





The DSE7310 is an Auto Start Control Module and the DSE7320 is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications.

Monitoring an extensive number of engine parameters, the modules will display warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LEDs, remote PC and via SMS text alerts (with external modem).

The DSE7320 will also monitor the mains (utility) supply. The modules include USB, RS232 and RS485 ports as well as dedicated DSENet® terminals for system expansion.

Both modules are compatible with electronic (CAN) and non-electronic (magnetic pick-up/alternator sensing) engines and offer an extensive number of flexible inputs, outputs and extensive engine protections so the system can be easily adapted to meet the most demanding industry requirements.

The extensive list of features includes enhanced event and performance monitoring, remote communications and dual mutual standby (DSE7310 only) to reduce engine wear.

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 supplied sealing gasket.

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

DSE2130 DSE2157 DSE2548 DSE2510/20	MODEM MODBUS	PC	8	★ 4	₽́		<b>i</b>
DSENET <sup>®</sup> EXPANSION	RS232 AND RS485	USB PORT	CONFIGURABLE INPUTS	DC OUTPUTS	ANALOGUE SENDERS	EMERGENCY STOP	DC POWER SUPPLY 8-35V
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DSE7310/20 $\stackrel{\scriptstyle \times}{\simeq}$ $\stackrel{\scriptstyle \wedge}{\sim}$ CE OTHER CE							
MAINS (UTILITY) SENSING DSE7320 ONLY		N/O VOLT FREE OUTPUT	GENERATOR SENSING		CHARGE ALTERNATOR	FUEL & CRANK OUTPUTS (Flexible with CAN)	ELECTRONIC ENGINES & MAGNETIC PICK-UP
VOLTS	ţŢ	ţ,			D+ W/L	ţ Ţ Ţ	<b>@</b> {
1ph 2ph 3ph N			1ph 2ph 3ph E N	1ph 2ph 3ph N			







# DSE**7310/20** AUTO START & AUTO MAINS FAILURE CONTROL MODULES

DSE7320

## FEATURES

DSE7310



#### **KEY FEATURES**

- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN
- protection
- LED and LCD alarm indication
- Customisable status screens
- Power save mode
- Support for up to three remote display units
- 9 configurable inputs
- 8 configurable outputs
- Flexible sender inputs
- Configurable timers and alarms
- 3 configurable maintenance
- alarms
- Multiple date and time scheduler
- Configurable event log (250)
   Control logic facilities
- Control logic facilitiesEasy access diagnostic page
- CAN and Magnetic Pick-up/Alt. sensing
- Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- Manual speed control (on
- compatible CAN engines)Manual fuel pump control
- Manual fuel pump contro
   Engine exerciser

**RELATED MATERIALS** 

Engine exerciser

# "Protections disabled" feature

- kW overload protection
- Power monitoring (kW h, kV Ar, kV A h, kV Ar h)
- Load switching (load shedding and dummy load outputs)
- Automatic load transfer (DSE7320)
- Unbalanced load protection
- Independent Earth Fault trip
- True dual mutual standby with load balancing timer (DSE7310 only)
- USB connectivity
- Backed up real time clock
  Fully configurable via DSE Configuration Suite PC software
- Configurable display languages
- Remote SCADA monitoring via DSE Configuration Suite PC software
- User selectable RS232 and RS485 communications
- SMS Messaging (additional external modem required)
- Additional display screens to help with modem diagnostics
- DSENet<sup>®</sup> expansion compatible
- Integral PLC editor

### **KEY BENEFITS**

- 132 x 64 pixel ratio display for clarity
- Real-time clock provides accurate event logging
- Multiple date and time schedulerSet maintenance periods can
- be configured to maintain optimum engine performance
- Ethernet communications (via DSE860/865 modules), provides advanced remote monitoring at low cost
- Modules can be integrated into building management systems (BMS)
- Increased input and output expansion capability via DSENet<sup>®</sup>
- Licence-free PC software
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- PLC editor allows user configurable functions to meet specific application requirements

PART NO'S

053-028

053-029

057-101

057-074

057-077



#### 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 340 mA at 12 V, 160 mA at 24 V

MAXIMUM STANDBY CURRENT 160 mA at 12 V, 80 mA at 24 V

CHARGE FAIL/EXCITATION RANGE 0 V to 35 V

MAINS (UTILITY) DSE7320 ONLY VOLTAGE RANGE 15 V - 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 250 V (Volt free)

AUXILIARY OUTPUTS E,F,G,H 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** 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"

TITLE DSE7310 Installation Instructions DSE7320 Installation Instructions DSE7200/7300 Quick Start Guide DSE7200/7300 Operator Manual DSE7200/7300 Configuration Suite PC Manual

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# Deep Sea Electronics Plc maintains a policy of continuous development and reserves the right to change the details shown on this data sheet without prior notice. The contents are intended for guidance only.

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