200 Watts Output Thermoelectric Power Generator

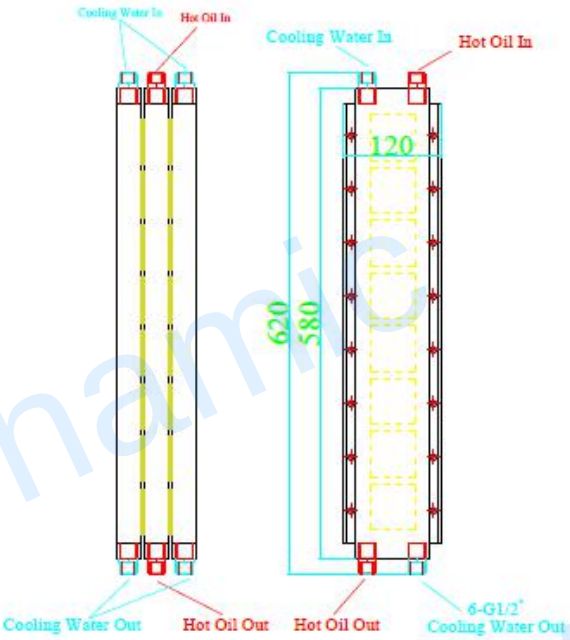
Description

The 200 watts thermoelectric generator runs with circulated heat transfer oil which distributes the heat to each thermoelectric module (TEM) to generate electricity. The cooling of the generator is by using 30 °C water, which brings out the heat that passes through the modules effectively. The generator is good for waste heat recovery.

The thermoelectric power generator consists of thermoelectric modules, hot oil pipe for hot oil circulating to bring the heat to each module, water pipe for water circulating to bring out the heat. The hot oil flows from bottom of the generator to bring the heat to all the hot sides of the modules and out from the top cooling oil outlet. The water flows from the cooling water inlet in the bottom, pass the modules cold side to bring out the heat that flows through the modules, and then out from the top cooling water outlet.

The generator is installed with 16pcs 56 mm × 56 mm modules. It can generate over 200 watts if the heat source is over 300℃ and 30 °C cooling water flow-in is in 6 liters/ min on one inlet.

200 Watts Output Thermoelectric Power Generator



200 Watts Output Thermoelectric Power Generator Diagram

Specifications :

Part Number	TEG200-48V
Matched output power / W	200
Open circuit voltage / VDC	96
Matched load output Voltage / VDC	48
Matched load output current / A	4.17
Hot Oil Input Temperature and Flow Rate/ liters/min	300℃/ 16
Input Water Temperature and Input Rate/ liters/min	30℃/ 6
Working pressure of oil tank / Mpa	0.25
Working pressure of water tank / Mpa	0.35
Specifications the inlet/ outlet pipe	G1/2``
Dimension of the unit / mm	135 × 140 × 620
Weight / Kg	16.5

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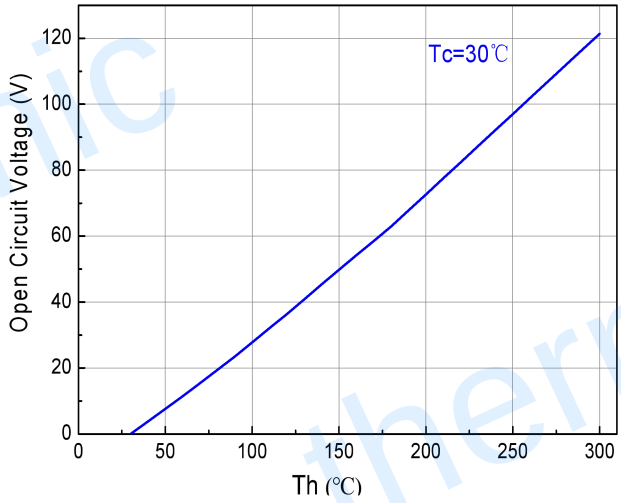
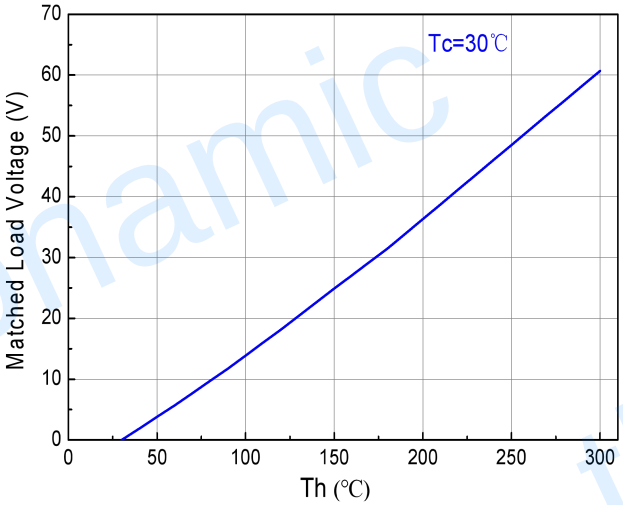
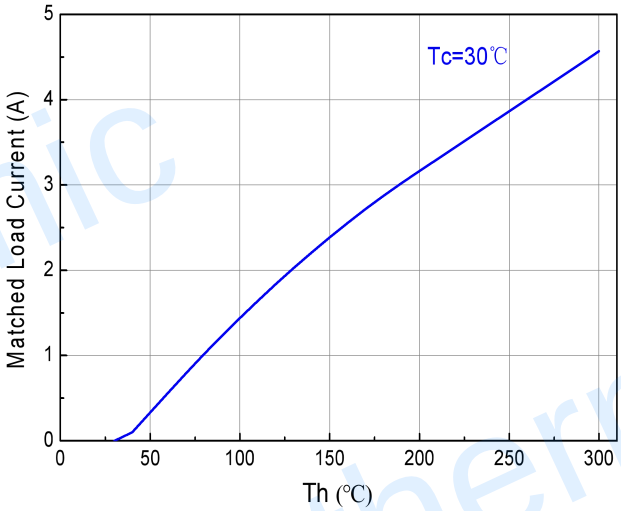
Performance Curves of the Generator



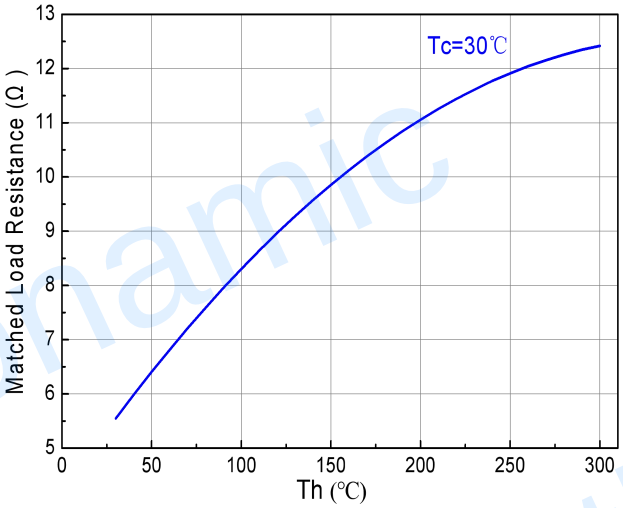
The chart for open circuit voltage Vs Th under Tc=30℃ input water temperature



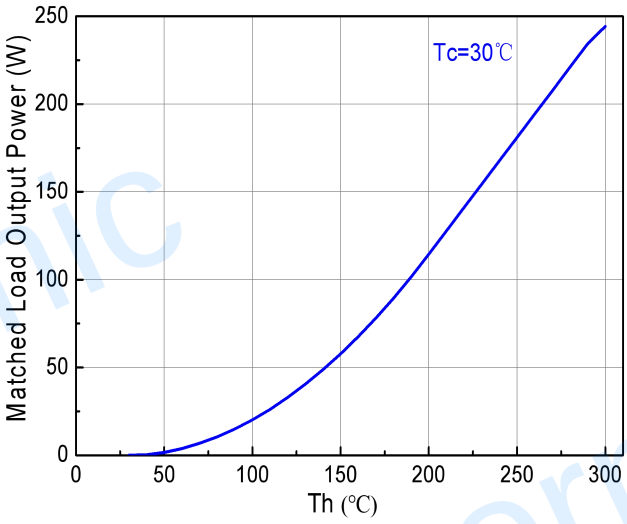
The chart for matched load voltage Vs Th under Tc=30℃ input water temperature



The chart for matched load current Vs Th under Tc=30℃ input water temperature



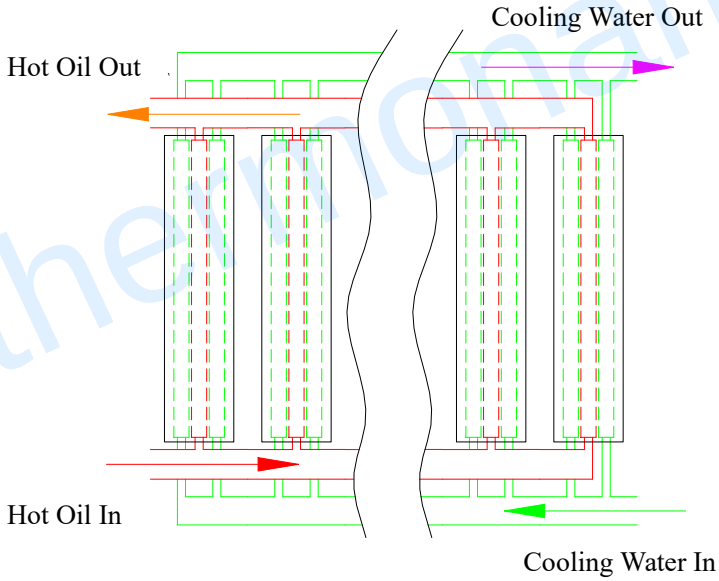
The chart for matched load resistance Vs Th under Tc=30℃ input water temperature



The chart for matched load output power Vs Th under Tc=30℃ input water temperature

Instructions in use

1. Connect oil and water pipelines to the generator, if it is put in upright positing, it is better to let the water enter from the bottom and drains out from the top. The output voltage is high, please be careful and do not touch the output. The output is DC.
2. You can install a lot of units into a larger heat transfer oil pipe for larger output power. If you install 10 units, it can generate 2000 watts. Please see below.



Notes

Please drain the water when you do not use to keep dry.

Packing List

200 Watts generator one set

Serial Number

Date	
NO.	