

D5518 Automatic Transformer Rectifiers

The D5518 range of single phase rectifiers are fully automatic thyristor controlled cathodic protection rectifiers providing constant voltage, current or auto potential control. This range of rectifiers provides inbuilt alarm and transducer interface facilities. They are air cooled and a wide variety of capacities and enclosures can be provided.

The D5518 automatic thyristor controlled cathodic protection rectifier range is intended for operation in a wide number of situations with flexibility to operate with differing anode types in varying protection environments. The rectifiers use secondary thyristor phase control combined with substantial inductor capacitor filters to give low ripple and reliable operation in harsh electrical environments.

The D5518 systems use either 1 or 3 phase ac supply transformed to a lower voltage. The transformed ac is passed through a thyristor phase control bridge on the output of the main transformer. The chopped dc is then filtered in a series filter inductor /capacitor combination to give low ripple (<5% rms/dc at full load is standard). The control circuits have high immunity to spikes and transients.

The output voltage and current are monitored by an analog phase controller circuit which can also monitor a reference voltage using a high input impedance amplifier. The controller circuit allows the user to select one of 3 modes.

- Constant voltage, where the voltage does not change with load up to a presettable maximum current.

- Constant current, where the current does not change with load up to a presettable maximum voltage. This feature allows constant protection current to be applied with varying soil or circuit resistance.

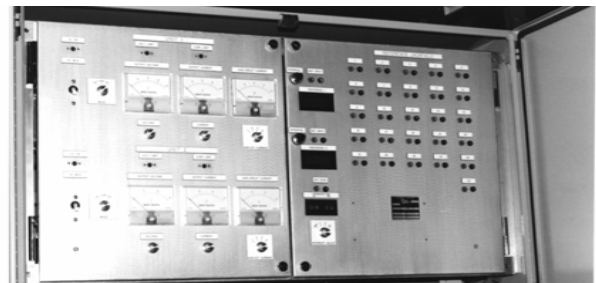
- Constant auto potential, where the controller holds the level of protection potential measured on an external reference circuit constant. Potential selection to cover a wide range of references, from Cu/CuSO₄ to Zn is standard. An inbuilt interface provides 0 - 1mA dc signals for voltage, current and potential to external transducers. A high and low potential alarm with remote contacts is standard in this range.

CATHODIC PROTECTION SYSTEMS , ACCESSORIES

Safety maximum voltage and current circuits allow the user to set upper limits to voltage or current.

The D5518 series is available with a wide range of options developed for cathodic protection use. Typical options include:

- Enclosures. Enclosures are available in coated steel, stainless steel, fibreglass and marine grade aluminium.
- Inbuilt interruptors. The D5518 can be interfaced with an external interruptor or our inbuilt D5526 series of interruptors.
- Dual or more configurations. Where a number of circuits are to be protected, separately controlled isolated rectifier outputs can be provided.
- Monitoring. Local monitoring can be provided with digital or analog meters and inbuilt scaled voltage outputs are suitable for remote monitoring by transducers, RTU or SCADA systems.
- Remote analog control. The D5518 can be simply interfaced with popular remote CP control systems. Operating modes and levels can then be remotely set.



D5518 35V and 25V 4 subcircuit dual rectifier in outdoor steel cabinet. Rectifier fitted with inbuilt D5526 interruptor, 26 channel potential measurement panel. Rectifier has analog displays of current and voltage, digital reference and control reference displays.

MANUFACTURED BY

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