

SPECIFICATIONS AND PERFORMANCE



Comfort Where It Counts.

CACA/CAHA CASSETTE DUCTLESS SPLIT SYSTEM EVAPORATOR

P/N# 240005843 Rev. 1.2 [10/06]



9/12 Model Shown

Straight Cool Nominal Circuit Capacities:
9,000 - 12,000 - 18,000 - 24,000 - 30,000 - 36,000 Btuh

Heat Pump Nominal Circuit Capacities:
9,000 - 12,000 - 18,000 - 24,000 Btuh

PRODUCT DESCRIPTION

The EMI AmericaSeries Cassette Evaporator is available in three cabinet sizes with six cooling output capacities from 9,000-36,000 Btuh and four heating capacities from 9,000-24,000 Btuh. Key features include a condensate pump with safety switch and a 36" (0.9 m) lift*; electric heat is a factory installed option **ONLY (there are no field installed electric heat kits available)**; fresh air inlet and branch duct knockouts; and motorized air vanes (CACA/CAHA24 & CACA36 only). The CACA/CAHA accepts a 24 Volt thermostat control (thermostat not included). Designed for low noise levels, easy installation and maintenance and a slim line fascia, all ensure minimum intrusion into the working environment.

Due to ongoing product development, all designs and specifications are subject to change without notice.

* Condensate pump lift measured from the base or bottom of the unit.

STANDARD FEATURES

▲ **Capacities/Efficiency** - This American-made CACA/CAHA Cassette Evaporator produces system SEER's meeting or exceeding 13, when matched with EMI's S1CA/S1HA single zone or S2CA dual zone side discharge condensing units or with T2CA, T3CA, or T4CA top discharge multi-zone condensing units. Refer to specifications contained in this document.

▲ **Materials of Construction** - Galvanized steel cabinet with fire-resistant thermal and acoustic foam insulation and light grey high-impact ABS fascia. A Styrofoam drain pan with a tough fire retardant thermoplastic liner.

▲ Air Systems:

- Fans are backward curved impeller centrifugal design; dynamically and statically balanced; and mounted on integral mounting rails.
- Single Fan models CACA/CAHA12-24 designed with fire retardant plastic or aluminum impellers.
- Twin Fan models CACA36 designed with fire retardant plastic impellers.
- Motors are multispeed, enclosed type with thermal protection and sealed lifetime bearings.
- Permanent, washable filter (user accessible).
- Branch duct knockouts on three sides for remote discharge locations (using no more than two non-adjacent sides).
- Fresh air intake capability on three sides of cabinet (2 on CACA/CAHA12).
- Four plastic air vanes; motor driven with auto sweep or fixed position stop setting on models CACA/CAHA24-CACA36 (models CACA/CAHA12 equipped with manually adjusted air vanes).

▲ **Coil** - Is seamless, rifled copper tubing, arranged in staggered configuration, with enhanced aluminum fins, tested to 600 psig. The tubes are mechanically expanded for secure bonding to fin shoulder.

▲ **Refrigeration Circuit** - Units are equipped with a serviceable fixed orifice expansion device and use R22 refrigerant only.

▲ **Controls and Components (factory installed or supplied):**

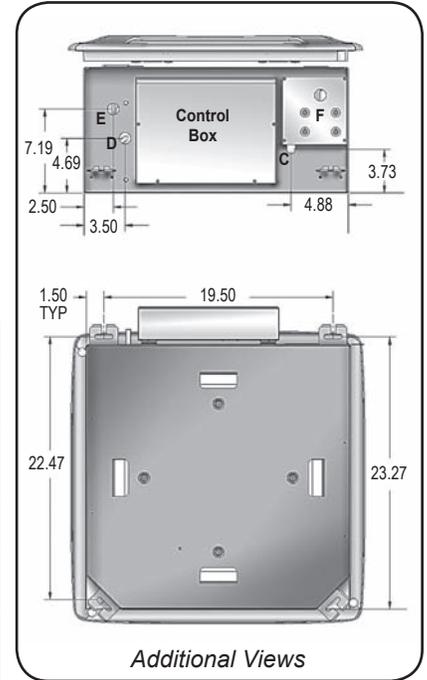
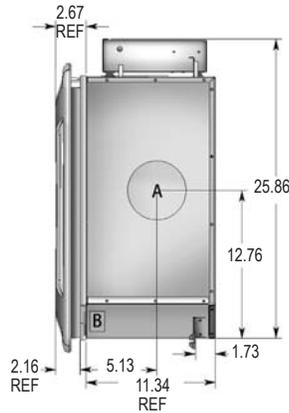
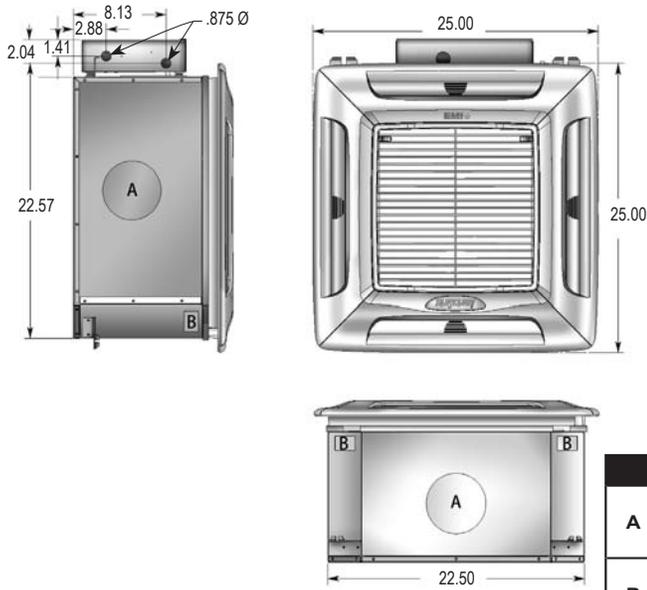
- Connections for 24V remote wall thermostat.
- Custom control board featuring anti-short cycle timer; 60 second post purge fan relay; and on board 30 amp electric heat relay.
- Relays and connectors to condensing unit.
- Condensate Pump with 36" (0.9 m) lift measured from base of unit.
- 24V Transformer.

▲ System Options:

- 24V remote wall thermostat.
- Electric Heat (@ 230V) (CACA Only)
 - 1.5 kW (CACA12)
 - 3 kW (CACA24)
 - 5 kW (CACA36)

CACA /CAHA CASSETTE DIMENSIONS

SMALL CABINET • CACA/CAHA 9,000 - 12,000

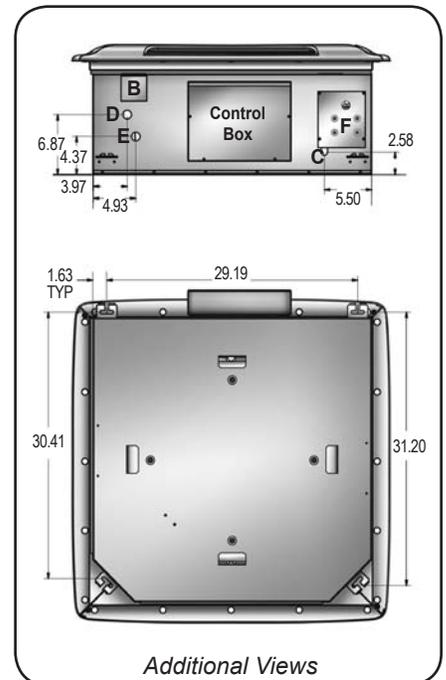
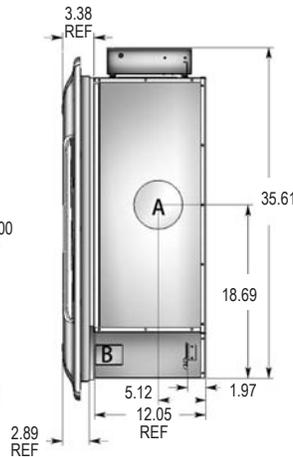
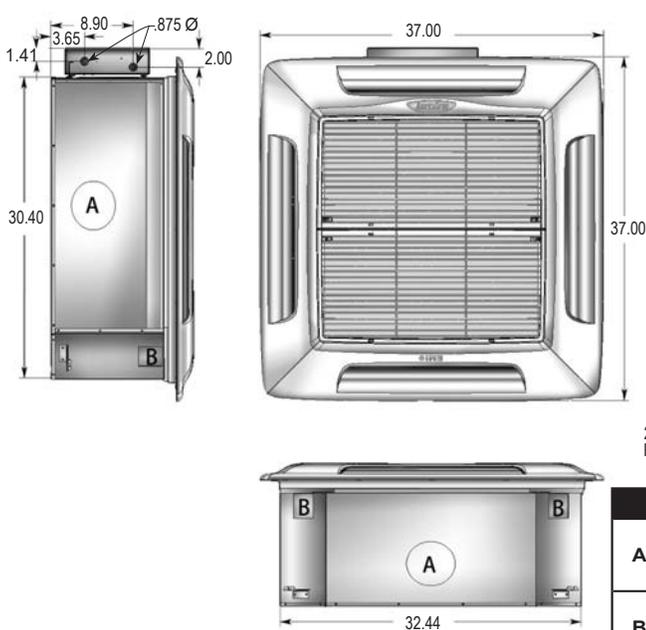


CACA/CAHA12

FEATURE	QTY.	SIZE
A	Optional Discharge Knockout	3 5/4" Ø
B	Fresh Air Inlet Knockout	2 1 1/4" x 2 1/2"
C	Condensate Discharge	1 1/2" Ø
D	Suction	1 1/2" Ø
E	Liquid	1 1/4" Ø
F	Condensate Pump Access	1 -

Note: All dimensions in inches.

MEDIUM CABINET • CACA/CAHA 18,000* - 24,000



CACA/CAHA24

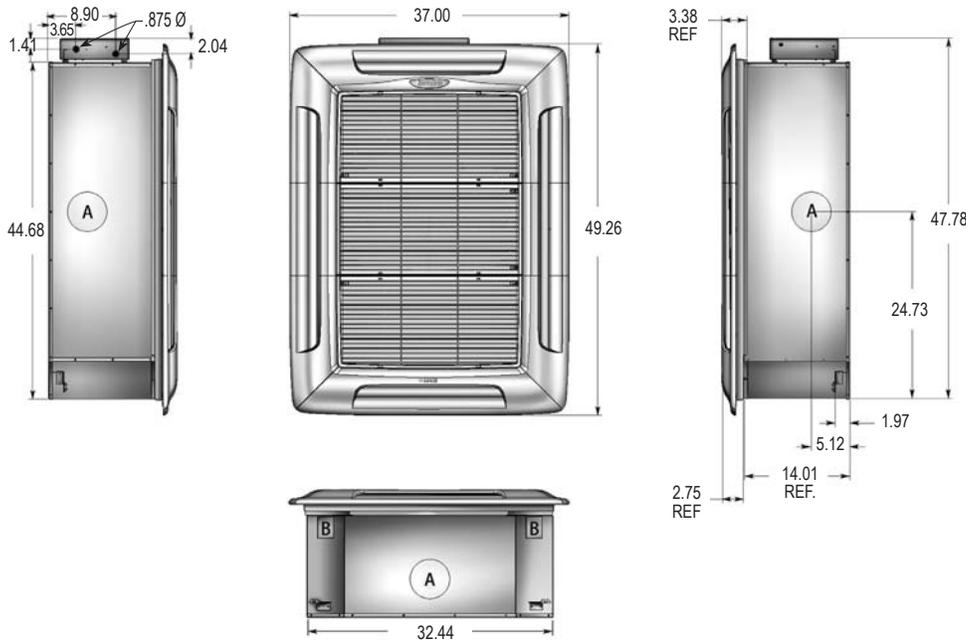
FEATURE	QTY.	SIZE
A	Optional Discharge Knockout	3 5/4" Ø
B	Fresh Air Inlet Knockout	3 3" x 3"
C	Condensate Discharge	1 1/2" Ø
D	Suction	1 3/4" Ø*
E	Liquid	1 3/8" Ø
F	Condensate Pump Access	1 -

Note: All dimensions in inches.

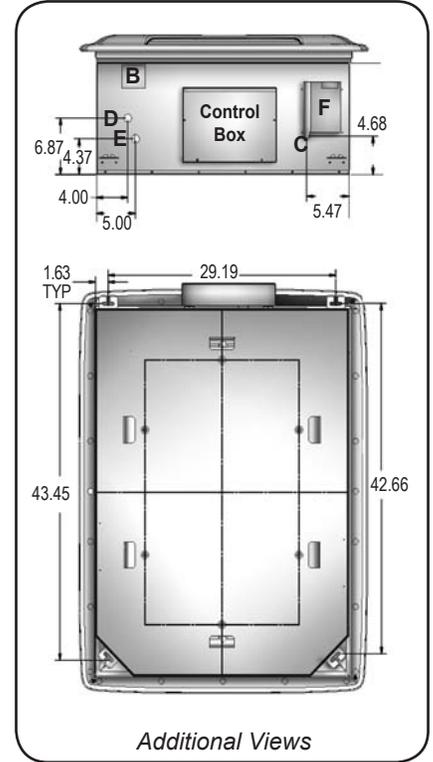
*18,000 Btuh must be bushed down to 5/8"

CACA/CAHA CASSETTE DIMENSIONS

LARGE CABINET • CACA 30,000 - 36,000



Note: All dimensions in inches.



CACAS36

FEATURE	QTY.	SIZE
A Optional Discharge Knockout	3	5 1/4" Ø
B Fresh Air Inlet Knockout	3	3" x 3"
C Condensate Discharge	1	1/2" Ø
D Suction	1	3/4" Ø
E Liquid	1	3/8" Ø
F Condensate Pump Access	1	-

ELECTRICAL SPECIFICATIONS AND PERFORMANCE DATA

NOTE: Due to EMI's ongoing product development program, all designs and specifications are subject to change without notice.

CACA/CAHA ELECTRICAL SPECIFICATIONS										
Model #	Fan Motor			Elect Heat		Total AMPS	Min Volt	M.C.A.	HACR BRKR	
	Volts/HZ/PH	RLA	H.P.	kW	AMPS					
CACA/CAHA12	208/230/60/1	0.35	1/10	-	-	0.4	197	0.5	15	
CACA12	208/230/60/1	0.35	1/10	1.5	6.52	6.9	197	8.6	15	
CACA/CAHA24	208/230/60/1	0.55	1/8	-	-	0.6	197	0.7	15	
CACA24	208/230/60/1	0.55	1/8	3	13.04	13.6	197	17.0	20	
CACA36	208/230/60/1	0.5, 0.5	1/10, 1/10	-	-	1.0	197	1.2	15	
CACA36	208/230/60/1	0.5, 0.5	1/10, 1/10	5	21.74	22.7	197	28.3	30	

DISCHARGE AIR VOLUME "Dry Coil"		
Model	High Speed CFM	Low Speed CFM
12	380 (180 L/S)	335 (158 L/S)
24	700 (330 L/S)	620 (293 L/S)
36	1,300 (614 L/S)	1,160 (548 L/S)

INDOOR SOUND LEVELS (dBA)		
Model	High Speed	Low Speed
12	41	39
24	44	42
36	51	49

SHIPPING WEIGHT	
Model Size	Lbs.
12	70 (31.8 kg)
24	108 (49.1 kg)
36	146 (66.4 kg)

CACA/CAHA TECHNICAL DATA			
REFRIGERATION	12	24	36
Refrigerant Type	R22		
CONNECTIONS	12	24	36
Suction	1/2"	3/4"	3/4"
Liquid	1/4"	3/8"	3/8"
Condensate Drain	1/2" I.D.	1/2" I.D.	1/2" I.D.
Branch Duct	5 1/4" Ø	5 1/4" Ø	5 1/4" Ø
Fresh Air Duct	1 1/4 x 2 1/2"	3" x 3"	3" x 3"
FILTRATION	12	24	36
Type	Washable Mesh		
Quantity	1	2	3
Efficiency	80%		
CONDENSATE PUMP	12	24	36
Maximum Head	36" (0.9 m)**		
Min. Flow Rate	2.5 GPH (9.5 l/h)		

*Must bushdown to 5/8" interconnect for 18K system.

** Measured from bottom of unit.

CAC/CAHA CASSETTE SYSTEM MATCHES

COOLING SYSTEMS WITH CASSETTE UNITS

Cassette	Condenser	Btuh	SEER	SHR	EER	Ref.
CACA/CAHA12	S1CA9	9,000	13.0	.79	11.7	R22
CACA/CAHA12	S1CA2	11,800	13.0	.72	12.2	R22
CACA/CAHA24	S1CA8	18,000	13.0	.76	12.3	R22
CACA/CAHA24	S1CA4	23,000	13.0	.67	11.8	R22
CACA36	S1CA3	30,000	13.5	.82	12.5	R22
CACA36	S1CA6	36,000	13.0	.74	12.6	R22



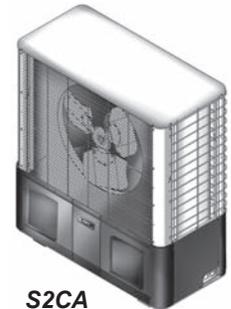
CACA/CAHA

SYSTEMS WITH HEAT PUMP CASSETTE UNITS

Cassette	Condenser	Cooling Btuh	Heating Btuh	SEER	HSPF	SHR	EER	COP	Ref.
CAHA12	S1HA9	9,300	8,000	13.0	7.7	.80	12.4	3.3	R22
CAHA12	S1HA2	11,800	10,800	13.0	7.7	.72	11.4	3.4	R22
CAHA24	S1HA8	18,200	15,000	13.0	7.7	.78	12.3	3.3	R22
CAHA24	S1HA4	24,000	20,000	13.0	7.7	.69	11.7	3.3	R22



**S1CA/S1HA
Side
Discharge**



**S2CA
Side
Discharge**

COOLING SYSTEMS WITH S2C SIDE DISCHARGE

Cassette	Condenser	Btuh	SEER	SHR	EER	Ref.
CACA/CAHA12	S2CA99	18,000	13.0	.81	11.7	R22
CACA/CAHA12	S2CA22	23,000	13.0	.74	11.8	R22
CACA/CAHA12	S2CA92	21,000	13.0	.77	11.8	R22

SYSTEM OPTIONS WITH T2C TOP DISCHARGE

Cassette(s)	Condenser	Btuh	SEER	SHR	EER	Ref.
CACA/CAHA24	T2CA88	34,000	13.0	.79	11.8	R22
CACA/CAHA24	T2CA44	45,000	13.0	.69	11.7	R22
CACA/CAHA12+CACA/CAHA24	T2CA98	27,000	13.0	.82	11.8	R22
CACA/CAHA24	T2CA84	39,000	13.0	.74	11.7	R22
CACA/CAHA12+CACA/CAHA24	T2CA24	34,600	13.0	.75	11.8	R22



**T2CA, T3CA & T4CA
Top Discharge**

SYSTEM OPTIONS WITH T3C TOP DISCHARGE

Cassette(s)	Condenser	Btuh	SEER	SHR	EER	Ref.
CACA/CAHA12+CACA/CAHA24	T3CA994	40,500	13.0	.82	11.7	R22
CACA/CAHA12	T3CA999	27,000	13.0	.87	11.8	R22
CACA/CAHA12	T3CA222	36,000	13.0	.76	11.8	R22
CACA/CAHA12+CACA/CAHA24	T3CA928	39,000	13.0	.80	11.7	R22
CACA/CAHA12+CACA/CAHA24	T3CA924	43,500	13.0	.79	11.7	R22
CACA/CAHA12+CACA/CAHA24	T3CA228	42,000	13.0	.76	11.7	R22
CACA/CAHA12	T3CA922	33,000	13.0	.80	11.8	R22
CACA/CAHA12	T3CA992	30,000	13.0	.83	11.8	R22
CACA/CAHA12+CACA/CAHA24	T3CA998	36,000	13.0	.83	11.8	R22
CACA/CAHA12+CACA/CAHA24	T3CA224	46,500	13.0	.75	11.7	R22

SYSTEM OPTIONS WITH T4C TOP DISCHARGE

Cassette	Condenser	Btuh	SEER	SHR	EER	Ref.
CACA/CAHA12	T4CA9999	36,000	13.0	.87	11.8	R22
CACA/CAHA12	T4CA2222	48,000	13.0	.76	11.8	R22
CACA/CAHA12	T4CA9222	45,000	13.0	.77	11.8	R22
CACA/CAHA12	T4CA9992	39,000	13.0	.79	11.8	R22
CACA/CAHA12	T4CA9922	42,000	13.0	.82	11.8	R22



ARI Standard
210/240 UAC



ARI Standard
210/240 UHP



Comfort Where It Counts.

ENVIROMASTER INTERNATIONAL LLC
5780 Success Drive, Rome, NY 13440
www.enviromaster.com