

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 provide continuous AC electrical power that are also trusted for cathodic protection. The MX will work with any cathodic protection panel designed to work from the grid as long as it doesn't exceed the load ratings of the MX.

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.

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.

Pipe (cathode)

Impressed Current

Cathodic Protection

5100 CP TEG

- ✓ 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 resister 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 ProtectionPower 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-5220 12V 16A @ 195W 24V..... 7A @ 178W



S-8500 12V 42A @ 480W 24V 21.6A @ 520W 48V 9.79A @ 460W



S-8550 12V 40A @ 460W 24V 23A @ 550W 48V..... 10.2A @ 480W

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 panel designed for grid-tied CP 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.

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





MX PRIMEGEN

50V..... 90A @ 4500W 100V.... 45A @ 4500W 200V... 22.5A @ 450W

(At <=75% MX utilization)

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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