

# DSE8760

## REAR MOUNTED SYNCHRONISING AUTO TRANSFER SWITCH & MAINS CONTROL MODULE

Used in conjunction with DSE remote displays

### FEATURES



The DSE8760 is an easy-to-use single or multi-mains controller with automatic transfer switch capability. Designed to synchronise single or multiple DSE8x10s and DSE8680s with single or multiple mains (utility) supplies, the DSE8760 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 modules are designed to work with independent front display screens which are connected via a data link up to a maximum distance of 1 km. These must be ordered as a separate item.

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 adjustment 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 display 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  
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 at 93% RH 48 Hours

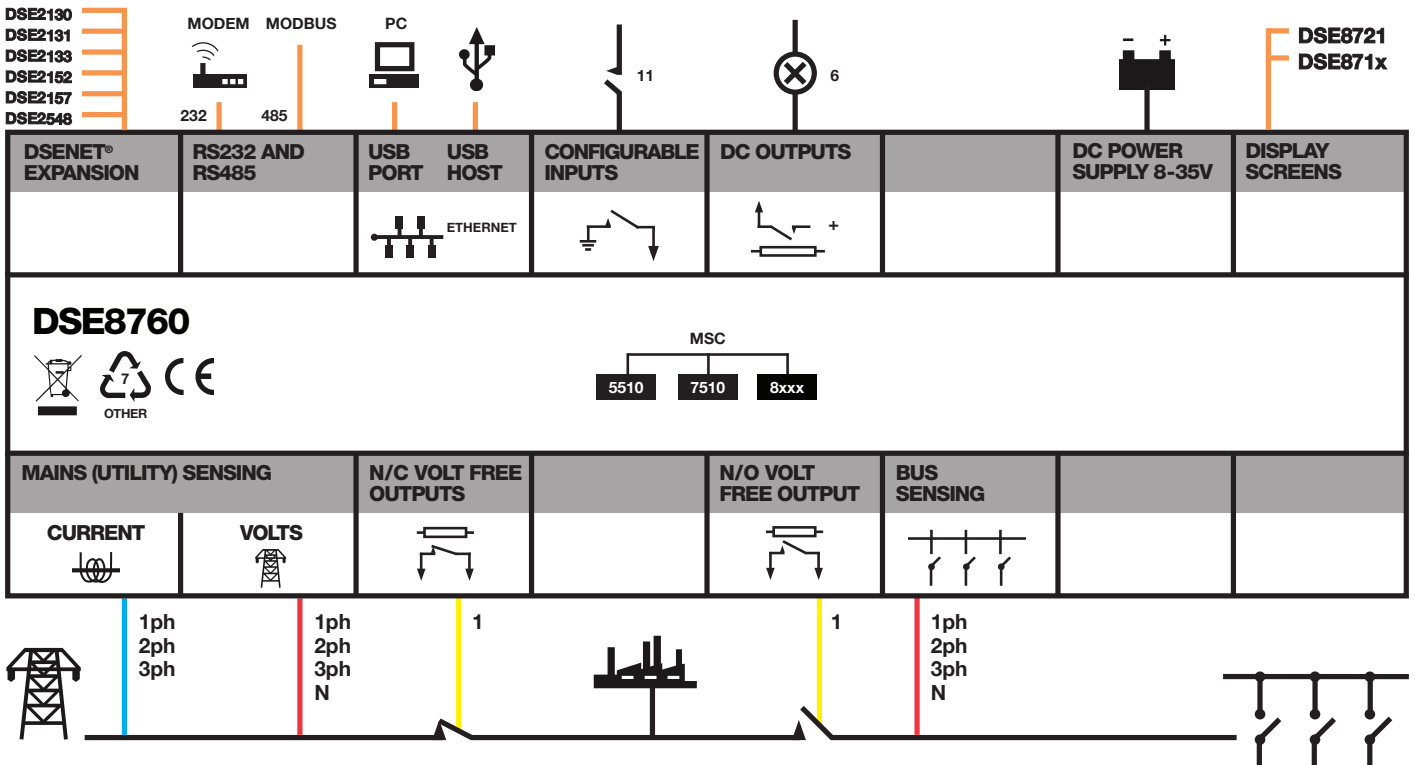
#### SHOCK

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 LOAD SHARE APPLICATIONS

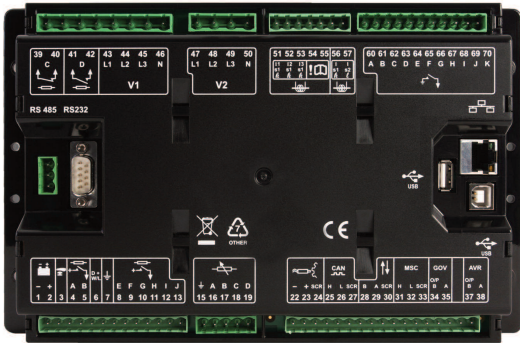


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Used in conjunction with DSE remote displays

### FEATURES



**DSE8721**  
Colour Remote Display Module



**DSE8716**  
Standard Remote Display Module

### KEY FEATURES

- Can be set as a DSE8710 or DSE8760
- Independent display screen options
- Mains (utility) failure detection
- Mains (utility) power monitoring (kW, kV Ar, kV A and pf)
- Comprehensive synchronising and loadsharing capabilities
- 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

- 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
- Real-time clock provides accurate event logging
- Ethernet communication provided 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/MSD 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.

#### 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

#### 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"

#### OPERATING TEMPERATURE RANGE

-30 °C to +70 °C  
-22 °F to +158 °F

#### STORAGE TEMPERATURE RANGE

-40 °C to +85 °C  
-40 °F to +185 °F

### RELATED MATERIALS

#### TITLE

DSE8721 Colour Remote Display Module Data Sheet  
DSE871x Mono Remote Display Module Data Sheet  
DSE8700 Installation Instructions  
DSE8760 Operator Manual  
DSE8700 PC Configuration Suite Manual  
DSE8710 Data Sheet  
DSE8680 Data Sheet  
DSE8810 Data Sheet  
DSE8860 Data Sheet

#### PART NO'S

055-073  
055-084  
053-073  
057-125  
057-127  
055-184  
055-091  
055-116  
055-139

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