Generator Control Unit (GCU)

**CG200 SERIES**

- Analog
- Automatic starter cutout
- Field weakening control of engine start
- Ground fault protection
- Voltage regulation accuracy to +0.4/0.7 VDC
- Voltage regulation range of 26 to 30 VDC

**CG300 SERIES**

- Dual microprocessor
- Software qualified to RTCA/DO-178, level B
- Dual magnetic-latching relays (or trip relays)
  - Individual trip of generator field and line contactor
- Built-in test upon battery power-up
  - Exercises and tests trip relays and over voltage protection
- Communications port for NC maintenance computer
- Maintenance connector for access to fault logs and data records in non-volatile memory
- Shunt-field start control (field weakening)
- Start terminate sequence energizes field to terminate start current and prior to opening start contactor
- No programmable or complex hardware devices
- Protective functions implemented in hardware
- Broken wire detection of the following inputs: power ground, signal ground, bus sense, current sense, point-of-regulation, tachometer input, generator filed, contactor driven outputs
- Built in test: field-driver transistor, contactor-drive transistors
- Proactive trip on broken POR wire before over voltage develops
- Proactive trip on shorted field-driver transistor before overvoltage develops
- Dual over voltage protection circuits