

# City Multi VRF

## Quick Reference Guide 2024- R410A Y Series



## Y Series

The following sections lay out the Piping restrictions and Pipe Selection.

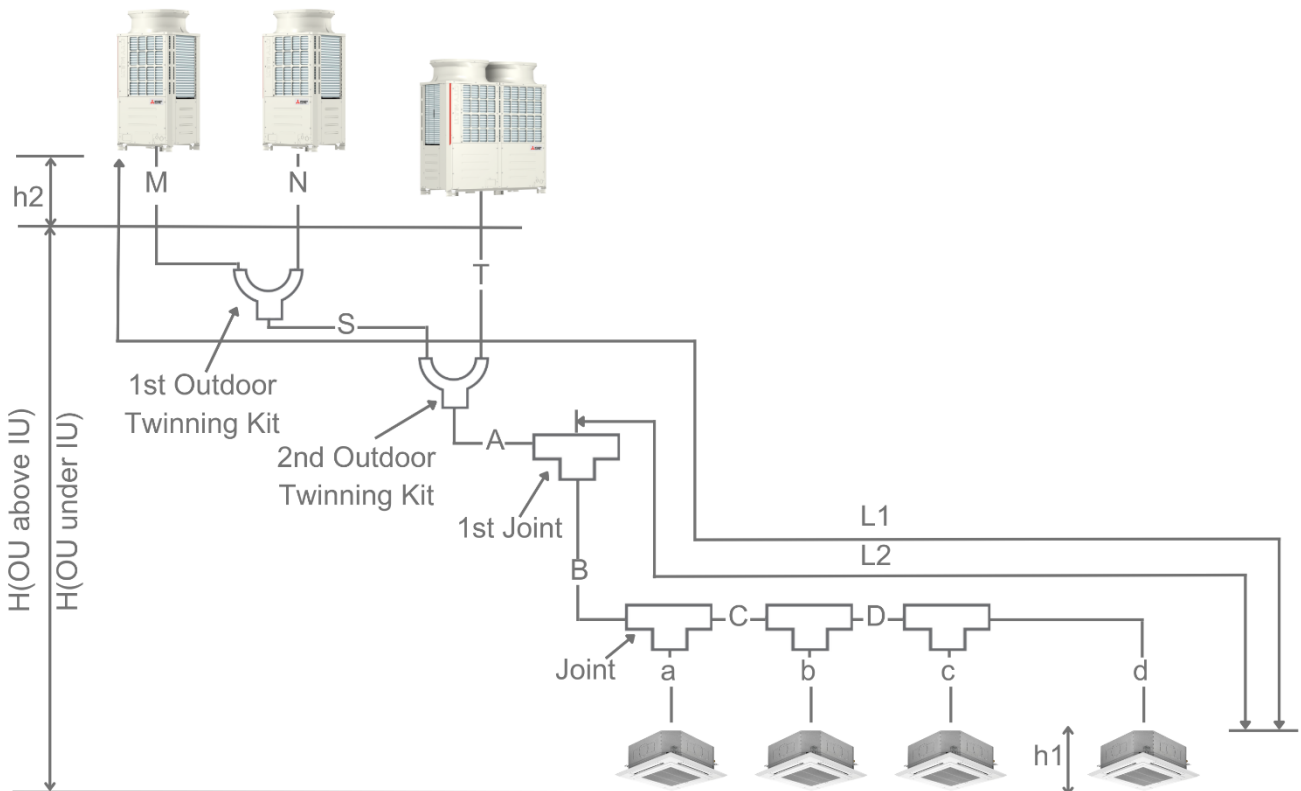
Range	Standard heat pump	Comprising
8 HP	PUHY-P200YNW-A2	
10 HP	PUHY-P250YNW-A2	
12 HP	PUHY-P300YNW-A2	
14 HP	PUHY-P350YNW-A2	
16 HP	PUHY-P400YNW-A2	
18 HP	PUHY-P450YNW-A2	
20 HP	PUHY-P500YNW-A2	
16 HP	PUHY-P400YSNW-A2	PUHY-P200YNW-A2 PUHY-P200YNW-A2
18 HP	PUHY-P450YSNW-A2	PUHY-P200YNW-A2 PUHY-P250YNW-A2
20 HP	PUHY-P500YSNW-A2	PUHY-P250YNW-A2 PUHY-P250YNW-A2
22 HP	PUHY-P550YSNW-A2	PUHY-P250YNW-A2 PUHY-P300YNW-A2
24 HP	PUHY-P600YSNW-A2	PUHY-P300YNW-A2 PUHY-P300YNW-A2
26 HP	PUHY-P650YSNW-A2	PUHY-P250YNW-A2 PUHY-P400YNW-A2
28 HP	PUHY-P700YSNW-A2	PUHY-P350YNW-A2 PUHY-P350YNW-A2
30 HP	PUHY-P750YSNW-A2	PUHY-P350YNW-A2 PUHY-P400YNW-A2
32 HP	PUHY-P800YSNW-A2	PUHY-P350YNW-A2 PUHY-P450YNW-A2
34 HP	PUHY-P850YSNW-A2	PUHY-P400YNW-A2 PUHY-P450YNW-A2
36 HP	PUHY-P900YSNW-A2	PUHY-P450YNW-A2 PUHY-P450YNW-A2
38 HP	PUHY-P950YSNW-A2	PUHY-P250YNW-A2 PUHY-P350YNW-A2 PUHY-P350YNW-A2
40 HP	PUHY-P1000YSNW-A2	PUHY-P250YNW-A2 PUHY-P350YNW-A2 PUHY-P400YNW-A2
42 HP	PUHY-P1050YSNW-A2	PUHY-P250YNW-A2 PUHY-P400YNW-A2 PUHY-P400YNW-A2

44 HP	PUHY-P1100YSNW-A2	PUHY-P350YNW-A2 PUHY-P350YNW-A2 PUHY-P400YNW-A2
46 HP	PUHY-P1150YSNW-A2	PUHY-P350YNW-A2 PUHY-P400YNW-A2 PUHY-P400YNW-A2
48 HP	PUHY-P1200YSNW-A2	PUHY-P400YNW-A2 PUHY-P400YNW-A2 PUHY-P400YNW-A2
50 HP	PUHY-P1250YSNW-A2	PUHY-P400YNW-A2 PUHY-P400YNW-A2 PUHY-P450YNW-A2
52 HP	PUHY-P1300YSNW-A2	PUHY-P400YNW-A2 PUHY-P450YNW-A2 PUHY-P450YNW-A2
54 HP	PUHY-P1350YSNW-A2	PUHY-P450YNW-A2 PUHY-P450YNW-A2 PUHY-P450YNW-A2

**Outdoor Twinning Kits**

Outdoor Unit YSNW	Twinning Kit
P400 – P650	CMY-Y100VBK3
P700 – P900	CMY-Y200VBK2
P950 – P1350	CMY-Y300VBK3

**Piping Length**



Piping Length		
Item	Pipe Section	Max Length
Total piping length	$S+T+M+N+A+B+C+D+a+b+c+d$	1000 m
Distance between outdoor unit & outdoor unit	$M+N+S+T$	10 m
Height between outdoor unit & outdoor unit	$h_2$	0.1 m
Furthest piping length (L1)	$M(N)+S+A+B+C+D+d$	165 m
Furthest piping Length (L2) after first branch	$B+C+D+d$	40 m *3
Height between indoor & outdoor units (outdoor above)	$H$	50 m *1
Height between indoor & outdoor units (outdoor below)	$H'$	40 m *2
Height between indoor and indoor units	$h_1$	15 m *4

\*1. 90 m is available depending on the model and installation conditions. Please refer to design tool schematic & 'Height Check' document.

\*2. 60 m is available depending on the model and installation conditions. Please refer to design tool schematic & 'Height Check' document.

\*3. 90 m is available. When the piping length exceeds 40 m, use one size larger liquid pipe starting with the section of piping where 40 m is exceeded and all piping after that point.

In the figure above, if the piping labelled "D" exceeds 40 m (but does not exceed 90 m), increase the size of the liquid piping labelled D, c, and d by one size.

\*4. 30 m is available. If the height difference between indoor units exceeds 15 m (but does not exceed 30 m), use one-size larger pipes for indoor unit liquid pipes.

In the figure above, if "h1" exceeds 15 m, increase the size of the liquid piping labelled by one size i.e. pipe 'd'.

## Outdoor Unit – 1st Branch (Pipe A)

Outdoor Unit – 1st Branch (Pipe A)		
Outdoor Unit	Liquid – mm (in)	Gas – mm (in)
P200	9.52 (3/8")	22.20 (7/8")
P250-P300	9.52 (3/8") *1	22.20 (7/8")
P350-P400	12.70 (1/2")	28.58 (1-1/8")
P450-P650	15.88 (5/8")	28.58 (1-1/8")
P700-P800	19.05 (3/4")	34.93 (1-3/8")
P850-P1350	19.05 (3/4")	41.28 (1-5/8")

\*1 If size 250 piping length L1 exceeds 90m use 12.70(1/2")  
 If size 300 piping length L1 exceeds 40m use 12.70(1/2")

## Branch Pipe Size (Pipe B, C, D)

Branch Pipe Size (Pipe B, C, D)		
Total Capacity of Indoor Units	Liquid – mm (in)	Gas – mm (in)
<P/M140	9.52 (3/8")	15.88 (5/8")
P/M141 ~ P/M200	9.52 (3/8")	19.05 (3/4")
P/M201 ~ P/M300	9.52 (3/8")	22.20 (7/8")
P/M301 ~ P/M400	12.70 (1/2")	28.58 (1-1/8")
P/M401 ~ P/M650	15.88 (5/8")	28.58 (1-1/8")
P/M651 ~ P/M800	19.05 (3/4")	34.93 (1-3/8")
P/M801 ~	19.05 (3/4")	41.28 (1-5/8")

## Branch – Indoor Unit (Pipe a, b, c, d)

Branch – Indoor Unit – (Pipe a, b, c, d)		
Total Capacity of Indoor Units	Liquid – mm (in)	Gas – mm (in)
P/M10 ~ P/M50	6.35 (1/4")	12.70 (1/2")
P/M63 ~ P/M140	9.52 (3/8")	15.88 (5/8")
P200	9.52 (3/8")	19.05 (3/4")
P250	9.52 (3/8")	22.70 (7/8")

## First Joint

Outdoor Unit First Joint	
Outdoor Unit Model	Branch Pipe Model
P200 - P400	CMY-Y102LS-G2
P450 - P650	CMY-Y202S-G2
P700 - P1350	CMY-Y302S-G2

## Branch Joint

Branch Joint		
Type of Branch Pipe	Total Capacity of Indoor Unit	Branch Pipe Model
Joint	≤ P/M200	CMY-Y102SS-G2
	P/M201 ~ P/M400	CMY-Y102LS-G2
	P/M401 ~ P/M650	CMY-Y202S-G2
	P/M651 or above	CMY-Y302S-G2



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Technical Help - option 1

Warranty - option 3

Training - option 6 followed by option 1

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**Note:** The fuse rating is for guidance only. Please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:2088), R32 (GWP:675), R407C (GWP:1774), R134a (GWP:1430), R513A (GWP:631), R454B (GWP:466), R1234ze (GWP:7) or R1234yf (GWP:4). \*These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IPCC 3rd edition, these are as follows. R410A (GWP:1975), R32 (GWP:550), R407C (GWP:1650) or R134a (GWP:1300).

Effective as of January 2022



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