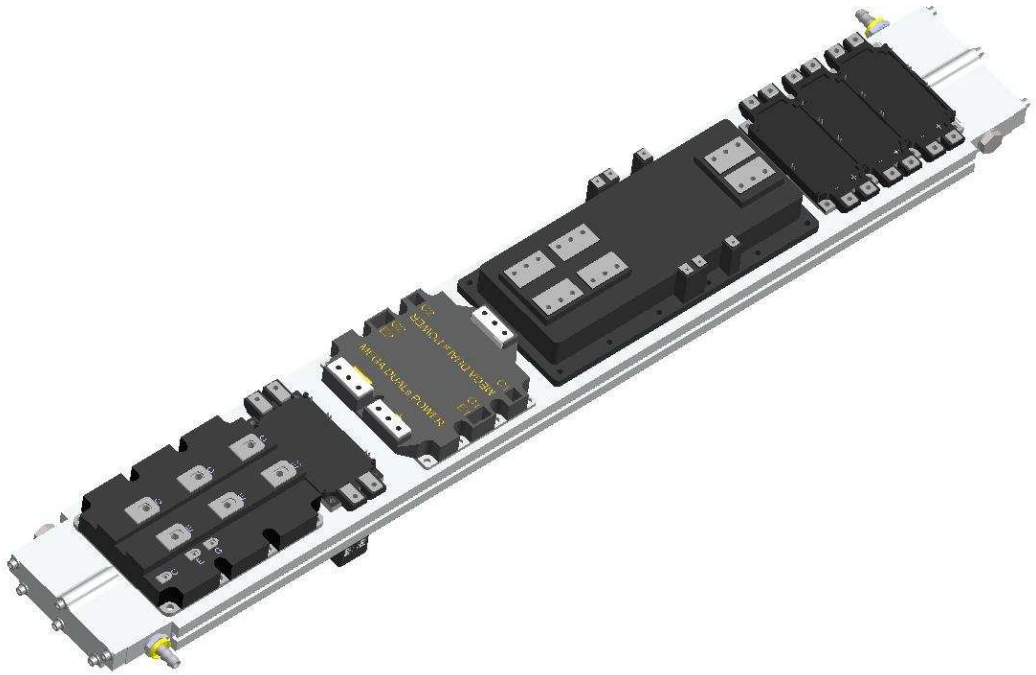
WPM Water Plate Module

Water cooled heatsink for high power applications

Our WPM water cooled heatsink enables to evacuate the calories produced by high power semiconductor modules.

The cold plate is optimized on its main face for the cooling of ECONOPACK+ and ECONODUAL modules, high power HVIGBT modules and MEGA POWER DUAL or PRIMEPACK modules.

The opposite face allows to use all the other modules with different sizes (diode modules, ISOTOP housing, 80mm pitch modules).

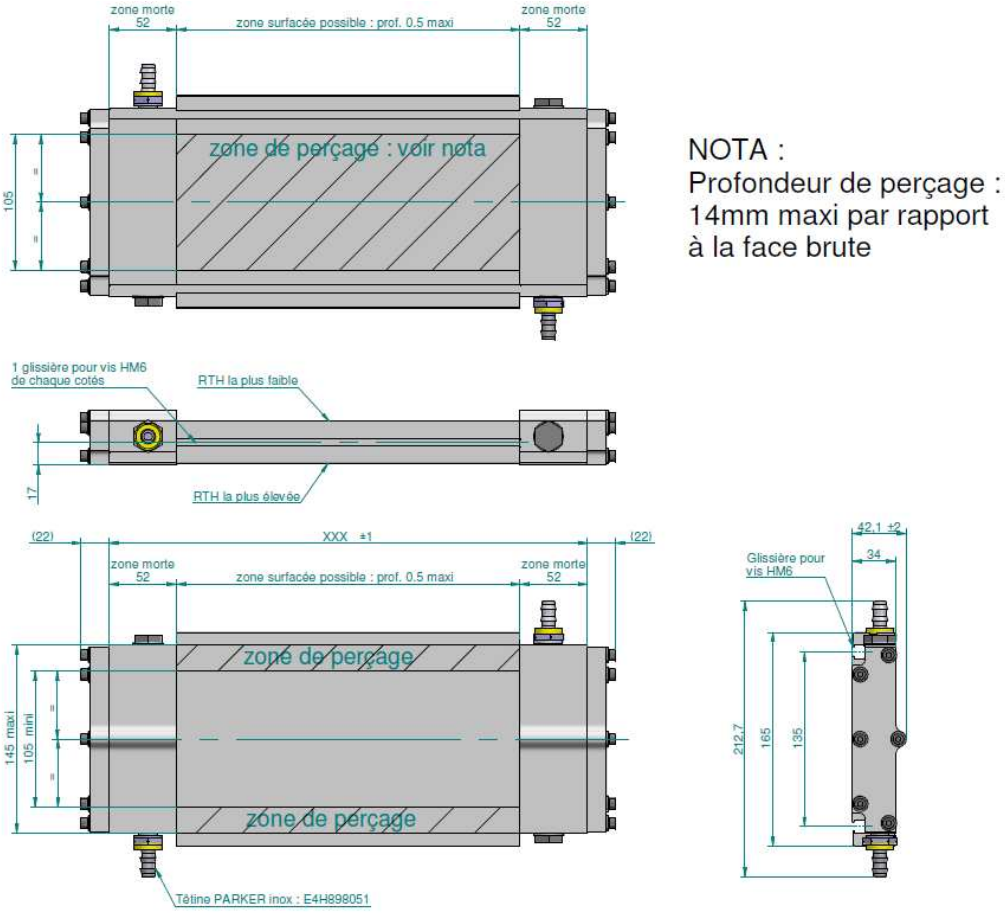


Summary

1. BENEFITS

- ✓ Very low thermal resistance
- ✓ Flat cooling of the sole of the power modules,
- ✓ Optimized main face for very high power modules
- ✓ Possible layout of all module types on the opposite face
- ✓ Paralleling of the water circuits with common manifold for the cooling of high power inverters.
- ✓ Side rail guides on the opposite face for an easier integration
- ✓ Different lengths available

2. DIMENSIONS

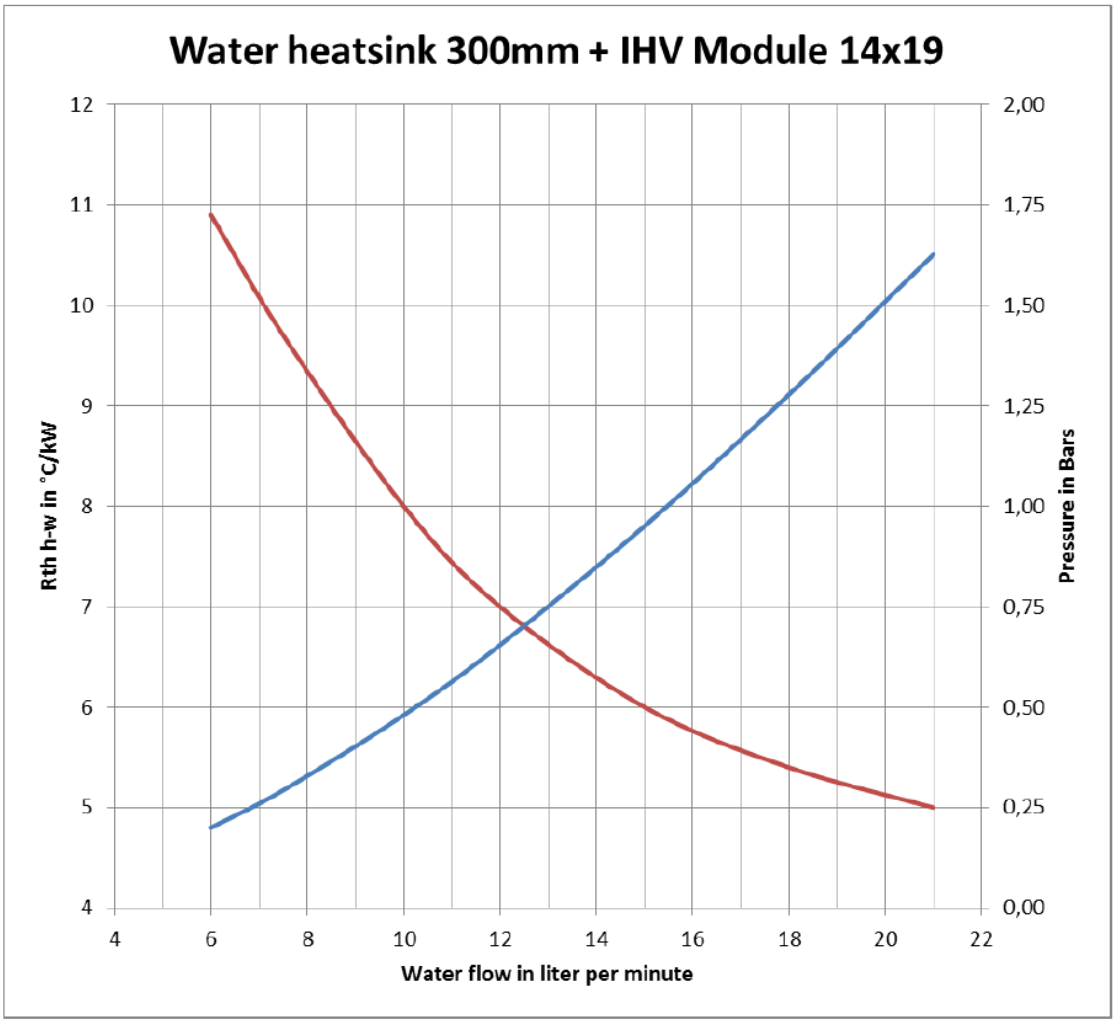


The length of the useful surfaced area depends on the number of modules to be implemented. As standard, the stored length is 495.

Other lengths are available on request.

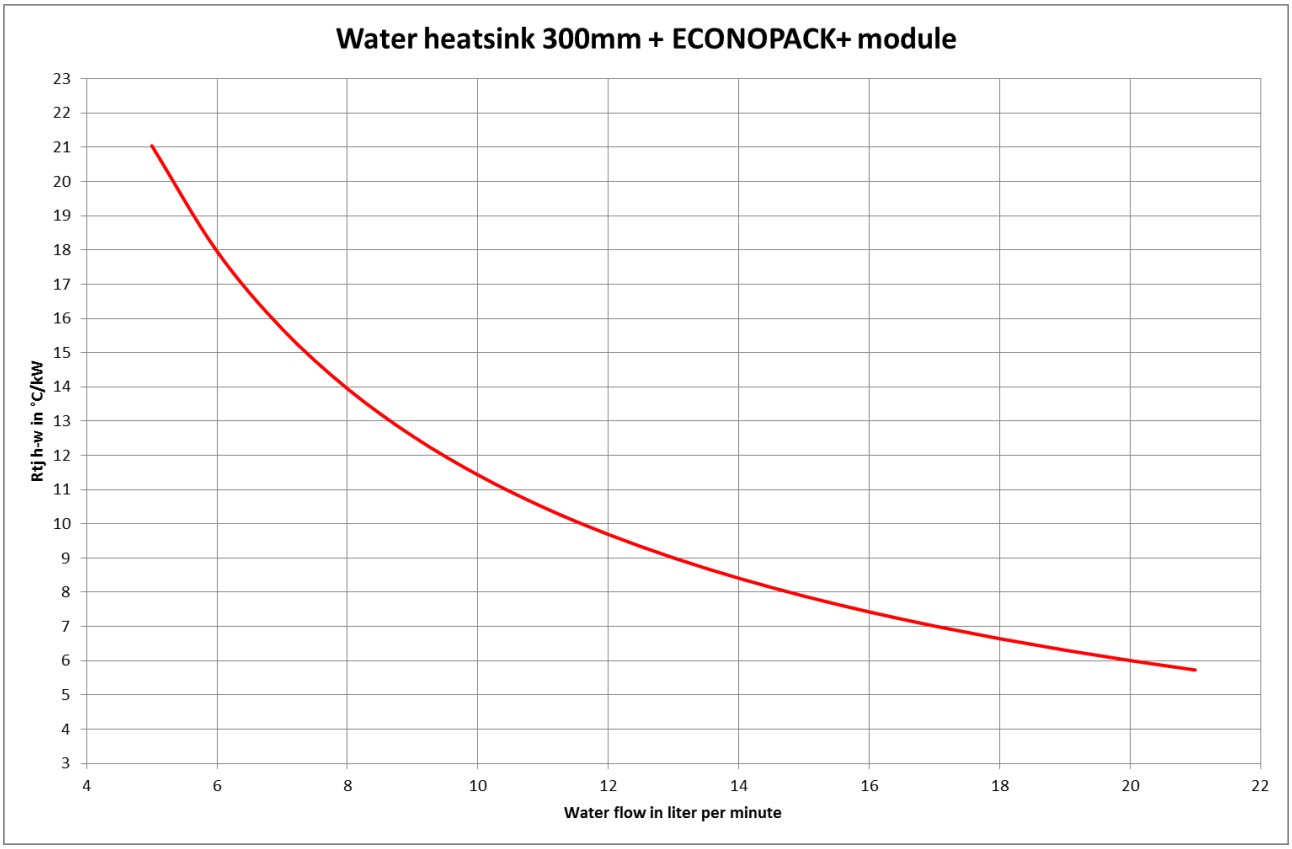
3. PERFORMANCES WITH HVIGBT MODULE

The following performances are given for a module type HVIGBT (140 x 190 mm), mounted on a 300 mm long heat sink:



4. PERFORMANCES WITH ECONOPACK+ MODULE

The following performances are given for a module type ECONOPACK+ mounted on a 300 mm long heat sink:



5. CODING

The cold plate coding is as follows:

WPM – XXX – S/D

- XXX : plate length excluding manifold or cover.
  - Standard length 495mm. Other lengths on request.
- S/D : water circuit orientation.
  - S : input and output on the sides of cold plate
  - D : input and output under the cold plate

6. MATERIALS IN CONTACT WITH THE WATER CIRCUIT

The water heat sink is made of aluminum 6060 or 6061.

The fittings are in EPDM (-40, +150°C)

The water input and output fitting is of stainless steel 316L, the sealing device in NBR (-20-+70°C).

CAUTION : ARCEL reserves the right to change the above specification without prior notice.

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