



SUBMITTAL

Project

BB Summit Fair

Date

Wednesday, August 10, 2022

Table Of Contents

Project: BB Summit Fair
Prepared By:

08/10/2022
11:51AM

RTU	3
Unit Report	4
Certified Drawing	5
Performance Summary	8
Unit Feature Sheet	11
Spec Sheet	12

RTU

**Tag Cover Sheet
Unit Report
Certified Drawing
Performance Report
Unit Feature Sheet
Spec Sheet**

Unit Report For RTU

Project: BB Summit Fair
Prepared By:

08/10/2022
11:51AM

Unit Parameters

Unit Model:.....**48TCEM12A2A6-0A0A0**
Unit Size:.....**12 (10 Tons)**
Volts-Phase-Hertz:.....**460-3-60**
Heating Type:.....**Gas**
Duct Cfg:.....**Vertical Supply / Vertical Return**
Medium Heat
Round Tube Plate Fin Coils

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:.....**7' 4.125"**
Unit Width:.....**4' 11.5"**
Unit Height:.....**4' 1.375"**
*** **Total Operating Weight:.....992 lb**

*** Weights and Dimensions are approximate. Weight does not include unit packaging. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Lines and Filters

Gas Line Size:.....**3/4**
Condensate Drain Line Size:.....**3/4**
Return Air Filter Type:.....**Throwaway**
Return Air Filter Quantity:.....**4**
Return Air Filter Size:.....**20 x 20 x 2**

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Unit Configuration

Medium Static Option (Belt Drive)
Al/Cu - Al/Cu
Base Electromechanical Controls
Standard Packaging

Warranty Information

1-Year parts(std.)
5-Year compressor parts(std.)
10-Year heat exchanger - Aluminized(std.)
15-Year heat exchanger - Stainless Steel(std.)

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

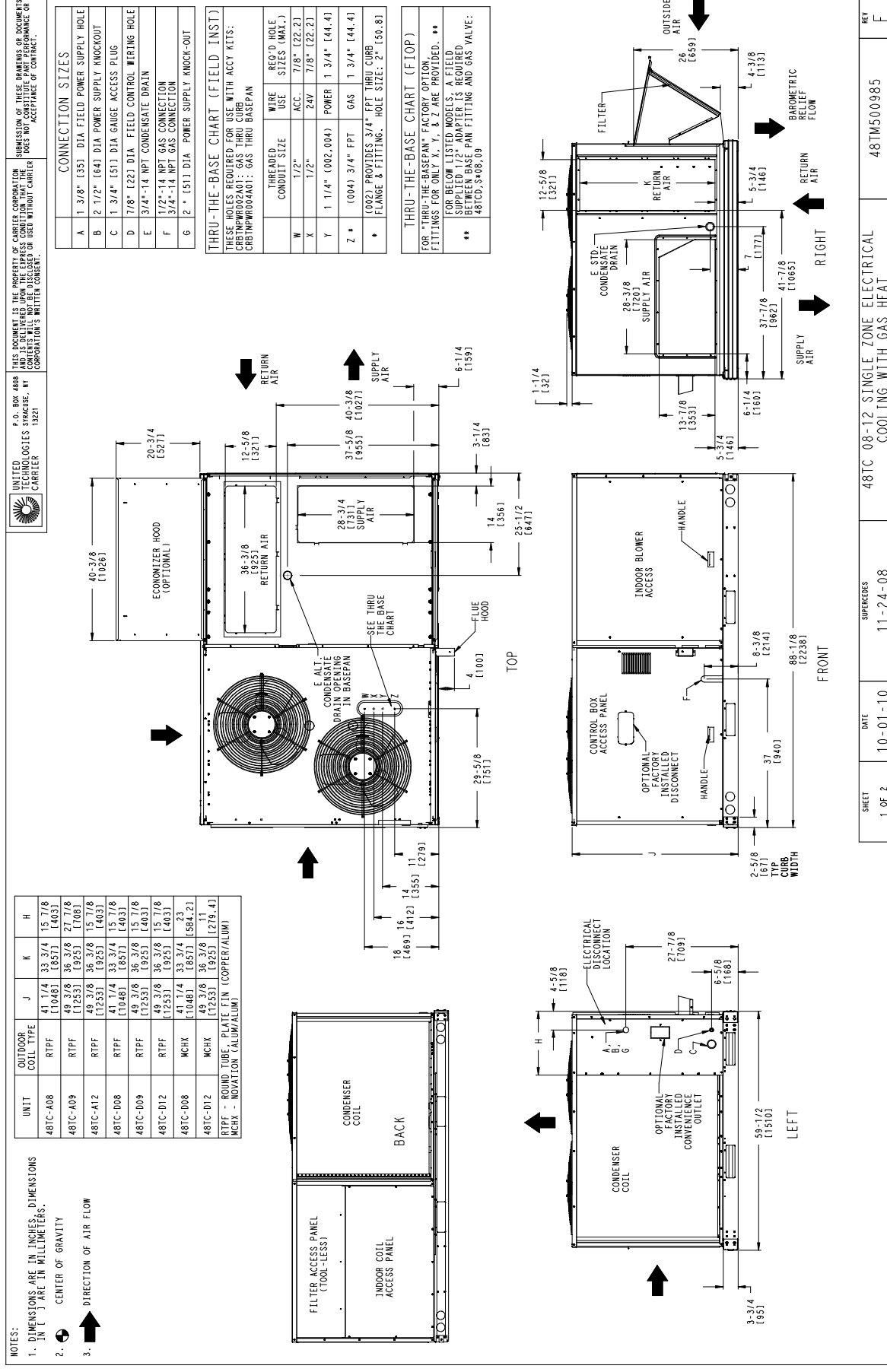
Ordering Information

Part Number	Description	Quantity
48TCEM12A2A6-0A0A0	Rooftop Unit	1
	Base Unit	
	Medium Static Option (Belt Drive)	
	Electromechanical control, No intake or exhaust option.	
	No Electrical Option	
Field Installed Accessories		
CRECOMZR021A03	Vertical EconoMi\$er IV with solid-state controller	1
CRLVHLGD016A00	Louvered Condenser Coil Hail Guard	1

Certified Drawing for RTU

Project: BB Summit Fair
Prepared By:

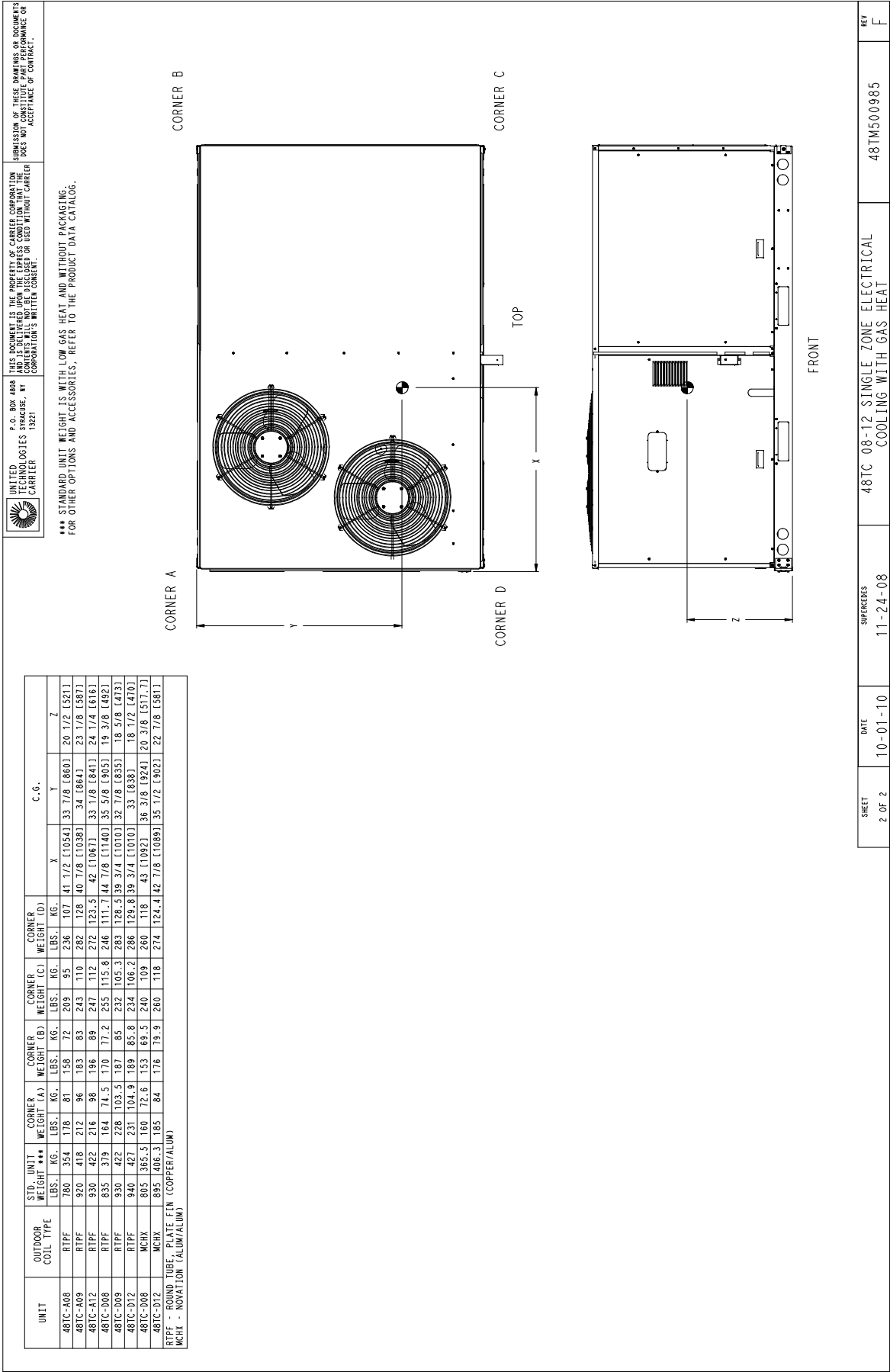
08/10/2022
11:51AM



Certified Drawing for RTU

Project: BB Summit Fair
Prepared By:

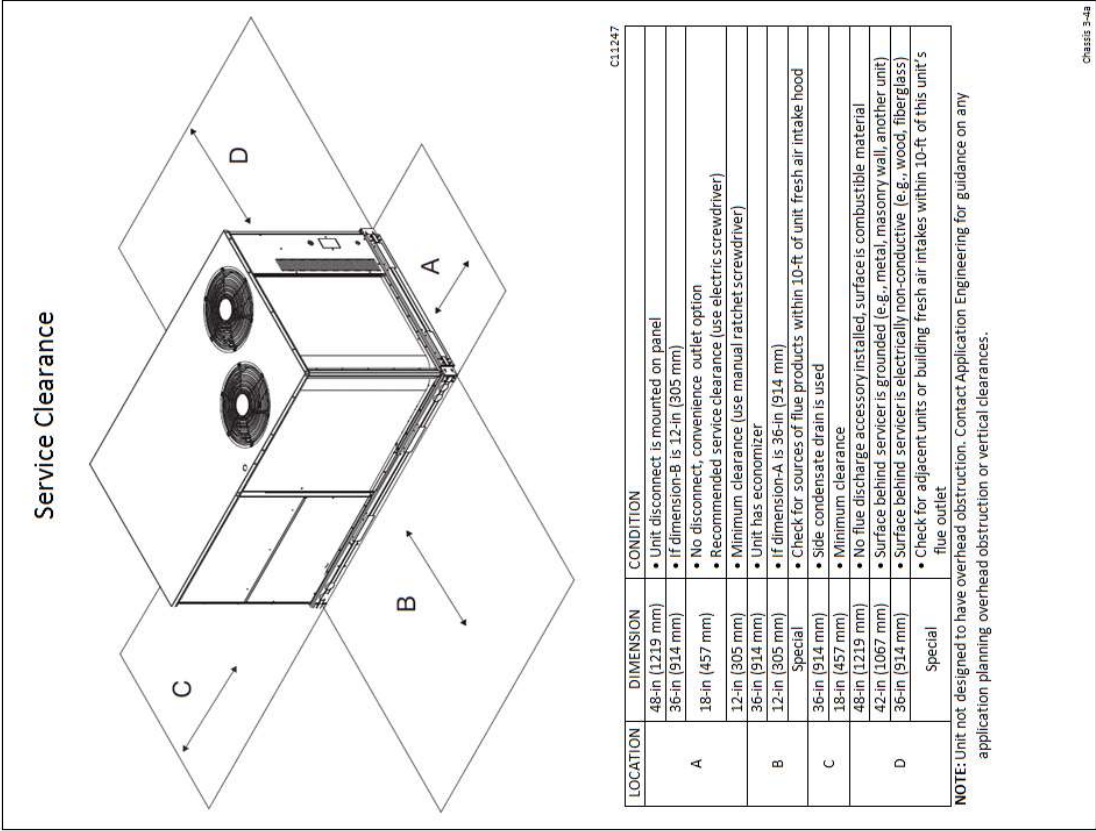
08/10/2022
11:51AM



Certified Drawing for RTU

Project: BB Summit Fair
Prepared By:

08/10/2022
11:51AM



Performance Summary For RTU

Project: BB Summit Fair
Prepared By:

08/10/2022
11:51AM

Part Number:48TCEM12A2A6-0A0A0

ARI EER:.....11.00
IEER:.....12.7

Base Unit Dimensions

Unit Length:.....88.1 in
Unit Width:.....59.5 in
Unit Height:.....49.4 in

Operating Weight

Base Unit Weight:.....850 lb
Medium Heat:.....18 lb
Medium Static Option (Belt Drive):.....15 lb

Accessories

Vertical EconoMi\$er IV with solid-state controller:.....75 lb
Louvered Condenser Coil Hail Guard:.....34 lb

Total Operating Weight:.....992 lb

Unit

Unit Voltage-Phase-Hertz:.....460-3-60
Air Discharge:.....Vertical
Fan Drive Type:.....Belt
Actual Airflow:.....4000 CFM
Site Altitude:.....0 ft

Cooling Performance

Condenser Entering Air DB:.....95.0 F
Evaporator Entering Air DB:.....80.0 F
Evaporator Entering Air WB:.....67.0 F
Entering Air Enthalpy:.....31.44 BTU/lb
Evaporator Leaving Air DB:.....58.4 F
Evaporator Leaving Air WB:.....57.2 F
Evaporator Leaving Air Enthalpy:.....24.50 BTU/lb
Gross Cooling Capacity:.....124.87 MBH
Gross Sensible Capacity:.....93.48 MBH
Compressor Power Input:.....8.66 kW
Coil Bypass Factor:.....0.098

Heating Performance

Heating Airflow:.....4000 CFM
Entering Air Temp:.....70.0 F
Leaving Air Temp:.....112.6 F
Gas Heating Input Capacity:.....180.0 / 224.0 MBH
Gas Heating Output Capacity:.....147.0 / 184.0 MBH
Temperature Rise:.....42.6 F
Thermal Efficiency (%):.....82.0

Supply Fan

External Static Pressure:.....0.50 in wg
Options / Accessories Static Pressure
Economizer:.....0.20 in wg
Total Application Static (ESP + Unit Opts/Acc.):.....0.70 in wg
Fan RPM:.....916
Fan Power:.....2.28 BHP
NOTE:.....Selected IFM RPM Range: 838 - 1084

Selection includes construction throwaway filter into the base fan curve. This filter is not MERV Rated.

Electrical Data

Performance Summary For RTU

Project: BB Summit Fair
Prepared By:

08/10/2022
11:51AM

Voltage Range:	414 - 506
Compressor #1 RLA:	14.8
Compressor #1 LRA:	130
Indoor Fan Motor Type:	MED
Indoor Fan Motor FLA:	5.3
Combustion Fan Motor FLA (ea):	0.25
Power Supply MCA:	26
Power Supply MOCP (Fuse or HACR):	30
Disconnect Size FLA:	25
Disconnect Size LRA:	177
Electrical Convenience Outlet:	None
Outdoor Fan [Qty / FLA (ea)]:	2 / 0.8

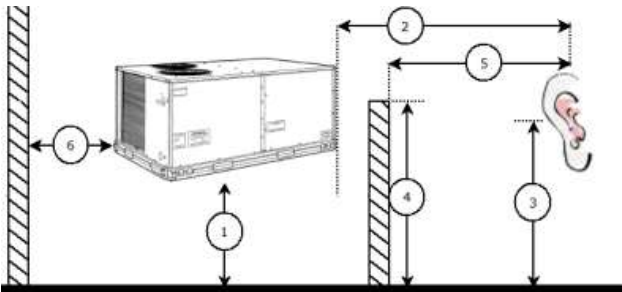
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	97.7	94.4	88.6
125 Hz	93.7	86.9	85.0
250 Hz	80.3	71.5	81.6
500 Hz	74.3	67.3	79.5
1000 Hz	70.2	64.8	77.4
2000 Hz	67.6	60.6	74.1
4000 Hz	70.8	60.5	71.0
8000 Hz	71.9	59.1	66.3
A-Weighted	81.6	74.7	82.0

Advanced Acoustics



Advanced Acoustics Parameters

1. Unit height above ground:	30.0	ft
2. Horizontal distance from unit to receiver:	50.0	ft
3. Receiver height above ground:	5.7	ft
4. Height of obstruction:	0.0	ft
5. Horizontal distance from obstruction to receiver:	0.0	ft
6. Horizontal distance from unit to obstruction:	0.0	ft

Detailed Acoustics Information

Octave Band Center Freq. Hz	63	125	250	500	1k	2k	4k	8k	Overall
A	88.6	85.0	81.6	79.5	77.4	74.1	71.0	66.3	91.4 Lw
B	62.4	68.9	73.0	76.3	77.4	75.3	72.0	65.2	82.6 LwA

Performance Summary For RTU

Project: BB Summit Fair
Prepared By:

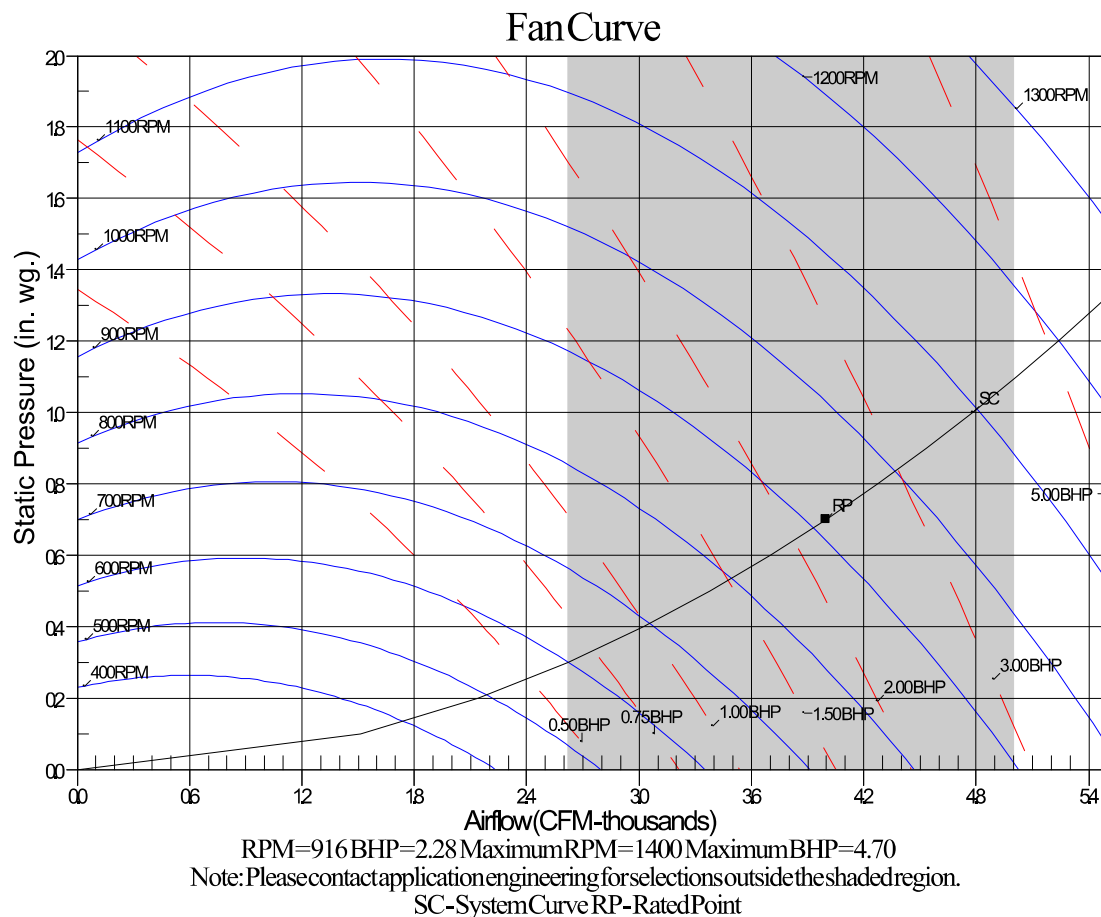
08/10/2022
11:51AM

C	56.2	52.6	49.2	47.1	45.0	41.7	38.6	33.9	59.0	Lp
D	30.0	36.5	40.6	43.9	45.0	42.9	39.6	32.8	50.2	LpA

Legend

- A Sound Power Levels at Unit's Acoustic Center, Lw
- B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
- C Sound Pressure Levels at Specific Distance from Unit, Lp
- D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

Calculation methods used in this program are patterned after the ASHRAE Guide; other ASHRAE Publications and the AHRI Acoustical Standards. While a very significant effort has been made to insure the technical accuracy of this program, it is assumed that the user is knowledgeable in the art of system sound estimation and is aware of the tolerances involved in real world acoustical estimation. This program makes certain assumptions as to the dominant sound sources and sound paths which may not always be appropriate to the real system being estimated. Because of this, no assurances can be offered that this software will always generate an accurate sound prediction from user supplied input data. If in doubt about the estimation of expected sound levels in a space, an Acoustical Engineer or a person with sound prediction expertise should be consulted.



Unit Feature Sheet for RTU

Project: BB Summit Fair
Prepared By:

08/10/2022
11:51AM



WeatherMaker® – 48TC

PACKAGED ROOFTOP GAS HEATING/ELECTRIC COOLING UNITS
8, 7.5, 8.5, 10, 12.5, 16 TONS



Optional Louvered Hail Guard Shown



WEATHERMAKER SERIES

WeatherMaker (48TC) units are one-piece gas heating, electric cooling units that are pre-wired and charged with Puron (R-410A) refrigerant. They are factory tested in both heating and cooling modes, and rated in accordance with AHRJ Standard 340/380 (07-16 sizes). WeatherMaker units are designed in accordance with UL Standard 1995, and listed by the Underwriters' Laboratories.

Approved and certified by:



Use of the AHRJ Certified logo indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahrjcertified.org.

STANDARD FEATURES INCLUDE:

- Puron (R-410A) HFC refrigerant
- Single-stage/single-circuit cooling capacity control on 07 models
- Two-stage/two-circuit cooling capacity control on 08-16 models
- Two-stage/single circuit cooling capacity control on 08, 09, 12 models
- EER's up to 11.5
- SEER's up to 12.8
- Energy Saving Staged Air Volume (SAV™) 2-speed indoor fan motor on two circuit (08-16) and 07 models. Required in U.S. installations. Not available or required to meet DOE on 48TC™ models 08, 09, 12.
- Scroll compressors with internal line break and overload protection
- Accutrol™ and/or TXV refrigerant metering system
- Exclusive non-corrosive composite condensate pan in accordance with ASHRAE Standard 62, sloping design, side or center drain
- Standard cooling operation up to 115°F (46°C) and down to 40°F (4°C) - down to 25°F (-4°C) with winter heat kit.
- Pre-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection
- Exclusive IGC solid-state control for on-board diagnostics with LED error code designation burner control logic and energy saving indoor fan motor delay
- Induced draft gas heat combustion design
- Redundant gas valves with up to two stages of heating
- Low pressure and high pressure switch protected.

MAINTENANCE FEATURES:

- Access panels with easy grip handles
- Innovative easy starting, no-strip screws on unit access panels
- Two-inch disposable return air filters and Tool-less filter access door
- Central terminal board facilitating simple safety circuit troubleshooting and simplified control box arrangement

INSTALLATION FEATURES:

- Thru-the-bottom power entry capability
- Single point gas and electric connections
- Full perimeter base rail with built-in rigging adapters and fork slots
- Field convertible from vertical to horizontal airflow for slab mounting. (16 size models require field installed supply duct cover).

STANDARD WARRANTY:

- 10-year heat exchanger – 15-year stainless steel option
- 5-year compressor
- 1-year parts
- 3-year parts on Novalon Condenser coils – where available
- Many optional upgrades also available

OPTIONS INCLUDE BUT ARE NOT LIMITED TO:

- PremierLink™ and RTU Open Multi-Protocol DDC Controls
- Supply and Return Air Smoke Detectors, high static motors
- Louvered condenser coil guards
- Economizer, disconnect and convenience outlet options
- Stainless Steel heat exchanger option
- Humidi-Mizer® adaptive dehumidification system available on all models with RTP® condenser coils – Motor Master I controller included
- Hinged access panels
- Condensate overflow switch
- VFD field field accessory display kit

For a complete list of options and accessories refer to the Product Data Catalog for this unit.

Spec Sheet for RTU

Project: BB Summit Fair
Prepared By:

08/10/2022
11:51AM