The DSE6010 MKII Auto Start Control Module and the DSE6020 MKII Auto Mains (Utility) Failure Control Module are suitable for a wide variety of single gen-set applications.

Monitoring engine speed, oil pressure, coolant temperature, frequency, voltage, current, power and fuel level, the modules give comprehensive engine and alternator protection. This is indicated on a large back-lit LCD icon display via an array of warning, electrical trip and shutdown alarms.

Electronic J1939 (CAN) and non-electronic MPU and alternator sensing engine support for diesel, gas and petrol engines all in one variant. With a number of flexible inputs, outputs and protections, the modules can be easily adapted to suit a wide range of applications.

Through USB Communication both modules can be configured using the DSE Configuration Suite PC Software or through the module’s front panel editor.

Using the DSE Configuration Suite PC Software the controller is easy to use and configure which allows alteration of operating parameters, sequences, timers and alarms.

**AVAILABLE VARIANTS**

- **DSE6010-03**: Auto Start with real time clock
- **DSE6010-04**: Auto start with real time clock and heated display
- **DSE6020-03**: Auto Mains Failure with real time clock
- **DSE6020-04**: Auto Mains Failure with real time clock and heated display

**COMPREHENSIVE FEATURE LIST TO SUIT A WIDE VARIETY OF GEN-SET APPLICATIONS**

<table>
<thead>
<tr>
<th>USB PORT</th>
<th>CONFIGURABLE INPUTS</th>
<th>DC OUTPUTS</th>
<th>ANALOGUE SENSOR / DIGITAL INPUT</th>
<th>EMERGENCY STOP</th>
<th>DC POWER SUPPLY 8-32V</th>
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**DSE6010/20 MKII**

<table>
<thead>
<tr>
<th>MAINS (UTILITY) SENSING (DSE6020 MKII)</th>
<th>DC OUTPUT 1 OF 4</th>
<th>GENERATOR / LOAD CURRENT</th>
<th>DC OUTPUT 1 OF 4</th>
<th>GENERATOR SENSING</th>
<th>CHARGE ALTERNATOR</th>
<th>FUEL &amp; START OUTPUTS (Flexible with CAN)</th>
<th>ELECTRONIC ENGINES &amp; MAGNETIC PICK-UP</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOLTS</td>
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<td>D + W/L</td>
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</tbody>
</table>
**DSE 6010/20 MKII**

**AUTO START AND AUTO MAINS FAILURE CONTROL MODULES**

**FEATURES**
- Large back-lit icon display
- Heated display option available
- Fully configurable via the fascia or PC using USB communication
- Efficient power save mode
- 3 phase generator sensing
- 3 phase mains (utility) sensing (DSE6020 MKII only)
- Generator/load power monitoring (kW, kVA, kVAR, pf)
- Accumulated power monitoring (kWh, kVArh)
- Generator overload protection (kW)
- Generator/load current monitoring and protection
- Breaker control via fascia buttons
- Fuel and start outputs, configurable when using CAN
- 4 configurable DC outputs
- 4 configurable analogue/digital inputs
- 6 configurable digital inputs
- Support for 0-10 V & 4-20 mA oil pressure sensors
- Configurable staged loading outputs
- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel pump control
- Real time clock
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD and LED alarm indication
- Configurable event log (50)

**KEY BENEFITS**
- Automatically transfers between mains (utility) and generator (DSE6020 MKII only)
- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored simultaneously which are clearly displayed on a large back-lit icon display
- The module can be configured to suit a wide range of applications
- Compatible with a wide range of CAN engines, including tier 4 engine support
- Uses DSE Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress

**SPECIFICATION**
- **DC SUPPLY**
  - CONTINUOUS VOLTAGE RATING: 8 V to 35 V Continuous
- **CRANKING DROPOUTS**
  - Able to survive 0 V for 50 ms, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.
- **MAXIMUM OPERATING CURRENT**
  - 100 mA at 12 V, 105 mA at 24 V
- **MAXIMUM STANDBY CURRENT**
  - 60 mA at 12 V, 55 mA at 24 V
- **MAXIMUM SLEEP CURRENT**
  - 40 mA at 12 V, 35 mA at 24 V
- **GENERATOR & MAINS (UTILITY) VOLTAGE RANGE**
  - 15 V to 415 V AC (Ph to N)
  - 26 V to 719 V AC (Ph to Ph)
- **FREQUENCY RANGE**
  - 3.5 Hz to 75 Hz
- **INPUTS**
  - ANALOGUE INPUTS A to F
  - Negative switching
  - ANALOGUE INPUTS A to C
  - Configurable as: Negative switching digital input 0 G to 480 G
  - ANALOGUE INPUT D
  - Configurable as: Negative switching digital input 0 V to 10 V
  - 4 mA to 20 mA
  - 0 D to 480 D
- **OUTPUTS**
  - O UTPUT A (FUEL)
  - 10 A short term, 5 A continuous, at supply voltage
  - O UTPUT B (START)
  - 10 A short term, 5 A continuous, at supply voltage
  - AUXILIARY OUTPUTS C, D, E & F
  - 2 A DC at supply voltage
- **DIMENSIONS**
  - OVERALL
    - 216 mm x 158 mm x 43 mm
    - 8.5” x 6.2” x 1.7”
  - PANEL CUT-OUT
    - 184 mm x 137 mm
    - 7.2” x 5.3”
  - MAXIMUM PANEL THICKNESS
    - 5 mm
    - 0.2”
- **STORAGE TEMPERATURE RANGE**
  - -40°C to +85°C
  - -40 °F to +185 °F
- **OPERATING TEMPERATURE RANGE**
  - -30°C to +70°C
  - -22 °F to +158 °F
- **HEATED DISPLAY VARIANT**
  - -40 °C to +70°C
  - -40 °F to +158 °F

**RELATED MATERIALS**

<table>
<thead>
<tr>
<th>TITLE</th>
<th>PART NO/S</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSE6010/20 MKII Installation Instructions</td>
<td>053-174</td>
</tr>
<tr>
<td>DSE6010/20 MKII Operator Manual</td>
<td>057-230</td>
</tr>
<tr>
<td>DSE6010/20 MKII Configuration Suite PC Manual</td>
<td>057-223</td>
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Registered in England & Wales No.01319649 VAT No.316935457

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