

# DSEULTRA<sup>®</sup> STARTING WITH QUALITY.



## DSE3110

MANUAL & AUTO START CONTROL MODULE



The DSE3110 can be utilised as a Manual or Auto Start Module for single gen-set applications and forms part of DSE's next generation of control modules. The module has been designed to work with electronic and non electronic engines providing advanced engine monitoring and protection features.

The DSE3110 includes a backlit LCD display which clearly show the status of the engine at all times. The module monitors engine speed, frequency, voltage and run hours and also displays the warning and shutdown status of the engine.

The module includes six digital inputs and four outputs. Two of the outputs are configurable. The module can either be programmed using the front panel or by using the DSE Configuration Suite PC software.

The module is available in two variants: Magnetic Pick-up and Canbus.

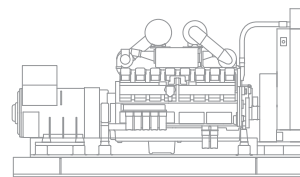
### FEATURES

- Back-lit LCD display
- Remote start input
- Electronic engine enabled
- Magnetic pick-up
- Full engine monitoring and protection
- PC programmable
- Protected Solid State Outputs (PSS)
- 6 Digital Inputs
- 4 Outputs (4 configurable on Canbus version, 2 configurable on Magnetic Pick-up version)

### BENEFITS

- Hours counter provides accurate information for monitoring maintenance and warranty periods
- Multiple engine parameters are monitored simultaneously
- Suitable for engine only applications
- Module can be configured to suit individual applications
- IP65/NEMA 12 rating offers advanced resistance to water ingress
- No need for additional metering equipment
- Wide range of engines can be specified
- Uses the DSE Configuration Suite PC Software for simplified programming

## NEW RELEASE



ELECTRONIC ENGINE CAPABILITY

### OPERATION

#### MANUAL MODE

- The engine is started using the Start **I** button on the front of the module.
- Once pressed the module instructs the engine to initiate its pre-heat sequence and then start the engine.
- To stop the engine the Stop **O** button on the front of the module should be pressed.

#### AUTOMATIC MODE

- The Auto **AUTO** button needs to be pressed to put the unit in Auto Mode.
- The module start sequence is initiated by the activation of the remote start input.
- The pre-heat sequence is then initiated and the engine is started.
- To stop the engine the remote start signal needs to be removed or the Stop **O** button on the module needs to be pressed.

### SPECIFICATION

#### DC SUPPLY

**CONTINUOUS VOLTAGE RATING**  
8V to 35V Continuous

**CRANKING DIP PROTECTION**  
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

**CHARGE FAIL/ EXCITATION**  
8V to 35V fixed power source 2.5W

**MAXIMUM SHUTDOWN CURRENT**  
1.5mA at 12V 1.5mA at 24V

**NOMINAL STANDBY CURRENT**  
23mA at 12V 18mA at 24V

**MAXIMUM OPERATING CURRENT**  
35mA at 12V 30mA at 24V

#### ALTERNATOR INPUT

**RANGE**  
15V - 333V (L-N) 50Hz - 60Hz  
(Minimum 15V AC Ph-N)

**ACCURACY**  
1% of full scale true RMS sensing

#### MAGNETIC PICKUP

**VOLTAGE RANGE**  
0.5V RMS minimum

**FREQUENCY RANGE**  
10,000 Hz (max)

#### OUTPUTS

**OUTPUT A (FUEL)**  
2 Amp DC at supply voltage

**OUTPUT B (START)**  
2 Amp DC at supply voltage

**AUXILIARY OUTPUTS C,D**  
2 Amp DC at supply voltage

#### DIMENSIONS

**OVERALL**  
98mm x 79mm x 40mm  
3.9" x 3.1" x 1.6"

**PANEL CUT-OUT**  
80mm x 68mm  
3.1" x 2.7"

### TESTING STANDARDS

#### ELECTRICAL SAFETY/ ELECTROMAGNETIC COMPATIBILITY

**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

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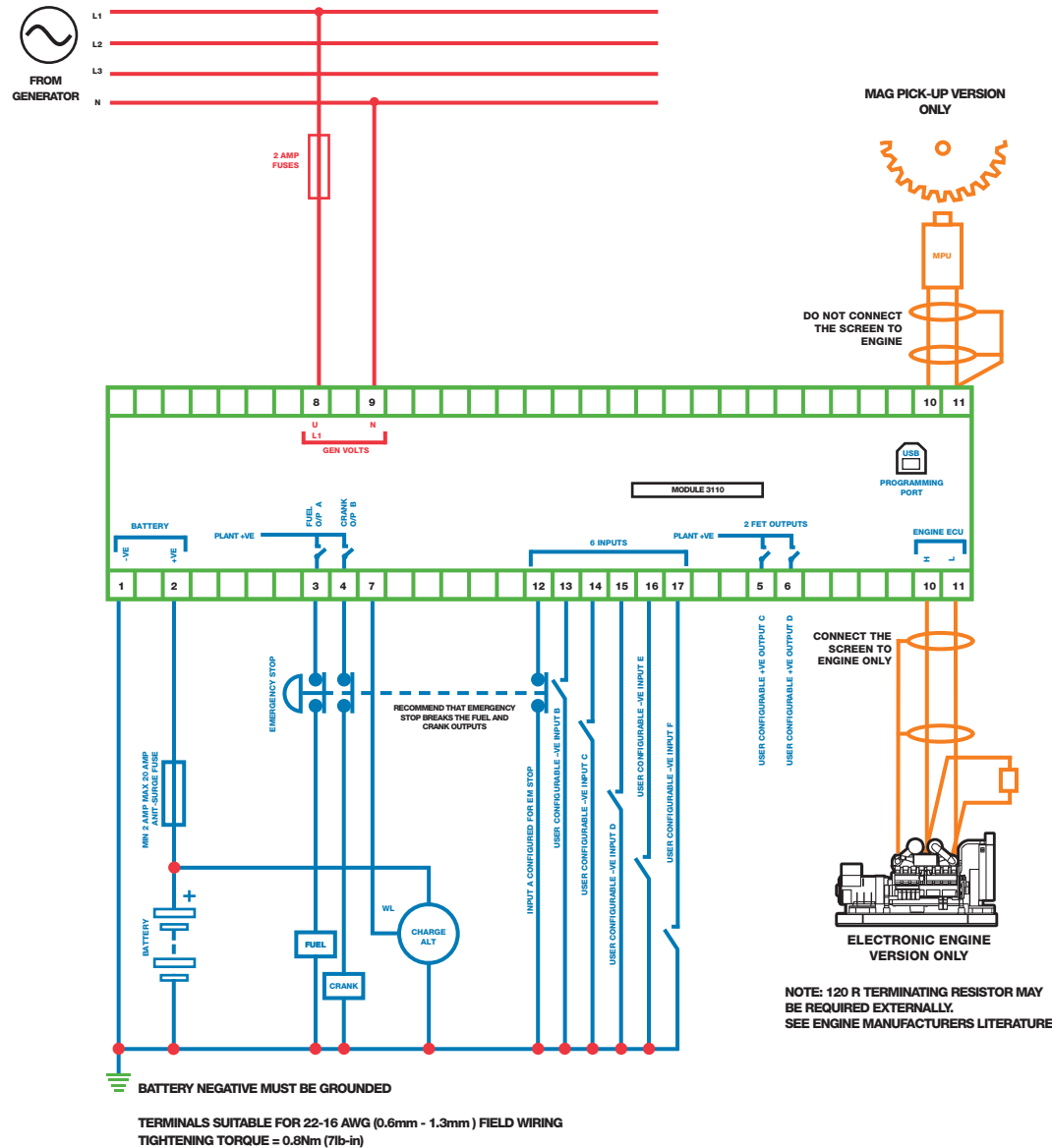
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**WEBSITE**

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**TESTING STANDARDS****ENVIRONMENTAL**

**BS EN 60068-2-1**  
Cold Temperature -30°C

**BS EN 60068-2-2**  
Hot Temperature +70°C

**BS EN 60068-2-6 VIBRATION**  
Ten sweeps in each of three major axes  
5Hz to 8Hz @ +/-7.5mm, 8Hz to 500Hz @ 2gn

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

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

**ELECTRONIC ENGINE COMPATIBILITY**

- CAT
- Cummins
- Deutz
- John Deere
- MTU
- Perkins
- Scania
- Volvo
- Generic
- Plus additional manufacturers

**RELATED MATERIALS**

TITLE	PART NO'S
DSE3110 Installation Instructions	053-050
DSE3110 Manual	057-086
DSE3110 PC Software Manual	057-087

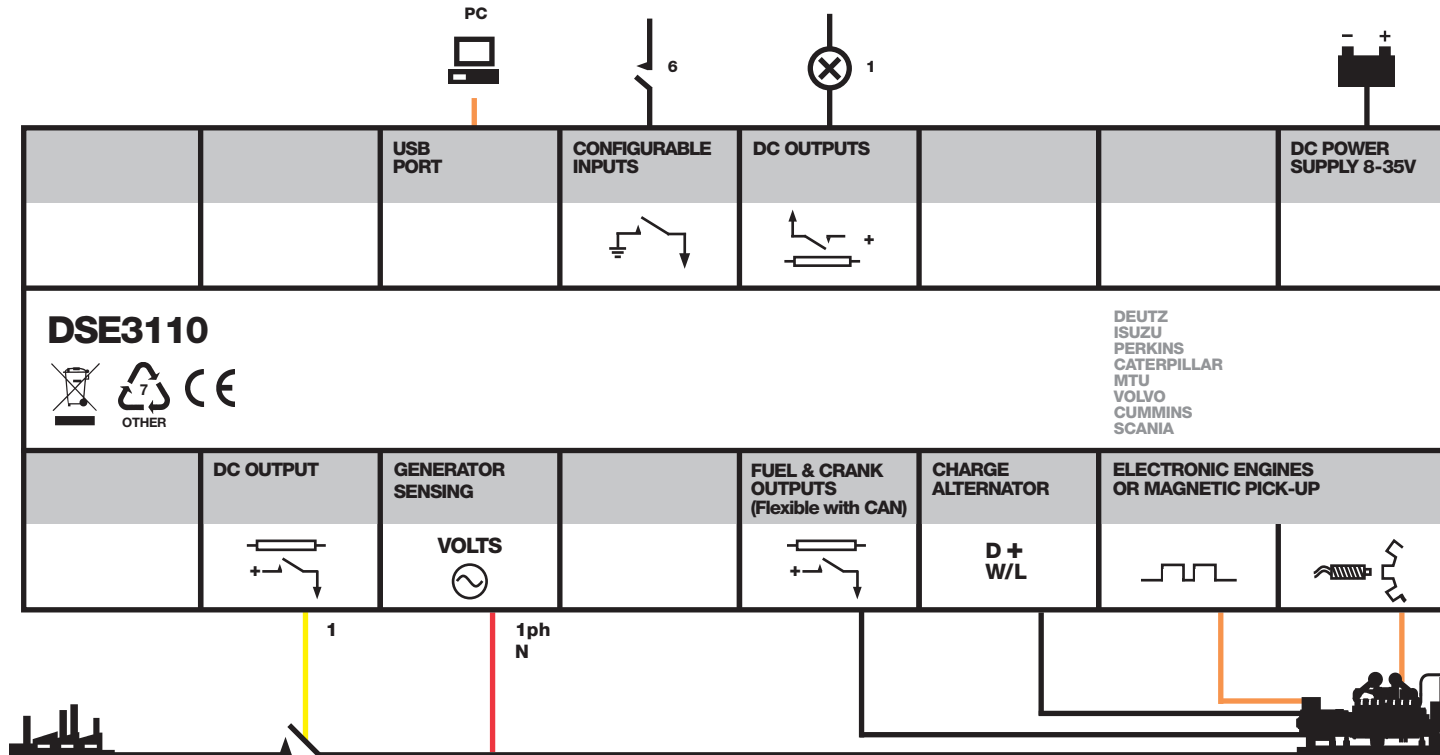
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### 4.3 TYPICAL WIRING DIAGRAM

