



Type of heat:  
a liquid-air

**Purpose:**

-Cooling and thermal stabilization of fluids, including corrosive chemical.

In liquid cooling circuits:

Medical devices.

-Laser systems.

-Industrial instrumentation.

- Analytical instruments.

-High-frequency generator.

-Other.

The product complies with the requirements of Directive EC RoHS., Limiting the content of harmful substances, adopted by the European Union.

# TA-LA-250-24

Type	TA-LA-250-24
Voltage (nominal / maximum)	24/27 VDC
Current ± 10% (nominal / start)	15.6A/20.5A (at 24VDC)
Max ripple	5%
Cooling capacity at dT = 0°C and nominal voltage <sup>1</sup>	244W
Heating <sup>2</sup>	342W
Operating temperature of the heatsink on the inner and outer side, not more than <sup>3</sup>	85°C
Entering fluid temperature not exceeding <sup>3</sup>	70°C
Ambient temperature	-40°C to +60°C
Maximum fluid pressure in the heat exchanger Atm./ Pa.	3 / 3*10 <sup>5</sup> ( Atm./ Pa.)
Nominal flow rate of liquid	5 l / min
Type of coolant <sup>4</sup>	Water, aqueous solutions of ethanol, ethylene glycol, and other liquids
Life of the fan (at temperatures above +40 ° C) and nominal voltage	≥60,000 Hours
Noise level dB / A (1m distance.)	59dB
Mode	Continuous
Corrosion protection of the heatsink	Anodizing film thickness of 6-20 microns
Protection against overheating	by demand the customer ( Additional option )
Connector type	Terminal block with spring contacts
Weight <sup>5</sup>	6.2 kg

1- Cooling capacity is determined at an ambient temperature of +30 ° C to +50 ° C, for liquids having the heat capacity of 4.19 + / - 5% kJ / (kgK) in the range of operating temperatures.

2-Thermal power calculated at an ambient temperature of -40 ° C, rated voltage, and dT = -45 ° C.

3- Can be increased by the manufacturer to 140 ° C while maintaining the long-term mode

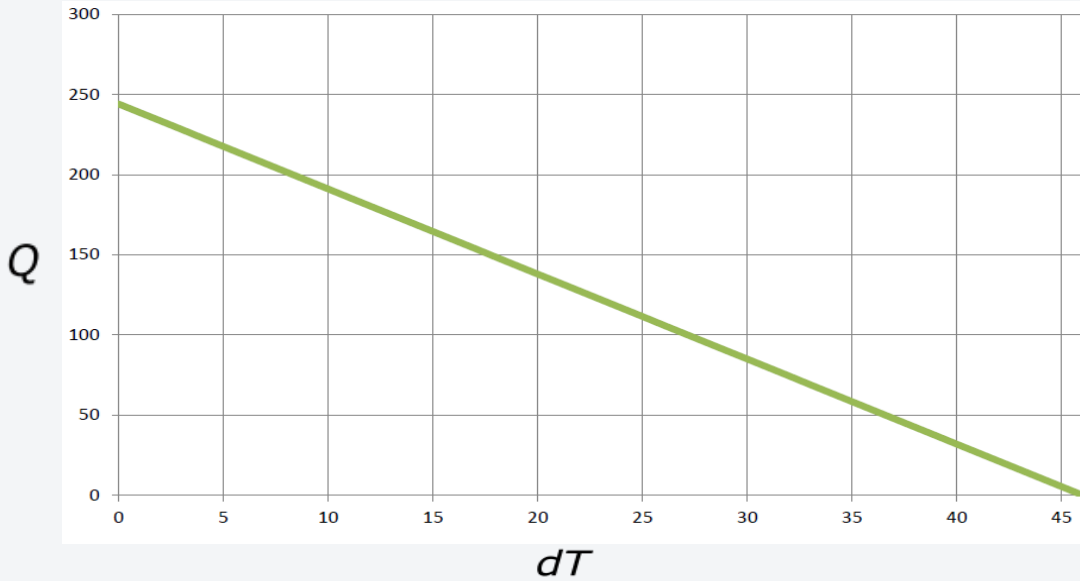
4- The liquid used should have no components capable of forming deposits or corrosion of the fins, as well as to dissolve nickel coating; should not be exposed to freezing or boiling over the temperature range of the liquid circuit.

5- Possible deviation +/-5%.

**NOTE!**

A method of transferring heat at external side is forced convection. Not recommended to reduce the effective flow section of the radiator.

Performance Q- $\Delta T$

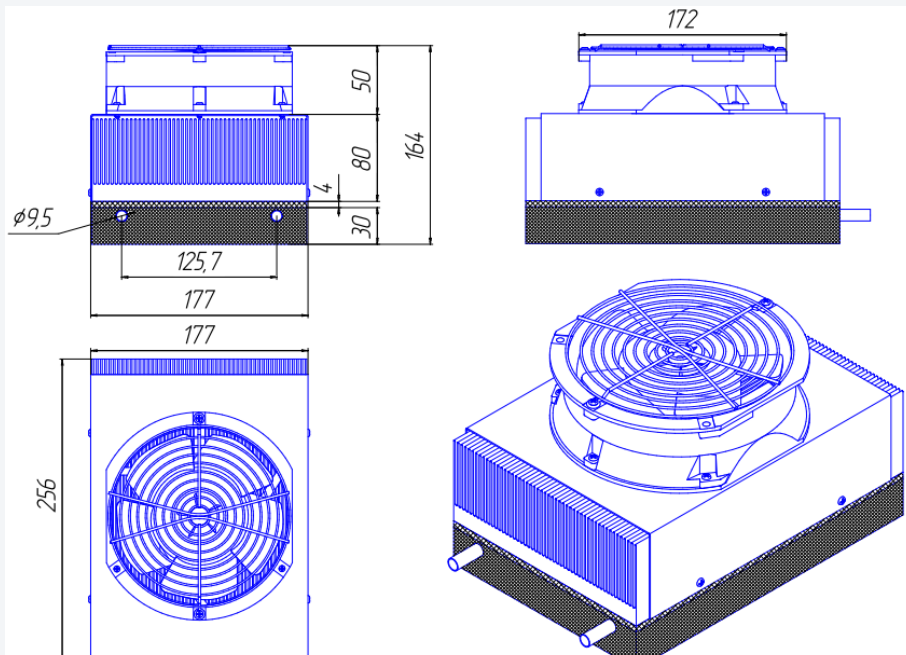


$$dT^{\circ}\text{C} = T^{\circ}\text{ ambient} - T^{\circ}\text{ internal}$$

Q – cooling capacity, Watts

at ambient air temperature +35°C and nominal voltage

### MECHANICAL DRAWING



### Advantages of our products:

Peltier units, produced by NPO "Crystal", certified to meet

TU 5156-001-51910525-2014

We use in our high performance units Peltier modules, manufactured by LLC "Plant" Crystal "in accordance with TU-6341-001-43547909-2009 Thermoelectric modules (Peltier) of LLC "Plant" Crystal "has a high cooling capacity and long service life

In our production units Peltier only the best ingredients are used (fans, radiators, insulation materials, etc.) the world's leading manufacturers 100% quality control at every stage of the production process

Our customers Peltier units with a long service life and high rate of cooling

Result of years of research conducted by the Scientific and Production Association "Crystal" in cooperation with leading universities in Russia, England, Germany and Japan are advanced, innovative technologies in the field of thermoelectric and thermal management

NGO "Crystal" now offers strong engineering support for complex solutions in the field of thermoelectric and thermal stabilization of the climate systems:

- Thermal design
- Thermal modeling
- Production of prototypes

Contact us for more information  
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