

POWER OPTIONS FOR OFF-GRID CATHODIC PROTECTION

When corrosion is the problem, cathodic protection is the solution.

Global Power Technologies' (GPT) thermoelectric generators (TEGs) and MX generators are the perfect solution for cost-effective power to cathodic protection (CP) systems. TEGs generate electrical (DC) power by the direct conversion of heat from the combustion of fuel into electricity, providing a reliable source of continuous current.

MX generators can provide either continuous AC electrical power or DC electrical power for cathodic protection. The MX will work with any cathodic protection panel designed to work from the grid or add-on our MX CP panel for a turnkey solution to support your cathodic protection requirements.

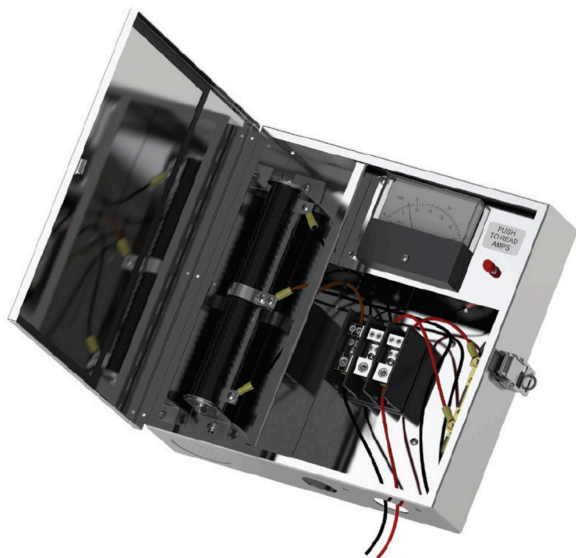
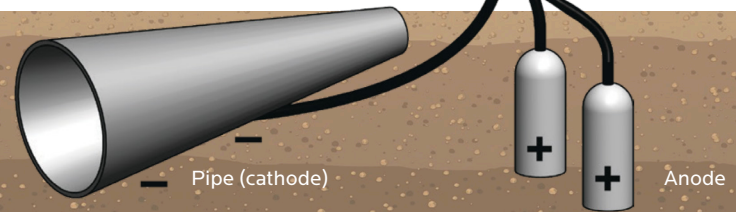
Corrosion occurs due to an electrochemical reaction between two electrodes: anodes and cathodes. Cathodic protection is an effective way to combat costly corrosion problems. Pipelines are normally anodic, but when electrical current is supplied the pipeline becomes cathodic.

Impressed Current Cathodic Protection

5100 CP TEG



Corrosion problems?
We have the solution.



Note: The CP interface design may vary depending upon TEG model required.

Cathodic Protection Panel:

- ✦ Provides unattended and continuous power for impressed current CP systems.
- ✦ Monitor and adjust power for CP load as needed.
- ✦ Variable resistor utilized to reduce output voltage and adjust current to ground bed.
- ✦ Optional DC/DC converter available to extend operating range.

Package Includes:

- ✦ Lockable, stainless steel enclosure.
- ✦ Easy-to-read Volt/Ammeter.
- ✦ Terminal block for up to 9mm (00 AWG) cable.
- ✦ Variable resistor to control current output.

Options:

- ✦ Auto CP panel to monitor ground bed and adjust output power.
- ✦ Current interrupter to aid in CP testing.
- ✦ Split current package allowing one generator to supply two cathodic loads.

Cathodic Protection Power Options



1500 watt Auto-CP system on natural gas pipeline, Texas, USA

Global Power Technologies offers several models of thermoelectric generators to provide cathodic protection in any environment.



P-5050

12V ..MAX 3.8A @ 46W
24V..MAX 1.9A @ 46W



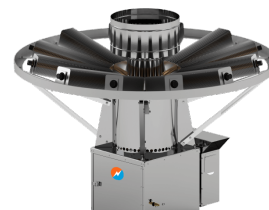
P-5100

12V..MAX 7.8A @ 94W
24V..MAX 3.9A @ 94W



5220

12V..MAX 15.2A @ 182W
24V..MAX 6.9A @ 166W



S-8500

12V..MAX 35.9A @ 430W
24V..MAX 20.3A @ 487W
48V..MAX 8.9A @ 430W

8550

12V..MAX 37.4A @ 450W
24V..MAX 21.4A @ 515W
48V..MAX 9.3A @ 450W

MX Cathodic Protection

With up to 6kVA available, the MX can provide greater power to CP or can be used on sites with more than just CP power required. MX can provide Cathodic Protection as an alternative to bringing in 120/240 VAC, 120/208 VAC or 110/220 VAC up to 6.0 kVA with load balancing where required.

Any existing CP rectifier designed for grid tied operation is compatible with the MX within its rated load. GPT can also design a standalone panel to rectify and convert to the appropriate voltage and current range.

GPT has also designed an integrated CP panel for the MX to rectify the output. In addition to rectifying the output, the panel includes voltage adjustment, surge protection, supports current interruption and works with popular remote monitoring units for GPS synchronization.

The MX is proven to handle current interruptions for CP surveys; while it does load follow, it can handle intermittent loads without a shutdown.



RECTIFIER CP PANEL SIZING

50V..... 96A @ 4800W
80V..... 60A @ 4800W
120V 40A @ 4800W

(At <=80% MX utilization)

INTEGRATED CP PANEL SIZE

60V..... 40A @ 2400W
90V.... 26A @ 2400W*
120V .. 20A @ 2400W*

*Custom configuration, contact GPT for more information

Global Power Technologies provides ultra-reliable power and clean air systems.

Global Power Technologies is powering the energy transition with clean air systems & ultra-reliable off-grid industrial power.

By enabling companies across multiple industries to balance the energy trilemma of reliability, affordability and sustainability, we are advancing remote power and emission abatement technologies for off-grid sites.

The largest companies worldwide have trusted Global Power's scalable solutions for over 45 years and 35,000 global installations.

**Contact Global Power to learn more
about our product range.**

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