



**TA-AA-700-48-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 outgoing of "hot" air without lowering the cooling capacity*
- *it is 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 realised dip galvanized (Steel) and powder painting.*



Type	TA-AA-700-48-HF
Voltage (nominal /maximal)	48/54 VDC
Amperage ±10% (nominal/starting)	14.5A/18.5A (at 48VDC)
Max ripple	5%
Cooling capacity at $dT = 0^{\circ}\text{C}$ and nominal voltage . <sup>1</sup>	705W
Heating <sup>2</sup>	752W
Operating temperature of the heatsinks on the inner and outer side, not more than <sup>3</sup>	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	≥60,000 hours
Sound level (distance 1m.)	65dB(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	by demand the customer ( Additional option )
Degree of protection <sup>4</sup>	IP55
Weight(without cover / with cover)	17 kg/ 23.5kg

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 PARMETERS WERE MEASSURED WITH A PROTECTIVE CASING**

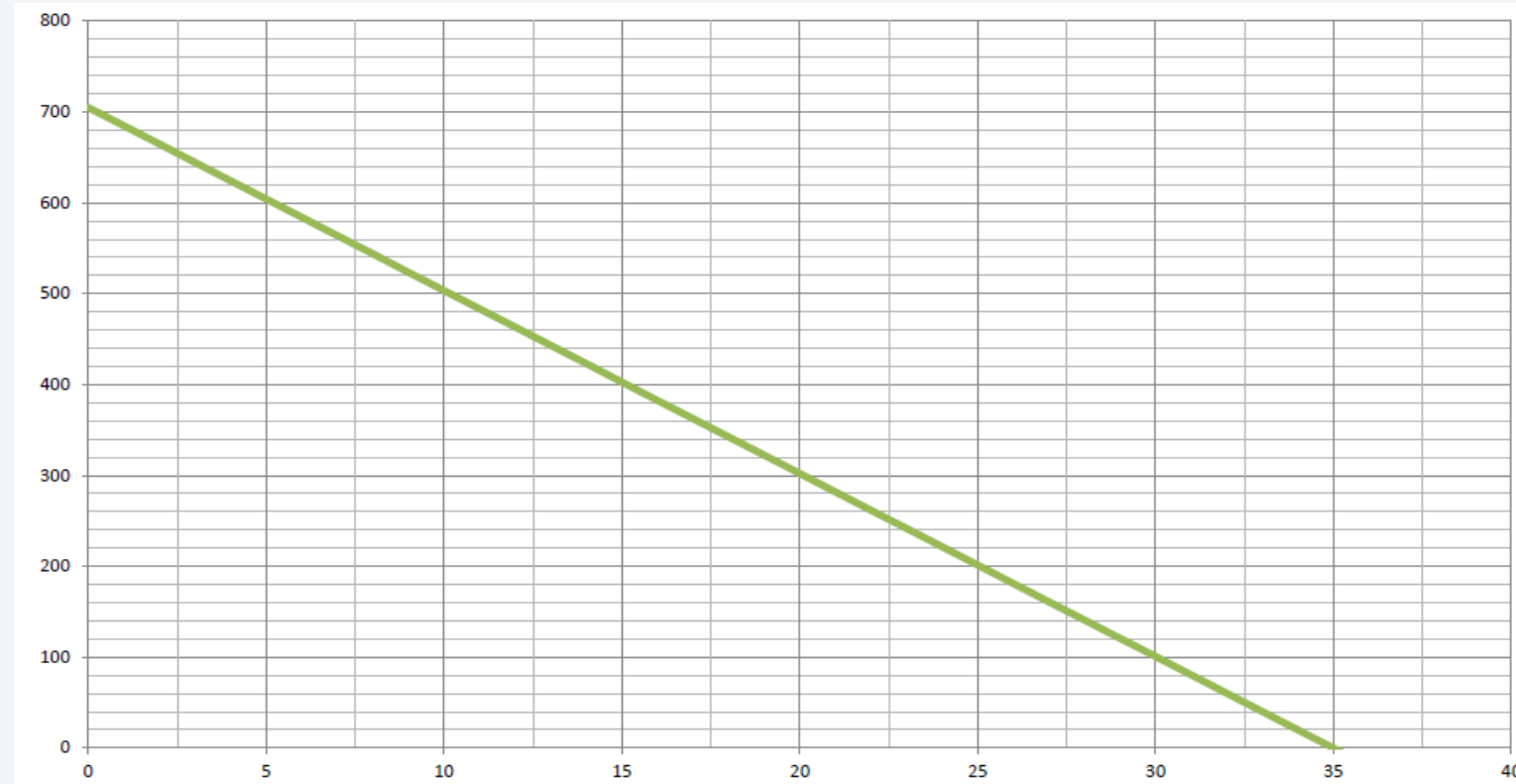
**NOTE!** A method of transferring heat - forced convection.

Not recommended to reduce airflow external and internal side.

Contact us for more information  
e-mail: [info@crystalltherm.com](mailto:info@crystalltherm.com).

+7-495-664-24-31 , +7-495-519-88-52 , +7-495-519-00-69  
Fax: +7-495-515-40-94

Q



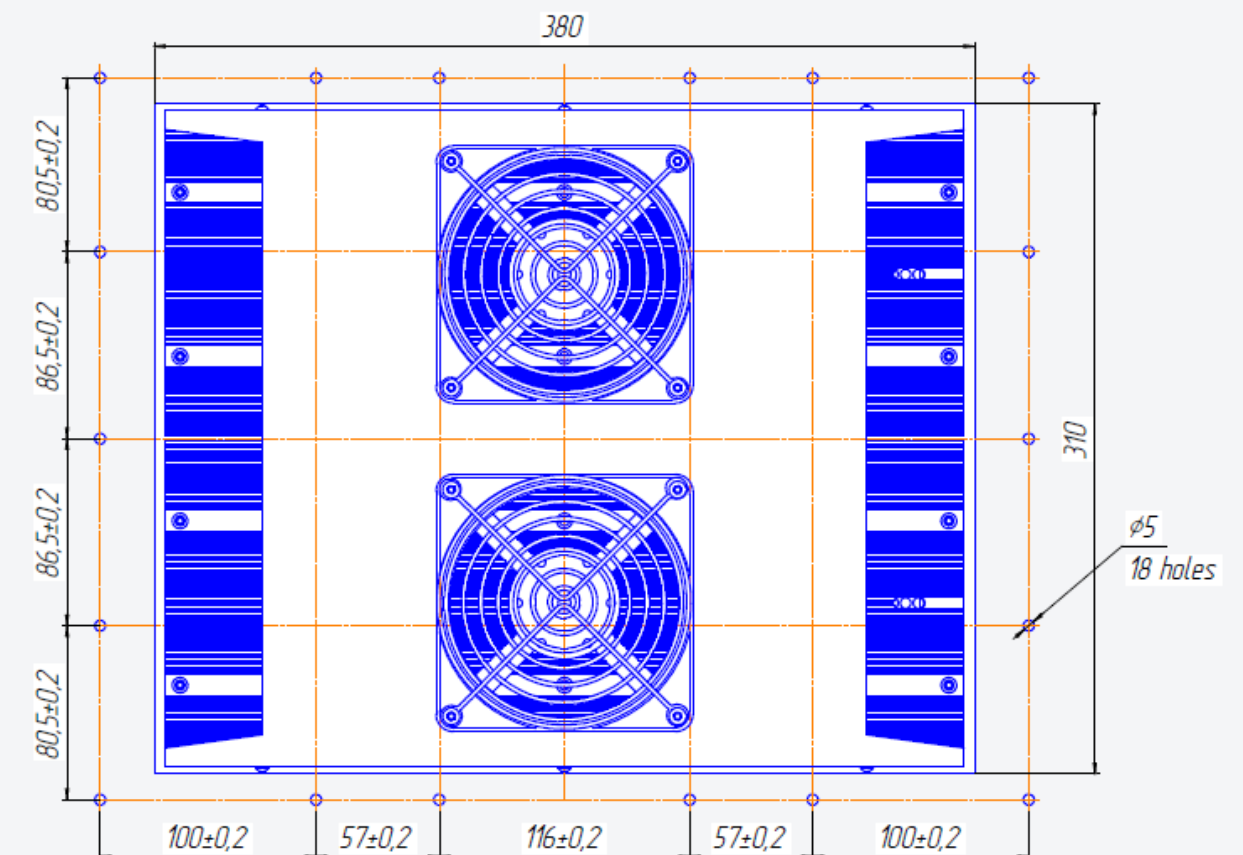
$dT$

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

Q - cooling capacity, W.

for ambient temperature +35 ° C and rated voltage

#### INSTALLATION SCHEME



# Dimensions of the assembly

