Mr.SLIM+

A Smart Air Conditioning and Hot Water Supply System Conceived from Eco-conscious Ideas

Mr. SLIM+ has a heat recovery function, which uses waste heat from air conditioners to heat water. Thanks to heat recovery, the Mr. SLIM+ model can achieve a COP of 7.0*, resulting in intelligent systems with amazing efficiency.

*Conditions for air-to-air cooling: Indoor 27°C (dry bulb), 19°C (wet bulb); Outdoor 35°C (dry bulb)

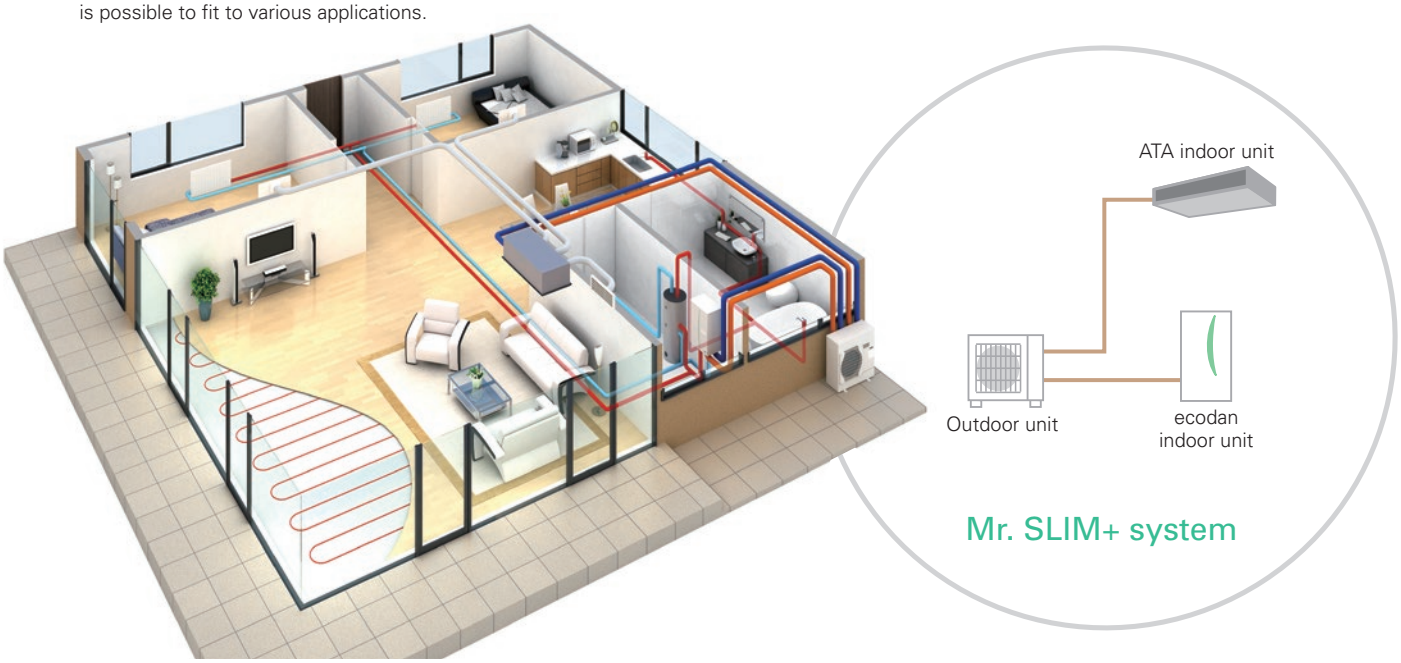
1 Unit, 2 Roles – Total Comfort Year-round

Air Conditioning and Hot Water Supply Matching the Needs of Each Room

All-in-one outdoor unit (air conditioning, domestic hot water supply and hot water heating)

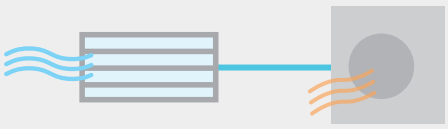
Mr. SLIM for Air-to-Air
Mr. SLIM+ utilises a duct system that enables the air conditioning or heating of multiple rooms, and other indoor unit type systems that it is possible to fit to various applications.

ecodan for Air-to-Water
✓Domestic hot water (DHW) supply
✓Heating for multiple rooms



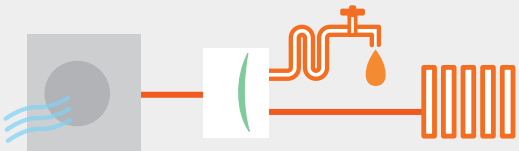
Various Operations

Mr. SLIM / ATA (Air Cooling)
Cooling using ATA indoor unit



Mr. SLIM / ATA (Air Heating)
Heating using ATA indoor unit

ecodan / ATW (Hot water heating + DHW)
Heating and DHW using ATW indoor unit



Mr. SLIM + ecodan / ATA (Air Cooling) + DHW
Heat recovery using both ATA and ATW indoor units

Specifications

Indoor unit						PLA-ZM71EA	PKA-M71KAL	PCA-M71KA	PSA-RP71KA	PEAD-M71JA	PEAD-M71JAL
Outdoor unit						PUHZ-FRP71VHA2	PUHZ-FRP71VHA2	PUHZ-FRP71VHA2	PUHZ-FRP71VHA2	PUHZ-FRP71VHA2	PUHZ-FRP71VHA2
Refrigerant						R410A*1					
Power supply		Outdoor (V / Phase / Hz)				230 / Single / 50					
Air-to-Air (ATA)	Cooling	Capacity	Rated		kW	7.1	7.1	7.1	7.1	7.1	7.1
			Min-Max		kW	3.3-8.1	3.3-8.1	3.3-8.1	3.3-8.1	3.3-8.1	3.3-8.1
		Total input	Rated		kW	1.88	1.93	1.93	2.15	2.10	2.04
		EER				3.77	3.67	3.67	3.30	3.38	3.48
		Design load			kW	7.1	7.1	7.1	7.1	7.1	7.1
		Annual electricity consumption *2			kWh/a	376	386	384	409	444	427
		SEER *4				6.6	6.4	6.4	6.0	5.5	5.8
			Energy-efficiency class			A^{++}	A^{++}	A^{++}	A^{+}	A	A^{+}
	Heating (average season)	Capacity	Rated		kW	8.0	8.0	8.0	8.0	8.0	8.0
			Min-Max		kW	3.5-10.2	3.5-10.2	3.5-10.2	3.5-10.2	3.5-10.2	3.5-10.2
		Total input	Rated		kW	2.11	2.29	2.29	2.42	2.11	2.11
		COP				3.80	3.50	3.50	3.30	3.79	3.79
		Design load			kW	4.7	4.7	4.7	4.7	4.9	4.9
		Declared capacity	at reference design temperature		kW	4.7 (–10°C)	4.7 (–10°C)	4.7 (–10°C)	4.7 (–10°C)	4.9 (–10°C)	4.9 (–10°C)
			at bivalent temperature		kW	4.7 (–10°C)	4.7 (–10°C)	4.7 (–10°C)	4.7 (–10°C)	4.9 (–10°C)	4.9 (–10°C)
			at operation limit temperature		kW	3.5 (–20°C)	3.5 (–20°C)	3.5 (–20°C)	3.5 (–20°C)	3.7 (–20°C)	3.7 (–20°C)
		Back-up heating capacity			kW	0	0	0	0	0	0
		Annual electricity consumption *2			kWh/a	1,509	1,564	1,556	1,699	1,791	1,791
		SCOP *4				4.3	4.2	4.2	3.8	3.8	3.8
			Energy-efficiency class			A^{+}	A^{+}	A^{+}	A	A	A
Air-to-Water (ATW)	Nominal flow rate (for heating)				L/min	22.90					
	Heating *5	A7W35	Capacity		kW	8.00	8.00	8.00	8.00	8.00	8.00
			Input		kW	1.98	1.98	1.98	1.98	1.98	1.98
			COP			4.05	4.05	4.05	4.05	4.05	4.05
		A2W35	Capacity		kW	7.50	7.50	7.50	7.50	7.50	7.50
			Input		kW	2.67	2.67	2.67	2.67	2.67	2.67
			COP			2.81	2.81	2.81	2.81	2.81	2.81
	Heat recovery (ATA cooling & ATW) *6	W45	Capacity (ATA cooling + ATW)		kW	7.1+8.0	7.1+8.0	7.1+8.0	7.1+8.0	7.1+8.0	7.1+8.0
			Input		kW	1.90	1.93	1.95	2.02	2.15	2.13
			COP			7.95	7.82	7.74	7.48	7.02	7.09
		W55	Capacity (ATA cooling + ATW)		kW	7.1+9.0	7.1+9.0	7.1+9.0	7.1+9.0	7.1+9.0	7.1+9.0
			Input		kW	2.97	3.00	3.02	3.09	3.22	3.20
			COP			5.42	5.37	5.33	5.21	5.00	5.03
	ATW indoor unit					Cylinder unit or Hydro box (see previous page)					
Outdoor unit		Dimensions	HxWxD		mm	943-950-330 (+30)					
		Weight			kg	73	73	73	73	73	73
		Air volume	Cooling		m^3/min	50	50	50	50	50	50
			Heating		m^3/min	50	50	50	50	50	50
		Sound pressure level (SPL)	Cooling		dB(A)	47	47	47	47	47	47
			Heat recovery		dB(A)	47	47	47	47	47	47
			ATA Heating		dB(A)	49	49	49	49	49	49
			ATW Heating		dB(A)	49	49	49	49	49	49
		Sound power level (PWL)	Cooling		dB(A)	67	67	67	67	67	67
			Heat recovery		dB(A)	67	67	67	67	67	67
			ATA Heating		dB(A)	68	68	68	68	68	68
			ATW Heating		dB(A)	68	68	68	68	68	68
		Operating current (max)			A	19.0	19.0	19.0	19.0	19.0	19.0
		Breaker size			A	25	25	25	25	25	25
Ext.piping		Diameter	Liquid/Gas		mm	9.52/15.88	9.52/15.88	9.52/15.88	9.52/15.88	9.52/15.88	9.52/15.88
		Max. length	Out-In		m	30 (for ATA) + 30 (for ATW)					
		Max. height	Out-In		m	20	20	20	20	20	20
Guaranteed operating range (outdoor)			Cooling *3		°C	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46	–15~+46
			Heating		°C	–20~+21	–20~+21	–20~+21	–20~+21	–20~+21	–20~+21
			ATW		°C	–20~+35	–20~+35	–20~+35	–20~+35	–20~+35	–20~+35
			Heat recovery		°C	+7~+46	+7~+46	+7~+46	+7~+46	+7~+46	+7~+46

*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO_2, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional. The GWP of R410A is 2088 in the IPCC 4th Assessment Report.
*2 Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.
*3 Optional air protection guide is required where ambient temperature is lower than –5°C.
*4 SEER/SCOP values are measured based on EN14825.
*5 Air-to-Water values are measured based on EN14511 (Circulation pump input is not included.).
*6 Conditions for Air-to-Air cooling: Indoor 27°C (dry bulb) /19°C (wet bulb); Outdoor 35°C (dry bulb).