The DSE5210 is an Automatic Start Control Module designed to automatically start and stop diesel and gas generating sets that include non electronic engines. The module also provides excellent engine monitoring and protection features.

The module has the ability to monitor under speed, over speed, charge failure, emergency stop, low oil pressure, high engine temperature, fail to start, fail to stop, under/over generator volts, over current, under/over generator frequency, low/high DC battery volts, low fuel alarm and loss of the speed sensing signal. The module displays fault conditions on the LCD display and via the LED indicators on the front.

The DSE5220 is an Automatic Mains Failure Control Module and includes all the features of the DSE5210 plus the ability to monitor a mains (utility) supply.

Upon detection of a mains (utility) failure the module automatically starts the generating set. Once the mains (utility) power has been restored it instructs the generating set to stop.

Both modules include RS232 and RS485 communications capabilities for linking to a PC, sending SMS messages and interfacing with new and existing building management systems.

**FEATURES**
- Automatic start
- Automatic mains (utility) failure
- Automatic load transfer
- Configurable inputs
- Configurable alarms & timers
- Digital inputs
- Analogue inputs
- Back-lit character LCD display
- Engine protection
- Front panel mounting
- PC configurable
- Front panel programming
- Remote monitoring
- RS232 and RS485 remote communications
- Modbus RTU
- Engine history event log
- LED alarm indication
- LCD alarm indication
- SMS messaging
- Hit till lit alarm icons
- Engine exercise mode
- Magnetic pick-up

**BENEFITS**
- Full integration into new and existing building management systems
- In-built engine diagnostics removes the requirement for service equipment
- License free PC software
- Modules help to improve the life cycle of engine starter motors
- On-site module configuration to match user requirements
- Remote module configuration using PC software
- Modules send SMS messages to engineers to notify specific engine problems (GSM Modem and SIM Card required)
- User-friendly set-up and button layout

**OPERATION**
The modules are operated using the front STOP, AUTO and MANUAL push buttons. The DSE5220 also includes a TEST button. An additional push button allows the user to scroll through the LCD display to view the instrumentation and event log.

**CONFIGURATION**
The modules can be configured using the front panel buttons or by using the DSE810 interface and PC software.
LED INDICATION

Hid till lit icons are used to show the presence of alarm conditions detected by the modules. The icons appear to the left of the LCD display.

TELEMETRY

The module gives the user full telemetry facilities when using the optional communications software. The module can be connected to a PC using the DSE810 PC interface or by using a suitable modem. The PC software is Microsoft Windows based.

All access into the module can be configured to be password protected to prevent unauthorised entry. The PC software allows the module to be controlled from a remote location.

INPUTS & OUTPUTS

Analogue inputs are provided for oil pressure, engine temperature and fuel level. These connect to conventional engine mounted resistive sender units to provide accurate monitoring and protection facilities. They can also be configured to interface with digital switch type inputs for low oil pressure and high engine temperature shutdowns.

Relay outputs are provided for fuel solenoid output and three configurable outputs. The configurable relay functions can be selected from a range of different functions, conditions or alarms. The relays supply positive plant supply out.

INSTRUMENTATION

The modules provide advanced metering facilities, displaying the information on the LCD display. The information can be accessed using the display scroll push buttons located next to the LCD display.

COMMUNICATIONS

The DSE5210 & DSE5220 have a number of different communication capabilities.

SMS Messaging

When the module detects an alarm condition, it has the ability to send an SMS message to a dedicated mobile number, notifying an engineer of the problem. (GSM Modem and SIM Card required)

Remote Communications

When the module detects an alarm condition, it dials out to a PC notifying the user of the exact alarm condition.

Building Management

The module has been designed to be integrated into new and existing building management systems.

PC Software

The module has the ability to be controlled, configured and monitored from a remote PC, using the DSE810 interface.

EVENT LOG

The module includes a comprehensive event log that shows the 30 most recent alarm conditions and the date and time that they occurred. This function assists the user when fault finding and maintaining a generating set.

EXPANSION MODULES

DSE157 Output Relay Expansion Module

DSE545 & DSE548 Remote Annunciation Expansion Module

RELATED MATERIALS

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DSE5210 & DSE5220

**Battery Negative Must Be Grounded**

- **Terminals Suitable for 22-16 AWG (0.6mm - 1.3mm)**
- **Tightening Torque = 0.8Nm (7lb-in)**

**Note 1**

These ground connections must be on the engine block, and must be to the sender bodies. The ground wire to terminal 47 must not be used to provide a ground connection to any other device.