DSE**Genset**

DSE**7410/20**
AUTO START & AUTO MAINS FAILURE MODULES

FEATURES

DSE**7420**

DSE**7410**

KEY FEATURES
- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection
- Customisable status screens
- Power save mode
- 11 configurable inputs
- 8 configurable outputs
- Flexible sensor inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time scheduler
- Configurable event log (250)
- Tier 4 CAN engine support
- Integral PLC editor
- Easy 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
- Engine exerciser
- "Protections disabled" feature
- kW protection
- Reverse power (kW) protection

- LED and LCD alarm indication
- Power monitoring (kW h, kV Ar, kV A h, kV Ar h)
- Load switching (load shedding and dummy load outputs)
- Automatic load transfer (DSE7420)
- Unbalanced load protection
- Independent Earth Fault trip
- 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 simultaneous RS232, RS485 & Ethernet communications
- Configurable MODBUS pages
- MODBUS RTU & TCP support
- Advanced SMS messaging (additional external modem required)
- Additional display screens to help with modem diagnostics
- Idle control for starting
- DSENet® expansion compatible
- 20 parameter data logging

KEY BENEFITS
- 132 x 64 pixel ratio display for clarity
- Real-time clock provides accurate event logging
- Multiple date and time scheduler
- Set maintenance periods can be configured to maintain optimum engine performance
- Built in ethernet communications provides advanced remote monitoring
- Modules can be integrated into building management systems (BMS) using MODBUS
- Increased input and output expansion capability via DSENet®
- 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
- Data logging to assist with fault finding

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

MAXIMUM OPERATING CURRENT
260 mA at 12 V, 130 mA at 24 V

MAXIMUM STANDBY CURRENT
120 mA at 12 V, 65 mA at 24 V

CHARGE FAIL/EXCITATION RANGE
0 V to 35 V

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,I & J
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

MAINS (UTILITY) (DSE7420)
VOLTAGE RANGE
15 V to 333 V AC (L-N)

FREQUENCY RANGE
3.5 Hz to 75 Hz

BUS (DSE7410)
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 6.8" x 1.6"

PANEL CUTOUT
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
-40 °F to +185 °F

OPERATING TEMPERATURE RANGE
-30 °C to +70 °C
-22 °F to +158 °F

DSE**7410/20**
AUTO START & AUTO MAINS FAILURE MODULES

FEATURES

The DSE7410 is an Auto Start Control Module and the DSE7420 is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications.

A sophisticated module monitoring an extensive number of engine parameters, the DSE74xx will annunciate warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LED, remote PC, and audible alarms. The module includes RS232, RS485 & Ethernet ports as well as dedicated terminals for system expansion.

The DSE7400 Series modules are compatible with electronic (CAN) and non-electronic (magnetic pick-up/alternator sensing) engines and offer a comprehensive number of flexible inputs, outputs and extensive engine protections so the system can be easily adapted to meet industry requirements.

The modules can be easily configured using the DSE Configuration Suite 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 $^{\circ}$C
BS EN 60068-2-2
Bb/Be Dry Heat +70 $^{\circ}$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 $^{\circ}$C @ 95% RH 48 Hours
BS EN 60068-2-78
Cab Damp Heat Static 40 $^{\circ}$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

DSENET EXPANSION	RS232 AND RS485	USB PORT / USB HOST	CONFIGURABLE INPUTS (11)	DC OUTPUTS (6)	ANALOGUE SENDERS (4)	EMERGENCY STOP	DC POWER SUPPLY 8-35V
DSE2130 DSE2131 DSE2133 DSE2152 DSE2157 DSE2548	MODEM 232 / MODBUS 485 / PC	ETHERNET					

DSE7410/20

OTHER — CE

DEUTZ
ISUZU
PERKINS
CATERPILLAR
MTU
VOLVO
CUMMINS
SCANIA

MAINS (UTILITY) SENSING (DSE7420) BUS SENSING (DSE7410)	N/C VOLT FREE OUTPUT	N/O VOLT FREE OUTPUT	GENERATOR SENSING		CHARGE ALTERNATOR	FUEL & CRANK OUTPUTS FLEXIBLE WITH CAN	ELECTRONIC ENGINES & MAGNETIC PICK-UP
VOLTS			CURRENT	VOLTS	D + W/L		
1ph 2ph 3ph N	1	1	1ph 2ph 3ph E N	1ph 2ph 3ph N			