

# DSE8860

## AUTO TRANSFER SWITCH & MAINS COLOUR CONTROL MODULE

### FEATURES



The DSE8860 is an easy-to-use single or multi-mains controller with automatic transfer switch capability. Designed to synchronise single or multiple DSE8810s with single or multiple mains (utility) supplies, the DSE8860 will automatically control the change over from mains (utility) to generator supply or run generators in synchronisation with the mains (utility) to provide no-break, peak lopping and peak shaving power solutions.

The module can indicate operational status and fault conditions on the LCD screen (multiple languages available), by illuminated LED, audible sounder and SMS messaging.

Comprehensive communications are also available via RS232, RS485 & Ethernet for remote PC control and monitoring, and integration into building management systems. The comprehensive event log will record up to 250 events to facilitate maintenance.

An extensive number of fixed and flexible monitoring and protection features are included. Easy alteration of the sequences, timers and alarms can be made using the DSE PC Configuration Suite Software. Selected configuration is also available via the module's front panel.

With all communication ports capable of being active at the same time, the DSE8000 Series is ideal for a wide variety of demanding load share applications.

### KEY LOAD SHARE FEATURES:

- Peak lopping
- Sequential set start
- Manual voltage/frequency adjustment
- R.O.C.O.F. and vector shift
- Generator load demand
- Automatic hours run balancing
- Mains (Utility) de-coupling
- Mains (Utility) de-coupling test mode
- Bus failure detection
- Volts and frequency matching.

### 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  
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

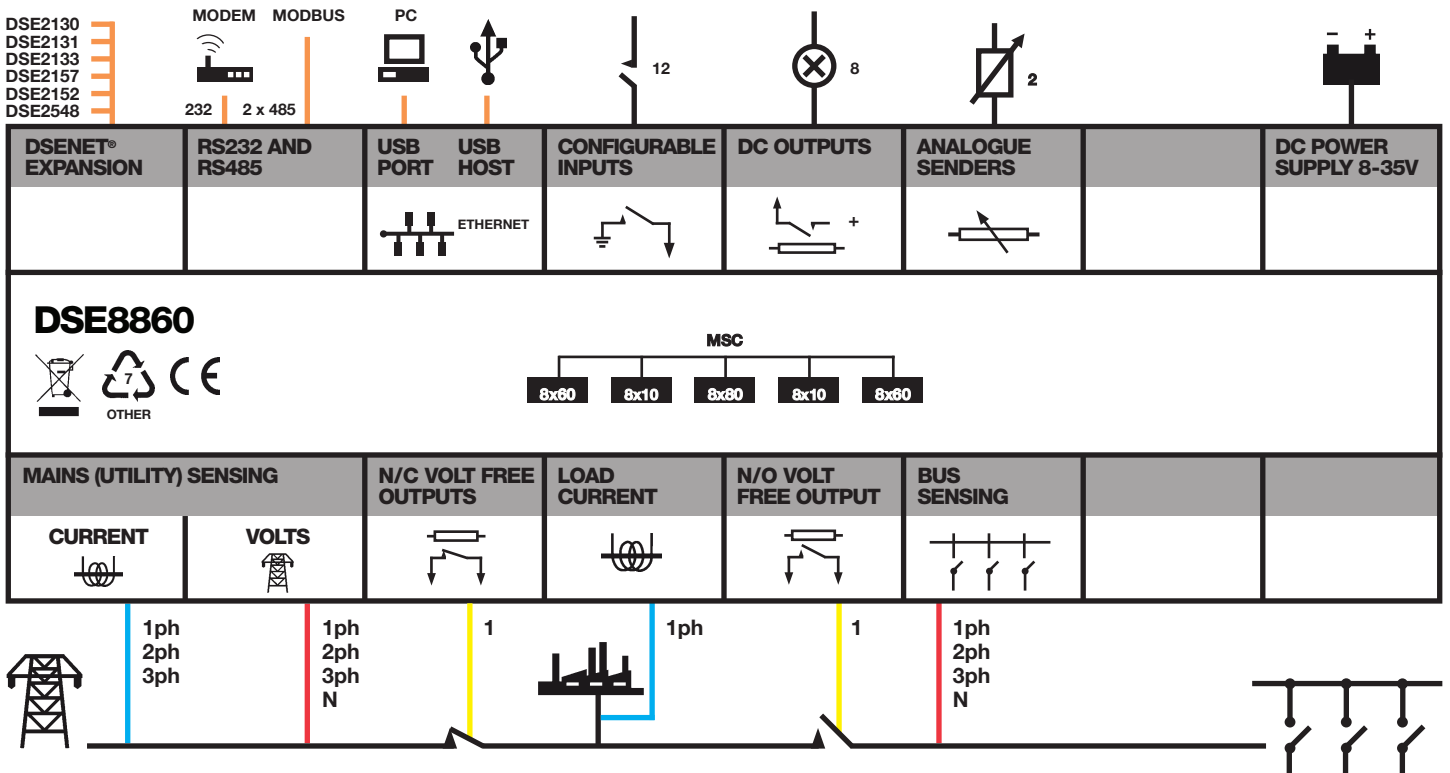
#### SHOCK

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



# DSE8860

## AUTO TRANSFER SWITCH & MAINS

### FEATURES



### KEY FEATURES

- Colour LCD graphical display
- Configurable digital inputs (12)
- Configurable outputs (10)
- Configurable flexible sender inputs (2)
- Comprehensive electrical protection
- Comprehensive loadshare capabilities
- Mains (utility) fail sensing
- Multiple mains (utility) monitoring, when using multiple DSE8860s
- Peak lopping
- Peak shaving
- RS232, RS485 & Ethernet remote communications
- Modbus RTU/TCP support
- Configurable display languages
- Audible alarm
- Reduced file transfer time
- Fault condition notification to a designated PC
- Compatible with DSE8700 &

### DSE8600 Series

- Front panel editing with PIN protection
- Configurable timers and alarms
- Multiple date and time scheduler
- Configurable event log (250)
- Easy access diagnostic page
- kW overload protection
- Reverse power protection
- Power monitoring (kW h, kV Ar, kV A h, kV Ar h)
- USB connectivity
- Backed up real time clock
- Fully configurable via DSE Configuration Suite PC software
- Advanced SMS messaging (additional external modem required)
- Start & stop capability via SMS messaging
- Additional display screens to help with modem diagnostics
- DSENet® expansion compatible
- Integral PLC editor

### KEY BENEFITS

- Dual processor for improved response
- RS232, RS485 & Ethernet can be used at the same time
- High number of inputs and outputs
- Worldwide language support
- Data logging & trending
- Harmonics display for clear monitoring
- Modules can be integrated into building management systems (BMS)
- 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. LEDs and backlight will not be maintained during cranking.

**MAXIMUM OPERATING CURRENT**  
 600 mA at 12 V, 300 mA at 24 V

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

**MAINS (UTILITY) AND BUS VOLTAGE RANGE**  
 15 V to 333 V AC (L-N)

**FREQUENCY RANGE**  
 3.5 Hz to 75 Hz

**OUTPUTS**  
**OUTPUTS C & D**  
 8 A at 250 V AC (Volt free)

**AUXILIARY OUTPUTS E,F,G,H,I,J,K & L**  
 2 A DC at supply voltage

**DIMENSIONS**  
**OVERALL**  
 245 mm x 184 mm x 50 mm  
 9.6" x 7.2" x 2"

**PANEL CUT-OUT**  
 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

### RELATED MATERIALS

#### TITLE

DSE8860 Installation Instructions  
 DSE8860 Operator Manual  
 DSE8860 PC Configuration Suite Software Manual  
 DSE8810 Data Sheet

#### PART NO'S

053-139  
 057-173  
 057-174  
 055-116

### DEEP SEA ELECTRONICS PLC UK

Highfield House, Hunmanby Industrial Estate, Hunmanby YO14 0PH  
**TELEPHONE** +44 (0) 1723 890099 **FACSIMILE** +44 (0) 1723 893303  
**EMAIL** sales@deepseapl.com **WEBSITE** www.deepseapl.com

### DEEP SEA ELECTRONICS INC USA

3230 Williams Avenue, Rockford, IL 61101-2668 USA  
**TELEPHONE** +1 (815) 316 8706 **FACSIMILE** +1 (815) 316 8708  
**EMAIL** sales@deepseausa.com **WEBSITE** www.deepseausa.com