PowerView CP Portable TRU with web access

24Vdc or 230Vac powered; up to 20 TR outputs; 15 reference half-cell inputs

Model Number
C5003B

DATASHEET

- Ideal for temporary powering of CP anodes
- Constant current or constant voltage control
- Control remotely over the web from a browser
- Get SMS/Email/Notification alarms
- Run CP tests like Instant Off & Depolarisation
- Tracks kiloCoulombs delivered per output
- Use safely on prestressed concrete structures

Features

- Rugged weatherproof portable case on wheels
- Configurable outputs from: 5 x 15V/6A to 20 x 15V/1.5A
- 15 Reference Half Cell measurement inputs
- Powered from universal AC or 24Vdc batteries
- Plugin terminals for fast change out
- Easy to Use touch screen with remote Web access

Overview

The **PowerView CP Portable TRU** is designed to provide temporary power to anodes in cathodic protection systems.

Typical applications include the charging phase of hybrid anode installations, and temporary power to ICCP systems for trials etc.

Web enabled remote monitoring and control capability allows the power delivered to the anodes to be tightly monitored and remotely adjusted without needing to be present on site.

Individually controllable TR outputs allows the control of current to smaller groups of anodes for better quality assurance.

This AC or battery powered unit is supplied in a rugged weather-proof carry case for ease of transport and ease of operation close to the area of protection, even outdoors.

Managing the hybrid anode charging phase

This unit is ideal for powering hybrid anodes during their impressed current phase. Each TR output can be set accurately in constant voltage or constant current mode to deliver exactly the appropriate rate of charge to each zone

Remote and accurate real-time monitoring of total kilocoulombs delivered to each zone plus real-time reference monitoring can provide notification when the charging phase is complete, or when anodes are over-powered.

Reference Inputs

Reference electrode half cells are used to measure the electrical potential of the steel in the structure with respect to the surrounding environment – a key indicator of the effectiveness of the cathodic protection.

By monitoring of half-cell references during the impressed current phase of hybrid anode systems the steel can be protected from over voltage, preventing embrittlement in prestressed structures.

Touch Screen Operation

All settings and monitoring locally is done through the intuitive touch screen on the unit.

Web-based Remote Operation

The PowerView Portable TRU is compatible with the PowerView CP web portal. An integrated 4G wireless data link installed in the unit sends readings to the Data2Desktop cloud storage where they are logged and available from any browser for display, trending and downloading for reporting purposes. The simple browser interface allows full remote control of the portable TRU.

Alarms and Notifications

Alarms can be configured on the Data2Desktop Website to alert you by email, SMS or push notification to your smart phone when any parameter such as anode current or reference potential goes out of pre-set range or when the total coulombs delivered to any zone has been reached.

CP Testing

The PowerView Portable TRU can perform CP tests such as Instant Off, Depolarisation or Interference tests, or can simply be used to temporarily monitor the performance of any CP installation.

Output Options

The 20 TR outputs can be paralleled in groups of 2 or four to provide higher current outputs circuits.
The following table shows typical examples of the various options that can be achieved:

Outputs	Example 1 20 x 1.5Amps	Example 2 5 x 6Amps	Example 3 10 x 3Amps	Example 4 3 x 6Amps, 4 x 3Amps	Example 5 2 x 6Amps, 12 x 1.5Amps
1	1 x 1.5A	1 x 6A	1 x 3A	1 x 6A	1 x 6A
2	1 x 1.5A				
3	1 x 1.5A		1 x 3A		
4	1 x 1.5A				
5	1 x 1.5A	1 x 6A	1 x 3A	1 x 6A	1 x 6A
6	1 x 1.5A				
7	1 x 1.5A		1 x 3A		
8	1 x 1.5A				
9	1 x 1.5A	1 x 6A	1 x 3A	1 x 6A	1 x 1.5A
10	1 x 1.5A				1 x 1.5A
11	1 x 1.5A		1 x 3A		1 x 1.5A
12	1 x 1.5A				1 x 1.5A
13	1 x 1.5A	1 x 6A	1 x 3A	1 x 3A	1 x 1.5A
14	1 x 1.5A				1 x 1.5A
15	1 x 1.5A		1 x 3A	1 x 3A	1 x 1.5A
16	1 x 1.5A				1 x 1.5A
17	1 x 1.5A	1 x 6A	1 x 3A	1 x 3A	1 x 1.5A
18	1 x 1.5A				1 x 1.5A
19	1 x 1.5A		1 x 3A	1 x 3A	1 x 1.5A
20	1 x 1.5A				1 x 1.5A

Electrical Connections

TR Output Connections

Reference Connections

Power Connections

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Local Touch Screen Examples

Overview of TR Zones

Individual TR Zone Detail

Test Selection

Depolarisation Test Setup

Web browser Remote Control Screen Examples

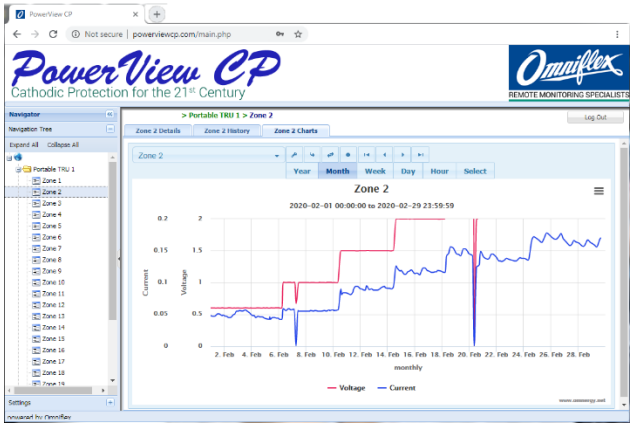
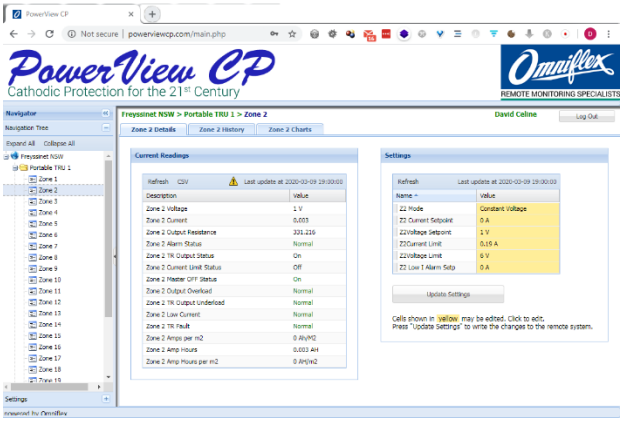


Chart of Zone performance



Individual TR Zone Remote View and Setup

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Specifications

Power

Source	AC or DC switch selectable
DC Input Voltage	22-30Vdc (use with external batteries)
Maximum DC Power	600W max (outputs all at full power)
AC Input Voltage	85-265Vac
AC Input Current	6A at 115Vac / 3A at 230Vac

Electrical Connections

Type	Removable Terminal Blocks
Maximum Wire Size	2.5 mm^2 solid / 1.5 mm^2 stranded

Transformer/Rectifier Outputs

Quantity	20
Current	0-1.5A
Voltage	0-15V
Parallel operation	Groups of 2 or 4 outputs can be connected in parallel to provide a varying number of outputs with larger current ratings up to 6A. See table

Reference Half-Cell Voltage Measurement Inputs

Quantity	15
Input voltage range	0 to ±3 V
Input Impedance	>100 MΩ
Resolution	1 mV
Accuracy	<10 mV

Environment

Operating Temperature	-10 to +50°C (+14°F – 122°F)
Storage Temperature	-10°C – 70 °C (+14°F – 158°F)
Degree of Protection	IP55 / NEMA 4
Air Vents	Located in the underside of the case
Operating location and orientation	This unit has air vents in the bottom of the case and can be operated outdoors provided that the unit is placed with the vents at the bottom on a surface that provides clear air flow under the case and that will not collect water. Avoid very dusty environments which could clog the filters. Keep out of direct sunlight to avoid overheating.

Mechanical

Enclosure	Polypropylene
Length	561mm (22.1")
Width	455mm (17.9")
Depth	265mm (10.4")
Weight	18 kg (40lb) approx.

Compliance to Standards

Safety	IEC950; EN60950:1995
Emissions	EN 55011 Group I, Class A
Immunity	IEC 61326-1 (2005)

Ordering Information

ORDER CODE	DESCRIPTION
C5003B-141	PowerView Portable TRU with 4G (UK, EU, ZA)
C5003B-142	PowerView Portable TRU with 4G (AU/NZ)
C5003B-151	PowerView Portable TRU with CAT-M1 (int'l)