

# DSE8660

## AUTO TRANSFER SWITCH & MAINS CONTROL MODULE

### FEATURES



The DSE8660 is an easy-to-use single or multi-mains controller with automatic transfer switch capability. Designed to synchronise single or multiple DSE8610s and DSE8680s with single or multiple mains (utility) supplies, the DSE8660 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 DSE8xxx Series is ideal for a wide variety of demanding load share applications.

### KEY LOAD SHARE FEATURES (WITH DSE8x10) :

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

### 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

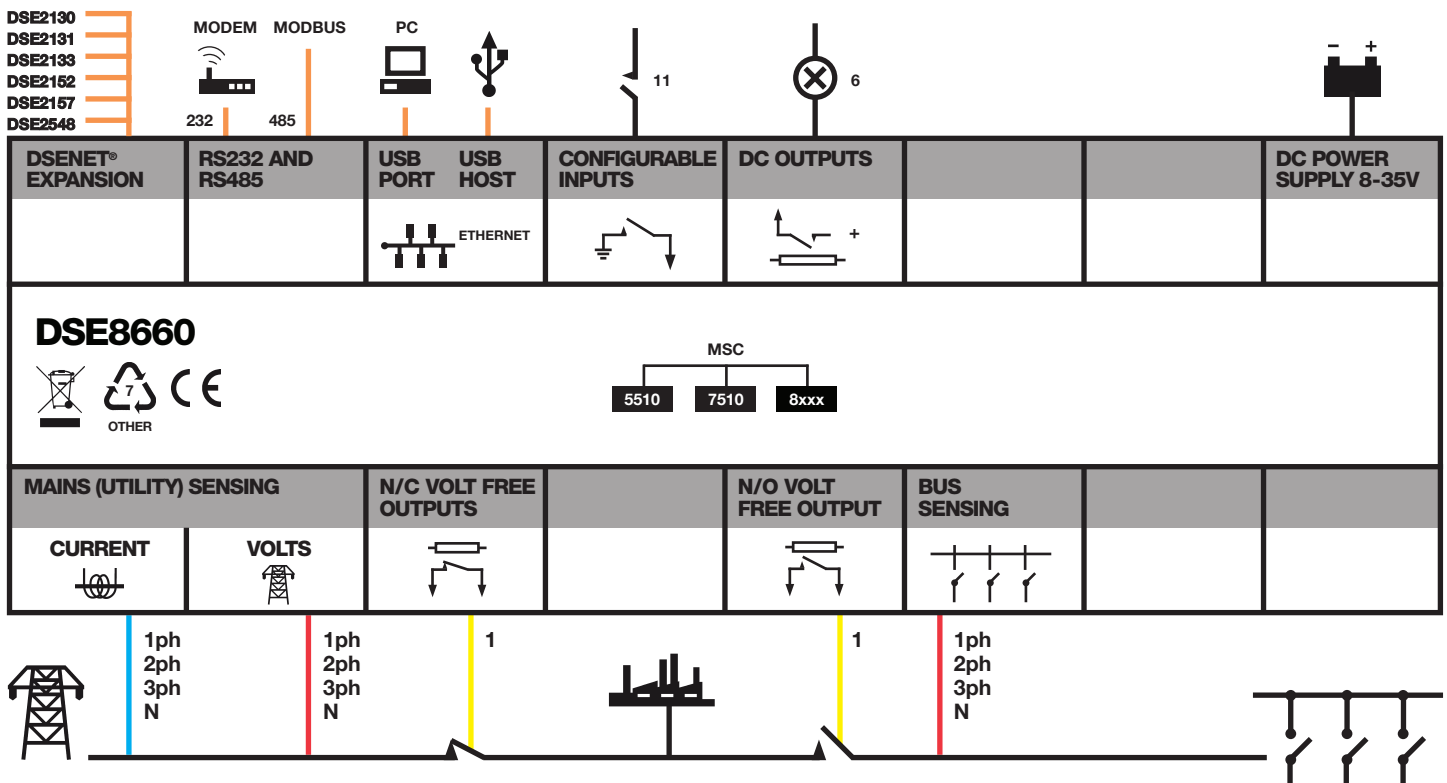
**VIBRATION**  
 BS EN 60068-2-6  
 Ten sweeps in each of three major axes  
 5Hz to 8Hz @ +/-7.5mm, 8Hz to 500Hz @ 2gn

**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



# DSE8660

## AUTO TRANSFER SWITCH & MAINS CONTROL MODULE

### FEATURES



### KEY FEATURES

- Mains (utility) failure detection
- Mains (utility) power monitoring (kW, kV Ar, kV A and pf)
- Comprehensive synchronising and loadsharing capabilities
- Base load (kW export) functionality
- Positive & negative kVAr export control
- Peak lopping & shaving functionality
- Mains (utility) kW export protection
- Mains (utility) de-coupling protection
- Advanced integral PLC editor
- User configurable RS232, RS485 & Ethernet communications
- MODBUS RTU & TCP support
- User configurable MODBUS pages
- Advanced SMS control and fault messaging (additional GSM modem required)
- DSENet expansion compatible
- Data logging and trending
- 4-Line back-lit LCD text display
- Multiple display languages

- Five key menu navigation
- Front panel editing with PIN protection
- Customisable status screens
- Configurable inputs (11)
- Configurable outputs (8)
- Configurable timers and alarms
- Multiple entry scheduler
- Configurable event log (250)
- Easy access diagnostic pages
- LED and LCD alarm indication
- USB connectivity
- Backed up real time clock
- Fully configurable via DSE Configuration Suite PC Software

### KEY BENEFITS

- A single flexible solution for multiple applications
- Compatible with DSE5510, DSE7510 & DSE8x10 series of modules
- 132 x 64 pixel ratio display for clarity
- Real-time clock provides accurate event logging
- Ethernet communication provides built in advanced remote monitoring.

- Can be integrated into building management systems (BMS) and programmable logic control (PLC)
- Increased input and output expansion capability via DSENet®
- Licence-free PC software
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- Advanced Internal PLC editor allows user configurable functions to meet specific application requirements.

### EXPANSION DEVICES

- DSE124 CAN/MSX Extender
- DSE2130 Input Expansion Module
- DSE2131 Ratiometric Input Expansion Module
- DSE2133 RTD & Thermocouple Expansion Module
- DSE2152 Analogue Output Expansion Module
- DSE2157 Output Expansion Module
- DSE2548 LED Expansion Module

### 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

340 mA at 12 V, 160 mA at 24 V

#### MAXIMUM STANDBY CURRENT

160 mA at 12 V, 80 mA at 24 V

#### MAINS (UTILITY)

**VOLTAGE RANGE**  
15 V to 333 V AC (L-N)

#### FREQUENCY RANGE

3.5 Hz to 75 Hz

#### 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

2 A DC at supply voltage

#### 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"

#### OPERATING TEMPERATURE RANGE

-30°C to +70°C

#### STORAGE TEMPERATURE RANGE

-40°C to +85°C

### RELATED MATERIALS

#### TITLE

DSE8660 Installation Instructions  
DSE8660 Operator Manual  
DSE8600 PC Configuration Suite Manual  
DSE8610 Data Sheet  
DSE8680 Data Sheet  
DSE8700 Data Sheet  
DSE8810 Data Sheet  
DSE8860 Data Sheet

#### PART NO'S

053-070  
057-120  
057-119  
055-083  
055-091  
055-090  
055-116  
055-139

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