

HYbrid Energy Station System Controller

HYbrid
ENERGY

Description:

- The HYbrid system controller controls the DC generators and renewable inputs which recharge the batteries of the HYbrid Energy Station.
- The controller has an LCD screen for system information and fault indication and control buttons for switching between automatic and manual operation.
- Manual operation allows the engine to be started using local buttons on the fascia of the controller or by external buttons on the control panel. In manual mode the system maintains a constant output voltage regardless of load, even with no battery connected.
- Automatic mode of operation provides battery charge /discharge control. The advanced features of the controller ensure the battery life is optimised.
- Parameters for engine control are adjustable from the fascia of the controller (password protected) or by PC program.



Functions:

- Automatic start and stop according to the battery voltage and charging current
- The voltage measurement is compensated by the battery temperature, which extends the battery life
- Limitation of charging time can avoid useless engine running in the case of battery problems
- Service cycle allows the maintenance people to trigger the charging manually
- Flexible PI regulator provides regulation of the charging current
- Remote communication via GPRS
- History log
- Controller buttons replace extra buttons (start, stop etc.)

Remote Monitoring:

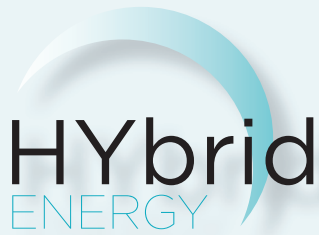
- Web based, 24 hour visibility
- Reporting
 - Fuel management
 - Predictive maintenance
 - KPIs
- Remote fault diagnosis
- Historical data trending

Benefits:

- Integrated solution – less wiring and components
- Possibility of monitoring or control via Internet
- Warnings and messages from controller to your mobile phone by SMS and email
- Expandable
- Integration with wind and solar inputs

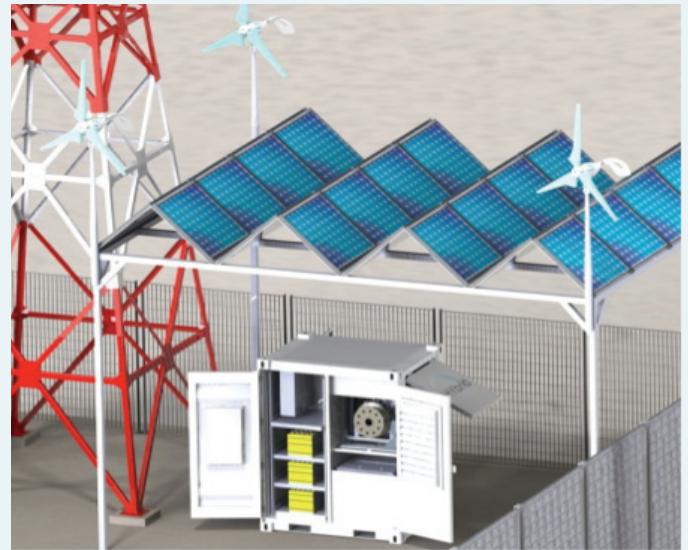


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Features:

- Support of engines equipped with Electronic Control Unit (ECU) – J1939 or Cummins Modbus interface
- Selectable protections alarm/shutdown
- Setpoints adjustable via controller buttons or PC
- 3 levels of password protection
- USB, RS485 or RS232, GSM/GPRS, Modbus communication
- Real time clock and event history log
- Analogue oil pressure, water temperature, fuel level, battery voltage, engine speed (pick up)
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display 128 x 64 pixels
- 7 configurable analogue inputs
 - 3 resistive inputs
 - 2 inputs 0-54 V
 - 4 inputs 0-10 V
- VDO type analogue gauges outputs
- 8 configurable channels
- 4 LED indicators
- Front panel sealed to IP65
- Power supply 8-36 VDC
- Operating temperature
 - -20°C to +70 °C regular unit
 - -40°C to +70°C low temperature unit
- The controller meets several standards (EN, UL)



Communication Modules and PC Tools:

- **IB-Lite** – Internet/Ethernet Module including Web Server
- **IL-NT RS232** – RS232 Extension Board
- **IL-NT RS232-485** – Dual Port Extension Board
- **IL-NT S-USB** – Service USB Module
- **IL-NT GPRS** – GSM Modem/Wireless Internet Module
- **LiteEdit** – PC Configuration and Monitoring Tool
- **WinScope** – Special Graphical Controllers' Monitoring Software (PC oscilloscope)
- **WebSupervisor** – Web Based System for monitoring and controlling of HYbrid Controllers

Extension Modules and Remote Display:

- IL-NT AIO – Analog Input/ Output Module (4x AI and 1x AO)
- IL-NT AOUT8 – Analog Outputs for PWM Gauges Module (8x AO)
- IL-NT BIO8 – Binary Input/ Output Module (4x BI and 1x BO)
- IL-NT IO1 – Binary Input/ Analog Output Module (4x AO and 1x BI)
- IGL-RA15 – Remote Annunciator (15 LEDs)
- IL-NT RD (SW) – Remote Display Software for the master controller

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