

MLF

AIR-WATER HEAT PUMPS FOR OUTDOOR INSTALLATION



Options

Operating mode

- R - Heating and cooling
(reversible on refrigerant side)

Heat recovery

- Base version
- Desuperheater version

Acoustic setting up

- B - Base setting up
- S - Low noise setting up
- X - Extra Low noise setting up

Plant side flow rate management

- None
- Standard pump
- Modulating pump
- High head pump

Compressor starter

- Standard
- Soft starter

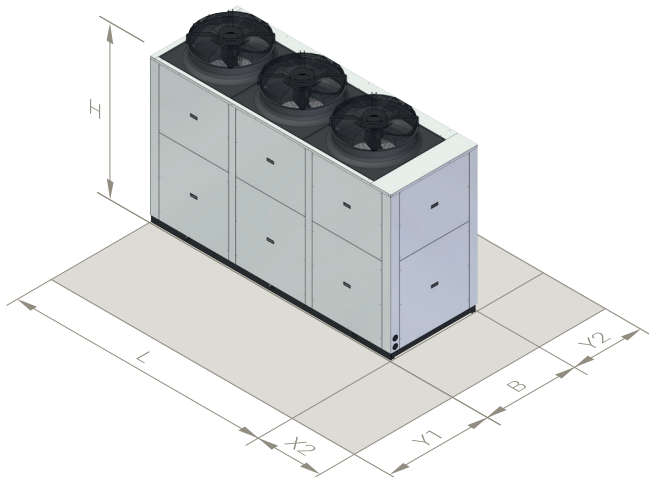
Accessories

- Vibration dampers
- Remote interface
- Coil protection grilles

TECHNICAL DATA	115	130	145	165	190	
Efficiency class - EU reg 811/2013 <i>average climate - medium temperature application</i>	A++	A++	A++	A++	A++	-
Power supply	400V - 3 - 50Hz					-
Refrigerant	R410A					-
Type of compressors	scroll					-
N° of compressors / N° of refrigerant circuits	2 / 1					-
Type of plant side heat exchangers	stainless steel brazed plates					-
Type of source side heat exchangers	finned coil copper - hydrophilic aluminum					-
Type of fans	axial EC					-
N° of fans	2	3	3	3	3	-
Hydraulic fittings	2"1/2 VIC	2"1/2 VIC	2"1/2 VIC	2"1/2 VIC	2"1/2 VIC	-
Weight *	1180	1465	1500	1515	1540	kg
Maximum power input *	50,8	55,8	60,8	69,3	77,8	kW

* base unit without options and accessories

OPERATING RANGE	HEATING		COOLING		
	min	max	min	max	
Water outlet temperature	15	60	6	25	°C
Outside air inlet temperature	-20	42	5	47	°C



	115	130	145	165	190	
L	2290	3260	3260	3260	3260	mm
B	1190	1190	1190	1190	1190	mm
H	2230	2230	2230	2230	2230	mm
X2	600	600	600	600	600	mm
Y1	1000	1000	1000	1000	1000	mm
Y2	500	500	500	500	500	mm

HEATING		A	W	115	130	145	165	190	
A7W35	Heating capacity	7	35	120	132	144	168	192	kW
	Power input			27,0	29,5	32,5	37,9	43,1	kW
	COP			4,44	4,47	4,43	4,43	4,45	-
	Plant side water flow rate			20660	22790	24929	29042	33198	l/h
	Plant side pressure drops			31,0	25,9	30,6	33,2	35,3	kPa
A7W45	Heating capacity	7	45	117	129	141	164	188	kW
	Power input			32,8	35,9	39,5	46,0	52,4	kW
	COP			3,57	3,59	3,57	3,57	3,59	-
	Plant side water flow rate			20250	22337	24433	28465	32538	l/h
	Plant side pressure drops			29,8	24,9	29,4	31,8	33,9	kPa
A7W55	Heating capacity	7	55	112	124	136	158	181	kW
	Power input			37,9	41,6	45,7	53,2	60,6	kW
	COP			2,96	2,98	2,98	2,97	2,99	-
	Plant side water flow rate			12225	13486	14751	17185	19644	l/h
	Plant side pressure drops			11,8	9,7	11,4	12,4	13,2	kPa
A2W35	Heating capacity	2	35	99,3	109	120	140	160,0	kW
	Power input			26,5	29,0	31,9	37,2	42,3	kW
	COP			3,75	3,76	3,76	3,76	3,78	-
	Plant side water flow rate			17140	18907	20681	24093	27541	l/h
	Plant side pressure drops			22	18	22	23	25	kPa
A2W45	Heating capacity	2	45	96,5	106	116	136	155	kW
	Power input			32,3	35,4	39,0	45,3	51,6	kW
	COP			2,99	2,99	2,97	3,00	3,00	-
	Plant side water flow rate			16716	18439	20170	23497	26860	l/h
	Plant side pressure drops			21	17	21	22	24	kPa
A2W55	Heating capacity	2	55	91,9	101	111	129	148	kW
	Power input			37,5	41,2	45,3	52,7	60,0	kW
	COP			2,45	2,45	2,45	2,45	2,47	-
	Plant side water flow rate			9997	11028	12063	14053	16064	l/h
	Plant side pressure drops			8	7	8	9	9	kPa

COOLING		A	W	115	130	145	165	190	
A35W7	Cooling capacity	35	7	101	112	122	142	162	kW
	Power input			32,6	35,8	39,4	45,8	52,2	kW
	EER			3,10	3,13	3,10	3,10	3,10	-
	Plant side water flow rate			17402	19203	21005	24455	27956	l/h
	Plant side pressure drops			22,7	18,9	22,4	24,2	25,7	kPa
A35W18	Cooling capacity	35	18	133	147	161	188	214	kW
	Power input			35,3	38,7	42,6	49,6	56,5	kW
	EER			3,77	3,80	3,78	3,79	3,79	-
	Plant side water flow rate			23115	25508	27902	32484	37134	l/h
	Plant side pressure drops			38	32	38	41	44	kPa

ACOUSTIC PERFORMANCES		A	W	115	130	145	165	190	
Base	Sound power level	7	35	83	84	85	86	87	dB(A)
	Sound pressure level - 1 m			65	66	67	68	69	dB(A)
	Sound pressure level - 5 m			56	57	58	59	60	dB(A)
	Sound pressure level - 10 m			51	52	53	54	55	dB(A)
Low noise	Sound power level	7	35	81	82	83	84	85	dB(A)
	Sound pressure level - 1 m			63	64	65	66	67	dB(A)
	Sound pressure level - 5 m			54	55	56	57	58	dB(A)
	Sound pressure level - 10 m			49	50	51	52	53	dB(A)
Extra	Sound power level	7	35	78	79	80	81	82	dB(A)
	Sound pressure level - 1 m			60	61	62	63	64	dB(A)
	Sound pressure level - 5 m			51	52	53	54	55	dB(A)
	Sound pressure level - 10 m			46	47	48	49	50	dB(A)

Data declared according to EN 14511. Acoustic performances declared according to EN 12102. The data are related to reversible units (R) without options or accessories.

A7W35	= source :	air in 7°C db 6°C wb	plant :	water in 30°C out 35°C	A2W35	= source :	air in 2°C db 1°C wb	plant :	water in 30°C out 35°C
A7W45	= source :	air in 7°C db 6°C wb	plant :	water in 40°C out 45°C	A2W45	= source :	air in 2°C db 1°C wb	plant :	water in 40°C out 45°C
A7W55	= source :	air in 7°C dd 6°C wb	plant :	water in 47°C out 55°C	A2W55	= source :	air in 2°C db 1°C wb	plant :	water in 47°C out 55°C
A7W65	= source :	air in 7°C db 6°C wb	plant :	water in 55°C out 65°C	A2W65	= source :	air in 2°C db 1°C wb	plant :	water in 55°C out 65°C
A35W7	= source :	air in 35°C db	plant :	water in 12°C out 7°C					
A35W18	= source :	air in 35°C db	plant :	water in 23°C out 18°C					