

### POWER ZONE 410 CONTROLLER



016030

#### Standard Features

- 128 x 64 Graphical Display with Heater
- Multi-Lingual
- Three Phase Sensing Digital Voltage Regulator
- Full Range Standby Operation
- Full System Status
  - Three Phase AC Voltage
  - Three Phase Current
  - Power
  - Power Factor
  - Oil Pressure
  - Engine Coolant Temperature
  - Oil Temperature (check for oil temp sensor)
  - Fuel Pressure
  - Engine Speed
  - Battery Voltage
  - Output Frequency
  - Time
  - Date
  - Load On Line Power and Gen Power
  - Hourmeter
  - Service Reminders
  - Fault History (Alarm Log)
- Remote Communications
- Programmable Auto Crank
- Emergency Stop
- 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
- Overload

- 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 (English, Spanish, French)
- On Screen Editable Parameters
- Key Function Monitoring
  - Three Phase Voltage, Amperage, Power, Apparent Power, Reactive Power
  - Selectable Average or Line-to-Neutral Voltage Measurements
  - Frequency
  - Engine Speed
  - Engine Coolant Temperature
  - Oil Pressure
  - Battery Voltage
  - Warning and Alarm Indication
  - Diagnostics
  - Maintenance Events/Information
  - Hourmeter

#### 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 (on controller)
- Not-in-Auto Indication

#### Voltage Regulation

- 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

#### Governor Functionality

- Speed Control through ECM Integration

#### Communications Ports

- 1 CANbus Port
- 1 USB Port (for Configuration Transfer and Firmware Upgrades)
- 1 RS-485 Modbus Master Port (for External RAP/RRP/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
- CE
- NFPA 110