DSEPOWER®
SHARING WITH SIMPLICITY.

DSE7560
AUTO TRANSFER SWITCH & MAINS (UTILITY) CONTROL MODULE

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 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 DSE7510) upon removal or detection of the mains (utility) supply. The modules operational status is indicated on the LCD display and the front panel LEDs.

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 DSE7510 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
- Event log
- LED indicators
- PC configurable

BENEFITS

- On-site module configuration
- In-built diagnostics removes the requirement for service equipment
- Transfers 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 (UTILITY) SENSING INPUT RANGE
15V(L-N) to 333V AC (L-N) absolute maximum

MAINS (UTILITY) SENSING INPUT FREQUENCY
50Hz - 60Hz (Minimum: 15V AC L-N)

AUXILIARY RELAY OUTPUTS
2A DC at supply voltage

GENERATOR BUS LOADING RELAY OUTPUT
8A AC 250V – normally open

MAINS (UTILITY) 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"

DEGREES OF PROTECTION PROVIDED BY ENCLOSURES
BS EN 60529
IP65 - Front of module when installed into the control panel with the supplied sealing gasket.

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

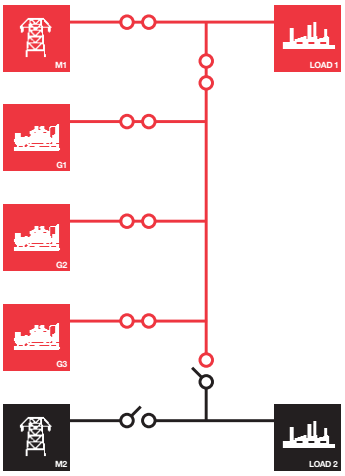
TEMPERATURE
BS EN 60068-2-1
Ab/Ae Cold Test -30°C
BS EN 60068-2-2
Bb/Be Dry Heat +70°C

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

TYPICAL LOAD SHARE APPLICATION



INSTRUMENTATION

The DSE7560 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 kVAr % 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

TIMERS & INPUT FUNCTIONS

The module has been designed to include the following timers and input functions:

- Mains transient delay
- Start delay
- Transfer time
- Breaker pulse control timers
- Return delay
- DC battery alarm delay timers
- Parallel run time
- Export power limit
- Bus close delay

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 system.

EXPANSION MODULES

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

BUILT-IN FUNCTIONS

- Peak lopping/peak shaving
- 9 configurable digital inputs
- 5 configurable outputs
- System lock inputs
- Load switching inputs
- ROCOF/vector shift
- Insufficient capacity alarm
- PIN
- Scheduler

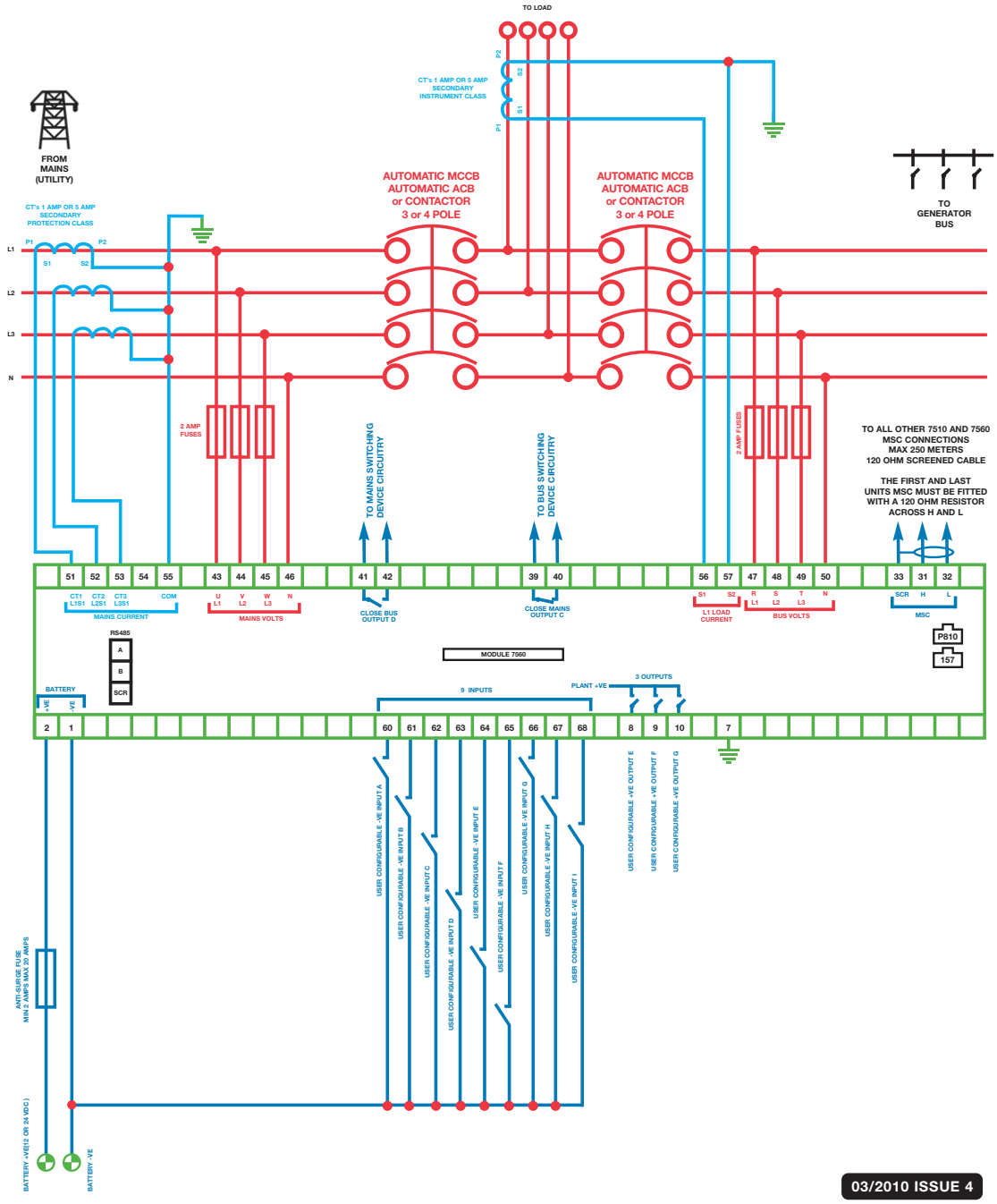
COMMUNICATIONS

The DSE7560 includes a number of different communication capabilities:

Building Management
The module has been designed to integrate with new and existing building management systems.

SCADA/PC Software
The module has the ability to be controlled, configured and monitored from a remote PC, using the DSE810 interface or RS485 interface.

DSE7560



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RELATED MATERIALS

TITLE	PART NO'S
DSE7560 Manual	057-090
DSE7560 Installation Instructions	053-054
DSE75xx PC Software Manual	057-078
DSE7510 Data Sheet	055-065
DSE7520 Data Sheet	055-066
Load Share Design and Commissioning	057-047
Guide to Synchronising and Load Sharing	057-045/6
DSE850 Comms Software Data Sheet	055-072

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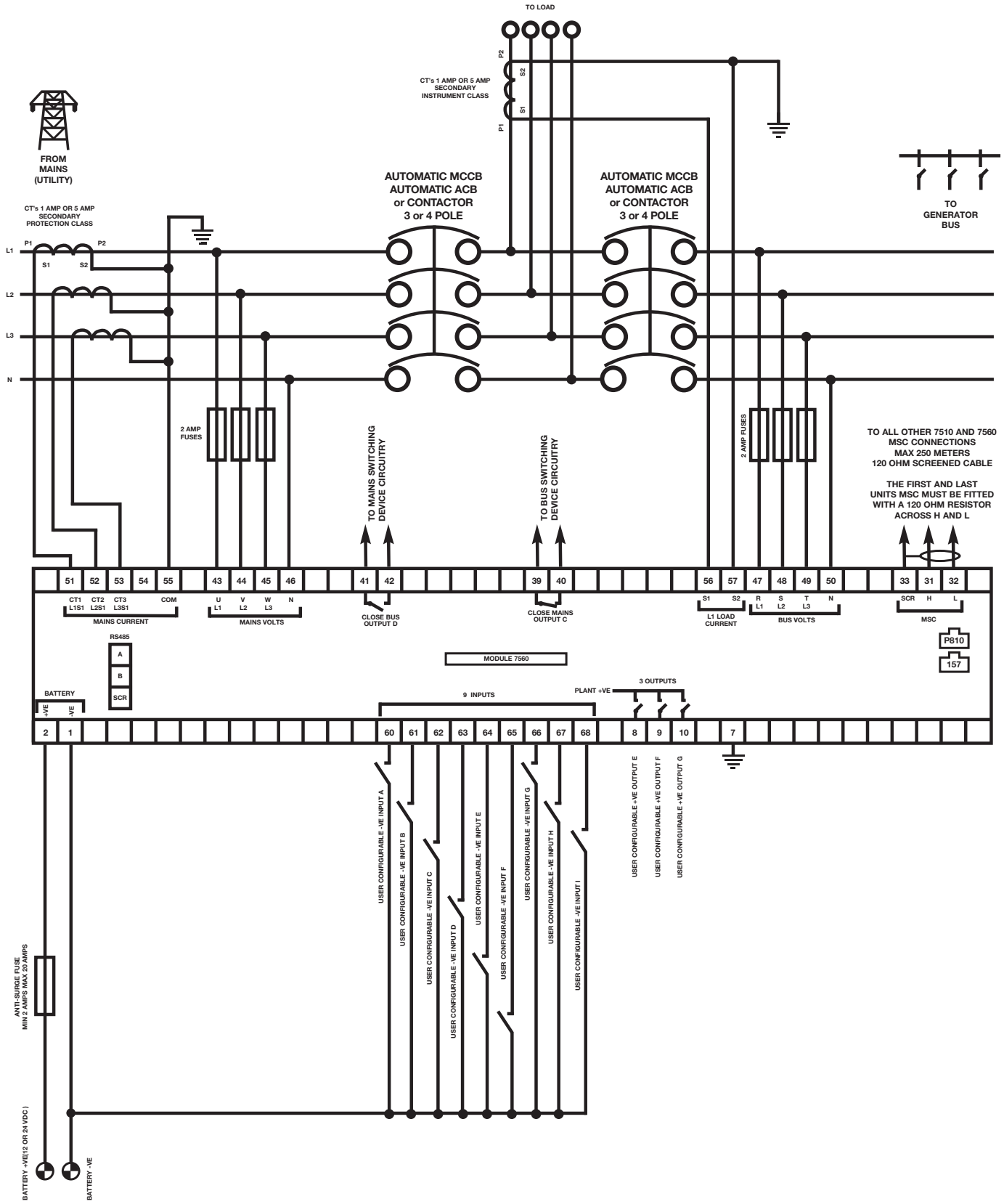
DSE7560 DIAGRAM.



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