Hexonic | HEAT EXCHANGERS

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.

FLEXIBILE 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.

EASY SELECTION

CAIRO

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

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BRAZED PLATE HEAT EXCHANGERS

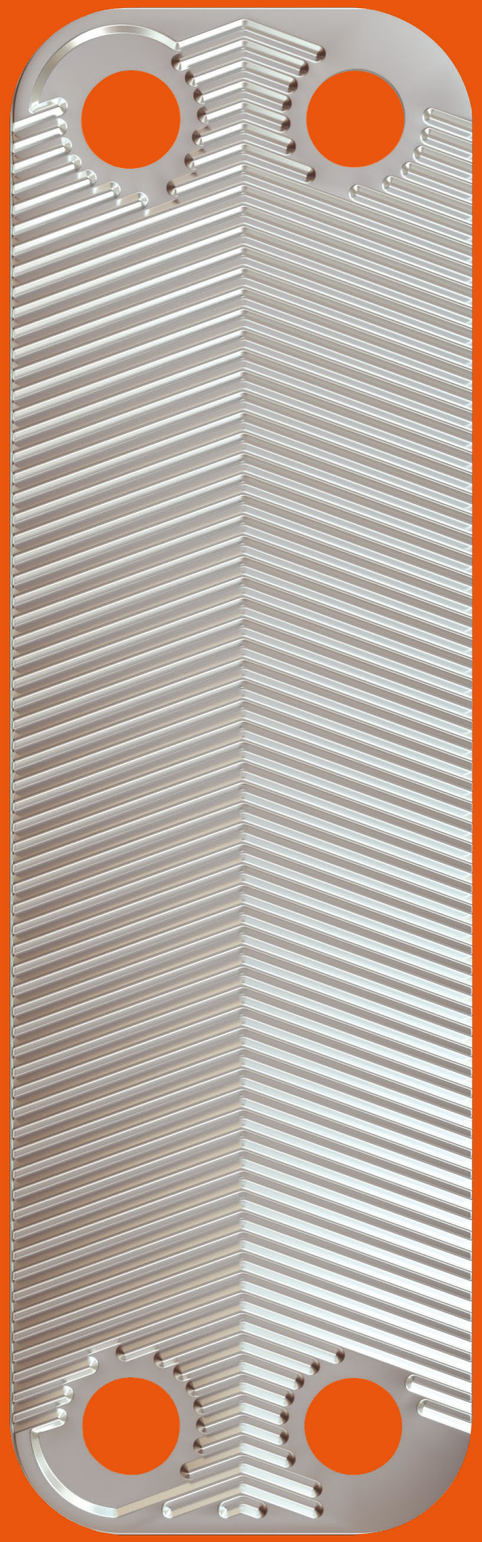
DEDICATED TO HEATING OR COOLING SYSTEMS.

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



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

LA12-60-2S-3/4".UM

- LA12 – size of plates
- 60 – № of plates
- 2S – type and size of connections
- .UM – ASME certification

LA12 – brazed plate heat exchanger

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

PRODUCT LINE

LA12 LA14 LA22 LA34 LJ30 LH40 LB31 LB47 LB60

LM110 LC110 LC170 LD235 LE400 LF700

TECHNICAL DATA

STANDARD LOCATION OF CONNECTIONS

1-PASS HEAT EXCHANGER

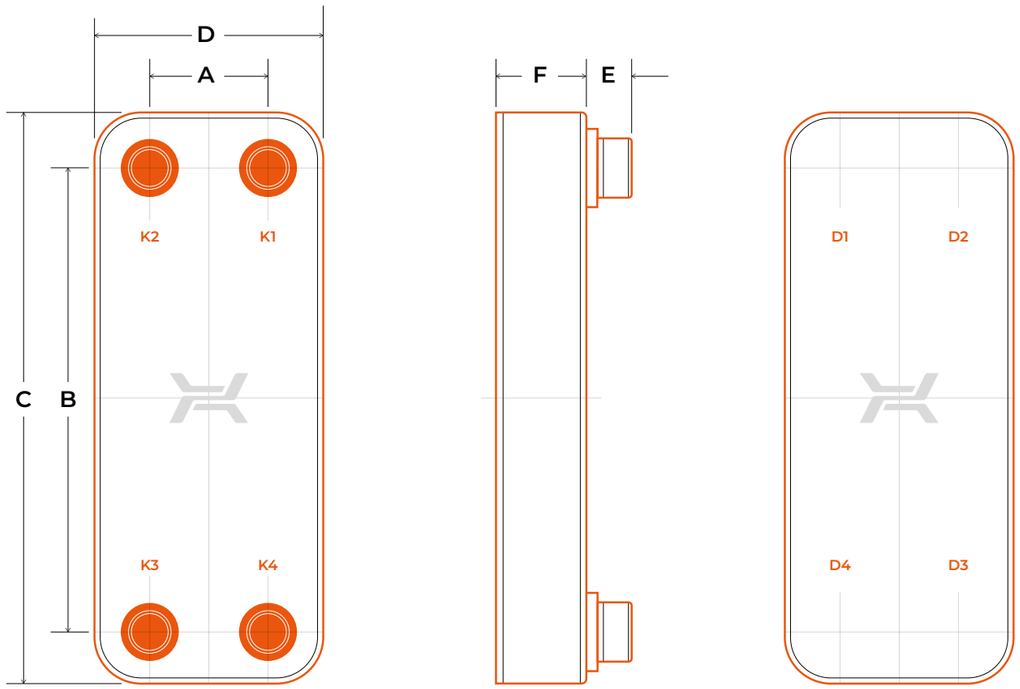
K1 / K4 — inlet / outlet hot side
K3 / K2 — inlet / outlet cold side

2-PASS HEAT EXCHANGER

D4 / K4 — inlet / outlet hot side
K3 / D3 — inlet / outlet cold side

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 — 445°F

MIN. TEMPERATURE — -150°F

MAX. PRESSURE
LA, LB, LH — 435 PSI
LM, LC, LD, LE — 362 PSI
LF — 232 PSI

TECHNICAL PARAMETERS

Type	Dimensions A	B	C	D	E	F	max Nº	Mass
	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 + 0.077 × NP	150	5.73 + 0.48 × NP
LM110	3.6	20.5	24.4	7.5	1.9	0.39 + 0.10 × NP	200	18.52 + 0.90 × NP
LC110	6.7	14.9	18.4	10.2	1.1/1.5; 3.9	0.43 + 0.09 × NP	200	19.18 + 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	25.35 + 1.36 × 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

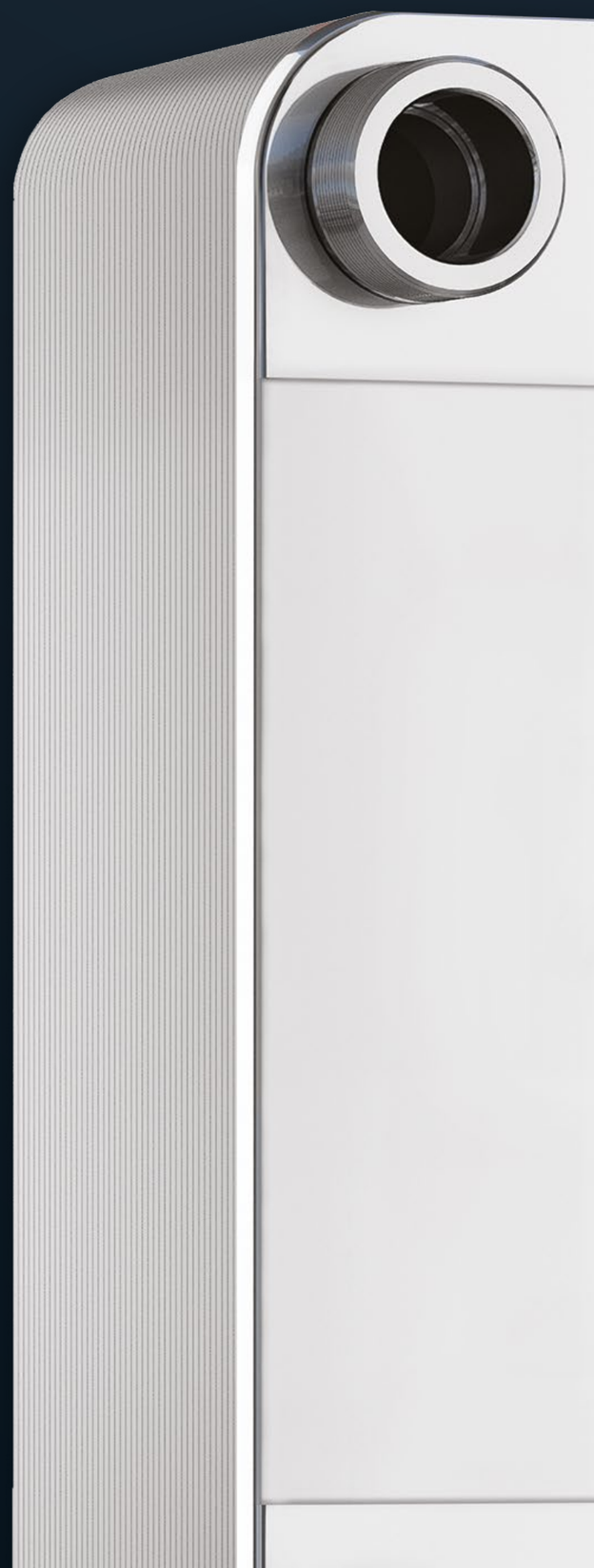
- SYSTEMS WITH DEMINERALIZED WATER
- DOMESTIC HOT WATER SYSTEMS
- COOLING SYSTEMS WITH HIGH HYGIENIC STANDARDS

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



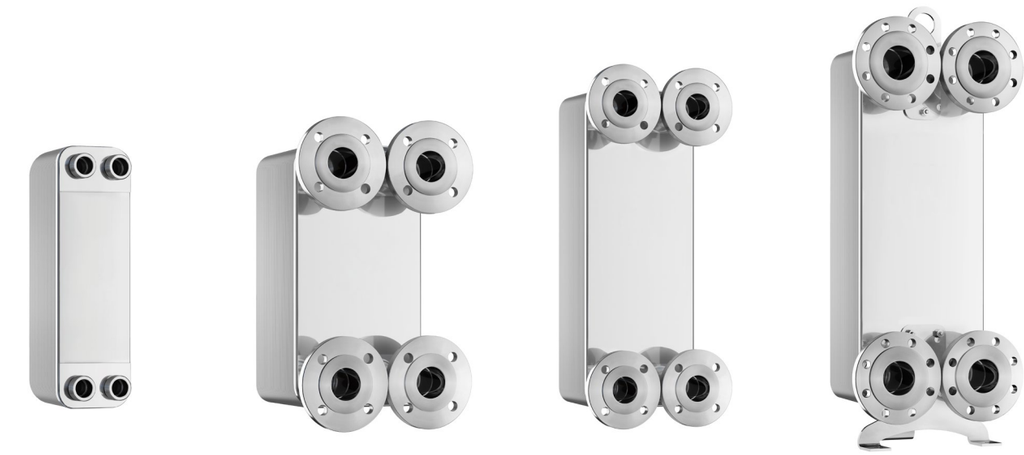
EXEMPLAR DESIGNATION

LA14LN-60-2S-3/4”.UM

- LA14 — brazed plate heat exchanger
- LN — stainless brazing
- 60 — size of plates
- 2S — 2S – 2-pass with 6 connections; 2 – 2-pass with 4 connections; no letter – 1-pass
- 3/4” — type and size of connections
- .UM — ASME certification

PRODUCT LINE

LA14LN LA22LN LA34LN LB31LN LB47LN LB60LN



LM110LN LC110LN LC170LN LC170LN

TECHNICAL DATA

STANDARD LOCATION OF CONNECTIONS

1-PASS HEAT EXCHANGER

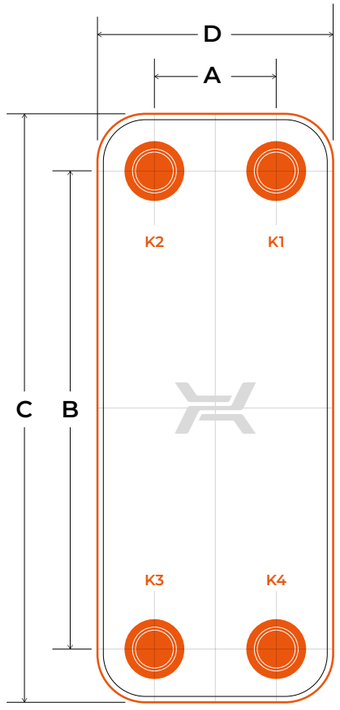
K1 / K4 — inlet / outlet hot side
K3 / K2 — inlet / outlet cold side

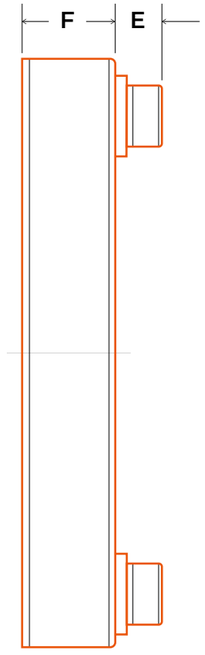
2-PASS HEAT EXCHANGER

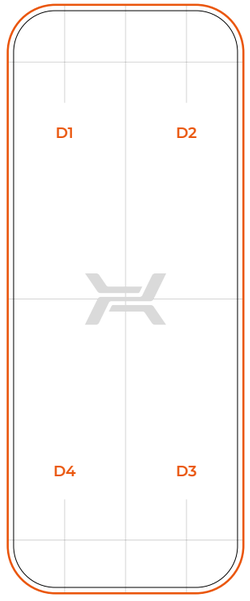
D4 / K4 — inlet / outlet hot side
K3 / D3 — inlet / outlet cold side

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 — -150°F

MAX. PRESSURE
LA LN, LB LN, LC LN — 290 PSI
LM LN, LD LN — 232 PSI

TECHNICAL PARAMETERS

Type	Dimensions						max № of plates	Mass
	A	B	C	D	E	F		
	in	in	in	in	in	in		lb
LA14LN	1.7	6.5	8.0	3.2	0.6	0.35 + 0.09 × NP	60	1.32 + 0.12 × NP
LA22LN	1.7	10.2	11.8	3.2	0.6	0.35 + 0.09 × NP	60	1.76 + 0.17 × NP
LA34LN	1.7	17.0	18.5	3.2	0.6	0.35 + 0.09 × NP	60	2.65 + 0.25 × NP
LB31LN	2.7	9.1	11.3	4.8	1.1	0.39 + 0.09 × NP	150	3.53 + 0.28 × NP
LB47LN	2.7	14.2	16.4	4.8	1.1	0.39 + 0.09 × NP	150	4.85 + 0.38 × NP
LB60LN	2.7	18.9	21.2	4.8	1.1	0.39 + 0.09 × NP	150	5.95 + 0.48 × NP
LM110LN	3.6	20.5	24.4	7.5	1.9	0.39 + 0.10 × NP	180	6.66 + 0.392 × NP
LC110LN	6.7	14.9	18.4	10.2	1.1; 3.9	0.43 + 0.09 × NP	180	20.06 + 0.99 × NP
LC170LN	6.7	23.6	27.1	10.2	1.1; 3.9	0.43 + 0.09 × NP	180	26.24 + 1.41 × NP
LD235LN	8.0	26.9	31.0	12.2	3.9	0.51 + 0.1 × NP	160	89.95 + 0.11 × NP

NP – number of plates | dim. F+/-3%

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

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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

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.

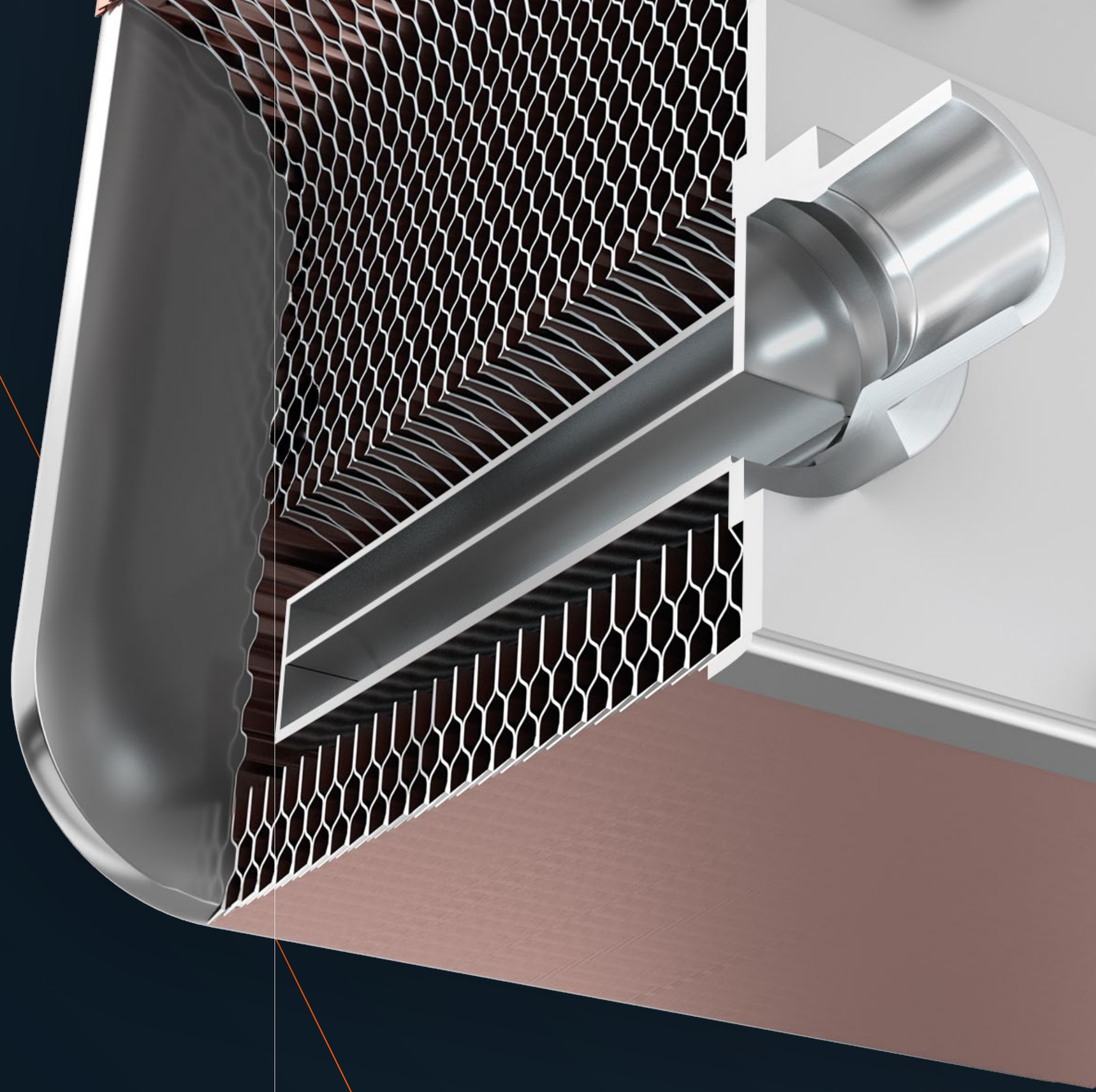
CONDENSERS

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

RVA31-10.UL

- RVA – brazed plate heat exchanger for refrigerating systems
- V – for evaporators; C – for condensers; S – for subcoolers/economizers/ desuperheaters
- 31 – size of heating plates
- 10 – nº of heating plates
- UL – UL certification

PRODUCT LINE

RVA14

RVA22

RVA34

RVB31

RVB47

RVB60

RVC110

RVC170

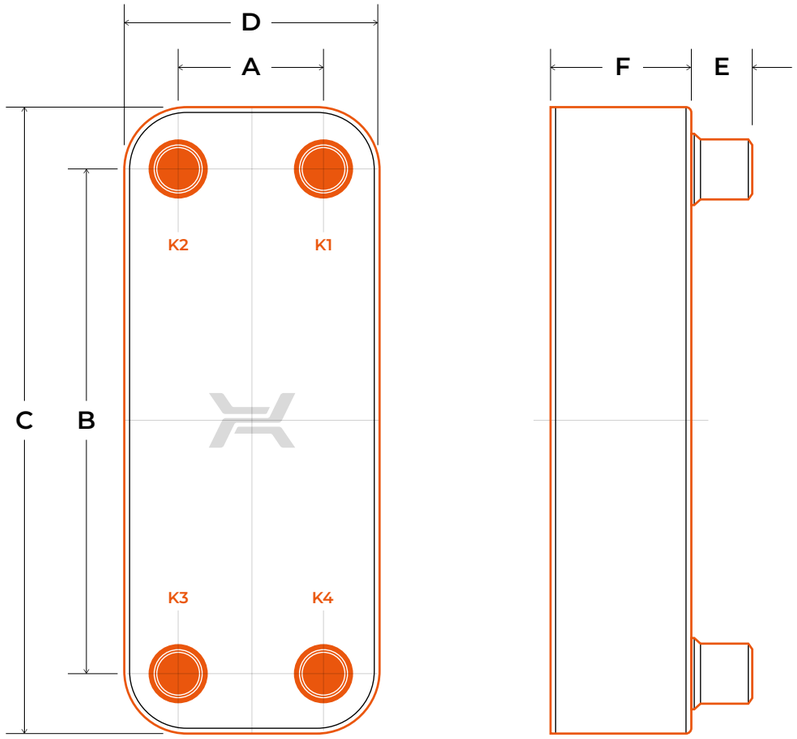
RVM110

RVD235

TECHNICAL DATA

STANDARD LOCATION OF CONNECTIONS
(DEPENDING ON WHETHER IT IS EVAPORATOR OR CONDENSER)

K 4 / K 1 — inlet / outlet of water or glycol
K3 / K2 — inlet / outlet of refrigerant



MATERIALS

— STAINLESS STEEL
— COPPER BRAZING

EXEMPLARY MEDIA

REFRIGERANT SIDE
— R32, R452B, R454B, R1234ZE, R290, R410

OTHER SIDE
— WATER
— PROPYLENE GLYCOL SOLUTIONS
— OTHER (CONSULT THE MANUFACTURER)

WORKING PARAMETERS

MAX. TEMPERATURE — 302°F

MIN. TEMPERATURE — -150°F

MAX. PRESSURE — 653 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	0.35 + 0.09 × NP	1.54 + 0.11 × NP
RVA22	1,7	10,2	11,8	3,2	0,6	0.35 + 0.09 × NP	1.98 + 0.16 × NP
RVA34	1,7	17,0	18,5	3,2	0,6	0.35 + 0.09 × NP	2.87 + 0.26 × NP
RVB31	2,7	9,1	11,3	4,8	1,1	0.39 + 0.09 × NP	3.75 + 0.25 × NP
RVB47	2,7	14,2	16,4	4,8	1,1	0.39 + 0.09 × NP	5.07 + 0.37 × NP
RVB60	2,7	18,9	21,2	4,8	1,1	0.39 + 0.09 × NP	6.17 + 0.48 × NP
RVB60X	2,7	18,9	21,2	4,8	1,1	0.39 + 0.077 × NP	6.17 + 0.48 × NP
RVC110	6,7	14,9	18,3	10,2	1,1	0.39 + 0.09 × NP	19.40 + 0.9 × NP
RVC170	6,7	23,6	27,1	10,2	1,1	0.39 + 0.09 × NP	25.35 + 1.36 × NP
RVM110	3,6	20,5	24,4	7,5	1,1	0,393 + 0,102 × NP	18.52 + 0.9 × NP
RVD235	8,0	26,9	31,0	12,2	1,1	0.51 + 0.10 × NP	88.18 + 1.83 × NP
CONDENSERS							
RCA14	1,7	6,5	8,0	3,2	0,6	0.35 + 0.09 × NP	1.54 + 0.11 × NP
RCA22	1,7	10,2	11,8	3,2	0,6	0.35 + 0.09 × NP	1.98 + 0.16 × NP
RCA34	1,7	17,0	18,5	3,2	0,6	0.35 + 0.09 × NP	2.87 + 0.26 × NP
RCB31	2,7	9,1	11,3	4,8	1,1	0.35 + 0.09 × NP	3.75 + 0.25 × NP
RCB47	2,7	14,2	16,4	4,8	1,1	0.39 + 0.09 × NP	5.07 + 0.37 × NP
RCB60	2,7	18,9	21,2	4,8	1,1	0.39 + 0.09 × NP	6.17 + 0.48 × NP
RCB60X	2,7	18,9	21,2	4,8	1,1	0.39 + 0.077 × NP	6.17 + 0.48 × NP
RCC110	6,7	14,9	18,3	10,2	1,1	0.39 + 0.09 × NP	19.4 + 0.9 × NP
RCC170	6,7	23,6	27,1	10,2	1,1	0.39 + 0.09 × NP	25.35 + 1.36 × NP
RCM110	3,6	20,5	24,4	7,5	1,1	0.39 + 0.10 × NP	18.52 + 0.9 × NP
RCD235	8,0	26,9	31,0	12,2	1,1	0.51 + 0.10 × NP	88.18 + 1.83 × NP
SUBCOOLERS / ECONOMIZERS / DESUPERHEATERS							
RSA14	1,7	6,5	8,0	3,2	0,6	0.35 + 0.09 × NP	1.54 + 0.11 × NP
RSA22	1,7	10,2	11,8	3,2	0,6	0.35 + 0.09 × NP	1.98 + 0.16 × NP
RSA34	1,7	17,0	18,5	3,2	0,6	0.35 + 0.09 × NP	2.87 + 0.26 × NP
RSB31	2,7	9,1	11,3	4,8	1,1	0.39 + 0.09 × NP	3.75 + 0.25 × NP
RSB47	2,7	14,2	16,4	4,8	1,1	0.39 + 0.09 × NP	5.07 + 0.37 × 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]

39/44,4°F – 54/44°F	R32	R452B	R454B	R1234ZE	R290	R410
0,5	RA34-10	RA34-10	RA34-10	RA34-10	RA34-10	RA34-10
0,75	RA34-20	RA34-10	RA34-10	RA34-20	RA22-30	RA22-30
1	RA34-20	RA34-20	RA34-20	RA34-20	RA34-20	RA34-20
1,5	RA34-20	RA34-20	RA34-20	RA34-30	RA34-20	RA34-20
2	RA34-30	RA34-30	RA34-30	RA34-40	RA34-30	RA34-30
2,5	RA34-30	RA34-30	RA34-30	RA34-60	RA34-30	RA34-30
3	RA34-40	RA34-40	RA34-30	RB60-40H	RA34-40	RA34-40
3,5	RA34-50	RA34-40	RA34-40	RB60-50H	RB60-30H	RA34-50
4	RB60-30H	RA34-50	RA34-50	RB60-50H	RB60-30H	RA34-60
5	RB60-40H	RB60-40H	RB60-40H	RB60-70H	RB60-40H	RB60-40H
6	RB60-50H	RB60-40H	RB60-40H	RM110-40-2	RB60-50H	RB60-50H
7,5	RB60-70H	RB60-60H	RB60-60H	RM110-50-2	RM110-30H	RB60-60H

[$dT_{INSTALLATION}$=10°F]

105/101,4°F – 85/95°F	R32	R452B	R454B	R1234ZE	R290	R410
0,5	RA22-10	RA14-20	RA14-20	RA22-10	RA14-20	RA22-10
0,75	RA34-10	RA34-10	RA34-10	RA34-10	RA34-10	RA34-10
1	RA34-10	RA34-10	RA34-10	RA34-10	RA34-10	RA34-10
1,5	RA34-10	RA22-30	RA22-30	RA34-10	RA34-10	RA22-30
2	RA22-30	RA34-20	RA34-20	RA22-30	RA34-20	RA34-20
2,5	RA34-20	RA34-30	RA34-20	RA34-20	RA34-20	RA34-20
3	RA34-20	RA34-30	RA34-30	RA34-20	RA34-20	RA34-20
3,5	RA34-30	RA34-30	RA34-30	RA34-30	RA34-30	RA34-30
4	RA34-30	RA34-40	RA34-30	RA34-30	RA34-30	RA34-30
5	RA22-60	RA34-40	RA34-40	RA34-40	RA34-40	RA34-40
6	RB47-40	RB60-30H	RB60-30H	RB47-40H	RB47-40H	RB60-30H
7,5	RB47-40H	RB60-40H	RB60-40	RB60-30	RB47-50H	RB60-40

29/34,4°F – 44/34°F	R32	R452B	R454B	R1234ZE	R290	R410
0,5	RA34-10	RA34-10	RA34-10	RA22-30	RA34-10	RA34-10
0,75	RA34-20	RA34-10	RA34-10	RA34-20	RA34-20	RA34-20
1	RA34-20	RA34-20	RA34-20	RA34-20	RA34-20	RA34-20
1,5	RA34-20	RA34-20	RA34-20	RA34-30	RA34-20	RA34-20
2	RA34-30	RA34-30	RA34-30	RA34-50	RA34-30	RA34-30
2,5	RA34-40	RA34-30	RA34-30	RB60-30H	RA34-40	RA34-40
3	RA34-50	RA34-40	RA34-40	RB60-40H	RA34-50	RA34-40
3,5	RA34-60	RA34-50	RA34-50	RB60-50H	RB60-30H	RA34-60
4	RB60-40H	RB60-30H	RA34-60	RB60-60H	RB60-40H	RB60-40H
5	RB60-40H	RB60-40H	RB60-40H	RB60-80H	RB60-40H	RB60-40H
6	RB60-50H	RB60-50H	RB60-50H	RM110-40H	RB60-60H	RB60-50H
7,5	RB60-80H	RB60-70H	RB60-60H	RM110-50H	RM110-30H	RB60-80H

125/121,4°F – 105/115°F	R32	R452B	R454B	R1234ZE	R290	R410
0,5	RA22-10	RA14-20	RA14-20	RA22-10	RA34-10	RA14-20
0,75	RA34-10	RA34-10	RA34-10	RA34-10	RA34-10	RA34-10
1	RA34-10	RA34-10	RA34-10	RA34-10	RA34-10	RA34-10
1,5	RA22-30	RA22-30	RA22-30	RA34-10	RA34-10	RA22-30
2	RA34-20	RA34-20	RA34-20	RA34-20	RA34-20	RA34-20
2,5	RA34-20	RA34-30	RA34-20	RA34-20	RA34-20	RA34-20
3	RA34-30	RA34-30	RA34-30	RA34-20	RA34-20	RA34-30
3,5	RA34-30	RA34-30	RA34-30	RA34-30	RA34-30	RA34-30
4	RA34-30	RA34-40	RA34-40	RA34-30	RA34-30	RA34-30
5	RA34-40	RA34-40	RA34-40	RA34-40	RA34-40	RA34-40
6	RB60-30H	RB47-50H	RB60-30H	RB47-40H	RB60-30H	RB60-30H
7,5	RB60-40	RB60-40H	RB60-40H	RB47-50H	RB60-40	RB60-40H

18/23,4°F – 32/23°F	R32	R452B	R454B	R1234ZE	R290	R410
0,5	RA34-20	RA34-20	RA34-20	RA34-20	RA34-20	RA34-20
0,75	RA34-20	RA34-20	RA34-20	RA34-30	RA34-20	RA34-20
1	RA34-30	RA34-20	RA34-20	RA34-40	RA34-30	RA34-30
1,5	RA34-40	RA34-30	RA34-30	RB60-40-1	RA34-40	RA34-40
2	RA34-50	RA34-40	RA34-40	RB60-50H	RA34-50	RA34-50
2,5	RB60-40H	RA34-60	RA34-60	RB60-60H	RB60-40H	RB60-40H
3	RB60-50H	RB60-40H	RB60-40H	RB60-90H	RB60-40H	RB60-40H
3,5	RB60-50H	RB60-50H	RB60-50H	RM110-40H	RB60-50H	RB60-50H
4	RB60-60H	RB60-50H	RB60-50H	RM110-40H	RB60-60H	RB60-60H
5	RM110-40H	RB60-70H	RB60-70H	RM110-50H	RM110-40H	RB60-80H
6	RM110-50H	RB60-100H	RB60-100H	RM110-60H	RM110-40H	RM110-40H
7,5	RM110-60H	RM110-50H	RM110-50H	RM110-80H	RM110-50H	RM110-50H

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

COOLING CAPACITY TABLE FOR HIGH POWER INSTALLATIONS

EVAPORATOR [$dT_{GROUND\ SOURCE}$=5K]

39/44,4°F – 54/44°F	R32	R452B	R454B	R1234ZE	R290	R410
10	RM110-40H	RM110-40H	RM110-30H	RM110-60H	RM110-40H	RM110-40H
12,5	RM110-50H	RM110-40H	RM110-40H	RM110-70H	RM110-50H	RM110-50H
15	RM110-60H	RM110-50H	RM110-50H	RM110-90H	RM110-60H	RM110-50H
20	RM110-70H	RM110-60H	RM110-60H	RM110-130H	RM110-70H	RM110-70H
25	RM110-90H	RM110-80H	RM110-80H	RD235-80	RM110-90H	RM110-90H
30	RM110-110H	RM110-90H	RM110-90H	RD235-100	RM110-120H	RM110-110H
35	RM110-150H	RM110-120H	RM110-120H	RD235-130	RD235-70	RM110-140H
40	RD235-80	RD235-70	RD235-70	—	RD235-80	RD235-80
50	RD235-110	RD235-90	RD235-90	—	RD235-120	RD235-110
60	—	RD235-130	RD235-120	—	—	—
70	—	—	—	—	—	—
80	—	—	—	—	—	—

CONDENSER [$dT_{INSTALLATION}$=10°F]

105/101,4°F – 85/95°F	R32	R452B	R454B	R1234ZE	R290	R410
10	RB60-40	RB60-50H	RB60-50H	RB60-40	RB60-50	RB60-50H
12,5	RM110-30	RM110-40	RM110-40	RM110-30	RM110-40	RM110-40
15	RM110-40	RM110-40H	RM110-40H	RM110-40	RM110-40	RM110-40H
20	RM110-50	RM110-60	RM110-60	RM110-50	RM110-50	RM110-60
25	RM110-50	RM110-70H	RM110-70	RM110-50	RM110-70	RM110-70
30	RM110-60	RM110-80H	RM110-80	RM110-60	RM110-80	RM110-80
35	RM110-70	RM110-100	RM110-100	RM110-70	RM110-90	RM110-100
40	RM110-90	RM110-120	RM110-110	RM110-90	RM110-100	RM110-110
50	RM110-110	RM110-150	RM110-140	RM110-110	RM110-120	RM110-130
60	RM110-150	RC170-130	RC170-130	RM110-150	RM110-150	RC170-130
70	RD235-100	RD235-100	RD235-100	RD235-100	RD235-100	RD235-100
80	RD235-120	RD235-120	RD235-120	RD235-120	RD235-120	RD235-120

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

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

18/23,4°F – 32/23°F	R32	R452B	R454B	R1234ZE	R290	R410
10	RM110-70H	RM110-60H	RM110-60H	RM110-100H	RM110-70H	RM110-70H
12,5	RM110-90H	RM110-80H	RM110-80H	RM110-140H	RM110-80H	RM110-80H
15	RM110-110H	RM110-90H	RM110-90H	RD235-80	RM110-100H	RM110-100H
20	RM110-150H	RM110-120H	RM110-120H	RD235-100	RD235-70	RM110-140H
25	RD235-90	RD235-80	RD235-80	—	RD235-90	RD235-90
30	RD235-110	RD235-90	RD235-90	—	RD235-110	RD235-100
35	—	RD235-110	RD235-110	—	—	—
40	—	—	—	—	—	—
50	—	—	—	—	—	—
60	—	—	—	—	—	—
70	—	—	—	—	—	—
80	—	—	—	—	—	—

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

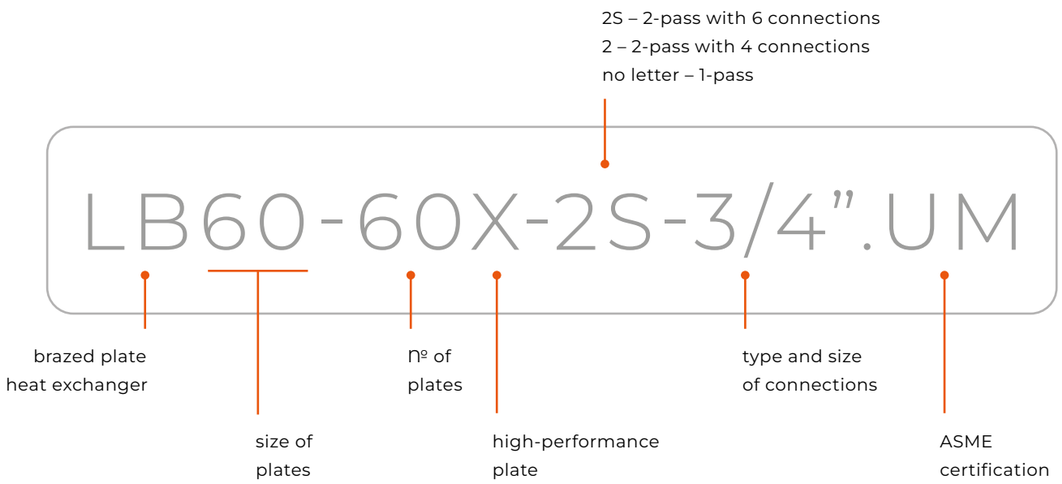
WATER
85/95 – 105/115 – 125/135°F

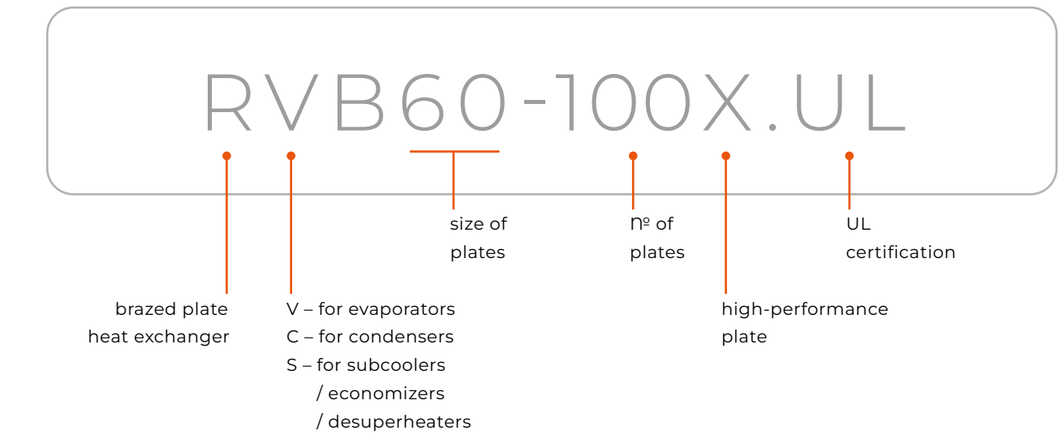
DPMAX<30KPA

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.

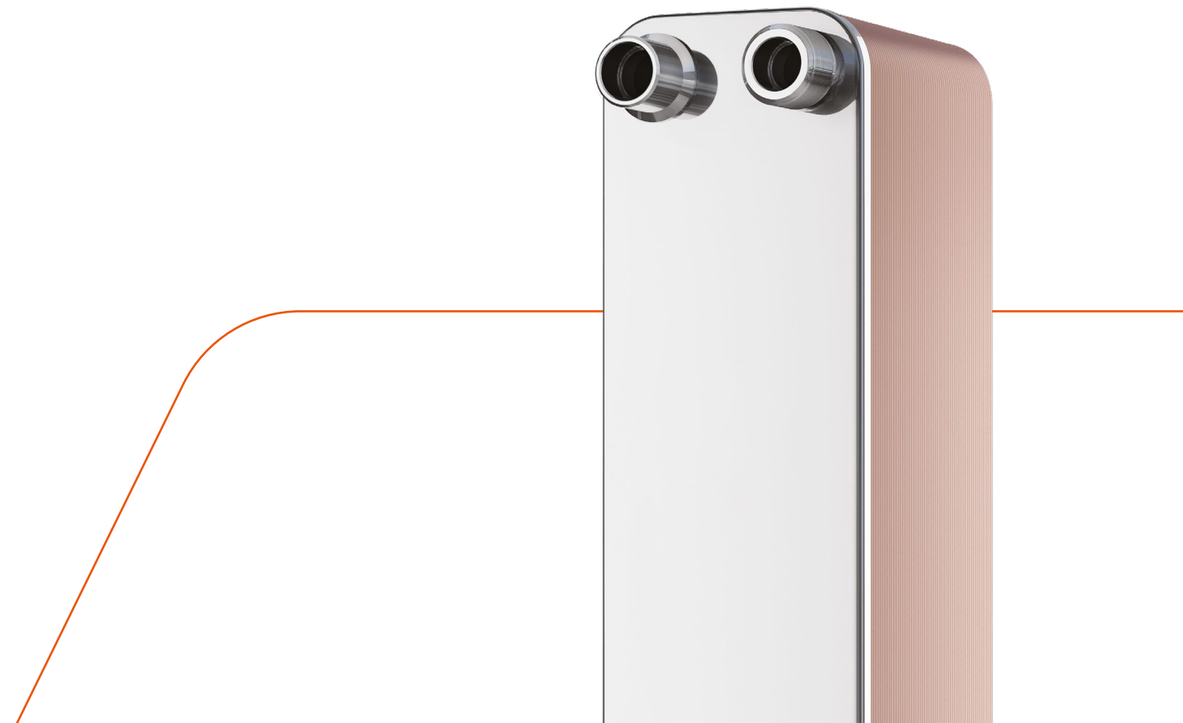
EXEMPLAR DESIGNATION





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



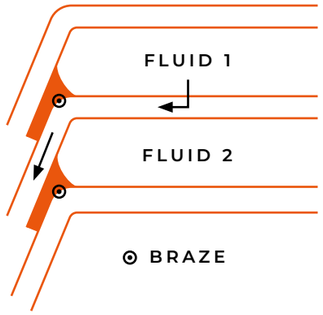
SAFEPLATE

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

- DOUBLE WALL SYSTEM – HELPS TO PREVENT POTENTIAL MIXING OF WORKING MEDIA
- HIGH PERFORMANCE
- QUICK DETECTION OF INTERNAL LEAKAGE – LEADING THE LEAKAGE OUTSIDE
- LONG-TERM LIFE SPAN – MADE OF CORROSION RESISTANT STAINLESS STEEL
- COMPACT SIZE

EXEMPLAR DESIGNATION

LB47SP-30-1"

- LB47SP: brazed plate heat exchanger
- 47: size of heating plates
- SP: double wall heating plate
- 30: nº of heating plates
- 1": type and size of connections

TECHNICAL PARAMETERS

Type	Dimensions						max nº of plates	Mass
	A	B	C	D	E	F		
	in	in	in	in	in	in		lb
LB47SP 1" NPT	2,68	14,17	16,46	4,93	1,1	0.43 + 0.10 × NP	100	8.07 + 0.57 × NP
LC140SP L 2,5" NPT	6,69	19,29	22,83	10,23	1,5	0.43 + 0.10 × NP	150	20.08 + 1.81 × NP
LC140SP M 2,5" NPT	6,69	19,29	22,83	10,23	1,5	0.43 + 0.10 × NP	150	20.08 + 1.81 × NP
LC140SP H 2,5" NPT	6,69	19,29	22,83	10,23	1,5	0.43 + 0.10 × NP	150	20.08 + 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.

TECHNICAL DATA

MATERIALS

— STAINLESS STEEL
— COPPER BRAZING

WORKING PARAMETERS

MAX. PRESSURE
LASP, LBSP — 435 PSI
LCSP — 290 PSI

MAX. TEMPERATURE — 446°F

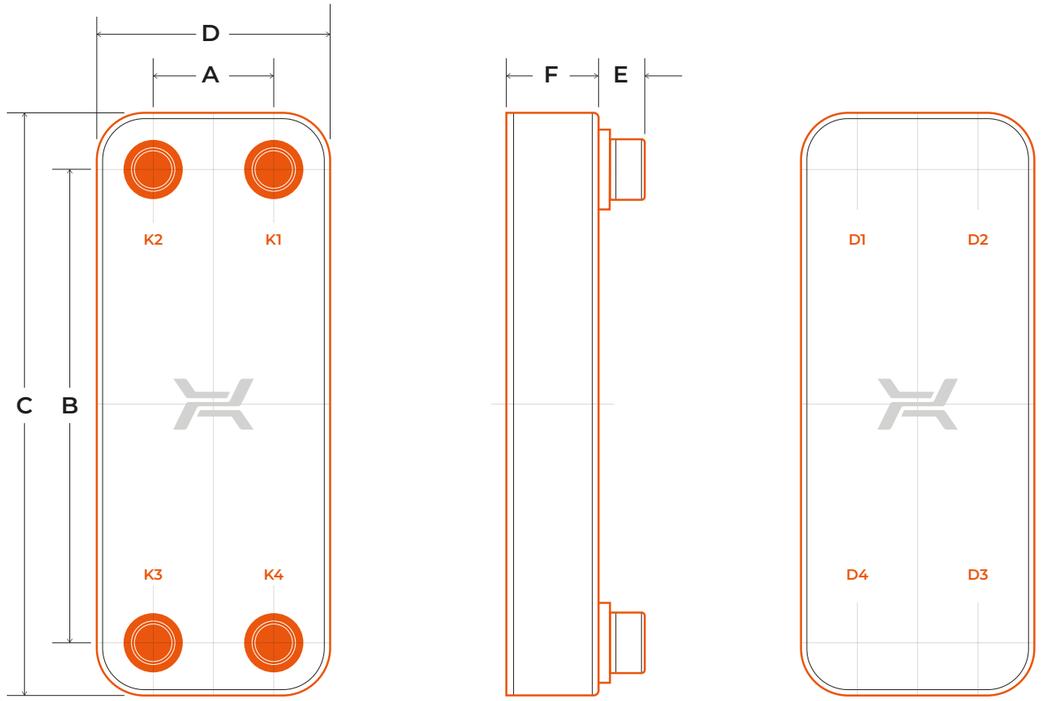
MIN. TEMPERATURE — -319°F

EXEMPLARY MEDIA

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

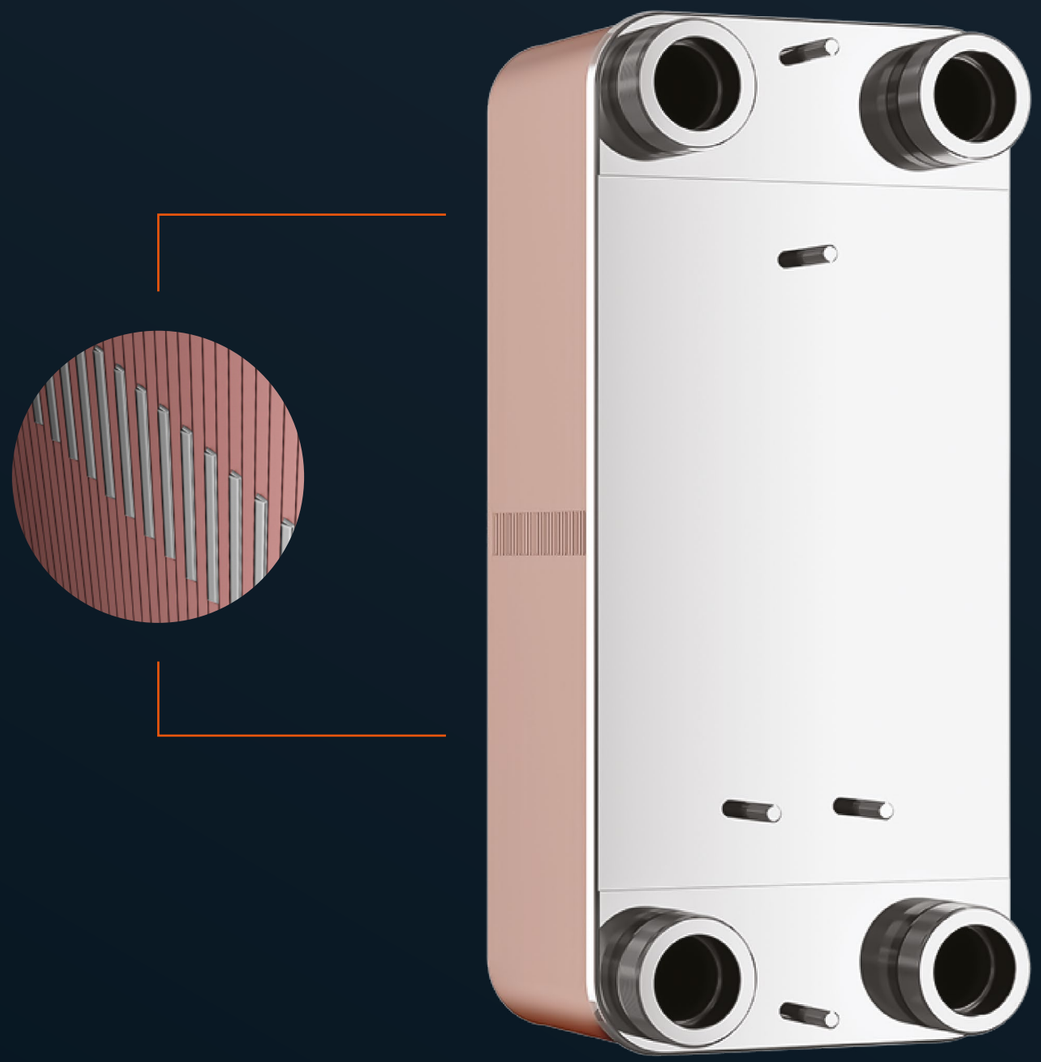
STANDARD LOCATION OF CONNECTIONS

K1 / K4 — inlet / outlet hot side K1 / K4 — inlet / outlet hot side



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.

THE SPECIALLY DESIGNED DOUBLE WALL LAYOUT AND A SLOT ON THE SIDE SURFACE OF THE EXCHANGER LEADS THE LEAKAGE OUTSIDE, ALLOWING QUICK VISUAL DETECTION AND UNDERTAKING APPROPRIATE PREVENTIVE MEASURES.



TYPE AND SIZE OF CONNECTIONS

L	Luna	R			Safe Plate	Connections																	
						1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1 1/4"	1 1/2"	1 1/8"	1 3/8"	1 5/8"	2"	2 1/8"	2 1/2"	3"	4"	6"
LA12							○◎	○◎		○◎													
LA14	LA14LN	RVA14	RCA14	RSA14		◐	○◎ ◐	○◎ ◐	◐	○◎ ◐	◐												
LA22	LA22LN	RVA22	RCA22	RSA22		◐	○◎ ◐	○◎ ◐	◐	○◎ ◐	◐												
LA34	LA34LN	RVA34	RCA34	RSA34		◐	○◎ ◐	○◎ ◐	◐	○◎ ◐	◐												
LJ30										○◎		◎											
LH40										○◎		◎											
LB31	LB31LN	RVB31	RCB31	RSB31		◐	◐	◐	◐	○◎ △◐	◐	○◎ △◐	○◎ △	△	◐	◐							
LB47	LB47LN	RVB47	RCB47	RSB47		◐	◐	◐	◐	○◎ △◐	◐	○◎ △◐	○◎ △	△	◐	◐							
					LB47SP							○											
LB60	LB60LN	RVB60	RCB60			◐	◐	◐	◐	○◎ △◐	◐	○◎ △◐	○◎ △	△	◐	◐							
LM110	LM110LN	RVM110	RCM110								◐				◐	◐	◐	◎					
LC110	LC110LN	RVC110	RCC110								◐	○◐	○◎ △	○◎ △	◐	◐	◐	○◎ ⊕	◐	◎△			
					LC140SP															○			
LC170	LC170LN	RVC170	RCC170								◐	○◐	○◎ △	○◎ △	◐	◐	◐	○◎ ⊕	◐	◎△			
LD235	LD235LN	RVD235	RCD235																		⊕		
LE400																						⊕	
LF700																							⊕

○ internal thread

◎ dual (external thread and soldering)

△ Victaulic

⊕ flange

◐ welded connection for R-line

MOUNTING BRACKETS

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

INSULATION

INSULATION MADE OF POLYURETHANE FOAM COVERED WITH ALUMINUM (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 ALUMINUM (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

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