

DSEULTRA[®] STARTING WITH QUALITY.

DSE710 & DSE720

AUTO START & AUTO MAINS FAILURE CONTROL MODULES



DSE710



DSE720



The DSE710 is an Automatic Start Control Module that offers an advanced range of engine monitoring and protection features. The module has been designed to monitor generator frequency, generator volts, generator current, engine oil pressure, engine coolant temperature, engine running hours and battery volts.

The module also displays the engine speed. When the module detects a fault condition it automatically shuts down the engine and indicates the exact fault on the modules LCD display or relevant LED indicator.

The module can be configured using the front panel or via the DSE810 interface and a PC. The module can also be controlled from a PC that is located up to 100 meters away.

The DSE720 is an Automatic Mains Failure Control Module and incorporates all the features of the DSE710 plus the ability to automatically monitor the mains supply and switch over to the generator when the mains power fails.

FEATURES

- PC configurable
- Digital and analogue inputs
- Digital outputs
- Automatic mains (utility) supply monitoring (DSE720 only)
- Automatic shutdown or warning when fault conditions are detected
- Manual start
- Engine pre-heat
- Engine monitoring and protection features
- Protected Solid State (PSS) outputs
- Front panel mounting
- Front panel programming
- Tamper proof engine hours counter
- Remote start
- LED indicators
- Configurable timers
- Configurable outputs
- Configurable inputs
- Back-lit character/icon LCD display

BENEFITS

- Transfer between mains (utility) and generator power (DSE720 only)
- On-site module configuration and remote configuration (Max 100 Meters) using PC software
- User-friendly set-up and button layout
- Multiple engine parameters are monitored simultaneously
- License free PC software

OPERATION

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

An additional push button next to the LCD display is used to scroll through the modules' metering displays.

CONFIGURATION

The modules can be configured using the front panel or remotely using the DSE810 interface and a PC.

As well as configuration the DSE810 interface has the ability to provide real time diagnostic facilities.

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

180mA at 12V. 190mA at 24V

MAXIMUM STANDBY CURRENT

145mA at 12V. 150mA at 24V

GENERATOR INPUT RANGE

35V(L-N) to 333V AC (L-N) absolute maximum
50Hz - 60Hz (min 15V AC)

AUXILIARY OUTPUTS

Solid state
2.4A DC at supply voltage

FUEL/START OUTPUTS

Solid state
3.4A DC at supply voltage

GENERATOR C.T.

5A secondary 0.5VA

MAINS (UTILITY) SENSING INPUT RANGE (DSE720 only)

35V(L-N) to 333V AC (L-N)
50Hz - 60Hz (min 15V AC)

DSE710 & DSE720 DIMENSIONS

209mm x 146mm x 30.3mm
8.2" x 5.7" x 1.2"

DSE710 & DSE720 PANEL CUTOUT:

182mm x 137mm
7.2" x 5.4"

MAXIMUM PANEL THICKNESS

8mm
0.3"

ENVIRONMENTAL TESTING STANDARDS

ELECTRO MAGNETIC CAPABILITY

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

ELECTRICAL SAFETY

BS EN 60950
Safety of Information Technology Equipment, including Electrical Business Equipment

TEMPERATURE

BS EN 60068-2-2
Test Ab to +70°C 60067-2-2 Hot
Test Ab to -30°C 60068-2-1 Cold

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 2011 part 2.1 60068-2-30
Test Cb Ob Cyclic
93% RH @ 40°C for 48 hours

SHOCK

BS EN 60068-2-27
Three shocks in each of three major axes
15gn in 11mS

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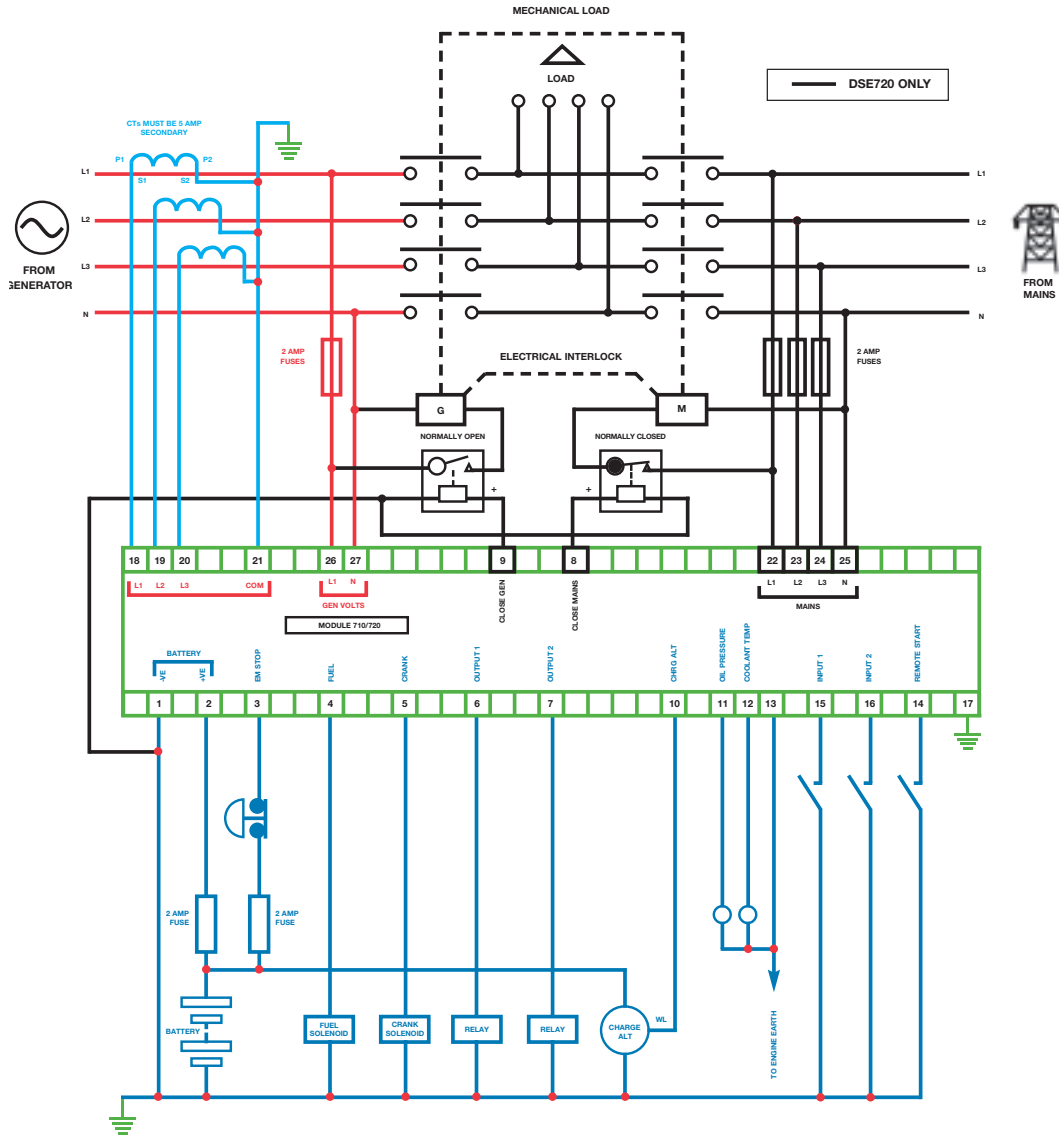
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DSE710 & DSE720



BATTERY NEGATIVE MUST BE GROUNDED
SCREW TERMINALS TIGHTENING TORQUE = 0.8Nm (7lb-in)

* NOTE. ALL THE OUTPUTS ARE SOLID STATE AND ARE POSITIVE SWITCHING

INSTRUMENTATION AND ALARMS

The DSE710 and DSE720 both provide comprehensive metering and alarm facilities.

The table below outlines the module's capabilities.

DSE710/DSE720

- Generator Frequency
- Engine Speed
- Generator Volts (L1-N, L2-N, L3-N)
- Generator Volts (L1-L2, L2-L3, L3-L1)
- Generator Current (L1, L2, L3)
- Engine Oil Pressure
- Engine Coolant Temperature
- Hours Run Counter
- Battery Volts
- Mains Volts (DSE720 only)
- (L1-N, L2-N, L3-N)

RELATED MATERIALS

TITLE
DSE710 Manual
DSE720 Manual
DSE7xx Software Manual

PART NO'S
053-013
053-005
057-002

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