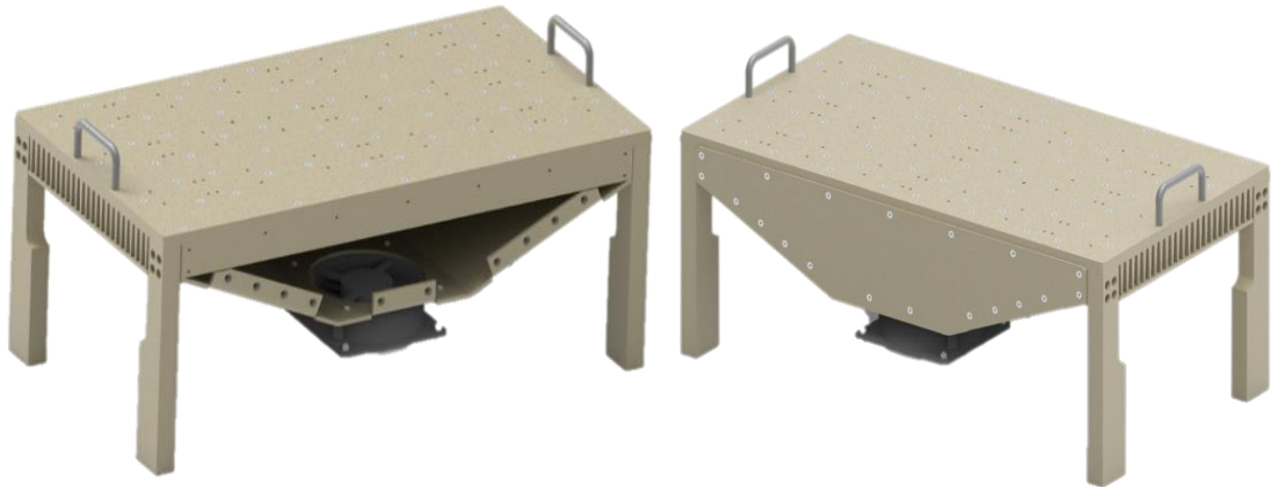


## P/N M3003-1 Cooling unit with fans Specifications and Parameters

This indoor fan cooling unit uses a forced convection cooling method, specifically designed for simultaneous testing of several products using an adaptable plate.

With two 120 x 120 mm fans in parallel, which provide a combined flow rate of 180 CFM, heat dissipation can be up to 0.4 kW with an average base plate temperature rise<sup>1</sup> of 11.2 °C, and thermal resistance of 0.0280 °C/W.



### Design Features

- High thermal performance cooling unit
- Enables simultaneous testing of several products.
- Adaptable design:
  - Cold plate can be replaced by the user.
  - Cold plate design is adapted according to the customer's specific heat dissipation requirements.
  - Cooling unit length<sup>2</sup>.
  - Custom machining and mounting design according to requirements (holes, threads, clearances, etc.)
- Fans selection according to customer request and needs (PWM control, AC\DC fans, fan size, etc.)
- Maximum weight :15.5[KG]
- Fan working temperature -10 to +70 [°C]
- Maximum recommended environment temperature @ 0.4 [Kw] power dissipation: 50[°C]
- CFD Analysis

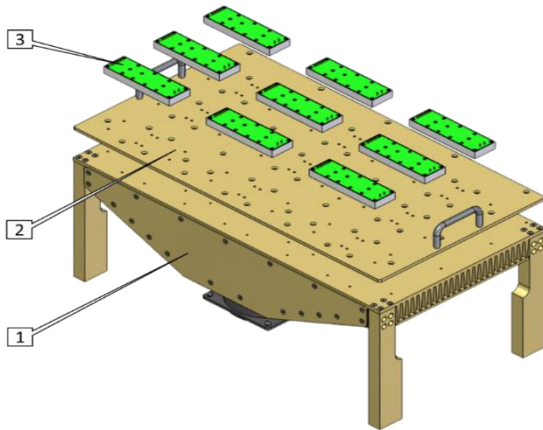
<sup>1</sup> Tested with inlet air temperature of 25 °C.

<sup>2</sup> length change will influence the performance curves.

## M3003 Series– Liquid Cooled Cold Plate

### Mechanical Overview

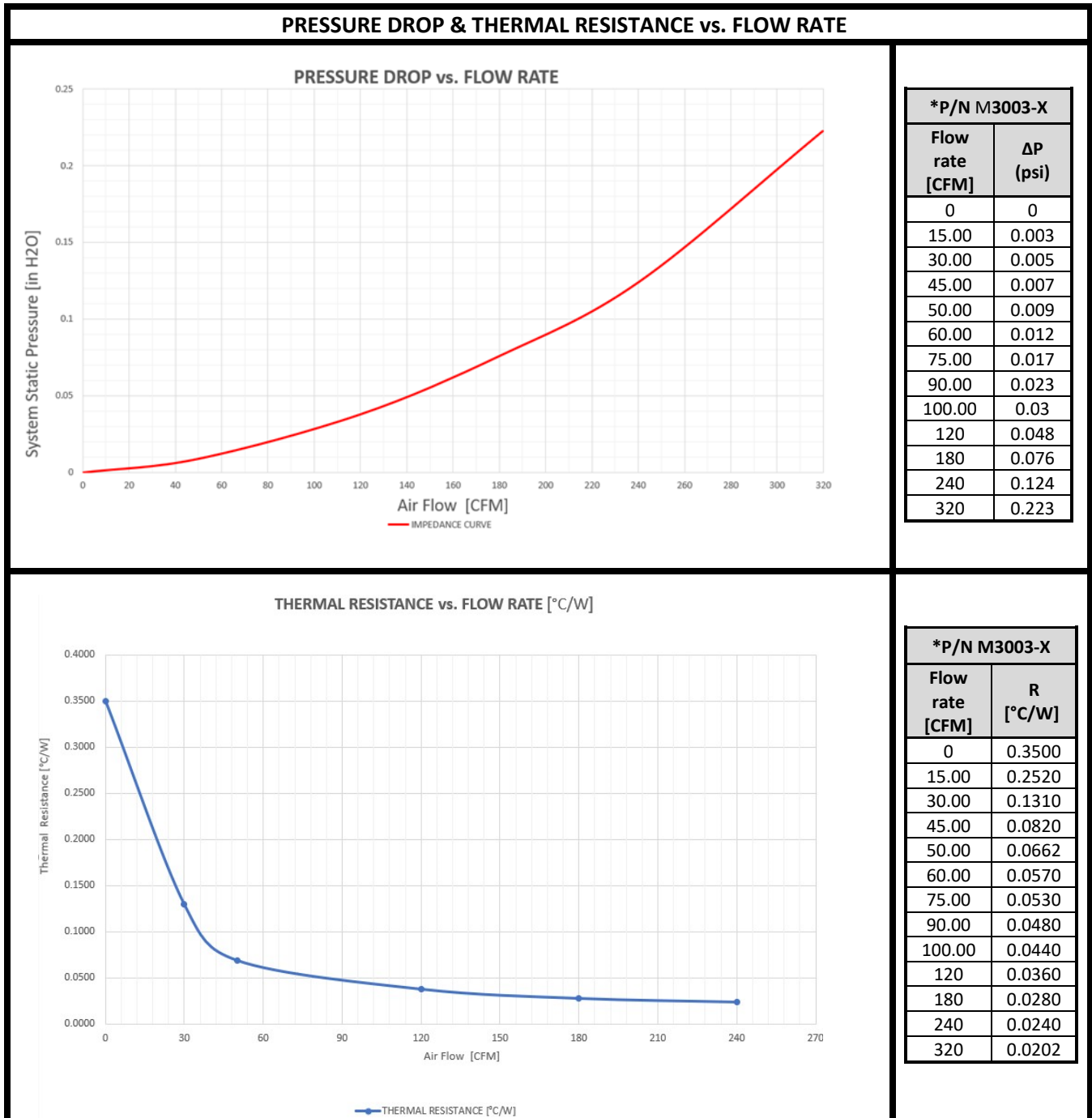
- Cooling unit features:
  - Removable cold plate - tapped according to customer requirements.
  - Handles.
  - Removable fans.
- Fans located at the center of the unit - designed to create homogeneous base plate temperature.
- Aluminum structure coated according to customer definitions.



1. Air tunnel cover
2. Removable cold plate
3. Power dissipation devices

# M3003 Series– Liquid Cooled Cold Plate

## Performance Curves

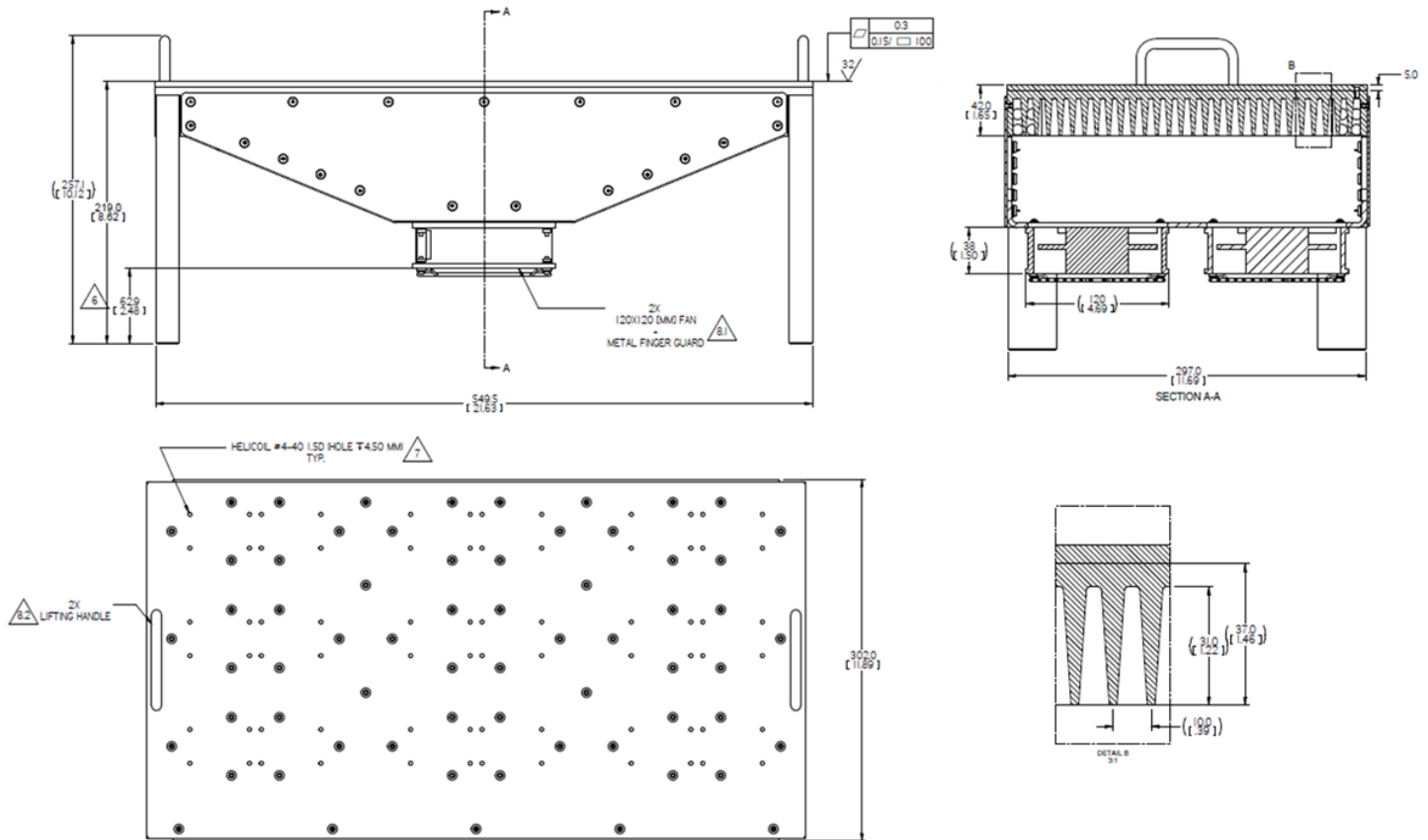


<sup>1</sup> Tested with 0.4 kW heat output and inlet air temperature of 25 °C.

<sup>2</sup> Recommended working point- 180 [CFM].

**M3003 Series– Liquid Cooled Cold Plate**

**Outline Drawing**



**NOTES:**

1. Dimensions are in mm [In].
2. Tolerances: X.X +/- 0.6 mm, X.XX +/- 0.25 mm.
3. First angle projection.
4. Material: Al 6061, Thermal treatment T651/ T6511.
5. Finish: chromate conversion coating per MIL-DTL-5541, type I, class 1A.
6. Required area for cooling airflow.
7. Mounting threads and holes are optional according to customer requirements.
8. Hardware information:
  - 8.1. Fan: Manufacturer: "SUNON", P/N: SP100A-1123XBT.GN or eq.
  - 8.2. Handles: Manufacturer: "AMATOM" P/N: 10346-SS-1032, or eq.