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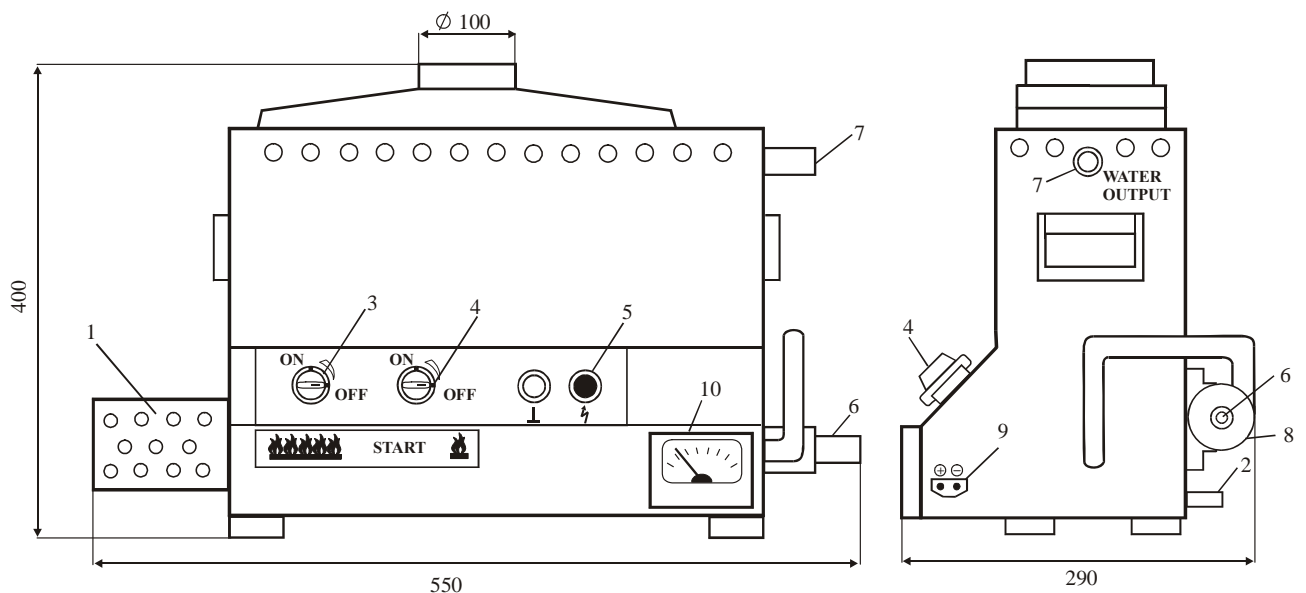
THERMOELECTRIC GENERATOR OF THERMAL AND ELECTRIC ENERGY ALTEC - 8030 - 1



- Thermoelectric generator is designed for thermal and electric energy supply to living and amenity rooms, country houses, cottages, hangars, garages, trading kiosks, greenhouses. Thermoelectric generator can be also used for lighting, battery charging, power supply to various devices and instruments, namely TV sets, radio receivers, radio stations, guard alarm systems.

- The operating principle is direct conversion of thermal energy of propane-butane, methane gaseous fuel combustion into electric energy based on thermoelectricity.

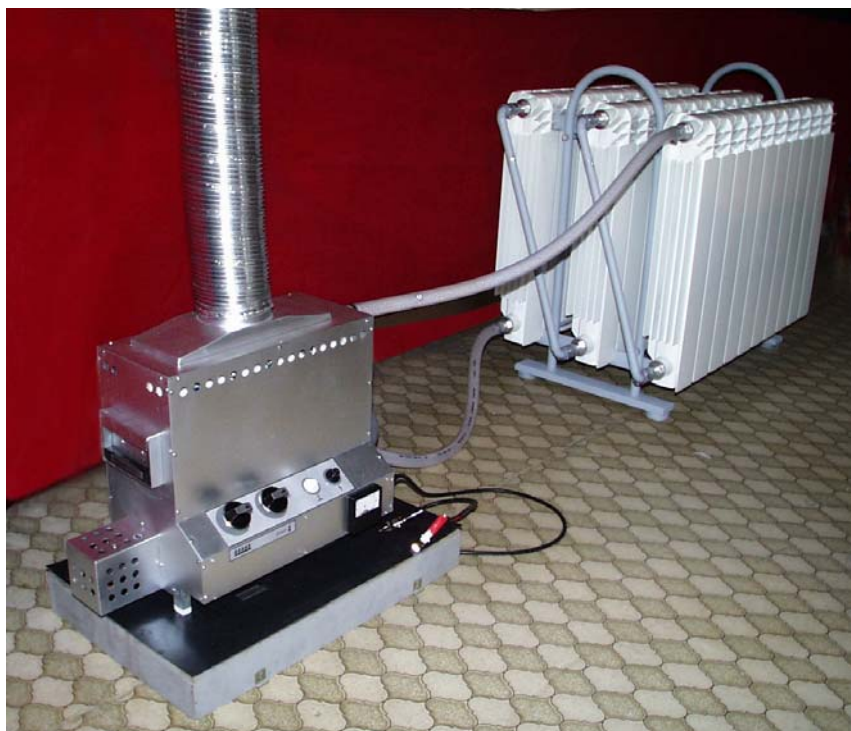
Thermoelectric generator schematic diagram



- Thermoelectric generator consists of several basic units: heat source, thermopiles, heat collector and heat removal system.

Flame burner 1 of injector type operated by gaseous propane-butane or methane is used as a source of heat. Gas is delivered to the burner through coupling 2 and valve 3. Valve 4 is intended for gas delivery to starting burner. The starting burner is fired by piezo ignition torch 5. The heat removal system consists of liquid heat exchangers connected in one hydraulic loop having input coupling 6 and output coupling 7. Connected to couplings 6 and 7 are standard hot-water heating radiators with circulating liquid heat carrier. Located on the rear wall of the generator is pump 8 for pumping heat carrier. The pump motor is powered from thermal generator. Thermopiles are arranged between the heat collector and liquid heat exchangers. External load is switched to connector 9. The generator output voltage is regulated by voltmeter 10.

Thermoelectric generator appearance with heating radiators



- Thermoelectric generator provides independent thermal and electric energy supply to consumer.
- Room heating is provided by standard water radiators.
- Room heating thermal conditions can be regulated by changing burner thermal power.

Parameters of thermoelectric generator of thermal and electric energy

No	Parameter, measuring unit	Value
1.	Electrical voltage on matched load, V	12
2.	Electrical power, not less, W	100
3.	Thermal power of heat source, W	3400-4500
4.	Fuel flow rate, propane-butane, g/h, methane, m ³ /h	280-350 0.29-0.3
5.	Weight, not less, kg	20

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