

BPHE

BRAZED PLATE
HEAT EXCHANGERS



BRAZED PLATE HEAT EXCHANGERS

Brazed plate heat exchangers are the perfect solution that allows to maintain high thermal performance at low operating costs.

Wide range of types, sizes, and numbers of plates and connections allows for optimizing the selection to particular application.

Copper or stainless brazing option offer additional application possibilities. Brazed plate heat exchangers guarantee reliable, long-term operation.



WHY CHOOSE **HEXONIC** BRAZED PLATE HEAT EXCHANGERS?



HIGH PERFORMANCE

Heat exchangers are designed for very efficient operations within a wide range of applications. They guarantee compact and flexible solutions.



WIDE RANGE OF APPLICATIONS

Heat exchangers are used in central heating and domestic hot water systems, ventilation, technological and air-conditioning installations, as well as in heat pumps and ice water generators.



CERTIFICATES AND STANDARDS

Manufactured in accordance with ASME, UL, PED, EAC.



RELIABILITY

Advanced technology and high quality materials offer durability and reliability.



FLEXIBLE DESIGN

We offer 1- or 2-pass versions with a choice of different types of connections such as: dual (external thread / soldering), internal thread, Victaulic, stainless steel flange, carbon steel flange.



CAIRO EASY SELECTION

User-friendly CAIRO Selection Software makes the selection process easy.

L

BRAZED PLATE HEAT EXCHANGERS

DEDICATED TO HEATING OR COOLING SYSTEMS.

APPLICATION



DOMESTIC HOT WATER SYSTEMS



CENTRAL HEATING SYSTEMS



SOLAR AND GEOTHERMIC HEATING SYSTEMS



INSTALLATIONS WITH HEAT PUMP



INSTALLATIONS WITH FIREPLACE WITH WATER JACKET

ADVANTAGES



HIGH HEAT TRANSFER COEFFICIENT



EASY ASSEMBLY AND DISMANTLE



COMPACT SIZE



RESISTANCE TO HIGH TEMPERATURE AND PRESSURE



ASYMMETRIC OPTION AVAILABLE





MICROCHANNEL BRAZED
PLATE HEAT EXCHANGER

8%
↑

**INCREASE OF HEAT EXCHANGE
EFFICIENCY BY UP TO 8%**
COMPARING TO OTHER COMPETITIVE
MICROCHANNEL HEAT EXCHANGERS

9%
↓

**REDUCTION OF FLOW
RESISTANCE BY UP TO 9%**
COMPARING TO THE MOST
EFFICIENT MICROCHANNEL HEAT
EXCHANGER ON THE MARKET

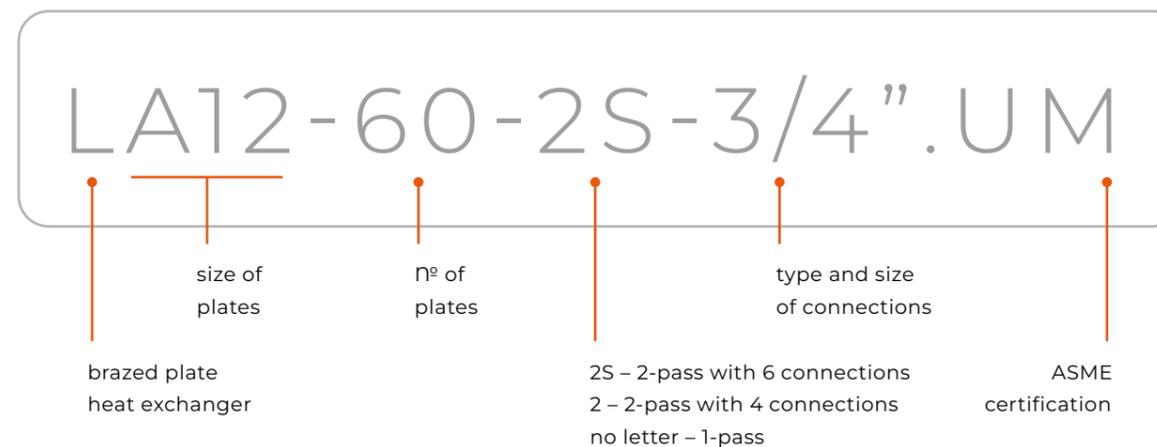
35%
↑

**INCREASE OF HEAT EXCHANGE
EFFICIENCY BY 35%**
COMPARING TO EXCHANGERS
WITH STANDARD HEAT PLATES

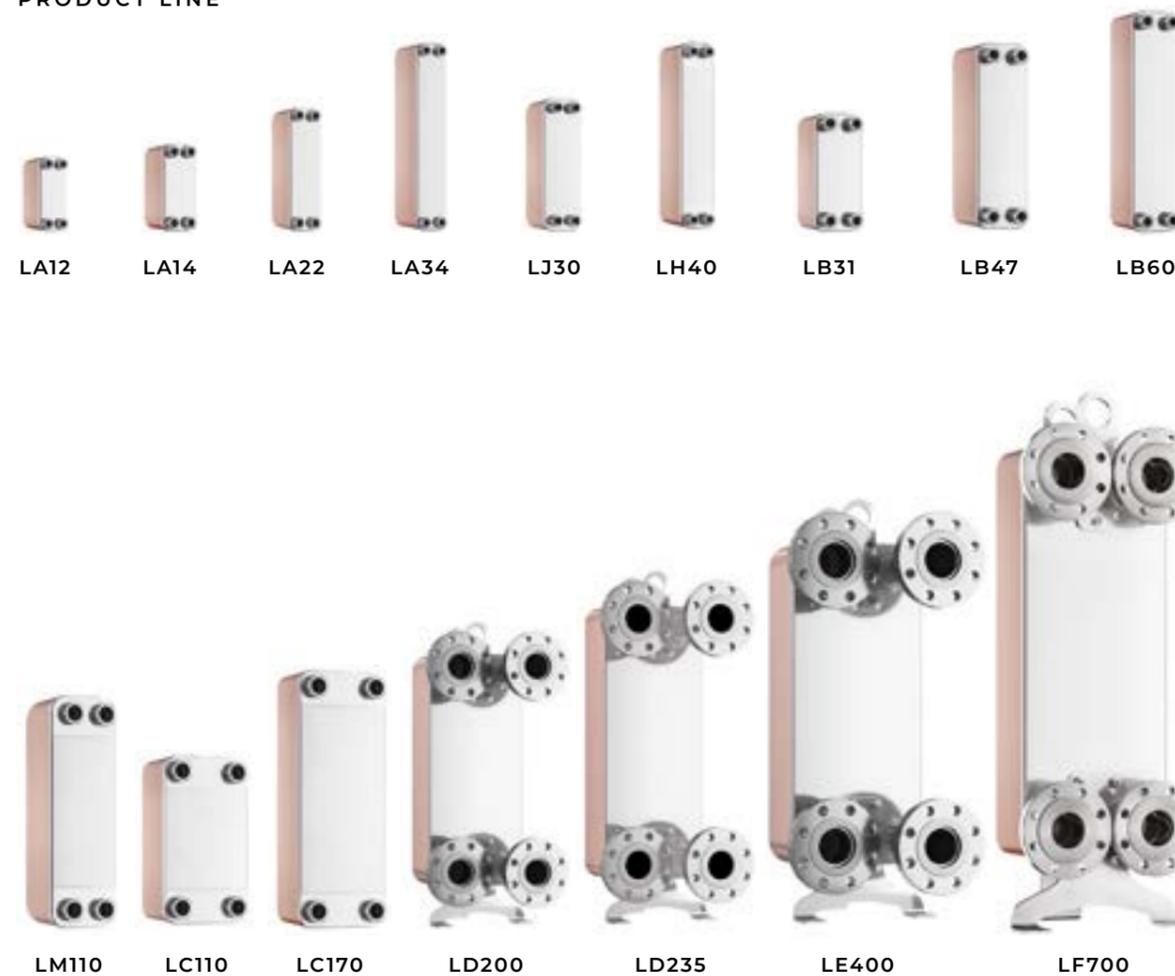


**HIGHER FLOW TURBULENCE
ENHANCES HEAT EXCHANGE**
THANKS TO OPTIMIZATION
OF FLOW VELOCITY

EXEMPLAR DESIGNATION



PRODUCT LINE



TECHNICAL DATA

STANDARD LOCATION OF CONNECTIONS

1-PASS HEAT EXCHANGER

- K1 / K4** — inlet/outlet side 1
- K3 / K2** — inlet/outlet side 2

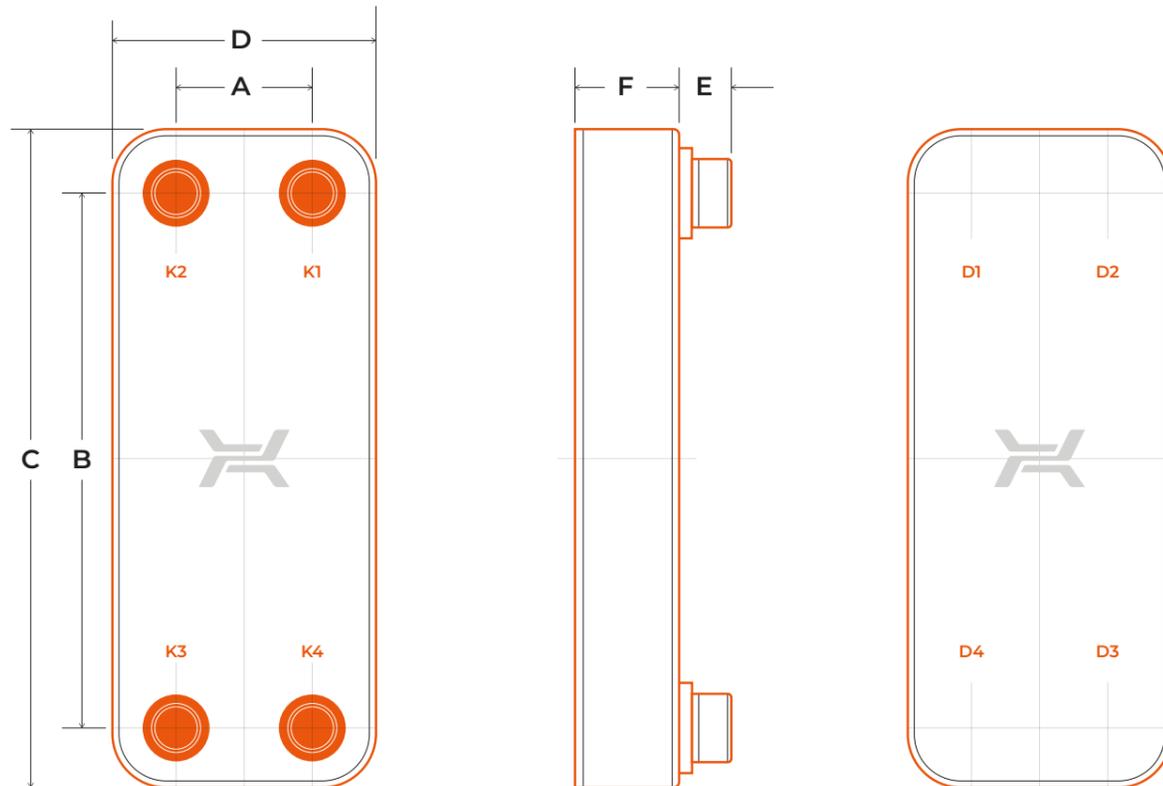
2-PASS HEAT EXCHANGER

- D4 / K4** — inlet/outlet side 1
- K3 / D3** — inlet/outlet side 2

2-PASS WITH 6 CONNECTIONS

ADDITIONALLY:

- K1** — vent connection / inlet of central heating return
- K2** — vent connection / inlet of domestic hot water circulation return



MATERIALS

- STAINLESS STEEL
- COPPER BRAZING

EXEMPLARY MEDIA

- WATER
- PROPYLENE GLYCOL SOLUTIONS
- OTHER (CONSULT THE MANUFACTURER)

WORKING PARAMETERS

MAX. TEMPERATURE — 446°F

MIN. TEMPERATURE — -320°F

MAX. PRESSURE

- LA, LB, LH, LM — 435 PSI
- LC, LD, LE — 362 PSI
- LJ, LF — 232 PSI

TECHNICAL PARAMETERS

| Type | Dimensions | | | | | | max Π° | Mass |
|----------|------------|-------|-------|-------|--------------|-------------------|--------|--------------------|
| | A | B | C | D | E | F | | |
| | in | in | in | in | in | in | lb | |
| LA12 | 1.6 | 6.1 | 7.5 | 2.8 | 0.6/0.8 | 0.35 + 0.10 × NP | 60 | 0.88 + 0.11 × NP |
| LA14 | 1.7 | 6.5 | 8.0 | 3.2 | 0.6/0.8 | 0.35 + 0.09 × NP | 60 | 1.32 + 0.11 × NP |
| LA21AS | 1.6 | 10.9 | 13.4 | 2.9 | 0.6 | 0.39 + 0.09 × NP | 60 | 1.28 + 0.13 × NP |
| LA22 | 1.7 | 10.2 | 11.8 | 3.2 | 0.6/0.8 | 0.35 + 0.09 × NP | 60 | 1.76 + 0.16 × NP |
| LA22(X) | 1.7 | 10.2 | 11.8 | 3.2 | 0.6/0.8 | 0.35 + 0.07 × NP | 60 | 1.76 + 0.16 × NP |
| LA34 | 1.7 | 17.0 | 18.5 | 3.2 | 0.6/0.8 | 0.35 + 0.09 × NP | 60 | 2.65 + 0.26 × NP |
| LJ30 | 1.8 | 10.6 | 12.5 | 3.9 | 0.8 | 0.35 + 0.07 × NP | 60 | 2.43 + 0.14 × NP |
| LH40 | 1.7 | 16.3 | 18.1 | 3.5 | 1.1 | 0.39 + 0.09 × NP. | 60 | 3.75 + 0.30 × NP |
| LB31 | 2.7 | 9.1 | 11.3 | 4.8 | 1.1 | 0.39 + 0.09 × NP | 150 | 3.53 + 0.25 × NP |
| LB47 | 2.7 | 14.2 | 16.4 | 4.8 | 1.1 | 0.39 + 0.09 × NP | 150 | 4.63 + 0.37 × NP |
| LB60 | 2.7 | 18.9 | 21.2 | 4.8 | 1.1 | 0.43 + 0.09 × NP | 150 | 5.73 + 0.48 × NP |
| LB60(X) | 2.7 | 18.9 | 21.2 | 4.8 | 1.1 | 0.43 + 0.08 × NP | 150 | 5.73 + 0.48 × NP |
| LM110 | 3.6 | 20.5 | 24.4 | 7.5 | 1.9 | 0.39 + 0.10 × NP | 200 | 22.13 + 0.90 × NP |
| LM110(X) | 3.6 | 20.5 | 24.4 | 7.5 | 1.9 | 0.39 + 0.08 × NP | 200 | 22.13 + 0.90 × NP |
| LC110 | 6.7 | 14.9 | 18.4 | 10.2 | 1.1/1.5; 3.9 | 0.43 + 0.09 × NP | 200 | 23.46 + 0.90 × NP |
| LC110AS | 6.7 | 14.9 | 18.4 | 10.2 | 1.9 | 0.39 + 0.09 × NP | 200 | 19.18 + 0.90 × NP |
| LC170 | 6.7 | 23.6 | 27.1 | 10.2 | 1.1/1.5; 3.9 | 0.43 + 0.09 × NP | 200 | 29.63 + 1.36 × NP |
| LD200 | 8.2 | 24.6 | 28.9 | 12.5 | 4.49/8.43 | 0.63 + 0.11 × NP | 280 | 112.44 + 1.83 × NP |
| LD235 | 8.0 | 26.9 | 31.0 | 12.2 | 3.9 | 0.51 + 0.10 × NP | 280 | 88.18 + 1.83 × NP |
| LE400 | 9.5 | 33.9 | 39.7 | 15.2 | 3.7 | 0.67 + 0.11 × NP | 400 | 163.80 + 3.58 × NP |
| LF700 | 12.8 | 43.31 | 52.24 | 21.72 | 5.51 | 0.75 + 0.09 × NP | 400 | 406.97 + 7.39 × NP |

NP – number of plates | dim. F+/-3%.

All dimensions and technical data are approximate only and may be changed without further notice.

Mass is given for 1-pass heat exchangers.

LUNA

BRAZED PLATE HEAT EXCHANGERS
 ENTIRELY MADE OF STAINLESS
 MATERIALS DESIGNED TO MAINTAIN
 HIGH SANITARY STANDARDS.

APPLICATION

WHEN HIGH LEVEL
 OF HYGIENE IS CRUCIAL



SYSTEMS WITH
 DEMINERALIZED WATER



DOMESTIC HOT
 WATER SYSTEMS



COOLING SYSTEMS
 WITH HIGH HYGIENIC
 STANDARDS

WHEN RELIABILITY
 IS ESSENTIAL



CENTRAL HEATING
 SYSTEMS



SYSTEMS WITH
 AGGRESSIVE MEDIA



SYSTEMS WITH
 GALVANIZED PIPES



INDUSTRIAL
 COOLING SYSTEMS



HYDRAULIC
 OIL COOLING

ADVANTAGES



STAINLESS BRAZING
 ALLOWS HOMOGENEOUS
 CONSTRUCTION



HIGH SANITARY
 STANDARDS



RESISTANCE
 TO HIGH TEMPERATURE
 AND PRESSURE



RESISTANCE
 TO CORROSION



HIGH
 DURABILITY



WIDE RANGE
 OF APPLICATIONS

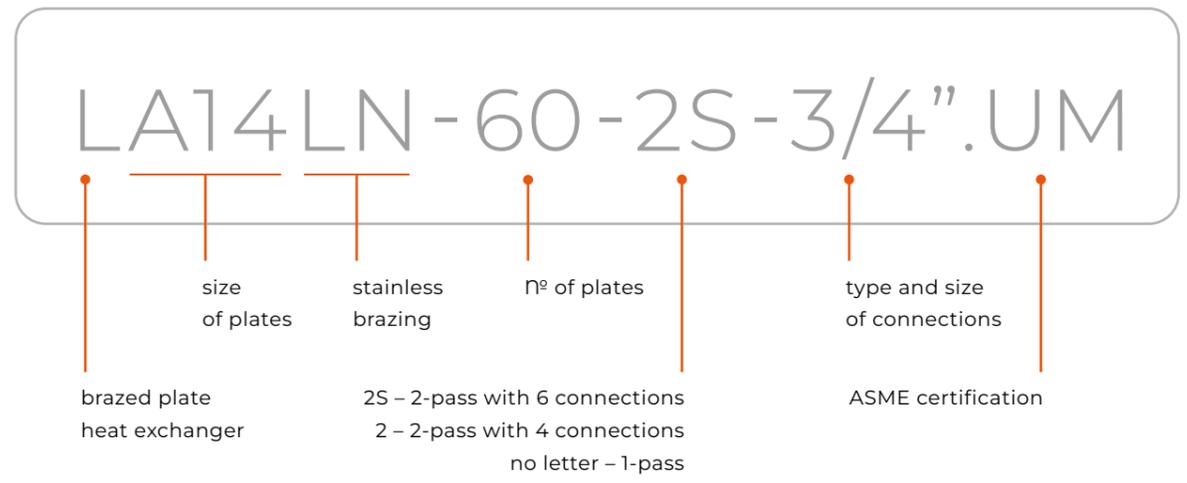


NO COPPER IONS
 IN THE WATER

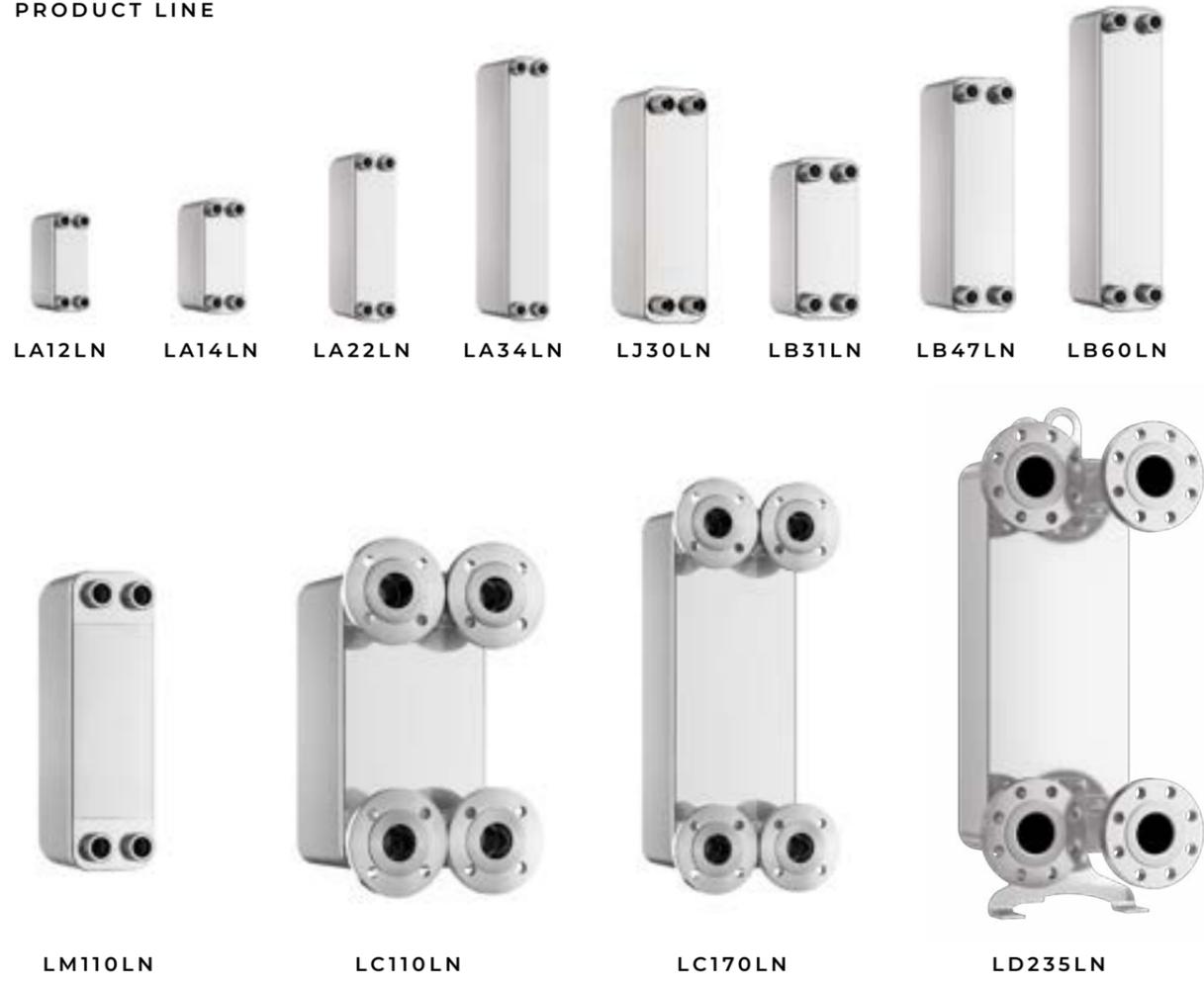




EXEMPLAR DESIGNATION



PRODUCT LINE



TECHNICAL DATA

STANDARD LOCATION OF CONNECTIONS

1-PASS HEAT EXCHANGER

- K1 / K4** — inlet/outlet side 1
- K3 / K2** — inlet/outlet side 2

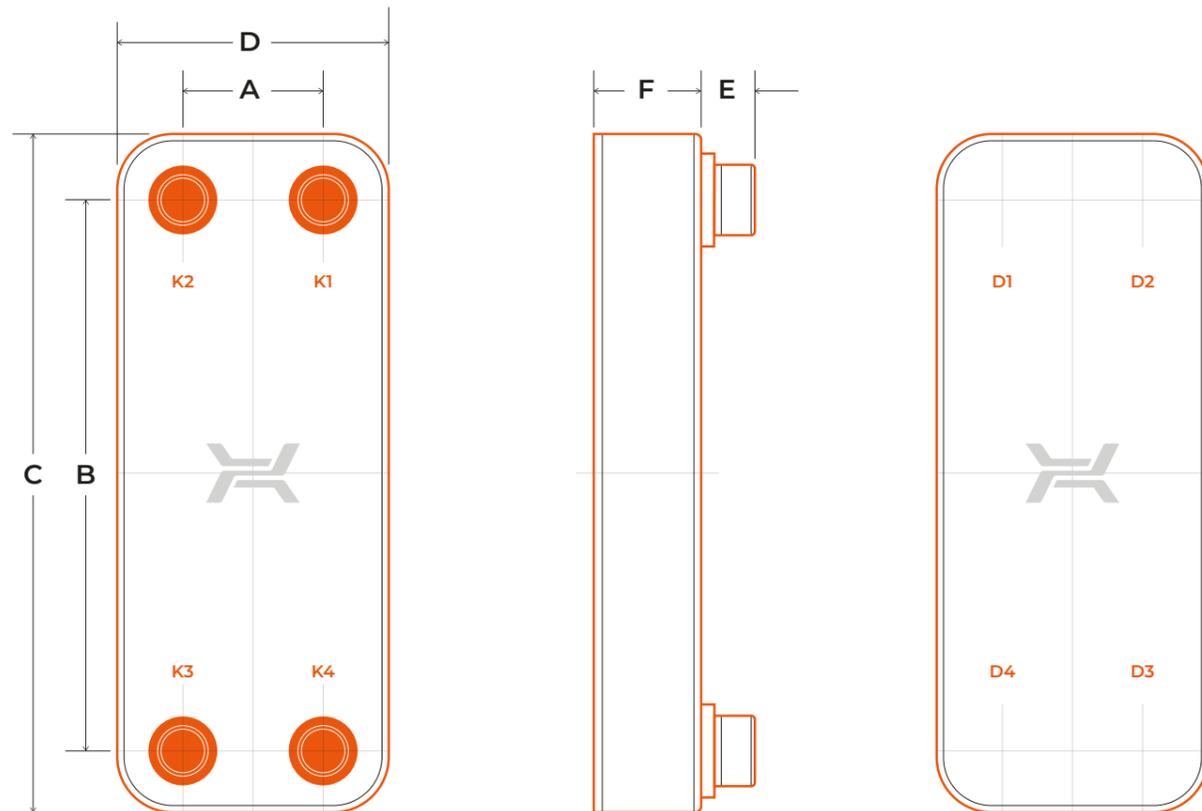
2-PASS HEAT EXCHANGER

- D4 / K4** — inlet/outlet side 1
- K3 / D3** — inlet/outlet side 2

2-PASS WITH 6 CONNECTIONS

ADDITIONALLY:

- K1** — vent connection / inlet of central heating return
- K2** — vent connection / inlet of domestic hot water circulation return



MATERIALS

- STAINLESS STEEL
- STAINLESS BRAZING

EXEMPLARY MEDIA

- WATER
- PROPYLENE GLYCOL SOLUTIONS
- OTHER (CONSULT THE MANUFACTURER)

WORKING PARAMETERS

- MAX. TEMPERATURE — 392°F
- MIN. TEMPERATURE — -320°F
- MAX. PRESSURE
- LA LN, LJ LN, LB LN, LC LN, LD LN — 362 PSI
- LM LN — 400 PSI

TECHNICAL PARAMETERS

| Type | Dimensions | | | | | | max № of plates | Mass |
|------------|------------|------|------|------|----------|------------------|-----------------|--------------------|
| | A | B | C | D | E | F | | |
| | in | in | in | in | in | in | lb | |
| LA12LN | 1.6 | 6.1 | 7.5 | 2.8 | 0.6 | 0.32 + 0.09 × NP | 60 | 1.26 + 0.09 × NP |
| LA14LN | 1.7 | 6.5 | 8.0 | 3.2 | 0.6 | 0.32 + 0.09 × NP | 60 | 1.32 + 0.10 × NP |
| LA22LN | 1.7 | 10.2 | 11.8 | 3.2 | 0.6 | 0.32 + 0.09 × NP | 60 | 1.76 + 0.16 × NP |
| LA22LN(X) | 1.7 | 10.2 | 11.8 | 3.2 | 0.6 | 0.32 + 0.08 × NP | 60 | 1.76 + 0.16 × NP |
| LA34LN | 1.7 | 17.0 | 18.5 | 3.2 | 0.6 | 0.32 + 0.09 × NP | 60 | 2.64 + 0.25 × NP |
| LJ30LN | 1.8 | 10.6 | 12.6 | 4.0 | 1.1 | 0.32 + 0.07 × NP | 60 | 2.43 + 0.14 × NP |
| LB31LN | 2.7 | 9.1 | 11.3 | 4.8 | 1.1 | 0.39 + 0.09 × NP | 150 | 3.51 + 0.25 × NP |
| LB47LN | 2.7 | 14.2 | 16.4 | 4.8 | 1.1 | 0.39 + 0.09 × NP | 150 | 4.69 + 0.37 × NP |
| LB60LN | 2.7 | 18.9 | 21.2 | 4.9 | 1.1 | 0.43 + 0.09 × NP | 150 | 5.79 + 0.48 × NP |
| LB60LN(X) | 2.7 | 18.9 | 21.2 | 4.9 | 1.1 | 0.43 + 0.08 × NP | 150 | 5.79 + 0.48 × NP |
| LM110LN | 3.6 | 20.5 | 24.4 | 7.5 | 1.9 | 0.39 + 0.10 × NP | 200 | 24.03 + 0.90 × NP |
| LM110LN(X) | 3.6 | 20.5 | 24.4 | 7.6 | 1.9 | 0.39 + 0.08 × NP | 200 | 24.03 + 0.90 × NP |
| LCT10LN | 6.7 | 14.9 | 18.4 | 10.2 | 1.5; 3.9 | 0.43 + 0.09 × NP | 200 | 23.46 + 0.90 × NP |
| LCT170LN | 6.7 | 23.6 | 27.1 | 10.2 | 1.5; 3.9 | 0.43 + 0.09 × NP | 200 | 32.54 + 1.36 × NP |
| LD235LN | 8.0 | 26.9 | 31.0 | 12.2 | 3.9 | 0.51 + 0.10 × NP | 250 | 113.12 + 1.99 × NP |

NP – number of plates | dim. F+/-3%

All dimensions and technical data are approximate only and may be changed without further notice.

R

BRAZED PLATE HEAT EXCHANGERS

DESIGNED FOR USE IN COOLING OR HEATING INSTALLATIONS. REFRIGERANT EVAPORATORS, CONDENSERS AND ECONOMIZERS.

APPLICATION



CHILLERS



REFRIGERATION UNITS



HEAT PUMPS



ICE WATER GENERATORS



COOLING SYSTEMS WITH SPECIAL CONSTRUCTION

ADVANTAGES



OUTSTANDING RELIABILITY



OPTIMIZED FOR MODERN REFRIGERANTS



RESISTANCE TO CYCLIC FATIGUE



SPECIAL CHANNEL PATTERN ENSURES EFFECTIVE EVAPORATION OR CONDENSATION



RESISTANCE TO FREEZING



DOUBLE WALL OPTION AVAILABLE



LUNA™ OPTION AVAILABLE



EVAPORATORS

A two-phase refrigerant is sent to the bottom welded connection of the exchanger. Flowing through the channels it evaporates completely while acquiring the required degree of overheating. Water or glycol flows in counter-current flow.

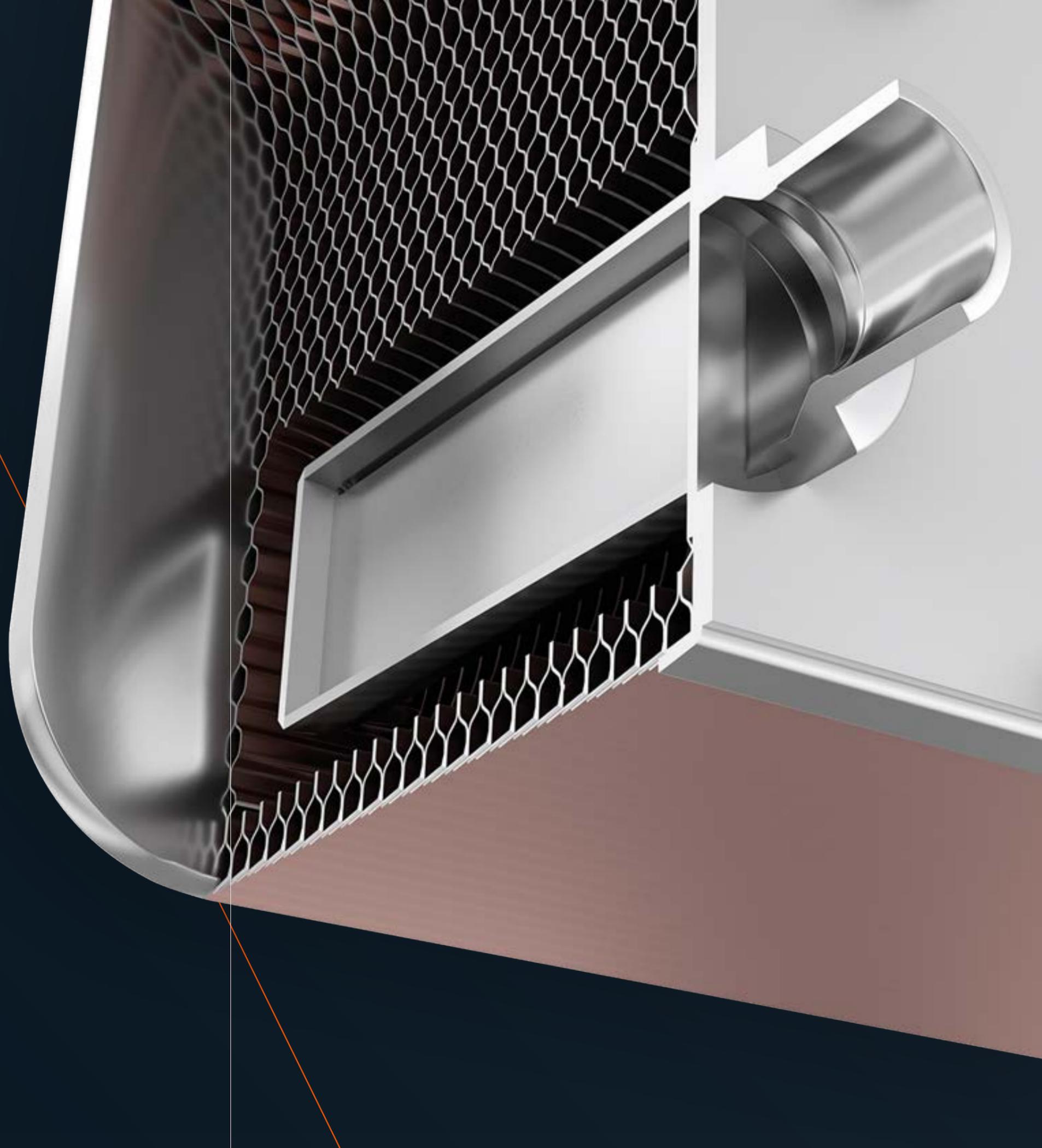
CONDENSERS

Hot refrigerant vapours are sent to the top welded connection of the exchanger. Flowing through the channels they condense while acquiring the required degree of subcooling. Water and glycol flows in counter-current flow.

RDS SYSTEM

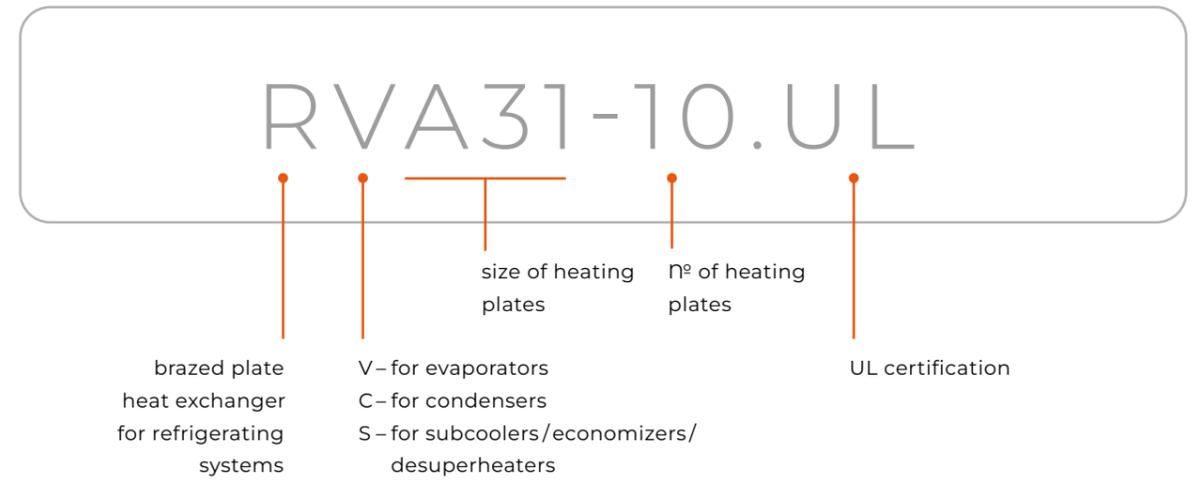
Hexonic developed the unique refrigerant distribution system RDS, for evaporators with potentially higher cooling performance.

The system ensures even medium distribution in evaporator channels, while at the same time reducing steam overheating fluctuations.





EXEMPLAR DESIGNATION



PRODUCT LINE

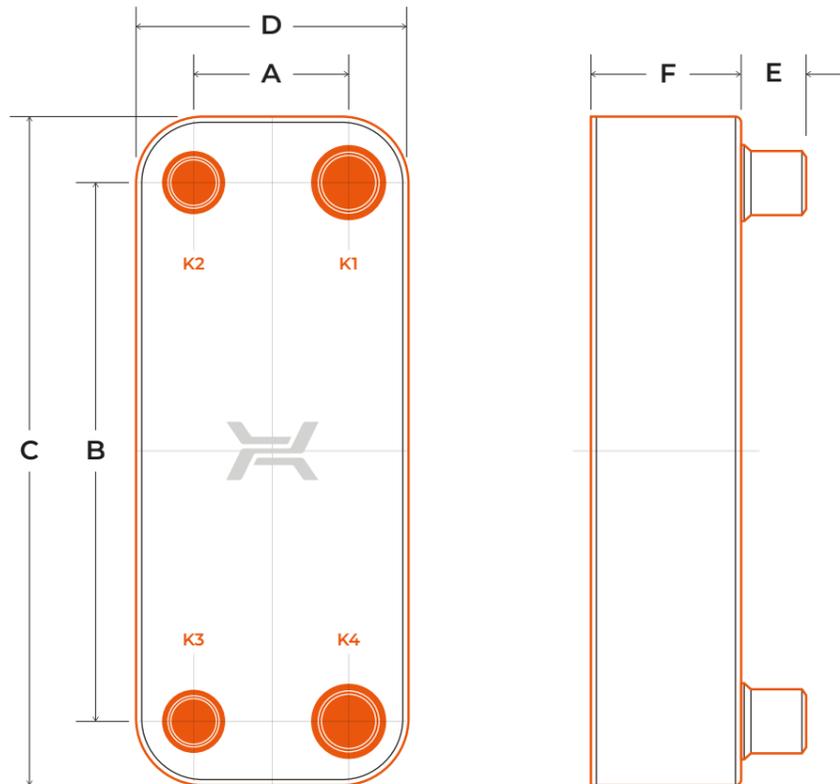


TECHNICAL DATA

STANDARD LOCATION OF CONNECTIONS

(DEPENDING ON WHETHER IT IS EVAPORATOR OR CONDENSER)

- K 4 / K 1** — inlet/outlet of water or glycol
- K 3 / K 2** — inlet/outlet of refrigerant



MATERIALS

- STAINLESS STEEL
- STAINLESS BRAZING
- COPPER BRAZING

EXEMPLARY MEDIA

REFRIGERANT SIDE

- R32, R452B, R454B, R1234ZE, R290, R410

OTHER SIDE

- WATER
- PROPYLENE GLYCOL SOLUTIONS
- GROUP II FLUIDS
- OTHER (CONSULT THE MANUFACTURER)

WORKING PARAMETERS

MAX. TEMPERATURE — 302°F

MIN. TEMPERATURE — -319°F

MAX. PRESSURE

- REFRIGERANT SIDE — 653 PSI
- WATER, GLYCOL SIDE — 363 PSI
- R LUNA — 363 PSI

TECHNICAL PARAMETERS

| Type | Dimensions | | | | | | Weight |
|------|------------|----|----|----|----|----|--------|
| | A | B | C | D | E | F | |
| | in | in | in | in | in | in | lb |

EVAPORATORS

| | | | | | | | |
|-----------|-----|------|------|------|------|-------------------|--------------------|
| RVA14 | 1.7 | 6.5 | 8.0 | 3.2 | 0.6 | 0.43 + 0.09 × NP | 1.54 + 0.11 × NP |
| RVA22 | 1.7 | 10.2 | 11.8 | 3.2 | 0.6 | 0.43 + 0.09 × NP | 1.98 + 0.16 × NP |
| RVA22(X) | 1.7 | 10.2 | 11.8 | 3.2 | 0.6 | 0.43 + 0.075 × NP | 1.98 + 0.16 × NP |
| RVA34 | 1.7 | 17.0 | 18.5 | 3.2 | 0.6 | 0.43 + 0.09 × NP | 2.87 + 0.26 × NP |
| RVB31 | 2.7 | 9.1 | 11.3 | 4.8 | 1.1 | 0.47 + 0.09 × NP | 3.75 + 0.25 × NP |
| RVB47 | 2.7 | 14.2 | 16.4 | 4.8 | 1.1 | 0.47 + 0.09 × NP | 5.07 + 0.37 × NP |
| RVB60 | 2.7 | 18.9 | 21.2 | 4.9 | 1.1 | 0.51 + 0.09 × NP | 6.17 + 0.48 × NP |
| RVB60(X) | 2.7 | 18.9 | 21.2 | 4.9 | 1.1 | 0.51 + 0.08 × NP | 6.17 + 0.48 × NP |
| RVC110 | 6.7 | 14.9 | 18.3 | 10.2 | 1.1 | 0.55 + 0.09 × NP | 27.6 + 0.9 × NP |
| RVC170 | 6.7 | 23.6 | 27.1 | 10.2 | 1.1 | 0.55 + 0.09 × NP | 39.57 + 1.36 × NP |
| RVM110 | 3.6 | 20.5 | 24.4 | 7.5 | 1.1 | 0.55 + 0.1 × NP | 30.64 + 0.9 × NP |
| RVM110(X) | 3.6 | 20.5 | 24.4 | 7.6 | 1.1 | 0.55 + 0.08 × NP | 30.64 + 0.9 × NP |
| RVD235 | 8.0 | 26.9 | 31.0 | 12.2 | 4.49 | 0.67 + 0.09 × NP | 99.34 + 1.99 × NP |
| RVE400 | 9.5 | 33.9 | 39.7 | 15.2 | 4.5 | 0.75 + 0.11 × NP | 179.9 + 13.59 × NP |

CONDENSERS

| | | | | | | | |
|-----------|-----|------|------|------|------|-------------------|-------------------|
| RCA14 | 1.7 | 6.5 | 8.0 | 3.2 | 0.6 | 0.43 + 0.09 × NP | 1.54 + 0.11 × NP |
| RCA22 | 1.7 | 10.2 | 11.8 | 3.2 | 0.6 | 0.43 + 0.09 × NP | 1.98 + 0.16 × NP |
| RCA22(X) | 1.7 | 10.2 | 11.8 | 3.2 | 0.6 | 0.43 + 0.075 × NP | 1.98 + 0.16 × NP |
| RCA34 | 1.7 | 17.0 | 18.5 | 3.2 | 0.6 | 0.43 + 0.09 × NP | 2.87 + 0.26 × NP |
| RCB31 | 2.7 | 9.1 | 11.3 | 4.8 | 1.1 | 0.47 + 0.09 × NP | 3.75 + 0.25 × NP |
| RCB47 | 2.7 | 14.2 | 16.4 | 4.8 | 1.1 | 0.47 + 0.09 × NP | 5.07 + 0.37 × NP |
| RCB60 | 2.7 | 18.9 | 21.2 | 4.9 | 1.1 | 0.51 + 0.09 × NP | 6.17 + 0.48 × NP |
| RCB60(X) | 2.7 | 18.9 | 21.2 | 4.9 | 1.1 | 0.51 + 0.08 × NP | 6.17 + 0.48 × NP |
| RCC110 | 6.7 | 14.9 | 18.3 | 10.2 | 1.1 | 0.55 + 0.09 × NP | 27.6 + 0.9 × NP |
| RCC170 | 6.7 | 23.6 | 27.1 | 10.2 | 1.1 | 0.55 + 0.09 × NP | 39.57 + 1.36 × NP |
| RCM110 | 3.6 | 20.5 | 24.4 | 7.5 | 1.1 | 0.55 + 0.1 × NP | 30.64 + 0.9 × NP |
| RCM110(X) | 3.6 | 20.5 | 24.4 | 7.6 | 1.1 | 0.55 + 0.08 × NP | 30.64 + 0.9 × NP |
| RCD235 | 8.0 | 26.9 | 31.0 | 12.2 | 4.49 | 0.67 + 0.09 × NP | 99.34 + 1.99 × NP |
| RCE400 | 9.5 | 33.9 | 39.7 | 15.2 | 4.5 | 0.75 + 0.11 × NP | 179.9 + 3.59 × NP |

SUBCOOLERS / ECONOMIZERS / DESUPERHEATERS

| | | | | | | | |
|-----------|-----|------|------|------|------|-------------------|-------------------|
| RSA14 | 1.7 | 6.5 | 8.0 | 3.2 | 0.6 | 0.43 + 0.09 × NP | 1.54 + 0.11 × NP |
| RSA22 | 1.7 | 10.2 | 11.8 | 3.2 | 0.6 | 0.43 + 0.09 × NP | 1.98 + 0.16 × NP |
| RSA22(X) | 1.7 | 10.2 | 11.8 | 3.2 | 0.6 | 0.43 + 0.075 × NP | 1.98 + 0.16 × NP |
| RSA34 | 1.7 | 17.0 | 18.5 | 3.2 | 0.6 | 0.43 + 0.09 × NP | 2.87 + 0.26 × NP |
| RSB31 | 2.7 | 9.1 | 11.3 | 4.8 | 1.1 | 0.47 + 0.09 × NP | 3.75 + 0.25 × NP |
| RSB47 | 2.7 | 14.2 | 16.4 | 4.8 | 1.1 | 0.47 + 0.09 × NP | 5.07 + 0.37 × NP |
| RVB60 | 2.7 | 18.9 | 21.2 | 4.9 | 1.1 | 0.51 + 0.09 × NP | 6.17 + 0.48 × NP |
| RVB60(X) | 2.7 | 18.9 | 21.2 | 4.9 | 1.1 | 0.51 + 0.08 × NP | 6.17 + 0.48 × NP |
| RVC110 | 6.7 | 14.9 | 18.3 | 10.2 | 1.1 | 0.55 + 0.09 × NP | 27.6 + 0.9 × NP |
| RVC170 | 6.7 | 23.6 | 27.1 | 10.2 | 1.1 | 0.55 + 0.09 × NP | 39.57 + 1.36 × NP |
| RVM110 | 3.6 | 20.5 | 24.4 | 7.5 | 1.1 | 0.55 + 0.1 × NP | 30.64 + 0.9 × NP |
| RVM110(X) | 3.6 | 20.5 | 24.4 | 7.6 | 1.1 | 0.55 + 0.08 × NP | 30.64 + 0.9 × NP |
| RVD235 | 8.0 | 26.9 | 31.0 | 12.2 | 4.49 | 0.67 + 0.09 × NP | 99.34 + 1.99 × NP |
| RVE400 | 9.5 | 33.9 | 39.7 | 15.2 | 4.5 | 0.75 + 0.11 × NP | 179.9 + 3.59 × NP |

NP - number of plates | dim. F±/3%

All dimensions and technical data are approximate only and may be changed without further notice.

COOLING CAPACITY TABLE FOR LOW POWER INSTALLATIONS

| EVAPORATOR [dT _{GROUND SOURCE} =5K] | | | | | | CONDENSER [dT _{INSTALLATION} =10°F] | | | | | |
|--|----------|----------|----------|------------|-----------|--|----------|----------|----------|----------|----------|
| 39/44,4°F - 54/44°F | | | | | | 105/101,4°F - 85/95°F | | | | | |
| R32 | R452B | R454B | R1234ZE | R290 | R410 | R32 | R452B | R454B | R1234ZE | R290 | R410 |
| 0,5 | RA34-10 | RA34-10 | RA34-10 | RA34-10 | RA34-10 | 0,5 | RA22-10 | RA14-20 | RA14-20 | RA22-10 | RA14-20 |
| 0,75 | RA34-20 | RA34-10 | RA34-10 | RA34-20 | RA22-30 | 0,75 | RA34-10 | RA34-10 | RA34-10 | RA34-10 | RA34-10 |
| 1 | RA34-20 | RA34-20 | RA34-20 | RA34-20 | RA34-20 | 1 | RA34-10 | RA34-10 | RA34-10 | RA34-10 | RA34-10 |
| 1,5 | RA34-20 | RA34-20 | RA34-20 | RA34-30 | RA34-20 | 1,5 | RA34-10 | RA22-30 | RA22-30 | RA34-10 | RA34-10 |
| 2 | RA34-30 | RA34-30 | RA34-30 | RA34-40 | RA34-30 | 2 | RA22-30 | RA34-20 | RA34-20 | RA22-30 | RA34-20 |
| 2,5 | RA34-30 | RA34-30 | RA34-30 | RA34-60 | RA34-30 | 2,5 | RA34-20 | RA34-30 | RA34-20 | RA34-20 | RA34-20 |
| 3 | RA34-40 | RA34-40 | RA34-30 | RB60-40H | RA34-40 | 3 | RA34-20 | RA34-30 | RA34-30 | RA34-20 | RA34-20 |
| 3,5 | RA34-50 | RA34-40 | RA34-40 | RB60-40H | RB60-30H | 3,5 | RA34-30 | RA34-30 | RA34-30 | RA34-30 | RA34-30 |
| 4 | RB60-30H | RA34-50 | RA34-50 | RB60-50H | RB60-30H | 4 | RA34-30 | RA34-40 | RA34-30 | RA34-30 | RA34-30 |
| 5 | RB60-40H | RB60-40H | RB60-40H | RB60-70H | RB60-40H | 5 | RA22-60 | RA34-40 | RA34-40 | RA34-40 | RA34-40 |
| 6 | RB60-50H | RB60-40H | RB60-40H | RM110-40-2 | RB60-50H | 6 | RB47-40 | RB60-30H | RB60-30H | RB47-40H | RB60-30H |
| 7,5 | RB60-70H | RB60-60H | RB60-60H | RM110-50-2 | RM110-30H | 7,5 | RB47-40H | RB60-40H | RB60-40 | RB60-30 | RB47-50H |

| 39/44,4°F - 54/44°F | | | | | | 125/121,4°F - 105/115°F | | | | | |
|------------------------|----------|----------|----------|-----------|-----------|----------------------------|----------|----------|----------|----------|----------|
| R32 | R452B | R454B | R1234ZE | R290 | R410 | R32 | R452B | R454B | R1234ZE | R290 | R410 |
| 0,5 | RA34-10 | RA34-10 | RA34-10 | RA22-30 | RA34-10 | 0,5 | RA22-10 | RA14-20 | RA14-20 | RA22-10 | RA14-20 |
| 0,75 | RA34-20 | RA34-10 | RA34-10 | RA34-20 | RA34-20 | 0,75 | RA34-10 | RA34-10 | RA34-10 | RA34-10 | RA34-10 |
| 1 | RA34-20 | RA34-20 | RA34-20 | RA34-20 | RA34-20 | 1 | RA34-10 | RA34-10 | RA34-10 | RA34-10 | RA34-10 |
| 1,5 | RA34-20 | RA34-20 | RA34-20 | RA34-30 | RA34-20 | 1,5 | RA22-30 | RA22-30 | RA22-30 | RA34-10 | RA22-30 |
| 2 | RA34-30 | RA34-30 | RA34-30 | RA34-50 | RA34-30 | 2 | RA34-20 | RA34-20 | RA34-20 | RA34-20 | RA34-20 |
| 2,5 | RA34-40 | RA34-30 | RA34-30 | RB60-30H | RA34-40 | 2,5 | RA34-20 | RA34-30 | RA34-20 | RA34-20 | RA34-20 |
| 3 | RA34-50 | RA34-40 | RA34-40 | RB60-40H | RA34-50 | 3 | RA34-30 | RA34-30 | RA34-30 | RA34-20 | RA34-30 |
| 3,5 | RA34-60 | RA34-50 | RA34-50 | RB60-50H | RB60-30H | 3,5 | RA34-30 | RA34-30 | RA34-30 | RA34-30 | RA34-30 |
| 4 | RB60-40H | RB60-30H | RA34-60 | RB60-60H | RB60-40H | 4 | RA34-30 | RA34-40 | RA34-40 | RA34-30 | RA34-30 |
| 5 | RB60-40H | RB60-40H | RB60-40H | RB60-80H | RB60-40H | 5 | RA34-40 | RA34-40 | RA34-40 | RA34-40 | RA34-40 |
| 6 | RB60-50H | RB60-50H | RB60-50H | RM110-40H | RB60-60H | 6 | RB60-30H | RB47-50H | RB60-30H | RB47-40H | RB60-30H |
| 7,5 | RB60-80H | RB60-70H | RB60-60H | RM110-50H | RM110-30H | 7,5 | RB60-40 | RB60-40H | RB60-40H | RB47-50H | RB60-40H |

| 18/23,4°F - 32/23°F | | | | | | 145/141,4°F - 125/135°F | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|----------------------------|-----------|-----------|-----------|----------|-----------|
| R32 | R452B | R454B | R1234ZE | R290 | R410 | R32 | R452B | R454B | R1234ZE | R290 | R410 |
| 0,5 | RA34-20 | RA34-20 | RA34-20 | RA34-20 | RA34-20 | 0,5 | RHA22-10 | RHA14-20 | RHA14-20 | RA22-10 | RA34-10 |
| 0,75 | RA34-20 | RA34-20 | RA34-20 | RA34-30 | RA34-20 | 0,75 | RHA34-10 | RHA34-10 | RHA34-10 | RA34-10 | RA34-10 |
| 1 | RA34-30 | RA34-20 | RA34-20 | RA34-40 | RA34-30 | 1 | RHA34-10 | RHA22-20 | RHA22-20 | RA34-10 | RA34-10 |
| 1,5 | RA34-40 | RA34-30 | RA34-30 | RB60-40-1 | RA34-40 | 1,5 | RHA34-10 | RHA22-30 | RHA22-30 | RA34-10 | RA34-10 |
| 2 | RA34-50 | RA34-40 | RA34-40 | RB60-50H | RA34-50 | 2 | RHA22-30 | RHA34-20 | RHA34-20 | RA34-20 | RHA34-20 |
| 2,5 | RB60-40H | RA34-60 | RA34-60 | RB60-60H | RB60-40H | 2,5 | RHA34-20 | RHA34-30 | RHA34-30 | RA34-20 | RHA34-20 |
| 3 | RB60-50H | RB60-40H | RB60-40H | RB60-90H | RB60-40H | 3 | RHA34-20 | RHA34-30 | RHA34-30 | RA34-20 | RHA34-20 |
| 3,5 | RB60-50H | RB60-50H | RB60-50H | RM110-40H | RB60-50H | 3,5 | RHA34-30 | RHA34-40 | RHA34-40 | RA34-30 | RHA34-30 |
| 4 | RB60-60H | RB60-50H | RB60-50H | RM110-40H | RB60-60H | 4 | RHA34-30 | RHA34-40 | RHA34-40 | RA34-30 | RHA34-30 |
| 5 | RM110-40H | RB60-70H | RB60-70H | RM110-50H | RM110-40H | 5 | RHA34-40 | RHA34-50 | RHA34-50 | RA34-40 | RHA34-40 |
| 6 | RM110-50H | RB60-100H | RB60-100H | RM110-60H | RM110-40H | 6 | RHB47-40 | RHB47-50H | RHB47-50H | RB47-40H | RB60-30 |
| 7,5 | RM110-60H | RM110-50H | RM110-50H | RM110-80H | RM110-50H | 7,5 | RHB47-40H | RHB60-50 | RHB47-60H | RB47-50H | RHB60-40H |

EVAPORATOR

MEDIUM
EVAPORATION TEMP.
— 39/29/19°F
OVERHEATING — 3K

WATER
54/44°C - 44/34°F

PG35
32/23°F, DPMAX<30KPA

CONDENSER

MEDIUM
CONDENSING TEMP.
— 105/125/145°F
OVERCOOLING — 2K

WATER
85/95 - 105/115 - 125/135°F

DPMAX<30KPA

ECONOMIZER

| R410A | |
|-------|----------|
| 4 kW | RSA14-10 |
| 6 kW | RSA14-10 |
| 9 kW | RSA14-20 |
| 12 kW | RSA14-30 |
| 16 kW | RSB31-15 |
| 20 kW | RSB31-20 |
| 25 kW | RSB31-20 |
| 35 kW | RSB31-30 |
| 50 kW | RSB31-40 |
| 60 kW | RSB31-60 |

COOLING CAPACITY TABLE FOR HIGH POWER INSTALLATIONS

| EVAPORATOR [dT _{GROUND SOURCE} =5K] | | | | | | CONDENSER [dT _{INSTALLATION} =10°F] | | | | | |
|--|------------|------------|------------|------------|------------|--|-----------|-----------|-----------|-----------|-----------|
| 39/44,4°F - 54/44°F | | | | | | 105/101,4°F - 85/95°F | | | | | |
| R32 | R452B | R454B | R1234ZE | R290 | R410 | R32 | R452B | R454B | R1234ZE | R290 | R410 |
| 10 | RM110-40H | RM110-40H | RM110-30H | RM110-60H | RM110-40H | 10 | RB60-40 | RB60-50H | RB60-50H | RB60-40 | RB60-50 |
| 12,5 | RM110-50H | RM110-40H | RM110-40H | RM110-70H | RM110-50H | 12,5 | RM110-30 | RM110-40 | RM110-40 | RM110-30 | RM110-40 |
| 15 | RM110-60H | RM110-50H | RM110-50H | RM110-90H | RM110-60H | 15 | RM110-40 | RM110-40H | RM110-40H | RM110-40 | RM110-40H |
| 20 | RM110-70H | RM110-60H | RM110-60H | RM110-130H | RM110-70H | 20 | RM110-50 | RM110-60 | RM110-60 | RM110-50 | RM110-60 |
| 25 | RM110-90H | RM110-80H | RM110-80H | RD235-80 | RM110-90H | 25 | RM110-50 | RM110-70H | RM110-70 | RM110-50 | RM110-70 |
| 30 | RM110-110H | RM110-90H | RM110-90H | RD235-100 | RM110-120H | 30 | RM110-60 | RM110-80H | RM110-80 | RM110-60 | RM110-80 |
| 35 | RM110-150H | RM110-120H | RM110-120H | RD235-130 | RD235-70 | 35 | RM110-70 | RM110-100 | RM110-100 | RM110-70 | RM110-100 |
| 40 | RD235-80 | RD235-70 | RD235-70 | — | RD235-80 | 40 | RM110-90 | RM110-120 | RM110-110 | RM110-90 | RM110-100 |
| 50 | RD235-110 | RD235-90 | RD235-90 | — | RD235-120 | 50 | RM110-110 | RM110-150 | RM110-140 | RM110-110 | RM110-120 |
| 60 | — | RD235-130 | RD235-120 | — | — | 60 | RM110-150 | RC170-130 | RC170-130 | RM110-150 | RC170-130 |
| 70 | — | — | — | — | — | 70 | RD235-100 | RD235-100 | RD235-100 | RD235-100 | RD235-100 |
| 80 | — | — | — | — | — | 80 | RD235-120 | RD235-120 | RD235-120 | RD235-120 | RD235-120 |

| 29/34,4°F - 44/34°F | | | | | | 125/121,4°F - 105/115°F | | | | | |
|------------------------|------------|------------|------------|------------|------------|----------------------------|-----------|------------|------------|-----------|------------|
| R32 | R452B | R454B | R1234ZE | R290 | R410 | R32 | R452B | R454B | R1234ZE | R290 | R410 |
| 10 | RM110-40H | RM110-40H | RM110-40H | RM110-70H | RM110-40H | 10 | RB60-50 | RB60-60 | RB60-50H | RB47-60H | RB60-50H |
| 12,5 | RM110-50H | RM110-50H | RM110-50H | RM110-80H | RM110-50H | 12,5 | RM110-40 | RM110-40 | RM110-40 | RM110-30 | RM110-40 |
| 15 | RM110-60H | RM110-50H | RM110-50H | RM110-100H | RM110-60H | 15 | RM110-40 | RM110-40H | RM110-40H | RM110-40 | RM110-40H |
| 20 | RM110-80H | RM110-70H | RM110-70H | RD235-70 | RM110-80H | 20 | RM110-60 | RM110-60H | RM110-60 | RM110-50 | RM110-60 |
| 25 | RM110-100H | RM110-80H | RM110-80H | RD235-90 | RM110-100H | 25 | RM110-70 | RM110-70H | RM110-70H | RM110-60 | RM110-70H |
| 30 | RM110-130H | RM110-110H | RM110-110H | RD235-120 | RM110-150H | 30 | RM110-80 | RM110-80H | RM110-80H | RM110-70 | RM110-80H |
| 35 | RD235-80 | RM110-140H | RM110-140H | — | RD235-80 | 35 | RM110-90 | RM110-100H | RM110-100H | RM110-80 | RM110-100 |
| 40 | RD235-90 | RD235-80 | RD235-80 | — | RD235-90 | 40 | RM110-110 | RM110-110H | RM110-110H | RM110-90 | RM110-110H |
| 50 | RD235-130 | RD235-100 | RD235-100 | — | RD235-120 | 50 | RM110-130 | RM110-150 | RM110-150 | RM110-110 | RM110-130 |
| 60 | — | — | — | — | — | 60 | RC170-130 | RC170-130 | RC170-130 | RM110-150 | RC170-130 |
| 70 | — | — | — | — | — | 70 | RD235-100 | RD235-100 | RD235-100 | RD235-100 | RD235-100 |
| 80 | — | — | — | — | — | 80 | RD235-120 | RD235-120 | RD235-120 | RD235-120 | RD235-120 |

| 18/23,4°F - 32/23°F | | | | | | 145/141,4°F - 125/135°F | | | | | |
|------------------------|------------|------------|------------|------------|------------|----------------------------|------------|------------|------------|-----------|------------|
| R32 | R452B | R454B | R1234ZE | R290 | R410 | R32 | R452B | R454B | R1234ZE | R290 | R410 |
| 10 | RM110-70H | RM110-60H | RM110-60H | RM110-100H | RM110-70H | 10 | RHB60-40 | RHB60-60 | RHB60-60 | RB47-60H | RB60-50 |
| 12,5 | RM110-90H | RM110-80H | RM110-80H | RM110-140H | RM110-80H | 12,5 | RHC110-40 | RHC110-50 | RHC110-50 | RM110-30 | RHC110-50 |
| 15 | RM110-110H | RM110-90H | RM110-90H | RD235-80 | RM110-100H | 15 | RHC110-50 | RHC110-60 | RHC110-60 | RM110-40 | RHC110-60 |
| 20 | RM110-150H | RM110-120H | RM110-120H | RD235-100 | RD235-70 | 20 | RHC110-60 | RHC110-80 | RHC110-80 | RM110-50 | RHC110-80 |
| 25 | RD235-90 | RD235-80 | RD235-80 | — | RD235-90 | 25 | RHC110-80 | RHC110-100 | RHC110-100 | RM110-60 | RHC110-100 |
| 30 | RD235-110 | RD235-90 | RD235-90 | — | RD235-110 | 30 | RHC110-90 | — | — | RM110-60 | RM110-80 |
| 35 | — | RD235-110 | RD235-110 | — | — | 35 | RHC110-100 | — | — | RM110-70 | RM110-90 |
| 40 | — | — | — | — | — | 40 | — | — | — | RM110-80 | RM110-100 |
| 50 | — | — | — | — | — | 50 | — | — | — | RM110-110 | RM110-120 |
| 60 | — | — | — | — | — | 60 | — | — | — | RM110-150 | RM110-150 |
| 70 | — | — | — | — | — | 70 | — | — | — | RD235-100 | RD235-100 |
| 80 | — | — | — | — | — | 80 | — | — | — | RD235-120 | RD235-120 |

EVAPORATOR

MEDIUM
EVAPORATION TEMP.
— 39/29/19°F
OVERHEATING — 3K

WATER
54/44°C - 44/34°F

PG35
32/23°F, DPMAX<30KPA

CONDENSER

MEDIUM
CONDENSING TEMP.
— 105/125/145°F
OVERCOOLING — 2K

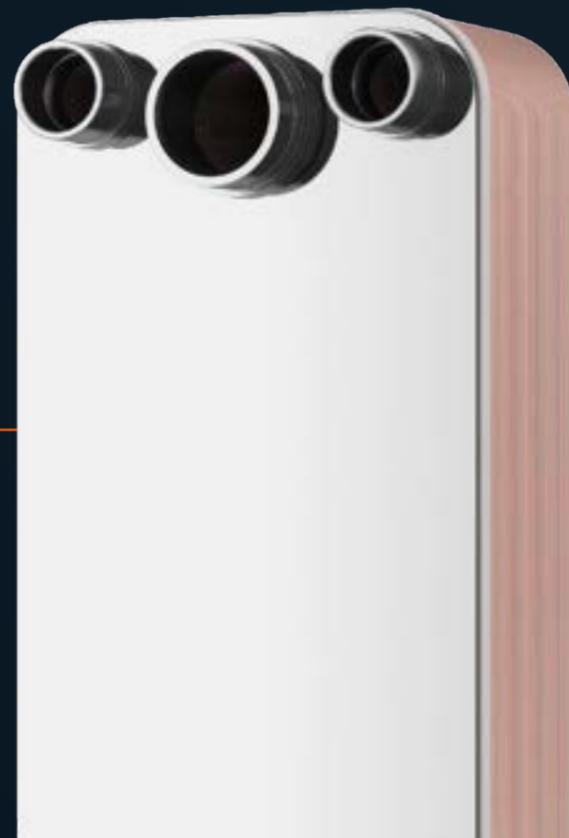
WATER
85/95 - 105/115 - 125/135°F

DPMAX<30KPA

DC

DUAL CIRCUIT HEAT EXCHANGERS

Dual Circuit heat exchangers are advanced brazed plate heat exchangers that combine two independent refrigerant circuits with a common secondary-side circuit. Their design ensures full counterflow while maintaining high efficiency at both full and partial load. This solution combines compact design with operational flexibility and increased overall system reliability.



ADVANTAGES



HIGH EFFICIENCY
AT FULL AND
PARTIAL LOAD



COMPACT "TWO-IN-ONE"
DESIGN - FEWER PIPES
AND EASIER INSTALLATION



DUAL CIRCUIT
OPERATION



LOWER INSTALLATION
AND SERVICE COSTS



DESIGNED TO
REDUCE THE RISK
OF FREEZING DAMAGE



OPTIMAL HEAT
TRANSFER THANKS TO
SYMMETRICAL FLOW

APPLICATIONS



MODULATING
HEAT PUMPS



HVAC SYSTEMS WITH
CAPACITY SPLIT INTO
TWO CIRCUITS



ROOFTOP UNITS
AND CONDENSING
UNITS



FREE COOLING AND
HEAT RECOVERY SYSTEMS



INDUSTRIAL INSTALLATIONS
REQUIRING OPERATIONAL
REDUNDANCY

THE HIGH-PERFORMANCE PLATE

Our product range of brazed plate heat exchangers stands out for its extensive assortment and adaptable features, offering unmatched diversity in size, brazing material, connection types, flow arrangements, and accessory options. Now, we have gone one step further and created a reinforced heat exchanger dedicated to cooling and heating solutions. These ultra-efficient heat exchangers feature special heating plates "X", providing enhanced heat transfer efficiency and increased turbulence flow of the medium. Consequently, this leads to increased thermal efficiency, lower investment costs, and a reduced footprint.

EXEMPLAR DESIGNATION

2S – 2-pass with 6 connections
 2 – 2-pass with 4 connections
 no letter – 1-pass

LB60-60X-2S-3/4".UM

brazed plate heat exchanger | size of plates | n° of plates | high-performance plate | type and size of connections | ASME certification

RVB60-100X.UL

brazed plate heat exchanger | V – for evaporators / C – for condensers / S – for subcoolers / economizers / desuperheaters | size of plates | n° of plates | high-performance plate | UL certification

ADVANTAGES



ULTRA-EFFICIENT HEAT EXCHANGER FOR HEATING AND COOLING



INCREASED FLOW TURBULENCE OF THE MEDIUM



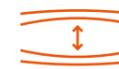
OPTIMIZED FLUID FLOW



REDUCED REFRIGERANT USAGE



ENHANCED THERMAL EFFICIENCY



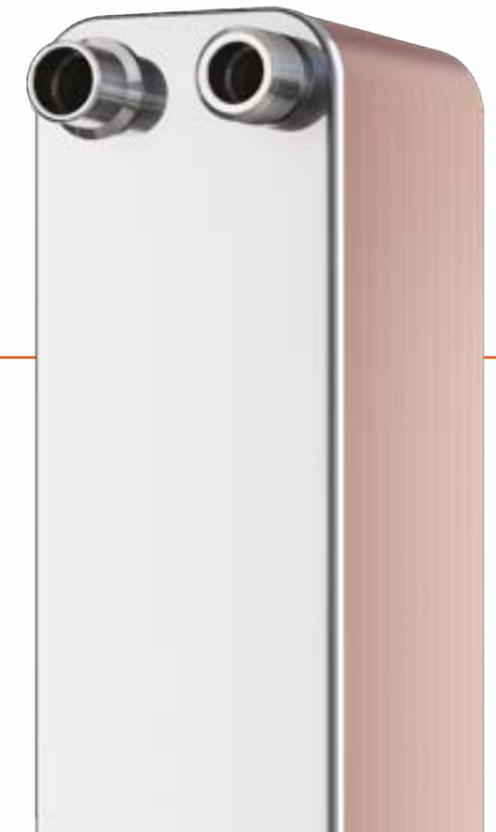
REINFORCED CONSTRUCTION FOR HIGHER PRESSURES



INCREASED HEAT EXCHANGE AREA



LOW CARBON FOOTPRINT



SafePLATE

DOUBLE WALL HEAT EXCHANGERS

DESIGNED FOR APPLICATIONS WHERE IT IS CRUCIAL TO DOUBLE-PROTECT MEDIA FROM MIXING AND QUICKLY DETECT ANY POTENTIAL INTERNAL LEAK.

APPLICATION



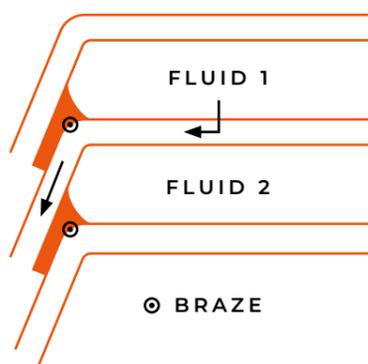
TAP WATER
HEATING SYSTEMS



CENTRAL
HEATING SYSTEMS



TECHNOLOGICAL
SYSTEMS



DOUBLE-WALL SYSTEM

In case of failure, either corrosion or pressure induced, special arrangement of double walls and interspace in sidewalls helps to prevent potential mixing of working media and allows the leakage to be visually detected.

ADVANTAGES



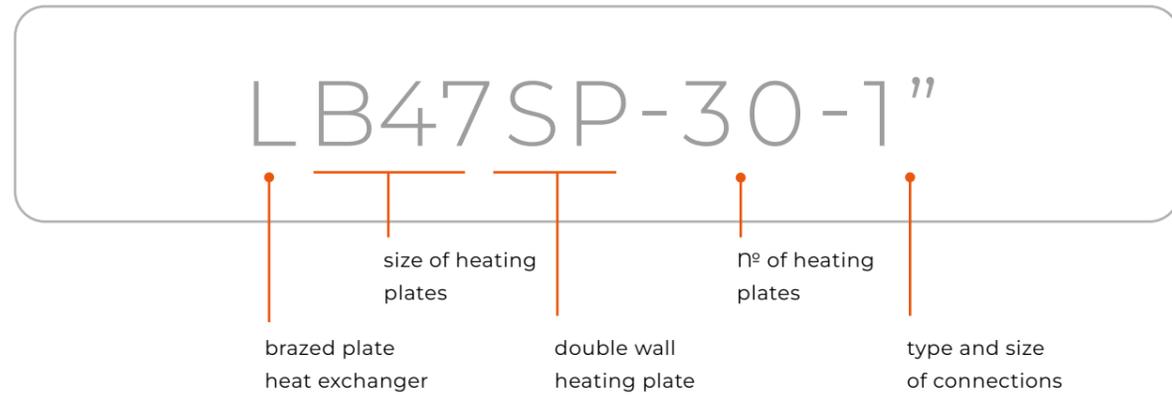
EFFECTIVE LEAK DETECTION



HELPS TO PREVENT POTENTIAL
MIXING OF WORKING MEDIA



EXEMPLAR DESIGNATION



PRODUCT LINE



TECHNICAL DATA

MATERIALS

- STAINLESS STEEL
- COPPER BRAZING

EXEMPLARY MEDIA

- WATER
- PROPYLENE GLYCOL SOLUTIONS
- GROUP II FLUIDS
- OTHER (CONSULT THE MANUFACTURER)

WORKING PARAMETERS

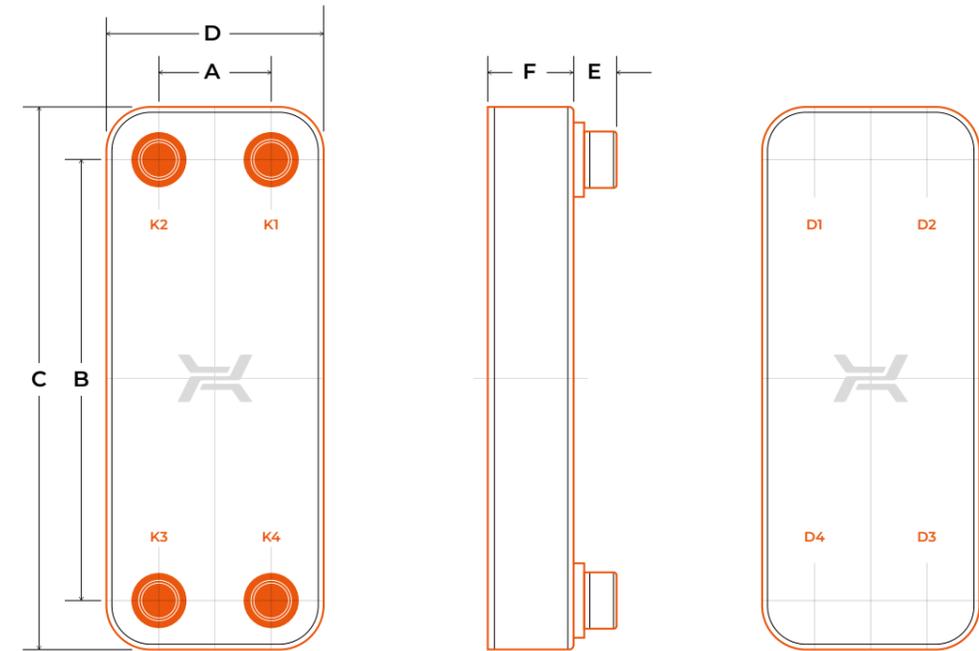
MAX. TEMPERATURE — 446°F

MIN. TEMPERATURE — -319°F

MAX. PRESSURE — 362 PSI

STANDARD LOCATION OF CONNECTIONS

K1 / K4 — inlet/outlet side 1 **K1 / K4** — inlet/outlet side 2



Double-wall heat exchangers have been designed to prevent media from mixing and enable quick leak detection. However, it should be remembered that no heat exchangers of this type guarantee the reliability of such operation and cannot be used instead of other safety systems.

TECHNICAL PARAMETERS

| Type | Dimensions | | | | | | max N° of plates | Mass |
|----------------|------------|-------|-------|-------|-----|------------------|---------------------|-------------------|
| | A | B | C | D | E | F | | |
| | in | in | in | in | in | in | lb | |
| LB47SP | 2.68 | 14.17 | 16.46 | 4.93 | 1.1 | 0.39 + 0.11 × NP | 100 | 4.83 + 0.75 × NP |
| LC140SP | 6.69 | 19.29 | 22.83 | 10.23 | 1.6 | 0.43 + 0.10 × NP | 150 | 25.92 + 1.81 × NP |

NP – number of plates | dim. F+/-3%

All dimensions and technical data are approximate only and may be changed without further notice.

L ULTRA

The L ULTRA brazed plate heat exchanger combines the optimal efficiency of brazed plate heat exchangers with the resistance to high pressures. This new series features additional pressure plates in the form of a steel frame. The units can be brazed with either copper or stainless materials. Their excellent efficiency under high-pressure conditions makes them ideal for applications involving the use of CO₂.

APPLICATION



CO₂ HEAT PUMPS



CASCADE REFRIGERATION SYSTEMS



CO₂ CHILLERS



TRANSCRITICAL CO₂ SYSTEMS



POLYMER PRODUCTION



PETROCHEMICAL PROCESSES

ADVANTAGES



RESISTANCE TO HIGH WORKING PRESSURES



LOW MAINTENANCE



COMPACT SIZE



GASKET-FREE DESIGN



EASY INSTALATION



MANUFACTURED IN ACCORDANCE WITH ASME, PED, UL



LUNA™ OPTION AVAILABLE



MINIMAL SERVICE

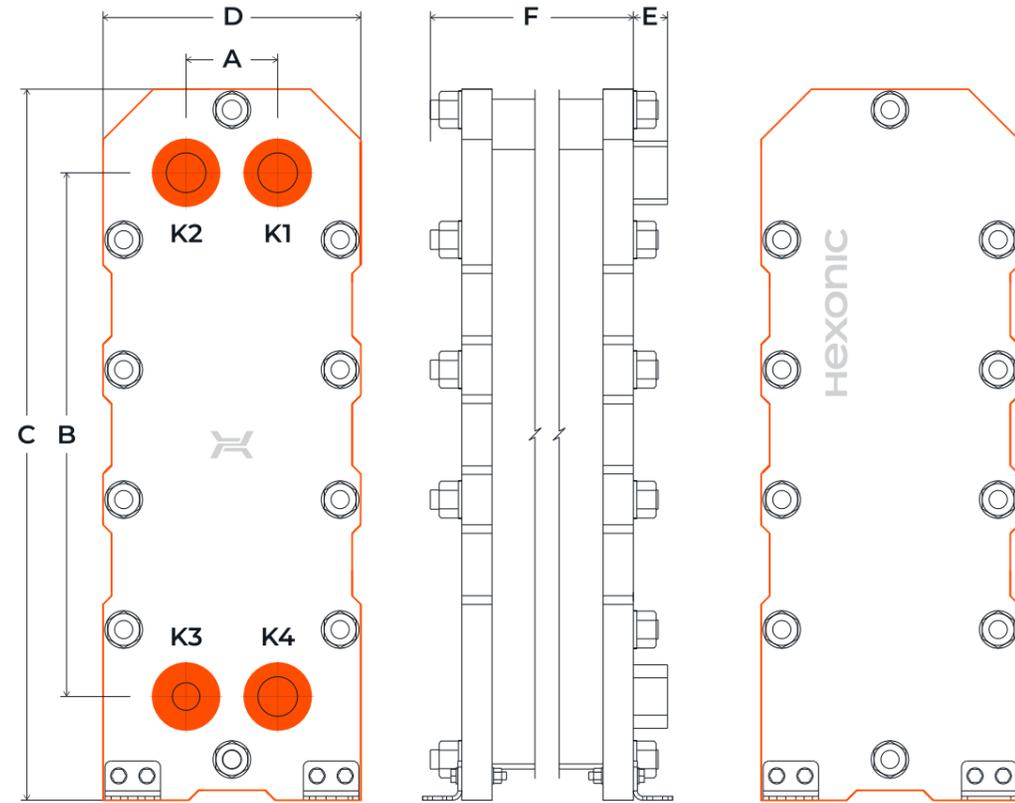


RESISTANT TO HIGH PRESSURE UP TO 2030 PSI

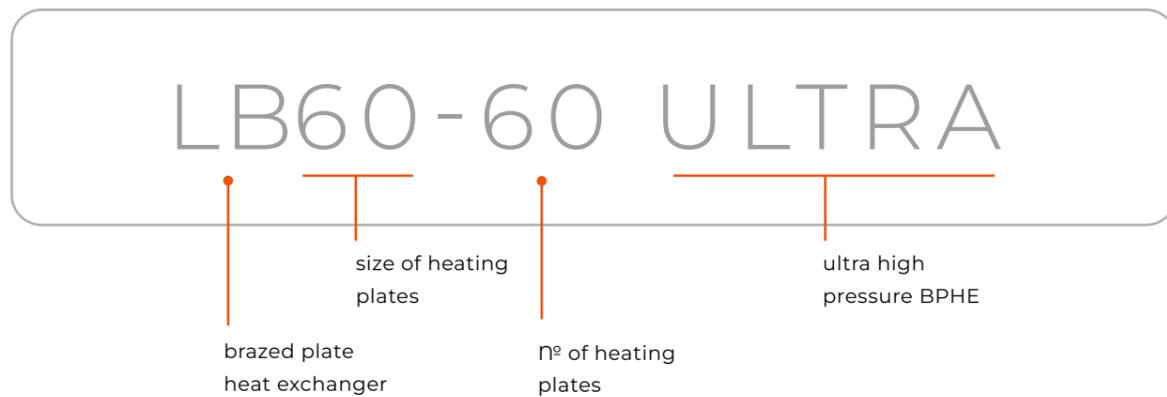
TECHNICAL DATA

STANDARD LOCATION OF CONNECTIONS

K1 / K4 — inlet/outlet of water or glycol
K3 / K2 — inlet/outlet of refrigerant



EXEMPLAR DESIGNATION



PRODUCT LINE



MATERIALS

- HEATING PLATES MATERIALS: STAINLESS STEEL WITH COPPER OR STAINLESS BRAZING
- FRONT AND REAR PLATE MATERIALS: CARBON STEEL (CS)

EXEMPLARY MEDIA

- CARBON DIOXIDE
- HYDROGEN
- INERT AND ACTIVE GASES
- HYDROCARBONS
- HYDRAULIC OILS
- PEROXIDES

WORKING PARAMETERS

- MAX. TEMPERATURE — 302°F
- MIN. TEMPERATURE — -4°F
- MAX. PRESSURE
 - L ULTRA — 2030 PSI
 - LUNA ULTRA — 1015 PSI

TECHNICAL PARAMETERS

| Type | Dimensions | | | | | | max Nº of plates | Mass |
|-------------|------------|-------|-------|-------|------|------------------|------------------|--------------------|
| | A | B | C | D | E | F | | |
| | in | in | in | in | in | in | lb | |
| LB60 ULTRA | 2.68 | 18.90 | 24.49 | 7.40 | 1.42 | 3.15 + 0.08 × NP | 150 | 97 + 0.55 × NP |
| LM110 ULTRA | 3.58 | 20.47 | 27.80 | 10.08 | 1.34 | 4.13 + 0.08 × NP | 200 | 211.64 + 0.97 × NP |
| LD235 ULTRA | 8.03 | 26.85 | 36.46 | 15.75 | 3.94 | 5.67 + 0.09 × NP | 280 | 599.65 + 2.09 × NP |

NP – number of plates | dim. F+/-3%

All dimensions and technical data are approximate only and may be changed without further notice. Mass is given for 1-pass heat exchangers.

TYPE AND SIZE OF CONNECTIONS

| Type | External thread (NPT) | Internal thread (NPT) | Dual (external thread and soldering) | Victaulic | Flange | Soldering connection for R heat exchangers |
|------|-----------------------|-----------------------|--------------------------------------|----------------------|------------------------------|--|
| LA | 3/8", 1/2", 3/4" | 3/8", 1/2", 3/4" | 3/8", 1/2", 3/4" | | | 1/4", 3/8", 1/2", 5/8", 3/4", 7/8" |
| LI | | 3/4" | 3/4", 1" | | | |
| LH | | 3/4" | 3/4", 1" | | | |
| LB | 3/4", 1", 5/4" | 3/4", 1", 5/4" | 3/4", 1", 5/4" | 3/4", 1", 5/4", 3/2" | | 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1 1/8", 1 3/8" |
| LM | 2" | | 2" | | | 7/8", 1 1/8", 1 3/8", 1 5/8", 2 1/8" |
| LC | 5/4", 3/2", 2", 5/2" | 1", 5/4", 3/2", 2" | 5/4", 3/2", 2", 5/2" | 3/2", 2", 5/2" | ANSI B16.5 2" CLASS 300 SORF | 7/8", 1", 1 1/8", 1 3/8", 1 5/8", 2 1/8" |
| LD | | | | | ANSI B16.5 3" CLASS 300 SORF | 1 1/8", 1 3/8", 1 5/8", 2 1/8", 2 5/8", 3 1/8", 3 5/8" |
| LE | | | | | ANSI B16.5 4" CLASS 300 SORF | 2 1/8", 2 5/8", 3 1/8", 3 5/8" |
| LF | | | | | ANSI B16.5 6" CLASS 600 SORF | |

*The same types and sizes of connections are used consistently across the LUNA, R, SP, and ULTRA options.

MOUNTING BRACKETS

MOUNTING BRACKETS ARE MANUFACTURED USING STAINLESS STEEL OR CARBON ZINC-PLATED STEEL



INSULATION

INSULATION MADE OF POLYURETHANE FOAM COVERED WITH ALUMINIUM (APFI)

- MAX. WORKING TEMPERATURE: 275°F
- THICKNESS: 1.18 IN
- THERMAL CONDUCTIVITY: 0.015 BTU/FT. HOUR°F



INSULATION MADE OF EXPANDED POLYPROPYLENE (EPPI) WITH ALUMINIUM (APFI)

- MAX. WORKING TEMPERATURE: 230°F
- THICKNESS: 1.10 IN
- THERMAL CONDUCTIVITY: 0.020 BTU/FT. HOUR°F



COLD INSULATION FOR R-LINE HEAT EXCHANGERS

- WORKING TEMPERATURE RANGE: -40°F TO 230°F
- THICKNESS: 0.787 IN
- THERMAL CONDUCTIVITY: 0.021 BTU/FT. HOUR°F



