

# DSE8660 MKII

## AUTO TRANSFER SWITCH & MAINS CONTROL MODULE



### KEY FEATURES

- 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 (addition 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
- Power modes for when in parallel with the mains
- Redundant MSC communication wired to CAN ports
- True manual breaker control when in manual mode
- Native no bus breaker support for signal ATS applications
- Separate ramp up and ramp down rates configurable via PLC
- In-built SNMP
- Configurable CAN transmit & receive
- Battery Chargers on DSENet®

### EXPANSION DEVICES

- DSE124 CAN/MSD Extender
- DSE2130 Input Expansion Module
- DSE2131 Ratio-metric Input Expansion Module
- DSE2133 RTD & Thermo-couple Expansion Module
- DSE2152 Ratio-metric Output Expansion Module
- DSE2157 Output Expansion Module
- DSE2548 LED Expansion Module

### KEY BENEFITS

- Two part solution allows upto 1.2 km between mains (utility) & bus breakers.
- 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 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.

### SPECIFICATIONS

#### DC SUPPLY

**CONTINUOUS VOLTAGE RATING**  
5 V to 35 V Continuous

#### CRANKING DROPOUTS

Able to survive 0 V for 100 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

530 mA at 12 V, 280 mA at 24 V

#### MAXIMUM STANDBY CURRENT

320 mA at 12 V, 160 mA at 24 V

#### MAINS (UTILITY) & BUS VOLTAGE RANGE

15 V to 415 V AC (Ph to N)  
25 V to 719 V AC (Ph to Ph)

#### Frequency RANGE

3.5 Hz to 75 Hz

#### INPUTS

**DIGITAL INPUTS A TO L**  
Negative switching

#### OUTPUTS

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

#### AUXILIARY OUTPUTS E to J

2 A DC at supply voltage

#### DIMENSIONS

##### OVERALL

245 mm x 184 mm x 51 mm  
9.6" x 7.2" x 2.0"

##### 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  
-40°F to +185°F

##### STORAGE TEMPERATURE RANGE

-40°C to +85°C  
-40°F to +185°F

### RELATED MATERIALS

#### TITLE

DSE8660 MKII Installation Instructions  
DSE8660 MKII Operator Manual  
DSE8660 MKII PC Configuration Suite Manual  
DSE8610 MKII Data Sheet  
DSE8610 Data Sheet

#### PART NO.

053-184  
057-259  
057-257  
055-204  
055-083

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# DSE8660 MKII

## AUTO TRANSFER SWITCH & MAINS CONTROL MODULE

The DSE8660 MKII is an easy-to-use single or multi-mains controller with automatic transfer switch capability. Designed to synchronise single or multiple DSE8610 MKIIs and DSE8680 MKII with single or multiple mains (utility) supplies, the DSE8660 MKII 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 MKII Series is ideal for a wide variety of demanding load share applications.

### KEY LOAD SHARE FEATURES (WITH DSE8610 MKII) :

- 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) decoupling
- Mains (Utility) decoupling test mode
- Bus failure detection
- Volts and frequency matching.
- kW & kvar 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

