DSEATS[®] TRANSFERING EFFICIENCY

DSE332

AUTO TRANSFER SWITCH CONTROL

NEW RELEASE



The DSE332 is an Automatic Transfer Switch Controller for single set genset applications. The module will monitor the voltage and frequency of the incoming AC mains (utility) supply (supports many topologies) and in the event of a failure will issue a start command to the generator control system.

Once the generator is available and producing an output within limits, the DSE332 will control the transfer devices and switch the load from the mains (utility) to the generating set.

Once the mains (utility) supply returns to within limits, the module will command a return to the mains (utility) supply and shut down the generator after a cooling run. Various timing sequences are available to prevent nuisance starting on minor supply breaks.

The DSE332 includes a clear back-lit LCD 4-line text and icon display, showing system status and warnings. Red and Green LEDs also indicate operation status.

The module includes configurable digital inputs and outputs and is programmable by PC using the user-friendly DSE Configuration Suite Software. Limited programming is also available via the module's front panel.

FEATURES

- · Supports many topologies
- Automatic switchover to generator
- Check sync feature
- Real-time clock
- Ten configurable inputs
- Five configurable outputs
- Event log showing most recent 10 events
- Configurable timers
- Automatic shutdown or warning when fault conditions are detected
- Protected Solid State Outputs (PSS)
- PC programming
- Front panel programming
- LED indicators
- Text and icon LCD display
- External mains (utility) or genset failure inputs
- Auto start inhibit
- Load inhibit
- Manual restore to mains (utility)

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SPECIFICATION

PLANT SUPPLY REQUIREMENTS

MINIMUM SUPPLY VOLTAGE 8V continuous, 5V for up to 1 minute

CRANKING DROPOUTS

Able to survive 0V for 50mS providing the supply was at least 10V before the dropout and recovers to 5 volts afterwards.

MAX OPERATING SUPPLY VOLTAGE 35V continuous

MAX SURVIVAL SUPPLY VOLTAGE 60V for 1 minute

MAX OPERATING SUPPLY CURRENT T.B.A. mA at 12V. T.B.A. mA at 24V

MAX STANDBY CURRENT T.B.A. mA at 12V, T.B.A. mA at 24V

GENERATOR AND MAINS (UTILITY) VOLTAGE INPUT

MEASUREMENT METHOD True RMS up to 11th harmonic

AC SYSTEMS SUPPORTED 2 Phase, 3 Wire L1-L2 2 Phase, 3 Wire L1-L3

3 Phase, 3 Wire 3 Phase, 4 Wire 3 Phase, 4 Wire Delta Single Phase, 2 Wire

PHASE TO NEUTRAL VOLTAGE RANGE 15V to 333VAC absolute maximum 110V to 277V nominal

PHASE TO PHASE VOLTAGE RANGE 25V to 576VAC

COMMON MODE OFFSET OVAC from neutral to plant ground

RESOLUTION

1VAC phase to neutral 2VAC phase to phase

ACCURACY

±1% of full scale phase to neutral (Excluding VT error) ±2% of full scale phase to phase (Excluding VT error)

VT SCALING Support for VT's with primary voltage up to 40kV

FREQUENCY 3.5Hz to 75Hz

FREQUENCY RESOLUTION

FREQUENCY ACCURACY ±0.2Hz

PHASE LAG MEASUREMENT With respect to mains voltage on L1 only

PHASE LAG RESOLUTION 3.6 degrees at 50H

PHASE LAG ACCURACY 3.6 degre

DIMENSIONS

OVERALL 180mm x 116mm x 42mm 7.1" x 4.6" x 1.7"

PANEL CUT-OUT 154mm x 98mm 6" x 3.9"

MAXIMUM PANEL THICKNESS 8mm (0.3")

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DSE160 SELF-SEEKING POWER SUPPLY



BENEFITS

- Provides automatic mains (utility) monitoring and controls switchover to generator supply
- Real-time clock provides accurate event information
- User-friendly set-up and button lavout
- synchroniser for seamless return to mains (utility)

OPERATION

System information is available instantly on the LCD display by using the scroll push buttons next to the screen.

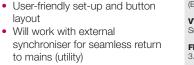
SELF-SEEKING POWER SUPPLY

A self-seeking power supply is available for this product when a DC supply is required. This must be ordered separately.

Features include:

- 12 & 24V options
- LED indication
- Can be used as AC/DC power supply

Please see product information on the DSE160 Self-Seeking Power Supply.



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CT COMMON MUST BE CONNECTED TO THE SAME GROUND AS BATTERY NEGATIVE



SPECIFICATION

LOAD CURRENT INPUT

PHASES MONITORED 1 (depending upon topology setting)

MEASUREMENT METHOD True RMS up to 11th harmonic

NOMINAL CT SECONDARY RATING

MAXIMUM CONTINUOUS CURRENT

OVERLOAD MEASUREMENT 15A for 100mS

BURDEN

COMMON MODE OFFSET ±2V peak - plant ground to CT common terminal

RESOLUTION 25mA

 $\begin{array}{l} \textbf{ACCURACY} \\ \pm 1\% \text{ of Nominal (5A) excluding CT error} \end{array}$

2 DEDICATED DIGITAL OUTPUT -GENERATOR AND MAINS (UTILITY)

CURRENT RATING 8A AC resistive

VOLTAGE RATING 250V AC

2 CONFIGURABLE FET OUTPUTS

CURRENT RATING 2A

VOLTAGE RATING 5V to 35V (able to withstand 60V for 1 minute)

PROTECTIONS

Over Current, Over Temperature, Built in Load dump feature

1 CONFIGURABLE RELAY OUTPUT

CURRENT RATING 2A DC resistive

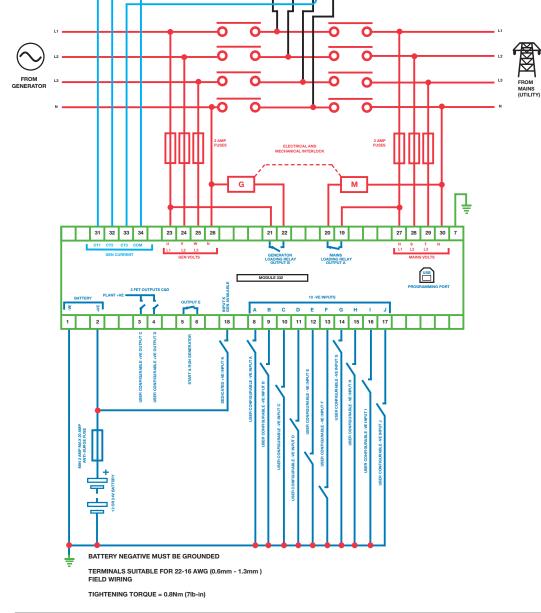
VOLTAGE RATING 35V DC resistive (UL rating 30V)

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ENVIRONMENTAL TESTING STANDARDS

BS EN 61000-6-2

EMC Generic Emission Standard for the Industrial Environment BS EN 61000-6-4 EMC Generic Emission Standard for the Industrial Environment



RELATED MATERIALS

TITLE

Operators Manual Configuration Suite Manual DSE160 Self-Seeking Power Supply Data Sheet

057-097 057-106 055-076

PART NO'S

DEEP SEA ELECTRONICS maintains a policy of continuous development and reserves the right to change the details shown on this data sheet without prior notice. The contents are intended for guidance only.

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