

DSE8610

AUTO START LOAD SHARE MODULE

FEATURES

The DSE8610 is an easy to use multi-generator loadshare system, designed to synchronise up to 32 generators including electronic and non-electronic engines.

The DSE8610 monitors the generator and indicates operational status and fault conditions, automatically starting or stopping the engine on load demand or fault condition.

System alarms are annunciated on the LCD screen (multiple language options available), illuminated LED and audible sounder.

The event log will record 250 events to facilitate easy maintenance. An extensive number of fixed and flexible monitoring, metering and protection features are included as well as comprehensive communication and system expansion options.

Using the DSE PC Configuration Suite Software allows easy alteration of the operational sequences, timers and alarms. With all communication ports capable of being active at the same time, the DSE8610 is ideal for a wide variety of demanding load share applications.

KEY LOAD SHARE FEATURES:

- Peak lopping (with DSE8x60)
- Sequential set start
- Manual voltage/frequency adjustment
- Generator load demand
- R.O.C.O.F. and vector shift
- Automatic hours run balancing
- Mains (Utility) de-coupling
- Mains (Utility) de-coupling test mode
- Dead bus sensing
- Bus failure detection
- Direct governor and AVR control
- Volts and frequency matching
- kW and kV Ar load sharing
- Dead bus synchronising

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
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
5Hz to 8Hz @ +/-7.5mm, 8Hz to 500Hz @ 2gn

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

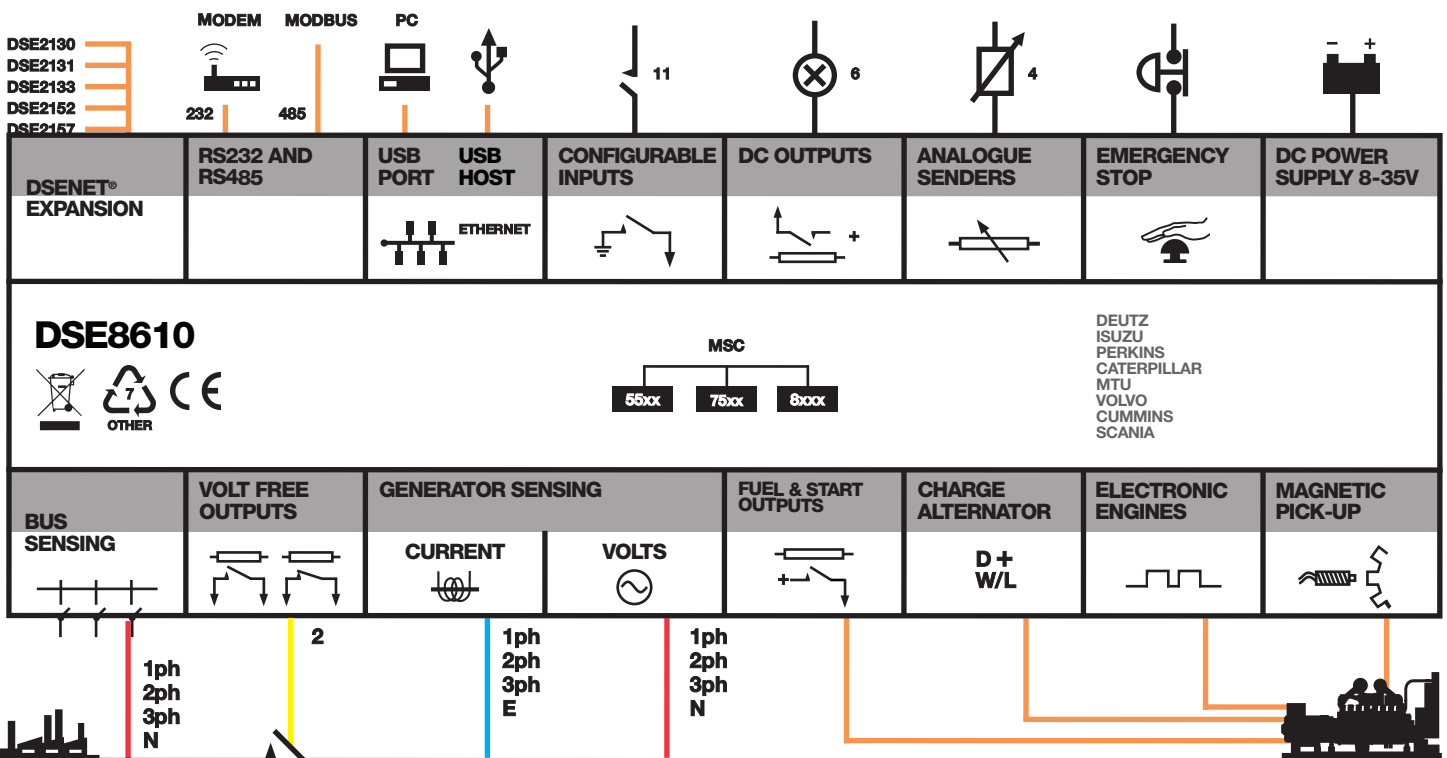
SHOCK

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

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 LOAD SHARE APPLICATIONS



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KEY FEATURES

- Comprehensive synchronising & loadshare capabilities
- Built-in governor and AVR control
- 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 sender 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 fuel pump control
- "Protections disabled" feature
- kW & kV Ar overload protection
- Reverse power (kW & kV Ar)

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)
- 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 RS232 and RS485 & Ethernet communications
- Modbus RTU/TCP
- Configurable Gencomm pages
- Advanced SMS messaging (additional external modem required)
- Start & stop capability via SMS messaging
- Additional display screens to help with modem diagnostics
- DSENet® expansion compatible
- Data logging and trending

KEY BENEFITS

- Compatible with DSE55xx, DSE75xx & DSE8xxx series of modules
- 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
- Ethernet communications, provides advanced remote monitoring at low cost
- Can be integrated into building management systems (BMS)
- 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

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

460 mA at 12 V, 245 mA at 24 V

MAXIMUM STANDBY CURRENT

375 mA at 12 V, 200 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 & BUS

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)

BUILT-IN GOVERNOR CONTROL

MINIMUM LOAD IMPEDANCE

1000Ω

Fully isolated

GAIN VOLTAGE

0 V to 10 V DC

Fully isolated

OFFSET VOLTAGE

+/- 10 V DC

Fully isolated

BUILT-IN AVR CONTROL

MINIMUM LOAD IMPEDANCE

1000Ω

Fully isolated

GAIN VOLTAGE

0 V to 10 V DC

Fully isolated

OFFSET VOLTAGE

+/- 10 V DC

Fully isolated

DIMENSIONS

OVERALL

240 mm x 172 mm x 57 mm

9.4" x 6.8" x 2.2"

PANEL CUTOUT

220 mm x 160 mm

8.7" x 6.3"

MAXIMUM PANEL THICKNESS

8 mm

0.3"

OPERATING TEMPERATURE RANGE

-30 °C to +70 °C

STORAGE TEMPERATURE RANGE

-40 °C to +85 °C

RELATED MATERIALS

TITLE

DSE8610 Installation Instructions
DSE8610 Operator Manual
DSE8600 PC Configuration Suite Manual
DSE8660 Date Sheet

PART NO'S

053-069
057-115
057-119
055-086

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