POWER ZONE® CONTROL PLATFORM
Power Zone® 410 Controller



Features

The Generac Power Zone® Digital Control Platform is a fully integrated and multipurpose family of controllers for Generac's generator systems.

Standard Features
- 128 x 64 Graphical Display with Heater
- Multi-Lingual
- Full System Status
- Three Phase Sensing Digital Voltage Regulator
- Full Range Standby Operation
- Full System Status
  - Three Phase AC Volts
  - Three Phase Amps
  - kW
  - Power Factor
  - Oil Pressure
  - Water Temperature
  - Oil Temperature*
  - Oil Level*
  - Fuel Pressure and Level
  - Engine Speed
  - Battery Voltage
  - Alternator Frequency
  - Time
  - Date
  - Line Power and Gen Power
  - Run Hours
  - Service Reminders
  - Fault History (Alarm Log)
- Remote Communications
- Programmable Auto Crank
- Emergency Stop
- On/Off Manual Switch
- Not in Auto Flashing Light
- Selectable Low Speed Exercise
- NFPA 110 Capable**
- 5A Integrated Battery Charger ◊

Standard Protections
- Low Oil Pressure
- Low Coolant Level
- High/Low Coolant Temperature
- Oil Temperature
- Over/Under Speed
- Over/Under Voltage
- Over/Under Frequency
- Over/Under Current
- Over Load
- Battery Voltage
- Battery Charger Current
- Phase to Phase and Phase to Neutral Short Circuits (I^2T Algorithm)
- Ground Fault

Display
- Easy Menu Structure
- Multi-Lingual
- On Screen Editable Parameters
- Key Function Monitoring
  - Three Phase Voltage, Amperage, kW, kVa, and kVAr
  - Selectable Average or Line to Neutral Voltage Measurements
  - Frequency
  - RPM
  - Engine Coolant Temperature
  - Engine Oil Pressure
  - Engine Oil Temperature
  - Battery Voltage
  - Warning and Alarm Indication
  - Diagnostics
  - Maintenance Events/Information
  - Hourmeter

* Optional; When Available
** See Modular NFPA 110 Components Section

◊ Operation Disabled when Optional 10A Battery Charger is Installed

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Control Panel
- Auto/Off/Manual
  - Operation Through Onboard Buttons or Optional Key Switch
  - Indication Through Display Screen and LEDs
- Audible Alarm and Silence†
- Auxiliary Shutdown Rocker Switch
- Not in Auto Indication

Voltage Regulation (Single or Three Phase Module Options)
- Digital Control
- Three Phase Sensing
- Variable V/F Slope Settings
- Negative Power Limit
- Loss of Sensing Protection
- Fault Protection (I^2T Function)
- High Voltage Limit
- Low Voltage Limit
- Maximum Power Limit
- ±0.5% Voltage Regulation
- ±0.5% Stability

Governor Functionality
- Speed Control through ECM Integration
- Soft Start Ramping (Multiple Steps)

Customer Ports
- 2 RS-232
- 2 RS-485
- 1 CANBus

Qualification Testing
- Life Test in Environmental Chamber
- Temperature Rating -40° C to +70° C
- Vibration Tested and Protected

Connections‡
- 7 Analog Inputs
- 1 Analog Output (0-10 VDC)
- 6 AC Voltage Sensing Inputs
- 3 CT Inputs
- 16 Digital Inputs
- 13 Digital Outputs
- Comms Ports
  - 1 CANbus Port
  - 1 USB Port (for Configuration Transfer and Firmware Upgrades)
  - 1 RS-485 Modbus Master Port (for External RAP/RRP/HTS/External I/O Modules)
  - 1 RS-485 Modbus Slave Port (for other uses, e.g. Building Management)
  - 2 RS-232 Communication Ports (for Tether or other uses)

Codes And Standards
- UL 6200
- C-ETL-US
- CE
- NFPA 110 Capable

Modular NFPA 110 Components§
- Remote Annunciator
- NFPA Accessory Module
  - Key Switch
  - Alarm Horn
  - Emergency Stop
- 10A External Battery Charger



Controller with Optional NFPA Accessory Module

† When Selected; See Modular NFPA 110 Components Section
‡ Actual I/O May Vary Due to Configuration
§ When Selected; Not Standard on All Models

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