

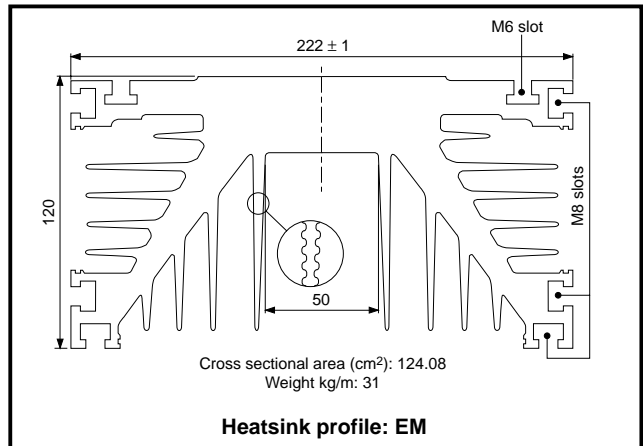
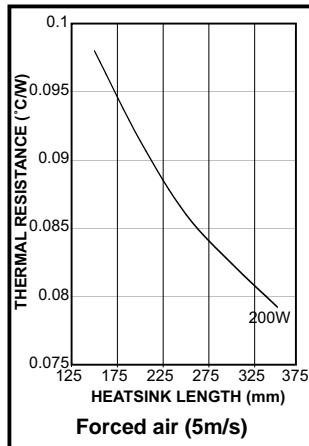
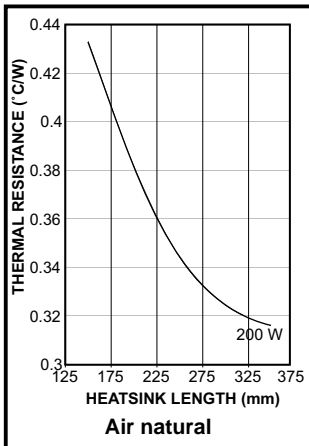
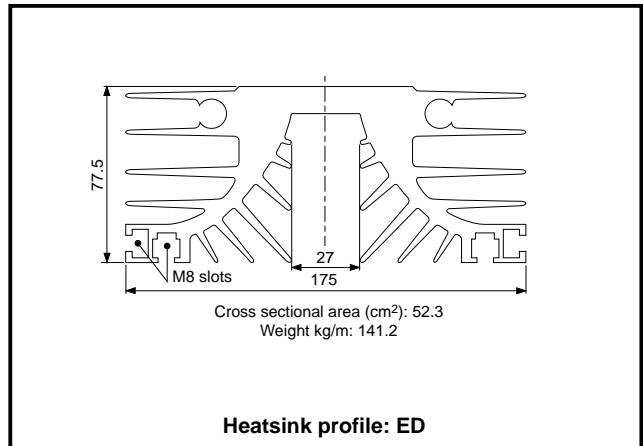
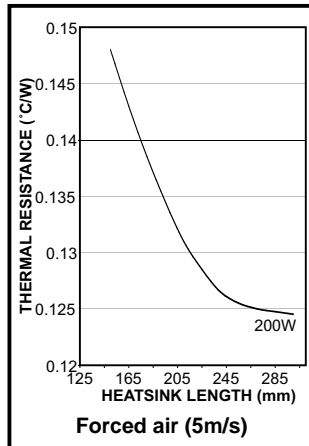
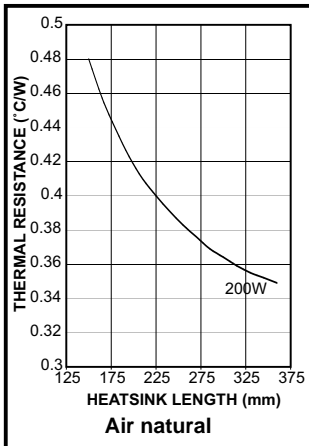
The current range of heatsinks is illustrated with a brief resumé of their characteristics. The products available are intended for use with all our power semiconductors - from the small stud base through to large disc devices and modules.

All heatsinks are suitable for Natural Air Cooling (AN) and Forced Air Cooling (FC). In addition to a vast experience of AN and FC cooling methods we also have many years experience in liquid and phase change cooling.

A range of coolers for 17mm to 100mm silicon diameter devices is available, as is a range of associated clamps.

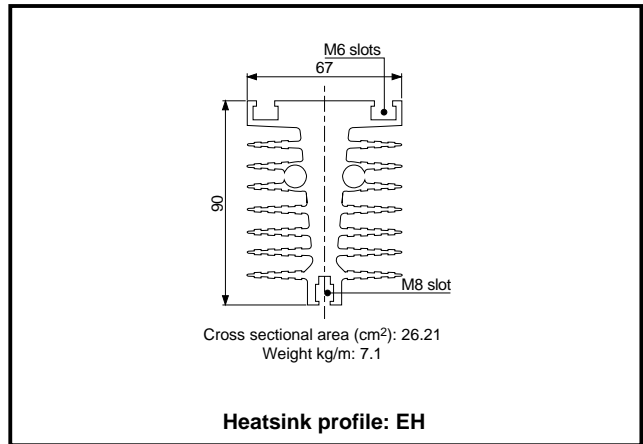
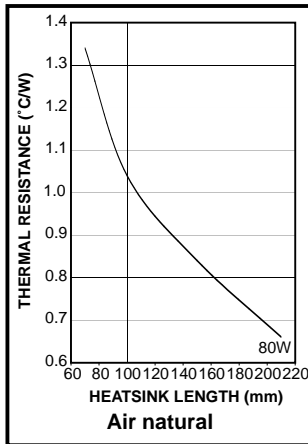
### AIR COOLED HEATSINKS

All dimensions shown in mm unless stated otherwise.



**Notes:**

1. Thermal ratings are given per heatsink.
2. Comprehensive data is available for all our heatsinks to support all design applications.
3. Black anodising is available on all air cooled heatsinks for surface protection and enhanced performance.



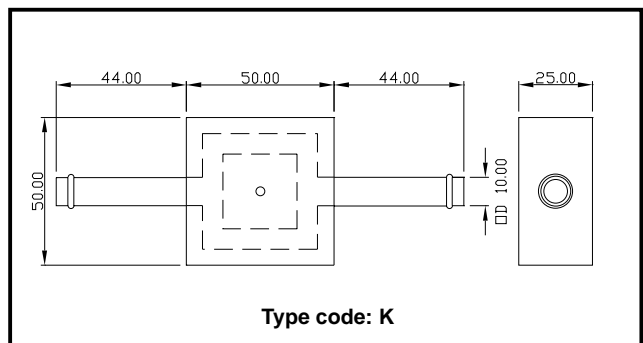
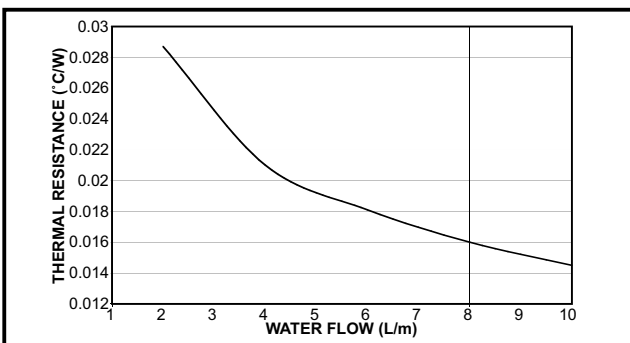
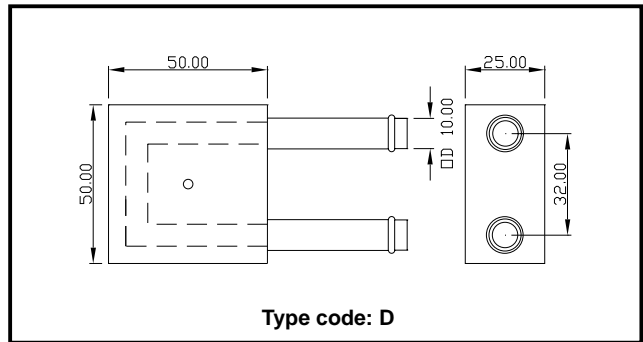
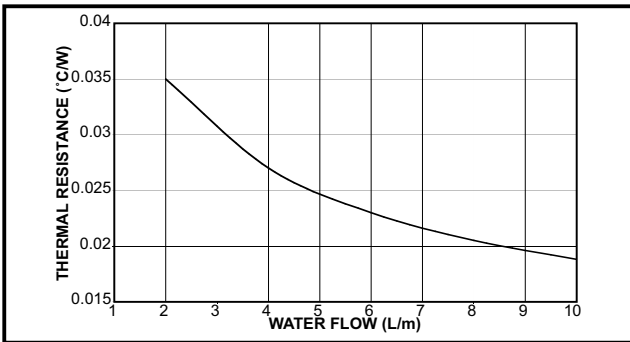
**WATER COOLED HEATSINKS**

Water cooled heatsinks are designed for use in high current, high power assemblies such as single,

three or six phase bridges or A.C. controllers. Complete bridges of up to six devices may be constructed.

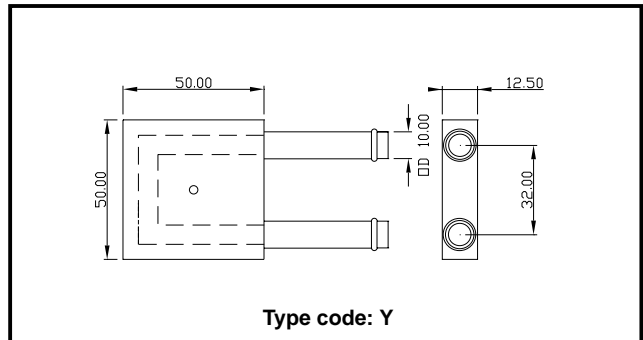
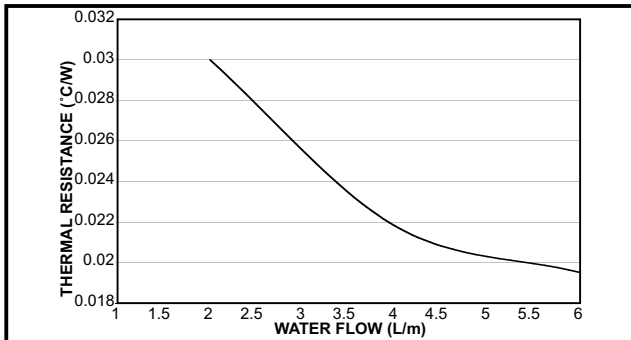
2 heatsinks for double side cooling, thermal resistance heatsink surface to water inlet.

All dimensions shown in mm unless stated otherwise.

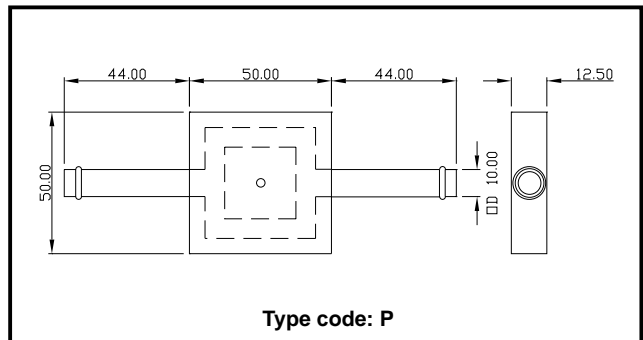
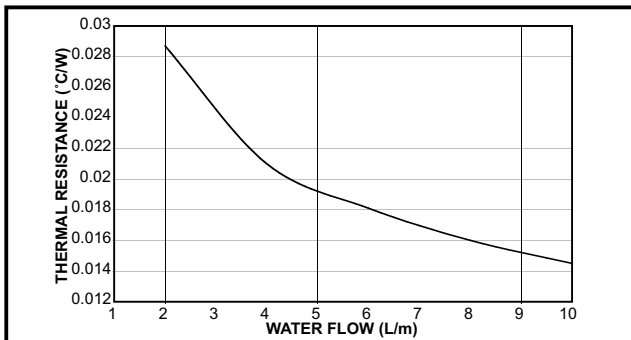


**Note:**

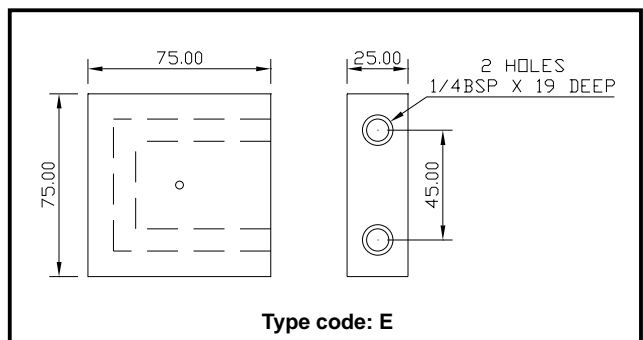
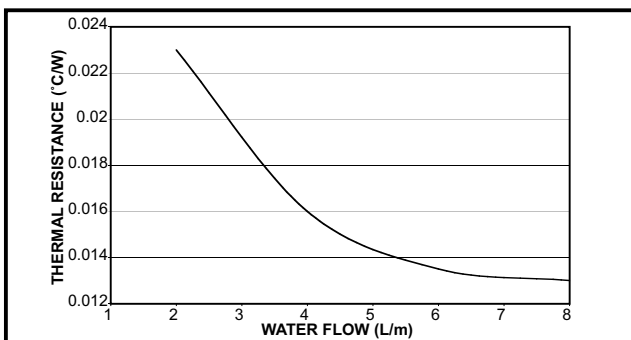
1. For details of water connections, please contact factory.



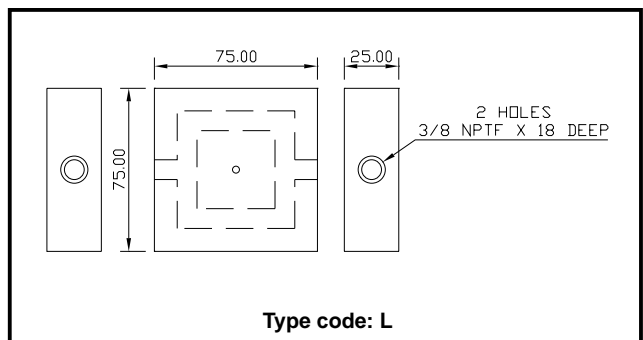
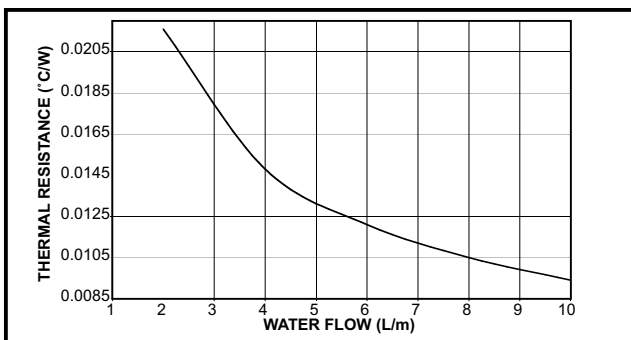
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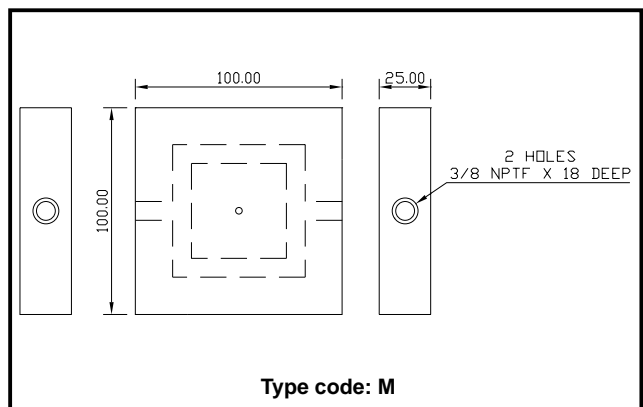
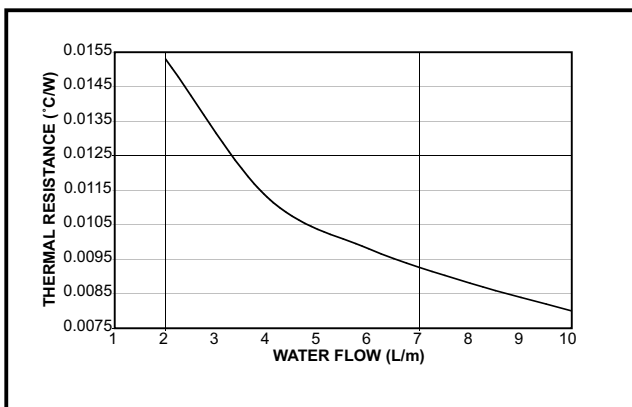
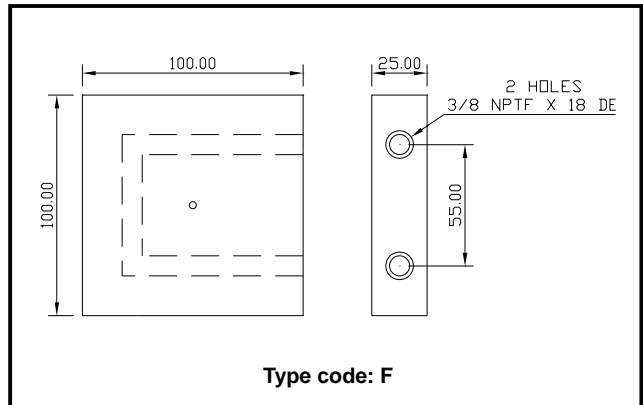
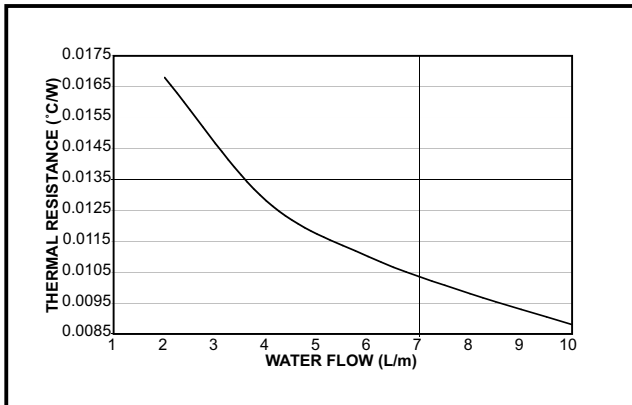
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**Note:**

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**ASSOCIATED PUBLICATIONS**

Title	Application Note Number
Heatsink requirements for IGBT modules	AN4505
Calculating the junction temperature of power semiconductors	AN4506
Guidance notes for formulating technical enquiries	AN4869
Recommendations for clamping power semiconductors	AN4839

## POWER ASSEMBLY CAPABILITY

The Power Assembly group was set up to provide a support service for those customers requiring more than the basic semiconductor, and has developed a flexible range of heatsink and clamping systems in line with advances in device voltages and current capability of our semiconductors.

We offer an extensive range of air and liquid cooled assemblies covering the full range of circuit designs in general use today. The Assembly group continues to offer high quality engineering support dedicated to designing new units to satisfy the growing needs of our customers.

Using the latest CAD methods our team of design and applications engineers aim to provide the Power Assembly Complete Solution (PACs).

## DEVICE CLAMPS

Disc devices require the correct clamping force to ensure their safe operation. The PACS range includes a varied selection of pre-loaded clamps to suit all of our manufactured devices. Types available include cube clamps for single side cooling of 'T' 23mm and 'E' 30mm discs, and bar clamps right up to 83kN for our 'Z' 100mm thyristors and diodes.

Clamps are available for single or double side cooling, with high insulation versions for high voltage assemblies.

Please refer to our application note on device clamping, AN4839

## HEATSINKS

The Power Assembly group has its own proprietary range of extruded aluminium heatsinks. They have been designed to optimise the performance of Dynex semiconductors. Data with respect to air natural, forced air and liquid cooling (with flow rates) is available on request.

For further information on device clamps, heatsinks and assemblies, please contact your nearest sales representative or customer service office.



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Dynex Semiconductor annotate datasheets in the top right hand corner of the front page, to indicate product status. The annotations are as follows:-

**Target Information:** This is the most tentative form of information and represents a very preliminary specification. No actual design work on the product has been started.

**Preliminary Information:** The product is in design and development. The datasheet represents the product as it is understood but details may change.

**Advance Information:** The product design is complete and final characterisation for volume production is well in hand.

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