

Cathodic Protection Systems for Gentherm Global Power Technologies (GPT) Thermoelectric Generators

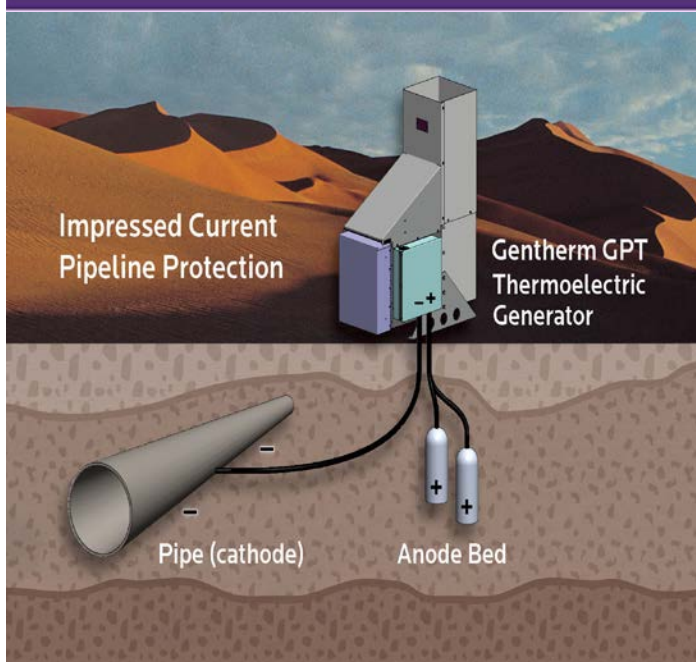
Corrosion is the problem and cathodic protection is the solution. To ensure that a cathodic protection system is an economically feasible solution the system must include a cost effective method of impressing current. GPT Thermoelectric Generators (TEG) meet this criteria.

Electrical power is generated by the direct conversion of heat from the combustion of fuel into electricity. Today's users of cathodic protection are highly cost conscious, and most expenditures are based upon sound economic analysis to justify capital and operational costs. GPT TEGs are a proven reliable source of continuous current and should always be considered for cathodic protection applications.

GPT's CP-TEGs are normally located near the ground bed, and supplied with fuel from tanks or from wellheads or pipelines. The output current can be adjusted by means of an integral variable resistor so that output current is matched to the ground bed resistance.

Gentherm Power Technologies (GPT) CP-TEGs Should be Considered Whenever:

- Design considerations include reliability and cost effectiveness
- Power requirements are between 10 VA and 1.5 KVA
- Grid power may be intermittent or too expensive

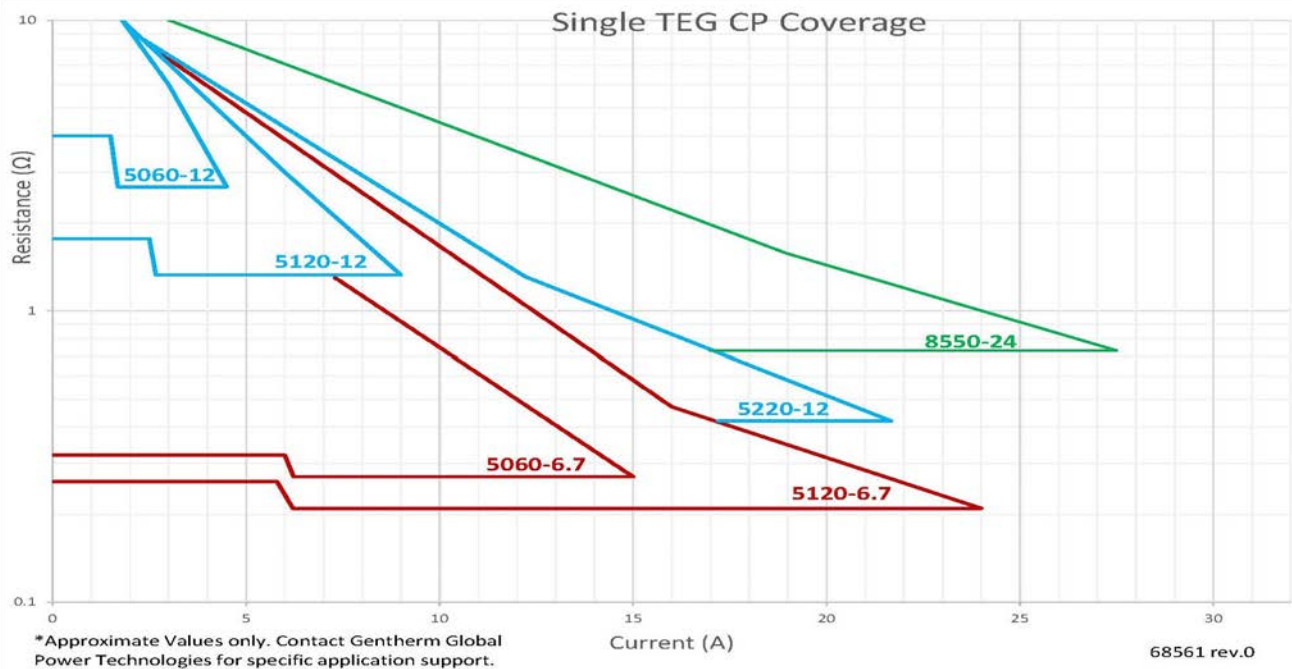


With over 40 years of experience in supplying DC power to the cathodic protection industry, GPT TEGs offer:

- Stainless steel, weatherproof construction means NO sheltering required
- Quiet, ecologically sound service
- Extended design lifetime, with minimal maintenance
- Operation on propane, butane, and natural gas
- No battery bank is required
- Alternate solution to a rectifier which requires AC Power
- CP Panel supplies DC power which allows you to connect directly to the anode bed easily
- Integrated solutions such as Auto CP Panels and Current Interrupter Functionality available upon request.

For additional information and project assistance:

- Contact your sales representative for support on unique CP site requirements
- Visit our website to see the full details summarize on this sheet



Model	Power Specifications @ 20°C	Fuel Consumption *All Natural Gas is Std. 1000 BTU/SCF 37.7 MJ/Sm ³ gas	Dimensions LxWxH mm (Inches)	Weight kg (lb)
5030	21 Watts @ 12 Volts 21 Watts @ 24 Volts	Natural Gas: 2.1 m ³ /day (74 ft ³ /day) Propane: 3.0 l/day (0.8 USgal/day) / 1.5 kg/day Max Supply Pressure: 172 kPa (25 psig) Min. Supply Pressure: 69 kPa (10 psig)	347 x 355 x 449 (14 x 14 x 18)	18 (40)
5060	60 Watts @ 6.7 Volts 54 Watts @ 12 Volts 54 Watts @ 24 Volts 54 Watts @ 48 Volts	Natural Gas: 4.4 m ³ /day (155 ft ³ /day) Propane: 5.7 l/day (1.5 USgal/day) / 2.9 kg/day Max Supply Pressure: 172 kPa (25 psig) Min. Supply Pressure: 69 kPa (10 psig)	629 x 372 x 988 (25 x 15 x 39)	41 (90)
5120	120 Watts @ 6.7 Volts 108 Watts @ 12 Volts 108 Watts @ 24 Volts 108 Watts @ 48 Volts	Natural Gas: 8.8 m ³ /day (311 ft ³ /day) Propane: 11.4 l/day (3.0 USgal/day) / 5.8 kg/day Max Supply Pressure: 172 kPa (25 psig) Min. Supply Pressure: 69 kPa (10 psig)	757 x 372 x 988 (30 x 15 x 39)	60 (132)
5220	195 Watts @ 12 Volts 178 Watts @ 24 Volts	Natural Gas: 19.7 m ³ /day (700 ft ³ /day) Propane: 28.0 l/day (7.4 USgal/day) / 14.2 kg/day Max Supply Pressure: 345 kPa (50 psig) Min. Supply Pressure: 165 kPa (24 psig)	810 x 450 x 1275 (31 x 18 x 50)	97 (214)
8550	480 Watts @ 12 Volts 550 Watts @ 24 Volts 480 Watts @ 48 Volts	Natural Gas: 48 m ³ /day (1695 ft ³ /day) Propane: 76 l/day (20.1 USgal/day) / 38 kg/day Max Supply Pressure: 172 kPa (25 psig) Min. Supply Pressure: 103 kPa (15 psig)	1549 x 1549 x 1016 (61 X 61 X 40)	102 (225)
1120 <small>Hazardous Approved (Class 1, Div. 2) (Optional: Class 1, Div. 1)</small>	110 Watts @ 6.7 Volts 100 Watts @ 12 Volts 100 Watts @ 24 Volts 100 Watts @ 48 Volts	Natural Gas: 8.8 m ³ /day (311 ft ³ /day) Propane: 11.4 l/day (3.0 USgal/day) / 5.8 kg/day Max Supply Pressure: 172 kPa (25 psig) Min. Supply Pressure: 69 kPa (10 psig)	797 X 602 X 1150 (32 x 24 x 45)	130 (285)
1500 <small>Hazardous Approved (Class 1, Div. 2)</small>	500 Watts @ 24 Volts	Natural Gas: 48.0 m ³ /day (1695 ft ³ /day) Propane: N/A Max Supply Pressure: 172 kPa (25 psig) Min. Supply Pressure: 103 kPa (15 psig)	1416 x 1416 x 2899 (56 x 56 x 114)	700 (1530)

Please contact GPT for operating conditions below -40°C or above +45°C for assistance in selection of the right TEG for your site. Specifications are subject to change without notice. Contact a GPT sales representative to verify you have the most current information.