

 R513A

 R134a

BRONZE EVO

HIGH TEMPERATURE HEAT PUMPS



enerblue

INSPIRED BY NATURE

BRONZE EVO

 **R134a** **R513A****80°** | 
Max WATER
temperature

Only heating water to water heat pumps. High efficiency and high temperature with scroll compressors. R134a refrigerant for all sizes or R513A refrigerant up to size 120. It is designed to satisfy high water temperature requests (up to 80°C), where medium water temperature is available on the source side (outlet water temperature up to 40°C).

The extended operating temperature range, both on the user and the source side, makes this serie optimal for many applications, such as domestic hot water production or heat recovery from industrial plants.

Range

Heating capacity (W35:W70) 29 ÷ 224 kW



Only heating

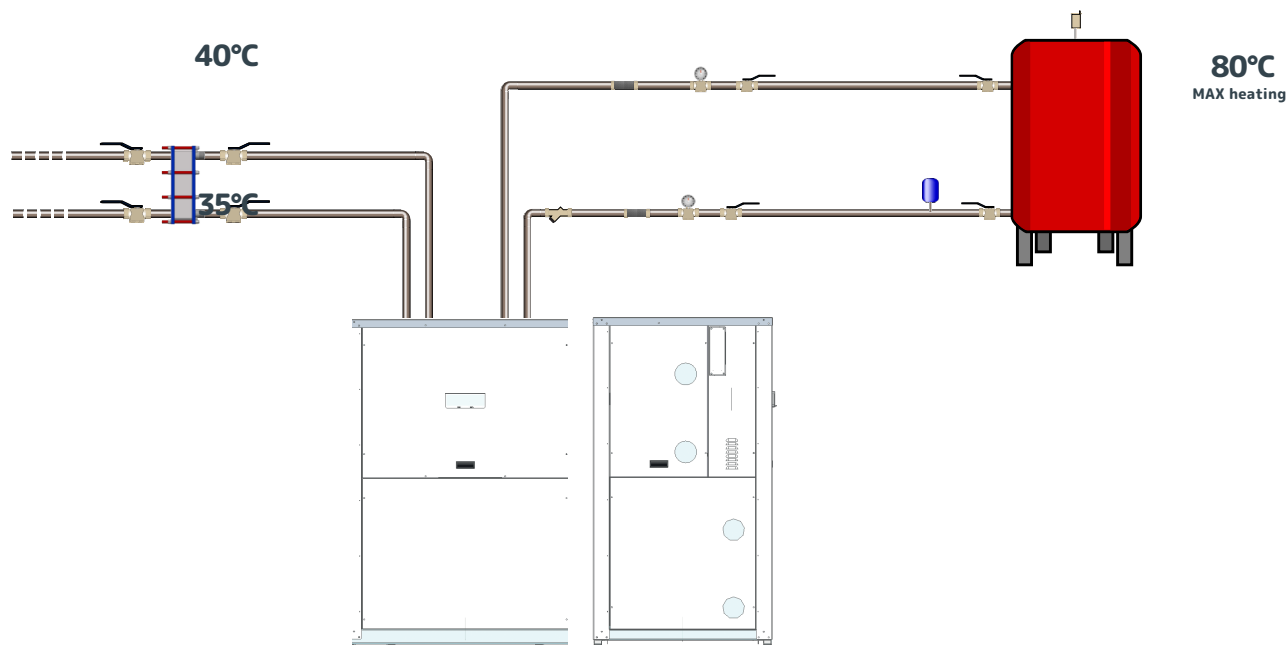


Scroll compressors

AVAILABLE VERSION

**STANDARD**

For 4-pipe-systems and hot water production up to 80°C.



CONFIGURATIONS

LN Low noise

The unit, in addition to the basic version components, includes the compressor box acoustically insulated with sound-absorbing and soundproof material.

TECHNICAL DATA

UNIT SIZE			30	35	40	50	62	70	80	100	120	160	190	240
Heating (EN 14511 values)														
Heating capacity (W 35°C/W 70°C)	(2) (6)	[kW]	32,1	37,0	41,9	53,3	64,1	73,7	84,9	110,3	132,5	168,6	207,4	255,2
Power input	(2) (6)	[kW]	7,5	8,2	9,5	12,8	15,0	16,5	19,1	25,3	30,8	37,8	48,4	58,2
COP	(2) (6)		4,3	4,5	4,4	4,2	4,3	4,5	4,4	4,4	4,3	4,5	4,3	4,4
Energy Seasonal Index														
SCOP	(7)		4,02	4,16	4,19	4,15	4,56	4,66	4,70	4,78	4,68	4,83	4,76	4,78
ηsh MT	(7)	%	152.6	158.6	159.6	158.1	174.3	178.3	179.8	183.4	179.3	185.2	182.3	183.4
Ecolabel			A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++ (*)	A+++ (*)	A+++ (*)	A+++ (*)
Compressor Scroll														
Quantity/Refrigerant circuits		[n°/n°]	1 / 1	1 / 1	1 / 1	1 / 1	2 / 1	2 / 1	2 / 1	2 / 1	2 / 1	2 / 2	2 / 2	2 / 2
Capacity steps		[%]	0-100	0-100	0-100	0-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100
User Side Exchanger														
Water flow rate	(2)	[l/h]	5619	6464	7330	9322	11210	12900	14850	19300	23160	29510	36290	44680
Pressure drop	(2)	[kPa]	31,8	36,2	33,4	36,5	28,4	33,7	29,6	41,0	48,6	25,8	32,6	45,1
Minimum flow rate		[l/h]	1877	2157	1512	1764	2160	2340	3990	4390	5258	6480	7920	8640
Source Side Exchanger														
Water flow rate	(2)	[l/h]	4338	5017	5712	7048	8635	9966	11580	14820	17740	22740	27980	34740
Pressure drop	(2)	[kPa]	25,6	26,9	20,1	18,3	17,8	20,5	19,2	25,2	29,3	15,5	18,7	26,8
Hydraulic connection														
User Side			G 1"1/4 F	G 1"1/4 F	G 1"1/4 F	G 1"1/2 F	G 2" F	G 2" F	G 2" F	G 2" F	G 2" F	G 2 1/2" F	G 2 1/2" F	G 2 1/2" F
Source Side			G 1"1/4 F	G 1"1/4 F	G 1"1/4 F	G 1"1/2 F	G 2" F	G 2" F	G 2" F	G 2" F	G 2" F	G 2 1/2" F	G 2 1/2" F	G 2 1/2" F
User Side Pump														
Available pump pressure	(8) (2)	[kPa]	84,3	69,6	103,2	64,6	148,6	136,6	132,6	101,5	138,7	133,6	166,1	135,2
Source Side Pump														
Available pump pressure	(8) (2)	[kPa]	105,1	98,3	97,0	126,4	99,9	164,1	160,0	142,6	124,0	182,8	156,3	177,3
Sound level STD version														
Sound power value	(5)	[dB(A)]	68	68	70	70	75	75	75	76	76	78	78	79
Sound pressure level	(4)	[dB(A)]	53	53	55	55	59	59	59	60	60	62	62	63
Sound level LN version														
Sound power value	(5)	[dB(A)]	66	66	68	68	73	73	73	74	74	76	76	77
Sound pressure level	(4)	[dB(A)]	51	51	53	53	57	57	57	58	58	60	60	61
Basic unit size and weights														
Width		mm	1150	1150	1150	1150	1150	1150	1150	1150	1150	1270	1270	1270
Depth		mm	750	750	750	750	750	750	750	750	750	920	920	920
Height		mm	1710	1710	1710	1710	1710	1710	1710	1710	1710	1710	1710	1710
Operating weight		kg	263	268	272	281	340	356	378	403	436	761	839	916

(1) Sum of the power absorbed by the compressors

(2) Inlet/outlet water temperature user side 65/70°C; source side 35/30°C.

(4) Sound pressure values measured at 1 meter from the unit in free field conditions and directional factor Q=2

(5) Sound power values calculate in compliance with ISO 3744

(6) Values in compliance with EN 14511-3:2011

(7) According to European Regulation n° 813/2013 and EN14511 - EN14825 for Climat Average(Strasbourg) User Application Medium temperature (55°C) Outlet temperature Variable Bivalente Temp. -5°C

(8) If it's specified in the configuration

(*) Not subject to Regulation EU No. 811/2013, rated heat output > 70 kW

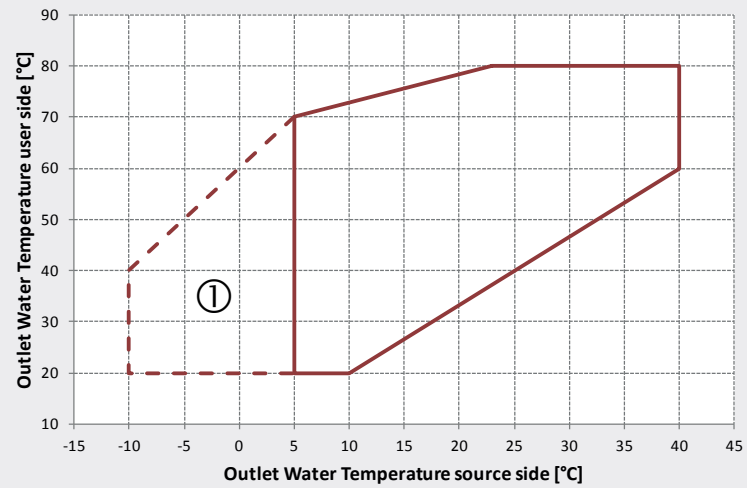
This datasheet gives the characteristic data of the basic and standard versions of the series; for details refer to the specific documentation

ELECTRICAL DATA

UNIT SIZE		30	35	40	50	62	70	80	100	120	160	190	240
Maximum absorbed power	kW	9,0	9,6	11,3	18,3	18,1	19,2	22,6	36,6	36,6	47,8	58,4	71,6
Maximum absorbed power with pumps	kW	10,0	10,6	12,3	19,6	20,3	21,9	25,3	39,3	40,4	52,7	63,9	77,6
Full load current	A	16,4	17,7	20,7	27,1	32,8	35,4	41,4	54,2	68,6	85,8	105,6	125,8
Full load current with pumps	A	23,3	24,6	27,6	32,1	36,8	40,3	46,3	59,1	75,6	94,9	116,5	138,5
Maximum starting current	A	95,0	111,0	118,0	140,0	111,4	128,7	138,7	167,1	208,3	267,9	324,8	372,9
Maximum starting current with soft start	A	57,0	66,6	70,8	84,0	49,8	56,3	62,3	77,2	96,8	123,3	150,2	174,8
Maximum starting current with pumps	A	101,9	117,9	124,9	145,0	115,4	133,6	143,6	172,0	215,3	277,0	335,7	385,6
Maximum starting current with pumps and soft start	A	61,1	70,7	74,9	87,0	53,0	60,2	66,2	81,2	102,4	130,5	159,0	184,9
Auxiliary Power supply	V/ph/Hz	230/1~/50											
Power supply	V/ph/Hz	400/3N~/50											

OPERATING LIMITS

HEATING

**Notes**

- The maximum delta T in the source side exchange must be 7 °C
- Operating outside the operating limits may cause the safety devices to intervene or serious malfunctions
- ① in this area the unit can only work with glycol water on evaporator side



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