TEG12VDC- 24AIR VDC FORCED AIR COOLING

The TEG12VDC -24AIR has a peak rating of 20 watt . The forced air TEG Generator works up to a hot surface temperature of 400°C (750°F). A pipe vent should be used to allow cooler air to enter the of 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 charge a 5v to 12VDC battery when set at 5V to ~14.2V based on charging specifications found on the battery label.

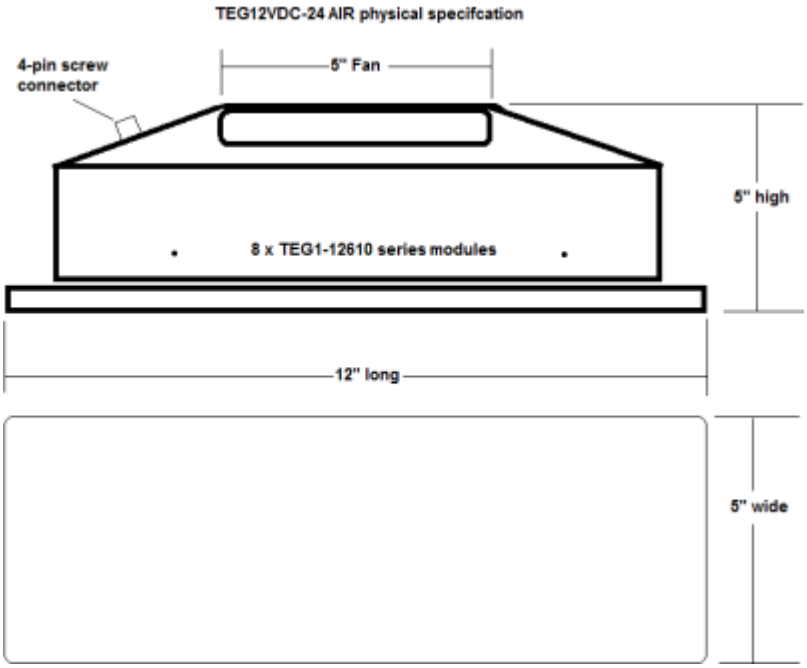
(OUTPUT BASED ON MAXIMUM HOT SIDE TEMPERATURE and DT).

DESIGNED & MANUFACTURED IN CANADA subcomponents from USA

PART NUMBER	TEG12VDC-24
OUTPUT POWER	20 watts 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.)

CRITICAL NOTES FOR OPERATION:

- If used for charging BATTERIES a diode is incorporated to prevent reverse voltage to TEG.
- GENERATOR REQUIRES cold air on the fan side for best performance!
- We STRONGLY advise a 2"or 3" tube air duct from outside that will draw cold air threw 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 750°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 set to any voltage with the screws on the side marked CV (Constant Voltage) or CC (Constant Current) as well to meet you charging requirements.
- The second smaller board is a buck board which controls fan speed. The pot in blue with brass screw will control the fan speed which can be set with a screw driver.
- We also recommend charging a battery and drawing loads (lights, motors, etc...) from the battery NOT from the TEG output directly.
- FAN: 5 inch (120mm) IP55 protection. 3 watt consumption at ideal tested speed



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 (ie 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.