ATS-CP-1004-DIY



*Image for illustration purposes only

The DIY family of high-performance IGBT cold plates provides engineers with the freedom to drill holes to match the specific connection points of the electronic devices that are being cooled. Each cold plate has an etched “no drill zone” to provide a visual guide.

On the outside of the “no drill zone,” through holes can be drilled at any point. (Avoid drilling into the I/O ports.) Inside the “no drill zone” holes can only be drilled to a depth of 6 mm to avoid damaging the internal fin field. (See drawing on page 2.)

The ATS-CP-1004-DIY cold plate, at a flow rate of 4 L/min, can transfer 1kW of heat at 5.9°C temperature difference between the cold plate base and inlet fluid temperature.

DIMENSIONS (L X W X H)
202 X 130 X 20 mm
(7.9 X 5.1 X 0.8”)

INLET/OUTPUT PORTS
1/4 – 18 NPT

MATERIAL
ALUMINUM 6061-T6

WEIGHT
1,280g

FEATURES AND BENEFITS

- More than 30% improvement in thermal performance compared to commercially available cold plates
- Compatible with industry accepted coolants
- 1/4 NPT threaded input and output
- Low pressure drop
- Provides uniform cold plate surface temperature when IGBTs are installed
- Provides same performance as standard ATS cold plates, but without pre-drilled holes
- Lightweight for ease of transportation
- Maximum pressure: 60 psi



Flow Meter



Leak Detector



Cold Plates



Chillers



Heat Exchangers

ATS has the products needed to design a complete liquid cooling loop: **Cold Plates** to transfer and remove the heat from the source, **Heat Exchangers** to transfer heat from the liquid to the air with or without a fan, and **Chillers** to circulate and condition the fluid in the system. In addition, ATS offers **Flow Meters** to instantaneously measure the volumetric flow rate of the fluid in the system and **Leak Detectors** to notify users of any leaks in the system.

ATS COLD PLATES

» Innovative Technology
Superior heat transfer, flexible design platform

» Compact Design
Designed to fit standard IGBT and other power electronics applications

» Easy Connections
Industry standard threaded hole sizes allows for hassel-free connection options

» Safe & Reliable
Leak Free (100% tested:100 psi)

» Custom Options
Choose from various options, i.e; fitting types, material types, device mounting and more. Contact ATS for additional information

» Customization Available!
ATS will customize any of the cold plates to fit into your application

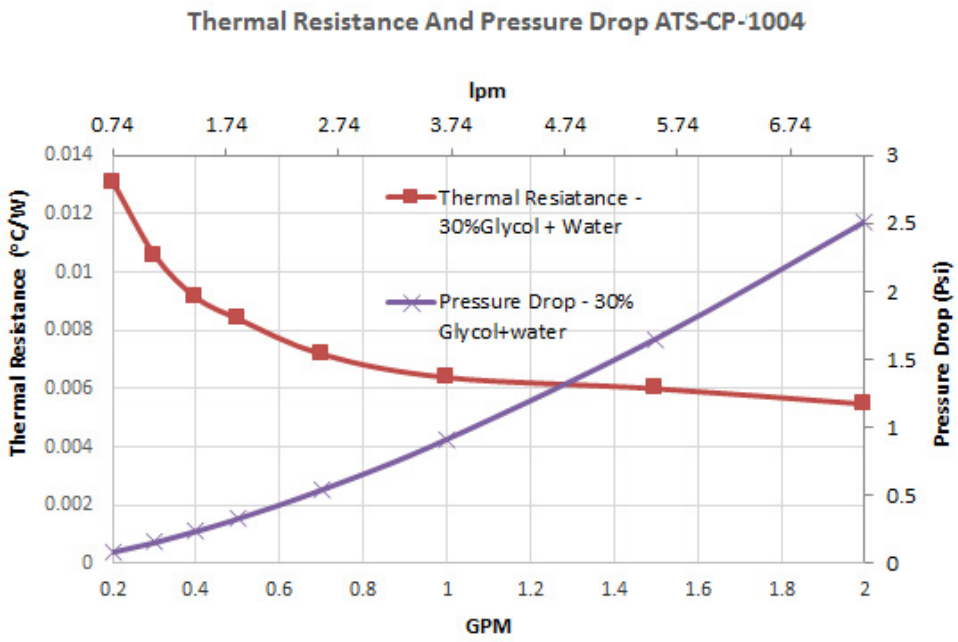
APPLICATIONS

Automotive Industry, Uninterruptible Power Supplies, Wind Turbines, Photovoltaic Inverters, Power Electronics, Induction Heaters, Motor Devices, Utility Vehicles, Anywhere power devices are used

RoHS COMPLIANT

ATS-CP-1004-DIY

PERFORMANCE CURVES

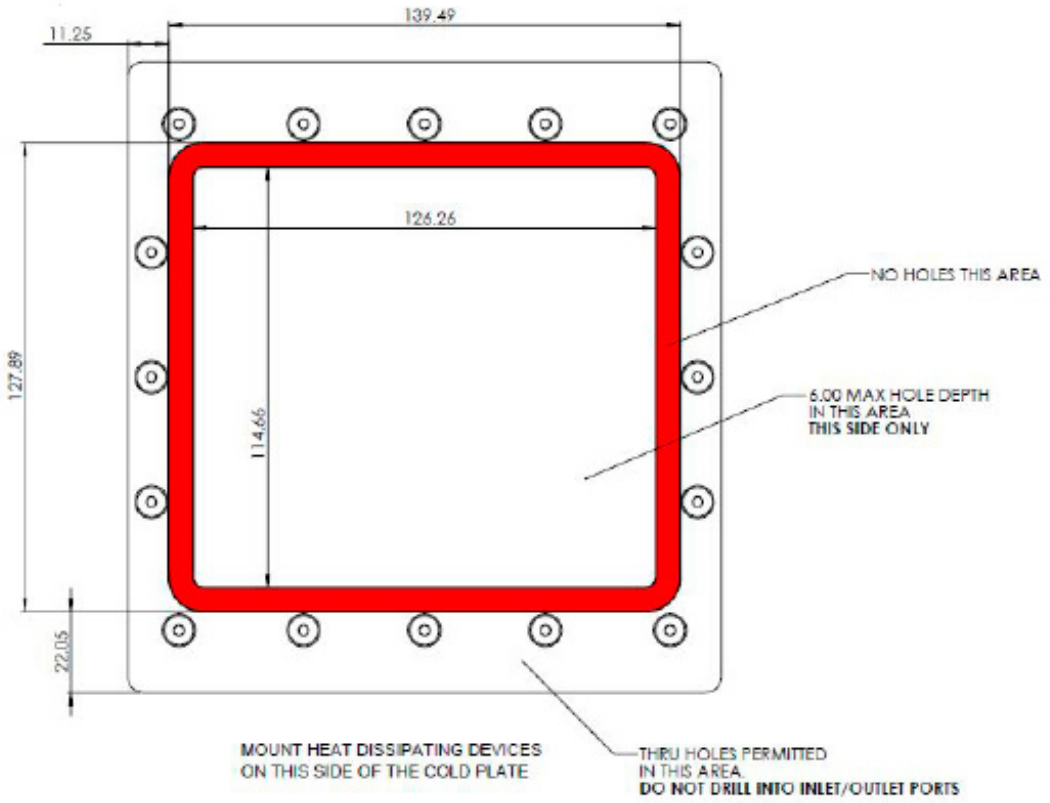


ATS Cold Plate Family			
Part Number	Dimensions* (L x W x H)	Flow Rate (L/min)	ΔT @ 1kW
ATS-CP-1000-DIY	202 x 130 x 20	4 L/min	5.50°C
ATS-CP-1001-DIY	198 x 147 x 20	4 L/min	5.00°C
ATS-CP-1002-DIY	162 x 136 x20	4 L/min	7.00°C
ATS-CP-1003-DIY	162 x 147 x 20	4 L/min	6.80°C
ATS-CP-1004-DIY	162 x 172 x 20	4 L/min	5.90°C

Flow rate (gallon/min)**	R (°C/W)	DeltaP (psi)
2	0.0054	2.2
1	0.0062	0.87
0.5	0.0083	0.35
0.2	0.016	0.1

* All Dimensions in mm
** Note: To convert to l/min, multiply by 3.7

MECHANICAL SPECIFICATIONS
(all dimensions in mm)



For further technical information, please contact Advanced Thermal Solutions, Inc. by phone: **1-781-769-2800**, email **ats-hq@qats.com** or visit **www.qats.com.**