

CVWVA, CSWVA (formerly CVPVA, CSPVA)

Evaporator Coil with Vertex™ Technology Upflow/Downflow – Cooling and Heating – R-410A

IN THE U.S. THIS PRODUCT IS FOR SERVICE AND WARRANTY ONLY.

Product Data

IMPORTANT: The CVWVA/CSWVA replaces the CVPVA/CSPVA model in the United States is only available for service and warranty use. In Canada, the CVWVA/CSWVA can be used for new R-410A installations, service, and warranty use.

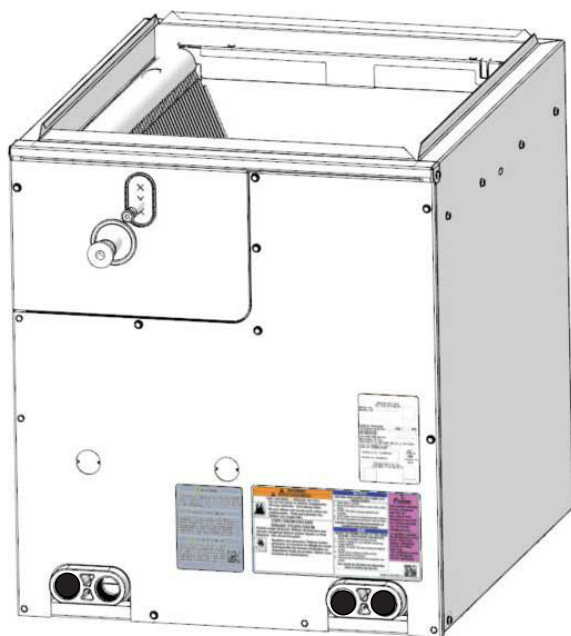


Fig. 1 – Typical Coil

A210758B



This evaporator coil incorporates proven standards for reliable system operation and performance throughout the life of this product. These quality coils, manufactured and installed as part of a total comfort system, provide AHRI-rated performance ratings and are additionally listed with UL and c-UL.

Available for use in R-410A refrigerant only, it is a cased V-coil or slope coil that is housed in a durable, 24-gauge, pre-painted taupe metallic cabinet. The fully insulated cabinet (foil faced with R-2.1 insulation) provides for quiet efficient operation of the evaporator coil.

DESIGN FEATURES

- Designed with performance in mind, this new evaporator coil offers lower pressure drops to enhance system performance and airflow characteristics.
- All coils have refrigerant-specific, factory-installed TXVs. All models are factory pre-set to approximately 10° of superheat at the suction service valve.
- The corrosion-resistant drain pan is designed of a “Polybutylene terephthalate” material (PBT) that offers unsurpassed pan strength. It is engineered with proper slope to help ensure water drainage, improved moisture removal, and home comfort.
- The drain pan is supplied with three water-tight drain plugs to prevent leakage from unused drain connections.
- Provided with industry proven sweat connections for leak-free operation to maintain system reliability. The location of the lineset connections allows for removal of the access door for easy cleaning/servicing of the coils, as well as easy access to the TXV. All models come from the factory with enough length of straight tube—once the pipe swages are cut off—to accommodate braze-less compression fittings.
- Meets or exceeds burst pressure of 1900 psi, which is at least three times the maximum operating pressure it would see in actual cooling or heating application.
- This cased coil comes with factory-installed UV knockouts for quick and easy installation of UV lights.
- Comes with a “no delta plate” for easy, quick access to both sides of the coil for service and cleaning. Also, after the door is removed and refrigerant lines disconnected, the coil is removable from the front of the unit without the use of any tools.

WARRANTY

- Default 5-year parts limited warranty:
 - 10-year parts limited warranty with timely registration*.
- Equipment must be registered within 90 days of original installation, except in jurisdictions where warranty benefits cannot be conditioned on registration.
- * Applies to original purchaser/homeowner and not available to subsequent owners, except in jurisdictions where laws dictate otherwise.

See Warranty certificate for complete details and restrictions.

MODEL NUMBER NOMENCLATURE

1 2 3 4 5 6 7 8 9 10 11 12
C V W V A 3 6 1 7 X M C

Product

C = Coil

Type

V = V-Coil

S = Slope Coil

Refrigerant Type

W= Puron® (Service Only)

Coil Configuration

V = Upflow/Downflow

M = Multi-poise

Cabinet Finish

A = Major Series

Variations

N/A

Tubing Design

M= Microchannel

Metering Device

X = TXV

Cabinet Width (Nom.)

14 = 14-in (356 mm)

17 = 17-in (432 mm)

21 = 21-in (533 mm)

24 = 24-in (610 mm)

Unit Capacity (Nom.)

18 = 1½ Ton

24 = 2 Ton

30 / 31 = 2½ Ton

36 - 38= 3 Ton

42 = 3½ Ton

48 = 4 Ton

60 / 61 = 5 Ton

Table 1 – Coil Connections / Orientations

Model	Nom. Tons	Line Set Connection Tube Size, in.		Flush Fit to Furnace Width, in. (mm)	Fits Next Smaller Furnace Width			90° Rotation to Furnace (4" Min. Transition Required)	180° Rotation to Furnace
		Suction	Liquid		Equal Overhang	Offset Left	Offset Right		
CSWVA2414XMC	2	3/4	3/8	14-3/16 (360)				ALL Upflow or Downflow	
CVWVA1814XMC	1.5	3/4	3/8	14-3/16 (360)					
CVWVA2414XMC	2	3/4	3/8	14-3/16 (360)					
CVWVA2417XMC	2	3/4	3/8	17-1/2 (445)	X	X	X		
CVWVA3014XMC	2.5	3/4	3/8	14-3/16 (360)					
CVWVA3017XMC	2.5	3/4	3/8	17-1/2 (445)	X	X	X		
CVWVA3117XMC	2.5	3/4	3/8	17-1/2 (445)	X	X	X		
CVWVA3617XMC	3	3/4	3/8	17-1/2 (445)	X	X	X		
CVWVA3621XMC	3	3/4	3/8	21 (533)	X	X	X		
CVWVA3721XMC	3	3/4	3/8	21 (533)	X	X	X		
CVWVA3817XMC	3	3/4	3/8	17-1/2 (445)	X	X	X		
CVWVA4217XMC	3.5	7/8	3/8	17-1/2 (445)	X	X	X		
CVWVA4221XMC	3.5	7/8	3/8	21 (533)	X	X	X		
CVWVA4821XMC	4	7/8	3/8	21 (533)	X	X	X		
CVWVA4824XMC	4	7/8	3/8	24-1/2 (622)	X	X	X		
CVWVA6024XMC	5	7/8	3/8	24-1/2 (622)	X	X	X		
CVWVA6124XMC	5	7/8	3/8	24-1/2 (622)	X	X	X		

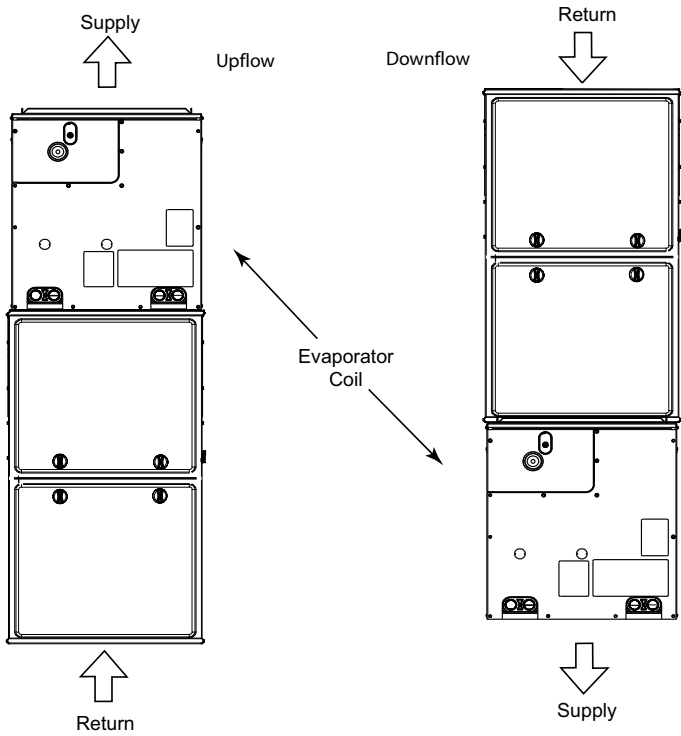


Fig. 2 – Typical Flush-Fit Coil Installation on Furnace ^{A200227C}
(recommended)

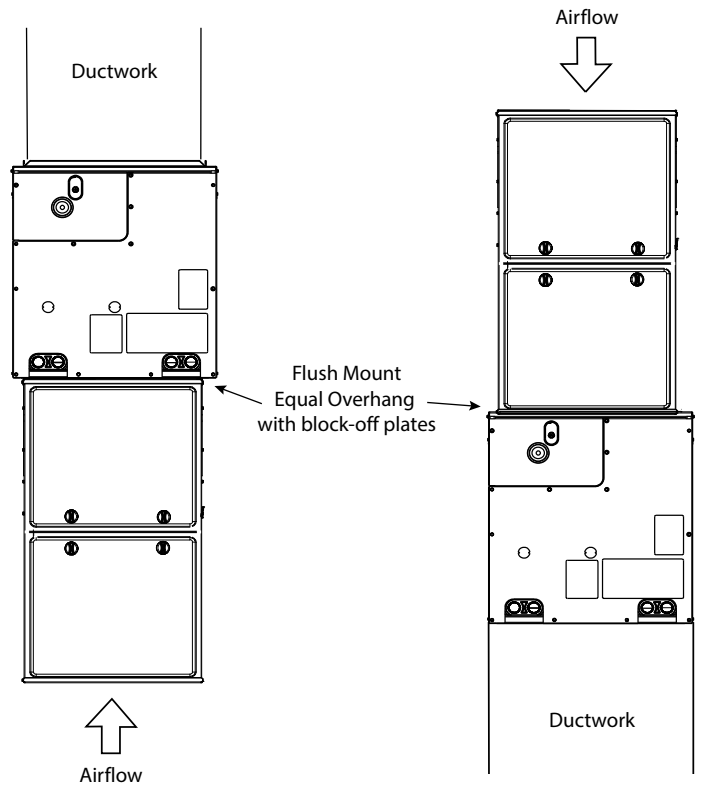


Fig. 4 – Smaller Furnace, Equal Overhang, Flush Mount ^{A221112A}
(not recommended)

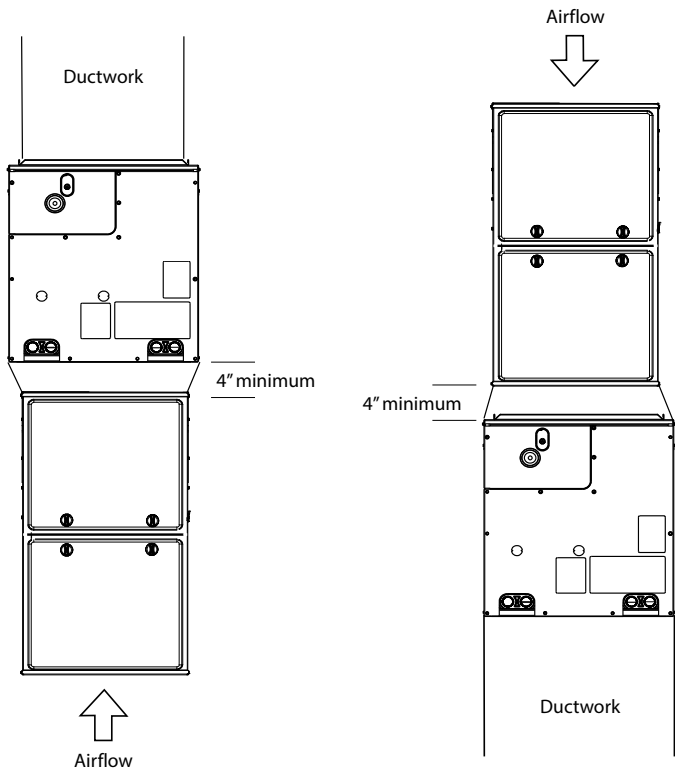


Fig. 3 – Adapter(s) Installation When Coil is Larger than Furnace ^{A200228C}
(recommended)

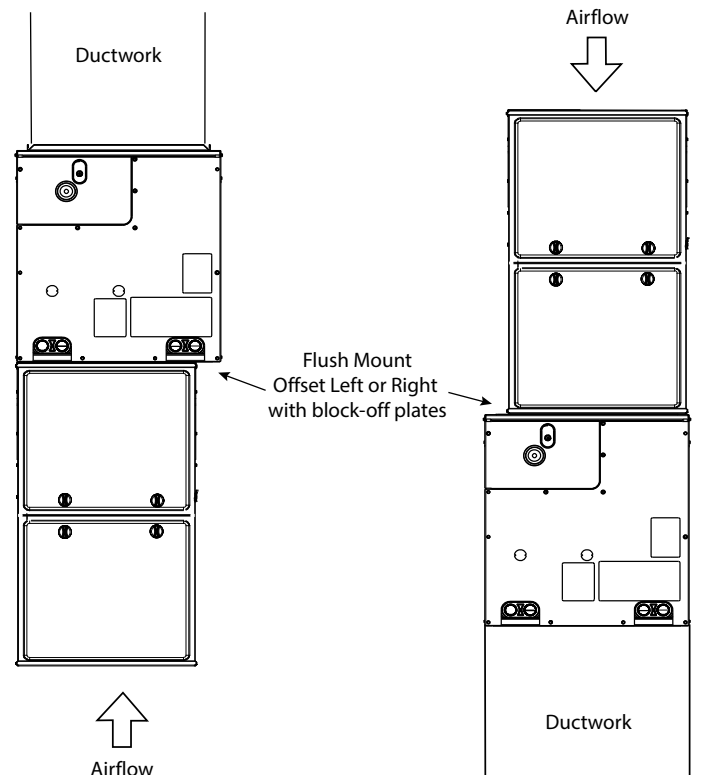


Fig. 5 – Smaller Furnace, Offset, Flush Mount Right or Left ^{A221113A}
(not recommended)

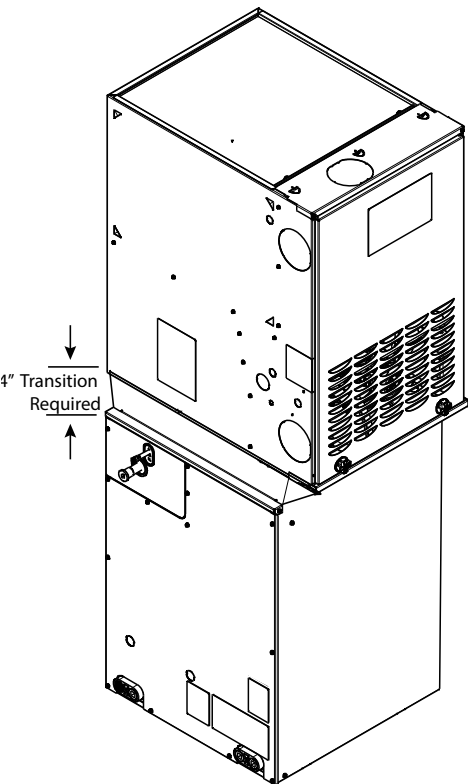


Fig. 6 – 90° Rotation (shown in downflow)
4" Transition Required (not recommended)

A221110A

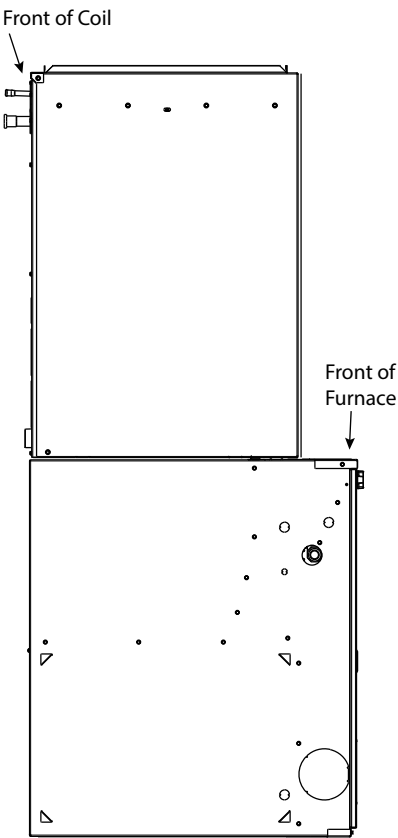


Fig. 7 – 180° Rotation (shown in upflow)
(not recommended)

A221111

Table 2 – Accessories

Part Number	Description
KGADA0101ALL	Coil Adapter Kits - No Offset
KGADA0201ALL	Coil Adapter Kits - Single Offset
KGADA0301ALL	Coil Adapter Kits - Double Offset

DIMENSIONS

UNIT	SERIES	A		B (Cabinet Width)		C		D		E		F		H (Suction Line)		OPERATING WEIGHT		SHIPPING WEIGHT		SHIPPING HEIGHT		SHIPPING WIDTH		SHIPPING DEPTH	
		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Lbs	Kgs	Lbs	Kgs	INCH	MM	INCH	MM	INCH	MM
CVWA1814XMCE	A	14 11/16	372.4	14 3/16	360.4	12 7/16	316.2	13 3/16	335.2	11 5/8	294.8	7 1/8	180.2	3/4	19.1	23.6	10.7	28	12.7	16.0	406.4	16.3	414.0	23.8	604.8
CVWA2414XMC	A	14 11/16	372.4	17 1/2	444.5	15 3/4	400.3	13 3/16	335.2	11 5/8	294.8	8 3/4	222.3	3/4	19.1	31.2	14.2	37	16.8	16.0	406.4	19.6	497.8	23.8	604.8
CVWA2417XMC	A	14 11/16	372.4	17 1/2	444.5	15 3/4	400.3	13 3/16	335.2	11 5/8	294.8	8 3/4	222.3	3/4	19.1	31.2	14.2	37	16.8	16.0	406.4	19.6	497.8	23.8	604.8
CVWA3014XMC	A	17 1/16	432.6	14 3/16	360.4	12 7/16	316.2	14 15/16	380.2	14	355.0	7 1/8	180.2	3/4	19.1	26.1	11.8	31.0	14.1	18.4	467.4	16.3	414.0	23.8	604.8
CVWA3017XMC	A	19 7/16	494.5	17 1/2	444.5	15 3/4	400.3	17 5/16	440.4	15 11/16	398.7	8 3/4	222.3	3/4	19.1	31.2	14.2	37	16.8	20.7	525.8	19.6	497.8	23.8	604.8
CVWA3117XMC	A	25 13/16	666.4	17 1/2	444.5	15 3/4	400.3	24 3/16	614.2	22 13/16	578.8	8 3/4	222.3	3/4	19.1	37.0	16.8	44	20.0	27.1	688.3	19.6	497.8	23.8	604.8
CVWA3617XMC	A	19 7/16	494.5	17 1/2	444.5	15 3/4	400.3	17 5/16	440.4	15 11/16	398.7	8 3/4	222.3	3/4	19.1	31.2	14.2	37	16.8	20.7	525.8	19.6	497.8	23.8	604.8
CVWA3817XMC	A	29 3/4	755.3	17 1/2	444.5	15 3/4	400.3	27 3/4	704.9	26 11/16	677.7	8 3/4	222.3	3/4	19.1	41.3	18.7	49	22.2	31.0	787.4	19.6	497.8	23.8	604.8
CVWA4217XMC	A	21 1/8	535.9	17 1/2	444.5	15 3/4	400.3	19 1/8	485.9	18 1/16	459.1	8 3/4	222.3	7/8	22.2	32.0	14.5	38	17.2	22.5	571.5	19.6	497.8	23.8	604.8

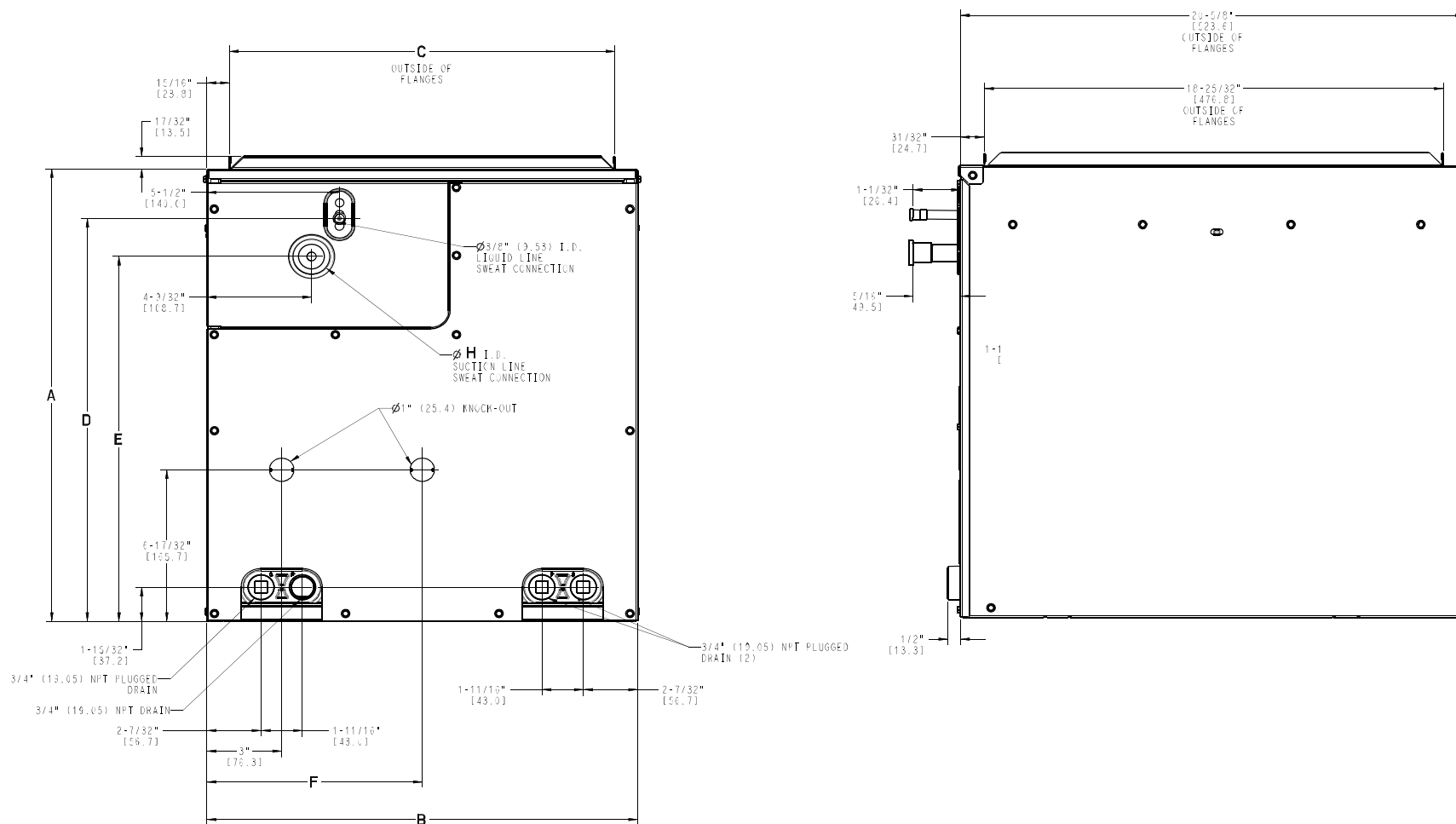


Fig. 8 – CVWVA (14" & 17" cabinet widths)

Fig. 9 – CVWVA (21" & 24" cabinet widths)

[illegible]

Fig. 9 – CVWVA (21" & 24" cabinet widths)

DIMENSIONS (cont)

UNIT	SERIES	A (Cabinet Width)		B		OPERATING WEIGHT		SHIPPING WEIGHT		SHIPPING HEIGHT		SHIPPING WIDTH		SHIPPING DEPTH	
		INCH	MM	INCH	MM	Lbs	Kgs	Lbs	Kgs	INCH	MM	INCH	MM	INCH	MM
CSWVA2414XMC	A	14 3/16	360.4	12 7/16	316.2	23.6	10.7	28.0	12.7	27.1	688.3	16.3	414.0	23.8	604.5

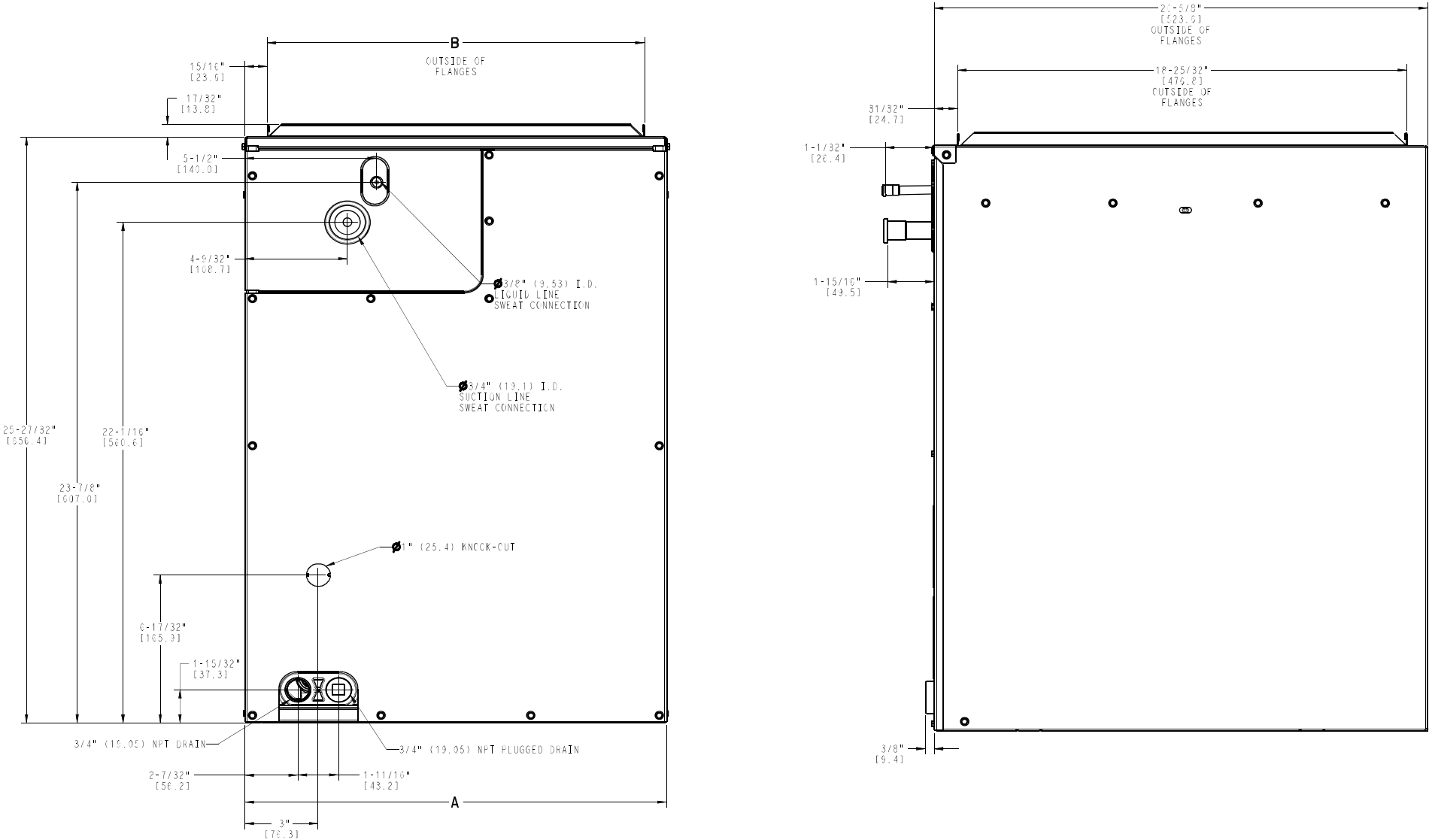


Fig. 10 – CSWVA

WET COIL — INDOOR PERFORMANCE DATA - COIL PRESSURE DROP (in.w.c.) BY SCFM

Models	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500					
CSWVA2414XMC				.12	.14	.16	.17	.19	.22	.24	.26	.29																																			
CVWVA1814XMC	.11	.13	.15	.17	.20	.23	.25																																								
CVWVA2414XMC				.17	.20	.23	.25	.28	.31	.35	.38	.42																																			
CVWVA2417XMC				.13	.15	.17	.18	.21	.23	.25	.27	.30																																			
CVWVA3014XMC							.22	.25	.28	.31	.34	.38	.41	.45	.49	.53	.57																														
CVWVA3017XMC							.12	.13	.15	.16	.18	.20	.21	.23	.25	.27	.29																														
CVWVA3117XMC							.11	.12	.13	.14	.16	.17	.19	.21	.22	.24	.26																														
CVWVA3617XMC										.16	.18	.20	.21	.23	.25	.27	.29	.31	.34	.36	.38	.41																									
CVWVA3621XMC										.15	.16	.17	.19	.21	.22	.24	.26	.27	.29	.31	.33	.35																									
CVWVA3721XMC										.13	.14	.16	.17	.18	.20	.22	.23	.25	.27	.28	.30	.32																									
CVWVA3817XMC										.14	.15	.17	.18	.20	.21	.23	.25	.26	.28	.30	.32	.34																									
CVWVA4217XMC													.25	.28	.30	.32	.35	.38	.40	.43	.46	.49	.52	.56	.59	.62	.66																				
CVWVA4221XMC													.19	.21	.22	.24	.26	.27	.29	.31	.33	.35	.37	.39	.42	.44	.46																				
CVWVA4821XMC																.22	.23	.25	.27	.28	.30	.32	.34	.36	.38	.41	.43	.45	.48	.50	.52	.55															
CVWVA4824XMC																.18	.19	.20	.21	.23	.24	.25	.27	.28	.30	.32	.33	.35	.36	.38	.40	.42															
CVWVA6024XMC																						.23	.25	.26	.27	.29	.31	.32	.34	.35	.37	.39	.41	.42	.44	.46	.48	.50	.52	.54	.56	.58					
CVWVA6124XMC																						.17	.18	.19	.20	.21	.22	.23	.24	.26	.27	.28	.29	.31	.32	.33	.35	.36	.37	.39	.40	0.42					

DRY COIL — INDOOR PERFORMANCE DATA - COIL PRESSURE DROP (in.w.c.) BY SCFM

Models	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500		
CSWVA2414XMC				.10	.11	.13	.14	.16	.18	.20	.22	.24																																
CVWVA1814XMC	.10	.12	.14	.16	.18	.21	.24																																					
CVWVA2414XMC				.16	.18	.21	.24	.26	.29	.33	.36	.39																																
CVWVA2417XMC				.11	.12	.14	.15	.17	.19	.21	.23	.25																																
CVWVA3014XMC							.19	.21	.24	.26	.29	.32	.35	.38	.41	.44	.47																											
CVWVA3017XMC							.11	.12	.13	.15	.16	.18	.19	.21	.23	.24	.26																											
CVWVA3117XMC							.09	.10	.12	.13	.14	.15	.17	.18	.20	.21	.23																											
CVWVA3617XMC									.15	.16	.18	.19	.21	.23	.24	.26	.28	.30	.32	.34	.36																							
CVWVA3621XMC									.12	.13	.14	.15	.17	.18	.19	.21	.22	.24	.25	.27	.28																							
CVWVA3721XMC									.11	.12	.14	.15	.16	.17	.18	.20	.21	.23	.24	.25	.27																							
CVWVA3817XMC									.13	.14	.15	.16	.18	.19	.21	.22	.24	.26	.28	.29	.31																							
CVWVA4217XMC													.21	.23	.25	.27	.29	.31	.34	.36	.38	.41	.43	.46	.49	.51	.54																	
CVWVA4221XMC													.15	.17	.18	.19	.21	.22	.24	.25	.27	.28	.30	.32	.33	.35	.37																	
CVWVA4821XMC																.18	.20	.21	.23	.24	.25	.27	.29	.30	.32	.34	.35	.37	.39	.41	.43	.45												
CVWVA4824XMC																.14	.15	.16	.17	.18	.19	.20	.21	.22	.24	.25	.26	.27	.29	.30	.31	.33												
CVWVA6024XMC																						.18	.19	.20	.21	.22	.23	.24	.26	.27	.28	.29	.31	.32	.33	.35	.36	.38	.39	.41	.42	.44		
CVWVA6124XMC																						.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.26	.27	.29	.30	.31	.32	.34	.35	.36		

Table 3 – Cooling Capacities (MBH) - PURON® Refrigerant (R-410A)

(See Legend and Notes at end of Table and on page 16.)																
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CSWVA2414XMC																
600	72	41.95	20.30	0.00	37.67	18.17	0.00	32.89	15.96	0.00	27.62	13.71	0.29	21.89	11.43	0.23
	67	34.12	20.86	0.00	29.77	18.70	0.22	25.14	16.46	0.20	20.09	14.14	0.20	14.49	11.65	0.22
	62	27.07	21.32	0.19	23.00	19.09	0.19	18.41	16.74	0.20	14.57	14.57	0.20	12.03	12.03	0.33
800	72	50.05	24.32	0.00	45.84	22.01	0.00	40.26	19.46	0.00	33.76	16.75	0.34	26.94	14.08	0.28
	67	41.52	25.38	0.39	36.35	22.88	0.27	30.79	20.24	0.25	24.69	17.47	0.25	17.80	14.47	0.26
	62	33.11	26.22	0.24	28.19	23.59	0.24	22.60	20.78	0.24	18.36	18.36	0.24	15.30	15.30	0.36
1000	72	57.94	27.87	0.00	52.74	25.19	0.00	46.39	22.38	0.00	39.21	19.38	0.39	31.16	16.32	0.32
	67	47.81	29.25	0.40	42.04	26.46	0.32	35.58	23.49	0.29	28.57	20.36	0.29	20.61	16.93	0.30
	62	38.14	30.38	0.28	32.52	27.44	0.28	26.10	24.28	0.28	21.69	21.69	0.28	18.12	18.12	0.39
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA1814XMC																
450	72	31.31	15.37	0.00	27.96	13.65	0.00	24.20	11.91	0.00	20.10	10.14	0.23	15.71	8.30	0.22
	67	25.30	15.64	0.25	21.97	13.95	0.18	18.44	12.17	0.19	14.55	10.30	0.20	10.26	8.27	0.24
	62	19.87	15.75	0.18	16.93	14.10	0.18	13.43	12.22	0.20	10.36	10.34	0.21	8.58	8.58	0.34
600	72	37.61	18.53	0.00	34.45	16.76	0.00	29.96	14.68	0.00	25.00	12.57	0.29	19.67	10.38	0.26
	67	31.25	19.28	0.32	27.25	17.29	0.24	22.90	15.14	0.24	18.17	12.91	0.24	12.92	10.50	0.26
	62	24.78	19.68	0.22	21.07	17.64	0.23	16.71	15.34	0.24	13.17	13.17	0.24	10.70	10.70	0.38
750	72	43.85	21.47	0.00	40.09	19.42	0.00	35.03	17.09	0.00	29.19	14.66	0.33	23.09	12.18	0.30
	67	36.38	22.45	0.35	31.87	20.19	0.29	26.82	17.77	0.27	21.30	15.18	0.28	15.10	12.36	0.30
	62	28.97	23.09	0.26	24.58	20.69	0.26	19.58	18.12	0.27	15.79	15.79	0.27	12.96	12.96	0.40
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA2414XMC																
600	72	38.06	18.85	0.00	34.74	17.01	0.00	30.37	14.96	0.00	25.46	12.83	0.31	19.95	10.60	0.26
	67	31.57	19.60	0.35	27.59	17.60	0.24	23.30	15.48	0.24	18.38	13.15	0.24	13.13	10.76	0.26
	62	25.08	20.08	0.22	21.25	17.92	0.22	16.96	15.69	0.23	13.39	13.39	0.24	11.00	11.00	0.37
800	72	46.08	22.66	0.00	42.15	20.53	0.00	36.86	18.08	0.00	31.01	15.61	0.36	24.45	12.99	0.31
	67	38.30	23.78	0.38	33.43	21.40	0.29	28.38	18.91	0.29	22.55	16.23	0.29	16.05	13.29	0.30
	62	30.58	24.57	0.27	26.09	22.10	0.27	20.62	19.29	0.28	16.79	16.79	0.28	13.96	13.96	0.40
1000	72	53.45	26.08	0.00	48.57	23.56	0.00	42.53	20.82	0.00	35.61	18.00	0.38	28.53	15.13	0.35
	67	44.07	27.42	0.39	38.67	24.74	0.34	32.81	21.93	0.33	26.00	18.85	0.32	18.67	15.61	0.33
	62	35.26	28.48	0.31	29.91	25.64	0.31	23.88	22.58	0.31	19.78	19.78	0.32	16.51	16.51	0.43

Table 3 – Cooling Capacities (MBH) - PURON® Refrigerant (R-410A) (Continued)

INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA2417XMC																
600	72	38.15	18.98	0.00	34.55	17.06	0.00	30.16	14.98	0.00	25.32	12.86	0.30	19.85	10.63	0.25
	67	31.36	19.64	0.33	27.39	17.61	0.23	23.16	15.50	0.22	18.30	13.18	0.23	13.14	10.84	0.24
	62	24.91	20.09	0.20	21.10	17.93	0.21	16.87	15.70	0.22	13.27	13.27	0.23	10.85	10.84	0.36
800	72	45.75	22.73	0.00	41.97	20.63	0.00	36.72	18.18	0.00	30.91	15.69	0.35	24.38	13.07	0.30
	67	38.12	23.87	0.37	33.36	21.47	0.29	28.28	18.98	0.28	22.48	16.30	0.27	16.03	13.35	0.29
	62	30.33	24.58	0.26	25.98	22.17	0.26	20.64	19.42	0.26	16.69	16.69	0.27	13.88	13.88	0.38
1000	72	53.13	26.16	0.00	48.37	23.66	0.00	42.38	20.94	0.00	35.70	18.12	0.39	28.52	15.24	0.34
	67	43.87	27.50	0.39	38.42	24.85	0.32	32.70	22.03	0.32	26.02	18.98	0.31	18.68	15.71	0.32
	62	35.13	28.59	0.30	29.82	25.75	0.30	23.91	22.73	0.30	19.71	19.71	0.30	16.44	16.44	0.41
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA3014XMC																
750	72	50.66	24.57	0.00	45.71	22.11	0.00	40.13	19.54	0.00	33.89	16.85	0.36	27.14	14.18	0.27
	67	41.37	25.45	0.00	36.25	22.85	0.27	30.79	20.26	0.24	24.59	17.47	0.23	17.89	14.59	0.23
	62	32.95	26.19	0.22	27.99	23.51	0.22	22.43	20.70	0.22	18.19	18.19	0.22	15.19	15.19	0.34
1000	72	60.27	29.21	0.00	54.96	26.44	0.00	48.40	23.49	0.00	40.96	20.35	0.40	32.86	17.19	0.32
	67	49.74	30.61	0.43	43.77	27.69	0.31	37.26	24.63	0.29	29.79	21.34	0.28	21.52	17.79	0.28
	62	39.71	31.81	0.27	33.83	28.72	0.27	27.16	25.40	0.27	22.59	22.59	0.27	18.99	18.99	0.38
1250	72	68.50	33.03	0.00	62.80	30.13	0.00	55.42	26.86	0.00	47.03	23.40	0.42	37.42	19.76	0.35
	67	56.83	35.07	0.41	50.16	31.86	0.35	42.76	28.43	0.33	34.19	24.72	0.32	24.53	20.55	0.32
	62	45.57	36.79	0.31	38.82	33.33	0.31	31.25	29.62	0.31	26.44	26.44	0.31	22.28	22.28	0.41
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA3017XMC																
750	72	50.66	25.13	0.00	45.80	22.64	0.00	40.27	20.06	0.00	34.00	17.31	0.30	27.21	14.56	0.23
	67	41.50	26.09	0.29	36.42	23.47	0.22	30.94	20.81	0.20	24.76	17.94	0.20	18.06	14.97	0.20
	62	33.09	26.86	0.18	28.35	24.21	0.19	22.71	21.31	0.19	18.10	18.10	0.20	15.13	15.12	0.32
1000	72	60.09	29.83	0.00	55.27	27.24	0.00	48.78	24.25	0.00	41.33	21.08	0.33	33.17	17.79	0.28
	67	50.10	31.54	0.33	44.17	28.59	0.27	37.64	25.46	0.25	30.22	22.09	0.24	22.11	18.55	0.25
	62	40.08	32.80	0.24	34.48	29.74	0.24	27.70	26.36	0.23	22.70	22.70	0.24	19.12	19.12	0.35
1250	72	68.19	33.71	0.00	63.11	31.00	0.00	55.83	27.72	0.00	47.41	24.18	0.37	37.82	20.45	0.31
	67	57.19	36.13	0.35	50.57	32.88	0.31	43.25	29.44	0.29	34.77	25.66	0.28	25.36	21.57	0.29
	62	45.90	37.91	0.28	39.34	34.45	0.28	31.81	30.70	0.27	26.82	26.82	0.28	22.57	22.57	0.39

Table 3 – Cooling Capacities (MBH) - PURON® Refrigerant (R-410A) (Continued)

INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA3117XMC																
750	72	48.31	23.38	0.00	43.93	21.18	0.00	38.71	18.80	0.00	32.87	16.31	0.23	26.11	13.66	0.17
	67	39.74	24.37	0.21	35.07	22.00	0.17	29.78	19.51	0.15	23.91	16.85	0.15	17.53	14.08	0.16
	62	31.75	25.08	0.13	27.29	22.68	0.14	22.00	20.03	0.14	17.25	17.25	0.16	14.43	14.43	0.29
1000	72	57.79	27.96	0.00	53.28	25.60	0.00	47.20	22.90	0.00	40.23	19.99	0.27	32.08	16.87	0.21
	67	48.28	29.69	0.25	42.74	26.97	0.21	36.52	24.11	0.19	29.51	21.01	0.19	21.78	17.74	0.19
	62	38.74	30.93	0.18	33.49	28.17	0.18	27.04	25.00	0.18	22.03	22.03	0.19	18.57	18.57	0.31
1250	72	66.42	31.88	0.00	61.12	29.29	0.00	54.24	26.33	0.00	46.38	23.12	0.30	37.15	19.63	0.25
	67	55.30	34.17	0.28	49.10	31.20	0.25	42.17	28.06	0.23	34.14	24.57	0.22	25.28	20.88	0.22
	62	44.57	35.98	0.22	38.39	32.80	0.22	31.26	29.35	0.21	26.13	26.12	0.23	22.08	22.08	0.35
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA3617XMC																
900	72	59.55	29.55	0.00	54.44	26.84	0.00	47.80	23.73	0.00	40.29	20.46	0.33	32.20	17.20	0.26
	67	49.33	30.93	0.37	43.24	27.81	0.26	36.66	24.63	0.24	29.32	21.26	0.23	21.36	17.74	0.23
	62	39.28	31.85	0.22	33.65	28.75	0.22	26.91	25.31	0.22	21.68	21.68	0.22	18.19	18.19	0.34
1200	72	71.40	35.22	0.00	65.42	32.08	0.00	57.59	28.52	0.00	48.64	24.69	0.38	38.60	20.76	0.31
	67	59.24	37.20	0.38	52.14	33.67	0.31	44.36	29.95	0.29	35.46	25.94	0.28	25.80	21.73	0.28
	62	47.29	38.66	0.27	40.38	34.97	0.27	32.51	31.01	0.27	26.94	26.94	0.27	22.67	22.67	0.38
1500	72	81.69	39.99	0.00	74.74	36.49	0.00	65.86	32.58	0.00	55.79	28.36	0.41	44.31	23.93	0.34
	67	67.67	42.61	0.40	59.64	38.67	0.35	50.88	34.56	0.33	40.67	30.02	0.32	29.67	25.32	0.32
	62	54.19	44.68	0.31	46.62	40.62	0.31	37.27	36.04	0.31	31.49	31.49	0.31	26.59	26.59	0.42
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA3621XMC																
900	72	60.16	30.07	0.00	54.89	27.26	0.00	48.25	24.12	0.00	40.76	20.82	0.35	32.65	17.53	0.26
	67	49.73	31.40	0.00	43.59	28.20	0.26	37.00	25.03	0.23	29.61	21.63	0.22	21.60	18.10	0.23
	62	39.57	32.33	0.22	33.84	29.13	0.22	27.06	25.67	0.21	21.94	21.94	0.21	18.43	18.43	0.33
1200	72	72.09	35.82	0.00	65.96	32.57	0.00	58.14	28.99	0.00	49.23	25.14	0.39	39.46	21.23	0.32
	67	59.70	37.76	0.40	52.56	34.14	0.31	44.74	30.42	0.29	35.81	26.40	0.27	26.09	22.17	0.27
	62	47.62	39.22	0.27	40.89	35.55	0.27	32.73	31.50	0.26	27.24	27.24	0.26	22.96	22.96	0.37
1500	72	81.31	40.28	0.00	75.23	37.07	0.00	66.47	33.10	0.00	56.46	28.88	0.42	44.87	24.40	0.34
	67	68.09	43.19	0.40	60.11	39.22	0.35	51.32	35.11	0.33	41.07	30.56	0.31	30.00	25.83	0.31
	62	54.51	45.31	0.31	46.60	41.17	0.30	37.57	36.67	0.30	31.84	31.84	0.31	26.92	26.92	0.41

Table 3 – Cooling Capacities (MBH) - PURON® Refrigerant (R-410A) (Continued)

INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA3721XMC																
900	72	61.32	29.68	0.00	55.63	26.86	0.00	48.95	23.79	0.00	41.46	20.59	0.31	33.21	17.33	0.23
	67	50.38	30.93	0.32	44.21	27.79	0.23	37.61	24.72	0.20	30.15	21.37	0.19	22.06	17.91	0.20
	62	40.13	31.84	0.18	34.23	28.67	0.19	27.62	25.37	0.19	22.17	22.17	0.19	18.66	18.66	0.31
1200	72	72.92	35.23	0.00	67.06	32.22	0.00	59.21	28.72	0.00	50.24	24.97	0.35	40.39	21.15	0.28
	67	60.73	37.37	0.33	53.52	33.79	0.28	45.61	30.15	0.25	36.66	26.23	0.24	26.89	22.11	0.24
	62	48.52	38.84	0.24	41.75	35.28	0.24	33.56	31.30	0.23	27.71	27.71	0.24	23.41	23.41	0.35
1500	72	82.48	39.65	0.00	76.45	36.61	0.00	67.69	32.81	0.00	57.60	28.67	0.38	45.93	24.28	0.31
	67	69.19	42.72	0.36	61.20	38.84	0.32	52.35	34.84	0.30	42.09	30.41	0.28	30.87	25.74	0.28
	62	55.45	44.82	0.28	47.56	40.83	0.27	38.51	36.44	0.27	32.47	32.47	0.28	27.58	27.58	0.38
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA3817XMC																
900	72	66.07	31.91	0.00	60.51	29.14	0.00	53.50	25.93	0.00	45.53	22.52	0.26	36.40	18.96	0.18
	67	54.68	33.46	0.24	48.32	30.25	0.18	41.21	26.95	0.16	33.18	23.39	0.14	24.47	19.70	0.15
	62	43.69	34.53	0.14	37.44	31.22	0.14	30.29	27.69	0.14	24.16	24.16	0.15	20.25	20.25	0.28
1200	72	79.72	38.31	0.00	73.31	35.16	0.00	65.05	31.50	0.00	55.57	27.54	0.30	44.55	23.33	0.22
	67	66.30	40.72	0.27	58.77	37.01	0.23	50.27	33.13	0.20	40.62	28.98	0.19	30.05	24.56	0.19
	62	53.16	42.51	0.18	45.65	38.61	0.18	37.12	34.48	0.18	30.81	30.81	0.18	25.92	25.92	0.31
1500	72	91.34	43.62	0.00	83.79	40.08	0.00	74.58	36.13	0.00	63.95	31.79	0.32	51.42	27.10	0.26
	67	75.79	46.79	0.29	67.42	42.76	0.26	57.89	38.51	0.24	46.90	33.84	0.22	34.76	28.85	0.22
	62	60.90	49.27	0.22	52.78	45.15	0.22	42.76	40.40	0.21	36.45	36.45	0.22	30.76	30.76	0.34
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA4217XMC																
1050	72	65.43	31.44	0.00	59.39	28.48	0.00	52.11	25.23	0.00	43.99	21.82	0.33	34.78	18.27	0.26
	67	53.67	32.89	0.32	47.22	29.72	0.26	40.13	26.40	0.25	32.15	22.83	0.24	23.48	19.13	0.24
	62	42.89	34.07	0.23	36.64	30.75	0.23	29.52	27.22	0.23	24.03	24.03	0.24	20.16	20.16	0.35
1400	72	76.92	36.84	0.00	70.69	33.74	0.00	62.23	30.07	0.00	52.71	26.19	0.37	41.80	22.05	0.32
	67	63.99	39.33	0.36	56.40	35.67	0.32	48.14	31.89	0.30	38.65	27.74	0.29	28.13	23.27	0.30
	62	51.30	41.18	0.28	43.92	37.36	0.28	35.46	33.24	0.28	29.62	29.62	0.29	25.00	25.00	0.40
1750	72	87.33	41.55	0.00	80.24	38.22	0.00	70.83	34.23	0.00	60.13	29.96	0.40	47.64	25.28	0.35
	67	72.62	44.86	0.38	63.96	40.92	0.34	54.90	36.66	0.34	43.99	31.96	0.33	32.19	27.03	0.33
	62	58.47	47.43	0.32	50.06	43.20	0.32	40.44	38.54	0.32	34.43	34.43	0.33	29.17	29.17	0.43

Table 3 – Cooling Capacities (MBH) - PURON® Refrigerant (R-410A) (Continued)

INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA4221XMC																
1050	72	67.79	33.30	0.00	61.46	30.13	0.00	53.97	26.70	0.00	45.68	23.14	0.36	36.22	19.42	0.28
	67	55.62	34.83	0.39	48.84	31.40	0.29	41.53	27.93	0.26	33.24	24.17	0.25	24.28	20.29	0.25
	62	44.37	36.06	0.24	37.80	32.52	0.24	30.43	28.80	0.24	24.94	24.94	0.24	20.94	20.94	0.36
1400	72	79.88	39.09	0.00	73.16	35.70	0.00	64.43	31.80	0.00	54.67	27.73	0.40	43.49	23.40	0.33
	67	66.20	41.59	0.39	58.32	37.68	0.34	49.72	33.65	0.32	39.90	29.31	0.30	29.02	24.63	0.30
	62	52.97	43.49	0.30	45.23	39.41	0.30	36.47	35.07	0.29	30.68	30.68	0.30	25.90	25.90	0.40
1750	72	89.44	43.70	0.00	82.93	40.37	0.00	73.30	36.18	0.00	62.24	31.63	0.43	49.48	26.79	0.37
	67	75.08	47.39	0.41	66.36	43.15	0.37	56.74	38.71	0.35	45.40	33.78	0.34	33.13	28.56	0.34
	62	60.13	49.92	0.34	51.46	45.48	0.33	41.63	40.66	0.33	35.61	35.61	0.34	30.13	30.13	0.44
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA4821XMC																
1200	72	73.87	35.91	0.00	67.26	32.69	0.00	59.32	29.10	0.00	50.53	25.40	0.35	40.27	21.41	0.28
	67	60.80	37.84	0.35	53.64	34.26	0.28	45.78	30.63	0.25	36.83	26.68	0.24	27.06	22.53	0.24
	62	48.63	39.41	0.24	41.58	35.70	0.23	33.61	31.77	0.23	27.83	27.83	0.23	23.56	23.56	0.35
1600	72	85.80	41.62	0.00	79.40	38.44	0.00	70.40	34.51	0.00	60.05	30.24	0.39	48.05	25.71	0.32
	67	71.91	44.97	0.37	63.61	40.91	0.33	54.43	36.75	0.31	43.93	32.24	0.29	32.18	27.29	0.29
	62	57.60	47.29	0.29	49.42	43.11	0.28	40.07	38.60	0.28	34.55	34.55	0.28	29.07	29.07	0.39
2000	72	96.29	46.56	0.00	89.52	43.29	0.00	79.58	39.08	0.00	68.10	34.44	0.42	55.12	29.51	0.37
	67	80.98	51.00	0.39	71.92	46.66	0.37	61.79	42.16	0.35	49.89	37.15	0.33	36.81	31.75	0.33
	62	65.18	54.29	0.33	55.93	49.66	0.32	45.77	44.98	0.31	40.04	40.04	0.33	33.77	33.77	0.43
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA4824XMC																
1200	72	79.81	39.46	0.00	72.63	35.89	0.00	64.23	32.05	0.00	54.82	28.00	0.36	44.23	23.72	0.28
	67	65.66	41.55	0.35	58.07	37.69	0.28	49.57	33.68	0.25	39.89	29.37	0.23	29.37	24.88	0.23
	62	52.48	43.24	0.23	45.18	39.31	0.23	36.39	34.98	0.22	30.13	30.13	0.22	25.54	25.54	0.34
1600	72	92.80	45.79	0.00	85.82	42.25	0.00	76.13	37.94	0.00	65.13	33.33	0.39	52.26	28.37	0.32
	67	77.65	49.37	0.37	68.80	44.96	0.33	58.91	40.41	0.30	47.64	35.54	0.28	35.17	30.33	0.28
	62	62.25	52.00	0.28	53.44	47.46	0.27	43.37	42.51	0.27	37.47	37.47	0.27	31.56	31.56	0.38
2000	72	104.22	51.22	0.00	96.76	47.59	0.00	86.10	42.99	0.00	73.87	37.96	0.42	59.44	32.52	0.35
	67	87.44	56.01	0.39	77.79	51.29	0.36	66.83	46.35	0.34	54.08	40.97	0.32	39.80	35.01	0.32
	62	70.20	59.49	0.32	60.49	54.66	0.31	49.10	49.17	0.31	43.45	43.45	0.32	36.70	36.70	0.42

Table 3 – Cooling Capacities (MBH) - PURON® Refrigerant (R-410A) (Continued)

INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA6024XMC																
1500	72	95.05	47.18	0.00	86.49	43.00	0.00	76.55	38.48	0.00	65.38	33.70	0.35	51.86	28.42	0.27
	67	78.43	50.08	0.34	69.21	45.39	0.29	59.16	40.67	0.26	47.65	35.57	0.24	35.04	30.13	0.24
	62	62.48	52.17	0.24	53.93	47.59	0.24	43.48	42.45	0.23	36.52	36.52	0.23	30.90	30.90	0.35
2000	72	110.73	54.63	0.00	101.58	50.38	0.00	90.20	45.36	0.00	77.27	39.99	0.39	62.03	34.13	0.32
	67	91.79	59.02	0.37	81.54	53.95	0.33	69.87	48.63	0.31	56.53	42.89	0.29	41.61	36.55	0.29
	62	73.61	62.44	0.29	63.34	57.26	0.28	51.39	51.36	0.28	45.11	45.11	0.29	38.01	38.01	0.39
2500	72	122.60	60.37	0.00	113.83	56.48	0.00	101.48	51.19	0.00	87.16	45.35	0.41	69.91	38.89	0.36
	67	102.94	66.78	0.39	91.68	61.38	0.37	78.81	55.62	0.35	63.73	49.18	0.33	47.11	42.25	0.33
	62	82.83	71.48	0.33	71.33	65.79	0.32	59.65	61.14	0.30	51.69	51.69	0.34	43.99	43.99	0.44
CVWVA6124XMC																
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
CVWVA6124XMC																
1500	72	94.46	45.65	0.00	86.26	41.81	0.00	76.80	37.61	0.00	65.93	33.10	0.30	53.14	28.19	0.23
	67	77.91	48.53	0.27	69.38	44.37	0.23	59.55	39.89	0.21	48.22	35.07	0.19	35.85	29.95	0.18
	62	62.60	51.02	0.19	53.97	46.63	0.18	43.99	41.83	0.18	37.12	37.12	0.19	31.34	31.34	0.31
2000	72	110.16	52.98	0.00	101.33	49.08	0.00	90.57	44.50	0.00	78.09	39.47	0.33	63.23	33.91	0.27
	67	91.60	57.64	0.30	81.85	53.03	0.27	70.60	48.04	0.25	57.38	42.57	0.24	42.80	36.62	0.23
	62	73.76	61.30	0.24	63.81	56.46	0.23	52.76	51.59	0.22	45.76	45.76	0.25	38.83	38.83	0.36
2500	72	122.87	59.05	0.00	113.06	54.89	0.00	101.33	50.02	0.00	87.66	44.67	0.35	71.21	38.64	0.31
	67	102.27	65.08	0.33	91.57	60.13	0.31	79.23	54.80	0.29	64.58	48.89	0.27	48.31	42.31	0.27
	62	82.54	69.99	0.28	71.56	64.86	0.27	60.86	60.73	0.25	53.27	53.27	0.29	45.29	45.29	0.40

CFM - Cubic Ft. per Minute

EWB - Entering Wet Bulb (°F)

LWB - Leaving Wet Bulb (°F)

TC - Gross Cooling Capacity 1000 Btuh

SHC - Gross Sensible Capacity 1000 Btuh

BF - Bypass Factor

MBH - 1000 Btuh

COOLING CAPACITIES NOTES:

- Contact manufacturer for cooling capacities at conditions other than shown in table.
- Formulas:

$$\text{Leaving db} = \text{entering db} - \frac{\text{sensible heat cap.}}{1.09 \times \text{CFM}}$$

$$\text{Leaving wb} = \text{wb corresponding to enthalpy of air leaving coil (h}_{\text{LWB}})$$

$$h_{\text{LWB}} = h_{\text{EWB}} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{CFM}}$$
Where h_{EWB} = enthalpy of air entering coil
- SHC is based on 80°F db temperature of air entering the evaporator coil.
Below 80°F db, subtract (Correction Factor x CFM) from SHC.
Above 80°F db, add (Correction Factor x CFM) to SHC.
- Direct interpolation is permissible. Do not extrapolate.
- Fan motor heat has not been deducted.
- All data points are based on approximately 10°F superheat measured at the suction service valve 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. 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.
9. Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

BYPASS FACTOR	ENTERING AIR DRY BULB TEMPERATURE (°F)					
	79	78	77	76	75	Under 75
	81	82	83	84	84	Above 85
	Correction Factor					
0.10	0.98	1.96	2.94	3.92	4.91	Use formula shown below
0.20	0.87	1.74	2.62	3.49	4.36	
0.30	0.76	1.53	2.29	3.05	3.82	

Interpolation is permissible.

$$\text{Correction Factor} = 1.09 \times (1 - \text{BF}) \times (\text{db} - 80)$$