



TEG12VDC- 24AIR VDC FORCED AIR COOLING

The TEG12VDC -24AIR has a peak rating of 30 watt . The forced air TEG Generator works up to a hot surface temperature of 350°C (662°F). A pipe vent should be used to allow cooler air to enter the intake fan to maintain DT (Not Supplied). The OUTPUT from the TEG is regulated with a Boost/Buck constant voltage/constant current DC to DC converter that can be adjusted from ~5V to 16V. This is ideal for trickle charging a 5v to 12V battery when set at 6.8V to ~14.2V based on charging specifications found on the battery label.

(OUTPUT BASED ON MAXIMUM HOT SIDE TEMPERATURE and DT).



DESIGNED & MANUFACTURED IN CANADA subcomponents from USA

PART NUMBER	TEG12VDC-24
OUTPUT POWER	30 watt maximum
OUTPUT VOLTAGE	Preset by Factory to 13.8V Charge Voltage for 12VDC
DC to DC Constant Voltage/ Constant Current Converter	Output Range 5VDC to 16VDC Factory set to 13.8V
Output voltage for charging circuit	Factory set to 13.8V Charge voltage
Recommended Maximum Hot side temperature 400°C	
Fan Specification	5 watt 89 CFM 120mm 5" fan IP55
Dimensions	13"(33cm) x 5" (12.7cm) x 4.123" (10.47cm)
Weight	11 lbs.(5 Kgs.)

Designers of advanced TEG Generators using state of the art heat Transfer patented technology

N.A.1-800-769-2395

International 1-905-751-1362

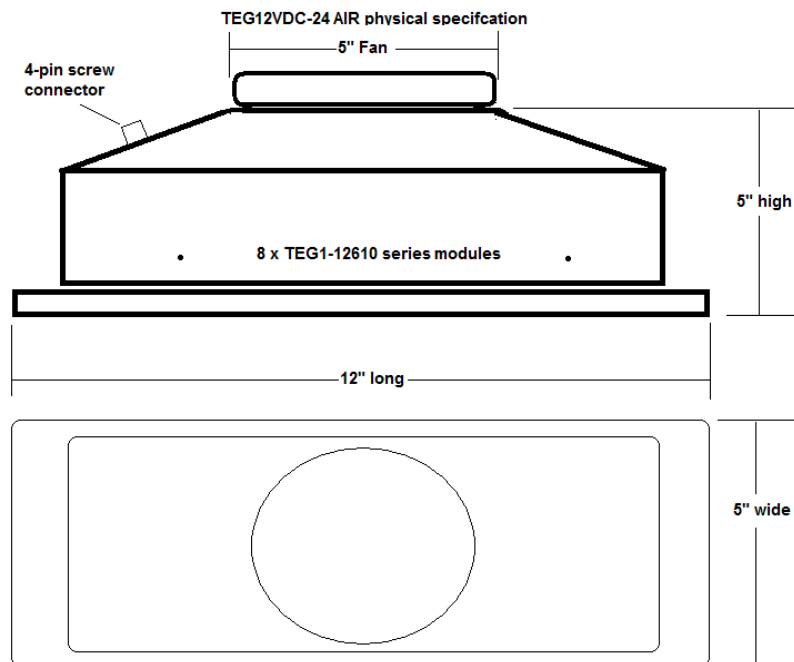
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CRITICAL NOTES FOR OPERATION:

- **Generator should always be attached to a BATTERIES**, a diode is included to prevent reverse voltage to TEG.
- **GENERATOR REQUIRES cold air from outside** on the fan side for best performance!
- We **STRONGLY** advise a 4" to 5" aluminum tube air duct from outside that will draw cold air through the fan onto the heat sinks which provides **two critical requirements!**
 1. Creates critical **DT** that will increase and **maintain optimum power generation.**
 2. Protects the fan from overheating. The fan is rated for 160°F or 70°C maximum.
- Do not exceed 662°F hot side temperature on the hot side or you will damage the TEG modules.
- The controller is a boost /buck constant voltage/constant current charge controller. It is set from the factory at 13.8V to 14.2V although **you can adjust to any voltage** with the brass screws on the side marked CV (Constant Voltage) or CC (Constant Current) as well to meet your charging requirements.
- The second smaller board is a buck board which controls fan speed may or may not be included depending on fan model. The pot in blue with brass screw which controls fan speed.
- We also recommend charging a battery and drawing loads (lights, motors, etc...) from the battery NOT from the TEG output directly. **(ALWAYS HAVE A BATTERY ATTACHED TO THE OUTPUT) This insures GOOD heat movement through the modules and will reduce the chance of overheating! A diode is in serial to prevent reverse voltage.**
- FAN: 5 inch (120mm) IP55 protection. 5W @ 12V consumption at ideal tested speed of 8 volts
- 3W consumption!



Design and specifications subject to change without notice



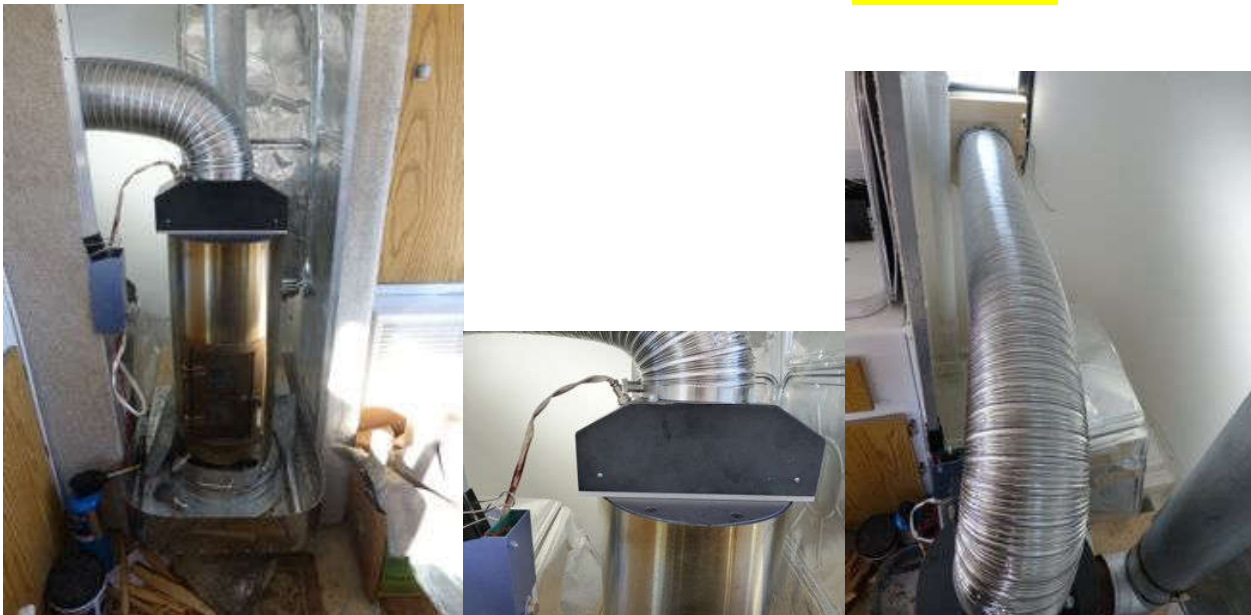
WHAT IS NOT COVERED: Any damage caused by misuse, abuse, accident (dropping or otherwise shocking the Generator) normal wear & tear, or physical damage. Also any incidental or consequential damage or loss is not covered. Improper installation will Null and void all warranty

There are no warranties of merchantability or of fitness expressed or implied, which extend beyond the description on the face hereof. In no event shall Thermal Electronics Corp. be liable for damages in excess of the purchase price. Thermal Electronics Corp. neither assumes nor authorizes any other person to assume for it any liability in connection with this product.

Abuse, misuse or mistreatment (i.e. if you overheat or drop the Generator) VOIDS all warranties. We do our best to make all of our Generators as durable as possible. However there is no way for us to fully prevent all damage due to overheating, or dropping. Warranty is limited to replacement of parts at the full discretion of the manufacturer and is limited to 1 year from date of purchase.

IMPORTANT: When starting your stove ALWAYS PLACE TEG GENERATOR ON STOVE AFTER STOVE TOP IS FULLY HEATED. IF THIS IS NOT DONE THE COLD SIDE WILL HEAT UP SLOWLY ALONG WITH THE HOT SIDE. ALLOWING NO DELTA TEMPERATURE TO EXIST. RESULT! THE FAN WILL NOT START AND COOLING WILL NOT OCCUR, WHICH COULD CAUSE THE MODULES TO BURN OUT.

Vent to outside



Example above of a typical installation

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