



enerblue

INSPIRED BY NATURE

PURPLE CHP WW RECIPROCATING

 **R290**



62,5° | 
Max WATER
temperature

-10° | 
Min. ext. AIR
temperature

**NATURAL
REFRIGERANT**

GWP=3

ODP=0

Water to water heat pumps with natural refrigerant gas R290. Extended working conditions and very high performances. Equipped with semihermetic reciprocating compressors and plates heat exchangers.

Low noise configuration is available as an option.

The machine is suitable for both internal and external (outdoor) installation.

Range

Heating capacity (W7;W55) 104 ÷ 368 kW

Cooling capacity (W35;W7) 95 ÷ 309 kW



Reversible
on water
side



Semi-hermetic
reciprocating
compressors

Highlights of the product



①



ATEX

The ATEX certified extraction fan runs at nominal speed for all the time required to clean the compressor box. (Option)

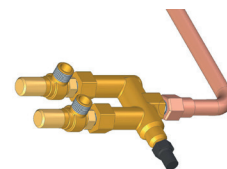
②

Models from 100.2 to 170.2 are suitable FOR installation in occupied space.
Models from 200.2 to 350.2 are suitable for installation in machinery room.

③

Compliant with Ecodesign

④



Double safety valve on high pressure side. (Option)

TECHNICAL DATA

UNIT SIZE				100.2	120.2	140.2	150.2	170.2	200.2
Heating (EN 14511 values) (W7;W55)									
Nominal heating capacity (W7;W55)	(1), (7)	kW		104,0	124,0	145,0	156,0	183,0	216,0
Total Power input in heating mode	(1), (7)	kW		28,2	33,5	39,8	43,8	49,3	58,8
COP	(1), (7)			3,69	3,70	3,64	3,56	3,71	3,67
Energy Seasonal Index									
SCOP	(9)			4,66	4,72	4,72	4,48	4,57	4,52
Seasonal Energy Efficiency η_s	(9)	%		178,3	180,8	180,7	171,3	175,0	172,9
Cooling (EN 14511 values) (W35;W7)									
Nominal cooling capacity	(3), (7)	kW		95,2	114,0	132,0	134,0	159,0	194,0
Total Power input in cooling mode	(3), (7)	kW		22,5	26,6	30,2	33,1	37,5	45,0
EER	(3), (7)			4,23	4,29	4,37	4,05	4,24	4,31
Compressor									
Type				Reciprocating					
Quantity/Refrigerant circuits		n° / n°		2 / 2	2 / 2	2 / 2	2 / 2	2 / 2	2 / 2
Capacity steps		n°		4	4	4	4	4	4
Circuit refrigerant charge		kg		2,7	3,3	3,7	3,7	4,2	5,1
User Side exchanger Heating mode									
Type				Plate exchanger					
Water flow rate (W7/W55)	(1)	l/h		11330	13470	15740	16930	19910	23460
Pressure drop (W7/W55)	(1)	kPa		6,9	6,8	7,3	8,3	9,1	9,6
Source Side exchanger Heating									
Type				Plate exchanger					
Water flow rate (W7/W55)	(1)	l/h		21830	25970	30190	32220	38490	45170
Pressure drop (W7/W55)	(1)	kPa		18,9	19,8	26,5	29,7	28,5	29,7
User Side exchanger Chiller mode									
Type				Plate exchanger					
Water flow rate (W7/W55)	(3)	l/h		16380	19690	22680	23130	27440	33400
Pressure drop (W7/W55)	(3)	kPa		11,6	12,3	16,2	16,8	15,9	16,8
Source Side exchanger Heating									
Type				Plate exchanger					
Water flow rate (W7/W55)	(3)	l/h		20300	24330	27940	28880	33940	41200
Pressure drop (W7/W55)	(3)	kPa		21,0	21,0	21,8	23,1	25,3	27,0
Hydraulic connection									
Connection				2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
Sound level STD version									
Sound power value	(4), (1)	dB(A)		80	80	80	80	80	81
Sound pressure value	(5), (1)	dB(A)		63	63	63	63	63	64
Sound level LN version									
Sound power value	(4), (1)	dB(A)		78	78	78	78	78	79
Sound pressure value	(5), (1)	dB(A)		61	61	61	61	61	62
Basic unit size and weights									
Width		mm		1832	1832	1832	1832	1832	1832
Depth		mm		1200	1200	1200	1200	1200	1200
Height		mm		1800	1800	1800	1800	1800	1800

(1) Inlet-outlet Source water temperature 10-7°C , User water 47-55 °C

(3) Inlet-outlet Source water temperature 30-35°C , User water 12-7 °C

(4) Sound power level calculate in compliance with ISO 3744

(5) Sound pressure level calculate in compliance with ISO 3744

(7) Values calculate in compliance with EN 14511-2018

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

(9) 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

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

UNIT SIZE			240.2	270.2	300.2	330.2	350.2
Heating (EN 14511 values) (W7;W55)							
Nominal heating capacity (W7;W55)	(1), (7)	kW	255,0	284,0	322,0	346,0	368,0
Total Power input in heating mode	(1), (7)	kW	71,0	79,9	92,3	98,6	106,0
COP	(1), (7)		3,59	3,55	3,49	3,51	3,47
Energy Seasonal Index							
SCOP	(9)		4,47	4,11	4,11	4,09	4,03
Seasonal Energy Efficiency η_s	(9)	%	170,7	156,2	156,6	155,7	153,1
Cooling (EN 14511 values) (W35;W7)							
Nominal cooling capacity	(3), (7)	kW	221,0	236,0	265,0	287,0	309,0
Total Power input in cooling mode	(3), (7)	kW	53,4	65,2	71,4	78,4	87,1
EER	(3), (7)		4,14	3,62	3,71	3,66	3,55
Compressor							
Type			Reciprocating				
Quantity/Refrigerant circuits		n° / n°	2 / 2	2 / 2	2 / 2	2 / 2	2 / 2
Capacity steps		n°	4	4	4	4	4
Circuit refrigerant charge		kg	6,1	6,6	7,5	8,1	8,1
User Side exchanger Heating mode							
Type			Plate exchanger				
Water flow rate (W7/W55)	(1)	l/h	27740	30870	35060	37570	39980
Pressure drop (W7/W55)	(1)	kPa	10,5	11,7	12,5	12,5	13,9
Source Side exchanger Heating							
Type			Plate exchanger				
Water flow rate (W7/W55)	(1)	l/h	52990	58750	66320	71200	75450
Pressure drop (W7/W55)	(1)	kPa	36,1	43,2	47,3	55,1	61,1
User Side exchanger Chiller mode							
Type			Plate exchanger				
Water flow rate (W7/W55)	(3)	l/h	38100	40670	45550	49300	53080
Pressure drop (W7/W55)	(3)	kPa	20,5	22,9	24,7	29,2	33,3
Source Side exchanger Heating							
Type			Plate exchanger				
Water flow rate (W7/W55)	(3)	l/h	47350	51910	57900	62850	68100
Pressure drop (W7/W55)	(3)	kPa	29,3	31,7	33,0	33,6	38,7
Hydraulic connection							
Connection			3"	3"	4"	4"	4"
Sound level STD version							
Sound power value	(4), (1)	dB(A)	81	81	81	81	81
Sound pressure value	(5), (1)	dB(A)	64	64	64	64	64
Sound level LN version							
Sound power value	(4), (1)	dB(A)	79	79	79	79	79
Sound pressure value	(5), (1)	dB(A)	62	62	62	62	62
Basic unit size and weights							
Width		mm	1832	1832	1832	1832	1832
Depth		mm	1200	1200	1200	1200	1200
Height		mm	1800	1800	1800	1800	1800

(1) Inlet-outlet Source water temperature 10-7°C , User water 47-55 °C

(3) Inlet-outlet Source water temperature 30-35°C , User water 12-7 °C

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Average(Strasbourg) User Application Medium temperature (55°C)

Outlet temperature Variable Bivalente Temp. -5°C

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ELECTRICAL DATA

UNIT SIZE			100.2	120.2	140.2	150.2	170.2	200.2
Maximum absorbed power	(1)	kW	31,9	39,1	47,4	49,2	58,6	68,4
Maximum starting current	(2)	A	137,0	155,0	177,0	187,0	198,0	220,0
Full load current	(4)	A	60,4	73,8	88,0	85,6	108,0	122,0
Power supply		V/ph/Hz	400/3/50 ±5%	400/3/50 ±5%	400/3/50 ±5%	400/3/50 ±5%	400/3/50 ±5%	400/3/50 ±5%

UNIT SIZE			240.2	270.2	300.2	330.2	350.2
Maximum absorbed power	(1)	kW	83,4	88,8	113,0	111,0	121,0
Maximum starting current	(2)	A	263,0	347,0	426,0	493,0	525,0
Full load current	(4)	A	149,0	179,0	200,0	207,0	216,0
Power supply		V/ph/Hz	400/3/50 ±5%	400/3/50 ±5%	400/3/50 ±5%	400/3/50 ±5%	400/3/50 ±5%

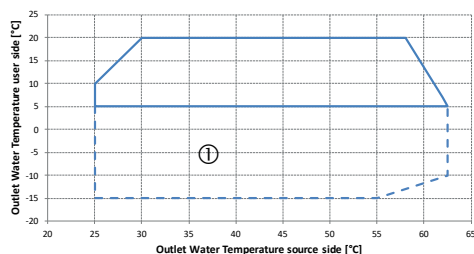
(1) Mains power supply to allow unit operation

(2) Maximum current before safety cut-outs stop the unit. This value is never exceeded and must be used to size the electrical supply cables and relevant safety devices (refer to electrical wiring diagram supplied with the unit).

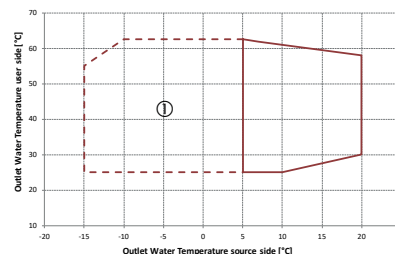
(4) Maximum starting current calculated considering the bigger size compressor starting current plus the maximum absorbed power of the other electrical devices (pumps, ..)

OPERATING LIMITS

COOLING



HEATING



Notes

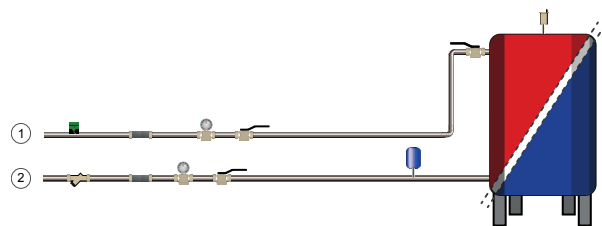
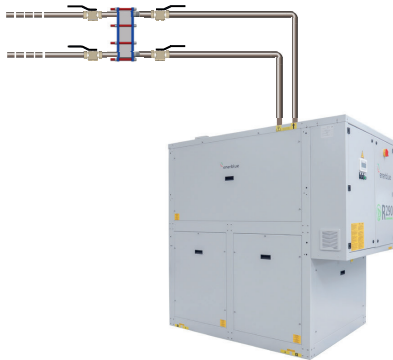
- The maximum thermal drop in the source side exchange must be 7 °C
- ① In this area the unit can only work with evaporator side glycolated water

AVAILABLE VERSIONS

STANDARD

Reversible heat pump for 2-pipe-systems for cooling and heating up to 62,5°C.

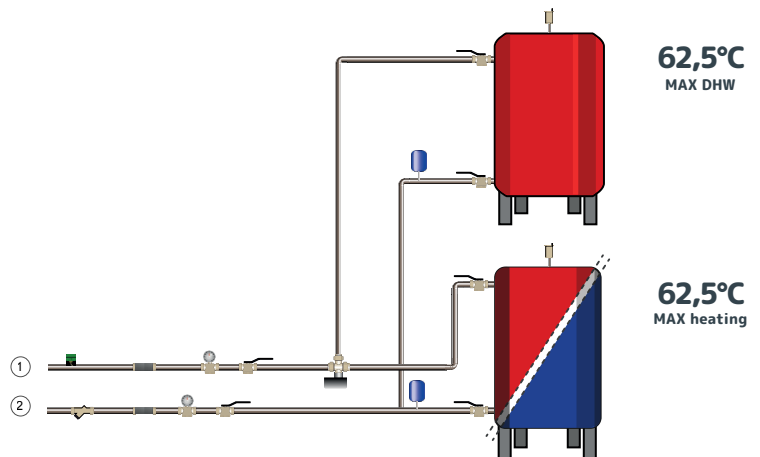
WATER
temperature limits



(1/2) In/out user side

AUTOMATIC MANAGEMENT OF SANITARY WATER

Automatic management of sanitary water trough
3 way valve managed directly by the controller.



(1/2) In/out user side



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