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BRAZED PLATE HEAT EXCHANGERS

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

APPLICATION



CHILLERS

REFRIGERATION
UNITSHEAT
PUMPSICE WATER
GENERATORSCOOLING SYSTEMS
WITH SPECIAL
CONSTRUCTION

ADVANTAGES

OUTSTANDING
RELIABILITYOPTIMIZED
FOR MODERN
REFRIGERANTSRESISTANCE TO
CYCLIC FATIGUESPECIAL CHANNEL
PATTERN ENSURES
EFFECTIVE
EVAPORATION
OR CONDENSATIONRESISTANCE
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.

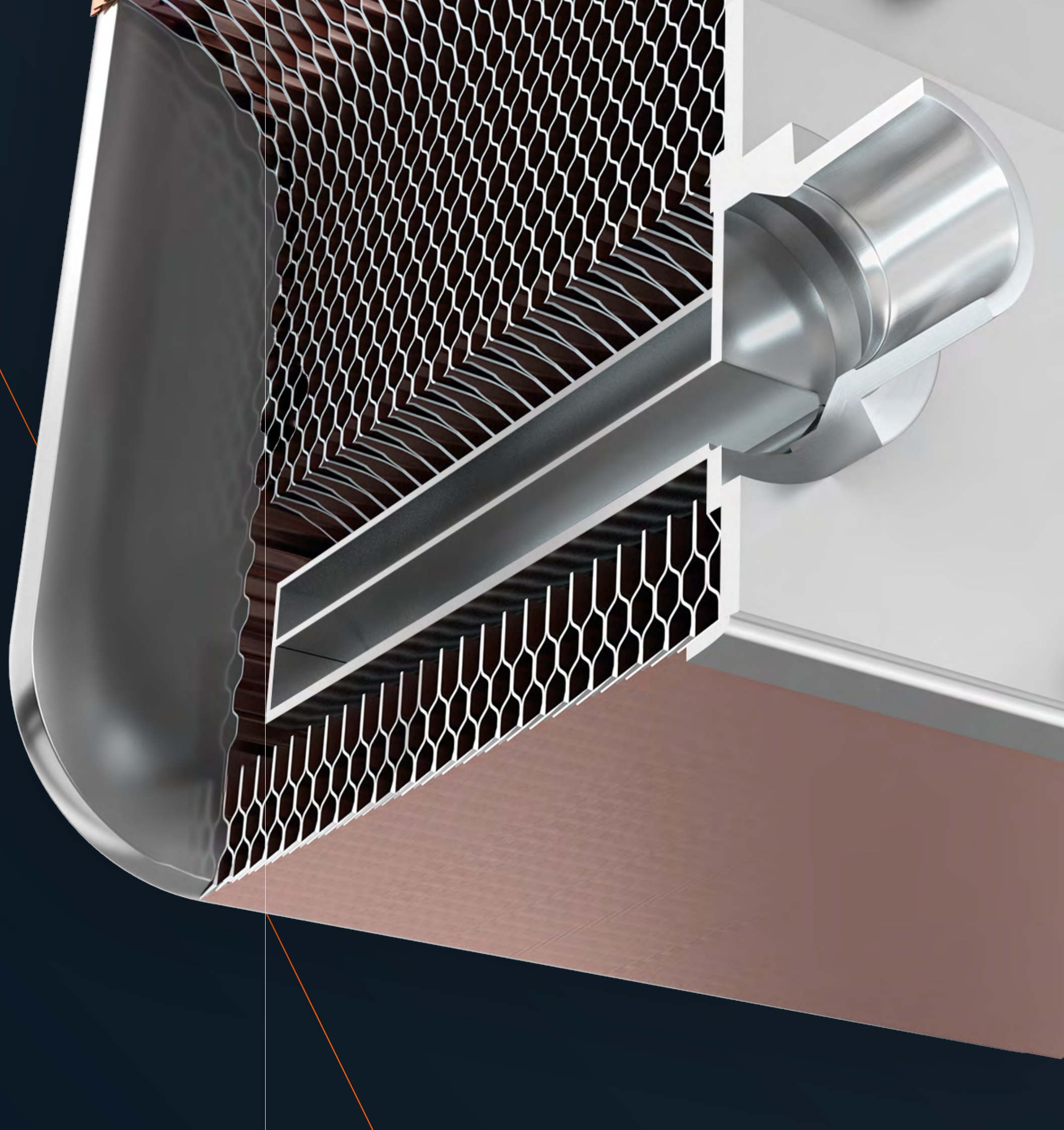
CONDENSERS

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

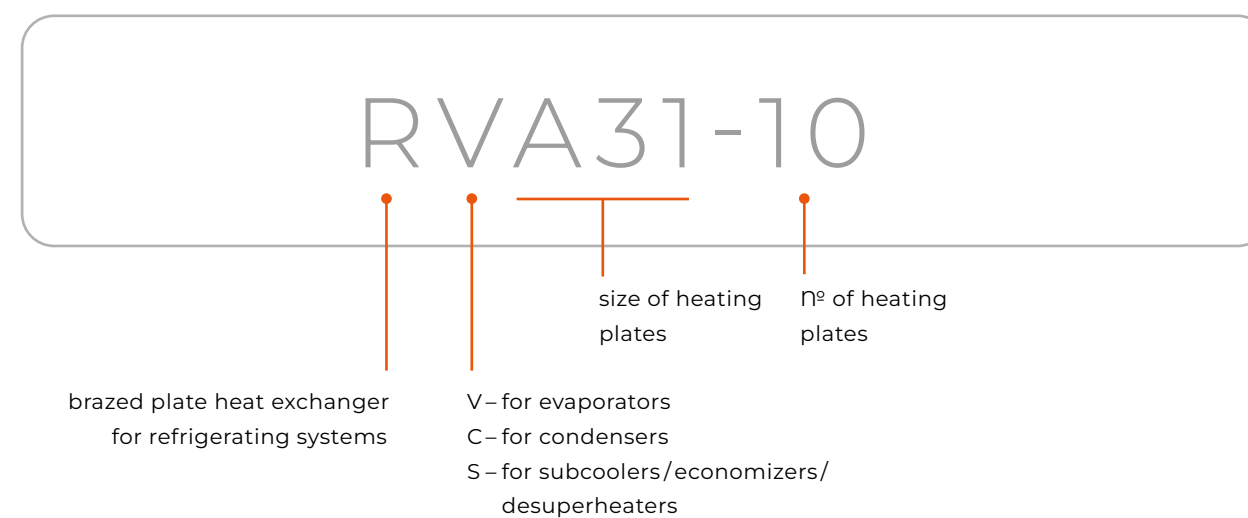
Refrigerant Distribution System is a unique system of dynamical distribution of a boiling agent which has been developed by Hexonic for evaporators with higher refrigerating capacity.

This system ensures a balanced distribution of the agent inside the channels and simultaneously reduces the fluctuations in vapour overheating.





EXEMPLAR DESIGNATION



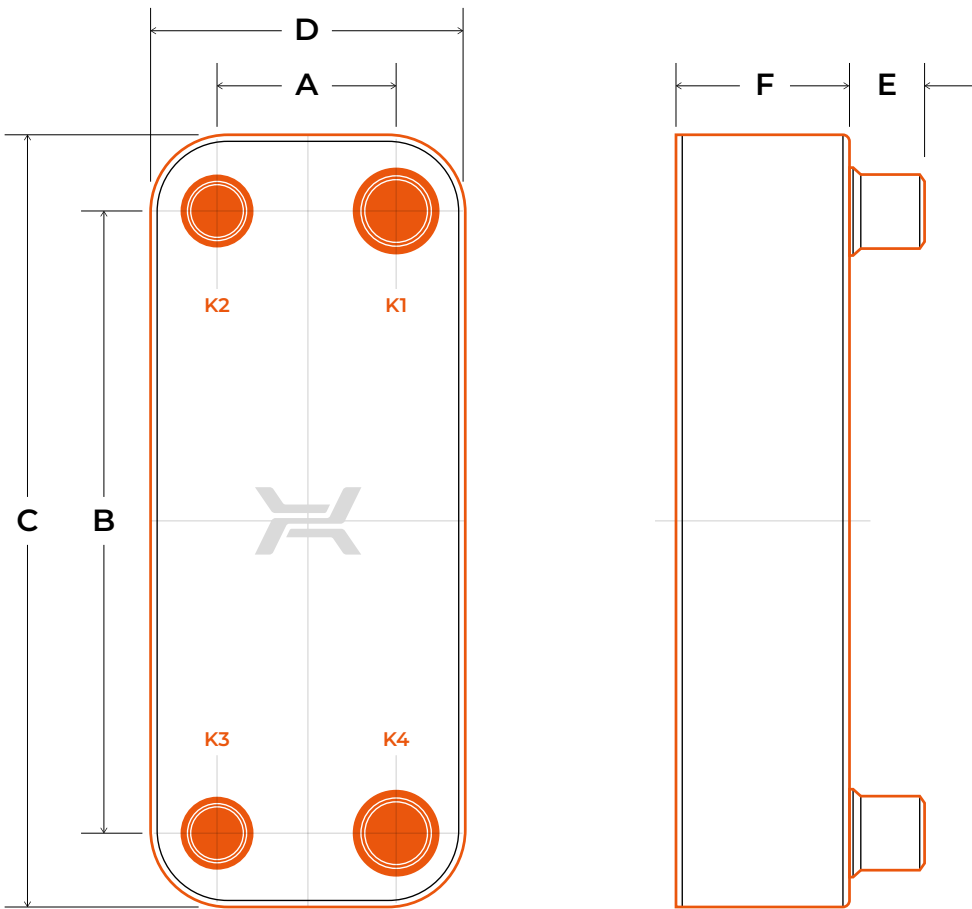
PRODUCT LINE



TECHNICAL DATA

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

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



MATERIALS

- STAINLESS STEEL
- 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 — 150°C / 302°F

MIN. TEMPERATURE — -195°C / -319°F

MAX. PRESSURE

REFRIGERANT SIDE — 4,5 MPA / 653 PSI
WATER, GLYCOL SIDE — 2,5 MPA / 363 PSI

TECHNICAL PARAMETERS

Type	Dimensions										Weight			
	A		B		C		D		E		F			
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb

EVAPORATORS

RVA14	42	1,7	164	6,5	203	8,0	81	3,2	16	0,6	9 + 2,3 × NP	0.35 + 0.09 × NP	0,7 + 0,049 × NP	1.54 + 0.11 × NP
RVA22	42	1,7	260	10,2	299	11,8	81	3,2	16	0,6	9 + 2,3 × NP	0.35 + 0.09 × NP	0,9 + 0,073 × NP	1.98 + 0.16 × NP
RVA34	42	1,7	432	17,0	471	18,5	81	3,2	16	0,6	9 + 2,3 × NP	0.35 + 0.09 × NP	1,3 + 0,116 × NP	2.87 + 0.26 × NP
RVB31	68	2,7	232	9,1	286	11,3	123	4,8	28	1,1	10 + 2,35 × NP	0.39 + 0.09 × NP	1,7 + 0,114 × NP	3.75 + 0.25 × NP
RVB47	68	2,7	360	14,2	417	16,4	123	4,8	28	1,1	10 + 2,35 × NP	0.39 + 0.09 × NP	2,3 + 0,168 × NP	5.07 + 0.37 × NP
RVB60	68	2,7	480	18,9	538	21,2	123	4,8	28	1,1	10 + 2,35 × NP	0.39 + 0.09 × NP	2,8 + 0,219 × NP	6.17 + 0.48 × NP
RVC110	170	6,7	378	14,9	466	18,3	258	10,2	28	1,1	10 + 2,4 × NP	0.39 + 0.09 × NP	8,8 + 0,409 × NP	19.40 + 0.9 × NP
RVC170	170	6,7	600	23,6	688	27,1	258	10,2	28	1,1	10 + 2,4 × NP	0.39 + 0.09 × NP	11,5 + 0,617 × NP	25.35 + 1.36 × NP
RVM110	91	3,6	520	20,5	619	24,4	190	7,5	28	1,1	10 + 2,6 × NP	0.393 + 0.102 × NP	8,4 + 0,408 × NP	18.52 + 0.9 × NP
RVD235	204	8,0	682	26,9	788	31,0	310	12,2	28	1,1	13 + 2,5 × NP	0.51 + 0.10 × NP	40 + 0,828 × NP	88.18 + 1.83 × NP

CONDENSERS

RCA14	42	1,7	164	6,5	203	8,0	81	3,2	16	0,6	9 + 2,3 × NP	0.35 + 0.09 × NP	0,7 + 0,049 × NP	1.54 + 0.11 × NP
RCA22	42	1,7	260	10,2	299	11,8	81	3,2	16	0,6	9 + 2,3 × NP	0.35 + 0.09 × NP	0,9 + 0,073 × NP	1.98 + 0.16 × NP
RCA34	42	1,7	432	17,0	471	18,5	81	3,2	16	0,6	9 + 2,3 × NP	0.35 + 0.09 × NP	1,3 + 0,116 × NP	2.87 + 0.26 × NP
RCB31	68	2,7	232	9,1	286	11,3	123	4,8	28	1,1	10 + 2,35 × NP	0.35 + 0.09 × NP	1,7 + 0,114 × NP	3.75 + 0.25 × NP
RCB47	68	2,7	360	14,2	417	16,4	123	4,8	28	1,1	10 + 2,35 × NP	0.39 + 0.09 × NP	2,3 + 0,168 × NP	5.07 + 0.37 × NP
RCB60	68	2,7	480	18,9	538	21,2	123	4,8	28	1,1	10 + 2,35 × NP	0.39 + 0.09 × NP	2,8 + 0,219 × NP	6.17 + 0.48 × NP
RCC110	170	6,7	378	14,9	466	18,3	258	10,2	28	1,1	10 + 2,4 × NP	0.39 + 0.09 × NP	8,8 + 0,409 × NP	19.4 + 0.9 × NP
RCC170	170	6,7	600	23,6	688	27,1	258	10,2	28	1,1	10 + 2,4 × NP	0.39 + 0.09 × NP	11,5 + 0,617 × NP	25.35 + 1.36 × NP
RCM110	91	3,6	520	20,5	619	24,4	190	7,5	28	1,1	10 + 2,6 × NP	0.39 + 0.10 × NP	8,4 + 0,408 × NP	18.52 + 0.9 × NP
RCD235	204	8,0	682	26,9	788	31,0	310	12,2	28	1,1	13 + 2,5 × NP	0.51 + 0.10 × NP	40 + 0,828 × NP	88.18 + 1.83 × NP

SUBCOOLERS / ECONOMIZERS / DESUPERHEATERS

RSA14	42	1,7	164	6,5	203	8,0	81	3,2	16	0,6	9 + 2,3 × NP	0.35 + 0.09 × NP	0,7 + 0,049 × NP	1.54 + 0.11 × NP
RSA22	42	1,7	260	10,2	299	11,8	81	3,2	16	0,6	9 + 2,3 × NP	0.35 + 0.09 × NP	0,9 + 0,073 × NP	1.98 + 0.16 × NP
RSB31	68	2,7	232	9,1	286	11,3	123	4,8	28	1,1	10 + 2,35 × NP	0.39 + 0.09 × NP	1,7 + 0,114 × NP	3.75 + 0.25 × NP
RSB47	68	2,7	360	14,2	417	16,4	123	4,8	28	1,1	10 + 2,35 × NP	0.39 + 0.09 × NP	2,3 + 0,168 × 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]							CONDENSER [dT _{INSTALLATION} =10K]						
W12	R32	R452B	R454B	R1234ZE	R290	R410	W35	R32	R452B	R454B	R1234ZE	R290	R410
4 kW	RVA22-60	RVA22-50	RVA22-50	RVB31H-40	RVA22-50	RVA22-50	4 kW	RCA14-40	RCA14-40	RCA14-40	RCA14-40	RCA14-50	RCA14-30
6 kW	RVA34-30	RVA34-20	RVA34-20	RVB31H-50	RVA34-20	RVA34-20	6 kW	RCA14-50	RCA14-60	RCA14-60	RCA14-60	RCA22-40	RCA14-50
9 kW	RVA34-30	RVA34-30	RVA34-30	RVC110-30	RVB31H-80	RVA34-30	9 kW	RCA22-40	RCA22-50	RCA22-50	RCA22-40	RCA22-50	RCA14-60
12 kW	RVB47H-50	RVB47H-40	RVB47H-40	RVC110-40	RVB47H-50	RVB47H-50	12 kW	RCA22-50	RCA22-60	RCA22-60	RCA22-60	RCA22-60	RCA22-50
16 kW	RVB47H-90	RVB47H-70	RVB47H-70	RVC110-50	RVC110-40	RVB47H-70	16 kW	RCA22-60	RCA34-40	RCA34-40	RCB31-80	RCA34-30	RCA22-60
20 kW	RVB60H-40	RVB60H-40	RVB60H-40	RVC110-70	RVC110-50	RVB60H-40	20 kW	RCA34-30	RCA34-40	RCA34-40	RCB31-90	RCA34-40	RCA34-50
25 kW	RVC110-80	RVC110-70	RVC110-70	RVC110-100	RVC110-70	RVC110-70	25 kW	RCA34-40	RCA34-50	RCA34-50	RCB31H-80	RCB31H-90	RCA34-60
35 kW	RVC170-40	RVC170-30	RVC170-30	RVD235-30	RVC170-30	RVC170-30	35 kW	RCA34-50	RCB47-80	RCB47-80	RC110-40	RCB47-90	RCB31H-100
50 kW	RVC170-50	RVC170-40	RVC170-40	—	RVD235-30	RVC170-50	50 kW	RCB47-90	RCB47H-100	RCB47H-100	RC110-50	RC110-60	RCB47-100
60 kW	RVC170-60	RVC170-50	RVC170-50	—	RVD235-40	RVC170-50	60 kW	RCB47H-90	RCB60-90	RCB60-90	RC110-60	RC110-70	RCB60-80
W7	R32	R452B	R454B	R1234ZE	R290	R410	W45	R32	R452B	R454B	R1234ZE	R290	R410
4 kW	RVA34-20	RVA22-50	RVA22-50	RVB31H-40	RVA22-60	RVA22-50	4 kW	RCA14-40	RCA14-50	RCA14-50	RCA14-50	RCA14-50	RCA14-50
6 kW	RVA34-30	RVA34-20	RVA34-20	RVB31H-60	RVB31H-50	RVA34-30	6 kW	RCA14-50	RCA14-60	RCA14-60	RCA22-30	RCA22-40	RCA22-40
9 kW	RVA34-40	RVB31H-90	RVB31H-90	RVC110-30	RVB31H-90	RVA34-40	9 kW	RCA22-40	RCA22-50	RCA22-50	RCA22-50	RCA22-50	RCA22-50
12 kW	RVB47H-60	RVB47H-50	RVB47H-50	RVC110-40	RVC110-30	RVB47H-50	12 kW	RCA22-50	RCA22-60	RCA22-60	RCA22-60	RCA22-60	RCA22-60
16 kW	RVB60-80	RVB47H-80	RVB47H-80	RVC110-50	RVC110-40	RVB60H-90	16 kW	RCA22-60	RCA34-40	RCA34-40	RCA34-30	RCA34-30	RCA34-40
20 kW	RVB60H-50	RVB60H-40	RVB60H-40	RVC110-70	RVC110-60	RVB60H-50	20 kW	RCA34-30	RCA34-50	RCA34-50	RCB31-100	RCA34-40	RCA34-40
25 kW	RVC110-90	RVC110-70	RVC110-80	RVD235-30	RVC110-80	RVC110-80	25 kW	RCA34-40	RCA34-60	RCA34-60	RCB31H-90	RCA34-50	RCA34-50
35 kW	RVC170-40	RVC170-30	RVC170-30	RVD235-40	RVC170-40	RVC170-40	35 kW	RCA34-50	RCB47-90	RCB47-90	RCB47-80	RCB47-90	RCB47-90
50 kW	RVC170-50	RVC170-50	RVC170-50	—	RVD235-40	RVC170-50	50 kW	RCB47-90	RCB60-80	RCB60-80	RC110-60	RCB60-80	RCB60-80
60 kW	RVC170-60	RVC170-50	RVC170-50	—	RVD235-40	RVC170-60	60 kW	RCB47H-100	RCB60-100	RCB60-100	RC110-60	RC110-70	RCB60-100
B0	R32	R452B	R454B	R1234ZE	R290	R410	W55	R32	R452B	R454B	R1234ZE	R290	R410
4 kW	RVA34-30	RVA34-30	RVA34-30	RVB47H-50	RVA34-30	RVA34-30	4 kW	RCA14-40	RCA14-40	RCA14-50	RCA14-50	RCA14-50	RCA14-50
6 kW	RVA34-40	RVA34-30	RVA34-30	RVC110-40	RVB47H-60	RVA34-40	6 kW	RCA14-60	RCA14-60	RCA22-40	RCA22-30	RCA22-40	RCA22-40
9 kW	RVB60-60	RVB60-40	RVB60-40	RVC110-50	RVB60H-40	RVB60H-40	9 kW	RCA22-40	RCA22-50	RCA22-50	RCA22-50	RCA22-50	RCA22-50
12 kW	RVB60H-50	RVB60H-40	RVB60H-40	RVC170-30	RVC110-60	RVB60H-50	12 kW	RCA22-50	RCA22-60	RCA34-30	RCA22-60	RCA34-30	RCA34-30
16 kW	RVB60H-70	RVB60H-60	RVC170-30	RVC170-30	RVC170-30	RVC170-30	16 kW	RCA22-60	RCA34-40	RCA34-40	RCA34-30	RCA34-30	RCA34-30
20 kW	RVC170-30	RVC170-30	RVC170-30	RVD235-30	RVC170-30	RVC170-30	20 kW	RCA34-30	RCA34-50	RCA34-50	RCB31-100	RCA34-40	RCA34-40
25 kW	RVC170-40	RVC170-40	RVC170-40	RVD235-40	RVC170-40	RVC170-40	25 kW	RCA34-40	RCA34-60	RCA34-60	RCB31H-90	RCA34-50	RCA34-50
35 kW	RVC170-50	RVC170-50	RVC170-50	—	RVD235-40	RVC170-50	35 kW	RCA34-50	RCB47-90	RCB47-90	RCB47-80	RCB47-90	RCA34-60
50 kW	RVC170-70	RVC170-60	RVC170-60	—	RVD235-50	RVD235-50	50 kW	RCB47-100	RCB60-80	RCB60-90	RC110-60	RCB60-80	RCB60-80
60 kW	RVD235-60	RVD235-50	RVD235-50	—	—	RVD235-60	60 kW	RCB47H-90	RCB60-100	RCB60-100	RC110-70	RCB60-90	RCB60-90

EVAPORATOR

MEDIUM
EVAPORATION TEMP.
— 4/-1/-8°C
OVERHEATING — 3K

WATER
12/7°C – 7/2°C
DPMAX<30KPA

PG35
0/-5°C
DPMAX<30KPA

CONDENSER

MEDIUM
CONDENSING TEMP.
— 58/48/38°C
OVERCOOLING — 2K

WATER
23/35°C – 35/45°C – 45/55°C
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} =10K]				CONDENSER [dT _{INSTALLATION} =5K]			
power [kW]	R1234ZE E	R134A	R290	power [kW]	R1234ZE E	R134A	R290
	W50W90 dT=10K	W45W80 dT=10K	W35W70 dT=10K		W50W90 dT=10K	W45W80 dT=10K	W35W70 dT=10K
150 kW	RVC170-60	RVC170-60	RVC170-60	150 kW	RCC110-80	RCC110-70	RCC110-50
180 kW	RVC170-70	RVC170-70	RVC170-70	180 kW	RCC110-90	RCC110-80	RCC110-60
210 kW	RVC170-80	RVC170-80	RVC170-80	210 kW	RCC110-100	RCC110-90	RCC110-70
240 kW	RVD235-70	RVD235-70	RVC170-90	240 kW	RCC170-70	RCC170-80	RCC170-80
270 kW	RVD235-80	RVD235-80	RVD235-80	270 kW	RCC170-90	RCC170-90	RCC170-90
300 kW	RVD235-90	RVD235-90	RVD235-90	300 kW	RCC170-100	RCC170-100	RCC170-100
350 kW	RVD235-100	RVD235-100	RVD235-100	350 kW	RCC170-120	RCC170-120	RCC170-120
400 kW	RVD235-120	RVD235-120	RVD235-120	400 kW	RCD235-100	RCD235-100	RCD235-100
450 kW	RVD235-130	RVD235-110	RVD235-110	450 kW	RCD235-110	RCD235-110	RCD235-110
500 kW	RVD235-140	RVD235-120	RVD235-130	500 kW	RCD235-120	RCD235-120	RCD235-120
power [kW]	R1234ZE E	R134A	R290	power [kW]	R1234ZE E	R134A	R290
	W50W90 dT=5K	W45W80 dT=5K	W35W70 dT=5K		W50W90 dT=5K	BW	W35W70 dT=5K
150 kW	RVD235-50	RVC170-70	RVC170-60	150 kW	RCC170-70	RCC170-70	RCC170-50
180 kW	RVD235-60	RVD235-50	RVD235-50	180 kW	RCC170-90	RCC170-80	RCC170-60
210 kW	RVD235-70	RVD235-60	RVD235-60	210 kW	RCC170-100	RCC170-100	RCC170-70
240 kW	RVD235-80	RVD235-70	RVD235-70	240 kW	RCC170-110	RCC170-110	RCC170-80
270 kW	RVD235-90	RVD235-80	RVD235-80	270 kW	RCC170-130	RCC170-120	RCC170-90
300 kW	—	—	RVD235-90	300 kW	RCC170-140	RCC170-130	RCC170-100
350 kW	—	—	RVD235-100	350 kW	RCD235-110	RCC170-150	RCC170-120
400 kW	—	—	RVD235-110	400 kW	RCD235-130	RCD235-120	RCD235-100
450 kW	—	—	—	450 kW	RCD235-140	RCD235-130	RCD235-110
500 kW	—	—	—	500 kW	RCD235-150	RCD235-150	RCD235-120

EVAPORATOR

MEDIUM
EVAPORATION TEMP.
— 35/30/25°C
OVERHEATING — 3K

WATER
50/45°C – 45/40°C – 35/30°C
DPMAX<30KPA

MEDIUM
EVAPORATION TEMP.
— 45/35/30°C
OVERHEATING — 3K

WATER
50/45°C – 45/40°C – 35/30°C
DPMAX<30KPA

CONDENSER

MEDIUM
CONDENSING TEMP.
— 100/90/80°C
OVERCOOLING — 2K

WATER
80/90°C – 70/80°C – 60/70°C
DPMAX<30KPA

WATER
85/95°C – 75/85°C – 65/75°C
DPMAX<30KPA