

POWER ZONE® CONTROL PLATFORM

Power Zone® Pro Controller and Gateway



Features - Power Zone® Pro Controller

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

Standard Single Unit Control Features*

- Engine Protective Functions
- Alternator Protective Functions
- Digital Engine Governor Control
- Digital Voltage Regulator
- 4.3" Color Touch Screen
- Multi-Lingual
- Multiple Programmable Inputs and Outputs
- Remote Display Capability
- Remote Communication via Modbus® RTU, Modbus TCP/IP, Ethernet 10/100, SNMP
- Alarm and Event Logging with Real Time Stamping
- Expandable Analog and Digital Inputs and Outputs
- Wireless Software Update via Remote Computer
- BMS and Remote Telemetry
- E-mail Notifications for Alarm Conditions and Log Data**

Standard System Control Features

- Built-In PLC Logic Eliminates the Need for External Controllers Under Most Conditions
- Programmable I/O Channel Properties
- Built-In Diagnostics

Qualification Testing

- Life Test in Environmental Chamber
- Temperature Rating -40° C to +60° C
- Vibration Tested and Protected

* For SG and SD Models

** Requires Use of a Network Accessible Authenticated or Open SMTP Server

Voltage Regulation (Single or Three Phase Module Options)

- Digital Control
- Single Phase or Three Phase RMS Sensing with Loss of Sensing Protection†
- Variable V/F Slope Settings and Adjustable Gains
- Negative Power Limit
- Soft Start Ramping
- Components Encapsulated for Total Protection
- Fault Protection (I²T Function and GFI)‡

PLC (Built-In Programmable Logic Controller)

- Configurable Through Software Tool
- Customer Configurable for Non-Standard Options
- Up to 8 Simultaneously Running PLC Programs or in Sequence

Communication Ports

- 1 - RS485 - Power Zone Gateway
- 1 - RS485 - Remote Annunciator Panel/Remote Relay Panel
- 2 - CANBus - Power Zone® Accessories

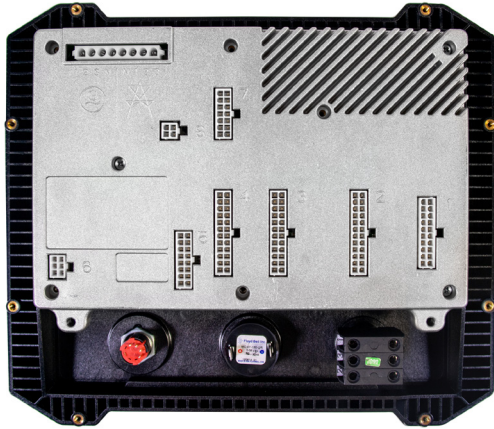
† With Select Voltage Regulators

‡ Configurable Option

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Features - Power Zone® Pro Controller (Continued)



Display (Touch Screen)

- LCD 4.3" Color Touch Screen
- Easy Identifiable Icons
- Multi-Lingual
- IP65 Rated
- On Screen Editable Parameters
- Key Function Monitoring
 - Three Phase Voltage, Amperage, kW, kVa, and kVAr
 - Selectable Line to Line or Line to Neutral Measurements
 - Frequency
 - RPM
 - Engine Coolant Temperature
 - Engine Oil Pressure
 - Engine Oil Temperature
 - Battery Voltage
 - Warning and Alarm Indication
 - Diagnostics
 - Maintenance Events/Information
 - Hourmeter

Codes and Standards

- UL 6200
- UL 2200
- CSA STD C22.2 No. 14
- IEC/EN 61010-1
- NFPA 110 (Software Programmable for Level 1 or 2)[§]

Connections^{§§}

- 21 - Digital Outputs (Open Drain, 35VDC, 1.7A)
 - 7 Fast PWM Capable
 - 1 High Current
- 15 - Digital Inputs Maximum
 - 7 Fast PWM Capable
- 12 - General Purpose Analog Inputs
- 2 - Special Purpose Analog Inputs
- 2 - Analog Outputs (0-10 VDC)
- 1 - E-Stop Relay Output
- 3 - Current Sense Inputs
- 8 - High Voltage Sense Inputs (Three Phase + Neutral)
- 1 - Magnetic Pickup Input
- 1 - Coolant Sensor Input
- 2 - CANBus Channels
- 1 - External RS-485 Port
- 2 - Switchable 12VDC Power Outputs

Protections

- High/Low Oil Pressure
- High/Low Coolant Level
- High/Low Coolant Temperature
- Sender/Sensor Failure
- High/Low Oil Temperature
- Over/Under Speed
- Over/Under Voltage
- Over/Under Frequency
- Over Current
- Over Total kW
- High/Low Battery Voltage
- Battery Charger Current
- Phase to Phase and Phase to Neutral Short Circuits (I²T Algorithm and GFI)

Control Panel and Touch Screen

- Auto/Off/Manual
 - Operation Through Key Switch
 - Indication Through Touch Screen
- Alarm Acknowledge Soft Key
- Audible Alarm and Silence
- Emergency Stop
- Not in Auto Indication Through Touch Screen

§ With Additional Optional Remote Annunciator
 §§ Actual I/O May Vary Due to Configuration

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Features - Power Zone® Gateway



The Power Zone® Connectivity Gateway is a user interface for the Power Zone® system that provides external communication via ethernet to a connected device such as a computer, smart phone or tablet. This external communication allows the user to configure or monitor generator parameters, including building management system connections.

Communications

- 1 - Ethernet Port
- 1 - RS485 Port - Input to Main Controller
- 1 - RS485 Port - Building Management
- 2 - Type A USB Port

2 LED - power & communication

Power Supply Requirements

- Voltage: 11-13 VDC (12 VDC Nominal)
- Usage: 1.1A (Maximum During Power Up)
- Cable: 2 Wires

Environmental

- Temperature Rating -40°C to +60°C
- UL Type 1 Enclosure
- 5% to 90% Non-condensing Humidity

Codes and Standards

- UL 6200
- CSA STD 222 No. 61010-1
- C-ETL-US
- IEC/EN 61010-1

Optional Accessory

- Extension Cabling for External Mounting

Features[◇]

- Auto/Off/Manual Indication
- Not in Auto Indication
- Alarm Acknowledge Button
- Easily Identifiable Icons
- Multi-Lingual
- On Screen Editable Parameters
- USB Port for Easy Log Data Downloads and Firmware Updates
- Key Function Monitoring
 - Three Phase Voltage, Amperage, kW, kVA, and kVAR
 - Selectable Line to Line or Line to Neutral Voltage Measurements
 - Voltage Frequency
 - Engine Speed
 - Engine Coolant Temperature
 - Engine Oil Pressure
 - Engine Oil Temperature
 - Battery Voltage
 - Warning and Alarm Indication
 - Diagnostics
 - Maintenance Events and Information
 - Engine Hour Meter

[◇] When Viewing on a Connected Computer, Smart Phone, Tablet, or Other Smart Device