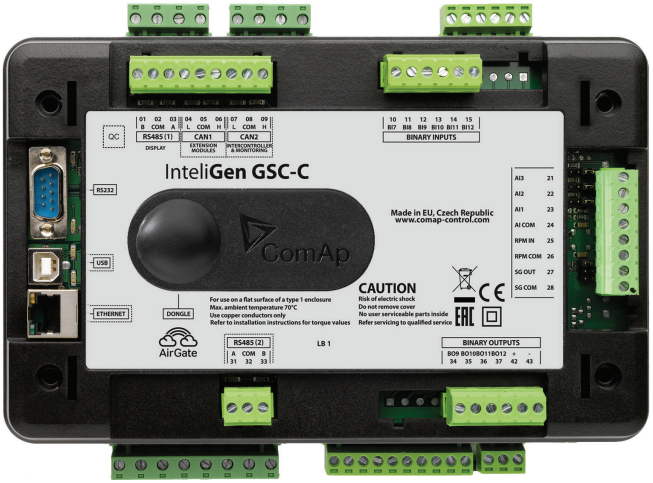
InteliGen 500

Advanced parallel Gen-set Controller with 5” colour display

- Synchronising - Optimize your gen-set usage or parallel different sizes and brands of generators
- PLC - Utilise our unique, and easy to use PLC drag-and-drop blocks for configuration
- New design - Flexibility to change the application e.g. SPtM and MINT
- Built in AVRi - You no longer need a separate AVRi interface in your installation
- Plug-in modules - Customize your controller with our plug in extension and communication modules
- 4G/LTE - Connect to your gen-set via 4G/LTE for alerts or use ComAp‘s WebSupervisor
- GPS - Always know the location of your genset using geofencing for theft or movement alerts
- InteliConfig - Our new configuration and monitoring PC tool (based on new LiteEdit) will offer you multi gen-set control and monitoring as well as easy set-up
- Easy switching between parallel to mains or multiple genset applications
- Multiple gensets in parallel to mains available together with InteliMains 210 controller
- Multiple gensets and grids in parallel available together with the Mains and BTB controllers
- Two types of synchronisations: Phase Match or Slip Synchro
- Two types of Load/VAr Sharing: Isochronous (CAN) or Droop, including Emergency Droop
- Direct communication with EFI engines including Tier 4 Final support
- Total remote monitoring and control
- InteliConfig for configuration and monitoring
- WinScope for precise tuning of PID regulators exactly according to gen-set type and application needs
- WebSupervisor for cloud based monitoring and control of your whole gen-set fleet
- Wide range of communication and connection capabilities including:
- USB, CAN and RS485 on board
- B USB master for configuration or firmware upload or download
- RS232 and additional RS485 via plug-in module
- internet access using Ethernet, GPRS/3G/4G via plug-in modules
- configurable Modbus RTU or TCP and support of SNMP protocols v1
- Internal PLC support with PLC editor and monitor included in InteliConfig
- Active SMS and emails in different languages
- Geofencing and tracking via WebSupervisor
- 2 x 10 A binary outputs for cranking and fuel solenoid, powered by separated E-Stop input
- Option for additional inputs/outputs
- Flexible event based history with up to 350 events
- Load shedding, dummy load capability
- Comprehensive gen-set protections
- Multipurpose flexible timers
- UL listed

InteliGen GSC-C

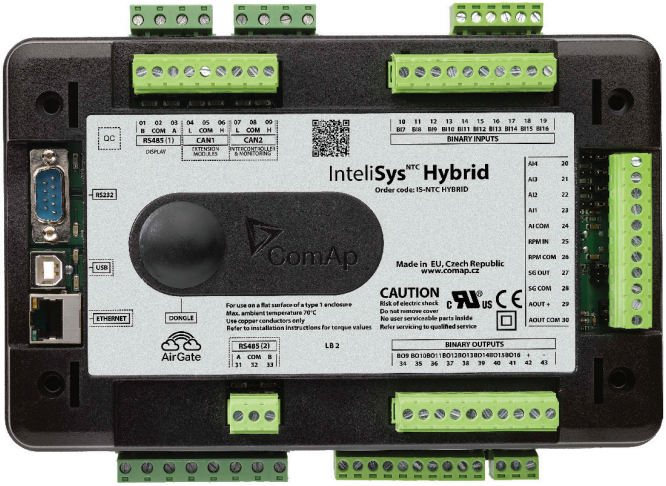
Parallel gen-set controller,
compliant to the latest EU Grid codes



- InteliGen^{NTC} 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 fast and intuitive installation with the potential for many different extension modules designed to suit individual customer requirements
- Compliant to the European Requirements for Generators, and VDE-AR-N 4105:2018, VDE-AR-N 4110:2018, including Single Fault Tolerance
- 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 – full and intuitive remote supervising and servicing
- AirGate support, Ethernet connection (RJ45), USB 2.0 slave interface, 1× RS232 / 2× 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, 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
- 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

InteliSys^{NTC} Hybrid

Renewable/diesel hybrid system controller



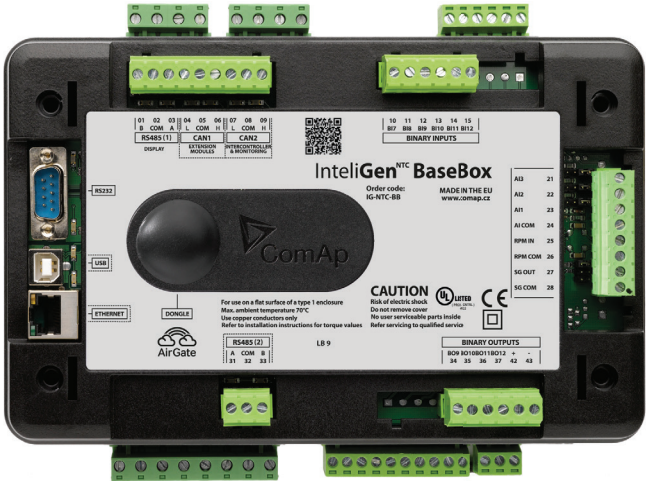
- InteliSys^{NTC} Hybrid is a standalone controller for hybrid applications that combine diesel gen-sets with renewable sources of power. It is suitable for off-grid (microgrids) as well as on-grid installations.
- Continuous monitoring and control of all sources of energy including solar, wind, hydro, energy storage and gen-sets
- Interface to PV inverters via Modbus RTU or TCP*
- Interface to ComAp InteliGen and InteliSys gen-set controllers** via CAN
- Optimised system efficiency by minimising the necessary dynamic spinning reserve while keeping reliability during the PV output drops; the InteliSys^{NTC} Hybrid controller calculates and distributes the dynamic spinning reserve to the gen-set controllers
- Extensive flexibility due to built-in PLC to cover complex site control and various operating scenarios
- Synchronisation of gen-sets with the mains and 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

* the Modbus master ability is achieved via additional PLC module (Product name: UC-7112-LX Plus, order code: CM17112LBGB)

** 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^{NTC} BaseBox

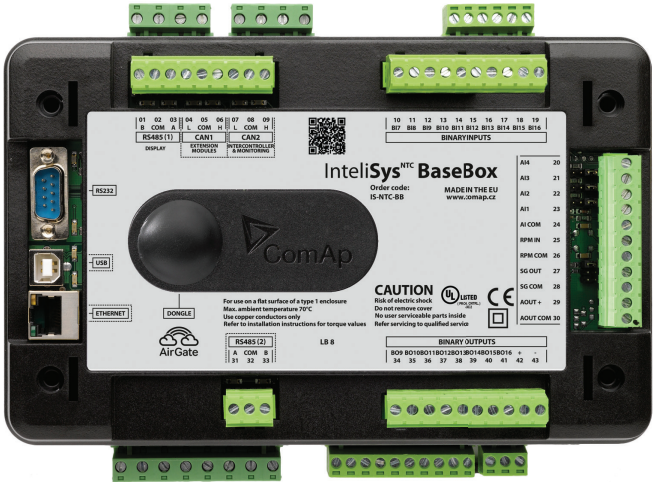
Complex Parallel Gen-set Controller



- InteliGen^{NTC} 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 fast and intuitive 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 – full and intuitive remote supervising and servicing
- AirGate support, Ethernet connection (RJ45), USB 2.0 slave interface, 1× RS232 / 2× 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, 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
- 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

InteliSys^{NTC} BaseBox

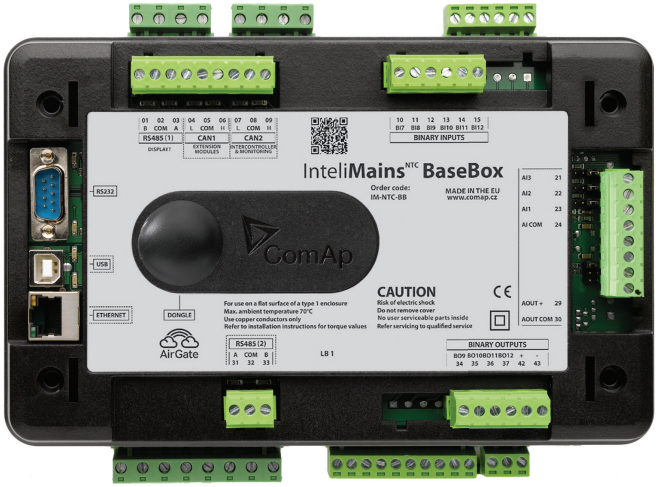
Premium Parallel Gen-set Controller



- Premium gen-set controller for both single and multiple gen-sets operating in standby or parallel modes
- Support of complex applications for power production in data centres, hospitals, banks and smaller CHPs
- 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
- P 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 full, intuitive and secure 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

InteliMains^{NTC} BaseBox

Mains Protection and Supervision Controller,
compliant to the latest EU Grid codes



- For multiple up to 31 gen-sets operating in parallel to mains (or isolated parallel)
- Compliant to the European Requirements for Generators, and VDE-AR-N 4105:2018, VDE-AR-N 4110:2018
- To be used in conjunction with colour displays InteliVision 5, InteliVision 5 RD or InteliVision 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 – full and intuitive remote supervising and servicing:
  - 1x RS232 / 1× 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

InteliBifuel

Bi-fuel control system for single speed engines

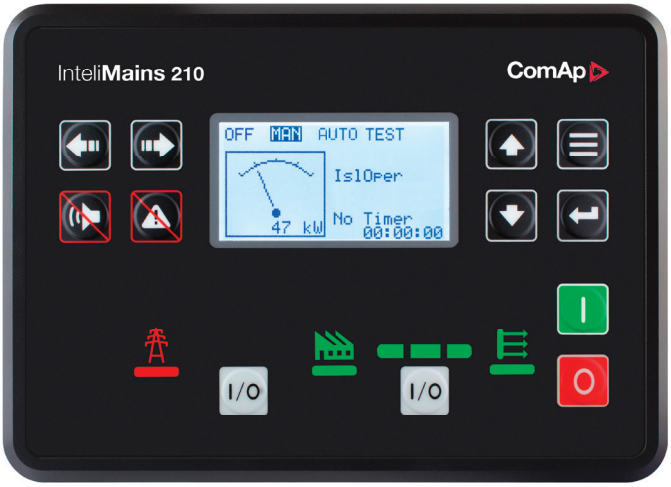
Order Code:

IB2SGXDCBDK

- The InteliBifuel package is a fully programmable solution designed for any single speed bi-fuel application, with its features perfectly suitable for Oil and Gas, Mining and Rental applications
- Algorithm with automatic compensation for gas quality changes
- Enables factory installation of a 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

InteliMains 210

Supervision Controller



- Synchronising - for multiple up to 31 gen-sets operating in parallel to mains
- Compliant to the European Requirements for Generators, and VDE-AR-N 4105:2018, VDE-AR-N 4110:2018
- PLC - Utilise our unique, and easy to use PLC drag-and-drop blocks for configuration
- New design - Flexibility to change the application e.g. MCB & MGCB
- Plug-in modules - Customize your controller with our plug-in extension and communication modules
- 4G/LTE - Connect to your gen-set via 4G/LTE for alerts or use ComAp's WebSupervisor
- GPS - Always know the location of your gen-set using geofencing for theft or movement alerts
- InteliConfig - Our new configuration and monitoring PC tool will offer you multi gen-set control and monitoring as well as easy set-up
- Two types of synchronisations: Phase Match or Slip Synchro
- Multiple grids (e.g. H-diagram) support together with the Bus Tie Breaker controller(s)
- Total remote monitoring and control
- InteliConfig for configuration and monitoring
- WinScope for precise tuning of PID type and application needs
- WebSupervisor for cloud based monitoring and control of your whole gen-set fleet
- Wide range of communication and connection capabilities including:
- USB, CAN and RS485 on board
- USB master for configuration or firmware upload or download
- RS232 and additional RS485 via plug-in module
- internet access using Ethernet, GPRS/3G/4G via plug-in modules
- configurable Modbus RTU or TCP and support of SNMP protocols v1 or v2c
- Internal PLC support with PLC editor and monitor included in InteliConfig
- Active SMS and emails in different languages
- Option for additional inputs/outputs
- Flexible event based history with up to 350 events
- Multipurpose flexible timers
- UL listed certification

InteliVision 5

5,7“ Colour Display Unit

- Colour display unit for localized visualisation
- InteliVision 5 is compatible with the following product line of controllers: InteliGenNT, InteliSysNT and InteliMainsNT
- 5,7” Colour TFT Display with resolution of 320 × 240 pixels
- Local and Remote display for single controller monitoring
- Plug & Play operation (auto configuration based on controller application)
- Direct connection to the controller (converters are not needed)
- Simple, fast and intuitive controlEasy 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 InteliGenNT
- Operating temperature: –30 to +70°C

InteliVision 12Touch

12,1“ Colour Display Unit Touchscreen

- Industrial operator panel equipped with 12,1” colour TFT multi-touch screen with resolution of 1280 × 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 ScreenEditor software
- USB flash disk file storage (export/import trends, history, archive of controller and InteliVision 12Touch firmware and others to a USB stick)
- User’s pictures import
- Adaptive and colour AlarmList
- Large History screen
- Adjustable setpoints help
- Communication connection via RS-485, CAN or Ethernet
- Multilanguage support
- 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 stronger than normal glass)
- Sun-readable display (1000 cd/m2)
- Automatic brightness control
- Operating temperature: –30 to + 70°C
- Face is sealed to IP65
- EMC, climatic and mechanical tests
- CE certification
- Supported controllers :
  - InteliSys GAS
  - InteliGenNT BaseBox
  - InteliGenNTC BaseBox
  - InteliSysNTC BaseBox
  - InteliMainsNTC BaseBox
  - InteliSysNTC Hybrid
  - InteliDrive DCU Marine from HW version 2.0
  - InteliDrive Mobile from SW version 2.6.0

InteliVision 18Touch

18,5“ Colour Display Unit Touchscreen

- Panel suitable for use with a wide range of ComAp controllers
- Successor to the InteliVision 17Touch
- Display for monitoring and control of the entire site
- Possible to use for remote monitoring and control through Internet
- 18,5“ LED backlit projected capacitive touchscreen with a resolution of 1366 × 768 pixels
- Operating temperature extends from -10 °C to +60 °C
- Powerful Intel® Celeron® quad core processor J1900
- 3× USB, 2× mini-PCIe sockets, 1× CFast, 2× RS232/422/485/, 2x RJ45
- 32 GB SSD
- Front protection compliant with IP66
- Mounting support: panel/wall/stand/VESA 100mm × 100mm
- Power input 12-30 VDC
- ComAp PC tools preinstalled
- Setpoints configurable from one device
- History logs of all controllers
- Fullscreen mode with lock protection/PIN
- Onscreen keyboard
- Windows operating system

WebSupervisor

A Cloud-based application that enables remote monitoring, management and analyses of a gen-set fleet and 3rd party devices from anywhere.

Main Features

- List and map views of devices and alerts on one screen
- Device tracking and geofencing*
- Dashboard with fleet and group of devices statistics
- Automatic reports for each device, or a group of devices, with customization options.
- Alarm Analyser which can help reduce maintenance costs
- Advanced trend representation (bar graphs, heat maps and more)
- 3rd party device monitoring
- API: able to download data and integrate in CRM, ERP, PowerBI or other third party software
- Screen Editor: modify the data that is displayed according to your needs
- Web camera support
- User activity logger: logs all user activity for a device or fleet
- Download controller's history files (event-based history)
- Customizable look with your logo and URL
- User management with several levels of permission

*Tracking and geofencing requires purchasing an additional GPS card.

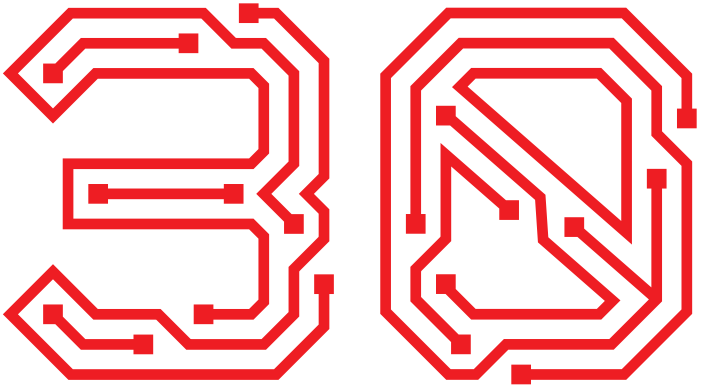

From your PC, tablet or mobile phone you can instantly reach the most important and relevant data.
WebSupervisor
6
Total
12
Offline
6
Alarm
1
Shutdown
2
Warning
2
Dashboard
Units
Map
More
websupervisor.net

Case Studies

We’re always proud to showcase the innovative ways that our customers and staff utilize the full potential of our products, keeping ComAp at **the heart of smart control**.

100+ case studies via **comap-control.com**

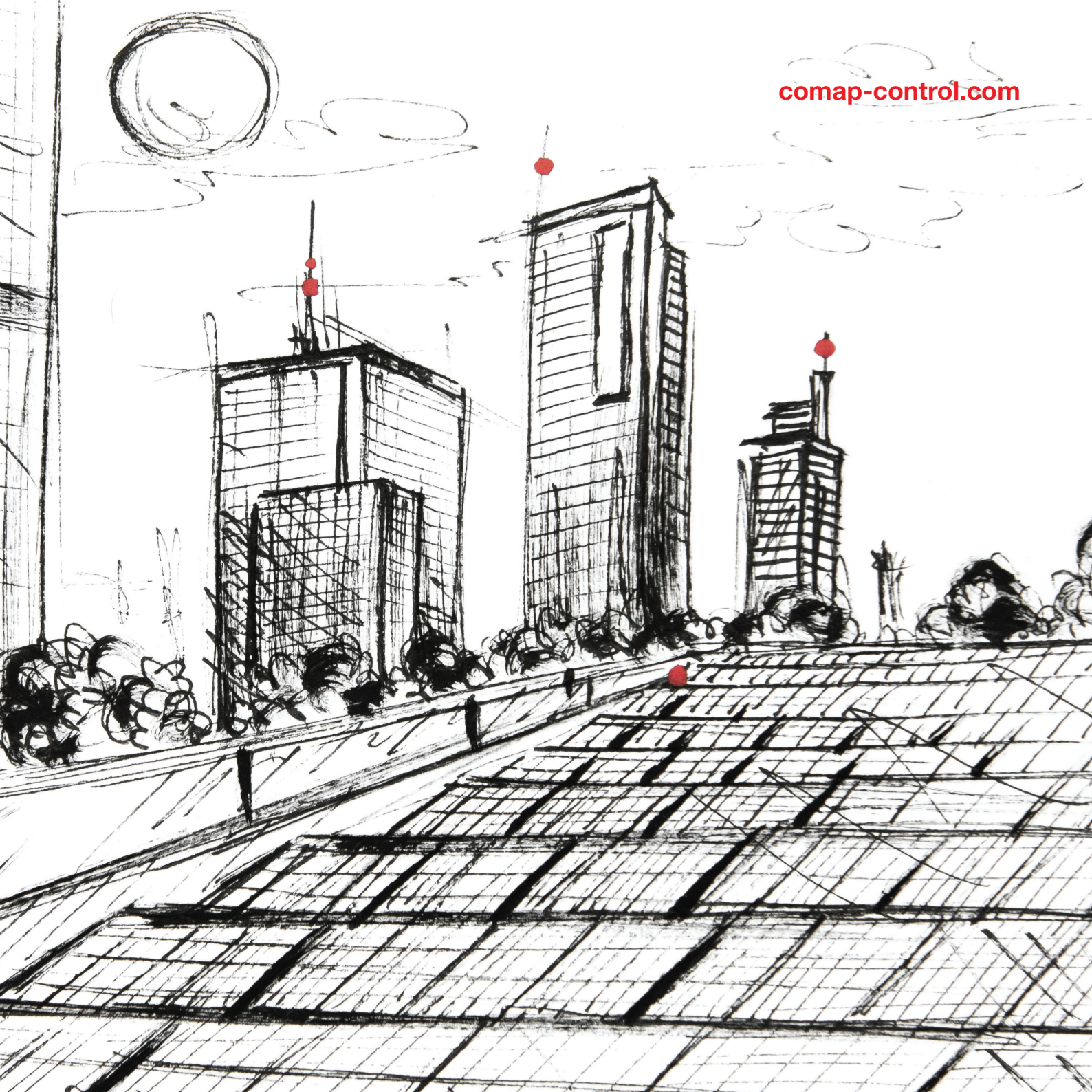
Don’t forget to subscribe to our YouTube Channel to see our latest reference videos.



30 Years of Smart Control:
ComAp celebrates 3 decades of success through continuous innovation and growth.

Founded in a one-room office in Prague, Czech Republic in 1991 by three friends, ComAp has since become a successful global company with a strong local presence supported by 13 subsidiaries, more than 400 employees, and a network of 60+ distributors. The company is in the hands of its founders who have an ambitious vision for further growth and investment in acquisitions and partnerships. But it is trusted relationships with customers what is the central focus of ComAp. Let´s have a look at the milestones of this astonishing journey starting back in the early 1990s, in the heart of Europe, that has become known as The Heart of Smart Control in the world of independent and backup power generation.


Engine Control
InteliSys | InteliGen
2008
BEST EMPLOYER
COMAP 1991 - NOW
THE HEART OF SMART CONTROL (.EXE)
InteliSys Hybrid
ComAp Cares
We are the heart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