

# PUMY-SP SERIES

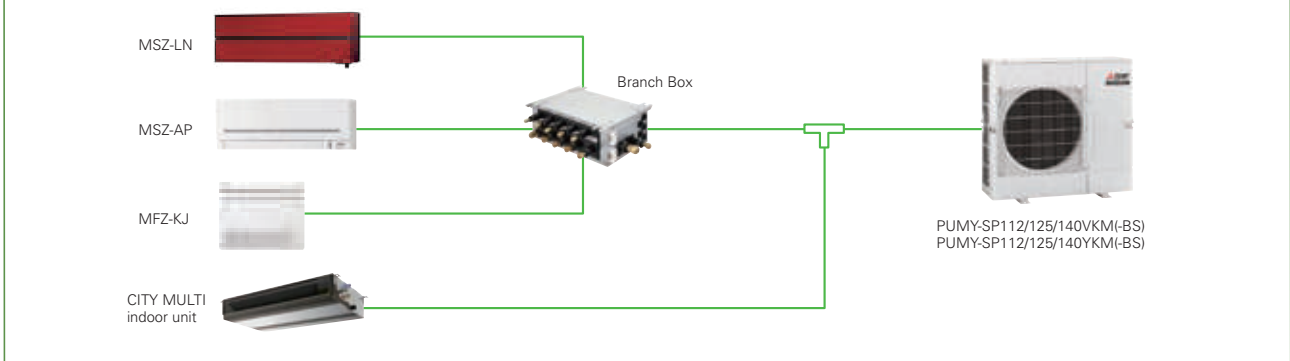
Air conditioning system supports replacement work by simplifying the installation process. Ideal for supporting renewal needs at small offices and stores, home offices, etc.



**R410A**

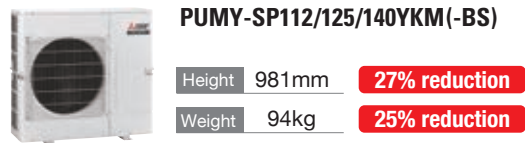
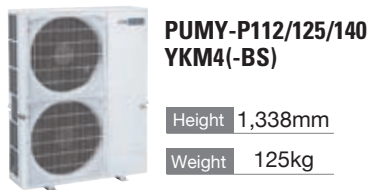
PUMY-SP112/125/140VKM(-BS)  
PUMY-SP112/125/140YKM(-BS)

## EXAMPLE SYSTEM



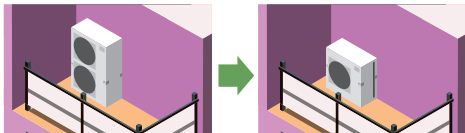
## Light weight and compact size

Compact design fits into narrow outdoor unit space of condominiums and offices. Light weight design facilitates easy installation and transportation.



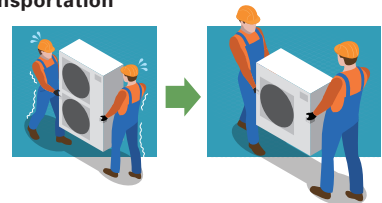
### Unobstructive, compact, and easy to hide from view

Conventional 2-fan type outdoor units may spoil the view. Due to its compact size, the new outdoor fan unit can be installed in locations that would have been inappropriate.



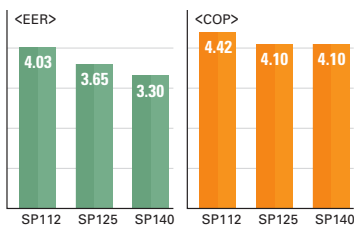
### Easy installation and transportation

The reduced weight and height allow for better transportation performance. Carrying and installing become easier.



## Industry's top energy efficiency\*

Even with its compact size and light weight, it has a high EER and COP. Costs are reduced with the industry's best energy saving abilities.



\* As of sep.2017.Among VRF outdoor unit of 1fan. (An incompany investigation)

## Super silent mode\*

Noise level can be reduced up to 10dB(A). This allows you to operate the unit even in the night in a residential zone.

\*Capacity reduction differs by mode setting.

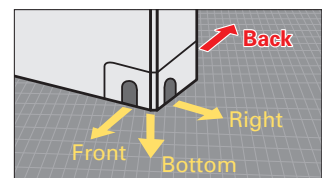
\*PAC-SC36NA-E is required to activate Super Silent mode.

## Rear piping is available

### Freedom with layout due to its piping pullout locations in four directions

The in-door unit allows piping from any four directions; front, back, bottom, or right. This enables easier horizontal connection for collective layout.

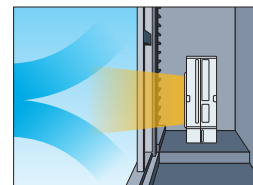
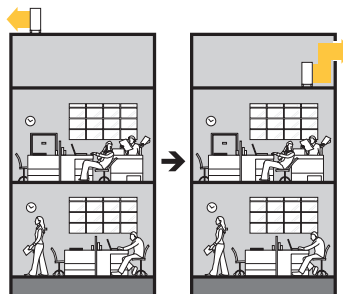
The out-door unit with an expanded piping layout flexibility greatly improves piping workability.



## An external static pressure of 30Pa

The installation location is flexible, thanks to its 30Pa static pressure. You can install it in locations that you could not before.

An external static pressure of 30Pa allows outdoor unit to be installed on balconies in high-rise building or spaces near louvers.



\*Noise level will increase when using this function.



Model		PUMY-SP112VKM(-BS)	PUMY-SP125VKM(-BS)	PUMY-SP140VKM(-BS)	PUMY-SP112YKM(-BS)	PUMY-SP125YKM(-BS)	PUMY-SP140YKM(-BS)	
<b>Power Source</b>		1-phase 220 - 230 - 240V 50Hz / 220V 60Hz			3-phase 380 - 400 - 415V 50Hz / 380V 60Hz			
<b>Cooling Capacity (nominal)</b>	*1 kW	12.5	14.0	15.5	12.5	14.0	15.5	
	Power Input kW	3.10	3.84	4.70	3.10	3.84	4.70	
	Current Input A	14.38 - 13.75 - 13.18 / 14.38	17.81 - 17.04 - 16.33 / 17.81	21.80 - 20.85 - 19.88 / 21.80	4.96 - 4.71 - 4.54 / 4.96	6.14 - 5.83 - 5.62 / 6.14	7.52 - 7.14 - 6.88 / 7.52	
	EER kW/kW	4.03	3.65	3.30	4.03	3.65	3.30	
<b>Temp. Range of Cooling*</b>	Indoor Temp. W.B.	15.0 - +24.0°C	15.0 - +24.0°C	15.0 - +24.0°C	15.0 - +24.0°C	15.0 - +24.0°C	15.0 - +24.0°C	
	Outdoor Temp. D.B.	-5.0 - 52.0°C	-5.0 - 52.0°C	-5.0 - 52.0°C	-5.0 - 52.0°C	-5.0 - 52.0°C	-5.0 - 52.0°C	
<b>Heating Capacity (nominal)</b>	*2 kW	14.0	16.0	16.5	14.0	16.0	16.5	
	Power Input kW	3.17	3.90	4.02	3.17	3.90	4.02	
	Current Input A	14.70 - 14.06 - 13.48 / 14.70	18.09 - 17.30 - 16.58 / 18.09	18.85 - 17.83 - 17.09 / 18.85	5.07 - 4.82 - 4.64 / 5.07	6.24 - 5.93 - 5.71 / 6.24	6.43 - 6.11 - 5.89 / 6.43	
	COP kW/kW	4.42	4.10	4.10	4.42	4.10	4.10	
<b>Temp. Range of Heating</b>	Indoor Temp. D.B.	15.0 - 27.0°C	15.0 - 27.0°C	15.0 - 27.0°C	15.0 - 27.0°C	15.0 - 27.0°C	15.0 - 27.0°C	
	Outdoor Temp. W.B.	-20.0 - +15.0°C	-20.0 - +15.0°C	-20.0 - +15.0°C	-20.0 - +15.0°C	-20.0 - +15.0°C	-20.0 - +15.0°C	
<b>Indoor Unit Connectable</b>	Total Capacity 50 to 130% of outdoor unit capacity							
	Model / Quantity	City Multi	15 - 140 / 9	15 - 140 / 10	15 - 140 / 12	15 - 140 / 9	15 - 140 / 10	15 - 140 / 12
		Branch Box*9	15 - 100 / 8	15 - 100 / 8	15 - 100 / 8	15 - 100 / 8	15 - 100 / 8	15 - 100 / 8
	Mixed System	Branch Box 1 unit	City Multi	15 - 140 / 5	15 - 140 / 5	15 - 140 / 5	15 - 140 / 5	15 - 140 / 5
			Branch Box	15 - 100 / 5	15 - 100 / 5	15 - 100 / 5	15 - 100 / 5	15 - 100 / 5
		Branch Box 2 units	City Multi	15 - 140 / 3 or 2*7	15 - 140 / 3	15 - 140 / 3	15 - 140 / 3 or 2*7	15 - 140 / 3
	Branch Box	15 - 100 / 7 or 8*7	15 - 100 / 8	15 - 100 / 8	15 - 100 / 7 or 8*7	15 - 100 / 8	15 - 100 / 8	
<b>Sound Pressure Level (Cooling / Heating)</b>	dB <A>	52 / 54	53 / 56	54 / 56	52 / 54	53 / 56	54 / 56	
<b>Sound Power Level (Cooling)</b>	dB <A>	72	73	74	72	73	74	
<b>Refrigerant Piping Diameter</b>	Liquid Pipe mm	9.52 Flare						
	Gas Pipe mm	15.88 Flare						
<b>Fan</b>	Type x Quantity	Propeller Fan x 1						
	Air Flow Rate	m³/min	77	83	83	77	83	83
		L/s	1,283	1,383	1,383	1,283	1,383	1,383
		cfm	2,719	2,931	2,931	2,719	2,931	2,931
	Motor Output kW	0.20						
External Static Press. Pa	0 Pa / 30 Pa*8							
<b>Compressor</b>	Type x Quantity	Twin rotary hermetic compressor x 1						
	Starting Method	Inverter						
	Motor Output kW	3.1	3.5	3.7	3.1	3.5	3.7	
<b>External Dimensions (H x W x D)</b>	mm	981x1,050x330 (+40)						
<b>Net Weight</b>	kg (lbs)	93 (205)*5			94 (207)*6			
<b>Pre-Charged Quantity</b>	Weight kg	3.5	3.5	3.5	3.5	3.5	3.5	
	CO <sub>2</sub> Equivalent t	7.31	7.31	7.31	7.31	7.31	7.31	
<b>Max Added Quantity</b>	Weight kg	9.0	9.0	9.0	9.0	9.0	9.0	
	CO <sub>2</sub> Equivalent t	18.79	18.79	18.79	18.79	18.79	18.79	

\*1, \*2 Nominal conditions

	Indoor	Outdoor	Piping Length	Level Difference	External Static Press. (Outdoor Unit)
<b>Cooling</b>	27°C DB / 19°C WB	35°C	7.5m (24 - 9 / 16ft.)	0m (0ft)	0 Pa
<b>Heating</b>	20°C DB	7°C DB / 6°C WB	7.5m (24 - 9 / 16ft.)	0m (0ft)	0 Pa

\*3 10 to 52°C; increase of connecting PKFY-P15/P20/P25VBM, PFFY-P20/P25/P32VKM, PFFY-P20/P25/P32VLE(R)M indoor unit and M series indoor unit with connection kit and M series, S series, and P series type indoor unit with branch box.

\*4 Up to 11 units when connecting via 2 branch boxes.

\*5 94 (207), for PUMY-SP112/125/140VKM-BS

\*6 95 (209), for PUMY-SP112/125/140YKM-BS

\*7 When connecting 7 indoor units via branch box, connectable City Multi indoor units are 3; connecting 8 indoor units via branch box, connectable City Multi indoor units are 2.

\*8 0 Pa as initial setting

\*9 At least 2 indoor units must be connected when using branch box.

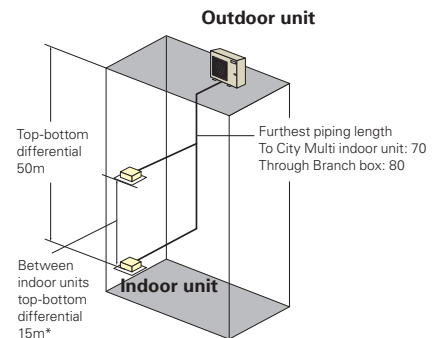
Type	Branch Box					
Model Name	PAC-MK53BC	PAC-MK33BC	PAC-MK53BCB	PAC-MK33BCB		
<b>Connectable Number of Indoor Units</b>	Max. 5	Max. 3	Max. 5	Max. 3		
<b>Power Supply</b>	Outdoor power supply, Branch Box / Outdoor separate power supply					
	Outdoor (V/Phase/Hz)					
		1-phase, 220 - 230 - 240V, 50Hz				
<b>Total Input</b>	kW					
		0.003				
<b>Operating Current</b>	A					
		0.05				
<b>Dimensions</b>	H x W x D mm					
		170 - 450 - 280				
<b>Weight</b>	kg					
		7.4	6.7	7.0	6.5	
<b>Piping (diameter)</b>	Branch (Indoor Side)	Liquid mm	6.35 x 5	6.35 x 3	6.35 x 5	6.35 x 3
		Gas mm	9.52 x 4, 12.7 x 1	9.52 x 3	9.52 x 4, 12.7 x 1	9.52 x 3
	Main (Outdoor Side)	Liquid mm	9.52			
		Gas mm	15.88			
<b>Connection Method</b>		Flared		Braze		
<b>Wiring</b>	<b>to Indoor Unit</b>		3-wire + Earth wire			
	<b>to Outdoor Unit</b>		3-wire + Earth wire			

**<Branch box compatible table>**

Outdoor unit	Branch box	PAC-MK31/51BC(B)	PAC-MK32/52BC(B)	PAC-MK33/53BC(B)
PUMY-SP112/125/140V/YKM.TH(-BS)		✓	N/A	N/A
PUMY-SP112/125/140V/YKMR1.TH(-BS)		N/A	N/A	✓

**[SP112-140V/YKM(-BS)]**

Refrigerant Piping Lengths	Maximum meters	Vertical differentials between units	Maximum meters
Total length .....	120	Indoor/outdoor (outdoor higher) .....	50
Maximum allowable length .....	To City Multi indoor unit: 70	Indoor/outdoor (outdoor lower) .....	30
	Through Branch box: 80	Indoor/indoor .....	15*



\*In case of branch box connection: 12m