

Y-Series

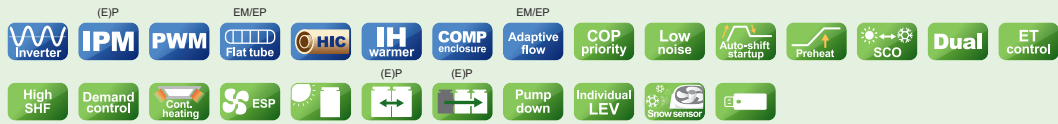
R32
R410A

Cooling or Heating Heat pump

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- Specifications
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- Optional parts P.48
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*This image shows the R410A standard type.

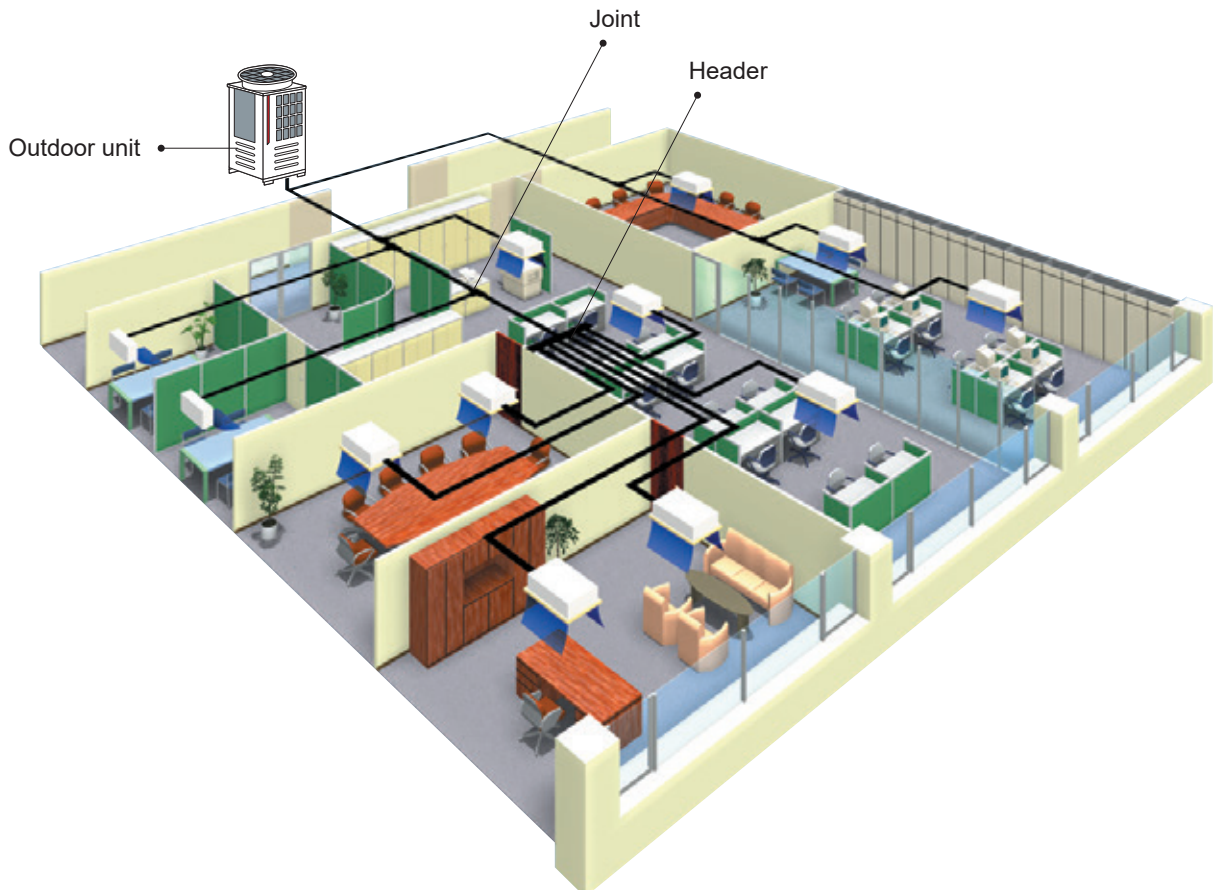


A two-pipe zoned system designed for heat pump operation

The CITY MULTI Y-Series (for large applications) makes use of a two-pipe refrigerant system, which allows for system changeover from cooling to heating, ensuring that a constant indoor climate is maintained in all zones. The compact outdoor unit utilizes an inverter-driven compressor for effective energy use.

With a wide lineup of indoor units connected to a flexible piping system, the CITY MULTI Series can be configured to suit diverse applications. Up to 50 (Y-Series) indoor units can be connected with up to 130% connected capacity to maximize engineering design options. This feature allows easy air conditioning in each area with convenient individual controllers.

- Installation image (R410A Y-Series)



*For details of the installation restrictions, refer to the DATABOOK.

R32 CITY MULTI-Series R32



CITY MULTI series utilizing R32 refrigerant. The lower GWP R32 model is a solution to reduce fluorocarbon emissions.

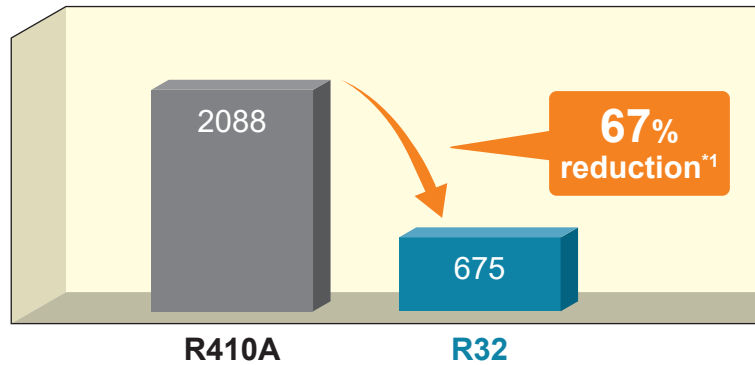
Low-GWP refrigerant

Adoption of R32 refrigerant

CITY MULTI series uses R32 with a 67% lower GWP than R410A to be more environmentally friendly.*1

*1. Source: IPCC 4th Assessment Report, global warming potential (GWP) 100-year value. Comparison of 2088 (R410A) and 675 (R32).

- Comparison of global warming potential



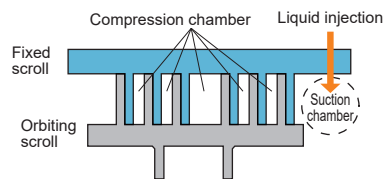
Development of compressor for adopting R32 refrigerant

Stable operation with suction chamber injection mechanism

To suppress rises in discharge temperature, Mitsubishi Electric has developed a compressor that adopts a suction chamber injection mechanism. This solves the problem that R32 has a higher discharge temperature than R410A.

- A mechanism for injecting

This mechanism suppresses the temperature rise of the discharge gas and supports operation in a wide temperature range.

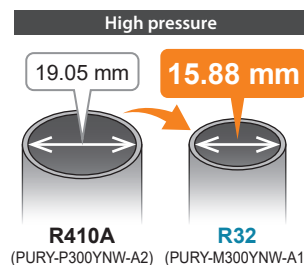


Reduced the amount of refrigerant

Reduced piping diameter

Compared to R410A, R32 is less susceptible to pressure-loss. This characteristics helps to reduce the refrigerant pipe size, reducing the refrigerant amount and the installation cost.

- Comparison of refrigerant piping diameter



Y-Series High efficiency R32

PUHY-EM YNW-A1(-BS)



Lineup & Functions

Y-Series

R2-Series

ZUBADAN-Series

S-Series

BC Controllers

Ceiling cassette type

Ceiling concealed type

Ceiling suspended type

Wall-mounted type

Floor standing type

Functions

LOSSNAY System

Remote Controller

Hot Water Solution

Model		PUHY-EM200YNW-A1 (-BS)	PUHY-EM250YNW-A1 (-BS)	PUHY-EM300YNW-A1 (-BS)	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz			
Cooling capacity (Nominal)	*1	kW	22.4	28.0	
		BTU/h	76,400	95,500	
	Power input	kW	5.51	8.21	
	Current input	A	7.3-7.0-6.7	10.7-10.1-9.8	
	EER	kW/kW	4.06	3.41	
	SEER	kW/kW	7.76	7.51	
Temp. range of cooling	Indoor	W.B.	15.0~24.0 °C (59~75 °F)		
	Outdoor	D.B.	-5.0~52.0 °C (23~126 °F)		
Heating capacity (Max)	*2	kW	25.0	31.5	
		BTU/h	85,300	107,500	
	Power input	kW	4.94	6.92	
	Current input	A	8.3-7.9-7.6	11.6-11.0-10.6	
	COP	kW/kW	4.21	3.87	
	(Nominal)	*3	kW	22.4	28.0
			BTU/h	76,400	95,500
		Power input	kW	5.01	6.84
		Current input	A	7.1-6.8-6.5	9.8-9.3-9.0
	COP	kW/kW	4.47	4.09	
SCOP	kW/kW	4.36	4.40		
Temp. range of heating	Indoor	D.B.	15.0~27.0 °C (59~81 °F)		
	Outdoor	W.B.	-20.0~15.5 °C (-4~60 °F)		
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity			
	Model / Quantity	M20~M140/1~8	M20~M140/1~10	M20~M140/2~12	
Sound pressure level (measured in anechoic room)	*4, 5	dB <A>		58.0 / 59.0	
Sound power level (measured in anechoic room)	*4	dB <A>		75.0 / 78.0	
Refrigerant piping diameter	Liquid pipe	mm (in.)		9.52 (3/8) Brazed	
	Gas pipe	mm (in.)		22.2 (7/8) Brazed	
FAN	Type x Quantity		Propeller fan x 1		
	Air flow rate	m ³ /min	170	185	
		L/s	2,833	3,083	
		cfm	6,003	6,532	
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		
	Motor output	kW	0.92 x 1		
*6	External static press.	0 Pa (0 mmH ₂ O)			
Compressor	Type		Inverter scroll hermetic compressor		
	Starting method		Inverter		
	Motor output	kW	3.4	5.1	
	Case heater	kW	-	-	
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			
External dimension HxWxD	mm	1,858 (1,798 without legs) x 920 x 740			
	in.	73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		
	Compressor		-		
	Fan motor		-		
Refrigerant	Type x original charge		R32 x 6.5 kg (15 lbs)		
	Control		LEV and HIC circuit		
Net weight	kg (lbs)	228 (503)			
Heat exchanger		Salt-resistant cross fin & aluminium tube			
Optional parts		Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104/108/1010-G			

Notes:

*1, *2, *3 Nominal conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27°C DB/19°C WB (81°F DB/66°F WB)	35°C DB/24°C WB (95°F DB/75°F WB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°C DB(68°F DB)	7°C DB/6°C WB(45°F DB/43°F WB)	7.5m (24-9/16ft.)	0m (0ft.)

*4 Cooling mode/Heating mode

*5 The sound pressure level measured by the conventional method in JIS for reference purpose.

*6 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH₂O, 6.1 mmH₂O, 8.2 mmH₂O).

Consult your dealer about the specification when setting External static pressure option.

*7 R32 is flammable, and certain restrictions apply to the installation of units.

When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.

For detail, refer to the section in the Databook on installation restrictions.

Y-Series High efficiency R410A

PUHY-EP YNW-A2(-BS)



Model		PUHY-EP200YNW-A2 (-BS)	PUHY-EP250YNW-A2 (-BS)	PUHY-EP300YNW-A2 (-BS)	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz			
Cooling capacity (Nominal)	*1 kW	22.4	28.0	33.5	
	BTU / h	76,400	95,500	114,300	
	Power input kW	5.51	8.21	9.68	
	Current input A	9.3-8.8-8.5	13.8-13.1-12.6	16.3-15.5-14.9	
	EER kW / kW	4.06	3.41	3.46	
	SEER kW / kW	7.76	7.51	7.26	
Temp. range of cooling	Indoor W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
	Outdoor D.B.	-5.0~52.0°C (23~126°F)		-5.0~52.0°C (23~126°F)	
Heating capacity (Max)	*2 kW	25.0	31.5	37.5	
	BTU / h	85,300	107,500	128,000	
	Power input kW	5.93	8.13	9.84	
	Current input A	10.0-9.5-9.1	13.7-13.0-12.5	16.6-15.7-15.2	
	COP kW / kW	4.21	3.87	3.81	
	(Nominal) *3 kW	22.4	28.0	33.5	
	BTU / h	76,400	95,500	114,300	
	Power input kW	5.01	6.84	8.27	
	Current input A	8.4-8.0-7.7	11.5-10.9-10.5	13.9-13.2-12.7	
	COP kW / kW	4.47	4.09	4.05	
Temp. range of heating	Indoor D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
	Outdoor W.B.	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity			
	Model / Quantity	P10~P250, M20~M140/1~20	P10~P250, M20~M140/1~25	P10~P250, M20~M140/1~30	
Sound pressure level (measured in anechoic room)	*4, 5 dB <A>	58.0/59.0	60.0/61.0	61.0/64.5	
Sound power level (measured in anechoic room)	*4 dB <A>	75/78	78/80	80/84	
Refrigerant piping diameter	Liquid pipe mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed (12.7 (1/2) Brazed, total length >= 90 m)	9.52 (3/8) Brazed (12.7 (1/2) Brazed, total length >= 40 m)	
	Gas pipe mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
FAN	Type x Quantity	Propeller fan x 1			
	Air flow rate	m ³ /min	170	185	240
		L/s	2,833	3,083	4,000
		cfm	6,003	6,532	8,474
	Control, Driving mechanism	Inverter-control, Direct-driven by motor			
	Motor output kW	0.92 x 1			
*6 External static press.	0 Pa (0 mmH ₂ O)				
Compressor	Type	Inverter scroll hermetic compressor			
	Starting method	Inverter			
	Motor output kW	3.4			
	Case heater kW	-			
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			
External dimension HxWxD	mm	1,858 (1,798 without legs) x 920 x 740			
	in.	73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16			
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection			
	Compressor	-			
	Fan motor	-			
Refrigerant	Type x original charge	R410A x 6.5 kg (15 lbs)			
Net weight	kg (lbs)	228 (503)			
Heat exchanger		Salt-resistant cross fin & aluminium tube			
Optional parts		Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104/108/1010-G			

Notes:

*1,*2,*3 Nominal conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27°C DB/19°C WB (81°F DB/66°F WB)	35°C DB (95°F DB)	7.5m (24-9/16ft.)	0m (0ft.)
	20°C DB/68°F DB)	7°C DB/6°C WB(45°F DB/43°F WB)		
Heating	20°C DB/68°F DB)	7°C DB/6°C WB(45°F DB/43°F WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 Eurovent registered

*4 Cooling mode / Heating mode

*5 The sound pressure level measured by the conventional method in JIS for reference purpose.

*6 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH₂O, 6.1 mmH₂O, 8.2 mmH₂O).

Consult your dealer about the specification when setting External static pressure option.

*Due to continuing improvement, above specifications may be subject to change without notice.

Y-Series High efficiency R410A

PUHY-EP YNW-A2(-BS)



Model	PUHY-EP350YNW-A2 (-BS)		PUHY-EP400YNW-A2 (-BS)		PUHY-EP450YNW-A2 (-BS)		PUHY-EP500YNW-A2 (-BS)	
Power source	3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1	kW	40.0	45.0	50.0	56.0		
		BTU / h	136,500	153,500	170,600	191,100		
		Power input kW	12.42	14.65	17.73	20.51		
		Current input A	20.9-19.9-19.1	24.7-23.4-22.6	29.9-28.4-27.4	34.6-32.8-31.7		
		EER	3.22	3.07	2.82	2.73		
	SEER	7.03	6.83	6.94	6.55			
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)		-5.0~52.0°C (23~126°F)		-5.0~52.0°C (23~126°F)	
Heating capacity (Max)	*2	kW	45.0	50.0	56.0	63.0		
		BTU / h	153,500	170,600	191,100	215,000		
		Power input kW	11.81	13.85	16.18	17.74		
		Current input A	19.9-18.9-18.2	23.3-22.2-21.4	27.3-25.9-25.0	29.9-28.4-27.4		
		COP	3.81	3.61	3.46	3.55		
(Nominal)	*3	kW	40.0	45.0	50.0	56.0		
		BTU / h	136,500	153,500	170,600	191,100		
		Power input kW	9.77	11.65	12.85	14.73		
		Current input A	16.4-15.6-15.1	19.6-18.6-18.0	21.6-20.6-19.8	24.8-23.6-22.7		
		COP	4.09	3.86	3.89	3.80		
	SCOP	4.35	4.25	4.32	4.10			
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity		50~130% of outdoor unit capacity		50~130% of outdoor unit capacity		
	Model / Quantity	P10~P250, M20~M140/1~35		P10~P250, M20~M140/1~40		P10~P250, M20~M140/1~45		
Sound pressure level (measured in anechoic room) *4, 5	dB <A>	62.0/64.0		65.0/65.5		65.5/70.5		
Sound power level (measured in anechoic room) *4	dB <A>	80/83		82/85		84/90		
Refrigerant piping diameter	Liquid pipe	12.7 (1/2) Brazed		12.7 (1/2) Brazed		15.88 (5/8) Brazed		
	Gas pipe	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		
FAN	Type x Quantity	Propeller fan x 2		Propeller fan x 2		Propeller fan x 2		
	Air flow rate	m ³ /min	270		270		305	
		L/s	4,500		4,500		5,083	
		cfm	9,534		9,534		10,770	
	Control, Driving mechanism	Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		
Motor output	kW		0.46 x 2		0.46 x 2			
Compressor *6	External static press.	0 Pa (0 mmH ₂ O)		0 Pa (0 mmH ₂ O)		0 Pa (0 mmH ₂ O)		
	Type	Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		
	Starting method	Inverter		Inverter		Inverter		
	Motor output	kW		7.7		9.8		
	Case heater	kW		-		-		
External finish	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	
External dimension HxWxD	mm	1,858 (1,798 without legs) x 1,240 x 740		1,858 (1,798 without legs) x 1,240 x 740		1,858 (1,798 without legs) x 1,240 x 740		
		in.		73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16		73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16		
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		
	Compressor	-		-		-		
	Fan motor	-		-		-		
Refrigerant	Type x original charge	R410A x 9.8 kg (22 lbs)		R410A x 10.8 kg (24 lbs)		R410A x 10.8 kg (24 lbs)		
Net weight	kg (lbs)	282 (622)		303 (668)		342 (754)		
Heat exchanger	Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Optional parts	Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G		Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G		Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G		Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G	

Notes:

*1,*2,*3 Nominal conditions (subject to JIS B8615-2)

	Indoor	Outdoor	Pipe length	Level difference
Cooling	27°C DB/19°C WB (81°F DB/66°F WB)	35°C DB (95°F DB)	7.5m (24-9/16ft.)	0m (0ft.)
Heating	20°C DB/68°F DB)	7°C DB/6°C WB(45°F DB/43°F WB)	7.5m (24-9/16ft.)	0m (0ft.)

*3 Eurovent registered

*4 Cooling mode / Heating mode

*5 The sound pressure level measured by the conventional method in JIS for reference purpose.

*6 External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH₂O, 6.1 mmH₂O, 8.2 mmH₂O).

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ZUBADAN-Series

S-Series

BC Controllers

Ceiling cassette type

Ceiling concealed type

Ceiling suspended type

Wall-mounted type

Floor standing type

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Remote Controller

Hot Water Solution