

Unit Report For 50TC-D16A2A6-0A0G0

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Prepared By:

11/22/2019
04:09PM

Unit Parameters

Unit Model:.....50TC-D16A2A6-0A0G0
Unit Size:.....16 (15 Tons)
Volts-Phase-Hertz:.....460-3-60
Heating Type:.....None
Duct Cfg:.....Vertical Supply / Vertical Return
Two-Stage Compressor Models
Round Tube Plate Fin

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

Unit Length:.....9' 7.875"
Unit Width:.....5' 3.375"
Unit Height:.....4' 9.375"
*** Total Operating Weight:.....1370 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

Condensate Drain Line Size:.....3/4
Return Air Filter Type:.....Throwaway
Return Air Filter Quantity:.....6
Return Air Filter Size:.....18 x 24 x 2

Unit Configuration

Medium Static Option (Belt Drive)
Al/Cu - Al/Cu
Base Electro-mechanical controls
Standard Packaging
2-Speed indoor fan motor controlled by VFD

Warranty Information

5-Year compressor parts (STD.)
1-Year parts (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
50TC-D16A2A6-0A0G0	Rooftop Unit	1
	Base Unit	
	Medium Static Option (Belt Drive)	
	Electromechanical control, No intake or exhaust option.	
	2-Speed Indoor Fan (VFD) Controller	

Certified Drawing for 50TC-D16A2A6-0A0G0

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NOTES:

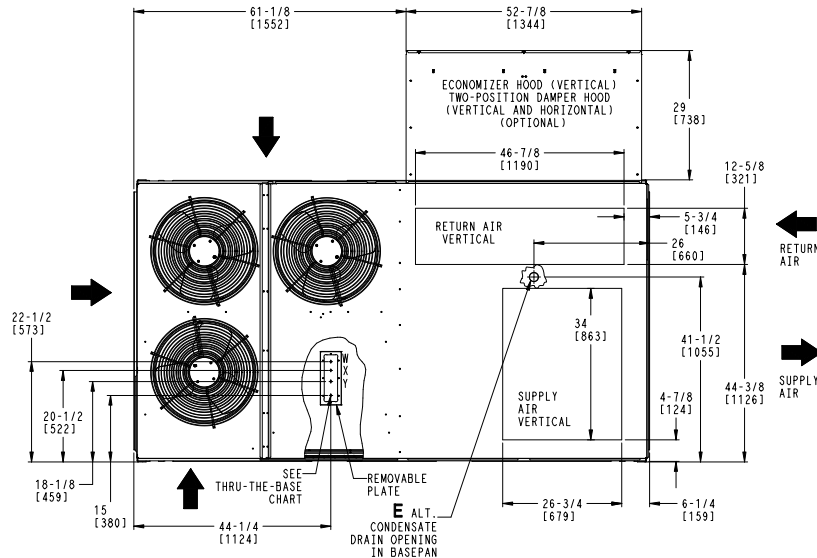
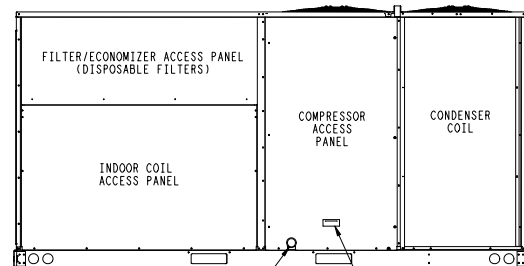
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2.  CENTER OF GRAVITY
3.  DIRECTION OF AIR FLOW



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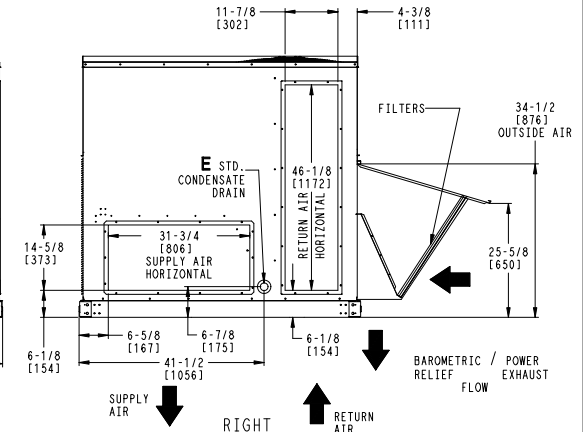
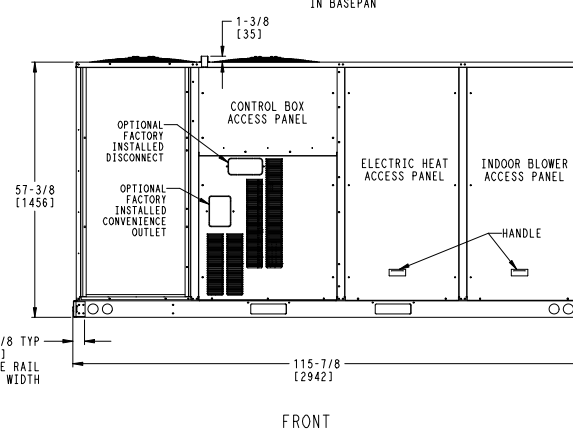
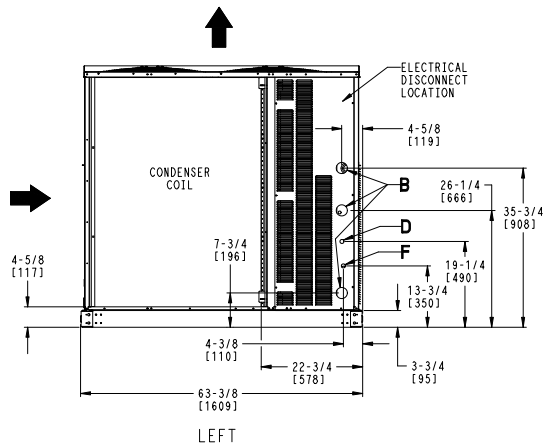
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CONNECTION SIZES	
B	2 1/2" [64] DIA POWER SUPPLY HOLE
D	7/8" [22] DIA FIELD CONTROL WIRING HOLE
E	3/4"-14 NPT CONDENSATE DRAIN
F	7/8" [22] DIA FIELD CONVENIENCE OUTLET HOLE

THRU-THE-BASE CHART THESE HOLES REQUIRED FOR USE CRBTMPWR005A00, 006A00, 007A00				
ACCESSORY NO.	THREADED CONDUIT SIZE	WIRE USE	REQ'D HOLE SIZES (MAX.)	
005	W 1/2"	ACC.	7/8" [22.2]	
	X 1/2"	24V	7/8" [22.2]	
006	Y 1 1/4"	POWER	1 1/2" [38.1]	
	W 1/2"	ACC.	7/8" [22.2]	
007	X 1 1/2"	24V	7/8" [22.2]	
	Y 1 1/2"	POWER	2" [50.8]	
	W 1/2"	ACC.	7/8" [22.2]	
	X 1/2"	24V	7/8" [22.2]	
	Y 2"	POWER	2 1/2" [63.5]	
FOR "THRU-THE-BASE" FACTORY OPTION, FITTINGS FOR X & Y ARE PROVIDED AS SPECIFIED ON "006".				

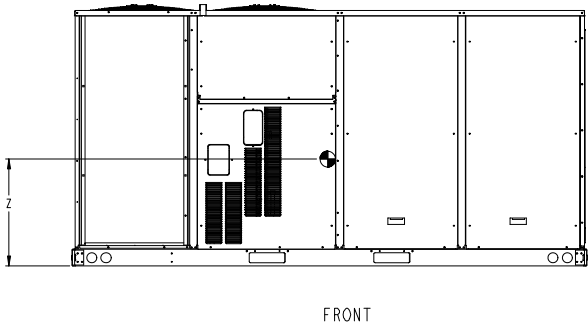
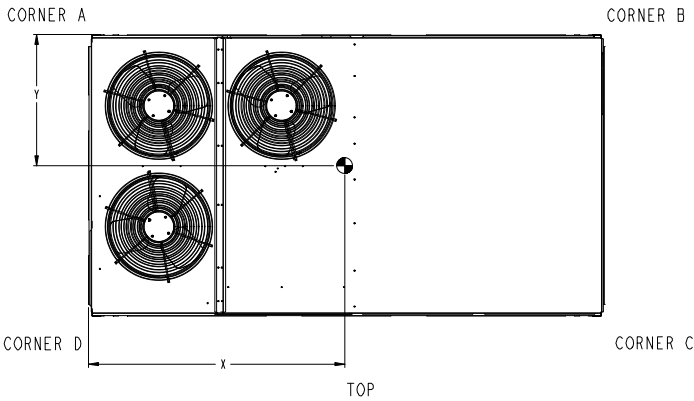



DATE	SUPERCEDES	50TC 16 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	50TM501218	REV
08/24/10	-			A

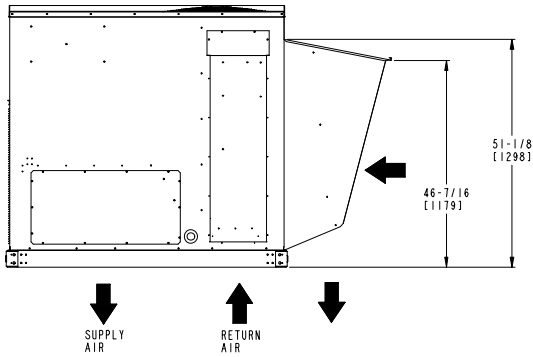
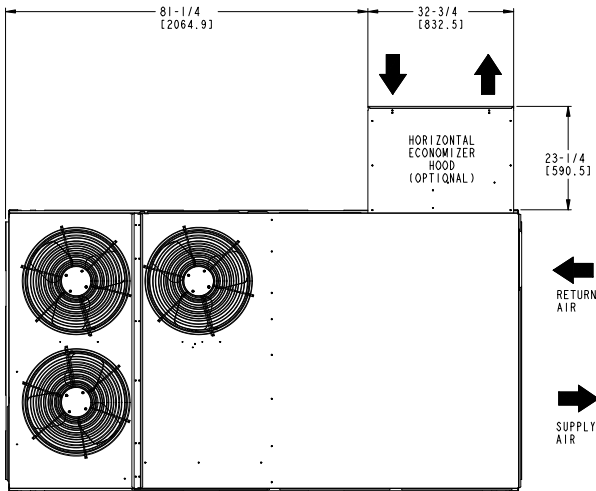
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UNIT	STD UNIT WEIGHT		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z
50TC 16	1305	593	268	122	325	148	389	177	322	146	58 1/2 [1486]	32 [813]	21 [533]

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



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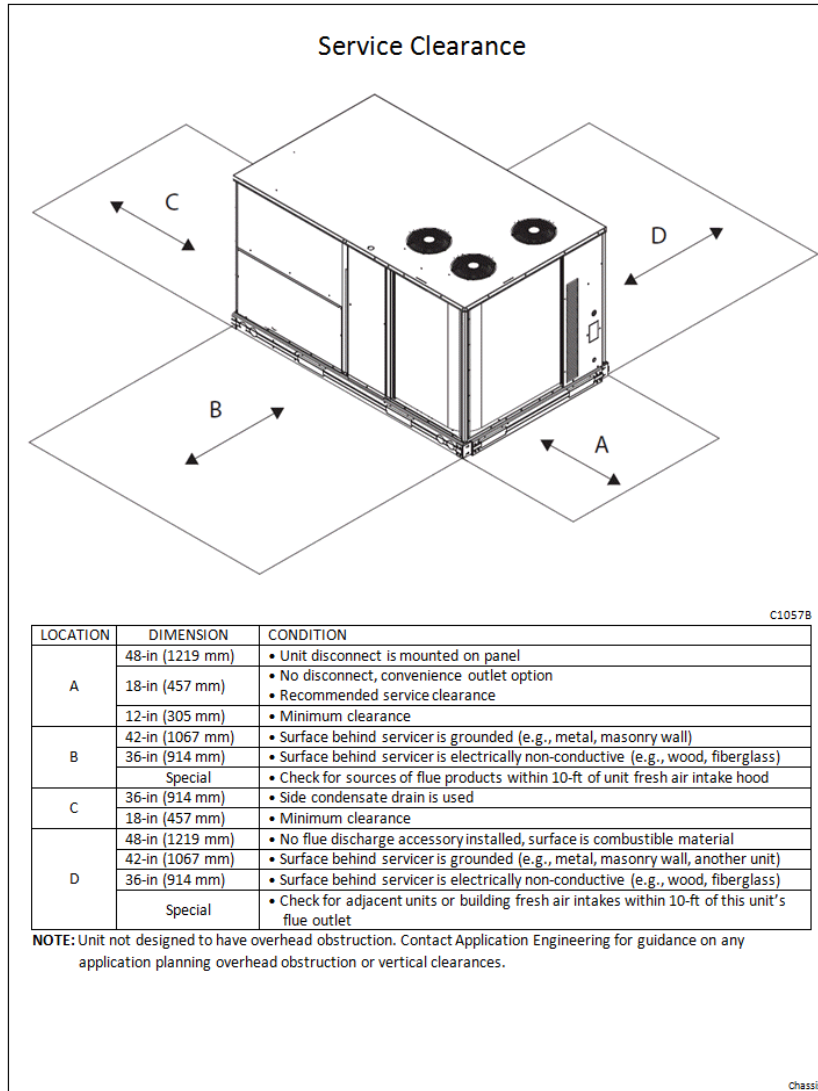


DATE	SUPERCEDES	50TC 16 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	50TM501218	REV
05/21/12	-			B

Certified Drawing for 50TC-D16A2A6-0A0G0

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Performance Summary For 50TC-D16A2A6-0A0G0

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11/22/2019
04:09PM

Part Number:50TC-D16A2A6-0A0G0

ARI EER: 11.00
IEER: 12.6

Base Unit Dimensions

Unit Length: 115.9 in
Unit Width: 63.4 in
Unit Height: 57.4 in

Operating Weight

Base Unit Weight: 1305 lb
Medium Static Option (Belt Drive): 45 lb
2-Speed Indoor Fan (VFD) Controller: 20 lb

Total Operating Weight: 1370 lb

Unit

Unit Voltage-Phase-Hertz: 460-3-60
Air Discharge: Vertical
Fan Drive Type: Belt
Actual Airflow: 6000 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: 58.9 F
Evaporator Leaving Air WB: 57.3 F
Evaporator Leaving Air Enthalpy: 24.59 BTU/lb
Gross Cooling Capacity: 184.78 MBH
Gross Sensible Capacity: 137.04 MBH
Compressor Power Input: 13.64 kW
Coil Bypass Factor: 0.198

Supply Fan

External Static Pressure: 0.50 in wg
Fan RPM: 596
Fan Power: 2.01 BHP
NOTE: The Selected Indoor Fan Motor requires a Field-Supplied Drive (RPM Range: 627 - 851).

Electrical Data

Voltage Range: 414 - 506
Compressor #1 RLA: 12.2
Compressor #1 LRA: 100
Compressor #2 RLA: 12.8
Compressor #2 LRA: 100
Indoor Fan Motor Type: MED
Indoor Fan Motor FLA: 5.3
Power Supply MCA: 38
Power Supply MOCP (Fuse or HACR): 50
Disconnect Size FLA: 39
Disconnect Size LRA: 247
Electrical Convenience Outlet: None
Outdoor Fan [Qty / FLA (ea)]: 3 / 0.8

Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Performance Summary For 50TC-D16A2A6-0A0G0

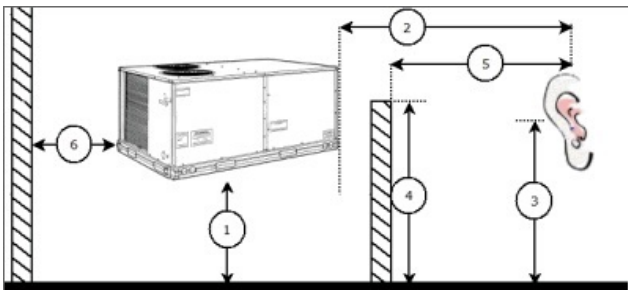
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Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	88.7	86.3	87.0
125 Hz	88.5	78.6	85.2
250 Hz	72.0	64.8	84.6
500 Hz	77.3	67.5	84.9
1000 Hz	74.8	66.4	82.2
2000 Hz	72.3	61.1	78.4
4000 Hz	73.9	57.6	75.3
8000 Hz	66.0	49.8	72.9
A-Weighted	81.3	71.1	87.0

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	87.0	85.2	84.6	84.9	82.2	78.4	75.3	72.9	92.4 Lw
B	60.8	69.1	76.0	81.7	82.2	79.6	76.3	71.8	87.1 LwA
C	54.6	52.8	52.2	52.5	49.8	46.0	42.9	40.5	60.0 Lp
D	28.4	36.7	43.6	49.3	49.8	47.2	43.9	39.4	54.7 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

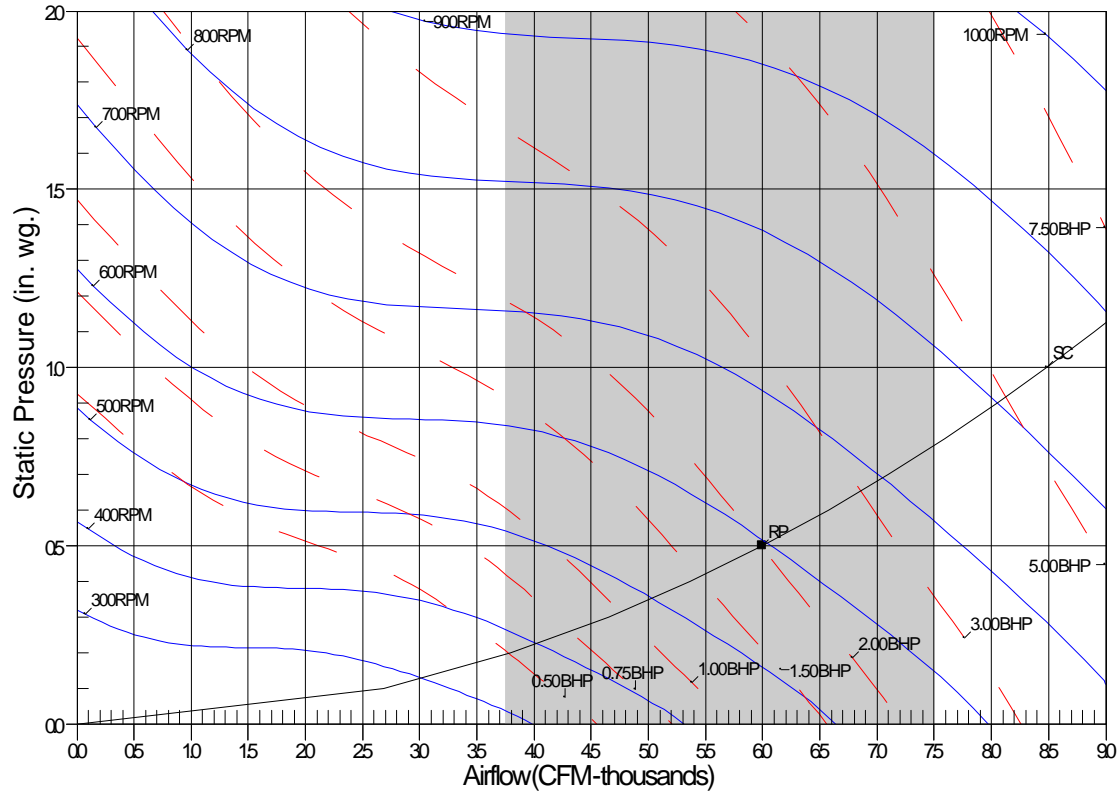
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Acoustical Engineer or a person with sound prediction expertise should be consulted.

Fan Curve



RPM=596 BHP=2.01 Maximum RPM=1100 Maximum BHP=6.10
Note: Please contact application engineering for selections outside the shaded region.
SC-System Curve RP-Rated Point