M3001 SERIES
Liquid Cooled Cold Plate
Specifications and Parameters

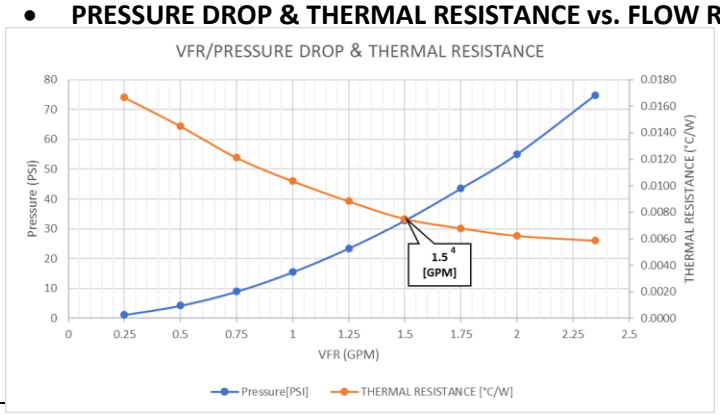
This cold plate is a deep-drilled type, allowing an optimal heat dissipation at a flow rate of 1.0 [GPM]. Due to the resulting 0.0103 [°C/W] thermal resistance at this flow rate, the cold plate can dissipate 2.6 [kW] with an average temperature rise of only 18.5 [°C] (between the cold plate's user interface and inlet fluid), by using a cooling fluid at an inlet temperature of 20 [°C].

Design Features[1]

- Two sides cooling
- Adaptable design platform
- Controlled Pressure drop (using internal orifices)
- High pressure (burst-proof)[2]: 300 [psi]
- Leakage proof[3]: 250 [psi]
- Pressure loss @ 1[GPM] : 15[psi] (see table below)
- Quick release valves
- Internal orifice
- Approximately 7 [Kg]

Performance Curves

- **PRESSURE DROP & THERMAL RESISTANCE vs. FLOW RATE**



M3001-1		
Flow rate [GPM]**	R [°C/W]	ΔP (psi)
0.25	0.0167	1.17
0.50	0.0145	4.26
0.75	0.0121	8.97
1.00	0.0103	15.47
1.25	0.0088	23.44
1.50	0.0078	32.74
1.8	0.0070	43.49
2.00	0.0062	54.96
2.35	0.0059	74.81
0.25	0.0167	1.17

[1] Tested using 50% ethylene glycol + 50% distilled water.
Coolant with higher distilled water ratio will provide smaller thermal resistance.
[2] Pressure loss- 0.17 [psi].
Test duration- 10 minutes. Max allowed pressure drop- 0.25 [psi].
[3] Tested in water bath for 5 minutes.
Success criteria was no bubbles.
[4] Recommended working point- 1.5 [GPM].

Note: Specifications are subject to change without prior notice by the manufacturer.

Email: sales@milpower.com • Website: www.milpower.com • CAGE: 5YWX2