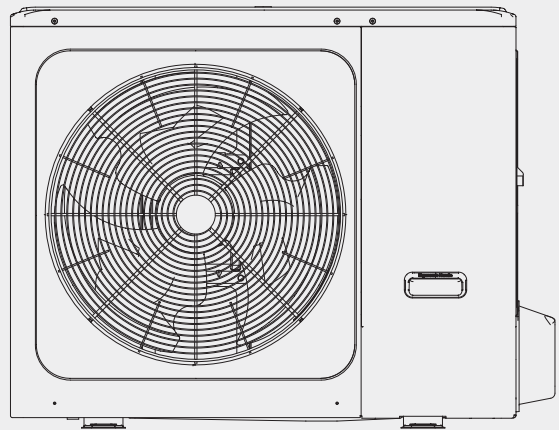
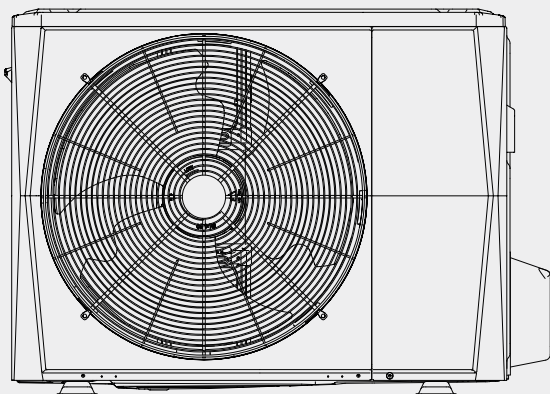


SPLIT HEAT PUMPS

TECHNICAL DATA MANUAL



IMPORTANT NOTE:

Thank you very much for purchasing our product,
Before using your unit , please read this manual carefully and keep it for future reference.



INVERTER

Model		For low - temperature application											
Outdoor unit	Indoor unit	Energy efficiency class	Indoor unit sound power	Outdoor 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	dB	kW	%	kWh	kW	%	kWh	kW	%	kWh
SHPAO4RP24MI	SHPAI60RP24MI	A+++	38	56	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146
	SHPAI60RP24MI-EH	A+++	38	56	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146
SHPAO6RP24MI	SHPAI60RP24MI	A+++	38	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244
	SHPAI60RP24MI-EH	A+++	38	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244
SHPAO8RP24MI	SHPAI100RP24MI	A+++	42	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551
	SHPAI100RP24MI-EH	A+++	42	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551
SHPAO10RP24MI	SHPAI100RP24MI	A+++	42	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617
	SHPAI100RP24MI-EH	A+++	42	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617
SHPAO12RP24MI	SHPAI160RP24MI	A+++	43	64	12.0	189.4	5152	11.4	160.2	6870	11.1	256.1	2292
	SHPAI160RP24MI-EH	A+++	43	64	12.0	189.4	5152	11.4	160.2	6870	11.1	256.1	2292
SHPAO14RP24MI	SHPAI160RP24MI	A+++	43	65	13.7	185.7	6012	12.6	159.6	7667	12.1	260.3	2457
	SHPAI160RP24MI-EH	A+++	43	65	13.7	185.7	6012	12.6	159.6	7667	12.1	260.3	2457
SHPAO16RP24MI	SHPAI160RP24MI	A+++	43	68	15.2	181.7	6804	13.7	157.8	8431	13.1	248.5	2781
	SHPAI160RP24MI-EH	A+++	43	68	15.2	181.7	6804	13.7	157.8	8431	13.1	248.5	2781
SHPAO12RP24P3MI	SHPAI160RP24MI	A+++	43	64	12.0	189.3	5153	11.4	160.2	6871	11.1	255.6	2296
	SHPAI160RP24MI-EH	A+++	43	64	12.0	189.3	5153	11.4	160.2	6871	11.1	255.6	2296
SHPAO14RP24P3MI	SHPAI160RP24MI	A+++	43	65	13.7	185.6	6013	12.6	159.6	7667	12.1	259.8	2462
	SHPAI160RP24MI-EH	A+++	43	65	13.7	185.6	6013	12.6	159.6	7667	12.1	259.8	2462
SHPAO16RP24P3MI	SHPAI160RP24MI	A+++	43	68	15.2	181.6	6805	13.7	157.8	8431	13.1	248.1	2786
	SHPAI160RP24MI-EH	A+++	43	68	15.2	181.6	6805	13.7	157.8	8431	13.1	248.1	2786

Indoor unit type explanation:
1. SHPAI**RP24MI, without back-up heater,
2. SHPAI**RP24MI-EH, with 3kW back-up heater and 1-Phase

Model		For medium - temperature application											
Outdoor unit	Indoor unit	Energy efficiency class	Indoor unit sound power dB	Outdoor unit sound power dB	average climate			colder climate			warmer climate		
					Rated heat output kW	Seasonal space heating energy efficiency %	For space heating, annual energy consumption kWh	Rated heat output kW	Seasonal space heating energy efficiency %	For space heating, annual energy consumption kWh	Rated heat output kW	Seasonal space heating energy efficiency %	For space heating, annual energy consumption kWh
SHPAO4RP24MI	SHPAI60RP24MI	A++	38	56	4.4	129.5	2742	3.4	102.1	3158	5.0	163.1	1614
	SHPAI60RP24MI-EH	A++	38	56	4.4	129.5	2742	3.4	102.1	3158	5.0	163.1	1614
SHPAO6RP24MI	SHPAI60RP24MI	A++	38	58	5.7	137.9	3343	4.3	111.1	3680	5.1	165.4	1634
	SHPAI60RP24MI-EH	A++	38	58	5.7	137.9	3343	4.3	111.1	3680	5.1	165.4	1634
SHPAO8RP24MI	SHPAI100RP24MI	A++	42	59	6.6	131.6	4054	5.8	112.1	4948	7.6	177.2	2242
	SHPAI100RP24MI-EH	A++	42	59	6.6	131.6	4054	5.8	112.1	4948	7.6	177.2	2242
SHPAO10RP24MI	SHPAI100RP24MI	A++	42	60	7.7	135.7	4567	6.7	116.5	5539	8.6	181.7	2496
	SHPAI100RP24MI-EH	A++	42	60	7.7	135.7	4567	6.7	116.5	5539	8.6	181.7	2496
SHPAO12RP24MI	SHPAI160RP24MI	A++	43	64	11.6	135.1	6927	10.3	117.8	8419	12.5	174.1	3376
	SHPAI160RP24MI-EH	A++	43	64	11.6	135.1	6927	10.3	117.8	8419	12.5	174.1	3376
SHPAO14RP24MI	SHPAI160RP24MI	A++	43	65	12.1	135.6	7202	11.0	118.9	8866	13.7	176.5	4088
	SHPAI160RP24MI-EH	A++	43	65	12.1	135.6	7202	11.0	118.9	8866	13.7	176.5	4088
SHPAO16RP24MI	SHPAI160RP24MI	A++	43	68	13.0	133.3	7895	11.8	121.8	9309	13.8	176.1	4112
	SHPAI160RP24MI-EH	A++	43	68	13.0	133.3	7895	11.8	121.8	9309	13.8	176.1	4112
SHPAO12RP24P3MI	SHPAI160RP24MI	A++	43	64	11.6	135.1	6928	10.3	117.7	8420	12.5	173.8	3780
	SHPAI160RP24MI-EH	A++	43	64	11.6	135.1	6928	10.3	117.7	8420	12.5	173.8	3780
SHPAO14RP24P3MI	SHPAI160RP24MI	A++	43	65	12.1	135.6	7203	11.0	118.9	8867	13.7	176.4	4092
	SHPAI160RP24MI-EH	A++	43	65	12.1	135.6	7203	11.0	118.9	8867	13.7	176.4	4092
SHPAO16RP24P3MI	SHPAI160RP24MI	A++	43	68	13.0	133.2	7896	11.8	121.8	9310	13.8	175.9	4116
	SHPAI160RP24MI-EH	A++	43	68	13.0	133.2	7896	11.8	121.8	9310	13.8	175.9	4116

Indoor unit type explanation:

1. SHPAI**RP24MI, without back-up heater,
2. SHPAI**RP24MI-EH, with 3kW back-up heater and 1-Phase

Product fiche 1

Heat pump space heater

		Indoor unit sound power (*)			SHPA160RP24MI-EH	SHPA100RP24MI-EH	SHPA1160RP24MI-EH
				[dB]	38.0	42.0	43.0
		Average climate low temperature application		[dB]	56.0	60.0	64.0
		Average climate medium temperature application		[dB]	56.0	60.0	64.0
		Capacity of the back-up heater integrated in the unit		[kW]	0/3	0/3/9	0/3/9
		Space heating		-	A+++	A+++	A+++
		Space heating		-	A++	A++	A++
Average climate (Design temperature = -10°C)							
		Prated (declared heating capacity) @ -10°C		[kW]	5.5	8.1	12.0
		Seasonal space heating efficiency (ηs)		[%]	191.0	205.6	189.4
		Annual energy consumption		[kWh]	2,351	3,218	5,152
		Prated (declared heating capacity) @ -10°C		[kW]	4.4	6.6	11.6
		Seasonal space heating efficiency (ηs)		[%]	129.5	137.9	135.1
		Annual energy consumption		[kWh]	2,742	4,054	6,927
Part load conditions space heating average climate low temperature application							
		Pdh (declared heating capacity)		[kW]	4.88	7.18	10.61
		COPd (declared COP)		-	3.19	3.35	2.88
		Cdh(degradation coefficient)		-	0.90	0.90	0.90
		Pdh (declared heating capacity)		[kW]	3.05	4.65	6.69
		COPd (declared COP)		-	4.78	5.09	4.65
		Cdh(degradation coefficient)		-	0.90	0.90	0.90
		Pdh (declared heating capacity)		[kW]	1.93	2.90	4.44
		COPd (declared COP)		-	6.13	6.82	6.62
		Cdh(degradation coefficient)		-	0.90	0.90	0.90
		Pdh (declared heating capacity)		[kW]	1.48	1.63	3.74
		COPd (declared COP)		-	8.05	8.35	8.47
		Cdh(degradation coefficient)		-	0.90	0.90	0.90
		Tol (temperature operating limit)		[°C]	-10.00	-10.00	-10.00
		Pdh (declared heating capacity)		[kW]	4.41	6.44	10.74
		COPd (declared COP)		-	2.86	3.04	2.77
		WTOL (Heating water Operation Limit)		[°C]	60.00	60.00	60.00

Product fiche 1

Heat pump space heater									
Indoor unit sound power (*)	Average climate low temperature application	Average climate medium temperature application	Psup back-up heater (optional)	Energy efficiency class 35°C (Low temp. app.)	Energy efficiency class 55°C (Medium temp. app.)	Outdoor	SHPAO14RP24MI	SHPAO16RP24MI	SHPAO12RP24P3MI
						Indoor	SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH
						[dB]	43.0	43.0	43.0
						[dB]	65.0	68.0	65.0
						[dB]	65.0	68.0	65.0
Capacity of the back-up heater integrated in the unit						[kW]	0/3/9	0/3/9	0/3/9
Space heating						-	A+++	A+++	A+++
Space heating						-	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
	Seasonal space heating efficiency (ns)					[%]	185.7	181.7	189.3
	Annual energy consumption					[kWh]	6,012	6,804	5,153
Space heating 55°C	Prated (declared heating capacity) @ -10°C					[kW]	12.1	13.0	11.6
	Seasonal space heating efficiency (ns)					[%]	135.6	133.3	135.1
	Annual energy consumption					[kWh]	7,202	7,895	6,928
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
	COPd (declared COP)					-	2.79	2.72	2.88
	Cdh(degradation coefficient)					-	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)					[kW]	7.94	8.56	6.69
	COPd (declared COP)					-	4.52	4.41	4.65
	Cdh(degradation coefficient)					-	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)					[kW]	5.20	5.70	4.44
	COPd (declared COP)					-	6.68	6.56	6.62
	Cdh(degradation coefficient)					-	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)					[kW]	3.75	3.78	3.74
	COPd (declared COP)					-	8.52	8.51	8.47
	Cdh(degradation coefficient)					-	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)					[°C]	-10.00	-10.00	-10.00
	Pdh (declared heating capacity)					[kW]	11.47	12.52	10.74
	COPd (declared COP)					-	2.59	2.48	2.77
	WTOL (Heating water Operation Limit)					[°C]	60.00	60.00	60.00

Product fiche 2

Heat pump space heater

Heat pump space heater									
		Outdoor		SHPAO4RP24MI	SHPA60RP24MI SHPAI60RP24MI-EH	SHPA60RP24MI SHPAI60RP24MI-EH	SHPAO8RP24MI	SHPAO10RP24MI	SHPAO12RP24MI
		Indoor							
(F) Tbivalent 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
Supplementary capacity at P _{design}	Psup (@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
(B) condition (2°C)	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
	Cdh(degradation coefficient)	-	0.90			0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	2.94			2.08	2.43	2.77	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
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.32			1.28	1.39	1.58	3.29
	COPd (declared COP)	-	5.66			5.59	5.33	5.68	6.05
	Cdh(degradation coefficient)	-	0.90			0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10.00			-10.00	-10.00	-10.00	-10.00
	Pdh (declared heating capacity)	[kW]	3.42			4.52	4.91	5.38	9.10
	COPd (declared COP)	-	1.91			1.91	1.84	1.83	1.79
(F) Tbivalent temperature	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
Supplementary capacity at P _{design}	COPd (declared COP)	-	2.17			2.17	2.16	2.24	2.01
	Psup (@Tdesignh: -10°C)	[kW]	0.98			1.18	1.69	2.28	2.50
	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	169.8	160.2
	Annual energy consumption	[kWh]	2,769			3,300	3,976	4,423	6,870

Product fiche 2

Heat pump space heater		Outdoor		SHPAO14RP24MI	SHPAO16RP24MI	SHPAO12RP24P3MI	SHPAO14RP24P3MI	SHPAO16RP24P3MI
		Indoor		SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH
(F) Tbivalent temperature	Tblv	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00
	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	
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C)	[kW]	2.23	2.68	1.26	2.23	2.68	
Part load conditions space heating average climate medium temperature application								
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	10.68	11.52	10.24	10.68	11.52	
	COPd (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	
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	6.86	7.18	6.52	6.86	7.18	
	COPd (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	
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	4.63	4.67	4.36	4.63	4.67	
	COPd (declared COP)	-	4.66	4.61	4.59	4.66	4.61	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.31	3.32	3.29	3.31	3.32	
	COPd (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	
	Pdh (declared heating capacity)	[kW]	9.19	10.33	9.10	9.19	10.33	
	COPd (declared COP)	-	1.76	1.80	1.79	1.76	1.80	
(F) Tbivalent temperature	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]	10.68	11.52	10.27	10.68	11.52	
Supplementary capacity at P_design	COPd (declared COP)	-	2.01	1.99	2.01	2.01	1.99	
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C)	[kW]	2.91	2.67	2.50	2.91	2.67	
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	
	Seasonal space heating efficiency (ηs)	[%]	159.6	157.8	160.2	159.6	157.8	
	Annual energy consumption	[kWh]	7,667	8,431	6,871	7,667	8,431	

Product fiche 3

Heat pump space heater		Outdoor	SHPAO4RP24MI	SHPAO6RP24MI	SHPAO8RP24MI	SHPAO10RP24MI	SHPAO12RP24MI
Space heating 55°C	Rated (declared heating capacity) @ -22°C	Indoor	SHPAI60RP24MI SHPAI60RP24MI-EH	SHPAI60RP24MI SHPAI60RP24MI-EH	SHPAI100RP24MI SHPAI100RP24MI-EH	SHPAI100RP24MI SHPAI100RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH
	Seasonal space heating efficiency (ηs)	[kW]	3.4	4.3	5.8	6.7	10.3
	Annual energy consumption	[%]	102.1	111.1	112.1	116.5	117.8
		[kWh]	3,158	3,680	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
	Pdh (declared heating capacity)	[kW]	1.77	2.06	2.69	2.94	4.67
(B) condition (2°C)	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
	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
(C) condition (7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	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
(D) condition (12°C)	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
	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00
(E) Tblv (Heating water Operation Limit)	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
	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
Part load conditions space heating colder medium temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	2.13	2.69	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

Product fiche 3

Heat pump space heater		Outdoor	SHPAO14RP24MI	SHPAO16RP24MI	SHPAO12RP24P3MI	SHPAO14RP24P3MI	SHPAO16RP24P3MI
Space heating 55°C	Rated (declared heating capacity) @ – 22°C	[kW]	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
	Annual energy consumption	[kWh]	8,866	9,309	8,420	8,867	9,310
Part load conditions space heating colder climate low temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	7.96	8.31	7.05	7.96	8.31
	COPd (declared COP)	-	3.44	3.37	3.48	3.44	3.37
	Cdh(degradation coefficient)	-	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
	COPd (declared COP)	-	4.92	4.86	4.96	4.92	4.86
	Cdh(degradation coefficient)	-	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
	COPd (declared COP)	-	6.11	6.49	6.10	6.11	6.49
	Cdh(degradation coefficient)	-	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
	COPd (declared COP)	-	7.82	7.40	7.87	7.82	7.40
	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]	7.57	8.88	7.01	7.57	8.88
	COPd (declared COP)	-	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
	Tbiv	[°C]	-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
Supplementary capacity at P _{design}	COPd (declared COP)	-	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
Part load conditions space heating colder climate medium temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	6.89	7.64	6.63	6.89	7.64
	COPd (declared COP)	-	2.66	2.65	2.63	2.66	2.65
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 4

Heat pump space heater							
	Outdoor	SHPAO4RP24MI	SHPAO6RP24MI	SHPAO8RP24MI	SHPAO10RP24MI	SHPAO12RP24MI	
	Indoor	SHPAI60RP24MI SHPAI60RP24MI-EH	SHPAI60RP24MI SHPAI60RP24MI-EH	SHPAI100RP24MI SHPAI100RP24MI-EH	SHPAI100RP24MI SHPAI100RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH	
(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) 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]	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 (ηs)	[%]	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	7.6	8.6	12.5
	Seasonal space heating efficiency (ηs)	[%]	163.1	165.4	177.2	181.7	174.1
	Annual energy consumption	[kWh]	1,614	1,634	2,242	2,496	3,376
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

Product fiche 4

Heat pump space heater												
		Outdoor	SHPAO14RP24MI	SHPAO16RP24MI	SHPAO12RP24P3MI	SHPAO14RP24P3MI	SHPAO16RP24P3MI					
		Indoor	SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH					
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	4.32	4.42	4.06	4.32	4.42					
	COPd (declared COP)	-	3.66	3.79	3.60	3.66	3.79					
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90					
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	3.06	2.97	2.78	3.06	2.97					
	COPd (declared COP)	-	4.72	4.81	4.54	4.72	4.81					
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90					
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.33	3.43	3.33	3.33	3.43					
	COPd (declared COP)	-	6.25	6.29	6.25	6.25	6.29					
	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]	4.20	5.21	4.19	4.20	5.21					
	COPd (declared COP)	-	1.13	1.23	1.13	1.13	1.23					
(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]	8.94	9.61	8.41	8.94	9.61					
Supplementary capacity at P_design	COPd (declared COP)	-	1.79	1.86	1.84	1.79	1.86					
	Psup (@Tdesignh: -22°C)	[kW]	6.76	6.59	6.12	6.76	6.59					
Warmer climate (Design temperature = 2°C)												
Space heating 35°C	Prated (declared heating capacity) @ 2 °C	[kW]	12.1	13.1	11.1	12.1	13.1					
	Seasonal space heating efficiency (ηs)	[%]	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	Prated (declared heating capacity) @ 2 °C	[kW]	13.7	13.8	12.5	13.7	13.8					
	Seasonal space heating efficiency (ηs)	[%]	176.5	176.1	173.8	176.4	175.9					
	Annual energy consumption	[kWh]	4,088	4,112	3,780	4,092	4,116					
Part load conditions space heating warmer climate low temperature application												
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	12.04	13.10	11.26	12.04	13.10					
	COPd (declared COP)	-	3.44	3.35	3.59	3.44	3.35					
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90					
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	7.78	8.41	7.14	7.78	8.41					
	COPd (declared COP)	-	5.84	5.36	5.87	5.84	5.36					
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90					

Product fiche 5

Heat pump space heater									
(D) condition (12°C)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Tol (temperature operating limit)	Pd _h (declared heating capacity)	COP _d (declared COP)	WTOL (Heating water Operation Limit)	Tb _{lv}	P _{sup} (@T _{design} h: 2°C)
(E) Tol (temperature operating limit)	[kW]	-	-	[°C]	[kW]	-	[°C]	[°C]	[kW]
(F) T _{bivalent} temperature	[kW]	-	-	[°C]	[kW]	-	[°C]	[°C]	[kW]
Supplementary capacity at P _{design}									
Part load conditions space heating warmer climate medium temperature application									
(B) condition (2°C)	[kW]	-	-	[kW]	[kW]	-	[kW]	[kW]	[kW]
(C) condition (7°C)	[kW]	-	-	[kW]	[kW]	-	[kW]	[kW]	[kW]
(D) condition (12°C)	[kW]	-	-	[°C]	[kW]	-	[°C]	[°C]	[kW]
(E) Tol (temperature operating limit)	[kW]	-	-	[°C]	[kW]	-	[°C]	[°C]	[kW]
(F) T _{bivalent} temperature	[kW]	-	-	[°C]	[kW]	-	[°C]	[°C]	[kW]
Supplementary capacity at P _{design}									

Product fiche 5

Heat pump space heater									
(D) condition (12°C)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Tol (temperature operating limit)	Pd _h (declared heating capacity)	COP _d (declared COP)	WTOL (Heating water Operation Limit)	Tb _{lv}	Pd _h (declared heating capacity)
(E) Tol (temperature operating limit)	[kW]	-	-	[°C]	[kW]	-	[°C]	[°C]	[kW]
(F) Tbi _{valent} temperature									
Supplementary capacity at P _{design}									
Part load conditions space heating warmer climate medium temperature application									
(B) condition (2°C)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)
(C) condition (7°C)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)
(D) condition (12°C)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	Pd _h (declared heating capacity)	COP _d (declared COP)	WTOL (Heating water Operation Limit)	Tb _{lv}	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)
(F) Tbi _{valent} temperature	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)
Supplementary capacity at P _{design}									
Part load conditions space heating warmer climate medium temperature application									
(B) condition (2°C)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)
(C) condition (7°C)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)
(D) condition (12°C)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	Pd _h (declared heating capacity)	COP _d (declared COP)	WTOL (Heating water Operation Limit)	Tb _{lv}	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)
(F) Tbi _{valent} temperature	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)	Pd _h (declared heating capacity)	COP _d (declared COP)	Cd _h (degradation coefficient)
Supplementary capacity at P _{design}									

Product fiche 6

Heat pump space heater		Outdoor	SHPAO4RP24MI	SHPAO6RP24MI	SHPAO8RP24MI	SHPAO10RP24MI	SHPAO12RP24MI
		Indoor	SHPAI60RP24MI SHPAI60RP24MI-EH	SHPAI60RP24MI SHPAI60RP24MI-EH	SHPAI100RP24MI SHPAI100RP24MI-EH	SHPAI100RP24MI SHPAI100RP24MI-EH	SHPAI160RP24MI SHPAI160RP24MI-EH
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	NBVCXZ	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 (outdoor)	[m³/h]	2770	2770	4030	4030	4060
Air to water unit	Rated water/brine flow (outdoor H/E)		/	/	/	/	/
Other	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter
	P _{off} (Power consumption Off mode)	[kW]	0.014	0.014	0.014	0.014	0.014
	P _{to} (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.024	0.024	0.024
	P _{sb} (Power consumption Standby mode)	[kW]	0.014	0.014	0.014	0.014	0.014
	P _{CK} (Power crankcase heater model)	[kW]	0.000	0.000	0.000	0.000	0.000
	Q _{elec} (Daily electricity consumption)	[kWh]	/	/	/	/	/
	Q _{fuel} (Daily fuel consumption)	[kW/h]	/	/	/	/	/

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		Outdoor	SHPAO14RP24MI SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAO16RP24MI SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAO12RP24P3MI SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAO14RP24P3MI SHPAI160RP24MI SHPAI160RP24MI-EH	SHPAO16RP24P3MI SHPAI160RP24MI SHPAI160RP24MI-EH
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	NBVCXZ	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 (outdoor)	[m ³ /h]	4060	4650	4060	4060	4650
Brine/water to water unit	Rated water/brine flow (outdoor H/E)		/	/	/	/	/
Other	Capacity control	-	Inverter	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.

Technical parameters													
Model(s):				Outdoor unit: SHPAO4RP24MI Indoor unit: SHPAI60RP24MI									
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									
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°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	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	38/56	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				AMG SPA Via delle Arti e dei Mestieri,1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com									
(*) 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):		Outdoor unit: SHPAO4RP24MI Indoor unit: SHPAI60RP24MI											
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											
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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com											
(*) 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):		Outdoor unit: SHPAO4RP24MI Indoor unit: SHPAI60RP24MI											
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											
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		AMG SPA Via delle Arti e dei Mestieri,1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiirconditioner.com											
(*) 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):	Outdoor unit: SHPAO6RP24MI Indoor unit: SHPAI60RP24MI						
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						
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	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	1.18	kW
Standby mode	Psb	0.014	kW				
Thermostat-off mode	Pto	0.024	kW	Type of energy input	Electrical		
Crankcase heater mode	Pck	0.000	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770	m³/h
Sound power level, indoors/outdoors	LWA	38/58	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	QHE	3345	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	ηlwh	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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):				Outdoor unit: SHPA06RP24MI Indoor unit: SHPAI60RP24MI					
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					
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		ηlwh	-	%	
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	kWh	Annual fuel consumption		AFC	-	GJ
Contact details		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com							
(*) 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):		Outdoor unit: SHPAO6RP24MI Indoor unit: SHPAI60RP24MI											
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											
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
Contact details		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiirconditioner.com											
(*) 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):		Outdoor unit: SHPAO8RP24MI Indoor unit: SHPAI100RP24MI					
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					
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				
Thermostat-off mode	Pto	0.024	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	-	4030	m³/h
Sound power level, indoors/outdoors	LWA	42/59	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	ηlwh	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	AMG SPA Via delle Arti e dei Mestieri,1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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):				Outdoor unit: SHPAO8RP24MI Indoor unit: SHPAI100RP24MI									
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									
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				ηlwh	-	%
Daily electricity consumption				Qelec	-	kWh	Daily fuel consumption				Qfuel	-	kWh
Annual electricity consumption				AEC	-	kWh	Annual fuel consumption				AFC	-	GJ
Contact details				AMG SPA Via delle Arti e dei Mestieri,1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiirconditioner.com									
(*) 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):	Outdoor unit: SHPAO8RP24MI Indoor unit: SHPAI100RP24MI
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
Heat pump combination heater:	NO
Declared climate condition:	WARMER
Parameters are declared for medium-temperature application.	

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

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

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	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):	Outdoor unit: SHPAO10RP24MI Indoor unit: SHPAI100RP24MI
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
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE
Parameters are declared for medium-temperature application.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.7	kW	Seasonal space heating energy efficiency	η_s	136.6	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	6.78	kW	Tj = -7°C	COPd	2.24	-
Tj = 2°C	Pdh	4.28	kW	Tj = 2°C	COPd	3.42	-
Tj = 7°C	Pdh	2.77	kW	Tj = 7°C	COPd	4.52	-
Tj = 12°C	Pdh	1.58	kW	Tj = 12°C	COPd	5.68	-
Tj = bivalent temperature	Pdh	6.78	kW	Tj = bivalent temperature	COPd	2.24	-
Tj = operating limit	Pdh	5.38	kW	Tj = operating limit	COPd	1.83	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	2.29	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	L _{WA}	42/60	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):	Outdoor unit: SHPAO10RP24MI Indoor unit: SHPAI100RP24MI
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
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.7	kW	Seasonal space heating energy efficiency	η_s	116.4	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	4.27	kW	Tj = -7°C	COPd	2.54	-
Tj = 2°C	Pdh	2.57	kW	Tj = 2°C	COPd	3.51	-
Tj = 7°C	Pdh	1.65	kW	Tj = 7°C	COPd	4.37	-
Tj = 12°C	Pdh	1.47	kW	Tj = 12°C	COPd	5.96	-
Tj = bivalent temperature	Pdh	5.47	kW	Tj = bivalent temperature	COPd	2.00	-
Tj = operating limit	Pdh	2.80	kW	Tj = operating limit	COPd	1.22	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	3.91	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m³/h
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	QHE	5540	kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsui-airconditioner.com						

(*) 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):	Outdoor unit: SHPAO10RP24MI Indoor unit: SHPAI100RP24MI
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
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.6	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7℃	Pdh	-	kW
Tj = 2℃	Pdh	8.06	kW
Tj = 7℃	Pdh	5.54	kW
Tj = 12℃	Pdh	2.53	kW
Tj = bivalent temperature	Pdh	5.54	kW
Tj = operating limit	Pdh	8.15	kW
For air-to-water heat pumps: Tj = -15℃	Pdh	-	kW
Bivalent temperature	Tbiv	7	℃
Cycling interval capacity for heating	Pcyh	-	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	180.3	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7℃	COPd	-	-
Tj = 2℃	COPd	2.59	-
Tj = 7℃	COPd	4.10	-
Tj = 12℃	COPd	5.82	-
Tj = bivalent temperature	COPd	4.10	-
Tj = operating limit	COPd	2.61	-
For air-to-water heat pumps: Tj = -15℃	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval efficiency	COPcyc	-	-
Heating water operating limit temperature	WTOL	62	℃
Supplementary heater			
Rated heat output (**)	Psup	0.48	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	LWA	-	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):				Outdoor unit: SHPAO12RP24MI Indoor unit: SHPAI160RP24MI					
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					
Heat pump combination heater:				NO					
Declared climate condition:				AVERAGE					
Parameters are declared for medium-temperature application.									
Item		Symbol	Value	Unit	Item		Symbol	Value	Unit
Rated heat output (*)		Prated	11.6	kW	Seasonal space heating energy efficiency		η s	135.1	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj					
Tj = -7°C		Pdh	10.24	kW	Tj = -7°C		COPd	2.01	-
Tj = 2°C		Pdh	6.52	kW	Tj = 2°C		COPd	3.44	-
Tj = 7°C		Pdh	4.36	kW	Tj = 7°C		COPd	4.59	-
Tj = 12°C		Pdh	3.29	kW	Tj = 12°C		COPd	6.05	-
Tj = bivalent temperature		Pdh	10.24	kW	Tj = bivalent temperature		COPd	2.01	-
Tj = operating limit		Pdh	9.10	kW	Tj = operating limit		COPd	1.79	-
For air-to-water heat pumps: Tj = -15°C		Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C		COPd	-	-
Bivalent temperature		Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature		TOL	-10	°C
Cycling interval capacity for heating		Pcyc	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.9	--	Heating water operating limit temperature		WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater					
Off mode		Poff	0.014	kW	Rated heat output (**)		Psup	1.23	kW
Standby mode		Psb	0.014	kW	Type of energy input		Electrical		
Thermostat-off mode		Pto	0.024	kW					
Crankcase heater mode		Pck	0.000	kW					
Other items									
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors		-	4060	m³/h	
Sound power level, indoors/outdoors		LWA	43/64	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		ηlwh	-	%	
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	kWh	Annual fuel consumption		AFC	-	GJ
Contact details		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com							
(*) 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):				Outdoor unit: SHPAO12RP24MI Indoor unit: SHPAI160RP24MI										
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										
Heat pump combination heater:				NO										
Declared climate condition:				COLDER										
Parameters are declared for medium-temperature application.														
Item				Symbol	Value	Unit	Item				Symbol	Value	Unit	
Rated heat output (*)				Prated	10.3	kW	Seasonal space heating energy efficiency				η_s	117.8	%	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj						Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj								
Tj = -7°C				Pdh	6.63	kW	Tj = -7°C				COPd	2.63	-	
Tj = 2°C				Pdh	4.06	kW	Tj = 2°C				COPd	3.60	-	
Tj = 7°C				Pdh	2.78	kW	Tj = 7°C				COPd	4.54	-	
Tj = 12°C				Pdh	3.33	kW	Tj = 12°C				COPd	6.25	-	
Tj = bivalent temperature				Pdh	8.41	kW	Tj = bivalent temperature				COPd	1.84	-	
Tj = operating limit				Pdh	4.19	kW	Tj = operating limit				COPd	1.13	-	
For air-to-water heat pumps: Tj = -15°C				Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C				COPd	-	-	
Bivalent temperature				Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature				TOL	-22	°C	
Cycling interval capacity for heating				Pcyc	-	kW	Cycling interval efficiency				COPcyc	-	-	
Degradation co-efficient (**)				Cdh	0.9	--	Heating water operating limit temperature				WTOL	51	°C	
Power consumption in modes other than active mode						Supplementary heater								
Off mode				Poff	0.014	kW	Rated heat output (**)				Psup	6.11	kW	
Standby mode				Psb	0.014	kW	Type of energy input				Electrical			
Thermostat-off mode				Pto	0.024	kW								
Crankcase heater mode				Pck	0.000	kW								
Other items														
Capacity control				variable				For air-to-water heat pumps: Rated air flow rate, outdoors				-	4060	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	
Contact details										AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiirconditioner.com				
(*) 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):		Outdoor unit: SHPAO12RP24MI Indoor unit: SHPAI160RP24MI						
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						
Heat pump combination heater:		NO						
Declared climate condition:		WARMER						
Parameters are declared for medium-temperature application.								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.5	kW		Seasonal space heating energy efficiency	η_s	174.0	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	-	kW		Tj = -7°C	COPd	-	-
Tj = 2°C	Pdh	12.07	kW		Tj = 2°C	COPd	2.31	-
Tj = 7°C	Pdh	8.04	kW		Tj = 7°C	COPd	3.86	-
Tj = 12°C	Pdh	3.75	kW		Tj = 12°C	COPd	5.70	-
Tj = bivalent temperature	Pdh	8.04	kW		Tj = bivalent temperature	COPd	3.86	-
Tj = operating limit	Pdh	12.07	kW		Tj = operating limit	COPd	2.31	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW		For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcyc	-	kW		Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--		Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode					Supplementary heater			
Off mode	Poff	0.014	kW		Rated heat output (**)	Psup	0.43	kW
Standby mode	Psb	0.014	kW					
Thermostat-off mode	Pto	0.024	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	-	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
Contact details	AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com							
(*) 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):	Outdoor unit: SHPAO14RP24MI Indoor unit: SHPAI160RP24MI
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
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.08	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	10.68	kW
Tj = 2 °C	Pdh	6.86	kW
Tj = 7 °C	Pdh	4.63	kW
Tj = 12 °C	Pdh	3.31	kW
Tj = bivalent temperature	Pdh	10.68	kW
Tj = operating limit	Pdh	9.19	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	135.6	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	2.01	-
Tj = 2 °C	COPd	3.43	-
Tj = 7 °C	COPd	4.66	-
Tj = 12 °C	COPd	6.13	-
Tj = bivalent temperature	COPd	2.01	-
Tj = operating limit	COPd	1.76	-
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	1.40	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	43/65	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	QHE	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

Contact details	AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsui-airconditioner.com
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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):	Outdoor unit: SHPAO14RP24MI Indoor unit: SHPAI160RP24MI
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
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	Pdh	6.89	kW
Tj = 2°C	Pdh	4.32	kW
Tj = 7°C	Pdh	3.06	kW
Tj = 12°C	Pdh	3.33	kW
Tj = bivalent temperature	Pdh	8.94	kW
Tj = operating limit	Pdh	4.20	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	118.9	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7°C	COPd	2.66	-
Tj = 2°C	COPd	3.66	-
Tj = 7°C	COPd	4.72	-
Tj = 12°C	COPd	6.25	-
Tj = bivalent temperature	COPd	1.79	-
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	6.80	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	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):	Outdoor unit: SHPAO14RP24MI Indoor unit: SHPAI160RP24MI
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
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	13.7	kW	Seasonal space heating energy efficiency	η_s	176.5	%			
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj						
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-			
Tj = 2°C	Pdh	13.04	kW	Tj = 2°C	COPd	2.20	-			
Tj = 7°C	Pdh	8.83	kW	Tj = 7°C	COPd	3.91	-			
Tj = 12°C	Pdh	4.08	kW	Tj = 12°C	COPd	5.90	-			
Tj = bivalent temperature	Pdh	8.83	kW	Tj = bivalent temperature	COPd	3.91	-			
Tj = operating limit	Pdh	13.04	kW	Tj = operating limit	COPd	2.20	-			
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-			
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C			
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	62	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	0.66	kW			
Standby mode	Psb	0.014	kW							
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	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	4088	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):	Outdoor unit: SHPAO16RP24MI Indoor unit: SHPAI160RP24MI
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
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	13.0	kW	Seasonal space heating energy efficiency	η_s	133.3	%			
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj						
Tj = -7°C	Pdh	11.52	kW	Tj = -7°C	COPd	1.99	-			
Tj = 2°C	Pdh	7.18	kW	Tj = 2°C	COPd	3.34	-			
Tj = 7°C	Pdh	4.67	kW	Tj = 7°C	COPd	4.61	-			
Tj = 12°C	Pdh	3.31	kW	Tj = 12°C	COPd	6.07	-			
Tj = bivalent temperature	Pdh	11.52	kW	Tj = bivalent temperature	COPd	1.99	-			
Tj = operating limit	Pdh	10.33	kW	Tj = operating limit	COPd	1.80	-			
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-			
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C			
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	2.68	kW			
Standby mode	Psb	0.014	kW							
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	-	4650	m³/h
Sound power level, indoors/outdoors	LWA	43/68	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	QHE	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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(*) 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):	Outdoor unit: SHPAO16RP24MI Indoor unit: SHPAI160RP24MI
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
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	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	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	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

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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):		Outdoor unit: SHPAO16RP24MI Indoor unit: SHPAI160RP24MI							
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							
Heat pump combination heater:		NO							
Declared climate condition:		WARMER							
Parameters are declared for medium-temperature application.									
Item		Symbol	Value	Unit	Item		Symbol	Value	Unit
Rated heat output (*)		Prated	13.8	kW	Seasonal space heating energy efficiency		η_s	176.1	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj					
Tj = -7°C		Pdh	-	kW	Tj = -7°C		COPd	-	-
Tj = 2°C		Pdh	13.38	kW	Tj = 2°C		COPd	2.29	-
Tj = 7°C		Pdh	8.86	kW	Tj = 7°C		COPd	3.84	-
Tj = 12°C		Pdh	4.06	kW	Tj = 12°C		COPd	5.86	-
Tj = bivalent temperature		Pdh	8.86	kW	Tj = bivalent temperature		COPd	3.84	-
Tj = operating limit		Pdh	13.38	kW	Tj = operating limit		COPd	2.29	-
For air-to-water heat pumps: Tj = -15°C		Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C		COPd	-	-
Bivalent temperature		Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature		TOL	2	°C
Cycling interval capacity for heating		Pcyc	-	kW	Cycling interval efficiency		COPcyc	-	-
Degradation co-efficient (**)		Cdh	0.9	--	Heating water operating limit temperature		WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater					
Off mode		Poff	0.014	kW	Rated heat output (**)		Psup	0.42	kW
Standby mode		Psb	0.014	kW	Type of energy input		Electrical		
Thermostat-off mode		Pto	0.024	kW					
Crankcase heater mode		Pck	0.000	kW					
Other items									
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors		-	4650	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	4112	kWh					
For heat pump combination heater:									
Declared load profile		-			Water heating energy efficiency		η_{wh}	-	%
Daily electricity consumption		Qelec	-	kWh	Daily fuel consumption		Qfuel	-	kWh
Annual electricity consumption		AEC	-	kWh	Annual fuel consumption		AFC	-	GJ
Contact details		AMG SPA Via delle Arti e dei Mestieri,1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com							
(*) 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):		Outdoor unit: SHPAO12RP24P3MI Indoor unit: SHPAI160RP24MI					
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					
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	43/64	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	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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):	Outdoor unit: SHPAO12RP24P3MI Indoor unit: SHPAI160RP24MI
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
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	0.020	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	117.7	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	COPd	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	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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(*) 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):	Outdoor unit: SHPAO12RP24P3MI Indoor unit: SHPAI160RP24MI
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
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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(*) 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):	Outdoor unit: SHPAO14RP24P3MI Indoor unit: SHPAI160RP24MI
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
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				
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	43/65	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):	Outdoor unit: SHPAO14RP24P3MI Indoor unit: SHPAI160RP24MI
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
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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(*) 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):	Outdoor unit: SHPAO14RP24P3MI Indoor unit: SHPAI160RP24MI
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
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13.7	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	8.83	kW
Tj = 12°C	Pdh	4.08	kW
Tj = bivalent temperature	Pdh	8.83	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	176.4	%
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	3.91	-
Tj = 12°C	COPd	5.90	-
Tj = bivalent temperature	COPd	3.91	-
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	0.66	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	4092	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):	Outdoor unit: SHPAO16RP24P3MI Indoor unit: SHPAI160RP24MI
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
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	13.0	kW	Seasonal space heating energy efficiency	η_s	133.2	%			
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj						
Tj = -7°C	Pdh	11.52	kW	Tj = -7°C	COPd	1.99	-			
Tj = 2°C	Pdh	7.18	kW	Tj = 2°C	COPd	3.34	-			
Tj = 7°C	Pdh	4.67	kW	Tj = 7°C	COPd	4.61	-			
Tj = 12°C	Pdh	3.31	kW	Tj = 12°C	COPd	6.07	-			
Tj = bivalent temperature	Pdh	11.52	kW	Tj = bivalent temperature	COPd	1.99	-			
Tj = operating limit	Pdh	10.33	kW	Tj = operating limit	COPd	1.80	-			
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-			
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C			
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	Poff	0.020	kW	Rated heat output (**)	Psup	2.67	kW			
Standby mode	Psb	0.020	kW							
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	-	4650	m³/h
Sound power level, indoors/outdoors	LWA	43/68	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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(*) 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):	Outdoor unit: SHPAO16RP24P3MI Indoor unit: SHPAI160RP24MI
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
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):	Outdoor unit: SHPAO16RP24P3MI Indoor unit: SHPAI160RP24MI
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
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

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

Other items							
Capacity control	variable			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	4116	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 for comfort chillers

Model(s):				Outdoor unit: SHPAO4RP24MI Indoor unit: SHPAI60RP24MI				
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}	38/56	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		Low temperature application						
Contact details		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO4RP24MI Indoor unit: SHPAI60RP24MI				
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}	38/55	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO6RP24MI Indoor unit: SHPAI60RP24MI				
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	η _{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°C	P _{dc}	6.35	kW		T _j =+35°C	EER _d	2.93	-
T _j =+30°C	P _{dc}	4.76	kW		T _j =+30°C	EER _d	4.53	-
T _j =+25°C	P _{dc}	3.02	kW		T _j =+25°C	EER _d	6.32	-
T _j =+20°C	P _{dc}	1.39	kW		T _j =+20°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	m³/h
Sound power level, indoors / outdoors	L _{WA}	38/58	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		Low temperature application						
Contact details		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO6RP24MI Indoor unit: SHPAI60RP24MI				
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}	38/58	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						
Contact details		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO8RP24MI Indoor unit: SHPAI100RP24MI				
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}	42/60	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO8RP24MI Indoor unit: SHPAI100RP24MI				
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}	42/60	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						
Contact details		AMG SPA Via delle Arti e dei Mestieri,1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO10RP24MI Indoor unit: SHPAI100RP24MI				
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}	42/61	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO10RP24MI Indoor unit: SHPAI100RP24MI				
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}	42/60	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPA012RP24MI Indoor unit: SHPAI160RP24MI				
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	m³/h
Sound power level, indoors / outdoors	L _{WA}	43/65	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	-	-	m³/h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)					
Standard rating conditions used		Low temperature application						
Contact details		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO12RP24MI Indoor unit: SHPAI160RP24MI				
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}	43/64	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO14RP24MI Indoor unit: SHPAI160RP24MI				
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}	44/65	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	-	-	m³/h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)					
Standard rating conditions used		Low temperature application						
Contact details		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO14RP24MI Indoor unit: SHPAI160RP24MI				
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}	44/64	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO16RP24MI Indoor unit: SHPAI160RP24MI				
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	m ³ /h
Sound power level, indoors / outdoors	L _{WA}	44/68	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO16RP24MI Indoor unit: SHPAI160RP24MI				
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	m³/h
Sound power level, indoors / outdoors	L _{WA}	44/67	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO12RP24P3MI Indoor unit: SHPAI160RP24MI				
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}	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°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}	0.020	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}	43/65	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO12RP24P3MI Indoor unit: SHPAI160RP24MI				
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	m³/h
Sound power level, indoors / outdoors	L _{WA}	43/64	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO14RP24P3MI Indoor unit: SHPAI160RP24MI				
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}	44/65	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		AMG SPA Via delle Arti e dei Mestieri,1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO14RP24P3MI Indoor unit: SHPAI160RP24MI				
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	m ³ /h
Sound power level, indoors / outdoors	L _{WA}	44/64	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO16RP24P3MI Indoor unit: SHPAI160RP24MI				
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}	44/68	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	-	2088	kg CO ₂ eq (100years)					
Standard rating conditions used		Low temperature application						
Contact details		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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 for comfort chillers

Model(s):				Outdoor unit: SHPAO16RP24P3MI Indoor unit: SHPAI160RP24MI				
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}	44/67	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		AMG SPA Via delle Arti e dei Mestieri, 1/3 San Vito di Leguzzano (VI) Italia Tel. 0445/519933 - Mail info@mitsuiairconditioner.com						
(*) 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)	outdoor unit	indoor unit	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: 35/24 Water temperature: 12/7	SHPAO4RP24MI	SHPAI60RP24MI	4.70	1.36	3.45
	SHPAO6RP24MI	SHPAI60RP24MI	7.00	2.33	3.00
	SHPAO8RP24MI	SHPAI100RP24MI	7.40	2.19	3.38
	SHPAO10RP24MI	SHPAI100RP24MI	8.20	2.48	3.30
	SHPAO12RP24MI	SHPAI160RP24MI	11.60	4.22	2.75
	SHPAO14RP24MI	SHPAI160RP24MI	12.70	4.98	2.55
	SHPAO16RP24MI	SHPAI160RP24MI	14.00	5.71	2.45
	SHPAO12RP24P3MI	SHPAI160RP24MI	11.60	4.22	2.75
	SHPAO14RP24P3MI	SHPAI160RP24MI	12.70	4.98	2.55
	SHPAO16RP24P3MI	SHPAI160RP24MI	14.00	5.71	2.45
Ambient Temperature: 35/24 Water temperature: 23/18	SHPAO4RP24MI	SHPAI60RP24MI	4.50	0.81	5.55
	SHPAO6RP24MI	SHPAI60RP24MI	6.55	1.34	4.90
	SHPAO8RP24MI	SHPAI100RP24MI	8.40	1.66	5.05
	SHPAO10RP24MI	SHPAI100RP24MI	10.00	2.08	4.80
	SHPAO12RP24MI	SHPAI160RP24MI	12.00	3.00	4.00
	SHPAO14RP24MI	SHPAI160RP24MI	13.50	3.75	3.60
	SHPAO16RP24MI	SHPAI160RP24MI	14.90	4.38	3.40
	SHPAO12RP24P3MI	SHPAI160RP24MI	12.00	3.00	4.00
	SHPAO14RP24P3MI	SHPAI160RP24MI	13.50	3.75	3.60
	SHPAO16RP24P3MI	SHPAI160RP24MI	14.90	4.38	3.40
Ambient Temperature: 7/6 Water temperature: 30/35	SHPAO4RP24MI	SHPAI60RP24MI	4.25	0.82	5.20
	SHPAO6RP24MI	SHPAI60RP24MI	6.20	1.24	5.00
	SHPAO8RP24MI	SHPAI100RP24MI	8.30	1.60	5.20
	SHPAO10RP24MI	SHPAI100RP24MI	10.00	2.00	5.00
	SHPAO12RP24MI	SHPAI160RP24MI	12.10	2.44	4.95
	SHPAO14RP24MI	SHPAI160RP24MI	14.50	3.09	4.70
	SHPAO16RP24MI	SHPAI160RP24MI	16.00	3.56	4.50
	SHPAO12RP24P3MI	SHPAI160RP24MI	12.10	2.44	4.95
	SHPAO14RP24P3MI	SHPAI160RP24MI	14.50	3.09	4.70
	SHPAO16RP24P3MI	SHPAI160RP24MI	16.00	3.56	4.50
Ambient Temperature: 2/1 Water temperature: 30/35	SHPAO4RP24MI	SHPAI60RP24MI	4.45	1.10	4.05
	SHPAO6RP24MI	SHPAI60RP24MI	5.50	1.39	3.95
	SHPAO8RP24MI	SHPAI100RP24MI	7.10	1.73	4.10
	SHPAO10RP24MI	SHPAI100RP24MI	8.20	2.02	4.05
	SHPAO12RP24MI	SHPAI160RP24MI	9.30	2.35	3.95
	SHPAO14RP24MI	SHPAI160RP24MI	11.40	3.12	3.65
	SHPAO16RP24MI	SHPAI160RP24MI	13.00	3.71	3.50
	SHPAO12RP24P3MI	SHPAI160RP24MI	9.30	2.35	3.95
	SHPAO14RP24P3MI	SHPAI160RP24MI	11.40	3.12	3.65
	SHPAO16RP24P3MI	SHPAI160RP24MI	13.00	3.71	3.50

Condition(°C)	outdoor unit	indoor unit	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: -7/-8 Water temperature: 30/35	SHPAO4RP24MI	SHPAI60RP24MI	4.80	1.52	3.15
	SHPAO6RP24MI	SHPAI60RP24MI	6.10	2.00	3.05
	SHPAO8RP24MI	SHPAI100RP24MI	7.10	2.18	3.25
	SHPAO10RP24MI	SHPAI100RP24MI	8.25	2.62	3.15
	SHPAO12RP24MI	SHPAI160RP24MI	10.00	3.33	3.00
	SHPAO14RP24MI	SHPAI160RP24MI	12.00	4.29	2.80
	SHPAO16RP24MI	SHPAI160RP24MI	13.30	4.93	2.70
	SHPAO12RP24P3MI	SHPAI160RP24MI	10.00	3.33	3.00
	SHPAO14RP24P3MI	SHPAI160RP24MI	12.00	4.29	2.80
	SHPAO16RP24P3MI	SHPAI160RP24MI	13.30	4.93	2.70
Ambient Temperature: 7/6 Water temperature: 40/45	SHPAO4RP24MI	SHPAI60RP24MI	4.35	1.14	3.80
	SHPAO6RP24MI	SHPAI60RP24MI	6.35	1.69	3.75
	SHPAO8RP24MI	SHPAI100RP24MI	8.20	2.08	3.95
	SHPAO10RP24MI	SHPAI100RP24MI	10.00	2.63	3.80
	SHPAO12RP24MI	SHPAI160RP24MI	12.30	3.24	3.80
	SHPAO14RP24MI	SHPAI160RP24MI	14.20	3.89	3.65
	SHPAO16RP24MI	SHPAI160RP24MI	16.00	4.44	3.60
	SHPAO12RP24P3MI	SHPAI160RP24MI	12.30	3.24	3.80
	SHPAO14RP24P3MI	SHPAI160RP24MI	14.20	3.89	3.65
	SHPAO16RP24P3MI	SHPAI160RP24MI	16.00	4.44	3.60
Ambient Temperature: 2/1 Water temperature: 40/45	SHPAO4RP24MI	SHPAI60RP24MI	5.10	1.70	3.00
	SHPAO6RP24MI	SHPAI60RP24MI	5.80	1.93	3.00
	SHPAO8RP24MI	SHPAI100RP24MI	7.40	2.28	3.25
	SHPAO10RP24MI	SHPAI100RP24MI	7.85	2.45	3.20
	SHPAO12RP24MI	SHPAI160RP24MI	10.70	3.57	3.00
	SHPAO14RP24MI	SHPAI160RP24MI	11.70	4.09	2.86
	SHPAO16RP24MI	SHPAI160RP24MI	12.80	4.49	2.85
	SHPAO12RP24P3MI	SHPAI160RP24MI	10.70	3.57	3.00
	SHPAO14RP24P3MI	SHPAI160RP24MI	11.70	4.09	2.86
	SHPAO16RP24P3MI	SHPAI160RP24MI	12.80	4.49	2.85
Ambient Temperature: -7/-8 Water temperature: 40/45	SHPAO4RP24MI	SHPAI60RP24MI	4.30	1.83	2.35
	SHPAO6RP24MI	SHPAI60RP24MI	5.40	2.25	2.40
	SHPAO8RP24MI	SHPAI100RP24MI	6.60	2.59	2.55
	SHPAO10RP24MI	SHPAI100RP24MI	7.35	2.88	2.55
	SHPAO12RP24MI	SHPAI160RP24MI	10.20	4.25	2.40
	SHPAO14RP24MI	SHPAI160RP24MI	11.80	5.02	2.35
	SHPAO16RP24MI	SHPAI160RP24MI	12.90	5.78	2.23
	SHPAO12RP24P3MI	SHPAI160RP24MI	10.20	4.25	2.40
	SHPAO14RP24P3MI	SHPAI160RP24MI	11.80	5.02	2.35
	SHPAO16RP24P3MI	SHPAI160RP24MI	12.90	5.78	2.23

Condition(°C)	outdoor unit	indoor unit	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: 7/6 Water temperature: 47/55	SHPAO4RP24MI	SHPAI60RP24MI	4.40	1.49	2.95
	SHPAO6RP24MI	SHPAI60RP24MI	6.00	2.00	3.00
	SHPAO8RP24MI	SHPAI100RP24MI	7.50	2.36	3.18
	SHPAO10RP24MI	SHPAI100RP24MI	9.50	3.06	3.10
	SHPAO12RP24MI	SHPAI160RP24MI	12.00	3.87	3.10
	SHPAO14RP24MI	SHPAI160RP24MI	13.80	4.60	3.00
	SHPAO16RP24MI	SHPAI160RP24MI	16.00	5.52	2.90
	SHPAO12RP24P3MI	SHPAI160RP24MI	12.00	3.87	3.10
	SHPAO14RP24P3MI	SHPAI160RP24MI	13.80	4.60	3.00
	SHPAO16RP24P3MI	SHPAI160RP24MI	16.00	5.52	2.90
Ambient Temperature: 2/1 Water temperature: 47/55	SHPAO4RP24MI	SHPAI60RP24MI	5.10	2.08	2.45
	SHPAO6RP24MI	SHPAI60RP24MI	5.65	2.31	2.45
	SHPAO8RP24MI	SHPAI100RP24MI	7.10	2.73	2.60
	SHPAO10RP24MI	SHPAI100RP24MI	8.10	3.16	2.56
	SHPAO12RP24MI	SHPAI160RP24MI	11.40	4.47	2.55
	SHPAO14RP24MI	SHPAI160RP24MI	12.40	5.06	2.45
	SHPAO16RP24MI	SHPAI160RP24MI	13.40	5.58	2.40
	SHPAO12RP24P3MI	SHPAI160RP24MI	11.40	4.47	2.55
	SHPAO14RP24P3MI	SHPAI160RP24MI	11.80	4.82	2.45
	SHPAO16RP24P3MI	SHPAI160RP24MI	13.40	5.58	2.40
Ambient Temperature: -7/-8 Water temperature: 47/55	SHPAO4RP24MI	SHPAI60RP24MI	4.00	2.05	1.95
	SHPAO6RP24MI	SHPAI60RP24MI	5.15	2.58	2.00
	SHPAO8RP24MI	SHPAI100RP24MI	6.15	3.00	2.05
	SHPAO10RP24MI	SHPAI100RP24MI	6.85	3.43	2.00
	SHPAO12RP24MI	SHPAI160RP24MI	10.00	4.88	2.05
	SHPAO14RP24MI	SHPAI160RP24MI	11.00	5.37	2.05
	SHPAO16RP24MI	SHPAI160RP24MI	12.50	6.19	2.02
	SHPAO12RP24P3MI	SHPAI160RP24MI	10.00	4.88	2.05
	SHPAO14RP24P3MI	SHPAI160RP24MI	11.00	5.37	2.05
	SHPAO16RP24P3MI	SHPAI160RP24MI	12.50	6.19	2.02

NOTE

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