



TK Smart

Light Remote Condenser

**ThermoKey®**  
Heat Exchange Solutions



**Intelligence  
is 100% aluminium.**



The new range of remote condensers with TKMicro exchanging core. The maximum expression of microchannel technology.



It is the new ThermoKey condenser

designed to meet the target market

Its exchanging core is in long-life aluminium alloy

it is a light, easily recyclable and corrosion resistant product

Only standard components

they ensure installation flexibility and a delivery time in 5 working days

All the application needs

it is reliable, low profile and suitable for different conditions and solutions

It is ecological and economical

it uses 60% less refrigerant, it has low cleaning and maintenance costs and an excellent €/kW ratio

It is innovative and flexible

the same model can be installed in vertical or horizontal version with fans for industrial application

NOW AVAILABLE IN THE LATEST VERSION OF ARCHIMEDE SOFTWARE



## Less is more

The new platform has been designed through a series of innovative solutions, that guarantee higher performance and efficiency.

### LESS WEIGHT

50% less in weight/capacity ratio  
*(easier to be moved and installed)*

### LESS CONSUMPTION

60% less refrigerant charge  
*(fewer controls according to regulations)*

### LOWER COSTS

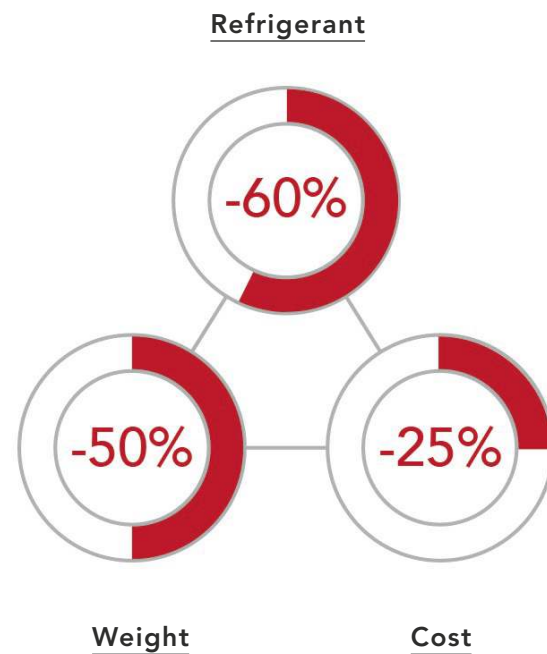
25% less in cost/kw ratio  
*(less consumption, more efficiency)*

### LESS ENVIROMENTAL IMPACT

100% recyclable material  
*(environment friendly)*

### EFFICIENT TRANSPORT

Lighter and stackable crates  
*(cost reduction by 30 to 50%)*



#### TECHNICAL DATA

**Capacity:** 97,8 kw  
**Air flow:** 26400 m<sup>3</sup>/h  
**Weight:** 110 kg  
**Height:** 1156 mm

**Length:** 2347 mm  
**kW/kg:** 0,89  
**Delta temperatura:** 15°K  
**Refrigerant:** R404A

## TKSmart for food industry

TKSmart has quickly found a perfect application in the food industry. The food brand Zakład Drobiarskie in Poland, a company that deals with the preparation of poultry meat, has chosen Thermokey for the conditioning of its work rooms.

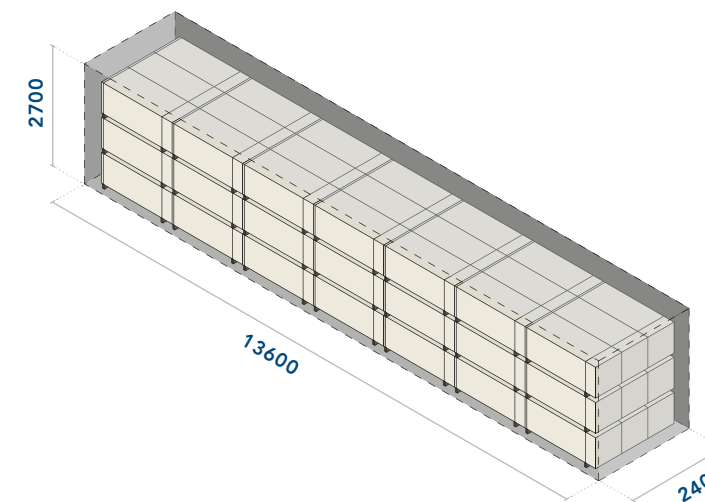
### SOLUTION

- 2 TKSmart, model TMCH1350HLLDV:
- Unit capacity 68 kw
  - Unit weight 105 kg
  - Internal refrigerant volume 3,17 dm<sup>3</sup>

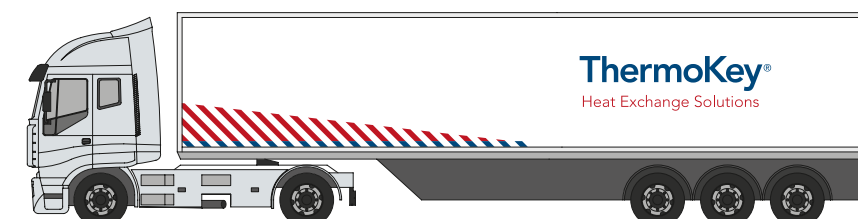
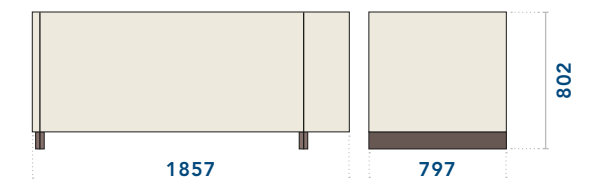
### EFFICIENT SERVICE

Thanks to stackable crates it is possible to load more crates allowing the customers to save up to 50% of transport costs.

In a truck 13.6 meters long, we can load up to 63 packages TKSmart, model TMCH1250HLLD.



### TKSmart, model TMCH1250HLLD



### THE COMPANY

**Zakład Drobiarski w Stasinie** a Mazovia Voivodeship based poultry slaughtering, processing and confectioning plant established in 2007 which has the most modern and recognized equipment at its disposal.

# Wide Modularity

The various TKS smart solutions and their combinations create a wide range of models with different features and performances, among which you can choose the most suitable solutions.

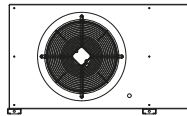
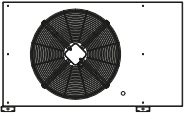
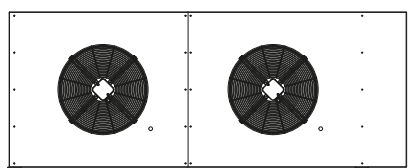
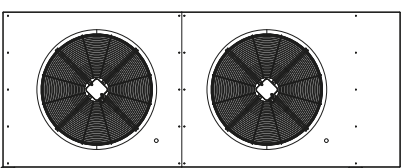
The given values have been obtained by considering R404A refrigerant gas and delta temperature 15K.

| Model               | Fan type             | Weight | Volume          | Connections |      | Power range |
|---------------------|----------------------|--------|-----------------|-------------|------|-------------|
|                     |                      |        |                 | IN          | OUT  |             |
|                     |                      | kg     | dm <sup>3</sup> | mm          | mm   | 0 ————— kw  |
| <b>TMCH1140HLLM</b> | 230V - 1ph - 50Hz    | 35     | 1,6             | 1x22        | 1x22 | —————● 13,4 |
| <b>TMCH1240HLLM</b> | 230V - 1ph - 50Hz    | 65     | 2,4             | 1x22        | 1x22 | —————● 27,2 |
| <b>TMCH1340HLLM</b> | 230V - 1ph - 50Hz    | 95     | 3,2             | 1x28        | 1x28 | —————● 41,1 |
| <b>TMCH1150HLLD</b> | 400V - 3ph - 50Hz(A) | 38,5   | 1,6             | 1x22        | 1x22 | —————● 22,1 |
| <b>TMCH1150HLLY</b> | 400V - 3ph - 50Hz(Y) | 38,5   | 1,6             | 1x22        | 1x22 | —————● 17,6 |
| <b>TMCH1150HLLM</b> | 230V - 1ph - 50Hz    | 38,5   | 1,6             | 1x22        | 1x22 | —————● 21,8 |
| <b>TMCH1250HLLD</b> | 400V - 3ph - 50Hz(A) | 72     | 2,4             | 1x22        | 1x22 | —————● 45,6 |
| <b>TMCH1250HLLY</b> | 400V - 3ph - 50Hz(Y) | 72     | 2,4             | 1x22        | 1x22 | —————● 35,7 |
| <b>TMCH1250HLLM</b> | 230V - 1ph - 50Hz    | 72     | 2,4             | 1x22        | 1x22 | —————● 44,8 |
| <b>TMCH1350HLLD</b> | 400V - 3ph - 50Hz(A) | 105,5  | 3,2             | 1x28        | 1x28 | —————● 68,5 |
| <b>TMCH1350HLLY</b> | 400V - 3ph - 50Hz(Y) | 105,5  | 3,2             | 1x28        | 1x28 | —————● 54,1 |
| <b>TMCH1350HLLM</b> | 230V - 1ph - 50Hz    | 105,5  | 3,2             | 1x28        | 1x28 | —————● 67,9 |
| <b>TMCH1150HUUD</b> | 400V - 3ph - 50Hz(A) | 56     | 2,8             | 1x22        | 1x22 | —————● 29   |
| <b>TMCH1150HUUY</b> | 400V - 3ph - 50Hz(Y) | 56     | 2,8             | 1x22        | 1x22 | —————● 23   |
| <b>TMCH1150HUUM</b> | 230V - 1ph - 50Hz    | 56     | 2,8             | 1x22        | 1x22 | —————● 29   |
| <b>TMCH1250HUUD</b> | 400V - 3ph - 50Hz(A) | 96     | 4,4             | 1x28        | 1x28 | —————● 58,8 |
| <b>TMCH1250HUUY</b> | 400V - 3ph - 50Hz(Y) | 96     | 4,4             | 1x28        | 1x28 | —————● 46,3 |
| <b>TMCH1250HUUM</b> | 230V - 1ph - 50Hz    | 96     | 4,4             | 1x28        | 1x28 | —————● 58,5 |
| <b>TMCH1163HUUD</b> | 400V - 3ph - 50Hz(A) | 63     | 2,8             | 1x28        | 1x28 | —————● 47,2 |
| <b>TMCH1163HUUY</b> | 400V - 3ph - 50Hz(Y) | 63     | 2,8             | 1x28        | 1x28 | —————● 38,5 |
| <b>TMCH1263HUUD</b> | 400V - 3ph - 50Hz(A) | 110    | 4,4             | 1x28        | 1x28 | —————● 97,8 |
| <b>TMCH1263HUUY</b> | 400V - 3ph - 50Hz(Y) | 110    | 4,4             | 1x28        | 1x28 | —————● 79,6 |

## AVAILABLE MODELS

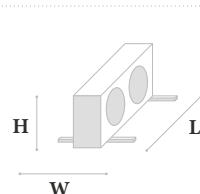
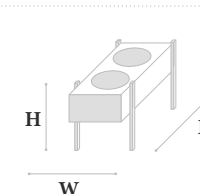
### Modularity

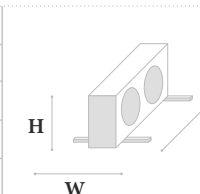
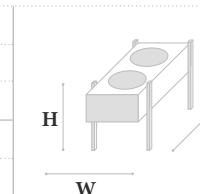
Three fans diameter available ( Ø 400, Ø 500, Ø 630), single-phase and three-phase fans, installed on horizontal and vertical modules 600 and 900 mm high.

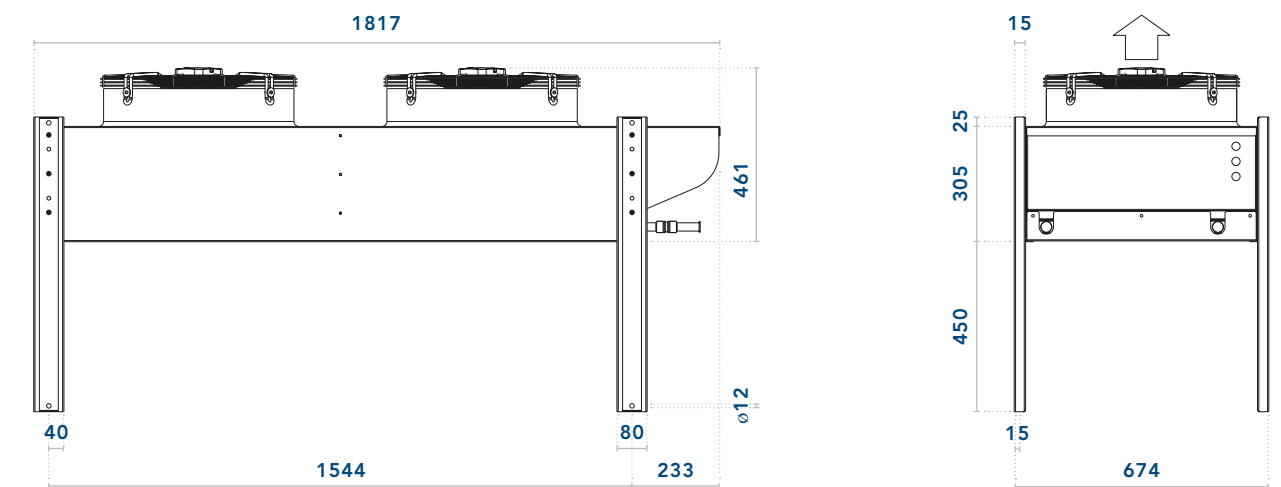
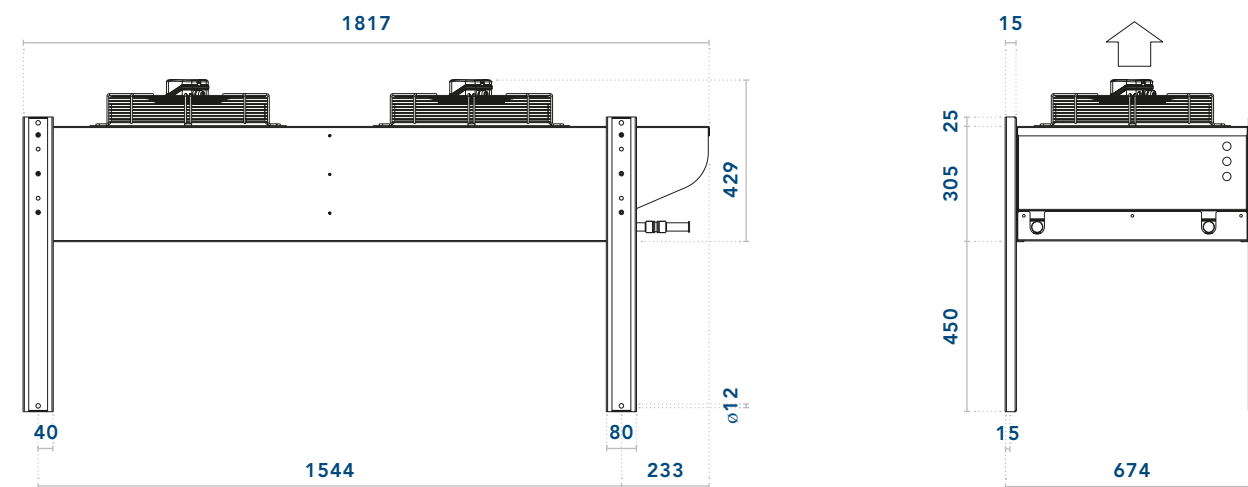
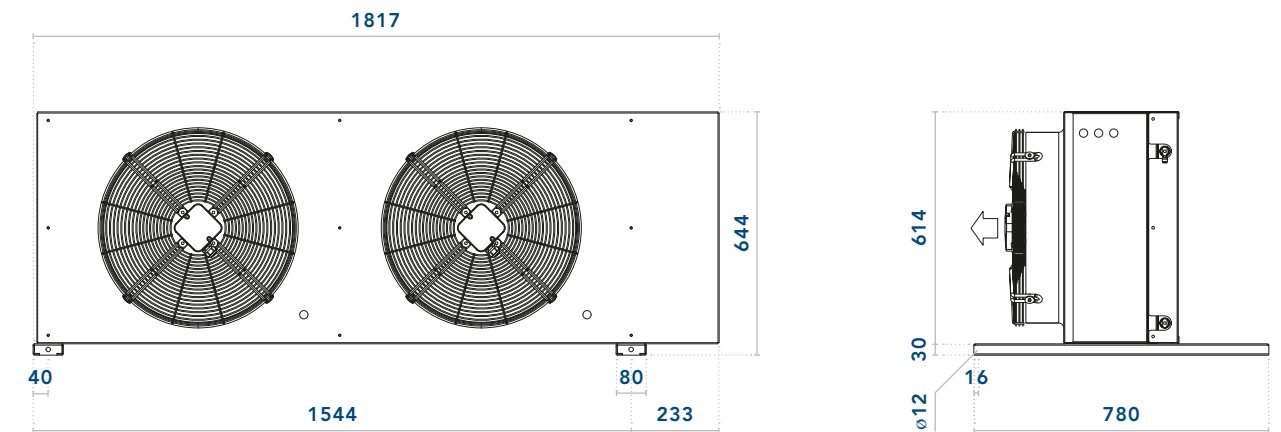
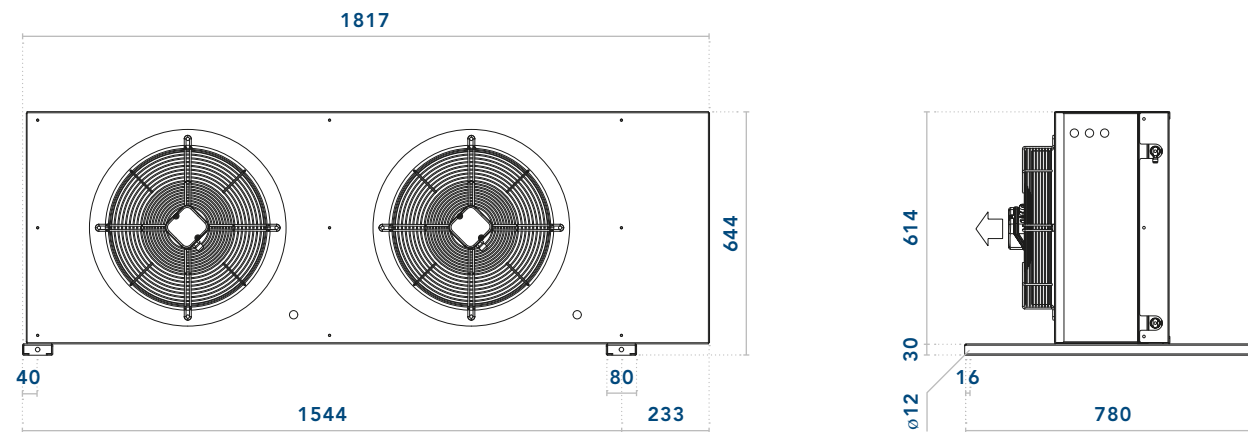
|   |   |
|---|---|
| <b>Model</b><br><b>TMCH1140HLLM</b>    | <b>Model</b><br><b>TMCH1150HLLD</b><br><b>TMCH1150HLLY</b><br><b>TMCH1150HLLM</b>    |
| <b>Model</b><br><b>TMCH1240HLLM</b>   | <b>Model</b><br><b>TMCH1250HLLD</b><br><b>TMCH1250HLLY</b><br><b>TMCH1250HLLM</b>   |
| <b>Model</b><br><b>TMCH1340HLLM</b>    | <b>Model</b><br><b>TMCH1350HLLD</b><br><b>TMCH1350HLLY</b><br><b>TMCH1350HLLM</b>  |
| <b>Model</b><br><b>TMCH1150HUUD</b><br><b>TMCH1150HUUY</b><br><b>TMCH1150HUUM</b>  | <b>Model</b><br><b>TMCH1163HUUD</b><br><b>TMCH1163HUUY</b>                         |
| <b>Model</b><br><b>TMCH1250HUUD</b><br><b>TMCH1250HUUY</b><br><b>TMCH1250HUUM</b>  | <b>Model</b><br><b>TMCH1263HUUD</b><br><b>TMCH1263HUUY</b>                         |





AVAILABLE MODELS



| Model               | Weight | Volume              | Connection    | Size horizontal air flow |  |           | Size vertical air flow  |            |  |
|---------------------|--------|---------------------|---------------|--------------------------|--|-----------|---|------------|--|
| <b>TMCH1140HLLM</b> | 35 kg  | 1,6 dm <sup>3</sup> | IN 1 x 22 mm  | W 780 mm                 |  | W 674 mm  |  | Scale 1:20 |  |
|                     |        |                     | OUT 1 x 22 mm | H 644 mm                 |  | H 879 mm  |   |            |  |
|                     |        |                     |               | L 1067 mm                |  | L 1067 mm |   |            |  |
| <b>TMCH1240HLLM</b> | 65 kg  | 2,4 dm <sup>3</sup> | IN 1 x 22 mm  | W 780 mm                 | W 674 mm   | H 644 mm  | H 879 mm  | Scale 1:20 |  |
|                     |        |                     | OUT 1 x 22 mm | H 644 mm                 | L 1817 mm  | L 1817 mm |   |            |  |
|                     |        |                     |               | L 1817 mm                | L 1817 mm  |           |   |            |  |
| <b>TMCH1340HLLM</b> | 95 kg  | 3,2 dm <sup>3</sup> | IN 1 x 28 mm  | W 780 mm                 | W 674 mm   | H 644 mm  | H 911 mm  | Scale 1:20 |  |
|                     |        |                     | OUT 1 x 28 mm | H 644 mm                 | L 2567 mm  | L 2567 mm |   |            |  |
|                     |        |                     |               | L 2567 mm                | L 2567 mm  |           |   |            |  |

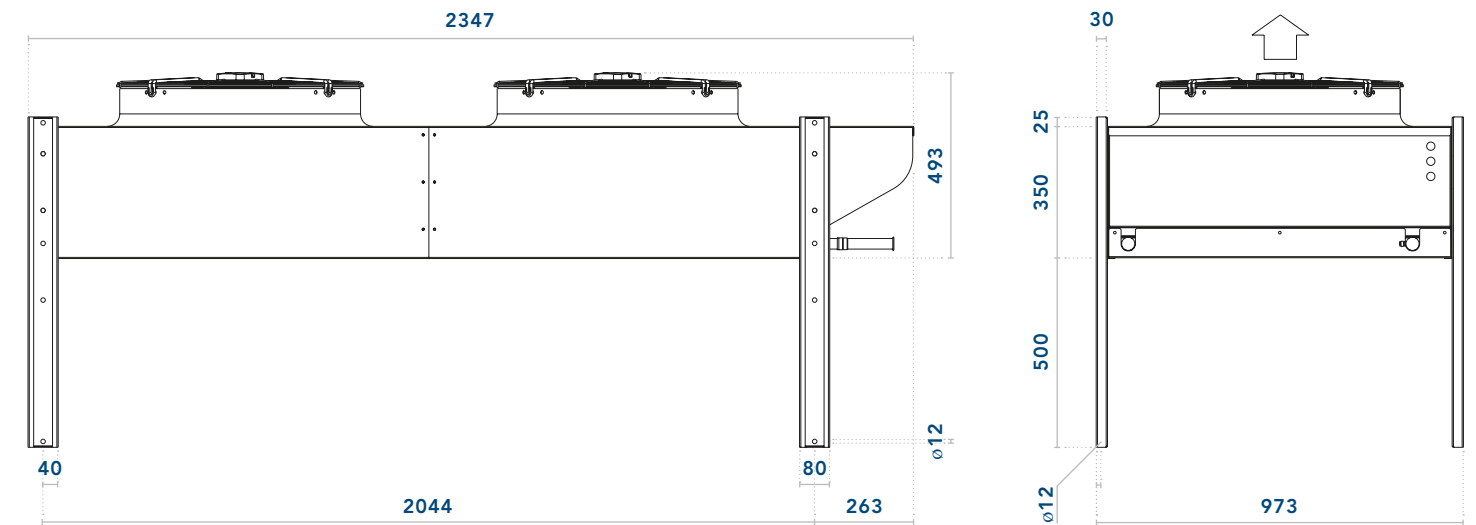
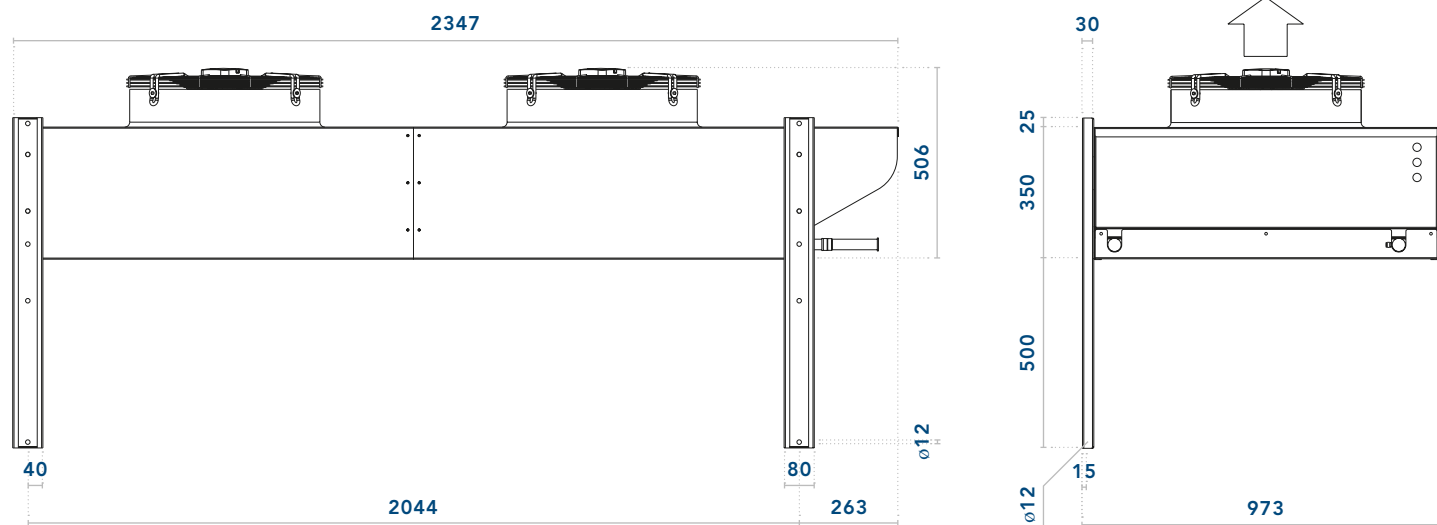
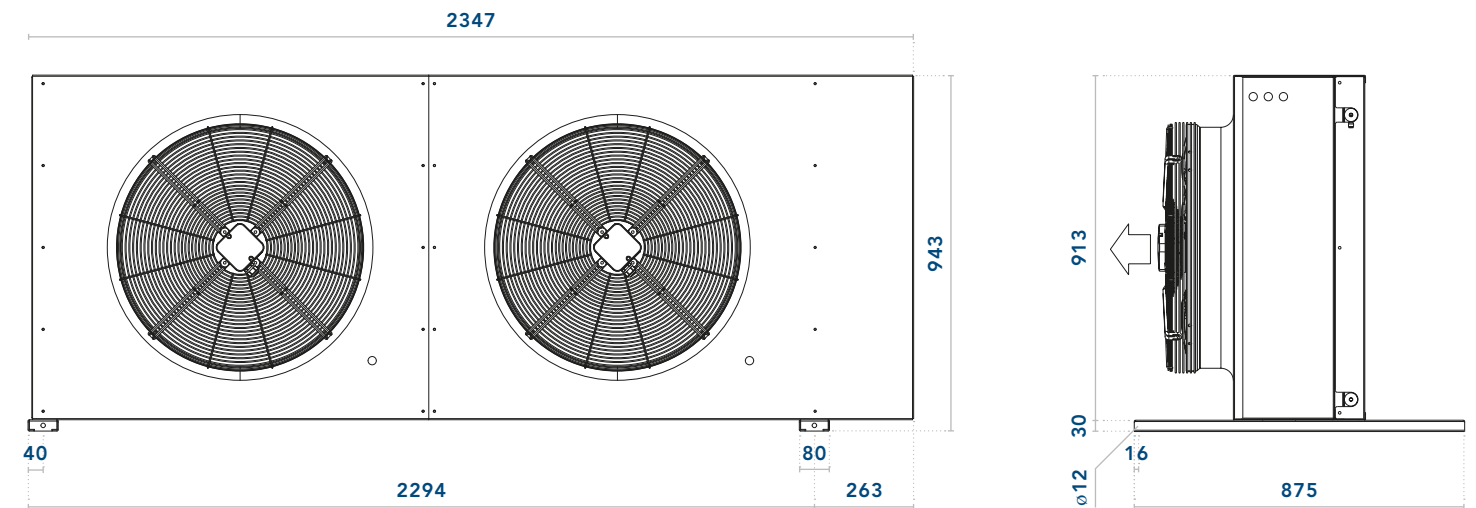
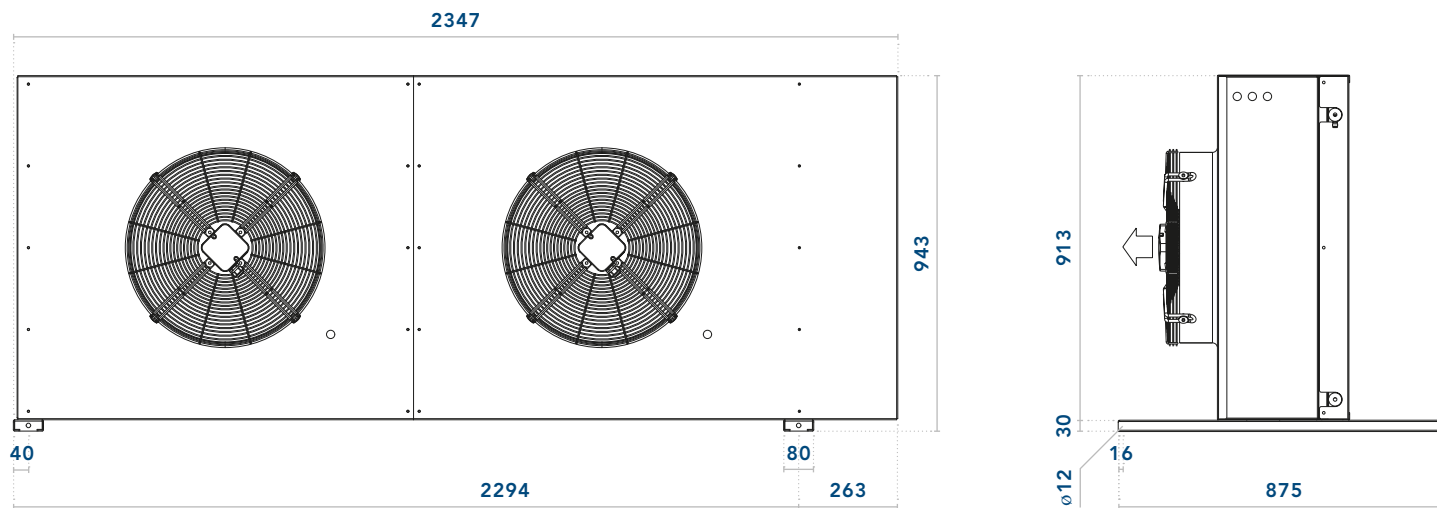
| Model   | Weight   | Volume              | Connection    | Size horizontal air flow |   |           | Size vertical air flow  |            |  |
|---|----------|---------------------|---------------|--------------------------|---|-----------|---|------------|--|
| <b>TMCH1150HLLD</b><br><b>TMCH1150HLLY</b><br><b>TMCH1150HLLM</b> | 38,5 kg  | 1,6 dm <sup>3</sup> | IN 1 x 22 mm  | W 780 mm                 |  | W 674 mm  |  | Scale 1:20 |  |
|   |          |                     | OUT 1 x 22 mm | H 644 mm                 |   | H 911 mm  |   |            |  |
|   |          |                     |               | L 1067 mm                |   | L 1067 mm |   |            |  |
| <b>TMCH1250HLLD</b><br><b>TMCH1250HLLY</b><br><b>TMCH1250HLLM</b> | 72 kg    | 2,4 dm <sup>3</sup> | IN 1 x 22 mm  | W 780 mm                 | W 674 mm  | H 644 mm  | H 911 mm  | Scale 1:20 |  |
|   |          |                     | OUT 1 x 22 mm | H 644 mm                 | L 1817 mm   | L 1817 mm |   |            |  |
|   |          |                     |               | L 1817 mm                | L 1817 mm   |           |   |            |  |
| <b>TMCH1350HLLD</b><br><b>TMCH1350HLLY</b><br><b>TMCH1350HLLM</b> | 105,5 kg | 3,2 dm <sup>3</sup> | IN 1 x 28 mm  | W 780 mm                 | W 674 mm  | H 644 mm  | H 911 mm  | Scale 1:20 |  |
|   |          |                     | OUT 1 x 28 mm | H 644 mm                 | L 2567 mm   | L 2567 mm |   |            |  |
|   |          |                     |               | L 2567 mm                | L 2567 mm   |           |   |            |  |

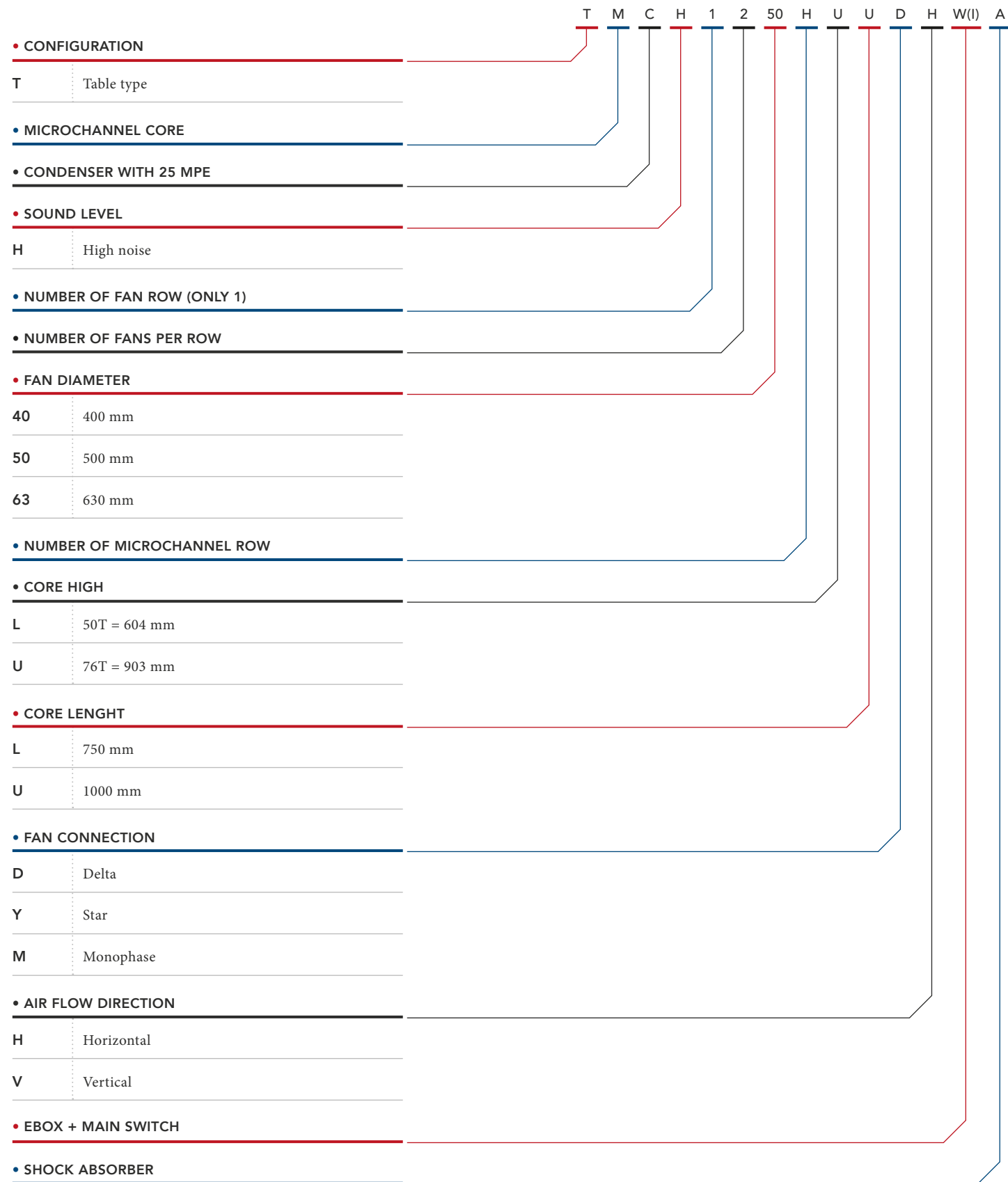


AVAILABLE MODELS

| Model  | Weight | Volume              | Connection    | Size horizontal air flow |  |           | Size vertical air flow  |            |  |
|--|--------|---------------------|---------------|--------------------------|--|-----------|---|------------|--|
| TMCH1150HUUD<br>TMCH1150HUUY<br>TMCH1150HUUM | 56 kg  | 2,8 dm <sup>3</sup> | IN 1 x 22 mm  | W 875 mm                 |  | W 973 mm  |  | Scale 1:20 |  |
|  |        |                     | OUT 1 x 22 mm | H 943 mm                 |  | H 1006 mm |   |            |  |
|  |        |                     |               | L 1347 mm                |  | L 1347 mm |   |            |  |
| TMCH1250HUUD<br>TMCH1250HUUY<br>TMCH1250HUUM | 96 kg  | 4,4 dm <sup>3</sup> | IN 1 x 28 mm  | W 875 mm                 |  | W 973 mm  |   |            |  |
|  |        |                     | OUT 1 x 28 mm | H 943 mm                 | H 1006 mm  | H 943 mm  | H 993 mm  |            |  |
|  |        |                     |               | L 2347 mm                | L 2347 mm  | L 2347 mm | L 2347 mm   |            |  |

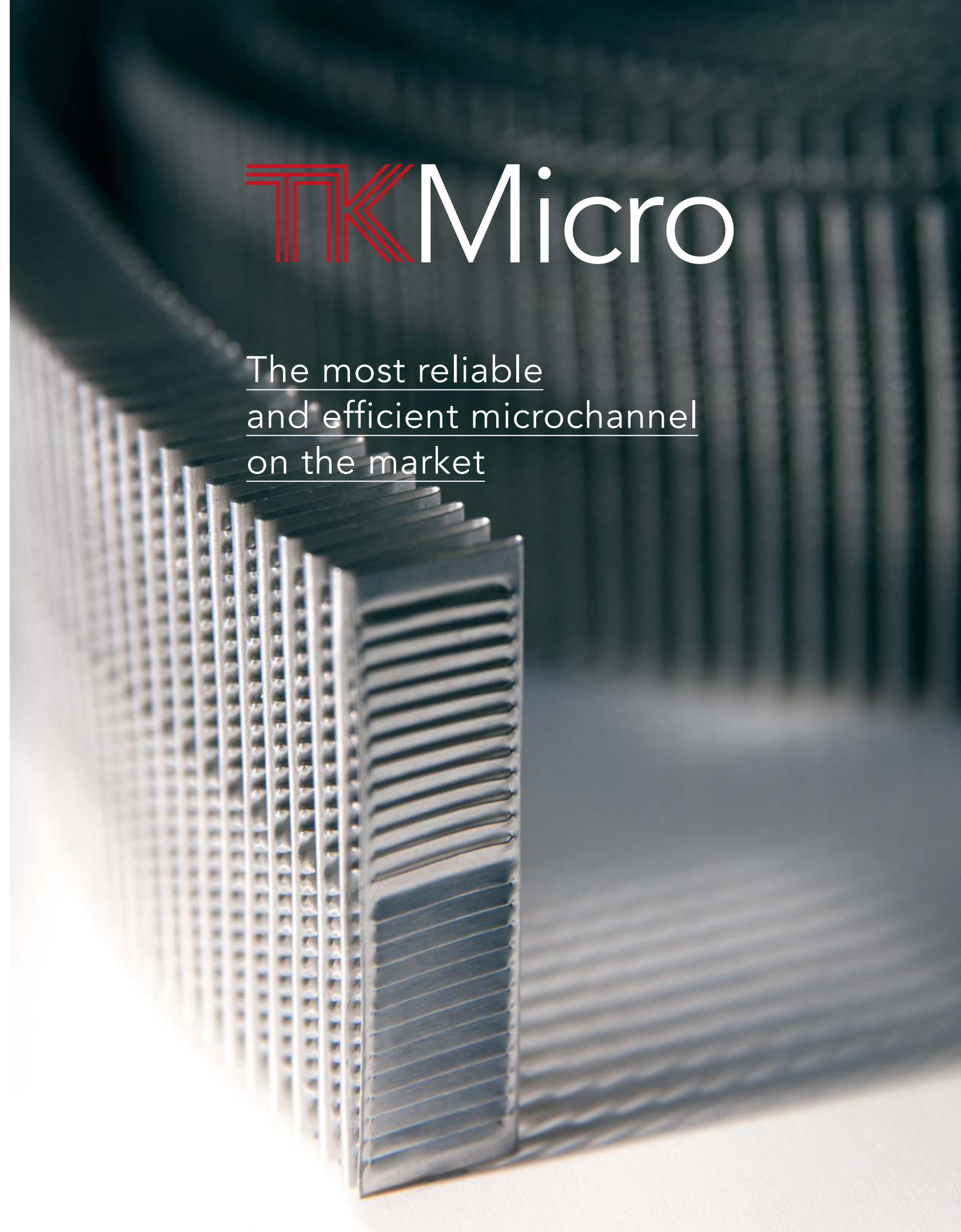
| Model                        | Weight | Volume              | Connection    | Size horizontal air flow |   |           | Size vertical air flow  |            |  |
|------------------------------|--------|---------------------|---------------|--------------------------|---|-----------|---|------------|--|
| TMCH1163HUUD<br>TMCH1163HUUY | 63 kg  | 2,8 dm <sup>3</sup> | IN 1 x 28 mm  | W 875 mm                 |  | W 973 mm  |  | Scale 1:20 |  |
|                              |        |                     | OUT 1 x 28 mm | H 943 mm                 |   | H 993 mm  |   |            |  |
|                              |        |                     |               | L 1347 mm                |   | L 1347 mm |   |            |  |
| TMCH1263HUUD<br>TMCH1263HUUY | 110 kg | 4,4 dm <sup>3</sup> | IN 1 x 28 mm  | W 875 mm                 |   | W 973 mm  |   |            |  |
|                              |        |                     | OUT 1 x 28 mm | H 943 mm                 | H 1006 mm   | H 943 mm  | H 993 mm  |            |  |
|                              |        |                     |               | L 2347 mm                | L 2347 mm   | L 2347 mm | L 2347 mm   |            |  |





# TKMicro

The most reliable and efficient microchannel on the market







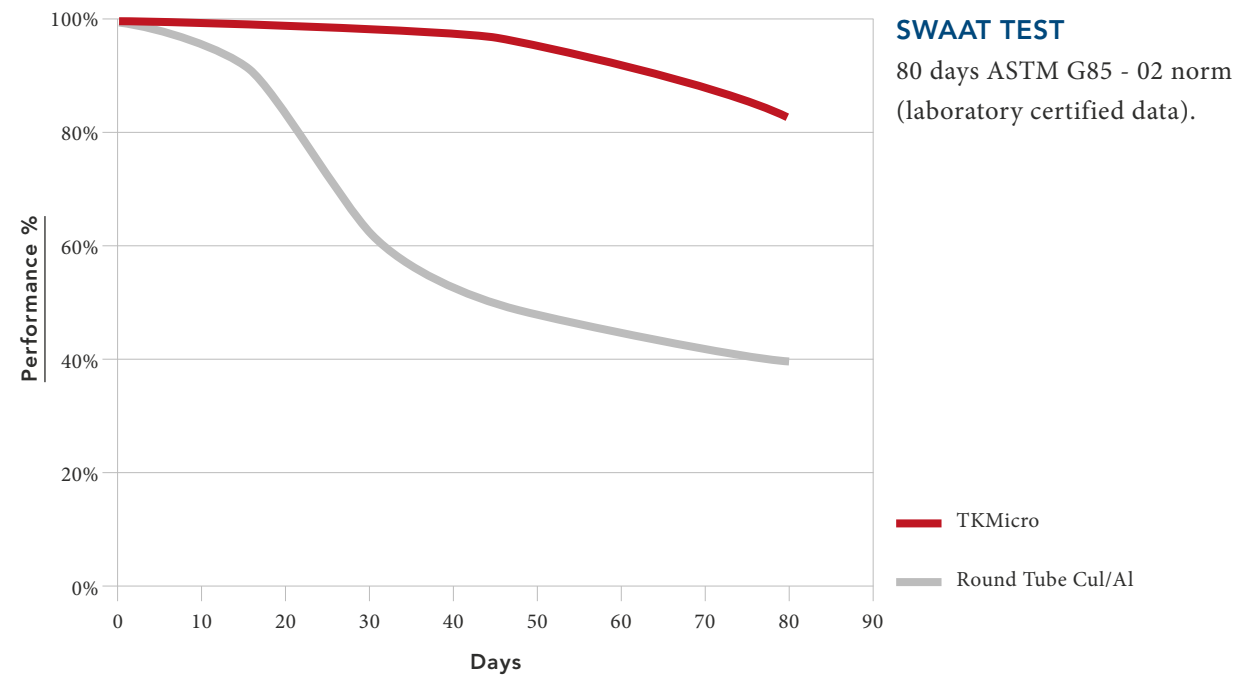
# the best solution for HVAC/R

## THE THERMOKEY MICROCHANNEL TECHNOLOGY

- The highest resistance of aluminium LLA (Long Life Alloy) to corrosion (Swaat Test over 80 days in accordance with the ASTM G85-02 norm) ensures reliability and performance.
- Thickness and configuration, unique on the market, make it more resistant to vibrations, water hammer and corrosive environments.
- The peculiar header shape reduces the pressure drops on the refrigerant side and allows the use of a single circuit.
- Suitable for all standard refrigerants (R410A, R134a, R22, R407C, R404A, R290, R507A, R245fa ect).
- The low pressure drops of TKMicro cores available in every size (up to 6 meter) allow to satisfy the needs of high-performance chiller manufacturers.
- Easy cleaning and maintenance.
- In case of need ThermoKey can provide a kit for a quick and easy repair to be used directly on site.

## More reliability

Constant performance over time even in the most aggressive environments. Comparison between round tube technology and TKMicro.



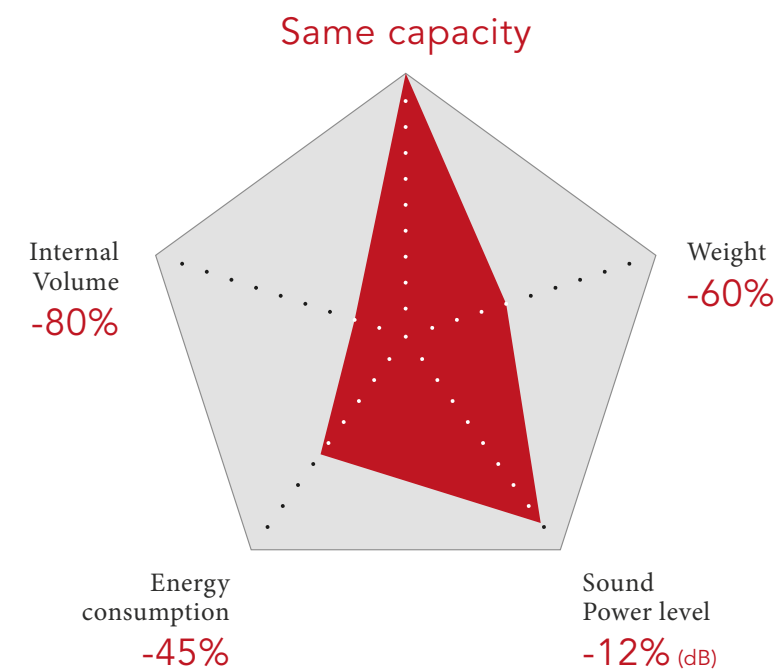
## 100% ALLOY DETAILS DESIGNED FOR MAXIMUM PERFORMANCE

ThermoKey engineers have optimized the design of all the geometrical details of the 100% alloy cores in order to ensure the best compromise between thermodynamics performance, pressure drops and lightness. These features make ThermoKey cores the most efficient in the market.

Thermodynamics performance, pressure drops and lightness.

## More efficiency

In comparison to the top quality 4 rows round tube coil, TKMicro offers great advantages in terms of performance.



### PRECONDITIONS

|                   |                          |
|-------------------|--------------------------|
| Face Area (H x L) | 1.200mm x 2.000mm        |
| Air Flow          | 25.000 m <sup>3</sup> /h |
| Delta Temperature | 15°C                     |

Direction

**Acrobatik**

—

Photography

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—

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—

TKS0116EN

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