



DSE7310/20 MKII

AUTO START & AUTO MAINS FAILURE CONTROL MODULES





KEY FEATURES

- Configurable power-up mode
- MPU fail delay
- Enhanced graphical user interface
- Drag & drop advanced PLC editor
- MSC ID within PLC GenComm override
- 4-Line back-lit LCD text display
- Multiple Display Languages
- Five key menu navigation
- LCD alarm indication
- Heated display option available
- Customisable power-up text and
- DSENet expansion compatibility
- Data logging facility
- Internal PLC editor Protections disable feature
- Fully configurable via PC using USB, RS232 & RS485 communication
- Front panel configuration with PIN protection
- Power save mode
- 3 phase generator sensing and protection
- 3 phase mains (utility) sensing and protection (DSE7320 MKII only)
- Automatic load transfer control (DSE7320 MKII only)
- Generator current and power monitoring (kW, kvar, kVA, pf)
- Mains current and power monitoring (kW, kvar, kVA, pf) (DSE7320 MKII only)
- kW and kvar overload and reverse power alarms
- Over current protection

- Unbalanced load protection
- Independent earth fault protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN
- 6 configurable DC outputs
- 2 configurable volt-free relay outputs
- 6 configurable analogue/digital inputs
 - Support for 0 V to 10 V & 4 mA to 20 mA sensors
- 8 configurable digital inputs Configurable 5 stage dummy load and load shedding outputs
- CAN, MPU and alternator frequency speed sensing in one variant
- Real time clock
- Manual and automatic fuel pump
- Engine pre-heat and post-heat functions
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel usage monitor and low fuel level alarms
- Simultaneous use of RS232 and RS485 communication ports
- True dual mutual standby using RS232 or RS485 for accurate engine hours balancing.
- MODBUS RTU support with configurable MODBUS pages.
- Advanced SMS messaging (additional external modem required)

- Start & stop capability via SMS messaging
- 3 configurable maintenance alarms
- 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 supplied gasket) offers increased resistance to water ingress
- · Modules can be integrated into building management systems (BMS) using MODBUS RTU

KEY BENEFITS

- Automatically transfers between mains (utility) and generator (DSE7320 MKII only) for convenience.
- 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 & displayed simultaneously for full
- The module can be configured to suit a wide range of applications for user flexibility
- PLC editor allows user configurable functions to meet user specific application requirements.

SPECIFICATIONS

DC SUPPLY CONTINUOUS VOLTAGE RATING

8 V to 35 V Continuous 5 V for upto 1 minute

CRANKING DROPOUTS

Able to survive 0 V for 100 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

510 mA at 12 V. 240 mA at 24 \

MAXIMUM STANDBY CURRENT 330 mA at 12 V, 160 mA at 24 V

CHARGE FAIL/EXCITATION RANGE

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

MAGNETIC PICKUP VOLTAGE RANGE +/- 0.5 V to 70 V

FREQUENCY RANGE

10,000 Hz (max)

DIGITAL INPUTS A TO H

ANALOGUE INPUTS A & F

Configurable as: Negative switching digital input 0 V to 10 V sensor 4 mA to 20 mA sensor Resistive sensor

ANALOGUE INPUTS B, C, D & E onfigurable as: egative switching digital input

si**stive s**ensor

OUTPUT A & B (FUEL & 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, I & J 2 A DC at supply voltage

DIMENSIONS

OVERALL

245 mm x 184 mm x 51 mm 9.6" x 7.2" x 2.0"

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

MAXIMUM PANEL THICKNESS

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

TITLE

DSE7310 MKII & DSE7320 MKII Installation Instructions DSE7310 MKII & DSE7320 MKII Operator Manual DSE7310 MKII & DSE7320 MKII Configuration Suite PC Manual

DEEP SEA ELECTRONICS LTD

Highfield House, Hunmanby Industrial Estate, Hunmanby YO14 0PH TELEPHONE +44 (0) 1723 890099

EMAIL sales@deepseaelectronics.com WEBSITE www.deepseaelectronics.com 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

DEEP SEA ELECTRONICS INC USA

3230 Williams Avenue, Rockford, IL 61101-2668 USA

TELEPHONE +1 (815) 316 8706

PART NO.

053-181

057-253

057-243

EMAIL usasales@deepseaelectronics.com WEBSITE www.deepseaelectronics.com

Registered in England & Wales No.01319649 VAT No.316923457





DSE**7310/20 MKII**

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

The DSF7310 MKII is an Auto Start Control Module and the DSE7320 MKII 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 DSF7320 MKII 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 & PLC functionality. Dual mutual standby is now available on both the DSE7310 MKII & DSE7320 MKII using RS232 or RS485 communications. This provides for a simpler and more convenient installation with more advanced features such as true engine hours balancing.

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 at +/-7.5 mm, 8 Hz to 500 Hz at 2 gn

HUMIDITY

BS EN 60068-2-30 Db Damp Heat Cyclic 20/55 °C

at 95% RH 48 Hours BS EN 60068-2-78 Cab Damp Heat Static 40 °C

SHOCK

at 93% RH 48 Hours

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



DSF2130





MODEM MODBUS











DSENET® EXPANSION



USB PORT



8







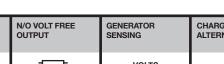




DSE7310/20 MKII



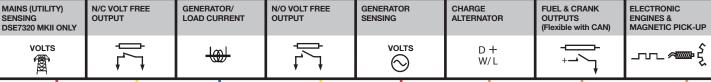




1ph

2ph 3ph









1ph







1ph

2ph 3ph



