Product Catalog

Precedent™ Packaged Rooftop Units

Standard and High Efficiency Heat Pumps
3 to 25 Tons — 60 Hz

December 2024

PKGP-PRC023B-EN

RTU-1.6 RTU-1.5
RTU-2.5 RTU-2.2
RTU-2.6 RTU-2.4
RTU-2.3
RTU-1.4
RTU-1.1
RTU-1.2
RTU-2.1

Table 7. General data — high efficiency — heat pump

	3 Tons	4 Tons	5 Tons	6 Tons	7.5 Tons	8.5 Tons	10 Tons	12.5 Tons	15 Tons	17.5 Tons	20 Tons	25 Tons
	WHK036	WHK048	WHK060	WHK072	WHK090	WHK102	WHK120	WHK150	WHK180	WHK210	WHK240	WHK300
Cooling Performance[a]												
Gross Cooling Capacity	36700	50000	61300	77000	90000	108000	121000	152000	181000	210000	245000	266000
EER[b] / EER2[c]	13.6/12.8	13.6/12.8	13.6/12.8	12.8	12.0	12.1	11.4	12.1	11.7	11.3	10.9	10.1
Nominal cfm/AHRI Rated cfm	1200/1200	1600/1600	2000/2000	2400/2400	3000/3000	3400/3400	4000/4000	5000/5000	6000/5250	7000/7000	8000/8000	10000/8750
AHRI Net Cooling Capacity	36000	49000	60000	76000	88000	106000	118000	150000	178000	206000	240000	260000
IEER[d] (2-Speed) / SEER[b]/ SEER2[c]	16.8/16.2	16.8/16.2	16.4/15.8	16.3	15.5	17.0	16.1	16.8	16.8	16.2	16.4	15.5
IEER (SZVAV/MZVAV)	—	—	—	16.8/16.8	16.0/16.0	17.5/17.5	16.6/16.6	17.2/17.2	17.3/17.3	16.7/16.7	16.9/16.9	16.0/16.0
System Power (kW)	2.81	3.83	4.69	5.94	7.33	8.76	10.35	12.4	15.21	18.23	22.02	25.74
Heating Performance[e]												
High Temp Btuh Rating	32400	43000	53500	68000	81000	97000	104000	133000	160000	190000	218000	238000
System Power (kW) / COP / COP2[f]	2.50/3.80/ 3.80	3.32/3.80/ 3.74	4.13/3.80/ 3.74	5.36/3.72	6.40/3.71	7.60/3.74	8.54/3.57	10.82/3.6	12.92/3.6	15.46/3.6	18.25/3.5	20.5/3.4
Low Temp Btuh Rating	19200	25600	33400	38000	45000	55000	63000	82000	96000	104000	122000	126000
System Power (kW) / COP / COP2[f]	2.32/2.46/ 2.42	3.10/2.46/ 2.42	3.98/2.46/ 2.46	4.95/2.25	5.86/2.25	7.16/2.25	8.20/2.25	10.63/2.26	12.45/2.26	13.85/2.2	15.89/2.25	18.01/2.05
HSPF[g] / HSPF2[h]	8.5/7.2	8.5/7.2	8.5/7.2	—	—	—	—	—	—	—	—	—
Compressor												
Number/Type	1/Scroll	1/Scroll	1/Scroll	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll
Percent Capacity (Stage 1 - Stage 4)	67/100	67/100	67/100	34/66/100	33/67/100	32/68/100	28/72/100	32/68/100	33/67/100	33/67/100	24/36/64/ 100	25/37/63/ 100
Sound												
Outdoor Sound Rating (dBA)	85	88	88	86	86	86	89	87	87	91	93	93
Outdoor Coil												
Type	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced
Configuration	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face
Tube Size (in.)	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313
Face Area (sq. ft.)	19.60	19.60	19.60	19.60	19.60	23.57	23.97	34.71	34.71	34.71	40.05	40.05
Rows/FPI (Fins per inch)	3/16	3/16	3/16	3/16	3/16	3/16	4/16	3/16	3/16	3/16	3/16	3/16
Refrigerant Control	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV

RTU-1.6 RTU-1.5
RTU-2.5 RTU-2.2
RTU-2.6 RTU-2.4
RTU-2.3
RTU-1.4
RTU-1.1
RTU-1.2
RTU-2.1

Table 7. General data — high efficiency — heat pump (continued)

	3 Tons	4 Tons	5 Tons	6 Tons	7.5 Tons	8.5 Tons	10 Tons	12.5 Tons	15 Tons	17.5 Tons	20 Tons	25 Tons
	WHK036	WHK048	WHK060	WHK072	WHK090	WHK102	WHK120	WHK150	WHK180	WHK210	WHK240	WHK300
Indoor Coil												
Type	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced
Configuration	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face
Tube Size (in.)	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313
Face Area (sq. ft.)	12.68	12.68	12.68	12.68	12.68	12.68	15.60	25.83	25.83	25.83	30.09	30.09
Rows/FPI (Fins per inch)	3/16	3/16	3/16	4/16	4/16	4/16	4/16	4/16	4/16	4/16	4/16	4/16
Refrigerant Control	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV	TXV
Drain Connection No./Size (in.) NPT	1/0.75	1/0.75	1/0.75	1/0.75	1/0.75	1/0.75	1/0.75	1/1.0	1/1.0	1/1.0	1/1.0	1/1.0
Reheat Coil												
Type	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced
Configuration	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face	Full Face
Tube Size (in.)	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313	0.313
Face Area (sq. ft.)	11.49	11.49	11.49	11.49	11.49	11.49	14.13	25.83	25.83	25.83	25.83	25.83
Rows/FPI (Fins per inch)	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16
Outdoor Fan												
Type	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	1/26	1/26	1/26	1/26	1/26	1/26	1/30	2/26	2/26	2/28	2/28	2/28
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1
CFM/ CFM-Modulating HGRH	3880	4790	4790	5900	7200	7200	8200	13450	13450	15810	15810	15810
Motor HP/ Motor HP Modulating HGRH	0.25/0.33	0.4/0.5	0.4/0.5	0.70/0.75	0.75	0.75	0.75 - 230V, 460V 1.0 - 575V	1.00	1.00	1.00	1.00	1.00
Motor RPM/Motor RPM Modulating HGRH	1120	1110	1110	1100	1100	1100	1100	1125	1125	1125	1125	1125
Indoor Fan												
Type	BC Plenum	BC Plenum	BC Plenum	BC Plenum	BC Plenum	BC Plenum	BC Plenum	BC Plenum	BC Plenum	BC Plenum	BC Plenum	BC Plenum
No. Used/Diameter (in.)/ Width (in.)	1/23x6	1/23x6	1/23x6	1/23x6	1/23x6	1/23x6	1/23x6	2/23x6	2/23x6	2/23x6	2/23x6	2/23x6
Drive Type/No. Speeds/RPM	Direct / Variable	Direct / Variable	Direct / Variable	Direct / Variable	Direct / Variable	Direct / Variable	Direct / Variable	Direct / Variable	Direct / Variable	Direct / Variable	Direct / Variable	Direct / Variable
Motor HP (Standard/ Oversized)	2.9 / -	2.9 / -	2.9 / -	2.9 / -	2.9 / -	2.9 / -	4.2/-	2.9 / –	2.9 / –	2.9 / –	2.9 / –	2.9 / 4.2
Max Motor RPM	1850	1850	1850	1850	1850	1850	1940	1850	1850	1850	1850	1850 / 1940

RTU-1.6 RTU-1.5
RTU-2.5 RTU-2.2
RTU-2.6 RTU-2.4
RTU-2.3
RTU-1.4
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RTU-1.2
RTU-2.1

Table 7. General data — high efficiency — heat pump (continued)

	3 Tons	4 Tons	5 Tons	6 Tons	7.5 Tons	8.5 Tons	10 Tons	12.5 Tons	15 Tons	17.5 Tons	20 Tons	25 Tons
	WHK036	WHK048	WHK060	WHK072	WHK090	WHK102	WHK120	WHK150	WHK180	WHK210	WHK240	WHK300
Filters[i]												
Type Furnished	Throwaway	Throwaway	Throwaway	Throwaway	Throwaway	Throwaway	Throwaway	Throwaway	Throwaway	Throwaway	Throwaway	Throwaway
Number Size Recommended	(2) 18x24x2 (3) 24x16x2	(2) 18x24x2 (3) 24x16x2	(2) 18x24x2 (3) 24x16x2	(2) 18x24x2 (3) 24x16x2	(2) 18x24x2 (3) 24x16x2	(2) 18x24x2 (3) 24x16x2	(2) 18x24x2 (3) 24x16x2	(8) 20x24x2	(8) 20x24x2	(8) 20x24x2	(8) 20x24x2	(8) 20x24x2
Refrigerant Charge												
lbs of R-454B	12.0	13.0	13.0	15.2	15.5	16.5	21.5	31.5	32.0	31.0	38.0	35.0
lbs of R-454B, Hot Gas Reheat	12.7	13.7	13.7	16.8	17.0	18.0	24.9	35.0	33.0	33.0	42.0	36.0
Cabinet												
Cabinet Size	B0	B0	B0	B0	B0	B0	C0	D0	D0	D0	D1	D1

(a) The 3 to 5 ton cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

(b) SEER shown for 3 to 5 ton units only. 3 to 5T EER and SEER are rated at AHRI conditions and calculated in accordance with AHRI Standard 210/240-2017. Airflow and net cooling capacity not shown.

(c) EER2 and SEER2 shown for 3 to 5 ton units only. EER2 and SEER2 are rated at AHRI conditions and certified in accordance with AHRI Standard 210/240-2023.

(d) IEER shown for 6 to 25 ton units only.

(e) The 3 to 5 ton heating performance is rated at 47°F ambient with 43°F wet bulb, 70°F entering dry bulb, 60°F entering wet bulb. High temp Btuh rating includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

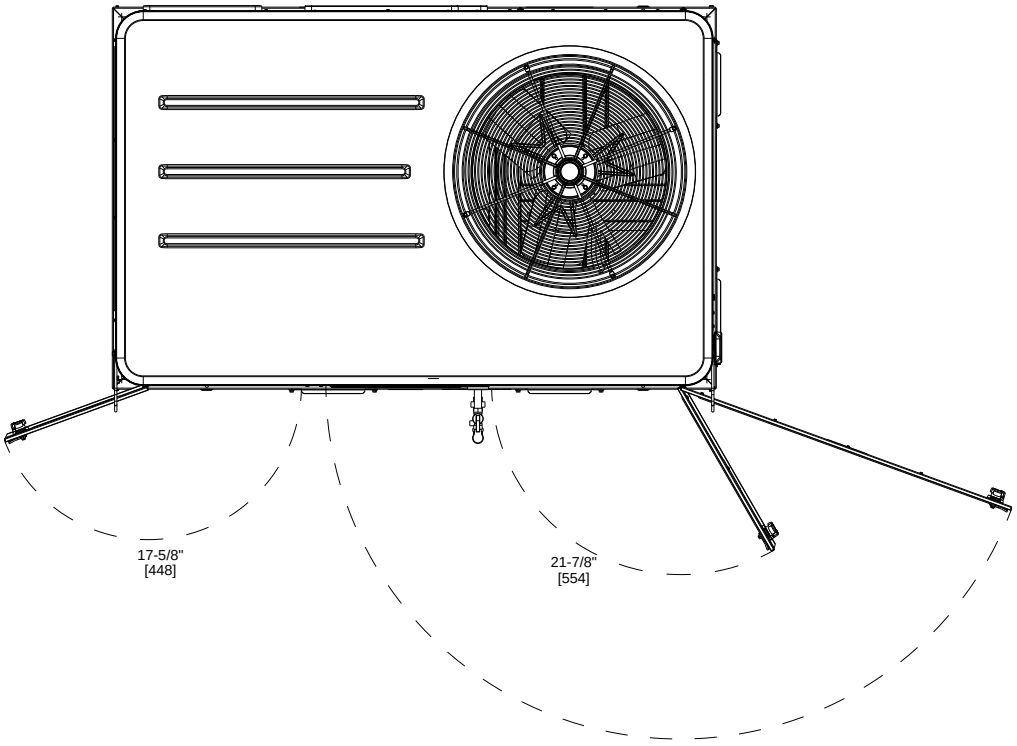
(f) COP2 shown for 3 to 5 ton units only.

(g) HSPF is rated at AHRI conditions and calculated in accordance with AHRI Standard 210/240-2017. Airflow and heating capacities not shown.

(h) HSPF2 is rated at AHRI conditions and certified in accordance with AHRI Standard 210/240-2023.

(i) Outdoor sound rating shown is tested in accordance with AHRI 370-2015. For additional information reference the outdoor sound power level data in the performance section.

Figure 20. A.0 cabinet – swing diameter for hinged door(s) option



RTU-1.5,1.6,2.2,2.4,2.5,2.6

Figure 21. B.0 cabinet

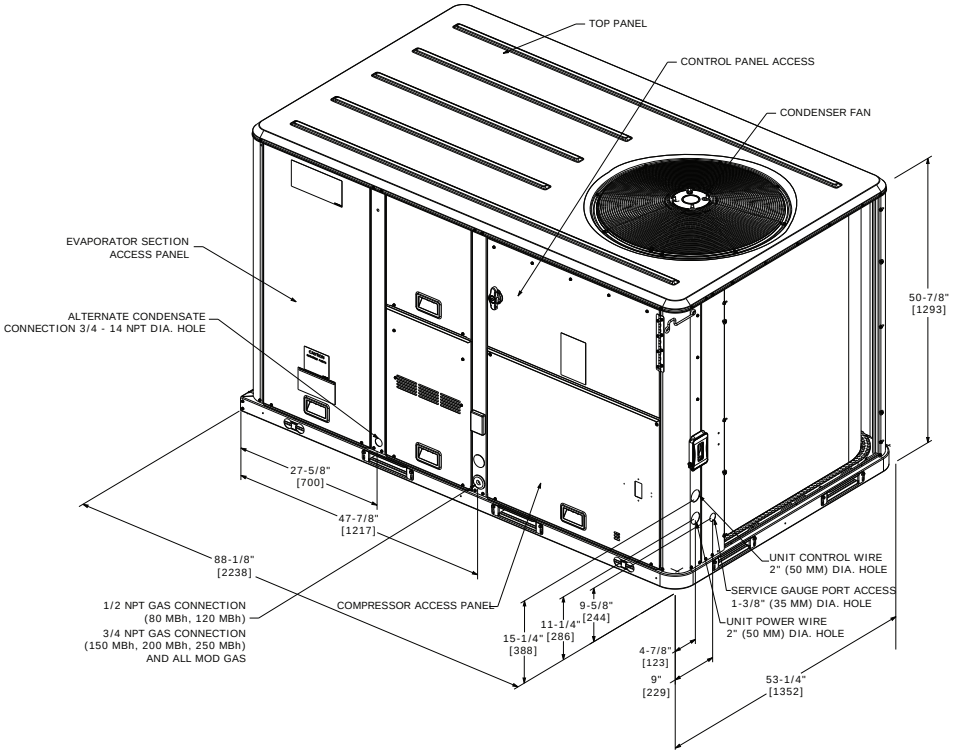


Figure 22. B.0 cabinet – downflow airflow supply/return, through-the-base utilities

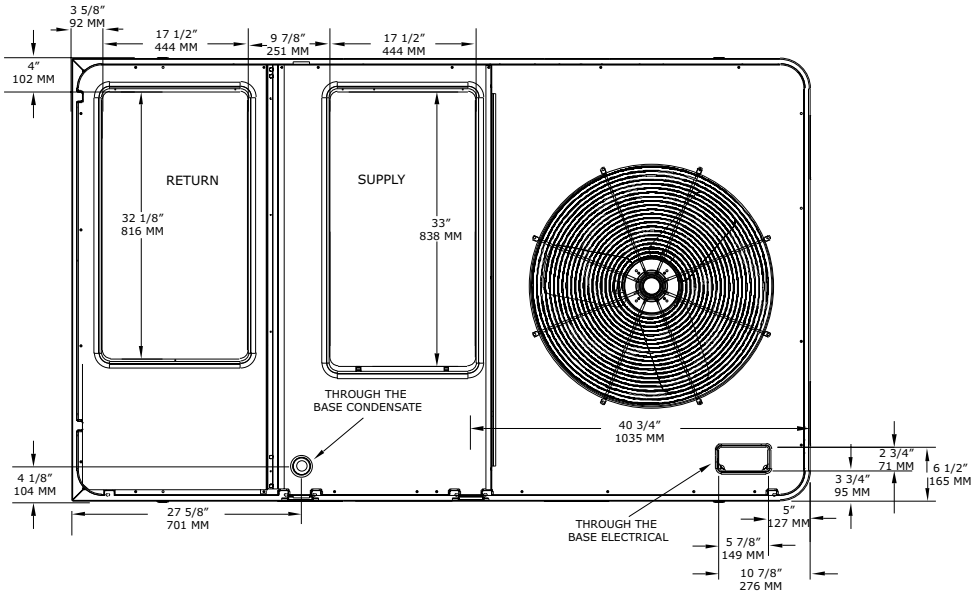


Figure 23. B.0 cabinet – horizontal airflow supply/return

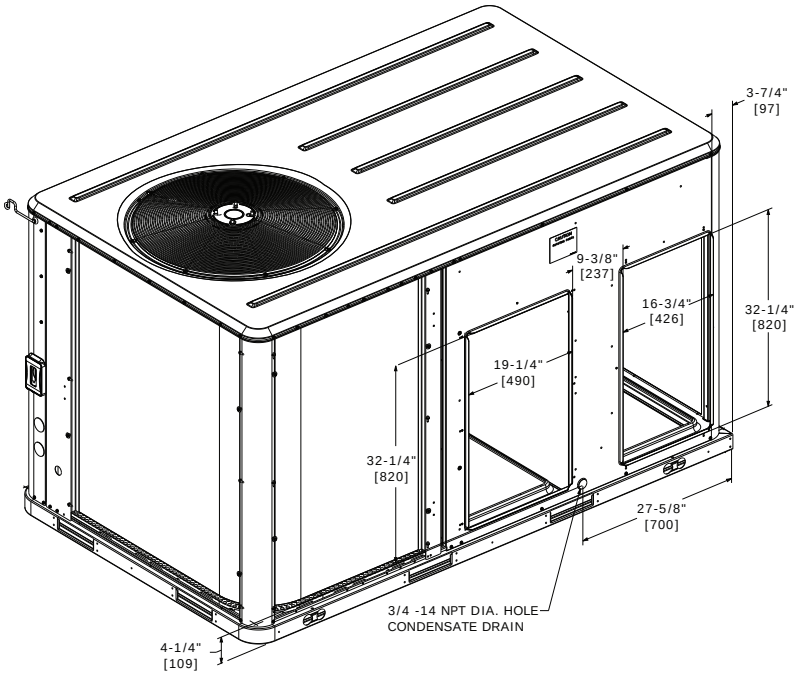


Figure 24. B.0 cabinet – unit clearance and roof opening

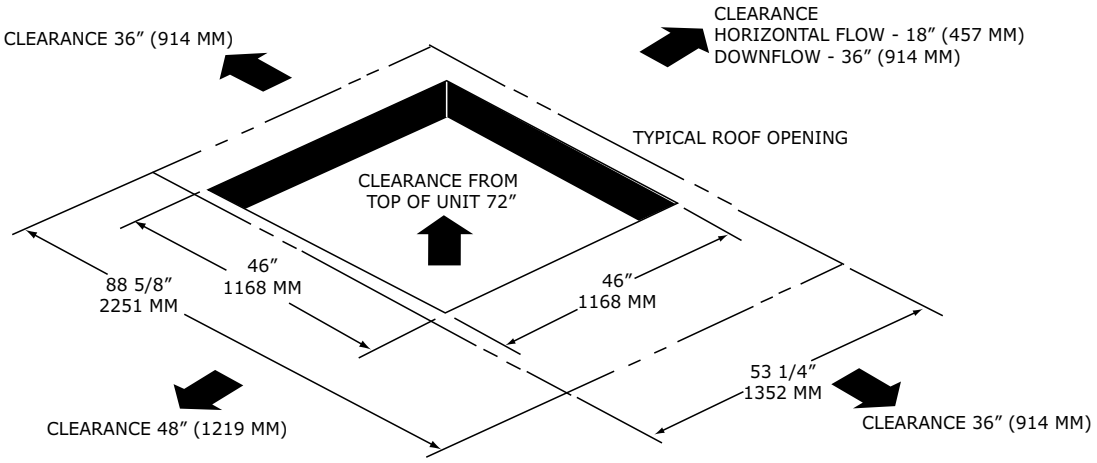


Figure 25. B.0 cabinet – roof curb

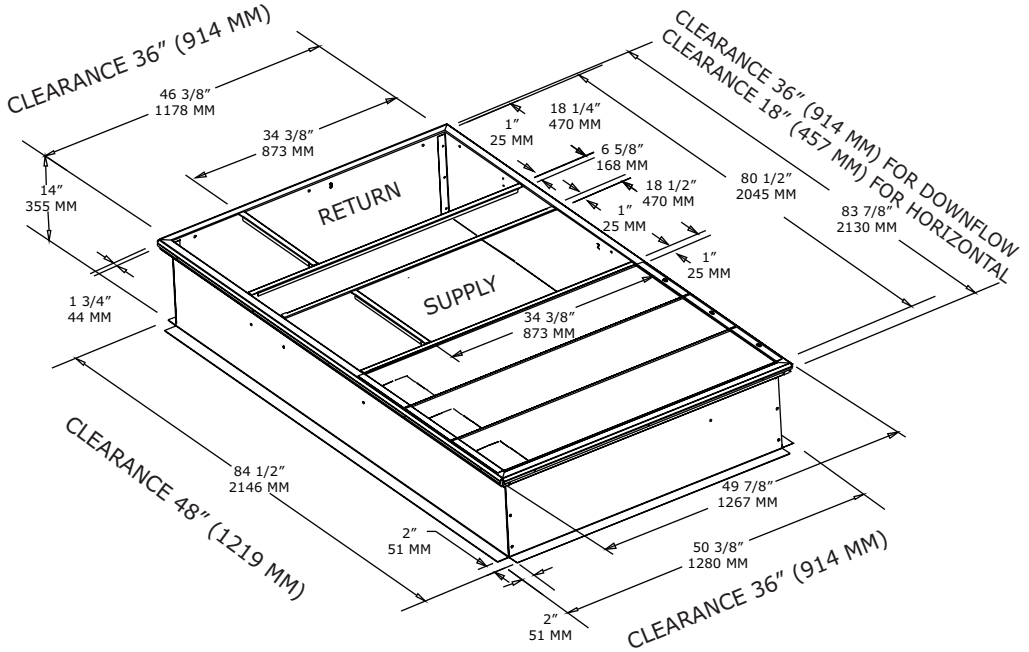


Figure 26. B.0 cabinet – downflow duct connections, field fabricated

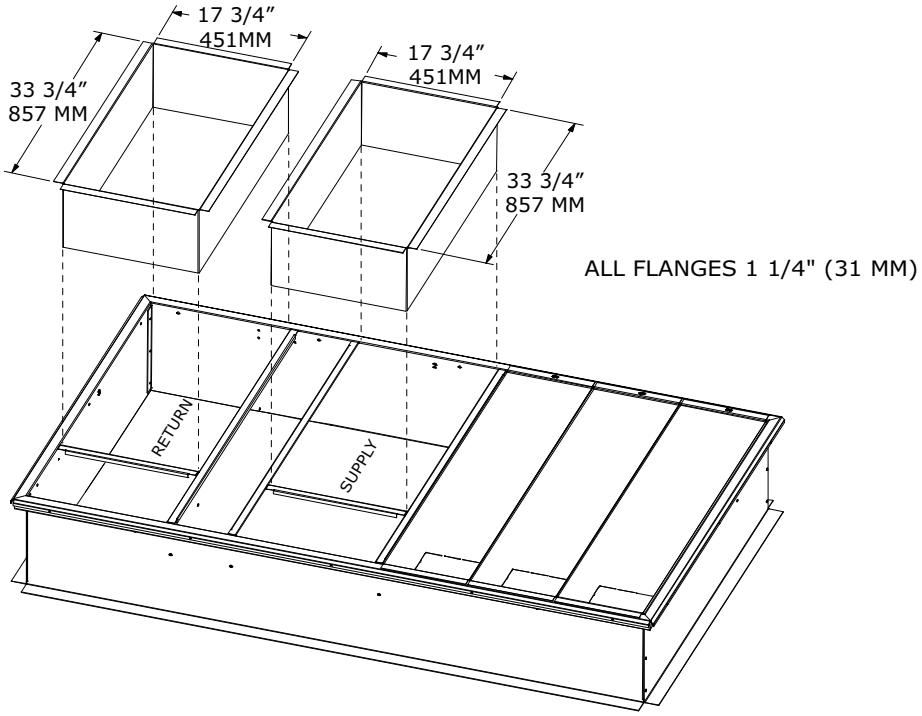


Figure 27. B.0 cabinet – swing diameter for hinged door(s) option

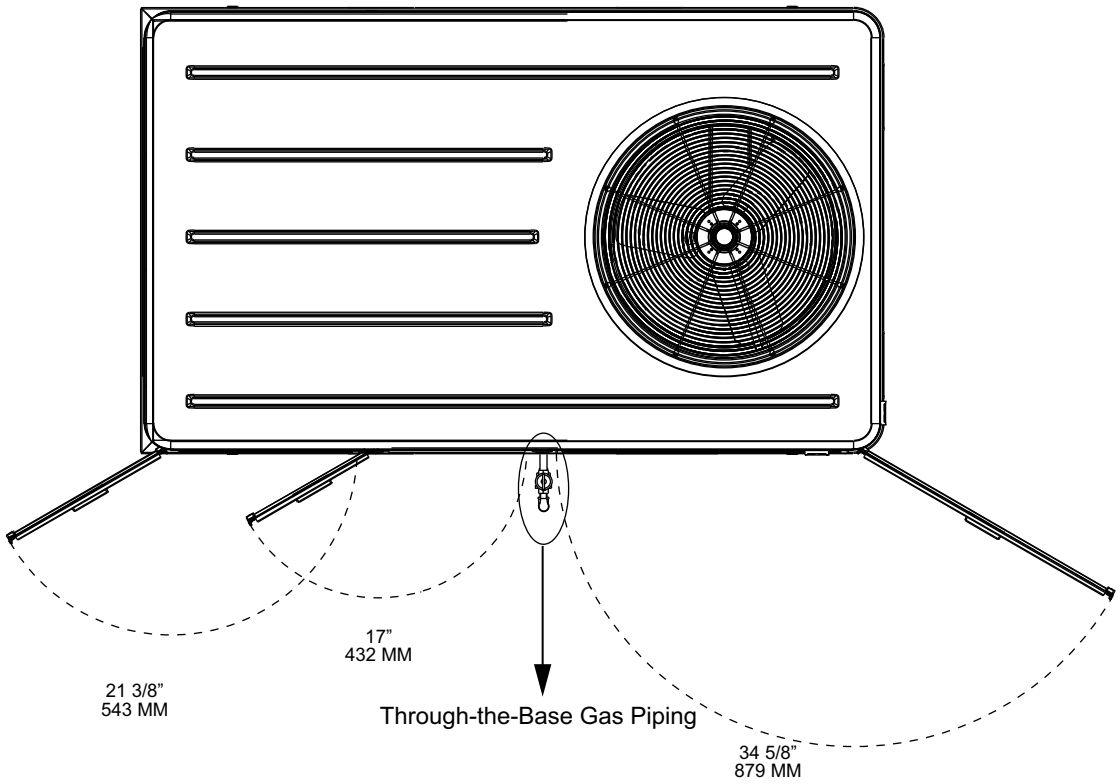


Figure 28. C.0 cabinet

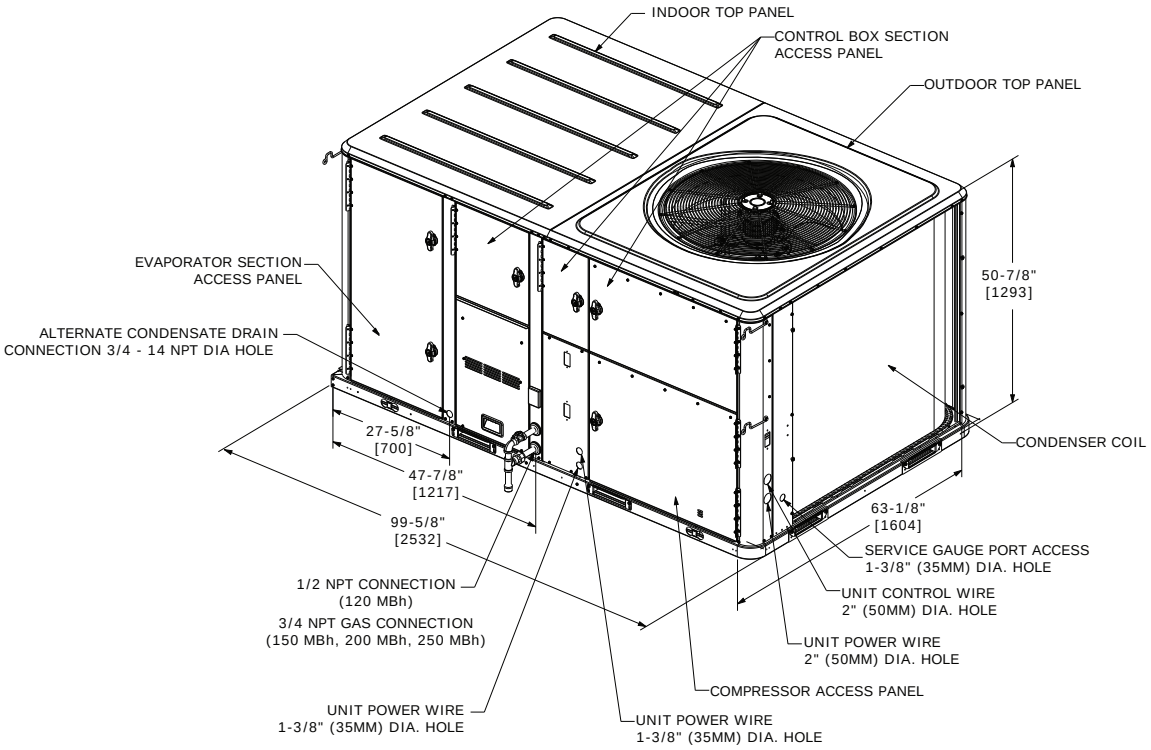


Figure 29. C.0 cabinet – downflow airflow supply/return, through-the-base utilities

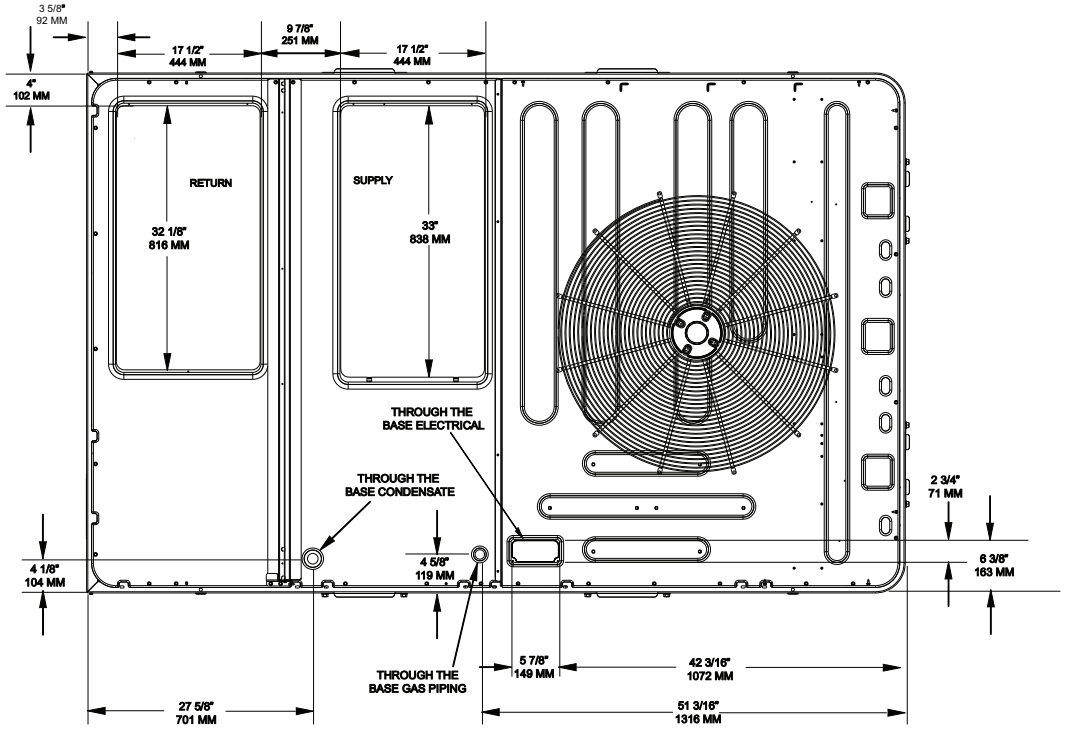


Figure 30. C.0 cabinet – horizontal airflow, supply and return

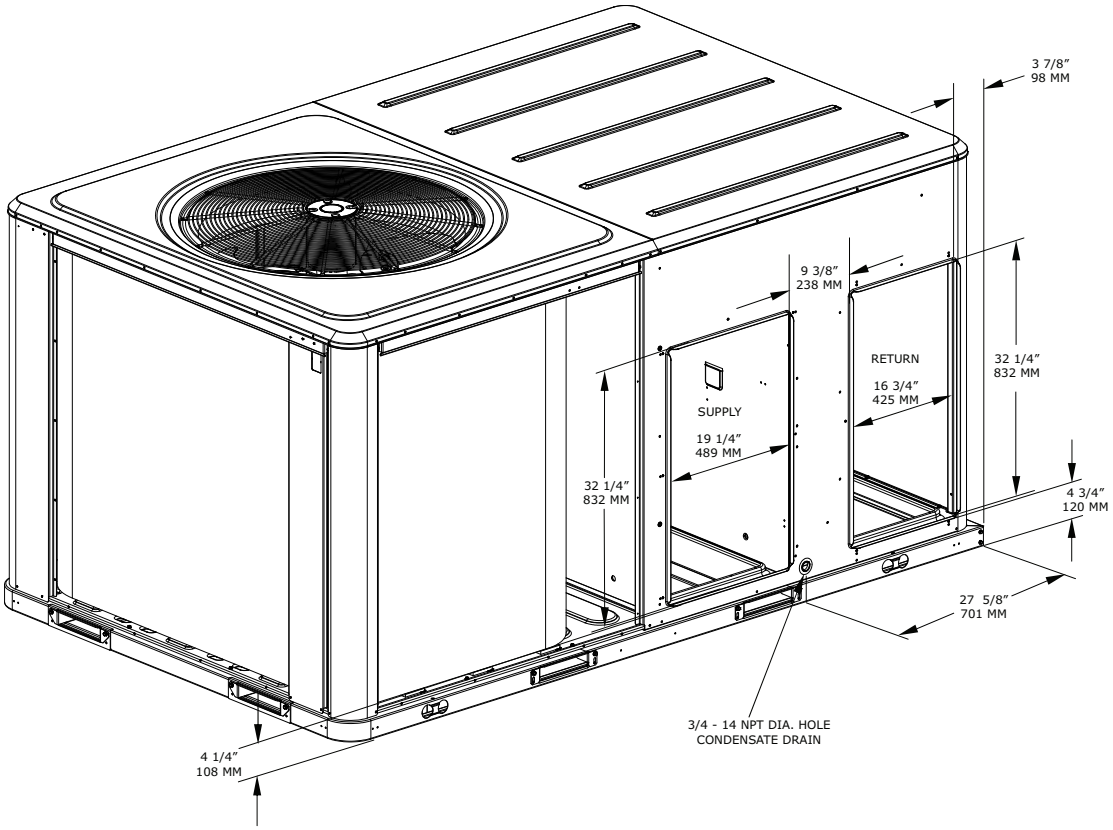


Figure 31. C.0 cabinet – unit clearance and roof opening

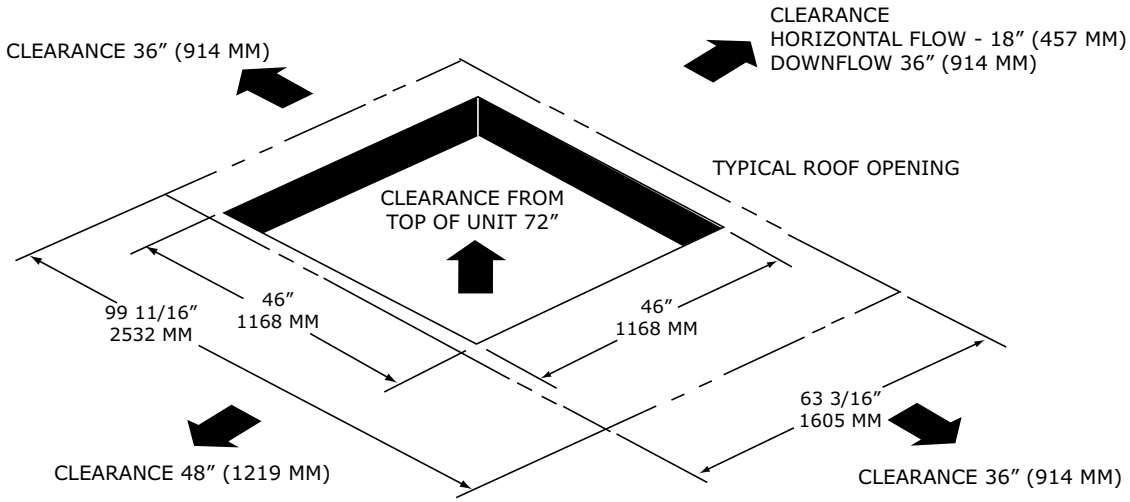


Figure 32. C.0 cabinet – roof curb

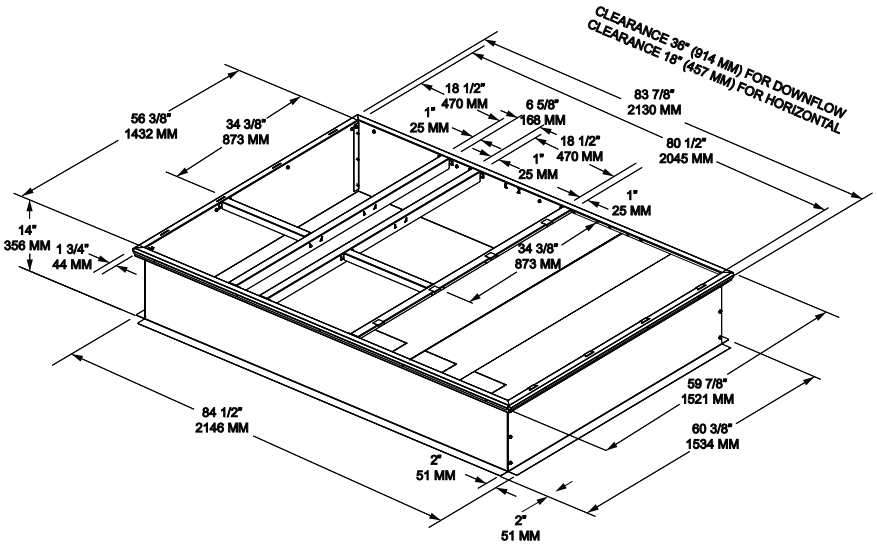


Figure 33. C.0 cabinet – swing diameter for hinged door(s) option

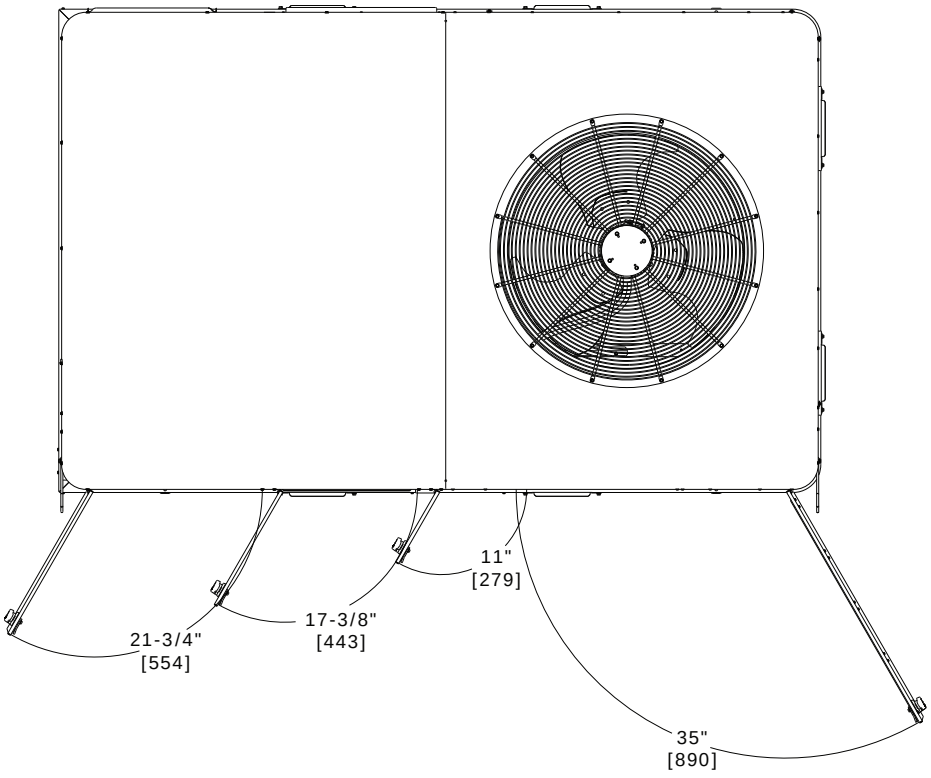
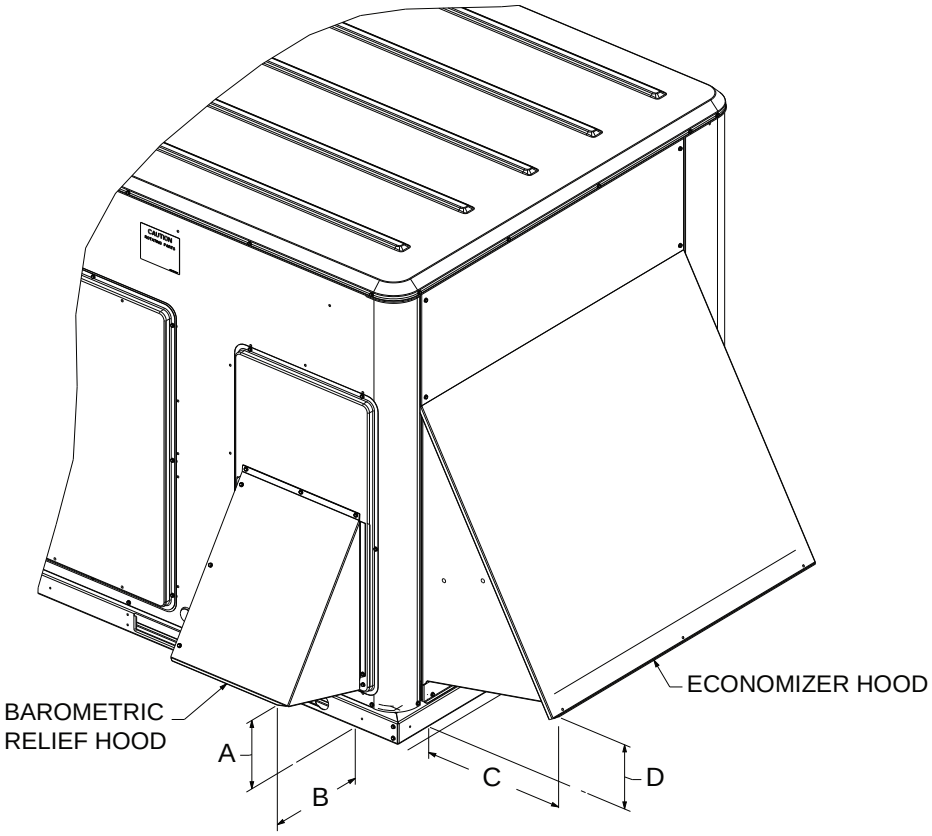
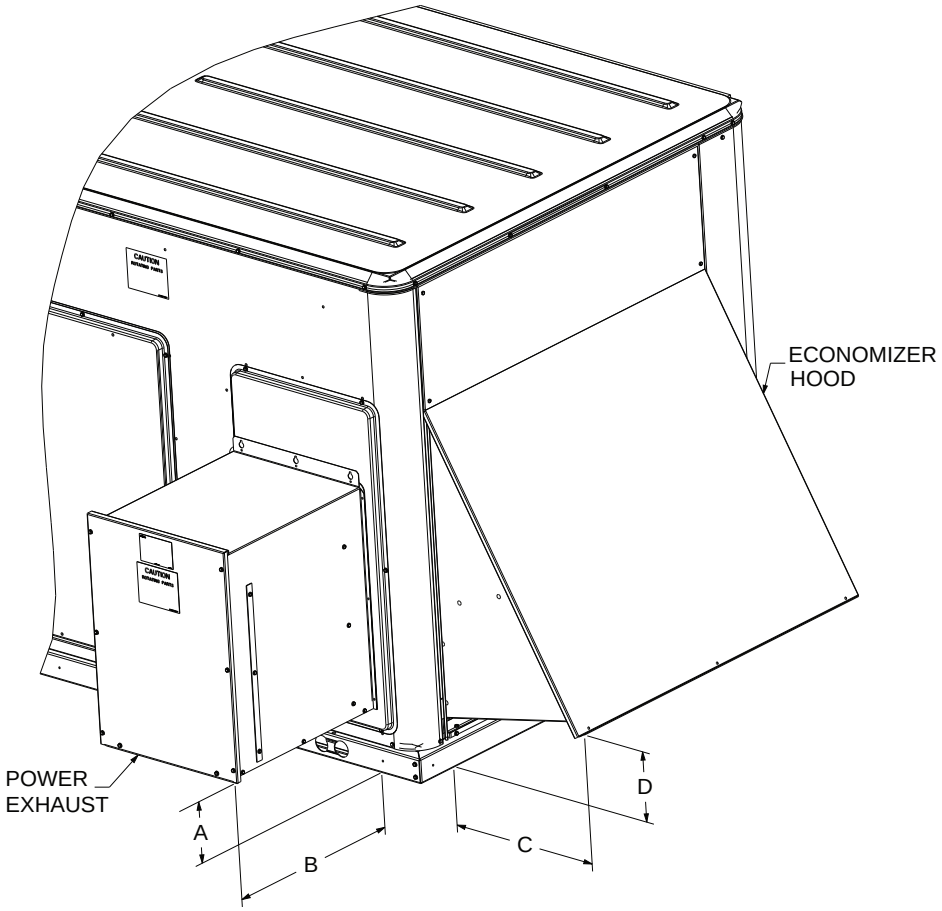


Figure 34. A.0, B.0 and C.0 cabinets – standard economizer, manual or motorized fresh air damper



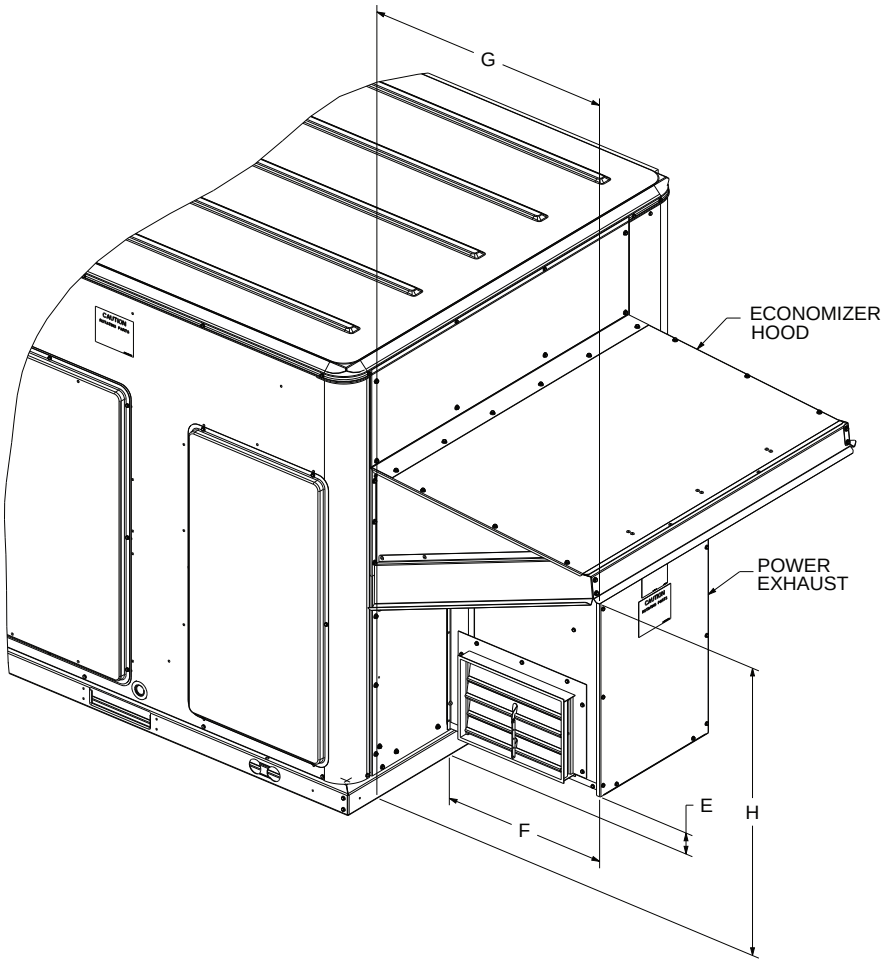
Cabinet	Dimension							
	A		B		C		D	
	inch	mm	inch	mm	inch	mm	inch	mm
A.0	6 7/8	175	9 1/8	232	12 1/2	318	6 1/4	159
B.0 and C.0	7 3/4	197	12	305	16 3/4	425	7 1/4	184

Figure 35. A.0, B.0 and C.0 cabinet – power exhaust with standard economizer



Cabinet	Dimension							
	A		B		C		D	
	inch	mm	inch	mm	inch	mm	inch	mm
A.0	6 1/4	159	16 3/4	425	12 1/2	318	6 1/4	159
B.0 and C.0	6 3/8	162	20 1/2	521	16 3/4	425	7 1/4	184

Figure 36. A.0, B.0 and C.0 cabinet – power exhaust with low leak economizer



Cabinet	Dimension							
	E		F		G		H	
	inch	mm	inch	mm	inch	mm	inch	mm
A.0	2 1/2	64	16	406	19 3/4	502	27	686
B.0 and C.0	2 1/2	64	19 3/4	502	29 1/4	743	33 1/2	852

Figure 37. D.0 and D.1 cabinets

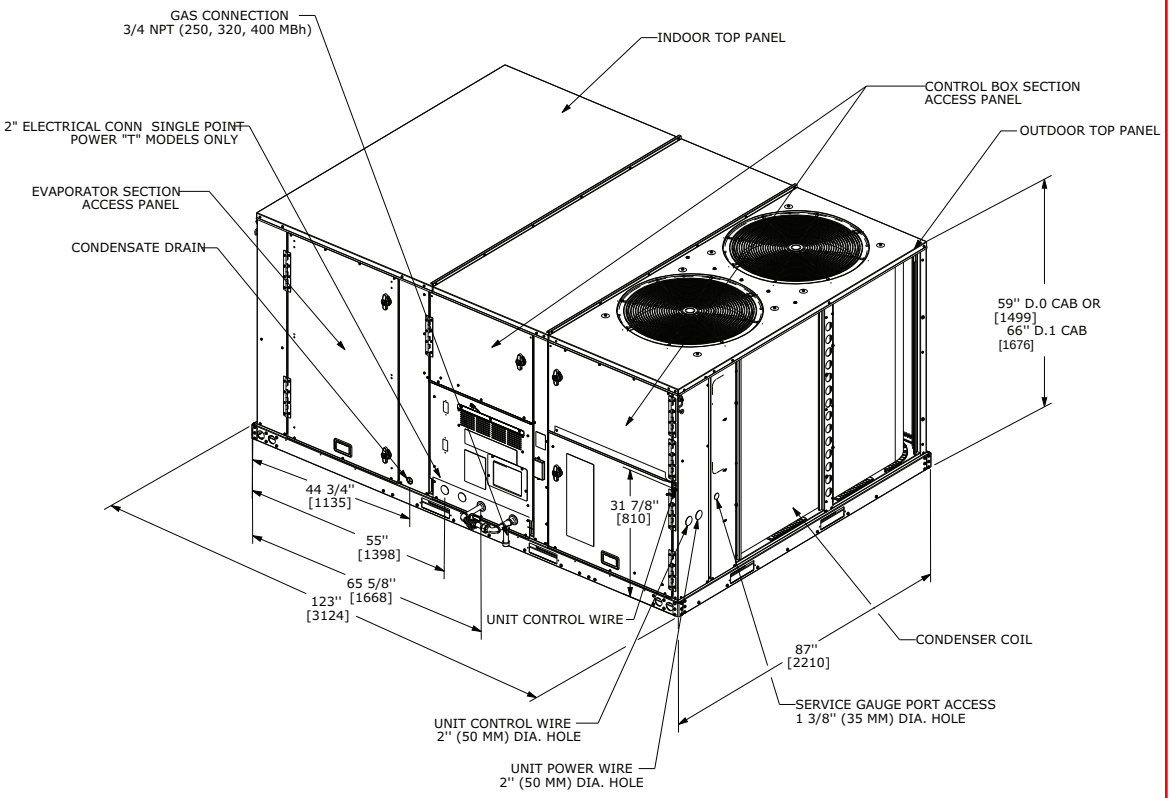


Figure 38. D.0 and D.1 cabinets – downflow airflow supply/return, through-the-base utilities

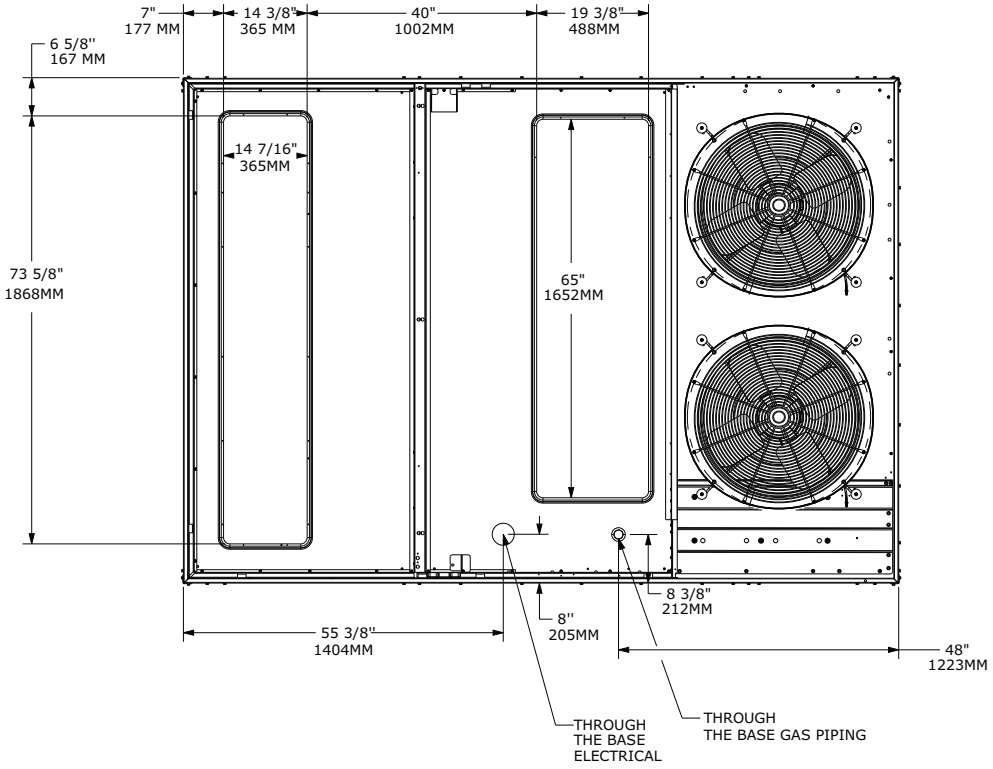


Figure 39. D.0 and D.1 cabinets – horizontal airflow supply/return

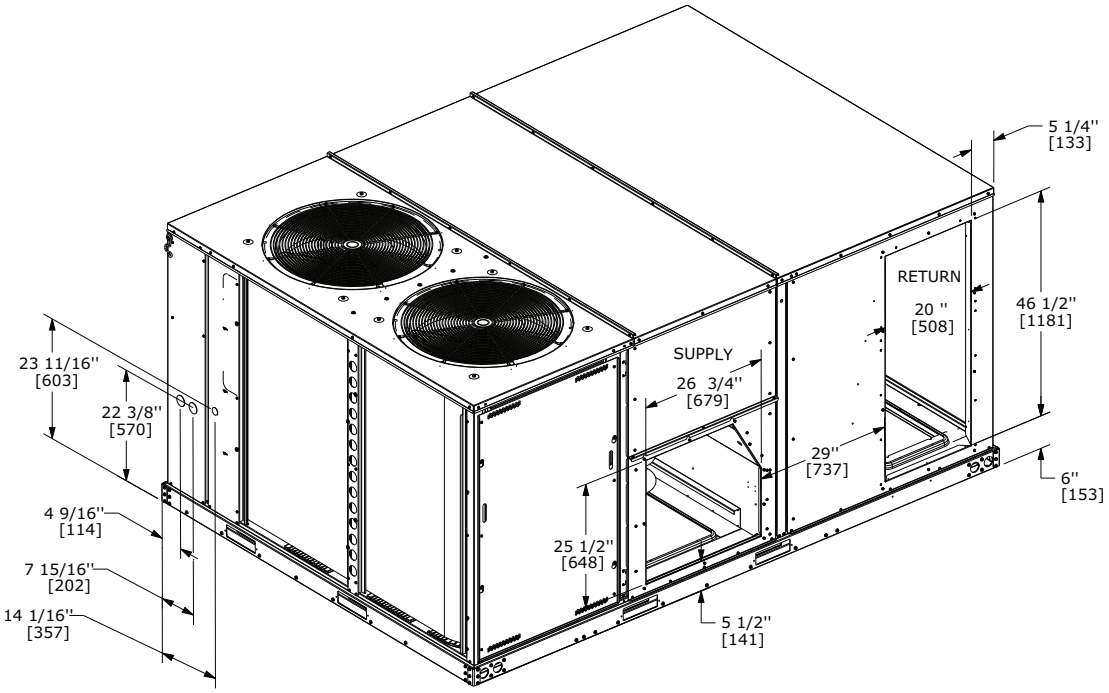


Figure 40. D.0 and D.1 cabinets – unit clearance and roof opening

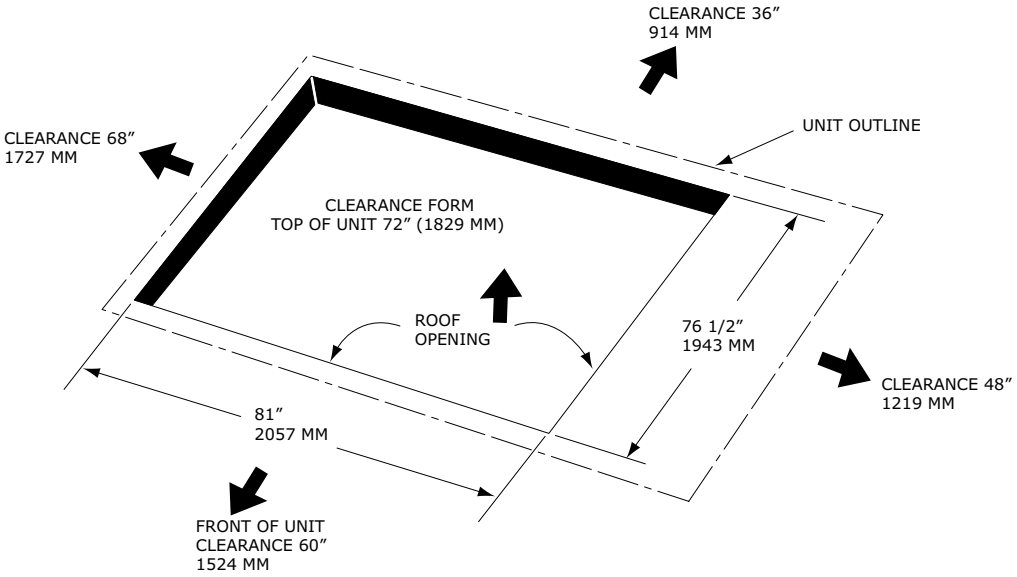


Figure 41. D.0 and D.1 cabinets – roof curb

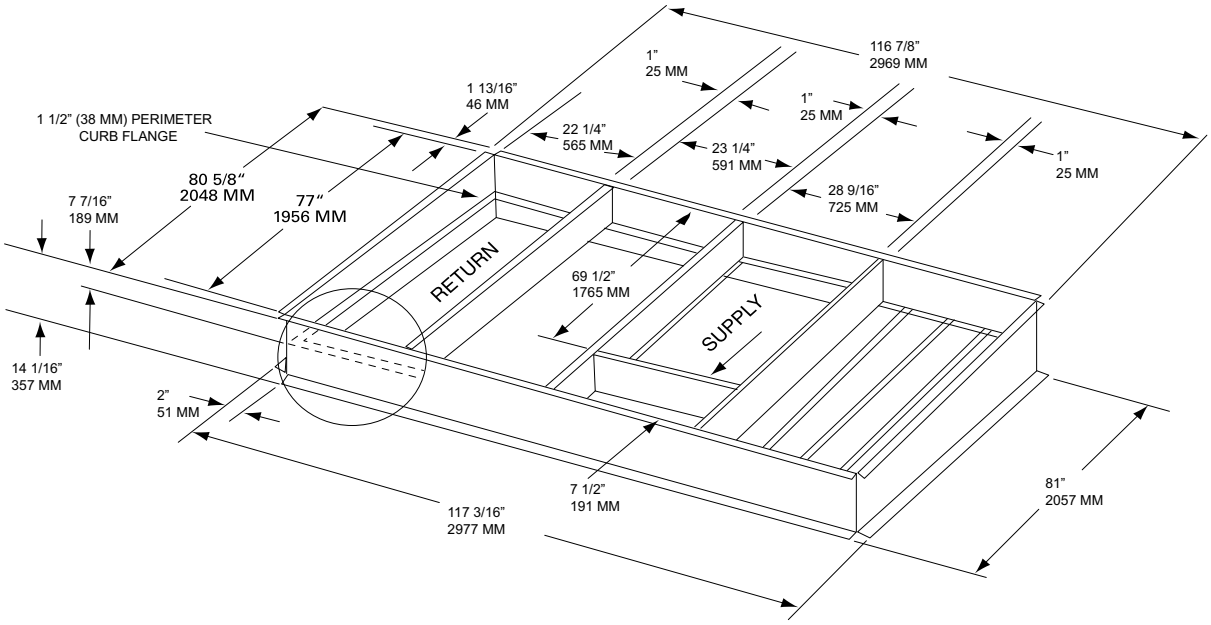


Figure 42. D.0 and D.1 cabinets – swing diameter for hinged door(s) option

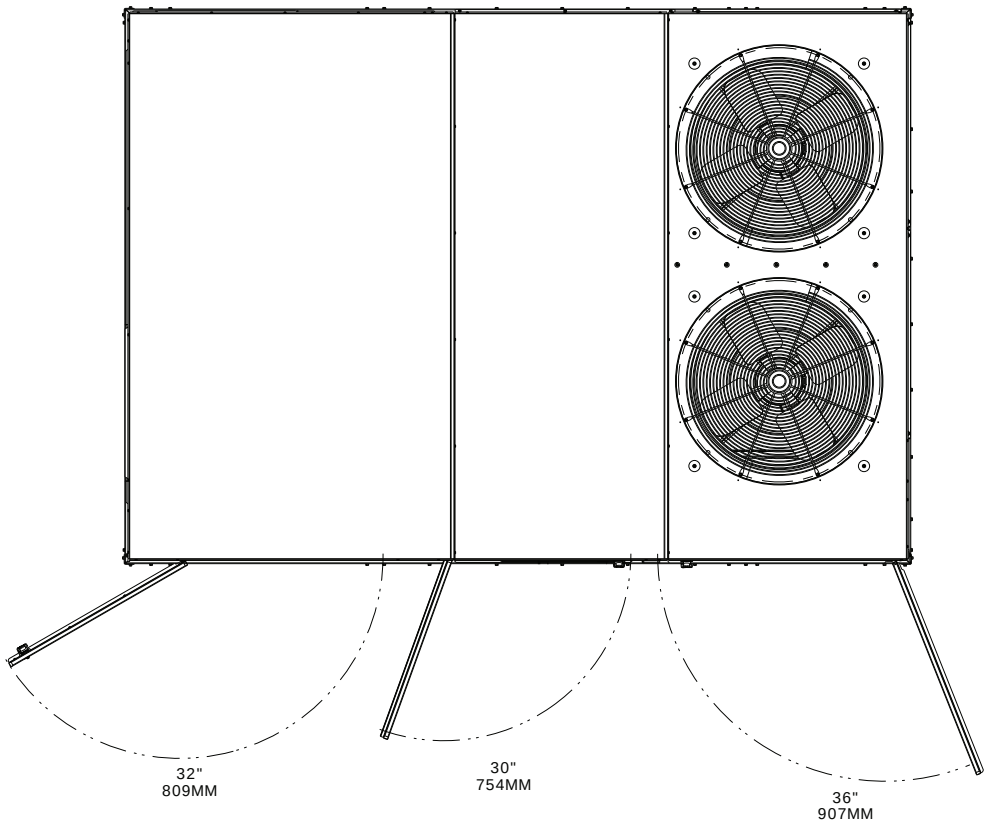


Figure 43. D.0 and D.1 cabinets – power exhaust

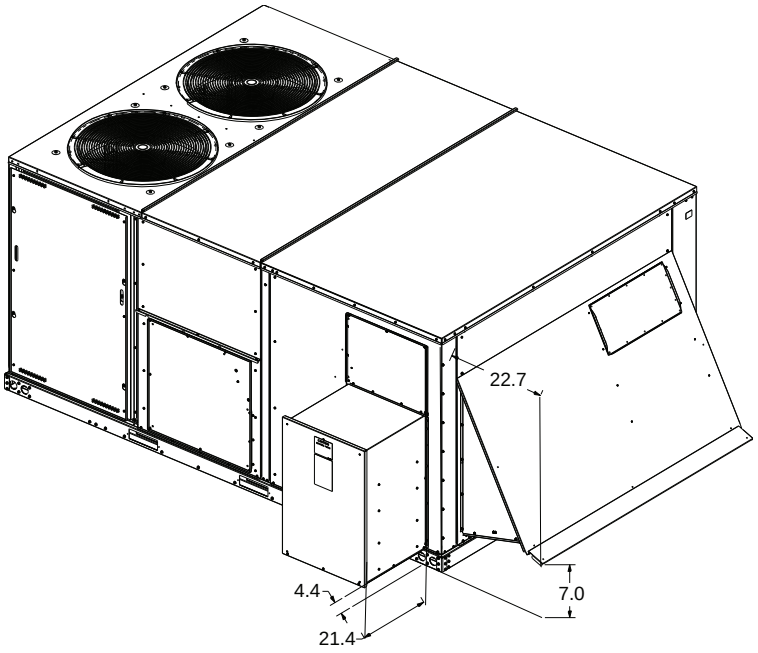
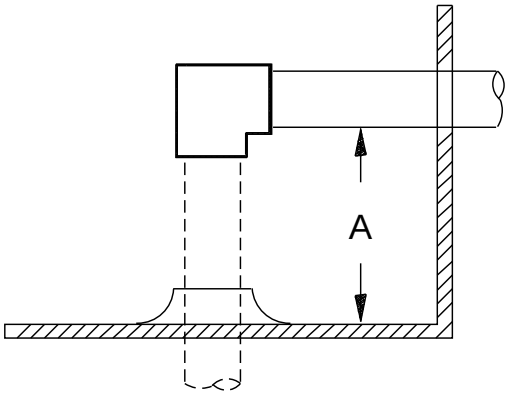


Figure 44. Gas pipe height



Note: *Height of gas pipe required from inside unit base to gas shut off assembly (factory provided).*

Cabinet	Dimension A	
	inch	mm
A.0, B.0, and C.0	4 5/8	117
D.0 and D.1	1 3/6	30

Weights

Table 176. Model weights, corner weights (lbs), and center of gravity dimensions (in.) — heat pump

Tons	Unit Model No.	Model Weights[a]		Corner Weights[b]				Center of Gravity (in.)	
		Shipping	Net	A	B	C	D	Length	Width
				Standard Efficiency					
3	WSK036	740	663	206	157	126	175	30	20
4	WSK048	760	683	216	162	125	179	29	20
5	WSK060	783	706	223	167	130	186	29	20
6	WSK072	1016	918	248	230	210	230	42	20
7.5	WSK090	1026	928	255	231	211	231	42	25
8.5	WSK102	1043	945	263	236	211	235	42	25
10	WSK120	1433	1239	363	380	249	247	48	30
12.5	WSK150	2225	2005	688	487	344	486	51	36
15	WSK180	2246	2026	695	492	348	491	51	36
17.5	WSK210	2253	2033	698	494	349	492	51	36
20	WSK240	2403	2183	680	550	426	527	55	38
25	WSK300	2405	2185	680	550	427	528	55	38
				High Efficiency					
3	WHK036	908	810	239	204	169	198	41	24
4	WHK048	936	838	247	211	175	205	41	24
5	WHK060	943	845	241	205	184	215	41	25
6	WHK072	1020	922	249	231	211	231	42	25
7.5	WHK090	1029	931	256	232	212	231	42	25
8.5	WHK102	1047	949	265	237	211	236	42	25
10	WHK120	1438	1244	365	381	249	249	48	30
12.5	WHK150	2225	2005	688	487	344	486	51	36
15	WHK180	2246	2026	695	492	348	491	51	36
17.5	WHK210	2253	2033	698	494	349	492	51	36
20	WHK240	2403	2183	680	550	426	527	55	38
25	WHK300	2405	2185	680	550	427	528	55	38

RTU-1.6
RTU-2.5
RTU-2.6
RTU-1.5
RTU-2.2
RTU-2.4
RTU-2.3
RTU-1.4
RTU-1.1
RTU-1.2
RTU-2.1

(a) Weights are approximate. Weights do not include additional factory or field installed options/accessories. For option/accessory additional weights to be added to unit weight, reference the following table.

(b) Corner weights are given for information only.

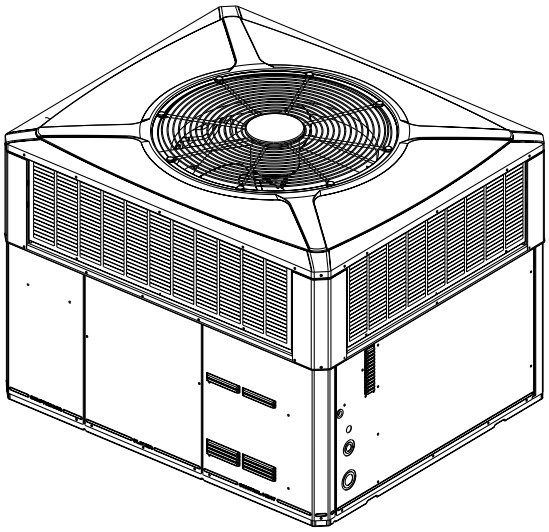
Table 177. Model weights, corner weights (lbs), and center of gravity dimensions (in.) — dual fuel

Tons	Unit Model No.	Model Weights[a]		Corner Weights[b]				Center of Gravity (in.)	
		Shipping	Net	A	B	C	D	Length	Width
				Standard Efficiency					
3	DSK036	802	725	223	174	140	188	30	20
4	DSK048	822	745	233	180	139	193	30	20
5	DSK060	844	768	240	185	143	199	30	20
6	DSK072	1083	985	275	246	219	245	42	25
7.5	DSK090	1123	1025	286	256	228	255	42	25
8.5	DSK102	1140	1042	291	260	231	260	42	25
10	DSK120	1530	1336	364	336	305	331	48	30
12.5	DSK150	2405	2185	750	531	375	529	51	36

Product Data

Single Packaged Heat Pump, 15 SEER2
Two Stage, Convertible, 2 — 5 Ton, R-410A

4WCZ5024F1000A
4WCZ5036E1000A
4WCZ5036E3000A
4WCZ5036E4000A
4WCZ5048E1000A
4WCZ5048E3000A
4WCZ5048E4000A
4WCZ5060E1000A
4WCZ5060E3000A
4WCZ5060E4000A



Note: *"Graphics in this document are for representation only. Actual model may differ in appearance."*

Note: *"Unit specific Service Facts available online."*

February 2024

22-1972-1B-EN

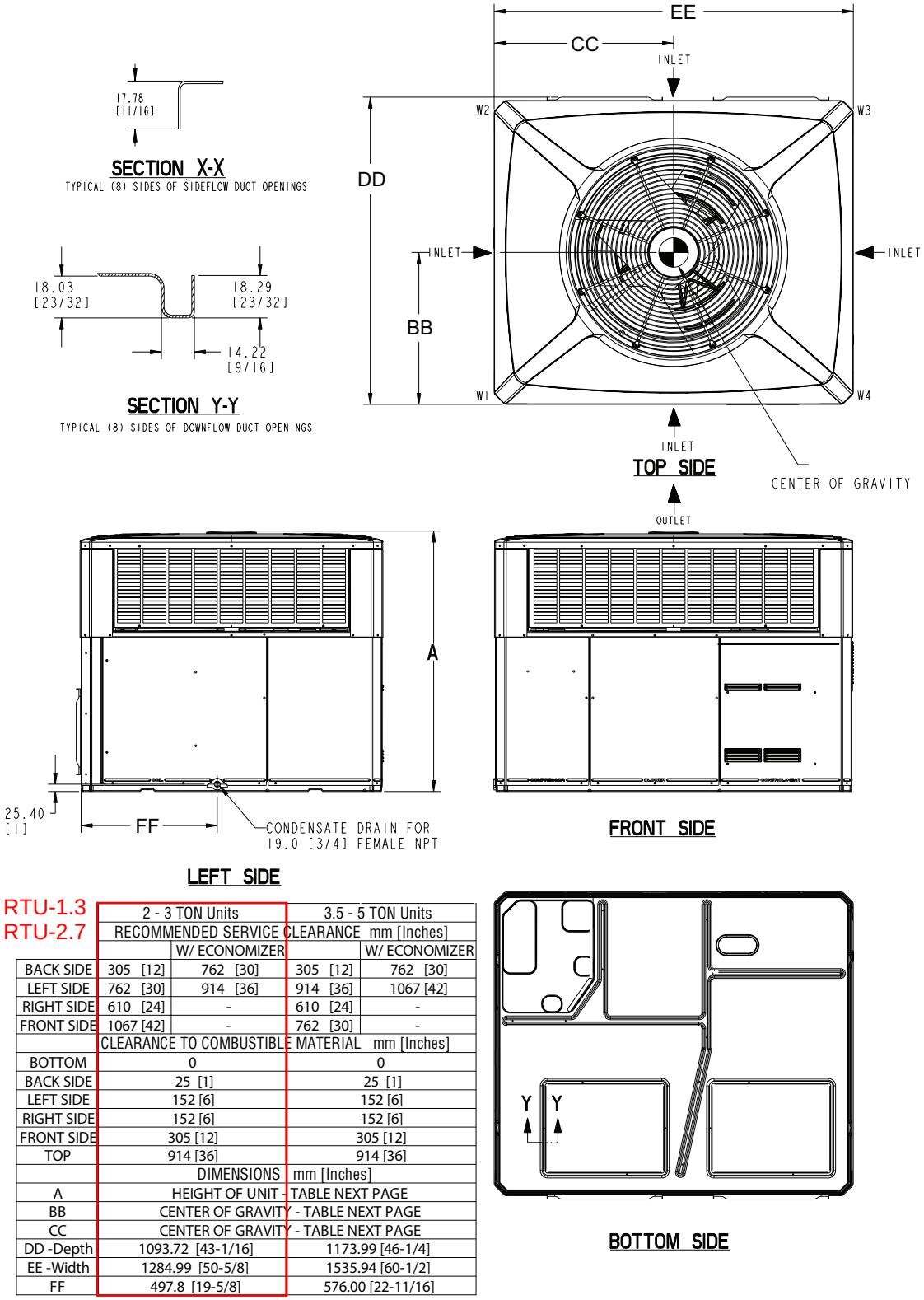
Product Specification

RTU-1.3
RTU-2.7

Model	4WCZ5024F*000A	4WCZ5036E*000A	4WCZ5048E*000A	4WCZ5060E*000A
RATED Volts/PH/Hz		* (1) 208–230/1/60, (3) 208-230/3/60, (4) 460/3/60		
PERFORMANCE COOLING		AHRI 210/240-2023 [a]		
BTUH (High)	23800	35200	47500	56500
Indoor Airflow (CFM) (High)	800	1110	1625	1775
Power Input (KW)	1.98	3.03	4.12	5.12
EER2 / SEER2 (BTU / Watt-Hr) [b]	11.0 / 15.2	11.0 / 15.0	11.0 / 15.0	11.0 / 14.65
PERFORMANCE COOLING		AHRI 210/240-2017 [c] [d]		
BTUH (High)	-	35800	47500	56500
Indoor Airflow (CFM) (High)	-	1100	1625	1775
Power Input (KW)	-	2.89	3.42	4.97
EER/SEER BTU / Watt-Hr) [b][c]	-	12.1 / 16.0	11.6 / 16.0	11.1 / 15.0
Sound Power Rating [dB(A)][e]	66.8	70.0	72	74
PERFORMANCE HEATING		AHRI 210/240-2023 [a]		
(High Temp.) BTUH (High/Low)	22800 / 16300	31000 / 22400	43000 / 32000	55500 / 37600
Power Input (KW)	1.89 / 1.40	2.75 / 2.02	3.48 / 2.49	4.62 / 3.26
(Low Temp.) BTUH (High/Low)	13600 / 7900	19400 / 11200	32000 / 17300	37600 / 19400
Power Input (KW)	1.70 / 1.31	2.64 / 2.09	3.20 / 2.44	4.20 / 3.25
HSPF2 (BTUH/Watt-Hr)	7.25	6.7	6.7	7.45
PERFORMANCE HEATING		AHRI 210/240-2017 [c][d]		
(High Temp.) BTUH (High/Low)	-	30000 / 22400	42000 / 31200	54000 / 37000
Power Input (KW)	-	2.65 / 1.92	3.32 / 2.4	4.45 / 3.19
(Low Temp.) BTUH (High/Low)	-	19200 / 12000	23200 / 17000	34000 / 19000
Power Input (KW)	-	2.45 / 1.86	2.99 / 2.32	3.99 / 3.02
HSPF (BTUH/Watt-Hr)	-	8.0	8.5	8.0
POWER CONN. — V/Ph/Hz		* (1) 208–230/1/60, (3) 208-230/3/60, (4) 460/3/60		
Min. Brch. Cir. Ampacity[f]		**LOCATED ON UNIT NAMEPLATE**		
Fuse Size — Max. (amps)		**LOCATED ON UNIT NAMEPLATE**		
Fuse Size — Recmd. (amps)		**LOCATED ON UNIT NAMEPLATE**		
COMPRESSOR		2 STAGE SCROLL		
VOLTS/PH/HZ		* (1) 208–230/1/60, (3) 208-230/3/60, (4) 460/3/60		
R.L. Amps — L.R. Amps		**LOCATED ON UNIT NAMEPLATE**		
OUTDOOR COIL — TYPE		SPINE FIN		
Rows/F.P.I		2 / 24		
Face Area (sq. ft.)	15.49		23.57	
Tube Size (in.)		3/8		
Refrigerant Control		EXPANSION VALVE		
INDOOR COIL — TYPE		PLATE FIN		
Rows/F.P.I		4/15		
Face Area (sq. ft.)	3.5		5.0	
Tube Size (in.)		3/8		
Refrigeration Control		EXPANSION VALVE		
Drain Conn. Size (in.)		3/4 FEMALE NPT		
OUTDOOR FAN — TYPE		PROPELLER		
DIA. (IN.)	23.4		28.2	
DRIVE/NO. SPEEDS		DIRECT / 1		
CFM @ 0.0 in. w.g.[g]	2550	3020	4220	4700
Motor — HP/R.P.M	1/12 /810	1/6 /830		1/4 /830
Volts/Ph/Hz		* (1 or 3) 208–230/1/60, (4) 460/1/60		
F.L. Amps/L.R Amps		**LOCATED ON UNIT NAMEPLATE**		
INDOOR FAN — TYPE		CENTRIFUGAL		
Dia. x Width (in.)		10x10		11x10
Drive/No. Speeds		DIRECT / VARIABLE		
CFM @ 0.0 in. w.g.[h]		SEE FAN PERFORMANCE TABLE		
Motor — HP / R.P.M.	1/2 / VARIABLE		3/4 / VARIABLE	1 / VARIABLE
Volts/Ph/Hz		208–230/1/60		
F.L. Amps		**LOCATED ON UNIT NAMEPLATE**		
FILTER / FURNISHED		NO		

Outline Drawings

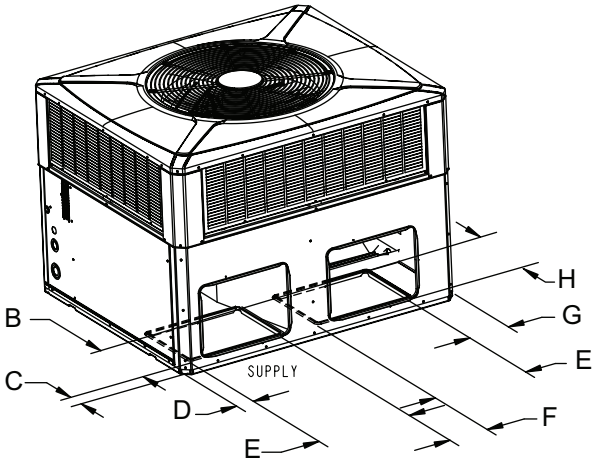
Figure 19. 2 - 5 Ton Models



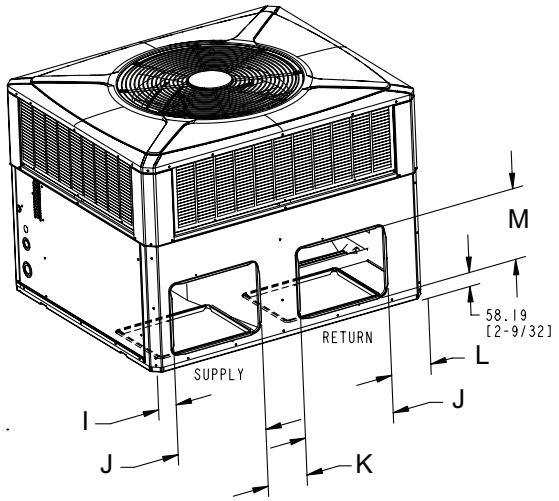
RTU-1.3
RTU-2.7

	2 - 3 TON Units		3.5 - 5 TON Units	
	RECOMMENDED SERVICE CLEARANCE mm [Inches]			
		W/ ECONOMIZER		W/ ECONOMIZER
BACK SIDE	305 [12]	762 [30]	305 [12]	762 [30]
LEFT SIDE	762 [30]	914 [36]	914 [36]	1067 [42]
RIGHT SIDE	610 [24]	-	610 [24]	-
FRONT SIDE	1067 [42]	-	762 [30]	-
	CLEARANCE TO COMBUSTIBLE MATERIAL mm [Inches]			
BOTTOM	0		0	
BACK SIDE	25 [1]		25 [1]	
LEFT SIDE	152 [6]		152 [6]	
RIGHT SIDE	152 [6]		152 [6]	
FRONT SIDE	305 [12]		305 [12]	
TOP	914 [36]		914 [36]	
	DIMENSIONS mm [Inches]			
A	HEIGHT OF UNIT - TABLE NEXT PAGE			
BB	CENTER OF GRAVITY - TABLE NEXT PAGE			
CC	CENTER OF GRAVITY - TABLE NEXT PAGE			
DD -Depth	1093.72 [43-1/16]		1173.99 [46-1/4]	
EE -Width	1284.99 [50-5/8]		1535.94 [60-1/2]	
FF	497.8 [19-5/8]		576.00 [22-11/16]	

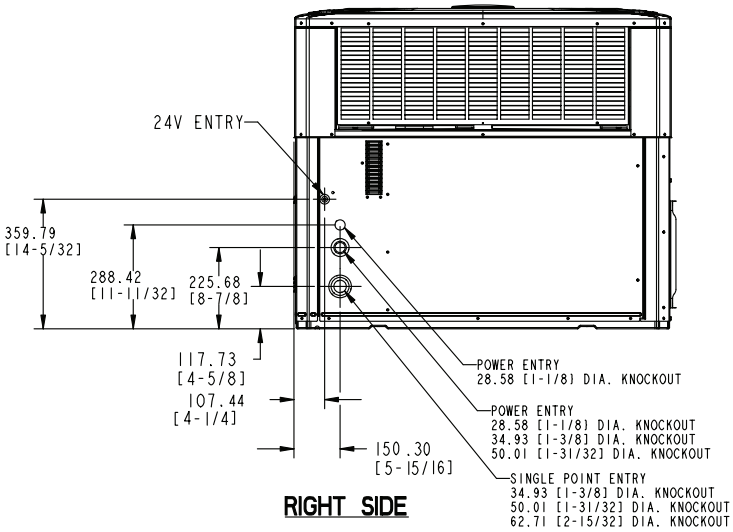
Figure 20. 2 - 5 Ton Models



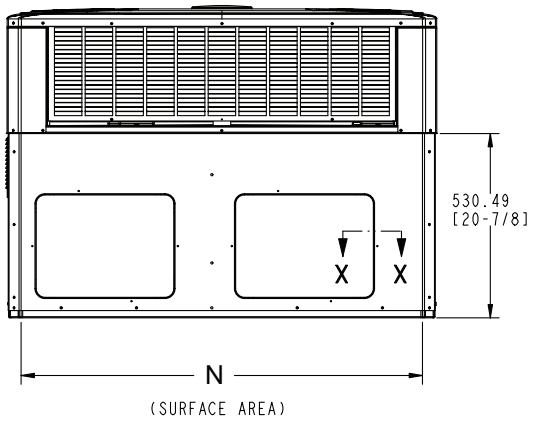
BOTTOM DUCT OPENINGS



BACK DUCT OPENINGS



RIGHT SIDE



BACK SIDE

	Height mm (in)	PHYSICAL DIMENSIONS mm (in)												
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
4WCZ5024	949.33 (37.37)	304.80 (12.0)	92.33 (3.63)	66.51 (2.62)	406.40 (16.0)	167.89 (6.61)	173.46 (6.83)	304.80 (12.0)	48.35 (1.90)	398.22 (15.67)	176.07 (6.93)	176.68 (6.95)	296.62 (11.67)	1155.45 (45.49)
4WCZ5036														
4WCZ5048	1050.93 (41.37)	457.20 (18.0)	82.16 (3.23)	82.16 (3.23)	381.00 (15.0)	244.09 (9.61)	325.49 (12.80)	381.00 (15.0)	86.25 (3.39)	449.02 (17.67)	176.07 (6.93)	329.58 (12.97)	372.82 (14.67)	1351.95 (53.22)
4WCZ5060					457.20 (18.0)									

	Corner Weights KG/LBS				SHIPPING WEIGHT KG/LBS	UNIT WEIGHT KG/LBS	Center Of Gravity mm[inch]	
	W1	W2	W3	W4			BB	CC
4WCZ5024	60.8 [134]	38.1 [84]	27.2 [60]	42.6 [94]	200.5 [442]	168.7 [372]	401.3 [15.8]	508 [20]
4WCZ5036	60.8 [134]	38.1 [84]	27.2 [60]	42.6 [94]	200.5 [442]	168.7 [372]	401.3 [15.8]	508 [20]
4WCZ5048	68.9 [152]	40.8 [90]	30.8 [68]	52.2 [115]	275.6 [607]	217.5 [479]	414.0 [16.3]	635 [25]
4WCZ5060	80.3 [177]	47.6 [105]	35.8 [79]	60.8 [134]	282.8 [623]	224.5 [495]	414.0 [16.3]	635 [25]

DS1.1

TPKA0A0181LA10A & TRUZA0181KA70NA
18,000 BTU/H WALL MOUNT
18,000 BTU/H HEAT PUMP UNIVERSAL OUTDOOR

Job Name:

System Reference: Date:

Indoor Unit TPKA0A0181LA10A

Outdoor Unit TRUZA0181KA70NA

INDOOR UNIT FEATURES

- Selectable high sensible vs high latent capacity mode
- UL 60335-2-40 compliant
- Sleek, compact design
- Simple installation
- Airflow direction control
- Auto fan mode
- Suitable for: server rooms, daycare centers, classrooms, churches, small offices, and more
- Multiple control options available:
  - kumo cloud® smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- Variable speed INVERTER-driven compressor
- Pre-charged with refrigerant volume for piping length up to 70 ft
- Low ambient cooling down to 0°F providing 100% capacity
- 24-hour continuous operation (cooling mode)
- High pressure protection
- Fast restart
- Superior energy and operational efficiency
- Seacoast protection*
  - External Outer Panel: Phosphate coating + Acrylic-Enamel coating
  - Fan Motor Support: Epoxy resin coating (at edge face)
  - Separator Assembly Valve Bed: Epoxy resin coating (at edge face)
  - Blue Fin treatment is an anti-corrosion treatment that is applied to the Heat exchanger coil to protect it against airborne contaminants.
  - Heat exchanger coil and base panel rated for 2,000 hours in accordance with ASTM B117 testing

*Seacoast protection standard from 2022 production

SPECIFICATIONS: TPKA0A0181LA10A & TRUZA0181KA70NA

Cooling at 95°F[1]	Maximum Capacity	BTU/H	18,000
	Rated Capacity	BTU/H	18,000
	Minimum Capacity	BTU/H	5,600
	Maximum Power Input	W	1,680
	Rated Power Input	W	1,680
	Moisture Removal	Pints/h	5.8
	Sensible Heat Factor		0.73
	Power Factor [208V / 230V]	%	96.7 / 96.7
Heating at 47°F[2]	Maximum Capacity	BTU/H	22,000
	Rated Capacity	BTU/H	19,000
	Minimum Capacity	BTU/H	5,400
	Maximum Power Input	W	2,150
	Rated Power Input	W	1,640
	Power Factor [208V / 230V]	%	96.7 / 96.7
Heating at 17°F[3]	Maximum Capacity	BTU/H	13,600
	Rated Capacity	BTU/H	13,600
	Maximum Power Input	W	1,560
	Rated Power Input	W	1,560
Efficiency	SEER2		20.2
	EER2[1]		10.7
	HSPF2 [IV]		9.2
	COP at 47°F[2]		3.4
	COP at 17°F at Maximum Capacity[3]		2.5
	ENERGY STAR® Certified		No
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Oudoor)	A	15
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
Indoor Unit	MCA	A	1.0
	Fan Motor Full Load Amperage	A	0.19
	Fan Motor Output	W	30
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	265–310–375–450
	Airflow Rate at Cooling, Wet	CFM	215–255–320–375
	Airflow Rate at Heating, Dry	CFM	265–310–385–455
	Sound Pressure Level [Cooling]	dB[A]	34–39–44–48
	Sound Pressure Level [Heating]	dB[A]	34–39–44–48
	Drain Pipe Size	In. [mm]	5/8 [16]
	Coating on Heat Exchanger		—
	External Finish Color		White Munsell 0.7PB 9.2/0.4
	Unit Dimensions	W x D x H: In. [mm]	35-23/64 x 9-11/32 x 11-25/32 [898 x 237 x 299]
	Package Dimensions	W x D x H: In. [mm]	38-3/16 x 13-25/64 x 14-11/64 [970 x 340 x 360]
	Unit Weight	Lbs. [kg]	28 [12.7]
	Package Weight	Lbs. [kg]	32 [14.4]
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 73 WB / 66 DB, 59 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	82 DB / 50 DB

NOTES:

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)	[1]Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
	[2]Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
	[3]Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB
Conditions	[4]Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB

Select high sensible versus high latent capacity mode via function setting mode 08, “Fan speed” (accessible through Touch MA, Deluxe MA, kumo touch and kumo cloud app control options):

- "High ceiling" mode = high sensible capacity
  - » Mode 08, setting 3 (factory default)
- "Standard" mode = high latent capacity
  - » Mode 08, setting 2

*Outdoor Unit Operating Temperature Range (Cooling Air Temp (Maximum / Minimum)):

- Wind baffles required to operate below 23°F DB in cooling mode.
- Heat pump system with wind baffle: 0°F - 115°F.
- Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

***Blue Fin Coating Standard from 2022 production:

- PU(Y/Z)-A(12/18)NKA7 - Beginning with serial number 12U*****
- PU(Y/Z)-A(24/30/36/42)NKA7 - Beginning with serial number 1ZU*****

SPECIFICATIONS: TPKA0A0181LA10A & TRUZA0181KA70NA

Outdoor Unit	MCA	A	11.0
	MOCP	A	28
	Fan Motor Full Load Amperage	A	0.5
	Fan Motor Output	W	46
	Airflow Rate [Cooling / Heating]	CFM	1590 / 1590
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger		Blue Fin Coating***
	Sound Pressure Level, Cooling[1]	dB(A)	44
	Sound Pressure Level, Heating[2]	dB(A)	46
	Compressor Type		INVERTER-driven twin rotary
	Compressor Model		SNB130FQCMC-L1
	Compressor Rated Load Amps	A	7
	Compressor Locked Rotor Amps	A	12.0
	Compressor Oil [Type // Charge]	oz.	FV50S // 16
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		N/A
	Unit Dimensions	W x D x H: In. [mm]	31-13/16 (2+7/16) x 11-13/16 x 24-13/16 [809 (+62) x 300 x 630]
	Package Dimensions	W x D x H: In. [mm]	37-1/16 x 16-3/16 x 27-7/16 [941 x 411 x 697]
	Unit Weight	Lbs. [kg]	100 [45]
	Package Weight	Lbs. [kg]	112 [51]
Outdoor Unit Operating Temperature Range	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / 0 DB
	Heating Air Temp [Maximum / Minimum]	°F	70 DB, 59 WB / 12 DB, 14 WB
	Heating Thermal Lock-out / Re-start Temperatures**	°F	8 / 12
Refrigerant	Type		R410A
	Pre-Charged Refrigerant Amount	Lbs, oz	4.0, 14.0
	Maximum Pre-Charged Piping Length	Ft. [m]	70.0 [21.0]
	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.2 [19]
Piping	Gas Pipe Size O.D. [Flared]	In.[mm]	1/2 [12.7]
	Liquid Pipe Size O.D. [Flared]	In.[mm]	1/4 [6.35]
	Maximum Piping Length	Ft. [m]	100 [30]
	Maximum Height Difference	Ft. [m]	100 [30]
	Maximum Number of Bends		15

NOTES:

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)	[1]Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
	[2]Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
	[3]Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB
Conditions	[4]Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 4 WB

Select high sensible versus high latent capacity mode via function setting mode 08, “Fan speed” (accessible through Touch MA, Deluxe MA, kumo touch and kumo cloud app control options):

- "High ceiling” mode = high sensible capacity
  - » Mode 08, setting 3 (factory default)
- “Standard” mode = high latent capacity
  - » Mode 08, setting 2

*Outdoor Unit Operating Temperature Range (Cooling Air Temp (Maximum / Minimum)):

- Wind baffles required to operate below 23°F DB in cooling mode.
- Heat pump system with wind baffle: 0°F - 115°F.
- Refer to wind baffle documentation for further information.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

***Blue Fin Coating Standard from 2022 production:

- PU(Y/Z)-A(12/18)NKA7 - Beginning with serial number 12U*****
- PU(Y/Z)-A(24/30/36/42)NKA7 - Beginning with serial number 1ZU*****

INDOOR UNIT ACCESSORIES: TPKA0A0181LA10A

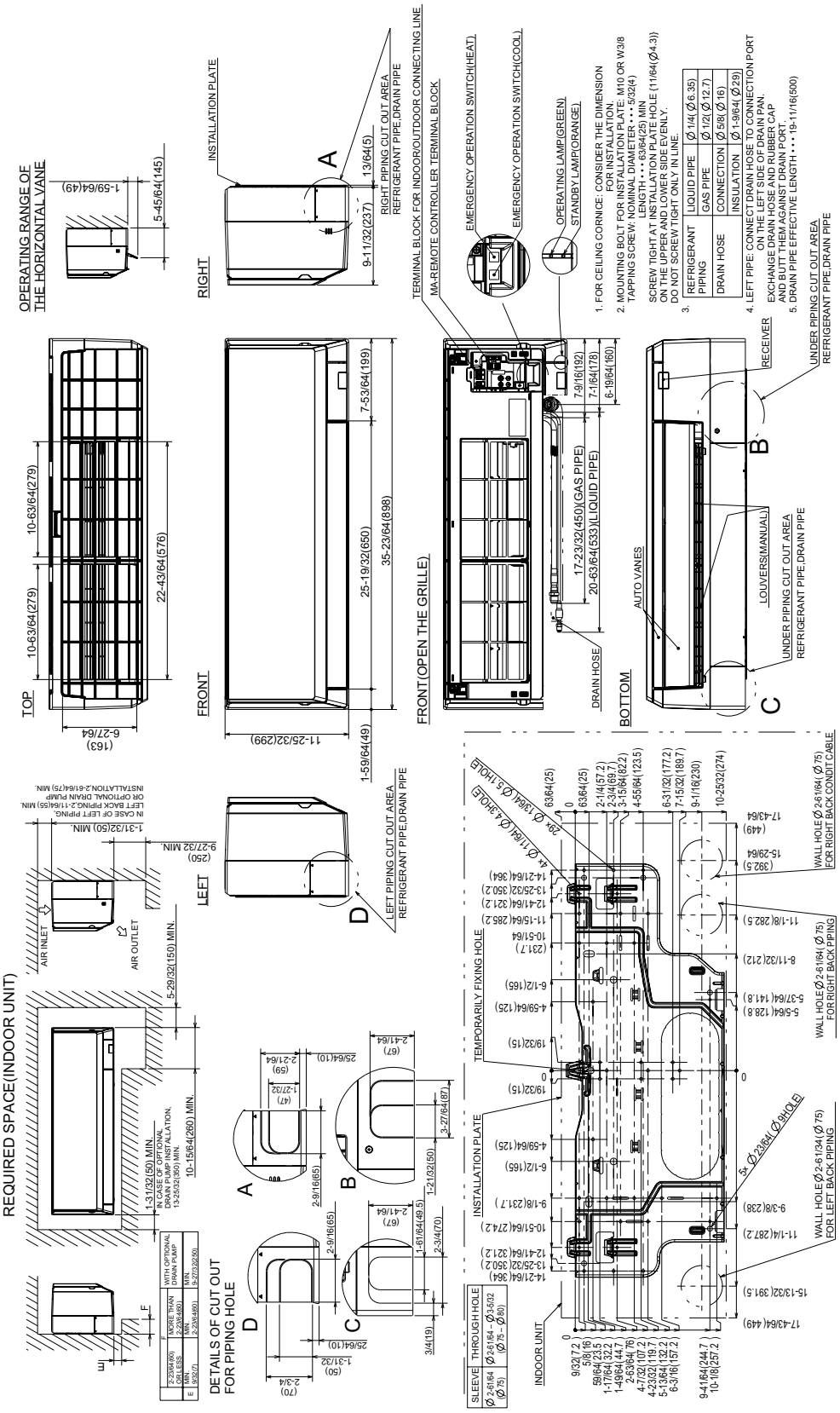
Control Interface	3-Pin Connector	☐ PAC-715AD
	IT Extender	☐ PAC-WHS01IE-E
	kumo station® for kumo cloud®	☐ TAC-WHS01HC-E
	Procon BACnet® and Modbus® Interface	☐ PAC-UKPRC001-CN-1
	Thermostat Interface	☐ PAC-US445CN-1
	USNAP Adapter	☐ PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	☐ PAC-USWHS002-WF-2
Remote Sensor	Flush Mount Remote Temperature Sensor	☐ PAC-USSEN002-FM-1
	Flush Mount Temperature Sensor	☐ PAC-USSEN001-FM-1
	Remote Temperature Sensor	☐ PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	☐ PAC-USWHS003-TH-1
Wired Remote Controller	Deluxe Wired MA Remote Controller†	☐ TAR-40MAAU
	Simple Ductless Wired Remote Controller	☐ PAC-SDW01RC-1
	Simple MA Remote Controller†	☐ TAC-YT53CRAU-J
	Touch MA Controller†	☐ TAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	☐ MHK2
	Lockdown bracket for remote controller	☐ RCMKP1CB
	Wireless MA Remote Controller	☐ TAR-FL32MA-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	☐ X87-721
	Blue Diamond (MicroBlue) Mini Condensate Pump (110/208/230V) up to 18,000 BTU/H	☐ X86-003
	Blue Diamond Sensor Extension Cable — 15 Ft.	☐ C13-103
	Drain Pan Level Sensor/Control	☐ SS610E
	Fascia Kit for MicroBlue Pump, mounts the MicroBlue and sensor directly beneath indoor unit	☐ T18-016
	Refco Condensate Pump (100-240 VAC)	☐ GOBI-II
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	☐ COMBI
	Sauermann Condensate Pump	☐ SI30-230
Disconnect Switch	(30A/600V/UL) [fits 2” X 4” utility box] - Black	☐ TAZ-MS303
	(30A/600V/UL) [fits 2” X 4” utility box] - White	☐ TAZ-MS303W
Lineset	100’ x 1/4” x 100’ / 1/2” Lineset (Twin-Tube Insulation)	☐ MLS141212T-100
	15’ x 1/4” x 15’ / 1/2” Lineset (Twin-Tube Insulation)	☐ MLS141212T-15
	30’ x 1/4” x 30’ / 1/2” Lineset (Twin-Tube Insulation)	☐ MLS141212T-30
	50’ x 1/4” x 50’ / 1/2” Lineset (Twin-Tube Insulation)	☐ MLS141212T-50
	65’ x 1/4” x 65’ / 1/2” Lineset (Twin-Tube Insulation)	☐ MLS141212T-65
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ SW144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ SW144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ SW164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ SW164-50

OUTDOOR UNIT ACCESSORIES: TRUZA0181KA70NA

Air Outlet Guide	Air Outlet Guide	☐ PAC-SJ07SG-E
Centralized Drain Pan	Centralized Drain Pan	☐ PAC-SG63DP-E
	Drain Pan	☐ PAC-SG64DP-E
Control/Service Tool	Control/Service Tool	☐ PAC-SK52ST
	M- & P-Series Maintenance Tool Cable Set	☐ M21EC0397
	USB/UART Conversion Cable (Required for all laptop connection)	☐ M21EC1397
Drain Socket	Drain Socket	☐ MAC-871DS
Hail Guards	Hail Guard	☐ HG-A5
M-NET Converter	M-NET Converter	☐ PAC-SJ96MA-E
Mini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ S144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ S144-50
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	☐ S164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	☐ S164-50
Mounting Pad	Condensing Unit Mounting Pad: 16” x 36” x 3”	☐ ULTRILITE1
Stand	18” Single Fan Stand	☐ QSMS1801M
	24” Single Fan Stand	☐ QSMS2401M
	Condenser Wall Bracket	☐ QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	☐ QSWBSS
	Outdoor Unit Stand — 12” High	☐ QSMS1201M
Wind Baffle	Front Wind Baffle	☐ WB-PA4
	Rear Wind Baffle	☐ WB-RE4
	Side Advanced Wind Baffle	☐ WB-SD4

INDOOR UNIT DIMENSIONS: TPKA0A0181LA10A

Unit: inch (mm)



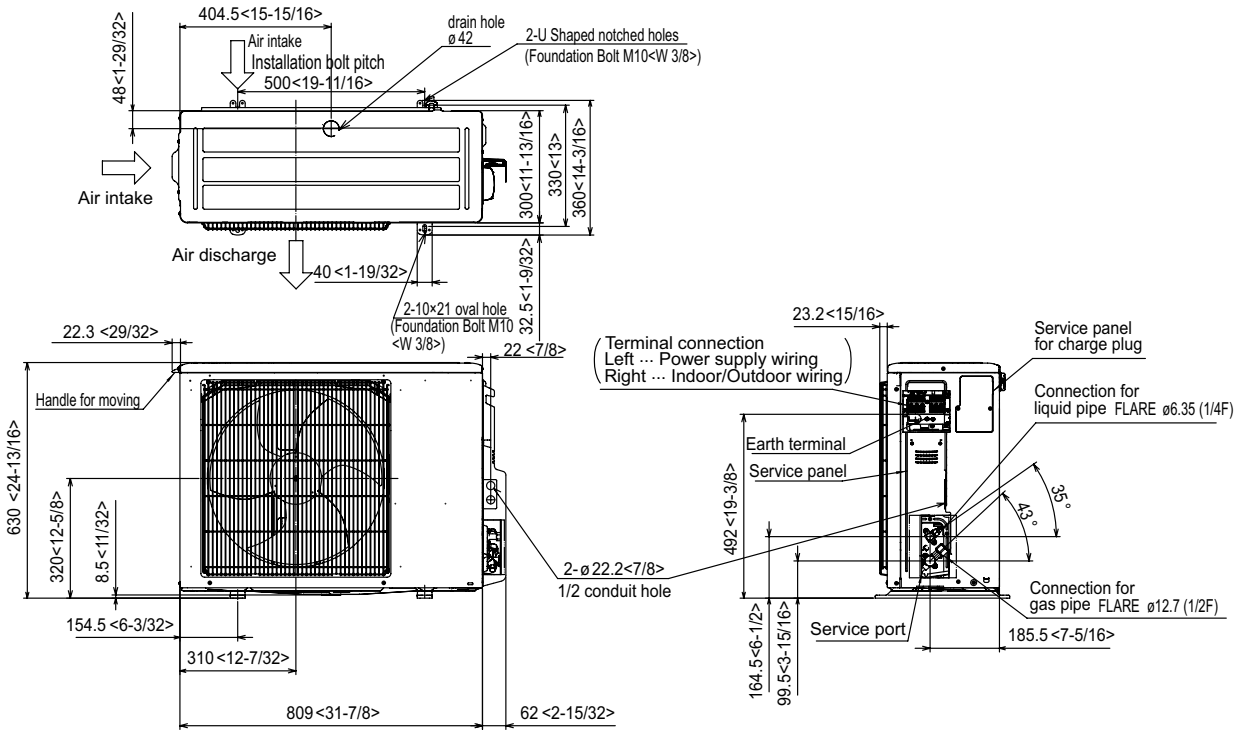
1. FOR CEILING CORNICE: CONSIDER THE DIMENSION FOR INSTALLATION.
2. MOUNTING BOLT FOR INSTALLATION PLATE: M10 OR W3/8
   TAPPING SCREW - NOMINAL DIAMETER × LENGTH: 5/32(4) - LENGTH: 1-63/64(25) MIN.
   SCREW TIGHT AT INSTALLATION PLATE HOLE (11/64(Ø4.3)) ON THE UPPER AND LOWER SIDE EVENLY.
   DO NOT SCREW TIGHT ONLY IN LINE.
3.

REFRIGERANT PIPING	LIQUID PIPE	Ø 1/4(Ø 6.35)
	GAS PIPE	Ø 1/2(Ø 12.7)
DRAIN HOSE	CONNECTION	Ø 5/8(Ø 16)
	INSULATION	Ø 1-9/64 (Ø 29)

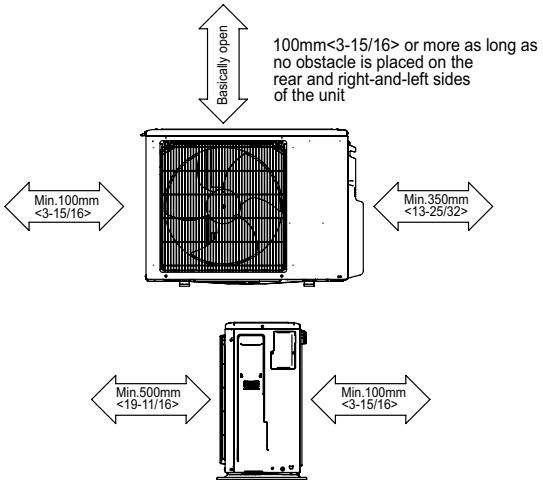
4. LEFT PIPE : CONNECT DRAIN HOSE TO CONNECTION PORT ON THE LEFT SIDE OF DRAIN PAN.
   EXCHANGE DRAIN HOSE AND RUBBER CAP AND BUTT THEM AGAINST DRAIN PORT.
5. DRAIN PIPE EFFECTIVE LENGTH • • : 19-11/16(500)

OUTDOOR UNIT DIMENSIONS: TRUZA0181KA70NA

Unit: mm<in>



Free space around the outdoor unit (basic example)

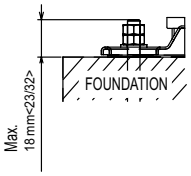


2 sides should be open in the right, left and rear side.

FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10<W3/8>) bolts. (Bolts, washers and nut must be purchased locally).

<Foundation bolt height>



PIPING-WIRING DIRECTION

Piping and wiring connection can be made from the rear direction only.