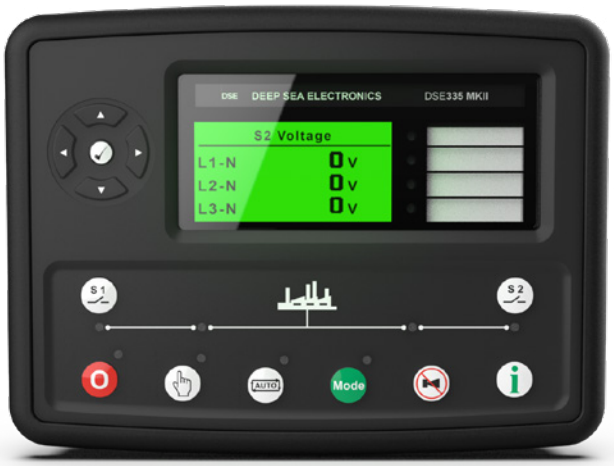
DSEAts®

DSE335 MKII

Auto Transfer Switch Control Module



Key Features

- Configurable inputs (12)
- Configurable volt-free outputs (6)
- Configurable DC outputs (6)
- Single combined switching schemes
- Enhanced configurable closed transition menu (<100 ms)
- 415 V AC S1/S2 sensing for 600 V, 3-phase system support
- Bi-colour front panel LEDs for enhanced status indication
- RS485 communications
- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection
- LED and LCD alarm indication
- Check sync feature
- Passive closed transition
- Remote monitoring
- Source 1/Source 2 control
- 1 A & 5 A CT secondary support
- Phase rotation detection
- Start & load inhibit
- Manual restore to S1
- Supports multiple topologies
- Automatic switch-over between supplies
- Rotary ATS configuration
- Configurable timers and alarms
- Multiple date and time scheduler
- Power monitoring (kW h, kV Ar, kV A h, kV Ar h)
- Load switching (load shedding outputs)
- USB connectivity
- Backed up real time clock
- Fully configurable via DSE Configuration Suite PC software
- Configurable display languages
- Configurable Gencomm pages
- DSENet® expansion compatible
- Integral PLC editor
- Adjustable Modbus inter-frame delay

Key Benefits

- Source 1/Source 2 provides total flexibility for the application of the product
- Fully automatic and switch-over control minimises the effects of power disruptions
- User friendly set-up and button layout
- DSE Configuration Suite PC Software compatability for remote control and monitoring
- Real-time clock provides accurate event logging
- Ethernet communications (via DSE855 module), provides advanced remote monitoring at low cost
- Building management system (BMS) integration
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- 200 node PLC editor allows user configurable functions to meet specific application requirements
- PLC monitoring via SCADA

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
480 mA at 12 V, 360 mA at 24 V

MAXIMUM STANDBY CURRENT
126 mA at 12 V, 96 mA at 24 V

S1

VOLTAGE RANGE
15 V to 333 V AC (L-N)

FREQUENCY RANGE
3.5 Hz to 75 Hz

OUTPUTS

OUTPUTS A & E
Normally closed volt-free output
8 A AC at 250 V AC

OUTPUTS B & F
Normally open volt-free output
8 A AC at 250 V AC

OUTPUT C & D
Changeover volt-free output
8 A AC at 250 V AC

AUXILIARY OUTPUTS G,H,I,J,K & L
2 A DC at supply voltage

S2

VOLTAGE RANGE
15 V to 333 V AC (L-N)

FREQUENCY RANGE
3.5 Hz to 75 Hz

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"

OPERATING TEMPERATURE RANGE
-30 °C to +70 °C
-22 °F to +158 °F

STORAGE TEMPERATURE RANGE
-40 °C to +80 °C
-40 °F to +176 °C

RELATED MATERIALS

TITLE	PART NO.
DSE335 MKII Installation Instructions	053-272
DSE335 MKII Operator Manual	057-368
DSE335 MKII Configuration Suite PC Manual	057-367
DSE160 Self Seeking Power Supply Data Sheet	055-076
DSE160 Operator Manual	057-108

DEEP SEA ELECTRONICS UK
T: +44 (0) 1723 890099
E: sales@deepseaelectronics.com
W: www.deepseaelectronics.com

DEEP SEA ELECTRONICS USA
T: +1 (815) 316 8706
E: usasales@deepseaelectronics.com
W: www.deepseaelectronics.com

DEEP SEA ELECTRONICS UAE
T: +971 (0) 45910819
E: uaesales@deepseaelectronics.com
W: www.deepseaelectronics.com

DEEP SEA ELECTRONICS INDIA
T: +91 20 68195900
E: sales@deepseaelectronics.com
W: www.deepseaelectronics.com

DSEAts®

DSE335 MKII

Auto Transfer Switch Control Module

The DSE335 MKII is an automatic transfer switch controller designed to monitor the voltage and frequency of incoming AC supplies from two different sources. These are either generator or mains (utility), or a combination of both. The module monitors S1 (Source 1) and in the event of a failure issues a start command to S2 (Source 2).

Once S2 is available and producing an output within limits, the module controls the transfer device and switches the load from S1 to S2. Once the S1 supply returns to within limits, the module commands a load return to S1 and shuts down S2.

Various timing sequences are available to prevent nuisance starting on minor supply breaks.

The DSE335 MKII supports multiple topologies. Features include a configurable close transition menu down to <100 ms, combined switching schemes, 415 V AC sensing for 600 V 3-phase system support, mains (utility) rated volt-free relays, a clear back-lit LCD 4-line text display, showing system status and warnings and bi-colour LEDs indicating operational status.

The module includes USB and RS485 ports and dedicated DSENet® terminals for system expansion.

The module is configured using the DSE Configuration Suite PC Software. Selected front panel editing is also available.

Configurable inputs and outputs make the DSE335 MKII fully flexible to suit a wide variety of applications.

When no DC supply is available, a compatible DSE self-seeking power supply (DSE160) is available to order.

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.

DSE335 MKII Connection Diagram: