

STAMFORD®

Diode Failure Detector



The Stamford Diode Failure Detector (DFD) is suitable for use with all Stamford Generators. It senses the level of ripple current in the exciter output to provide indication of a failed diode, either short or open circuit.

Frequently demanded in the oil and gas industries this warning device is increasingly required by many other users who recognise the benefits of early failure warning. The DFD has a delayed response of 7 seconds to avoid 'nuisance trip' signals before indicating the fault via voltage free changeover contacts.

By receiving a quick warning of a single failed diode the user may arrange shutdown (manually or automatically) of the engine. Alternatively on receipt of the warning, the exciter field current or voltage can be monitored, reducing load if necessary, to ensure that recommended levels are not exceeded. In this way the generator set can continue to provide emergency supplies until a planned controlled shutdown when the necessary diode replacements can be made.

Of course a Stamford Series 3 separately excited system offers the safety of over-excitation protection within the AVR. But the DFD actually diagnoses if the fault lies with the rectifier diodes, and so encourages the best course of action.

- Reliable solid-state warning of rotating rectifier diode failure.
- Jumper Selectable D.C. (12 or 24V) or AC (120 to 240V).
- Simple connections to generator.
- Simple test facility.

TECHNICAL SPECIFICATION

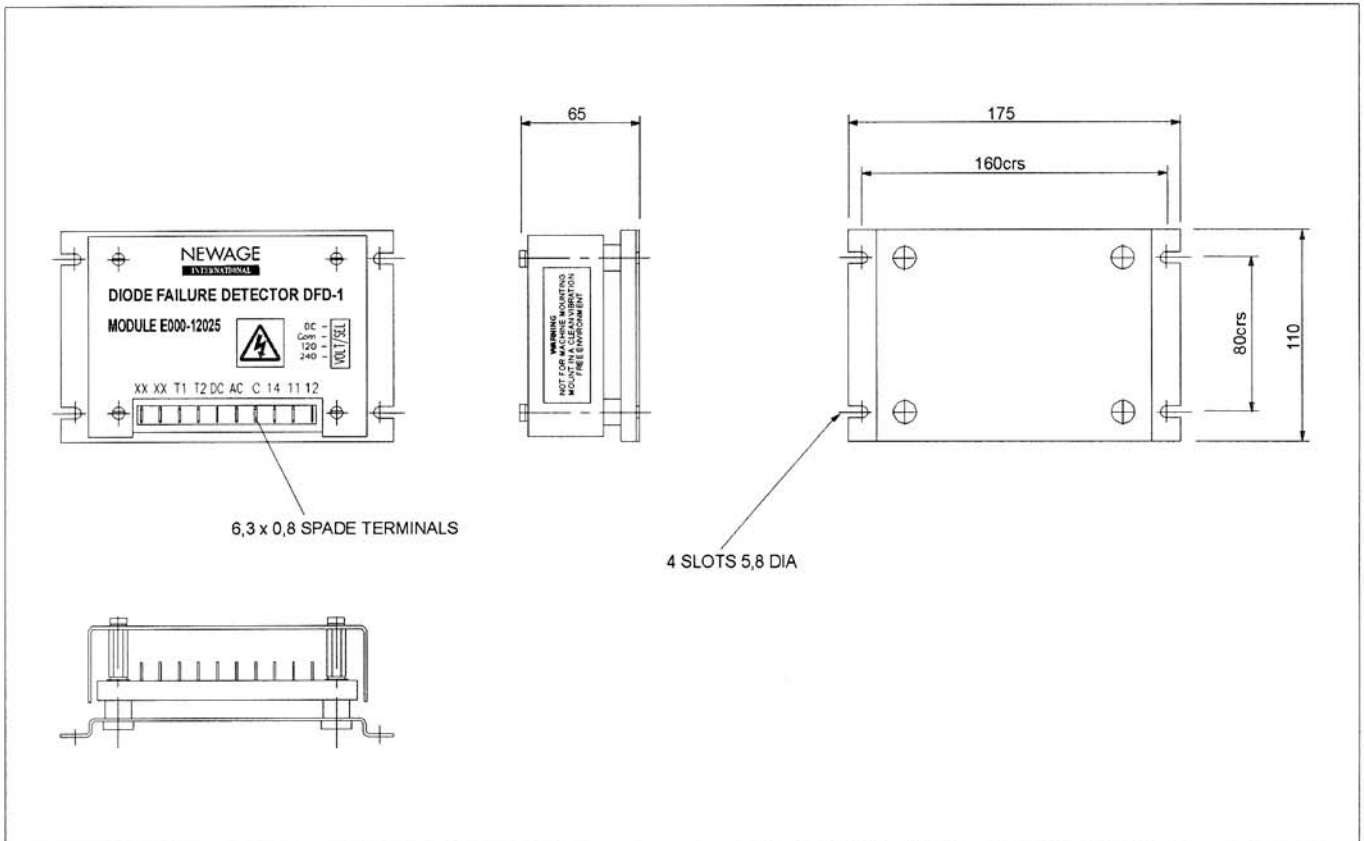
Supply voltage	DC 12 - 28V AC 100 – 140V Or 200 – 280V
Supply current	DC 0.2A max
Output	Voltage Free Contacts Isolation 2kV 1 Pole Changeover Rating 5A @ 30Vdc/240ac
Response time	(Approx) 7 seconds

ENVIRONMENTAL

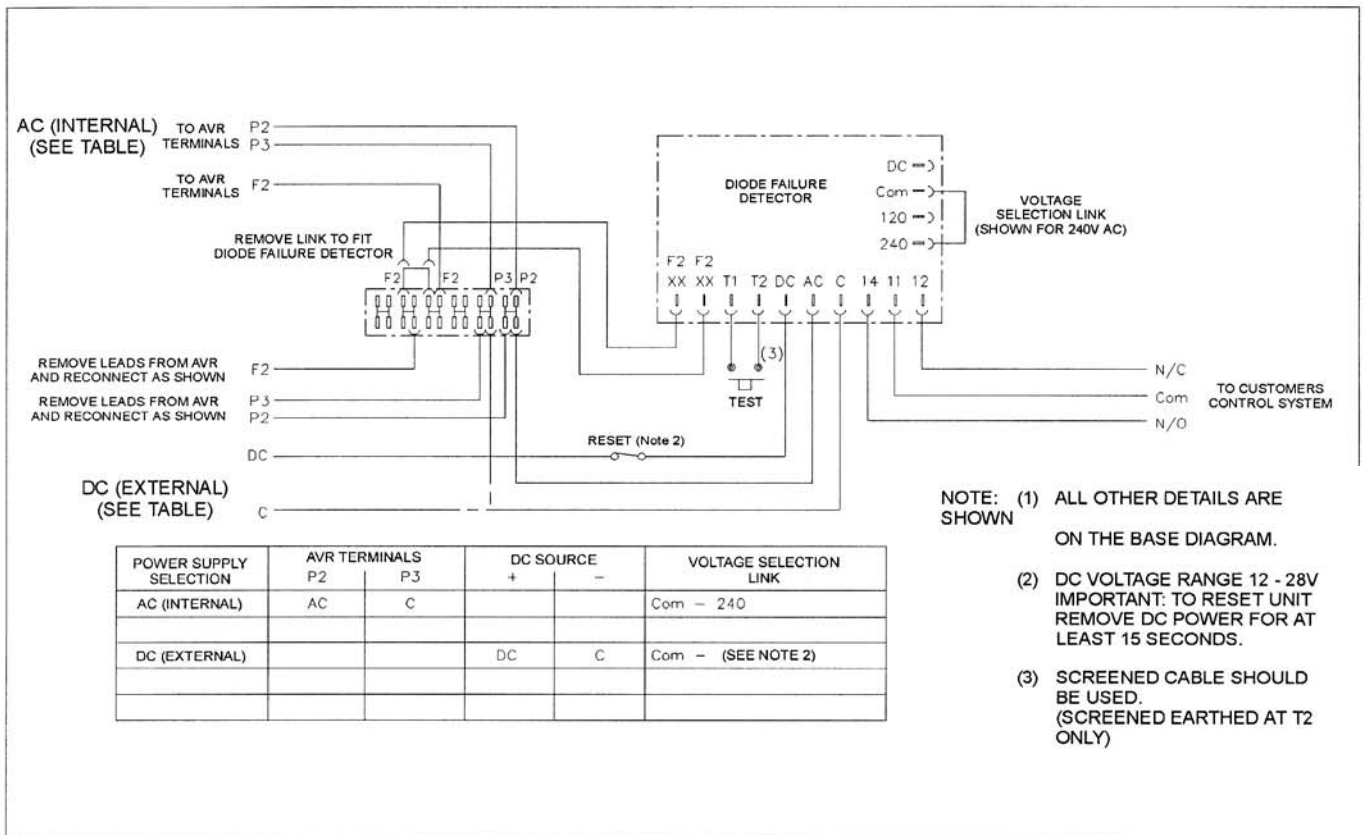
Operating temp	- 40°C to + 70°C
Storage temp	- 55°C to + 80°C
Humidity	0 to 60°C 95%RH
Vibration	20 – 100 Hz 30mm/seconds 100 Hz – 2kHz 2.0g

Not suitable for mounting in generator terminal box. Switchboard or bedplate mounting recommended.

GENERAL ARRANGEMENT DIAGRAM



CONNECTION DIAGRAM



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