

# ZUBADAN YNW-Series R410A



PUHY-HP YNW-A

## Powerful heating performance at low outside temperatures

### Key features of ZUBADAN YNW-Series

The new ZUBADAN YNW-Series features units and core components designed with the latest technology to improve operating performance at low outside temperatures.

#### Reliable Heating

The improved operating performance in low outside temperatures contributes to comfortable heating in cold weather.

#### Energy Saving

Various key components have been equipped, improving energy-saving performance and meeting customers' requirements.

#### Design

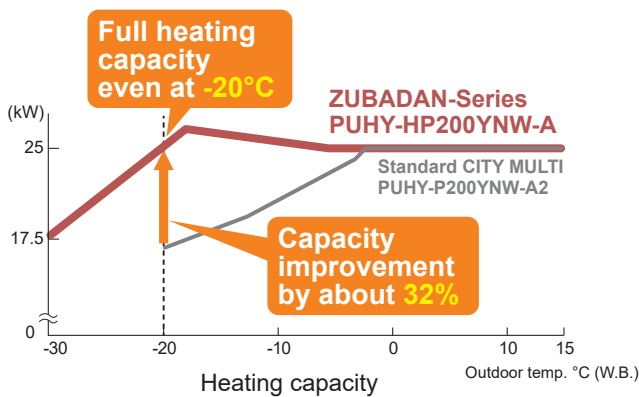
The modern design blends in well with most building architectures.

#### Flexible Installation

The static pressure options of up to 80 Pa and a height difference of up to 90 m between OU and IU are available.

## Reliable heating performance

### Stable Heating Performance even at -20°C

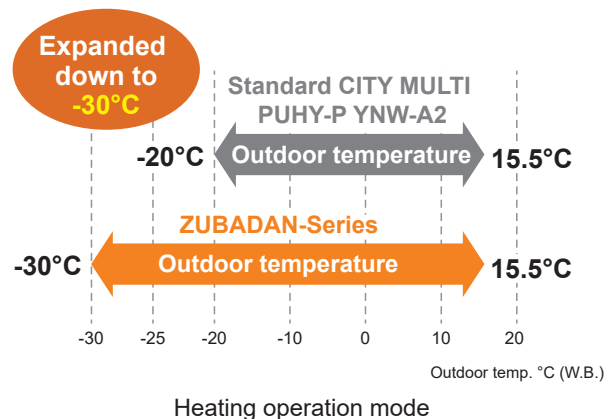


\*Performance without considering frosting.

The new ZUBADAN-Series are able to provide full heating capacity in outside temperatures as low as -20°C.

Furthermore, from the previous lowest operating outside temperature of -20°C, the new YNW-Series pushes the boundaries of technology to give heating in outside temperatures as low as -30°C.

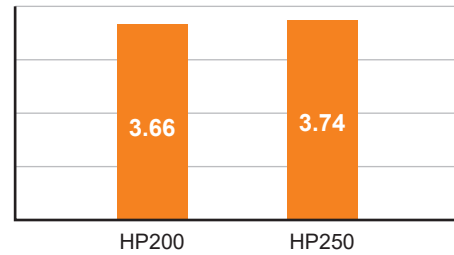
### Expanded Heating Operation down to -30°C



## Energy saving

The ZUBADAN-Series delivers high energy-saving performance throughout the year. The improved compressor with the latest technologies realizes both reliable performance and highly efficient operation. The highest SCOP 3.74 is achieved by the HP250 model.

• SCOP



\*SCOP values are calculated based on EN14825 used for ErP Lot 21/6.

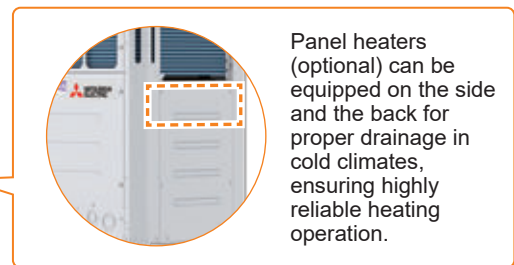
## New design

The structure and design have been revised. The appearance is more sophisticated which can enhance the design of building.

Previous model (YHM)

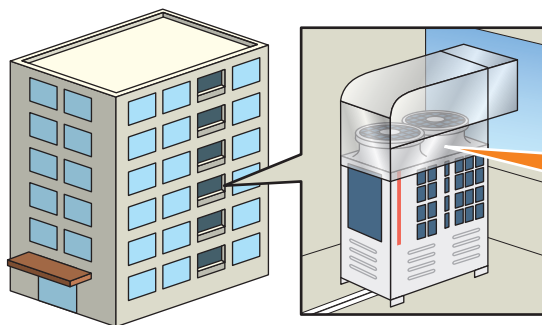


New model (YNW)



## Expanded options for external static pressure settings

The new models (YNW) offer the static pressure options of 0, 30, 60, and 80 Pa, while previous models (YHM) had maximum external static pressure of 60 Pa. This facilitates installation of the unit on each floor of a high-rise building or on balconies.

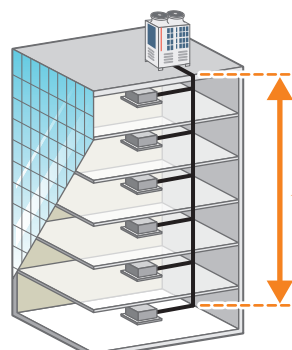


Long exhaust hoods can be connected. This facilitates installation of the unit on each floor of a high-rise building or on balconies.

Maximum external static pressure 80 Pa (local setting)

## Usable in an application with a large vertical separation of up to 90 meters

A height difference of up to 90 m from the outdoor unit to the indoor unit can be supported with no extra-cost options. This increases design flexibility and facilitates installation of these units even in high-rise buildings.



Height difference from outdoor unit to indoor unit: The system can be configured with a height difference of up to **90 m with no extra-cost options.**

\* The maximum height difference is 60 m when the outdoor unit is located lower than the indoor unit.  
\* Requires switch settings.

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

# ZUBADAN-Series **R410A**

## PUHY-HP YNW-A



Model	PUHY-HP200YNW-A		PUHY-HP250YNW-A		
Power source	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	22.4		
		BTU / h	76,400		
		Power input kW	6.45		
		Current input A	10.8-10.3-9.9		
		EER	3.47		
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		
		BTU / h	85,300		
		Power input kW	6.11		
		Current input A	10.3-9.7-9.4		
		COP	4.09		
	(Nominal)	*3	kW	22.4	
			BTU / h	76,400	
			Power input kW	5.12	
			Current input A	8.6-8.2-7.9	
			COP	4.37	
Temp. range of heating	Indoor	D.B.	15.0~27.0 °C (59~81 °F)		
	Outdoor	W.B.	-30.0~15.5 °C (-22~60 °F)		
Indoor unit connectable	Total capacity	50~130% of outdoor unit capacity		50~130% of outdoor unit capacity	
	Model / Quantity	P10~P250, M20~M140/1~20		P10~P250, M20~M140/1~25	
Sound pressure level (measured in anechoic room)	*4, 5	dB <A>	53.5 / 54.0		
Sound power level (measured in anechoic room)	*4	dB <A>	73 / 73		
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 2		Propeller fan x 2	
	Air flow rate	m <sup>3</sup> /min	190		
		L/s	3,167		
		cfm	6,709		
	Control, Driving mechanism	Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.46 x 2		
*6 External static press.	0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		
Compressor	Type	Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method	Inverter		Inverter	
	Motor output	kW	3.8		
	Case heater	-		-	
External finish	Pre-coated galvanized steel sheets <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets <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	
	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)	
	Inverter circuit (COMP/FAN)	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)	
Net weight	kg (lbs)	274 (605)		294 (649)	
Heat exchanger	Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		
Optional parts	Joint: CMY-Y102SS-G2, CMY-Y102LS-G2 Header: CMY-Y104-G, CMY-Y108-G, CMY-Y1010-G		Joint: CMY-Y102SS-G2, CMY-Y102LS-G2 Header: CMY-Y104-G, CMY-Y108-G, CMY-Y1010-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)		

\*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 mmH<sub>2</sub>O, 6.1 mmH<sub>2</sub>O, 8.2 mmH<sub>2</sub>O).

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.

# ZUBADAN-Series **R410A**

## PUHY-HP YSNW-A



Model		PUHY-HP400YSNW-A		PUHY-HP500YSNW-A	
Power source		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	44.8	56.0	
		BTU / h	153,500	191,100	
		Power input kW	13.33	15.86	
		Current input A	22.5-21.3-20.6	26.7-25.4-24.5	
		EER	3.36	3.53	
	SEER	6.33	6.30		
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	50.0	63.0	
		BTU / h	170,600	215,000	
		Power input kW	12.62	16.71	
		Current input A	21.3-20.2-19.5	28.2-26.7-25.8	
		COP	3.96	3.77	
(Nominal)	*3	kW	44.8	56.0	
		BTU / h	153,500	191,100	
		Power input kW	10.59	13.89	
		Current input A	17.8-16.9-16.3	23.4-22.2-21.4	
		COP	4.23	4.03	
	SCOP	3.55	3.62		
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.	-30.0~15.5 °C (-22~60 °F)		-30.0~15.5 °C (-22~60 °F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity		50~130% of outdoor unit capacity
	Model / Quantity		P10~P250, M20~M140/1~40		P10~P250, M20~M140/1~50
Sound pressure level (measured in anechoic room)	*4, 5	dB <A>	57.0 / 57.5		59.5 / 61.0
Sound power level (measured in anechoic room)	*4	dB <A>	77 / 77		79 / 81
Refrigerant piping diameter	Liquid pipe	mm (in.)	12.7 (1/2) Brazed		15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed

Set Model		PUHY-HP200YNW-A	PUHY-HP200YNW-A	PUHY-HP250YNW-A	PUHY-HP250YNW-A	
FAN	Type x Quantity	Propeller fan x 2		Propeller fan x 2	Propeller fan x 2	
	Air flow rate	m <sup>3</sup> /min	190	190	210	210
		L/s	3,167	3,167	3,500	3,500
		cfm	6,709	6,709	7,415	7,415
	Control, Driving mechanism	Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor		
*6 Motor output	kW	0.46 x 2	0.46 x 2	0.46 x 2	0.46 x 2	
Compressor	External static press.	0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
	Type	Inverter scroll hermetic compressor				
	Starting method	Inverter		Inverter	Inverter	
	Motor output	kW	3.8	3.8	4.5	4.5
	Case heater	kW	-	-	-	-
External finish		Pre-coated galvanized steel sheets <MUNSELL 3Y 7.8/1.1 or similar>		Pre-coated galvanized steel sheets <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	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	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)		
	Inverter circuit (COMP/FAN)	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 9.8 kg (22 lbs)	R410A x 10.8 kg (24 lbs)	R410A x 10.8 kg (24 lbs)	
Net weight	kg (lbs)	274 (605)	274 (605)	294 (649)	294 (649)	
Heat exchanger		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube		
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	
Optional parts		Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104-G, CMY-Y108-G, CMY-Y1010-G		Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104-G, CMY-Y108-G, CMY-Y1010-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 mmH<sub>2</sub>O, 6.1 mmH<sub>2</sub>O, 8.2 mmH<sub>2</sub>O).

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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