

Engine Generator Regulator Control Module For Oil Well Drilling

fact sheet

Background

The Engine Generator Regulator (EGR) Control Module is a digitally controlled electronic AC generator current regulator and diesel engine control module designed to ensure oil-drilling platforms have a reliable and efficient source of power. Digital accuracy for speed and voltage control, system diagnostics for "first fault" and multiple fault storage and annunciation, as well as an internal diagnostic self-test on power up are provided. Outputs provide system KVA and kW limit protection.

With reduced panel wiring, the EGR can be quickly installed and mounted. Maintenance is simplified by diagnostic aids (self-test and system level) that help speed system troubleshooting.

The EGR protects the engine through tachometer loss sensing, over speed detection, and reverse power protection with adjustable time delay. KW load sharing is also included. Special over speed provision allows controlled testing of the mechanical over speed limit. A four-position engine control switch on screen with settings for off, idle, run, and load is used to select engine speed. An industrial type membrane keyboard provides provisions for reliable engine speed adjustment during synchronizing. The rate of engine acceleration is precisely controlled from idle to running speed. There are also inputs for remote idle and shutdown signals.

Product Features

The digital EGR furnishes built-in outputs for:

- Voltmeter
- Ammeter
- Wattmeter
- Varmeter

The EGR provides the following protections:

- Field loss
- Under voltage
- Over voltage

An internal model of the generator permits temporary generator over current. The EGR field exciter takes AC input up to 240 volts and provides up to 20 amps excitation.

Additional features include:

- 240 X 128 back lit LCD graphical screen with 10 functions keys with LEDs, plus dedicated soft keys
- Communication ports for:
 - o Ethernet
 - o RS 232
 - o RS 485

The optional features include:

- Remote monitoring of EGR data
- Auto synchronizing
- Auto start
- Load control
- Sync check
- Monitoring the dead bus function

Benefits

- Ease of installation – EGR is an "all-in-one" unit that incorporates all the functionality into a single module and reduces installation wiring
- Interchangeability – the new EGR control is physically and electrically interchangeable with the earlier GE Engine Generator Regulator Modules
- Diagnostic/protection features - field loss, under voltage, over current, tach loss sensing, over speed detection, reverse power protection with adjustable time delay, and auto synchronizing
- Reliability – by setting and locking the control parameters, rigs are less likely to operate outside the normal specifications



For more information, contact your local GE Energy office, call 1-888-GE4-SERV or 540-378-3280 or visit www.ge-energy.com/industrial.

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