

# Cooling House

## Loop Thermosyphon

Ver.2

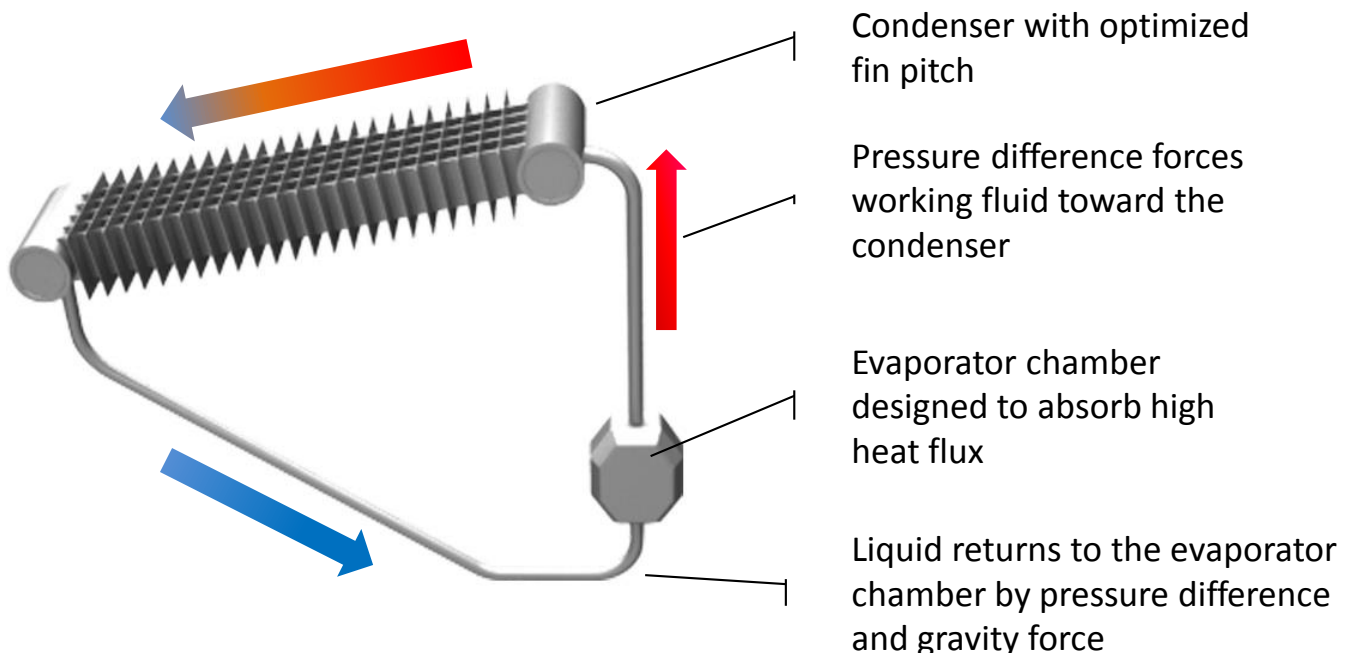


# About Loop Thermosyphons

Cooling House's Loop Thermosyphon works on the basis of thermodynamic principles. It is a closed-loop, phase change heat transfer product that can move several hundred to thousand Watts up to meters away from the heat source (evaporator chamber). Within the chamber, working fluid boils and generates a pressure difference, which forces the working fluid and heat through the vapor line to a highly efficient condenser, gas is then condensed and returned to the evaporator chamber as a completed cycle, as shown below.

The entire system may be configured into different form factor required by the designer, and uses minimal internal space due to the extremely high efficient 2 phase-flow heat transfer.

The system is sealed, reliable, and predictable in its behavior, it functions with gravity, with customized design our solution can function in multi-orientations.

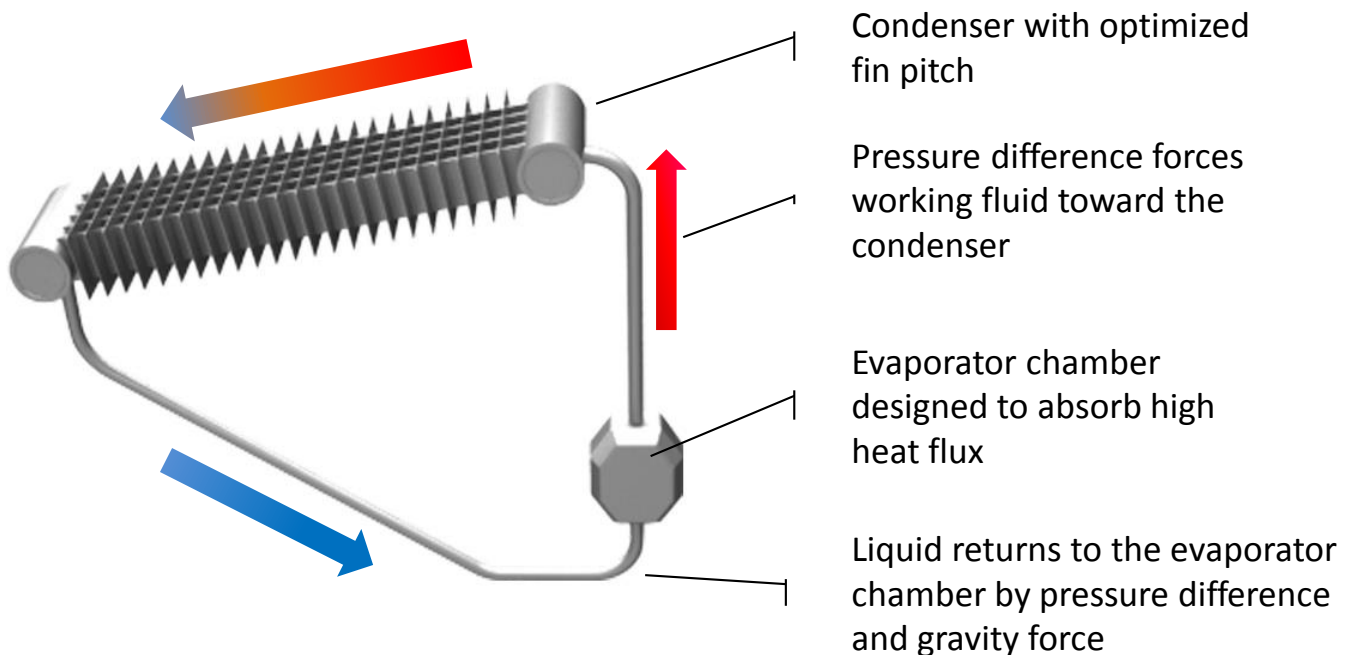




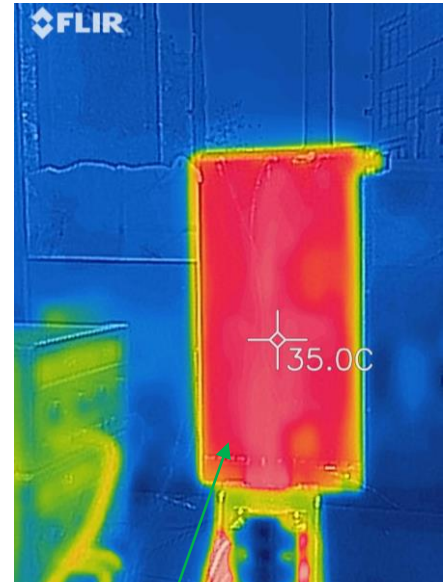
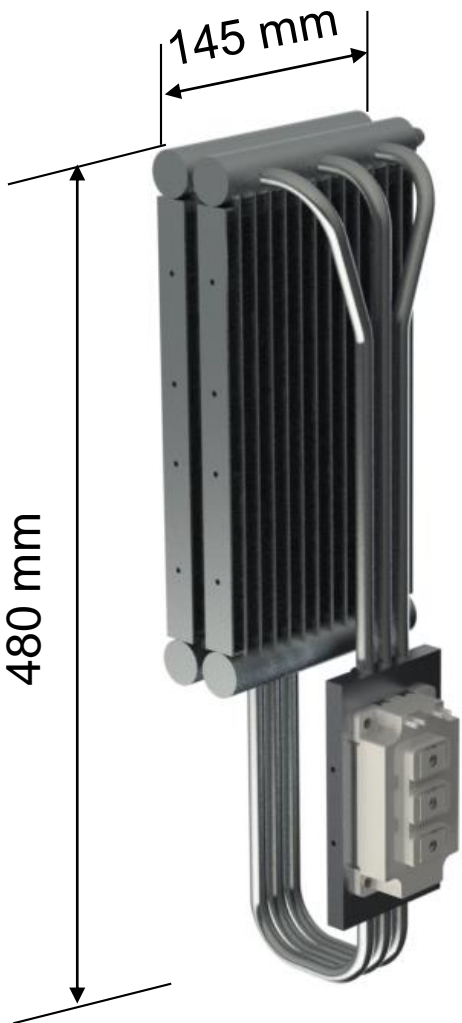
# Advantages and features

Compare to traditional 2-phase flow heat transfer devices (heat pipes and vapor chambers), Loop Thermosyphon is more effective because the liquid and gas do not flow against each other within the same pipe, therefore the maximum heat transfer amount ( $Q_{max}$ ) is much higher and the thermal resistance is less.

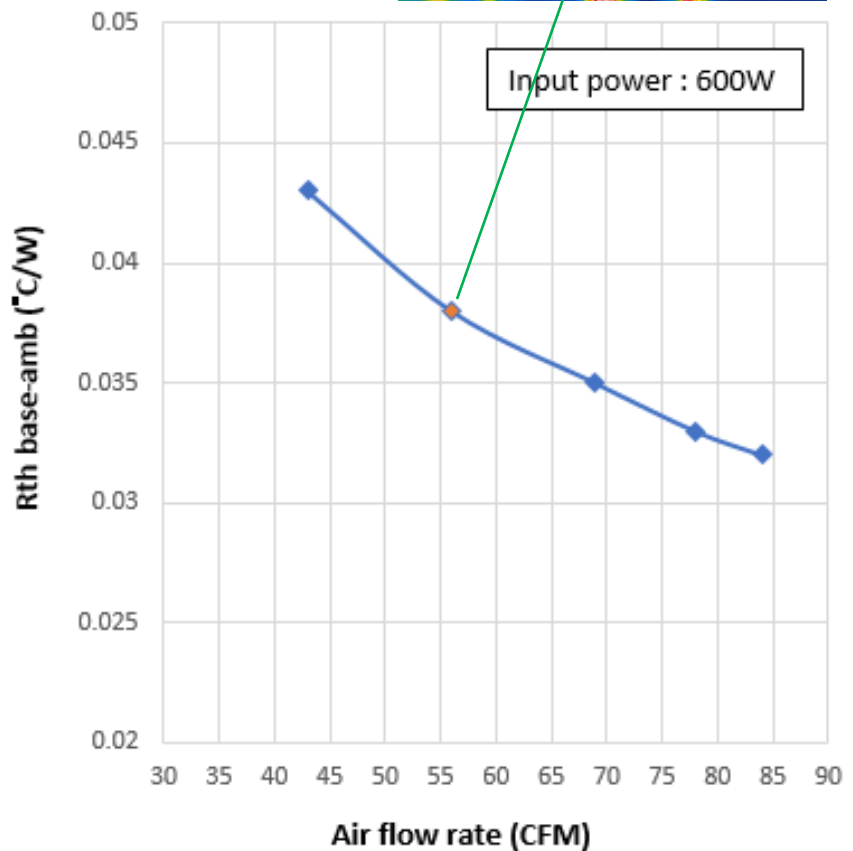
- Remote cooling loop-based technology
- Capable for outdoor use
- Power ranges typically 150~3,000 W/Evaporator
- Capable to move heat meters away without a mechanical pump and moving parts
- Handles multi-heat sources
- High efficient condenser with optimized fin pitch



# IGBT Cooling



Cooler Weight: 1.55Kg



Thanks!

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