POWER ZONE® CONTROL PLATFORM

The Generac POWER ZONE® Digital Control Platform is a fully integrated and multipurpose family of controllers for Generac’s single and Modular Power Systems (MPS).

Standard Single Unit Control Features (-GS* and -DS*)
- Engine Protective Functions
- Alternator Protective Functions
- Digital Engine Governor Control
- Digital Voltage Regulator
- 7" Color Touch Screen
- Multi-Lingual
- Multiple Programmable Inputs and Outputs
- Remote Display Capability
- Remote Communication Via Modbus® RTU, Modbus TCP/IP Ethernet 10/100
- Alarm and Event Logging with Real Time Stamping
- Expandable Analog And Digital Inputs and Outputs
- Wireless Software Update Via Remote Computer
- Wi-Fi, Blue-tooth, BMS and Remote Telemetry

Additional Standard Parallel Control Features (-GSP** and -DSP**)
- Paralleling Control (Synchronizing)
- Reverse Power
- Loss Of Synchronization Between Gensets
- Load and VAR Sharing

Standard System Control Features
- Built-In PLC Logic Eliminates the Need for External Controllers Under Most Conditions
- Ethernet Based Communications Between Gensets
- Programmable I/O Channel Properties
- Built-In Diagnostics

** -GS is Gaseous Standby, -DS is Diesel Standby
*** -GSP is Gaseous Standby Parallel, -DSP is Diesel Standby Parallel
POWER ZONE® CONTROL PLATFORM

Voltage Regulation (Single or Three Phase Module Options)
- Digital Control
- Three-Phase Sensing†
- Variable V/F Slope Settings and Adjustable Gains
- Negative Power Limit
- Soft Start Ramping
- Loss Of Sensing Protection
- Components Encapsulated for Total Protection
- Paralleling Function for Power Zone®-DSP and Power Zone™-GSP‡
- Fault Protection (I2T Function)‡
- High Voltage Limit
- Low Voltage Limit
- Maximum Power Limit
- ±0.5% Voltage Regulation
- ±0.1% Stability

PLC (Built-In Programmable Logic Controller)
- Boolean Logic Programming (Ladder)
- 16 Timers
- 16 Counters
- Counter Reset
- Configurable Through Software Tool

Governor Module
- Soft Start Ramping (Multiple Steps)
- Synchronizing Function for Power Zone®-DSP and Power Zone™-GSP Only‡
- Fully Adjustable Gain (PID)

Display (Touch Screen)
- Resistive Color Touch Screen
- Hi-Brite (1400 NITS)
- Easy Identifiable Icons
- Multi-Lingual
- 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

Ports
- 2 - RS485/ RS232
- 1 - RJ45
- Ethernet
- CANBus

† With select voltage regulators
‡ Configurable option
POWER ZONE® CONTROL PLATFORM

Connections:

- 27 - Digital Outputs (Open Drain, 35Vdc. 1.7A)
  - 6 Fast PWM Capable
  - 1 High Current
- 20 - Digital Inputs Maximum
  - 6 Fast PWM Capable
- 12 - General Purpose Analog Inputs
- 4 - Fast Analog Inputs
- 4 - Analog Outputs (0-5Vdc)
- 1 - E-Stop Relay Output
- 7 - Current Sense Inputs
- 2 - High Voltage Sense Inputs (3 Phase + Neutral)
- 2 - Magnetic Pickup Inputs
- 1 - Coolant Sensor Input
- 4 - Ethernet Ports
- 3 - CANBus Channels
- 1 - RS-485 Ports
- 2 - Switchable +12V Power Outputs

Qualification Testing:

- Life Test in Environmental Chamber
- Temperature Rating -40° C to +70° C
- Humidity 2% to 95% (Non Condensing)
- Vibration Tested And Protected
- Accelerated Testing MTBF >50,000 Hr.

Codes And Standards:

- UL 6200
- C-ETL-US
- CE
- FCC
- NFPA 110 (Software Programmable For Level 1 or 2)
- IEC801 Radiated Emissions, Susceptibility And Surge Immunity

Protections:

- Low Oil Pressure
- Low Coolant Level
- High/Low Coolant Temperature
- Sender Failure
- 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)

Control Panel And Touch Screen:

- Auto/Off/Manual
  - Operation Through Key Switch
  - Indication Through Touchscreen
- Alarm Acknowledge Button
- Audible Alarm and Silence
- Emergency Stop
- Not in Auto Indication

Key

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<thead>
<tr>
<th>Fuel Type</th>
<th>Generator Type</th>
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</tr>
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<tr>
<td>-GS</td>
<td>Gas</td>
<td>Standby</td>
</tr>
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<td>-BSP</td>
<td>Bi-Fuel</td>
<td>Standby Parallel</td>
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$ Actual I/O may vary due to configuration
$ With Additional Optional Remote Annunciator