



TA-AA-200-48-HF

**Outdoor Air-to-Air Thermoelectric Assembly
(Peltier cooler)**

- Industrial measuring instruments
- Analytical devices
- Outdoor telecom box and shelter
- Outdoor displays and kiosks
- Air conditioner for electronic cabinets
- Battery cabinets
- Others

The product complies with the requirements of EU RoHS., limiting the content of harmful substances, adopted by the European Union.

Protective shroud of external side executes the following functions:

- split up the incoming flow of "cold" and out coming of "hot" air without lowering the cooling capacity
- an additional heat exchanger
- protects the unit from unauthorized access.
- presses flange to the wall cabinet, ensuring the tightness of the installation site.
- close the window for the installation of thermoelectric cooling assembly, thereby maintaining the aesthetic appearance of the equipment.

The shroud is made of steel 1.5 mm thickness (on request can be made of steel 2 mm thickness or of aluminum 3mm thickness).

Protection from exposure to atmospheric corrosion is realized dip galvanized (Steel) and powder painting.



Type	TA-AA-200-48-HF
Voltage (nominal /maximal)	48/54 VDC
Amperage $\pm 10\%$ (nominal/starting)	4.2A/5.4A (at 48VDC)
Max ripple	5%
Cooling capacity at $dT = 0^\circ\text{C}$ and nominal voltage . ¹	212W
Heating ²	204W
Operating temperature of the heatsinks on the inner and outer side, not more than ³	85°C
Temperature range (external /internal)	-40°C to +60°C/-10°C to +60°C
Fans lifetime (at temperatures not higher than +40°C) and nominal voltage	$\geq 60,000$ hours
Sound level (distance 1m.)	55dB(A)
Mode of operation	long-term
Protection of heatsinks	Anodizing film thickness of 10-20 microns
Overheat protection	by demand the customer (Additional option)
Type of connector	Terminal block with cage clamps
Degree of protection	IP55
Weight(without cover / with steel cover) $\pm 3\%$	9.2 kg/ 13.2kg

1-Cooling capacity is rated at ambient temperature +35°C.

2-Heating capacity is rated at external temperature of -40°C, nominal voltage, and $dT = -45^\circ\text{C}$.

3-Possibility of increase to 150°C - Additional option.

4-Upon request , can be IP68.

ALL PARAMETERS WERE MEASURED WITH A PROTECTIVE CASING

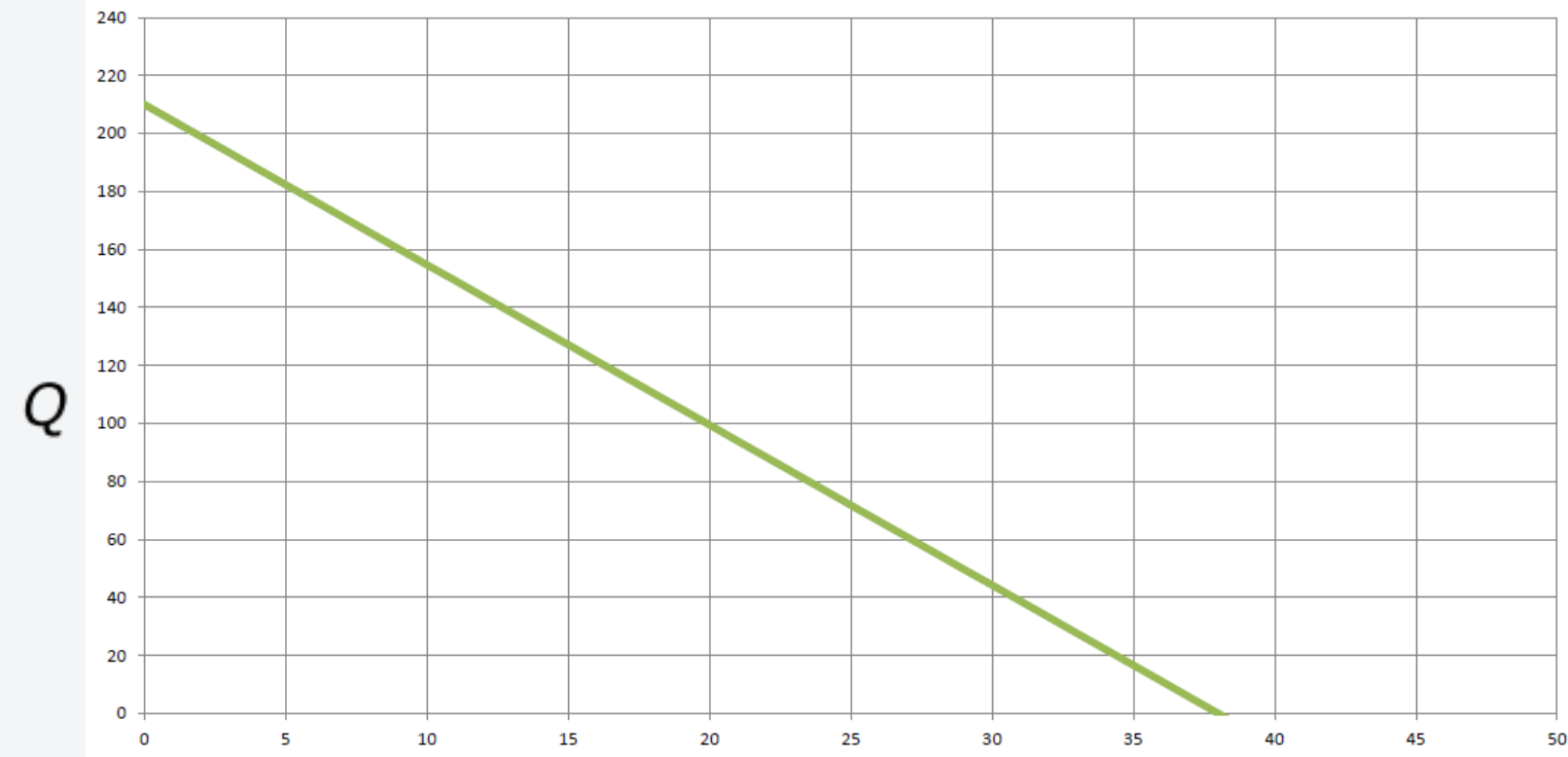
NOTE! A method of transferring heat - forced convection.

Not recommended to reduce airflow external and internal side.

Contact us for more information
e-mail: info@crystalltherm.com.

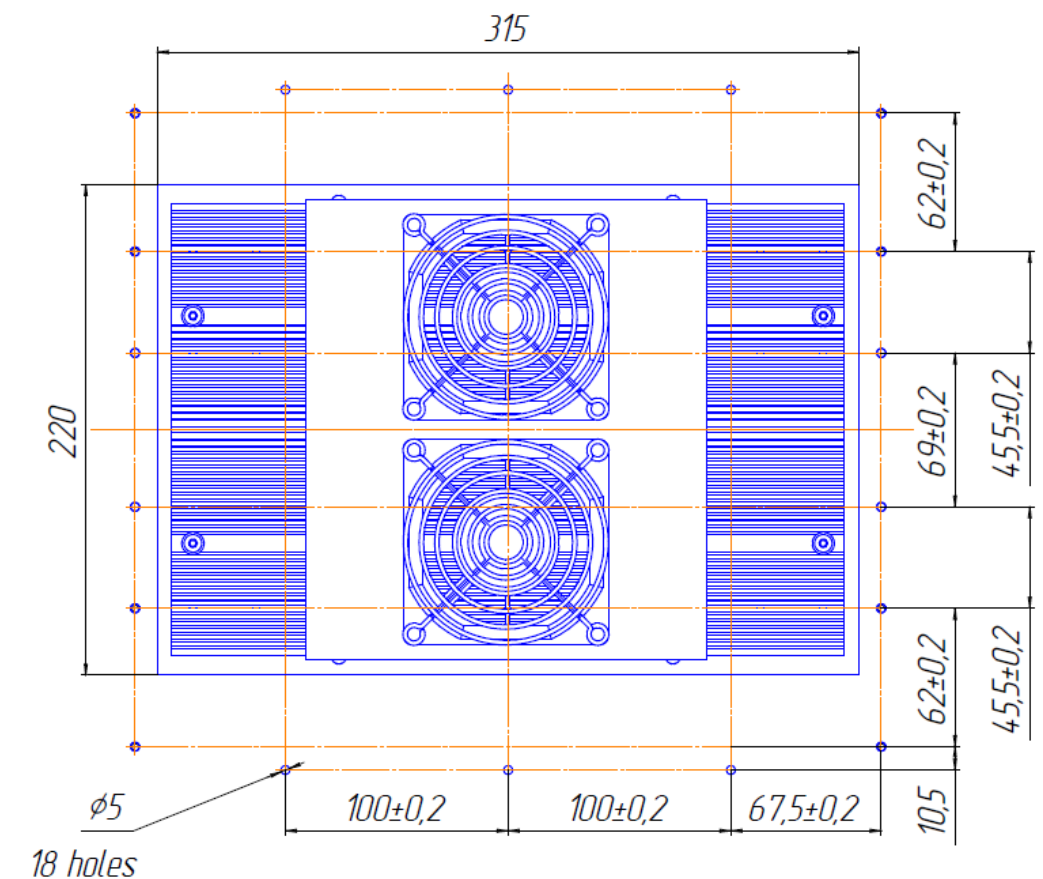
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Performance $Q[dT]$



dT
 $dT^\circ\text{C} = T^\circ\text{ambient} - T^\circ\text{internal}$
 Q - cooling capacity, W.
 for ambient temperature +35 °C and rated voltage

MOUNTING SCHEME



Dimensions of the assembly

