Air-Water Heat Pump 36/70/140 kW with natural refrigerant

LW 36/70/140 v2.5

Range of application :

- external air as energy source
- for heating and cooling
- new construcion and refurbishment

- External temperature based e-TALK controller with mixer and domestic hot water control
- Remote monitoring (optional via EMM electrical cabinet)
- Fully-automatic operation for heating and cooling
- Air operating temperature -25 °C to 43 °C
- Modularly expandable through cascading
- Expandable through optional equipment
- Phase sequence integrated monitoring
- Fully hermetic compressor heat pump
- Utilizes external air as energy source
- Extremely silent operation
- Natural refrigerant R290
- Low GWP of 3

Clime middle

Efficiency class A+++

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Operating point	Heating capacity		Power consumption (kW)		Current consumption per compressor in A	Coefficient of Performance (COP/EER)		Refrigeration capacity (kW)		Cooling capacity (kW)	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.	Min.	Max.
	50%	100%	50%	100%		50%	100%	50%	100%	50%	100%
LW 36 kW v2.5											
A 7/W 35	18,1	34,5	3,4	6,8	11,9	5,3	5,1	14,7	27,7	-	-
A 7/W 55	17,8	34,1	5,1	10,2	16,9	3,5	3,3	12,7	23,9	-	-
A 2/ W 35	16,1	30,7	3,4	6,9	12,1	4,7	4,5	12,7	23,8	-	-
A 2/ W 55	16,0	30,6	5,1	10,2	17,1	3,1	3,0	10,9	20,4	-	-
A -7/W 35	12,9	24,6	3,4	6,9	12,0	3,8	3,6	9,5	17,7	-	-
A -7/W 55	13,1	25,1	5,2	10,2	17,1	2,6	2,5	7,9	14,9	-	-
A 35/W 7	-	-	-	4,3	-	-	3,6	-	-	-	15,7
A 35/W 15	-	-	-	4,3	-	-	4,5	-	-	-	19,5
LW 70 kW v2.5											
A 7/W 35	36,1	68,8	6,8	13,5	12,1	5,3	5,1	29,3	55,3	-	-
A 7/W 55	35,4	67,7	10,2	20,2	17,1	3,5	3,4	25,2	47,5	-	-
A 2/ W 35	32,1	61,1	6,8	13,6	12,2	4,7	4,5	25,3	47,5	-	-
A 2/ W 55	31,8	60,9	10,2	20,2	17,2	3,5	3,4	21,6	40,7	-	-
A -7/W 35	25,7	48,9	6,8	13,6	12,2	3,8	3,6	18,9	35,3	-	-
A -7/W 55	26,0	50,0	10,2	20,3	17,2	2,6	2,5	15,8	29,7	-	-
A 35/W 7	-	-	-	8,6	-	-	3,7	-	-	-	31,3
A 35/W 15	-	-	-	8,6	-	-	4,5	-	-	-	38,8
LW 140 kW v2.5											
A 7/W 35	36,1	137,5	6,8	27,1	12,1	5,3	5,1	29,3	110,4	-	-
A 7/W 55	35,4	135,5	10,2	40,3	17,1	3,5	3,4	25,2	95,2	-	-
A 2/ W 35	32,1	122,2	6,8	27,2	12,2	4,7	4,5	25,3	95,0	-	-
A 2/ W 55	31,8	121,7	10,2	40,4	17,2	3,1	3,0	21,6	81,3	-	-
A -7/W 35	25,7	97,8	6,8	27,3	12,2	3,8	3,6	18,9	70,5	-	-
A -7/W 55	26,0	99,9	10,2	40,6	17,2	2,6	2,5	15,8	59,3	-	-
A 35/W 7	-	-	8,6	17,2	-	3,7	3,7	-	-	31,3	62,6
A 35/W 15	-	-	8,6	17,1	-	4,5	4,5	-	-	38,8	77,6

LW 36 kW v2.5

Sound power in dB/A	Part load	Full load	Clime zone	Energy class at 35°C	Energy class at 55°C
	62 dB/A	69 dB/A	average	A+++	A+++

LW 70 kW v2.5

Sound power in dB/A	Part load	Full load	Clime zone	Energy class at 35°C	Energy class at 55°C
	63,8 dB/A	70,5 dB/A	average	A+++	A+++

LW 140 kW v2.5

Sound power in dB/A	Part load	Full load	Clime zone	Energy class at 35°C	Energy class at 55°C
	74 dB/A	81dB/A	average	A+++	A+++

LW 36/70/140 v2.5

		36 kW	70 kW	140 kW
Condenser				
Type		plate heat exchanger 1.4301		
Recommended volume flow (min. / max.)		1,5 - 5,9 m³/h	3,1 - 11,8 m³/h	3,1 - 23,7 m³/h
Pressure loss at nominal volume		17,3 kPa	18,6 kPa	n.a.
Max. operating pressure		32 bar		
Max. temperature		150 °C		
Connections heating		2x 1½" AG	2x 2" AG	2x 2½" AG
Max. / min. inlet temperature (heating)		80 °C / 20 °C		
Max. / min. inlet temperature (cooling)		18 °C / 7 °C		
Evaporator				
Type		Finned-tube heat exchanger		
Insulation		PVC- and CFC-free		
Recommended volume flow		8.900 m³/h	17.700 m³/h	34.400 m³/h
Number of fans		1	1	2
Max. operating pressure		32 bar		
Max. temperature		80 °C		
Connections source		none		
Max. / min. source inlet temperature (heating)		35 °C / - 20 °C		
Max. / min. source inlet temperature (cooling)		40 °C / 20 °C		
Expansion valve		electronical		
Cooling cycle				
Compressor		Scroll, fully hermetic		
Quantity		2	2	4
Insulation cooling cycle		PVC- and CFC-free		
Quantity cooling cycles		1	1	2
Refrigerant		R 290		
Filling capacity		5 kg	9 kg	2 x 9 kg
Housing				
Dimensions	H	1655 mm	1655 mm	2265 mm
	W	1604 mm	2304 mm	2130 mm
	D	1300 mm	1300 mm	2260 mm
Weight		545 kg	895 kg	1.850 kg
Material / sound insulation		electro-galvanised steel sheet (powder coated) / insulation board 20mm		
Electrical data				
Nominal voltage (heat pump)		3 Ph / 50 Hz / 400 V		
Compressor startup current (with soft start)		20,0 A	68,0 A	68,0 A
Max. operating current compressor		32,8 A	59,9 A	2x 59,9 A
Motor overload protection compressor 1+2		D 35 A 3/4-pol.	D 63 A 3/4-pol.	D 63 A 3/4-pol.
Motor overload protection compressor 3+4		-	-	D 63 A 3/4-pol.
Fuse protection (control+fan)		B 16 A 1/2-pol.		
Type of protection		IPX4		
Supply line compressor 1+2*		5 x 6 mm² flexible	5 x 16 mm² flexible	
Supply line compressor 3+4*		-	-	5 x 16 mm² flexible
Supply line control+fan*		3 x 2,5 mm² flexible		
Product-No.		1451 0036	1451 0070	1451 0140

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

Accessorios (optional):

Descrition	No. de artículo
EnergyManagementMaster control cabinet for LW 35kW up to LW 150kW	2200 0120

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