

MDD HTD

AIR-WATER HEAT PUMPS FOR INDOOR 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

Plant side flow rate management

None
Standard pump
Modulating pump
High head pump

Compressor starter

Standard
Soft starter

Accessories

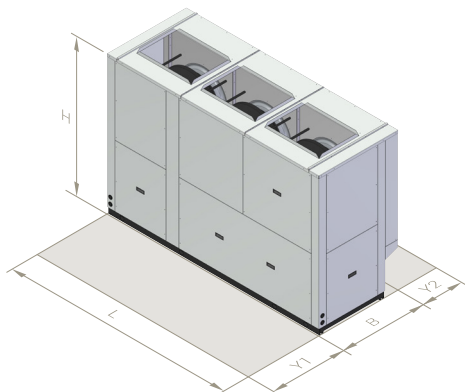
Vibration dampers
Remote interface

TECHNICAL DATA	49	57	65	75	85	95	
Efficiency class - EU reg 811/2013 <i>average climate - medium temperature application</i>	A++	A++	A++	A++	A++	A++	-
Power supply	400V - 3N - 50Hz						-
Refrigerant	R410A						-
Type of compressors	high temperature scroll with liquid injection						-
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	2	3	3	4	4	-
Hydraulic fittings	2" M	2" M	2" M	2" M	2" M	2" M	-
Weight *	546	558	688	700	836	848	kg
Maximum power input *	25,6	28,6	34,5	37,5	44,0	48,4	kW
Air flow rate	14200	15600	20000	21400	26800	28400	m³/h
Available static head	120	120	120	120	120	120	Pa

* base unit without options and accessories

OPERATING RANGE	HEATING		COOLING		
	min	max	min	max	
Water outlet temperature	15	65 *	6	25	°C
Outside air inlet temperature	-22	42	5	50	°C

* The maximum water outlet temperature can be increased up to 70°C keeping a ΔT of 10°C between inlet and outlet



	49	57	65	75	85	95	
L	1730	1730	2480	2480	3230	3230	mm
B	930	930	930	930	930	930	mm
H	1630	1630	1630	1630	1630	1630	mm
Y1	1000	1000	1000	1000	1000	1000	mm
Y2	500	500	500	500	500	500	mm

HEATING		A	W	49	57	65	75	85	95	
A7W35	Heating capacity	7	35	49,2	57,7	65,8	74,8	85,1	95,8	kW
	Power input			10,9	12,9	14,6	16,8	19,0	21,5	kW
	COP			4,51	4,47	4,51	4,45	4,48	4,46	-
	Plant side water flow rate			8493	9944	11348	12910	14677	16532	l/h
	Plant side pressure drops			22	29	25	23	29	27	kPa
A7W45	Heating capacity	7	45	48,2	56,5	64,5	73,3	83,4	93,9	kW
	Power input			13,3	15,7	17,7	20,4	23,1	26,1	kW
	COP			3,62	3,60	3,64	3,59	3,61	3,60	-
	Plant side water flow rate			8351	9778	11159	12696	14433	16256	l/h
	Plant side pressure drops			21	28	25	22	28	26	kPa
A7W55	Heating capacity	7	55	47,2	55,3	63,0	71,7	81,5	91,8	kW
	Power input			15,2	17,9	20,4	23,5	26,5	30,0	kW
	COP			3,11	3,09	3,09	3,05	3,08	3,06	-
	Plant side water flow rate			5133	6010	6859	7803	8870	9991	l/h
	Plant side pressure drops			8	11	10	9	12	11	kPa
A7W65	Heating capacity	7	65	45,9	53,8	61,4	69,8	79,4	89,4	kW
	Power input			17,6	20,7	23,5	27,1	30,6	34,7	kW
	COP			2,61	2,60	2,61	2,58	2,59	2,58	-
	Plant side water flow rate			4015	4702	5366	6104	6939	7816	l/h
	Plant side pressure drops			5	7	6	6	7	7	kPa
A2W35	Heating capacity	2	35	40,8	47,8	54,5	62,0	70,5	79,3	kW
	Power input			10,7	12,6	14,3	16,4	18,6	21,0	kW
	COP			3,81	3,79	3,81	3,78	3,79	3,78	-
	Plant side water flow rate			7036	8239	9402	10697	12160	13697	l/h
	Plant side pressure drops			15	21	18	16	21	19	kPa
A2W45	Heating capacity	2	45	39,8	46,6	53,2	60,5	68,8	77,4	kW
	Power input			13,0	15,4	17,4	20,1	22,7	25,7	kW
	COP			3,06	3,03	3,06	3,01	3,03	3,01	-
	Plant side water flow rate			6890	8067	9207	10474	11907	13412	l/h
	Plant side pressure drops			15	20	17	16	20	18	kPa
A2W55	Heating capacity	2	55	38,7	45,3	51,7	58,8	66,9	75,4	kW
	Power input			15,0	17,7	20,1	23,2	26,2	29,7	kW
	COP			2,58	2,56	2,57	2,53	2,55	2,54	-
	Plant side water flow rate			4213	4933	5630	6404	7281	8201	l/h
	Plant side pressure drops			6	8	7	6	8	8	kPa
A2W65	Heating capacity	2	65	37,5	43,9	50,1	57,0	64,8	72,9	kW
	Power input			17,4	20,5	23,3	26,9	30,3	34,4	kW
	COP			2,16	2,14	2,15	2,12	2,14	2,12	-
	Plant side water flow rate			3275	3835	4376	4979	5660	6375	l/h
	Plant side pressure drops			4	5	4	4	5	5	kPa

COOLING		A	W	49	57	65	75	85	95	
A35W7	Cooling capacity	35	7	41,6	48,6	55,5	63,2	71,7	80,8	kW
	Power input			13,2	15,6	17,6	20,3	23,0	26,0	kW
	EER			3,15	3,12	3,15	3,11	3,12	3,11	-
	Plant side water flow rate			7156	8375	9559	10880	12356	13918	l/h
	Plant side pressure drops			16	21	19	17	21	20	kPa
A35W18	Cooling capacity	35	18	54,9	64,2	73,3	83,5	94,7	107,0	kW
	Power input			14,3	16,9	19,1	22,0	24,9	28,1	kW
	EER			3,84	3,80	3,84	3,80	3,80	3,81	-
	Plant side water flow rate			9506	11124	12697	14453	16413	18487	l/h
	Plant side pressure drops			27	36	31	28	36	33	kPa

ACOUSTIC PERFORMANCES		A	W	49	57	65	75	85	95	
Base	Sound power level	7	35	79	80	80	81	82	82	dB(A)
	Sound pressure level - 1 m			62	63	63	64	64	65	dB(A)
	Sound pressure level - 5 m			52	53	54	54	55	56	dB(A)
	Sound pressure level - 10 m			47	48	49	49	50	51	dB(A)
Low noise	Sound power level	7	35	77	77	78	78	79	79	dB(A)
	Sound pressure level - 1 m			60	61	61	61	61	62	dB(A)
	Sound pressure level - 5 m			50	51	51	52	52	53	dB(A)
	Sound pressure level - 10 m			45	46	46	46	47	48	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					