

## 100-mW THERMOELECTRIC MICROGENERATOR ALTEC-8042

• Designed to provide various low-power radio-electronic devices and appliances with DC electrical power.

• The operating principle of the thermoelectric microgenerator is based on the direct conversion of heat from gas fuel combustion (propane-butane) into electrical power on basis of thermoelectricity.



## Appearance and scheme of the thermoelectric microgenerator



• The thermoelectric generator consists of a cylindrical body 1, which comprises the catalytic heat source 2, the thermoelectric converter 3, the stabilizer of gas output pressure 4 with gas regulator 5. The ribs 6 are placed on the external surface of the body placed to remove heat from the thermoelectric converter by natural air convection. The shell 7 is located at the bottom of the cylindrical body, which comprises the regular propane tank 8 with a volume of 80 to 250 ml. At the top of the generator the electrical terminals are placed 9 to connect the electricity consumers. The thermoelectric generator is put into operation by match or lighter flame.

• Use of the catalyst ensures complete combustion of propane - butane, and eliminates the formation of harmful substances in the combustion gas.

• Stable temperature characteristics of the catalytic burner are practically independent of external influences.

• To generate electricity available natural gas fuel is used.

• Use of liquefied propane - butane as a fuel provides the user with self-powered electrical energy.

№ п/п	Parameter, unit	Value
1.	Voltage, V	3
2.	Electrical power, mW	100
3.	Fuel type	Propane-butane
4.	Fuel consumption, g/hour	0.5-0.6
5.	Overall dimensions, mm	
	diameter	90
	height	240
6.	Weight, g	400

## Parameters of thermoelectric microgenerator

**Orders and additional information**: Central Post Office, PO Box 86, Chernivtsi, 58002, Ukraine; e-mail: ite@inst.cv.ua; fax: (380-3722)-41917; telephone: (380-3722)-41917; <u>http://ite.inst.cv.ua</u>.