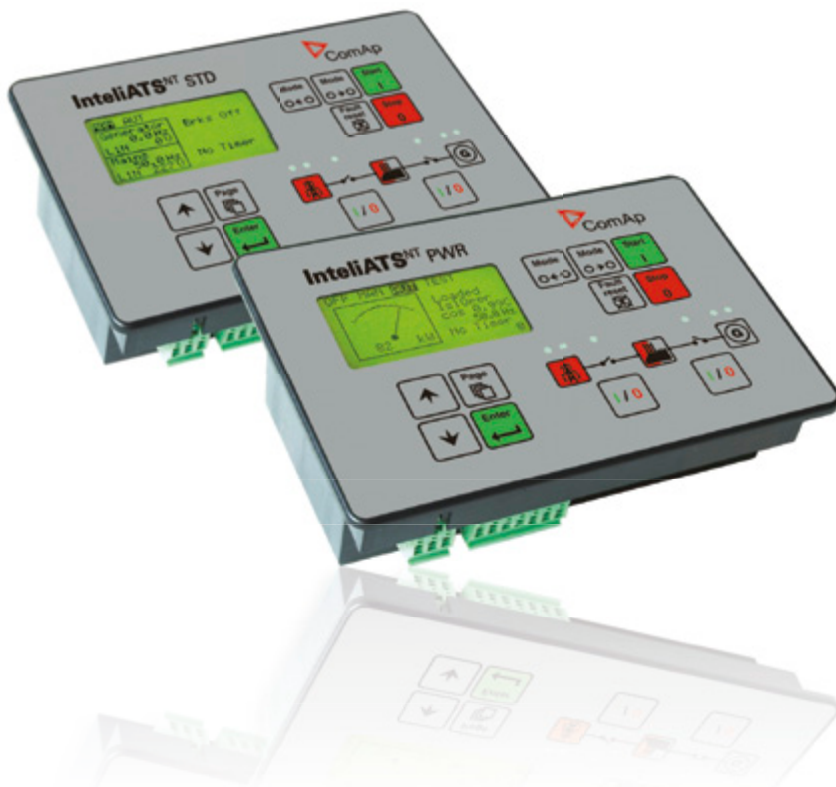# InteliATS^NT

AUTO TRANSFER SWITCH CONTROLLER

ComAp

Description

The InteliATS^NT controllers are designed to monitor the incoming AC mains supply (1 or 3 phases) for under voltage, over voltage, under frequency, over frequency and voltage unbalance. In the case of any mains supply disproportion it will send a remote start command to the generating set and make change over for both generator and mains contactors. The gen-set requires a remote start type control unit (e.g. the ComAp InteliLite^NT MRS 10 controller).

The products belong to the new family of controllers that fulfills every requirement from simple to complex applications – with specific models providing modem and Internet control, user configuration and complete gen-set monitoring and protection.

Both InteliATS^NT controllers are easy to use with an intuitive user interface and graphic display. The PWR model also features a built-in event and performance log with backed-up real time clock making troubleshooting even simpler.

Benefits

▷ Transfer between mains and generator power
▷ Open delayed transition
▷ Open in phase transition (passive synchronization)
▷ Closed transition (short time parallel, passive synchronization)
▷ On-site controller configuration
▷ Less wiring and components
▷ Less engineering and programming
▷ Remote monitoring reduced call-out costs of service engineers
▷ Active SMS / emails
▷ Perfect price / performance ratio
▷ History log – easy troubleshooting and warranty claim handling

WebSupervisor
The WebSupervisor system, a secure cloud-based remote monitoring system which allows equipment fitted with various types ComAp units to be monitored via the Internet from a remote PC or other web enabled device such as smartphone, webbook, etc. It operates in any Internet browser and needs no special software to be installed. User can view recorded data from their equipment, receive email alerts on alarms and control the remote units. Dedicated applications for iPhone and Android provide a truly mobile constant connection with the monitored equipment.

LOCATE
ComAp's LOCATE system uses the power of mobile communications technology to provide users and peace of mind that the monitored asset is where it should be. LOCATE provides location data to the WebSupervisor system without the need for costly GPS positioning equipment and works anywhere there is a mobile phone signal, even indoors. Not only will WebSupervisor show the position of the monitored equipment, it will also maintain a track history and show route of the movement on a map.
LOCATE – Simply Here!

AirGate
Modern communications made simple. ComAp's powerful AirGate technology is provided in a range of our controllers and makes remote Internet connection to the ComAp controller easy. Just register the AirGate enabled controller on our website and from then on let ComAp's unique system locate and maintain contact with the controller, no need to worry about VPNs, static IP addresses or corporate firewalls, simple!
"AirGate – Simply connected."

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

ComAp products meet the highest standards, with every stage of production undertaken in accordance with the ISO certification obtained in 1998.

Features

▷ **3 phase ATS function**
- Over/Under frequency
- Over/Under voltage
- Voltage asymmetry

▷ **3 phase generator protections**
- Over/Under frequency
- Over/Under voltage
- Current [1]/Voltage asymmetry
- Overcurrent [1]/Overload [1]

▷ **True RMS Voltage measurement**
- 3 phase generator and mains voltages
- Voltage range 277 V p-n, 480 V p-p
- Maximal measured voltage 300 V p-n
- PT ratio range 0.1–500

▷ **True RMS current measurements [1]**
- 3 generator phase currents
- Current range 5 A
- Maximal measured current 10 A
- CT ratio range 1–5000
- CT location: generator, load

▷ **Power measurements [1]**
- Active/Reactive Power and Power Factor per phase
- Active and Reactive Energy counter
- Apparent power
- Active and Reactive Generator Energy counter
- Active and Reactive Mains Energy counter

KEY

1) Only for InteliATS[NT] PWR model

▷ **Event and performance log + RTC [1]**
- Event based history (119 records)
- Reason, date and time + all important values are stored
- Battery backed-up RTC
- Test Run scheduler

▷ **User interface**
- Graphic 128 × 64 pixels display
- 2 languages, user changeable from PC (default English + Chinese)
- Setpoints adjustable via controller buttons or PC
- Buttons with mechanical feedback

▷ **Inputs and outputs**
- 4 or 7 [1] binary inputs
- 4 or 7 [1] binary outputs

▷ **Active SMS/emails [1]**
- 2 channels
- SMS or emails

▷ **Communication interfaces**
- Optional RS232 (including Modem support), RS485 or USB plug-in interface
- Modbus RTU/TCP (requires RS485 interface/IB-Lite)
- Optional Internet connection with Ethernet via IB-Lite
- Online control and monitoring over web pages via IB-Lite (embedded Web server)
- Optional GSM modem/wireless Internet via IL-NT GPRS

▷ **Mechanical and operation parameters**
- Unit dimension 120 × 180 mm
- Sealed front face rated for IP65
- Hard plexiglass LCD cover
- Operation temperature:
  - -20°C to +70°C
- Power supply voltage 8–36 V
- Voltage drops shorter than 50 ms do not affect operation

Accessories

▷ **IL-NT RS232** – RS232 extension board
▷ **IL-NT RS232-485** – Dual port extension board
▷ **IL-NT S-USB** – Service USB module
▷ **IB-Lite** – Internet/Ethernet module including Web server
▷ **IL-NT GPRS** – GSM modem/wireless Internet module
▷ **IL-NT BIO8** – Binary input/output module
▷ **IL-NT AOUT8** – Analog outputs for PWM gauges module
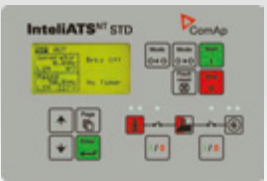▷ **IL-NT RD (SW)** – Remote display software for the master controller

PC tools

▷ **LiteEdit** – PC configuration and monitoring tool
▷ **WebSupervisor** – Cloud-based system for monitoring and controlling of ComAp controllers
▷ **WinScope** – Special graphical controllers' monitoring software
▷ **InteliMonitor** – PC monitoring tool

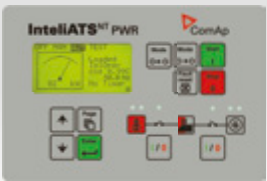# Available models

STD
AUTOMATIC TRANSFER SWITCH CONTROLLER

▷ 4 binary inputs
▷ 4 binary outputs
▷ Gen-set remote start
▷ ATS, MCB and GCB control
▷ High tariff avoidance
▷ Generator connection types

PWR
AUTOMATIC TRANSFER SWITCH CONTROLLER WITH POWER MEASURING

▷ 7 binary inputs
▷ 7 binary outputs
▷ Gen-set remote start
▷ ATS, MCB and GCB control
▷ Power measuring
▷ Event and performance log

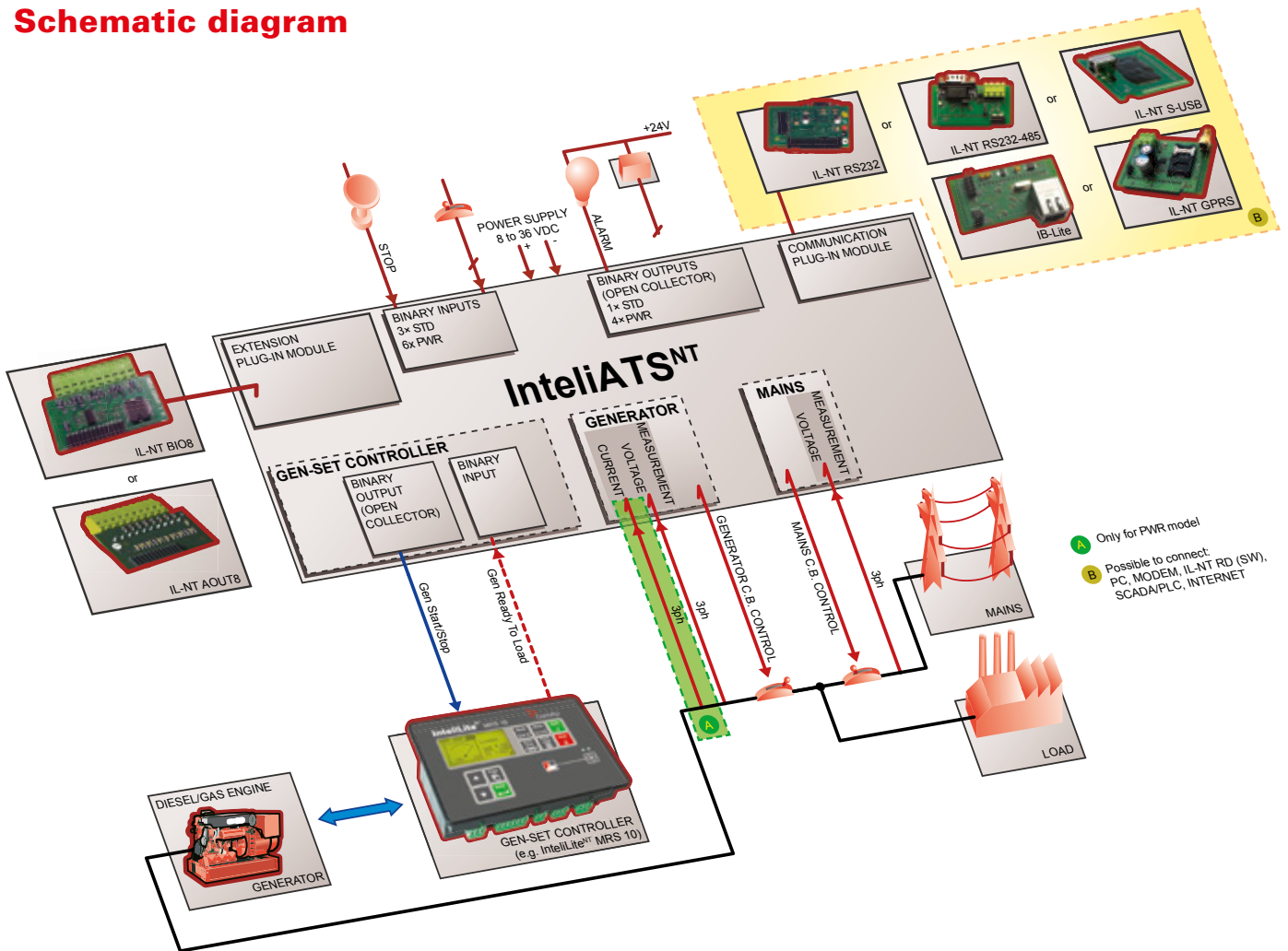▷ Passive synchronisation
▷ High tariff avoidance
▷ Generator connection types

Order codes

Product	Order code
InteliATS[NT] STD	IA-NT STD

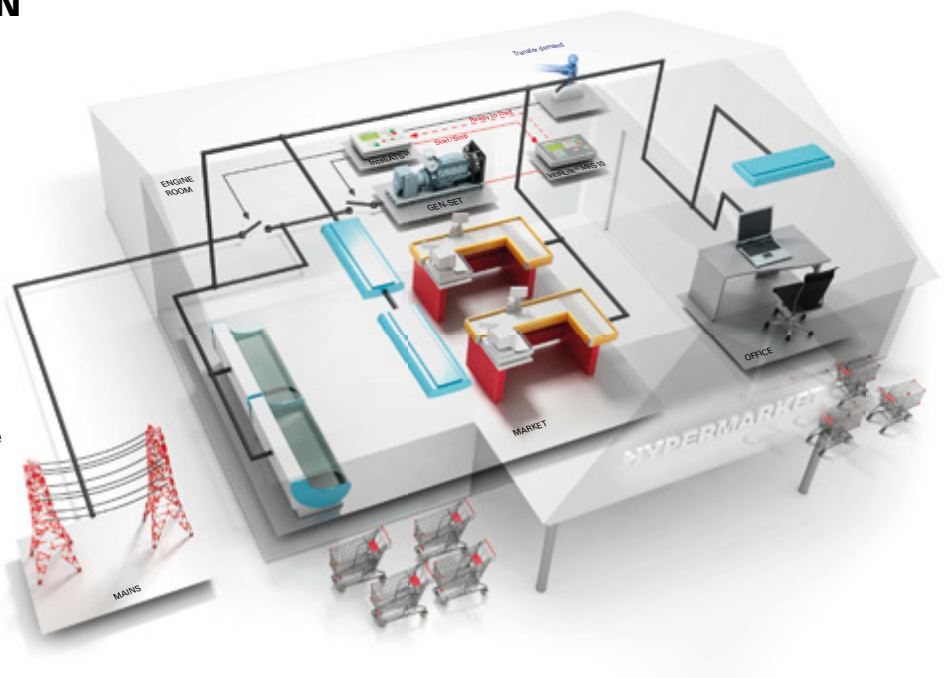| Product	Order code
InteliATS[NT] PWR	IA-NT PWR

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Schematic diagram

Typical application

OPEN / DELAYED TRANSITION
AUTO/MANUAL TRANSFER

Description:

▷ Stand-by gen-set. InteliATS^NT continuously monitors mains supply for under voltage, over voltage, under frequency, over frequency and voltage unbalance. In the case of mains failure it sends a remote start command to the standby gen-set.

▷ InteliATS^NT waits for "Ready To Load" signal or standby gen-set voltage – configurable - and switches load to the standby generator.

▷ After the mains returns the InteliATS^NT switches load back to mains and sends remote stop command to the standby gen-set.

▷ Different delay intervals can be set for individual changeover phases.

▷ The changeover can take place also on explicit demand, not only after mains failure.

▷ ATS function works with backup battery or in reduced mode without backup battery.

Scope of supply:

▷ 1× InteliATS^NT STD
▷ 1× arbitrary gen-set controller (e.g. InteliLite^NT MRS 10) or key start box

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Functions chart

Product	InteliATS[NT] STD	InteliATS[NT] PWR	InteliLite[NT] MRS 10
Order code	IA-NT STD	IA-NT PWR	IL-NT MRS10
Binary inputs/outputs	4 / 4	7 / 7	6 / 6
Analog inputs	–	–	3
Magnetic pick-up	–	–	●
AMF function	●	●	–
Input configuration	●	●	●
Output configuration	●	●	●
Voltage measurement Gen. / Mains	3 ph / 3 ph	3 ph / 3 ph	3 ph / –
Current measurement	–	3 ph	3 ph
kW/kWh/kVA measurement	– / – / –	● / ● / ●	● / ● / ●
Generator protections	–	●	●
History file	–	●	–
RTC with battery	–	●	–
ATS/GCB/MCB control with feedback	●[1]/ ●[1]	● / ●	–[2]/ –
D+ battery charging alternator circuit	–	–	●
Engine hours	–	●	●
Internet support with Web server	with IB-Lite	with IB-Lite	with IB-Lite
Internet support over GPRS	with IL-NT GPRS	with IL-NT GPRS	with IL-NT GPRS
Remote communication interface	O	O	O
Modem interface	O	O	O
Modbus interface	–	O	O
Remote display	O	O	O
Active SMS/emails	–	O	O

KEY
- ● included
- – excluded
- O Optional – plug-in module required
- 1) Manual/automatic ATS, MCB and GCB control, but without feedback
- 2) Automatic GCB control without feedback

Legend: ATS: Automatic transfer switch
GCB: Generator circuit breaker
MCB: Mains circuit breaker

References

United Kingdom

Silverwood Business Park

This project is equipped with two gen-sets and one incoming mains supply. The site uses the ComAp InteliLite[NT] AJP3200 controllers and the ComAp InteliATS[NT], there are 2 × IL-NT AJP3200 remote display panels and an InteliATS[NT] PWR on the switchboard. The 2 gen-sets also have 2 × IL-NT AJP3200 panels fitted on them. The InteliATS[NT] has an IB-Lite fitted allow it to be connected into MITIE's local network via an Ethernet connection, and provides the facility to monitor and test the system via PC monitoring and control software.

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