# Rank.® HTHP 0.5MWt

Example point of operation

V1.2

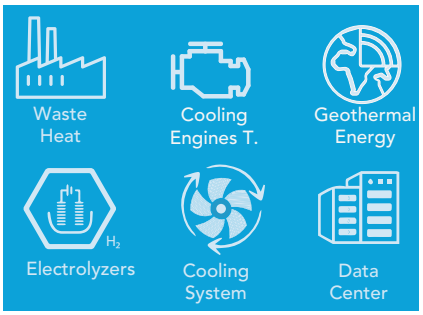
## Selected operating point

Water-Steam
COP H+C

Useful Heat / Dissipation

| Tout (ºC) | | | | | |
|---|---|---|---|---|---|
| 150 | - | - | 4,7 | 6,1 | 10,2 |
| 140 | - | 3,8 | 5,8 | 8,0 | 10,5 |
| 130 | 3,0 | 4,7 | 6,4 | 9,6 | 12,2 |
| 120 | 3,6 | 5,7 | 8,3 | 10,1 | - |
| 110 | 4,4 | 6,2 | 10,9 | 13,4 | - |
| Tin (ºC) | 40 | 60 | 80 | 100 | 120 |

Heat source




Heat source

| | |
|---|---|
| Heat transfer fluid | Water |
| Inlet temperature | 40 °C |
| Outlet temperature | 35 °C |
| Volumetric flow rate | 61 m³/h |
| Thermal power | 264 kWt |
| Pressure drop | 100 kPa |

Useful heat Dissipation

| | |
|---|---|
| Heat transfer fluid | Water |
| Inlet temperature | 120 °C |
| Outlet temperature | 120 °C |
| Pressure | 2 bara |
| Caudal | 0,23kg/s |
| Power | 500 kWt |

Electricity

| | |
|---|---|
| Consumption | 236 kWe |
| COP_H+C | 3,6 |
| COP_H | 2,1 |
| COP_C | 1,5 |
| Voltage | 3x400 V |

version 29/07/2025

Rank.®

Although our staff has made every effort possible to ensure the most accurate data and close to the final solution, these should be considered as indicative and not binding.

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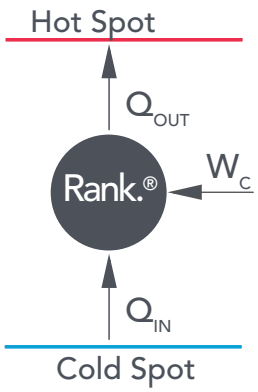
## Calculation COP´s




$$COP_{H+C} = \frac{Q_{OUT} + Q_{IN}}{W_c}$$

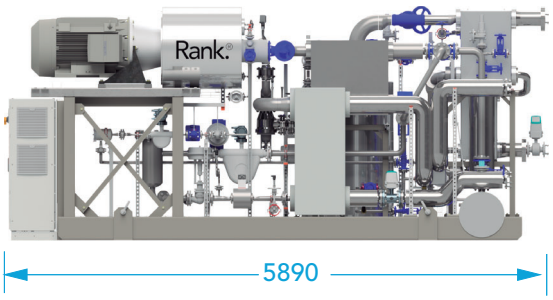
$$COP_H = \frac{Q_{OUT}}{W_C}$$

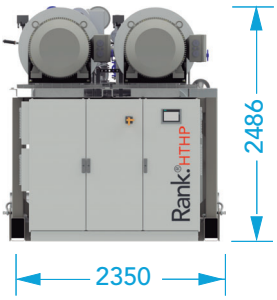
$$COP_C = \frac{Q_{IN}}{W_C}$$

$COP_H$ = COP Heating
$COP_C$ = COP Cooling
$COP_{H+C}$ = COP Aggregate
$Q_{OUT}$ = Thermal Power Delivered
$Q_{IN}$ = Extract Cooling Power
$W_C$ = Electricity Consumption HTHP

## Dimensiones

### Basic Option



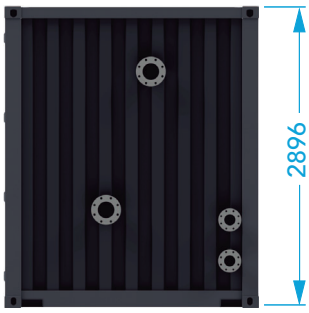




5890 × 2350 × 2486

### Wrap-around Option

5940 × 2295 × 2900

### Container Option



6058 × 2438 × 2896

## Compliance with regulations and standards

- Low voltage Directive
- Machinery Directive
- Electromagnetic Compatibility Directive
- Pressurized Equipment Directive
- EN/ISO 3744:2010
- UNE EN 10216
- UNE EN 764-7
- UNE EN 13136:2014+A1
- 2006/42/CE
- 2014/68/UE
- ASME B31.1 / ASME B31.3 – Process Piping Code
- ASME Boiler and Pressure Vessel Code Section VIII
- UL 508A- Control Panel Wiring
- 2014/35/UE
- 2014/30/UE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