12.5T

Tag Cover Sheet
Unit Report
Certified Drawing
Performance Report

Unit Report For 12.5T

Project: Sephora Northridge 03/15/2024
Prepared By: 03:49PM

Unit Parameters

Unit Model: **50FCQM14A2A5-0A0A0**
Unit Size: **14 (12.5 Tons)**
Volts-Phase-Hertz: **230-3-60**
Heating Type: **Heat Pump**
Heat Control: **Two-Stage Cooling / One Circuitl**
Duct Cfg: **Horizontal Supply / Horizontal Return**

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

Unit Length: **9' 7.875"**
Unit Width: **5' 3.375"**
Unit Height: **4' 9.375"**

*** Weights and Dimensions are approximate. Weight does not include roof curbs, unit packaging, field installed accessories or factory installed options. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Base Unit Weight (Does not include any accessories):
1250 lb

Lines and Filters

Return Air Filter Type: **Throwaway**
Return Air Filter Quantity: **6**
Return Air Filter Size: **18 x 24 x 2**

Selection includes construction throwaway filter into the base fan curve.

Unit Configuration

Standard/Medium Static (EcoBlue)
Al/Cu - Al/Cu
Base Electromechanical Controls
Standard Packaging

Warranty Information

1-Year parts (STD.)
5-Year Compressor (std.)

No optional warranties were selected.

Ordering Information

Part Number	Description	Quantity
50FCQM14A2A5-0A0A0	Rooftop Unit	1
Field Installed Accessories		
CRPWREXH082A00	Horizontal Power Exhaust	1

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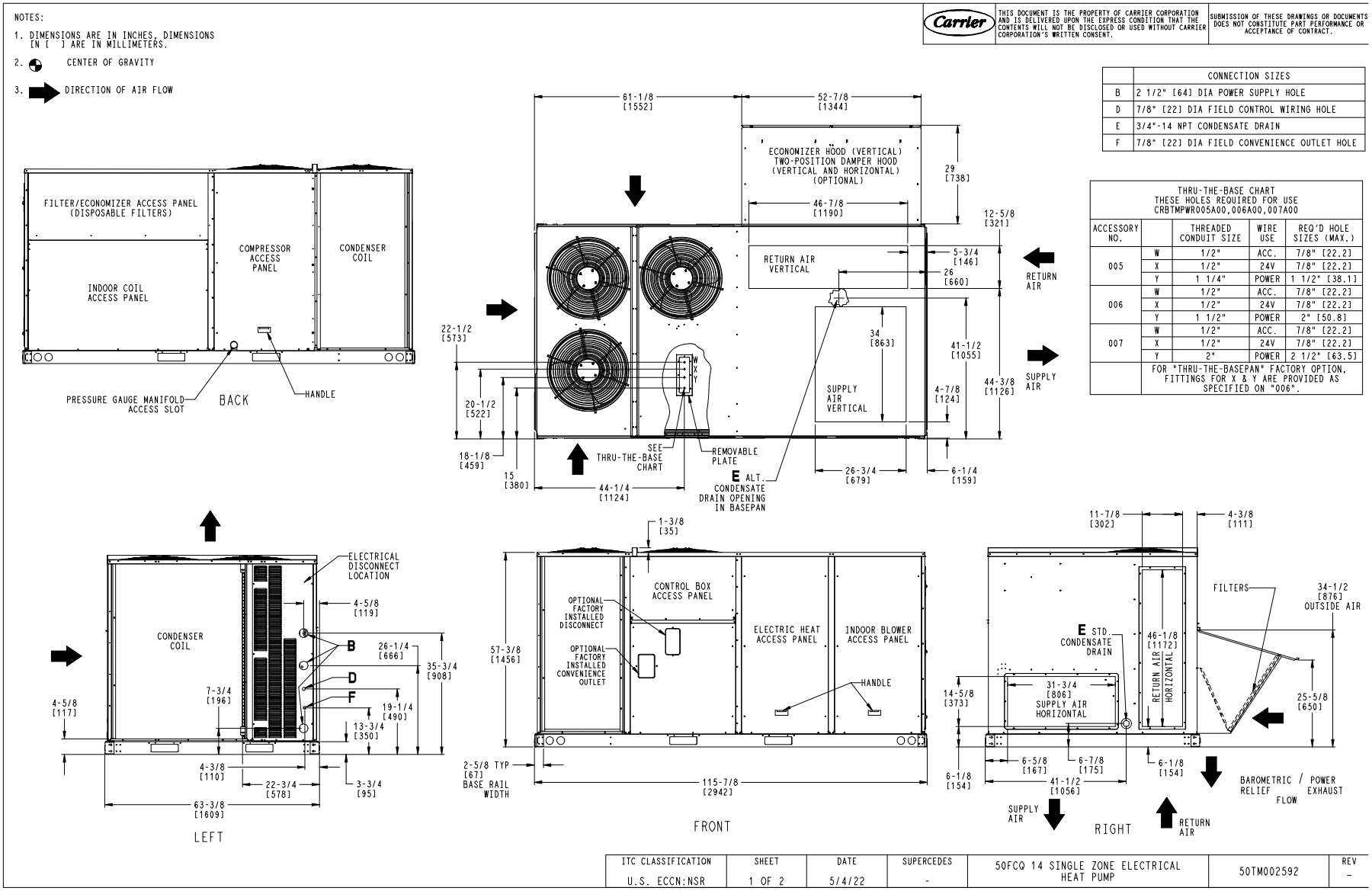
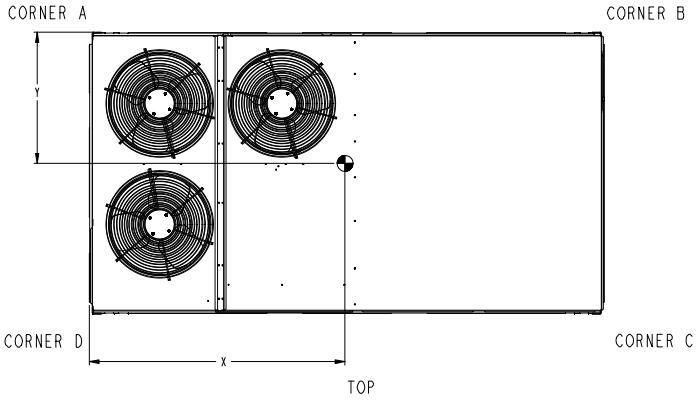
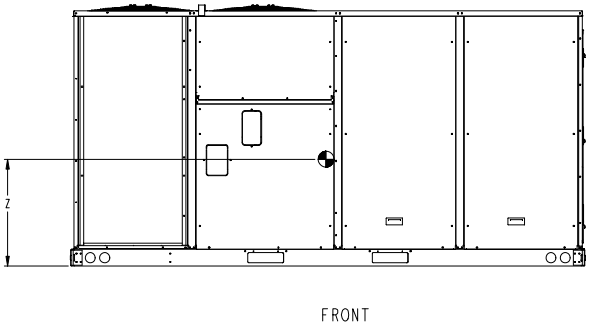
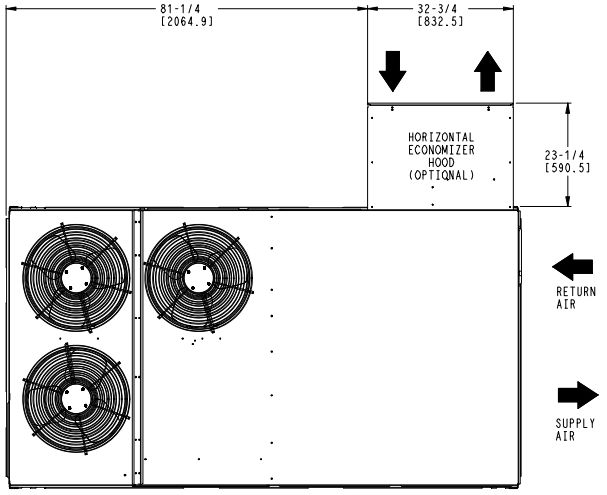


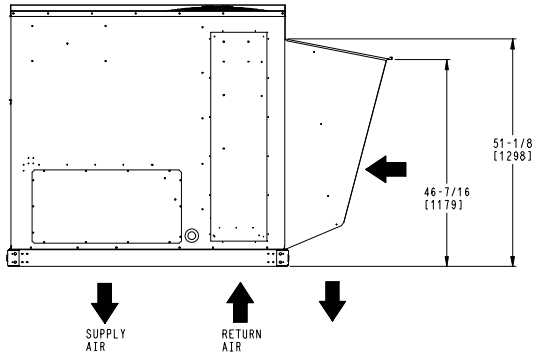
UNIT	STD UNIT WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z
50FCQ-14	1250	567	350	159	338	153	277	125	286	130	57 [1448]	28 1/2 [724]	24 [610]

STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT & WITHOUT PACKAGING.
FOR OPTIONS & ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.









HORIZONTAL ECONOMIZER

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES			REV
U.S. ECCN:NSR	2 OF 2	5/4/22	-	50FCQ 14 SINGLE ZONE ELECTRICAL HEAT PUMP	50TM002592	-

Part Number:50FCQM14A2A5-0A0A0

ARI EER:	**10.60**	
IEER:	**15.0**	

Base Unit Dimensions

Unit Length:	**115.9**	in
Unit Width:	**63.4**	in
Unit Height:	**57.4**	in
Base Unit Weight (Does not include any accessories):	**1250**	lb

Unit

Unit Voltage-Phase-Hertz:	**230-3-60**	
Air Discharge:	**Vertical**	
Fan Drive Type:	**Vane Axial**	
Actual Airflow:	**5000**	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:	**60.0**	F
Evaporator Leaving Air WB:	**57.7**	F
Evaporator Leaving Air Enthalpy:	**24.83**	BTU/lb
Gross Cooling Capacity:	**148.79**	MBH
Gross Sensible Capacity:	**108.05**	MBH
Compressor Power Input:	**11.25**	kW
Coil Bypass Factor:	**0.094**	

Heating Performance

Outdoor Ambient Temperature:	**47.0**	F
Entering Air Indoor Coil DB:	**70.0**	F
Leaving Air Indoor Coil DB:	**93.9**	F
Total Heating Capacity:	**128.90**	MBH
Integrated Heating Capacity:	**128.90**	MBH
Heating Power Input:	**10.81**	kW
High Temperature COP:	**3.30**	
Low Temperature COP:	**2.30**	

Supply Fan

External Static Pressure:	**0.50**	in wg
Options / Accessories Static Pressure		
Power Exhaust:	**(Fan Data Includes Drop)**	
Application External Static (ESP + Unit Opts/Acc.):	**0.50**	in wg
Fan RPM:	**1378**	
Fan Power:	**1.27**	BHP
NOTE:	**Selected IFM RPM Range: 947 - 2200**	

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

Power Exhaust

Return Duct Static:	**0.40**	in wg
Max. Air To Exhaust:	**2850**	CFM

Electrical Data

Voltage Range:	**187 - 253**	
Compressor #1 RLA:	**15.6**	
Compressor #1 LRA:	**93**	

Compressor #2 RLA: **15.6**
Compressor #2 LRA: **93**
Indoor Fan Motor Type: **MED**
Indoor Fan Motor FLA (Total): **7.5**
Power Supply MCA: **51**
Power Supply MOCP (Fuse or HACR): **60**
Disconnect Size FLA: **54**
Disconnect Size LRA: **213**
Electrical Convenience Outlet: **None**
Power Exhaust [Kit Qty / FLA(ea kit)]: **1 / 3.8**
Outdoor Fan [Qty / FLA (ea)]: **3 / 1.5**

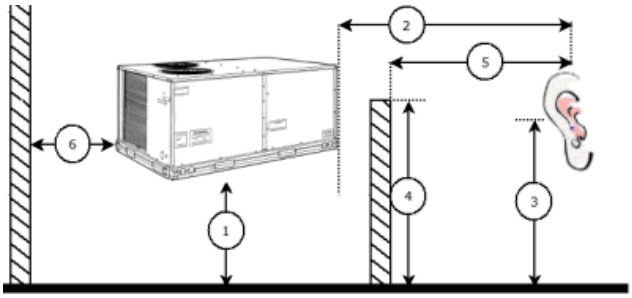
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	81.6	77.5	89.3
125 Hz	78.5	73.1	85.2
250 Hz	75.2	69.8	80.3
500 Hz	72.8	65.5	78.0
1000 Hz	74.1	65.4	77.0
2000 Hz	68.4	57.1	74.4
4000 Hz	62.3	49.2	73.7
8000 Hz	54.7	45.5	68.9
A-Weighted	77.2	69.0	83.0

Advanced Acoustics



Advanced Accoustics 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	89.3	85.2	80.3	78.0	77.0	74.4	73.7	68.9	91.6 Lw
B	63.1	69.1	71.7	74.8	77.0	75.6	74.7	67.8	82.5 LwA
C	56.9	52.8	47.9	45.6	44.6	42.0	41.3	36.5	59.2 Lp

D	30.7	36.7	39.3	42.4	44.6	43.2	42.3	35.4	50.1 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.