

Portable Automatic Current Source

High Efficiency Portable Current Source utilizing our Cathodic Protection Controller using DC power sources.



Innovation

Corrosion Service is pleased to offer our Portable Cathodic Protection DC-to-DC converter designed to supply continuous power for cathodic protection applications. This light weight, reliable and easy to use automatic rectifier is highly efficient and robust given its size and weight.

Description

This unit is a small, high efficiency, 50-volt, or 100-volt portable power supply. It contains a fully automatic controller that provides user adjustable control for the output, based on potential, voltage, and current control set-points.

Unlike SCR-based rectifiers which require AC input, the switching operation of this controller allow it to be powered from DC sources such as batteries.

The output is controlled by a rotary dial on the outside of the enclosure, and there is a two-line LCD display that provides voltage, current, and potentials on the top row, and set current, voltage, and potentials on the bottom row.

Reliable

Our system is based on our long history of providing reliable industry solutions for the ever-evolving corrosion prevention industry.

Features

- + High efficiency Switching Current Source provides up to 96% efficiency.
- + Due to its high efficiency, less heat is generated, and less cooling is required during operation.
- + Small form factor makes it easy to transport.
- + DC output 0–50, 0–10A (Optional 0–100V, 0–5A).
- + Output can maintain constant voltage, constant current, or constant potential.
- + Under-voltage protection to ensure voltage source is protected (batteries).
- + Output overcurrent protection - the output current is limited to 12A to protect the power switches (over current protection).
- + In-house designed and built by Corrosion Service with a history of quality products and services.
- + Cooling and overtemperature protection included with the unit.

Technical Data

PERFORMANCE

Input Voltage	24 VDC to 35 VDC
Efficiency	Over 96%
	(Based on nominal conditions of 24 VDC input, 25°C (77°F) ambient and 500 W output (10 ADC at 50 VDC or 5 ADC at 100 VDC))

DC OUTPUT

Output Power	500 W
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CONTROL OPTIONS

Voltage Mode	0-50 V (Optional 0-100 V)
Current Mode	0-10 A (Optional 0-5 A)
Potential Mode	0 to -4000 mV

PHYSICAL DIMENSIONS

Size	406 mm L x 356 mm W x 157 mm H (16" L x 14" W x 6" H)
Weight	33 lbs (15 kg)



Components

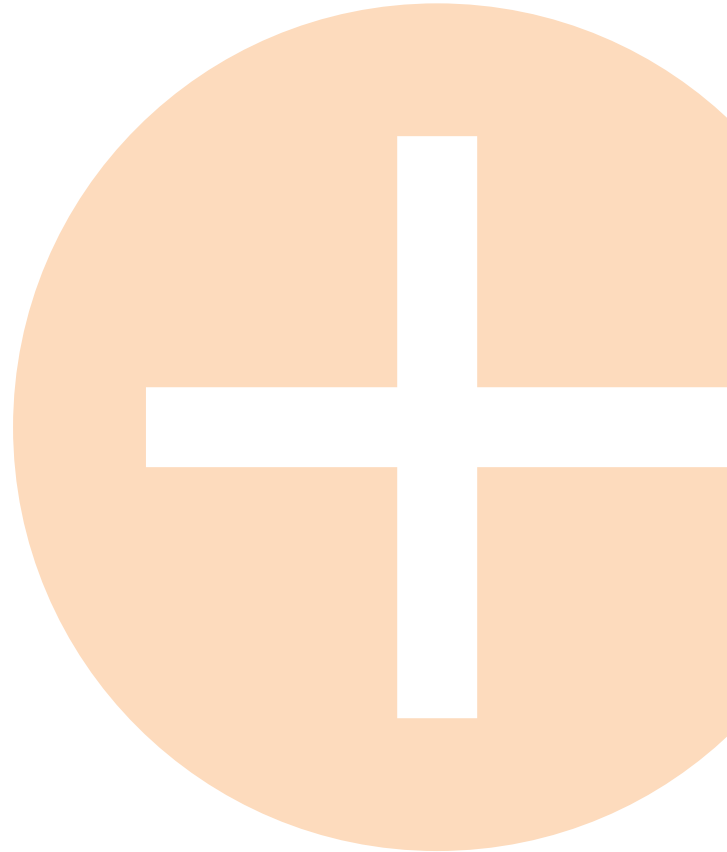
Consists of three modules (boards):

The Interface Module provides the user a display and a multifunctional rotary control button.

The Core Control Module performs several functions including but not limited to output, voltage and potentials. This component is the brain of the unit.

The Power Module converts the input power to the required output as driven by the Core Control module.

Includes: DC input cable & DC output cable as well as an interruption port to plug in a third-party portable interrupter.



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