

# DSE8700 SERIES

## REAR MOUNTED LOAD SHARE MODULES

Used in conjunction with DSE remote displays

### FEATURES



The DSE8700 Series is an easy-to-use, rear-mounted, multi-generator loadshare system, designed to synchronise up to 32 generators including electronic and non-electronic engines.

The module is available in 2 variants:

- DSE8710 Auto Start (this can also be programmed as a DSE8760 Auto Mains Controller)
- DSE8760 ATS/Auto Mains Controller

The modules are designed to work with independent front display screens which are connected via a data link up to a maximum distance of 1km. These must be ordered as a separate item.

The DSE8700 Series monitors the system 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 independent front screens, illuminated LEDs 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 sophisticated 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 DSE8700 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
- Dead bus sensing
- Mains (Utility) de-coupling test mode
- Bus failure detection
- Direct governor and AVR connections/controls
- Volts and frequency matching
- kW and 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

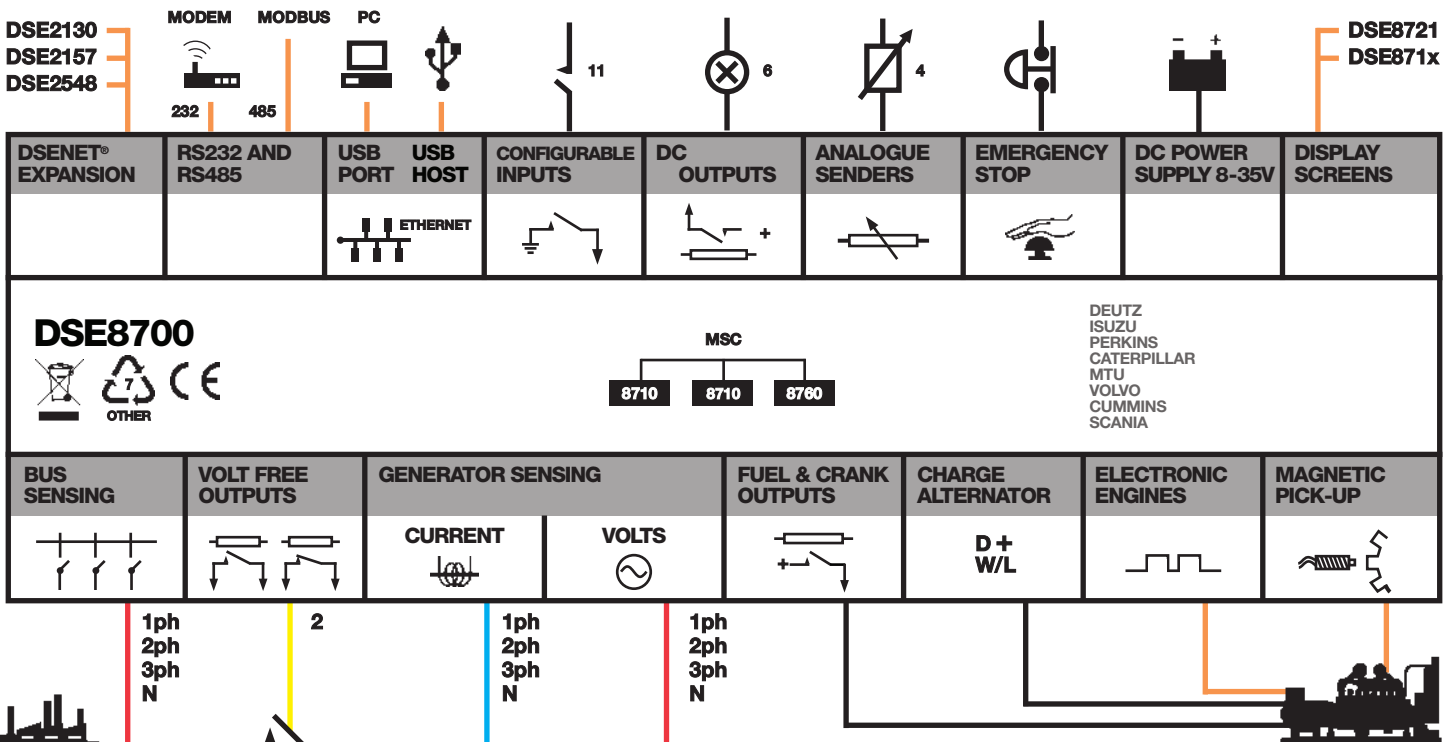
#### HUMIDITY

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

## COMPREHENSIVE FEATURE LIST TO SUIT A WIDE VARIETY OF LOAD SHARE APPLICATIONS

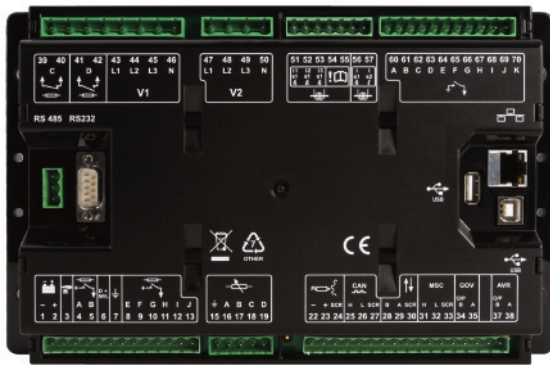


# DSE8700 SERIES

## REAR MOUNTED LOAD SHARE MODULES

Used in conjunction with DSE remote displays

### FEATURES



**DSE8721**  
Colour Remote Display Module



**DSE871X**  
Standard Remote Display Module

### KEY FEATURES

- Comprehensive loadshare capabilities
- Independent display screen options
- Configurable inputs (11)
- Configurable outputs (8)
- Voltage measurement
- Built-in governor and AVR control
- kW overload alarms
- Comprehensive electrical protection
- Magnetic pick-up/Alt. sensing
- Electronic engine capability
- RS232 & RS485 remote communications
- Modbus RTU
- PLC Functionality
- Multi-event exercise timer
- Automatic start/Manual start
- Event log (250)

- Engine protection
- Fault condition notification to a designated PC
- PC configuration
- Configurable alarms and timers
- Configurable start and stop timers
- SMS alert messaging
- Remote monitoring
- Compatible with DSE8600 Series

### KEY BENEFITS

- RS232 & RS485 can be used at the same time
- DSENet connection for system expansion
- PLC functionality
- Auto voltage sensing
- Five step dummy load support
- Five step load shedding support
- High number of inputs and outputs

- Worldwide language support
- Configuration suite PC software
- Direct USB connection to PC
- Ethernet monitoring
- USB host
- Data logging & trending

### EXPANSION DEVICES

- DSE2548 LED Expansion Module
- DSE2130 Input Expansion Module
- DSE2157 Output Expansion Module
- DSE124 CAN/MSC Extender

### RELATED MATERIALS

#### TITLE

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

#### PART NO'S

053-073  
 057-124  
 057-125  
 057-127  
 055-084  
 055-084

### 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 ON DSE8710)**  
15 A DC at supply voltage

**OUTPUT B (CRANK ON DSE8710)**  
15 A DC at supply voltage

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

**AUXILIARY OUTPUTS E,F,G**  
2 A DC at supply voltage

**MAINS (UTILITY) & BUS (DSE8760 ONLY)**  
**VOLTAGE RANGE**  
15 V to 333 V AC (L-N)

**FREQUENCY RANGE**  
3.5 Hz to 75 Hz

**GENERATOR (DSE8710 ONLY)**  
**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"

### 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