

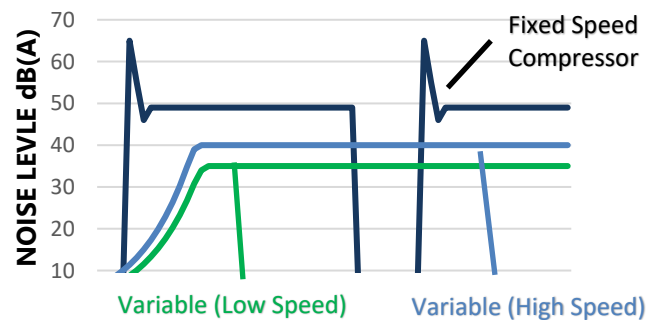
- Designed specifically for human comfort; the variable speed heat pump offers superior efficiency while operating at low sound levels.
- Features speed modulation based on real-time environment demand for cooling and heating, the variable speed system continuously adjusts to small temperature fluctuations offering excellent temperature stability.
- Designed for long term reliability with best in class components to minimize maintenance and repair costs throughout the product's operational life.



Infinite Step Variable Capacity Cooling and Heating

- Variable Frequency Drive (VFD) technology offers up to 17 IPLV; highest efficiency rating on the market for any single packaged vertical systems
- Soft Start feature slowly ramps up compressor speed and prevents noisy distractions from sudden compressor and fan turn on. Eliminates in-rush current and spike voltage at compressor start to reduce mechanical stress on components at every compressor turn on

Variable Speed Compressor Noise Comparison



Note: Exact noise level dependent on unit model

Feature Highlights

Variable Speed Compressor

Variable Frequency Drive technology allows the compressor to precisely match the internal load to minimize stress from ON/OFF transitions.

Indoor and Outdoor Configurations

Versatile installation configurations available for both outdoor wall mount and indoor floor mount models.

Variable Speed EC Fans

Quiet and efficient variable speed supply and condenser fans provide a highly favorable energy efficiency curve when compared to conventional fans.

Dual Layer Exterior Protection

Galvanized steel exterior coated with an additional layer of thermoset polymer provides two layers of protection against corrosion.

Fresh Air Intake Options

Commercial Room Ventilator (CRV), energy recovery ventilator (ERV), and blank-off plate offer different fresh air intake options to meet indoor air quality requirement as established by ANSI/ASHRAE Standard 62.1.

AIRSYS
Balance the Environment



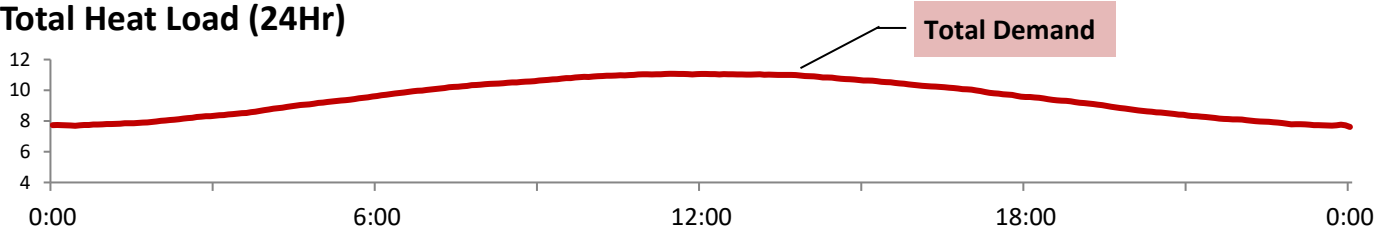
FEATURES

Precise Heat Load Match

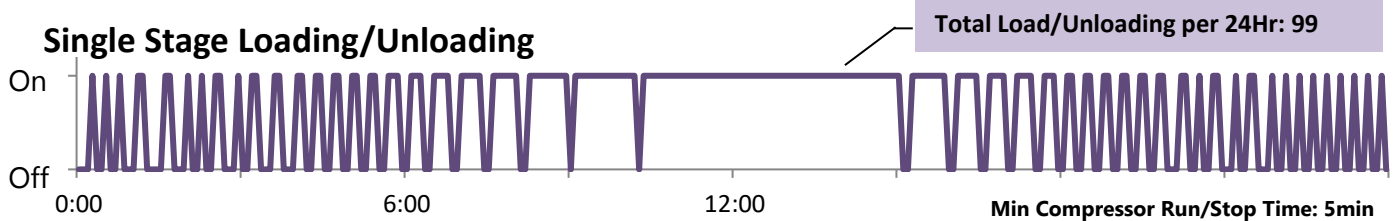
Just like an airplane experiences most of its stress during takeoff and landing, the various cycles of cooling create most of the mechanical stress on the compressor. The turn on of a fixed compressor wears down contactors and the resulting inrush current wears down other electronics. Even for properly sized units and properly set minimum compressor run/stop timer, the loading and unloading can reach one hundred times a day which would be > 30,000+ times per year.

By precisely matching the heat load at all times, the variable speed units minimize sudden loading and unloading of the compressor, vastly extending the life and reliability of the entire cooling system.

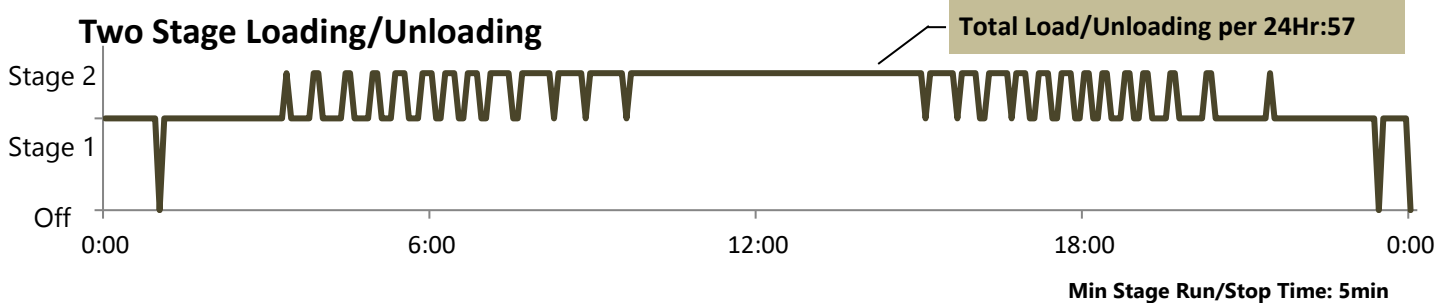
Total Heat Load (24Hr)



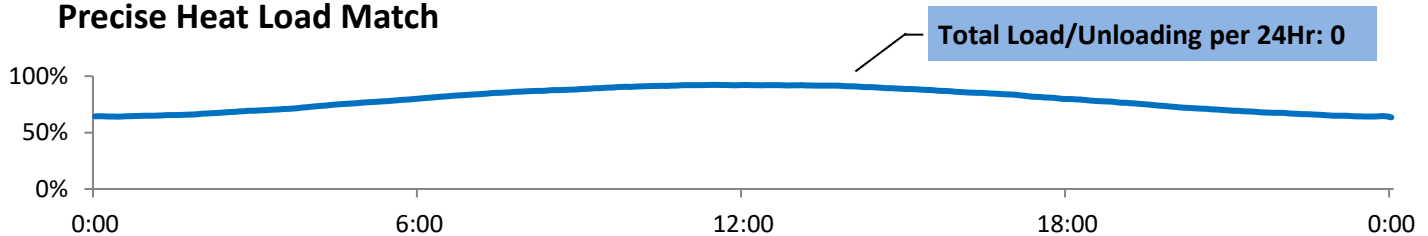
Single Stage Loading/Unloading



Two Stage Loading/Unloading



Precise Heat Load Match



FEATURES

Turbo Boost Mode

In some situations, such as increased load due to extreme high outdoor temperature, the heat load of the building may exceed the nominal cooling capacity of the HVAC system. When this happens, a Turbo Boost Mode can be engaged automatically to deliver up to 125% of the nominal cooling capacity at the expense of slightly lower efficiency.

Quiet Mode

Quiet Mode further reduces noise by 5-7 dBA by limiting the maximum frequency the compressor may run at. Maximum cooling capacity will be reduced by 15% and Turbo Boost will be disabled when quiet mode is enabled.

Soft Start

Instead of sudden and numerous starts and stops, the variable compressor will ramp up capacity at startup and continuously modulate capacity to match the load of the environment. Soft start has the following advantages:

- Minimize mechanical stress on compressor start up.
- Eliminate spike voltage and in-rush current on start up.
- Reduced noise from sudden compressor loading.



Auto Defrost

Frost can build up on the outdoor coil when the heat pump is operating in low temperatures. This can adversely affect the rate of heat transfer. If conditions are met, automatic defrost will be engaged to prevent frost buildup.

Electronic Expansion Valve (EEV)

The EEV allows the compressor to always run at the optimal condition, thus delivering superior energy consumption in a wide range of environmental conditions.

Low/High Pressure Protection

High and low pressure sensing protects the compressor and refrigeration circuit against loss of refrigerant charge, dirty filter, restricted outdoor coil, and low air flow. When repeatedly engaged, the HVAC automatically locks out mechanical cooling for 12 hours or until power is reset.

MODEL NUMBER NOMENCLATURE

C	V	36	H	2	A	-	A	W	A	X	X	-	X	2	X	X
MODEL SERIES C-COM4T			CABINET TYPE H-Outdoor Cabinet N-Indoor Cabinet		REVISIONS			CONTROL MODULES W-Wire Control	REFRIGERANT A - R410A					HEATER OPTIONS 0- No Heater 2 - 4kW 3 - 6kW 4- 8kW 5 - 10kW Note: 4, 8, 10kW Avail. For 1PH Only		CUSTOM OPTIONS X - Standard
		CAPACITY 36 – 2~4Ton 60 – 3~6Ton		CABINET SIZE			POWER SOURCE A - 230-208/60/1 B - 230-208/60/3 C - 460/60/3				COLOR OPTIONS X - Tan G - Gray B - Black Z - Bronze W- White				FILTER OPTIONS X - MERV-8/G4 2 - MERV-10/F5 3 - MERV-13/F7	
	UNIT TYPE V-Variable Inverter Compressor EC Supply Fan EC Condenser Fan							COIL OPTIONS X – Standard C – Standard + Coastal Protection Coated Coils, Stainless Steel Fastener E – Option C + Stainless Steel Body				VENTILATION OPTIONS X – CRV Motorized Fresh Air Damper B - Blank-Off Plate R - Energy Recovery Ventilator E – Economizer Note: Economizer Avail. For Outdoor Only				

Outdoor Unit



Indoor Unit



CERTIFIED PERFORMANCE DATA (AHRI 390)

	Nominal Tonnage	Model	Nominal Cooling Capacity (BTUH/kW)	EER	IPLV	Nominal Heating Capacity (BTUH/kW)	COP
Outdoor	3 Ton Variable	CV36H2A-A	35,200 / 10.3	11.2	17.0	34,000 / 10.0	3.3
		CV36H2B-B	34,000 / 10.0	11.0	17.0	35,000 / 10.3	3.3
		CV36H2B-C	33,500 / 9.8	11.0	17.0	35,000 / 10.3	3.3
	5 Ton Variable	CV60H3A-A	57,300 / 16.8	11.0	17.0	56,600 / 16.6	3.3
		CV60H3B-B	54,500 / 16.0	11.0	16.5	56,000 / 16.4	3.3
		CV60H3B-C	54,500 / 16.0	11.0	16.5	56,000 / 16.4	3.3
Indoor	3 Ton Variable	CV36N3A-A	35,100 / 10.3	11.0	17.0	34,000 / 10.0	3.3
		CV36N3B-B	34,000 / 10.0	11.0	17.0	35,000 / 10.3	3.3
		CV36N3B-C	33,500 / 9.8	11.0	17.0	35,000 / 10.3	3.3
	5 Ton Variable	CV60N3A-A	54,500 / 16.0	11.0	17.0	52,800 / 15.5	3.3
		CV60N3B-B	54,500 / 16.0	11.0	17.0	56,000 / 16.4	3.3
		CV60N3B-C	54,000 / 15.8	11.0	17.0	56,000 / 16.4	3.3

NOTE: All Capacities, EER, and IPLV certified to AHRI 390 testing standard.

VARIABLE SPEED COOLING DATA

Model	Return Temp. (DB/WB)	Min Total Capacity (kW/BTUH)	Max Total Capacity (kW/BTUH)	Min Sensible Capacity (kW/BTUH)	Max Sensible Capacity (kW/BTUH)
CV36H2A-A	80/67°F	19,800 / 5.8	42,300 / 12.4	15,700 / 4.6	29,300 / 8.6
	86/69°F	21,800 / 6.4	43,700 / 12.8	20,100 / 5.9	31,100 / 9.1
	95/72°F	24,200 / 7.1	45,700 / 13.4	22,500 / 6.6	36,200 / 10.6
CV36H2B-B	80/67°F	17,100 / 5.0	42,000 / 12.3	13,500 / 4.0	29,100 / 8.5
	86/69°F	18,800 / 5.5	43,300 / 12.7	17,400 / 5.1	30,800 / 9.0
	95/72°F	20,900 / 6.1	45,400 / 13.3	19,400 / 5.7	35,900 / 10.5
CV36H2B-C	80/67°F	17,100 / 5.0	42,000 / 12.3	13,500 / 4.0	29,100 / 8.5
	86/69°F	18,800 / 5.5	43,300 / 12.7	17,400 / 5.1	30,800 / 9.0
	95/72°F	20,900 / 6.1	45,400 / 13.3	19,400 / 5.7	35,900 / 10.5
CV60H3A-A	80/67°F	29,300 / 8.6	67,600 / 19.8	24,200 / 7.1	46,700 / 13.7
	86/69°F	32,100 / 9.4	69,900 / 20.5	29,000 / 8.5	49,500 / 14.5
	95/72°F	35,100 / 10.3	72,700 / 21.3	32,100 / 9.4	57,300 / 16.8
CV60H3B-B	80/67°F	31,000 / 9.1	65,900 / 19.3	24,600 / 7.2	45,700 / 13.4
	86/69°F	34,300 / 10.0	68,000 / 19.9	31,600 / 9.3	48,300 / 14.2
	95/72°F	38,000 / 11.1	71,200 / 20.9	35,300 / 10.4	56,300 / 16.5
CV60H3B-C	80/67°F	31,000 / 9.1	65,900 / 19.3	24,600 / 7.2	45,700 / 13.4
	86/69°F	34,300 / 10.0	68,000 / 19.9	31,600 / 9.3	48,300 / 14.2
	95/72°F	38,000 / 11.1	71,200 / 20.9	35,300 / 10.4	56,300 / 16.5
CV36N3A-A	80/67°F	19,100 / 5.6	41,600 / 12.2	15,400 / 4.5	29,000 / 8.5
	86/69°F	20,800 / 6.1	43,000 / 12.6	18,800 / 5.5	30,400 / 8.9
	95/72°F	22,900 / 6.7	44,700 / 13.1	21,200 / 6.2	35,100 / 10.3
CV36N3B-B	80/67°F	17,100 / 5.0	43,000 / 12.6	13,500 / 4.0	29,800 / 8.7
	86/69°F	18,800 / 5.5	44,400 / 13.0	17,400 / 5.1	31,500 / 9.2
	95/72°F	20,900 / 6.1	46,500 / 13.6	19,400 / 5.7	36,800 / 10.8
CV36N3B-C	80/67°F	17,100 / 5.0	43,000 / 12.6	13,500 / 4.0	29,800 / 8.7
	86/69°F	18,800 / 5.5	44,400 / 13.0	17,400 / 5.1	31,500 / 9.2
	95/72°F	20,900 / 6.1	46,500 / 13.6	19,400 / 5.7	36,800 / 10.8
CV60N3A-A	80/67°F	27,900 / 8.2	66,900 / 19.6	22,900 / 6.7	45,400 / 13.3
	86/69°F	30,400 / 8.9	69,300 / 20.3	26,900 / 7.9	48,100 / 14.1
	95/72°F	33,400 / 9.8	72,000 / 21.1	29,700 / 8.7	55,300 / 16.2
CV60N3B-B	80/67°F	31,000 / 9.1	65,900 / 19.3	24,600 / 7.2	45,700 / 13.4
	86/69°F	34,300 / 10.0	68,000 / 19.9	31,600 / 9.3	48,300 / 14.2
	95/72°F	38,000 / 11.1	71,200 / 20.9	35,300 / 10.4	56,300 / 16.5
CV60N3B-C	80/67°F	31,000 / 9.1	65,900 / 19.3	24,600 / 7.2	45,700 / 13.4
	86/69°F	34,300 / 10.0	68,000 / 19.9	31,600 / 9.3	48,300 / 14.2
	95/72°F	38,000 / 11.1	71,200 / 20.9	35,300 / 10.4	56,300 / 16.5

NOTE: All data given at 95°F outdoor temperature. For capacity rating at higher than 95°F outdoor temperature, de-rate capacity by 4% for every 5°F above 95°F, up to 120°F.

VARIABLE SPEED HEATING DATA

		Variable Speed Heat Pump Capacity (kW/BTUH)					
Model	Outdoor Temp.	50°F	40°F	30°F	20°F	10°F	0°F
CV36H2A-A	Max Speed	14 / 47,900	10.8 / 37,000	8.3 / 28,400	6.4 / 21,800	4.9 / 16,600	N/A
	Min Speed	5.8 / 19,800	4.5 / 15,300	3.5 / 11,800	2.6 / 9,000	2 / 6,900	N/A
CV36H2B-B	Max Speed	14.3 / 48,800	11.7 / 39,900	10.5 / 35,800	9.2 / 31,400	7.8 / 26,600	6.4 / 21,800
	Min Speed	5.7 / 19,400	4.5 / 15,400	4.1 / 14,000	3.7 / 12,600	3.2 / 10,900	2.6 / 8,900
CV36H2B-C	Max Speed	14.3 / 48,800	11.7 / 39,900	10.5 / 35,800	9.2 / 31,400	7.8 / 26,600	6.4 / 21,800
	Min Speed	5.7 / 19,400	4.5 / 15,400	4.1 / 14,000	3.7 / 12,600	3.2 / 10,900	2.6 / 8,900
CV60H3A-A	Max Speed	22.4 / 76,500	17.4 / 59,200	13.3 / 45,400	10.2 / 34,900	7.8 / 26,600	N/A
	Min Speed	9.3 / 31,600	7.2 / 24,400	5.5 / 18,800	4.2 / 14,400	3.2 / 11,000	N/A
CV60H3B-B	Max Speed	24.3 / 82,900	19.9 / 67,900	18.1 / 61,800	15.7 / 53,600	13.3 / 45,400	10.9 / 37,200
	Min Speed	11.6 / 39,600	9.1 / 31,000	8.2 / 28,000	7.3 / 24,900	6.3 / 21,500	5.1 / 17,400
CV60H3B-C	Max Speed	24.3 / 82,900	19.9 / 67,900	18.1 / 61,800	15.7 / 53,600	13.3 / 45,400	10.9 / 37,200
	Min Speed	11.6 / 39,600	9.1 / 31,000	8.2 / 28,000	7.3 / 24,900	6.3 / 21,500	5.1 / 17,400
CV36N3A-A	Max Speed	14 / 47,900	10.8 / 37,000	8.3 / 28,400	6.4 / 21,800	4.9 / 16,600	N/A
	Min Speed	5.8 / 19,800	4.5 / 15,300	3.5 / 11,800	2.6 / 9,000	2 / 6,900	N/A
CV36N3B-B	Max Speed	14.6 / 49,800	11.9 / 40,600	10.7 / 36,500	9.4 / 32,100	7.9 / 27,000	6.6 / 22,500
	Min Speed	6.0 / 20,500	4.9 / 16,700	4.4 / 15,000	3.9 / 13,300	3.4 / 11,600	2.8 / 9,600
CV36N3B-C	Max Speed	14.6 / 49,800	11.9 / 40,600	10.7 / 36,500	9.4 / 32,100	7.9 / 27,000	6.6 / 22,500
	Min Speed	6.0 / 20,500	4.9 / 16,700	4.4 / 15,000	3.9 / 13,300	3.4 / 11,600	2.8 / 9,600
CV60N3A-A	Max Speed	20.8 / 71,100	16.1 / 55,000	12.4 / 42,200	9.5 / 32,400	7.2 / 24,700	N/A
	Min Speed	8.6 / 29,400	6.7 / 22,700	5.1 / 17,500	3.9 / 13,400	3 / 10,200	N/A
CV60N3B-B	Max Speed	24.3 / 82,900	19.9 / 67,900	18.1 / 61,800	15.7 / 53,600	13.3 / 45,400	10.9 / 37,200
	Min Speed	11.6 / 39,600	9.1 / 31,000	8.2 / 28,000	7.3 / 24,900	6.3 / 21,500	5.1 / 17,400
CV60N3B-C	Max Speed	24.3 / 82,900	19.9 / 67,900	18.1 / 61,800	15.7 / 53,600	13.3 / 45,400	10.9 / 37,200
	Min Speed	11.6 / 39,600	9.1 / 31,000	8.2 / 28,000	7.3 / 24,900	6.3 / 21,500	5.1 / 17,400

- All Data given at 70°F indoor temperature.
- For high altitude installation, de-rate capacity by 1% for every 1,000ft above 1,000ft.

INDOOR NOISE DATA

Model	Low Speed Cool/Heat	Low Speed w/ Curb	High Speed Cool/Heat	High Speed w/ Curb
CV36H2	37	36	40	39
CV60H3	41	40	43	42
CV36N3	40	N/A	43	N/A
CV60N3	42	N/A	44	N/A

NOTE: Measured 5 ft. above floor, 10 ft. from HVAC. Standard airflow volume.

AIRFLOW RATINGS

Model	CFM (Wet Coil/Dry Coil)			
	0.0 in. wc. (0Pa)	0.1 in. wc. (25Pa)	0.2 in. wc. (50Pa)	0.3 in. wc. (75Pa)
CV36H2	1005 / 1030	950 / 980	900 / 940	845 / 895
CV60H3	1650 / 1680	1590 / 1620	1540 / 1580	1470 / 1520
CV36N3	1050 / 1075	1000 / 1030	950 / 990	895 / 945
CV60N3	1600 / 1630	1540 / 1570	1490 / 1530	1420 / 1480

Technical Details

Model	Compressor	Evaporator Fan		Condenser Fan		Electric Heater		Refrigerant	Outdoor Noise (2)	
	Running Current (A)	Current (A)	Air Volume (CFM) (3)	Current (A)	Air Volume (CFM)	kW	Current (A)	lbs.	Nominal	Low Speed
CV36H2A-A	11.3	0.5	1005	1.1	2820	4/6/8/10	18/27/36/45	9.5	44	41
CV36H2B-B	6.9	0.5	1150	0.9	2500	6	15	9.9	44	41
CV36H2B-C	3.4	0.5	1150	0.3	2500	6	8	9.9	44	41
CV60H3A-A	17.4	1.8	1650	2.4	4590	4/6/8/10	18/27/36/45	13.0	45	42
CV60H3B-B	10.8	1.1	1600	1.7	4200	6	15	13.9	45	42
CV60H3B-C	5.4	1.1	1600	0.5	4200	6	8	13.9	45	42
CV36N3A-A	11.3	0.5	1050	1.1	2820	4/6/8/10	18/27/36/45	9.1	41	38
CV36N3B-B	6.9	0.6	1080	0.9	2900	6	15	9.0	41	38
CV36N3B-C	3.4	0.6	1080	0.3	2900	6	8	9.0	41	38
CV60N3A-A	16.9	1.6	1600	1.9	4500	4/6/8/10	18/27/36/45	12.6	44	41
CV60N3B-B	10.4	1.7	1600	1.8	4400	6	15	13.5	44	41
CV60N3B-C	5.2	1.7	1600	0.5	4400	6	8	13.5	44	41

NOTE:

- (1) All electric current values given at max capacity/speed
- (2) Ambient Temperature = 95°F, 6.5ft away from unit in open space
- (3) With standard pleated filter

FILTER SIZES

Model	Filter Quantity	Nominal Size (in)	Exact Size (in)
CV36H2	2	20" x 25"	19-1/2 x 24-1/2
CV60H3	2	20" x 25"	19-1/2 x 24-1/2
CV36N3	2	20" x 25"	19-1/2 x 24-1/2
CV60N3	2	20" x 25"	19-1/2 x 24-1/2

NOTE: Compatible with 1", 2", and 4" filter depth

Electrical Ratings

Model	Heater Size	Single Circuit		Dual Circuit #1		Dual Circuit #2	
		MCA	MFS	MCA	MFS	MCA	MFS
CV36H2A-A	0kW	24	40	--	--	--	--
	4kW	45	50	24	40	22	25
	6kW	55	60	24	40	32	35
	8kW	66	70	24	40	43	45
	10kW	77	80	24	40	54	60
CV36H2B-B	0kW	16	25	--	--	--	--
	6kW	33	40	--	--	--	--
CV36H2B-C	0kW	8	15	--	--	--	--
	6kW	16	20	--	--	--	--
CV60H3A-A	0kW	37	60	--	--	--	--
	4kW	58	80	37	60	22	25
	6kW	70	80	37	60	32	35
	8kW	80	90	37	60	43	45
	10kW	90	100	37	60	54	60
CV60H3B-B	0kW	23	45	--	--	--	--
	6kW	42	50	--	--	--	--
CV60H3B-C	0kW	12	15	--	--	--	--
	6kW	21	25	--	--	--	--
CV36N3A-A	0kW	23	40	--	--	--	--
	4kW	45	50	23	40	22	25
	6kW	55	60	24	40	32	35
	8kW	66	70	23	40	43	50
	10kW	76	80	23	40	54	60
CV36N3B-B	0kW	16	25	--	--	--	--
	6kW	33	40	--	--	--	--
CV36N3B-C	0kW	8	15	--	--	--	--
	6kW	17	20	--	--	--	--
CV60N3A-A	0kW	38	60	--	--	--	--
	4kW	59	80	38	60	22	25
	6kW	70	80	38	60	32	35
	8kW	81	90	38	60	43	50
	10kW	91	100	38	60	54	60
CV60N3B-B	0kW	24	35	--	--	--	--
	6kW	43	50	--	--	--	--
CV60N3B-C	0kW	12	15	--	--	--	--
	6kW	22	25	--	--	--	--
MCA = Minimum Circuit Ampacity (Wiring Amps) MFS = Maximum Fuse Size (HACR Breaker Size)							

Dehumidification Mode Capacity

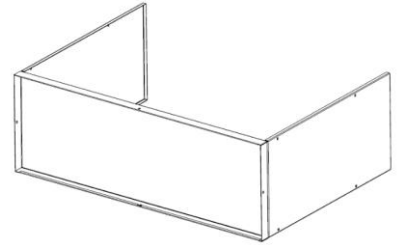
Return Temp. (DB/WB)	Capacity		CV36H2		CV60H3		CV36N3		CV60N3	
			Rated	Dehum.	Rated	Dehum.	Rated	Dehum.	Rated	Dehum.
80/67°F 51% RH	Total Capacity	BTUH	35,200	36,800	55,500	57,500	35,000	36,000	54,000	56,000
		kW	10.3	10.8	16.3	16.9	10.3	10.6	15.8	16.4
	Sensible Capacity	BTUH	25,200	23,800	41,000	37,400	25,400	23,400	39,000	36,200
		kW	7.4	7.0	12.0	11.0	7.4	6.9	11.4	10.6
	Latent Capacity	BTUH	10,000	13,000	14,500	20,100	9,600	12,600	15,000	19,800
		kW	2.9	3.8	4.2	5.9	2.8	3.7	4.4	5.8
	Dehum. Capacity	lb/h	9.5	12.3	13.6	18.9	9.0	11.9	14.1	18.7
		l/h	4.3	5.6	6.2	8.6	4.1	5.4	6.4	8.5
	Supply Air Temp	F	65.2	65.3	64.9	65.3	65.1	65.5	65.7	65.8
80/70°F 61% RH	Total Capacity	BTUH	39,000	41,000	61,000	62,000	38,600	40,500	60,000	60,500
		kW	11.4	12.0	17.9	18.2	11.3	11.9	17.6	17.7
	Sensible Capacity	BTUH	23,400	21,600	38,000	34,200	23,600	21,800	36,600	33,000
		kW	6.9	6.3	11.1	10	6.9	6.4	10.7	9.7
	Latent Capacity	BTUH	15,600	19,400	23,000	27,800	15,000	18,700	23,400	27,400
		kW	4.6	5.7	6.7	8.1	4.4	5.5	6.9	8.0
	Dehum. Capacity	lb/h	14.7	18.3	21.6	26.2	14.1	17.6	22.0	25.7
		l/h	6.7	8.3	9.8	11.9	6.4	8.0	10	11.7
	Supply Air Temp	F	66.2	66.6	66.0	66.6	66.1	66.5	66.5	67.1
80/73°F 72% RH	Total Capacity	BTUH	42,000	43,500	66,000	67,000	41,500	43,000	65,000	65,500
		kW	12.3	12.7	19.3	19.6	12.2	12.6	19.1	19.2
	Sensible Capacity	BTUH	19,200	18,200	32,600	30,200	19,400	18,400	32,200	29,000
		kW	5.6	5.3	9.6	8.9	5.7	5.4	9.4	8.5
	Latent Capacity	BTUH	22,800	25,300	33,400	36,800	22,100	24,600	32,800	36,500
		kW	6.7	7.4	9.8	10.8	6.5	7.2	9.6	10.7
	Dehum. Capacity	lb/h	21.6	23.8	31.5	34.5	20.9	23.1	30.8	34.3
		l/h	9.8	10.8	14.3	15.7	9.5	10.5	14.0	15.6
	Supply Air Temp	F	68.7	68.7	68.0	68.2	68.6	68.6	68.2	68.6
80/76°F 83% RH	Total Capacity	BTUH	44,500	46,500	70,000	71,000	44,000	46,000	68,500	69,000
		kW	13.0	13.6	20.5	20.8	12.9	13.5	20.1	20.2
	Sensible Capacity	BTUH	15,800	15,200	28,600	25,800	16,000	15,600	28,000	25,200
		kW	4.6	4.5	8.4	7.6	4.7	4.6	8.2	7.4
	Latent Capacity	BTUH	28,700	31,300	41,400	45,200	28,000	30,400	40,500	43,800
		kW	8.4	9.2	12.1	13.2	8.2	8.9	11.9	12.8
	Dehum. Capacity	lb/h	27.1	29.5	38.9	42.5	26.4	28.6	38.1	41.1
		l/h	12.3	13.4	17.7	19.3	12.0	13.0	17.3	18.7
	Supply Air Temp	F	70.7	71.1	69.5	70.5	70.6	70.8	69.7	70.7
80/79°F 96% RH	Total Capacity	BTUH	46,500	48,000	74,000	75,000	46,000	47,000	72,000	73,000
		kW	13.6	14.1	21.7	22.0	13.5	13.8	21.1	21.4
	Sensible Capacity	BTUH	12,800	12,000	23,600	21,000	12,600	11,800	22,800	20,000
		kW	3.8	3.5	6.9	6.2	3.7	3.5	6.7	5.9
	Latent Capacity	BTUH	33,700	36,000	50,400	54,000	33,400	35,200	49,200	53,000
		kW	9.9	10.6	14.8	15.8	9.8	10.3	14.4	15.5
	Dehum. Capacity	lb/h	31.7	33.9	47.5	50.8	31.5	33.2	46.4	49.9
		l/h	14.4	15.4	21.6	23.1	14.3	15.1	21.1	22.7
	Supply Air Temp	F	72.5	72.6	71.3	71.8	72.6	72.7	71.6	72.2

NOTE: All data given at 95°F outdoor temperature.

VENTILATION OPTIONS

Blank Off Plate

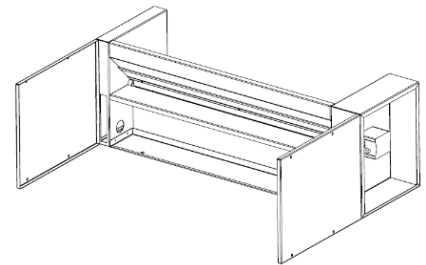
The blank-off plate prevents outside air from entering the building. All capacity, efficiency and cost of operation information is based upon the fresh air blank-off plate in place and is recommended for maximum energy efficiency if no ventilation is required.



Commercial Room Ventilator (CRV)

The motorized Commercial Room Ventilator (CRV), allows fresh air from the outside to enter inside the building for improved indoor air quality (IAQ) for the occupants. Adjustable actuator position allows varying amounts of outside air to enter the building.

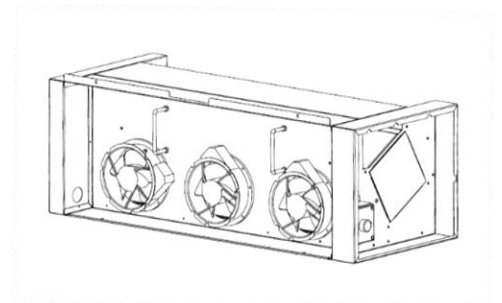
Fresh Air Flow (CFM)		
Damper Position	CV36	CV60
1	550	600
.8	450	550
.6	300	400
.4	180	250



Energy Recovery Ventilator

The energy recovery ventilator harvests energy contained in the exhaust air by bringing fresh air across the stationary cubic heat exchanger. The medium is designed to be pulled out easily for cleaning and replacement.

ERV characteristics		
Dial Position	CFM	Efficiency
6	450	54%
5	400	58%
4	350	62%
3	250	66%
2	220	70%

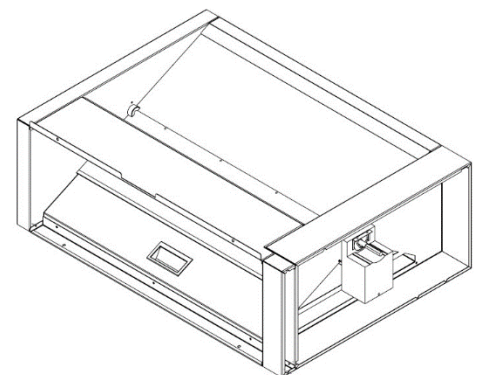


1. ERV is infinite step. If 375 CFM is desired, dial between 4 and 5
2. Moisture content and air temperature/pressure may affect efficiency. Actual efficiency may vary from 50% to 80%.

Economizer

The economizer uses outdoor air to provide cooling when the outdoor temperature is both cool and dry. Economizer capacity depend on the temperature difference between indoor and outdoor air; the colder the outdoor temperature the greater the capacity.

Economizer Capacity (BTU/hr)		
Temperature Difference	CV36	CV60
5F	5,000	7,300
10F	9,900	14,600
15F	14,800	21,800
20F	19,800	29,100



ENERGY RECOVERY VENTILATOR CAPACITY

Summer: Indoor Design Temperature 75/62°F DB/WB

	Ambient DB	110			100			90			80		
	Ambient WB	80	75	70	75	70	65	75	70	65	75	70	65
450CFM	Sensible Load	16500	16500	16500	10500	10500	10500	7100	7100	7100	2400	2400	2400
	Latent Load	14100	4100	0	9200	0	0	14400	5000	0	19900	10200	1800
	Heat Recovery	13400	10300	9100	8600	5800	5800	8400	5500	3900	7500	4500	1900
375CFM	Sensible Load	13800	13800	13800	8800	8800	8800	5900	5900	5900	2000	2000	2000
	Latent Load	11800	3400	0	7700	0	0	12000	4200	0	16600	8500	1500
	Heat Recovery	12000	9200	8000	7700	5100	5100	7500	4900	3400	6800	4100	1700
300CFM	Sensible Load	11000	11000	11000	7000	7000	7000	4700	4700	4700	1600	1600	1600
	Latent Load	9400	2700	0	6100	0	0	9600	3300	0	13300	6800	1200
	Heat Recovery	10300	7700	6700	6600	4300	4300	6500	4100	2900	6000	3600	1400
225CFM	Sensible Load	8300	8300	8300	5300	5300	5300	3600	3600	3600	1200	1200	1200
	Latent Load	7100	2100	0	4600	0	0	7200	2500	0	10000	5100	900
	Heat Recovery	8600	6400	5500	5500	3500	3500	5500	3500	2400	5200	3000	1200

Winter: Indoor Design Temperature 70°F

	Ambient DB	10	20	30	40	50	60
450CFM	Sensible Load	28400	23600	18900	14200	9500	4700
	Heat Recovery	15600	13000	10400	7800	5200	2600
375CFM	Sensible Load	23600	19700	15800	11800	7900	3900
	Heat Recovery	13700	11400	9200	6800	4600	2300
300CFM	Sensible Load	18900	15800	12600	9500	6300	3200
	Heat Recovery	11500	9600	7700	5800	3800	2000
225CFM	Sensible Load	14200	11800	9500	7100	4700	2400
	Heat Recovery	9400	7800	6300	4700	3100	1600

NOTE: All capacities given in BTU/hr.

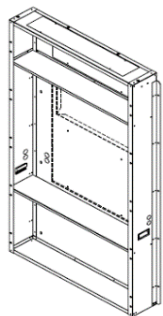
FIELD INSTALLED ACCESSORY PARTS LIST (OUTDOOR MOUNT)

Accessory	Model					
	CV36H2A-A	CV60H3A-A	CV36H2B-B	CV60H3B-B	CV36H2B-C	CV60H3B-C
4kW Heater Package	2121008460	2121008460	--	--	--	--
6kW Heater Package	2121008470	2121008470	TBA	TBA	TBA	TBA
8kW Heater Package	2121008480	2121008480	--	--	--	--
10kW Heater Package	2121008490	2121008490	--	--	--	--
Blank Off Plate	2121008960	2121008960	2121008960	2121008960	2121008960	2121008960
Fresh Air Damper (CRV)	2121008610	2121008610	2121008610	2121008610	2121008610	2121008610
Energy Recovery Ventilator	2121008570	2121008570	2121008570	2121008570	2121008570	2121008570
Economizer	2121008860	2121008860	2121008860	2121008860	2121008860	2121008860
Curb Adapter	2121008580	2121008580	2121008580	2121008580	2121008580	2121008580
Adapter Extension	2121008590	2121008590	2121008590	2121008590	2121008590	2121008590
Top Discharge Adapter	2121009330	2121009330	2121009330	2121009330	2121009330	2121009330

FIELD INSTALLED ACCESSORY PARTS LIST (INDOOR MOUNT)

Accessory	Model					
	CV36N3A-A	CV60N3A-A	CV36N3B-B	CV60N3B-B	CV36N3B-C	CV60N3B-C
4kW Heater Package	2121009370	2121009370	--	--	--	--
6kW Heater Package	2121009380	2121009380	TBA	TBA	TBA	TBA
8kW Heater Package	2121009390	2121009390	--	--	--	--
10kW Heater Package	2121009400	2121009400	--	--	--	--
Blank Off Plate	2121009350	2121009350	2121009350	2121009350	2121009350	2121009350
Fresh Air Damper (CRV)	2121009340	2121009340	2121009340	2121009340	2121009340	2121009340
Energy Recovery Ventilator	2121008700	2121008700	2121008700	2121008700	2121008700	2121008700
6in Base Extension	2121009810	2121009810	2121009810	2121009810	2121009810	2121009810
9in Base Extension	2121009780	2121009780	2121009780	2121009780	2121009780	2121009780
14in Base Extension	2121009760	2121009760	2121009760	2121009760	2121009760	2121009760
8in Free Discharge Plenum	2121009500	2121009500	2121009500	2121009500	2121009500	2121009500
12in Free Discharge Plenum	2121009510	2121009510	2121009510	2121009510	2121009510	2121009510
Cover Panel - Top	2121009520	2121009520	2121009520	2121009520	2121009520	2121009520
6in Cover Panel -Side	2121009810	2121009810	2121009810	2121009810	2121009810	2121009810
10in Cover Panel -Side	2121009820	2121009820	2121009820	2121009820	2121009820	2121009820
8in Window Duct Frame	2121009720	2121009720	2121009720	2121009720	2121009720	2121009720
13in Window Duct Frame	2121009730	2121009730	2121009730	2121009730	2121009730	2121009730

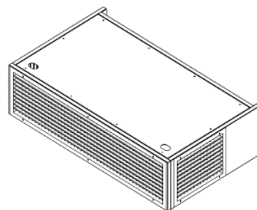
FIELD INSTALLED ACCESSORIES



Curb Adapter

Curb Adapter offset the outdoor HVAC from the wall to provide installation flexibility.

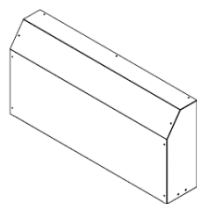
For dimensions, refer to mechanical drawing



Free Discharge Plenum

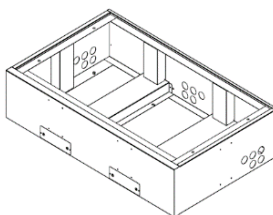
Free discharge plenum supplies horizontal air flow directly at the top of the indoor HVAC. Includes adjustable grille.

Available in 8 or 12in height



Adapter Extension

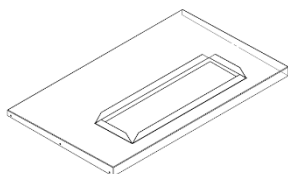
Adapter Extension allows the HVAC to supply air into the top of the building without interfering with any roof edge.



Base Extension

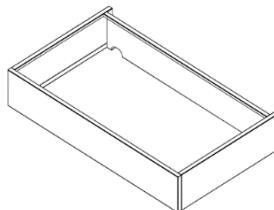
Base extension elevates the indoor unit when needed. The extension supports the weight the unit and provides cable entry.

Available in 6, 9, and 14in height



Top Discharge Adapter

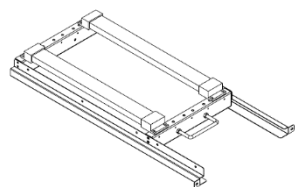
Adapter changes discharge direction for outdoor unit from front to top.



Top Cover Panel

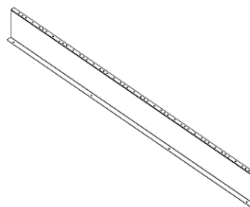
Covers transitions to ducting from the top of the unit. Can be custom cut in the field for flexible height.

Maximum height 8in



Heater Package

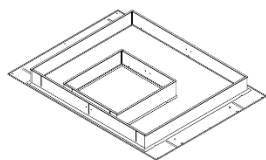
PTC heater package includes necessary electrical component for field installation.



Side Cover Panel

Covers side transitions to walls. Can be custom cut in the field for flexible height.

Available in 6 or 10in width.
Maximum height: 72in



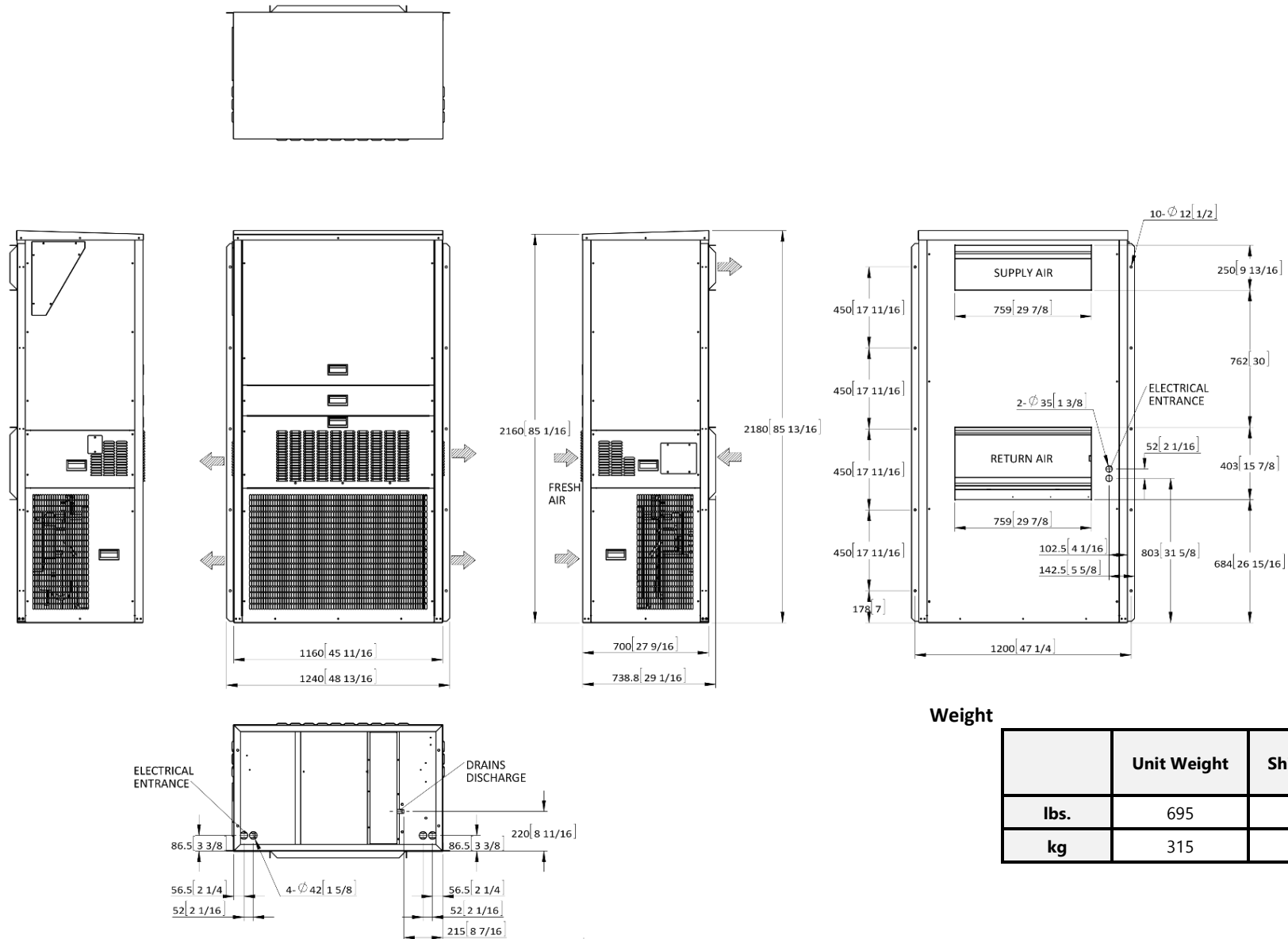
Window Duct Frame

Window duct frame allow smooth wall/window transition to the exterior of the building and separates exhaust air from fresh air intake to ensure efficient operation.

Available for 8 or 13in window depth. Min window width: 42.5in, min window height: 48in

Unit Dimensions

Model: CV36H2

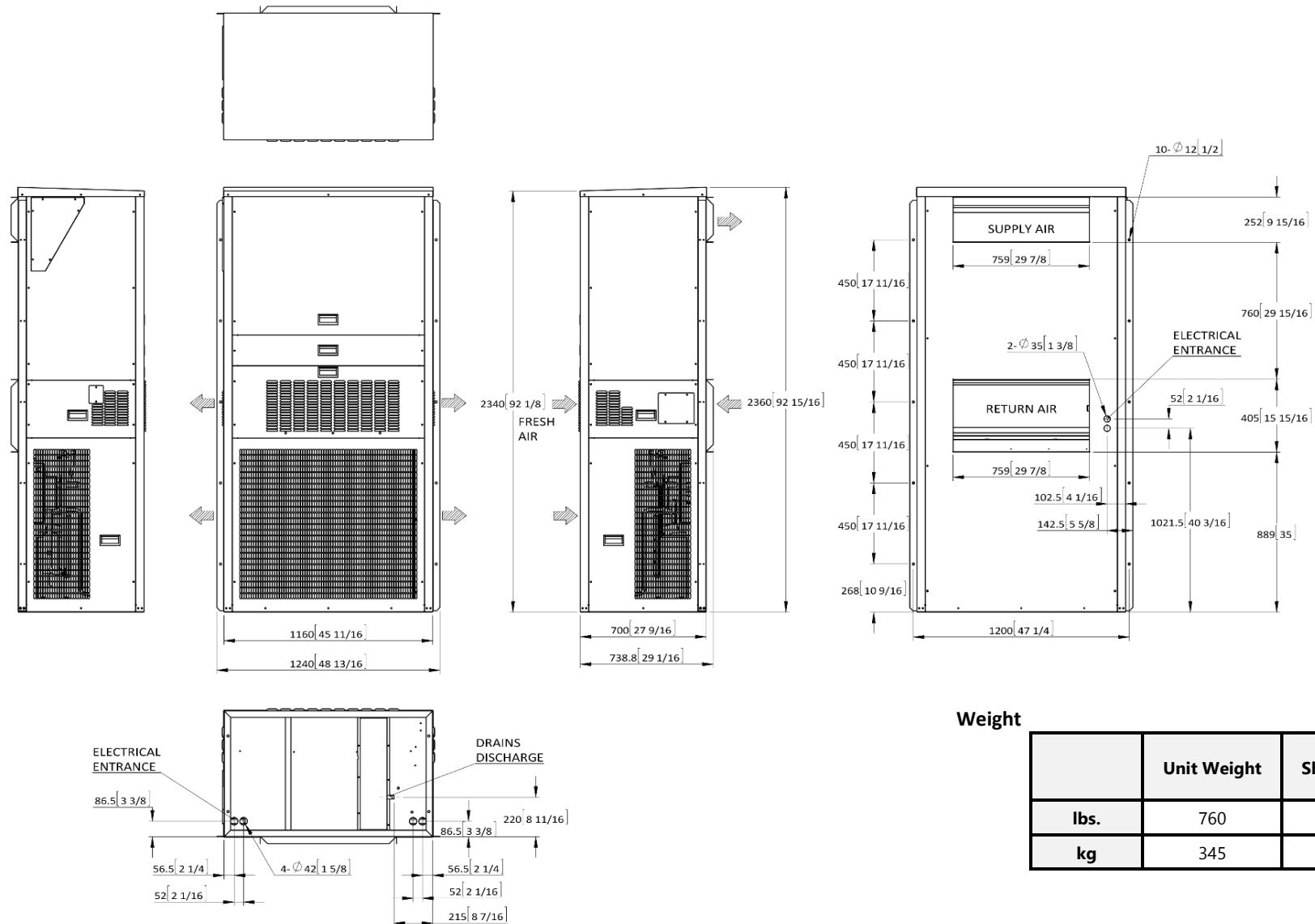


Weight

	Unit Weight	Ship Weight
lbs.	695	827
kg	315	375

Unit Dimensions

Model: CV60H3

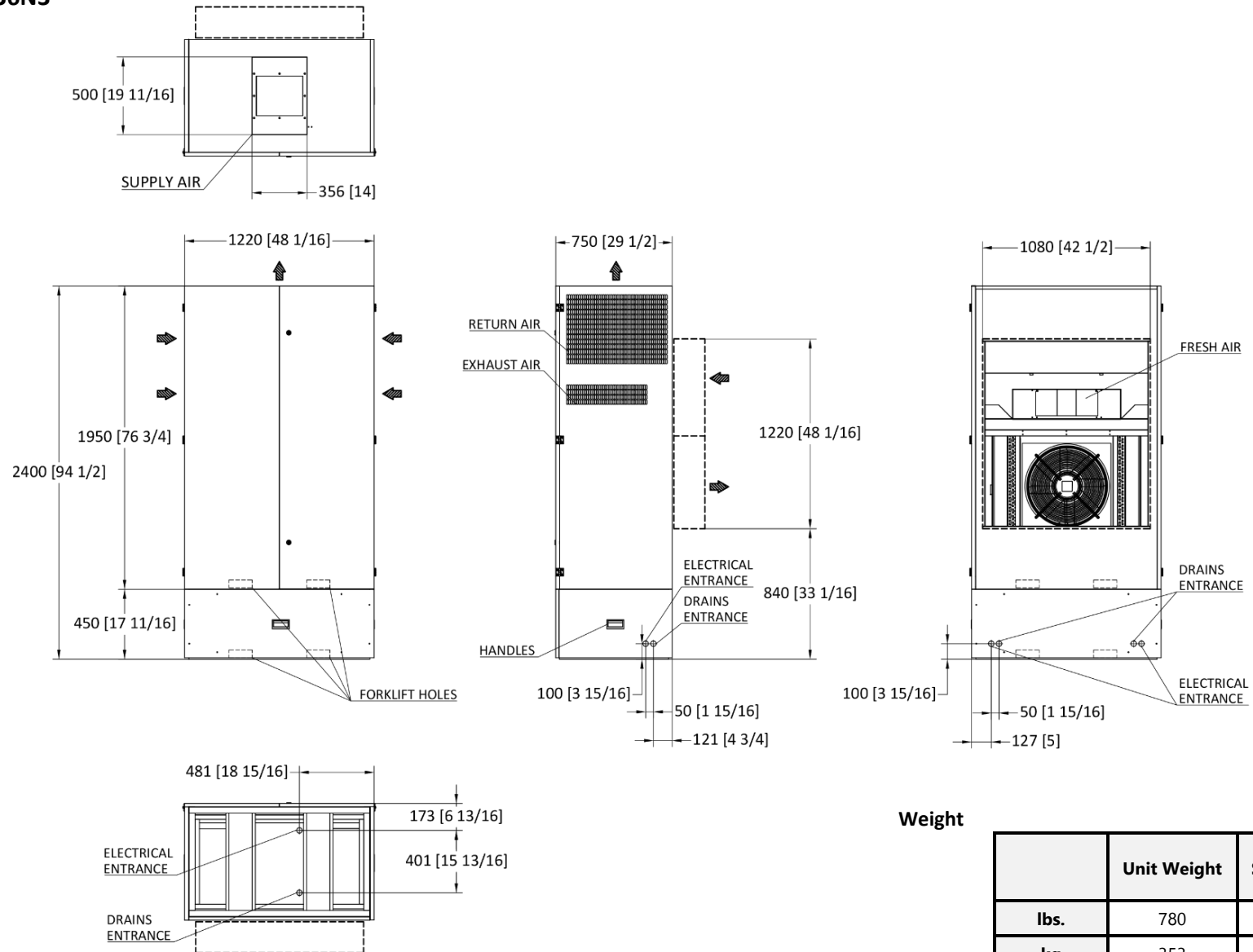


Weight

	Unit Weight	Ship Weight
lbs.	760	893
kg	345	405

Unit Dimensions

Model: CV36N3

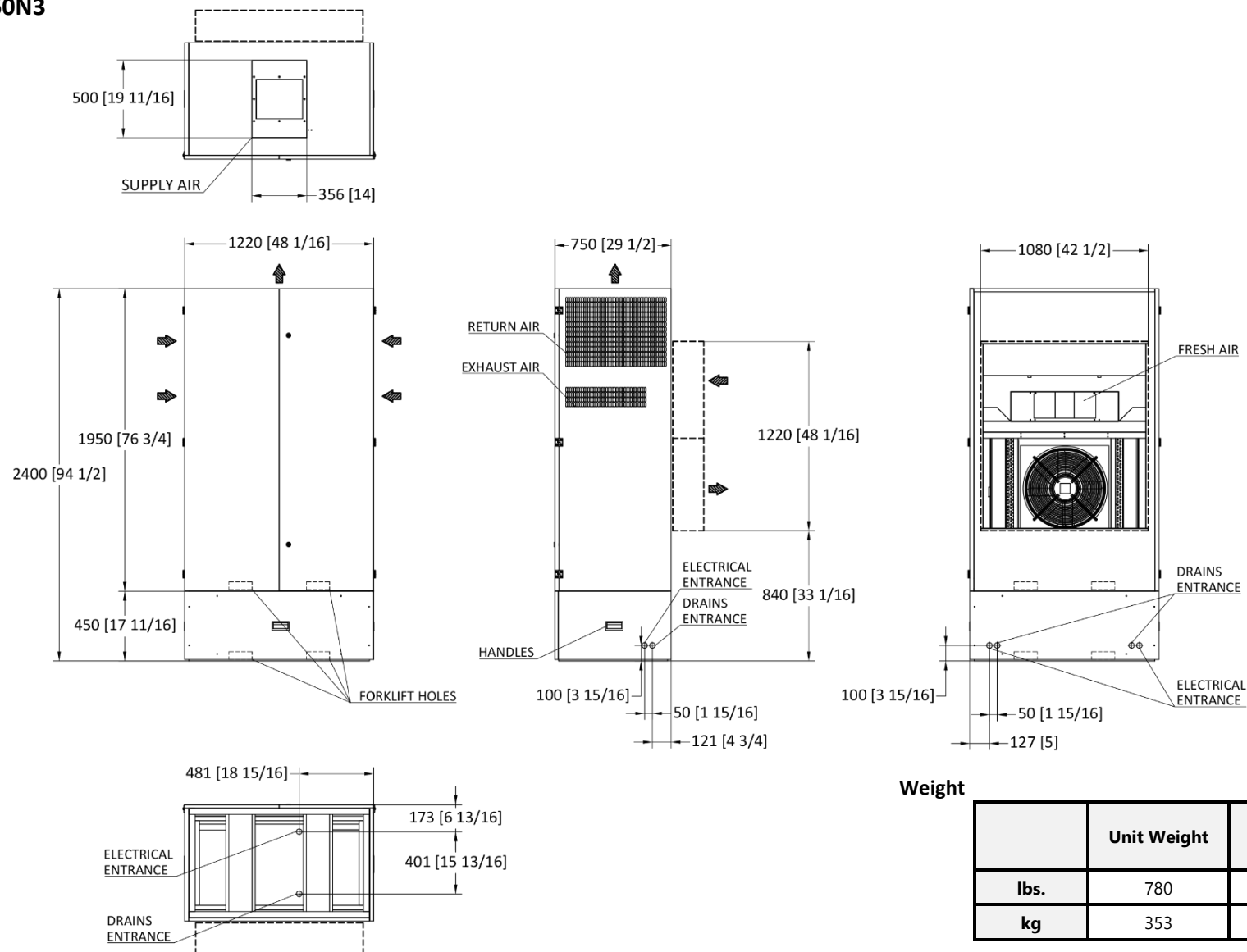


Weight

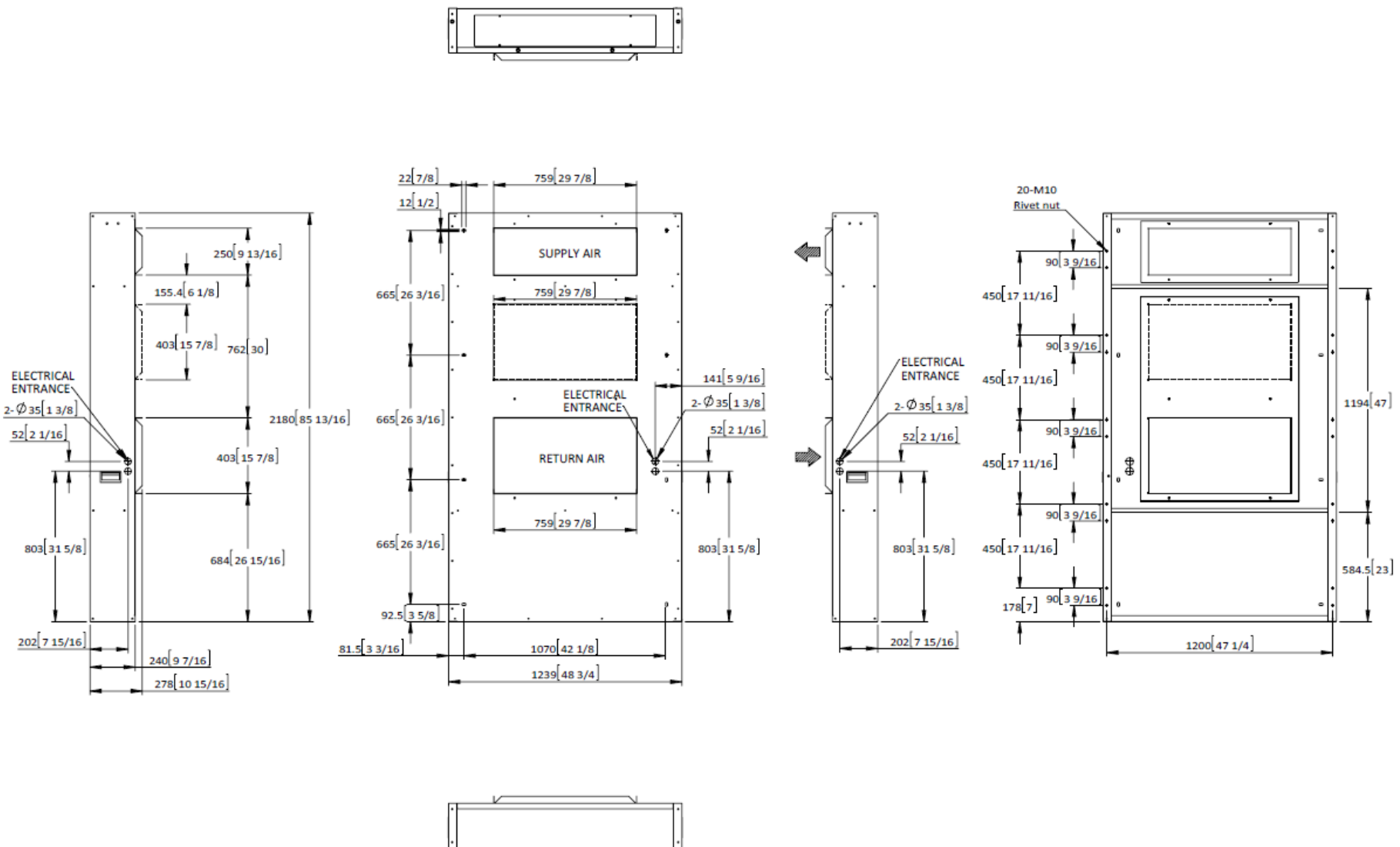
	Unit Weight	Ship Weight
lbs.	780	926
kg	353	420

Unit Dimensions

Model: CV60N3



Dimensions (Curb Adapter)



Dimensions (Extended Curb Adapter)

