

**NEW!**

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

## **THERMOELECTRIC GENERATOR WITH CATALYTIC HEAT SOURCE**

**ALTEC - 8029**



• Thermoelectric generator is intended for DC power supply to various low-power devices and instruments: TV sets, radio receivers, guard alarm systems, radio beacons, buoys, special-purpose equipment. The thermoelectric generator can be also used for battery charging, lighting and heating living and amenity rooms.

• Operating principle is direct conversion of thermal energy of gaseous fuel combustion into electric energy based on thermoelectricity.

### **Thermoelectric generator appearance**



• Thermoelectric generator comprises: heat source, thermoelectric modules and heat removal system. Flameless catalytic burner fuelled by gaseous propane-butane is used as a heat source. The catalytic burner is started from external power source, for example, a battery. Heat removal system comprises heat sink and electric fan for a forced cold air delivery to the heat sink. The fan is powered from the thermal generator.

• Catalytic fuel combustion compares favorably with flame combustion: it takes place at the temperature of 400-500°C without flame, providing fire safe operation of the heat source; complete fuel combustion takes place on the catalyst, reducing considerably the amount of toxic substances in combustion products.

• Use of liquefied gaseous fuel provides the user with independent electric energy supply.

• Thermoelectric generator can work for a long time unattended (the time of continuous work depends on the volume of fuel tank).

### Thermoelectric generator parameters

No	Parameter, measurement unit	Value
1.	Electric voltage, V	12
2.	Electric power, W	15
3.	Kind of fuel	Propane-butane
4.	Fuel flow rate, g/h	55-60
5.	Weight, kg	10
6	Dimensions, mm	290x270x375

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