



TGM Datasheet

40W TGM RL Series

Description

40W TGM-RL Series (Thermoelectric Generator Module – Radiation Liquid Cool) captures waste heat radiation and turns it into electricity. Waste heat is commonly produced in industries such as steel, cement, and glass manufacturing, where high-temperature processes dominate. Heat radiation from these processes represents a significant source of waste energy. To capture radiated heat efficiently, specially engineered metals heat collectors are employed. These materials improve heat absorption and minimize surface emissivity, allowing for more effective heat recovery and utilization, ultimately enhancing energy efficiency and reducing losses in industrial thermal processes. A specially designed water-cooling block is implemented in the module to create temperature difference. Few TEGs are sandwiched in between to create continuous power from waste heat radiation.

Feature

- High Reliability Design
- Easy to Install
- DC Power Output
- Reduce CO₂ Emission
- Support Customization

Application

- Steel and Iron Industry
- Cement Plant
- Glass Manufacturer
- Water and Oil Boiler
- Waste Treatment Plant

Naming rules

40W①-TGM-RL②-260③-200④

①Output Power ②Product Type ③Length of the Module ④Width of the Module

Performance Specification @ ΔT 200°C

TEG Model	40W TGM RL
Maximum Output Power	45W
Matched Load Voltage	45V
Matched Load Current	1A
Dimensions (W*L*H)	260*200*70mm
Weight	5 Kg
Input Water Flow Rate @30°C	12L/min
Input Water Pressure	0.2 MPa (2 bar)
Maximum Operating Temperature (Hot Side)	230°C
All performance indicators are tested under conditions of ambient temperature of 25 °C	

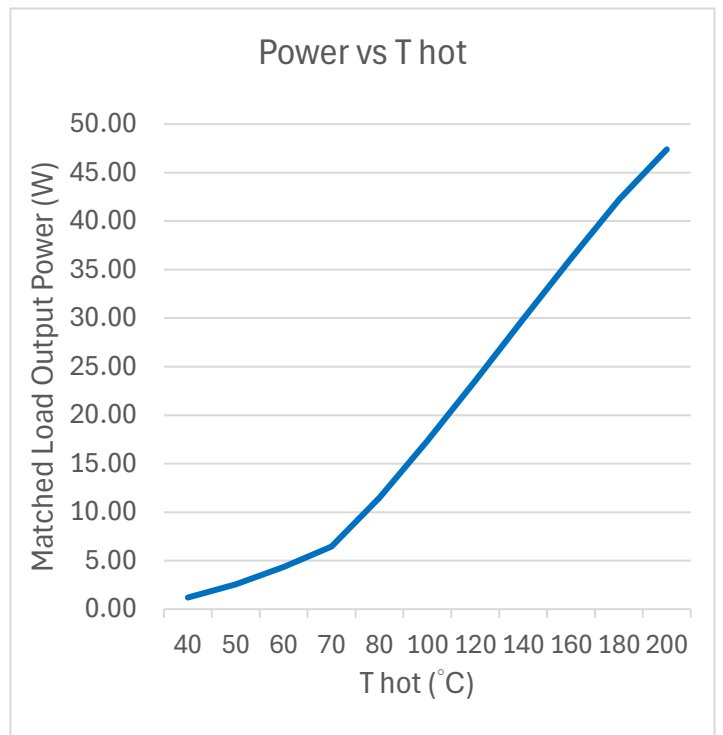
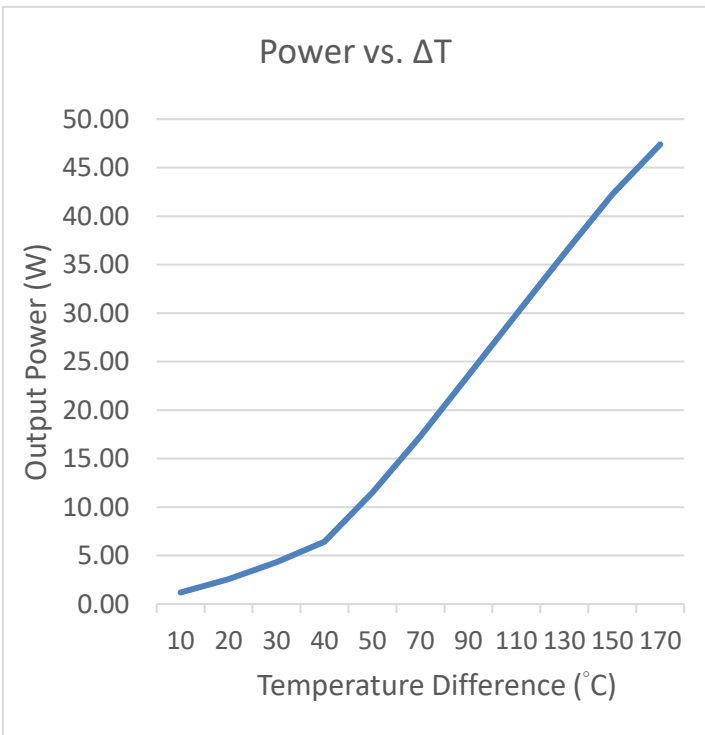
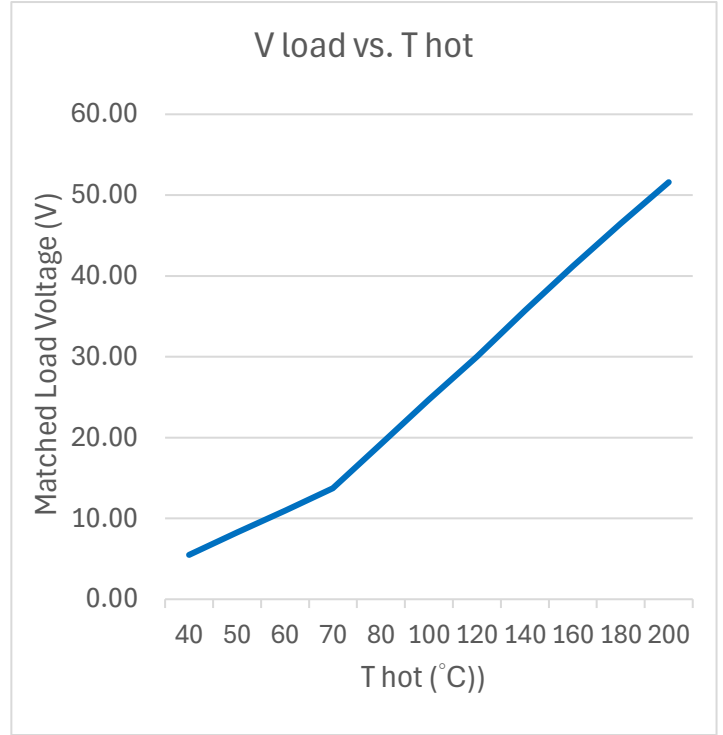
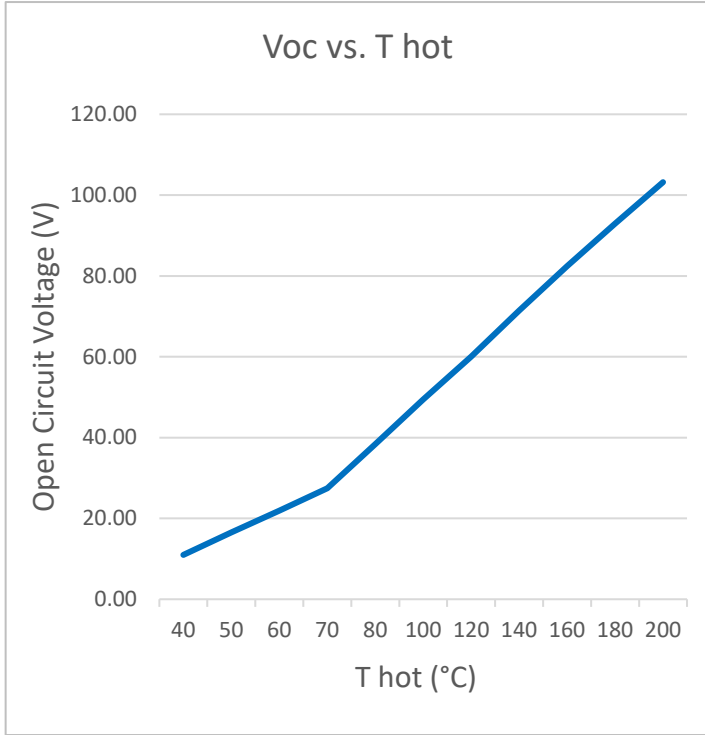




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Performance Curves @ T cold = 30°C

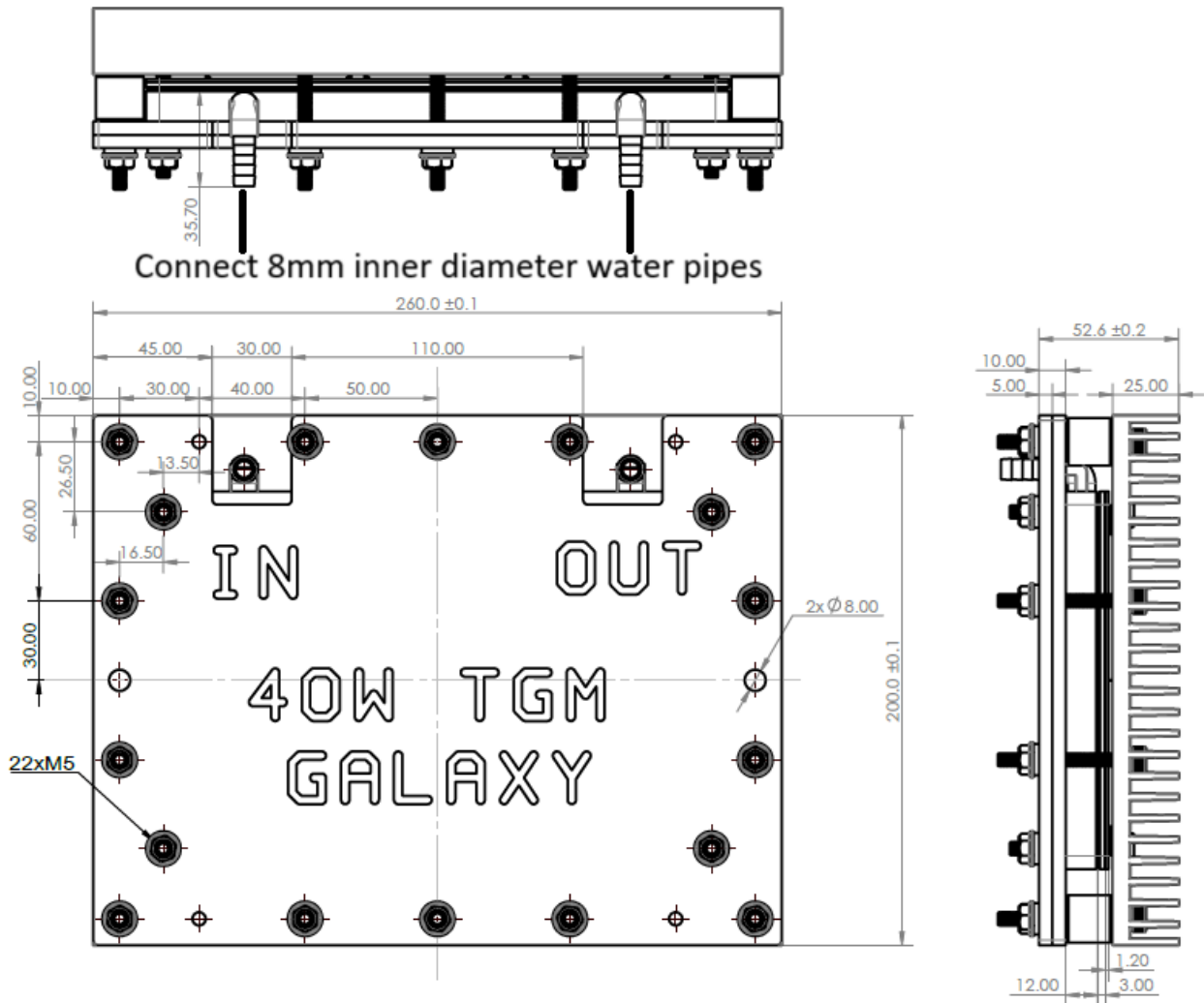




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Dimensions and Installation drawing



Related Accessories (to be purchased separately)

- High Temperature Silicone Tubing
- Heat Shield for High Temperature Collector
- DC Charge Controller

Contact Information

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