

POWER ELECTRONICS

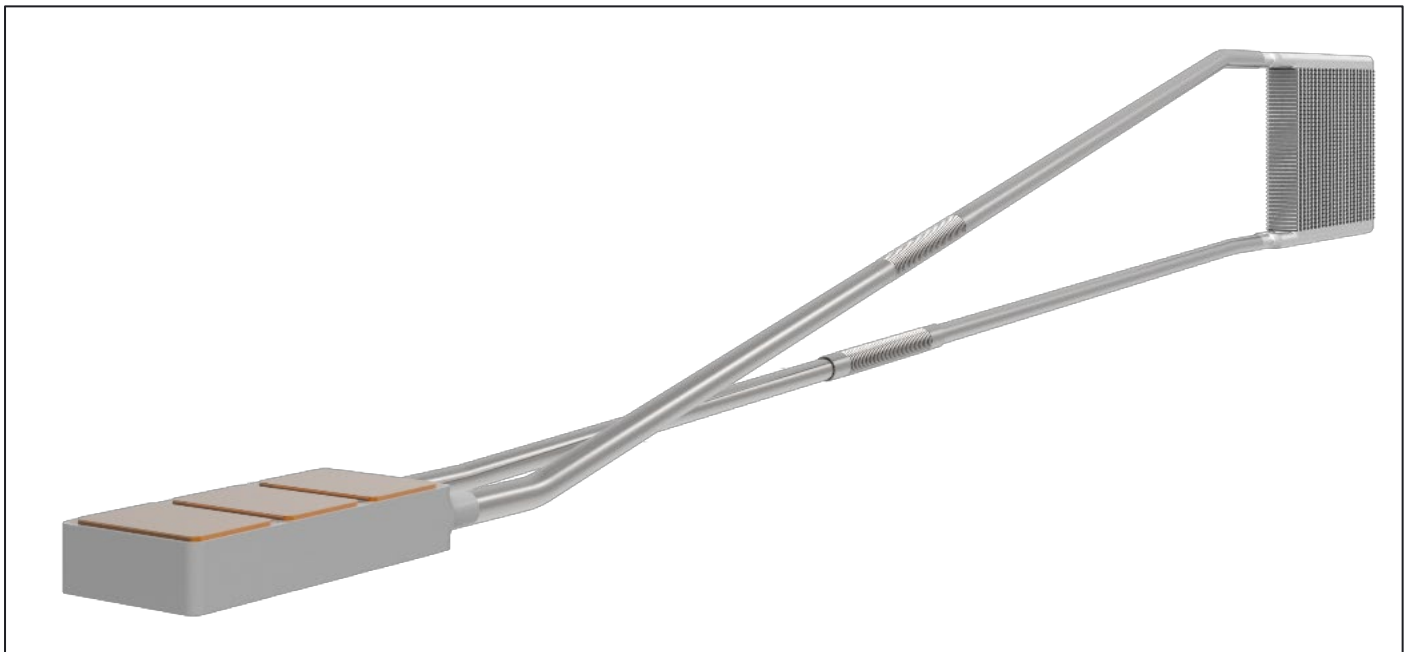
SOLUTION SHEET - VERSION 1

**FULLY
SCALABLE****GAN & SiC
READY****ULTRA
RELIABLE****LONG
LASTING****100%
PASSIVE**

DESCRIPTION:

Utilizing our flagship technology, our solution offers the only passive alternative to direct water cooling. It is ready for the latest, high-heat density (GaN & SiC) components and can be deployed either by combining with, or by replacing an existing cooling system. Our solution provides an ultra-reliable, maintenance free, long-lifetime power electronics cooling solution.

EXAMPLE SYSTEM:



TYPICAL APPLICATIONS:

Market	E-Mobility	Renewable Energy	Specialised Equipment
Applications	Converter Inverter On-Board Chargers Off-Board Chargers	Inverter Converter	Industrial Equipment Production Equipment Medical Equipment

LHP-PE: SOLUTION SHEET

STANDARDS:

CE Mark	Yes
ROHS V2 Compliant	Yes
UL Certification	On request

OPERATING INFORMATION:

Operating Heat Source Temperature*	0 °C to +120 °C
Operating Cold Source Temperature*	-40 °C to +80 °C
Storage Temperature	-50 °C to +95 °C
MTBF	> 200,000 h

*For the system to operate, there must always be a temperature difference between the heat and cold sources.

SYSTEM:

Typical Thermal Resistance	0.1 K/W
Working Fluids	R1233zd(E) Methanol Others on request

EVAPORATOR(S):

Power per Component	< 3 kW
Max. Average Heat Flux	< 75 W/cm ²
Max. Temperature	< 120 °C
Number of Evaporators	< 20
Body	Stainless Steel
Baseplate	Copper
Entry & Exit Line	Stainless Steel
Thermal Interface Material	Recommended

LINES:

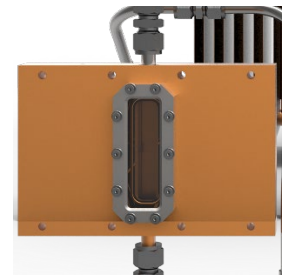
Fixed Line Material	Stainless Steel
Flexible Line Material	Stainless Steel
Line Bonding Method	Welded or Brazed

CONDENSER:

Type	Air Exchanger Liquid to Liquid Conductive Plate
Fans	Optional

EVAPORATOR EXAMPLES

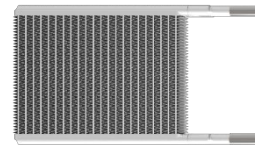
Single Sided



Double Sided



CONDENSER EXAMPLES

Forced
Air ExchangerLiquid to Liquid
(Typical Water Glycol)
Exchanger

*Picture
Coming
Soon*

CUSTOMISATION

Calyos recognises the need for customisation. Reach out to us to discuss how we can adapt this solution to your specific needs.

GENERAL NOTE

Both the pictures and specification are indicative of a typical solution, exact design and specification will be according to your needs.