

350 Watts Hot Gas to Liquid Type Thermoelectric Generator Good for Automobile Exhaust Heat Energy Recovery

Description

The generator here is a hot gas-liquid type thermoelectric generator, which consist of a hot gas heat collector, 36 pieces thermoelectric modules and a liquid cooling system. The heat collector will capture the heat of hot gas that passing through and transfer the heat energy to each modules. The modules are cooled by a circulated liquid cooling system. The generator can generate 350watts if the hot gas can heat up the hot side of modules 300 °C or above.

Up to 60 per cent of the energy created by an internal combustion engine is lost in heat, with half of it going to exhaust heat and the other half going to the cooling system. If we will capture the exhaust heat energy and turn it into electricity energy by thermoelectric, the automobile fuel efficiency can be improved hence the exhaust emissions can be reduced. The generator here can be used for such application.



Figure 1 350 Watts Hot Gas to Liquid Type Heat Recovery Thermoelectric Generator

Application in Automobile Exhaust Heat Energy Recovery:

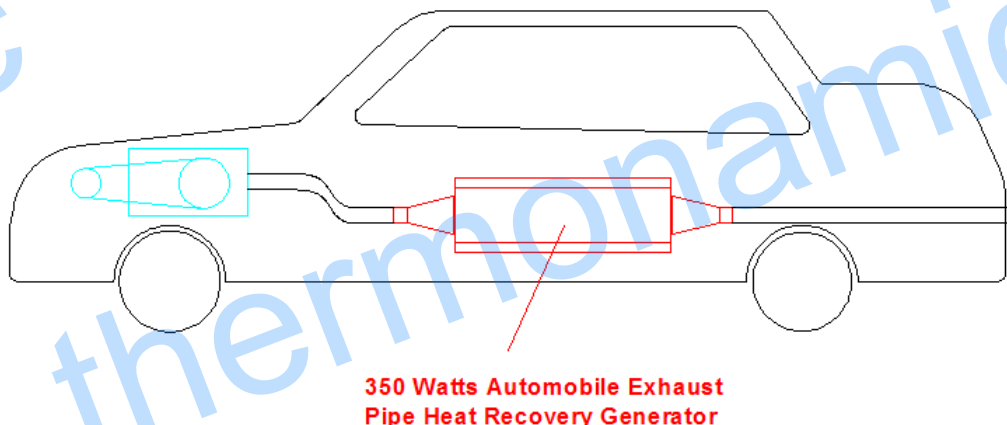


Figure 2 350Watts Generator illustration

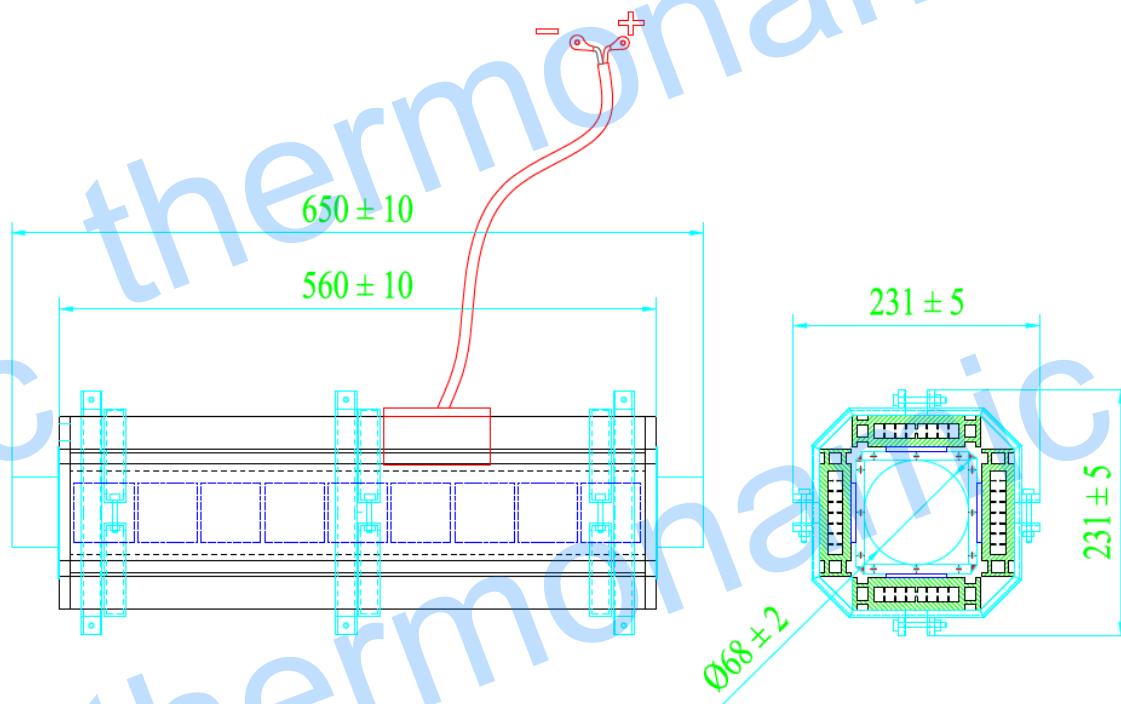


Figure 3 Structure Drawing Dimensions in millimeter

Specifications:

Part Number	TEG-HL350-48V
Hot Gas	Temperature > 400 °C, Be able to provide enough heat to heat the heat collector up to 300 °C
Output Power	350 W
Open circuit voltage	48 VDC
Matched Load Output Voltage /Current	24 VDC / 15 A
Internal Resistance	0.8 ohm
Thermoelectric Modules	TEHP1-12656-0.3 (36 pcs)
Dimension Size	500 mm × 151 mm × 259 mm
Weight	18.8 Kg

Instructions in use

1. Well fit the hot gas inlet and outlet to hot gas pipe. Do not have leakage.
2. Connect the water inlet and outlet to a liquid cooling heat exchanger system to dissipate heat.
3. The output voltage will vary with input heat, please use a DC-DC converter or transistor to stabilize its output voltage.
4. Installed direction for this generator as the Figure 4 and give a right water inlet and outlet direction as instruction on the body.

Packing List

350W generator

one set

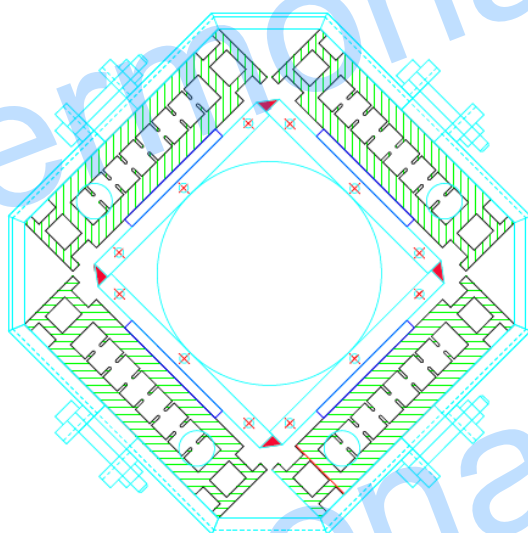


Figure 4 The Installed direction of the TEG generator