



# DSE**8680**

# **SYNCHRONISING GENERATOR BUS-TIE CONTROL MODULE**

## **FEATURES**



The DSE8680 module is designed to control a generator bus-tie breaker. The module manages the synchronising and check-sync across the breaker automatically, via the DSE MSC (Multi-set Communications) Link, when opening or closing the bus-tie breaker.

With all communication ports capable of being active at the same time, the DSE8680 is ideal for a wide variety of demanding load share applications.

The DSE8680 module has been designed to work with the DSE8x10 and DSE8x60 Load Share control modules which support up to sixteen DSE8680s with no DSE8x60 or up to two DSE8680s with one to fourteen DSE8x60s. This provides a

standalone, fully integrated solution, without the need for PLC.

# **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 FN 60950

Safety of Information Technology Equipment, including Electrical Business Equipment

### **TEMPERATURE**

BS EN 60068 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 GEN-SET APPLICATIONS







USB

PORT



**USB** 

HOST

ETHERNET



CONFIGURABLE

**INPUTS** 



**DC OUTPUTS** 





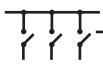
**DC POWER** SUPPLY 8-35 V

DSENET® EXPANSION **RS485 DSE8680** 





VOLT FREE OUTPUTS BUS BUS **SENSING 1 SENSING 2** 1ph 2 1ph 2ph 2ph 3ph 3ph



















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# SYNCHRONISING GENERATOR BUS-TIE **CONTROL MODULE**

# **FEATURES**





# KEY FEATURES

- Comprehensive synchronising & loadshare capabilities
- Connects to two DSE MSC links, one for 'bus 1' and another for 'bus 2'
- Advanced integral PLC editor
- 11 Configurable inputs
- 8 Configurable outputs
- DSENet® expansion compatibility
- User configurable RS232, RS485 and Ethernet communications
- · Remote SCADA monitoring via various DSE software applications
- MODBUS RTU & TCP support
- User configurable MODBUS pages
- Advanced SMS control and fault messaging (additional GSM modem required)
- · Easy access diagnostic pages including modem diagnostic pages
- Data logging and trending
- Front panel editing with PIN protection

- Fully configurable using DSE Configuration Suite PC software via USB
- 4 Line back-lit LCD text display
- LED and LCD alarm indication
- Configurable display languages
- Customisable status screens
- Configurable event log (250)
- Backed up real time clock

## **KEY BENEFITS**

- Automatic control of the DSE MSC link when the breaker is opened/closed for synchronising
- Instrumentation shows the status and measurements of both buses
- Built-in RS232, RS485 & Ethernet can be used at the same time
- High number of inputs and outputs
- Worldwide Language Support
- · Compatible in load share systems containing DSE5500, DSE7500 and DSE8600 series. Contact DSE for further details.
- 132 x 64 pixel ratio display for clarity

## SPECIFICATION

CONTINUOUS VOLTAGE RATING 8 V to 35 V Continuous

MAXIMUM OPERATING CURRENT 150 mA at 12 V, 80 mA at 24 V

MAXIMUM STANDBY CURRENT

50 mA at 12 V, 30 mA at 24 V

# BUS 1 AND BUS 2 VOLTAGE RANGE

15 V to 333 V AC (L-N)

FREQUENCY RANGE 3.5 Hz to 75 Hz

### OUTPUTS OUTPUTS C & D

8 A at 250 V AC (Volt free)

AUXILIARY OUTPUTS E,F,G,H,I & J

2 A DC at supply voltage

# DIMENSIONS

**OVERALL** 

240 mm x 181 mm x 42 mm 9.4" x 6.8" x 1.6"

# PANEL CUTOUT

220 mm x 160 mm 8.7" x 6.3"

MAXIMUM PANEL THICKNESS

8 mm 0.3"

OPERATING TEMPERARANGE -30 °C to +70 °C

STORAGE TEMPERAT -40 °C to +85 °C URE RANGE

## Ethernet communications, provides advanced remote

monitoring at low cost Can be integrated into building

Real-time clock provides

accurate event logging

- management systems (BMS) Increased input and output
- expansion capability via DSENet®
- Licence-free PC software
- IP65 rating (with supplied) gasket) offers increased resistance to water ingress
- PLC editor allows user configurable functions to meet specific application requirements

# **RELATED MATERIALS**

DSF8680 Installation Instructions DSE8680 Operator Manual DSE8680 Configuration Suite PC Software Manual PART NO'S 053-082

057-130

057-131

TITLE

DSE8610 Data Sheet DSE8660 Data Sheet DSE8700 Series Data Sheet DSE8810 Data Sheet

DSE8860 Data Sheet

PART NO'S

055-083 055-086 055-090 055-116 055-139