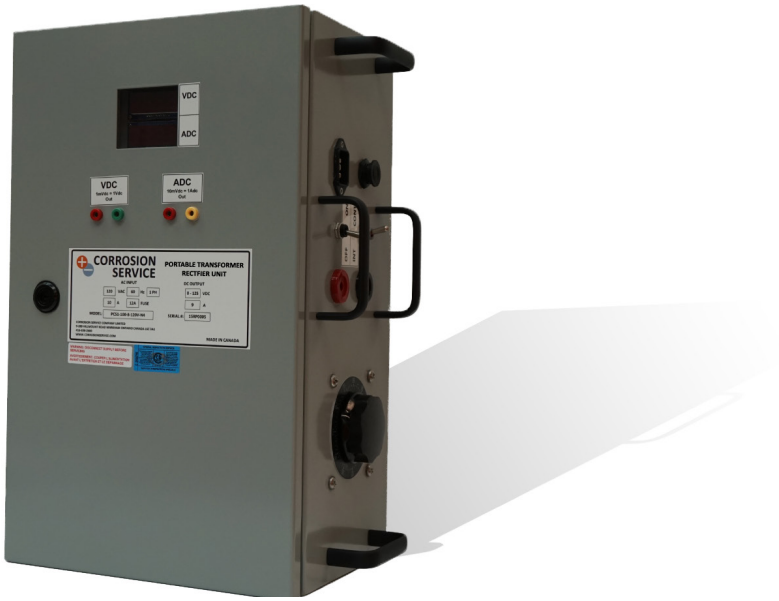
Portable Transformer Rectifier Unit

Model TRU for Cathodic Protection



Inspection

Validation testing of corrosion prevention system operation for buried metallic structures has long been understood as critical for quantifying asset condition and avoiding the negative societal and financial impact of infrastructure failure. Additionally, a greater level of public and regulator interest in the results of those inspections is driving a shift in focus towards ensuring technical efficacy and evidence-based validation of field gathered data. In response, Corrosion Service has developed a range of products that are built around raising standards of field-based inspections and providing a greater level of detail and accuracy in the field. An important tool in this range of products is the Portable Transformer Rectifier Unit, which expands the conditions under which testing can be performed.

Accuracy

The Corrosion Service Portable Transformer Rectifier Unit (TRU) is one of the most essential tools in the cathodic protection technician's tool box. The TRU allows a variety of surveys to be performed where they would not otherwise be possible by supplementing, mimicking, or replacing permanent cathodic protection installations. Common applications include coating holiday (DC voltage gradient) and current requirement surveys. The TRU provides high output voltage, allowing the generation of significant test currents even under high resistivity soil conditions. The unit is air-cooled with a continuously variable variac control and is conveniently fitted with an interrupter interface. Standard units are supplied with LED displays in a painted carbon steel cabinet, which is rugged enough to withstand demanding field conditions.

Features

+ Fully adjustable output from 0 to 110 VDC / 10 ADC or 0 to 125 VDC / 9 ADC.
+ Incorporates a customizable current interrupter / data logger connection.
+ Requires only a standard 110 V RMS 60 Hz 9.5 A generator AC input.
+ Compact design ensures easy transportation to and from site.
+ Daylight viewable LED displays.
+ Front panel accessible voltage and current output measurement points.
+ Accurately mimics the output of industry standard permanent transformer rectifier installations.

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Technical Data

AC INPUT

Input Voltage	90 V RMS–120 V RMS 60Hz
Input Current	Max 9.5 A RMS
Input Connection	IEC 320-C20, male 20 A with flange
Efficiency	Greater than 90% at full load (100 VDC out)

DC OUTPUT

Output	**Model 1 - 0 – 110 VDC** Max 10 ADC, with power limit 925 W **Model 2 - 0 – 125 VDC** Max 9 ADC, with power limit 925 W
Output Power	Max. 925 W

DIMENSIONS

Length/Width/ Depth	51 cm / 35 cm / 24 cm (20" / 14" / 9.5")
Weight	25 Kg (55 lb)

DESIGN CHARACTERISTICS

Displays	Voltage and current LED displays
Cooling	Air cooled
Operational Temperature	-25°C to +40°C (-13°F to +104°F)
Protection	Input side circuit breaker and fuses Output DC side fuses
Certifications	CSA as standard Others available upon request

Description

The Corrosion Service Portable Transformer Rectifier Unit (TRU) allows a variety of surveys to be performed where they would not otherwise be possible by supplementing, mimicking, or replacing permanent cathodic protection installations. The TRU provides high output voltage, allowing the generation of significant test currents even under high resistivity soil conditions. The unit uses a variac control and is conveniently fitted with an interrupter interface, allowing the unit to be seamlessly integrated into the permanent cathodic protection system.

Characteristics

- Current requirement testing.
- Direct current voltage gradient (DCVG) hot spot surveys.
- E Log I test surveys.
- Pipeline diagnostic testing.
- Potential dynamic polarization scans.
- Temporary cathodic protection.

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