

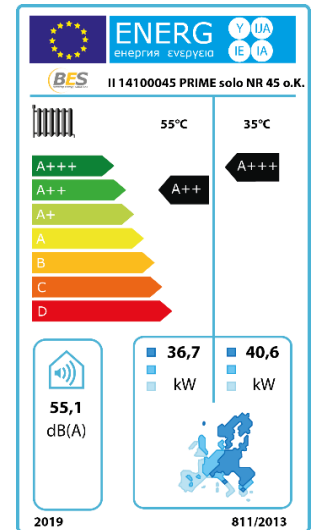
Compact heat pump with alternative refrigerant



PRIME solo NR v2.1

Range of application :

- ▶ ERS-ground heat exchanger, boreholes, energy baskets, ground loop exchangers
- ▶ different sources: ERS, ground
- ▶ Power capacities: 25 kW, 45 kW and 65kW
- ▶ for heating and cooling
- ▶ new construction and refurbishment



- ▶ Combination of ERS-technology with solar loading, therefore high use of regenerative energy
- ▶ 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: ground temperature in heating from -5 °C to 15 °C
- ▶ Can be expanded by adding modules in cascade
- ▶ Can be used individually with different sources
- ▶ 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

189 %
Efficiency class
A+++

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Operating point	25 kW without cooling					25 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)
B0 / W35	22,7	4,9	10,1	4,6	17,8	21,6	4,9	10,2	4,4	16,7	-
B0 / W55	21,6	7,3	12,8	3,0	14,3	20,7	7,2	13,0	2,9	13,5	-
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	η_s (%)** 35 °C	η_s (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)	η_s (%)** 35 °C	η_s (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)
	average	189%	144%	A+++	A++	56,8 dB/A	188%	142%	A+++	A++	56,8 dB/A

Operating point	45 kW without cooling					45 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)
B0 / W35	36,8	8,1	16,1	4,5	28,7	34,6	7,7	15,3	4,5	26,9	-
B0 / W55	35,2	12,0	21,0	2,9	23,2	33,0	11,2	19,9	2,9	21,8	-
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	η_s (%)** 35 °C	η_s (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)	η_s (%)** 35 °C	η_s (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)
	average	189%	144%	A+++	A++	55,6 dB/A	188%	143%	A+++	A++	55,6 dB/A

Operating point	65 kW without cooling***					65 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)
B0 / W35	57,1	12,6	26,0	4,5	44,5	56,3	12,1	23,3	4,6	44,2	-
B0 / W55	52,0	17,5	31,7	3,0	34,5	51,4	17,3	32,1	3,0	34,1	-
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	η_s (%)** 35 °C	η_s (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)	η_s (%)** 35 °C	η_s (%)** 55 °C	Efficiency class 35	Efficiency class 55	Sound power in dB/(A) (interior)
	average	185%	149%	A+++	A++	52,2 dB/A	186%	150%	A+++	A++	52,2 dB/A

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

*** Low-temperature heat pumps according to (EU) No. 813/2013

** seasonal energy efficiency in heating

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	20 kW w/o C.	20 kW a.C.	40 kW w/o C.	40 kW a.C.	60 kW w/o.C.	60 kW a.C.
Condenser (heating secondary)						
Type	plate heat exchanger AISI 316					
Recommended flow rate	3,9 m ³ /h		7,0 m ³ /h		9,7 m ³ /h	
Pressure loss at nominal volume	32 mbar		48 mbar		90 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/5°C					
Max. / min. supply line temperature cooling	40°C/5°C					
Evaporator (source primary)						
Type	plate heat exchanger AISI 316					
Insulation	PVC- and CFC-free					
Recommended flow rate	5,7 m ³ /h		10,0 m ³ /h		14,3m ³ /h	
Pressure loss at nominal volume	82 mbar		125 mbar		210 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					
Cooling cycle						
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	
Housing/Modulbox						
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					
Electrical date						
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 ² flexible		5 x 10 mm ² flexible		5 x 10 mm ² flexible	
Supply controller	3 x 1,5 mm ² flexible					
Supply circulation pump	3 x 2,5 mm ² flexible					
Product-No.	1410 0024	1411 0024	1410 0045	1411 0045	1410 0065	1411 0065

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



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