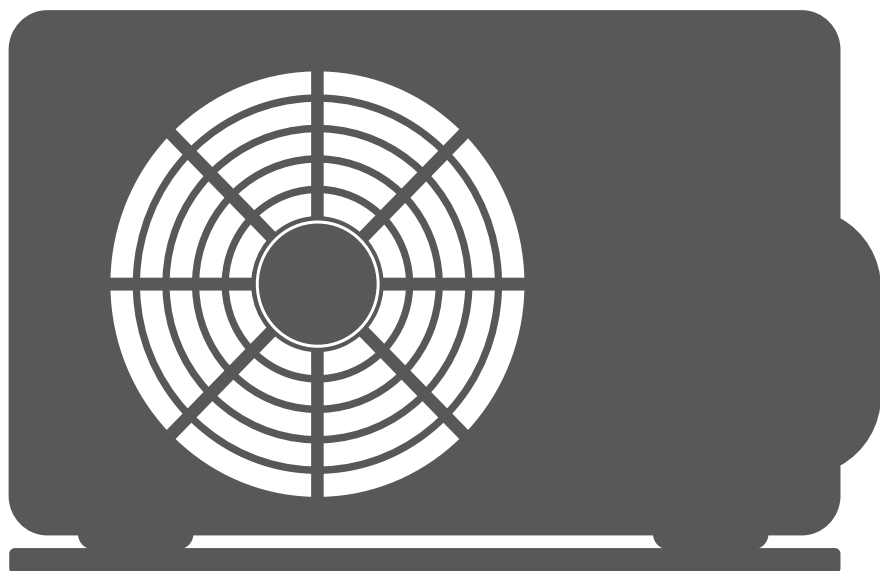


AIR CONDITIONING SYSTEMS

AIR-TO-WATER HEAT PUMP - MONOBLOCK

• PRODUCT FICHE



MODELS:

ATM04S, ATM06S,
ATM08S, ATM10S,
ATM12S, ATM14S,
ATM16S, ATM12T,
ATM14T, ATM16T,
ATMH04S3, ATMH06S3,
ATMH08S3, ATMH10S3,
ATMH12S3, ATMH14S3,
ATMH16S3, ATMH12T9,
ATMH14T9, ATMH16T9

Model	For medium - temperature application												
	Energy efficiency class	Unit sound power	average climate			colder climate			warmer climate				
			Rated heat output	Seasonal space heating energy efficiency	For space heating,annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating,annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating,annual energy consumption		
	dB	kW	%	kWh	kW	%	kWh	kW	%	kWh	kW	%	kWh
ATM04S	A++	55	4.4	129.5	2744	102.1	3159	5.0	162.4	3159	5.0	162.4	1621
ATMH04S3	A++	55	4.4	129.5	2744	102.1	3159	5.0	162.4	3159	5.0	162.4	1621
ATM06S	A++	58	5.7	137.9	3345	111.1	3681	5.1	164.7	3681	5.1	164.7	1640
ATMH06S3	A++	58	5.7	137.9	3345	111.1	3681	5.1	164.7	3681	5.1	164.7	1640
ATM08S	A++	59	6.6	131.6	4054	112.1	4948	7.6	177.2	4948	7.6	177.2	2242
ATMH08S3	A++	59	6.6	131.6	4054	112.1	4948	7.6	177.2	4948	7.6	177.2	2242
ATM10S	A++	60	7.7	135.7	4567	116.5	5539	8.6	181.7	5539	8.6	181.7	2496
ATMH10S3	A++	60	7.7	135.7	4567	116.5	5539	8.6	181.7	5539	8.6	181.7	2496
ATM14S	A++	65	12.1	135.6	7202	118.9	8866	13.7	176.5	8866	13.7	176.5	4088
ATMH14S3	A++	65	12.1	135.6	7202	118.9	8866	13.7	176.5	8866	13.7	176.5	4088
ATM12S	A++	65	11.6	135.1	6927	117.8	8419	12.5	174.1	8419	12.5	174.1	3376
ATMH12S3	A++	65	11.6	135.1	6927	117.8	8419	12.5	174.1	8419	12.5	174.1	3376
ATM16S	A++	68	13.0	133.3	7895	121.8	9309	13.8	176.1	9309	13.8	176.1	4112
ATMH16S3	A++	68	13.0	133.3	7895	121.8	9309	13.8	176.1	9309	13.8	176.1	4112
ATM12T	A++	65	11.6	135.1	6928	117.7	8420	12.5	173.8	8420	12.5	173.8	3780
ATMH12T9	A++	65	11.6	135.1	6928	117.7	8420	12.5	173.8	8420	12.5	173.8	3780
ATM14T	A++	65	12.1	135.6	7203	118.9	8867	13.7	176.4	8867	13.7	176.4	4092
ATMH14T9	A++	65	12.1	135.6	7203	118.9	8867	13.7	176.4	8867	13.7	176.4	4092
ATM16T	A++	68	13.0	133.2	7896	121.8	9310	13.8	175.9	9310	13.8	175.9	4116
ATMH16T9	A++	68	13.0	133.2	7896	121.8	9310	13.8	175.9	9310	13.8	175.9	4116

Model	For low - temperature application													
	Energy efficiency class	Unit sound power	average climate				colder climate				warmer climate			
			Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption
-	dB	kW	%	kWh	kW	%	kWh	kW	%	kWh	kW	%	kWh	
ATM04S	A+++	55	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146			
ATMH04S3	A+++	55	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146			
ATM06S	A+++	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244			
ATMH06S3	A+++	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244			
ATM08S	A+++	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551			
ATMH08S3	A+++	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551			
ATM10S	A+++	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617			
ATMH10S3	A+++	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617			
ATM12S	A+++	65	12.0	189.4	5152	11.4	160.2	6870	11.1	256.1	2292			
ATMH12S3	A+++	65	12.0	189.4	5152	11.4	160.2	6870	11.1	256.1	2292			
ATM14S	A+++	65	13.7	185.7	6012	12.6	159.6	7667	12.1	260.3	2457			
ATMH14S3	A+++	65	13.7	185.7	6012	12.6	159.6	7667	12.1	260.3	2457			
ATM16S	A+++	68	15.2	181.7	6804	13.7	157.8	8431	13.1	248.5	2781			
ATMH16S3	A+++	68	15.2	181.7	6804	13.7	157.8	8431	13.1	248.5	2781			
ATM12T	A+++	65	12.0	189.3	5153	11.4	160.2	6871	11.1	255.6	2296			
ATMH12T9	A+++	65	12.0	189.3	5153	11.4	160.2	6871	11.1	255.6	2296			
ATM14T	A+++	65	13.7	185.6	6013	12.6	159.6	7667	12.1	259.8	2462			
ATMH14T9	A+++	65	13.7	185.6	6013	12.6	159.6	7667	12.1	259.8	2462			
ATM16T	A+++	68	15.2	181.6	6805	13.7	157.8	8431	13.1	248.1	2786			
ATMH16T9	A+++	68	15.2	181.6	6805	13.7	157.8	8431	13.1	248.1	2786			

Product fiche 1

Heat pump space heater Matrix									
	Model	ATM04S	ATM06S	ATM08S	ATM10S	ATM12S			
Unit sound power (*)	Average climate low temperature application Average climate medium temperature application	[dB] [dB]	55.0 55.0	58.0 58.0	59.0 59.0	60.0 60.0	65.0 65.0		
Capacity of the back-up heater integrated in the unit	Psup back-up heater	[kW]	0	0	0	0	0		
Space heating	Energy efficiency class 35°C (Low temp. app.)	-	A+++	A+++	A+++	A+++	A+++		
Space heating	Energy efficiency class 55°C (Medium temp. app.)	-	A++	A++	A++	A++	A++		
Average climate (Design temperature = -10°C)									
Space heating 35°C	Prated (declared heating capacity) @ -10°C Seasonal space heating efficiency (ηs) Annual energy consumption	[kW] [%] [kWh]	5.5 191.0 2,351	6.8 195.0 2,845	8.1 205.6 3,218	9.2 204.8 3644	12.0 189.4 5,152		
Space heating 55°C	Prated (declared heating capacity) @ -10°C Seasonal space heating efficiency (ηs) Annual energy consumption	[kW] [%] [kWh]	4.4 129.5 2,744	5.7 137.9 3,345	6.6 131.6 4,054	7.7 135.7 4,567	11.6 135.1 6,927		
Part load conditions space heating average climate low temperature application									
(A) condition (-7°C)	Pdh (declared heating capacity) COPd (declared COP) Cdh(degradation coefficient)	[kW] - -	4.88 3.19 0.90	6.03 3.09 0.90	7.18 3.35 0.90	8.10 3.23 0.90	10.61 2.88 0.90		
(B) condition (2°C)	Pdh (declared heating capacity) COPd (declared COP) Cdh(degradation coefficient)	[kW] - -	3.05 4.78 0.90	3.88 4.85 0.90	4.65 5.09 0.90	5.18 5.01 0.90	6.69 4.65 0.90		
(C) condition (7°C)	Pdh (declared heating capacity) COPd (declared COP) Cdh(degradation coefficient)	[kW] - -	1.93 6.13 0.90	2.39 6.63 0.90	2.90 6.82 0.90	3.32 7.08 0.90	4.44 6.62 0.90		
(D) condition (12°C)	Pdh (declared heating capacity) COPd (declared COP) Cdh(degradation coefficient)	[kW] - -	1.48 8.05 0.90	1.39 7.93 0.90	1.63 8.35 0.90	1.65 8.58 0.90	3.74 8.47 0.90		

Product fiche 1

Heat pump space heater		Matrix						
	Model	ATMH04S3	ATMH06S3	ATMH08S3	ATMH10S3	ATMH12S3		
Unit sound power (*)	Average climate low temperature application	55.0	58.0	59.0	60.0	65.0		
	Average climate medium temperature application	55.0	58.0	59.0	60.0	65.0		
Capacity of the back-up heater integrated in the unit	Psup back-up heater	3	3	3	3	3		
	Energy efficiency class 35°C (Low temp. app.)	A+++	A+++	A+++	A+++	A+++		
Space heating	Energy efficiency class 55°C (Medium temp. app.)	A++	A++	A++	A++	A++		
Space heating 35°C	Prated (declared heating capacity) @ -10°C	[kW]	5.5	6.8	8.1	9.2	12.0	
	Seasonal space heating efficiency (η _s)	[%]	191.0	195.0	205.6	204.8	189.4	
	Annual energy consumption	[kWh]	2,351	2,845	3,218	3644	5,152	
	Prated (declared heating capacity) @ -10°C	[kW]	4.4	5.7	6.6	7.7	11.6	
Space heating 55°C	Seasonal space heating efficiency (η _s)	[%]	129.5	137.9	131.6	135.7	135.1	
	Annual energy consumption	[kWh]	2,744	3,345	4,054	4,567	6,927	
(A) condition (-7°C)	P _d h (declared heating capacity)	[kW]	4.88	6.03	7.18	8.10	10.61	
	COP _d (declared COP)	-	3.19	3.09	3.35	3.23	2.88	
	C _d h (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
	P _d h (declared heating capacity)	[kW]	3.05	3.88	4.65	5.18	6.69	
(B) condition (2°C)	COP _d (declared COP)	-	4.78	4.85	5.09	5.01	4.65	
	C _d h (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
	P _d h (declared heating capacity)	[kW]	1.93	2.39	2.90	3.32	4.44	
	COP _d (declared COP)	-	6.13	6.63	6.82	7.08	6.62	
(C) condition (7°C)	C _d h (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
	P _d h (declared heating capacity)	[kW]	1.48	1.39	1.63	1.65	3.74	
	COP _d (declared COP)	-	8.05	7.93	8.35	8.58	8.47	
	C _d h (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
(D) condition (12°C)	P _d h (declared heating capacity)	[kW]	1.48	1.39	1.63	1.65	3.74	
	COP _d (declared COP)	-	8.05	7.93	8.35	8.58	8.47	
	C _d h (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
	P _d h (declared heating capacity)	[kW]	1.48	1.39	1.63	1.65	3.74	

Product fiche 1

Heat pump space heater Matrix		Model	ATM14S	ATM16S	ATM12T	ATM14T	ATM16T
Unit sound power (*)	Average climate low temperature application	[dB]	65.0	68.0	65.0	65.0	68.0
	Average climate medium temperature application	[dB]	65.0	68.0	65.0	65.0	68.0
Capacity of the back-up heater integrated in the unit	Psup back-up heater	[kW]	0	0	0	0	0
Space heating	Energy efficiency class 35°C (Low temp. app.)	-	A+++	A+++	A+++	A+++	A+++
Space heating	Energy efficiency class 55°C (Medium temp. app.)	-	A++	A++	A++	A++	A++
Average climate (Design temperature = -10°C)							
	P_{rated} (declared heating capacity) @ -10°C	[kW]	13.7	15.2	12.0	13.7	15.2
Space heating 35°C	Seasonal space heating efficiency (η_s)	[%]	185.7	181.7	189.3	185.6	181.6
	Annual energy consumption	[kWh]	6,012	6,804	5,153	6,013	6,805
	P_{rated} (declared heating capacity) @ -10°C	[kW]	12.1	13.0	11.6	12.1	13.0
Space heating 55°C	Seasonal space heating efficiency (η_s)	[%]	135.6	133.3	135.1	135.6	133.2
	Annual energy consumption	[kWh]	7,202	7,895	6,928	7,203	7,896
Part load conditions space heating average climate low temperature application							
(A) condition (-7°C)	P_{dih} (declared heating capacity)	[kW]	12.14	13.45	10.61	12.14	13.45
	COP_d (declared COP)	-	2.79	2.72	2.88	2.79	2.72
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	P_{dih} (declared heating capacity)	[kW]	7.94	8.56	6.69	7.94	8.56
	COP_d (declared COP)	-	4.52	4.41	4.65	4.52	4.41
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P_{dih} (declared heating capacity)	[kW]	5.20	5.70	4.44	5.20	5.70
	COP_d (declared COP)	-	6.68	6.56	6.62	6.68	6.56
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P_{dih} (declared heating capacity)	[kW]	3.75	3.78	3.74	3.75	3.78
	COP_d (declared COP)	-	8.52	8.51	8.47	8.52	8.51
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 1

Heat pump space heater Matrix		Model	ATMH14S3	ATMH16S3	ATMH12T9	ATMH14T9	ATMH16T9
Unit sound power (*)	Average climate low temperature application	[dB]	65.0	68.0	65.0	65.0	68.0
Capacity of the back-up heater integrated in the unit	Average climate medium temperature application	[dB]	65.0	68.0	65.0	65.0	68.0
Space heating	Psup back-up heater	[kW]	3	3	9	9	9
Space heating	Energy efficiency class 35°C (Low temp. app.)	-	A+++	A+++	A+++	A+++	A+++
	Energy efficiency class 55°C (Medium temp. app.)	-	A++	A++	A++	A++	A++
Average climate (Design temperature = -10°C)							
Space heating 35°C	P_{rated} (declared heating capacity) @ -10°C	[kW]	13.7	15.2	12.0	13.7	15.2
	Seasonal space heating efficiency (η_s)	[%]	185.7	181.7	189.3	185.6	181.6
	Annual energy consumption	[kWh]	6,012	6,804	5,153	6,013	6,805
Space heating 55°C	P_{rated} (declared heating capacity) @ -10°C	[kW]	12.1	13.0	11.6	12.1	13.0
	Seasonal space heating efficiency (η_s)	[%]	135.6	133.3	135.1	135.6	133.2
	Annual energy consumption	[kWh]	7,202	7,895	6,928	7,203	7,896
Part load conditions space heating average climate low temperature application							
(A) condition (-7°C)	P_{dh} (declared heating capacity)	[kW]	12.14	13.45	10.61	12.14	13.45
	COP_d (declared COP)	-	2.79	2.72	2.88	2.79	2.72
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	P_{dh} (declared heating capacity)	[kW]	7.94	8.56	6.69	7.94	8.56
	COP_d (declared COP)	-	4.52	4.41	4.65	4.52	4.41
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P_{dh} (declared heating capacity)	[kW]	5.20	5.70	4.44	5.20	5.70
	COP_d (declared COP)	-	6.68	6.56	6.62	6.68	6.56
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P_{dh} (declared heating capacity)	[kW]	3.75	3.78	3.74	3.75	3.78
	COP_d (declared COP)	-	8.52	8.51	8.47	8.52	8.51
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 2

Heat pump space heater Matrix		Model	ATM04S	ATM06S	ATM08S	ATM10S	ATM12S
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00	-10.00
	Pdh (declared heating capacity)	[kW]	4.41	5.36	6.44	7.40	10.74
	COPd (declared COP)	-	2.86	2.76	3.04	2.96	2.77
	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00	60.00
(F) Tivalent temperature	Tblv	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	4.88	6.03	7.18	8.10	10.61
	COPd (declared COP)	-	3.19	3.09	3.35	3.23	2.88
	P _{sup} (@T _{designh} : -10°C)	[kW]	1.11	1.45	1.68	1.76	1.26
Part load conditions space heating average climate medium temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	3.89	5.04	5.84	6.78	10.24
	COPd (declared COP)	-	2.17	2.17	2.16	2.24	2.01
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	2.38	3.12	3.76	4.28	6.52
(B) condition (2°C)	COPd (declared COP)	-	3.30	3.51	3.30	3.42	3.44
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	2.94	2.08	2.43	2.77	4.36
	COPd (declared COP)	-	4.41	4.54	4.34	4.52	4.59
(C) condition (7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	1.32	1.28	1.39	1.58	3.29
	COPd (declared COP)	-	5.66	5.59	5.33	5.68	6.05
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00	-10.00
	Pdh (declared heating capacity)	[kW]	3.42	4.52	4.91	5.38	9.10
	COPd (declared COP)	-	1.91	1.91	1.84	1.83	1.79
	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00	60.00
(F) Tivalent temperature	Tblv	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	3.89	5.04	5.84	6.78	10.27
	COPd (declared COP)	-	2.17	2.17	2.16	2.24	2.01

Product fiche 2

Heat pump space heater Matrix						
	Model	ATMH04S3	ATMH06S3	ATMH08S3	ATMH10S3	ATMH12S3
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00
	Pdh (declared heating capacity)	[kW]	4.41	5.36	6.44	7.40
	COPd (declared COP)	-	2.86	2.76	3.04	2.96
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00
	Tblv	[°C]	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	4.88	6.03	7.18	8.10
Supplementary capacity at P_design	COPd (declared COP)	-	3.19	3.09	3.35	3.23
	Psup (@Tdesignh: -10°C)	[kW]	1.11	1.45	1.68	1.76
Part load conditions space heating average climate medium temperature application						
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	3.89	5.04	5.84	6.78
	COPd (declared COP)	-	2.17	2.17	2.16	2.24
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	2.38	3.12	3.76	4.28
	COPd (declared COP)	-	3.30	3.51	3.30	3.42
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	2.94	2.08	2.43	2.77
	COPd (declared COP)	-	4.41	4.54	4.34	4.52
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.32	1.28	1.39	1.58
	COPd (declared COP)	-	5.66	5.59	5.33	5.68
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00
	Pdh (declared heating capacity)	[kW]	3.42	4.52	4.91	5.38
	COPd (declared COP)	-	1.91	1.91	1.84	1.83
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00
	Tblv	[°C]	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	3.89	5.04	5.84	6.78
(F) Tivalent temperature	COPd (declared COP)	-	2.17	2.17	2.16	2.24

Product fiche 2

Heat pump space heater		Matrix									
	Model	ATM14S	ATM16S	ATM12T	ATM14T	ATM16T					
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00
	P _{dh} (declared heating capacity)	[kW]	11.47	12.52	10.74	11.47	11.47	11.47	11.47	11.47	12.52
	COP _d (declared COP)	-	2.59	2.48	2.77	2.59	2.59	2.59	2.59	2.59	2.48
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00
	T _{biv}	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00
	P _{dh} (declared heating capacity)	[kW]	12.14	13.45	10.61	12.14	12.14	12.14	12.14	12.14	13.45
Supplementary capacity at P _{design}	COP _d (declared COP)	-	2.79	2.72	2.88	2.79	2.79	2.79	2.79	2.79	2.72
	P _{sup} (@T _{designh} : -10°C)	[kW]	2.23	2.68	1.26	2.23	2.23	2.23	2.23	2.23	2.68
	Part load conditions space heating average climate medium temperature application										
(A) condition (-7°C)	P _{dh} (declared heating capacity)	[kW]	10.68	11.52	10.24	10.68	10.68	10.68	10.68	10.68	11.52
	COP _d (declared COP)	-	2.01	1.99	2.01	2.01	2.01	2.01	2.01	2.01	1.99
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	P _{dh} (declared heating capacity)	[kW]	6.86	7.18	6.52	6.86	6.86	6.86	6.86	6.86	7.18
	COP _d (declared COP)	-	3.43	3.34	3.44	3.43	3.43	3.43	3.43	3.43	3.34
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _{dh} (declared heating capacity)	[kW]	4.63	4.67	4.36	4.63	4.63	4.63	4.63	4.63	4.67
	COP _d (declared COP)	-	4.66	4.61	4.59	4.66	4.66	4.66	4.66	4.66	4.61
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _{dh} (declared heating capacity)	[kW]	3.31	3.32	3.29	3.31	3.31	3.31	3.31	3.31	3.32
	COP _d (declared COP)	-	6.13	6.07	6.05	6.13	6.13	6.13	6.13	6.13	6.07
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00
	P _{dh} (declared heating capacity)	[kW]	9.19	10.33	9.10	9.19	9.19	9.19	9.19	9.19	10.33
	COP _d (declared COP)	-	1.76	1.80	1.79	1.76	1.76	1.76	1.76	1.76	1.80
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00
	T _{biv}	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00
	P _{dh} (declared heating capacity)	[kW]	10.68	11.52	10.27	10.68	10.68	10.68	10.68	10.68	11.52
Supplementary capacity at P _{design}	COP _d (declared COP)	-	2.01	1.99	2.01	2.01	2.01	2.01	2.01	2.01	1.99
	P _{sup} (@T _{designh} : -10°C)	[kW]	2.91	2.67	2.50	2.91	2.91	2.91	2.91	2.91	2.67

Product fiche 2

Heat pump space heater Matrix		Model	ATMH14S3	ATMH16S3	ATMH12T9	ATMH14T9	ATMH16T9
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00	-10.00
	P _{dh} (declared heating capacity)	[kW]	11.47	12.52	10.74	11.47	12.52
	COP _d (declared COP)	-	2.59	2.48	2.77	2.59	2.48
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00	60.00
	T _{biv}	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00
	P _{dh} (declared heating capacity)	[kW]	12.14	13.45	10.61	12.14	13.45
Supplementary capacity at P_{design}	COP _d (declared COP)	-	2.79	2.72	2.88	2.79	2.72
	P _{sup} (@T _{designh} : -10°C)	[kW]	2.23	2.68	1.26	2.23	2.68
	Part load conditions space heating average climate medium temperature application						
(A) condition (-7°C)	P _{dh} (declared heating capacity)	[kW]	10.68	11.52	10.24	10.68	11.52
	COP _d (declared COP)	-	2.01	1.99	2.01	2.01	1.99
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	P _{dh} (declared heating capacity)	[kW]	6.86	7.18	6.52	6.86	7.18
	COP _d (declared COP)	-	3.43	3.34	3.44	3.43	3.34
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _{dh} (declared heating capacity)	[kW]	4.63	4.67	4.36	4.63	4.67
	COP _d (declared COP)	-	4.66	4.61	4.59	4.66	4.61
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _{dh} (declared heating capacity)	[kW]	3.31	3.32	3.29	3.31	3.32
	COP _d (declared COP)	-	6.13	6.07	6.05	6.13	6.07
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00	-10.00
	P _{dh} (declared heating capacity)	[kW]	9.19	10.33	9.10	9.19	10.33
	COP _d (declared COP)	-	1.76	1.80	1.79	1.76	1.80
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00	60.00
	T _{biv}	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00
	P _{dh} (declared heating capacity)	[kW]	10.68	11.52	10.27	10.68	11.52
Supplementary capacity at P_{design}	COP _d (declared COP)	-	2.01	1.99	2.01	2.01	1.99
	P _{sup} (@T _{designh} : -10°C)	[kW]	2.91	2.67	2.50	2.91	2.67

Product fiche 3

Heat pump space heater Matrix									
Supplementary capacity at P_design		Model	ATM04S	ATM06S	ATM08S	ATM10S	ATM12S		
P _{sup} (@T _{designh} : -10°C)		[kW]	0.98	1.18	1.69	2.28	2.50		
Colder climate (Design temperature = -22°C)									
Space heating 35°C		[kW]	4.6	5.6	7.0	7.7	11.4		
Prated (declared heating capacity) @ -22°C		[kW]							
Seasonal space heating efficiency (η _s)		[%]	159.5	165.3	170.0	169.8	160.2		
Annual energy consumption		[kWh]	2,769	3,300	3,976	4,423	6,870		
Space heating 55°C		[kW]	3.4	4.3	5.8	6.7	10.3		
Prated (declared heating capacity) @ -22°C		[kW]							
Seasonal space heating efficiency (η _s)		[%]	102.1	111.1	112.1	116.5	117.8		
Annual energy consumption		[kWh]	3,159	3,681	4,948	5,539	8,419		
Part load conditions space heating colder climate low temperature application									
(A) condition (-7°C)		[kW]	2.75	3.42	4.46	4.83	7.05		
COP _d (declared COP)		-	3.49	3.59	3.66	3.60	3.48		
C _d (degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90		
(B) condition (2°C)		[kW]	1.77	2.06	2.69	2.94	4.67		
COP _d (declared COP)		-	4.95	5.21	5.20	5.26	4.96		
C _d (degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90		
(C) condition (7°C)		[kW]	1.17	1.46	1.65	1.92	3.14		
COP _d (declared COP)		-	5.53	6.24	6.53	7.08	6.10		
C _d (degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90		
(D) condition (12°C)		[kW]	1.43	1.44	1.65	1.65	3.57		
COP _d (declared COP)		-	7.67	7.66	7.96	7.96	7.87		
C _d (degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90		
(E) Tol (temperature operating limit)		[°C]	-22.00	-22.00	-22.00	-22.00	-22.00		
P _d h (declared heating capacity)		[kW]	2.80	3.48	4.06	4.62	7.01		
COP _d (declared COP)		-	1.97	1.96	1.95	1.97	1.98		
WTOL (Heating water Operation Limit)		[°C]	51.00	51.00	51.00	51.00	51.00		
(F) T _b ivalent temperature		[°C]	-15.00	-15.00	-15.00	-15.00	-15.00		
P _d h (declared heating capacity)		[kW]	3.72	4.59	5.69	6.32	9.28		
COP _d (declared COP)		-	2.57	2.53	2.83	2.64	2.59		
Supplementary capacity at P_design		[kW]	1.76	2.15	2.91	3.08	4.40		

Product fiche 3

Heat pump space heater Matrix

Supplementary capacity at P_design	P _{sup} (@T _{designh} : -10°C)	Model	ATMH04S3	ATMH06S3	ATMH08S3	ATMH10S3	ATMH12S3
Colder climate (Design temperature = -22°C)							
Space heating 35°C	Prated (declared heating capacity) @ -22°C	[kW]	4.6	5.6	7.0	7.7	11.4
	Seasonal space heating efficiency (η _s)	[%]	159.5	165.3	170.0	169.8	160.2
	Annual energy consumption	[kWh]	2,769	3,300	3,976	4,423	6,870
Space heating 55°C	Prated (declared heating capacity) @ -22°C	[kW]	3.4	4.3	5.8	6.7	10.3
	Seasonal space heating efficiency (η _s)	[%]	102.1	111.1	112.1	116.5	117.8
	Annual energy consumption	[kWh]	3,159	3,681	4,948	5,539	8,419
Part load conditions space heating colder climate low temperature application							
(A) condition (-7°C)	P _{dh} (declared heating capacity)	[kW]	2.75	3.42	4.46	4.83	7.05
	COP _d (declared COP)	-	3.49	3.59	3.66	3.60	3.48
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	P _{dh} (declared heating capacity)	[kW]	1.77	2.06	2.69	2.94	4.67
	COP _d (declared COP)	-	4.95	5.21	5.20	5.26	4.96
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _{dh} (declared heating capacity)	[kW]	1.17	1.46	1.65	1.92	3.14
	COP _d (declared COP)	-	5.53	6.24	6.53	7.08	6.10
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _{dh} (declared heating capacity)	[kW]	1.43	1.44	1.65	1.65	3.57
	COP _d (declared COP)	-	7.67	7.66	7.96	7.96	7.87
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-22.00	-22.00	-22.00	-22.00	-22.00
	P _{dh} (declared heating capacity)	[kW]	2.80	3.48	4.06	4.62	7.01
	COP _d (declared COP)	-	1.97	1.96	1.95	1.97	1.98
(F) T _{bivalent} temperature	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00
	T _{biv}	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	P _{dh} (declared heating capacity)	[kW]	3.72	4.59	5.69	6.32	9.28
Supplementary capacity at P_design	COP _d (declared COP)	-	2.57	2.53	2.83	2.64	2.59
	P _{sup} (@T _{designh} : -22°C)	[kW]	1.76	2.15	2.91	3.08	4.40

Product fiche 3

Heat pump space heater Matrix

	Model	ATM14S	ATM16S	ATM12T	ATM14T	ATM16T	
Colder climate (Design temperature = -22°C)							
Space heating 35°C	P _{rated} (declared heating capacity) @ -22°C	[kW]	12.6	13.7	11.4	12.6	13.7
	Seasonal space heating efficiency (η _s)	[%]	159.6	157.8	160.2	159.6	157.8
	Annual energy consumption	[kWh]	7,667	8,431	6,871	7,667	8,431
Space heating 55°C	P _{rated} (declared heating capacity) @ -22°C	[kW]	11.0	11.8	10.3	11.0	11.8
	Seasonal space heating efficiency (η _s)	[%]	118.9	121.8	117.7	118.9	121.8
	Annual energy consumption	[kWh]	8,866	9,309	8,420	8,867	9,310
Part load conditions space heating colder climate low temperature application							
(A) condition (-7°C)	P _{dh} (declared heating capacity)	[kW]	7.96	8.31	7.05	7.96	8.31
	COP _d (declared COP)	-	3.44	3.37	3.48	3.44	3.37
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	P _{dh} (declared heating capacity)	[kW]	5.05	5.26	4.67	5.05	5.26
	COP _d (declared COP)	-	4.92	4.86	4.96	4.92	4.86
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _{dh} (declared heating capacity)	[kW]	3.15	3.62	3.14	3.15	3.62
	COP _d (declared COP)	-	6.11	6.49	6.10	6.11	6.49
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _{dh} (declared heating capacity)	[kW]	3.57	3.34	3.57	3.57	3.34
	COP _d (declared COP)	-	7.82	7.40	7.87	7.82	7.40
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-22.00	-22.00	-22.00	-22.00	-22.00
	P _{dh} (declared heating capacity)	[kW]	7.57	8.88	7.01	7.57	8.88
	COP _d (declared COP)	-	1.92	1.97	1.98	1.92	1.97
(F) T bivalent temperature	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00
	T _{biv}	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	P _{dh} (declared heating capacity)	[kW]	10.31	11.22	9.28	10.31	11.22
Supplementary capacity at P _{design}	COP _d (declared COP)	-	2.53	2.43	2.59	2.53	2.43
	P _{sup} (@T _{designh} : -22°C)	[kW]	5.03	4.82	4.40	5.03	4.82

Product fiche 3

Heat pump space heater **Matrix**

	Model	ATMH14S3	ATMH16S3	ATMH12T9	ATMH14T9	ATMH16T9
Colder climate (Design temperature = -22°C)						
Space heating 35°C	P _{rated} (declared heating capacity) @ -22°C	[kW]	12.6	13.7	11.4	12.6
	Seasonal space heating efficiency (η _s)	[%]	159.6	157.8	160.2	159.6
	Annual energy consumption	[kWh]	7,667	8,431	6,871	7,667
Space heating 55°C	P _{rated} (declared heating capacity) @ -22°C	[kW]	11.0	11.8	10.3	11.0
	Seasonal space heating efficiency (η _s)	[%]	118.9	121.8	117.7	118.9
	Annual energy consumption	[kWh]	8,866	9,309	8,420	8,867
Part load conditions space heating colder climate low temperature application						
(A) condition (-7°C)	P _{dh} (declared heating capacity)	[kW]	7.96	8.31	7.05	7.96
	COP _d (declared COP)	-	3.44	3.37	3.48	3.44
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90
(B) condition (2°C)	P _{dh} (declared heating capacity)	[kW]	5.05	5.26	4.67	5.05
	COP _d (declared COP)	-	4.92	4.86	4.96	4.92
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _{dh} (declared heating capacity)	[kW]	3.15	3.62	3.14	3.15
	COP _d (declared COP)	-	6.11	6.49	6.10	6.11
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _{dh} (declared heating capacity)	[kW]	3.57	3.34	3.57	3.57
	COP _d (declared COP)	-	7.82	7.40	7.87	7.82
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-22.00	-22.00	-22.00	-22.00
	P _{dh} (declared heating capacity)	[kW]	7.57	8.88	7.01	7.57
	COP _d (declared COP)	-	1.92	1.97	1.98	1.92
(F) T _{bivalent} temperature	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00
	T _{biv}	[°C]	-15.00	-15.00	-15.00	-15.00
	P _{dh} (declared heating capacity)	[kW]	10.31	11.22	9.28	10.31
Supplementary capacity at P _{design}	COP _d (declared COP)	-	2.53	2.43	2.59	2.53
	P _{sup} (@T _{designh} : -22°C)	[kW]	5.03	4.82	4.40	5.03

Product fiche 4

Heat pump space heater Matrix

		Model	ATM04S	ATM06S	ATM08S	ATM10S	ATM12S
Part load conditions space heating colder climate medium temperature application							
(A) condition (-7°C)	P _{dh} (declared heating capacity)	[kW]	2.13	2.70	3.86	4.27	6.63
	COP _d (declared COP)	-	2.32	2.46	2.48	2.54	2.63
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _{dh} (declared heating capacity)	[kW]	1.28	1.60	2.21	2.57	4.06
(B) condition (2°C)	COP _d (declared COP)	-	2.99	3.36	3.35	3.51	3.60
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _{dh} (declared heating capacity)	[kW]	1.01	1.02	1.44	1.65	2.78
	COP _d (declared COP)	-	3.86	3.94	4.11	4.37	4.54
(C) condition (7°C)	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _{dh} (declared heating capacity)	[kW]	1.36	1.37	1.47	1.48	3.33
	COP _d (declared COP)	-	6.28	6.35	5.92	5.96	6.25
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	T _{ol} (temperature operating limit)	[°C]	-22.0	-22.00	-22.00	-22.00	-22.00
	P _{dh} (declared heating capacity)	[kW]	1.64	2.09	2.80	2.80	4.19
	COP _d (declared COP)	-	1.02	1.13	1.22	1.22	1.13
	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00
(F) T _{biv} valent temperature	T _{biv}	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	P _{dh} (declared heating capacity)	[kW]	2.74	3.47	4.71	5.47	8.41
	COP _d (declared COP)	-	1.74	1.86	1.90	2.00	1.84
	P _{sup} (@T _{designh} : -22°C)	[kW]	1.72	2.17	2.97	3.91	6.12
Warmer climate (Design temperature = 2°C)							
Space heating 35°C	P _{rated} (declared heating capacity) @ 2°C	[kW]	5.5	6.1	8.1	8.6	11.1
	Seasonal space heating efficiency (η _s)	[%]	255.4	259.8	276.6	280.5	256.1
	Annual energy consumption	[kWh]	1,146	1,244	1,551	1,617	2,292
	P _{rated} (declared heating capacity) @ 2°C	[kW]	5.0	5.1	7.6	8.6	12.5
Space heating 55°C	Seasonal space heating efficiency (η _s)	[%]	162.4	164.7	177.2	181.7	174.1
	Annual energy consumption	[kWh]	1,621	1,640	2,242	2,496	3,376

Product fiche 4

Heat pump space heater Matrix

		Model	ATMH04S3	ATMH06S3	ATMH08S3	ATMH10S3	ATMH12S3
Part load conditions space heating colder climate medium temperature application							
(A) condition (-7°C)	P _d h (declared heating capacity)	[kW]	2.13	2.70	3.86	4.27	6.63
	COP _d (declared COP)	-	2.32	2.46	2.48	2.54	2.63
	C _d h (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _d h (declared heating capacity)	[kW]	1.28	1.60	2.21	2.57	4.06
(B) condition (2°C)	COP _d (declared COP)	-	2.99	3.36	3.35	3.51	3.60
	C _d h (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _d h (declared heating capacity)	[kW]	1.01	1.02	1.44	1.65	2.78
	COP _d (declared COP)	-	3.86	3.94	4.11	4.37	4.54
(C) condition (7°C)	C _d h (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _d h (declared heating capacity)	[kW]	1.36	1.37	1.47	1.48	3.33
	COP _d (declared COP)	-	6.28	6.35	5.92	5.96	6.25
	C _d h (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	T _{ol} (temperature operating limit)	[°C]	-22.00	-22.00	-22.00	-22.00	-22.00
	P _d h (declared heating capacity)	[kW]	1.64	2.09	2.80	2.80	4.19
	COP _d (declared COP)	-	1.02	1.13	1.22	1.22	1.13
	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00
(E) T _b ivalent temperature	T _b iv	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	P _d h (declared heating capacity)	[kW]	2.74	3.47	4.71	5.47	8.41
	COP _d (declared COP)	-	1.74	1.86	1.90	2.00	1.84
	P _{sup} (@T _{design} : -22°C)	[kW]	1.72	2.17	2.97	3.91	6.12
Warmer climate (Design temperature = 2°C)							
Space heating 35°C	P _{rated} (declared heating capacity) @ 2°C	[kW]	5.5	6.1	8.1	8.6	11.1
	Seasonal space heating efficiency (η _s)	[%]	255.4	259.8	276.6	280.5	256.1
	Annual energy consumption	[kWh]	1,146	1,244	1,551	1,617	2,292
Space heating 55°C	P _{rated} (declared heating capacity) @ 2°C	[kW]	5.0	5.1	7.6	8.6	12.5
	Seasonal space heating efficiency (η _s)	[%]	162.4	164.7	177.2	181.7	174.1
	Annual energy consumption	[kWh]	1,621	1,640	2,242	2,496	3,376

Product fiche 4

Heat pump space heater Matrix		Model	ATM14S	ATM16S	ATM12T	ATM14T	ATM16T
Part load conditions space heating colder climate medium temperature application							
(A) condition (-7°C)	P _{dh} (declared heating capacity)	[kW]	6.89	7.64	6.63	6.89	7.64
	COP _d (declared COP)	-	2.66	2.65	2.63	2.66	2.65
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _{dh} (declared heating capacity)	[kW]	4.32	4.42	4.06	4.32	4.42
(B) condition (2°C)	COP _d (declared COP)	-	3.66	3.79	3.60	3.66	3.79
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _{dh} (declared heating capacity)	[kW]	3.06	2.97	2.78	3.06	2.97
	COP _d (declared COP)	-	4.72	4.81	4.54	4.72	4.81
(C) condition (7°C)	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _{dh} (declared heating capacity)	[kW]	3.33	3.43	3.33	3.33	3.43
	COP _d (declared COP)	-	6.25	6.29	6.25	6.25	6.29
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Tol (temperature operating limit)	[°C]	-22.00	-22.00	-22.00	-22.00	-22.00
	P _{dh} (declared heating capacity)	[kW]	4.20	5.21	4.19	4.20	5.21
	COP _d (declared COP)	-	1.13	1.23	1.13	1.13	1.23
	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00
(E) T bivalent temperature	T _{biv}	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	P _{dh} (declared heating capacity)	[kW]	8.94	9.61	8.41	8.94	9.61
	COP _d (declared COP)	-	1.79	1.86	1.84	1.79	1.86
	P _{sup} (@T _{designh} : -22°C)	[kW]	6.76	6.59	6.12	6.76	6.59
Warmer climate (Design temperature = 2°C)							
Space heating 35°C	P _{rated} (declared heating capacity) @ 2°C	[kW]	12.1	13.1	11.1	12.1	13.1
	Seasonal space heating efficiency (η _s)	[%]	260.3	248.5	255.6	259.8	248.1
	Annual energy consumption	[kWh]	2,457	2,781	2,296	2,462	2,786
Space heating 55°C	P _{rated} (declared heating capacity) @ 2°C	[kW]	13.7	13.8	12.5	13.7	13.8
	Seasonal space heating efficiency (η _s)	[%]	176.5	176.1	173.8	176.4	175.9
	Annual energy consumption	[kWh]	4,088	4,112	3,780	4,092	4,116

Product fiche 4

Heat pump space heater Matrix		Model	ATMH14S3	ATMH16S3	ATMH12T9	ATMH14T9	ATMH16T9
Part load conditions space heating colder climate medium temperature application							
(A) condition (-7°C)	P _{dh} (declared heating capacity)	[kW]	6.89	7.64	6.63	6.89	7.64
	COP _d (declared COP)	-	2.66	2.65	2.63	2.66	2.65
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	P _{dh} (declared heating capacity)	[kW]	4.32	4.42	4.06	4.32	4.42
	COP _d (declared COP)	-	3.66	3.79	3.60	3.66	3.79
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _{dh} (declared heating capacity)	[kW]	3.06	2.97	2.78	3.06	2.97
	COP _d (declared COP)	-	4.72	4.81	4.54	4.72	4.81
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _{dh} (declared heating capacity)	[kW]	3.33	3.43	3.33	3.33	3.43
	COP _d (declared COP)	-	6.25	6.29	6.25	6.25	6.29
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) T _{ol} (temperature operating limit)	T _{ol} (temperature operating limit)	[°C]	-22.00	-22.00	-22.00	-22.00	-22.00
	P _{dh} (declared heating capacity)	[kW]	4.20	5.21	4.19	4.20	5.21
	COP _d (declared COP)	-	1.13	1.23	1.13	1.13	1.23
(F) T _{bivalent} temperature	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00
	T _{biv}	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	P _{dh} (declared heating capacity)	[kW]	8.94	9.61	8.41	8.94	9.61
Supplementary capacity at P _{design}	COP _d (declared COP)	-	1.79	1.86	1.84	1.79	1.86
	P _{sup} (@T _{design} : -22°C)	[kW]	6.76	6.59	6.12	6.76	6.59
Warmer climate (Design temperature = 2°C)							
Space heating 35°C	P _{rated} (declared heating capacity) @ 2°C	[kW]	12.1	13.1	11.1	12.1	13.1
	Seasonal space heating efficiency (η _s)	[%]	260.3	248.5	255.6	259.8	248.1
	Annual energy consumption	[kWh]	2,457	2,781	2,296	2,462	2,786
Space heating 55°C	P _{rated} (declared heating capacity) @ 2°C	[kW]	13.7	13.8	12.5	13.7	13.8
	Seasonal space heating efficiency (η _s)	[%]	176.5	176.1	173.8	176.4	175.9
	Annual energy consumption	[kWh]	4,088	4,112	3,780	4,092	4,116

Product fiche 5

Heat pump space heater Matrix

	Model	ATM04S	ATM06S	ATM08S	ATM10S	ATM12S
Part load conditions space heating warmer climate low temperature application						
	[kW]	5.34	5.93	7.56	8.44	11.26
(B) condition (2°C)	P _{dh} (declared heating capacity)	5.34	5.93	7.56	8.44	11.26
	-	3.94	3.91	3.98	3.84	3.59
	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _{dh} (declared heating capacity)	3.56	3.93	5.22	5.52	7.14
	-	5.92	5.89	6.26	6.18	5.87
	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _{dh} (declared heating capacity)	1.63	1.79	2.62	2.62	3.55
	-	7.91	8.20	9.23	9.04	7.94
	-	0.90	0.90	0.90	0.90	0.90
(E) T _{ol} (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00
	[kW]	5.34	5.93	7.56	8.44	11.26
	-	3.94	3.91	3.98	3.84	3.59
	[°C]	62.00	62.00	62.00	62.00	62.00
(F) T _{bivalent} temperature	[°C]	7.00	7.00	7.00	7.00	7.00
	[kW]	3.56	3.93	5.22	5.52	7.14
	-	5.92	5.89	6.26	6.18	5.87
Supplementary capacity at P _{design}	[kW]	0.18	0.18	0.55	0.14	0.00
Part load conditions space heating warmer climate medium temperature application						
	[kW]	4.83	5.02	7.55	8.06	12.07
(B) condition (2°C)	P _{dh} (declared heating capacity)	4.83	5.02	7.55	8.06	12.07
	-	2.51	2.48	2.59	2.59	2.31
	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _{dh} (declared heating capacity)	3.22	3.31	4.86	5.54	8.04
	-	3.68	3.67	3.92	4.10	3.86
	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _{dh} (declared heating capacity)	1.47	1.60	2.32	2.53	3.75
	-	5.15	5.29	5.55	5.82	5.70
	-	0.90	0.90	0.90	0.90	0.90

Product fiche 5

Heat pump space heater Matrix		Model	ATMH04S3	ATMH06S3	ATMH08S3	ATMH10S3	ATMH12S3
Part load conditions space heating warmer climate low temperature application							
(B) condition (2°C)	P _{dh} (declared heating capacity)	[kW]	5.34	5.93	7.56	8.44	11.26
	COP _d (declared COP)	-	3.94	3.91	3.98	3.84	3.59
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _{dh} (declared heating capacity)	[kW]	3.56	3.93	5.22	5.52	7.14
	COP _d (declared COP)	-	5.92	5.89	6.26	6.18	5.87
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _{dh} (declared heating capacity)	[kW]	1.63	1.79	2.62	2.62	3.55
	COP _d (declared COP)	-	7.91	8.20	9.23	9.04	7.94
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) T _{ol} (temperature operating limit)	T _{ol} (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00
	P _{dh} (declared heating capacity)	[kW]	5.34	5.93	7.56	8.44	11.26
	COP _d (declared COP)	-	3.94	3.91	3.98	3.84	3.59
(F) T _{bivalent} temperature	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00	62.00
	T _{biv}	[°C]	7.00	7.00	7.00	7.00	7.00
	P _{dh} (declared heating capacity)	[kW]	3.56	3.93	5.22	5.52	7.14
Supplementary capacity at P _{design}	COP _d (declared COP)	-	5.92	5.89	6.26	6.18	5.87
	P _{sup} (@T _{design} : 2°C)	[kW]	0.18	0.18	0.55	0.14	0.00
Part load conditions space heating warmer climate medium temperature application							
(B) condition (2°C)	P _{dh} (declared heating capacity)	[kW]	4.83	5.02	7.55	8.06	12.07
	COP _d (declared COP)	-	2.51	2.48	2.59	2.59	2.31
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _{dh} (declared heating capacity)	[kW]	3.22	3.31	4.86	5.54	8.04
	COP _d (declared COP)	-	3.68	3.67	3.92	4.10	3.86
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _{dh} (declared heating capacity)	[kW]	1.47	1.60	2.32	2.53	3.75
	COP _d (declared COP)	-	5.15	5.29	5.55	5.82	5.70
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 5

Heat pump space heater Matrix		Model	ATM14S	ATM16S	ATM12T	ATM14T	ATM16T
Part load conditions space heating warmer climate low temperature application							
(B) condition (2°C)	P _{dh} (declared heating capacity)	[kW]	12.04	13.10	11.26	12.04	13.10
	COP _d (declared COP)	-	3.44	3.35	3.59	3.44	3.35
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _{dh} (declared heating capacity)	[kW]	7.78	8.41	7.14	7.78	8.41
(C) condition (7°C)	COP _d (declared COP)	-	5.84	5.36	5.87	5.84	5.36
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _{dh} (declared heating capacity)	[kW]	3.75	3.87	3.55	3.75	3.87
	COP _d (declared COP)	-	8.25	8.11	7.94	8.25	8.11
(D) condition (12°C)	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	T _{ol} (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00
	P _{dh} (declared heating capacity)	[kW]	12.04	13.10	11.26	12.04	13.10
	COP _d (declared COP)	-	3.44	3.35	3.59	3.44	3.35
(E) T _{ol} (temperature operating limit)	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00	62.00
	T _{biv}	[°C]	7.00	7.00	7.00	7.00	7.00
	P _{dh} (declared heating capacity)	[kW]	7.78	8.41	7.14	7.78	8.41
	COP _d (declared COP)	-	5.84	5.36	5.87	5.84	5.36
Supplementary capacity at P _{design}	P _{sup} (@T _{design} : 2°C)	[kW]	0.00	0.00	0.00	0.00	0.00
Part load conditions space heating warmer climate medium temperature application							
(B) condition (2°C)	P _{dh} (declared heating capacity)	[kW]	13.04	13.38	12.07	13.04	13.38
	COP _d (declared COP)	-	2.20	2.29	2.31	2.20	2.29
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _{dh} (declared heating capacity)	[kW]	8.83	8.86	8.04	8.83	8.86
(C) condition (7°C)	COP _d (declared COP)	-	3.91	3.84	3.86	3.91	3.84
	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _{dh} (declared heating capacity)	[kW]	4.08	4.06	3.75	4.08	4.06
	COP _d (declared COP)	-	5.90	5.86	5.70	5.90	5.86
(D) condition (12°C)	C _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 5

Heat pump space heater Matrix		Model	ATMH14S3			ATMH12T9			ATMH14T9			ATMH16T9		
			Part load conditions space heating warmer climate low temperature application			Part load conditions space heating warmer climate medium temperature application			Part load conditions space heating warmer climate high temperature application			Part load conditions space heating warmer climate very high temperature application		
(B) condition (2°C)	P _{d,h} (declared heating capacity)	[kW]	12.04	13.10	11.26	12.04	13.10	11.26	12.04	13.10	11.26	12.04	13.10	
	COP _d (declared COP)	-	3.44	3.35	3.59	3.44	3.35	3.59	3.44	3.35	3.59	3.44	3.35	
	C _{d,h} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
	P _{d,h} (declared heating capacity)	[kW]	7.78	8.41	7.14	7.78	8.41	7.14	7.78	8.41	7.14	7.78	8.41	
(C) condition (7°C)	COP _d (declared COP)	-	5.84	5.36	5.87	5.84	5.36	5.87	5.84	5.36	5.87	5.84	5.36	
	C _{d,h} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
	P _{d,h} (declared heating capacity)	[kW]	3.75	3.87	3.55	3.75	3.87	3.55	3.75	3.87	3.55	3.75	3.87	
	COP _d (declared COP)	-	8.25	8.11	7.94	8.25	8.11	7.94	8.25	8.11	7.94	8.25	8.11	
(D) condition (12°C)	C _{d,h} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
	T _{ol} (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
	P _{d,h} (declared heating capacity)	[kW]	12.04	13.10	11.26	12.04	13.10	11.26	12.04	13.10	11.26	12.04	13.10	
	COP _d (declared COP)	-	3.44	3.35	3.59	3.44	3.35	3.59	3.44	3.35	3.59	3.44	3.35	
(E) T _{ol} (temperature operating limit)	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	
	T _{b,lv}	[°C]	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	
	P _{d,h} (declared heating capacity)	[kW]	7.78	8.41	7.14	7.78	8.41	7.14	7.78	8.41	7.14	7.78	8.41	
	COP _d (declared COP)	-	5.84	5.36	5.87	5.84	5.36	5.87	5.84	5.36	5.87	5.84	5.36	
Supplementary capacity at P _{design}	P _{sup} (@T _{design,h} : 2°C)	[kW]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Part load conditions space heating warmer climate medium temperature application														
(B) condition (2°C)	P _{d,h} (declared heating capacity)	[kW]	13.04	13.38	12.07	13.04	13.38	12.07	13.04	13.38	12.07	13.04	13.38	
	COP _d (declared COP)	-	2.20	2.29	2.31	2.20	2.29	2.31	2.20	2.29	2.31	2.20	2.29	
	C _{d,h} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
	P _{d,h} (declared heating capacity)	[kW]	8.83	8.86	8.04	8.83	8.86	8.04	8.83	8.86	8.04	8.83	8.86	
(C) condition (7°C)	COP _d (declared COP)	-	3.91	3.84	3.86	3.91	3.84	3.86	3.91	3.84	3.86	3.91	3.84	
	C _{d,h} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
	P _{d,h} (declared heating capacity)	[kW]	4.08	4.06	3.75	4.08	4.06	3.75	4.08	4.06	3.75	4.08	4.06	
	COP _d (declared COP)	-	5.90	5.86	5.70	5.90	5.86	5.70	5.90	5.86	5.70	5.90	5.86	
(D) condition (12°C)	C _{d,h} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	

Product fiche 6

Heat pump space heater Matrix		Model	ATM04S	ATM06S	ATM08S	ATM10S	ATM12S
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00
	P _{dh} (declared heating capacity)	[kW]	4.83	5.02	7.83	8.15	12.07
	COP _d (declared COP)	-	2.51	2.48	2.66	2.61	2.31
	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00	62.00
(F) Tivalent temperature	T _{blv}	[°C]	7.00	7.00	7.00	7.00	7.00
	P _{dh} (declared heating capacity)	[kW]	3.22	3.31	4.86	5.54	8.04
	COP _d (declared COP)	-	3.68	3.67	3.92	4.10	3.86
	P _{sup} (@T _{design} h: 2°C)	[kW]	0.18	0.12	0.00	0.48	0.43
0							
Product description	Air-to-water heat pump	Y/N	Yes	Yes	Yes	Yes	Yes
	Water-to-water heat pump	Y/N	No	No	No	No	No
	Brine-to-water heat pump	Y/N	No	No	No	No	No
	Low-temperature heat pump	Y/N	No	No	No	No	No
	Equipped with a supplementary heater	Y/N	Yes	Yes	Yes	Yes	Yes
	Heat pump combination heater	Y/N	No	No	No	No	No
	Rated airflow	[m ³ /h]	2770	2770	4030	4030	4060
	Rated water/brine flow (outdoor H/E)		/	/	/	/	/
	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter
	P _{off} (Power consumption Off mode)	[kW]	0.014	0.014	0.014	0.014	0.014
Other	P _{to} (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.024	0.024	0.024
	P _{sb} (Power consumption Standby mode)	[kW]	0.014	0.014	0.014	0.014	0.014
	P _{ck} (Power crankcase heater mode)	[kW]	0.000	0.000	0.000	0.000	0.000
	Q _{elec} (Daily electricity consumption)	[kWh]	/	/	/	/	/
	Q _{fuel} (Daily fuel consumption)	[kWh]	/	/	/	/	/

Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.

Product fiche 6

Heat pump space heater Matrix		Model	ATMH04S3	ATMH06S3	ATMH08S3	ATMH10S3	ATMH12S3
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00
	P _{dh} (declared heating capacity)	[kW]	4.83	5.02	7.83	8.15	12.07
	COP _d (declared COP)	-	2.51	2.48	2.66	2.61	2.31
	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00	62.00
(F) Tivalent temperature	T _{blv}	[°C]	7.00	7.00	7.00	7.00	7.00
	P _{dh} (declared heating capacity)	[kW]	3.22	3.31	4.86	5.54	8.04
	COP _d (declared COP)	-	3.68	3.67	3.92	4.10	3.86
	P _{sup} (@T _{designh} : 2°C)	[kW]	0.18	0.12	0.00	0.48	0.43
Supplementary capacity at P _{design}	0						
Product description	Air-to-water heat pump	Y/N	Yes	Yes	Yes	Yes	Yes
	Water-to-water heat pump	Y/N	No	No	No	No	No
	Brine-to-water heat pump	Y/N	No	No	No	No	No
	Low-temperature heat pump	Y/N	No	No	No	No	No
	Equipped with a supplementary heater	Y/N	Yes	Yes	Yes	Yes	Yes
	Heat pump combination heater	Y/N	No	No	No	No	No
	Rated airflow	[m ³ /h]	2770	2770	4030	4030	4060
	Rated water/brine flow (outdoor H/E)		/	/	/	/	/
	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter
	P _{off} (Power consumption Off mode)	[kW]	0.014	0.014	0.014	0.014	0.014
Other	P _{to} (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.024	0.024	0.024
	P _{sb} (Power consumption Standby mode)	[kW]	0.014	0.014	0.014	0.014	0.014
	P _{ck} (Power crankcase heater mode)	[kW]	0.000	0.000	0.000	0.000	0.000
	Q _{elec} (Daily electricity consumption)	[kWh]	/	/	/	/	/
	Q _{fuel} (Daily fuel consumption)	[kWh]	/	/	/	/	/

Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.

Product fiche 6

Heat pump space heater		Matrix									
	Model	ATM14S	ATM16S	ATM12T	ATM14T	ATM16T					
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00					
	P _{dh} (declared heating capacity)	[kW]	13.04	13.38	12.07	13.04					
	COP _d (declared COP)	-	2.20	2.29	2.31	2.20					
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00					
	T _{biv}	[°C]	7.00	7.00	7.00	7.00					
	P _{dh} (declared heating capacity)	[kW]	8.83	8.86	8.04	8.83					
Supplementary capacity at P _{design}	COP _d (declared COP)	-	3.91	3.84	3.86	3.91					
	P _{sup} (@Tdesignh: 2°C)	[kW]	0.66	0.42	0.43	0.66					
0											
Product description	Air-to-water heat pump	Y/N	Yes	Yes	Yes	Yes					
	Water-to-water heat pump	Y/N	No	No	No	No					
	Brine-to-water heat pump	Y/N	No	No	No	No					
	Low-temperature heat pump	Y/N	No	No	No	No					
	Equipped with a supplementary heater	Y/N	Yes	Yes	Yes	Yes					
	Heat pump combination heater	Y/N	No	No	No	No					
	Rated airflow	[m ³ /h]	4060	4650	4060	4060					
	Rated water/brine flow (outdoor H/E)		/	/	/	/					
	Capacity control	-	Inverter	Inverter	Inverter	Inverter					
	P _{off} (Power consumption Off mode)	[kW]	0.014	0.014	0.02	0.02					
Other	P _{lo} (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.030	0.030					
	P _{sb} (Power consumption Standby mode)	[kW]	0.014	0.014	0.02	0.02					
	P _{ck} (Power crankcase heater model)	[kW]	0.000	0.000	0.000	0.000					
	Q _{elec} (Daily electricity consumption)	[kWh]	/	/	/	/					
Q _{fuel} (Daily fuel consumption)	[kWh]	/	/	/	/						

Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.

Product fiche 6

Heat pump space heater		Matrix					
	Model	ATMH14S3	ATMH16S3	ATMH12T9	ATMH14T9	ATMH1 6T9	
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	
	P _{dh} (declared heating capacity)	[kW]	13.04	13.38	12.07	13.04	
	COP _d (declared COP)	-	2.20	2.29	2.31	2.20	
	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00	
(F) Tivalent temperature	T _{biv}	[°C]	7.00	7.00	7.00	7.00	
	P _{dh} (declared heating capacity)	[kW]	8.83	8.86	8.04	8.83	
	COP _d (declared COP)	-	3.91	3.84	3.86	3.91	
	P _{sup} (@Tdesignh: 2°C)	[kW]	0.66	0.42	0.43	0.66	
Supplementary capacity at P _{design}							
0							
Product description	Air-to-water heat pump	Y/N	Yes	Yes	Yes	Yes	
	Water-to-water heat pump	Y/N	No	No	No	No	
	Brine-to-water heat pump	Y/N	No	No	No	No	
	Low-temperature heat pump	Y/N	No	No	No	No	
	Equipped with a supplementary heater	Y/N	Yes	Yes	Yes	Yes	
	Heat pump combination heater	Y/N	No	No	No	No	
	Rated airflow	[m ³ /h]	4060	4650	4060	4060	4650
	Rated water/brine flow (outdoor H/E)		/	/	/	/	/
	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter
	P _{off} (Power consumption Off mode)	[kW]	0.014	0.014	0.02	0.02	0.02
Other	P _{lo} (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.030	0.030	
	P _{sb} (Power consumption Standby mode)	[kW]	0.014	0.014	0.02	0.02	
	P _{ck} (Power crankcase heater model)	[kW]	0.000	0.000	0.000	0.000	
	Q _{elec} (Daily electricity consumption)	[kWh]	/	/	/	/	/
Q _{fuel} (Daily fuel consumption)	[kWh]	/	/	/	/	/	

Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.

Technical parameters							
Model(s):	ATM04S & ATMH04S3						
Air-to-water heat pump:	YES						
Water-to-water heat pump:	NO						
Brine-to-water heat pump:	NO						
Low-temperature heat pump:	NO						
Equipped with a supplementary heater:	NO/YES						
Heat pump combination heater:	NO						
Declared climate condition:	AVERAGE						
Parameters are declared for medium-temperature application.							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	4.4	kW	Seasonal space heating energy efficiency	η_s	129.5	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	3.89	kW	Tj = -7 C	COPd	2.17	-
Tj = 2 C	Pdh	2.38	kW	Tj = 2 C	COPd	3.30	-
Tj = 7 C	Pdh	2.94	kW	Tj = 7 C	COPd	4.41	-
Tj = 12 C	Pdh	1.32	kW	Tj = 12 C	COPd	5.66	-
Tj = bivalent temperature	Pdh	3.89	kW	Tj = bivalent temperature	COPd	2.17	-
Tj = operating limit	Pdh	3.42	kW	Tj = operating limit	COPd	1.91	-
For air-to-water heat pumps: Tj = -15	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 C	COPd	-	-
Bivalent temperature	T _{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P _{cych}	-	kW	Cycling interval efficiency	COP _{cyc}	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{off}	0.014	kW	Rated heat output (**)	P _{sup}	0.98	kW
Standby mode	P _{sb}	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	P _{to}	0.024	kW				
Crankcase heater mode	P _{ck}	0.000	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	-55	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	2744	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).							
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Technical parameters

Model(s):	ATM04S & ATMH04S3						
Air-to-water heat pump:	YES						
Water-to-water heat pump:	NO						
Brine-to-water heat pump:	NO						
Low-temperature heat pump:	NO						
Equipped with a supplementary heater:	NO/YES						
Heat pump combination heater:	NO						
Declared climate condition:	COLDER						
Parameters are declared for medium-temperature application.							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	3.4	kW	Seasonal space heating energy efficiency	η_s	102.1	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	2.13	kW	Tj = -7°C	COPd	2.32	-
Tj = 2°C	Pdh	1.28	kW	Tj = 2°C	COPd	2.99	-
Tj = 7°C	Pdh	1.01	kW	Tj = 7°C	COPd	3.86	-
Tj = 12°C	Pdh	1.36	kW	Tj = 12°C	COPd	6.28	-
Tj = bivalent temperature	Pdh	2.74	kW	Tj = bivalent temperature	COPd	1.74	-
Tj = operating limit	Pdh	1.64	kW	Tj = operating limit	COPd	1.02	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P _{cyc}	-	kW	Cycling interval efficiency	COP _{cyc}	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{off}	0.014	kW	Rated heat output (**)	P _{sup}	1.72	kW
Standby mode	P _{sb}	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	P _{to}	0.024	kW				
Crankcase heater mode	P _{ck}	0.000	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	3159	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).							
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Technical parameters

Model(s):	ATM04S & ATMH04S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5.0	kW	Seasonal space heating energy efficiency	η_s	162.4	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = 2°C	Pdh	4.83	kW	Tj = 2°C	COPd	2.51	-
Tj = 7°C	Pdh	3.22	kW	Tj = 7°C	COPd	3.68	-
Tj = 12°C	Pdh	1.47	kW	Tj = 12°C	COPd	5.15	-
Tj = bivalent temperature	Pdh	3.22	kW	Tj = bivalent temperature	COPd	3.68	-
Tj = operating limit	Pdh	4.83	kW	Tj = operating limit	COPd	2.51	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COP _{cyc}	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	P _{sup}	0.18	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	1621	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fu.5.1el consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM06S & ATMH06S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5.7	kW	Seasonal space heating energy efficiency	η_s	137.9	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	5.04	kW	Tj = -7°C	COPd	2.17	-
Tj = 2°C	Pdh	3.12	kW	Tj = 2°C	COPd	3.51	-
Tj = 7°C	Pdh	2.08	kW	Tj = 7°C	COPd	4.54	-
Tj = 12°C	Pdh	1.28	kW	Tj = 12°C	COPd	5.59	-
Tj = bivalent temperature	Pdh	5.04	kW	Tj = bivalent temperature	COPd	2.17	-
Tj = operating limit	Pdh	4.52	kW	Tj = operating limit	COPd	1.91	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{off}	0.014	kW	Rated heat output (**)	P _{sup}	1.18	kW
Standby mode	P _{sb}	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	P _{to}	0.024	kW				
Crankcase heater mode	P _{ck}	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-58	dB
Annual energy consumption	Q _{HE}	3345	kWh
For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM06S & ATMH06S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	4.3	kW	Seasonal space heating energy efficiency	η_s	111.1	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	2.70	kW	Tj = -7 °C	COPd	2.46	-
Tj = 2 °C	Pdh	1.60	kW	Tj = 2 °C	COPd	3.36	-
Tj = 7 °C	Pdh	1.02	kW	Tj = 7 °C	COPd	3.94	-
Tj = 12 °C	Pdh	1.37	kW	Tj = 12 °C	COPd	6.35	-
Tj = bivalent temperature	Pdh	3.47	kW	Tj = bivalent temperature	COPd	1.86	-
Tj = operating limit	Pdh	2.09	kW	Tj = operating limit	COPd	1.13	-
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	5.10	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-	dB
Annual energy consumption	QHE	3681	kWh
For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Q _{elec}	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency	η_{wh}	-	%
Daily fuel consumption	Q _{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM06S & ATMH06S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5.1	kW	Seasonal space heating energy efficiency	η_s	164.7	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = 2°C	Pdh	5.02	kW	Tj = 2°C	COPd	2.48	-
Tj = 7°C	Pdh	3.31	kW	Tj = 7°C	COPd	3.67	-
Tj = 12°C	Pdh	1.60	kW	Tj = 12°C	COPd	5.29	-
Tj = bivalent temperature	Pdh	3.31	kW	Tj = bivalent temperature	COPd	3.67	-
Tj = operating limit	Pdh	5.02	kW	Tj = operating limit	COPd	2.48	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P _{cych}	-	kW	Cycling interval efficiency	COP _{cyt}	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{off}	0.014	kW	Rated heat output (**)	P _{sup}	0	kW
Standby mode	P _{sb}	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	P _{to}	0.024	kW				
Crankcase heater mode	P _{ck}	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-	dB
Annual energy consumption	Q _{HE}	1640	kWh
For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Q _{elec}	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency	η_{wh}	-	%
Daily fuel consumption	Q _{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
 (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM08S & ATMH08S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.6	kW	Seasonal space heating energy efficiency	η_s	131.5	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	5.84	kW	Tj = -7°C	COPd	2.16	-
Tj = 2°C	Pdh	3.75	kW	Tj = 2°C	COPd	3.30	-
Tj = 7°C	Pdh	2.42	kW	Tj = 7°C	COPd	4.34	-
Tj = 12°C	Pdh	1.39	kW	Tj = 12°C	COPd	5.33	-
Tj = bivalent temperature	Pdh	5.84	kW	Tj = bivalent temperature	COPd	2.16	-
Tj = operating limit	Pdh	4.90	kW	Tj = operating limit	COPd	1.84	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COP _{eyc}	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	1.69	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	-59	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	4056	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM08S & ATMH08S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5.8	kW	Seasonal space heating energy efficiency	η_s	112.0	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	3.86	kW	Tj = -7°C	COPd	2.48	-
Tj = 2°C	Pdh	2.21	kW	Tj = 2°C	COPd	3.35	-
Tj = 7°C	Pdh	1.44	kW	Tj = 7°C	COPd	4.11	-
Tj = 12°C	Pdh	1.46	kW	Tj = 12°C	COPd	5.92	-
Tj = bivalent temperature	Pdh	4.71	kW	Tj = bivalent temperature	COPd	1.90	-
Tj = operating limit	Pdh	2.80	kW	Tj = operating limit	COPd	1.22	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COP _{eyc}	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	2.97	kW
Standby mode	Psb	0.014	kW				
Thermostat-off mode	Pto	0.024	kW	Type of energy input	Electrical		
Crankcase heater mode	Pck	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L _{WA}	-	dB
Annual energy consumption	Q _{HE}	4950	kWh
For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Q _{elec}	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency		η_{wh}	-
Daily fuel consumption		Q _{fuel}	-
Annual fuel consumption		AFC	-

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM08S & ATMH08S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.6	kW	Seasonal space heating energy efficiency	η_s	175.8	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	-	kW	Tj = -7 °C	COPd	-	-
Tj = 2 °C	Pdh	7.55	kW	Tj = 2 °C	COPd	2.59	-
Tj = 7 °C	Pdh	4.86	kW	Tj = 7 °C	COPd	3.92	-
Tj = 12 °C	Pdh	2.31	kW	Tj = 12 °C	COPd	5.55	-
Tj = bivalent temperature	Pdh	4.86	kW	Tj = bivalent temperature	COPd	3.92	-
Tj = operating limit	Pdh	7.55	kW	Tj = operating limit	COPd	2.59	-
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	0	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m³/h
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	QHE	2259	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qclec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM10S & ATMH10S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.7	kW	Seasonal space heating energy efficiency	η_s	136.6	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	6.78	kW	Tj = -7°C	COPd	2.24	-
Tj = 2°C	Pdh	4.28	kW	Tj = 2°C	COPd	3.42	-
Tj = 7°C	Pdh	2.77	kW	Tj = 7°C	COPd	4.52	-
Tj = 12°C	Pdh	1.58	kW	Tj = 12°C	COPd	5.68	-
Tj = bivalent temperature	Pdh	6.78	kW	Tj = bivalent temperature	COPd	2.24	-
Tj = operating limit	Pdh	5.38	kW	Tj = operating limit	COPd	1.83	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P _{cyc}	-	kW	Cycling interval efficiency	COP _{cyc}	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{off}	0.014	kW	Rated heat output (**)	P _{sup}	2.29	kW
Standby mode	P _{sb}	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	P _{to}	0.024	kW				
Crankcase heater mode	P _{ck}	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L _{WA}	-60	dB
Annual energy consumption	Q _{HE}	4539	kWh
For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM10S & ATMH10S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.7	kW	Seasonal space heating energy efficiency	η_s	116.4	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	4.27	kW	Tj = -7°C	COPd	2.54	-
Tj = 2°C	Pdh	2.57	kW	Tj = 2°C	COPd	3.51	-
Tj = 7°C	Pdh	1.65	kW	Tj = 7°C	COPd	4.37	-
Tj = 12°C	Pdh	1.47	kW	Tj = 12°C	COPd	5.96	-
Tj = bivalent temperature	Pdh	5.47	kW	Tj = bivalent temperature	COPd	2.00	-
Tj = operating limit	Pdh	2.80	kW	Tj = operating limit	COPd	1.22	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	3.91	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m³/h
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	QHE	5540	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM10S & ATMH10S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.6	kW	Seasonal space heating energy efficiency	η_s	180.3	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = 2°C	Pdh	8.06	kW	Tj = 2°C	COPd	2.59	-
Tj = 7°C	Pdh	5.54	kW	Tj = 7°C	COPd	4.10	-
Tj = 12°C	Pdh	2.53	kW	Tj = 12°C	COPd	5.82	-
Tj = bivalent temperature	Pdh	5.54	kW	Tj = bivalent temperature	COPd	4.10	-
Tj = operating limit	Pdh	8.15	kW	Tj = operating limit	COPd	2.61	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P _{psych}	-	kW	Cycling interval efficiency	COP _{cyc}	-	-
Degradation co-efficient (**)	Cdh	0.9	-	Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{off}	0.014	kW	Rated heat output (**)	P _{sup}	0.48	kW
Standby mode	P _{sb}	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	P _{to}	0.024	kW				
Crankcase heater mode	P _{ck}	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-	dB
Annual energy consumption	Q _{HE}	2516	kWh
For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Q _{elec}	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency	η_{wh}	-	%
Daily fuel consumption	Q _{fuel}	-	kWh
Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesign, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM12S & ATMH12S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11.6	kW	Seasonal space heating energy efficiency	η_s	135.1	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	10.24	kW	Tj = -7°C	COPd	2.01	-
Tj = 2°C	Pdh	6.52	kW	Tj = 2°C	COPd	3.44	-
Tj = 7°C	Pdh	4.36	kW	Tj = 7°C	COPd	4.59	-
Tj = 12°C	Pdh	3.29	kW	Tj = 12°C	COPd	6.05	-
Tj = bivalent temperature	Pdh	10.24	kW	Tj = bivalent temperature	COPd	2.01	-
Tj = operating limit	Pdh	9.10	kW	Tj = operating limit	COPd	1.79	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	1.23	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
Sound power level, indoors/outdoors	LWA	-65	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	6927	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qdec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM12S & ATMH12S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.3	kW	Seasonal space heating energy efficiency	η_s	117.8	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	6.63	kW	Tj = -7°C	COPd	2.63	-
Tj = 2°C	Pdh	4.06	kW	Tj = 2°C	COPd	3.60	-
Tj = 7°C	Pdh	2.78	kW	Tj = 7°C	COPd	4.54	-
Tj = 12°C	Pdh	3.33	kW	Tj = 12°C	COPd	6.25	-
Tj = bivalent temperature	Pdh	8.41	kW	Tj = bivalent temperature	COPd	1.84	-
Tj = operating limit	Pdh	4.19	kW	Tj = operating limit	COPd	1.13	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	6.11	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	8419	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM12S & ATMH12S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.5	kW	Seasonal space heating energy efficiency	η_s	174.0	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = 2°C	Pdh	12.07	kW	Tj = 2°C	COPd	2.31	-
Tj = 7°C	Pdh	8.04	kW	Tj = 7°C	COPd	3.86	-
Tj = 12°C	Pdh	3.75	kW	Tj = 12°C	COPd	5.70	-
Tj = bivalent temperature	Pdh	8.04	kW	Tj = bivalent temperature	COPd	3.86	-
Tj = operating limit	Pdh	12.07	kW	Tj = operating limit	COPd	2.31	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	0.43	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	3776	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM14S & ATMH14S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.08	kW	Seasonal space heating energy efficiency	η_s	135.6	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	10.68	kW	Tj = -7°C	COPd	2.01	-
Tj = 2°C	Pdh	6.86	kW	Tj = 2°C	COPd	3.43	-
Tj = 7°C	Pdh	4.63	kW	Tj = 7°C	COPd	4.66	-
Tj = 12°C	Pdh	3.31	kW	Tj = 12°C	COPd	6.13	-
Tj = bivalent temperature	Pdh	10.68	kW	Tj = bivalent temperature	COPd	2.01	-
Tj = operating limit	Pdh	9.19	kW	Tj = operating limit	COPd	1.76	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	1.40	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-65	dB
Annual energy consumption	QHE	7202	kWh
For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Qclec	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency			
Daily fuel consumption	Qfuel	-	kWh
Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
 (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM14S & ATMH14S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11.0	kW	Seasonal space heating energy efficiency	η_s	118.9	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	6.89	kW	Tj = -7 °C	COPd	2.66	-
Tj = 2 °C	Pdh	4.32	kW	Tj = 2 °C	COPd	3.66	-
Tj = 7 °C	Pdh	3.06	kW	Tj = 7 °C	COPd	4.72	-
Tj = 12 °C	Pdh	3.33	kW	Tj = 12 °C	COPd	6.25	-
Tj = bivalent temperature	Pdh	8.94	kW	Tj = bivalent temperature	COPd	1.79	-
Tj = operating limit	Pdh	4.20	kW	Tj = operating limit	COPd	1.13	-
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	6.80	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-	dB
Annual energy consumption	QHE	8866	kWh
For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM14S & ATMH14S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13.7	kW	Seasonal space heating energy efficiency	η_s	176.5	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = 2°C	Pdh	13.04	kW	Tj = 2°C	COPd	2.20	-
Tj = 7°C	Pdh	8.83	kW	Tj = 7°C	COPd	3.91	-
Tj = 12°C	Pdh	4.08	kW	Tj = 12°C	COPd	5.90	-
Tj = bivalent temperature	Pdh	8.83	kW	Tj = bivalent temperature	COPd	3.91	-
Tj = operating limit	Pdh	13.04	kW	Tj = operating limit	COPd	2.20	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	0.66	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-	dB
Annual energy consumption	QHE	4088	kWh
For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Qclec	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency			
Daily fuel consumption	Qfuel	-	kWh
Annual fuel consumption	AFC	-	GJ

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 (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM16S & ATMH16S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13.0	kW	Seasonal space heating energy efficiency	η_s	133.3	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	11.52	kW	Tj = -7 °C	COPd	1.99	-
Tj = 2 °C	Pdh	7.18	kW	Tj = 2 °C	COPd	3.34	-
Tj = 7 °C	Pdh	4.67	kW	Tj = 7 °C	COPd	4.61	-
Tj = 12 °C	Pdh	3.31	kW	Tj = 12 °C	COPd	6.07	-
Tj = bivalent temperature	Pdh	11.52	kW	Tj = bivalent temperature	COPd	1.99	-
Tj = operating limit	Pdh	10.33	kW	Tj = operating limit	COPd	1.80	-
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	2.68	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level, indoors/outdoors	LWA	-68	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	7895	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM16S & ATMH16S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11.8	kW	Seasonal space heating energy efficiency	η_s	121.8	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	7.64	kW	Tj = -7°C	COPd	2.65	-
Tj = 2°C	Pdh	4.42	kW	Tj = 2°C	COPd	3.79	-
Tj = 7°C	Pdh	2.97	kW	Tj = 7°C	COPd	4.81	-
Tj = 12°C	Pdh	3.43	kW	Tj = 12°C	COPd	6.29	-
Tj = bivalent temperature	Pdh	9.61	kW	Tj = bivalent temperature	COPd	1.86	-
Tj = operating limit	Pdh	5.21	kW	Tj = operating limit	COPd	1.23	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	6.59	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	9309	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM16S & ATMH16S3
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13.8	kW	Seasonal space heating energy efficiency	η_s	176.1	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = 2°C	Pdh	13.38	kW	Tj = 2°C	COPd	2.29	-
Tj = 7°C	Pdh	8.86	kW	Tj = 7°C	COPd	3.84	-
Tj = 12°C	Pdh	4.06	kW	Tj = 12°C	COPd	5.86	-
Tj = bivalent temperature	Pdh	8.86	kW	Tj = bivalent temperature	COPd	3.84	-
Tj = operating limit	Pdh	13.38	kW	Tj = operating limit	COPd	2.29	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	0.42	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	4112	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM12T & ATMH12T9
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11.6	kW	Seasonal space heating energy efficiency	η_s	135.1	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	10.24	kW	Tj = -7°C	COPd	2.01	-
Tj = 2°C	Pdh	6.52	kW	Tj = 2°C	COPd	3.44	-
Tj = 7°C	Pdh	4.36	kW	Tj = 7°C	COPd	4.59	-
Tj = 12°C	Pdh	3.29	kW	Tj = 12°C	COPd	6.05	-
Tj = bivalent temperature	Pdh	10.24	kW	Tj = bivalent temperature	COPd	2.01	-
Tj = operating limit	Pdh	9.10	kW	Tj = operating limit	COPd	1.79	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P _{cyc}	-	kW	Cycling interval efficiency	COP _{cyc}	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{off}	0.020	kW	Rated heat output (**)	P _{sup}	1.23	kW
Standby mode	P _{sb}	0.020	kW	Type of energy input	Electrical		
Thermostat-off mode	P _{to}	0.030	kW				
Crankcase heater mode	P _{ck}	0.000	kW				

Other items							
Capacity control	variable						
Sound power level, indoors/outdoors	L _{WA}	-65	dB	For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
Annual energy consumption	Q _{HE}	6928	kWh	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM12T & ATMH12T9
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.3	kW	Seasonal space heating energy efficiency	η_s	117.7	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	6.63	kW	Tj = -7 °C	COPd	2.63	-
Tj = 2 °C	Pdh	4.06	kW	Tj = 2 °C	COPd	3.60	-
Tj = 7 °C	Pdh	2.78	kW	Tj = 7 °C	COPd	4.54	-
Tj = 12 °C	Pdh	3.33	kW	Tj = 12 °C	COPd	6.25	-
Tj = bivalent temperature	Pdh	8.41	kW	Tj = bivalent temperature	COPd	1.84	-
Tj = operating limit	Pdh	4.19	kW	Tj = operating limit	COPd	1.13	-
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.020	kW	Rated heat output (**)	Psup	6.11	kW
Standby mode	Psb	0.020	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.030	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	8420	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM12T & ATMH12T9
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.5	kW	Seasonal space heating energy efficiency	η_s	173.8	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	-	kW	Tj = -7 °C	COPd	-	-
Tj = 2 °C	Pdh	12.07	kW	Tj = 2 °C	COPd	2.31	-
Tj = 7 °C	Pdh	8.04	kW	Tj = 7 °C	COPd	3.86	-
Tj = 12 °C	Pdh	3.75	kW	Tj = 12 °C	COPd	5.70	-
Tj = bivalent temperature	Pdh	8.04	kW	Tj = bivalent temperature	COPd	3.86	-
Tj = operating limit	Pdh	12.07	kW	Tj = operating limit	COPd	2.31	-
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.020	kW	Rated heat output (**)	Psup	0.43	kW
Standby mode	Psb	0.020	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.030	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	3780	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM14T & ATMH14T9
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.08	kW	Seasonal space heating energy efficiency	η_s	135.6	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	10.68	kW	Tj = -7°C	COPd	2.01	-
Tj = 2°C	Pdh	6.86	kW	Tj = 2°C	COPd	3.43	-
Tj = 7°C	Pdh	4.63	kW	Tj = 7°C	COPd	4.66	-
Tj = 12°C	Pdh	3.31	kW	Tj = 12°C	COPd	6.13	-
Tj = bivalent temperature	Pdh	10.68	kW	Tj = bivalent temperature	COPd	2.01	-
Tj = operating limit	Pdh	9.19	kW	Tj = operating limit	COPd	1.76	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.020	kW	Rated heat output (**)	Psup	1.40	kW
Standby mode	Psb	0.020	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.030	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
Sound power level, indoors/outdoors	LWA	-65	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	7203	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM14T & ATMH14T9
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11.0	kW	Seasonal space heating energy efficiency	η_s	118.9	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	6.89	kW	Tj = -7°C	COPd	2.66	-
Tj = 2°C	Pdh	4.32	kW	Tj = 2°C	COPd	3.66	-
Tj = 7°C	Pdh	3.06	kW	Tj = 7°C	COPd	4.72	-
Tj = 12°C	Pdh	3.33	kW	Tj = 12°C	COPd	6.25	-
Tj = bivalent temperature	Pdh	8.94	kW	Tj = bivalent temperature	COPd	1.79	-
Tj = operating limit	Pdh	4.20	kW	Tj = operating limit	COPd	1.13	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.020	kW	Rated heat output (**)	Psup	6.80	kW
Standby mode	Psb	0.020	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.030	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	8867	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM14T & ATMH14T9
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13.7	kW	Seasonal space heating energy efficiency	η_s	176.4	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-
Tj = 2°C	Pdh	13.04	kW	Tj = 2°C	COPd	2.20	-
Tj = 7°C	Pdh	8.83	kW	Tj = 7°C	COPd	3.91	-
Tj = 12°C	Pdh	4.08	kW	Tj = 12°C	COPd	5.90	-
Tj = bivalent temperature	Pdh	8.83	kW	Tj = bivalent temperature	COPd	3.91	-
Tj = operating limit	Pdh	13.04	kW	Tj = operating limit	COPd	2.20	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.020	kW	Rated heat output (**)	Psup	0.66	kW
Standby mode	Psb	0.020	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.030	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-	dB
Annual energy consumption	QHE	4092	kWh
For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency	η_{wh}	-	%
Daily fuel consumption	Qfuel	-	kWh
Annual fuel consumption	AFC	-	GJ

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM16T & ATMH16T9
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13.0	kW	Seasonal space heating energy efficiency	η_s	133.2	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	11.52	kW	Tj = -7°C	COPd	1.99	-
Tj = 2°C	Pdh	7.18	kW	Tj = 2°C	COPd	3.34	-
Tj = 7°C	Pdh	4.67	kW	Tj = 7°C	COPd	4.61	-
Tj = 12°C	Pdh	3.31	kW	Tj = 12°C	COPd	6.07	-
Tj = bivalent temperature	Pdh	11.52	kW	Tj = bivalent temperature	COPd	1.99	-
Tj = operating limit	Pdh	10.33	kW	Tj = operating limit	COPd	1.80	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.020	kW	Rated heat output (**)	Psup	2.67	kW
Standby mode	Psb	0.020	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.030	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level, indoors/outdoors	LWA	-68	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	7896	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM16T & ATMH16T9
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11.8	kW	Seasonal space heating energy efficiency	η_s	121.8	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	7.64	kW	Tj = -7 °C	COPd	2.65	-
Tj = 2 °C	Pdh	4.42	kW	Tj = 2 °C	COPd	3.79	-
Tj = 7 °C	Pdh	2.97	kW	Tj = 7 °C	COPd	4.81	-
Tj = 12 °C	Pdh	3.43	kW	Tj = 12 °C	COPd	6.29	-
Tj = bivalent temperature	Pdh	9.61	kW	Tj = bivalent temperature	COPd	1.86	-
Tj = operating limit	Pdh	5.21	kW	Tj = operating limit	COPd	1.23	-
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.020	kW	Rated heat output (**)	Psup	6.59	kW
Standby mode	Psb	0.020	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.030	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	QHE	9310	kWh				

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qdec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Technical parameters

Model(s):	ATM16T & ATMH16T9
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO/YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13.8	kW	Seasonal space heating energy efficiency	η_s	175.9	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	-	kW	Tj = -7 °C	COPd	-	-
Tj = 2 °C	Pdh	13.38	kW	Tj = 2 °C	COPd	2.29	-
Tj = 7 °C	Pdh	8.86	kW	Tj = 7 °C	COPd	3.84	-
Tj = 12 °C	Pdh	4.06	kW	Tj = 12 °C	COPd	5.86	-
Tj = bivalent temperature	Pdh	8.86	kW	Tj = bivalent temperature	COPd	3.84	-
Tj = operating limit	Pdh	13.38	kW	Tj = operating limit	COPd	2.29	-
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	0.42	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.029	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	LWA	-	dB
Annual energy consumption	QHE	4116	kWh
For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h

For heat pump combination heater:			
Declared load profile	-		
Daily electricity consumption	Qelec	-	kWh
Annual electricity consumption	AEC	-	kWh
Water heating energy efficiency	η_{wh}	-	%
Daily fuel consumption	Qfuel	-	kWh
Annual fuel consumption	AFC	-	GJ

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Information requirements

Model(s):	ATM04S & ATMH04S3
Outdoor side heat exchanger of chiller:	Air to water
Indoor side heat exchanger chiller:	Water
Type:	Compressor driven vapour compression
Driver of compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{Rated,c}$	4.7	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	196.5	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	4.66	kW	$T_j=+35^\circ\text{C}$	EER_d	3.52	-
$T_j=+30^\circ\text{C}$	P_{dc}	3.66	kW	$T_j=+30^\circ\text{C}$	EER_d	4.76	-
$T_j=+25^\circ\text{C}$	P_{dc}	2.21	kW	$T_j=+25^\circ\text{C}$	EER_d	5.72	-
$T_j=+20^\circ\text{C}$	P_{dc}	0.94	kW	$T_j=+20^\circ\text{C}$	EER_d	5.72	-

Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
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Power consumption in modes other than "active mode"

Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW

Other items

Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	2770	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-56	dB				
Emissions of nitrogen oxides (if applicable)	$\text{NO}_x(**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	675	kg CO_2 eq (100years)				

Standard rating conditions used	Low temperature application
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(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.
(**) From 26 September 2018.

Information requirements

Model(s):	ATM04S & ATMH04S3
Outdoor side heat exchanger of chiller:	Air to water
Indoor side heat exchanger chiller:	Water
Type:	Compressor driven vapour compression
Driver of compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	4.5	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	307.7	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^{\circ}C$	P_{dc}	4.51	kW	$T_j=+35^{\circ}C$	EER_d	5.54	-
$T_j=+30^{\circ}C$	P_{dc}	3.44	kW	$T_j=+30^{\circ}C$	EER_d	7.23	-
$T_j=+25^{\circ}C$	P_{dc}	2.19	kW	$T_j=+25^{\circ}C$	EER_d	8.94	-
$T_j=+20^{\circ}C$	P_{dc}	1.13	kW	$T_j=+20^{\circ}C$	EER_d	10.48	-

Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
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Power consumption in modes other than "active mode"

Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW

Other items

Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	2770	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-56	dB				
Emissions of nitrogen oxides (if applicable)	$NO_x(**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)				

Standard rating conditions used	Medium temperature application
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(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.

(**) From 26 September 2018.

Information requirements

Model(s):	ATM06S & ATMH06S3
Outdoor side heat exchanger of chiller:	Air to water
Indoor side heat exchanger chiller:	Water
Type:	Compressor driven vapour compression
Driver of compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	6.3	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	210.7	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^{\circ}\text{C}$	P_{dc}	6.35	kW	$T_j=+35^{\circ}\text{C}$	EER _d	2.93	-
$T_j=+30^{\circ}\text{C}$	P_{dc}	4.76	kW	$T_j=+30^{\circ}\text{C}$	EER _d	4.53	-
$T_j=+25^{\circ}\text{C}$	P_{dc}	3.02	kW	$T_j=+25^{\circ}\text{C}$	EER _d	6.32	-
$T_j=+20^{\circ}\text{C}$	P_{dc}	1.39	kW	$T_j=+20^{\circ}\text{C}$	EER _d	7.20	-

Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
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Power consumption in modes other than "active mode"

Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW

Other items

Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	2770	m ³ /h
Sound power level, indoors /outdoors	L_{WA}	-/60	dB				
Emissions of nitrogen oxides (if applicable)	$NO_x(**)$	-	mg/kWh input GCV	For water /brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)				

Standard rating conditions used	Low temperature application
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Information requirements

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Other items																																																															
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	2770	m ³ /h																																																								
Sound power level, indoors / outdoors	L_{WA}	-/58	dB																																																												
Emissions of nitrogen oxides (if applicable)	$NO_x(**)$	-	mg/kWh input GCV	For water /brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h																																																								
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)																																																												
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(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.																																																															

Information requirements

Model(s):	ATM08S & ATMH08S3						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	7.4	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	230.1	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	7.38	kW	$T_j=+35^\circ\text{C}$	EER_d	3.39	-
$T_j=+30^\circ\text{C}$	P_{dc}	5.72	kW	$T_j=+30^\circ\text{C}$	EER_d	4.71	-
$T_j=+25^\circ\text{C}$	P_{dc}	3.62	kW	$T_j=+25^\circ\text{C}$	EER_d	6.65	-
$T_j=+20^\circ\text{C}$	P_{dc}	1.64	kW	$T_j=+20^\circ\text{C}$	EER_d	8.55	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4030	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-60	dB				
Emissions of nitrogen oxides (if applicable)	$\text{NO}_x (**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	675	kg CO_2 eq (100years)				
Standard rating conditions used	Low temperature application						
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(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM08S & ATMH08S3						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	8.4	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	355.1	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	8.37	kW	$T_j=+35^\circ\text{C}$	EER_d	5.09	-
$T_j=+30^\circ\text{C}$	P_{dc}	6.47	kW	$T_j=+30^\circ\text{C}$	EER_d	7.02	-
$T_j=+25^\circ\text{C}$	P_{dc}	4.31	kW	$T_j=+25^\circ\text{C}$	EER_d	10.67	-
$T_j=+20^\circ\text{C}$	P_{dc}	1.80	kW	$T_j=+20^\circ\text{C}$	EER_d	13.61	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4030	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-60	dB				
Emissions of nitrogen oxides (if applicable)	$\text{NO}_x (**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	675	kg CO_2 eq (100years)				
Standard rating conditions used	Medium temperature application						
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(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM10S & ATMH10S3						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	8.7	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	236.2	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^{\circ}\text{C}$	P_{dc}	8.73	kW	$T_j=+35^{\circ}\text{C}$	EER_d	3.21	-
$T_j=+30^{\circ}\text{C}$	P_{dc}	6.68	kW	$T_j=+30^{\circ}\text{C}$	EER_d	4.47	-
$T_j=+25^{\circ}\text{C}$	P_{dc}	4.26	kW	$T_j=+25^{\circ}\text{C}$	EER_d	7.02	-
$T_j=+20^{\circ}\text{C}$	P_{dc}	1.94	kW	$T_j=+20^{\circ}\text{C}$	EER_d	9.54	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4030	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-/60	dB				
Emissions of nitrogen oxides (if applicable)	$\text{NO}_x(**)$	-	mg/kWh input GCV	For water /brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	675	kg CO_2 eq (100years)				
Standard rating conditions used	Low temperature application						
Contact details	INVENTOR A.G. S.A. , 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac						
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM10S & ATMH10S3						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{\text{rated,c}}$	10.0	kW	Seasonal space cooling energy efficiency	$\eta_{\text{s,c}}$	348.1	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	10.01	kW	$T_j=+35^\circ\text{C}$	EER_d	4.64	-
$T_j=+30^\circ\text{C}$	P_{dc}	7.71	kW	$T_j=+30^\circ\text{C}$	EER_d	6.45	-
$T_j=+25^\circ\text{C}$	P_{dc}	5.03	kW	$T_j=+25^\circ\text{C}$	EER_d	10.36	-
$T_j=+20^\circ\text{C}$	P_{dc}	2.32	kW	$T_j=+20^\circ\text{C}$	EER_d	14.98	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4030	m^3/h
Sound power level, indoors /outdoors	L_{WA}	-60	dB				
Emissions of nitrogen oxides (if applicable)	$\text{NO}_x(**)$	-	mg/kWh input GCV	For water /brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	675	kg CO_2 eq (100years)				
Standard rating conditions used	Medium temperature application						
Contact details	INVENTOR A.G. S.A. , 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac						
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM12S & ATMH12S3						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	11.3	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	192.4	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	11.31	kW	$T_j=+35^\circ\text{C}$	EER_d	2.61	-
$T_j=+30^\circ\text{C}$	P_{dc}	8.76	kW	$T_j=+30^\circ\text{C}$	EER_d	3.93	-
$T_j=+25^\circ\text{C}$	P_{dc}	5.81	kW	$T_j=+25^\circ\text{C}$	EER_d	5.73	-
$T_j=+20^\circ\text{C}$	P_{dc}	2.63	kW	$T_j=+20^\circ\text{C}$	EER_d	6.75	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4060	m ³ /h
Sound power level, indoors / outdoors	L_{WA}	-65	dB				
Emissions of nitrogen oxides (if applicable)	$NO_x(**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)				
Standard rating conditions used	Low temperature application						
Contact details	INVENTOR A.G. S.A. , 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac						
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):		ATM12S & ATMH12S3					
Outdoor side heat exchanger of chiller:		Air to water					
Indoor side heat exchanger chiller:		Water					
Type:		Compressor driven vapour compression					
Driver of compressor:		Electric motor					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{\text{rated,c}}$	11.8	kW	Seasonal space cooling energy efficiency	$\eta_{\text{s,c}}$	280.9	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	11.77	kW	$T_j=+35^\circ\text{C}$	EER_d	3.87	-
$T_j=+30^\circ\text{C}$	P_{dc}	9.21	kW	$T_j=+30^\circ\text{C}$	EER_d	5.50	-
$T_j=+25^\circ\text{C}$	P_{dc}	5.74	kW	$T_j=+25^\circ\text{C}$	EER_d	8.66	-
$T_j=+20^\circ\text{C}$	P_{dc}	3.33	kW	$T_j=+20^\circ\text{C}$	EER_d	10.07	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4060	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-/64	dB				
Emissions of nitrogen oxides (if applicable)	$\text{NO}_x(**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	675	kg CO_2 eq (100years)				
Standard rating conditions used	Medium temperature application						
Contact details	INVENTOR A.G. S.A. , 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac						
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM14S & ATMH14S3						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	12.2	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	191.4	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	12.19	kW	$T_j=+35^\circ\text{C}$	EER _d	2.46	-
$T_j=+30^\circ\text{C}$	P_{dc}	9.41	kW	$T_j=+30^\circ\text{C}$	EER _d	3.85	-
$T_j=+25^\circ\text{C}$	P_{dc}	6.16	kW	$T_j=+25^\circ\text{C}$	EER _d	5.80	-
$T_j=+20^\circ\text{C}$	P_{dc}	2.63	kW	$T_j=+20^\circ\text{C}$	EER _d	6.74	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4060	m ³ /h
Sound power level, indoors / outdoors	LWA	-65	dB				
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)				
Standard rating conditions used	Low temperature application						
Contact details	INVENTOR A.G. S.A., 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac						
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM14S & ATMH14S3
Outdoor side heat exchanger of chiller:	Air to water
Indoor side heat exchanger chiller:	Water
Type:	Compressor driven vapour compression
Driver of compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	13.3	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	272.8	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^{\circ}\text{C}$	P_{dc}	13.30	kW	$T_j=+35^{\circ}\text{C}$	EER _d	3.47	-
$T_j=+30^{\circ}\text{C}$	P_{dc}	10.20	kW	$T_j=+30^{\circ}\text{C}$	EER _d	5.26	-
$T_j=+25^{\circ}\text{C}$	P_{dc}	6.57	kW	$T_j=+25^{\circ}\text{C}$	EER _d	8.45	-
$T_j=+20^{\circ}\text{C}$	P_{dc}	3.33	kW	$T_j=+20^{\circ}\text{C}$	EER _d	10.07	-

Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
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Power consumption in modes other than "active mode"

Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW

Other items

Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4060	m ³ /h
Sound power level, indoors / outdoors	L_{WA}	-/64	dB				
Emissions of nitrogen oxides (if applicable)	$NO_x (**)$	-	mg/kWh input GCV	For water /brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)				

Standard rating conditions used	Medium temperature application
Contact details	INVENTOR A.G. S.A., 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac

(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.
(**) From 26 September 2018.

Information requirements

Model(s):	ATM16S & ATMH16S3						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	14.3	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	184.4	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	14.31	kW	$T_j=+35^\circ\text{C}$	EER _d	2.47	-
$T_j=+30^\circ\text{C}$	P_{dc}	10.68	kW	$T_j=+30^\circ\text{C}$	EER _d	3.63	-
$T_j=+25^\circ\text{C}$	P_{dc}	6.76	kW	$T_j=+25^\circ\text{C}$	EER _d	5.27	-
$T_j=+20^\circ\text{C}$	P_{dc}	3.41	kW	$T_j=+20^\circ\text{C}$	EER _d	7.29	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4650	m ³ /h
Sound power level, indoors /outdoors	LWA	-/69	dB				
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV	For water /brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)				
Standard rating conditions used	Low temperature application						
Contact details	INVENTOR A.G. S.A., 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac						
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM16S & ATMH16S3						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{\text{rated,c}}$	15.4	kW	Seasonal space cooling energy efficiency	$\eta_{\text{s,c}}$	266.9	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	15.40	kW	$T_j=+35^\circ\text{C}$	EER_d	3.50	-
$T_j=+30^\circ\text{C}$	P_{dc}	11.42	kW	$T_j=+30^\circ\text{C}$	EER_d	5.14	-
$T_j=+25^\circ\text{C}$	P_{dc}	7.27	kW	$T_j=+25^\circ\text{C}$	EER_d	7.83	-
$T_j=+20^\circ\text{C}$	P_{dc}	3.40	kW	$T_j=+20^\circ\text{C}$	EER_d	10.35	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4650	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-69	dB				
Emissions of nitrogen oxides (if applicable)	NO_x (**)	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	675	kg CO_2 eq (100years)				
Standard rating conditions used	Medium temperature application						
Contact details	INVENTOR A.G. S.A. , 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac						
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM12T & ATMH12T9						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	11.3	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	191.2	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	11.31	kW	$T_j=+35^\circ\text{C}$	EER _d	2.61	-
$T_j=+30^\circ\text{C}$	P_{dc}	8.76	kW	$T_j=+30^\circ\text{C}$	EER _d	3.93	-
$T_j=+25^\circ\text{C}$	P_{dc}	5.81	kW	$T_j=+25^\circ\text{C}$	EER _d	5.73	-
$T_j=+20^\circ\text{C}$	P_{dc}	2.63	kW	$T_j=+20^\circ\text{C}$	EER _d	6.75	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4060	m ³ /h
Sound power level, indoors / outdoors	LWA	-65	dB				
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV	For water /brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)				
Standard rating conditions used	Low temperature application						
Contact details	INVENTOR A.G. S.A., 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac						
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM12T & ATMH12T9						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{\text{rated,c}}$	11.8	kW	Seasonal space cooling energy efficiency	$\eta_{\text{s,c}}$	278.6	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	11.77	kW	$T_j=+35^\circ\text{C}$	EER_d	3.87	-
$T_j=+30^\circ\text{C}$	P_{dc}	9.21	kW	$T_j=+30^\circ\text{C}$	EER_d	5.50	-
$T_j=+25^\circ\text{C}$	P_{dc}	5.74	kW	$T_j=+25^\circ\text{C}$	EER_d	8.66	-
$T_j=+20^\circ\text{C}$	P_{dc}	3.33	kW	$T_j=+20^\circ\text{C}$	EER_d	10.07	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4060	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-/64	dB				
Emissions of nitrogen oxides (if applicable)	$\text{NO}_x(**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	675	kg CO_2 eq (100years)				
Standard rating conditions used	Medium temperature application						
Contact details	INVENTOR A.G. S.A. , 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac						
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM14T & ATMH14T9						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	12.2	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	190.3	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	12.19	kW	$T_j=+35^\circ\text{C}$	EER_d	2.46	-
$T_j=+30^\circ\text{C}$	P_{dc}	9.41	kW	$T_j=+30^\circ\text{C}$	EER_d	3.85	-
$T_j=+25^\circ\text{C}$	P_{dc}	6.16	kW	$T_j=+25^\circ\text{C}$	EER_d	5.80	-
$T_j=+20^\circ\text{C}$	P_{dc}	2.63	kW	$T_j=+20^\circ\text{C}$	EER_d	6.74	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4060	m^3/h
Sound power level, indoors / outdoors	L_{WA}	-65	dB				
Emissions of nitrogen oxides (if applicable)	$\text{NO}_x(**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m^3/h
GWP of the refrigerant	-	675	kg CO_2 eq (100years)				
Standard rating conditions used	Low temperature application						
Contact details	INVENTOR A.G. S.A., 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac						
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM14T & ATMH14T9
Outdoor side heat exchanger of chiller:	Air to water
Indoor side heat exchanger chiller:	Water
Type:	Compressor driven vapour compression
Driver of compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	13.3	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	270.9	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	13.30	kW	$T_j=+35^\circ\text{C}$	EER _d	3.47	-
$T_j=+30^\circ\text{C}$	P_{dc}	10.20	kW	$T_j=+30^\circ\text{C}$	EER _d	5.26	-
$T_j=+25^\circ\text{C}$	P_{dc}	6.57	kW	$T_j=+25^\circ\text{C}$	EER _d	8.45	-
$T_j=+20^\circ\text{C}$	P_{dc}	3.33	kW	$T_j=+20^\circ\text{C}$	EER _d	10.07	-

Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
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Power consumption in modes other than "active mode"

Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW

Other items

Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4060	m ³ /h
Sound power level, indoors / outdoors	L_{WA}	-/64	dB				
Emissions of nitrogen oxides (if applicable)	$NO_x(**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)				

Standard rating conditions used	Medium temperature application
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(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.

(**) From 26 September 2018.

Information requirements

Model(s):	ATM16T & ATMH16T9						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	14.3	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	183.6	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	14.31	kW	$T_j=+35^\circ\text{C}$	EER_d	2.47	-
$T_j=+30^\circ\text{C}$	P_{dc}	10.68	kW	$T_j=+30^\circ\text{C}$	EER_d	3.63	-
$T_j=+25^\circ\text{C}$	P_{dc}	6.76	kW	$T_j=+25^\circ\text{C}$	EER_d	5.27	-
$T_j=+20^\circ\text{C}$	P_{dc}	3.41	kW	$T_j=+20^\circ\text{C}$	EER_d	7.29	-
Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4650	m ³ /h
Sound power level, indoors / outdoors	L_{WA}	-69	dB				
Emissions of nitrogen oxides (if applicable)	$NO_x(**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)				
Standard rating conditions used	Low temperature application						
Contact details	INVENTOR A.G. S.A., 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac						
(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements

Model(s):	ATM16T & ATMH16T9
Outdoor side heat exchanger of chiller:	Air to water
Indoor side heat exchanger chiller:	Water
Type:	Compressor driven vapour compression
Driver of compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	15.4	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	265.3	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	15.40	kW	$T_j=+35^\circ\text{C}$	EER _d	3.50	-
$T_j=+30^\circ\text{C}$	P_{dc}	11.42	kW	$T_j=+30^\circ\text{C}$	EER _d	5.14	-
$T_j=+25^\circ\text{C}$	P_{dc}	7.27	kW	$T_j=+25^\circ\text{C}$	EER _d	7.83	-
$T_j=+20^\circ\text{C}$	P_{dc}	3.40	kW	$T_j=+20^\circ\text{C}$	EER _d	10.35	-

Degradation co-efficient for chillers (*)	C_{dc}	0.9	-				
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Power consumption in modes other than "active mode"

Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW

Other items

Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4650	m ³ /h
Sound power level, indoors / outdoors	L_{WA}	-/69	dB				
Emissions of nitrogen oxides (if applicable)	$NO_x(**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)				

Standard rating conditions used	Medium temperature application
Contact details	INVENTOR A.G. S.A. , 24th km National Road Athens - Lamia & 2 Thoukididou Str., Ag.Stefanos, 14565 Tel.: +30 211 300 3300, Fax: +30 211 300 3333 - www.inventor.ac

(*) If C_{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9.

(**) From 26 September 2018.

Condition(°C)	Model	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: 35/24 Water temperature: 12/7	ATM04S & ATMH04S3	4.70	1.36	3.45
	ATM06S & ATMH06S3	7.00	2.33	3.00
	ATM08S & ATMH08S3	7.45	2.22	3.35
	ATM10S & ATMH10S3	8.20	2.52	3.25
	ATM12S & ATMH12S3	11.5	4.18	2.75
	ATM16S & ATMH16S3	14.0	5.60	2.50
	ATM12T & ATMH12T9	11.5	4.18	2.75
	ATM14T & ATMH14T9	12.4	4.96	2.50
	ATM16T & ATMH16T9	14.0	5.60	2.50
Ambient Temperature: 35/24 Water temperature: 23/18	ATM04S & ATMH04S3	4.50	0.82	5.50
	ATM06S & ATMH06S3	6.50	1.35	4.80
	ATM08S & ATMH08S3	8.30	1.64	5.05
	ATM10S & ATMH10S3	9.90	2.18	4.55
	ATM12S & ATMH12S3	12.00	3.04	3.95
	ATM16S & ATMH16S3	14.90	4.38	3.40
	ATM12T & ATMH12T9	12.00	3.04	3.95
	ATM14T & ATMH14T9	13.50	3.75	3.60
	ATM16T & ATMH16T9	14.90	4.38	3.40
Ambient Temperature: 7/6 Water temperature: 30/35	ATM04S & ATMH04S3	4.20	0.82	5.10
	ATM06S & ATMH06S3	6.35	1.28	4.95
	ATM08S & ATMH08S3	8.40	1.63	5.15
	ATM10S & ATMH10S3	10.0	2.02	4.95
	ATM12S & ATMH12S3	12.1	2.44	4.95
	ATM16S & ATMH16S3	15.9	3.53	4.50
	ATM12T & ATMH12T9	12.1	2.44	4.95
	ATM14T & ATMH14T9	14.5	3.15	4.60
	ATM16T & ATMH16T9	15.9	3.53	4.50
Ambient Temperature: 2/1 Water temperature: 30/35	ATM04S & ATMH04S3	4.40	1.10	4.00
	ATM06S & ATMH06S3	5.50	1.41	3.90
	ATM08S & ATMH08S3	7.10	1.73	4.10
	ATM10S & ATMH10S3	8.20	2.05	4.00
	ATM12S & ATMH12S3	9.2	2.36	3.90
	ATM16S & ATMH16S3	13.0	3.77	3.45
	ATM12T & ATMH12T9	9.2	2.36	3.90
	ATM14T & ATMH14T9	11.0	3.06	3.60
	ATM16T & ATMH16T9	13.0	3.77	3.45

Condition(°C)	Model	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: -7/-8 Water temperature: 30/35	ATM04S & ATMH04S3	4.70	1.52	3.10
	ATM06S & ATMH06S3	6.00	2.00	3.00
	ATM08S & ATMH08S3	7.00	2.19	3.20
	ATM10S & ATMH10S3	8.00	2.62	3.05
	ATM12S & ATMH12S3	10.00	3.33	3.00
	ATM16S & ATMH16S3	13.10	4.85	2.70
	ATM12T & ATMH12T9	10.00	3.33	3.00
	ATM14T & ATMH14T9	12.00	4.21	2.85
	ATM16T & ATMH16T9	13.10	4.85	2.70
Ambient Temperature: 7/6 Water temperature: 40/45	ATM04S & ATMH04S3	4.30	1.13	3.80
	ATM06S & ATMH06S3	6.30	1.70	3.70
	ATM08S & ATMH08S3	8.10	2.10	3.85
	ATM10S & ATMH10S3	10.0	2.67	3.75
	ATM12S & ATMH12S3	12.3	3.32	3.70
	ATM16S & ATMH16S3	16.0	4.57	3.50
	ATM12T & ATMH12T9	12.3	3.32	3.70
	ATM14T & ATMH14T9	14.1	3.92	3.60
	ATM16T & ATMH16T9	16.0	4.57	3.50
Ambient Temperature: 2/1 Water temperature: 40/45	ATM04S & ATMH04S3	5.10	1.70	3.00
	ATM06S & ATMH06S3	5.80	1.93	3.00
	ATM08S & ATMH08S3	7.40	2.28	3.25
	ATM10S & ATMH10S3	7.85	2.45	3.20
	ATM12S & ATMH12S3	10.60	3.53	3.00
	ATM16S & ATMH16S3	12.70	4.46	2.85
	ATM12T & ATMH12T9	10.60	3.53	3.00
	ATM14T & ATMH14T9	11.50	4.04	2.85
	ATM16T & ATMH16T9	12.70	4.46	2.85
Ambient Temperature: -7/-8 Water temperature: 40/45	ATM04S & ATMH04S3	4.30	1.83	2.35
	ATM06S & ATMH06S3	5.40	2.25	2.40
	ATM08S & ATMH08S3	6.60	2.59	2.55
	ATM10S & ATMH10S3	7.35	2.88	2.55
	ATM12S & ATMH12S3	10.20	4.25	2.40
	ATM16S & ATMH16S3	12.80	5.69	2.25
	ATM12T & ATMH12T9	10.20	4.25	2.40
	ATM14T & ATMH14T9	11.70	4.98	2.35
	ATM16T & ATMH16T9	12.80	5.69	2.25

Condition(°C)	Model	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: 7/6 Water temperature: 47/55	ATM04S & ATMH04S3	4.40	1.49	2.95
	ATM06S & ATMH06S3	6.00	2.03	2.95
	ATM08S & ATMH08S3	7.50	2.36	3.18
	ATM10S & ATMH10S3	9.50	3.06	3.10
	ATM12S & ATMH12S3	11.9	3.90	3.05
	ATM16S & ATMH16S3	16.0	5.61	2.85
	ATM12T & ATMH12T9	11.9	3.90	3.05
	ATM14T & ATMH14T9	13.8	4.68	2.95
	ATM16T & ATMH16T9	16.0	5.61	2.85
Ambient Temperature: 2/1 Water temperature: 47/55	ATM04S & ATMH04S3	5.10	2.08	2.45
	ATM06S & ATMH06S3	5.65	2.31	2.45
	ATM08S & ATMH08S3	7.10	2.73	2.60
	ATM10S & ATMH10S3	8.10	3.16	2.56
	ATM12S & ATMH12S3	11.30	4.52	2.50
	ATM16S & ATMH16S3	13.30	5.54	2.40
	ATM12T & ATMH12T9	11.30	4.52	2.50
	ATM14T & ATMH14T9	12.40	5.06	2.45
	ATM16T & ATMH16T9	13.30	5.54	2.40
Ambient Temperature: -7/-8 Water temperature: 47/55	ATM04S & ATMH04S3	4.00	2.05	1.95
	ATM06S & ATMH06S3	5.15	2.58	2.00
	ATM08S & ATMH08S3	6.15	3.00	2.05
	ATM10S & ATMH10S3	6.85	3.43	2.00
	ATM12S & ATMH12S3	9.80	4.78	2.05
	ATM16S & ATMH16S3	12.50	6.25	2.00
	ATM12T & ATMH12T9	9.80	4.78	2.05
	ATM14T & ATMH14T9	11.00	5.37	2.05
	ATM16T & ATMH16T9	12.50	6.25	2.00

NOTE

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AIR CONDITIONING SYSTEMS

AIR-TO-WATER HEAT PUMP - MONOBLOCK



V:1.1 062021

Please check the applicable models, F-GAS and manufacturer information from the "Owner's Manual - Product Fiche" in the packaging of the outdoor unit. (European Union products only).

Manufacturer: **INVENTOR A.G. S.A.**

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