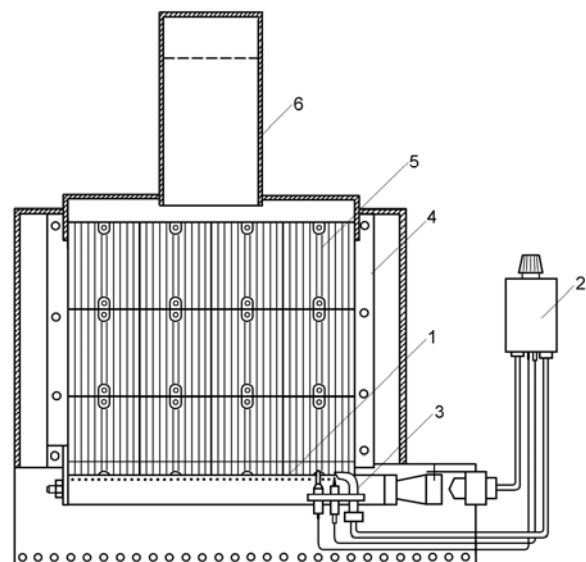




- Intended for autonomous electric power supply to circulation pump of thermal fluid forced circulation system, smoke extractor, as well as other electric auxiliary attachments of heating boilers.
- Operating principle – direct conversion of thermal energy from gas fuel (methane) combustion into electric energy based on thermoelectricity.

Appearance and schematic of thermoelectric generator



- Thermoelectric generator is built into heating boiler and comprises several basic parts: heat source, thermopiles, heat and smoke fumes input and output systems.
- Thermogenerator is equipped with a separate heat source 1 (linear injector burner) with safety automatics 2. The main burner ignition is made by pilot burner 3. Heat from thermopiles is removed by cold heat exchanger 4, the fins of which are washed by thermal fluid circulating in water loop of the boiler. The thermopiles are located between heat collector 5 and cold heat exchanger 4. Thermoelectric generator is equipped with electron voltage stabilizer having the output voltage 12 V for power supply to circulation pump and smoke extractor fan. The top of the generator accommodates a smoke pipe 6 connected to the boiler's smoke chamber whence all combustion products are removed to the environment.
- Thermoelectric generator provides consumer with autonomous power supply to electric devices of gas-fired boilers.
- Thermoelectric generator provides consumer with independence of heating system operation from centralized electric power supply.

Thermoelectric generator parameters

No	Parameter, unit measure	Value
1.	Electric voltage, V	12
2.	Electric power at boiler inlet water temperature 30-80°C not less, W	50
3.	Heat source thermal power not more, W	2000
4.	Gas flow rate (methane), m ³ /h	0.18- 0.2
5.	Input gas pressure, atm.	0.013-0.02
5.	Weight, kg	9.5

Orders and additional information: General P.O. Box 86, Chernivtsi, 58002, Ukraine; e-mail: ite@inst.cv.ua; Tel./Fax:(380-3722)-41917; <http://ite.inst.cv.ua>.