

# DSE7560

## AUTO TRANSFER SWITCH & MAINS CONTROL MODULE

### FEATURES



The DSE7560 is an Automatic Transfer Switch and Mains (Utility) Control Module, designed to automatically synchronise multiple DSE7510s with single or multiple mains (utility) supplies.

The module instructs the DSE7510s to make precise changes to the gen-set outputs, and provides sophisticated monitoring and protection functionality making the system ideal for a wide range of load sharing applications including peak lopping, peak shaving and no-break return.

The module will monitor multiple mains (utility) supplies, and upon removal or failure detection of the mains (utility) supply will automatically start or stop the gen-sets being controlled by DSE7510s. The modules operational status is indicated on the LCD display and the front panel LEDs.

A sophisticated module monitoring an extensive number of parameters, the DSE7560 will announce engine shutdowns, warnings, and engine status information on the back-lit LCD screen, by illuminated LED, on a remote PC, by audible alarm and via SMS text alerts. The module

includes RS232 and RS485 ports as well as dedicated terminals for system expansion.

The module's load share functions include automatic synchronising with built-in synchroscope and closing onto dead bus.

### MODULE CAPABILITIES

- Fixed export with mains (utility) supply
- Will synchronise any combination of up to 16 gen-sets with up to 16 mains (utilities) up to a maximum of 20 in one system e.g. 16 gen-sets + 4 mains, 4 gensets + 16 mains etc.

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

#### 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

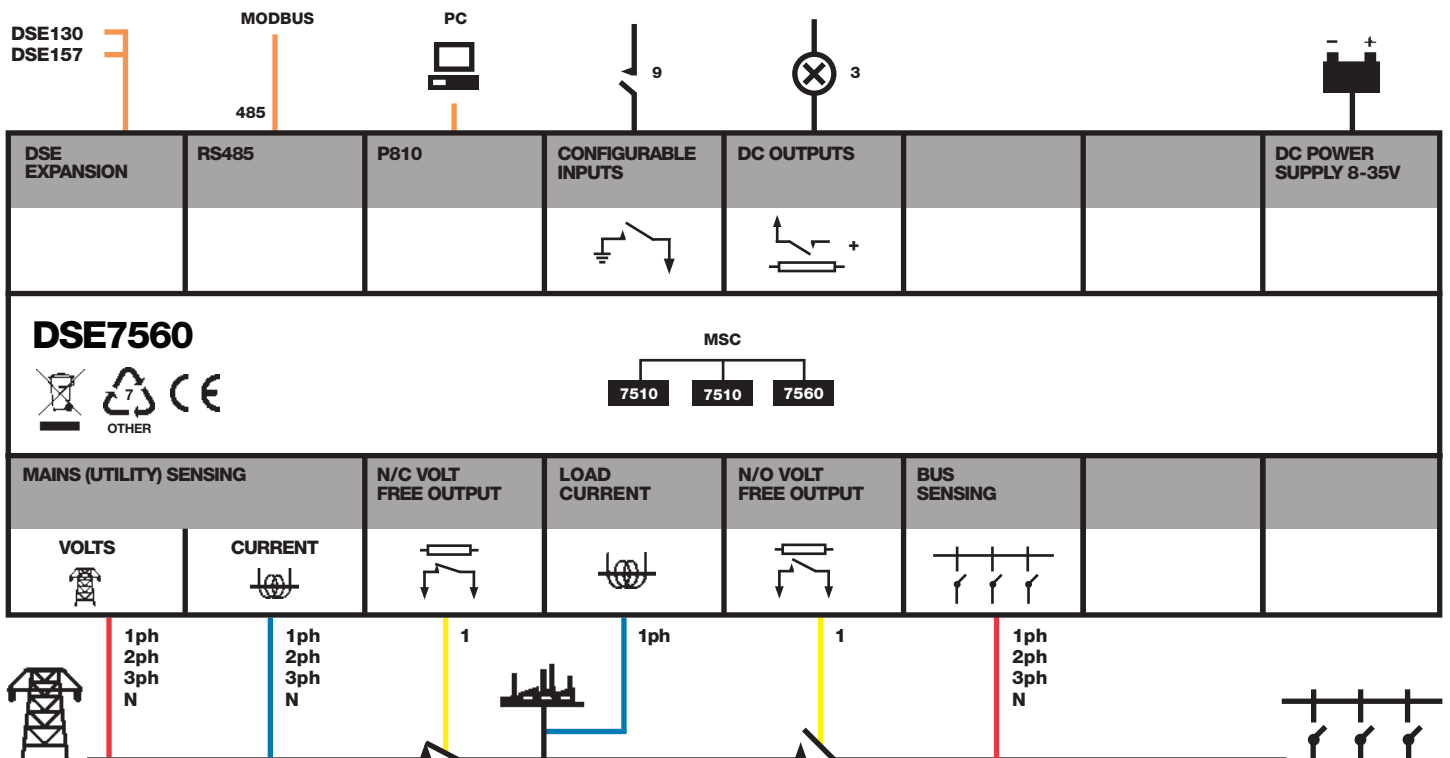
#### SHOCK

BS EN 60068-2-27  
Three shocks in each of three major axes  
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 GEN-SET APPLICATIONS



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### FEATURES



### KEY LOAD SHARE FEATURES

- Fixed export with mains (utility)
- Volts and frequency matching
- kW and kV Ar sharing
- Dead bus sensing
- Peak lopping
- Peak shaving
- No break return
- Load demand scheme
- R.O.C.O.F & Vector Shift
- Mains (utility) de-coupling test facility
- Multiple mains (utility) monitoring
- Synchronising up to 16 generators
- Sequential start
- Auto ID negotiation

### KEY FEATURES

- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection

- Multiple display languages
- LED and LCD alarm indication
- Customisable status screens
- 9 configurable inputs
- 5 configurable outputs
- Configurable timers and alarms
- Multiple date and time scheduler
- Event log (25)
- Mains (utility) fail monitoring
- Automatic load transfer between mains (utility) and generator
- Manual load transfer between mains (utility) and generator
- Audible alarm
- Backed-up real-time clock
- Fully configurable via by DSE 7500 PC software
- Multiple display languages
- Remote SCADA monitoring and control via DSE7500 PC software
- RS485 communications

### KEY BENEFITS

- 132 x 64 Pixel ratio display for clarity
- Real-time clock provides accurate event logging
- Remote monitoring of module using comprehensive DSE7500 PC software
- Ethernet communications (via DSE860/865 modules), provides advanced remote monitoring at low cost
- Modules can be integrated into building management systems (BMS)
- Surplus energy/power can be sold back to the grid (subject to local mains/utility supplier)
- Licence-free PC software
- IP65 rating (with supplied gasket) offers advanced protection from water ingress

### 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

#### CHARGE FAIL/EXCITATION RANGE

0 V to 35 V

#### MAINS (UTILITY) VOLTAGE RANGE

15 V - 333 V AC (L-N)

#### FREQUENCY RANGE

3.5 Hz to 75 Hz

#### OUTPUTS

##### OUTPUT A (FUEL)

15 A DC at supply voltage

##### OUTPUT B (START)

15 A DC at supply voltage

##### OUTPUTS C & D

8 A 250 V (Volt free)

##### AUXILIARY OUTPUTS E,F,G,H

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"

### RELATED MATERIALS

TITLE	PART NO'S
DSE7560 Installation Instructions	053-054
DSE7500 Quick Start Guide	057-100
DSE7560 Operator Manual	057-090
DSE7500 PC Software Manual	057-078
Load Share Design and Commissioning	057-047
Guide to Synchronising and Load Sharing	057-045/6

### OTHER RELATED MATERIALS

TITLE	PART NO'S
DSE7510 Data Sheet	055-065
DSE7520 Data Sheet	055-066
DSE850 Comms Software Data Sheet	055-072

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