

# DSE7110/20

## AUTO START & AUTO MAINS FAILURE CONTROL MODULES

### FEATURES



The DSE7110 is an Auto Start Control Module and the DSE7120 is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications.

Monitoring speed, frequency, voltage, current, oil pressure, coolant temperature and fuel level, the modules will display warnings, shutdown and engine status information on the back-lit LCD screen and illuminated LEDs.

Both modules offer electronic (CAN) and non-electronic (magnetic pick-up/alternator sensing) engine versions and offer an extensive number of flexible inputs, outputs and advanced engine protections so the system can be easily adapted to suit a wide range of application demands.

Enhanced features include a 4-line icon display.

The modules can be easily configured using the DSE Configuration Suite PC software. Front panel editing is also available.

### ENVIRONMENTAL TESTING STANDARDS

#### ELECTRO-MAGNETIC COMPATIBILITY

BS EN 61000-6-2  
EMC Generic Immunity Standard for the Industrial Environment  
BS EN 61000-6-4  
EMC Generic Emission Standard for the Industrial Environment

#### ELECTRICAL SAFETY

BS EN 60950  
Safety of Information Technology Equipment, including Electrical Business Equipment

#### OPERATING TEMPERATURE

BS EN 60068-2-1  
Ab/Ae Cold Test -30 °C  
BS EN 60068-2-2  
Bb/Be Dry Heat +70 °C

#### VIBRATION

BS EN 60068-2-6  
Ten sweeps in each of three major axes  
5 Hz to 8 Hz @ +/-7.5 mm,  
8 Hz to 500 Hz @ 2 gn

#### HUMIDITY

BS EN 60068-2-30  
Db Damp Heat Cyclic 20/55 °C @ 95% RH 48 Hours  
BS EN 60068-2-78  
Cab Damp Heat Static 40 °C @ 93% RH 48 Hours

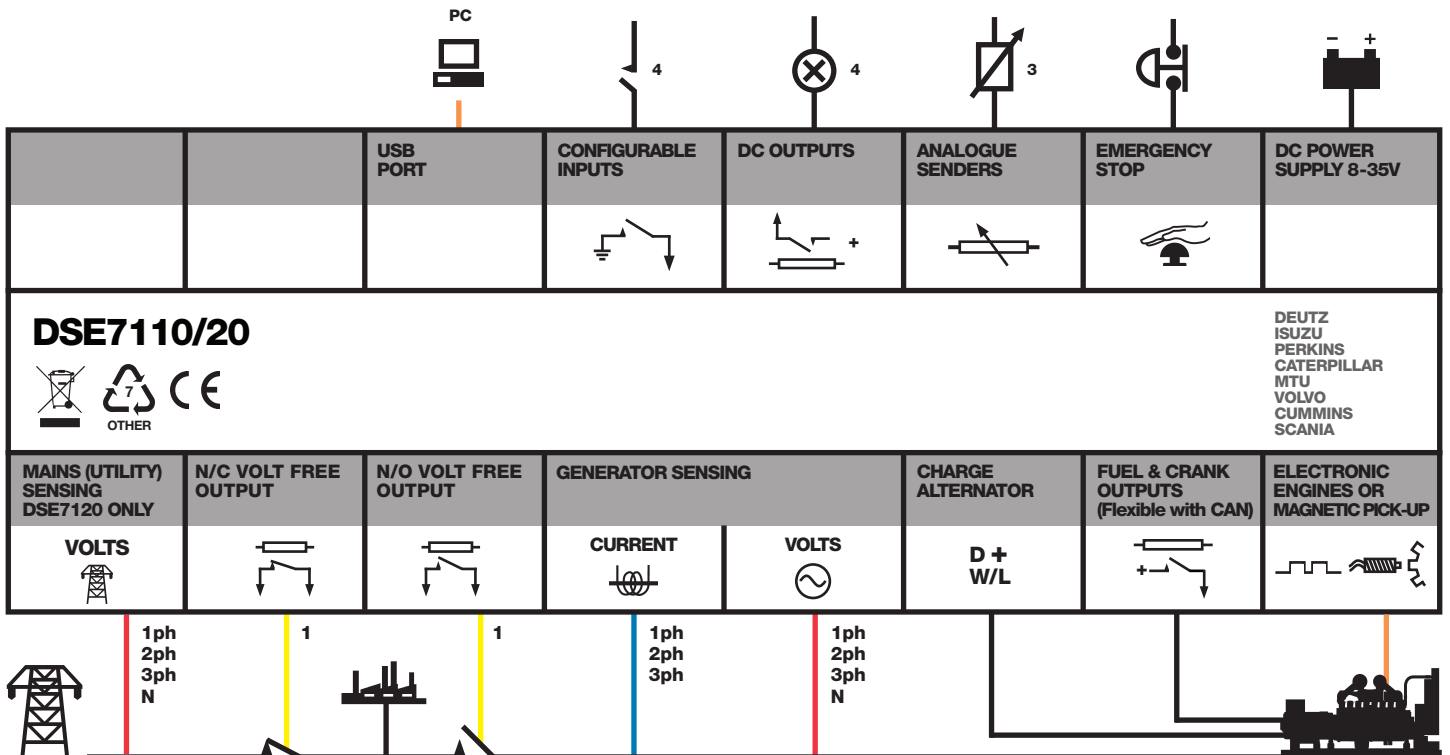
#### SHOCK

BS EN 60068-2-27  
Three shocks in each of three major axes  
15 gn in 11 ms

#### DEGREES OF PROTECTION PROVIDED BY ENCLOSURES

BS EN 60529  
IP65 - Front of module when installed into the control panel with the supplied sealing gasket.

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



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## AUTO START & AUTO MAINS FAILURE CONTROL MODULES

### FEATURES



DSE7110



DSE7120



### KEY FEATURES

- Back-lit icon LCD display
- Five key menu navigation
- Front panel editing
- LED and LCD alarm indication
- Power Save mode
- 4 Digital inputs
- 3 Analogue inputs (2 fixed, 1 flexible)
- 6 configurable outputs
- Configurable timers and alarms
- Alternative configuration
- Event Log (5)
- CAN and Magnetic Pick up / Alt. sensing
- 3 Phase generator monitoring
- Current monitoring and protection
- 3 Phase Mains (Utility) monitoring (DSE7120 only)

- Test button (DSE7120 only)
- Automatic load transfer (DSE7120 only)
- Battery voltage monitoring
- Engine pre-heat
- Hours counter
- Comprehensive shutdown or warning on fault condition
- Fully configurable via DSE Configuration Suite PC software
- USB connectivity
- Remote SCADA monitoring via DSE Configuration Suite PC software

### KEY BENEFITS

- Automatically transfers between mains (utility) and generator power (DSE7120 only)
- Hours counter provides accurate

- information for monitoring and maintenance periods
- User-friendly set-up and button layout
- Multiple engine parameters are monitored simultaneously
- Module can be configured to suit individual applications
- Compatible with a wide range of CAN engines
- Uses DSE Configuration Suite PC software for simplified configuration
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- Licence-free software

### 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

290 mA at 12 V, 140 mA at 24 V

#### MAXIMUM STANDBY CURRENT

75 mA at 12 V, 40 mA at 24 V

#### CHARGE FAIL/EXCITATION RANGE

0 V to 35 V

#### MAINS (UTILITY) DSE7120 ONLY

**VOLTAGE RANGE**  
15 V to 333 V AC (L-N)

#### FREQUENCY RANGE

3.5 Hz to 75 Hz

#### OUTPUTS

**OUTPUT A (FUEL)**  
15 A DC at supply voltage

**OUTPUT B (START)**  
15 A DC at supply voltage

**OUTPUTS C & D**  
8 A AC at 250 V AC (Volt free)

**AUXILIARY OUTPUTS E, F, G & H**  
2 A DC at supply voltage

#### GENERATOR

**VOLTAGE RANGE**  
15 V to 333 V AC (L-N)

**FREQUENCY RANGE**  
3.5 Hz to 75 Hz

**MAGNETIC PICK UP**  
**VOLTAGE RANGE**  
+/- 0.5 V to 70 V

**FREQUENCY RANGE**  
10,000 Hz (max)

**DIMENSIONS**  
**OVERALL**  
240 mm x 181 mm x 42 mm  
9.4" x 7.1" x 1.6"

**PANEL CUT-OUT**  
220 mm x 160 mm  
8.7" x 6.3"

**MAXIMUM PANEL THICKNESS**  
8 mm  
0.3"

**STORAGE TEMPERATURE RANGE**  
-40°C to +85°C

**OPERATING TEMPERATURE RANGE**  
-30°C TO +70°C

### RELATED MATERIALS

#### TITLE

DSE7110 Installation Instructions  
DSE7120 Installation Instructions  
DSE7100 Operator Manual  
DSE7100 Configuration Suite PC Manual

#### PART NO'S

053-080  
053-081  
057-113  
057-117

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