





### **Applications**

- Photonics laser systems.
- Thermostat of biological assays.
- Medical diagnostics.
- Industrial measuring instrument.
- Analytical devices.
- Test equipment
- Others.

#### **CASCADE SERIES**

# Thermoelectric assembly Direct-to-Air TA-DA-220-24-CS

#### **Features**

- This type thermoelectric cooler Peltier heat is absorbed through contact with the aluminum cold plate and removed thru a heat sink to ambient air.
- The thermoelectric cooler series TA-DA traditionally use modules produced of Crystal Ltd. This ensures high performance and durability of thermoelectric assemblies.
- Low noise pressure.
- Compact size.
- Small weight.
- Precise temperature control.
- Various positioning in space.
- Environmentally friendly solid state heat exchange operation with no CFC refrigerants.

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



Type	TA-DA-220-24-CS
Voltage (nominal /maximal)	24/27 VDC
Amperage ±10% (nominal/starting)	18.4A/22A (at 24VDC)
Max ripple	5%
Cooling capacity at $dT = 0^{\circ}C$ and nominal voltage. <sup>1</sup>	222W
Operating temperature of the heatsink on the inner and outer side, not more than <sup>2</sup>	85°C
Temperature range	-20°C to +60°C
Fans lifetime (at temperatures not higher than +40°C) and nominal voltage	≥60,000 hours
Sound level (distance 1m.)	42dB(A)
Mode of operation	long-term
Protection of heatsink	Anodizing film thickness of 10-20 microns
Overheat protection	by demand the customer (Additional option)
Type of connector	Terminal block with cage clamps
Weight ±3%	5,7kg

- 1-Cooling capacities at nominal / float voltage are rated at external temperatures of  $+35^{\circ}$ C and  $+50^{\circ}$ C respectively. Float voltage is defined at 24VDC.
- 2-Possibility of increase to 150°C Additional option.

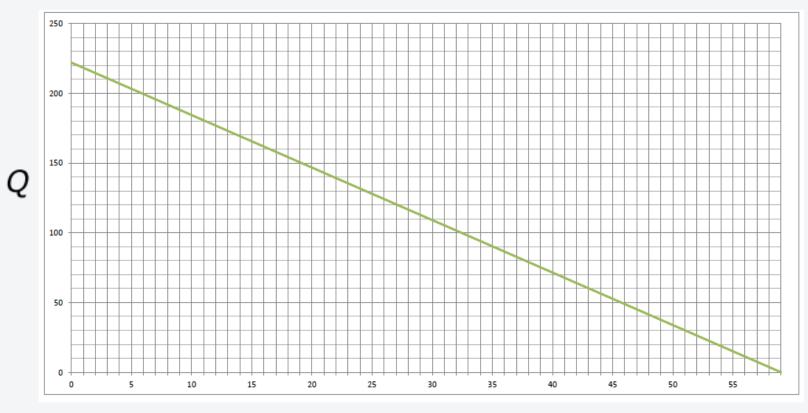
**NOTE!** A method of transferring heat - forced convection.

Not recommended to reduce airflow external side.

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

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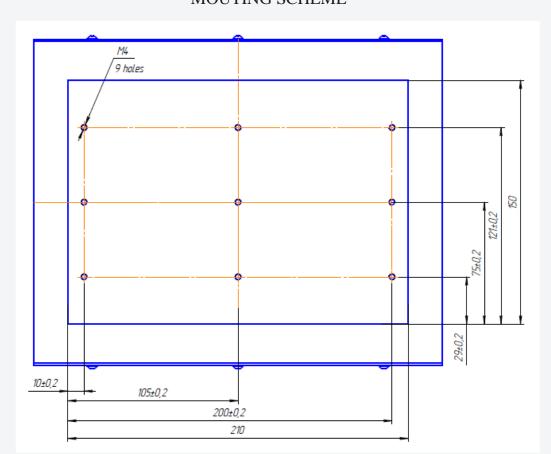
### Performance Q[dT]



## dΤ

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

#### MOUTING SCHEME



## MECHANICAL DRAWING

