

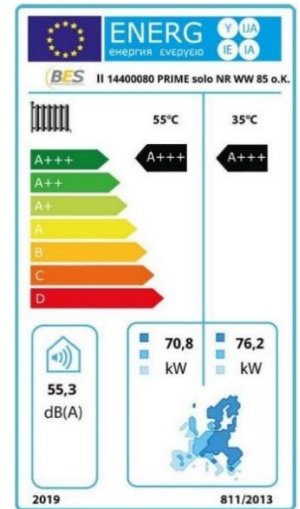
# Compact water/water heat pump with alternative refrigerant



## PRIME solo NR WW v2.1

Range of application :

- ▶ Ground water and surface water
- ▶ Power capacities: 30 kW, 55 kW and 85kW
- ▶ for heating and cooling
- ▶ new construction and refurbishment



- ▶ Comfort control based on outside temperature with mixer and domestic hot water control
- ▶ High coefficient of performance through innovative heating and cooling technology
- ▶ Application range: source temperature in heating from 5 °C to 15 °C
- ▶ Can be used with ground water and surface water
- ▶ Can be expanded by adding modules in cascade
- ▶ Phase sequencer monitoring integrated
- ▶ Standard with gas monitoring system
- ▶ With alternative refrigerant R 454B
- ▶ Remote monitoring via internet
- ▶ Standard with two gas sensors
- ▶ Maintenance-friendly housing
- ▶ Extremely silent operation
- ▶ Standard motor protection
- ▶ Low GWP value of 466
- ▶ Few space required

Seasonal energy efficiency  
in heating

**260 %**  
**Efficiency class**  
**A+++**

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Operating point	30 kW without cooling					30 kW active cooling					
	Heating capacity*	Power consumption (kW)	Current consumption in A	Coefficient of performance (COP/EER)	Refrigeration capacity (kW)	Heating capacity*	Power consumption (kW)	Current in A	Coefficient of performance (COP/EER)	Refrigeration capacity (kW)	Cooling capacity (kW)
B5 / W35	26,3	4,7	10,7	5,6	21,6	25,1	4,8	10,9	5,2	20,3	-
B5 / W55	23,8	7,6	13,4	3,1	16,2	23,0	7,5	13,5	3,1	15,5	-
B10 / W35	29,4	4,8	10,0	6,1	24,6	28,3	4,9	10,1	5,8	23,6	-
B10 / W55	25,9	7,4	12,9	3,5	18,5	25,1	7,4	13,2	3,4	17,7	-
B30 / W10						-	4,3	10,3	5,0	-	26,6
B30 / W12						-	4,2	10,1	6,9	-	28,5
B30 / W15						-	4,0	10,0	7,6	-	30,6
Efficiency	Clime	$\eta_s$ (%)** 35 °C	$\eta_s$ (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)	$\eta_s$ (%)** 35 °C	$\eta_s$ (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)
	average	254%	174%	A+++	A+++	56,8 dB/A	253 %	173%	A+++	A+++	56,8 dB/A

Operating point	55 kW without cooling					55 kW active cooling					
	Heating capacity*	Power consumption (kW)	Current consumption in A	Coefficient of performance (COP/EER)	Refrigeration capacity (kW)	Heating capacity*	Power consumption (kW)	Current in A	Coefficient of performance (COP/EER)	Refrigeration capacity (kW)	Cooling capacity (kW)
B5 / W35	47,3	8,1	16,7	5,8	39,2	43,6	7,8	15,3	5,6	35,8	-
B5 / W55	42,1	12,8	22,9	3,3	29,3	37,8	11,5	20,2	3,3	26,3	-
B10 / W35	54,0	7,9	16,5	6,8	46,1	50,0	8,0	15,3	6,2	42,0	-
B10 / W55	47,4	12,8	23,0	3,7	34,6	42,6	11,9	20,6	3,6	30,7	-
B30 / W10						-	7,3	15,8	5,2	-	46,8
B30 / W12						-	7,2	15,7	7,0	-	50,0
B30 / W15						-	7,0	15,5	7,7	-	53,5
Efficiency	Clime	$\eta_s$ (%)** 35 °C	$\eta_s$ (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)	$\eta_s$ (%)** 35 °C	$\eta_s$ (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)
	average	260%	182%	A+++	A+++	56,3 dB/A	259%	181%	A+++	A+++	56,3 dB/A

Operating point	85 kW without cooling					85 kW active cooling					
	Heating capacity*	Power consumption (kW)	Current consumption in A	Coefficient of performance (COP/EER)	Refrigeration capacity (kW)	Heating capacity*	Power consumption (kW)	Current in A	Coefficient of performance (COP/EER)	Refrigeration capacity (kW)	Cooling capacity (kW)
B5 / W35	66,8	13,0	24,9	5,1	53,8	65,6	13,3	24,4	4,9	52,3	-
B5 / W55	61,7	19,7	33,1	3,1	42,0	60,5	20,0	34,4	3,0	40,5	-
B10 / W35	76,2	14,1	25,0	5,4	62,2	74,8	14,4	25,5	5,2	60,4	-
B10 / W55	70,8	20,7	34,0	3,4	50,1	69,5	21,2	34,7	3,3	48,3	-
B30 / W10						-	11,5	23,2	4,9	-	69,7
B30 / W12						-	11,3	23,0	6,6	-	74,5
B30 / W15						-	11,1	22,7	7,2	-	79,5
Efficiency	Clime	$\eta_s$ (%)** 35 °C	$\eta_s$ (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)	$\eta_s$ (%)** 35 °C	$\eta_s$ (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)
	average	219%	174%	A+++	A+++	55,3 dB/A	218%	173%	A+++	A+++	55,3 dB/A

\* test in accordance with EN 14511-1 to 4 and EN 12102

\*\* seasonal energy efficiency in heating

	30 kW w/o C.	30 kW a.C.	55 kW w/o C.	55 kW a.C.	85 kW w/o.C.	85 kW a.C.
<b>Condenser (heating secondary)</b>						
Type	plate heat exchanger AISI 316					
Recommended flow rate	5,1 m <sup>3</sup> /h		9,3 m <sup>3</sup> /h		12,9 m <sup>3</sup> /h	
Pressure loss at nominal volume	56 mbar		59 mbar		110 mbar	
Max. operating pressure	45 bar					
Max. temperature	150 °C					
Connections heating	2 x 2" flat sealing					
Max. / min. supply line temperature heating	60°C/10°C					
Max. / min. supply line temperature cooling	40°C/10°C					
<b>Evaporator (source primary)</b>						
Type	plate heat exchanger AISI 316					
Insulation	PVC- and CFC-free					
Recommended flow rate	6,8 m <sup>3</sup> /h		14,6 m <sup>3</sup> /h		17,4 m <sup>3</sup> /h	
Pressure loss at nominal volume	110 mbar		153 mbar		262 mbar	
Max. operating pressure	45 bar					
Max. temperature	150 °C					
Connections source	2 x 2" flat sealing					
Max. / min. source inlet temperature heating	15°C/5°C					
Max. / min. source inlet temperature cooling	40°C/5°C					
Expansion valve	electronical					
<b>Cooling cycle</b>						
Insulation cooling cycle	PVC- and CFC-free					
Compressor	Scroll					
Refrigerant	R 454B					
Filling capacity	5,5 kg	5,7 kg	8,0 kg	8,5 kg	12,0 kg	14,0 kg
Ester oil content (liter)	1,77 l		3,38 l		4,7 l	
<b>Housing/Modulbox</b>						
Dimensions (WxDxH)	770 mm x 881 mm x 1215 mm					
Colour	RAL 7016					
Weight	294 kg		365 kg		396 kg	
Material / sound insulation	Arma Sound RD 240					
<b>Electrical date</b>						
Nominal voltage (heat pump)	3 Ph/50 Hz/ 400V					
Compressor startup current (with soft-start)	18 A		40 A		45 A	
Compressor startup current (w/o soft-start)	101 A		174 A		225 A	
Max. compressor operating current / Motor overload protection	15 A		34 A		40 A	
Fuse protection slow-blow (compressor)	D 25 A 4-pol.		D 40 A 4-pol.		D 50 A 4-pol.	
Fuse protection (controller)	B 13 A - 2-pol.					
Fuse protection (load current)	C 16 A - 2-pol.					
Type of protection	IP 24					
Supply compressor	5 x 6 mm <sup>2</sup> flexible		5 x 10 mm <sup>2</sup> flexible		5 x 10 mm <sup>2</sup> flexible	
Supply controller	3 x 1,5 mm <sup>2</sup> flexible					
Supply circulation pump	3 x 2,5 mm <sup>2</sup> flexible					
Product-No.	1430 0024	1431 0024	1430 0045	1431 0045	1440 0080	1442 0080

