SEZ SERIES

R32
R410A

SEZ-M25-71DA(L)2

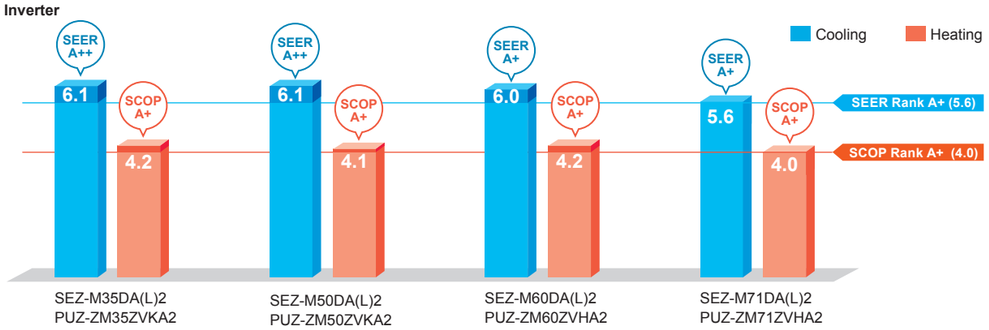
This concealed ceiling-mounted indoor unit series is compact, and fits easily into rooms with lowered ceilings. Highly reliable energy-saving performance makes it a best match choice for concealed unit installations.

High Energy Efficiency

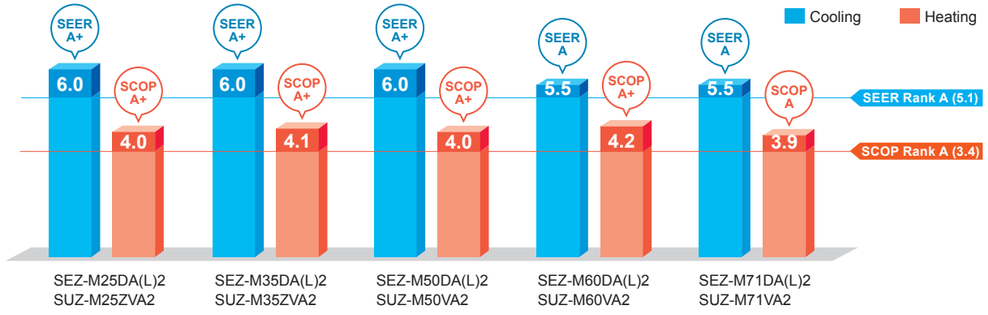
DC Inverter
35/50 SEER A++ SCOP A+ Power Inverter
25/35/50 SEER A+ 25/35/50/60 SCOP A+ Standard Inverter

Highly efficient indoor units with DC inverter contribute to a reduction in electricity consumption throughout a year. The SEZ series has achieved energy-saving performance of "A+" or higher when connected to PUZ series and "A" or higher when connected to SUZ-M series.

Power Inverter

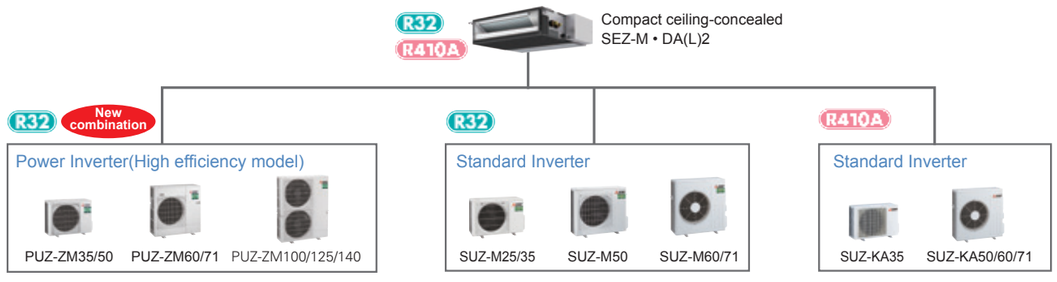


Standard Inverter (R32)



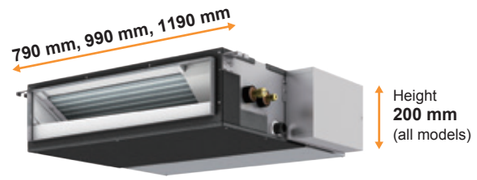
Lineup of compatible outdoor unit has been expanded by power inverter series

Although models in the SEZ series were previously only compatible with the standard inverter, they can now also be connected to small capacity power inverters. The ability to connect to a power inverter with high-performance specifications makes it possible to offer an even wider range of solutions to our customers.



Compact Design with a Height of 200 mm

The height of the units is 200 mm for all capacity ranges. Its thin body is suitable for installation in low ceilings with a small cavity space.



SEZ-M DA(L)2		M25	M35	M50	M60	M71
Height	mm	200				
Width	mm	790	990		1190	

Low Noise Operation

Low noise operation contributes to a peaceful indoor environment. The SPL of M25/35 model, which is the quietest model among the new series, is as low as 22 dB (ESP 5 Pa, low fan speed setting).

			M25	M35	M50	M60	M71
Sound pressure level	Capacity						
	Fan speed	High	29	30	36	37	39
		Mid	25	26	33	33	34
		Low	22	22	29	29	29

*When fan speed setting is low, the cooling/heating capacity is subject to reduce.
*Operation noise may increase due to the installation environment or the operation status.

Selectable Static Pressure Levels

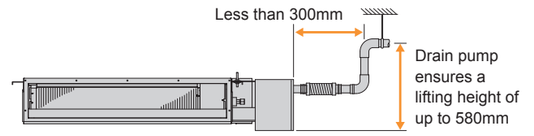
External static pressure can be selected from 5, 25, 35, and 50 Pa (set to 25 Pa at the time of factory shipment).

Four levels Available for All Models

Drain Pump (Optional)

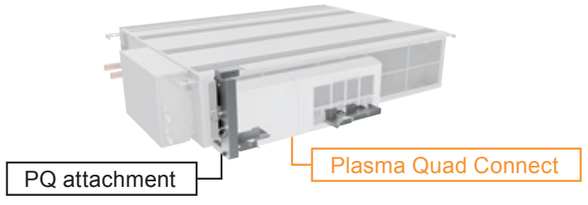
The PAC-KE07DM-E drain pump is available as an option. The drain connection can be raised as high as 580 mm, allowing more freedom in piping layout design.

*The use of drain pump may increase the operation noise.



Connectable to Plasma Quad Connect

The optional Plasma Quad Connect MAC-100FT-E can be installed on the indoor unit's air inlet side. For installation, PQ attachment PAC-HA11PAR is required.

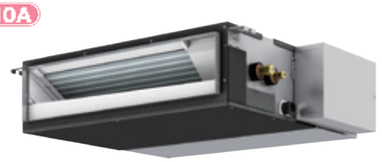


SEZ-M SERIES

DC Inverter · Joint Lap · DC Rotary · Rare Earth Magnet · DC Fan Motor · PAM · Grooved Piping · Heat Caulking Fixing Method

Indoor Unit

R32
R410A



SEZ-M25/35/50/60/71DA2 (Requires Wired Remote Controller)
SEZ-M25/35/50/60/71DAL2 (Wireless Remote Controller is enclosed)

Outdoor Unit

R32 For Single

PUZ-ZM35/50

PUZ-ZM60/71

R32 For Multi (Twin/Triple/Quadruple)

PUZ-ZM71

PUZ-ZM100/125/140

Remote Controller

Enclosed in SEZ-M DAL2

*optional (for SEZ-M DA2)

*optional (for SEZ-M DA2)

*optional (for SEZ-M DA2)

AUTO · ECO · Auto Restart · Low Temp Cooling · DA2 Optional · Group Control Optional · M-NET connection Optional · Wi-Fi Interface Optional · MXZ connection · Drain Lift Up Optional · Flare connection · Self Diagnosis · Failure Recall

Indoor Unit Combination		Outdoor Unit Capacity														
		For Single							For Twin			For Triple			For Quadruple	
		35	50	60	71	100	125	140	71	100	125	100	125	140	125	140
Power Inverter (PUZ-ZM)		35×1	50×1	60×1	71×1	-	-	-	35×2	50×2	60×2	35×3	50×3	50×3	35×4	35×4
	Distribution Pipe	-	-	-	-	-	-	-	MSDD-50TR2-E			MSDT-111R3-E			MSDF-1111R2-E	

Type				Inverter Heat Pump			
Indoor Unit				SEZ-M35DA(L)2	SEZ-M50DA(L)2	SEZ-M60DA(L)2	SEZ-M71DA(L)2
Outdoor Unit				PUZ-ZM35VKA2	PUZ-ZM50VKA2	PUZ-ZM60VHA2	PUZ-ZM71VHA2
Refrigerant*1				R32			
Power Supply	Source			Outdoor power supply			
	Outdoor(V/Phase/Hz)			230/Single/50			
Cooling	Capacity	Rated	kW	3.6	5.0	6.1	7.1
		Min-Max	kW	1.6 - 3.9	2.3 - 5.6	2.7 - 6.3	3.3 - 8.1
	Total Input	Rated	kW	0.857	1.315	1.525	1.918
	EER*4			4.20	3.80	4.00	3.70
	Design load		kW	3.6	5.0	6.1	7.1
	Annual electricity consumption*2		kWh/a	205	287	352	440
	SEER*4,*5			6.1	6.1	6.0	5.6
		Energy efficiency class		A++	A++	A+	A+
Heating	Capacity	Rated	kW	4.1	6.0	7.0	8.0
		Min-Max	kW	1.6 - 5.0	2.5 - 7.2	2.8 - 8.0	3.5 - 10.2
	Total Input	Rated	kW	1.025	1.578	1.707	2.051
	COP*4			4.00	3.80	4.10	3.90
	Design load		kW	2.4	3.8	4.4	4.7
	Declared Capacity	at reference design temperature	kW	2.4 (-10°C)	3.8 (-10°C)	4.4 (-10°C)	4.7 (-10°C)
		at bivalent temperature	kW	2.4 (-10°C)	3.8 (-10°C)	4.4 (-10°C)	4.7 (-10°C)
		at operation limit temperature	kW	2.2 (-11°C)	3.7 (-11°C)	2.8 (-20°C)	3.5 (-20°C)
	Back up heating capacity		kW	0.0	0.0	0.0	0.0
	Annual electricity consumption*2		kWh/a	791	1279	1464	1633
	SCOP*4,*5			4.2	4.1	4.2	4.0
		Energy efficiency class		A+	A+	A+	A+
Operating Current(Max)			A	13.7	13.8	19.9	20.0
Indoor Unit	Input [cooling / Heating]	Rated	kW	0.047	0.077	0.084	0.102
	Operating Current(Max)		A	0.65	0.82	0.88	1.00
	Dimensions	H*W*D	mm	200 - 990 - 700	200 - 990 - 700	200 - 1190 - 700	200 - 1190 - 700
	Weight		kg	22	22	25.5	25.5
	Air Volume (Lo-Mid-Hi)		m³/min	7 - 9 - 11	10 - 12.5 - 15	12 - 15 - 18	12 - 16 - 20
	External Static Pressure*7		Pa	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>
	Sound Level (Lo-Mid-Hi) (SPL)	Rated	dB(A)	23 - 27 - 31	30 - 34 - 37	30 - 34 - 38	30 - 35 - 40
		5Pa*8	dB(A)	22 - 26 - 30	29 - 33 - 36	29 - 33 - 37	29 - 34 - 39
	Sound Level (PWL)		dB(A)	51	57	58	60
Outdoor Unit	Dimensions	H*W*D	mm	630-809-300	630-809-300	943-950-330(+25)	943-950-330(+25)
	Weight		kg	46	46	67	67
	Air Volume	Cooling	m³/min	45	45	55	55
		Heating	m³/min	45	45	55	55
	Sound Level (SPL)	Cooling	dB(A)	44	44	47	47
		Heating	dB(A)	46	46	49	49
	Sound Level (PWL)	Cooling	dB(A)	65	65	67	67
	Operating Current(Max)		A	13	13	19	19
	Breaker Size		A	16	16	25	25
Ext.Piping	Diameter*6	Liquid/Gas	mm	6.35 / 12.7	6.35 / 12.7	9.52 / 15.88	9.52 / 15.88
	Max.Length	Out-In	m	50	50	55	55
	Max.Height	Out-In	m	30	30	30	30
Guaranteed Operating Range (Outdoor)		Cooling*3	°C	-15 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46
		Heating	°C	-11 ~ +21	-11 ~ +21	-20 ~ +21	-20 ~ +21

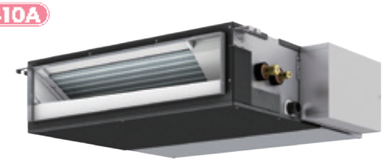
*1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 550. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 550 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 R32 is 675 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 EER/COP and SEER/SCOP for M35-71 are measured at ESP 25Pa
*5 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.
*6 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.
*7 The factory setting of ESP is shown without < >.
*8 SPL measured at ESP 5Pa.

SEZ-M SERIES

DC Inverter · Joint Lap · DC Rotary · Rare Earth Magnet · DC Fan Motor · PAM · Grooved Piping · Heat Caulking Fixing Method

Indoor Unit

R32
R410A



SEZ-M25/35/50/60/71DA2 (Requires Wired Remote Controller)
SEZ-M25/35/50/60/71DAL2 (Wireless Remote Controller is enclosed)

Outdoor Unit

For Single

R32

SUZ-M25/35VA

R32

SUZ-M50VA

R32

SUZ-M60/71VA

Remote Controller

Enclosed in SEZ-M DAL2

*optional (for SEZ-M DA2)

*optional (for SEZ-M DA2)

*optional (for SEZ-M DA2)

AUTO · ECO · Auto Restart · Low Temp Cooling · DA2 Optional · Group Control Optional · M-NET connection Optional · Wi-Fi Interface Optional · MXZ connection · Drain Lift Up Optional · Flare connection · Self Diagnosis · Failure Recall

Indoor Unit Combination		Outdoor Unit Capacity				
		For Single				
		25	35	50	60	71
S Seires		25×1	35×1	50×1	60×1	71×1
	Distribution Pipe	-	-	-	-	-

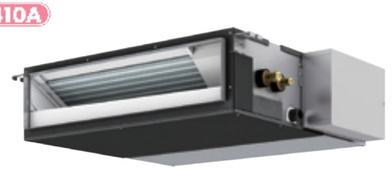
Type				Inverter Heat Pump				
Indoor Unit				SEZ-M25DA(L)2	SEZ-M35DA(L)2	SEZ-M50DA(L)2	SEZ-M60DA(L)2	SEZ-M71DA(L)2
Outdoor Unit				SUZ-M25VA	SUZ-M35VA	SUZ-M50VA	SUZ-M60VA	SUZ-M71VA
Refrigerant*1				R32				
Power Supply	Source			Outdoor power supply				
	Outdoor(V/Phase/Hz)			230/Single/50				
Cooling	Capacity	Rated	kW	2.5	3.5	5.0	6.1	7.1
		Min-Max	kW	1.4 - 3.2	0.7 - 3.9	1.1 - 5.6	1.6 - 6.3	2.2 - 8.1
	Total Input	Rated	kW	0.714	1.000	1.547	1.848	2.151
	EER*4			3.50	3.50	3.23	3.30	3.30
	Design load		kW	2.5	3.5	5.0	6.1	7.1
	Annual electricity consumption*2		kWh/a	146	202	290	385	451
	SEER*4,*5			6.0	6.0	6.0	5.5	5.5
		Energy efficiency class		A+	A+	A+	A	A
Heating	Capacity	Rated	kW	2.9	4.2	6.0	7.4	8.0
		Min-Max	kW	1.3 - 4.2	1.1 - 5.0	1.5 - 7.2	1.6 - 8.0	2.0 - 10.2
	Total Input	Rated	kW	0.803	1.076	1.617	2.049	2.285
	COP*4			3.61	3.90	3.71	3.61	3.50
	Design load		kW	2.2	2.6	4.3	4.6	5.8
	Declared Capacity	at reference design temperature	kW	2.0 (-10°C)	2.3 (-10°C)	3.8 (-10°C)	4.1 (-10°C)	5.2 (-10°C)
		at bivalent temperature	kW	2.0 (-7°C)	2.3 (-7°C)	3.8 (-7°C)	4.1 (-7°C)	5.2 (-7°C)
		at operation limit temperature	kW	2.0 (-10°C)	2.3 (-10°C)	3.8 (-10°C)	4.1 (-10°C)	5.2 (-10°C)
	Back up heating capacity		kW	0.2	0.3	0.5	0.5	0.6
	Annual electricity consumption*2		kWh/a	769	878	1501	1516	2030
	SCOP*4,*5			4.0	4.1	4.0	4.2	3.9
		Energy efficiency class		A+	A+	A+	A+	A
Operating Current(Max)			A	7.4	9.2	14.3	15.7	15.8
Indoor Unit	Input [cooling / Heating]	Rated	kW	0.043	0.047	0.077	0.084	0.102
	Operating Current(Max)		A	0.62	0.65	0.82	0.88	1.00
	Dimensions	H*W*D	mm	200 - 790 - 700	200 - 990 - 700	200 - 990 - 700	200 - 1190 - 700	200 - 1190 - 700
	Weight		kg	18	22	22	25.5	25.5
	Air Volume (Lo-Mid-Hi)		m³/min	5.5 - 7 - 9	7 - 9 - 11	10 - 12.5 - 15	12 - 15 - 18	12 - 16 - 20
	External Static Pressure*6		Pa	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>
	Sound Level (Lo-Mid-Hi) (SPL)	Rated	dB(A)	23 - 26 - 30	23 - 27 - 31	30 - 34 - 37	30 - 34 - 38	30 - 35 - 40
		5Pa*7	dB(A)	22 - 25 - 29	22 - 26 - 30	29 - 33 - 36	29 - 33 - 37	29 - 34 - 39
	Sound Level (PWL)		dB(A)	50	51	57	58	60
Outdoor Unit	Dimensions	H*W*D	mm	550-800-285	550-800-285	714-800-285	880-840-330	880-840-330
	Weight		kg	30	35	41	54	55
	Air Volume	Cooling	m³/min	36.3	34.3	45.8	50.1	50.1
		Heating	m³/min	34.6	32.7	43.7	50.1	50.1
	Sound Level (SPL)	Cooling	dB(A)	45	48	48	49	49
		Heating	dB(A)	46	48	49	51	51
	Sound Level (PWL)	Cooling	dB(A)	59	59	64	65	66
	Operating Current(Max)		A	6.8	8.5	13.5	14.8	14.8
	Breaker Size		A	10	10	20	20	20
Ext.Piping	Diameter*6	Liquid/Gas	mm	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7	6.35 / 15.88	9.52 / 15.88
	Max.Length	Out-In	m	20	20	30	30	30
	Max.Height	Out-In	m	12	12	30	30	30
Guaranteed Operating Range (Outdoor)		Cooling*3	°C	-10 ~ +46	-10 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46
		Heating	°C	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +24

*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 SEER/SCOP are measured at ESP 25Pa.
*4 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.
*5 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.
*6 The factory setting of ESP is shown without < >.
*7 SPL measured at ESP 5Pa.

SEZ-M SERIES

Indoor Unit

R32
R410A



SEZ-M25/35/50/60/71DA2 (Requires Wired Remote Controller)
SEZ-M25/35/50/60/71DAL2 (Wireless Remote Controller is enclosed)

Outdoor Unit

R410A For Single

SUZ-KA25/35VA6

SUZ-KA50/60/71VA6

Remote Controller

Enclosed in SEZ-M DAL2

*optional (for SEZ-M DA2)

*optional (for SEZ-M DA2)

*optional (for SEZ-M DA2)

Indoor Unit Combination		Outdoor Unit Capacity				
		For Single				
		25	35	50	60	71
S series		25×1	35×1	50×1	60×1	71×1
	Distribution Pipe	-	-	-	-	-

Type				Inverter Heat Pump				
Indoor Unit				SEZ-M25DA(L)2	SEZ-M35DA(L)2	SEZ-M50DA(L)2	SEZ-M60DA(L)2	SEZ-M71DA(L)2
Outdoor Unit				SUZ-KA25VA6	SUZ-KA35VA6	SUZ-KA50VA6	SUZ-KA60VA6	SUZ-KA71VA6
Refrigerant[*1]				R410A				
Power Supply	Source			Outdoor power supply				
	Outdoor(V/Phase/Hz)			230/Single/50				
Cooling	Capacity	Rated	kW	2.5	3.5	5.1	5.6	7.1
		Min-Max	kW	1.5 - 3.2	1.4 - 3.9	2.3 - 5.6	2.3 - 6.3	2.8 - 8.3
	Total Input	Rated	kW	0.731	1.012	1.580	1.740	2.210
	EER[*4]			3.42	3.46	3.23	3.22	3.21
	Design load		kW	2.5	3.5	5.1	5.6	7.1
	Annual electricity consumption[*2]		kWh/a	159	203	297	353	449
	SEER[*4][*5]			5.5	6.0	6.0	5.5	5.5
		Energy efficiency class		A	A+	A+	A	A
Heating	Capacity	Rated	kW	2.9	4.2	6.4	7.4	8.1
		Min-Max	kW	1.3 - 4.5	1.7 - 5.0	1.7 - 7.2	2.5 - 8.0	2.6 - 10.4
	Total Input	Rated	kW	0.803	1.132	1.800	2.200	2.268
	COP[*4]			3.61	3.71	3.56	3.36	3.50
	Design load		kW	2.2	2.8	4.6	5.5	6.0
	Declared Capacity	at reference design temperature	kW	1.9 (-10°C)	2.5 (-10°C)	4.1 (-10°C)	4.5 (-10°C)	5.3 (-10°C)
		at bivalent temperature	kW	1.9 (-7°C)	2.5 (-7°C)	4.1 (-7°C)	4.8 (-7°C)	5.3 (-7°C)
		at operation limit temperature	kW	1.9 (-10°C)	2.5 (-10°C)	4.1 (-10°C)	4.5 (-10°C)	5.3 (-10°C)
	Back up heating capacity		kW	0.3	0.3	0.5	1.0	0.7
	Annual electricity consumption[*2]		kWh/a	789	977	1614	1857	2147
	SCOP[*4][*5]			3.9	4.0	3.9	4.1	3.9
		Energy efficiency class		A	A+	A	A+	A
Operating Current(Max)			A	7.6	8.9	12.8	14.9	17.1
Indoor Unit	Input [cooling / Heating]	Rated	kW	0.043	0.047	0.077	0.084	0.102
	Operating Current(Max)		A	0.62	0.65	0.82	0.88	1.00
	Dimensions	H*W*D	mm	200 - 790 - 700	200 - 990 - 700	200 - 990 - 700	200 - 1190 - 700	200 - 1190 - 700
	Weight		kg	18	22	22	25.5	25.5
	Air Volume (Lo-Mid-Hi)		m^3/min	5.5 - 7 - 9	7 - 9 - 11	10 - 12.5 - 15	12 - 15 - 18	12 - 16 - 20
	External Static Pressure[*6]		Pa	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>	<5> - 25 - <35> - <50>
	Sound Level (Lo-Mid-Hi) (SPL)	Rated	dB(A)	23 - 26 - 30	23 - 27 - 31	30 - 34 - 37	30 - 34 - 38	30 - 35 - 40
		5Pa[*7]	dB(A)	22 - 25 - 29	22 - 26 - 30	29 - 33 - 36	29 - 33 - 37	29 - 34 - 39
	Sound Level (PWL)		dB(A)	50	51	57	58	60
Outdoor Unit	Dimensions	H*W*D	mm	550-800-285	550-800-285	880-840-330	880-840-330	880-840-330
	Weight		kg	30	35	54	50	53
	Air Volume	Cooling	m^3/min	32.6	36.3	44.6	40.9	50.1
		Heating	m^3/min	34.7	34.8	44.6	49.2	48.2
	Sound Level (SPL)	Cooling	dB(A)	47	49	52	55	55
		Heating	dB(A)	48	50	52	55	55
	Sound Level (PWL)	Cooling	dB(A)	58	62	65	65	69
	Operating Current(Max)		A	7	8.0	12	14	16.1
	Breaker Size		A	10	10	20	20	20
Ext.Piping	Diameter[*5]	Liquid/Gas	mm	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7	6.35 / 15.88	9.52 / 15.88
	Max.Length	Out-In	m	20	20	30	30	30
	Max.Height	Out-In	m	12	12	30	30	30
Guaranteed Operating Range (Outdoor)		Cooling[*3]	°C	-10 ~ +46	-10 ~ +46	-15 ~ +46	-15 ~ +46	-15 ~ +46
		Heating	°C	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +24

*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 SEER/SCOP are measured at ESP 25Pa.
*4 SEER and SCOP are based on 2009/125/EC:Energy-related Products Directive and Regulation(EU) No206/2012.
*5 Joint pipe is required depending on installed refrigerant pipes, outdoor units and indoor units.
*6 The factory setting of ESP is shown without < >.
*7 SPL measured at ESP 5Pa.

CONTROL TECHNOLOGIES

User-friendly Deluxe Remote Controller with Excellent Operability and Visibility

PAR-41MAA

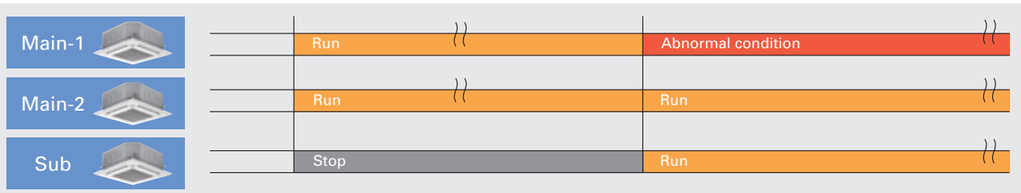
2+1 Back-up rotation*

The use of a three-refrigerant air conditioning system enables you to utilize the back-up, rotation, and cut-in functions. This allows you to implement effective risk management for added peace of mind.

*Availability of this function is depending on outdoor unit, indoor unit and remote controller.

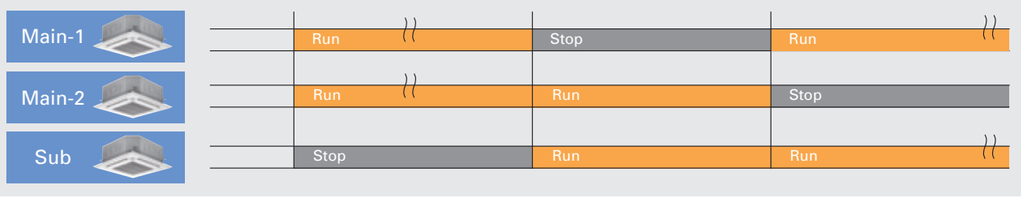
Back-up Function

In the unlikely event that one of the units stops operation due to an abnormality, the standby unit immediately starts back-up operation. Being fully prepared for a failure guarantees that and operation is always available and gives you the confidence that your system will be reliable in any situation.



Rotation Function

A single remote controller is used to operate three-refrigerant air conditioning system in a rotation pattern. Reducing the burden on the equipment allows you to maintain a longer time between maintenance and increases product life.



Cut-in Function

If the actual room temperature greatly differs from the set temperature and two-refrigerant air conditioning system is insufficient, the standby unit starts operation to provide support.