

**NEW!**

  
**INSTITUTE  
OF THERMOELECTRICITY**  
• **UKRAINE** •

# **THERMOELECTRIC GENERATOR WITH LIGHTING KEROSENE LAMP**

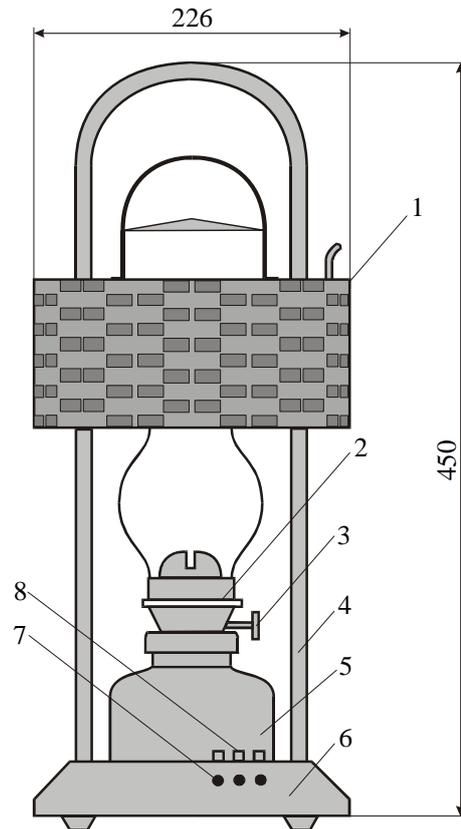
**ALTEC - 8019**



- Intended for DC electric power supply to household radioelectronic equipment (radio receivers, tape recorders), radio stations, guard signaling systems, as well as for charging various-purpose batteries, including mobile phones. The thermal generator is an ideal source of electric power for remote places and areas where power supply is unavailable. The thermal generator offers the advantage of being simultaneously used as a lighting source. Ease of service and minimum maintenance make it indispensable in field conditions, expeditions, camping.

- The operating principle is direct conversion of thermal energy from kerosene combustion to electric energy on the basis of thermoelectricity.

### **Appearance and diagram of thermoelectric generator**



- Thermoelectric generator consists of two main parts: thermoelectric converter 1 and heat source 2. The thermoelectric converter comprises coaxially located hot and cold heat sinks with thermopiles located between them. The thermoelectric converter is fixed on supports 4 and can be vertically moved with fixation in the upper position. Kerosene lamp 2 is used as a heat source comprising fuel vessel 5, fuel consumption regulator 3. The thermoelectric generator has electronic converter with three values of stabilized output voltage. Connectors 8 for external load connection are located on the upper pad of base 6. The lateral base surface locates light indicators 7 of voltage at the electronic converter terminals.

### Parameters of thermoelectric generator

No	Name of parameter, measuring unit	Value
1.	Rated electric power of thermoelectric converter on matched load, W	2.8
2.	The values of stabilized voltage at the electronic converter terminals, V	3, 6, 12
4.	Kind of fuel	Lighting kerosene
5.	Fuel flow rate, g/h	15.5
6.	Volume of fuel vessel, l	0.4
7.	Period of generator operation on one filling of fuel vessel, h	18
8.	Generator weight without fuel, kg	2.1

**Orders and additional information:** General P.O.Box 86, Chernivtsi, 58002, Ukraine; e-mail: [ite@inst.cv.ua](mailto:ite@inst.cv.ua); fax: (380-3722)-41917; phone: (380-3722)-41917; <http://ite.cv.ukrtel.net>.