

HVAC ROOF PLAN
1/8"=1'-0"

- HVAC NOTES:**
1. MITSUBISHI R2 SERIES VRF HEAT PUMP UNITS TO BE SET ON STRUCTURAL STEEL SUPPORTS PROVIDED BY OTHERS.
 2. HEAT PUMP UNITS TO BE SET ON SPRING VIBRATION ISOLATORS WITH A STRUCTURAL INTERSTITIAL ANGLE IRON MOUNTING MEMBER OR SIMILAR ATTACHED DIRECTLY TO BOTTOM OF UNIT MOUNTING FLANGE AND PROVIDE CROSS BRACING FOR RIGIDITY. REFER TO MITSUBISHI INSTALLATION REQUIREMENTS FOR DETAILS.
 3. REFRIGERANT PIPING TO BE SIZED USING THE MITSUBISHI DIAMOND SYSTEM BUILDER SOFTWARE USING ACTUAL INSTALLED LENGTHS OF PIPING ROUTES.
 4. REFRIGERANT LINES SHALL BE MOUNTED ON WOODEN SLEEPER ON WALK PADS OR OTHER METHOD ACCEPTABLE TO MAINTAIN ROOF WARRANTY.
 5. REFRIGERANT PIPING CLAMPS/HANGERS SHALL BE ATTACHED OUTSIDE THE INSULATION.
 6. COORDINATE WITH GC FOR THE LOCATION OF WALK PADS IN ALL AREAS REQUIRED FOR SERVICE OF EQUIPMENT. GC TO FURNISH AND INSTALL WALK PADS FOR PROTECTION OF ROOF MEMBRANE.

No	Date	Revision
2	11/02/21	HEAT PUMP LAYOUT
1	07/07/21	ADDENDUM #1

ALLIED
CONSULTING ENGINEERING
235 ULINSON ROAD SUITE 5
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BOSTON ATHENAEUM
RENOVATIONS TO 10-1/2 AND 14 BEACON STREET
10 1/2 & 14 BEACON ST. BOSTON, MA 02108

Drawing Title:
HVAC
Roof Plan
Date: 06/11/21
Scale: 1/8"=1'-0"
Project No.: 60212

CONSTRUCTION
DOCUMENTS

H107

Submittal Documents

CITYMULTI®

10-TON TURYE1203AN40A(N/B)



Job Name: **Boston Athenaeum**

System Reference: **CU-6N**

Date: **7/20/21**

208/230V OUTDOOR VRF HEAT RECOVERY SYSTEM



UNIT OPTION

- Standard Model.....TURYE1203AN40AN
- Seacoast (BS) Model.....TURYE1203AN40AB

ACCESSORIES

- BC Controller (Required).....for details see BC Controller Submittals
- Joint Kit.....for details see Pipe Accessories Submittal
- Snow/Hail Guards Kit.....for details see Snow/Hail Guards Kit Submittal

Specifications		System	
Unit Type		TURYE1203AN40A(N/B)	
Cooling Capacity (Nominal)	BTU/H	120,000	
Heating Capacity (Nominal)	BTU/H	135,000	
Guaranteed Operating Range ¹	Cooling ²	°F [°C] 23.0~126.0 [-5.0~52.0]	
	Heating ³	°F [°C] -13~60 [-25.0~15.5]	
Extended Operating Range	Heating	°F [°C] -25.0~60.0 [-31.5~15.5]	
External Dimensions (H x W x D)	In. [mm]	71-5/8 x 48-7/8 x 29-5/32 [1,818 x 1,240 x 740]	
Net Weight	Lbs. [kg]	622 [282]	
External Finish	Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>		
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		208/230V, 3-phase, 60 Hz, ±10%
Minimum Circuit Ampacity	A	41.0/38.0	
Maximum Overcurrent Protection	A	60/60	
Recommended Fuse Size	A	50	
Recommended Minimum Wire Size	AWG [mm]	4/4 [21.2/21.2]	
SCCR	kA	5	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]	3/4 [19.05] Brazed
	Gas (Low Pressure)	In. [mm]	1-1/8 [28.58] Brazed
Max. Total Refrigerant Line Length	Ft.	1968	
Max. Refrigerant Line Length (Between ODU & IDU)	Ft.	541	
Max. Control Wiring Length	Ft.	1640	
Indoor Unit Connectable	Total Capacity	50.0~150.0% of outdoor unit capacity	
	Model/Quantity	P05~P96/1.0~30.0	
Sound Pressure Levels	dB(A)	60.0~62.0	
Sound Power Levels	dB(A)	80.0/80.5	
FAN ⁴	Type x Quantity	Propeller fan x 2	
	Airflow Rate	CFM	8300
	External Static Pressure	In. WG	Selectable; 0.00, 0.12, 0.24, 0.32 In. WG; factory set to 0 In. WG
Compressor Operating Range	15.0% to 100.0%		
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1	
Refrigerant	Type x Original Charge	R410A x 17 lbs + 10 oz [8.0 kg]	
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	
	Fan Motor	Over-current protection	
AHRI Ratings (Ducted/Non-ducted)	EER	12.6/13.8	
	IEER	25.0/30.1	
	COP	3.71/4.04	
	SCHE	25.3/29.1	

NOTES:
 Nominal cooling conditions (Test conditions are based on AHRI 1230)
 Indoor: 80°F D.B./67°F W.B. (26.7°C D.B./19.4°C W.B.), Outdoor: 95°F D.B. (35°C D.B.)
 Nominal heating conditions (Test conditions are based on AHRI 1230)
 Indoor: 70°F D.B. (21.1°C D.B.), Outdoor: 47°F D.B./43°F W.B. (8.3°C D.B./6.1°C W.B.)

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

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

³When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating

⁴Unit will continue to operate in extended operating range, but capacity is not guaranteed

OUTDOOR UNIT: TURYE1203AN40A(N/B) – DIMENSIONS

TURYE(096/120/144)3AN40A(N/B)

Unit: mm(in)

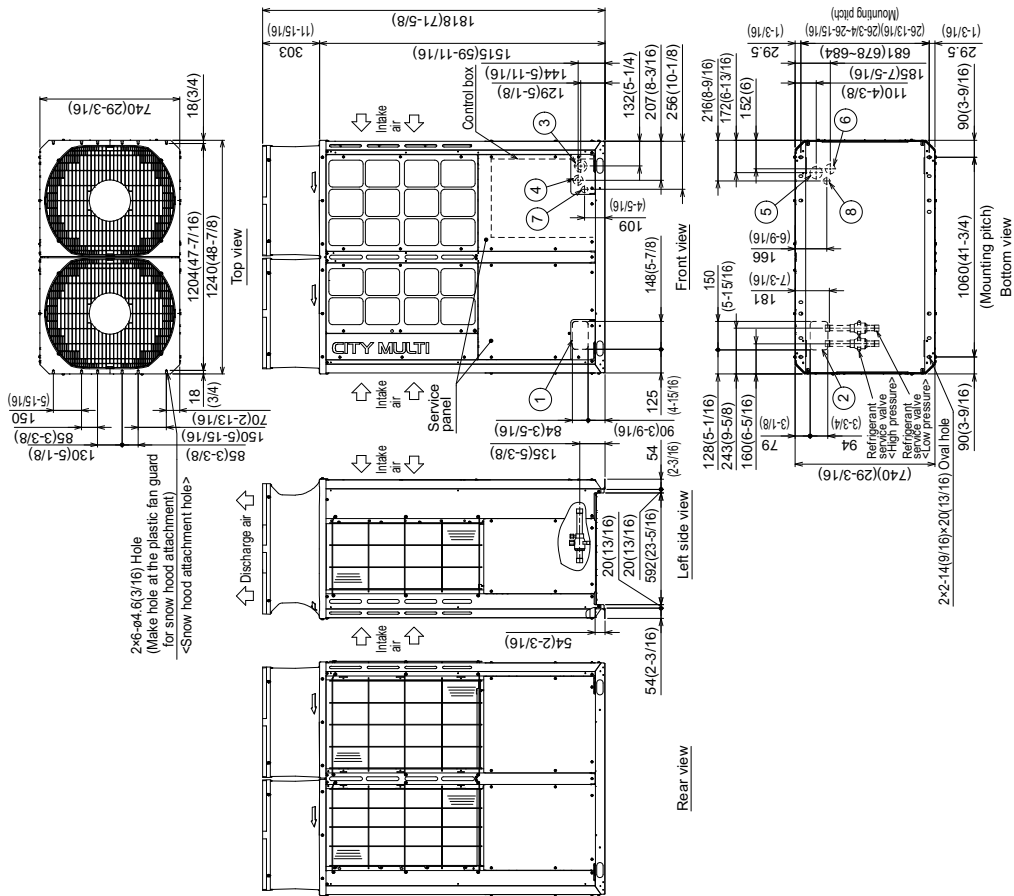
Note 1. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).

Connecting pipe specifications

Model	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
E096	φ19.05(3/4) Brazed ^{*1}	φ22.7(7/8) Brazed ^{*1}	φ8.3(1/2)	φ2.3(1/8)
E120	φ19.05(3/4) Brazed ^{*1}	φ22.7(7/8) Brazed ^{*1}	φ8.3(1/2)	φ2.3(1/8)
E144	φ22.7(7/8) Brazed ^{*1}	φ22.7(7/8) Brazed ^{*1}	φ8.3(1/2)	φ2.3(1/8)

*1 Connect the refrigerant pipe to the service valve according to the Installation Manual.

NO.	Usage	Specifications
①	Front through hole	148(5-7/8) x 84(3-1/4) Knockout hole
②	Bottom through hole	150(5-1/8) x 94(3-3/4) Knockout hole
③	Front through hole	φ52.7(2-1/2) or φ34.5(1-3/8) Knockout hole
④	Front through hole	φ43.7(1-3/4) or φ22.7(7/8) Knockout hole
⑤	Bottom through hole	φ55(2-9/16) Knockout hole
⑥	Bottom through hole	φ52(2-1/8) Knockout hole
⑦	Front through hole	φ34(1-3/8) Knockout hole
⑧	Bottom through hole	φ34(1-3/8) Knockout hole



NOTES:
 SEACOAST PROTECTION
 Anti-corrosion Protection: A coating treatment is applied to condenser coil for protection from air contaminants.
 Standard: Salt Spray Test Method - no unusual rust development to 480 hours.
 Sea Coast (BS): Salt Spray Test Method (JRA 9002) - no unusual rust development to 960 hours.

FORM# TURYE1203AN40A(N/B) - 202011



Job Name: **Boston Athenaeum**

System Reference: **CU-6S**

Date: **7/20/21**

208/230V OUTDOOR VRF HEAT RECOVERY SYSTEM



UNIT OPTION

- Standard Model.....TURYE2163AN40AN
- Seacoast (BS) Model.....TURYE2163AN40AB

ACCESSORIES

- BC Controller (Required).....for details see BC Controller Submittals
- Joint Kit.....for details see Pipe Accessories Submittal
- Snow/Hail Guards Kit.....for details see Snow/Hail Guards Kit Submittal

Specifications		System	
Unit Type		TURYE2163AN40A(N/B)	
Cooling Capacity (Nominal)	BTU/H	216,000	
Heating Capacity (Nominal)	BTU/H	243,000	
Guaranteed Operating Range ¹	Cooling ²	°F [°C] 23~126 [-5.0~52.0]	
	Heating ³	°F [°C] -13~60 [-25.0~15.5]	
Extended Operating Range	Heating	°F [°C] -25~60 [-31.5~15.5]	
External Dimensions (H x W x D)	In. [mm]	71-5/8 x 68-15/16 x 29-3/16 [1818 x 1750 x 740]	
Net Weight	Lbs. [kg]	887 [402]	
External Finish		Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>	
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance	208/230V, 3-phase, 60 Hz, ±10%	
Minimum Circuit Ampacity	A	73.0/67.0	
Maximum Overcurrent Protection	A	125/100	
Recommended Fuse Size	A	100/90	
Recommended Minimum Wire Size	AWG [mm]	2/2 [33.6/33.6]	
SCCR	kA	5	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]	7/8 [22.2 (28.58 for the part that exceeds 65 m)] Brazed
	Gas (Low Pressure)	In. [mm]	1-1/8 [28.58] Brazed
Max. Total Refrigerant Line Length	Ft.	2460	
Max. Refrigerant Line Length (Between ODU & IDU)	Ft.	541	
Max. Control Wiring Length	Ft.	1640	
Indoor Unit Connectable	Total Capacity	50.0~130.0% of outdoor unit capacity	
	Model/Quantity	P05~P96/2.0~50.0	
Sound Pressure Levels	dB(A)	66.5~67.5	
Sound Power Levels	dB(A)	85.5/85.5	
Compressor Operating Range		15.0% to 100.0%	
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1	
Refrigerant	Type x Original Charge	R410A x 26 lbs + 1.0 oz [11.8 kg]	
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	
AHRI Ratings (Ducted/Non-ducted)	EER	10.9/11.4	
	IEER	19.7/24.9	
	COP	3.23/3.62	
	SCHE	23.8/27.8	

NOTES:
 Nominal cooling conditions (Test conditions are based on AHRI 1230)
 Indoor: 80°FDB./67°FWB. (26.7°CDB./19.4°CWB.), Outdoor: 95°FDB. (35°CDB.)
 Nominal heating conditions (Test conditions are based on AHRI 1230)
 Indoor: 70°FDB. (21.1°CDB.), Outdoor: 47°FDB./43°FWB. (8.3°CDB./6.1°CWB.)

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

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

³When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating

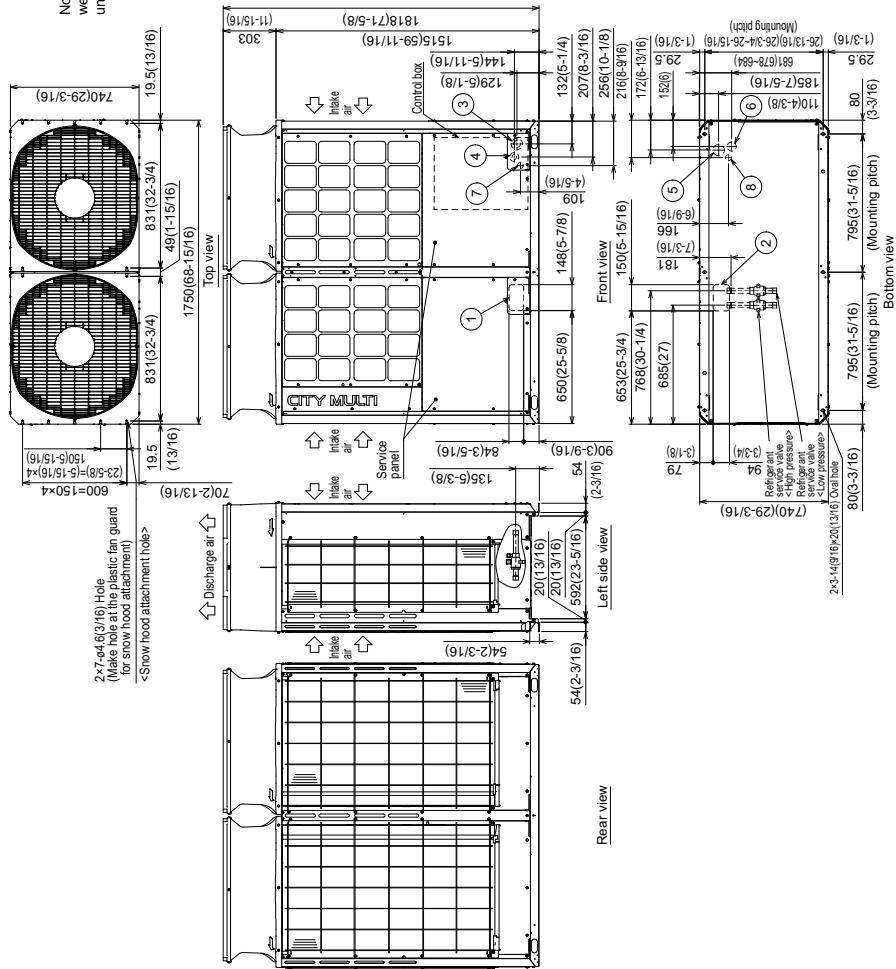
⁴Unit will continue to operate in extended operating range, but capacity is not guaranteed

OUTDOOR UNIT: TURYE2163AN40A(N/B) – DIMENSIONS

TURYE192, 216, 2403AN40A(N/B)

Unit: mm (in.)

Note 1. 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	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
EP192 (ø22.7/3)	Baseø1, ø28.58(1-1/8)	Baseø2, ø28.58(1-1/8)	ø28.58(1-1/8)	ø28.58(1-1/8)
EP216 (ø22.7/3)	Baseø1, ø28.58(1-1/8)	Baseø2, ø28.58(1-1/8)	ø28.58(1-1/8)	ø28.58(1-1/8)
EP240 (ø22.7/3)	Baseø1, ø34.93(1-3/8)	Baseø2, ø34.93(1-3/8)	ø34.93(1-3/8)	ø34.93(1-3/8)

*1 Connect the refrigerant pipe to the service valve according to the Installation Manual.

*2 When the piping length is 65m(213ft) or longer, use the ø28.58(1-1/8) pipe for the part that exceeds 65m(213ft).

NO.	Usage	Specifications
①	Front through hole	148(5-7/8) x 84(3-5/16) Knockout hole
②	Bottom through hole	150(5-15/16) x 84(3-3/4) Knockout hole
③	Front through hole	ø62.7(2-1/2) or ø34.9(1-3/8) Knockout hole
④	Front through hole	ø43.7(1-3/4) or ø22.7(7/8) Knockout hole
⑤	Bottom through hole	ø65(2-9/16) Knockout hole
⑥	Bottom through hole	ø52(2-1/16) Knockout hole
⑦	Front through hole	ø94(1-3/8) Knockout hole
⑧	Bottom through hole	ø94(1-3/8) Knockout hole

NOTES:
 SEACOAST PROTECTION
 Anti-corrosion Protection: A coating treatment is applied to condenser coil for protection from air contaminants.
 Standard: Salt Spray Test Method - no unusual rust development to 480 hours.
 Sea Coast (BS): Salt Spray Test Method (JRA 9002) - no unusual rust development to 960 hours.

FORM# TURYE2163AN40A(N/B) - 202107



Job Name: **Boston Athenaeum**

System Reference: **CU-OA-6**

Date: **7/20/21**

208/230V OUTDOOR VRF HEAT PUMP SYSTEM



UNIT OPTION

- Standard Model.....TUHYE1443AN40AN
- Seacoast (BS) Model.....TUHYE1443AN40AB

ACCESSORIES

- Header Kit.....for details see Pipe Accessories Submittal
- Joint Kit.....for details see Pipe Accessories Submittal
- Low Ambient Kit.....for details see Low Ambient Kit Submittal
- Panel Heater Kit.....for details see Panel Heater Kit Submittal
- Snow/Hail Guards Kit.....for details see Snow/Hail Guards Kit Submittal

Specifications		System	
Unit Type		TUHYE1443AN40A(N/B)	
Cooling Capacity (Nominal)	BTU/H	144,000	
Heating Capacity (Nominal)	BTU/H	160,000	
Guaranteed Operating Range ¹	Cooling ²	°F [°C] 23.0~126.0 [-5.0~52.0]	
	Heating ³	°F [°C] -13~60 [-25.0~15.5]	
Extended Operating Range	Heating	°F [°C] -25.0~60.0 [-31.5~15.5]	
External Dimensions (H x W x D)	In. [mm]	71-5/8 x 48-7/8 x 29-3/16 [1818 x 1240 x 740]	
Net Weight	Lbs. [kg]	680 [308]	
External Finish		Pre-coated galvanized steel sheet (+power coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance	208/230V, 3-phase, 60 Hz, ±10%	
Minimum Circuit Ampacity	A	47.0/44.0	
Maximum Overcurrent Protection	A	70/70	
Recommended Fuse Size	A	60/60	
Recommended Minimum Wire Size	AWG [mm]	4/4 [21.2/21.2]	
SCCR	kA	5	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]	1/2 [12.7] Brazed
	Gas (Low Pressure)	In. [mm]	1-1/8 [28.58] Brazed
Max. Total Refrigerant Line Length	Ft.	3280	
Max. Refrigerant Line Length (Between ODU & IDU)	Ft.	541	
Max. Control Wiring Length	Ft.	1640	
Indoor Unit Connectable	Total Capacity	50.0~130.0% of outdoor unit capacity	
	Model/Quantity	P05~P96/1.0~31.0	
Sound Pressure Levels	dB(A)	62.0~64.5	
Sound Power Levels	dB(A)	82.5/83.5	
FAN ⁴	Type x Quantity	Propeller fan x 2	
	Airflow Rate	CFM	9200
	External Static Pressure	In. WG	Selectable; 0.00, 0.12, 0.24, 0.32 In. WG; factory set to 0 In. WG
Compressor Operating Range		15.0% to 100.0%	
Compressor	Type x Quantity	Inverter scroll hermetic x 1	
Compressor Motor Output	kW	9.3	
Refrigerant	Type x Original Charge	R410A x 23 lbs + 12 oz [10.8 kg]	
	High Pressure Protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
Protection Devices	Inverter Circuit (Comp./Fan)	Over-current protection	
	Fan Motor	Over-current protection	
Lubricant		MEL32	
AHRI Ratings (Ducted/Non-ducted)	EER	12.4/13.4	
	IEER	24.6/30.4	
	COP	3.68/4.01	

NOTES:
 Nominal cooling conditions (Test conditions are based on AHRI 1230)
 Indoor: 80°F D.B./67°F W.B. (26.7°C D.B./19.4°C W.B.), Outdoor: 95°F D.B. (35°C D.B.)
 Nominal heating conditions (Test conditions are based on AHRI 1230)
 Indoor: 70°F D.B. (21.1°C D.B.), Outdoor: 47°F D.B./43°F W.B. (8.3°C D.B./6.1°C W.B.)

¹Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
²For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
³When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
⁴Unit will continue to operate in extended operating range, but capacity is not guaranteed

OUTDOOR UNIT: TUHYE1443AN40A(N/B) – DIMENSIONS

TUHYE(096/120/144)3AN40A(N/B)

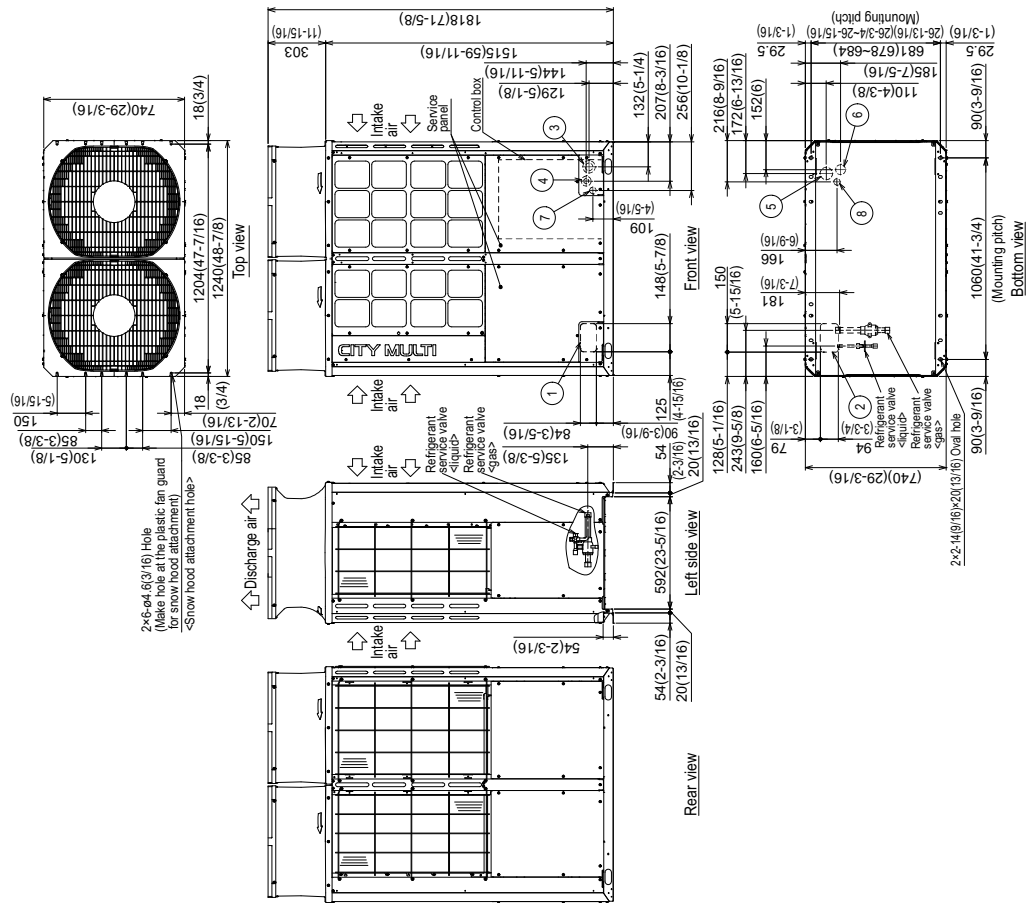
Unit: mm (in.)

Note 1. 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).

Model	Diameter		
	Liquid	Gas	Service valve
E096	ø152(3/8) Braze ø127(1/2) Braze*1,3	ø22(7/8) Braze*1,2	Liquid Gas
E120	ø152(3/8) Braze ø127(1/2) Braze*1,2,3,4	ø22(7/8) Braze*1,2,3,4	ø28.5(1-1/8)
E144	ø127(1/2) Braze	ø28.5(1-1/8) Braze	

- *1 Connect the refrigerant pipe to the service valve according to the Installation Manual.
- *2 Indicates dimensions and connection specifications in the case the unit is used in combination with other outdoor units.
- *3 Furthest piping length (OU from U)≥90m
- *4 Furthest piping length (OU from U)≥40m

NO.	Usage	Specifications
①	Front through hole	148(5-7/8) × 84(3-5/16) Knockout hole
②	Bottom through hole	150(5-5/8) × 84(3-5/16) Knockout hole
③	Front through hole	ø27.2(1-1/2) or ø31.5(1-3/8) Knockout hole
④	Front through hole	ø43.7(1-3/4) or ø27.2(1-1/2) Knockout hole
⑤	Bottom through hole	ø27.2(1-1/2) Knockout hole
⑥	Bottom through hole	ø34(1-3/8) Knockout hole
⑦	Front through hole	ø34(1-3/8) Knockout hole
⑧	Bottom through hole	ø34(1-3/8) Knockout hole



NOTES:
 SEACOAST PROTECTION
 Anti-corrosion Protection: A coating treatment is applied to condenser coil for protection from air contaminants.
 Standard: Salt Spray Test Method - no unusual rust development to 480 hours.
 Sea Coast (BS): Salt Spray Test Method (JRA 9002) - no unusual rust development to 960 hours.

FORM# TUHYE1443AN40A(N/B) - 202008



Job Name: **Boston Athenaeum**

System Reference: **CU-1**

Date: **7/20/21**

208/230V OUTDOOR VRF HEAT RECOVERY SYSTEM



UNIT OPTION

- Standard Model.....TURYP3363BN40AN
- Seacoast (BS) Model.....TURYP3363BN40AB

ACCESSORIES

- Twinning Kit (Required).....CMY-R300NCBK
- BC Controller (Required).....for details see BC Controller Submittals
- Joint Kit.....for details see Pipe Accessories Submittal
- Panel Heater Kit.....for details see Panel Heater Kit Submittal
- Snow/Hail Guards Kit.....for details see Snow/Hail Guards Kit Submittal

Specifications		System	
Unit Type		TURYP3363BN40A(N/B)	
Cooling Capacity (Nominal)	BTU/H	336,000	
Heating Capacity (Nominal)	BTU/H	378,000	
Net Weight	Lbs. [kg]	1478 [670]	
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]	1-1/8 [28.58] Brazed
	Gas (Low Pressure)	In. [mm]	1-5/8 [41.28] Brazed
Max. Total Refrigerant Line Length	Ft.	3116	
Max. Refrigerant Line Length (Between ODU & IDU)	Ft.	541	
Max. Control Wiring Length	Ft.	1640	
Indoor Unit Connectable	Total Capacity	50.0~150.0% of outdoor unit capacity	
	Model/Quantity	P05~P96/2.0~50.0	
Sound Pressure Levels	dB(A)	65.5~69.5	
Sound Power Levels	dB(A)	84.0/88.5	
Compressor Operating Range		7.5% to 100.0%	
AHRI Ratings (Ducted/Non-ducted)	EER	9.9/9.5	
	IEER	20.5/23.0	
	COP	3.2/3.29	
	SCHE	20.4/23.4	

Specifications		Module 1		Module 2	
Unit Type		TURYP1683AN40A(N/B)		TURYP1683AN40A(N/B)	
Cooling Capacity (Nominal)	BTU/H	168,000		168,000	
Heating Capacity (Nominal)	BTU/H	188,000		188,000	
Guaranteed Operating Range ¹	Cooling ²	°F [°C]	23~126 [-5.0~52.0]	23~126 [-5.0~52.0]	
	Heating ³	°F [°C]	-4~60 [-20.0~15.5]	-4~60 [-20.0~15.5]	
Extended Operating Range	Heating	°F [°C]	-18~60 [-18.0~15.5]	-18~60 [-18.0~15.5]	
External Dimensions (H x W x D)	In. [mm]	71-5/8 x 68-29/32 x 29-5/32 [1,818 x 1,750 x 740]		71-5/8 x 68-29/32 x 29-5/32 [1,818 x 1,750 x 740]	
Net Weight	Lbs. [kg]	739 [335]		739 [335]	
External Finish		Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>		Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>	
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance	208/230V, 3-phase, 60 Hz, ±10%		208/230V, 3-phase, 60 Hz, ±10%	
Minimum Circuit Ampacity	A	61.0/0.0		61.0/0.0	
Maximum Overcurrent Protection	A	100/90		100/90	
Recommended Fuse Size	A	70/70		70/70	
Recommended Minimum Wire Size	AWG [mm]	4/4 [21.2/21.2]		4/4 [21.2/21.2]	
SCCR	kA	5		5	
FAN ⁴	Type x Quantity	Propeller fan x 2		Propeller fan x 2	
	Airflow Rate	CFM	14850	14850	
	External Static Pressure	In. WG	Selectable; 0.00, 0.12, 0.24, 0.32 In. WG; factory set to 0 In. WG	Selectable; 0.00, 0.12, 0.24, 0.32 In. WG; factory set to 0 In. WG	
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
Refrigerant	Type x Original Charge	R410A x 23 lbs + 12.0 oz [10.8 kg]		R410A x 23 lbs + 12.0 oz [10.8 kg]	
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	
	Fan Motor	Over-current protection		Over-current protection	

NOTES:
 Nominal cooling conditions (Test conditions are based on AHRI 1230)
 Indoor: 80°F D.B./67°F W.B. (26.7°C D.B./19.4°C W.B.), Outdoor: 95°F D.B. (35°C D.B.)
 Nominal heating conditions (Test conditions are based on AHRI 1230)
 Indoor: 70°F D.B. (21.1°C D.B.), Outdoor: 47°F D.B./43°F W.B. (8.3°C D.B./6.1°C W.B.)

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

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

³When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating

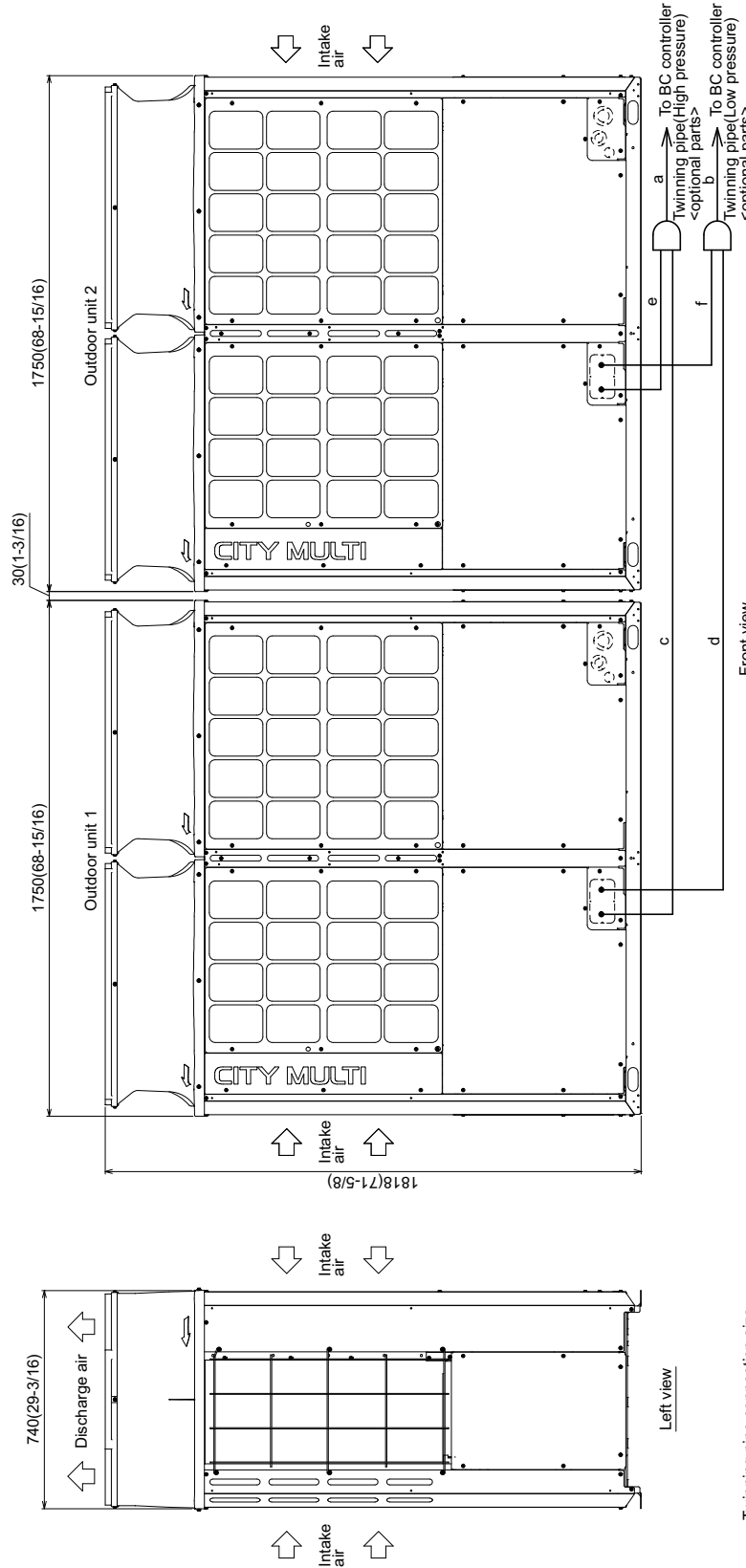
⁴Unit will continue to operate in extended operating range, but capacity is not guaranteed

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

OUTDOOR UNIT: TURYP3363BN40A(N/B) – DIMENSIONS

TURYP3363BN40A(N/B)

Unit: mm(in)



Twinning pipe connection size

Package unit name	TURYP3363BN40A(N/B)
Component unit name	Outdoor unit 1 Outdoor unit 2
Outdoor Twinning Kit(optional parts)	CMY-R300NCBK
BC controller	ø28.58(1-1/8)
-Twinning pipe	ø41.28(1-5/8)

Unit model	P168
High pressure	c or e
Low pressure	d or f
Twinning pipe-Outdoor unit	ø22.27(8)
	ø28.58(1-1/8)

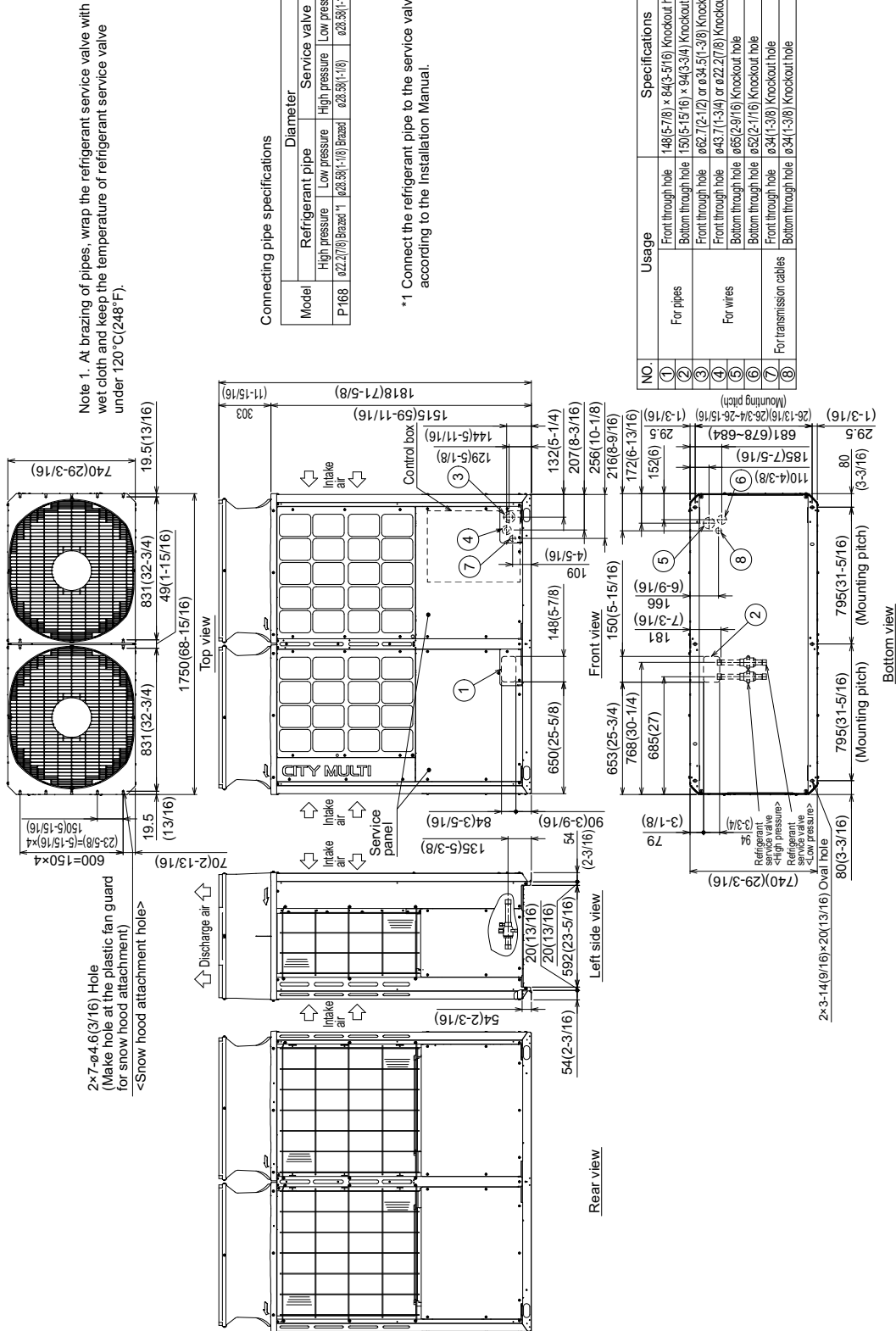
- Note 1. Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.
 Note 2. Twinning pipes should not be tilted more than 15 degrees from the horizontal plane.
 Be sure to see the Installation Manual for details of Twinning pipe installation.
 Note 3. The pipe section before the Twinning pipe (section "a" and "b" 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).
 Note 4. Only use the Twinning pipe by Mitsubishi (optional parts).

NOTES:
 SEACOAST PROTECTION
 Anti-corrosion Protection: A coating treatment is applied to condenser coil for protection from air contaminants.
 Standard: Salt Spray Test Method - no unusual rust development to 480 hours.
 Sea Coast (BS): Salt Spray Test Method (JRA 9002) - no unusual rust development to 960 hours.

MODULE 1: TURYP1683AN40A(N/B) – DIMENSIONS

TURYP1683AN40A(N/B)

Unit: mm(in)

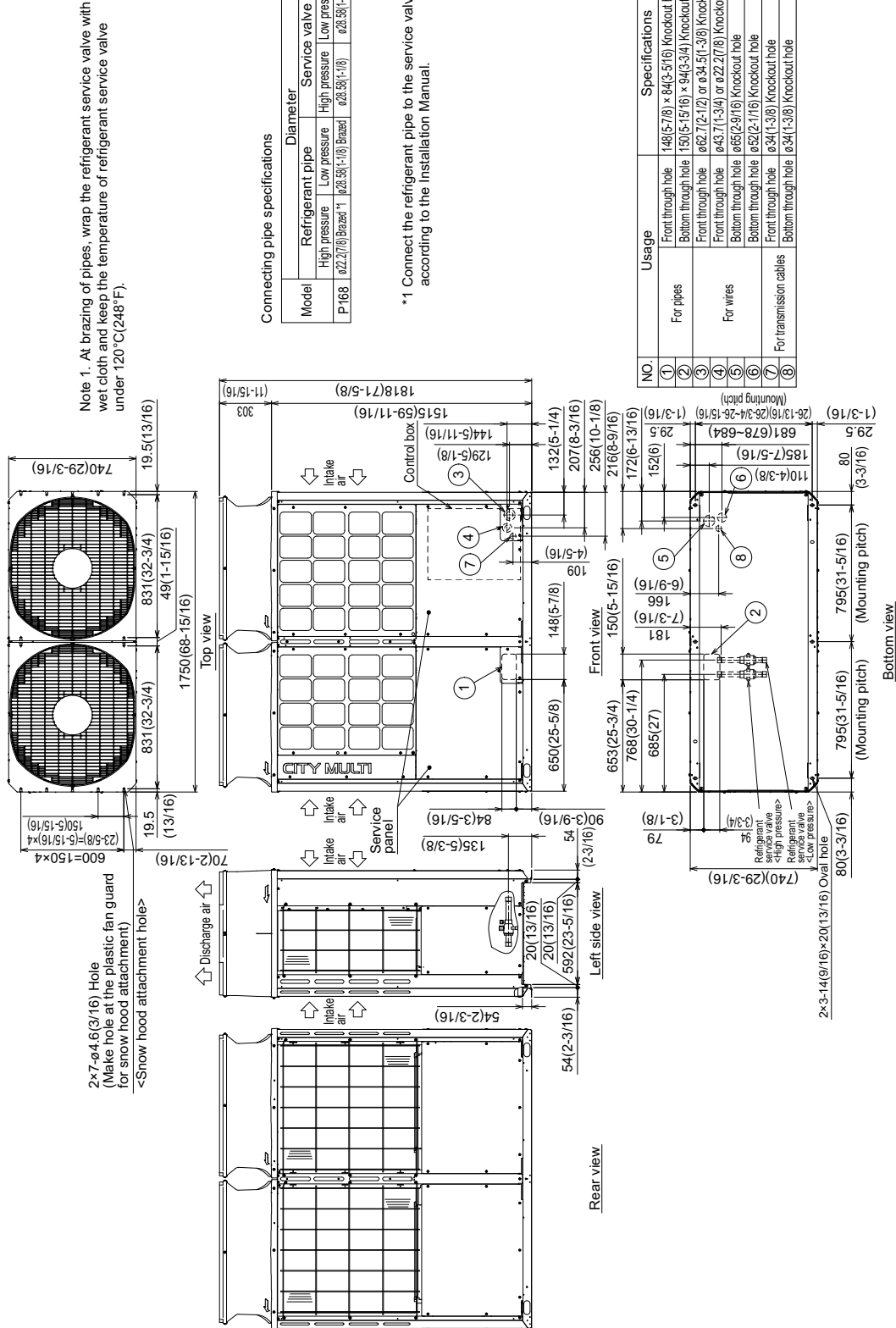


NOTES:
SEACOAST PROTECTION
 Anti-corrosion Protection: A coating treatment is applied to condenser coil for protection from air contaminants.
 Standard: Salt Spray Test Method - no unusual rust development to 480 hours.
 Sea Coast (BS): Salt Spray Test Method (JRA 9002) - no unusual rust development to 960 hours.

MODULE 2: TURYP1683AN40A(N/B) – DIMENSIONS

TURYP1683AN40A(N/B)

Unit: mm(in)



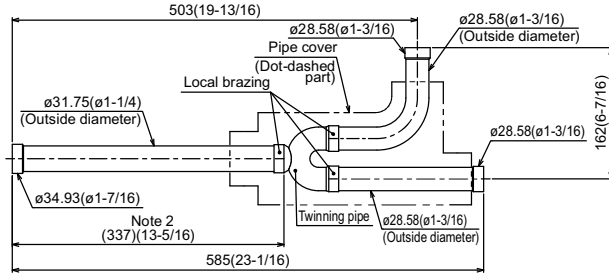
NOTES:
SEACOAST PROTECTION
 Anti-corrosion Protection: A coating treatment is applied to condenser coil for protection from air contaminants.
 Standard: Salt Spray Test Method - no unusual rust development to 480 hours.
 Sea Coast (BS): Salt Spray Test Method (JRA 9002) - no unusual rust development to 960 hours.

TWINNING KIT: CMY-R300NCBK – DIMENSIONS

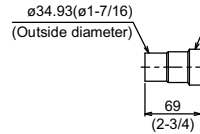
CMY-R300NCBK

Unit: mm (in.)

Low-pressure twinning pipe

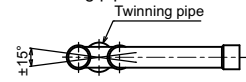


<Deformed pipe(Accessory)>



Note:

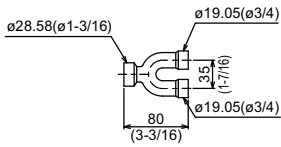
1. Refer to the figure below for the installation position of the twinning pipe.



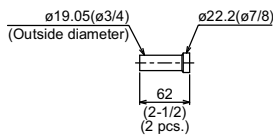
Slope of the twinning pipes are at an angle within $\pm 15^\circ$ to the horizontal plane.

2. Use the attached pipe to braze the port-opening of the twinning pipe.
3. Pipe diameter is indicated by inside diameter.

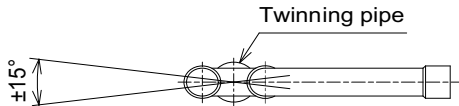
High-pressure twinning pipe



<Deformed pipe(Accessory)>



Note 1. Reference the attitude angle of the twinning pipe below the fig.



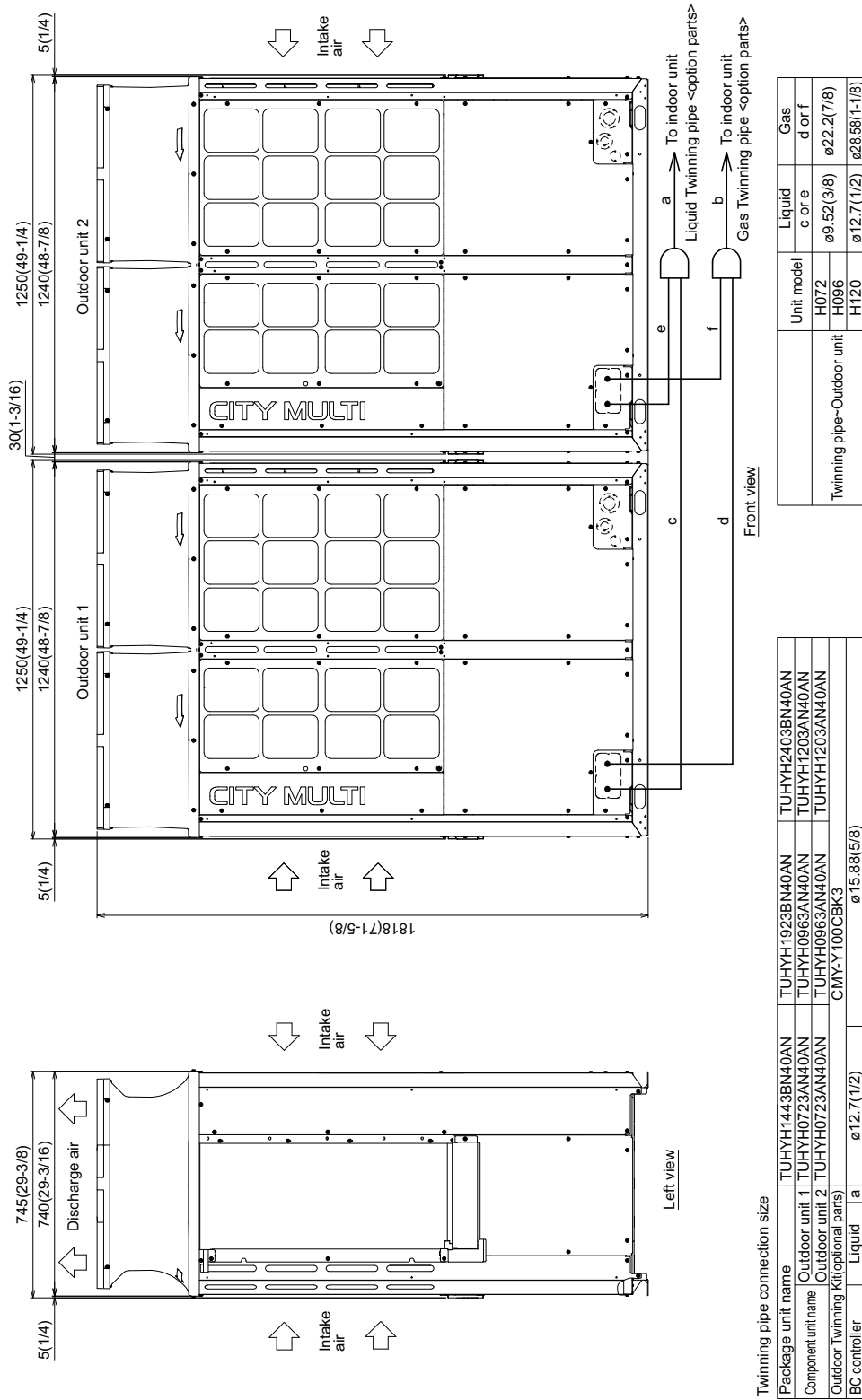
The angle of the twinning pipe is within $\pm 15^\circ$ against the horizontal plane.

2. Use the attached pipe to braze the port-opening of the twinning pipe.
3. Pipe diameter is indicated by inside diameter.
4. Only use the Twinning pipe by Mitsubishi (optional parts) .

OUTDOOR UNIT: TUHYH2403BN40AN – DIMENSIONS

TUHYH(144/192/240)3BN40AN

Unit: mm (in.)



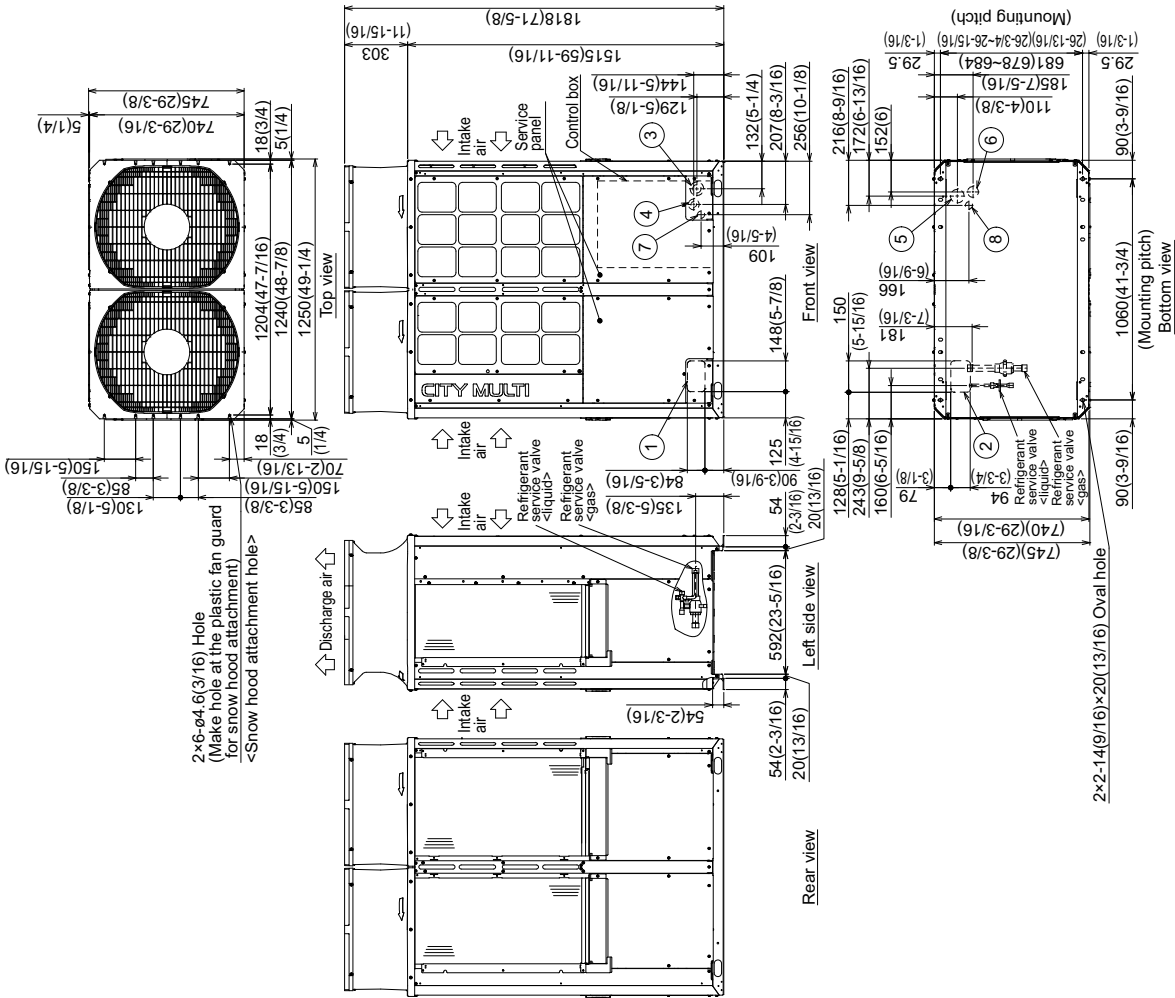
- Note 1. Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.
 2. Twinning pipes should not be tilted more than 15 degrees from the horizontal plane. Be sure to see the Installation Manual for details of Twinning pipe installation.
 3. The pipe section before the Twinning pipe (section "a" and "b" 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).

MODULE 1: TUHYH1203AN40AN – DIMENSIONS

TUHYH(072/096/120)3AN40AN

Unit: mm (in.)

Note 1. 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	Refrigerant pipe		Diameter		Service valve	
	Liquid	Gas	Gas	Gas	Liquid	Gas
H072	ø6.52(3/8) Brazed *1		ø22.2(7/8) Brazed *1			
H096	ø6.52(3/8) Brazed *1, *3		ø12.7(1/2) Brazed *1, *2, *4		ø12.7(1/2)	ø28.58(1-1/8)
H120	ø6.52(3/8) Brazed *1, *2, *4		ø28.58(1-1/8) Brazed			

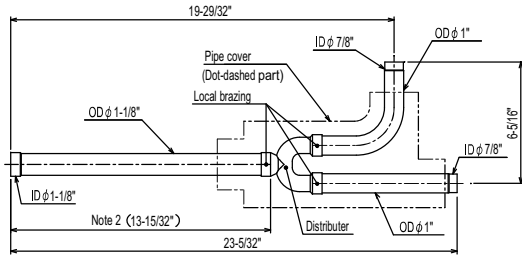
*1 Connect the refrigerant pipe to the service valve according to the Installation Manual.
 *2 Indicates dimensions and connection specifications in the case the unit is used in combination with other outdoor units.
 *3 Furthest piping length (OU from IU) ≥ 90m
 *4 Furthest piping length (OU from IU) ≥ 40m

NO.	Usage	Specifications
①	For pipes	Front through hole 148(5-7/8) × 84(3-5/16) Knockout hole 150(5-15/16) × 94(3-3/4) Knockout hole
②		Front through hole ø62.7(2-7/2) or ø34.5(1-3/8) Knockout hole
③		Front through hole ø43.7(1-3/4) or ø22.2(7/8) Knockout hole
④	For wires	Front through hole ø6.52(3/8) Knockout hole
⑤		Bottom through hole ø52(2-1/16) Knockout hole
⑥		Front through hole ø34(1-3/8) Knockout hole
⑦	For transmission cables	Bottom through hole ø34(1-3/8) Knockout hole
⑧		Bottom through hole ø34(1-3/8) Knockout hole

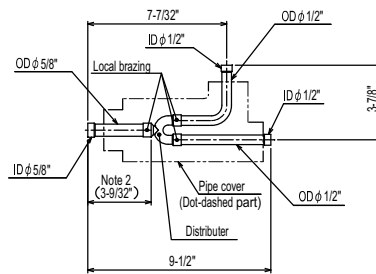
TWINNING KIT: CMY-Y100CBK3 – DIMENSIONS

CMY-Y100CBK3

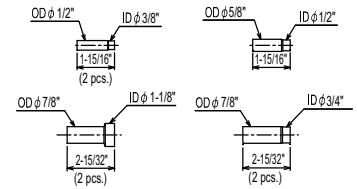
For Gas pipe:



For Liquid pipe:

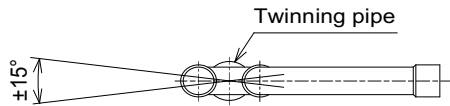


<Reducer(Accessory)>



ID: Inner Diameter OD: Outer Diameter

Note 1. Reference the attitude angle of the twinning pipe below the fig.



The angle of the twinning pipe is within $\pm 15^\circ$ against the horizontal plane.

2. Use the attached pipe to braze the port-opening of the twinning pipe.
3. Pipe diameter is indicated by inside diameter.
4. Only use the Twinning pipe by Mitsubishi (optional parts).