

Portable Automatic Current Source

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



Innovation

Corrosion Service is pleased to offer our Battery Powered Portable Automatic Current Source that contains our Portable Cathodic Protection DC-to-DC converter designed to supply continuous power for cathodic protection applications. This lightweight, reliable and easy to use Portable Automatic Current Source is highly efficient and robust given its size and weight.

Description

This unit is a small, high efficiency, 100-volt portable power supply containing a fully automatic controller that provides 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 allows it to be powered from multiple DC sources such as external batteries or the internal battery within the unit. Users can switch back and forth depending on their requirements.

The output is controlled by a rotary dial and has a two-line liquid crystal display that provides measurements of 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 current sources and industry solutions for the ever-evolving corrosion prevention industry.

Features

- + DC output 0–100 V, 0–10 A.
- + Small form factor makes it easy to transport.
- + High efficiency Switching Current Source provides over 95% efficiency.
- + Due to its high efficiency, less heat is generated, and less cooling is required during operation.
- + Output can maintain constant voltage, constant current, or constant potential.
- + Under-voltage lock-out to ensure device is protected under low input voltages.
- + Output overcurrent protection - the output current is limited to protect the power switches.
- + In-house designed and built by Corrosion Service with a history of quality products and services.
- + Cooling and overtemperature protection included with the unit.

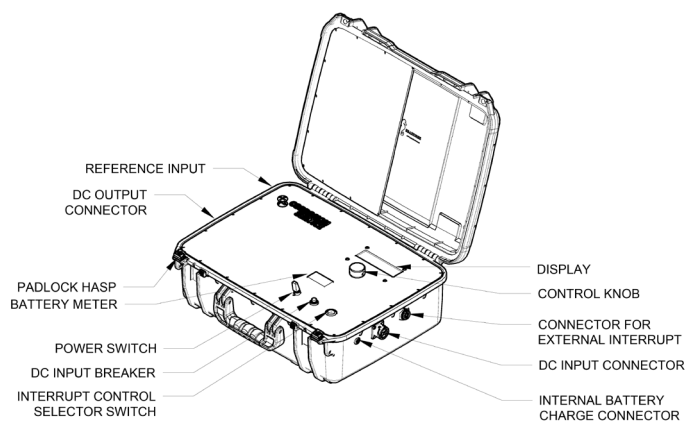
Technical Data

OUTPUT

Maximum Output Power	500 W (30-55 VDC Input) 450 W (24-30 VDC Input) 350 W (Internal battery)
Output Voltage	0-100 VDC (Limited by maximum power)
Output Current	0-10 ADC (Limited by maximum power)
Control Modes	Voltage Current Reference Potential
Output Connect Type	NAC3MX-W
Internal Interrupter	Yes (Solid state relay, non-GPS synchronised)
External Interrupter	Compatible with Mobiltex SPI1 and UGI1 external interrupters (SPI1 built in connector and optional UGI1 adapter)

INPUT

Charger Voltage	100-120 VAC (Charger included)
Charger Frequency	60 Hz
Input Current	23 A (Maximum)
Input Voltage	24-55 VDC
Reference Potential Range	-4000 mV to 1000 mV
DC Input Connection Type	PWM-02RMFS-TS7001 DC input cable with DINSE BKM and SKM connectors included.
Efficiency	95% (At nominal 30 VDC input, 25°C (77°F) ambient and 500 W output)



DIMENSIONS

Size	510 mm L x 390 mm W x 190 mm H (20" L x 15.6" W x 7.6" H)
Weight	12.7 kg (28 lbs)

BATTERY

Battery Capacity	432 Wh 12 Ah
Discharge Time	1 Hr 15 Min (Internal battery @ full output)
Type	NMC (Nickel-Manganese-Cobalt)
Lifecycle	1000+ charge cycles
Charging time	4 Hr 30 Min (From fully discharged state)

RECOMMENDED OPERATING ENVIRONMENT

Internal Charge Temperature	0°C to 45°C (32°F to 113°F)
Internal Discharge Temperature	-20°C to 40°C (-4°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)

ACCESSORIES AND GENERAL

Accessories	DC output cable with clamps DC input cable with DINSE connectors AC charger for internal battery
Battery Expansion	Yes - External
Security	2 padlock hasps
User Interface	Digital LCD Display

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

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