

DSEPOWER® SHARING WITH SIMPLICITY.



DSE5560

AUTO TRANSFER SWITCH & MAINS CONTROL MODULE



The DSE5560 is an Automatic Transfer Switch and Mains Control Module, designed to automatically synchronise multiple DSE5510's with single or multiple mains (utility) supplies.

The module instructs the DSE5510's to make precise changes to the generating set outputs. This makes the module suitable for many applications including peak lopping, peak shaving and no break return.

The module has the ability to monitor the mains (utility) supply and start and stop the generating sets (being controlled by a DSE5510) upon removal or detection of the mains (utility) supply. The modules operational status is indicated on the LCD display and the front panel LED's.

FEATURES

- Multiple language options
- Back-lit 4-line text LCD display
- Configurable timers
- Configurable inputs (9)
- Configurable outputs (5)
- Automatic hours run balancing
- Peak lopping control for DSE5510 controlled generator bus
- Peak shaving
- No break return
- PIN protected programming
- Full remote control and telemetry
- Mains (utility) fail monitoring
- Load demand scheme
- Multiple mains (utility) monitoring
- System lock input
- Load switching control push-button inputs
- Engine history event log
- LED indicators
- PC configurable

BENEFITS

- On-site module configuration
- Remote module configuration via PC software
- In-built engine diagnostics removes the requirement for service equipment
- Full engine protection & instrumentation without the need for additional senders
- Transfer's between mains and generator
- Remote control and monitoring of the module using comprehensive DSE PC software
- License free PC software

OPERATION

The module is operated using the front STOP/RESET, MANUAL, AUTO, TEST and START push buttons.

The first four of these push buttons include LED indicators. Additional push buttons provide LCD page display scroll, lamp test, mute and load switching functionality.

SPECIFICATION

DC SUPPLY

8V to 35V continuous

CRANKING DROPOUTS

Able to survive 0V for 50mS, providing supply was at least 10V before dropout and supply recovers to 5V. This is achieved without the need for internal batteries

MAXIMUM OPERATING CURRENT

460mA at 12V. 245mA at 24V

MAXIMUM STANDBY CURRENT

375mA at 12V. 200mA at 24V

GENERATOR BUS INPUT RANGE

15V(L-N) to 333V AC (L-N) absolute maximum

MAINS (UTILITY) CT BURDEN

0.5VA

GENERATOR BUS INPUT FREQUENCY

50Hz - 60Hz at rated engine speed
(Minimum: 15V AC L-N)

MAINS SENSING INPUT RANGE

15V(L-N) to 333V AC (L-N) absolute maximum

MAINS SENSING INPUT FREQUENCY

50Hz - 60Hz (Minimum: 15V AC L-N)

AUXILIARY RELAY OUTPUTS

5A DC at supply voltage

GENERATOR BUS LOADING RELAY OUTPUT

8A AC 250V – normally open

MAINS LOADING RELAY OUTPUT

8A AC 250V – normally closed

DIMENSIONS

240mm x 172mm x 57mm
9.4" x 6.8" x 2.2"

PANEL CUTOUT

220mm x 160mm
8.7" x 6.3"

ENVIRONMENTAL TESTING STANDARDS

ELECTRO MAGNETIC COMPATIBILITY (EMC)

BS EN 50081-2 EMC Emission
Standard for the Industrial Environment
BS EN 50082-2 EMC Immunity
Standard for the Industrial Environment

VIBRATION

BS EN 60068-2-6 Ten sweeps (up and back down) at 1 octave/minute in each of the three major axes
5Hz to 8Hz @ +/-7.5mm constant displacement
8Hz to 500Hz @2gn constant acceleration

TEMPERATURE

COLD
BS EN 60068-2-1 to -30°C

HOT
BS EN 60068-2-2 to 70°C

HUMIDITY

BS EN 2011 part 2.1 93% RH @ 40°C for 48 hours

SHOCK

BS EN 60068-2-27 Three half sine shocks in each of the three major axes 15gn amplitude 11ms duration

ELECTRICAL SAFETY

BS EN 60950 Low Voltage Directive/Safety of Information Technology Equipment, including Electrical Business Equipment

INSTRUMENTATION

The DSE5560 module provides advanced metering functionality, displaying the information on the LCD display. The information can be accessed using the scroll push button located next to the LCD display.

Bus Volts (L1-N, L2-N, L3-N)
Bus Volts (L1-L2, L2-L3, L3-L1)
Bus Hz
Bus kW % of full capacity
Bus Phase Sequence
Load Amps, pf
Load kW, kVA, kVAR
Mains (utility) Volts (L1-N, L2-N, L3-N)
Mains (utility) Volts (L1-L2, L2-L3, L3-L1)
Mains (utility) Hz
Mains (utility) Amps
Mains (utility) kW
Mains (utility) Kw % of full capacity
Mains (utility) kVA
Mains (utility) pf
Mains (utility) kVAR
Mains (utility) kVAR % of full capacity
Mains (utility) kWh
Mains (utility) kVAh
Mains (utility) kVArh
Mains (utility) Phase Sequence
Synchroscope
System Battery Voltage

EVENT LOG

The module includes a comprehensive event log that shows the 25 most recent alarm conditions and the date and time that they occurred. This function assists the user when fault finding and maintaining a generating set.

COMMUNICATIONS

The DSE5560 includes a number of different communication capabilities.

Remote Communications

When the module detects an alarm condition, it dials out to a PC notifying the user of the exact alarm condition.

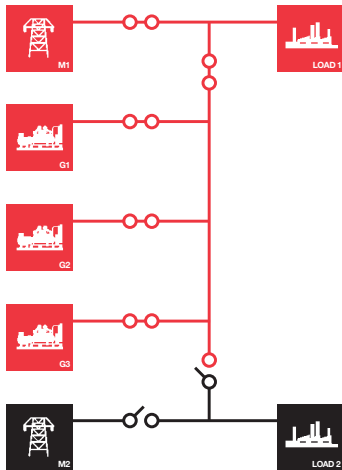
Building Management

The module has been designed to be integrated into new and existing building management systems.

PC Software

The module has the ability to be controlled, configured and monitored from a remote PC, using the DSE810 interface.

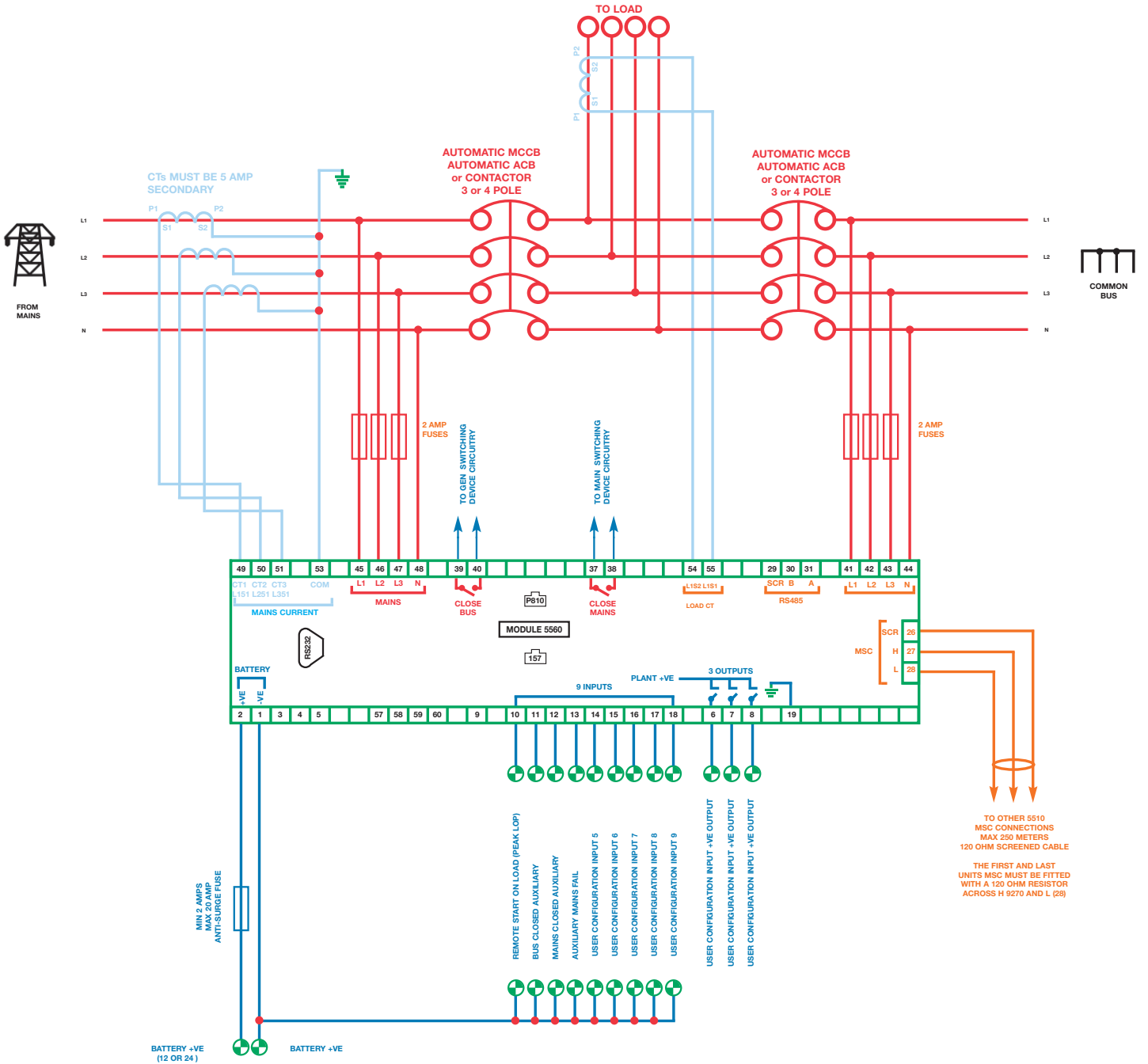
TYPICAL LOAD SHARE APPLICATION



EXPANSION MODULES

DSE157 Relay Input Expansion Module
DSE545 & DSE548 Remote Annunciation Expansion Module
DSE130 Input Expansion Module

DSE5560



RELATED MATERIALS

TITLE	PART NO'S
DSE5560 Manual	057-017
DSE5510 Data Sheet	055-039
DSE5510 Manual	057-015
Guide to Synchronising and Load Sharing	057-045/6
55xx Software Manual	057-007
CAN & DSE Wiring Guide	057-004
Load Share Design and Commissioning	057-047

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