

# DSE6110/20

## AUTO START & AUTO MAINS FAILURE CONTROL MODULES

### FEATURES



The DSE6110 is an Auto Start Control Module and the DSE6120 is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single 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 LED.

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

The modules can be easily configured using the DSE Configuration Suite PC software. Selected 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

#### 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

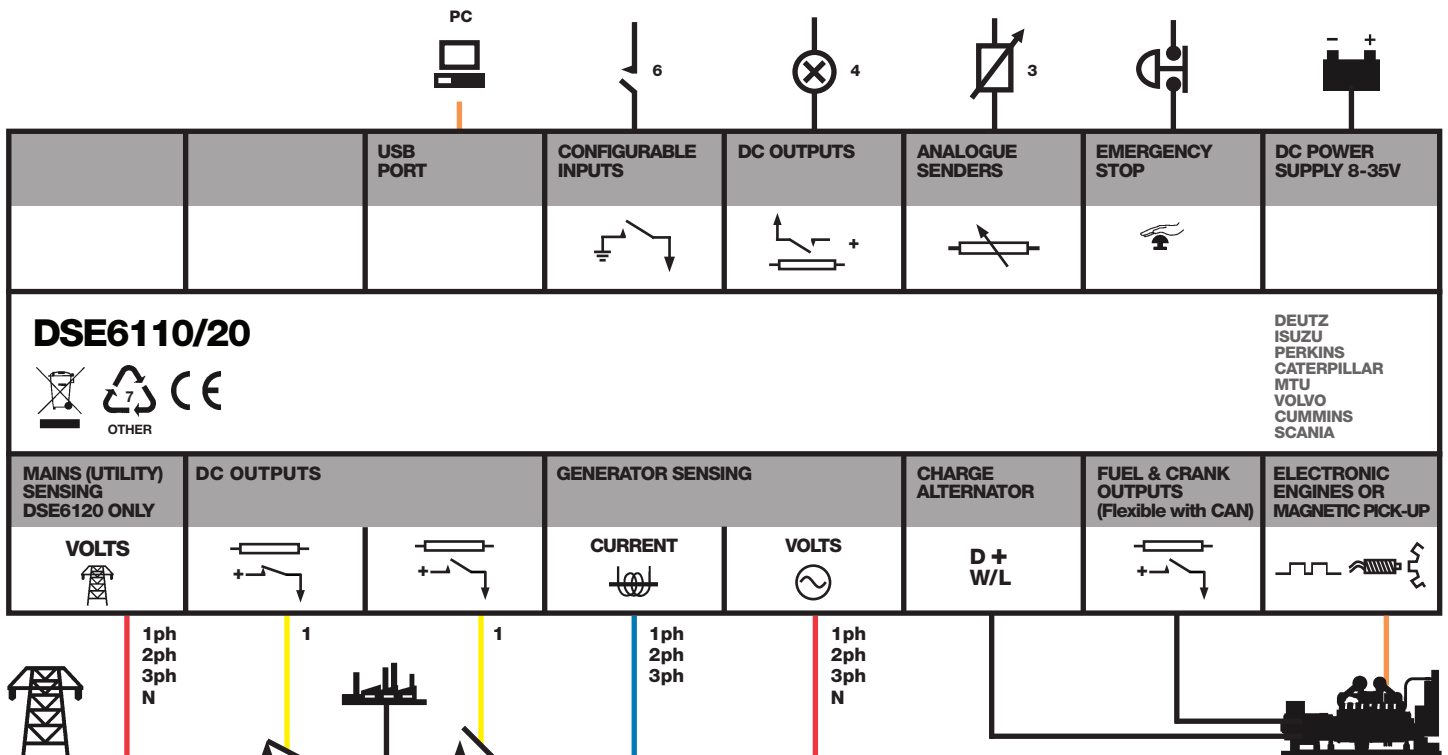
#### SHOCK

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 optional 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



DSE6120

DSE6110



### KEY FEATURES

- Back-lit text LCD display
- Front panel editing
- LED and LCD alarm indication
- Power Save mode
- CAN and Magnetic Pick-up/Alt. versions available (specify on ordering)
- PC and front panel configuration
- 6 Digital inputs
- 3 Analogue inputs
- 6 Outputs (4 configurable on Magnetic Pick-up/Alt., 6 configurable on CAN version)
- Configurable timers and alarms
- Alternative configuration
- Event Log (10)
- Remote Start input
- 3 Phase generator monitoring
- Current Monitoring and protection
- 3 Phase Mains (Utility) monitoring (DSE6120 only)

- Test button (DSE6120 only)
- Battery voltage monitoring
- Engine pre-heat
- Hours counter
- Comprehensive shutdown or warning on fault condition

### KEY BENEFITS

- Automatically transfers between mains (utility) and generator power (DSE6120 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

- Tier 4 engine support
- Uses DSE Configuration Suite PC software for simplified configuration
- IP65 rating (with optional gasket) offers increased resistance to water ingress
- Licence-free PC 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

178 mA at 12 V, 95 mA at 24 V

#### MAXIMUM STANDBY CURRENT

88 mA at 12 V, 50 mA at 24 V

#### CHARGE FAIL/EXCITATION RANGE

0 V to 35 V

#### MAINS (UTILITY) DSE6120 ONLY VOLTAGE RANGE

15 V - 333 V AC (L-N)

#### FREQUENCY RANGE

3.5 Hz to 75 Hz

#### OUTPUTS

##### OUTPUT A (FUEL)

2 A DC at supply voltage

##### OUTPUT B (START)

2 A DC at supply voltage

##### AUXILIARY OUTPUTS C,D,E & F

2 A DC at supply voltage

#### GENERATOR

##### VOLTAGE RANGE

15 V - 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

215 mm x 158 mm x 42 mm  
8.5" x 6.2" x 1.6"

##### PANEL CUT-OUT

182 mm x 137 mm  
7.2" x 5.4"

##### MAXIMUM PANEL THICKNESS

8 mm  
0.3"

##### STORAGE TEMPERATURE RANGE

-40 °C to +85 °C

### RELATED MATERIALS

#### TITLE

DSE6110 Installation Instructions  
DSE6120 Installation Instructions  
DSE6100 Quick Start Guide  
DSE6100 Operator Manual  
DSE6100 Configuration Suite PC Manual

#### PART NO'S

053-059  
053-060  
057-102  
057-095  
057-096

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