



Catalog 214-15

**RoofPak®
Applied Rooftop Systems**

Heating & Cooling
Models RCS/RDT/RFS/RPS
15 to 140 Tons
R-410A Refrigerant

2016
120 Tons

Model #: RPS120DSAS5
Serial #: FBOU160801799



L: 41' 7"
W: 8' 3"
H: 8' 1"

Shipping Weight: 10,087 lbs

A New Standard in Rooftop Flexibility

- 15 through 140 tons with the flexibility to provide 120 to 600 cfm/ton
- 100% make-up air, dehumidification, VAV or CV operation
- Modular construction and customized application flexibility
- Multiple fan, coil, filter and heat selections, and high efficiency compressor combinations
- Factory integrated and commissioned MicroTech® III advanced DDC control system
- Daikin's innovative Open Choices™ feature provides building automation system interoperability with BACnet® and LonWorks® communications capability
- Unit controllers are LonMark® 3.4 certified with an optional LonWorks communication module
- Durable, double wall construction with access doors on both sides of each section
- Blow-through configuration for high sensible cooling and quiet operation
- Draw-through configuration for high latent cooling or high humidity applications
- Modulating hot gas reheat for superior dehumidification
- DesignFlow™ ventilation control maintains proper amounts of outdoor air
- SuperMod™ furnace provides superior turndown and comfort control
- Return fans allow superior building pressure control
- Final filters for hospitals, labs or clean rooms
- Energy recovery (see catalog [CAT 220](#))
- Evaporative condenser (see catalog [CAT 219](#))
- Quiet condensing unit option
- Premium efficiency options
- All offered in a fully tested, factory packaged unit

Agency Listed



RPS120DSAS5

RCS / R DT / RFS / R P S 070 D L A 2 S 5 0

Nomenclature

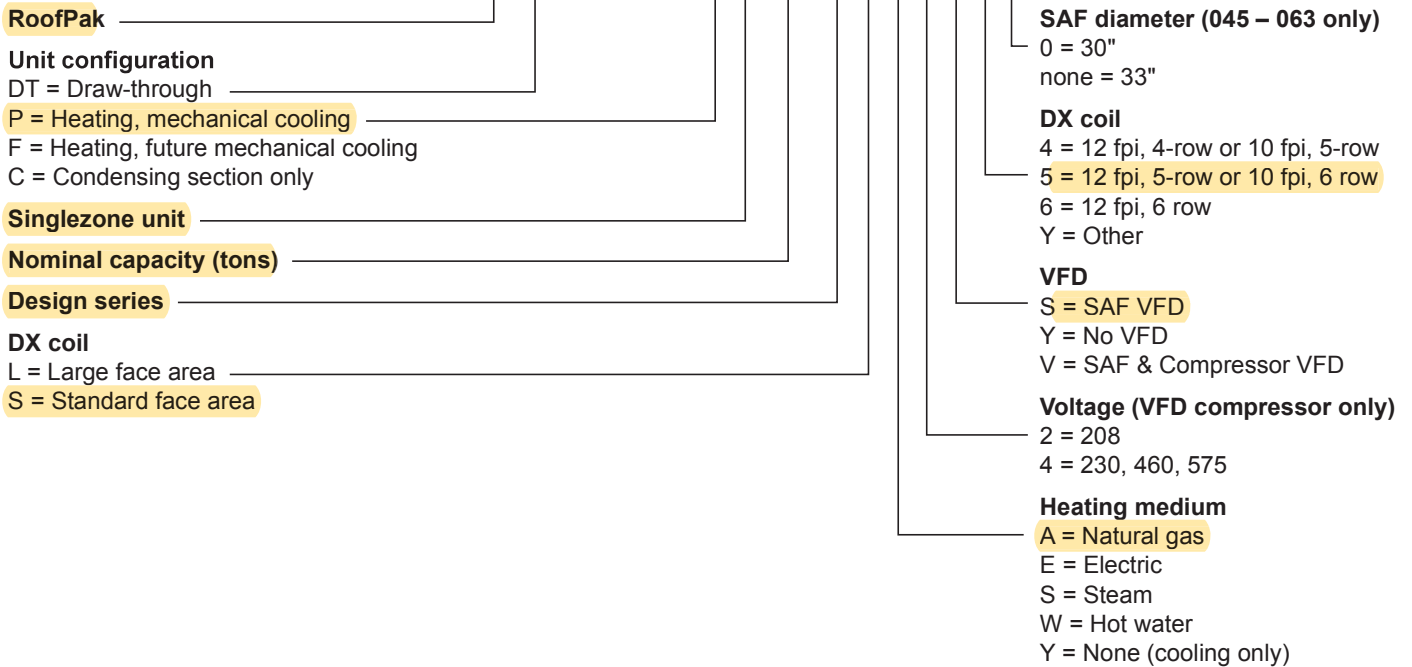


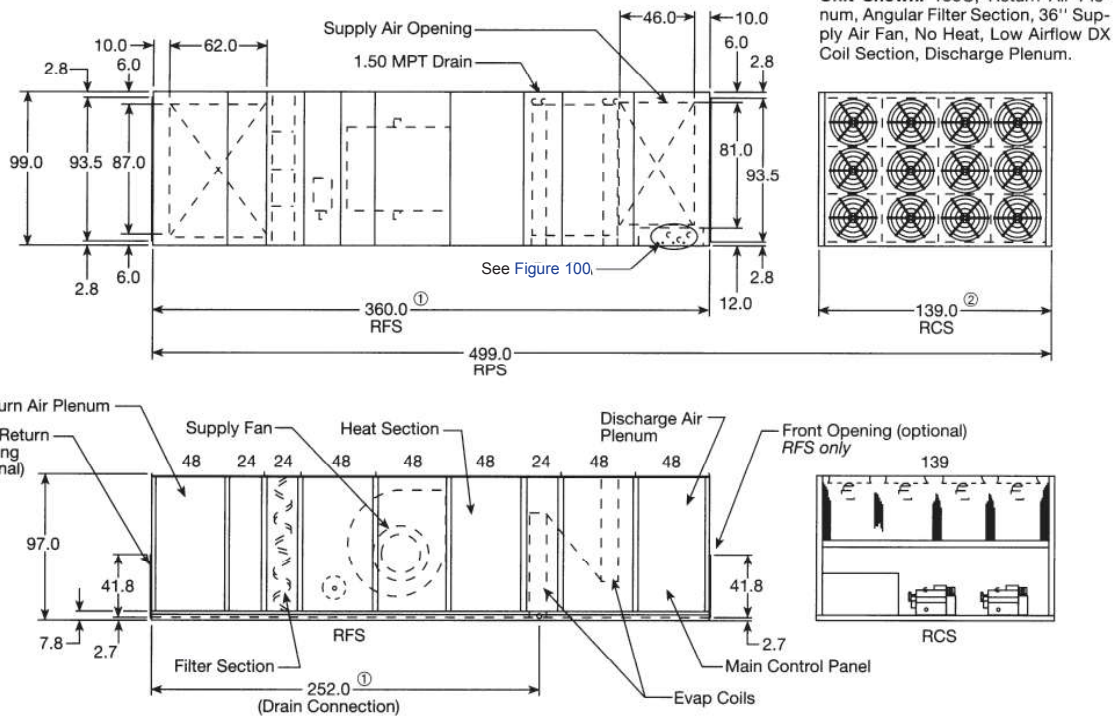
Table 11: Physical Data, Sizes 110D to 140D

Data		Unit size				
		110D	120D	125D	130D	140D
Compressor	Quantity—hp	6—15	3—15 3—20	6—20	6—20	3—20 3—25
	Std. capacity control	100-84-67-50-33-17-0	100-83-67-49-33-16-0	100-84-67-50-33-17-0		100-83-67-49-33-16-0
Condenser fans	Qty—diameter (in)	8—26	9—26	10—26	12—26	12—26
Condenser fan motors	Qty—hp	8—1.0	9—1.0	10—1.0	12—1.0	12—1.0
Supply fans	Type	DWDI airfoil				
	Qty—diameter (in)	1—36, 40	1—36, 40	1—36, 40	1—36, 40	1—36, 40
	Motor hp range	5—75	5—75	5—75	5—75	5—75
RDT supply fan	Type	SWSI airfoil				
	Qty—diameter (in)	1—44, 49				
	Motor hp range	5—75				
Return fans	Type	SWSI airfoil				
	Qty—diameter (in)	1—44.5	1—44.5	1—44.5	1—44.5	1—44.5
	Motor hp range	5—60	5—60	5—60	5—60	5—60
Exhaust fans	Type	Propeller				
	Diameter (in)	36	36	36	36	36
	Quantity	1—3 per unit	1—3 per unit	1—3 per unit	1—3 per unit	1—3 per unit
	Motor hp	5 each	5 each	5 each	5 each	5 each
Evaporator coils	Standard F.A. (sq ft)	60.8	60.8	—	—	—
	Large F.A. (sq ft)	76.0	76.0	76.0	76.0	76.0
Hot water coils	Type—rows	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2	5WH—1 5WS—2
	FPI	9	9	9	9	9
	Face area (sq ft)	42.2	42.2	42.2	42.2	42.2
	Type—rows	5JA—1, 2	5JA—1, 2	5JA—1, 2	5JA—1, 2	5JA—1, 2
Steam coils	FPI	6, 12	6, 12	6, 12	6, 12	6, 12
	Face area (sq ft)	42.2	42.2	42.2	42.2	42.2
	Input (MBh)	625, 800, 812, 988, 1000, 1250, 1375, 1750, 1875, 2500				
Gas furnace	Nom. output (MBh)	500, 640, 650, 790, 800, 1000, 1100, 1400, 1500, 2000				
Electric heat	Nom. output (kW)	80, 100, 120, 160, 200, 240, 280, 320				
Panel filters	Type	85% or 30% pleated				
	Area (sq ft)	116.1	116.1	116.1	116.1	116.1
	Qty—size (in)	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2	11—16×20×2 33—16×25×2
Prefilters (for cartridge filters)	Type	Prefilter, standard flow		Prefilter, medium flow		
	Area (sq ft)	64.0	64.0	64.0	64.0	64.0
	Qty—size (in)	16—24×24×2	16—24×24×2	16—24×24×2	16—24×24×2	16—24×24×2
	Type	Prefilter, medium flow		Prefilter, high flow		
	Area (sq ft)	80.0	80.0	80.0	80.0	80.0
	Qty—size (in)	8—12×24×2 16—24×24×2	8—12×24×2 16—24×24×2	8—12×24×2 16—24×24×2	8—12×24×2 16—24×24×2	8—12×24×2 16—24×24×2
Cartridge filters	Type	65% or 95% standard flow		65% or 95% medium flow		
	Area (sq ft)	64.0	64.0	64.0	64.0	64.0
	Qty—size (in)	16—24×24×12	16—24×24×12	16—24×24×12	16—24×24×12	16—24×24×12
	Type	65% or 95% medium flow		65% or 95% high flow		
	Area (sq ft)	80.0	80.0	80.0	80.0	80.0
	Qty—size (in)	8—12×24×12 16—24×24×12	8—12×24×12 16—24×24×12	8—12×24×12 16—24×24×12	8—12×24×12 16—24×24×12	8—12×24×12 16—24×24×12

a. Gas furnace size availability is limited by minimum airflow, See Table 12 on page 47.

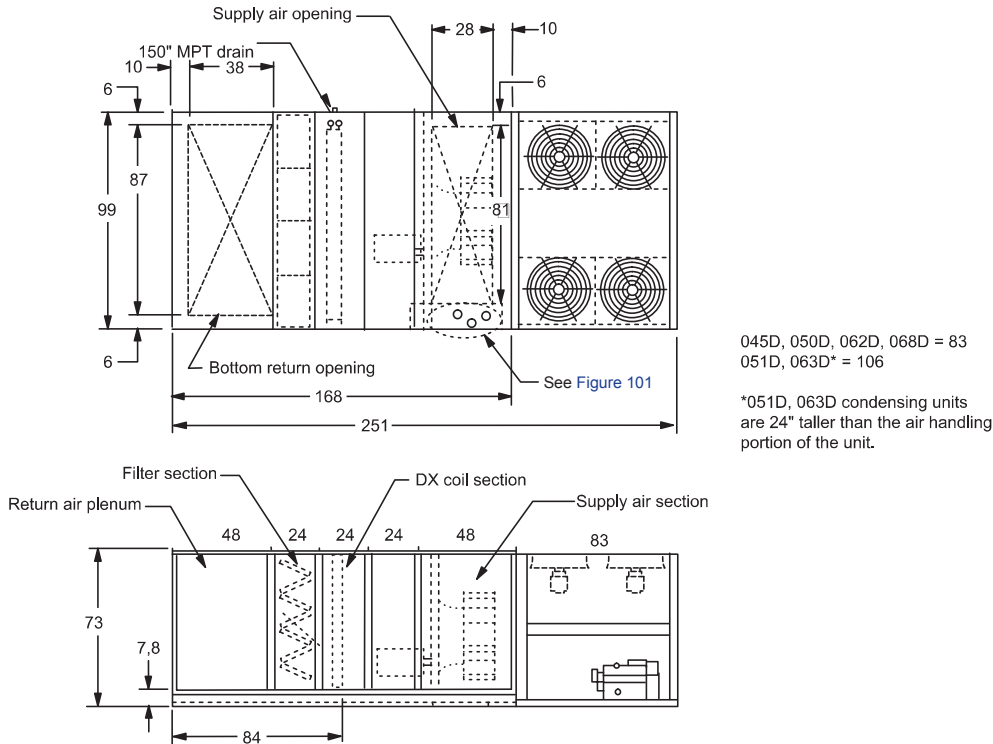
b. 460-volt capacities are shown. Electric heat availability is limited by minimum airflow, See Table 15 through Table 17.

Figure 95: RPS/RFS/RCS 110D to 140D



1. Unit length varies depending on the configuration (sections and options ordered). See Figure 88 through Figure 90 for air handler section lengths.
2. Figures illustrate an RFS/RCS configuration. An RPS is a single piece.

Figure 96: RDT 045D to 068D



1. Unit length varies depending on the configuration (sections and options ordered). See Figure 88 through Figure 90 for air handler section lengths.
2. Figures illustrate an RFS/RCS configuration. An RPS is a single piece.

Base Unit Weights

Table 46: Base Unit Weights (Less Options)

Unit Size	Unit Weight (lbs)				
	RCS	RFS	RDT	RPS	RPS ^a
045D/045D ^a	2455	3779	5420	6159	6226
050D/050D ^a , 051D ^a	2511/3315	3779	5469/6239	6215/6985	6336/7106
061D/063D ^a	2671/3441	3779	5581/6347	6342/7108	7207
068D	2575	3779	5592	6354	6354
070D/071D	3307/4000	3849	6297/7000	7156/7860	—
074D ^a	—	3849	6368	7236	8647
075D	3387	3849	6368	7236	7236
080D/081D	3603/4171	4682	6697/7266	8097/8666	8097/8666
085D	3615	4682	6716	8116	8116
090D/091D	3708/4278	4682	6816/7386	8216/8786	8216/8786
100D/101D	3764/4334	4974	7178/7738	8578/9158	8578/9158
105D	3726	4974	7147	8547	8547
110D	4277	4974	7706	9106	9106
120D	4858	5361	8687	10,087	10,087
125D	5439	5361	9275	10,675	10,675
130D	5532	5361	9275	10,675	10,675
140D	5619	5361	9476	10876	10876

a - Base unit with inverter compressor

Fan Motor Weights

Table 47: Supply, Exhaust and Return Fan Motors (All Size Units)

Motor HP	Weight (lbs)	
	Open Drip-Proof	Totally Enclosed
1	39	40
1.5	48	49
2	48	49
3	71	72
5	82	85
7.5	124	140
10	144	170
15	185	235
20	214	300
25	266	330
30	310	390
40	404	510
50	452	570
60	620	850
75	680	910

Option Weights

Table 48: RPS/RFS/RCS/RDT 050D to 140D (lbs)

Options	Unit Size		
	050D—079D	080D—091D	100D—140D
Outdoor/Return Air Options			
Return air plenum	Included in basic unit weight		
0%–30% O A hood	222	262	262
Economizer	1065	1266	1266
100% O A hood (deduct)	(139)	(71)	(71)
Blender Assembly			
Blender (low cfm) ^a	628	632	632
Blender (height cfm) ^a	632	731	731
Filter Options—Draw-Thru Section			
30% pleated	4	6	6
65% cartridge — std. flow	57	69	—
Med. flow	538	589	589
High flow	—	—	1100
95% cartridge — std. flow	67	83	—
Med. flow	550	605	605
High flow	—	—	1120
Filter Options—Blow-Thru Section (Final Filters)b			
95% cartridge — std. flow	1083	1296	—
Med. flow	1509	1760	1760
High flow	—	—	2275
Supply Air Fan Assembly			
27" diameter forward curved — LP	919	—	—
27" diameter forward curved — MP	942	—	—
27" diameter airfoil	868	—	—
30" diameter airfoil	965	—	—
33" diameter airfoil	—	989	—
36" diameter airfoil	—	1719	1719
40" diameter airfoil	—	—	1728
Return Air Fan Assembly			
40" diameter airfoil	629	—	—
44" diameter airfoil	—	971	971
Condenser Coil Options			
Copper fins	435	649	724
Coil guards	15	23	32
Evaporator Coils—Aluminum Fins, Standard Airflow Face Area			
3-row, 8 Fpi	370	487	792
3-row, 10 Fpi	395	520	830
3-row, 12 Fpi	419	553	867
4-row, 8 Fpi	445	588	905
4-row, 10 Fpi	478	632	955
4-row, 12 Fpi	510	676	1005
5-row, 8 Fpi	518	689	1022
5-row, 10 Fpi	559	744	1085
5-row, 12 Fpi	600	799	1147

a. Does not include the required 4' blank section weight

b. Final filter option includes liners in final filter and discharge plenum sectors.