

TRANSPORT THERMOELECTRIC AIR CONDITIONER



• Transport thermoelectric air conditioner is intended to maintain comfortable conditions (air cooling or heating) in vehicles and in steady-state conditions: in industrial and residential buildings, cooling and heat protection systems.

• The operating principle of the transport thermoelectric air conditioner is based on the application of thermoelectric effects that occur in semiconductors.

• It consists of an external unit, 2 internal units and control panel.



Appearance and layout of the thermoelectric air conditioner unit

Internal unit

The internal unit of the thermoelectric generator consists of thermoelectric modules 1, liquid heat exchangers 2; diffusers 3; fans 4; an air heat exchanger 5; a pump for pumping fluid 6.

• External unit consists of 3 fans, 2-liquid pumps and a water-air cooler, intended to cool the heat-transfer agent.

• Connection of a number of separate units provides the user with the required air temperature and cooling capacity values.

• Thermoelectric air conditioner consumes a constant current from the onboard network, or other source of electrical power.

• Thermoelectric air conditioner is a highly reliable (service life - 10-15 years) and environmentally-friendly device due to the lack of freon refrigerants.

• The air conditioner can easily withstand mechanical shock and vibration.

Specifications of the indoor unit of thermoelectric air conditioner for vehicles

#	Parameter name, measurement unit	Value
1.	Power consumption, W, max	500

2.	Cooling capacity, W, not less	400
3.	Rated temperature drop, cab (body) - environment, K, not less	10
4.	Coolant flow rate, ml/ s	150–200
5.	Voltage, V	12; 24
6.	Warranty assurance, years, not less	3
7.	Dimensions, mm ³	400x140x140
8.	Weight, kg, not more	5

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