InteliATS^{NT}

AUTO TRANSFER SWITCH CONTROLLER





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 genset 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/E-mails
- Perfect price/performance ratio
- History log easy troubleshooting and warranty claim handling





Features

> 3 phase ATS function

- Over/Under frequency
- Over/Under voltage
- Voltage asymmetry

> 3 phase generator protections

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

▶ 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 *

- 3 generator phase currents
- Current range 5 A
- Maximal measured current 10 A
- CT ratio range 1-5000
- CT location: generator, load

Power measurements*

- 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**

Event and performance log + RTC*

- · Event based history with 119 events
- Reason, Data and Time + all important values are stored
- Battery backed-up RTC
- Test Run scheduler

User interface

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

Inputs and outputs

- 4 or 7* Binary inputs
- 4 or 7* Binary outputs

Active SMS/E-mails *

- 2 channels
- SMS or E-mails

Communication interfaces

- Optional RS232, RS485 (including Modem support) or USB plug-in interface
- Modbus RTU (requires RS485 interface)
- Optional Internet/Ethernet via IB-Lite
- Optional embedded web server via IB-Lite

Mechanical and operation parameters

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

Accessories

▶ IB-Lite

Internet / Ethernet Module including Web Server

▶ IL-NT BIO8

Binary Input/Output (PWM) Module

▶ IL-NT RD (SW)

Remote Display Software

▶ IL-NT RS232

RS232 Extension Board

IL-NT RS232-485

Dual Port Extension Board

▶ IL-NT S-USB

Service USB Module

PC tools

LiteEdit

PC Configuration and Monitoring Tool

- InteliMonitor
 - PC Monitoring Tool
- WinScope

Special Graphical Controllers' Monitoring Software

- * Only for IA-NT PWR model
- ** When CT location = load

Available models

AUTOMATIC TRANSFER SWITCH CONTROLLER

- 4 binary inputs
- 4 binary outputs
- Gen-set remote start
- ATS, MCB and GCB control



AUTOMATIC TRANSFER SWITCH CONTROLLER WITH POWER MEASURING

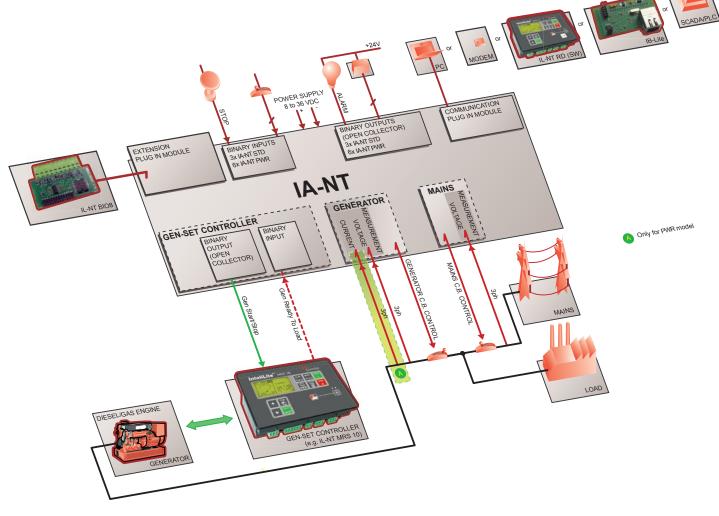


- 7 binary outputs
- Gen-set remote start
- ATS, MCB and GCB control
- Power measuring
- Event and performance log





Schematic diagram

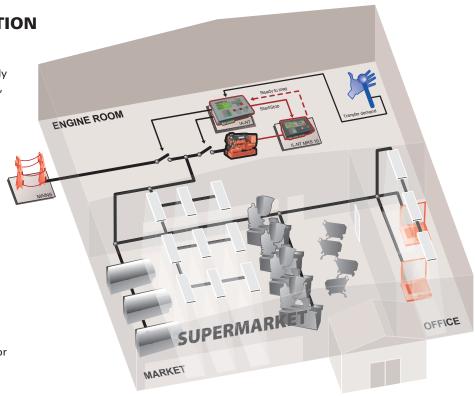


Typical application

OPEN/DELAYED TRANSITION

AUTO/MANUAL TRANSFER

- ▶ 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 "ReadyTo 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.





Function overview of selected ComAp controllers

FUNCTIONS/CONTROLLERS	InteliATS ^{NT} STD	InteliATS ^{NT} PWR	InteliLite ^{N™} MRS 10
Model	STD	PWR	MRS 10
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	● ¹¹/ ● ¹¹	• / •	- ²)/ -
D+ battery charging alternator circuit	-	-	•
Engine hours	-	•	•
Internet support	with IB-Lite	with IB-Lite	with IB-Lite
Remote communication interface	0	0	0
Modem interface	0	0	0
Modbus interface	-	0	0
Remote display	0	0	0
Active SMS/E-mails	-	0	0

- 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

For more information about our products and applications visit

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