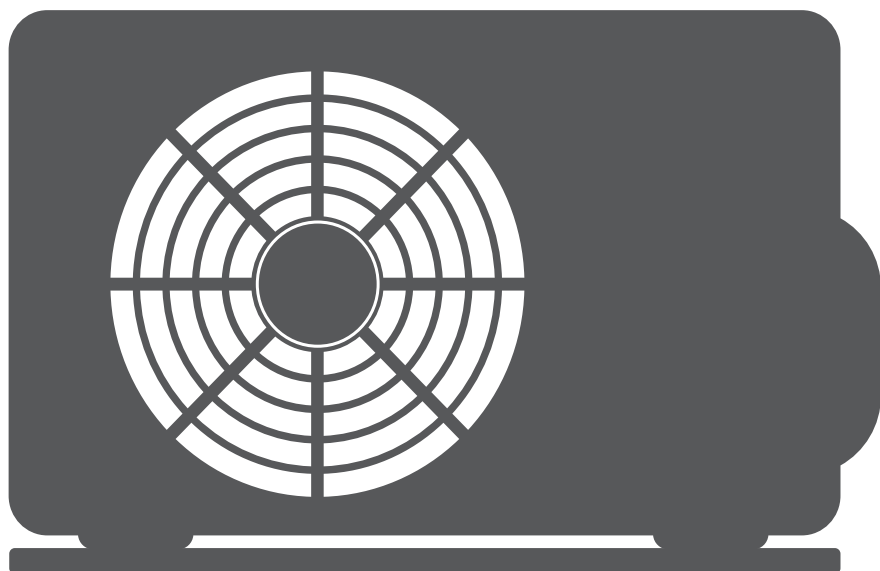


AIR CONDITIONING SYSTEMS

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
ATM04S	A++	55	4.4	129.5	2744	3.4	102.1	3159	5.0	162.4	1621
ATMH04S3	A++	55	4.4	129.5	2744	3.4	102.1	3159	5.0	162.4	1621
ATM06S	A++	58	5.7	137.9	3345	4.3	111.1	3681	5.1	164.7	1640
ATMH06S3	A++	58	5.7	137.9	3345	4.3	111.1	3681	5.1	164.7	1640
ATM08S	A++	59	6.6	131.6	4054	5.8	112.1	4948	8.37	176.9	2458
ATMH08S3	A++	59	6.6	131.6	4054	5.8	112.1	4948	8.37	176.9	2458
ATM10S	A++	60	7.7	135.7	4567	6.7	116.5	5539	8.6	181.7	2496
ATMH10S3	A++	60	7.7	135.7	4567	6.7	116.5	5539	8.6	181.7	2496
ATM14S	A++	65	12.1	135.6	7202	11.0	118.9	8866	14.17	174.9	4258
ATMH14S3	A++	65	12.1	135.6	7202	11.0	118.9	8866	14.17	174.9	4258
ATM12S	A++	65	11.6	135.1	6927	10.3	117.8	8419	12.5	174.1	3376
ATMH12S3	A++	65	11.6	135.1	6927	10.3	117.8	8419	12.5	174.1	3376
ATM16S	A++	68	13.0	133.3	7895	11.8	121.8	9309	14.17	176	4231
ATMH16S3	A++	68	13.0	133.3	7895	11.8	121.8	9309	14.17	176	4231
ATM12T	A++	65	11.6	135.1	6928	10.3	117.7	8420	12.5	173.8	3780
ATMH12T9	A++	65	11.6	135.1	6928	10.3	117.7	8420	12.5	173.8	3780
ATM14T	A++	65	12.1	135.6	7203	11.0	118.9	8867	14.17	174.7	4262
ATMH14T9	A++	65	12.1	135.6	7203	11.0	118.9	8867	14.17	174.7	4262
ATM16T	A++	68	13.0	133.2	7896	11.8	121.8	9310	14.17	175.8	4236
ATMH16T9	A++	68	13.0	133.2	7896	11.8	121.8	9310	14.17	175.8	4236

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 kWh	Rated heat output	Seasonal space heating energy efficiency %	For space heating, annual energy consumption kWh	Rated heat output	Seasonal space heating energy efficiency %	For space heating, annual energy consumption kWh
ATM04S	-	dB									
ATM04S	A+++	55	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146
ATM04S3	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
ATM06S3	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
ATM08S3	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
ATM10S3	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
ATM12S3	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
ATM14S3	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
ATM16S3	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							
Unit sound power (*)	Average climate low temperature application	Model	ATM04S	ATM06S	ATM08S	ATM10S	ATM12S
	Average climate medium temperature application	[dB]	55.0	58.0	59.0	60.0	65.0
	Capacity of the back-up heater integrated in the unit	[dB]	55.0	58.0	59.0	60.0	65.0
	Space heating	[kW]	0	0	0	0	0
	Space heating	-	A+++	A+++	A+++	A+++	A+++
	Space heating	-	A++	A++	A++	A++	A++
Average climate (Design temperature = -10°C)							
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 (ηs)	[%]	191.0	195.0	205.6	204.8	189.4
	Annual energy consumption	[kWh]	2,351	2,845	3,218	3644	5,152
Space heating 55°C	Prated (declared heating capacity) @ -10°C	[kW]	4.4	5.7	6.6	7.7	11.6
	Seasonal space heating efficiency (ηs)	[%]	129.5	137.9	131.6	135.7	135.1
	Annual energy consumption	[kWh]	2,744	3,345	4,054	4,567	6,927
Part load conditions space heating average climate low temperature application							
(A) condition (-7°C)	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
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	3.05	3.88	4.65	5.18	6.69
	COPd (declared COP)	-	4.78	4.85	5.09	5.01	4.65
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	1.93	2.39	2.90	3.32	4.44
	COPd (declared COP)	-	6.13	6.63	6.82	7.08	6.62
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.48	1.39	1.63	1.65	3.74
	COPd (declared COP)	-	8.05	7.93	8.35	8.58	8.47
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 1

Heat pump space heater Matrix									
Unit sound power (*)	Average climate low temperature application	Model	ATMH04S3	ATMH06S3	ATMH08S3	ATMH10S3	ATMH12S3		
	Average climate medium temperature application	[dB]	55.0	58.0	59.0	60.0	65.0		
Capacity of the back-up heater integrated in the unit	Psup back-up heater	[kW]	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 (ηs)	[%]	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 (ηs)	[%]	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)	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		
(B) condition (2°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90		
	Pdh (declared heating capacity)	[kW]	3.05	3.88	4.65	5.18	6.69		
	COPd (declared COP)	-	4.78	4.85	5.09	5.01	4.65		
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90		
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	1.93	2.39	2.90	3.32	4.44		
	COPd (declared COP)	-	6.13	6.63	6.82	7.08	6.62		
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90		
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.48	1.39	1.63	1.65	3.74		
	COPd (declared COP)	-	8.05	7.93	8.35	8.58	8.47		
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90		

Product fiche 1

Heat pump space heater Matrix								
Unit sound power (*)	Average climate low temperature application	Model	ATM14S	ATM16S	ATM12T	ATM14T	ATM16T	
	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	
	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	[kW]	13.7	15.2	12.0	13.7	15.2	
	Seasonal space heating efficiency (ηs)	[%]	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	Prated (declared heating capacity) @ -10°C	[kW]	12.1	13.0	11.6	12.1	13.0	
	Seasonal space heating efficiency (ηs)	[%]	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)	Pdih (declared heating capacity)	[kW]	12.14	13.45	10.61	12.14	13.45	
	COPd (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)	Pdih (declared heating capacity)	[kW]	7.94	8.56	6.69	7.94	8.56	
	COPd (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)	Pdih (declared heating capacity)	[kW]	5.20	5.70	4.44	5.20	5.70	
	COPd (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)	Pdih (declared heating capacity)	[kW]	3.75	3.78	3.74	3.75	3.78	
	COPd (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
	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]	3	3	9	9	9
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	[kW]	13.7	15.2	12.0	13.7	15.2
	Seasonal space heating efficiency (ηs)	[%]	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	Prated (declared heating capacity) @ -10°C	[kW]	12.1	13.0	11.6	12.1	13.0
	Seasonal space heating efficiency (ηs)	[%]	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)	Pdh (declared heating capacity)	[kW]	12.14	13.45	10.61	12.14	13.45
	COPd (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)	Pdh (declared heating capacity)	[kW]	7.94	8.56	6.69	7.94	8.56
	COPd (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)	Pdh (declared heating capacity)	[kW]	5.20	5.70	4.44	5.20	5.70
	COPd (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)	Pdh (declared heating capacity)	[kW]	3.75	3.78	3.74	3.75	3.78
	COPd (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	-10.00	-10.00
	Pdh (declared heating capacity)	[kW]	4.41	5.36	6.44	7.40	8.40	10.74	10.74
	COPd (declared COP)	-	2.86	2.76	3.04	2.96	2.96	2.77	2.77
	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	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	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	4.88	6.03	7.18	8.10	9.10	10.61	10.61
	COPd (declared COP)	-	3.19	3.09	3.35	3.23	3.23	2.88	2.88
	Psup (@Tdesignh: -10°C)	[kW]	1.11	1.45	1.68	1.76	1.76	1.26	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	7.78	10.24	10.24
	COPd (declared COP)	-	2.17	2.17	2.16	2.24	2.24	2.01	2.01
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	2.38	3.12	3.76	4.28	4.28	6.52	6.52
(B) condition (2°C)	COPd (declared COP)	-	3.30	3.51	3.30	3.42	3.42	3.44	3.44
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	2.94	2.08	2.43	2.77	2.77	4.36	4.36
	COPd (declared COP)	-	4.41	4.54	4.34	4.52	4.52	4.59	4.59
(C) condition (7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	1.32	1.28	1.39	1.58	1.58	3.29	3.29
	COPd (declared COP)	-	5.66	5.59	5.33	5.68	5.68	6.05	6.05
	Cdh(degradation coefficient)	-	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
	Pdh (declared heating capacity)	[kW]	3.42	4.52	4.91	5.38	5.38	9.10	9.10
	COPd (declared COP)	-	1.91	1.91	1.84	1.83	1.83	1.79	1.79
	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	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	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	3.89	5.04	5.84	6.78	7.78	10.27	10.27
	COPd (declared COP)	-	2.17	2.17	2.16	2.24	2.24	2.01	2.01

Product fiche 2

Heat pump space heater Matrix							
(E) Tol (temperature operating limit)	Model	ATMH04S3	ATMH06S3	ATMH08S3	ATMH10S3	ATMH12S3	
	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} (@Tdesignh: -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
	COPd (declared COP)	-	3.30	3.51	3.30	3.42	3.44
(B) condition (2°C)	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
	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
(D) condition (12°C)	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
	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
(E) Tol (temperature operating limit)	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00	60.00
	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	ATM14S	ATM16S	ATM12T	ATM14T	ATM16T	
(E) Tol (temperature operating lim it)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00	
	P _d h (declared heating capacity)	[kW]	11.47	10.74	11.47	12.52	
	COP _d (declared COP)	-	2.59	2.77	2.59	2.48	
	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00	
(F) Tbivalent temperature	T _{biv}	[°C]	-7.00	-7.00	-7.00	-7.00	
	P _d h (declared heating capacity)	[kW]	12.14	10.61	12.14	13.45	
	COP _d (declared COP)	-	2.79	2.88	2.79	2.72	
	P _{sup} (@Tdesignh: -10°C)	[kW]	2.23	1.26	2.23	2.68	
Part load conditions space heating average climate medium temperature application							
(A) condition (-7°C)	P _d h (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 _d h(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _d h (declared heating capacity)	[kW]	6.86	7.18	6.52	6.86	7.18
(B) condition (2°C)	COP _d (declared COP)	-	3.43	3.34	3.44	3.43	3.34
	C _d h(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _d h (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) 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]	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 _d h(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating lim it)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00	-10.00
	P _d h (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
	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00	60.00
(F) Tbivalent temperature	T _{biv}	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00
	P _d h (declared heating capacity)	[kW]	10.68	11.52	10.27	10.68	11.52
	COP _d (declared COP)	-	2.01	1.99	2.01	2.01	1.99
	P _{sup} (@Tdesignh: -10°C)	[kW]	2.91	2.67	2.50	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	
	P _{dh} (declared heating capacity)	[kW]	11.47	12.52	10.74	11.47	
	COP _d (declared COP)	-	2.59	2.48	2.77	2.59	
	WTOL (Heating water Operation Lim it)	[°C]	60.00	60.00	60.00	60.00	
(F) Tbivalent temperature	T _{blv}	[°C]	-7.00	-7.00	-7.00	-7.00	
	P _{dh} (declared heating capacity)	[kW]	12.14	13.45	10.61	12.14	
	COP _d (declared COP)	-	2.79	2.72	2.88	2.79	
	P _{sup} (@Tdesignh: -10°C)	[kW]	2.23	2.68	1.26	2.23	
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
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	P _{dh} (declared heating capacity)	[kW]	6.86	7.18	6.52	6.86	7.18
(B) condition (2°C)	COP _d (declared COP)	-	3.43	3.34	3.44	3.43	3.34
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	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) condition (7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	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
	Cdh(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
	WTOL (Heating water Operation Lim it)	[°C]	60.00	60.00	60.00	60.00	60.00
(F) Tbivalent temperature	T _{blv}	[°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
	COP _d (declared COP)	-	2.01	1.99	2.01	2.01	1.99
	P _{sup} (@Tdesignh: -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	Psup (@Tdesignh: -10°C)	Model	ATM04S	ATM06S	ATM08S	ATM10S	ATM12S
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 (ηs)	[%]	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 (ηs)	[%]	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)	Pdh (declared heating capacity)	[kW]	2.75	3.42	4.46	4.83	7.05
	COPd (declared COP)	-	3.49	3.59	3.66	3.60	3.48
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	1.77	2.06	2.69	2.94	4.67
	COPd (declared COP)	-	4.95	5.21	5.20	5.26	4.96
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	1.17	1.46	1.65	1.92	3.14
	COPd (declared COP)	-	5.53	6.24	6.53	7.08	6.10
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.43	1.44	1.65	1.65	3.57
	COPd (declared COP)	-	7.67	7.66	7.96	7.96	7.87
	Cdh(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
	Pdh (declared heating capacity)	[kW]	2.80	3.48	4.06	4.62	7.01
	COPd (declared COP)	-	1.97	1.96	1.95	1.97	1.98
(F) Tbivalent temperature	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00
	Tblv	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	[kW]	3.72	4.59	5.69	6.32	9.28
Supplementary capacity at P_design	COPd (declared COP)	-	2.57	2.53	2.83	2.64	2.59
	Psup (@Tdesignh: -22°C)	[kW]	1.76	2.15	2.91	3.08	4.40

Product fiche 3

Heat pump space heater Matrix								
Supplementary capacity at P_design	Psup (@Tdesignh: -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 (ηs)	[%]	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 (ηs)	[%]	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)	Pdh (declared heating capacity)	[kW]	2.75	3.42	4.46	4.83	7.05	
	COPd (declared COP)	-	3.49	3.59	3.66	3.60	3.48	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	1.77	2.06	2.69	2.94	4.67	
	COPd (declared COP)	-	4.95	5.21	5.20	5.26	4.96	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	1.17	1.46	1.65	1.92	3.14	
	COPd (declared COP)	-	5.53	6.24	6.53	7.08	6.10	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.43	1.44	1.65	1.65	3.57	
	COPd (declared COP)	-	7.67	7.66	7.96	7.96	7.87	
	Cdh(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	
	Pdh (declared heating capacity)	[kW]	2.80	3.48	4.06	4.62	7.01	
	COPd (declared COP)	-	1.97	1.96	1.95	1.97	1.98	
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00	
	Tblv	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00	
	Pdh (declared heating capacity)	[kW]	3.72	4.59	5.69	6.32	9.28	
Supplementary capacity at P_design	COPd (declared COP)	-	2.57	2.53	2.83	2.64	2.59	
	Psup (@Tdesignh: -22°C)	[kW]	1.76	2.15	2.91	3.08	4.40	

Product fiche 3

Heat pump space heater Matrix												
Colder climate (Design temperature = -22°C)												
Space heating 35°C	Prated (declared heating capacity) @ -22°C		[kW]	12.6	13.7	11.4	12.6	13.7	11.4	12.6	13.7	
	Seasonal space heating efficiency (ηs)		[%]	159.6	157.8	160.2	159.6	157.8	160.2	159.6	157.8	
	Annual energy consumption		[kWh]	7,667	8,431	6,871	7,667	8,431	6,871	7,667	8,431	
Space heating 55°C	Prated (declared heating capacity) @ -22°C		[kW]	11.0	11.8	10.3	11.0	11.8	10.3	11.0	11.8	
	Seasonal space heating efficiency (ηs)		[%]	118.9	121.8	117.7	118.9	121.8	117.7	118.9	121.8	
	Annual energy consumption		[kWh]	8,866	9,309	8,420	8,867	9,310	8,420	8,867	9,310	
Part load conditions space heating colder climate low temperature application												
(A) condition (-7°C)	Pdh (declared heating capacity)		[kW]	7.96	8.31	7.05	7.96	8.31	7.05	7.96	8.31	
	COPd (declared COP)		-	3.44	3.37	3.48	3.44	3.37	3.48	3.44	3.37	
	Cdh(degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
(B) condition (2°C)	Pdh (declared heating capacity)		[kW]	5.05	5.26	4.67	5.05	5.26	4.67	5.05	5.26	
	COPd (declared COP)		-	4.92	4.86	4.96	4.92	4.86	4.96	4.92	4.86	
	Cdh(degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
(C) condition (7°C)	Pdh (declared heating capacity)		[kW]	3.15	3.62	3.14	3.15	3.62	3.14	3.15	3.62	
	COPd (declared COP)		-	6.11	6.49	6.10	6.11	6.49	6.10	6.11	6.49	
	Cdh(degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
(D) condition (12°C)	Pdh (declared heating capacity)		[kW]	3.57	3.34	3.57	3.57	3.34	3.57	3.57	3.34	
	COPd (declared COP)		-	7.82	7.40	7.87	7.82	7.40	7.87	7.82	7.40	
	Cdh(degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
(E) Tol (temperatre operating limit)	Tol (temperatre operating limit)		[°C]	-22.00	-22.00	-22.00	-22.00	-22.00	-22.00	-22.00	-22.00	
	Pdh (declared heating capacity)		[kW]	7.57	8.88	7.01	7.57	8.88	7.01	7.57	8.88	
	COPd (declared COP)		-	1.92	1.97	1.98	1.92	1.97	1.98	1.92	1.97	
(F) Tbivalent temperature	WTOL (Heating water Operation Limit)		[°C]	51.00	51.00	51.00	51.00	51.00	51.00	51.00	51.00	
	Tbiv		[°C]	-15.00	-15.00	-15.00	-15.00	-15.00	-15.00	-15.00	-15.00	
	Pdh (declared heating capacity)		[kW]	10.31	11.22	9.28	10.31	11.22	9.28	10.31	11.22	
Supplementary capacity at P_design	COPd (declared COP)		-	2.53	2.43	2.59	2.53	2.43	2.59	2.53	2.43	
	Psup (@Tdesignh: -22°C)		[kW]	5.03	4.82	4.40	5.03	4.82	4.40	5.03	4.82	

Product fiche 3

Heat pump space heater Matrix												
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					159.6	157.8
	Annual energy consumption	[kWh]	7,667	8,431	6,871	7,667					7,667	8,431
Space heating 55°C	P _{rated} (declared heating capacity) @ -22°C	[kW]	11.0	11.8	10.3	11.0					11.0	11.8
	Seasonal space heating efficiency (η _s)	[%]	118.9	121.8	117.7	118.9					118.9	121.8
	Annual energy consumption	[kWh]	8,866	9,309	8,420	8,867					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					7.96	8.31
	COP _d (declared COP)	-	3.44	3.37	3.48	3.44					3.44	3.37
	C _{dh} (degradation coefficient)	-	0.90	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					5.05	5.26
	COP _d (declared COP)	-	4.92	4.86	4.96	4.92					4.92	4.86
	C _{dh} (degradation coefficient)	-	0.90	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					3.15	3.62
	COP _d (declared COP)	-	6.11	6.49	6.10	6.11					6.11	6.49
	C _{dh} (degradation coefficient)	-	0.90	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					3.57	3.34
	COP _d (declared COP)	-	7.82	7.40	7.87	7.82					7.82	7.40
	C _{dh} (degradation coefficient)	-	0.90	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	-22.00
	P _{dh} (declared heating capacity)	[kW]	7.57	8.88	7.01	7.57					7.57	8.88
	COP _d (declared COP)	-	1.92	1.97	1.98	1.92					1.92	1.97
(F) Tbivalent temperature	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00					51.00	51.00
	T _{blv}	[°C]	-15.00	-15.00	-15.00	-15.00					-15.00	-15.00
	P _{dh} (declared heating capacity)	[kW]	10.31	11.22	9.28	10.31					10.31	11.22
Supplementary capacity at P _{design}	COP _d (declared COP)	-	2.53	2.43	2.59	2.43					2.53	2.43
	P _{Sup} (@T _{designh} : -22°C)	[kW]	5.03	4.82	4.40	5.03					5.03	4.82

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)	Pdh (declared heating capacity)	[kW]	2.13	2.70	3.86	4.27	6.63
	COPd (declared COP)	-	2.32	2.46	2.48	2.54	2.63
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	1.28	1.60	2.21	2.57	4.06
	COPd (declared COP)	-	2.99	3.36	3.35	3.51	3.60
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	1.01	1.02	1.44	1.65	2.78
	COPd (declared COP)	-	3.86	3.94	4.11	4.37	4.54
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.36	1.37	1.47	1.48	3.33
	COPd (declared COP)	-	6.28	6.35	5.92	5.96	6.25
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-22.0	-22.00	-22.00	-22.00	-22.00
	Pdh (declared heating capacity)	[kW]	1.64	2.09	2.80	2.80	4.19
	COPd (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) Tbivalent temperature	Tbiv	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	[kW]	2.74	3.47	4.71	5.47	8.41
	COPd (declared COP)	-	1.74	1.86	1.90	2.00	1.84
Supplementary capacity at P_design	Psup (@Tdesignh: -22°C)	[kW]	1.72	2.17	2.97	3.91	6.12
Warmer climate (Design temperature = 2°C)							
Space heating 35°C	Prated (declared heating capacity) @ 2°C	[kW]	5.5	6.1	8.1	8.6	11.1
	Seasonal space heating efficiency (ns)	[%]	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	Prated (declared heating capacity) @ 2°C	[kW]	5.0	5.1	8.37	8.6	12.5
	Seasonal space heating efficiency (ns)	[%]	162.4	164.7	176.9	181.7	174.1
	Annual energy consumption	[kWh]	1,621	1,640	2,458	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)	Pdh (declared heating capacity)	[kW]	2.13	2.70	3.86	4.27	6.63
	COPd (declared COP)	-	2.32	2.46	2.48	2.54	2.63
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	1.28	1.60	2.21	2.57	4.06
	COPd (declared COP)	-	2.99	3.36	3.35	3.51	3.60
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	1.01	1.02	1.44	1.65	2.78
	COPd (declared COP)	-	3.86	3.94	4.11	4.37	4.54
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.36	1.37	1.47	1.48	3.33
	COPd (declared COP)	-	6.28	6.35	5.92	5.96	6.25
	Cdh(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
	Pdh (declared heating capacity)	[kW]	1.64	2.09	2.80	2.80	4.19
	COPd (declared COP)	-	1.02	1.13	1.22	1.22	1.13
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00
	Tblv	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	[kW]	2.74	3.47	4.71	5.47	8.41
Supplementary capacity at P_design	COPd (declared COP)	-	1.74	1.86	1.90	2.00	1.84
	Psup (@Tdesignh: -22°C)	[kW]	1.72	2.17	2.97	3.91	6.12
Warmer climate (Design temperature = 2°C)							
Space heating 35°C	Prated (declared heating capacity) @ 2°C	[kW]	5.5	6.1	8.1	8.6	11.1
	Seasonal space heating efficiency (ns)	[%]	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	Prated (declared heating capacity) @ 2°C	[kW]	5.0	5.1	8.37	8.6	12.5
	Seasonal space heating efficiency (ns)	[%]	162.4	164.7	176.9	181.7	174.1
	Annual energy consumption	[kWh]	1,621	1,640	2,458	2,496	3,376

Product fiche 4

Heat pump space heater		Matrix					
Part load conditions space heating colder climate medium temperature application		Model	ATM14S	ATM16S	ATM12T	ATM14T	ATM16T
(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) Tivalent 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
	P _{rated} (declared heating capacity) @ 2°C	[kW]	14.17	14.17	12.5	14.17	14.17
Space heating 55°C	Seasonal space heating efficiency (η _s)	[%]	174.9	176	173.8	174.7	175.8
	Annual energy consumption	[kWh]	4,258	4,231	3,780	4,262	4,236

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) 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]	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) Tivalent 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 _{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]	14.17	14.17	12.5	14.17	14.17
	Seasonal space heating efficiency (η _s)	[%]	174.9	176	173.8	174.7	175.8
	Annual energy consumption	[kWh]	4,258	4,231	3,780	4,262	4,236

Product fiche 5

Heat pump space heater Matrix		Model	ATM04S	ATM06S	ATM08S	ATM10S	ATM12S
Part load conditions space heating warmer climate low temperature application							
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	5.34	5.93	7.56	8.44	11.26
	COPd (declared COP)	-	3.94	3.91	3.98	3.84	3.59
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	3.56	3.93	5.22	5.52	7.14
	COPd (declared COP)	-	5.92	5.89	6.26	6.18	5.87
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.63	1.79	2.62	2.62	3.55
	COPd (declared COP)	-	7.91	8.20	9.23	9.04	7.94
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00
	Pdh (declared heating capacity)	[kW]	5.34	5.93	7.56	8.44	11.26
	COPd (declared COP)	-	3.94	3.91	3.98	3.84	3.59
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00	62.00
	Tblv	[°C]	7.00	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	[kW]	3.56	3.93	5.22	5.52	7.14
Supplementary capacity at P_design	COPd (declared COP)	-	5.92	5.89	6.26	6.18	5.87
	Psup (@Tdesignh: 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)	Pdh (declared heating capacity)	[kW]	4.83	5.02	7.55	8.06	12.07
	COPd (declared COP)	-	2.51	2.48	2.59	2.59	2.31
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	3.22	3.31	5.38	5.54	8.04
	COPd (declared COP)	-	3.68	3.67	4.01	4.10	3.86
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.47	1.60	2.32	2.53	3.75
	COPd (declared COP)	-	5.15	5.29	5.55	5.82	5.70
	Cdh(degradation coefficient)	-	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
	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00	62.00
	T _{blv}	[°C]	7.00	7.00	7.00	7.00	7.00
(F) T _{bivalent} temperature	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
	P _{sup} (@T _{designh} : 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	5.38	5.54	8.04
	COP _d (declared COP)	-	3.68	3.67	4.01	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 _d _{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 _d _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _d _{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
	C _d _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _d _{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
	C _d _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00
	P _d _{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
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00	62.00
	T _{blv}	[°C]	7.00	7.00	7.00	7.00	7.00
	P _d _{dh} (declared heating capacity)	[kW]	7.78	8.41	7.14	7.78	8.41
Supplementary capacity at P _{design}	COP _d (declared COP)	-	5.84	5.36	5.87	5.84	5.36
	P _{sup} (@Tdesignh: 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 _d _{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 _d _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	P _d _{dh} (declared heating capacity)	[kW]	9.11	9.11	8.04	9.11	9.11
	COP _d (declared COP)	-	3.89	3.89	3.86	3.89	3.89
	C _d _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	P _d _{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
	C _d _{dh} (degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 5

Heat pump space heater Matrix												
Part load conditions space heating warmer climate low temperature application												
	Model	ATMH14S3	ATMH16S3	ATMH12T9	ATMH14T9	ATMH16T9						
(B) condition (2°C)	P _d h (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 _d h(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90					
(C) condition (7°C)	P _d h (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					
	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]	3.75	3.87	3.55	3.75	3.87					
	COP _d (declared COP)	-	8.25	8.11	7.94	8.25	8.11					
	C _d h(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90					
(E) ToI (temperature operating limit)	ToI (temperature operating limit)	[°C]	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					
	COP _d (declared COP)	-	3.44	3.35	3.59	3.44	3.35					
(F) T _b ivalent temperature	WTOL (Heating water Operation Lim it)	[°C]	62.00	62.00	62.00	62.00	62.00					
	T _b iv	[°C]	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					
Supplementary capacity at P _{design}	COP _d (declared COP)	-	5.84	5.36	5.87	5.84	5.36					
	P _{sup} (@T _{design} h: 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 _d h (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 _d h(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90					
(C) condition (7°C)	P _d h (declared heating capacity)	[kW]	9.11	9.11	8.04	9.11	9.11					
	COP _d (declared COP)	-	3.89	3.89	3.86	3.89	3.89					
	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]	4.08	4.06	3.75	4.08	4.06					
	COP _d (declared COP)	-	5.90	5.86	5.70	5.90	5.86					
	C _d h(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90					

Product fiche 6

Heat pump space heater Matrix							
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	Model	ATM04S	ATM06S	ATM08S	ATM10S	ATM12S
	Pdh (declared heating capacity)	[°C]	2.00	2.00	2.00	2.00	2.00
	COPd (declared COP)	[kW]	4.83	5.02	7.83	8.15	12.07
	WTOL (Heating water Operation Limit)	-	2.51	2.48	2.66	2.61	2.31
(F) Tivalent temperature	Tblv	[°C]	62.00	62.00	62.00	62.00	62.00
	Pdh (declared heating capacity)	[°C]	7.00	7.00	7.00	7.00	7.00
	COPd (declared COP)	[kW]	3.22	3.31	5.38	5.54	8.04
	Psup (@Tdesignh: 2°C)	-	3.68	3.67	4.01	4.10	3.86
Supplementary capacity at P_design		[kW]	0.18	0.12	0.82	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	[m³/h]	2770	2770	4030	4030	4060
	Rated water/brine flow (outdoor H/E)		/	/	/	/	/
	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter
	Poff (Power consumption Off mode)	[kW]	0.014	0.014	0.014	0.014	0.014
Other	Pto (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.024	0.024	0.024
	Psb (Power consumption Standby mode)	[kW]	0.014	0.014	0.014	0.014	0.014
	PCK (Power crankcase heater mode I)	[kW]	0.000	0.000	0.000	0.000	0.000
	Qelec (Daily electricity consumption)	[kWh]	/	/	/	/	/
	Qfuel (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
	Pdh (declared heating capacity)	[kW]	4.83	5.02	7.83	8.15	12.07
	COPd (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	Tblv	[°C]	7.00	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	[kW]	3.22	3.31	5.38	5.54	8.04
	COPd (declared COP)	-	3.68	3.67	4.01	4.10	3.86
	Psup (@Tdesignh: 2°C)	[kW]	0.18	0.12	0.82	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
Air to water unit	Rated airflow	[m³/h]	2770	2770	4030	4030	4060
Brine/water to water unit	Rated water/brine flow (outdoor H/E)		/	/	/	/	/
Other	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter
	Poff (Power consumption Off mode)	[kW]	0.014	0.014	0.014	0.014	0.014
	Pto (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.024	0.024	0.024
	Psb (Power consumption Standby mode)	[kW]	0.014	0.014	0.014	0.014	0.014
	PCK (Power crankcase heater mode I)	[kW]	0.000	0.000	0.000	0.000	0.000
	Qelec (Daily electricity consumption)	[kWh]	/	/	/	/	/
	Qfuel (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)	2.00	2.00	2.00	2.00	2.00	
	P _{dh} (declared heating capacity)	13.04	13.38	12.07	13.04	13.38	
	COP _d (declared COP)	2.20	2.29	2.31	2.20	2.29	
	WTOL (Heating water Operation Limit)	62.00	62.00	62.00	62.00	62.00	
(F) Tivalent temperature	T _{blv}	7.00	7.00	7.00	7.00	7.00	
	P _{dh} (declared heating capacity)	9.11	9.11	8.04	9.11	9.11	
	COP _d (declared COP)	3.89	3.89	3.86	3.89	3.89	
Supplementary capacity at P _{design}		1.13	0.79	0.43	1.13	0.79	
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	[m³/h]	4060	4650	4060	4060	4650
	Rated water/brine flow (outdoor H/E)		/	/	/	/	/
Other	Capacity control	-	Inverter	Inverter	Inverter	Inverter	
	P _{off} (Power consumption Off mode)	[kW]	0.014	0.014	0.02	0.02	0.02
	P _{to} (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.030	0.030	0.030
	P _{sb} (Power consumption Standby mode)	[kW]	0.014	0.014	0.02	0.02	0.02
	P _{CK} (Power crankcase heater model)	[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							ATMH16S3	ATMH12T9	ATMH14T9	ATMH1 6T9
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	P _{dh} (declared heating capacity)	[kW]	13.04	13.04	13.38	13.38	13.38	13.04	13.04	13.38
	COP _d (declared COP)	-	2.20	2.20	2.29	2.29	2.29	2.20	2.20	2.29
	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	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	7.00	7.00	7.00
	P _{dh} (declared heating capacity)	[kW]	9.11	9.11	9.11	9.11	9.11	9.11	9.11	9.11
	COP _d (declared COP)	-	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89
	P _{sup} (@Tdesignh: 2°C)	[kW]	1.13	1.13	0.79	0.79	0.43	1.13	1.13	0.79
Supplementary capacity at P _{design}										
0										
Product description	Air-to-water heat pump	Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Water-to-water heat pump	Y/N	No	No	No	No	No	No	No	No
	Brine-to-water heat pump	Y/N	No	No	No	No	No	No	No	No
	Low-temperature heat pump	Y/N	No	No	No	No	No	No	No	No
	Equipped with a supplementary heater	Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Heat pump combination heater	Y/N	No	No	No	No	No	No	No	No
	Rated airflow	[m³/h]	4060	4060	4650	4650	4060	4060	4060	4650
	Rated water/brine flow (outdoor H/E)		/	/	/	/	/	/	/	/
Other	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	P _{off} (Power consumption Off mode)	[kW]	0.014	0.014	0.014	0.014	0.02	0.02	0.02	0.02
	P _{to} (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.024	0.024	0.030	0.030	0.030	0.030
	P _{sb} (Power consumption Standby mode)	[kW]	0.014	0.014	0.014	0.014	0.02	0.02	0.02	0.02
	P _{CK} (Power crankcase heater model)	[kW]	0.000	0.000	0.000	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.

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				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	0.98	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	m³/h
Sound power level, indoors/outdoors				LWA	-55	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger				-	-	m³/h
Annual energy consumption				QHE	2744	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
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									
(*) 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				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	1.72	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	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	3159	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
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									
(*) 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				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	0.18	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	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	1621	kWh							
For heat pump combination heater:													
Declared load profile				-			Water heating energy efficiency				η_{wh}	-	%
Daily electricity consumption				Qelec	-	kWh	Daily fu5.1el consumption				Qfuel	-	kWh
Annual electricity consumption				AEC	-	kWh	Annual fuel consumption				AFC	-	GJ
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									
(*) 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				
Thermostat-off mode	P _{to}	0.024	kW	Type of energy input	Electrical		
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	m³/h
Sound power level, indoors/outdoors	LWA	-58	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	3345	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
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						
(*) 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		Pcych	-	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		For air-to-water heat pumps: Rated air flow rate, outdoors		-	2770	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	3681	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
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							
(*) 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				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				-	2770	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	1640	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):				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				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	1.69	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	m³/h
Sound power level, indoors/outdoors				LWA	-59	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger				-	-	m³/h
Annual energy consumption				QHE	4056	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):				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				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	2.97	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	4950	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):	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	8.37	kW	Seasonal space heating energy efficiency	η_s	176.9	%
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	7.55	kW	Tj = 2 °C	COPd	2.59	-
Tj = 7 °C	Pdh	5.38	kW	Tj = 7 °C	COPd	4.01	-
Tj = 12 °C	Pdh	2.31	kW	Tj = 12 °C	COPd	5.55	-
Tj = bivalent temperature	Pdh	5.38	kW	Tj = bivalent temperature	COPd	4.01	-
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	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}	0.82	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	-	4030	m³/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	-	-	m³/h
Annual energy consumption	Q _{HE}	2458	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):	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
Rated heat output (*)	Prated	7.7	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	6.78	kW
Tj = 2°C	Pdh	4.28	kW
Tj = 7°C	Pdh	2.77	kW
Tj = 12°C	Pdh	1.58	kW
Tj = bivalent temperature	Pdh	6.78	kW
Tj = operating limit	Pdh	5.38	kW
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW
Bivalent temperature	Tbiv	-7	°C
Cycling interval capacity for heating	Pcych	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	Poff	0.014	kW
Standby mode	Psb	0.014	kW
Thermostat-off mode	Pto	0.024	kW
Crankcase heater mode	Pck	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η s	136.6	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	COPd	2.24	-
Tj = 2°C	COPd	3.42	-
Tj = 7°C	COPd	4.52	-
Tj = 12°C	COPd	5.68	-
Tj = bivalent temperature	COPd	2.24	-
Tj = operating limit	COPd	1.83	-
For air-to-water heat pumps: Tj = -15°C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (**)	Psup	2.29	kW
Type of energy input	Electrical		

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m³/h
Sound power level, indoors/outdoors	L _{WA}	-60	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q _{HE}	4539	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):	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	Pcych	-	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 _{cych}	-	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								
Thermostat-off mode	P _{to}	0.024	kW	Type of energy input							
Crankcase heater mode	P _{ck}	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	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h				
Annual energy consumption	Q _{HE}	2516	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):	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				
Thermostat-off mode	Pto	0.024	kW	Electrical			
Crankcase heater mode	Pck	0.000	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m³/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	-	-	m³/h
Annual energy consumption	QHE	6927	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
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						
(*) 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
Rated heat output (*)	Prated	10.3	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	6.63	kW
Tj = 2°C	Pdh	4.06	kW
Tj = 7°C	Pdh	2.78	kW
Tj = 12°C	Pdh	3.33	kW
Tj = bivalent temperature	Pdh	8.41	kW
Tj = operating limit	Pdh	4.19	kW
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW
Bivalent temperature	Tbiv	-15	°C
Cycling interval capacity for heating	Pcych	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	Poff	0.014	kW
Standby mode	Psb	0.014	kW
Thermostat-off mode	Pto	0.024	kW
Crankcase heater mode	Pck	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η s	117.8	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	COPd	2.63	-
Tj = 2°C	COPd	3.60	-
Tj = 7°C	COPd	4.54	-
Tj = 12°C	COPd	6.25	-
Tj = bivalent temperature	COPd	1.84	-
Tj = operating limit	COPd	1.13	-
For air-to-water heat pumps: Tj = -15°C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	51	°C
Supplementary heater			
Rated heat output (**)	Psup	6.11	kW
Type of energy input	Electrical		

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	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	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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(*) 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:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.5	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	-	kW
Tj = 2 °C	Pdh	12.07	kW
Tj = 7 °C	Pdh	8.04	kW
Tj = 12 °C	Pdh	3.75	kW
Tj = bivalent temperature	Pdh	8.04	kW
Tj = operating limit	Pdh	12.07	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	Tbiv	7	°C
Cycling interval capacity for heating	Pcych	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	Poff	0.014	kW
Standby mode	Psb	0.014	kW
Thermostat-off mode	Pto	0.024	kW
Crankcase heater mode	Pck	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η s	174.0	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	-	-
Tj = 2 °C	COPd	2.31	-
Tj = 7 °C	COPd	3.86	-
Tj = 12 °C	COPd	5.70	-
Tj = bivalent temperature	COPd	3.86	-
Tj = operating limit	COPd	2.31	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	62	°C
Supplementary heater			
Rated heat output (**)	Psup	0.43	kW
Type of energy input	Electrical		

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	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	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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(*) 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:	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	Pcych	-	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							
Thermostat-off mode	Pto	0.024	kW	Type of energy input						
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	7202	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):	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			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	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	8866	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):	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
Rated heat output (*)	Prated	14.17	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	-	kW
Tj = 2 °C	Pdh	13.04	kW
Tj = 7 °C	Pdh	9.11	kW
Tj = 12 °C	Pdh	4.08	kW
Tj = bivalent temperature	Pdh	9.11	kW
Tj = operating limit	Pdh	13.04	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	Tbiv	7	°C
Cycling interval capacity for heating	Pcych	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	Poff	0.014	kW
Standby mode	Psb	0.014	kW
Thermostat-off mode	Pto	0.024	kW
Crankcase heater mode	Pck	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η s	174.9	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	-	-
Tj = 2 °C	COPd	2.20	-
Tj = 7 °C	COPd	3.89	-
Tj = 12 °C	COPd	5.90	-
Tj = bivalent temperature	COPd	3.89	-
Tj = operating limit	COPd	2.20	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	62	°C
Supplementary heater			
Rated heat output (**)	Psup	1.13	kW
Type of energy input	Electrical		

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	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	4258	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:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	11.52	kW
Tj = 2°C	Pdh	7.18	kW
Tj = 7°C	Pdh	4.67	kW
Tj = 12°C	Pdh	3.31	kW
Tj = bivalent temperature	Pdh	11.52	kW
Tj = operating limit	Pdh	10.33	kW
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW
Bivalent temperature	Tbiv	-7	°C
Cycling interval capacity for heating	Pcych	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	Poff	0.014	kW
Standby mode	Psb	0.014	kW
Thermostat-off mode	Pto	0.024	kW
Crankcase heater mode	Pck	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η s	133.3	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	COPd	1.99	-
Tj = 2°C	COPd	3.34	-
Tj = 7°C	COPd	4.61	-
Tj = 12°C	COPd	6.07	-
Tj = bivalent temperature	COPd	1.99	-
Tj = operating limit	COPd	1.80	-
For air-to-water heat pumps: Tj = -15°C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (**)	Psup	2.68	kW
Type of energy input	Electrical		

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	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	9309	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
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			
(*) 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):	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
Rated heat output (*)	Prated	14.17	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	-	kW
Tj = 2 °C	Pdh	13.38	kW
Tj = 7 °C	Pdh	9.11	kW
Tj = 12 °C	Pdh	4.06	kW
Tj = bivalent temperature	Pdh	9.11	kW
Tj = operating limit	Pdh	13.38	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	Tbiv	7	°C
Cycling interval capacity for heating	Pcych	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	Poff	0.014	kW
Standby mode	Psb	0.014	kW
Thermostat-off mode	Pto	0.024	kW
Crankcase heater mode	Pck	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η s	176	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	-	-
Tj = 2 °C	COPd	2.29	-
Tj = 7 °C	COPd	3.89	-
Tj = 12 °C	COPd	5.86	-
Tj = bivalent temperature	COPd	3.89	-
Tj = operating limit	COPd	2.29	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	62	°C
Supplementary heater			
Rated heat output (**)	Psup	0.79	kW
Type of energy input	Electrical		

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	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	4231	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	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	1.23	kW
Standby mode	Psb	0.020	kW				
Thermostat-off mode	Pto	0.030	kW	Type of energy input	Electrical		
Crankcase heater mode	Pck	0.000	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m³/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	-	-	m³/h
Annual energy consumption	QHE	6928	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:	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	Pcych	-	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							
Thermostat-off mode	Pto	0.030	kW	Type of energy input						
Crankcase heater mode	Pck	0.000	kW							

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	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	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	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	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	m³/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				-	-	m³/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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(*) 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):	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	Pcych	-	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							
Thermostat-off mode	Pto	0.030	kW	Type of energy input						
Crankcase heater mode	Pck	0.000	kW							

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	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	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
Rated heat output (*)	Prated	14.17	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	-	kW
Tj = 2 °C	Pdh	13.04	kW
Tj = 7 °C	Pdh	9.11	kW
Tj = 12 °C	Pdh	4.08	kW
Tj = bivalent temperature	Pdh	9.11	kW
Tj = operating limit	Pdh	13.04	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	Tbiv	7	°C
Cycling interval capacity for heating	Pcych	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	Poff	0.020	kW
Standby mode	Psb	0.020	kW
Thermostat-off mode	Pto	0.030	kW
Crankcase heater mode	Pck	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η s	174.7	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	-	-
Tj = 2 °C	COPd	2.20	-
Tj = 7 °C	COPd	3.89	-
Tj = 12 °C	COPd	5.90	-
Tj = bivalent temperature	COPd	3.89	-
Tj = operating limit	COPd	2.20	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	62	°C
Supplementary heater			
Rated heat output (**)	Psup	1.13	kW
Type of energy input	Electrical		

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	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	4262	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:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	11.52	kW
Tj = 2 °C	Pdh	7.18	kW
Tj = 7 °C	Pdh	4.67	kW
Tj = 12 °C	Pdh	3.31	kW
Tj = bivalent temperature	Pdh	11.52	kW
Tj = operating limit	Pdh	10.33	kW
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW
Bivalent temperature	Tbiv	-7	°C
Cycling interval capacity for heating	Pcych	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	Poff	0.020	kW
Standby mode	Psb	0.020	kW
Thermostat-off mode	Pto	0.030	kW
Crankcase heater mode	Pck	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η s	133.2	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	1.99	-
Tj = 2 °C	COPd	3.34	-
Tj = 7 °C	COPd	4.61	-
Tj = 12 °C	COPd	6.07	-
Tj = bivalent temperature	COPd	1.99	-
Tj = operating limit	COPd	1.80	-
For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (**)	Psup	2.67	kW
Type of energy input	Electrical		

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m³/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	-	-	m³/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
Rated heat output (*)	Prated	11.8	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	7.64	kW
Tj = 2°C	Pdh	4.42	kW
Tj = 7°C	Pdh	2.97	kW
Tj = 12°C	Pdh	3.43	kW
Tj = bivalent temperature	Pdh	9.61	kW
Tj = operating limit	Pdh	5.21	kW
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW
Bivalent temperature	Tbiv	-15	°C
Cycling interval capacity for heating	Pcyc	-	kW
Degradation co-efficient (**)	Cdh	0.9	--
Power consumption in modes other than active mode			
Off mode	Poff	0.020	kW
Standby mode	Psb	0.020	kW
Thermostat-off mode	Pto	0.030	kW
Crankcase heater mode	Pck	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η s	121.8	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	COPd	2.65	-
Tj = 2°C	COPd	3.79	-
Tj = 7°C	COPd	4.81	-
Tj = 12°C	COPd	6.29	-
Tj = bivalent temperature	COPd	1.86	-
Tj = operating limit	COPd	1.23	-
For air-to-water heat pumps: Tj = -15°C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	51	°C
Supplementary heater			
Rated heat output (**)	Psup	6.59	kW
Type of energy input	Electrical		

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	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	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	14.17	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	13.38	kW	Tj = 2°C				COPd	2.29	-
Tj = 7°C				Pdh	9.11	kW	Tj = 7°C				COPd	3.89	-
Tj = 12°C				Pdh	4.06	kW	Tj = 12°C				COPd	5.86	-
Tj = bivalent temperature				Pdh	9.11	kW	Tj = bivalent temperature				COPd	3.89	-
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	0.79	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			For air-to-water heat pumps: Rated air flow rate, outdoors				-	4650	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	4236	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.													

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	η _{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°C	P _{dc}	4.66	kW		T _j =+35°C	EER _d	3.52	-
T _j =+30°C	P _{dc}	3.66	kW		T _j =+30°C	EER _d	4.76	-
T _j =+25°C	P _{dc}	2.21	kW		T _j =+25°C	EER _d	5.72	-
T _j =+20°C	P _{dc}	0.94	kW		T _j =+20°C	EER _d	5.72	-
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	-	2770	m³/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	-	-	m³/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	η _{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°C	P _{dc}	4.51	kW		T _j =+35°C	EER _d	5.54	-
T _j =+30°C	P _{dc}	3.44	kW		T _j =+30°C	EER _d	7.23	-
T _j =+25°C	P _{dc}	2.19	kW		T _j =+25°C	EER _d	8.94	-
T _j =+20°C	P _{dc}	1.13	kW		T _j =+20°C	EER _d	10.48	-
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	-	2770	m³/h
Sound power level, indoors / outdoors	L _{WA}	-56	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
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):	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	-					
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		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
Emissions of nitrogen oxides (if applicable)	$NO_x(**)$	-	mg/kWh input GCV					
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):				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}	6.5	kW		Seasonal space cooling energy efficiency	η _{s,c}	325.2	%
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°C	P _{dc}	6.55	kW		T _j =+35°C	EER _d	4.69	-
T _j =+30°C	P _{dc}	4.84	kW		T _j =+30°C	EER _d	7.16	-
T _j =+25°C	P _{dc}	3.26	kW		T _j =+25°C	EER _d	9.64	-
T _j =+20°C	P _{dc}	1.41	kW		T _j =+20°C	EER _d	11.48	-
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	-	2770	m³/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	-	-	m³/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):				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	η _{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°C	P _{dc}	7.38	kW		T _j =+35°C	EER _d	3.39	-
T _j =+30°C	P _{dc}	5.72	kW		T _j =+30°C	EER _d	4.71	-
T _j =+25°C	P _{dc}	3.62	kW		T _j =+25°C	EER _d	6.65	-
T _j =+20°C	P _{dc}	1.64	kW		T _j =+20°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	m³/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	-	-	m³/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):				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	η _{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°C	P _{dc}	8.37	kW		T _j =+35°C	EER _d	5.09	-
T _j =+30°C	P _{dc}	6.47	kW		T _j =+30°C	EER _d	7.02	-
T _j =+25°C	P _{dc}	4.31	kW		T _j =+25°C	EER _d	10.67	-
T _j =+20°C	P _{dc}	1.80	kW		T _j =+20°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	m³/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	-	-	m³/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	η _{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°C	P _{dc}	8.73	kW		T _j =+35°C	EER _d	3.21	-
T _j =+30°C	P _{dc}	6.68	kW		T _j =+30°C	EER _d	4.47	-
T _j =+25°C	P _{dc}	4.26	kW		T _j =+25°C	EER _d	7.02	-
T _j =+20°C	P _{dc}	1.94	kW		T _j =+20°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		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
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):				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}	10.0	kW		Seasonal space cooling energy efficiency	η _{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°C	P _{dc}	10.01	kW		T _j =+35°C	EER _d	4.64	-
T _j =+30°C	P _{dc}	7.71	kW		T _j =+30°C	EER _d	6.45	-
T _j =+25°C	P _{dc}	5.03	kW		T _j =+25°C	EER _d	10.36	-
T _j =+20°C	P _{dc}	2.32	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-60	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
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	η _{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°C	P _{dc}	11.31	kW		T _j =+35°C	EER _d	2.61	-
T _j =+30°C	P _{dc}	8.76	kW		T _j =+30°C	EER _d	3.93	-
T _j =+25°C	P _{dc}	5.81	kW		T _j =+25°C	EER _d	5.73	-
T _j =+20°C	P _{dc}	2.63	kW		T _j =+20°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 _{rated,c}	11.8	kW		Seasonal space cooling energy efficiency	η _{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°C	P _{dc}	11.77	kW		T _j =+35°C	EER _d	3.87	-
T _j =+30°C	P _{dc}	9.21	kW		T _j =+30°C	EER _d	5.50	-
T _j =+25°C	P _{dc}	5.74	kW		T _j =+25°C	EER _d	8.66	-
T _j =+20°C	P _{dc}	3.33	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-/64	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
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	η _{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°C	P _{dc}	12.19	kW		T _j =+35°C	EER _d	2.46	-
T _j =+30°C	P _{dc}	9.41	kW		T _j =+30°C	EER _d	3.85	-
T _j =+25°C	P _{dc}	6.16	kW		T _j =+25°C	EER _d	5.80	-
T _j =+20°C	P _{dc}	2.63	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-65	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
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	η _{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°C	P _{dc}	13.30	kW		T _j =+35°C	EER _d	3.47	-
T _j =+30°C	P _{dc}	10.20	kW		T _j =+30°C	EER _d	5.26	-
T _j =+25°C	P _{dc}	6.57	kW		T _j =+25°C	EER _d	8.45	-
T _j =+20°C	P _{dc}	3.33	kW		T _j =+20°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	m³/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	-	-	m³/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	η _{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°C	P _{dc}	14.31	kW		T _j =+35°C	EER _d	2.47	-
T _j =+30°C	P _{dc}	10.68	kW		T _j =+30°C	EER _d	3.63	-
T _j =+25°C	P _{dc}	6.76	kW		T _j =+25°C	EER _d	5.27	-
T _j =+20°C	P _{dc}	3.41	kW		T _j =+20°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	m³/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	-	-	m³/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 _{rated,c}	15.4	kW		Seasonal space cooling energy efficiency	η _{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°C	P _{dc}	15.40	kW		T _j =+35°C	EER _d	3.50	-
T _j =+30°C	P _{dc}	11.42	kW		T _j =+30°C	EER _d	5.14	-
T _j =+25°C	P _{dc}	7.27	kW		T _j =+25°C	EER _d	7.83	-
T _j =+20°C	P _{dc}	3.40	kW		T _j =+20°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	L_{WA}	-65	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
Emissions of nitrogen oxides (if applicable)	$NO_x(**)$	-	mg/kWh input GCV					
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 _{rated,c}	11.8	kW		Seasonal space cooling energy efficiency	η _{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°C	P _{dc}	11.77	kW		T _j =+35°C	EER _d	3.87	-
T _j =+30°C	P _{dc}	9.21	kW		T _j =+30°C	EER _d	5.50	-
T _j =+25°C	P _{dc}	5.74	kW		T _j =+25°C	EER _d	8.66	-
T _j =+20°C	P _{dc}	3.33	kW		T _j =+20°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)	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	η _{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°C	P _{dc}	12.19	kW		T _j =+35°C	EER _d	2.46	-
T _j =+30°C	P _{dc}	9.41	kW		T _j =+30°C	EER _d	3.85	-
T _j =+25°C	P _{dc}	6.16	kW		T _j =+25°C	EER _d	5.80	-
T _j =+20°C	P _{dc}	2.63	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-/65	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
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	η _{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°C	P _{dc}	13.30	kW		T _j =+35°C	EER _d	3.47	-
T _j =+30°C	P _{dc}	10.20	kW		T _j =+30°C	EER _d	5.26	-
T _j =+25°C	P _{dc}	6.57	kW		T _j =+25°C	EER _d	8.45	-
T _j =+20°C	P _{dc}	3.33	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-64	dB		For water /brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
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):				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	η _{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°C	P _{dc}	14.31	kW		T _j =+35°C	EER _d	2.47	-
T _j =+30°C	P _{dc}	10.68	kW		T _j =+30°C	EER _d	3.63	-
T _j =+25°C	P _{dc}	6.76	kW		T _j =+25°C	EER _d	5.27	-
T _j =+20°C	P _{dc}	3.41	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-69	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
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	η _{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°C	P _{dc}	15.40	kW		T _j =+35°C	EER _d	3.50	-
T _j =+30°C	P _{dc}	11.42	kW		T _j =+30°C	EER _d	5.14	-
T _j =+25°C	P _{dc}	7.27	kW		T _j =+25°C	EER _d	7.83	-
T _j =+20°C	P _{dc}	3.40	kW		T _j =+20°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}	0.020	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	m³/h
Sound power level, indoors / outdoors	L _{WA}	-/69	dB		For water / brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m³/h
Emissions of nitrogen oxides (if applicable)	NO _x (**)	-	mg/kWh input GCV					
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 (l)
Ambient Temperature: 35/34 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
	ATM14S & ATMH14S3	12.4	4.96	2.50
	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: 35/34 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
	ATM14S & ATMH14S3	13.5	3.74	3.61
	ATM16S & ATMH16S3	14.2	3.94	3.61
	ATM12T & ATMH12T9	12.00	3.04	3.95
	ATM14T & ATMH14T9	13.50	3.74	3.61
	ATM16T & ATMH16T9	14.2	3.94	3.61
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
	ATM14S & ATMH14S3	14.5	3.15	4.60
	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
	ATM14S & ATMH14S3	11.0	3.06	3.60
	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 (l)
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
	ATM14S & ATMH14S3	12.00	4.21	2.86
	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
	ATM14S & ATMH14S3	14.1	3.92	3.60
	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
	ATM14S & ATMH14S3	11.50	4.04	2.85
	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
	ATM14S & ATMH14S3	11.70	4.98	2.35
	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 (l)
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
	ATM14S & ATMH14S3	13.8	4.68	2.95
	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
	ATM14S & ATMH14S3	12.40	5.06	2.45
	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
	ATM14S & ATMH14S3	11.00	5.37	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



AIR CONDITIONING SYSTEMS

AIR-TO-WATER HEAT PUMP - MONOBLOCK



V:1.2.022022

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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