CITYMULTI®

Outdoor Unit: 12-TON PURY-HP144YSKMU-A-H

(Consists of Two PURY-HP72YKMU-A-H and One CMY-R100CBK2 Twinning Kit)

MITSUBISHI ELECTRIC

Job Name:	
System Reference:	Date:

OUTDOOR VRF HEAT PUMP WITH HEAT RECOVERY SYSTEM FEATURES

- Innovative flash injection technology for tremendous heating capacity at lower outdoor temperatures
- Built-in base pan heater to prevent ice in drain pan
- Air-source, simultaneous cooling and heating
- INVERTER-driven compressor
- Connects to CITY MULTI indoor units
- Controlled via CITY MULTI Controls Network

OPTIONAL PARTS

- ■ Twinning Kit (required).....CMY-R100CBK2
- □ Joint Kit.....for details see Pipe Accesories Submittal
- □ BC Controller.....for details see BC Controller Submittals
- □ Low Ambient Kit .....for details see Low Ambient Kit Submittal
- □ Snow/Hail Guards Kit.....for details see Snow/Hail Guards Kit Submittal

Specifications		Model Name	Module 1	Module 2
Unit Type		PURY-HP144YSKMU-A-H	PURY-HP72YKMU-A-H	PURY-HP72YKMU-A-H
Nominal Cooling Capacity (460V)	Btu/h	144,000	72,000	72,000
Nominal Heating Capacity (460V)	Btu/h	160,000	80,000	80,000
Operating Temperature Range *1	Cooling (Outdoor) *2	Refer to Module Data	23 ~ 115° F (-5 ~ +46° C) DB	
	Heating (Outdoor)	Refer to Module Data	-13 ~ +60°F (-25 ~ +15.5° C) WB	
External Dimensions (H x W x D)	In. / mm	Refer to Module Data	64-31/32 x 48-1/16 x 29-5/32 / 1,650 x 1,220 x 740	64-31/32 x 48-1/16 x 29-5/32 / 1,650 x 1,220 x 740
Net Weight	Lbs. / kg	1160 / 526	580 / 263	580 / 263
External finish		Refer to Module Data**	Pre-coated galvanized steel sheet	
Electrical Power Requirements	Voltage, Phase, Hertz	Refer to Module Data**	460V, 3-phase, 60Hz	
Minimum Circuit Ampacity (MCA)	A	Refer to Module Data**	26**	26**
Recommended Fuse/Breaker Size	A	Refer to Module Data**	30**	30**
Maximum Fuse Size	A	Refer to System Data	30**	30**
Piping Diameter				
Piping Diameter (Brazed) (In. / mm)	Liquid (High Pressure)	7/8 / 22.2	Refer to System Data	
	Gas (Low Pressure)	1-1/8 / 28.58		
From Modules to Twinning Kit (Brazed) (In. / mm)	Liquid (High Pressure)	Refer to Module Data	5/8 / 15.88	5/8 / 15.88
	Gas (Low Pressure)		3/4 / 19.05	3/4 / 19.05
Indoor Unit	Total Capacity	50 to 150% of ODUs	Refer to System Data	
	Model / Quantity	P06 ~ P96 / 1 to 36		
Sound Pressure Levels	dB(A)	61	58	58
Fan				
Type x Quantity		Refer to Module Data	Propeller Fan x 1	Propeller Fan x 1
Airflow Rate	CFM	Refer to Module Data	6,200	6,200
Compressor Operating Range		Cooling: 15% to 100%; Heating: 7% to 100%	Refer to System Data	
Compressor Type x Quantity		Refer to Module Data	Inverter-driven Scroll Hermetic x 1	Inverter-driven Scroll Hermetic x 1
Refrigerant		Refer to Module Data	R410A x 26 lbs + 1 oz (11.8 kg)	
Lubricant			MEL32	
Protection Devices	High-pressure	Refer to Module Data	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-current protection	Over-current protection
	Fan motor		Thermal switch	Thermal switch
AHRI Ratings (Ducted/Non-Ducted)	EER	12.5 / 12.6	Refer to System Data	
	IEER	16.7 / 17.9		
	COP	3.47 / 3.41		
Simultaneous Rating (Ducted/Non-Ducted)	SCHE *3	22.1 / 22		

NOTES:

*1. Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region.

*2. For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal.

*3. Simultaneous Cooling and Heating Efficiency

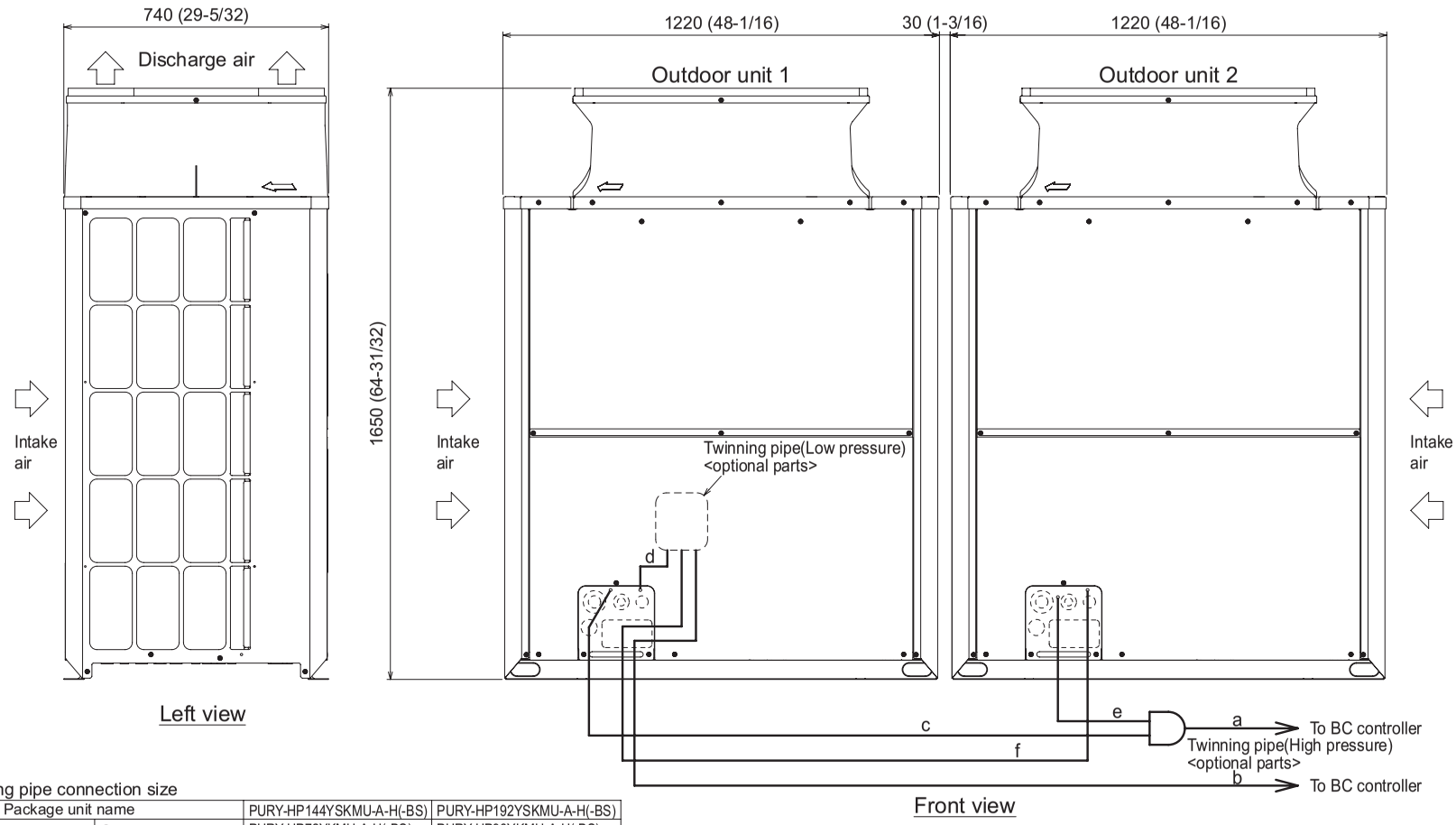
** Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

Specifications are subject to change without notice.

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Outdoor Unit: PURY-HP144YSKMU-A-H – DIMENSIONS

Unit: mm (in.)



Twinning pipe connection size

Package unit name				PURY-HP144YSKMU-A-H(-BS)	PURY-HP192YSKMU-A-H(-BS)
Component unit name	Outdoor unit 1			PURY-HP72YKMU-A-H(-BS)	PURY-HP96YKMU-A-H(-BS)
	Outdoor unit 2			PURY-HP72YKMU-A-H(-BS)	PURY-HP96YKMU-A-H(-BS)
Outdoor Twinning Kit(optional parts)				CMY-R100CBK2	
BC controller~Twinning pipe	High pressure	a		ø22.2(7/8)	
	Low pressure	b		ø28.58(1-1/8)	

	Unit model	HP144				HP192			
	Component unit model	HP72		HP72		HP96		HP96	
Twinning Kit ~Outdoor unit	High pressure	c	ø15.88(5/8)	e	ø15.88(5/8)	c	ø19.05(3/4)	e	ø19.05(3/4)
	Low pressure	d	– (Note 5)	f	ø19.05(3/4)	d	– (Note 5)	f	ø22.2(7/8)

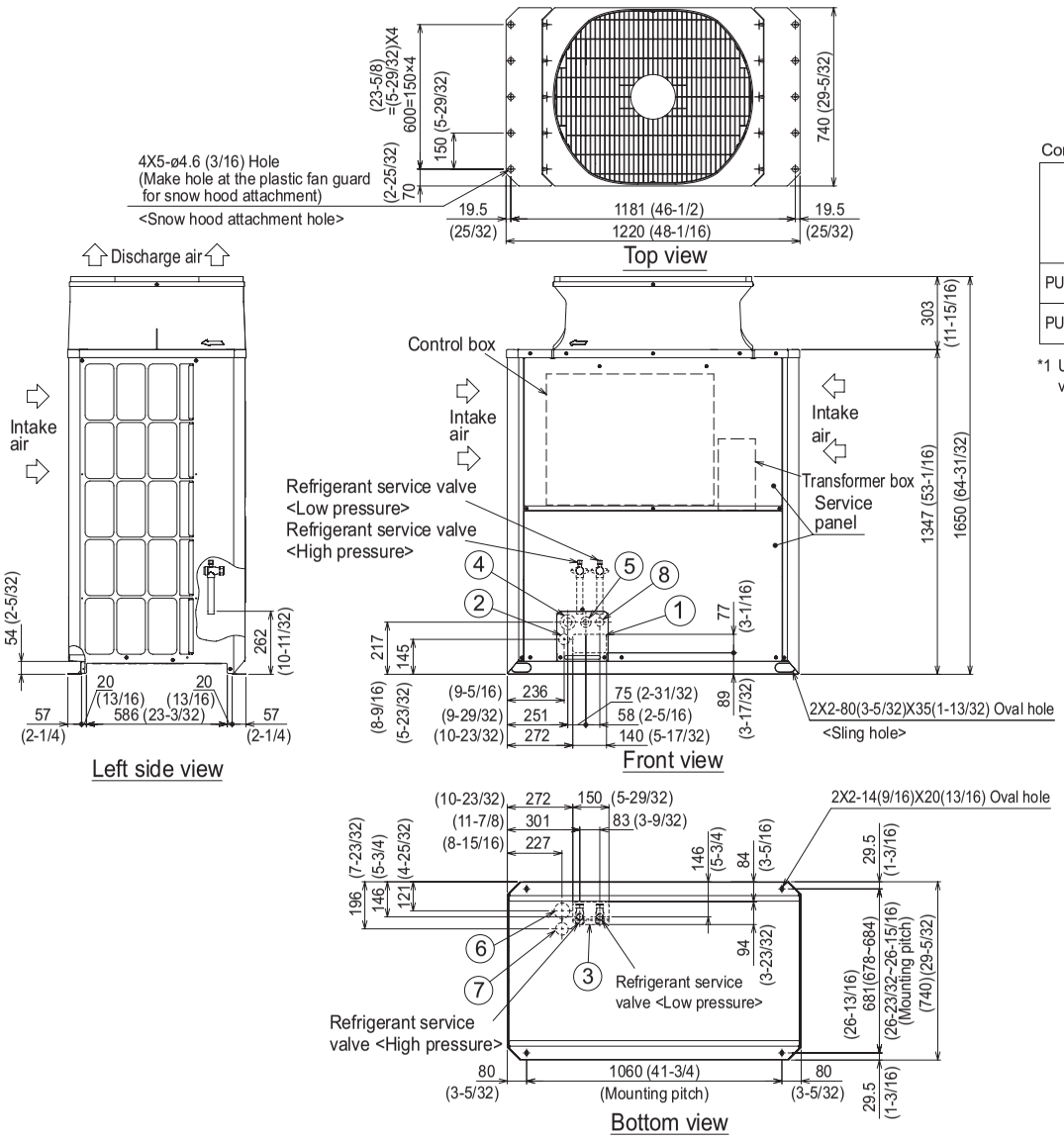
Note 1. Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.
2. Twinning pipe (High pressure) should not be tilted more than 15 degrees from the horizontal plane. Be sure to see the Installation Manual for details of Twinning pipe installation.
3. The pipe section before the Twinning pipe (section "a" in the figure) must have at least 500mm(19-11/16) of straight section (*including the straight pipe that is supplied with the Twinning pipe).
4. Only use the Twinning pipe by Mitsubishi (optional parts).
5. Connect the outdoor unit 1 with the Twinning pipe (Low pressure) (section "d" in the figure).

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Modules 1 and 2: PURY-HP72YKMU-A-H – DIMENSIONS

Unit: mm (in.)



Note1. Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PURY-HP72YKMU-A-H(-BS)	ø15.88 Brazed (5/8) *1	ø19.05 Brazed (3/4) *1	ø25.4 (1)	ø25.4 (1)
PURY-HP96YKMU-A-H(-BS)	ø19.05 Brazed (3/4) *1	ø22.2 Brazed (7/8) *1	ø25.4 (1)	ø25.4 (1)

*1 Use the pipe joint(field supply) and connect to the refrigerant service valve piping.

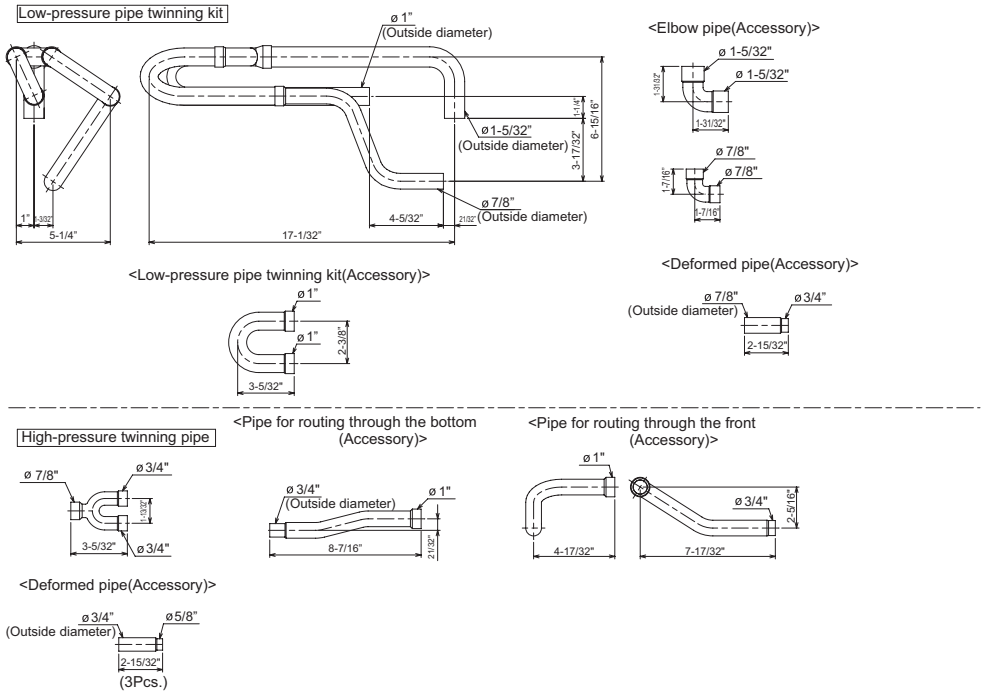
NO.	Usage		Specifications
①	For pipes	Front through hole	140 × 77 Knockout hole (5-17/32) (3-1/16)
②		Front through hole (Uses when twinning kit (optional parts) is mounted.)	ø45 Knockout hole (1-25/32)
③		Bottom through hole	150 × 94 Knockout hole (5-29/32) (3-23/32)
④	For wires	Front through hole	ø62.7 or ø34.5 Knockout hole (2-15/32) (1-3/8)
⑤		Front through hole	ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
⑥		Bottom through hole	ø65 Knockout hole (2-9/16)
⑦		Bottom through hole	ø52 Knockout hole (2-1/16)
⑧	For transmission cables	Front through hole	ø34 Knockout hole (1-11/32)

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Twinning Kit: CMY-R100CBK2

CMY-R100CBK2



Notes:

MITSUBISHI ELECTRIC
COOLING & HEATING

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FORM# PURY-HP144YSKMU-A-H - 201512

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