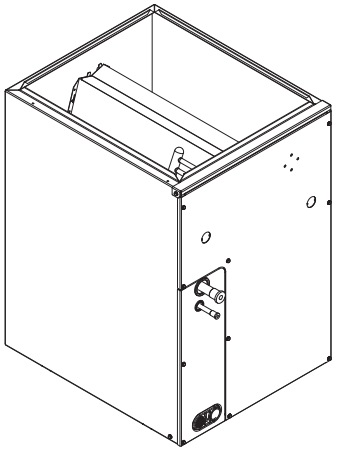
CAPVP
Evaporator Coil
A Coil
Upflow, Downflow

Carrier
turn to the experts

Product Data



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CAPVP

The CAPVP evaporator coils incorporate proven standards for reliable system operation and performance throughout the life of a quality Carrier Air Conditioner or Heat Pump system. Evaporator coils manufactured by Carrier and installed as part of a total comfort system provide ARI-rated performance ratings and are additionally listed with UL and c-UL.

DESIGN FEATURES

Performance — Designed with performance in mind, these A-coils offer low pressure drops to enhance system performance and airflow characteristics.

Aluminum Coils — Models are built with aluminum hairpins, designed to resist both general pitting corrosion and excessive indoor Formicary Corrosion. (Formicary Corrosion is an industry phenomenon.)

Thermostatic Expansion Valves (TXV) — All Carrier coils have refrigerant-specific, factory-installed TXVs.

Durable Condensate Pan —The corrosion-resistant drain pan is designed with a “fiberglass reinforced thermoset polyester” material (FRTP) that offers unsurpassed pan strength. It is engineered with proper slope to help ensure water drainage, reduced pan sweating and improved moisture removal for better home comfort.

Refrigerant Connections — The coils are provided with proven sweat connections for leak-free operation maintaining system reliability. The side mounting tubing to the coil slabs allows for easy cleaning and servicing of the coils, as well as easy access to the TXV.

Burst Pressure — These coils meet or exceed burst pressure of 2100 psi which is at least three to five times the pressure they will see in actual application.

UV Knockouts — The cased coils also come with factory-installed UV knockouts for quick and easy installation of Carrier UV lights.

Serviceability — All the coils come with a “split-delta plate” for easy, quick access to the coil for service and cleaning. Also the coils are removable from the front of the unit without use of any tools (once the door is removed). The units are also designed with a single size screw, the same size as used on all our Carrier furnaces. One tool required for all jobs.

Installation Flexibility — The CAPVP evaporator coils are A-coils that provide flexibility for a wide variety of field applications installed in either a factory-manufactured accessory casing, or a field-supplied plenum enclosure. Water management capabilities have been enhanced for downflow applications.

Face Plate — A unique Carrier feature, the face plate comes shipped with the evaporator coil models, provides for a more professional installation and prevents air leaks at the refrigerant line connections.

MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12
C	A	P	V	P	1	9	1	7	A	L	A

Product
C = Coil

Type
A – A Coil

Refrigerant Type
P = Puron® (R–410A) Refrigerant TXV

Coil Configuration
V = Upflow / Downflow

Cabinet Finish
P = Painted
U = Uncased

Unit Capacity
19 = 1 1/2 Ton
25 = 2 Ton
37 = 3 Ton
43 = 3 1/2 Ton
61 = 5 Ton

Cabinet Width
17 = 17–in. / 432mm
21 = 21–in. / 533mm
24 = 24–in. / 610mm

Revision Level
A = 1st

Tubing Design
L = Aluminum

Variations
A = Basic

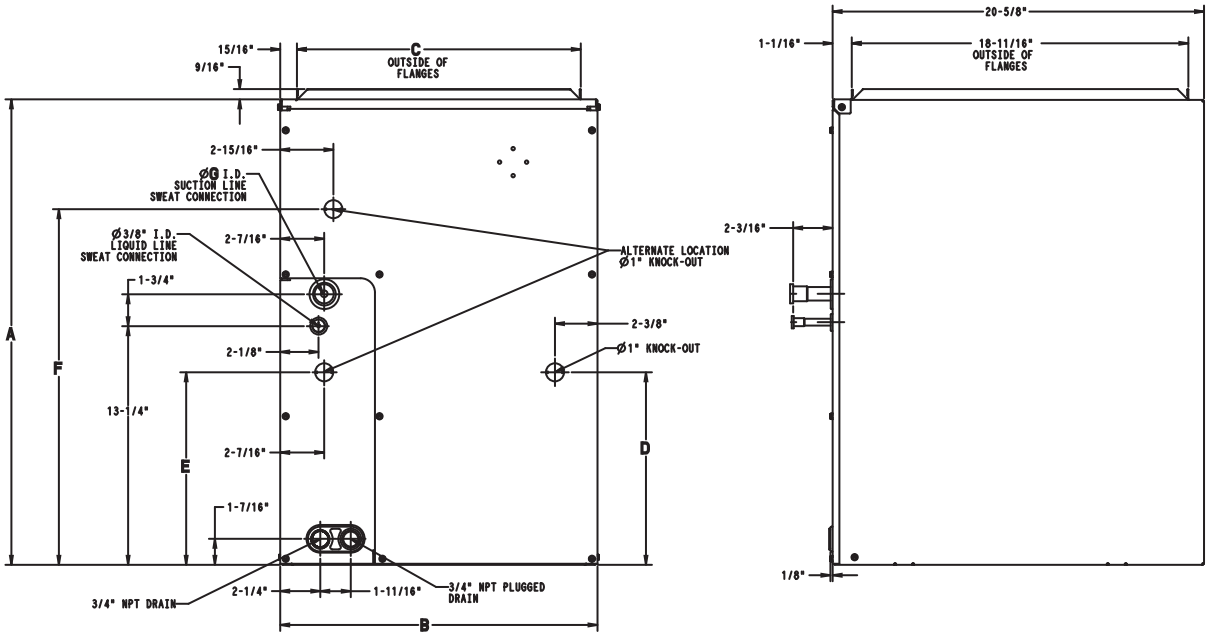
Puron™
the environmentally sound refrigerant

c UL us

AHRI CERTIFIED™ www.ahridirectory.org

Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program For verification of certification for individual products, go to www.ahridirectory.org.

Certified System™
ISO 9001
QMI-SAI Global



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DIMENSIONS

UNIT	A	B	C	D	E	F	G	SHIPPING WT (LBS)
CAPVP1917ALA	25 13/16”	17 1/2”	15 3/4”	17 3/16”	-	19 3/4”	3/4”	62.0
CAPVP2517ALA	29 3/4”	17 1/2”	15 3/4”	19 3/4”	-	19 3/4”	3/4”	68.5
CAPVP3717ALA	25 13/16”	17 1/2”	15 3/4”	17 3/16’	-	19 3/4”	3/4”	62.0
CAPVP3721ALA	29 3/4”	21’	19 1/4”	19 3/4”	-	19 3/4”	7/8”	81.5
CAPVP4321ALA	29 3/4”	21’	19 1/4”	19 3/4”	-	19 3/4”	7/8”	81.5
CAPVP6124ALA	35”	24 1/2”	22 3/4”	19 3/4”	-	19 3/4”	7/8”	98.5

PERFORMANCE DATA

COOLING CAPACITIES (MBH) - PURON® REFRIGERANT

CAPV UNIT SIZE	INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR F° (C°)															
			30 (-1)			35 (2)			40 (4)			45 (7)			50 (10)			
	CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	
1917	450	72 (22)	33.57	18.66	0.00	31.02	17.08	0.00	28.19	15.44	0.00	25.03	13.74	0.00	21.50	11.99	0.00	
		67 (19)	28.12	18.76	0.00	25.51	17.13	0.00	22.63	15.44	0.00	19.41	13.70	0.00	15.70	11.85	0.00	
		62 (17)	23.21	18.82	0.00	20.55	17.14	0.00	17.55	15.38	0.00	14.16	13.53	0.00	10.75	10.75	0.00	
	600	72 (22)	42.86	23.54	0.00	39.66	21.61	0.00	36.05	19.58	0.00	32.00	17.44	0.00	27.44	15.21	0.00	
		67 (19)	35.94	23.88	0.00	32.64	21.86	0.00	28.94	19.74	0.00	24.78	17.52	0.00	20.12	15.22	0.00	
		62 (17)	29.69	24.13	0.00	26.29	22.02	0.00	22.49	19.82	0.00	18.20	17.50	0.00	13.85	13.85	0.00	
	750	72 (22)	51.17	27.85	0.00	47.40	25.65	0.00	43.14	23.30	0.00	38.30	20.81	0.00	32.83	18.18	0.00	
		67 (19)	42.99	28.53	0.00	39.08	26.19	0.00	34.67	23.71	0.00	29.68	21.10	0.00	24.05	18.35	0.00	
		62 (17)	35.55	29.06	0.00	31.51	26.60	0.00	26.96	24.00	0.00	21.89	21.28	0.00	16.92	16.92	0.00	
2517	600	72 (22)	62.57	31.59	0.00	57.94	29.03	0.00	52.74	26.32	0.00	46.87	23.47	0.00	40.26	20.49	0.00	
		67 (19)	52.49	32.04	0.00	47.71	29.35	0.00	42.35	26.53	0.00	36.33	23.57	0.00	29.57	20.49	0.00	
		62 (17)	43.37	32.39	0.00	38.45	29.58	0.00	32.95	26.63	0.00	26.73	23.54	0.00	20.26	20.26	0.00	
	800	72 (22)	78.59	39.22	0.00	72.92	36.20	0.00	66.47	32.95	0.00	59.11	29.48	0.00	50.76	25.80	0.00	
		67 (19)	66.08	40.30	0.00	60.18	37.08	0.00	53.48	33.63	0.00	45.88	29.97	0.00	37.27	26.11	0.00	
		62 (17)	54.71	41.16	0.00	48.58	37.74	0.00	41.65	34.10	0.00	33.87	30.28	0.00	26.26	26.26	0.00	
	1000	72 (22)	92.27	45.67	0.00	85.78	42.35	0.00	78.32	38.73	0.00	69.75	34.80	0.00	59.94	30.58	0.00	
		67 (19)	77.81	47.56	0.00	70.99	43.94	0.00	63.20	40.04	0.00	54.28	35.83	0.00	44.08	31.34	0.00	
		62 (17)	64.59	49.11	0.00	57.46	45.22	0.00	49.36	41.05	0.00	40.28	36.63	0.00	31.96	31.96	0.00	
3717	900	72 (22)	85.28	42.35	0.00	79.12	39.14	0.00	72.10	35.69	0.00	64.07	31.97	0.00	54.91	28.01	0.00	
		67 (19)	71.79	43.83	0.00	65.36	40.38	0.00	58.05	36.68	0.00	49.72	32.73	0.00	40.25	28.53	0.00	
		62 (17)	59.49	45.02	0.00	52.78	41.34	0.00	45.22	37.41	0.00	36.79	33.30	0.00	29.00	29.00	0.00	
	1200	72 (22)	103.16	50.79	0.00	96.02	47.29	0.00	87.71	43.41	0.00	78.05	39.13	0.00	66.94	34.47	0.00	
		67 (19)	87.21	53.61	0.00	79.64	49.72	0.00	70.90	45.46	0.00	60.82	40.81	0.00	49.25	35.81	0.00	
		62 (17)	72.54	55.95	0.00	64.59	51.72	0.00	55.57	47.16	0.00	45.56	42.32	0.00	37.10	37.10	0.00	
	1500	72 (22)	117.25	57.62	0.00	109.35	53.95	0.00	100.10	49.80	0.00	89.30	45.15	0.00	76.74	40.02	0.00	
		67 (19)	99.48	61.84	0.00	91.07	57.69	0.00	81.29	53.07	0.00	69.87	47.93	0.00	56.68	42.33	0.00	
		62 (17)	83.06	65.49	0.00	74.20	60.91	0.00	64.12	55.91	0.00	53.03	50.53	0.00	44.30	44.30	0.00	
3721	900	72 (22)	85.95	42.71	0.00	79.93	39.56	0.00	73.00	36.12	0.00	65.04	32.41	0.00	55.96	28.45	0.00	
		67 (19)	72.40	44.18	0.00	66.07	40.77	0.00	58.86	37.09	0.00	50.60	33.15	0.00	41.19	28.96	0.00	
		62 (17)	60.05	45.37	0.00	53.44	41.72	0.00	45.92	37.80	0.00	37.44	33.65	0.00	29.27	29.27	0.00	
	1200	72 (22)	104.44	51.43	0.00	97.39	47.95	0.00	89.16	44.08	0.00	79.65	39.82	0.00	68.66	35.19	0.00	
		67 (19)	88.33	54.23	0.00	80.87	50.38	0.00	72.22	46.13	0.00	62.25	41.51	0.00	50.73	36.50	0.00	
		62 (17)	73.55	56.59	0.00	65.68	52.38	0.00	56.68	47.81	0.00	46.52	42.91	0.00	37.58	37.58	0.00	
	1500	72 (22)	119.03	58.46	0.00	111.23	54.81	0.00	102.13	50.71	0.00	91.48	46.10	0.00	79.08	41.02	0.00	
		67 (19)	101.06	62.72	0.00	92.78	58.61	0.00	83.14	54.04	0.00	71.83	48.94	0.00	58.67	43.32	0.00	
		62 (17)	84.48	66.42	0.00	75.74	61.89	0.00	65.66	56.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4321	1050	72 (22)	95.75	47.32	0.00	89.15	43.98	0.00	81.55	40.30	0.00	72.72	36.27	0.00	62.64	31.95	0.00	
		67 (19)	80.81	49.43	0.00	73.87	45.77	0.00	65.88	41.78	0.00	56.71	37.46	0.00	46.18	32.83	0.00	
		62 (17)	67.16	51.17	0.00	59.87	47.21	0.00	51.54	42.93	0.00	42.14	38.37	0.00	33.49	33.49	0.00	
	1400	72 (22)	114.53	56.27	0.00	106.97	52.67	0.00	98.10	48.62	0.00	87.81	44.12	0.00	75.84	39.17	0.00	
		67 (19)	97.13	60.04	0.00	89.08	55.99	0.00	79.75	51.52	0.00	68.84	46.55	0.00	56.19	41.13	0.00	
		62 (17)	81.09	63.28	0.00	72.60	58.83	0.00	62.86	53.96	0.00	51.93	48.71	0.00	42.81	42.81	0.00	
	1750	72 (22)	128.85	63.40	0.00	120.65	59.68	0.00	111.06	55.46	0.00	99.69	50.67	0.00	86.32	45.29	0.00	
		67 (19)	109.76	68.90	0.00	101.01	64.69	0.00	90.69	59.91	0.00	78.53	54.53	0.00	64.28	48.54	0.00	
		62 (17)	92.05	73.79	0.00	82.77	69.09	0.00	72.04	63.83	0.00	60.16	58.07	0.00	51.02	51.02	0.00	
6124	1600	72 (22)	133.10	65.29	0.00	124.38	61.09	0.00	114.12	56.35	0.00	102.04	51.04	0.00	87.92	45.18	0.00	
		67 (19)	112.92	69.55	0.00	103.56	64.81	0.00	92.62	59.52	0.00	79.80	53.65	0.00	64.92	47.24	0.00	
		62 (17)	94.29	73.16	0.00	84.32	67.90	0.00	72.85	62.14	0.00	59.93	55.91	0.00	48.98	48.98	0.00	
	2000	72 (22)	150.19	73.70	0.00	140.73	69.39	0.00	129.45	64.43	0.00	116.13	58.76	0.00	100.38	52.39	0.00	
		67 (19)	127.98	79.99	0.00	117.77	75.03	0.00	105.67	69.38	0.00	91.36	63.01	0.00	74.55	55.91	0.00	
		62 (17)	107.36	85.50	0.00	96.47	79.93	0.00	83.81	73.69	0.00	69.74	66.88	0.00	58.70	58.70	0.00	
	2400	72 (22)	163.45	80.69	0.00	153.55	76.31	0.00	141.65	71.22	0.00	127.40	65.35	0.00	110.42	58.64	0.00	
		67 (19)	139.86	88.99	0.00	129.06	83.92	0.00	116.15	78.06	0.00	100.72	71.35	0.00	82.51	63.78	0.00	
		62 (17)	117.85	96.47	0.00	106.33	90.72	0.00	92.96	84.20	0.00	78.33	76.91	0.00	67.38	67.38	0.00	

CFM – Cubic Ft. per Minute **EWB** – Entering Wet Bulb **LWB** – Leaving Wet Bulb **TC** – Gross Cooling Capacity 1000 Btuh
SHC – Gross Sensible Capacity 1000 Btuh **BF** – Bypass Factor **MBH** – 1000 Btuh

See notes on page 5.

NOTES:

1. Contact manufacturer for cooling capacities at conditions other than shown in table.
2. Formulas:
   Leaving db = entering db - $\frac{\text{sensible heat cap.}}{1.09 \times \text{CFM}}$

   Leaving wb = wb corresponding to enthalpy of air leaving coil (h_{LWB})

   $h_{LWB} = h_{EWB} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{CFM}}$

   Where h_{EWB} = enthalpy of air entering coil
3. SHC is based on 80°F (27°C) db temperature of air entering the evaporator coil.
   Below 80°F (27°C) db, subtract (Correction Factor x CFM) from SHC.
   Above 80°F (27°C) db, add (Correction Factor x CFM) to SHC.
4. Direct interpolation is permissible. Do not extrapolate.
5. Fan motor heat has not been deducted.
6. All data points are based on 10°F (-12°C) superheat leaving coil and use of thermostatic expansion valve (TXV) device.
7. All units have sweat suction-tube connection and a liquid-tube connection. For 1-1/8-in. system suction tube, 3/4 x 1-1/8-in. suction tube connection adapter is available as accessory.
8. The CAPVP coils can be used in any properly designed system using Puron® refrigerant.
9. Before using maximum cfm shown in table, check coil static pressure drop to ensure system blower can provide necessary static pressure needed for coil and duct systems.
10. Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

COIL STATIC PRESSURE DROP (in. w.c.) PURON® and R-22 REFRIGERANTS

UNIT SIZE	STANDARD CFM																		
	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
1917	Dry																		
	0.1	0.1	0.1	0.2	0.2														
	Wet																		
	0.1	0.1	0.1	0.2	0.2														
2517	Dry																		
	0.1	0.1	0.1	0.1	0.2	0.2	0.2												
	Wet																		
	0.1	0.1	0.1	0.1	0.2	0.2	0.2												
3717	Dry																		
	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3										
	Wet																		
	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4										
3721	Dry																		
			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3								
	Wet																		
			0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3								
4321	Dry																		
			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3						
	Wet																		
			0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4						
6124	Dry																		
						0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
	Wet																		
						0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5

Edition Date: 11/14

Catalog No: CAPVP–01PD

Replaces: NEW