



Thermal Energy Harvesting

微电源



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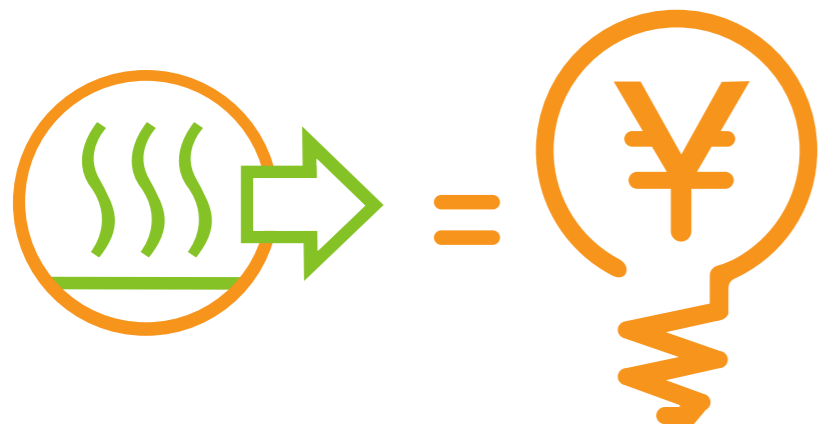


低温域热发电领先技术
leading manufacturer in thermoelectric technologies

www.leizigTE.com

The Properties Of Materials

ZT=1.81



About Us

Leizig utilizes unique construction techniques to convert small degrees of temperature difference into electrical (DC) power. And the high efficiency of thermoelectric conversion in low temperature field is our company's purpose for product research.

Our company all the time commits itself to technological innovation and independent research of high performance thermoelectric materials and their process. The thermoelectric figure of merit reaches 1.81, and the thermoelectric conversion efficiency is 14% at 100°C. Our self-developed semiconductor thermoelectric conversion chip is suitable for the field of automobile, business, industry, national defense, aerospace and field, photonics, biomedicine, petroleum, natural gas, mining, telecommunications (optical communications) and so on. They can provide green clean energy for the industry in energy conservation and emission reduction. At the same time, they can produce remarkable economic benefits.

Thermoelectric core

- > TEG thermoelectric generator (high power generating efficiency, wide range of application, for 300K~400K in low temperature field, thermoelectric power generation or cooling)
- > TTF Thermoelectric thin film

Thermoelectric product

Plate thermoelectric generator

- > PTG1\PTG2\PTG5, plate energy converter (high power generating efficiency, Compatible with the advantages of plate heat exchanger, disassemble, easy to expand modules)

Solar Collector thermoelectric Panel

- > STEP1 Solar-thermal compound dry power board (Combined with solar photovoltaic panels, implement solar-thermal composite power full use of solar energy)
- > STEP2 Solar-thermal compound wet power board (Combined with solar photovoltaic panels is applied, combined use of electricity and hot water)
- > STEP5 Plate solar collector electricity board (Distributed solar thermal power generation)

Micro thermoelectric generator

- > EHA-PA Panel-Air
- > EHA-WW Water-Water
- > EHA-WA Water-Water

Thermoelectric Power Station

- > Solar power station with photovoltaic and thermoelectric generation
- > Solar thermal power station
- > Low-enthalpy waste heat station of Industrial low temperature
- > Waste heat station of building
- > Geothermal power station



关于我们

雷子克拥有低温领域热电领先技术, 公司以“低温领域高效率的热转电利用”为产品研发宗旨。

不断致力于技术创新, 自主研发高性能热电材料及生产工艺, 材料的热电优值ZT达到1.81, 100°C时材料的热电转换效率为14%, 全自主研发生产的半导体热电转换芯片, 适用于汽车领域、商业、工业、国防、太空和光子学领域、生物医学、石油、天然气和采矿、电信(光通讯)等领域, 为行业节能减排提供绿色清洁能源, 同时给企业带来显著的经济效益。

热电核心

- > TEG 热电芯片 (发电效率高, 应用范围广阔, 用于300K~420K低温的领域, 可选择发电、制冷)
- > TTF 热电薄膜

热电产品

板式热电发电机

- > PTG1\PTG2\PTG5, 板式热电发电机 (发电效率高, 兼容了板式换热器的优点, 可拆卸, 易调整发电机组的功率, 可增加拓展模块)

太阳能集热发电板

- > STEP1 太阳能集热复合干式发电板 (与太阳能光伏板结合运用, 实现太阳能光热复合发电太阳能光谱全利用)
- > STEP2 太阳能集热复合湿式发电板 (与太阳能光伏板结合运用, 发电和热水合并利用)
- > STEP5 太阳能平板集热发电板 (太阳能分布式热发电)

微电源

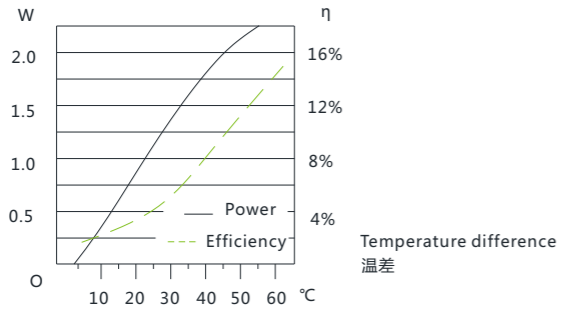
- > EHA-PA 板气微电源
- > EHA-WW 水水微电源
- > EHA-WA 水气微电源

热电电站

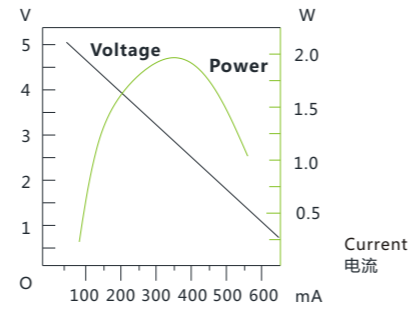
- > 太阳能光热复合发电站
- > 太阳能热发电站
- > 工业低温废热发电站
- > 楼宇废热发电站
- > 地热发电站

Performance curve 曲线性能图

Power generation 发电功率

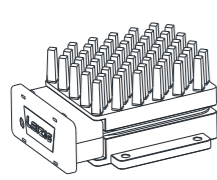


Temperature/power curve 温差/功率曲线

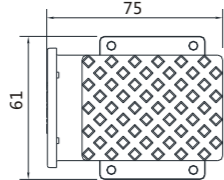


Current/power curve 电流/功率曲线

Outside dimension drawing 外形尺寸图

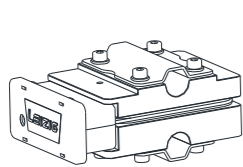


EHA-6017-PA

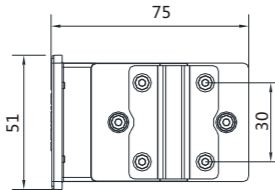


■ EHA-6017-PA
Used for a local plane of a heat source, Fixed by 4-M3 screw, Harvesting heat energy through surface contact, Cooling side can achieve effective natural air cooled by prismatic radiator.

■ EHA-6017-PA
平面式温差UPS微电源，应用于热源部分有局部平面的场合，利用4-M3螺丝固定微电源，通过面接触采集热量，冷端使用棱形柱状散热器，实现高效自然风冷。

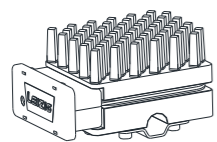


EHA-6017-WW

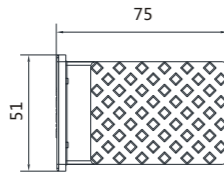


■ EHA-6017-WW
Used in liquid pipeline transportation, the hot and cold sides are connected with clamping slot type on micro thermoelectric generator byΦ10 process pipeline to generate the thermoelectric effect.

■ EHA-6017-WW
水—水式温差UPS微电源，应用于液体管道输送场合，热、冷端均利用Φ10的工艺管与微电源上的固定卡槽部分相连，以产生温差电效应。



EHA-6017-WA



■ EHA-6017-WA
Used in liquid pipeline transportation, the hot side is connected with clamping slot type on micro thermoelectric generator byΦ10 process pipeline, and the code side uses prismatic columnar radiator to achieve efficient natural wind cooling.

■ EHA-6017-WA
水—气式温差UPS微电源，应用于液体管道输送场合，热端利用Φ10的工艺管与微电源上的固定卡槽部分相连，冷端使用棱形柱状散热器，实现高效自然风冷。

Features 性能特点

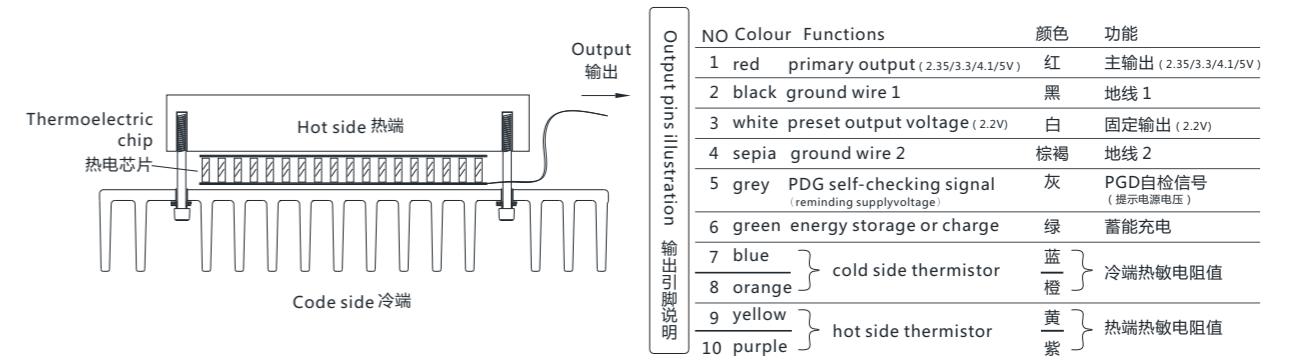
- Compact-sized, small value;
- Low cost and zero maintenance
- A small amount of difference in temperature can provide electrical energy and signal, flexible response, wide range of use;
- The micro power generator provides a reliable power supply for the wireless sensor and the micro device for a lifetime.
- 结构紧凑，外形小巧；
- 低成本和零维护；
- 少量的温差就可提供电能与信号，反应灵活，使用范围广；
- 微电源提供可靠的电源可终生为无线传感器和微型设备持续供电。



Schematic diagram 原理图

Thermoelectric chip converts temperature difference into electrical energy, and outputs power supply for the infinite transmission device through the wire. It can also be connected to the microcontroller, and feedback regulation of micro power supply. What's more, other sensor signals can be output.

热电芯片将温差转化为电能，通过导线输出，为无限发射装置供电，亦可连接至单片机，反馈调节微电源。装置还输出其他传感器信号。



Version	EHA-PA	EHA-WW	EHA-WA
Serial number	30200001	30200002	30200003
External dimensions(WxHxD)	75 × 61 × 38mm	75 × 51 × 34mm	75 × 51 × 41.5mm
Installation way	flat screw on one side	pipe fixed on two sides	pipe fixed on one side
Chip type	LTEG-72		
Kickback voltage	2.1VDC		
Maximum output power	1.8W		