

ITEM OPPORTUNITY SYNOPSIS

Scouting Number:	2024-077
Name of the item to be scouted:	Propane-Operated Thermoelectric Generator
State item to be used in:	Washington

Describe the Item:

Please describe the item application/the end use of the item.	Looking for a MADE IN USA Propane-operated Thermoelectric Generator equivalent to Global Power Technologies' Model P-5050 (made in Canada). Key features: Automatic Spark Ignition (SI), Automatic Fuel Shut-Off (SO), Fuel Filter, Low Voltage Alarm Contacts (VSR), Reverse Current Protection, API 12N Flame Arrestor (Natural Gas Only), Certified to CSA Std. T.I.L. R-10; CE.
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Supplier Information:

Type of Supplier Being Sought (select from the list below):	
Manufacturer	x
Contract Manufacturer	
Distributor	
Other (Please Specify)	
Reason for Scouting Submission (select from the list below)	
2nd Supplier	
Price	
Re-Shore	
Past supplier no longer available	
New Product Startup	
BABA	x
Other (Please Specify)	

Summary of Technical Specifications and Performance Requirements:

Describe the manufacturing processes (elaborate to provide as much detail as possible)	Electronic Assembly, Fabrication. Manufacturing process includes assembling thermoelectric modules by connecting many p-type and n-type couples electrically in series and/or parallel to create the desired electrical current and voltage. These couples are sandwiched between two parallel ceramic plates. Then fabricating heat exchangers for efficient heat transfer from the propane burner to the hot side of the thermoelectric modules.
Provide dimensions / size / tolerances / performance specifications of the item	Overall dimensions: 30.5" x 39.0"x 15.5" w/ optional support column 76.3" Long Weight: 90 lbs. Power Specifications: POWER RATING AT 20°C (68°F), 50 Watts @ 14 Volts, 40 Watts @ 54 Volts, 50 Watts @ 27 Volts Cooling Type: Natural Convection
List required materials needed to make the product, including materials of product components, if applicable	MATERIALS Cabinet: 304 Stainless Steel (SS) Fuel System: Brass, Aluminum & Stainless Steel
Are there applicable certification requirements?	
Yes	x
No	
Please explain:	ISO 9001
Are there any applicable regulations that apply to the production of this item?	
Yes	
No	x
Please explain:	
Are there any other standards / requirements?	
Yes	x
No	
Please explain:	Certified to CSA Std. T.I.L. R-10; CE

Additional Comments:

Additional technical comments:	
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Volume and Pricing:

Estimated Potential Business Volume (i.e. #units per day, month, year):	1 each. to include pole mount as this unit will be mounted outside.
Estimated Target Price/Unit Cost Information:	\$15,000.00

Delivery Requirements:

When is it needed by? (Immediate, 30 days, 6 months, etc.)	8/31/2024
Describe packaging requirements (i.e. individually/group packaging, etc.)	Standard
Where will this item be shipped?	

Additional Comments:

Is there other information you would like to include?	
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MODEL P-5050

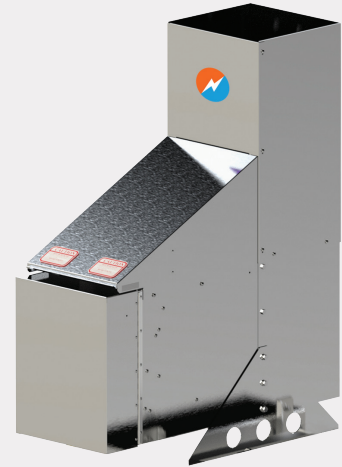
The Model P-5050 Thermoelectric Generator contains no moving parts. A reliable, low-maintenance source of DC power for any application where regular utilities are unavailable or unreliable.

KEY FEATURES:

- ✓ Automatic Spark Ignition (SI)
- ✓ Automatic Fuel Shut-Off (SO)
- ✓ Fuel Filter
- ✓ Low Voltage Alarm Contacts (VSR)
- ✓ Reverse Current Protection
- ✓ API 12N Flame Arrestor (Natural Gas Only)
- ✓ Certified to CSA Std. T.I.L. R-10; CE

OPTIONAL FEATURES:

- ✓ Remote Start
- ✓ Corrosive Environmental Fuel System
- ✓ Cathodic Protection Interface
- ✓ Converter Box
- ✓ Heat Recovery System (HRS)
- ✓ Pole Mount or Bench Stand



SPECIFICATIONS

POWER SPECIFICATIONS

POWER RATING AT 20°C (68°F)

50 Watts @ 14 Volts 50 Watts @ 27 Volts
40 Watts @ 54 Volts

ELECTRICAL

OUTPUT ADJUSTMENT RANGE

12 Volts 12–18 Volts
24 Volts 24–30 Volts
48 Volts 53–57 Volts

Note: 12/24 VDC Models: Terminal block accepts up to 8 AWG wire. Opening for 3/4" conduit in base of cabinet.
48 VDC: Terminal block accepts up to 4 AWG wire.

FUEL REQUIREMENTS

NATURAL GAS

4.8m³/day (168 Sft³/day)
1000 BTU/Sft³ (37.7 MJ/Sm³) gas
max 115 mg/Sm³ (~170 ppmw) H₂S
max 120 mg/Sm³ H₂O
max 1% free O₂

PROPANE

7.2 L/day (1.9 US gal/day)

NATURAL GAS/PROPANE

Max. Supply Pressure: 344 kPa (50 psi)
Min. Supply Pressure: 103 kPa (15 psi)
Fuel Connection: 1/4" Female NPT

ENVIRONMENTAL

AMBIENT OPERATING TEMPERATURE

Max. +55°C (130°F)
Min. -40°C (-40°F)

OPERATING CONDITIONS

Unsheltered operation, shaded at >45°C (113°F)

Please contact GPT for operating conditions below -40°C or above +55°C.

CONSTRUCTION

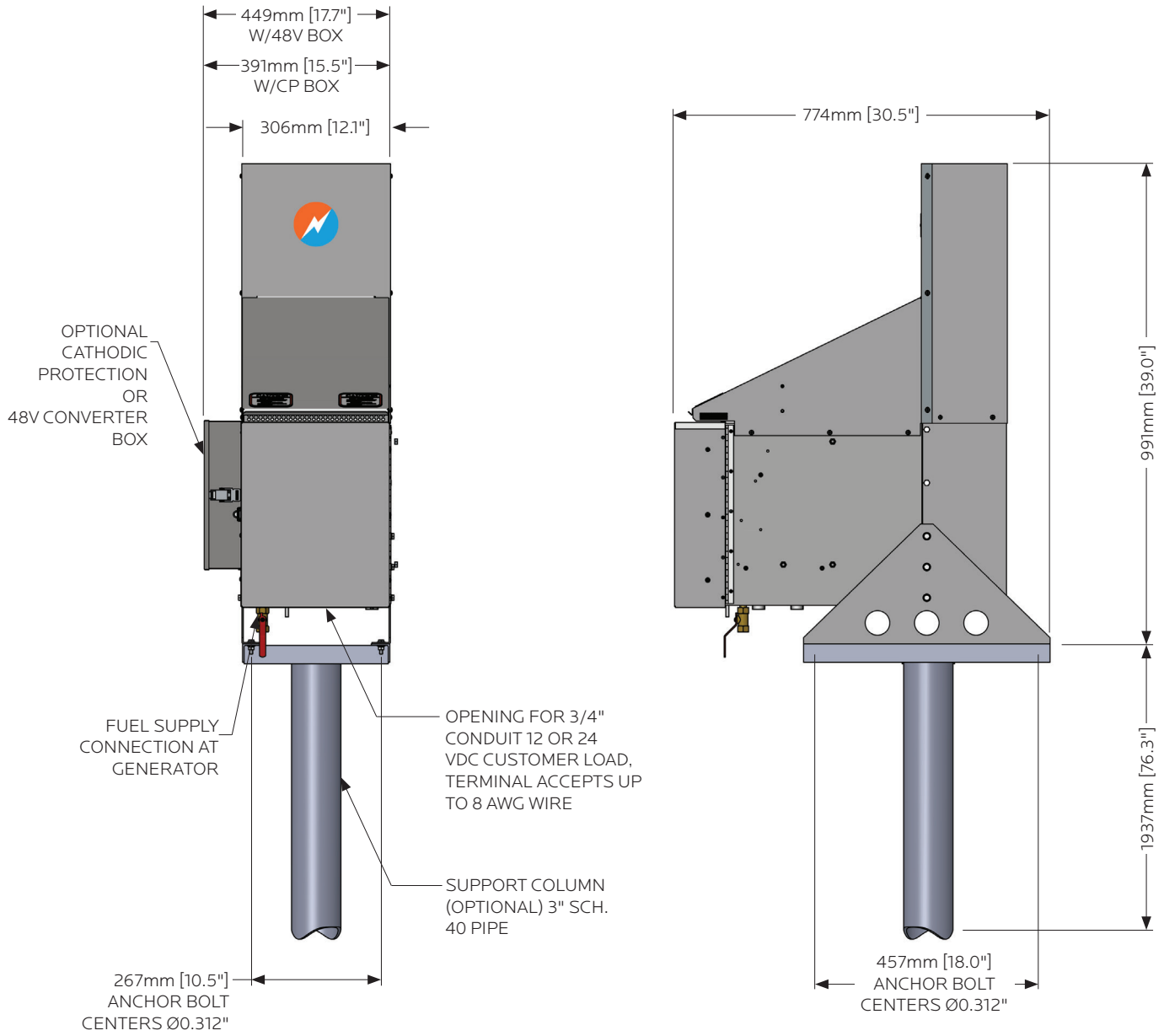
MATERIALS

Cabinet: 304 Stainless Steel (SS)
Cooling Type: Natural Convection
Fuel System: Brass, Aluminum & Stainless Steel

NOTES

Specifications shown are for standard P-5050 configurations. Global Power Technologies (GPT) also offers customized products and systems to accommodate custom voltages, fuel supply systems and operating temperatures.

Specification data stated in this document is subject to change without notice. To verify these specifications are current, please contact your GPT sales representative.



NOTES:

Generator Weight: 41 kg [90 lb]
 Certified to CSA Std. T.I.L. R-10; CE

ISO
 9001:2008
 REGISTERED

