

Air-Water Heat Pump 50/100 kW high temperature



LW 50/100 HT v2.5

Range of application :

- ▶ external air as energy source
- ▶ for heating, cooling and domestic hot water
- ▶ new construction and refurbishment

- ▶ External temperature based e-TALK controller with mixer and domestic hot water control
- ▶ Fully-automatic operation for heating and cooling
- ▶ Modularly expandable through cascading
- ▶ Phase sequence integrated monitoring
- ▶ Fully hermetic compressor heat pump
- ▶ Utilizes external air as energy source
- ▶ Flow temperature up to 73 °C
- ▶ Extremely silent operation
- ▶ With Refrigerant R513A
- ▶ Refrigerant GWP of 631
- ▶ Security group A1
- ▶ Remote monitoring

Climate average

Efficiency class
A+++

Operating point	Heating capacity*	Power consumption (kW)	Current consumption per compressor (A)	Coefficient of Performance** (COP/EER)	Refrigeration capacity (kW)	Cooling capacity (kW)
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LW 50 kW HT

A 10/W 35	56,8	10,9	10,3	5,2	45,9	-
A 10/W 55	49,9	15,9	13,5	3,1	34,0	-
A 7/W 35	51,3	10,8	10,2	4,7	40,5	-
A 7/W 55	45,3	15,8	13,4	2,9	29,5	-
A 2/ W 35	43,0	10,7	10,1	4,0	32,3	-
A 2/ W 55	39,5	15,5	13,2	2,5	24,0	-
A -7/ W 35	31,1	9,9	9,5	3,1	21,2	-
A -7/W 55	32,1	14,5	12,7	2,2	17,6	-
A 30/W 7	-	-	-	-	-	-
A35/W7	-	14,0	-	3,1	-	43,8
A35/W16	-	14,2	-	4,3	-	61,6

LW 100 kW HT

A 10/W 35	113,7	22,1	10,3	5,1	91,6	-
A 10/W 55	100,1	31,1	13,5	3,2	69,0	-
A 7/W 35	102,6	21,1	10,2	4,9	81,5	-
A 7/W 55	90,5	30,5	13,4	3,0	60,0	-
A 2/ W 35	86,0	20,4	10,1	4,2	65,6	-
A 2/ W 55	79,2	30,1	13,2	2,6	49,1	-
A -7/ W 35	61,2	19,8	9,5	3,1	41,4	-
A -7/W 55	61,1	28,3	12,7	2,2	32,8	-
A 30/W 7	-	-	-	-	-	-
A35/W7	-	28,0	-	3,1	-	87,5
A35/W16	-	28,5	-	4,3	-	123,1

LW 50 kW HT

	η_s (%)** 35 °C	η_s (%)** 55 °C	sound pressure level in dB/A			soundpower in dB/A
Clime	average	average	1m	5m	10m	
	A+++	A++	60	46	40	67

LW 100 kW HT

	η_s (%)** 35 °C	η_s (%)** 55 °C	sound pressure level in dB/A			soundpower in dB/A
Clime	average	average	1m	5m	10m	
	-	-	60	46	40	67

* all output specifications in accordance with DIN 14 511

** seasonal energy efficiency in heating

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	50 kW	100 kW
Condenser		
Type	plate heat exchanger	
Recommended volume flow	7.410 l/h	14.830 l/h
Pressure loss at nominal volume	9,4 kPa	3,2 kPa
Max. operating pressure	30 bar	
Max. temperature	150 °C	
Connections heating (external thread, flat sealing)	2"	2 ½"
Max. / min. inlet temperature (heating)	73 °C / 25 °C	
Max. / min. inlet temperature (cooling)	18 °C / 7 °C	

Evaporator		
Type	Finned-tube heat exchanger	
Insulation	PVC- and CFC-free	
Recommended volume flow	6.700 m³/h	13.500 m³/h
Number of fans	4	8
Max. operating pressure / temperature	45 bar	
Source connections	none	
Max. / min. source inlet temperature (heating)	35 °C / -15 °C	
Max. / min. source inlet temperature (cooling)	40 °C / 20 °C	
Expansion valve	electronical	

Cooling cycle		
Compressor	Scroll, fully hermetic	
Quantity	2 pieces	4 pieces
Insulation cooling cycle	PVC- and FCKW-free	
Refrigerant	R 513 A	
Filling capacity	17,0 kg	23,0 kg
Ester oil content	5,6 liters	11,2 liters
Ester oil	Idemitsu Hermetic Oil FV68S	

Housing			
Dimensions	W	2310 mm	2130 mm
	D	1365 mm	2260 mm
	H	1550 mm	2265 mm
Weight		780 kg	1800 kg
Material / sound insulation		steel sheet (powder coated) RAL 7016/soundproofed	

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	50 kW	100 kW
Electrical data		
Nominal voltage (heat pump)	3 Ph / 50 Hz / 400 V	
Nominal voltage (contro)	1 Ph / 50 Hz / 230 V	
Compressor startup current 1/3* (w/o soft-start)	126,2 A	2x 67 A
Compressor startup current 1/3* (with soft-start)	31 A	25A
Max. compressor operating current 1/3*	27A	23,2A
Motor overload protection compressor 1/3*	42A	25A
Compressor startup current 2/4* (w/o soft-start)	126,2 A	2x 67 A
Compressor startup current 2/4* (with soft-start)	31A	25A
Max. compressor operating current 2-(4)*	27A	23,2 A
Motor overload protection compressor 2-(4)*	42A	25A
Type of protection	IPX 4	

* LW100 with 4 compressor 1/3 and 2/4

Electrical connections		
Fuse protection slow-blow compressor	2x D 40 A - 4-pol.	2x D 50 A - 4-pol.
Fuse protection control/fan	C 25 A - 4-pol.	
Supply compressor*	2 supplies à 5 x 10 mm ² flexible	2 supplies à 5 x 16 mm ² flexible
Supply control/fan*	5 x 6,0 mm ² flexible	

* The width for the supplies is to be configured depending on the laying and length

	50 kW	100 kW
Product-No.	1450 0050	1450 0100

Accessories (optional):

Description	Product-No.
EnergyManagementMaster electrical cabinet for LW 50 and LW100 kW HT v2.5	2200 0125



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