

Haier

Single-Zone Ductless Mini-Split Heat Pumps



1Q09RT2BEA
1Q12RT2BEA
1Q18RT2BEA



Wall Mount - Highwall

QS09WP2BEA
QS12WP2BEA
QS18WP2BEA



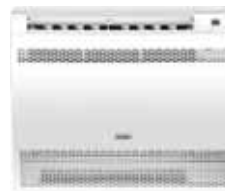
Cassette

US09CB2BEA
US12CB2BEA
US18CB2BEA



Ducted

US09MB2BEA
US12MB2BEA
US18MB2BEA



Console

US09FB2BEA
US12FB2BEA
US18FB2BEA



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AIR & WATER
SOLUTIONS



TABLE OF CONTENTS

1. SPECIFICATIONS.....	3	6. FLOOR CONSOLE INDOOR UNITS	31
2. SYSTEM.....	7	6.1 Dimensions.....	31
2.1 General.....	7	6.2 Center of Gravity	31
2.2 Installation Requirements	7	6.3 General.....	32
2.3 Electrical Requirements.....	7	6.4 Installation	32
2.4 Refrigerant System Diagrams	8	6.5 Electrical Requirements.....	32
2.5 Capacity Tables	9	6.6 Components.....	33
3. OUTDOOR UNITS	15	6.7 Wiring Diagrams	34
3.1 Dimensions.....	15	6.8 Air Velocity and Temperature Distribution	35
3.2 Center of Gravity	16	7. CASSETTE INDOOR UNITS	36
3.3 General.....	16	7.1 Dimensions.....	36
3.4 Installation	16	7.2 Center of Gravity	37
3.5 Components.....	17	7.3 General.....	37
3.6 Wiring Diagrams	18	7.4 Installation	37
4. HIGHWALL INDOOR UNITS.....	19	7.5 Electrical Requirements.....	38
4.1 Dimensions.....	19	7.6 Components.....	38
4.2 Center of Gravity	19	7.7 Panels	38
4.3 General.....	20	7.8 Wiring Diagrams	39
4.4 Installation	20	7.9 Air Velocity and Temperature Distribution	40
4.5 Electrical Requirements.....	20	8. CONTROLS AND ACCESSORIES	41
4.6 Components.....	21	8.1 Outdoor Unit Accessories	41
4.7 Wiring Diagrams	22	8.2 Indoor Unit Accessories.....	41
4.8 Air Velocity and Temperature Distribution	23	8.3 Controllers.....	42
5. DUCTED INDOOR UNITS.....	24	8.4 Indoor Unit Accessory Compatibility Table	44
5.1 Dimensions.....	24		
5.2 Center of Gravity	25		
5.3 General.....	25		
5.4 Installation	26		
5.5 Electrical Requirements.....	26		
5.6 Components.....	26		
5.7 Wiring Diagrams	27		
5.8 Air Velocity and Temperature Distribution	28		
5.9 Airflow and Static Pressure.....	29		

Revision History

11-21-25: Edition release.

1. SPECIFICATIONS

NOTE

Our continued commitment to quality products may mean a change in specifications without notice.
Visit GEAppliancesAirandWater.com to access current specification tables online.



	Outdoor Unit	1Q09RT2BEA	1Q12RT2BEA	1Q18RT2BEA
	Indoor Unit	QS09WP2BEA	QS12WP2BEA	QS18WP2BEA
Cooling	Rated Capacity Btu/hr	9,000	12,000	17,000
	Capacity Range Btu/hr	3,200-10,000	4,200-13,000	6,000-18,500
	SEER2	27	25	20.5
	EER2	12.5	12.5	12
	Moisture Removal Pt./hr	2.30	3.80	4.80
Heating	Rated Heating Capacity 47°F Btu/hr	10,000	14,500	19,000
	Heating Capacity Range Btu/hr	3,600-12,000	3,600-15,500	5,600-21,000
	HSPF2 (IV)	11.0	11.0	10.0
	Rated Heating Capacity 5°F Btu/hr	10,000	14,500	19,000
	Heating Capacity at 5°F / Capacity at 47°F	100%	100%	100%
	COP 5°F	1.8	1.8	1.8
Operating Range	Cooling (Without Wind Baffle or Top Cover)	23~115°F (-5~46°C)	23~115°F (-5~46°C)	23~115°F (-5~46°C)
	Heating	-31~75°F (-35~24°C)	-31~75°F (-35~24°C)	-31~75°F (-35~24°C)
Power Supply	Voltage, Cycle, Phase (V/Hz/-)	208-230/60/1	208-230/60/1	208-230/60/1
	Maximum Fuse Size A	20	20	30
	Minimum Circuit Amp A	13	14	20
Outdoor Unit	Compressor Type	DC Inverter Rotary	DC Inverter Rotary	DC Inverter Rotary
	Outdoor Noise Level dB	54	55	60
	Dimension: H x W x D in (mm)	25 1/4 x 35 3/8 x 12 (642 x 898 x 306)	25 1/4 x 35 3/8 x 12 (642 x 898 x 306)	27 3/4 x 38 3/8 x 13 3/8 (705 x 974 x 340)
	Weight (Net/Ship) - lbs (kg)	83.41/96.87 (37.8/43.9)	88.15/100.4 (39.95/45.5)	104.59/122.46 (47.4/55.5)
	Basepan Heater	Yes	Yes	Yes
Indoor Unit	Fan Speed Stages	5 + Auto	5 + Auto	5 + Auto
	Airflow CFM: Cooling (Turbo/High/Med/Low/Quiet)	395/355/310/260/170	410/370/280/210/170	580/530/480/400/350
	Airflow CFM: Heating (Turbo/High/Med/Low/Quiet)	395/355/290/220/170	420/390/350/310/180	580/530/450/350/320
	Indoor Sound Level dB: Cooling (Turbo/High/Med/Low/Quiet)	44/42/36/32/27	46/44/38/32/25	51/50/44/37/25
	Indoor Sound Level dB: Heating (Turbo/High/Med/Low/Quiet)	43/41/37/32/29	43/42/39/36/25	49/47/40/35/26
	Auto Up-Down Louver	Yes	Yes	Yes
	Auto Left-Right Louver	Yes	Yes	Yes
	Drain Pipe Size O.D in	5/8	5/8	5/8
	Dimension: H x W x D in (mm)	12 1/4 x 36 x 8 3/8 (312 x 914 x 213)	12 1/4 x 36 x 8 3/8 (312 x 914 x 213)	12 7/8 x 39 3/4 x 8 3/4 (327 x 1009 x 223)
	Weight (Net/Ship) - lbs (kg)	24.49/30.56 (11.1/13.85)	24.49/30.56 (11.1/13.85)	29.57/36.63 (13.4/16.6)
	Factory-Installed Refrigerant Detection Sensor (RDS)	No	No	No
	Refrigerant Detection Sensor (RDS) Compatible	Yes (UALS01A, sold separately)	Yes (UALS01A, sold separately)	Yes (UALS01A, sold separately)
	WiFi*	Built-in	Built-in	Built-in
Refrigerant Lines	Refrigerant	R454B	R454B	R454B
	Connections	Flare	Flare	Flare
	Liquid O.D. in	1/4	1/4	1/4
	Suction O.D. in	3/8	3/8	1/2
	Factory Charge Oz	46.6	50.1	58.6
	Maximum Line Length Ft / m	66/20	66/20	83/25
	Maximum Height Ft / m	33/10	33/10	50/15

*WiFi includes SmartHQ™ Home and SmartHQ™ Service compatibility.

1. SPECIFICATIONS

NOTE

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	Outdoor Unit	1Q09RT2BEA	1Q12RT2BEA	1Q18RT2BEA
	Indoor Unit	US09CB2BEA	US12CB2BEA	US18CB2BEA
	Panel (required, sold separately)	QACCP01WA	QACCP01WA	QACCP01WA
Cooling	Rated Capacity Btu/hr	9,000	12,000	18,000
	Capacity Range Btu/hr	3,000-10,000	3,000-13,000	6,000-19,000
	SEER2	20	20	20
	EER2	12	12	12
	Moisture Removal Pt./hr	2.40	3.50	5.50
Heating	Rated Heating Capacity 47°F Btu/hr	10,000	12,500	18,000
	Heating Capacity Range Btu/hr	3,000-11,000	3,000-14,000	6,000-19,500
	HSPF2 (IV)	10.0	10.0	10.0
	Rated Heating Capacity 5°F Btu/hr	9,000	10,000	14,400
	Heating Capacity at 5°F / Capacity at 47°F	90%	80%	80%
	COP 5°F	1.8	1.8	1.8
Operating Range	Cooling (Without Wind Baffle or Top Cover)	23~115°F (-5~46°C)	23~115°F (-5~46°C)	23~115°F (-5~46°C)
	Heating	-31~75°F (-35~24°C)	-31~75°F (-35~24°C)	-31~75°F (-35~24°C)
Power Supply	Voltage, Cycle, Phase (V/Hz/-)	208-230/60/1	208-230/60/1	208-230/60/1
	Maximum Fuse Size A	20	20	30
	Minimum Circuit Amp A	13	14	20
Outdoor Unit	Compressor Type	DC Inverter Rotary	DC Inverter Rotary	DC Inverter Rotary
	Outdoor Noise Level dB	54	55	60
	Dimension: H x W x D in (mm)	25 1/4 x 35 3/8 x 12 (642 x 898 x 306)	25 1/4 x 35 3/8 x 12 (642 x 898 x 306)	27 3/4 x 38 3/8 x 13 3/8 (705 x 974 x 340)
	Weight (Net/Ship) - lbs (kg)	83.41/96.87 (37.8/43.9)	88.15/100.4 (39.95/45.5)	104.59/122.46 (47.4/55.5)
	Basepan Heater	Yes	Yes	Yes
Indoor Unit	Fan Speed Stages	5 + Auto	5 + Auto	5 + Auto
	Airflow CFM: Cooling (Turbo/High/Med/Low/Quiet)	440/387/351/320/290	440/387/351/320/290	458/425/387/345/302
	Airflow CFM: Heating (Turbo/High/Med/Low/Quiet)	440/387/351/320/290	440/387/351/320/290	479/441/387/345/302
	Indoor Sound Level dB: Cooling (Turbo/High/Med/Low/Quiet)	42/40/36/32/25	45/42/40/36/32	45/42/40/36/32
	Indoor Sound Level dB: Heating (Turbo/High/Med/Low/Quiet)	42/40/36/32/25	45/42/40/36/32	45/42/40/36/32
	Auto Up-Down Louver	Yes	Yes	Yes
	Auto Left-Right Louver	No	No	No
	Dimension: H x W x D in (mm)	10 1/4 x 22 3/4 x 22 3/4 (260 x 575 x 575)	10 1/4 x 22 3/4 x 22 3/4 (260 x 575 x 575)	10 1/4 x 22 3/4 x 22 3/4 (260 x 575 x 575)
	Weight (Net/Ship) - lbs (kg)	32.41/47.4 (14.7/21.5)	32.41/47.4 (14.7/21.5)	32.41/47.4 (14.7/21.5)
	Drain Pipe Size O.D in	1*	1*	1*
	Condensate Pump	Built-In	Built-In	Built-In
	Max. Drain-Lift Height in (mm)	47 1/4 (1200)	47 1/4 (1200)	47 1/4 (1200)
	Factory-Installed Refrigerant Detection Sensor (RDS)	No	No	No
	Refrigerant Detection Sensor (RDS) Compatible	Yes (UALS01A, sold separately)	Yes (UALS01A, sold separately)	Yes (UALS01A, sold separately)
	WiFi**	Built-in	Built-in	Built-in
Refrigerant Lines	Refrigerant	R454B	R454B	R454B
	Connections	Flare	Flare	Flare
	Liquid O.D. in	1/4	1/4	1/4
	Suction O.D. in	3/8	3/8	1/2
	Factory Charge Oz	46.6	50.1	58.6
	Maximum Line Length Ft / m	66/20	66/20	83/25
	Maximum Height Ft / m	33/10	33/10	50/15

*Condensate drain adapter shipped with the indoor unit is designed to accept a 3/4" PVC pipe.

**WiFi includes SmartHQ™ Home and SmartHQ™ Service compatibility.

1. SPECIFICATIONS

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	Outdoor Unit	1Q09RT2BEA	1Q12RT2BEA	1Q18RT2BEA
	Indoor Unit	US09FB2BEA	US12FB2BEA	US18FB2BEA
Cooling	Rated Capacity Btu/hr	9,000	12,000	17,000
	Capacity Range Btu/hr	3,000-10,000	3,000-13,500	6,000-18,500
	SEER2	20	20	19
	EER2	12	12	9
	Moisture Removal Pt./hr	2.16	3.40	3.80
Heating	Rated Heating Capacity 47°F Btu/hr	10,000	12,300	18,000
	Heating Capacity Range Btu/hr	2,500-10,000	2,500-13,000	6,000-19,000
	HSPF2 (IV)	10.5	9.5	9.5
	Rated Heating Capacity 5°F Btu/hr	9,000	10,000	14,400
	Heating Capacity at 5°F / Capacity at 47°F	90%	81%	80%
	COP 5°F	1.8	1.8	1.8
Operating Range	Cooling (Without Wind Baffle or Top Cover)	23~115°F (-5~46°C)	23~115°F (-5~46°C)	23~115°F (-5~46°C)
	Heating	-31~75°F (-35~24°C)	-31~75°F (-35~24°C)	-31~75°F (-35~24°C)
Power Supply	Voltage, Cycle, Phase (V/Hz/-)	208-230/60/1	208-230/60/1	208-230/60/1
	Maximum Fuse Size A	20	20	30
	Minimum Circuit Amp A	13	14	20
Outdoor Unit	Compressor Type	DC Inverter Rotary	DC Inverter Rotary	DC Inverter Rotary
	Outdoor Noise Level dB	54	55	60
	Dimension: H x W x D in (mm)	25 1/4 x 35 3/8 x 12 (642 x 898 x 306)	25 1/4 x 35 3/8 x 12 (642 x 898 x 306)	27 3/4 x 38 3/8 x 13 3/8 (705 x 974 x 340)
	Weight (Net/Ship) - lbs (kg)	83.41/96.87 (37.8/43.9)	88.15/100.4 (39.95/45.5)	104.59/122.46 (47.4/55.5)
	Basepan Heater	Yes	Yes	Yes
Indoor Unit	Fan Speed Stages	5 + Auto	5 + Auto	5 + Auto
	Airflow CFM: Cooling (Turbo/High/Med/Low/Quiet)	290/218/205/176/147	314/226/210/195/175	345/341/271/218/210
	Airflow CFM: Heating (Turbo/High/Med/Low/Quiet)	312/206/205/176/147	311/223/200/195/175	328/296/263/206/200
	Indoor Sound Level dB: Cooling (Turbo/High/Med/Low/Quiet)	44/40/37/32/24	47/41/37/33/25	49/44/43/40/37
	Indoor Sound Level dB: Heating (Turbo/High/Med/Low/Quiet)	43/37/32/27/20	47/40/37/33/25	49/43/43/37/37
	Auto Up-Down Louver	Yes	Yes	Yes
	Auto Left-Right Louver	No	No	No
	Drain Pipe Size O.D in	5/8	5/8	5/8
	Dimension: H x W x D in (mm)	23 5/8 x 27 1/2 x 8 3/4 (600 x 700 x 220)	23 5/8 x 27 1/2 x 8 3/4 (600 x 700 x 220)	23 5/8 x 27 1/2 x 8 3/4 (600 x 700 x 220)
	Weight (Net/Ship) - lbs (kg)	32.41/43.43 (14.7/19.7)	32.41/43.43 (14.7/19.7)	32.41/43.43 (14.7/19.7)
	Factory-Installed Refrigerant Detection Sensor (RDS)	Yes	Yes	Yes
	WiFi*	Built-in	Built-in	Built-in
Refrigerant Lines	Refrigerant	R454B	R454B	R454B
	Connections	Flare	Flare	Flare
	Liquid O.D. in	1/4	1/4	1/4
	Suction O.D. in	3/8	3/8	1/2
	Factory Charge Oz	46.6	50.1	58.6
	Maximum Line Length Ft / m	66/20	66/20	83/25
	Maximum Height Ft / m	33/10	33/10	50/15

*WiFi includes SmartHQ™ Home and SmartHQ™ Service compatibility.

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	Outdoor Unit	1Q09RT2BEA	1Q12RT2BEA	1Q18RT2BEA
	Indoor Unit	US09MB2BEA	US12MB2BEA	US18MB2BEA
Cooling	Rated Capacity Btu/hr	9,000	10,000	18,000
	Capacity Range Btu/hr	3,000-10,000	3,000-11,000	6,000-19,000
	SEER2	19.6	19.8	18
	EER2	12	11.7	11.7
	Moisture Removal Pt./hr	1.10	1.18	3.80
Heating	Rated Heating Capacity 47°F Btu/hr	10,000	14,000	20,000
	Heating Capacity Range Btu/hr	3,000-12,500	3,000-14,500	6,000-20,500
	HSPF2 (IV)	10.5	10.5	10.5
	Rated Heating Capacity 5°F Btu/hr	8,000	10,000	17,000
	Heating Capacity at 5°F / Capacity at 47°F	80%	71%	85%
	COP 5°F	1.8	1.8	1.8
Operating Range	Cooling (Without Wind Baffle or Top Cover)	23~115°F (-5~46°C)	23~115°F (-5~46°C)	23~115°F (-5~46°C)
	Heating	-31~75°F (-35~24°C)	-31~75°F (-35~24°C)	-31~75°F (-35~24°C)
Power Supply	Voltage, Cycle, Phase (V/Hz/-)	208-230/60/1	208-230/60/1	208-230/60/1
	Maximum Fuse Size A	20	20	30
	Minimum Circuit Amp A	13	14	20
Outdoor Unit	Compressor Type	DC Inverter Rotary	DC Inverter Rotary	DC Inverter Rotary
	Outdoor Noise Level dB	54	55	60
	Dimension: H x W x D in (mm)	25 1/4 x 35 3/8 x 12 (642 x 898 x 306)	25 1/4 x 35 3/8 x 12 (642 x 898 x 306)	27 3/4 x 38 3/8 x 13 3/8 (705 x 974 x 340)
	Weight (Net/Ship) - lbs (kg)	83.41/96.87 (37.8/43.9)	88.15/100.4 (39.95/45.5)	104.59/122.46 (47.4/55.5)
	Basepan Heater	Yes	Yes	Yes
Indoor Unit	Fan Speed Stages	5 + Auto	5 + Auto	5 + Auto
	Airflow CFM: Cooling (Turbo/High/Med/Low/Quiet)	353/286/200/150/141	409/350/308/158/148	620/517/332/214/203
	Airflow CFM: Heating (Turbo/High/Med/Low/Quiet)	358/292/208/155/145	412/355/311/163/152	627/523/337/217/205
	Indoor Sound Level dB: Cooling (Turbo/High/Med/Low/Quiet)	44/41/38/35/32	47/44/41/38/35	48/45/42/39/36
	Indoor Sound Level dB: Heating (Turbo/High/Med/Low/Quiet)	44/41/38/35/32	47/44/41/38/35	48/45/42/39/36
	Dimension: H x W x D in (mm)	9 3/4 x 31 3/4 x 27 1/2 (248 x 805 x 700)	9 3/4 x 31 3/4 x 27 1/2 (248 x 805 x 700)	9 3/4 x 47 1/2 x 27 1/2 (248 x 1207 x 700)
	Weight (Net/Ship) - lbs (kg)	62.17/86.86 (28.2/39.4)	62.17/86.86 (28.2/39.4)	87.74/123.46 (39.8/56)
	Drain Pipe Size O.D in	1*	1*	1*
	Max. External Static Pressure in.W.G (Pa)	0.6 (150)	0.6 (150)	0.6 (150)
	Condensate Pump	Built-in	Built-in	Built-in
	Max. Drain-lift height in (mm)	27 1/2 (700)	27 1/2 (700)	27 1/2 (700)
	Factory-Installed Refrigerant Detection Sensor (RDS)	Yes	Yes	Yes
	WiFi**	Built-in	Built-in	Built-in
	Refrigerant	R454B	R454B	R454B
Refrigerant Lines	Connections	Flare	Flare	Flare
	Liquid O.D. in	1/4	1/4	1/4
	Suction O.D. in	3/8	3/8	1/2
	Factory Charge Oz	46.6	50.1	58.6
	Maximum Line Length Ft / m	66/20	66/20	83/25
	Maximum Height Ft / m	33/10	33/10	50/15

*Condensate drain adapter shipped with the indoor unit is designed to accept a 3/4" PVC pipe.

**WiFi includes SmartHQ™ Home and SmartHQ™ Service compatibility.

2.1 General

(2.1.1) Description

- A. The single heat pump air conditioner shall be a variable capacity, mini-split type system comprised of a single outdoor and a single wall-mounted indoor unit.

(2.1.2) Toxicity

- A. The heat pump system shall participate in RoHS compliance and listed in the directory.

2.2 Installation Requirements

(2.2.1) Lineset

- A. The connecting refrigerant lines between the indoor and outdoor units are to be supplied by the installer.
 B. The tubing must be annealed ACR-type copper, meeting ASTM B280 standards.
 C. The connecting tubing between the outdoor and indoor units shall be continuous in all possible situations.
 D. The tubing ends must be reamed inside and out, and must be flared using a 45° flaring tool approved for R454B.
 E. Connections to the indoor and outdoor units shall be made with flare nuts that are supplied with the individual units.
 F. The flare nuts must be attached to indoor and outdoor units using a torque wrench and back-up wrench.

Pipe Size	Torque	A (inch)	Flare Shape
1/4	12 lb/ft 16.3 Nm	0.327-0.343	
3/8	27 lb/ft 36.6 Nm	0.472-0.488	
1/2	40 lb/ft 54.2 Nm	0.488-0.654	
5/8	50 lb/ft 67.8 Nm	0.732-0.748	
3/4	80 lb/ft 108.5 Nm	0.902-0.917	

- G. Each tube must be insulated with a minimum of 1/2 inch (12.7mm) closed-foam insulation that is UV resistant and meets ASTM Standard E84 25/50 flame spread/smoke development.
 H. The lineset between the indoor and outdoor must not exceed the listed maximum length and maximum height difference. (See section 1. **Specifications**, outdoor units).

2.3 Electrical Requirements

(2.3.1) Electrical Supply

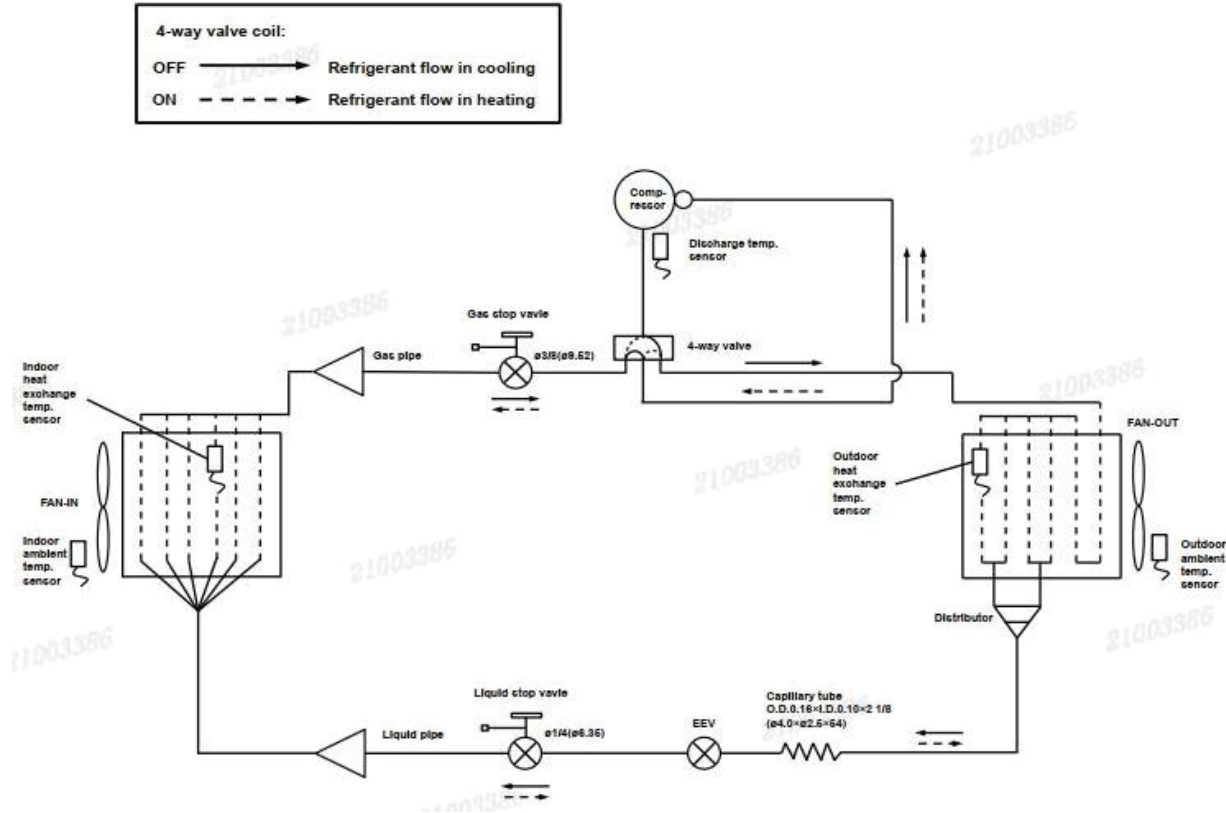
- A. The operating electrical requirements shall be 208/230 volts AC, single-phase, 60 hertz. Voltage supplied to the outdoor unit must be between 187-253 volts.
 B. Power supply must be installed in accordance to local building and electrical code.

(2.3.2) Connecting Wire to Indoor

- C. Connecting cable between the indoor unit(s) must be made with 4 conductor - 14 AWG stranded copper wire.
 D. Connecting wire must be continuous (without break) unless local code requires power disconnect next to indoor unit.

2.4 Refrigerant System Diagrams

1Q09RT2BEA
1Q12RT2BEA
1Q18RT2BEA



2.5 Capacity Tables

1Q09RT2BEA & US09CB2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB (°C DB/°C WB)																				
	60/50 (15.6/10.0)			64/53 (17.8/11.7)			70/57 (21.1/13.9)			75/62 (23.9/16.7)			80/67 (26.7/19.4)			86/72 (30.0/22.2)			90/75 (32.2/23.9)		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	5,540	240	6.77	5,832	250	6.84	6,269	260	7.07	6,707	270	7.28	7,290	280	7.63	7,727	290	7.81	8,092	300	7.91
32°F (0°C)	6,088	290	6.15	6,408	300	6.26	6,889	310	6.51	7,369	320	6.75	8,010	330	7.11	8,491	340	7.32	8,891	350	7.45
50°F (10°C)	7,114	330	6.32	7,488	340	6.45	8,050	350	6.74	8,611	360	7.01	9,360	370	7.41	9,922	380	7.65	10,390	390	7.81
68°F (20°C)	7,592	480	4.64	7,992	490	4.78	8,591	500	5.04	9,191	510	5.28	9,990	520	5.63	10,589	530	5.86	11,089	540	6.02
86°F (30°C)	7,079	630	3.29	7,452	640	3.41	8,011	650	3.61	8,570	660	3.81	9,315	670	4.07	9,874	680	4.26	10,340	690	4.39
95°F (35°C)	6,840	710	2.82	7,200	720	2.93	7,740	730	3.11	8,280	740	3.28	9,000	750	3.52	9,540	760	3.68	9,990	770	3.80
104°F (40°C)	5,882	680	2.54	6,192	690	2.63	6,656	700	2.79	7,121	710	2.94	7,740	720	3.15	8,204	730	3.29	8,591	740	3.40
110°F (43°C)	5,746	740	2.28	6,048	750	2.36	6,502	760	2.51	6,955	770	2.65	7,560	780	2.84	8,014	790	2.97	8,392	800	3.07
115°F (46°C)	5,540	770	2.11	5,832	780	2.19	6,269	790	2.33	6,707	800	2.46	7,290	810	2.64	7,727	820	2.76	8,092	830	2.86

1Q09RT2BEA & US09CB2BEA (Heating)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB (°C DB)																	
	60(15.6)			65(18.3)			70(21.1)			75(23.9)			80(26.7)			86(30.0)		
	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP
-15°F (-26.1°C)	5,047	830	1.78	4,974	866	1.68	4,900	912	1.57	4,802	948	1.48	4,704	985	1.40	4,606	1,040	1.30
-4°F (-20°C)	6,077	909	1.96	5,989	949	1.85	5,900	999	1.73	5,782	1,039	1.63	5,664	1,079	1.54	5,546	1,139	1.43
0°F (-17.8°C)	7,107	981	2.12	7,004	1,025	2.00	6,900	1,078	1.88	6,762	1,122	1.77	6,624	1,165	1.67	6,486	1,229	1.55
5°F (-15°C)	9,270	1,335	2.04	9,135	1,394	1.92	9,000	1,467	1.80	8,820	1,526	1.69	8,640	1,584	1.60	8,460	1,672	1.48
14°F (-10°C)	8,446	974	2.54	8,323	1,017	2.40	8,200	1,071	2.24	8,036	1,113	2.12	7,872	1,156	2.00	7,708	1,220	1.85
23°F (-5°C)	9,373	823	3.34	9,237	859	3.15	9,100	904	2.95	8,918	940	2.78	8,736	976	2.62	8,554	1,031	2.43
32°F (0°C)	9,682	794	3.57	9,541	829	3.37	9,400	872	3.16	9,212	907	2.98	9,024	942	2.81	8,836	994	2.60
41°F (5°C)	10,609	787	3.95	10,455	821	3.73	10,300	864	3.49	10,094	899	3.29	9,888	934	3.10	9,682	985	2.88
47°F (8.3°C)	10,300	722	4.18	10,150	753	3.95	10,000	793	3.70	9,800	825	3.48	9,600	856	3.29	9,400	904	3.05
55°F (12.8°C)	10,043	613	4.80	9,896	640	4.53	9,750	674	4.24	9,555	701	3.99	9,360	728	3.77	9,165	768	3.50
65°F (18.3°C)	10,506	520	5.93	10,353	542	5.59	10,200	571	5.24	9,996	594	4.93	9,792	617	4.65	9,588	651	4.32
75°F (23.9°C)	11,021	563	5.74	10,861	588	5.42	10,700	619	5.07	10,486	643	4.78	10,272	668	4.51	10,058	705	4.18
86°F (30°C)	12,154	592	6.02	11,977	618	5.68	11,800	650	5.32	11,564	676	5.01	11,328	702	4.73	11,092	741	4.39

1Q09RT2BEA & US09MB2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB (°C DB/°C WB)																				
	60/50 (15.6/10.0)			64/53 (17.8/11.7)			70/57 (21.1/13.9)			75/62 (23.9/16.7)			80/67 (26.7/19.4)			86/72 (30.0/22.2)			90/75 (32.2/23.9)		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	5,609	260	6.32	5,904	270	6.41	6,347	280	6.64	6,790	290	6.86	7,380	300	7.21	7,823	310	7.40	8,192	320	7.50
32°F (0°C)	6,293	290	6.36	6,624	300	6.47	7,121	310	6.73	7,618	320	6.98	8,280	330	7.35	8,777	340	7.57	9,191	350	7.70
50°F (10°C)	6,703	330	5.95	7,056	340	6.08	7,585	350	6.35	8,114	360	6.61	8,820	370	6.99	9,349	380	7.21	9,790	390	7.36
68°F (20°C)	7,250	480	4.43	7,632	490	4.56	8,204	500	4.81	8,777	510	5.04	9,540	520	5.38	10,112	530	5.59	10,589	540	5.75
86°F (30°C)	7,045	630	3.28	7,416	640	3.40	7,972	650	3.59	8,528	660	3.79	9,270	670	4.06	9,826	680	4.24	10,290	690	4.37
95°F (35°C)	6,840	710	2.82	7,200	720	2.93	7,740	730	3.11	8,280	740	3.28	9,000	750	3.52	9,540	760	3.68	9,990	770	3.80
104°F (40°C)	5,882	690	2.50	6,192	700	2.59	6,656	710	2.75	7,121	720	2.90	7,740	730	3.11	8,204	740	3.25	8,591	750	3.36
110°F (43°C)	5,609	740	2.22	5,904	750	2.31	6,347	760	2.45	6,790	770	2.58	7,380	780	2.77	7,823	790	2.90	8,192	800	3.00
115°F (46°C)	5,335	790	1.98	5,616	800	2.06	6,037	810	2.18	6,458	820	2.31	7,020	830	2.48	7,441	840	2.60	7,792	850	2.69

1Q09RT2BEA & US09MB2BEA (Heating)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB (°C DB)																	
	60(15.6)			65(18.3)			70(21.1)			75(23.9)			80(26.7)			86(30.0)		
	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP
-15°F (-26.1°C)	4,738	829	1.68	4,669	865	1.58	4,600	911	1.48	4,508	947	1.39	4,416	984	1.32	4,324	1,038	1.22
-4°F (-20°C)	5,974	1,017	1.72	5,887	1,062	1.62	5,800	1,118	1.52	5,684	1,163	1.43	5,568	1,207	1.35	5,452	1,274	1.25
0°F (-17.8°C)	6,695	1,055	1.86	6,598	1,101	1.76	6,500	1,159	1.64	6,370	1,206	1.55	6,240	1,252	1.46	6,110	1,321	1.36
5°F (-15°C)	8,240	1,187	2.04	8,120	1,239	1.92	8,000	1,304	1.80	7,840	1,356	1.69	7,680	1,408	1.60	7,520	1,487	1.48
14°F (-10°C)	8,240	1,111	2.17	8,120	1,160	2.05	8,000	1,221	1.92	7,840	1,270	1.81	7,680	1,319	1.71	7,520	1,392	1.58
23°F (-5°C)	9,270	1,074	2.53	9,135	1,121	2.39	9,000	1,180	2.24	8,820	1,227	2.11	8,640	1,274	1.99	8,460	1,345	1.84
32°F (0°C)	9,579	1,036	2.71	9,440	1,082	2.56	9,300	1,139	2.39	9,114	1,184	2.26	8,928	1,230	2.13	8,742	1,298	1.97
41°F (5°C)	10,926	914	3.50	10,767	954	3.31	10,608	1,005	3.10	10,396	1,045	2.92	10,184	1,085	2.75	9,972	1,145	2.55
47°F (8.3°C)	10,300	763	3.96	10,150	796	3.74	10,000	838	3.50	9,800	872	3.30	9,600	905	3.11	9,400	955	2.88
55°F (12.8°C)	10,094	721	4.10	9,947	756	3.86	9,800	800	3.59	9,604	835	3.71	9,408	870	3.17	9,212	923	2.93
65°F (18.3°C)	10,403	678	4.50	10,252	708	4.24	10,100	745	3.97	9,898	775	3.74	9,696	805	3.53	9,494	850	3.28
75°F (23.9°C)	11,124	735	4.44	10,962	767	4.19	10,800	807	3.92	10,584	840	3.69	10,368	872	3.49	10,152	920	3.23
86°F (30°C)	12,257	772	4.65	12,079	806	4.39	11,900	849	4.11	11,662	883	3.87	11,424	917	3.65	11,186	968	3.39

2. SYSTEM

1Q09RT2BEA & US09FB2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB(°C DB/°C WB)																				
	60/50 (15.6/10.0)			64/53 (17.8/11.7)			70/57 (21.1/13.9)			75/62 (23.9/16.7)			80/67 (26.7/19.4)			86/72 (30.0/22.2)			90/75 (32.2/23.9)		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	4,925	170	8.49	5,184	180	8.44	5,573	190	8.60	5,962	200	8.74	6,480	210	9.04	6,869	220	9.15	7,193	230	9.17
32°F (0°C)	5,404	210	7.54	5,688	220	7.58	6,115	230	7.79	6,541	240	7.99	7,110	250	8.34	7,537	260	8.50	7,892	270	8.57
50°F (10°C)	6,224	240	7.60	6,552	250	7.68	7,043	260	7.94	7,535	270	8.18	8,190	280	8.57	8,681	290	8.77	9,091	300	8.88
68°F (20°C)	6,908	390	5.19	7,272	400	5.33	7,817	410	5.59	8,363	420	5.84	9,090	430	6.20	9,635	440	6.42	10,090	450	6.57
86°F (30°C)	6,566	530	3.63	6,912	540	3.75	7,430	550	3.96	7,949	560	4.16	8,640	570	4.44	9,158	580	4.63	9,590	590	4.76
95°F (35°C)	6,750	710	2.79	7,200	720	2.93	7,650	730	3.07	8,190	740	3.24	9,000	750	3.52	9,450	760	3.64	9,900	770	3.77
104°F (40°C)	5,814	660	2.58	6,120	670	2.68	6,579	680	2.84	7,038	690	2.99	7,650	700	3.20	8,109	710	3.35	8,492	720	3.46
110°F (43°C)	5,540	710	2.29	5,832	720	2.37	6,269	730	2.52	6,707	740	2.66	7,290	750	2.85	7,727	760	2.98	8,092	770	3.08
115°F (46°C)	5,335	760	2.06	5,616	770	2.14	6,037	780	2.27	6,458	790	2.40	7,020	800	2.57	7,441	810	2.69	7,792	820	2.79

1Q09RT2BEA & US09FB2BEA (Heating)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB(°C DB)																	
	60(15.6)			65(18.3)			70(21.1)			75(23.9)			80(26.7)			86(30.0)		
	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP
-15°F (-26.1°C)	4,841	817	1.74	4,771	853	1.64	4,700	898	1.53	4,606	934	1.45	4,512	969	1.36	4,418	1,023	1.27
-4°F (-20°C)	6,386	1,034	1.81	6,293	1,079	1.71	6,200	1,136	1.60	6,076	1,181	1.51	5,952	1,227	1.42	5,828	1,295	1.32
0°F (-17.8°C)	7,519	1,150	1.92	7,410	1,201	1.81	7,300	1,264	1.69	7,154	1,315	1.59	7,008	1,365	1.50	6,862	1,441	1.40
5°F (-15°C)	9,270	1,334	2.04	9,135	1,392	1.92	9,000	1,466	1.80	8,820	1,524	1.70	8,640	1,583	1.60	8,460	1,671	1.48
14°F (-10°C)	8,446	984	2.52	8,323	1,027	2.38	8,200	1,081	2.22	8,036	1,124	2.10	7,872	1,167	1.98	7,708	1,232	1.83
23°F (-5°C)	9,373	950	2.89	9,237	992	2.73	9,100	1,044	2.55	8,918	1,086	2.41	8,736	1,128	2.27	8,554	1,190	2.11
32°F (0°C)	9,682	917	3.09	9,541	957	2.92	9,400	1,008	2.73	9,212	1,048	2.58	9,024	1,088	2.43	8,836	1,149	2.25
41°F (5°C)	10,609	909	3.42	10,455	949	3.23	10,300	998	3.02	10,094	1,038	2.85	9,888	1,078	2.69	9,682	1,138	2.49
47°F (8.3°C)	10,300	834	3.62	10,150	870	3.42	10,000	916	3.20	9,800	953	3.02	9,600	989	2.84	9,400	1,044	2.64
55°F (12.8°C)	9,888	709	4.09	9,744	740	3.86	9,600	779	3.61	9,408	810	3.41	9,216	841	3.21	9,024	888	2.98
65°F (18.3°C)	10,197	600	4.98	10,049	627	4.70	9,900	660	4.40	9,702	686	4.15	9,504	712	3.91	9,306	752	3.63
75°F (23.9°C)	10,609	650	4.78	10,455	679	4.51	10,300	714	4.23	10,094	743	3.98	9,888	772	3.76	9,682	815	3.48
86°F (30°C)	11,021	684	4.73	10,861	714	4.46	10,700	751	4.18	10,486	781	3.93	10,272	811	3.71	10,058	856	3.44

1Q09RT2BEA & QS09WP2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB																				
	64/53			68/57			72/61			77/64			80/67			82/70			86/72		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	3,207	580	5.53	3,346	559	5.99	3,491	538	6.49	3,642	519	7.02	3,800	500	7.61	3,965	481	8.24	4,136	464	8.92
32°F (0°C)	4,170	638	6.54	4,350	615	7.08	4,539	592	7.66	4,735	571	8.30	4,940	550	8.99	5,154	530	9.73	5,377	510	10.54
50°F (10°C)	5,421	695	7.79	5,655	670	8.44	5,900	645	9.14	6,156	622	9.90	6,422	599	10.72	6,700	577	11.61	6,990	556	12.57
68°F (20°C)	7,047	751	9.38	7,352	724	10.16	7,670	697	11.00	8,002	672	11.92	8,349	647	12.90	8,710	623	13.97	9,087	601	15.13
86°F (30°C)	7,751	804	9.64	8,087	774	10.44	8,437	746	11.31	8,803	719	12.25	9,184	692	13.27	9,581	667	14.37	9,996	643	15.56
95°F (35°C)	7,596	836	9.09	7,925	805	9.84	8,269	776	10.66	8,627	747	11.54	9,000	720	12.50	9,390	694	13.54	9,796	668	14.66
104°F (40°C)	7,445	869	8.56	7,767	837	9.27	8,103	807	10.04	8,454	777	10.88	8,820	749	11.78	9,202	721	12.76	9,600	695	13.81

1Q09RT2BEA & QS09WP2BEA (Heating)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB																				
	60			64			68			70			72			75			79		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
-31°F (-35°C)	4,523	889	1.49	4,252	907	1.37	4,124	926	1.31	4,000	945	1.24	3,880	964	1.18	3,763	984	1.12	3,537	1,004	1.03
-22°F (-30°C)	5,654	1,046	1.58	5,315	1,068	1.46	5,155	1,089	1.39	5,000	1,112	1.32	4,850	1,134	1.25	4,704	1,157	1.19	4,422	1,181	1.10
-15°F (-26°C)	8,248	1,395	1.73	7,754	1,423	1.60	7,520	1,453	1.52	7,294	1,482	1.44	7,075	1,512	1.37	6,862	1,543	1.30	6,451	1,575	1.20
-5°F (-21°C)	9,345	1,438	1.90	8,785	1,468	1.75	8,521	1,497	1.67	8,265	1,528	1.59	8,016	1,559	1.51	7,775	1,591	1.43	7,309	1,623	1.32
0°F (-18°C)	10,280	1,483	2.03	9,663	1,513	1.87	9,373	1,544	1.78	9,091	1,575	1.69	8,818	1,607	1.61	8,553	1,640	1.53	8,040	1,674	1.41
5°F (-15°C)	11,308	1,528	2.17	10,630	1,560	2.00	10,310	1,592	1.90	10,000	1,624	1.80	9,699	1,657	1.72	9,408	1,691	1.63	8,843	1,725	1.50
14°F (-10°C)	11,421	1,345	2.49	10,736	1,372	2.29	10,413	1,400	2.18	10,100	1,429	2.07	9,796	1,458	1.97	9,502	1,488	1.87	8,932	1,518	1.72
23°F (-5°C)	11,535	1,183	2.86	10,843	1,208	2.63	10,517	1,232	2.50	10,201	1,257	2.38	9,894	1,283	2.26	9,597	1,309	2.15	9,021	1,336	1.98
32°F (0°C)	11,650	1,041	3.28	10,952	1,063	3.02	10,622	1,084	2.87	10,303	1,106	2.73	9,993	1,129	2.59	9,693	1,152	2.47	9,111	1,175	2.27
41°F (5°C)	11,767	1,052	3.28	11,061	1,074	3.02	10,729	1,096	2.87	10,406	1,118	2.73	10,093	1,141	2.59	9,790	1,164	2.46	9,203	1,188	2.27
47°F (8°C)	11,308	745	4.45	10,630	761	4.10	10,310	776	3.89	10,000	792	3.70	9,699	808	3.52	9,408	825	3.34	8,843	841	3.08
55°F (13°C)	11,534	749	4.51	10,842	764	4.16	10,516	780	3.95	10,200	796	3.76	9,893	812	3.57	9,596	829	3.39	9,020	846	3.13
65°F (18°C)	11,764	753	4.58	11,059	768	4.22	10,726	784	4.01	10,404	800	3.81	10,091	816	3.62	9,788	833	3.44	9,201	850	3.17
75°F (24°C)	12,000	757	4.65	11,280	772	4.28	10,941	788	4.07	10,612	804	3.87	10,293	820	3.68	9,983	837	3.50	9,385	854	3.22

2. SYSTEM

1Q12RT2BEA & US12CB2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB(°C DB/°C WB)																				
	60/50 (15.6/10.0)			64/53 (17.8/11.7)			70/57 (21.1/13.9)			75/62 (23.9/16.7)			80/67 (26.7/19.4)			86/72 (30.0/22.2)			90/75 (32.2/23.9)		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	7,484	333	6.59	7,970	343	6.81	8,456	354	7.01	9,040	364	7.28	9,720	374	7.62	10,303	384	7.86	10,789	395	8.01
32°F (0°C)	8,224	389	6.20	8,758	399	6.43	9,292	410	6.65	9,932	420	6.93	10,680	430	7.28	11,321	441	7.52	11,855	451	7.70
50°F (10°C)	9,610	449	6.27	10,234	460	6.52	10,858	471	6.76	11,606	482	7.06	12,480	492	7.43	13,229	502	7.72	13,853	513	7.91
68°F (20°C)	10,256	648	4.64	10,922	659	4.86	11,588	670	5.07	12,388	680	5.34	13,320	691	5.65	14,119	702	5.89	14,785	712	6.09
86°F (30°C)	9,563	850	3.30	10,184	861	3.47	10,805	872	3.63	11,551	883	3.83	12,420	893	4.08	13,165	904	4.27	13,786	915	4.42
95°F (35°C)	9,240	957	2.83	9,840	968	2.98	10,440	979	3.13	11,160	990	3.30	12,000	1,000	3.52	12,720	1,012	3.68	13,320	1,023	3.82
104°F (40°C)	7,946	946	2.46	8,462	957	2.59	8,978	968	2.72	9,598	979	2.87	10,320	990	3.06	10,939	1,001	3.20	11,455	1,012	3.32
110°F (43°C)	7,762	1,012	2.25	8,266	1,023	2.37	8,770	1,034	2.49	9,374	1,045	2.63	10,080	1,056	2.80	10,685	1,067	2.93	11,189	1,078	3.04
115°F (46°C)	7,484	1,078	2.03	7,970	1,089	2.15	8,456	1,100	2.25	9,040	1,111	2.38	9,720	1,122	2.54	10,303	1,133	2.67	10,789	1,144	2.76

1Q12RT2BEA & US12CB2BEA (Heating)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB(°C DB)																	
	60(15.6)			65(18.3)			70(21.1)			75(23.9)			80(26.7)			86(30.0)		
	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP
-15°F (-26.1°C)	5,954	1,036	1.68	5,868	1,082	1.59	5,781	1,139	1.49	5,665	1,184	1.40	5,550	1,230	1.32	5,434	1,298	1.23
-4°F (-20°C)	7,855	1,311	1.76	7,740	1,369	1.66	7,626	1,441	1.55	7,473	1,499	1.46	7,321	1,556	1.38	7,168	1,643	1.28
0°F (-17.8°C)	9,248	1,459	1.86	9,114	1,523	1.75	8,979	1,604	1.64	8,799	1,668	1.55	8,620	1,732	1.46	8,440	1,828	1.35
5°F (-15°C)	10,300	1,480	2.04	10,150	1,545	1.92	10,000	1,627	1.80	9,800	1,692	1.70	9,600	1,757	1.60	9,400	1,855	1.49
14°F (-10°C)	9,882	1,248	2.32	9,738	1,303	2.19	9,594	1,371	2.05	9,402	1,426	1.93	9,210	1,481	1.82	9,018	1,563	1.69
23°F (-5°C)	11,529	1,205	2.80	11,361	1,258	2.65	11,193	1,325	2.48	10,969	1,378	2.33	10,745	1,431	2.20	10,521	1,510	2.04
32°F (0°C)	11,909	1,163	3.00	11,735	1,214	2.83	11,562	1,278	2.65	11,331	1,329	2.50	11,100	1,380	2.36	10,868	1,457	2.19
41°F (5°C)	13,049	1,153	3.32	12,859	1,203	3.13	12,669	1,267	2.93	12,416	1,317	2.76	12,162	1,368	2.61	11,909	1,444	2.42
47°F (8.3°C)	12,669	1,057	3.51	12,485	1,104	3.31	12,300	1,162	3.10	12,054	1,208	2.92	11,808	1,255	2.76	11,562	1,325	2.56
55°F (12.8°C)	12,162	899	3.97	11,985	938	3.74	11,808	988	3.50	11,572	1,027	3.30	11,336	1,067	3.11	11,100	1,126	2.89
65°F (18.3°C)	12,542	761	4.83	12,360	795	4.56	12,177	837	4.27	11,933	870	4.02	11,690	904	3.79	11,446	954	3.52
75°F (23.9°C)	13,049	825	4.64	12,859	861	4.38	12,669	906	4.10	12,416	943	3.86	12,162	979	3.64	11,909	1,033	3.38
86°F (30°C)	13,556	867	4.58	13,358	905	4.33	13,161	953	4.05	12,898	991	3.81	12,635	1,029	3.60	12,371	1,086	3.34

1Q12RT2BEA & US12MB2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB(°C DB/°C WB)																				
	60/50 (15.6/10.0)			64/53 (17.8/11.7)			70/57 (21.1/13.9)			75/62 (23.9/16.7)			80/67 (26.7/19.4)			86/72 (30.0/22.2)			90/75 (32.2/23.9)		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	7,478	420	5.22	7,872	430	5.37	8,462	440	5.64	9,053	450	5.90	9,840	460	6.27	10,430	470	6.50	10,922	480	6.67
32°F (0°C)	8,390	480	5.12	8,832	490	5.28	9,494	500	5.57	10,157	510	5.84	11,040	520	6.22	11,702	530	6.47	12,254	540	6.65
50°F (10°C)	8,938	540	4.85	9,408	550	5.01	10,114	560	5.29	10,819	570	5.56	11,760	580	5.94	12,466	590	6.19	13,054	600	6.38
68°F (20°C)	9,667	770	3.68	10,176	780	3.82	10,939	790	4.06	11,702	800	4.29	12,720	810	4.60	13,483	820	4.82	14,119	830	4.99
86°F (30°C)	9,394	940	2.93	9,888	950	3.05	10,630	960	3.25	11,371	970	3.44	12,360	980	3.70	13,102	990	3.88	13,720	1,000	4.02
95°F (35°C)	7,600	793	2.81	8,000	803	2.92	8,600	813	3.10	9,200	823	3.28	10,000	833	3.52	10,600	843	3.69	11,100	853	3.81
104°F (40°C)	7,843	1,100	2.09	8,256	1,110	2.18	8,875	1,120	2.32	9,494	1,130	2.46	10,320	1,140	2.65	10,939	1,150	2.79	11,455	1,160	2.89
110°F (43°C)	7,478	1,170	1.87	7,872	1,180	1.96	8,462	1,190	2.08	9,053	1,200	2.21	9,840	1,210	2.38	10,430	1,220	2.51	10,922	1,230	2.60
115°F (46°C)	7,114	1,250	1.67	7,488	1,260	1.74	8,050	1,270	1.86	8,611	1,280	1.97	9,360	1,290	2.13	9,922	1,300	2.24	10,390	1,310	2.32

1Q12RT2BEA & US12MB2BEA (Heating)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB																				
	60			64			68			70			72			75			79		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
-31°F (-35°C)	6,559	1,293	1.49	6,165	1,319	1.37	5,980	1,346	1.30	5,800	1,374	1.24	5,626	1,402	1.18	5,456	1,430	1.12	5,129	1,460	1.03
-22°F (-30°C)	7,915	1,521	1.53	7,441	1,552	1.41	7,217	1,584	1.34	7,000	1,616	1.27	6,790	1,649	1.21	6,585	1,683	1.15	6,190	1,717	1.06
-15°F (-26°C)	11,960	2,028	1.73	11,243	2,069	1.59	10,905	2,112	1.51	10,577	2,155	1.44	10,259	2,199	1.37	9,950	2,244	1.30	9,354	2,289	1.20
-5°F (-21°C)	13,551	2,091	1.90	12,738	2,133	1.75	12,355	2,177	1.66	11,984	2,221	1.58	11,623	2,267	1.50	11,274	2,313	1.43	10,598	2,360	1.32
0°F (-18°C)	14,906	2,155	2.03	14,012	2,199	1.87	13,591	2,244	1.77	13,182	2,290	1.69	12,786	2,337	1.60	12,401	2,385	1.52	11,657	2,433	1.40
5°F (-15°C)	16,396	2,222	2.16	15,413	2,268	1.99	14,950	2,314	1.89	14,500	2,361	1.80	14,064	2,409	1.71	13,641	2,458	1.63	12,823	2,509	1.50
14°F (-10°C)	16,560	1,955	2.48	15,567	1,995	2.29	15,099	2,036	2.17	14,645	2,077	2.07	14,205	2,120	1.96	13,778	2,163	1.87	12,951	2,207	1.72
23°F (-5°C)	16,726	1,720	2.85	15,723	1,756	2.62	15,250	1,791	2.50	14,791	1,828	2.37	14,347	1,865	2.25	13,915	1,903	2.14	13,081	1,942	1.97
32°F (0°C)	16,893	1,514	3.27	15,880	1,545	3.01	15,402	1,576	2.86	14,939	1,608	2.72	14,490	1,641	2.59	14,054	1,675	2.46	13,212	1,709	2.27
41°F (5°C)	17,062	1,530	3.27	16,039	1,561	3.01	15,556	1,593	2.86	15,089	1,625	2.72	14,635	1,659	2.59	14,195	1,692	2.46	13,344	1,727	2.26
47°F (8°C)	16,396	1,250	3.84	15,413	1,275	3.54	14,950	1,301	3.37	14,500	1,328	3.20	14,064	1,355	3.04	13,641	1,383	2.89	12,823	1,411	2.66
55°F (13°C)	16,724	1,256	3.90	15,721	1,282	3.59	15,248	1,308	3.42	14,790	1,335	3.25	14,345	1,362	3.09	13,914	1,390	2.93	13,079	1,418	2.70
65°F (18°C)	17,058	1,262	3.96	16,035	1,288	3.65	15,553	1,315	3.47	15,086	1,341	3.30	14,632	1,369	3.13	14,192	1,397	2.98	13,341	1,425	2.74
75°F (24°C)	17,399	1,269	4.02	16,356	1,295	3.70	15,864	1,321	3.52	15,387	1,348	3.35	14,924	1,376	3.18	14,476	1,404	3.02	13,608	1,432	2.78

2. SYSTEM

1Q12RT2BEA & US12FB2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB(°C DB/°C WB)																				
	60/50 (15.6/10.0)			64/53 (17.8/11.7)			70/57 (21.1/13.9)			75/62 (23.9/16.7)			80/67 (26.7/19.4)			86/72 (30.0/22.2)			90/75 (32.2/23.9)		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	7,478	260	8.43	7,872	270	8.55	8,462	280	8.86	9,053	290	9.15	9,840	300	9.61	10,430	310	9.86	10,922	320	10.00
32°F (0°C)	8,390	310	7.93	8,832	320	8.09	9,494	330	8.43	10,157	340	8.76	11,040	350	9.24	11,702	360	9.53	12,254	370	9.71
50°F (10°C)	8,938	360	7.28	9,408	370	7.45	10,114	380	7.80	10,819	390	8.13	11,760	400	8.62	12,466	410	8.91	13,054	420	9.11
68°F (20°C)	9,667	560	5.06	10,176	570	5.23	10,939	580	5.53	11,702	590	5.81	12,720	600	6.21	13,483	610	6.48	14,119	620	6.67
86°F (30°C)	9,394	760	3.62	9,888	770	3.76	10,630	780	3.99	11,371	790	4.22	12,360	800	4.53	13,102	810	4.74	13,720	820	4.90
95°F (35°C)	9,120	960	2.78	9,600	970	2.90	10,320	980	3.09	11,040	990	3.27	12,000	1,000	3.52	12,720	1,010	3.69	13,320	1,020	3.83
104°F (40°C)	7,843	950	2.42	8,256	960	2.52	8,875	970	2.68	9,494	980	2.84	10,320	990	3.06	10,939	1,000	3.21	11,455	1,010	3.32
110°F (43°C)	7,478	1,000	2.19	7,872	1,010	2.28	8,462	1,020	2.43	9,053	1,030	2.58	9,840	1,040	2.77	10,430	1,050	2.91	10,922	1,060	3.02
115°F (46°C)	7,114	1,070	1.95	7,488	1,080	2.03	8,050	1,090	2.16	8,611	1,100	2.29	9,360	1,110	2.47	9,922	1,120	2.60	10,390	1,130	2.69

1Q12RT2BEA & US12FB2BEA (Heating)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB(°C DB)																	
	60(15.6)			65(18.3)			70(21.1)			75(23.9)			80(26.7)			86(30.0)		
	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP
-15°F (-26.1°C)	6,309	1,095	1.69	6,217	1,143	1.59	6,125	1,203	1.49	6,003	1,251	1.41	5,880	1,299	1.33	5,758	1,371	1.23
-4°F (-20°C)	7,596	1,199	1.86	7,486	1,252	1.75	7,375	1,318	1.64	7,228	1,371	1.55	7,080	1,423	1.46	6,933	1,502	1.35
0°F (-17.8°C)	8,884	1,295	2.01	8,754	1,351	1.90	8,625	1,423	1.78	8,453	1,479	1.67	8,280	1,536	1.58	8,108	1,622	1.47
5°F (-15°C)	10,300	1,485	2.03	10,150	1,550	1.92	10,000	1,632	1.80	9,800	1,697	1.69	9,600	1,762	1.60	9,400	1,860	1.48
14°F (-10°C)	10,558	1,285	2.41	10,404	1,341	2.27	10,250	1,412	2.13	10,045	1,469	2.00	9,840	1,525	1.89	9,635	1,610	1.75
23°F (-5°C)	11,716	1,085	3.16	11,546	1,133	2.99	11,375	1,192	2.80	11,148	1,240	2.63	10,920	1,288	2.49	10,693	1,359	2.31
32°F (0°C)	12,103	1,047	3.39	11,926	1,093	3.20	11,750	1,151	2.99	11,515	1,197	2.82	11,280	1,243	2.66	11,045	1,312	2.47
41°F (5°C)	13,261	1,038	3.75	13,068	1,083	3.54	12,875	1,140	3.31	12,618	1,186	3.12	12,360	1,231	2.94	12,103	1,300	2.73
47°F (8.3°C)	12,875	952	3.96	12,688	994	3.74	12,500	1,046	3.50	12,250	1,088	3.30	12,000	1,130	3.11	11,750	1,192	2.89
55°F (12.8°C)	12,553	809	4.55	12,370	845	4.29	12,188	889	4.02	11,944	925	3.79	11,700	960	3.57	11,456	1,014	3.31
65°F (18.3°C)	13,133	685	5.62	12,941	715	5.30	12,750	753	4.96	12,495	783	4.68	12,240	813	4.41	11,985	859	4.09
75°F (23.9°C)	13,776	742	5.44	13,576	775	5.13	13,375	816	4.80	13,108	849	4.53	12,840	881	4.27	12,573	930	3.96
86°F (30°C)	15,193	781	5.70	14,971	815	5.38	14,750	858	5.04	14,455	892	4.75	14,160	926	4.48	13,865	978	4.16

1Q12RT2BEA & QS12WP2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB																				
	64/53			68/57			72/61			77/64			80/67			82/70			86/72		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	4,277	773	5.53	4,462	745	5.99	4,655	718	6.49	4,857	692	7.02	5,067	666	7.61	5,286	642	8.24	5,515	618	8.92
32°F (0°C)	5,560	851	6.54	5,800	820	7.08	6,051	790	7.66	6,313	761	8.30	6,587	733	8.99	6,872	706	9.73	7,170	680	10.54
50°F (10°C)	7,227	927	7.79	7,540	893	8.44	7,867	861	9.14	8,208	829	9.90	8,563	799	10.72	8,934	770	11.61	9,320	741	12.57
68°F (20°C)	9,396	1,001	9.38	9,803	965	10.16	10,227	929	11.00	10,670	895	11.92	11,132	863	12.90	11,614	831	13.97	12,117	801	15.13
86°F (30°C)	10,335	1,072	9.64	10,783	1,032	10.44	11,250	995	11.31	11,737	958	12.25	12,245	923	13.27	12,775	889	14.37	13,328	857	15.56
95°F (35°C)	10,129	1,114	9.09	10,567	1,074	9.84	11,025	1,034	10.66	11,502	996	11.54	12,000	960	12.50	12,520	925	13.54	13,062	891	14.66
104°F (40°C)	9,926	1,159	8.56	10,356	1,117	9.27	10,804	1,076	10.04	11,272	1,036	10.88	11,760	998	11.78	12,269	962	12.76	12,800	927	13.81
110°F (43°C)	9,827	1,182	8.31	10,252	1,139	9.00	10,696	1,097	9.75	11,159	1,057	10.56	11,642	1,018	11.43	12,146	981	12.38	12,672	945	13.41
115°F (46°C)	9,729	1,218	7.99	10,150	1,173	8.65	10,589	1,130	9.37	11,048	1,089	10.15	11,526	1,049	10.99	12,025	1,011	11.90	12,546	974	12.89

1Q12RT2BEA & QS12WP2BEA (Heating)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB(°C DB)																	
	60(15.6)			65(18.3)			70(21.1)			75(23.9)			80(26.7)			86(30.0)		
	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP
-15°F (-26.1°C)	6,633	1,037	1.87	6,537	1,083	1.77	6,440	1,140	1.66	6,311	1,185	1.56	6,182	1,231	1.47	6,054	1,299	1.37
-4°F (-20°C)	8,364	1,273	1.93	8,242	1,329	1.82	8,120	1,399	1.70	7,958	1,455	1.60	7,795	1,510	1.51	7,633	1,594	1.40
0°F (-17.8°C)	9,373	1,320	2.08	9,237	1,378	1.96	9,100	1,450	1.84	8,918	1,508	1.73	8,736	1,566	1.63	8,554	1,653	1.52
5°F (-15°C)	11,536	1,485	2.28	11,368	1,550	2.15	10,000	1,632	1.80	10,976	1,697	1.90	10,752	1,762	1.79	10,528	1,860	1.66
14°F (-10°C)	11,536	1,391	2.43	11,368	1,452	2.30	11,200	1,528	2.15	10,976	1,589	2.02	10,752	1,650	1.91	10,528	1,742	1.77
23°F (-5°C)	12,978	1,343	2.83	12,789	1,402	2.67	12,600	1,476	2.50	12,348	1,535	2.36	12,096	1,594	2.22	11,844	1,683	2.06
32°F (0°C)	13,411	1,296	3.03	13,215	1,353	2.86	13,020	1,425	2.68	12,760	1,481	2.52	12,499	1,538	2.38	12,239	1,624	2.21
41°F (5°C)	14,708	1,155	3.73	14,494	1,206	3.52	14,280	1,269	3.30	13,994	1,320	3.11	13,709	1,371	2.93	13,423	1,447	2.72
47°F (8.3°C)	14,420	1,067	3.96	14,210	1,114	3.74	14,000	1,173	3.50	13,720	1,220	3.30	13,440	1,267	3.11	13,160	1,337	2.88
55°F (12.8°C)	14,132	907	4.56	13,926	947	4.31	13,720	997	4.03	13,446	1,037	3.80	13,171	1,077	3.58	12,897	1,137	3.33
65°F (18.3°C)	14,564	769	5.55	14,352	802	5.24	14,140	845	4.91	13,857	878	4.62	13,574	912	4.36	13,292	963	4.05
75°F (23.9°C)	15,574	833	5.48	15,347	869	5.17	15,120	915	4.84	14,818	952	4.56	14,515	988	4.31	14,213	1,043	3.99
86°F (30°C)	17,160	875	5.75	16,910	914	5.42	16,660	962	5.08	16,327	1,000	4.78	15,994	1,039	4.51	15,660	1,097	4.19

2. SYSTEM

1Q18RT2BEA & US18CB2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB(°C DB/°C WB)																				
	60/50 (15.6/10.0)			64/53 (17.8/11.7)			70/57 (21.1/13.9)			75/62 (23.9/16.7)			80/67 (26.7/19.4)			86/72 (30.0/22.2)			90/75 (32.2/23.9)		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	11,081	550	5.90	11,664	560	6.10	12,539	570	6.45	13,414	580	6.78	14,580	590	7.24	15,455	600	7.55	16,184	610	7.78
32°F (0°C)	12,175	620	5.76	12,816	630	5.96	13,777	640	6.31	14,738	650	6.65	16,020	660	7.11	16,981	670	7.43	17,782	680	7.66
50°F (10°C)	14,227	700	5.96	14,976	710	6.18	16,099	720	6.55	17,222	730	6.91	18,720	740	7.41	19,843	750	7.75	20,779	760	8.01
68°F (20°C)	15,185	990	4.50	15,984	1,000	4.68	17,183	1,010	4.99	18,382	1,020	5.28	19,980	1,030	5.69	21,179	1,040	5.97	22,178	1,050	6.19
86°F (30°C)	14,159	1,280	3.24	14,904	1,290	3.39	16,022	1,300	3.61	17,140	1,310	3.83	18,630	1,320	4.14	19,748	1,330	4.35	20,679	1,340	4.52
95°F (35°C)	13,680	1,460	2.75	14,400	1,470	2.87	15,480	1,480	3.07	16,560	1,490	3.26	18,000	1,500	3.52	19,080	1,510	3.70	19,980	1,520	3.85
104°F (40°C)	11,765	1,420	2.43	12,384	1,430	2.54	13,313	1,440	2.71	14,242	1,450	2.88	15,480	1,460	3.11	16,409	1,470	3.27	17,183	1,480	3.40
110°F (43°C)	11,491	1,500	2.25	12,096	1,510	2.35	13,003	1,520	2.51	13,910	1,530	2.66	15,120	1,540	2.88	16,027	1,550	3.03	16,783	1,560	3.15
115°F (46°C)	11,081	1,610	2.02	11,664	1,620	2.11	12,539	1,630	2.25	13,414	1,640	2.40	14,580	1,650	2.59	15,455	1,660	2.73	16,184	1,670	2.84

1Q18RT2BEA & US18CB2BEA (Heating)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB(°C DB)																	
	60(15.6)			65(18.3)			70(21.1)			75(23.9)			80(26.7)			86(30.0)		
	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP
-15°F (-26.1°C)	9,085	1,682	1.58	8,952	1,756	1.49	8,820	1,848	1.40	8,644	1,922	1.32	8,467	1,996	1.24	8,291	2,107	1.15
-4°F (-20°C)	10,939	1,858	1.73	10,779	1,940	1.63	10,620	2,042	1.52	10,408	2,123	1.44	10,195	2,205	1.36	9,983	2,327	1.26
0°F (-17.8°C)	12,793	2,018	1.86	12,606	2,107	1.75	12,420	2,218	1.64	12,172	2,306	1.55	11,923	2,395	1.46	11,675	2,528	1.35
5°F (-15°C)	14,832	2,130	2.04	14,616	2,224	1.93	14,400	2,341	1.80	14,112	2,434	1.70	13,824	2,528	1.60	13,536	2,669	1.49
14°F (-10°C)	15,203	1,954	2.28	14,981	2,040	2.15	14,760	2,147	2.01	14,465	2,233	1.90	14,170	2,319	1.79	13,874	2,448	1.66
23°F (-5°C)	16,871	1,778	2.78	16,626	1,856	2.63	16,380	1,954	2.46	16,052	2,032	2.32	15,725	2,110	2.18	15,397	2,227	2.03
32°F (0°C)	17,428	1,698	3.01	17,174	1,772	2.84	16,920	1,866	2.66	16,582	1,940	2.50	16,243	2,015	2.36	15,905	2,127	2.19
41°F (5°C)	19,096	1,746	3.21	18,818	1,822	3.03	18,540	1,901	2.86	18,169	1,995	2.67	17,798	2,072	2.52	17,428	2,187	2.34
47°F (8.3°C)	18,540	1,602	3.39	18,270	1,672	3.20	18,000	1,760	3.00	17,640	1,830	2.82	17,280	1,901	2.66	16,920	2,006	2.47
55°F (12.8°C)	18,077	1,361	3.89	17,813	1,421	3.67	17,550	1,496	3.44	17,199	1,556	3.24	16,848	1,616	3.06	16,497	1,705	2.84
65°F (18.3°C)	18,911	1,153	4.81	18,635	1,204	4.54	18,360	1,267	4.25	17,993	1,318	4.00	17,626	1,369	3.77	17,258	1,445	3.50
75°F (23.9°C)	19,838	1,249	4.65	19,549	1,304	4.39	19,260	1,373	4.11	18,875	1,428	3.87	18,490	1,483	3.66	18,104	1,565	3.39
86°F (30°C)	21,877	1,313	4.88	21,559	1,371	4.61	21,240	1,443	4.31	20,815	1,501	4.06	20,390	1,559	3.83	19,966	1,645	3.56

1Q18RT2BEA & US18MB2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB(°C DB/°C WB)																				
	60/50 (15.6/10.0)			64/53 (17.8/11.7)			70/57 (21.1/13.9)			75/62 (23.9/16.7)			80/67 (26.7/19.4)			86/72 (30.0/22.2)			90/75 (32.2/23.9)		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	11,218	580	5.67	11,808	590	5.87	12,694	600	6.20	13,579	610	6.52	14,760	620	6.98	15,646	630	7.28	16,384	640	7.50
32°F (0°C)	12,586	650	5.67	13,248	660	5.88	14,242	670	6.23	15,235	680	6.57	16,560	690	7.03	17,554	700	7.35	18,382	710	7.59
50°F (10°C)	13,406	730	5.38	14,112	740	5.59	15,170	750	5.93	16,229	760	6.26	17,640	770	6.71	18,698	780	7.03	19,580	790	7.26
68°F (20°C)	14,501	1,040	4.09	15,264	1,050	4.26	16,409	1,060	4.54	17,554	1,070	4.81	19,080	1,080	5.18	20,225	1,090	5.44	21,179	1,100	5.64
86°F (30°C)	14,090	1,350	3.06	14,832	1,360	3.20	15,944	1,370	3.41	17,057	1,380	3.62	18,540	1,390	3.91	19,652	1,400	4.11	20,579	1,410	4.28
95°F (35°C)	13,680	1,499	2.67	14,400	1,509	2.80	15,480	1,519	2.99	16,560	1,529	3.17	18,000	1,539	3.43	19,080	1,549	3.61	19,980	1,559	3.76
104°F (40°C)	11,765	1,480	2.33	12,384	1,490	2.44	13,313	1,500	2.60	14,242	1,510	2.76	15,480	1,520	2.98	16,409	1,530	3.14	17,183	1,540	3.27
110°F (43°C)	11,218	1,580	2.08	11,808	1,590	2.18	12,694	1,600	2.33	13,579	1,610	2.47	14,760	1,620	2.67	15,646	1,630	2.81	16,384	1,640	2.93
115°F (46°C)	10,670	1,680	1.86	11,232	1,690	1.95	12,074	1,700	2.08	12,917	1,710	2.21	14,040	1,720	2.39	14,882	1,730	2.52	15,584	1,740	2.63

1Q18RT2BEA & US18MB2BEA (Heating)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB(°C DB)																	
	60(15.6)			65(18.3)			70(21.1)			75(23.9)			80(26.7)			86(30.0)		
	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP
-15°F (-26.1°C)	9,476	1,414	1.96	9,338	1,476	1.85	9,200	1,553	1.74	9,016	1,615	1.64	8,832	1,678	1.54	8,648	1,745	1.45
-4°F (-20°C)	11,948	1,659	2.11	11,774	1,732	1.99	11,600	1,823	1.87	11,368	1,896	1.76	11,136	1,969	1.66	10,904	2,047	1.56
0°F (-17.8°C)	13,390	1,760	2.23	13,195	1,837	2.11	13,000	1,934	1.97	12,740	2,011	1.86	12,480	2,088	1.75	12,220	2,172	1.65
5°F (-15°C)	17,510	2,524	2.03	17,255	2,635	1.92	17,000	2,774	1.80	16,660	2,885	1.69	15,360	2,996	1.50	15,040	3,115	1.41
14°F (-10°C)	17,510	1,947	2.64	17,255	2,033	2.49	17,000	2,140	2.33	16,660	2,225	2.19	15,360	2,311	1.95	15,040	2,403	1.83
23°F (-5°C)	18,540	1,644	3.30	18,270	1,717	3.12	18,000	1,807	2.92	17,640	1,879	2.75	17,280	1,951	2.60	16,920	2,030	2.44
32°F (0°C)	19,158	1,587	3.54	18,879	1,656	3.34	18,600	1,744	3.13	18,228	1,813	2.95	17,856	1,883	2.78	17,484	1,958	2.62
41°F (5°C)	21,012	1,414	4.36	20,706	1,476	4.11	20,400	1,553	3.85	19,992	1,615	3.63	19,584	1,678	3.42	19,176	1,745	3.22
47°F (8.3°C)	20,600	1,442	4.19	20,300	1,506	3.95	20,000	1,585	3.70	19,600	1,648	3.48	19,200	1,712	3.29	18,800	1,807	3.05
55°F (12.8°C)	20,188	1,226	4.83	19,894	1,280	4.56	19,600	1,347	4.26	19,208	1,401	4.02	18,816	1,455	3.79	18,424	1,536	3.52
65°F (18.3°C)	20,806	1,038	5.87	20,503	1,084	5.54	20,200	1,141	5.19	19,796	1,187	4.89	19,392	1,232	4.61	18,988	1,301	4.28
75°F (23.9°C)	22,248	1,125	5.80	21,924	1,174	5.47	21,600	1,236	5.12	21,168	1,286	4.83	20,736	1,335	4.55	20,304	1,409	4.22
86°F (30°C)	24,514	1,183	6.07	24,157	1,235	5.73	23,800	1,300	5.37	23,324	1,352	5.06	22,848	1,404	4.77	22,372	1,482	4.44

2. SYSTEM

1Q18RT2BEA & US18FB2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB(°C DB/°C WB)																				
	60/50 (15.6/10.0)			64/53 (17.8/11.7)			70/57 (21.1/13.9)			75/62 (23.9/16.7)			80/67 (26.7/19.4)			86/72 (30.0/22.2)			90/75 (32.2/23.9)		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	10,594	480	6.47	11,152	490	6.67	11,988	500	7.03	12,825	510	7.37	13,940	520	7.86	14,776	530	8.17	15,473	540	8.40
32°F (0°C)	11,886	570	6.11	12,512	580	6.32	13,450	590	6.68	14,389	600	7.03	15,640	610	7.51	16,578	620	7.84	17,360	630	8.08
50°F (10°C)	12,662	740	5.01	13,328	750	5.21	14,328	760	5.53	15,327	770	5.83	16,660	780	6.26	17,660	790	6.55	18,493	800	6.77
68°F (20°C)	13,695	1,110	3.62	14,416	1,120	3.77	15,497	1,130	4.02	16,578	1,140	4.26	18,020	1,150	4.58	19,101	1,160	4.83	20,002	1,170	5.01
86°F (30°C)	13,308	1,470	2.65	14,008	1,480	2.77	15,059	1,490	2.96	16,109	1,500	3.15	17,510	1,510	3.40	18,561	1,520	3.58	19,436	1,530	3.72
95°F (35°C)	12,920	1,850	2.05	13,600	1,860	2.14	14,620	1,870	2.29	15,640	1,880	2.44	17,000	1,889	2.64	18,020	1,900	2.78	18,870	1,910	2.90
104°F (40°C)	11,111	1,810	1.80	11,696	1,820	1.88	12,573	1,830	2.01	13,450	1,840	2.14	14,620	1,850	2.32	15,497	1,860	2.44	16,228	1,870	2.54
110°F (43°C)	10,594	1,890	1.64	11,152	1,900	1.72	11,988	1,910	1.84	12,825	1,920	1.96	13,940	1,930	2.12	14,776	1,940	2.23	15,473	1,950	2.33
115°F (46°C)	10,078	1,910	1.55	10,608	1,920	1.62	11,404	1,930	1.73	12,199	1,940	1.84	13,260	1,950	1.99	14,056	1,960	2.10	14,719	1,970	2.19

1Q18RT2BEA & US18FB2BEA (Heating)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB(°C DB)																	
	60(15.6)			65(18.3)			70(21.1)			75(23.9)			80(26.7)			86(30.0)		
	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP	TC (Btu/h)	PI (W)	COP
-15°F (-26.1°C)	8,714	1,570	1.63	8,587	1,639	1.54	8,460	1,725	1.44	8,291	1,794	1.35	8,122	1,863	1.28	7,952	1,966	1.19
-4°F (-20°C)	11,495	1,986	1.70	11,327	2,073	1.60	11,160	2,182	1.50	10,937	2,270	1.41	10,714	2,357	1.33	10,490	2,488	1.24
0°F (-17.8°C)	13,534	2,210	1.79	13,337	2,307	1.69	13,140	2,429	1.59	12,877	2,526	1.49	12,614	2,623	1.41	12,352	2,769	1.31
5°F (-15°C)	14,832	2,130	2.04	14,616	2,224	1.93	14,400	2,341	1.80	14,112	2,434	1.70	13,824	2,528	1.60	13,536	2,669	1.49
14°F (-10°C)	14,461	1,890	2.24	14,251	1,973	2.12	14,040	2,077	1.98	13,759	2,160	1.87	13,478	2,243	1.76	13,198	2,368	1.63
23°F (-5°C)	16,871	1,826	2.71	16,626	1,906	2.56	16,380	2,006	2.39	16,052	2,087	2.25	15,725	2,167	2.13	15,397	2,287	1.97
32°F (0°C)	17,428	1,762	2.90	17,174	1,839	2.74	16,920	1,936	2.56	16,582	2,013	2.41	16,243	2,091	2.28	15,905	2,207	2.11
41°F (5°C)	19,096	1,746	3.21	18,818	1,822	3.03	18,540	1,918	2.83	18,169	1,995	2.67	17,798	2,072	2.52	17,428	2,187	2.34
47°F (8.3°C)	18,540	1,602	3.39	18,270	1,672	3.20	18,000	1,760	3.00	17,640	1,830	2.82	17,280	1,901	2.66	16,920	2,006	2.47
55°F (12.8°C)	17,798	1,361	3.83	17,539	1,421	3.62	17,280	1,496	3.39	16,934	1,556	3.19	16,589	1,616	3.01	16,243	1,705	2.79
65°F (18.3°C)	18,355	1,153	4.66	18,087	1,204	4.40	17,820	1,267	4.12	17,464	1,318	3.88	17,107	1,369	3.66	16,751	1,445	3.40
75°F (23.9°C)	19,096	1,249	4.48	18,818	1,304	4.23	18,540	1,373	3.96	18,169	1,428	3.73	17,798	1,483	3.52	17,428	1,565	3.26
86°F (30°C)	19,838	1,313	4.43	19,549	1,371	4.18	19,260	1,443	3.91	18,875	1,501	3.69	18,490	1,559	3.48	18,104	1,645	3.23

1Q18RT2BEA & QS18WP2BEA (Cooling)

TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB																				
	64/53			68/57			72/61			77/64			80/67			82/70			86/72		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
23°F (-5°C)	6,059	1,142	5.31	6,321	1,100	5.75	6,595	1,060	6.22	6,880	1,021	6.74	7,178	983	7.30	7,489	947	7.90	7,813	913	8.56
32°F (0°C)	7,876	1,256	6.27	8,217	1,210	6.79	8,573	1,165	7.36	8,944	1,123	7.97	9,331	1,082	8.63	9,735	1,042	9.34	10,157	1,004	10.12
50°F (10°C)	10,239	1,369	7.48	10,682	1,319	8.10	11,145	1,270	8.77	11,627	1,224	9.50	12,131	1,179	10.29	12,656	1,136	11.14	13,204	1,094	12.07
68°F (20°C)	13,311	1,478	9.00	13,887	1,424	9.75	14,488	1,372	10.56	15,115	1,322	11.44	15,770	1,273	12.38	16,453	1,227	13.41	17,165	1,182	14.52
86°F (30°C)	14,642	1,582	9.26	15,276	1,524	10.02	15,937	1,468	10.86	16,627	1,414	11.76	17,347	1,363	12.73	18,098	1,313	13.79	18,882	1,265	14.93
95°F (35°C)	14,349	1,645	8.72	14,970	1,585	9.45	15,618	1,527	10.23	16,295	1,471	11.08	17,000	1,417	12.00	17,736	1,365	12.99	18,504	1,315	14.07
104°F (40°C)	14,062	1,711	8.22	14,671	1,648	8.90	15,306	1,588	9.64	15,969	1,530	10.44	16,660	1,474	11.31	17,381	1,420	12.24	18,134	1,368	13.26
110°F (43°C)	13,921	1,745	7.98	14,524	1,681	8.64	15,153	1,620	9.36	15,809	1,560	10.13	16,493	1,503	10.97	17,208	1,448	11.88	17,953	1,395	12.87
115°F (46°C)	13,782	1,797	7.67	14,379	1,732	8.30	15,001	1,668	8.99	15,651	1,607	9.74	16,328	1,548	10.55	17,035	1,492	11.42	17,773	1,437	12.37

1Q18RT2BEA & QS18WP2BEA (Heating)

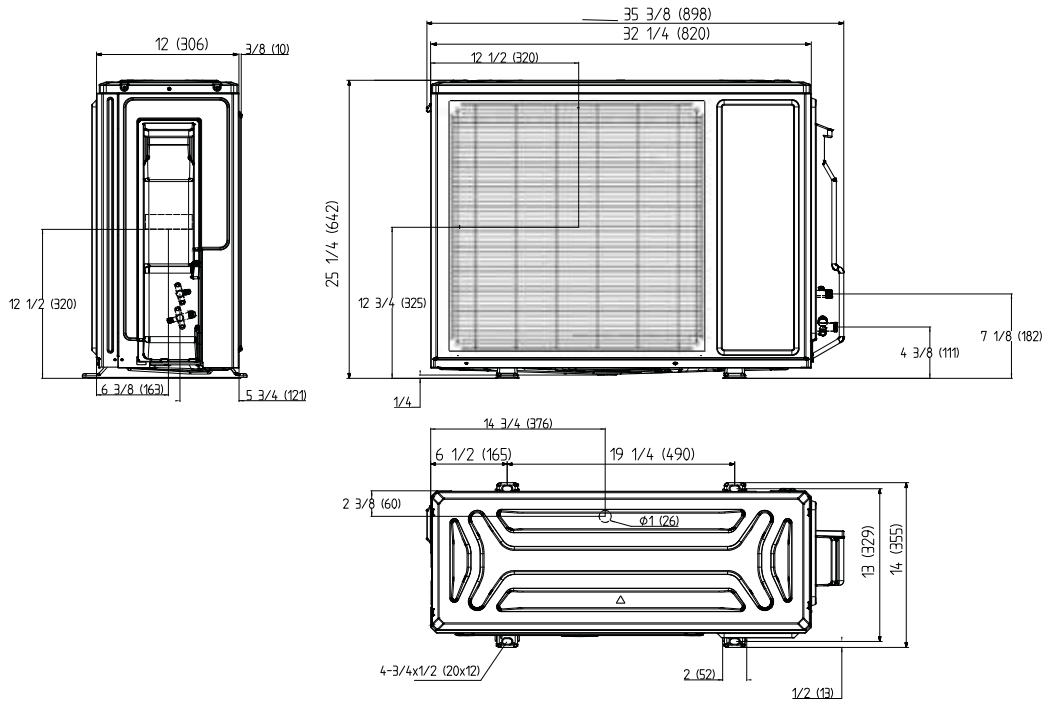
TC: Total Capacity PI: Power Input

Outdoor Air Temp DB	Indoor Ambient Temperature: °F DB/°F WB																				
	60			64			68			70			72			75			79		
	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2	TC (Btu/h)	PI (W)	EER2
-31°F (-35°C)	8,481	1,694	1.47	7,972	1,729	1.35	7,733	1,764	1.28	7500	1,800	1.22	7,274	1,837	1.16	7,056	1,874	1.10	6,633	1,913	1.02
-22°F (-30°C)	10,742	1,993	1.58	10,098	2,034	1.46	9,795	2,076	1.38	9500	2,118	1.31	9,214	2,161	1.25	8,937	2,205	1.19	8,401	2,250	1.09
-15°F (-26°C)	15,672	2,658	1.73	14,732	2,712	1.59	14,289	2,767	1.51	13,859	2,824	1.44	13,443	2,881	1.37	13,038	2,940	1.30	12,256	3,000	1.20
-5°F (-21°C)	17,756	2,740	1.90	16,691	2,796	1.75	16,190	2,853	1.66	15,703	2,911	1.58	15,231	2,971	1.50	14,773	3,031	1.43	13,887	3,093	1.32
0°F (-18°C)	19,532	2,825	2.03	18,360	2,882	1.87	17,808	2,941	1.77	17,273	3,001	1.69	16,754	3,062	1.60	16,250	3,125	1.52	15,275	3,189	1.40
5°F (-15°C)	21,485	2,912	2.16	20,196	2,971	1.99	19,589	3,032	1.89	19,000	3,094	1.80	18,429	3,157	1.71	17,875	3,222	1.63	16,803	3,287	1.50
14°F (-10°C)	21,700	2,562	2.48	20,398	2,615	2.29	19,785	2,668	2.17	19,190	2,722	2.07	18,613	2,778	1.96	18,053	2,835	1.87	16,971	2,892	1.72
23°F (-5°C)	21,917	2,255	2.85	20,602	2,301	2.62	19,983	2,348	2.49	19,382	2,395	2.37	18,799	2,444	2.25	18,234	2,494	2.14	17,140	2,545	1.97
32°F (0°C)	22,136	1,984	3.27	20,808	2,024	3.01	20,183	2,066	2.86	19,576	2,108	2.72	18,987	2,151	2.59	18,416	2,195	2.46	17,312	2,239	2.27
41°F (5°C)	22,357	2,005	3.27	21,016	2,046	3.01	20,384	2,087	2.86	19,771	2,130	2.72	19,177	2,174	2.59	18,600	2,218	2.46	17,485	2,263	2.26
47°F (8°C)	21,485	1,416	4.45	20,196	1,445	4.10	19,589	1,475	3.89	19,000	1,505	3.70	18,429	1,536	3.52	17,875	1,567	3.34	16,803	1,599	3.08
55°F (13°C)	21,914	1,424	4.51	20,600	1,453	4.16	19,981	1,482	3.95	19,380	1,513	3.76	18,797	1,543	3.57	18,232	1,575	3.39	17,139	1,607	3.13
65°F (18°C)	22,352	1,431	4.58	21,012	1,460	4.22	20,380	1,490	4.01	19,767	1,520	3.81	19,173	1,551	3.62	18,596	1,583	3.44	17,481	1,615	3.17
75°F (24°C)	22,799	1,438	4.65	21,432	1,467	4.28	20,788	1,497	4.07	20,162	1,528	3.87	19,556	1,559	3.68	18,968	1,591	3.49	17,831	1,623	3.22

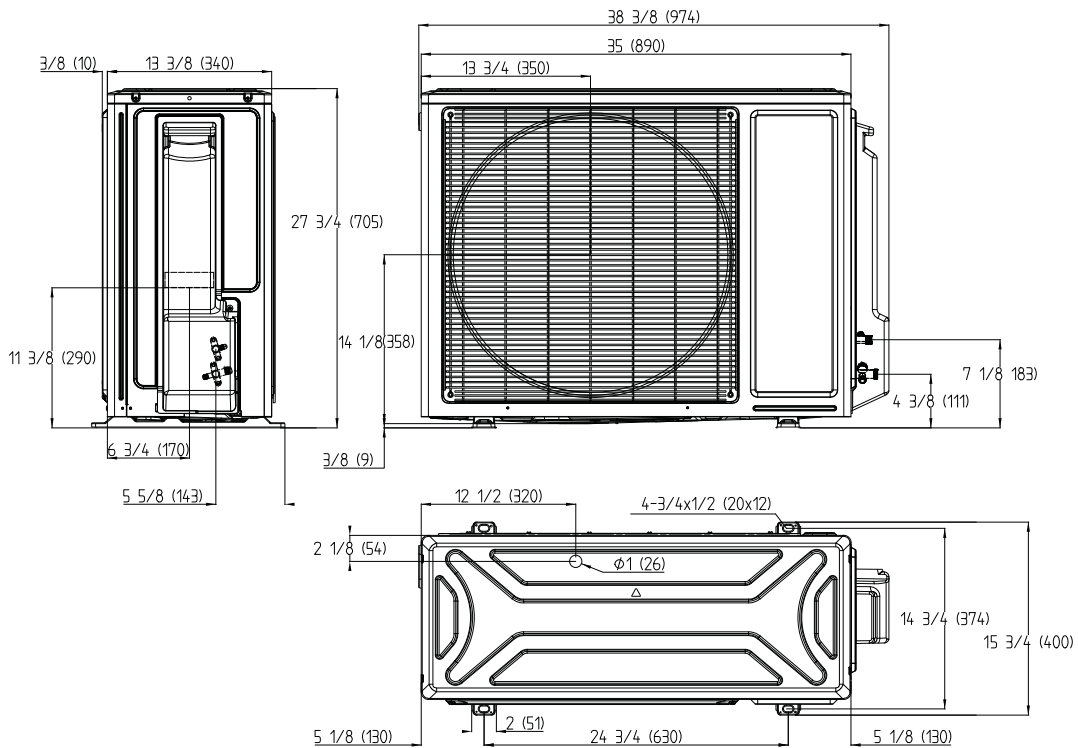
3. OUTDOOR UNITS

3.1 Dimensions

1Q09RT2BEA
1Q12RT2BEA

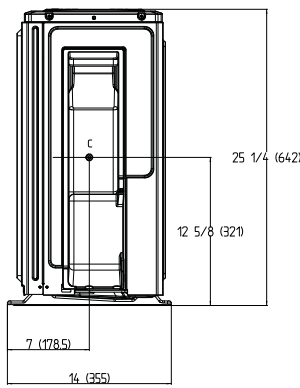
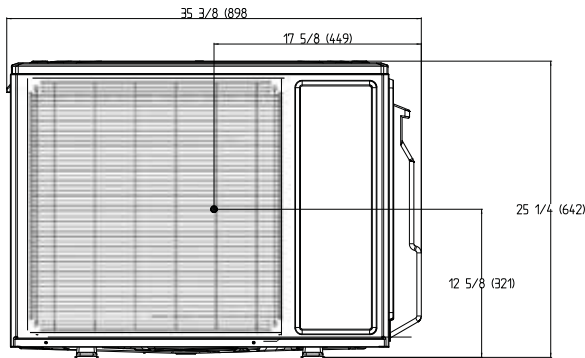


1Q18RT2BEA

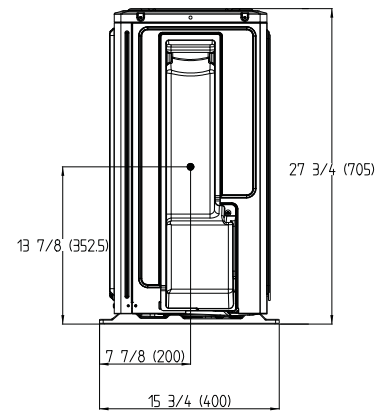
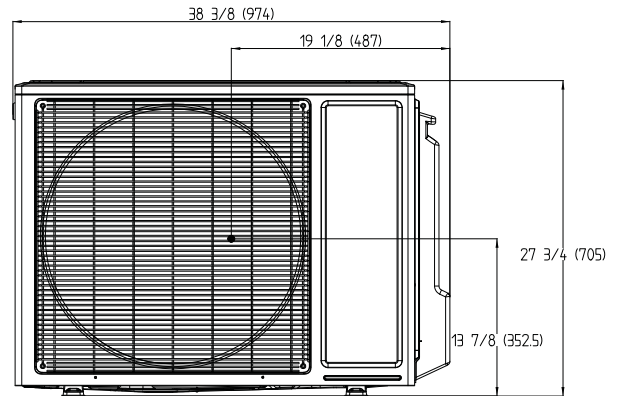


3.2 Center of Gravity

1Q09RT2BEA
1Q12RT2BEA



1Q18RT2BEA



3.3 General

(3.3.1) Outdoor Unit Description

- A. The outdoor unit shall be comprised of a condenser coil with all components and controls necessary to perform the rated operation.

(3.3.2) Sound Pressure Rating

- A. Sound pressure rating as measured according to test standard JIS C 961:

Model	Sound Pressure Rating dB(A)	Microphone Location (ft)
1Q09RT2BEA	54	3.28
1Q12RT2BEA	55	3.28
1Q18RT2BEA	60	3.28

(3.3.3) Warranty

- A. The outdoor unit shall be covered by a manufacturer's parts warranty.

3.4 Installation

(3.4.1) Condensate

- A. The installer must adhere to local building codes for managing condensate water produced by the outdoor unit.

(3.4.2) Clearances

- A. The installer must follow the recommended clearances provided in the Installation Manual.

3. OUTDOOR UNITS

3.5 Components

(3.5.1) Coil

- A. The outdoor coil shall be made with a blue colored hydrophilic coating on the aluminum fins and packed with internally grooved copper tubing, to increase the effective heat exchange surface area by 25%, resulting in higher efficiencies and shorter defrost cycles (approx. 29%).
- B. Coils shall be helium pressure tested at the factory within a range of 600 - 650 PSI.
- C. Outdoor unit shall be factory charged with R454B refrigerant for 25 feet of lineset.

(3.5.2) Fan Motor

- A. The outdoor fan motor shall be a brushless, variable speed DCV motor type.
- B. The fan motor shall be molded with heat-hardened resin.
- C. The fan motor shall have permanently lubricated SRC bearings.

(3.5.3) Fan Blade

- A. The outdoor fan blade shall be a UL flame rated plastic-resin design.
- B. The fan blade shall be factory balanced in quiet performance and enhanced velocity.

(3.5.4) Compressor

- A. The compressor shall be a DC rotary type and A-PAM inverter-driven for stable operation in lower and higher frequency.
- B. The compressor shall be variable speed, variable capacity.
- C. The compressor shall have an internal overload protection device.
- D. The compressor shall use HAF68DIC refrigerant oil for better anti-wear effectiveness, superior resistance to capillary tube blockage and no hydrolysis compared to POE oil.

(3.5.5) 4WV

- A. The outdoor unit shall contain a four-way reversing valve (4WV) to change system mode from cool to heat.

(3.5.6) EEV

- A. The refrigerant flow shall be regulated by an electronic expansion valve (EEV).
- B. The outdoor control shall monitor the refrigerant flow through the EEV using a pulse-operated coil.
- C. The EEV shall maintain the target of 10°F (5.5°C) of superheat.

(3.5.7) Base Pan

- A. The base pan shall be constructed of commercial grade DC51/DC52 hot-dip galvanized steel with coating.

(3.5.8) Copper Piping

- A. All internally connected copper tubing shall conform to ASTM B280 tubing tolerances.

(3.5.9) Outdoor Enclosure Materials

- A. The outdoor cabinet shall be constructed of commercial grade DC51/DC52 hot-dip galvanized steel with coating.
Screw Size: #4x1/4in Phillips Pan Head Zinc Plated Sheet Metal Screw.

(3.5.10) Defrost

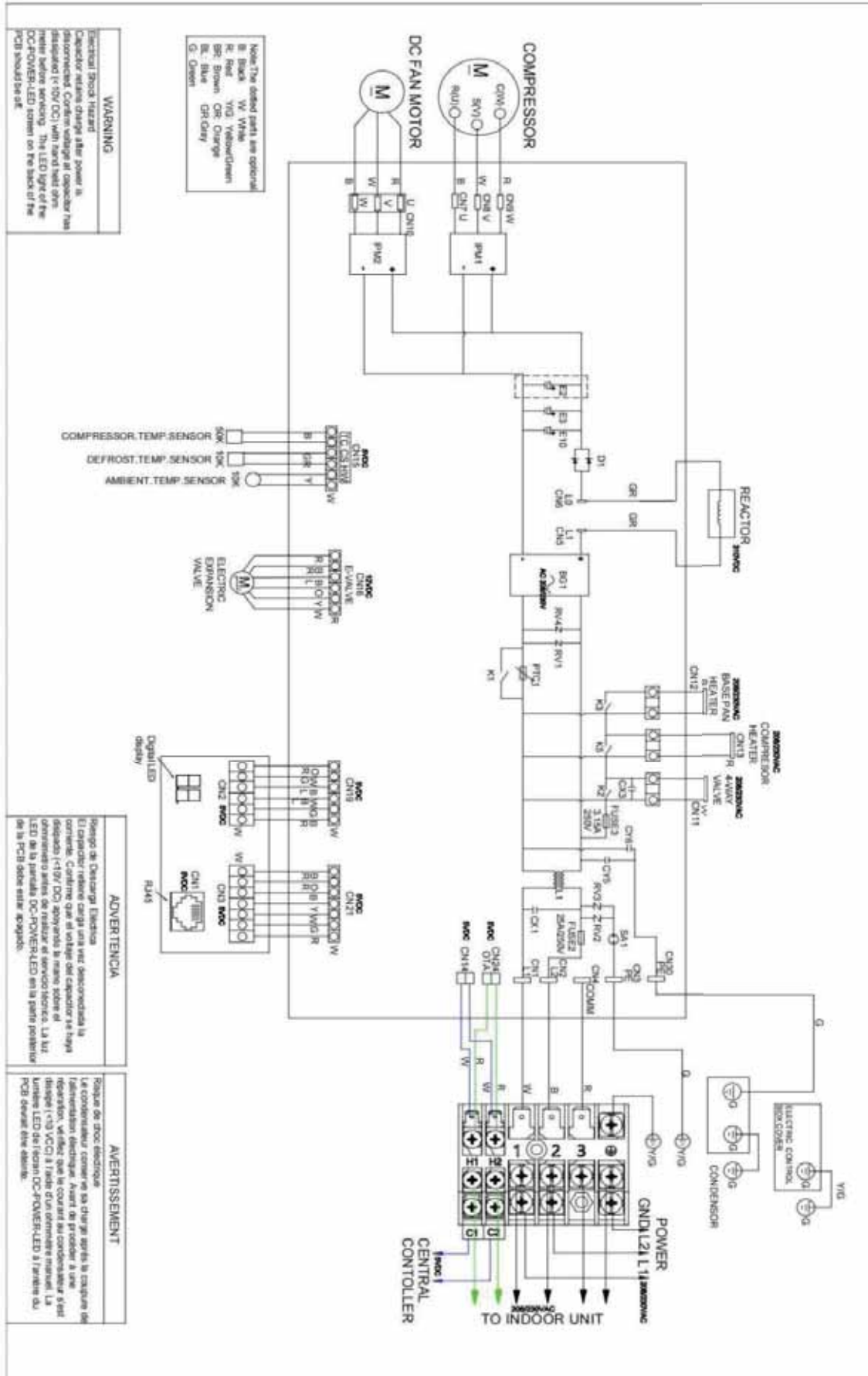
- A. The outdoor unit shall have a reverse-cycle (hot gas) defrost system to maximize heat pump operation and minimize energy consumption.

(3.5.11) Accumulator

- A. The accumulator shall be connected to the compressor return line to prevent liquid refrigerant from entering the compressor during operation.

3. OUTDOOR UNITS

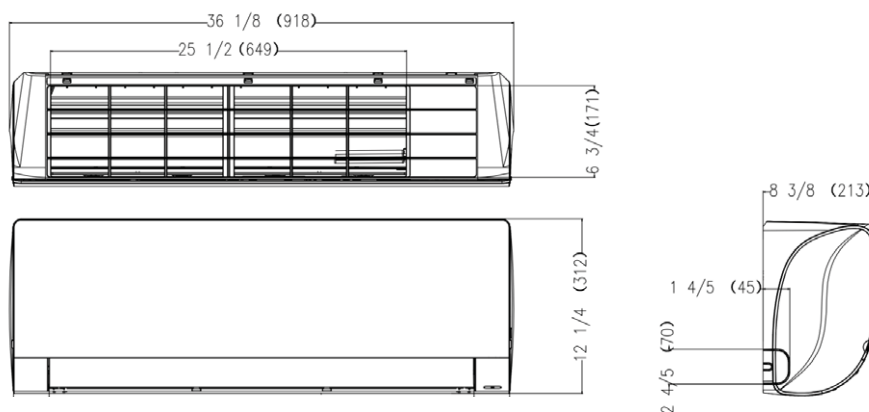
3.6 Wiring Diagrams



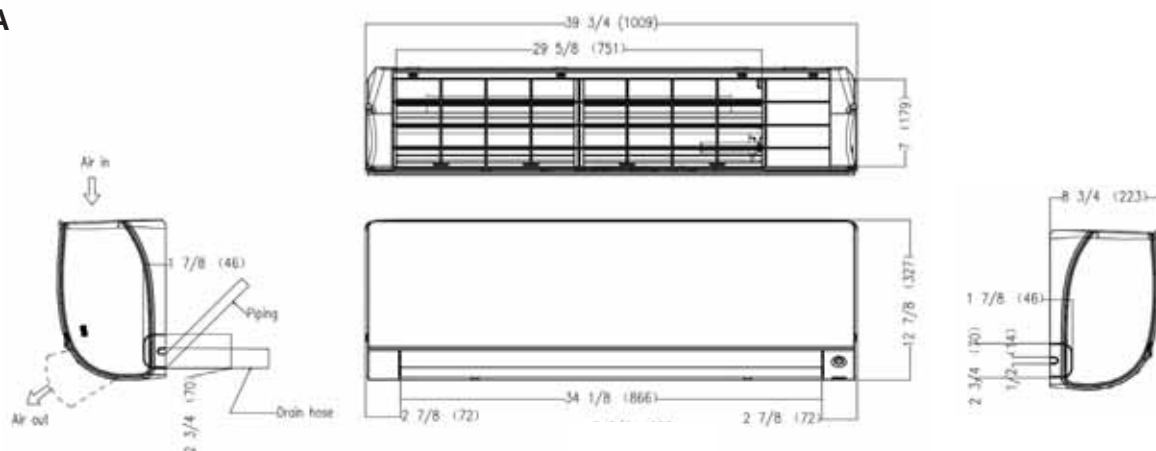
4. HIGHWALL INDOOR UNITS

4.1 Dimensions

QS09WP2BEA
QS12WP2BEA

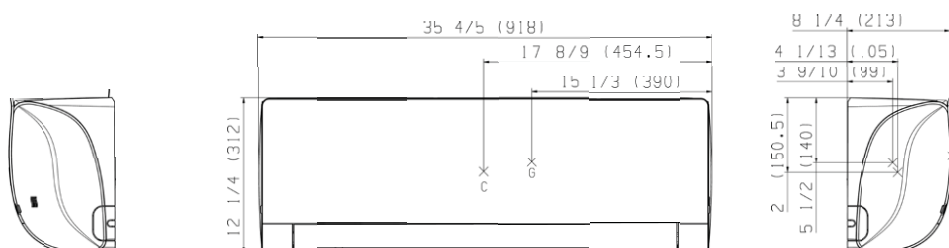


QS18WP2BEA

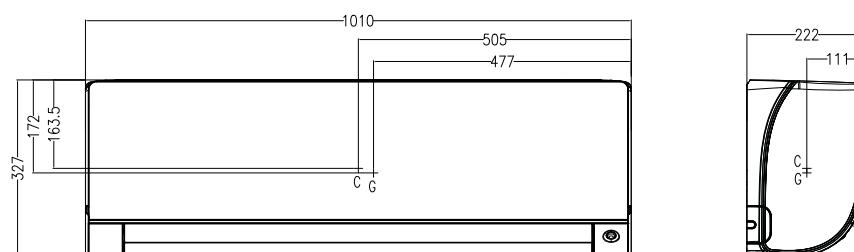


4.2 Center of Gravity

QS09WP2BEA
QS12WP2BEA



QS18WP2BEA



4. HIGHWALL INDOOR UNITS

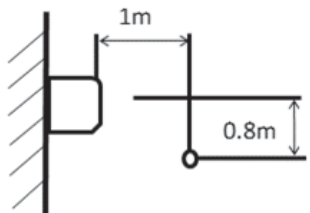
4.3 General

(4.3.1) Indoor Unit Description

- A. The wall mounted indoor section completes the system when connected to the matching outdoor unit and field-supplied piping and wiring.

(4.3.2) Sound Ratings

- A. Sound ratings as measured according to test standard JIS C 9612:

Model	Sound Pressure Level dB(A) (Turbo/High/Med/Low/Quiet)	Sound Power Level dB(A) (Turbo/High/Med/Low/Quiet)	Microphone Location
QS09WP2BEA	44/42/37/32/29	52/50/45/40/37	
QS12WP2BEA	46/44/39/36/25	54/52/47/44/33	
QS18WP2BEA	51/50/44/37/26	59/58/52/45/34	

4.4 Installation

(4.4.1) Condensate

- A. The wall mounted indoor shall be shipped with a insulated polyethylene condensate tubing (5/8"ID) attached from the factory.
- B. The wall mounted indoor unit shall ship with a 65ft (2m) corrugated drain tube that connects to the insulated drain tube.
- C. The wall mounted indoor unit shall be a gravity drain.

(4.4.2) Clearances

- A. The installer must follow the minimum clearances illustrated in the Installation Manual when installing the indoor unit.

(4.4.3) Mounting

- A. The wall mounted indoor unit shall ship with a galvanized metal wall bracket.
- B. The wall bracket shall have multiple anchor points to provide the installer with many options to firmly attach the wall mounted indoor unit the wall.
- C. The field-supplied mounting hardware must be adequate to support the indoor unit.

4.5 Electrical Requirements

(4.5.1) Electrical Disconnect

- A. Connecting wire must be continuous (without break) unless local code requires a disconnect at the indoor unit.
- B. If a disconnect is required by local code, it must be a 3-pole, single-throw type.

Model	Fan Motor Power Output (W)
QS09WP2BEA QS12WP2BEA QS18WP2BEA	40

4. HIGHWALL INDOOR UNITS

4.6 Components

(4.6.1) Coil

- A. The indoor coil shall be made with a blue colored hydrophobic coating on the aluminum fins and packed with internal grooved copper tubing, to increase the effective heat exchange surface area by 25%.
- B. Copper tubing shall have inner micro-grooves to increase effective heat transfer capabilities.
- C. Coils shall be pressure tested at 600-650 PSI using helium leak detection.
- D. The coil shall be charged with dry nitrogen for shipping at 70-100 PSI.

(4.6.2) Fan Motor

- A. The fan motor shall be a sealed DC multiple-speed resin-packed motor
- B. The fan motor shall have permanently lubricated bearings.

(4.6.3) Fan Blade

- A. The fan blade shall be a corrosion-resistant cross-flow blower.
- B. The fan shall be designed with optimized diameter and surface area to deliver quiet and even air flow.

(4.6.4) Copper Piping

- A. The coil shall be connected to a length of insulated annealed copper.
- B. The ends of the tubing shall have male flare connections.

(4.6.5) Air Louvers

- A. The supply air shall be distributed by horizontal non-motorized and vertical motorized louvers.
- B. Air Louvers shall provide wide angle of operation for both horizontal (120°) and vertical (90° from top to down) airflow movement to provide room comfort for each corner.

(4.6.6) Display

- A. The wall mounted indoor unit shall have a 4.5 x 1.1-inch backlit temperature display capable of showing set or room temperatures.
- B. The display shall also have colored icons representing set mode.
- C. The display can be turned off from the wireless remote control.

(4.6.7) WiFi

- A. Wall mounted indoor units shall come equipped with WiFi capabilities.

(4.6.8) Filter

- A. The wall mounted indoor unit shall have removable air filters.
- B. The air filters shall be washable and reusable.

(4.6.9) Control

- A. The wall mounted indoor unit shall ship with the standard hand-held remote control.
- B. The wall mounted indoor unit shall be compatible with the simple wired controller and the programmable wired controller.

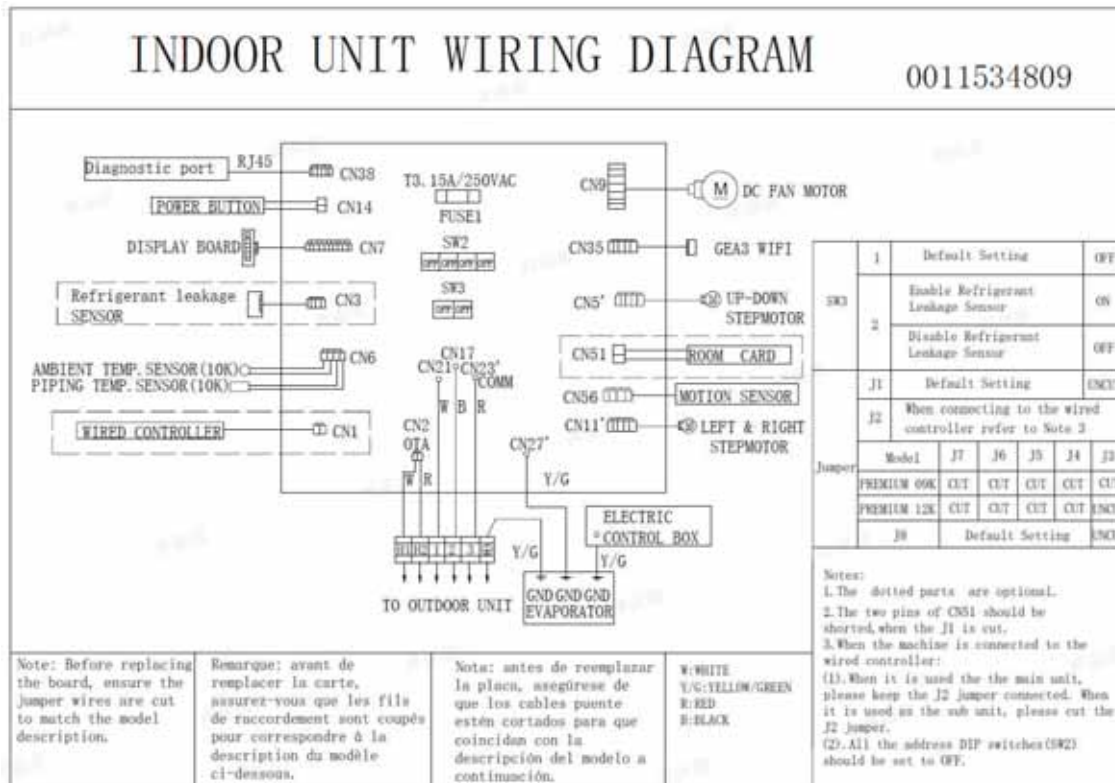
(4.6.10) Installation Clip

- A. The wall mounted indoor unit shall have a built-in clip that swings out and acts as a kick stand to allow for easier access to the rear of the unit during installation and repair.

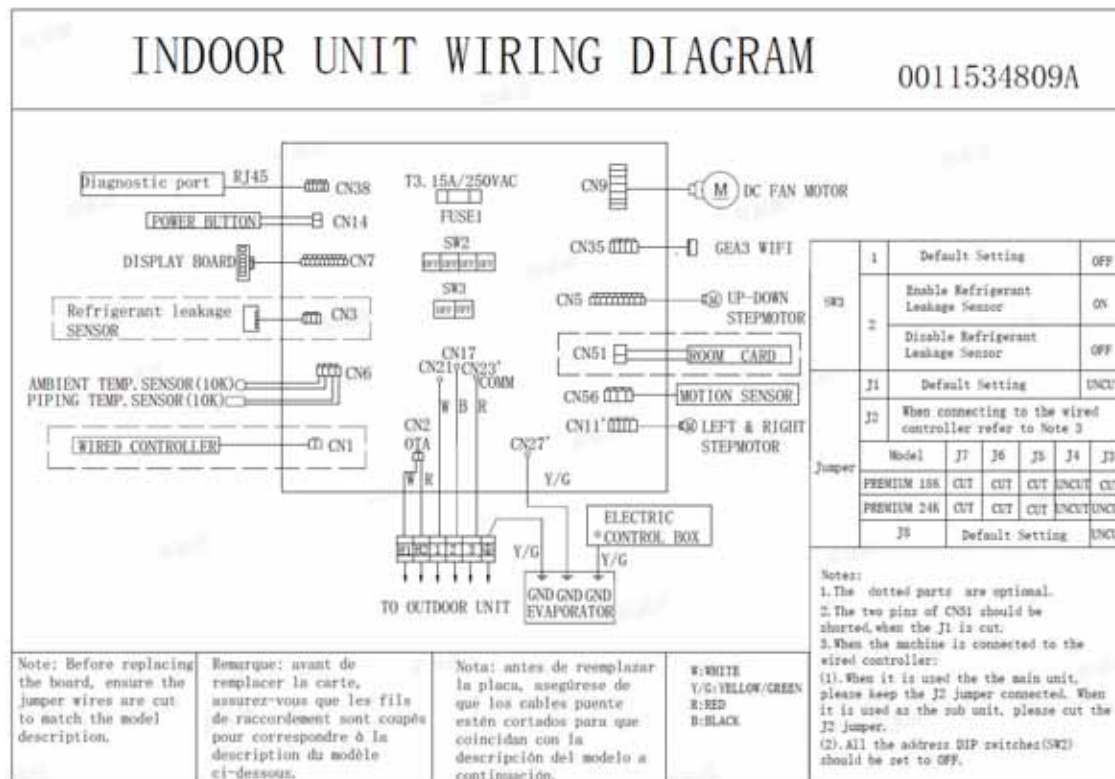
4. HIGHWALL INDOOR UNITS

4.7 Wiring Diagrams

QS09WP2BEA, QS12WP2BEA



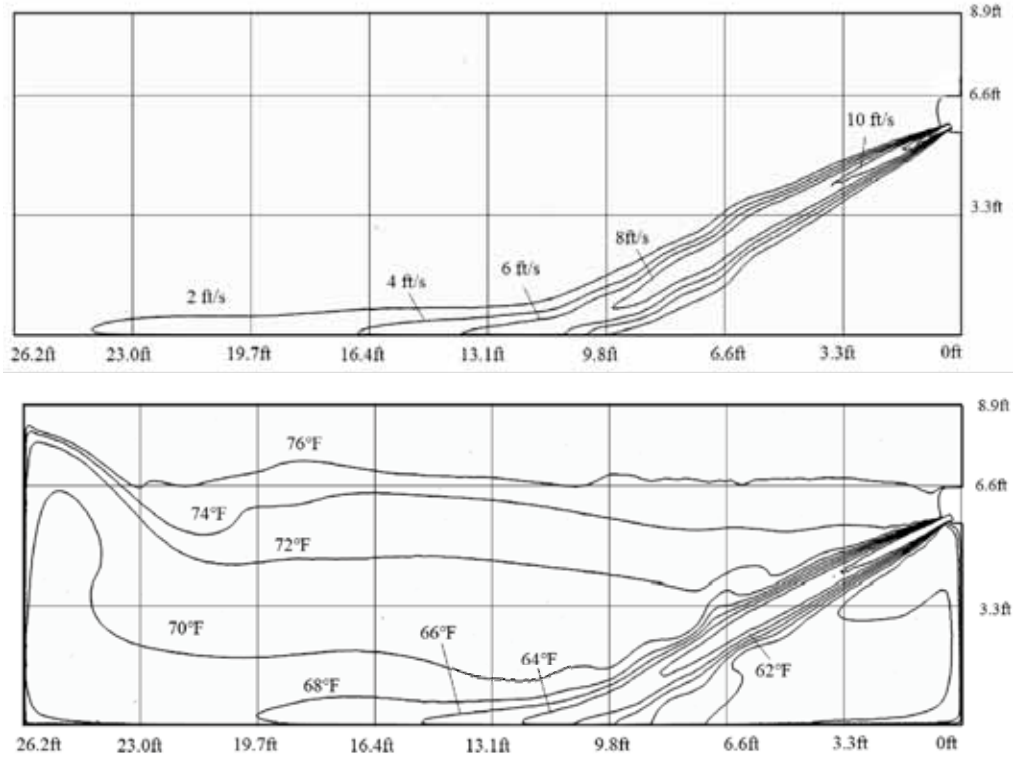
QS18WP2BEA



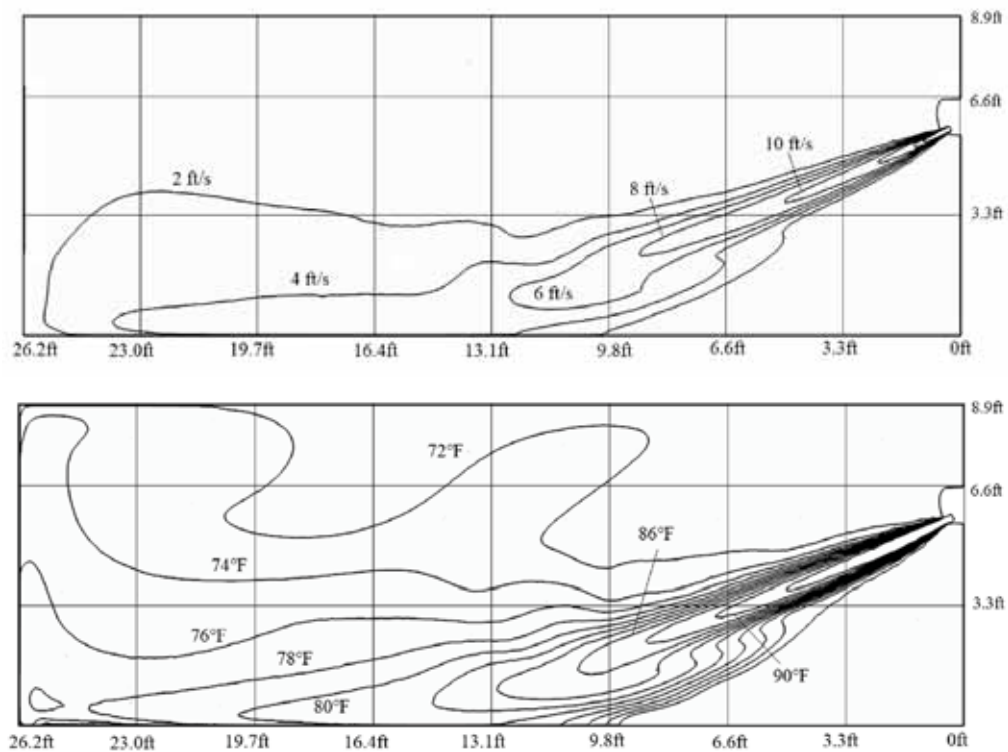
4.8 Air Velocity and Temperature Distribution

QS09WP2BEA
QS12WP2BEA
QS18WP2BEA

COOLING



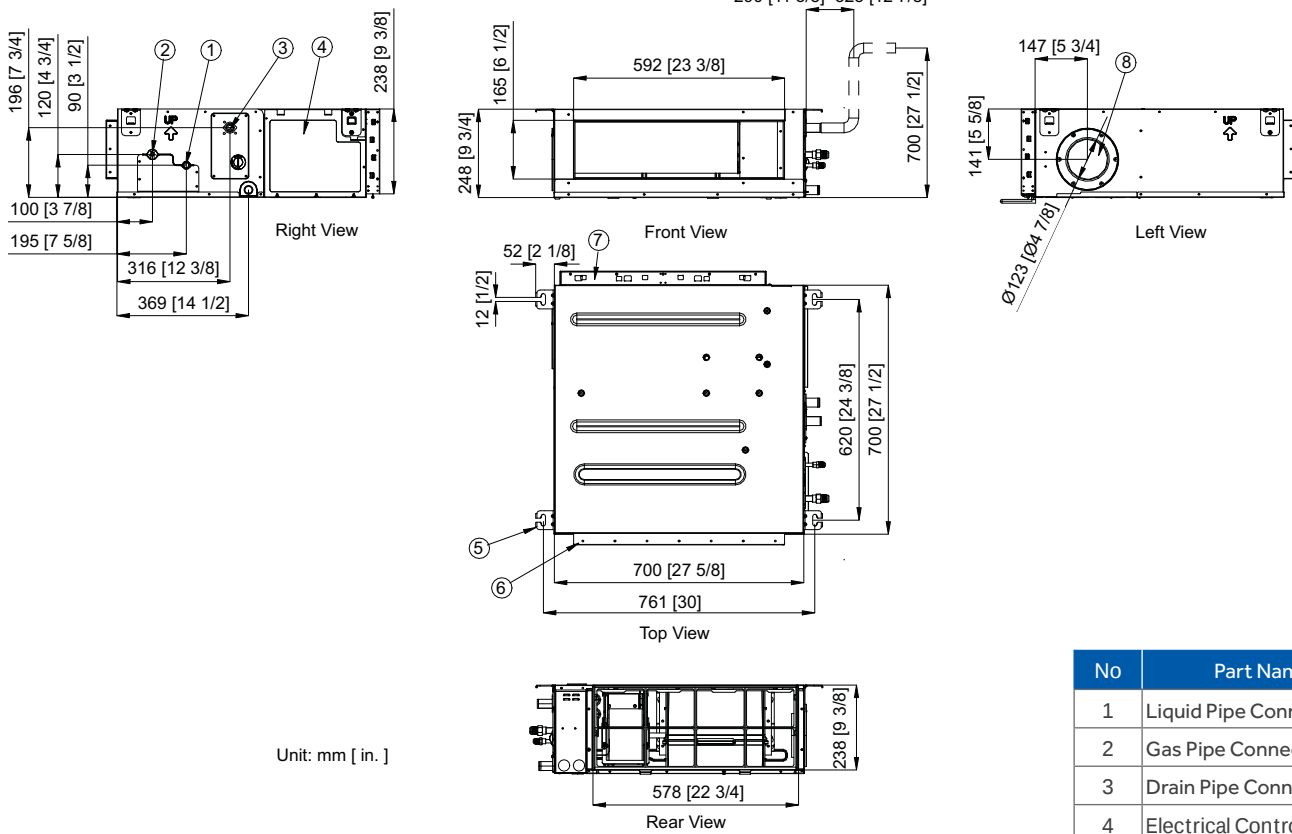
HEATING



5. DUCTED INDOOR UNITS

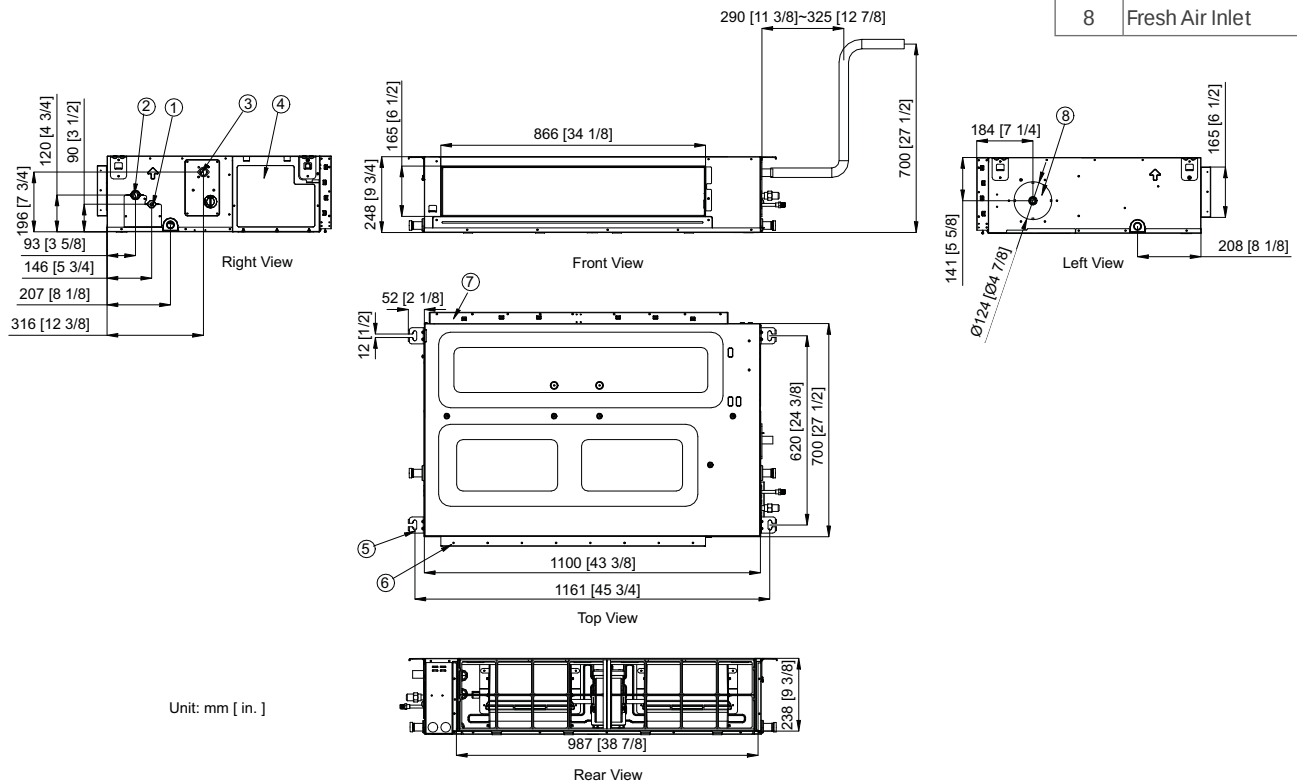
5.1 Dimensions

US09MB2BEA US12MB2BEA



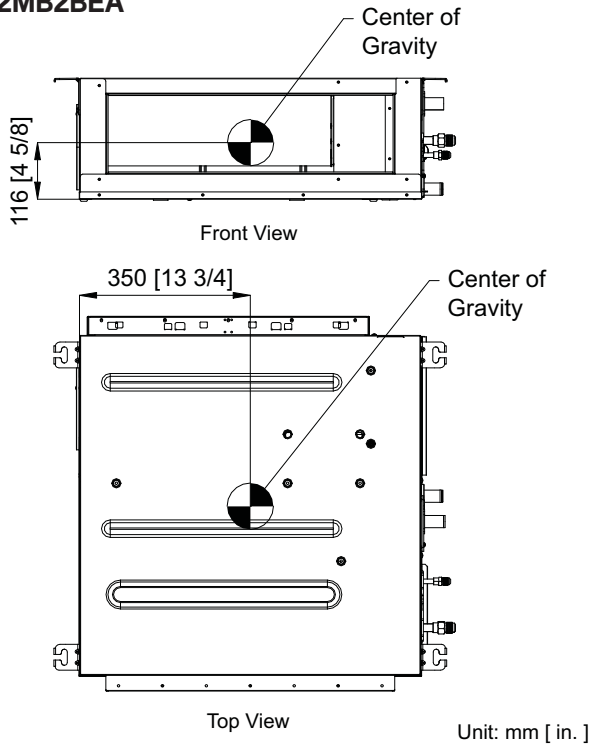
No	Part Name
1	Liquid Pipe Connection
2	Gas Pipe Connection
3	Drain Pipe Connection
4	Electrical Control Box
5	Suspension Hanger
6	Air Outlet
7	Air Inlet
8	Fresh Air Inlet

US18MB2BEA

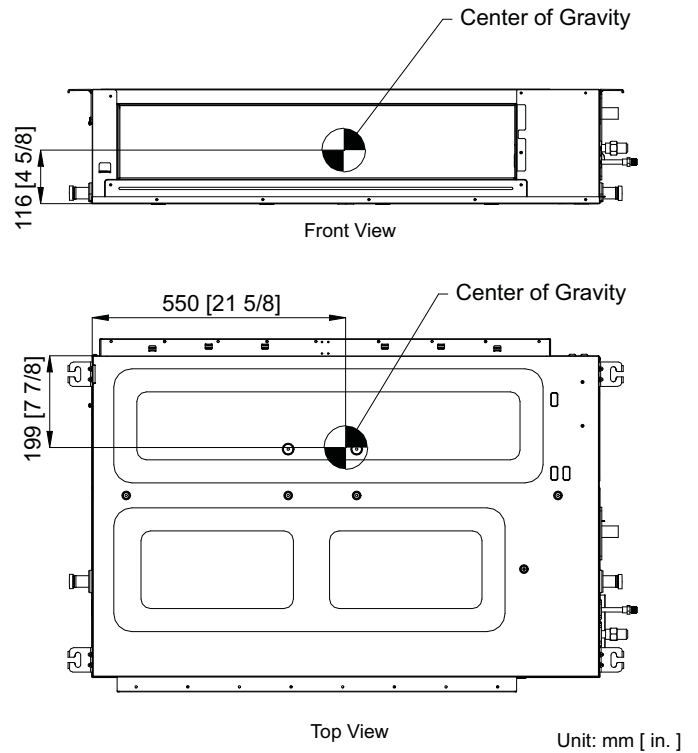


5.2 Center of Gravity

US09MB2BEA
US12MB2BEA



US18MB2BEA



5.3 General

(5.3.1) Indoor Unit Description

- A. The ducted indoor unit completes the system when connected to the matching outdoor unit and field-supplied piping and wiring

(5.3.2) Sound Ratings

Model	Sound Pressure Level dB(A) (Turbo/High/Med/Low/Quiet)	Sound Power Level dB(A) (Turbo/High/Med/Low/Quiet)
US09MB2BEA	44/41/38/35/32	59/56/53/50/47
US12MB2BEA	47/44/41/38/35	62/59/56/53/50
US18MB2BEA	48/45/42/39/36	63/60/57/54/51

(5.3.3) Warranty

- A. The ducted indoor unit shall be covered by a manufacture parts warranty.

5.4 Installation

(5.4.1) Condensate

- A. The ducted indoor unit shall ship with an insulated drain tube adapter that is sized for 3/4-inch PVC on one end.
- B. The ducted indoor unit shall have a gravity drain port on one side of the unit.

(5.4.2) Clearances

- A. The installer must follow the minimum clearances illustrated in the installation manual when installing the indoor unit.

(5.4.3) Mounting

- A. The ducted indoor unit shall have 4 hanging brackets that are sized for 3/8 threaded rod.
- B. The installer must use 3/8 threaded rod to suspend the mid-static ducted indoor unit from the building structure.
- C. The installer must install the unit upright and level in all directions.

5.5 Electrical Requirements

(5.5.1) Electrical Disconnect

- A. Connecting wire must be continuous (without break) unless local code requires a disconnect at the indoor unit.
- B. If a disconnect is required by local code, it must be a 3-pole, single-throw type.

Model	Fan Motor Power Output (W)
US09MB2BEA	130
US12MB2BEA	
US18MB2BEA	200

5.6 Components

(5.6.1) Coil

- A. Coil shall be painted with a hydrophilic coating to increase airflow efficiency.
- B. Copper tubing shall have inner micro grooves to increase effective heat transfer capabilities.
- C. Coils shall be pressure tested at 600~650 PSI using Helium leak detection.
- D. The coil shall be charged with dry nitrogen for shipping at 70~100 PSI pressure.

(5.6.2) Fan Motor

- A. The ducted fan motor shall be a sealed DC resin-packed motor.
- B. The fan motor shall have permanently lubricated bearings

(5.6.3) Fan Blade

- A. The fan blade shall be a non-corrodible centrifugal fan blower.

(5.6.4) Copper Piping

- A. The coil shall be connected to a length of insulated annealed copper.
- B. The ends of the tubing shall have female flare connections.

(5.6.5) Filter

- A. The ducted indoor unit shall have removable air filters.
- B. The air filters shall be washable and reusable.

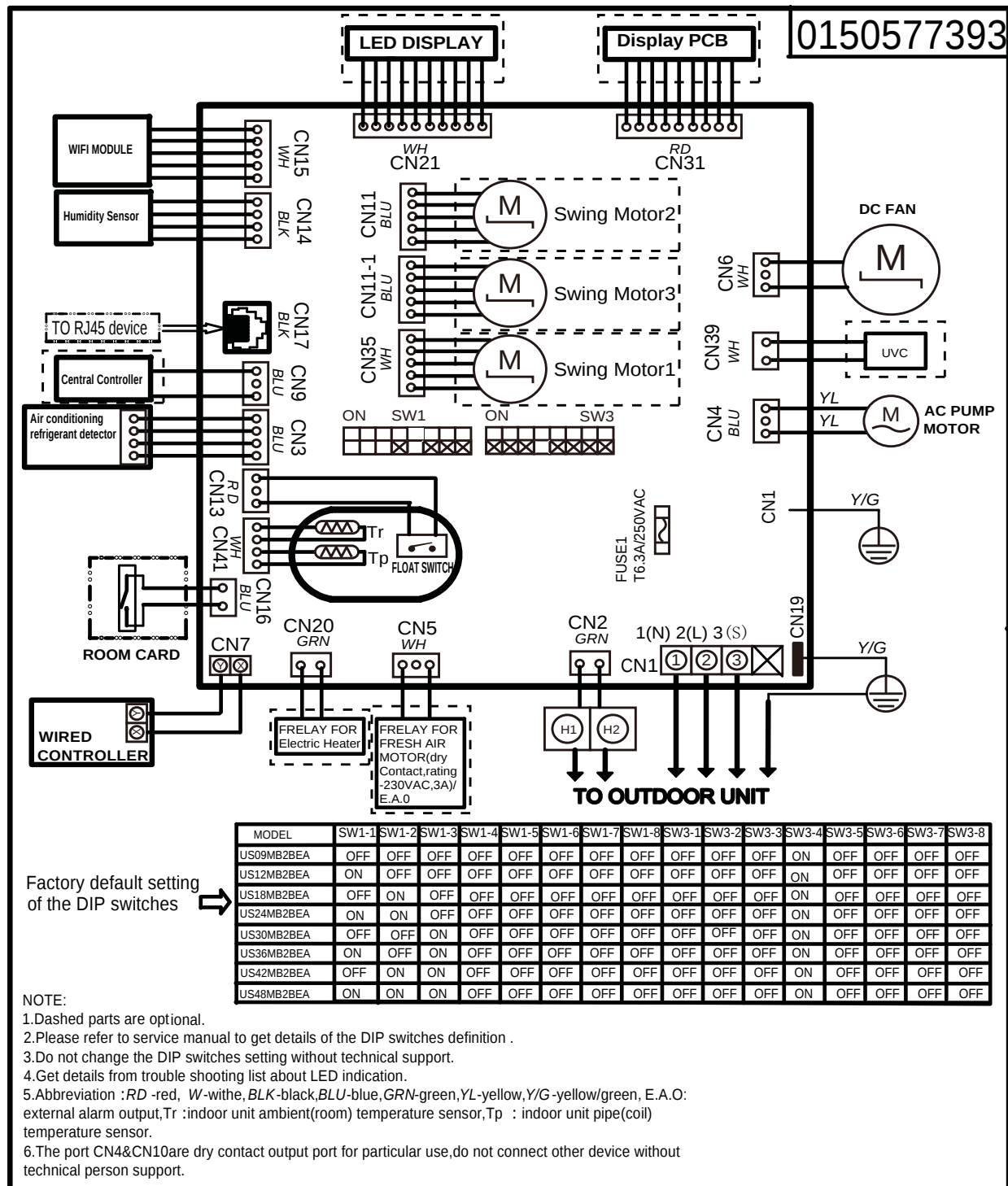
(5.6.6) Control

- A. The controller must be ordered separately.
- B. The ducted indoor unit shall be compatible with the Simplified Wired Controller (QACT17B).

(5.6.7) WiFi

- C. The ducted indoor unit shall include a WiFi adapter.

5.7 Wiring Diagrams

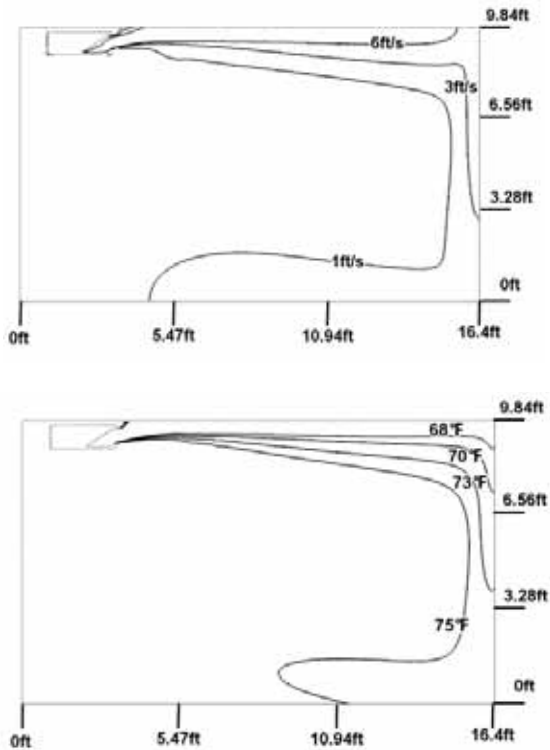


5. DUCTED INDOOR UNITS

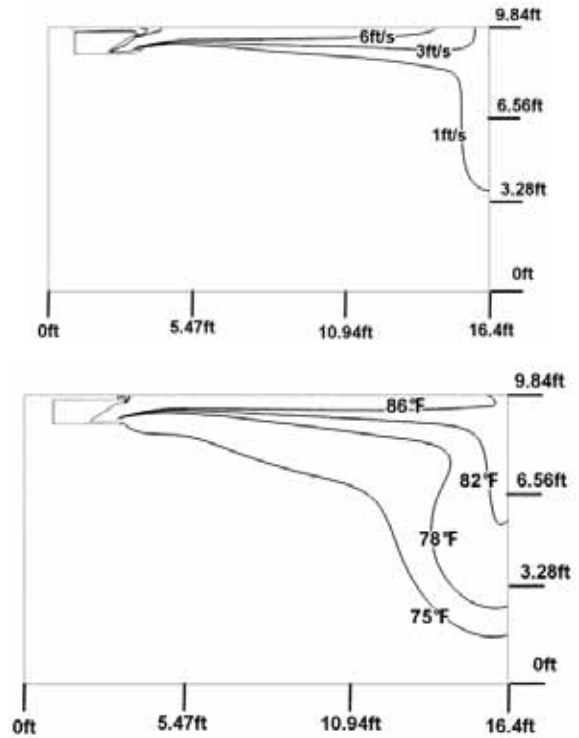
5.8 Air Velocity and Temperature Distribution

US09MB2BEA
US12MB2BEA

COOLING

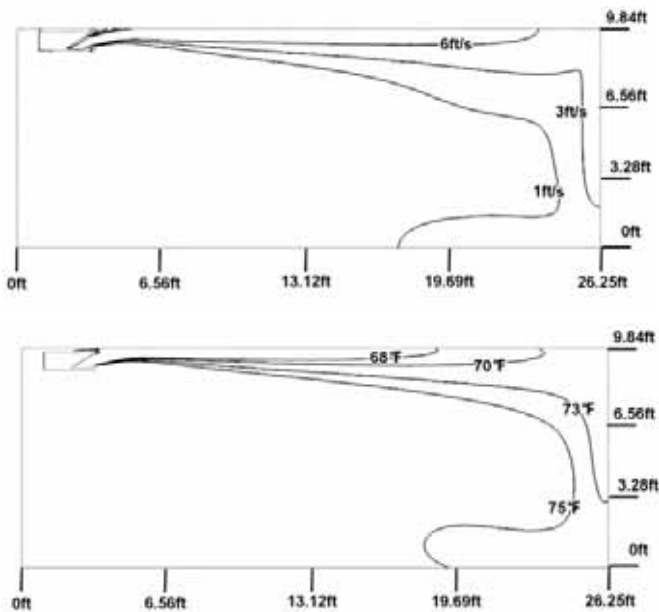


HEATING

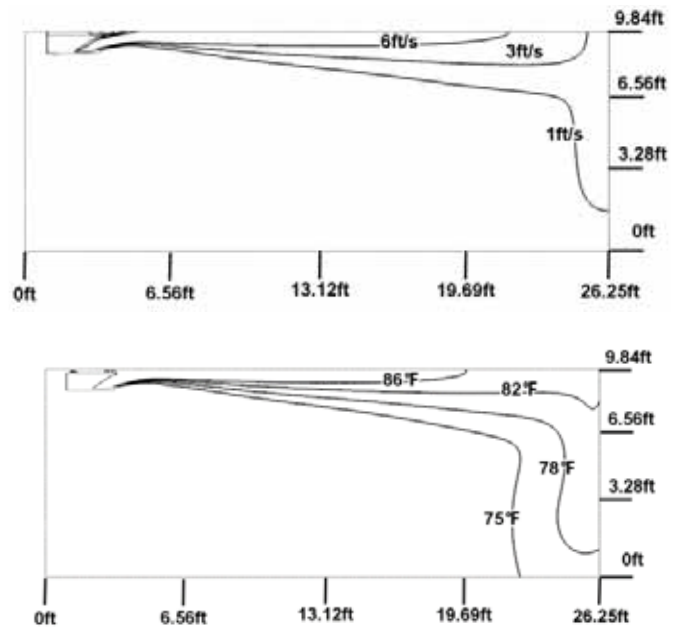


US18MB2BEA

COOLING

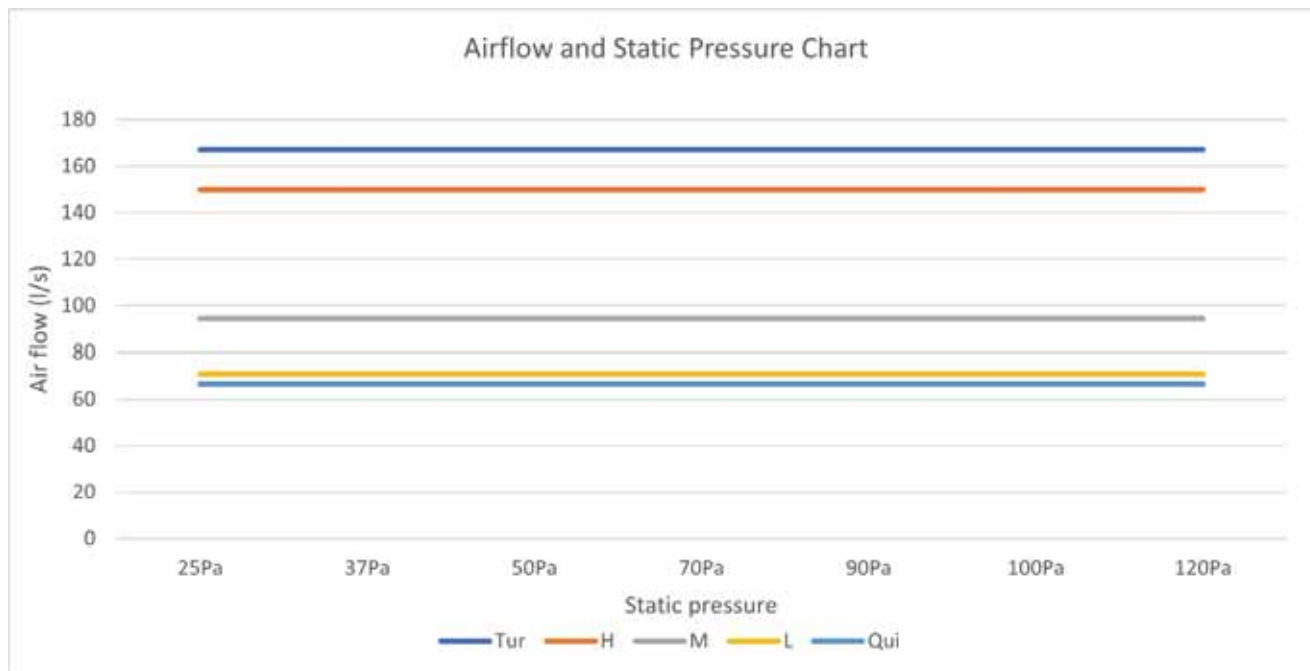


HEATING

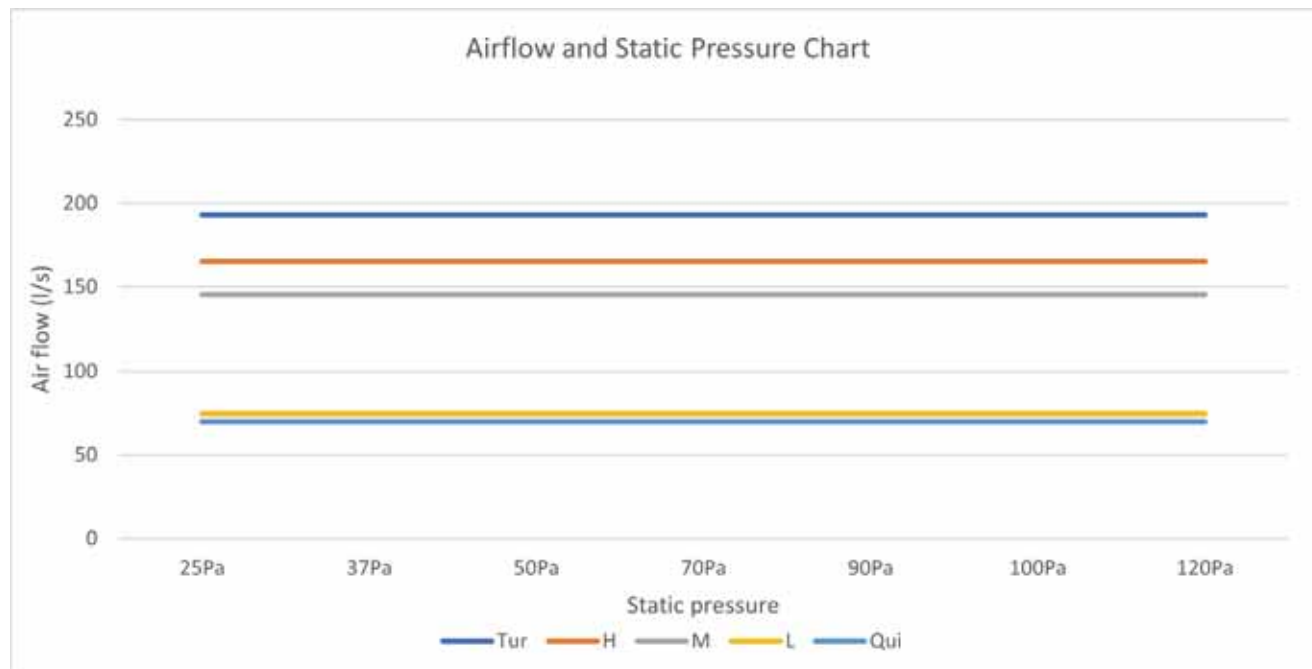


5.9 Airflow and Static Pressure

US09MB2BEA

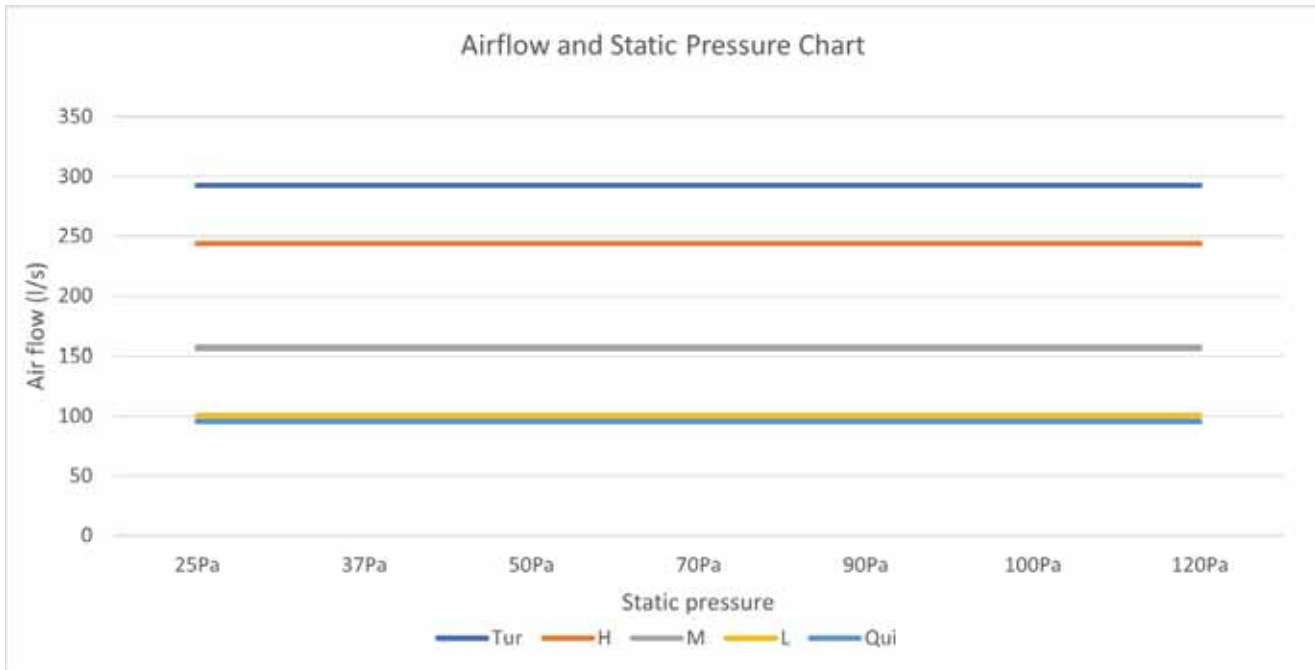


US12MB2BEA



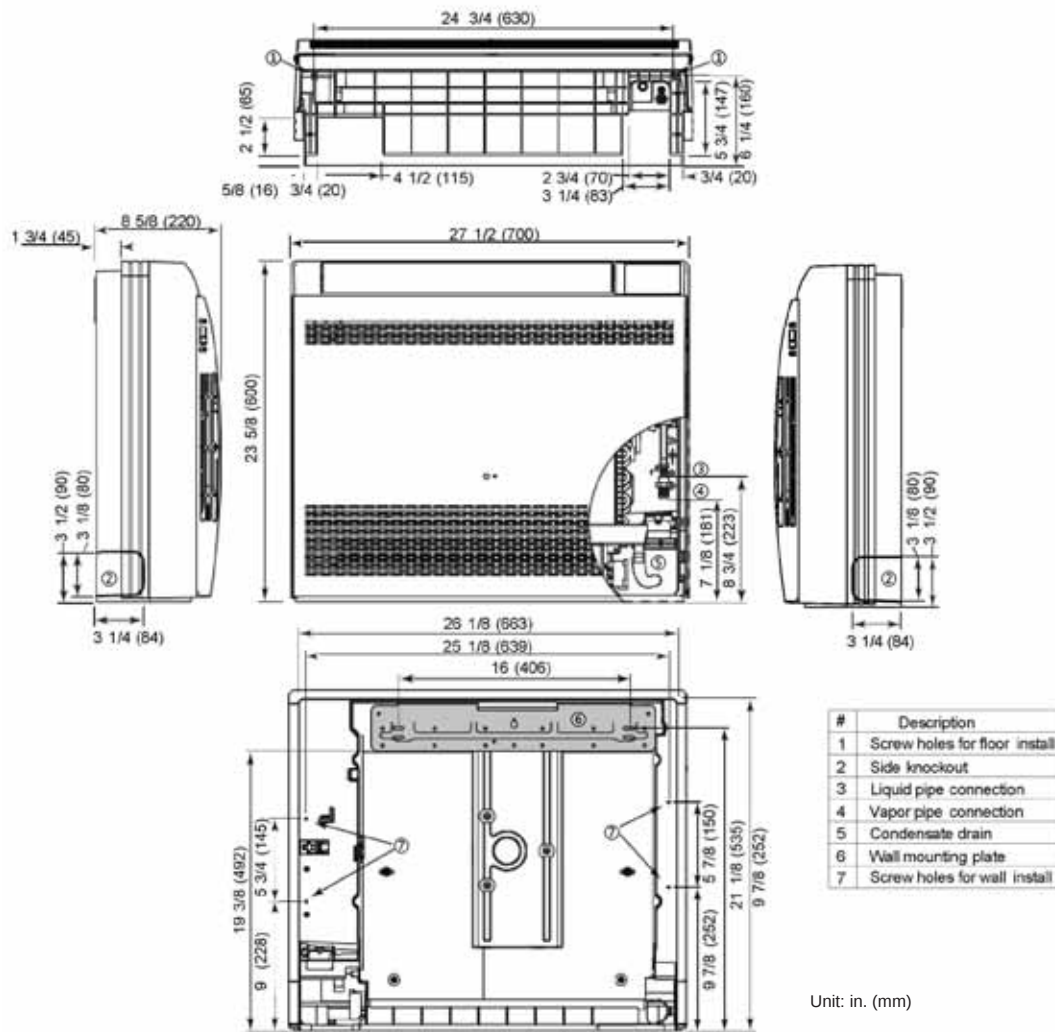
5. DUCTED INDOOR UNITS

US18MB2BEA



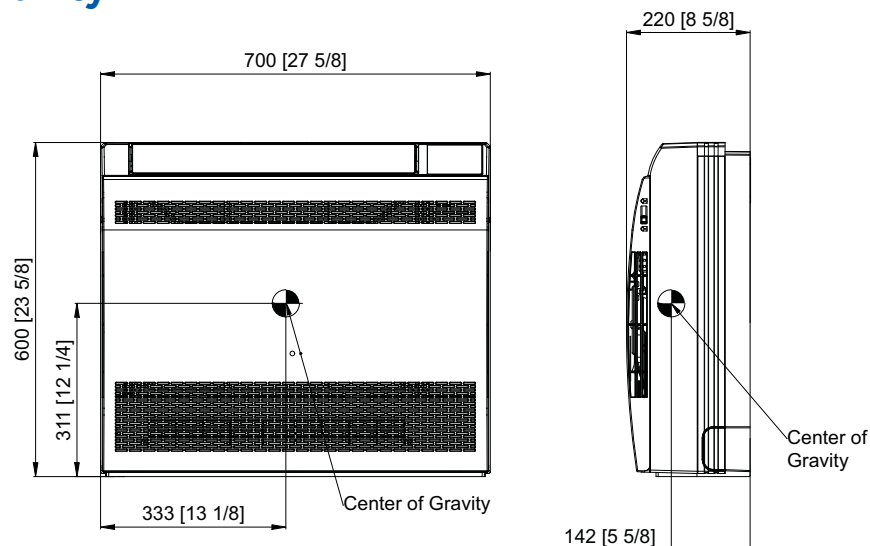
6.1 Dimensions

US09FB2BEA
US12FB2BEA
US18FB2BEA



6.2 Center of Gravity

US09FB2BEA
US12FB2BEA
US18FB2BEA



6.3 General

(6.3.1) Indoor Unit Description

- A. The floor console indoor section completes the system when connected to the matching outdoor unit and field-supplied piping and wiring.

(6.3.2) Sound Ratings

Model	Cooling Sound Level dB(A) (Turbo/High/Med/Low/Quiet)	Heating Sound Level dB(A) (Turbo/High/Med/Low/Quiet)
US09FB2BEA	Sound Pressure Rating: 44/40/37/32/24 Sound Power Rating: 55/51/48/43/35	Sound Pressure Rating: 43/37/32/27/20 Sound Power Rating: 54/48/43/38/31
US12FB2BEA	Sound Pressure Rating: 47/41/37/33/25 Sound Power Rating: 58/52/48/44/36	Sound Pressure Rating: 47/40/37/33/25 Sound Power Rating: 58/51/48/44/36
US18FB2BEA	Sound Pressure Rating: 49/44/43/40/37 Sound Power Rating: 60/55/54/51/48	Sound Pressure Rating: 49/43/43/37/37 Sound Power Rating: 60/54/54/48/48

(6.3.3) Warranty

- A. The floor console indoor unit shall be covered by a manufacture parts warranty.

6.4 Installation

(6.4.1) Condensate

- A. The floor console indoor shall be shipped with a insulated polyethylene condensate tubing (5/8" ID) attached from the factory.
- B. The floor console indoor unit shall ship with a 6.5 ft (2m) corrugated drain tube that connects to the insulated drain tube.
- C. The floor console indoor unit shall be a gravity drain.

(6.4.2) Clearances

- A. The installer must follow the minimum clearances illustrated in the Installation Manual when installing the indoor unit.

(6.4.3) Mounting

- A. The floor console indoor unit may be installed on the floor or low on the wall.
- B. The floor console indoor unit shall ship with a galvanized metal wall bracket.
- C. The wall bracket shall have multiple anchor points to provide the installer with many options to firmly attach the wall mounted indoor unit to the wall.
- D. The field-supplied mounting hardware must be adequate to support the indoor unit.

6.5 Electrical Requirements

(6.5.1) Electrical Disconnect

- A. Connecting wire must be continuous (without break) unless local code requires a disconnect at the indoor unit.

Model	Fan Motor Power Output (W)
US09FB2BEA	30
US12FB2BEA	
US18FB2BEA	

- B. If a disconnect is required by local code, it must be a 3-pole, single-throw type.

6.6 Components

(6.6.1) Coil

- A. The indoor coil shall be made with a blue colored hydrophilic coating on the aluminum fins and packed with internally grooved copper tubing, to increase the effective heat exchange surface area by 25%.
- B. Copper tubing shall have inner micro-grooves to increase effective heat transfer capabilities.
- C. Coils shall be pressure tested at 600~650 PSI using helium leak detection.
- D. The coil shall be charged with dry nitrogen for shipping at 70~100 PSI.

(6.6.2) Fan Motor

- A. The fan motor shall be a sealed DC multiple-speed resin-packed motor
- B. The fan motor shall have permanently lubricated bearings.

(6.6.3) Fan Blade

- A. The fan blade shall be a non-corrodible axial fan blower.

(6.6.4) Copper Piping

- A. The coil shall be connected to a length of insulated annealed copper.
- B. The ends of the tubing shall have male flare connections.

(6.6.5) Air Louvers

- A. The supply air shall be distributed by horizontal and vertical motorized louvers.
- B. Air louvers shall provide wide angle of operation for both horizontal (120°) and vertical (90° from top to down) airflow movement to provide room comfort for each corner.

(6.6.6) Display

- A. The floor console indoor unit shall have a 1 x 5/8-inch backlit temperature display capable of showing set or room temperatures.
- B. The display shall also have colored icons representing set mode.
- C. The display can be turned off from the wireless remote control.

(6.6.7) WiFi

- A. Floor console indoor units shall come equipped with WiFi capabilities.

(6.6.8) Filter

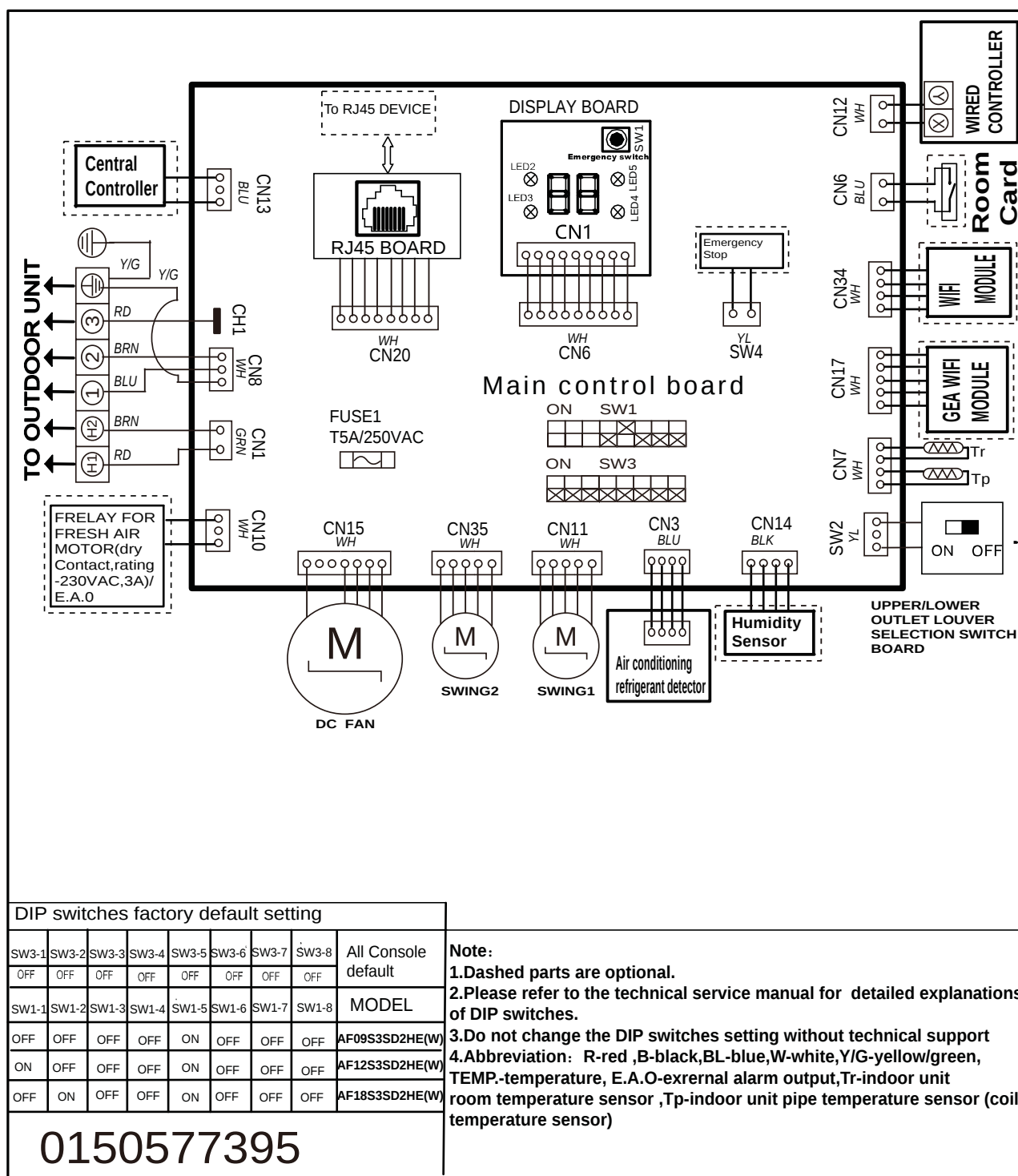
- A. The floor console indoor unit shall have removable air filters.
- B. The air filters shall be washable and reusable.

(6.6.9) Control

- A. The floor console indoor unit shall ship with a hand-held infrared remote control (standard remote control YR-HG)..
- B. The floor console indoor unit shall be compatible with the Simplified Wired Controller (QACT17B).

6. FLOOR CONSOLE INDOOR UNITS

6.7 Wiring Diagrams

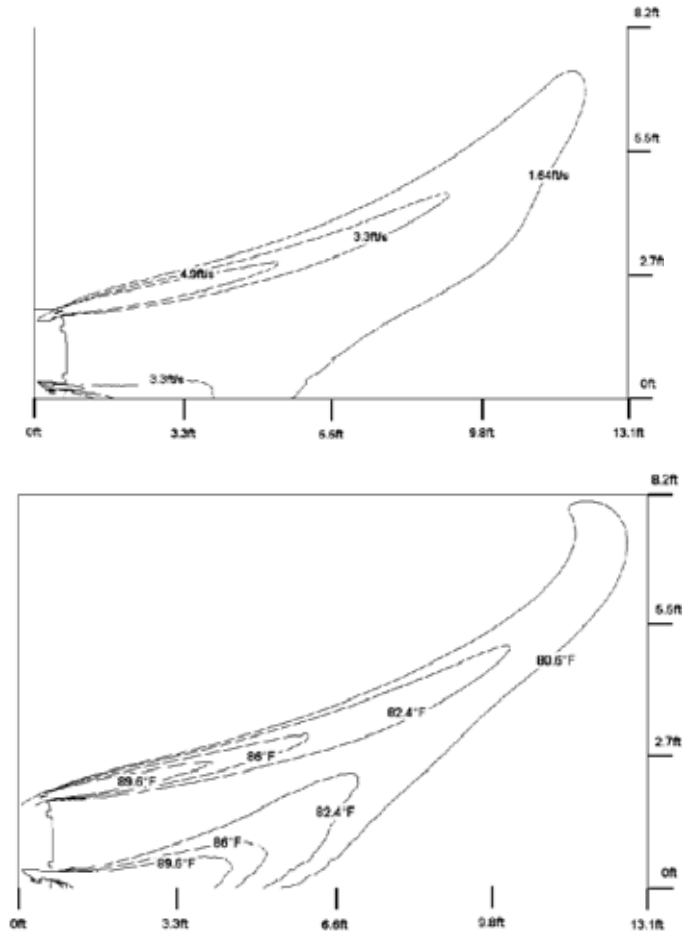
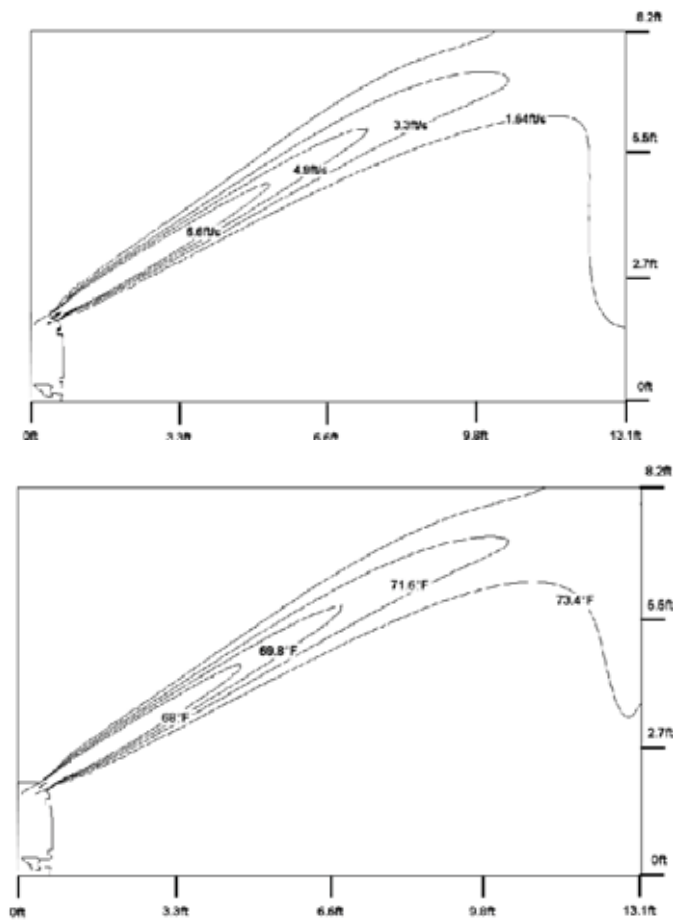


6.8 Air Velocity and Temperature Distribution

US09FB2BEA
US12FB2BEA
US18FB2BEA

COOLING

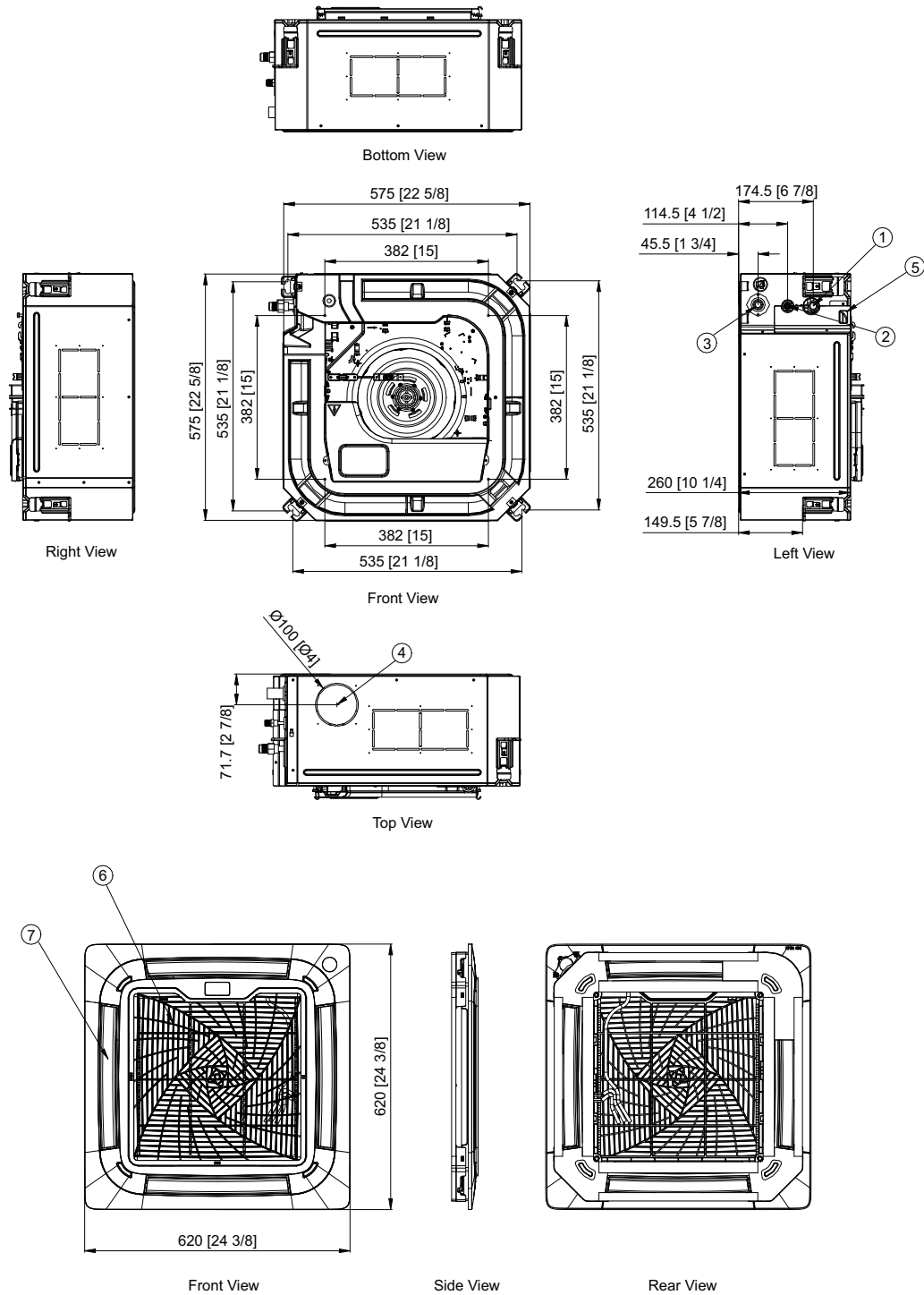
HEATING



7. CASSETTE INDOOR UNITS

7.1 Dimensions

US09CB2BEA
US12CB2BEA
US18CB2BEA

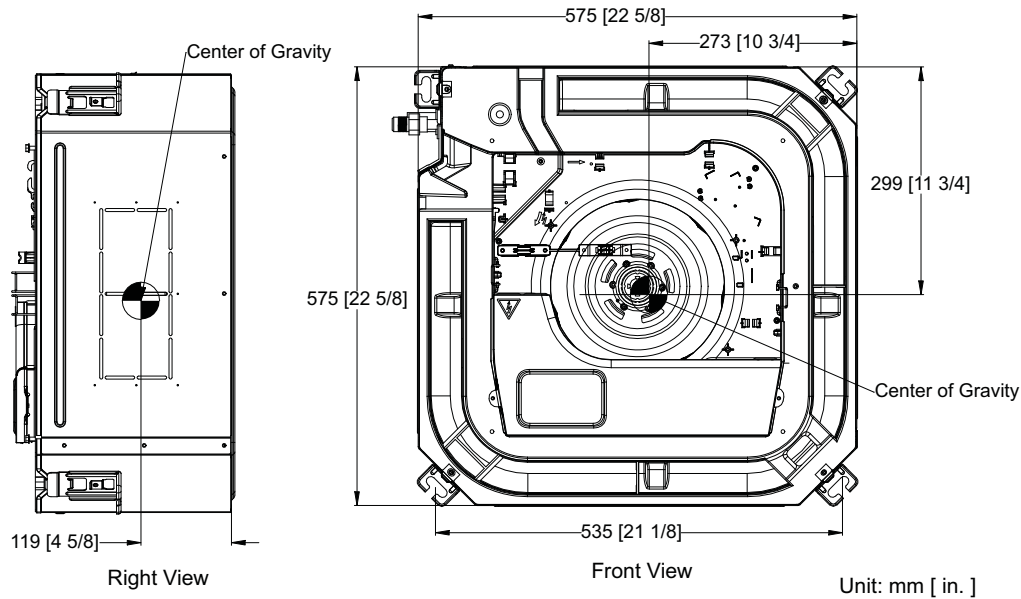


Unit: mm [in.]

No	Part Name
1	Gas Pipe Connection
2	Liquid Pipe Connection
3	Drain Pipe Connection
4	Fresh Air Inlet
5	Power Cable And Communication Cable Routing Hole
6	Air Inlet
7	Air Outlet

7.2 Center of Gravity

US09CB2BEA
US12CB2BEA
US18CB2BEA



7.3 General

(7.3.1) Indoor Unit Description

- A. The cassette indoor section completes the system when connected to the matching outdoor unit and field-supplied piping and wiring.

(7.3.2) Sound Ratings

Model	Cooling Sound Level dB(A) (Turbo/High/Med/Low/Quiet)	Heating Sound Level dB(A) (Turbo/High/Med/Low/Quiet)
US09CB2BEA	Sound Pressure Rating: 42/40/36/32/25 Sound Power Rating: 57/55/51/47/40	Sound Pressure Rating: 42/40/36/32/25 Sound Power Rating: 57/55/51/47/40
US12CB2BEA	Sound Pressure Rating: 45/42/40/36/32 Sound Power Rating: 60/57/55/51/47	Sound Pressure Rating: 45/42/40/36/32 Sound Power Rating: 60/57/55/51/47
US18CB2BEA	Sound Pressure Rating: 45/42/40/36/32 Sound Power Rating: 60/57/55/51/47	Sound Pressure Rating: 45/42/40/36/32 Sound Power Rating: 60/57/55/51/47

(7.3.3) Warranty

- A. The cassette indoor unit shall be covered by a manufacture parts warranty.

7.4 Installation

(7.4.1) Condensate

- A. The cassette indoor unit shall ship with an insulated drain tube adapter that is sized for 3/4-inch PVC on one end.
- B. The cassette indoor unit shall be a gravity drain.

(7.4.2) Clearances

- A. The installer must follow the minimum clearances illustrated in the Installation Manual when installing the indoor unit.

(7.4.3) Mounting

- A. The cassette indoor unit shall have 4 hanging brackets that are sized for 3/8 threaded rod.
- B. The installer must use 3/8 threaded rod to suspend the cassette indoor unit from the building structure.
- C. The installer must install the unit upright and level in all directions.

7.5 Electrical Requirements

(7.5.1) Electrical Disconnect

- A. Connecting wire must be continuous (without break) unless local code requires a disconnect at the indoor unit.
- B. If a disconnect is required by local code, it must be a 3-pole, single-throw type.

Model	Fan Motor Power Output (W)
US09CB2BEA	30
US12CB2BEA	
US18CB2BEA	

7.6 Components

(7.6.1) Coil

- A. Coil shall be painted with a hydrophilic coating to increase airflow efficiency.
- B. Copper tubing shall have inner micro grooves to increase effective heat transfer capabilities.
- C. Coils shall be pressure tested at 600~650 PSI using Helium leak detection.
- D. The coil shall be charged with dry nitrogen for shipping at 70~100 PSI pressure.

(7.6.2) Fan Motor

- A. The fan motor shall be a sealed DC multiple-speed resin-packed motor
- B. The fan motor shall have permanently lubricated bearings.

(7.6.3) Fan Blade

- A. The fan blade shall be a non-corrodible axial fan blower.

(7.6.4) Copper Piping

- A. The coil shall be connected to a length of insulated annealed copper.
- B. The ends of the tubing shall have male flare connections.

(7.6.5) Panel

- A. A panel must be ordered separately.
- B. The cassette must be installed with a 1 inch recess beyond the ceiling surface to allow the panel to properly fit flush against the ceiling and to allow the panel gasket to seal against the cassette.

(7.6.6) Control

- A. The cassette indoor units shall ship with the Standard Remote (YR-HQ).
- B. The cassette indoor unit shall be compatible with the Simplified Wired Controller (QACT17B).

(7.6.7) WiFi

- A. The cassette indoor unit shall include a WiFi adapter.

7.7 Panels

QACCP01WA 2x2 Compact Cassette Panel

(7.7.1) General

- A. The QACCP01WA panel must be ordered separately when ordering the indoor cassette unit..

(7.7.2) Compatibility

- A. The QACCP01WA panel shall be compatible Compact Cassette indoor units, US09CB2BEA, US12CB2BEA and US18CB2BEA.

(7.7.3) Installation

- A. The cassette must be installed with a 1 inch recess beyond the ceiling surface to allow the panel to properly fit flush against the ceiling and to allow the panel gasket to seal against the cassette.

(7.7.4) Filter

- A. The cassette indoor unit shall have a removable air filter.
- B. The air filters shall be washable and reusable.

(7.7.5) Air Flow Control

- A. The QACCP01WA shall have vertical and horizontal louvers on all side to direct the air flow.

QALCP01WA 3x3 Large Cassette Panel

(7.7.1) General

- A. The QALCP01WA panel must be ordered separately when ordering the indoor cassette unit..

(7.7.2) Compatibility

- A. The QALCP01WA panel shall be compatible Compact Cassette indoor unit US24LB2BEA, US30LB2BEA , US36LB2BEA

(7.7.3) Installation

- A. The cassette must be installed with a 1 inch recess beyond the ceiling surface to allow the panel to properly fit flush against the ceiling and to allow the panel gasket to seal against the cassette.

7. CASSETTE INDOOR UNITS

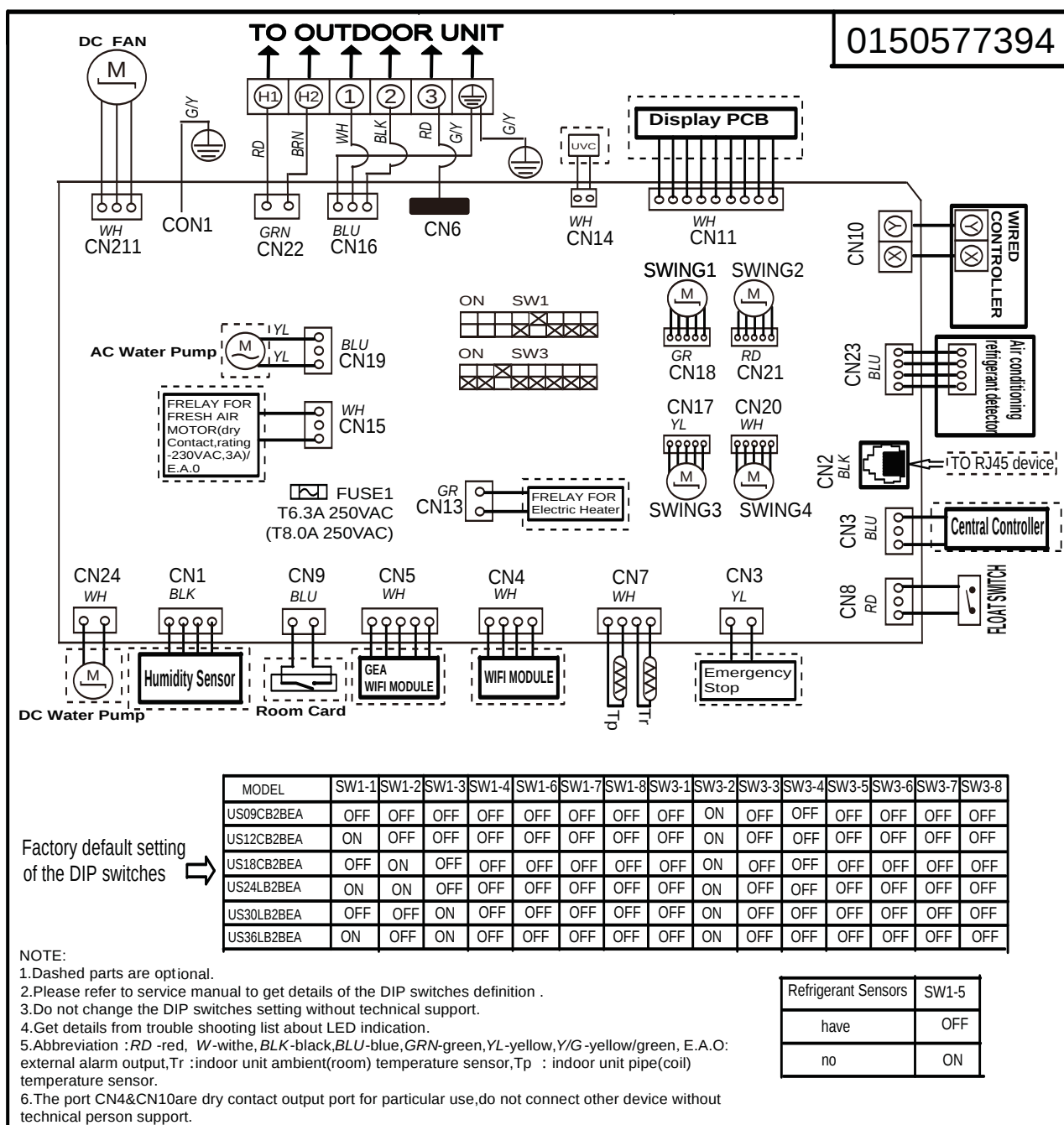
(7.7.4) Filter

- A. The cassette indoor unit shall have a removable air filter.
- B. The air filters shall be washable and reusable.

(7.7.5) Air Flow Control

- A. A. The QALCP01WA shall have horizontal louvers on all sides to direct the air flow.
- A. B. The QALCP01WA shall have individual louver control.

7.8 Wiring Diagrams

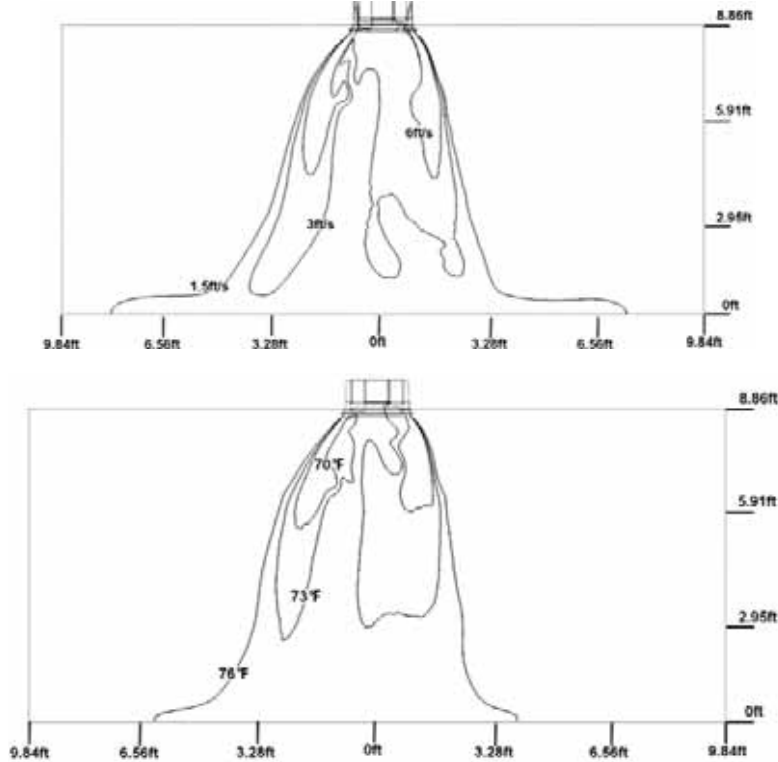


7. CASSETTE INDOOR UNITS

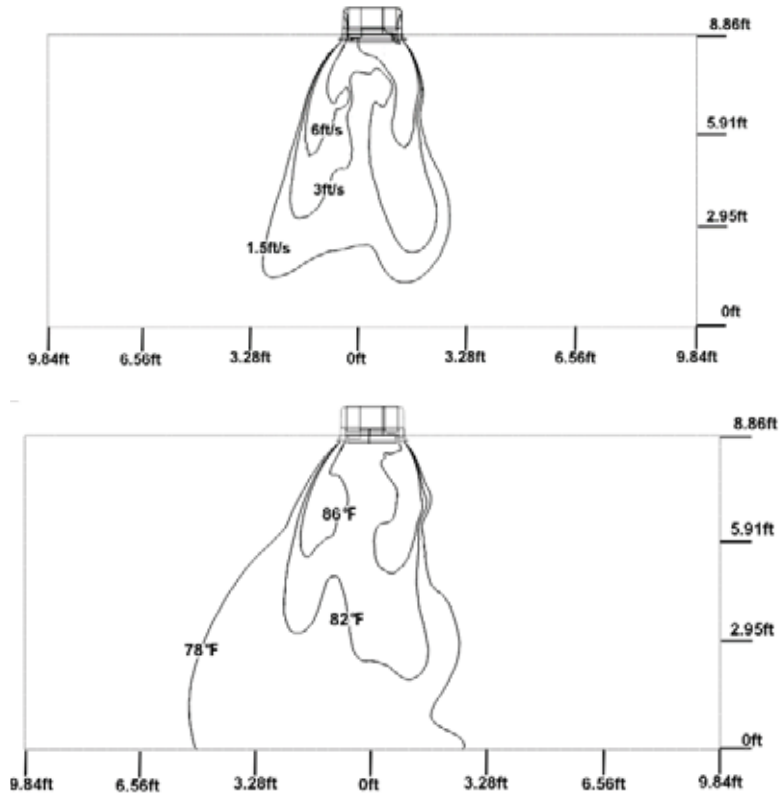
7.9 Air Velocity and Temperature Distribution

US09CB2BEA
US12CB2BEA
US18CB2BEA

COOLING



HEATING

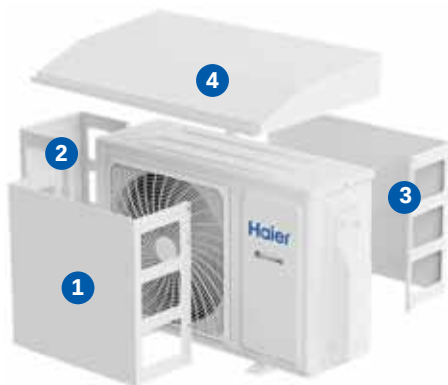


8. CONTROLS AND ACCESSORIES

8.1 Outdoor Unit Accessories

(8.1.1) Wind Baffles & Top Covers

Operating Conditions	Recommended Accessories			
	① Front Wind Baffle	② Side Wind Baffle	③ Back Wind Baffle	④ Top Cover
Low Ambient Cooling below 23°F (5°C) (server/mechanical room)	Required	Required	Required	Required
Low Ambient Heating below 5°F (-15°C)	-	Strongly Recommended	Strongly Recommended	Strongly Recommended
Unit installed on a flat roof or facing prevailing wind	Required	-	-	-



Fabricated from durable 20 gauge G90 galvanized steel and engineered to provide optimal performance when operating the outdoor unit in cold, harsh climates.

A front wind baffle is required for all climates when mounted on a flat roof or facing prevailing winds.

Model	Front or Back Wind Baffles (If both a front and back wind baffle are needed, order two (2) of the required part)	Side Wind Baffles	Top Covers
1Q09RT2BEA	UAWB15WA	UASWB15WA	UATC20WA
1Q12RT2BEA	UAWB15WA	UASWB15WA	UATC20WA
1Q18RT2BEA	UAWB30WA	UASWB30WA	UATC30WA

8.2 Indoor Unit Accessories

(8.2.1) Cassette Panels

Required for cassette indoor units; sold separately. Remote controller (WJ26X35394) is included with cassette panel.



QACCP01WA
Compact Cassette Panel

Fits Models:
US09CB2BEA
US12CB2BEA
US18CB2BEA

(8.2.2) UALS01A Refrigerant Detection Sensor (RDS)

Note: See room sizing requirements to determine if the Refrigerant Detection Sensor (RDS) is required and needs to be purchased separately for highwall and cassette indoor units. RDS is factory-installed on console and ducted units.



8. CONTROLS AND ACCESSORIES

(8.2.3) Merv Return Air Filter Boxes

MERV return air filter boxes for ducted indoor models.



UAMFB0912A

Fits Models:
US09MB2BEA
US12MB2BEA

UAMFB1824A

Fits Models:
US18MB2BEA

(8.2.4) Supply Plenums

Supply plenums for ducted indoor models..



UAPT0912A

Fits Models:
US09MB2BEA
US12MB2BEA

UAPT1824A

Fits Models:
US18MB2BEA

(8.2.5) WiFi

General

- A. Units to come complete with WiFi Built in.

Connection

- B. The WiFi adapter shall have an app that is compatible with both iOS and Android.
- C. The WiFi adapter shall be paired with existing 2.4GHz network.
- D. The WiFi adapter shall comply with Part 15 of the FCC rules..

Warranty

- A. The warranty shall cover all defects in workmanship or material for a period of 1 year. Haier will provide a new or refurbished controller, at its sole discretion.

Features

- A. The WiFi adapter shall be Google Home compatible.
- B. The WiFi adapter shall be Amazon Alexa compatible.
- C. The homeowner shall have the ability to install and configure the WiFi adapter.

8. CONTROLS AND ACCESSORIES

8.3 Controllers

Controllers from Haier allow you to take command of your environment. With convenient user-friendly button layouts and clear digital displays, the system can be easily set to meet and maintain comfort levels.

(8.3.1) Remote Controllers

General

- A. Standard Remote Control shall be compatible with wall mounted indoor units.
- B. Standard Remote Control shall come packaged with wall mounted indoor units.

Connection

- A. Standard remote control shall be infrared.

Compatibility

- A. The wireless control shall be compatible with all wall mounted, floor console and cassette indoor models.

Warranty

- A. The warranty shall also cover all defects in workmanship or material for the unit accessory for a period of 1 year. Haier will provide a new or refurbished controller at its sole discretion.

Features

- A. The Standard Remote Control shall have a power button, individual mode buttons (heat, cool, dehumidify), temperature +/-, fan speed, vertical and horizontal louver adjust.
- B. The Standard Remote Control shall be capable of setting a precise temperature of $\pm 1^{\circ}\text{F}$ ($\pm 0.5^{\circ}\text{C}$).
- C. The Standard Remote Control shall have a backlight.
- D. The Standard Remote Control shall have vertical and horizontal louver control.
- E. The Standard Remote Control shall have a child lock function.
- F. The Standard Remote Control shall have the ability to turn on/off the indoor unit display.
- G. The Standard Remote Control shall have Fahrenheit and Celsius temperature functions.



(8.3.2) Wired Controller

General

- A. The wired controller shall be a wall-mounted control that operates the indoor unit.

Connection

- A. The wired controller shall connect to an indoor unit using the supplied 3-pin cable.
- B. 2 wired controls shall be connectable to one indoor unit.
- C. A single wired controller shall be able to connect up to 16 of the same model type of indoor units. The connected units shall work in unison as a single zone.

Compatibility

- A. The wired controller shall be compatible with all Haier indoor units.

Warranty

- A. The warranty shall also cover all defects in workmanship or material for the unit accessory for a period of 1 year. Haier will provide a new or refurbished controller, at its sole discretion.

Features

- A. The wired controller shall have large physical buttons for easy operation.
- B. The wired controller shall have a power button, a mode button (heat, cool, dry), a fan speed button, a temperature up button and a temperature down button.
- C. The wired controller shall be capable of setting a precise temperature of $\pm 1^{\circ}\text{F}$ ($\pm 0.5^{\circ}\text{C}$).
- D. The wired controller shall have a backlight.
- E. The wired controller shall have vertical and horizontal louver control.
- F. The wired controller shall have a child lock function.
- G. The wired controller shall display either Fahrenheit or Celsius.
- H. The wired controller shall have the ability to display indoor ambient temperature.
- I. The wired controller shall have a Clean Filter reminder.
- J. The wired controller shall display error codes.
- K. The wired controller shall have an infrared receiver that can receive commands from a Haier hand-held remote control.

8.4 Indoor Unit Accessory Compatibility Table

	Model Number	Remote Controllers			Wired Controller	Refrigerant Detection Sensor (RDS)
		WJ26X35393	WJ26X35813	WJ26X35394	QACT17B	UALS01A
Premium Highwall	QS09WP2BEA			●	○	○
	QS12WP2BEA			●	○	○
	QS18WP2BEA			●	○	○
Compact Cassette	US09CB2BEA					○
	US12CB2BEA					○
	US18CB2BEA					○
	QACCP01WA*			●	○	
Console	US09FB2BEA		●		○	●
	US12FB2BEA		●		○	●
	US18FB2BEA		●		○	●
Ducted	US09MB2BEA				⊙	●
	US12MB2BEA				⊙	●
	US18MB2BEA				⊙	●

*Cassette Panel

● = Included ⊙ = Required, sold separately ○ = Optional; sold separately
See Outdoor Unit Accessory Compatibility Table for 5" Central Controller compatibility

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GE APPLIANCES
a Haier company

AIR&WATER
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