BALDOR GENERATORS

InteliLite NT

Genset Controller

Introduction

The InteliLite NT controller provides complete monitoring and protection for the Genset in manual or remote start mode. Provides remote control, user configuration and complete gen-set monitoring and protection.

The control features a powerful graphic display providing

userfriendly information in an easy to understand format. Real time clock and event history log are valuable for troubleshooting. Instrumentation of internal values on VDO type analog gauges makes use easy even for untrained personnel.

- Controller is UL and ULC recognized
- Controller is NFPA110 compliant
- Front panel protection is IP65
- Large easy to read graphic LCD display
- LED's provide visual status information
- Password protection
- History log for rapid fault isolation
- Complete Engine, Alternator, Utility Line monitoring
- Optional Remote Keypad/Display
- Optional Remote Annunciator

Standard Features

- Microprocessor based
- Secure settings with easy to use password protection
- Engine Protection features
- Generator Protection features
- Real Time Clock with Battery back up
- Event and performance log
  - Event based history with 119 events
  - Reason, Data and Time + all important values
  - Test Run scheduler
- User interface
  - Graphic 128 × 64 pixels LCD display
  - Multiple language capability
  - Setpoints adjustable at keypad or PC
  - Keypad provides tactile feedback
- Inputs and outputs
  - 3 configurable analog inputs
  - 7 Digital inputs
  - 7 Digital outputs
  - Magnetic RPM pick-up input
  - D+ preexcitation terminal
- EFI engine support
  - Engine specific CAN J1939 EFI engine support
  - Diagnostic messages in plain text
- RS-232 Interface

LED Indications

ALARM	Indicates active or inactive, but still not reset shutdown alarm	WARNING	Indicates active or inactive, but still not reset warning alarm
NOT IN AUTO	Indication the controller in not in AUTO mode	READY/AUTO	Indicates the controller is in AUTO mode and is ready to operation. The LED goes off after the engine is started.
RUNNING	Indicates running engine	SUPPLYING LOAD	Indicates the gen-set is running, giving proper voltage and frequency and the outputs Read to Load, GCB close/open are closed.

Engine Application Data

Alarm List (WRN=Warning; SD=Shutdown)

Events	Description
Oil Press Wrn	Oil pressure is less than setpoint.
Oil Press Sd	Oil pressure iis less than setpoint.
Eng Temp Wrn	Water temperature exceeds setpoint.
Eng Temp Sd	Water temperature exceeds setpoint.
Fuel Level Wrn	Fuel level is less than setpoint.
Fuel Level Sd	Fuel level is less than setpoint.
Vbat Wrn	Battery volts is out of limits.
AnlnlOM Wrn	AnIn condition for IG-IOM/IGS-PTM.
AnlnlOM Sd	AnIn condition for IG-IOM/IGS-PTM.
Digital IN Wrn	Digital Input condition Wrn/Sd
Battery Fail	Batt fail during start sequence.
Start fail Sd	GENSET start failed.
ParamFail	Wrong memory checksum.
Vgen <, > Sd	Output volts is out of limits.
Vgen unbl Sd	Output volts is unbalanced.
Fgen <,> Sd	Output freq is out of limits.
Igen unbl Sd	Output current is unbalanced.
Overload Sd	Output current exceeds setpoint.
Overspeed Sd	RPM exceeds setpoint.
Underspeed Sd	After start, RPM is less than setpoint.
EmergStop Sd	Emergency stop is opened.
GCB fail Sd	Generator circuit breaker failed.
Pickup Fault Sd	Speed sensor failed.
Stop fail Sd	Genset stop failed.
NextService Wrn	The NextServTimer expired.
ChrgFail Wrn	Alternator failed to charge battery.
SprinklActive Wrn	Active if Sprinkler output is closed.
RA15 fail Wrn	Lost connection to IGL-RA15 module.
IOM fail Sd	Lost connection to IG-IOM/IGS-PTM.
ECU Alarm Wrn	ECU alarm list is not empty.
LowRTCBatt Wrn	RTC backup battery is flat.

Monitored Parameters

Generator Protection

- Over/Under frequency
- Over/Under voltage
- Current/Voltage asymmetry
- Overcurrent/Overload
- Short Circuit Current detection
- True RMS Voltage measurement
  - Phase to Phase;
  - Phase to Neutral
  - PT ratio range 0.1–500
- True RMS current measurements
  - Current range 5 A
  - Maximal measured current 10 A
  - CT ratio range 1–5000
- Power measurements
  - Act / React Power and Power,
  - Power Factor per phase
  - Active and Reactive Energy counter

Engine Protection

- Oil Pressure
- Coolant Temperature
- Fuel Level
- Engine RPM
- Battery Condition
- Time to Next Service
- Total Operating Hours
- J1939 communications with ECU

Timers

- Pre Start Delay
- Maximum Crank time
- Pause time between crank attempts
- Idle time
- Stabil Time, Gen voltage output stabil time
- Gen Circuit Breaker (GCB) Close delay
- Cooling Time, unloaded Genset cool time
- After Cool Time, run cooling pump after stop
- Stop Time
- Horn Timeout

Specifications

Power Supply

Voltage	8-36VDC
Current	40-430mA depends voltage and temp
Volts tolerance	2 % at 24V

Ambient

Operating temp	-20 to +70ºC
Storage temp	-30 to +80ºC
Protection type	IP65
Humidity	95% no condensation
Low Voltage Directive	EN 61010-1:95 +A1:97
Electromagnetic Compatibility	EN 50081-1:94, EN 50081-2:96 EN 50082-1:99, EN 50082-2:97
Vibration	5 - 25 Hz, ±1,6mm 25 - 100 Hz, a = 4 g
Shock	a = 200 m/s^2

Generator

Frequency	50-60 Hz
Freq Tol.	0.2Hz
Current Monitor	
IC nominal (from CT)	5A
Load (CT Zout)	<0.1Ω
CT input burden	<0.2 VA per phase (In=5A)
Measurement tolerance	2% of Nominal
Imax from CT	10A
Ipeak from CT	150 A / 1s
Imax continuous	12 A
Voltage Monitor	
Voltage range	0 – 277 VAC phase to neutral 0 – 480 VAC phase to phase
Vmax	340 VAC phase to neutral 600 VAC phase to phase
Input Resistance	0.6 MΩ phase to phase 0.3 MΩ phase to neutral
Measurement tolerance	2% of Nominal
Overvoltage class	III / 2 (EN61010)

Digital Inputs/Outputs

Number of In/Outputs	7 / 7
Voltage Range	0-36 VDC
Input Resistance	4.2 kΩ
Volts for closed indication	0-2VDC
Volts for open indication	8-36VDC
Max Output Current	0.5A

Analog Inputs

Number of inputs	3
Resolution	10bits
Range (jumper)	V, Ohm (default), mA
Volts range	0-2.5V
Ohms range	0-2500Ω
mA range	0-20mA
Input impedance	> 100 kΩ for V measuring 180 Ω for mA measuring
Ω tolerance	± 2 % ± 2 Ω of measured value
V tolerance	± 1 % ± 1mV of measured value

Speed Pick Up

Sensor Type	magnetic pick-up (shielded cable)
Vin Minimum	2 Vpk-pk (from 4 Hz to 4 kHz)
Vin Maximum	50 Veff
Freq min	4 Hz
Freq max	10 kHz (min. input voltage 6Vpk-pk)
Freq tolerance	0.2 %

D+ Function

Imax output	300mA
Guaranteed level for signal Charging OK	80% of supply voltage

Horn Output

Volts	0-36VDC
Current	1A maximum

Optional Expansion Modules and Accessories

IGL-RA15
- Remote Annunciator
- Customizable Label
- 15 LED's - Can be programmed Red, Green or Yellow
- Lamp Test
- Local Horn Button
- Connect via Can Bus
- Can be used stand alone, or with an IGS-PTM or IGS-IOM

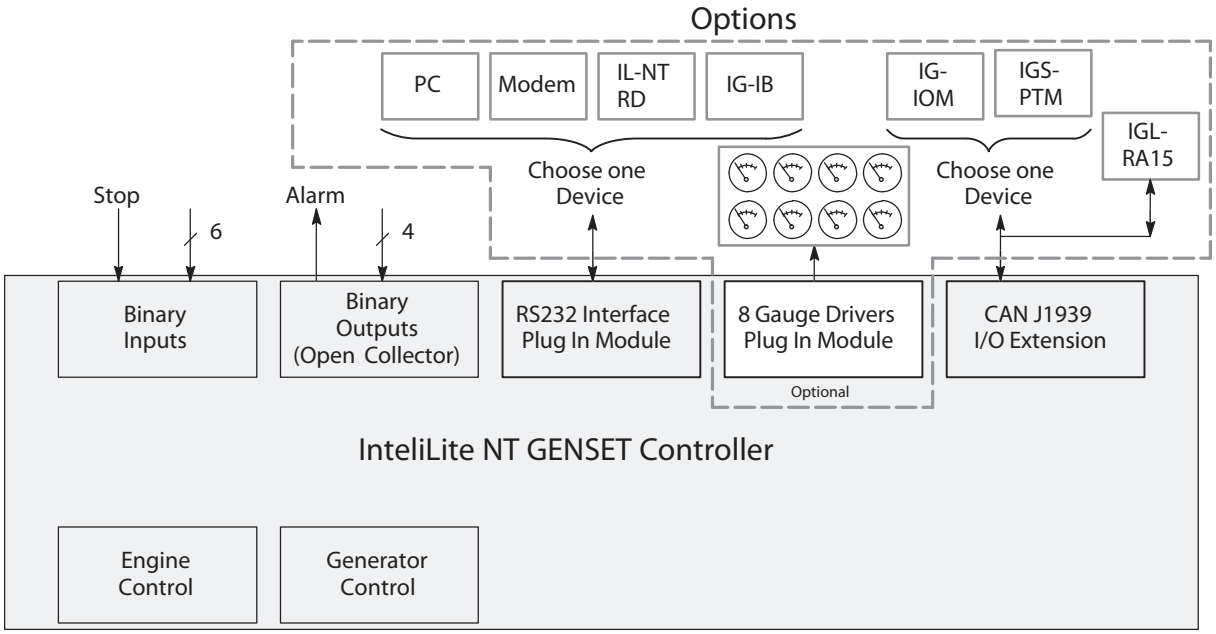
IGS-IOM
- I/O Extension Module
- 8 Binary Inputs, 8 Binary Outputs, 4 Analog Inputs, 1 Analog Output . Measures PT 100 and NI 100 sensors
- Analog Inputs: 0-2500 Ohms
- Analog Outputs- 0-20 mA
- Connect via J1939 Can Bus
- Can be used with a IGL-RA 15
- If this extension module is used, the IGS-PTM cannot be used

IL-NT AOUT8
- Slide in card
- Connect to standard VDO, Datcon, or similar type gauges
- UP to 8 gauges can be connected

IGS-PTM
- I/O Extension Module
- 8 Binary Inputs, 8 Binary Outputs, 4 Analog Inputs, 1 Analog Output
- Measures PT 100 and NI 100 sensors
- Analog Inputs: 0-250 Ohms, 0-100mV, 0-20 mA
- Analog Outputs- 0-20 mA
- Connect via J 1939 CanBus
- Can be used with a IGL-RA 15
- If this extension module is used, the IGS-IOM cannot be used

IL-NT RD
- Remote Display
- Connects to RS-232 Interface . If this function is used, the IG-IB cannot be used

IG-IB
- Internet Module
- Connect via Ethernet or Dial-up . Control Via Internet
- Full 2 way communication
- If this module is used, the IL-NT RD cannot be used



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