



ENVIRONMENTALLY CONSCIOUS DRY & ADIABATIC OPERATION



**INTERPOLATION ASSOCIATION OF Refrigerated Warehouses** 









## Get to Know EVAPCO

- The global innovator in heat transfer solutions
- Serving the commercial HVAC, Industrial Refrigeration, Power Generation, and Industrial Processing markets
- Founded in 1976
- · Employee-owned
- 23 engineering & manufacturing facilities in 10 countries
- More than 170 sales offices worldwide

## Learn More Now

Visit evapco.com to download product catalogs, view complete product specifications, and more.

## EVAPCO is more than a name.

It's a pledge to make everyday life easier, more comfortable, more reliable, and more sustainable for people everywhere. How do we fulfill that promise? It's simple.

### We never stop innovating.

At EVAPCO, we don't just talk about innovation, it's ingrained in our workflow. Guided by our annually developed R&D plans, we set out to find groundbreaking solutions that transform the way the world works for the better. It's why we have more than 78 active patents.

### We craft exceptionally built solutions.

As an employee-owned company, we take pride in our work. We are proud to be one of the most experienced teams of engineers and craftsmen in the industry. This translates into solutions that are always exceptionally built. EVAPCO has an unwavering commitment to provide "best in class" heat transfer solutions and services.

### We guarantee performance.

Every EVAPCO solution is put through rigorous research and testing to ensure maximum efficiency and reliability. But we don't stop there. EVAPCO is an industry leader in independent, third-party performance certifications. These certifications guarantee our performance metrics—so that you can plan your projects with complete peace of mind.

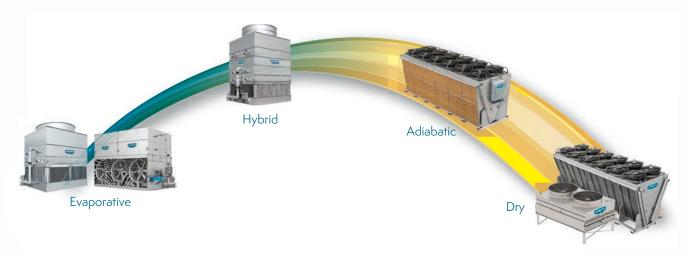
### We protect the environment.

Innovation and environmental sustainability go hand-in-hand at EVAPCO. Our industrial heat transfer equipment not only conserves natural resources and helps reduce noise pollution, but also features recycled steel content in construction. EVAPCO's stainless steel units are constructed of panels that contain up to 75% of recycled content, and our galvanized units contain over 80%. From sound reduction to water conservation to chemical elimination, we are continuously developing new technologies that deliver the ultimate operating advantages to our clients—while protecting the planet for every generation to come.



## Full Spectrum Global Solutions





When water is limited, unavailable, or its use for cooling is undesirable, the **NEW** eco-Air™ Series from EVAPCO is an ideal solution to meet cooling demands.

The eco-Air Series of dry and adiabatic condensers offers unparalleled flexibility in a wide range of capacities, footprints, motor types, and control options.



EAVCA V Coil Adiabatic Models



EAFCD Flat Coil Dry Models

## eco-Air Series Design & Construction Features

The eco-Air Series of air cooled condensers represents EVAPCO's newest advancement in thermal heat transfer research and development. Available in fully dry and adiabatic designs, the eco-Air Series maximizes heat rejection with minimal or no water use. The eco-Air Series is another chapter in EVAPCO's ongoing commitment to quality, environmentally friendly products.

### Heat Exchanger Coil

- Type 304L Stainless Steel tubes with Aluminum fins
- Multiple fin spacings and tube configurations
- · Upgraded fin thickness available

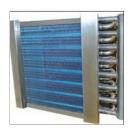
### Structure and Casing

Standard Type 304L Stainless Steel for increased corrosion resistance and longevity

G-235 galvanized steel available

# V Coil Models

- · Maximum surface area per footprint
- Optimized coil angle for heat rejection and air flow
- · Compact plan area and layout



### **Epoxy Coated Fins (Optional)**

- Increased corrosion resistance
- No impact on unit capacity



### Inspection Panel (V Coil Models)

• Easily removable for interior inspection and access to coils and fan motors



### Warranty

- 2 year complete unit
- 2 year Adiabatic Pads (if equipped)
- 1 year EVAPCO Controller and other electrical components (if equipped)







### Internal Step Deck (Optional)

- Platform and grab rail for access to elevated fan section components
- · V coil models only



- Wetted pads can be utilized for pre-cooling entering air, resulting in greater energy savings, and increased capacity, with minimal water use
- Great for high dry bulb climates and high temperature applications
- · Once through design
- · No water treatment required
- · No cold water basin or pump
- No drift
- · V coil models only

## eco-Air Series Design & Construction Features

### **Advanced Motor Technology**

Electronically Commutated (EC) or NEMA fan motor designs

### **NEMA**

- · Premium efficient direct drive
- Zero maintenance sealed bearings
- VFD ready
- · Severe Duty



### Electronically Commutated (EC)

EC motors are the latest development in energy

savings and speed control. The high efficiency wing tip fans operate up to 3 dB less than conventional blade fans with improved part speed energy consumption.



· Integrated speed control



## Flat Coil Models



### **Coil Return Bend Covers**

· Protects the coil return bends during handling and operation



· All units are designed for lifting as once piece

### **Fork Lift Channels**

• V and Flat units up to 27 ft in length

### Coils Pressurized with Nitrogen

• Limits internal corrosion potential during transport and storage

Multiple Leg Heights Available (Flat Coil Models)

### Factory Mounted & Wired Controls (Optional)

- EVAPCO PLC Controller
- UL & cUL Listed
- · Single point power connection





### **Common Terminal Box**

- · All motors factory wired
- · Saves time in the field
- · UL Recognized



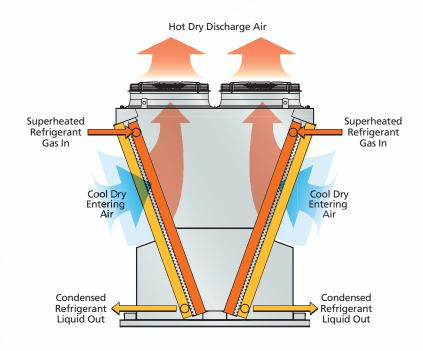
### **IBC Compliant Design**

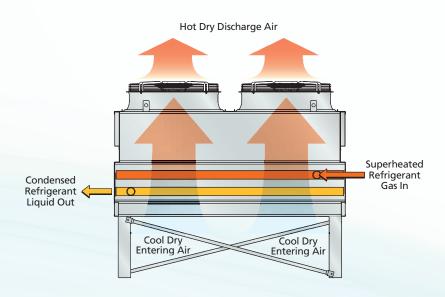
- All standard models meet IBC requirements
- Upgraded designs available for high seismic and wind load areas
- Shake table verified for 1.5 Importance Factor installations

## Dry Principle of Operation

### eco-Air Series V Coil (EAVCD) & Flat Coil (EAFCD) Air Cooled Condenser

Superheated refrigerant vapor enters the inlet header connections. Heat from the refrigerant dissipates through the coil tubes and out to the fins. Ambient air is drawn over the coil surface by the fans located at the top of the unit. Heat from the refrigerant transfers to the air which is then discharged to the atmosphere. Condensed refrigerant exits the unit through the outlet connections.

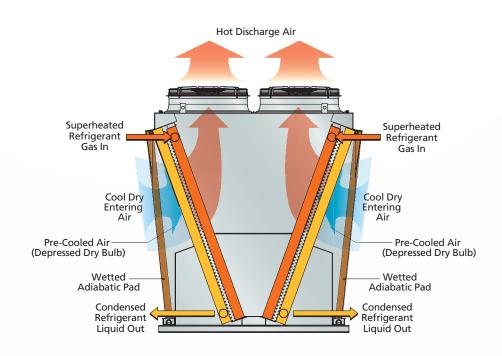




## Adiabatic Principle of Operation

### eco-Air Series V Coil (EAVCA) Adiabatic Condenser

Superheated refrigerant vapor enters the inlet header connections. Heat from the refrigerant dissipates through the coil tubes surface and out to the fins. The adiabatic air pre-cooling system involves fully wetting a fibrous pad located on the air-on side of the coil. Ambient air is drawn through the adiabatic pre-cooling pads by the fans located on top of the unit. The air saturates as it passes through the adiabatic pad, decreasing the dry bulb temperature to within a few degrees of the wet bulb temperature. This new air temperature is referred to as the depressed dry bulb. The pre-cooled air is then drawn through the tube and fin surface, providing a substantial increase in heat rejection capability. Heat from the process fluid transfers to the air which is then discharged to the atmosphere. Condensed refrigerant exits the unit through the outlet connections.



## Advanced Coil Technology

EVAPCO has long been the industry innovator in heat exchanger coil technology starting in the early 1990's with the introduction of Thermal-Pak® coils which revolutionized the refrigeration industry. Soon after, EVAPCO became the benchmark in industrial evaporator design, standardizing on stainless steel tubes and aluminum fins. The eco-Air Series coil design builds upon this past success. The coil tube diameter, geometry, and circuiting have been optimized through thousands of hours of theoretical modeling and laboratory testing. The result is optimal heat transfer efficiency with low airside pressure drop and low motor horsepower per ton.

### Coil Design

Through the use of computational fluid dynamics (CFD) modeling software, finite element heat transfer analysis, and proprietary coil performance calculation methods, EVAPCO engineers have identified significant design elements to improve the finned coil performance. The extensive computer modeling has been refined and verified through coil performance evaluation in EVAPCO's state of the art research laboratories.

### **Superior Stainless Steel Technology**

eco-Air Series air cooled condensers are constructed with high-grade Type 304L stainless steel tubing and aluminum fins as standard. The stainless steel tubing meets the requirements of ASME B31.5 refrigerant piping code. The tubing is roll formed and continuously welded, annealed, and tested using an eddy current device.

The round tubing is fit into the aluminum fin plate and hydraulically expanded. This procedure provides more consistent contact between the tube and the fin plate than mechanical expansion. The entire coil is then pressure tested to 130% of design working pressure. Lastly, the coil is pressurized with nitrogen prior to shipment.

EVAPCO's stainless steel tubes are available in 5/8-inch OD. Coils are built in 6, 8, 10 or 12 FPI as standard using a full-collar aluminum fin. Multiple fin thicknesses are available to accommodate a range of industrial applications.

For applications where corrosion of the aluminum fin is a concern, EVAPCO offers pre-coated epoxy fin stock.



## Benefits of eco-Air Series

### **Reduced Maintenance**

Scaling, corrosion, and water born bacteria concerns are minimized or eliminated with dry and adiabatic cooling equipment. The eco-Air Series reduces the maintenance traditionally associated with fully evaporative systems.

The eco-Air Series adiabatic condenser is designed as a once through system, meaning it has no pump and no basin to hold water, which further reduces the time required for maintenance. Additionally, the adiabatic pads filter the air before reaching the coil, limiting the exposure of dirt and debris to the tube and fin heat transfer surface.

Both NEMA and EC motor options require zero routine maintenance. There are no bearings to grease, belts to adjust, or fans to pitch and balance.



Adiabatic Pad Drip Pan

Zero Maintenance Motors

### **Reduced or Eliminated Water Consumption**

Compared to traditional evaporative systems, the eco-Air Series will either eliminate or dramatically reduce water consumption. Adiabatic models only use water when the ambient conditions and load require it. Reducing water consumption also reduces the ongoing expenses related with the cooling equipment such as purchasing, treating, and disposing of water.

When the eco-Air Series adiabatic models are used in conjunction with the EVAPCO controls package, water conservation is maximized based on proprietary PLC logic.

## **Factory Mounted and Wired Controls**

The motors on the eco-Air Series are pre-wired at the factory to UL standards, reducing costs associated with field wiring. As standard, all units are wired to a common terminal box. Adding the EVAPCO controls package allows for both single point power supply and complete capacity control.

## **Installation Made Easy**

All units are designed for lifting and staging in one piece.

Fork lift channels come standard on all eco-Air Series units up to 27 feet in length. On longer units, reference the eco-Air Series IO&M for lifting requirements from the fan deck lifting lugs.



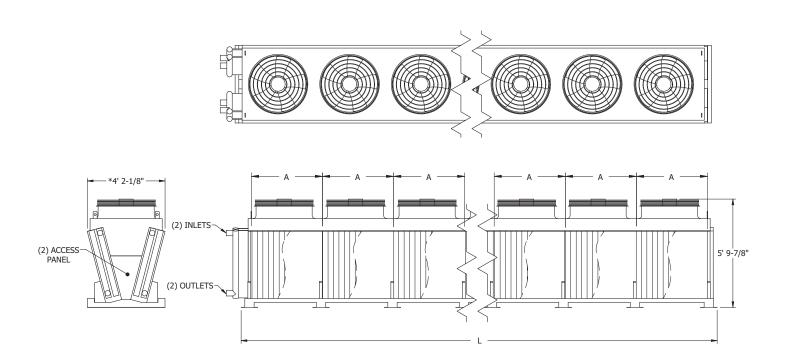
Factory Wired Fan Motors



Factory Mounted Control Panel

# V Coil Configuration - EC Motor

### **Engineering Data**



### Single Fan, 4' Wide Models

		Nominal Capacity		Total Fa	n Power	NH3 Charge	Operating
Model Name	# Fans	Range (Tons)†	Unit Length Range (L)	HP	kW	(lbs.)	Weight (lbs.)
EAVCD-91S1M	1	13 - 23	4' 10-3/8" - 5' 3-3/8"	3.9	2.9	16 - 28	1090 - 1610
EAVCD-91S2M	2	25 - 46	8' 8-3/8" - 9' 6-5/8"	7.8	5.8	25 - 46	1760 - 2770
EAVCD-91S3M	3	36 - 69	12' 6-1/2" - 13' 9-3/4"	11.5	8.6	33 - 64	2510 - 4030
EAVCD-91S4M	4	48 - 92	16' 4-1/2" - 18' 0"	15.4	11.5	41 - 82	3290 - 5330
EAVCD-91S5M	5	63 - 116	20' 2-5/8" - 22' 4-1/8"	19.3	14.4	49 - 99	4090 - 6620
EAVCD-91S6M	6	76 - 139	24' 5/8" - 26' 7-3/8"	23.2	17.3	57 - 117	4830 - 7870
EAVCD-91S7M	7	86 - 161	27' 10-3/4" - 30' 10-1/2"	27.1	20.2	65 - 135	5590 - 9130
EAVCD-91S8M	8	99 - 185	31' 8-3/4" - 35' 1-3/4"	30.8	23.0	73 - 153	6340 - 10400
EAVCD-91S9M	9	111 - 208	35' 6-7/8" - 39' 4-7/8"	34.7	25.9	81 - 171	7110 - 11630
EAVCD-91S0M	10	123 - 221	39' 4-7/8"	38.6	28.8	89 - 171	7880 - 11950

### Notes:

Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

<sup>\*</sup> Adiabatic width: 4' 8-1/4"

A: Two incremental fin lengths available: 3' 10-1/16" or 4' 3-3/16"

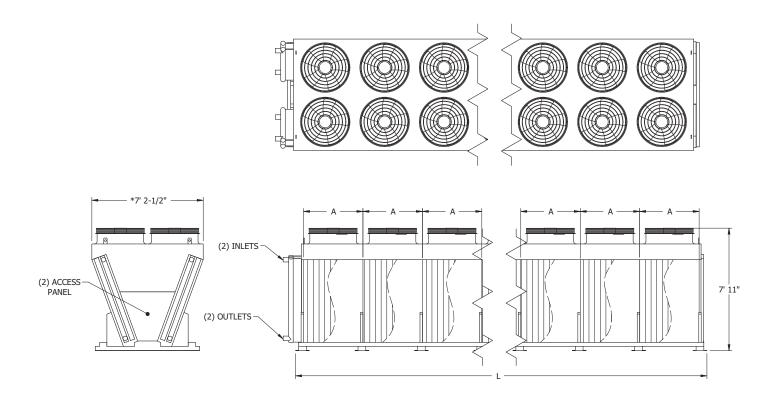
<sup>†</sup> Nominal Capacity Range shown at 20°F TD

Min Capacity: 3 Row, 6 FPI, Shortest Incremental Fin Length, 0.01" fin thickness

Max Capacity: 6 Row, 12 FPI, Longest Incremental Fin Length, 0.01" fin thickness

# V Coil Configuration - EC Motor

### **Engineering Data**



### Twin Fan, 7' Wide Models

		Nominal Capacity		Total Fa	n Power	NH3 Charge	Operating
Model Name	# Fans	Range (Tons)†	Unit Length Range (L)	HP	kW	(lbs.)	Weight (lbs.)
EAVCD-9102P	2	22 - 41	4' 10-3/8" - 5' 3-3/8"	7.8	5.8	30 - 51	1750 - 2550
EAVCD-9104P	4	44 - 81	8' 8-3/8" - 9' 6-5/8"	15.4	11.5	45 - 84	2810 - 4350
EAVCD-9106P	6	66 - 122	12' 6-1/2" - 13' 9-3/4"	23.2	17.3	60 - 117	4010 - 6340
EAVCD-9108P	8	88 - 163	16' 4-1/2" - 18' 0"	30.8	23.0	75 - 150	5250 - 8360
EAVCD-9110P	10	110 - 203	20' 2-5/8" - 22' 4-1/8"	38.6	28.8	89 - 183	6490 - 10380
EAVCD-9112P	12	131 - 244	24' 5/8" - 26' 7-3/8"	46.4	34.6	104 - 216	7690 - 12350
EAVCD-9114P	14	153 - 283	27' 10-3/4" - 30' 10-1/2"	54	40.3	119 - 249	8910 - 14340
EAVCD-9116P	16	175 - 324	31' 8-3/4" - 35' 1-3/4"	61.8	46.1	134 - 282	10110 - 16330
EAVCD-9118P	18	192 - 365	35' 6-7/8" - 39' 4-7/8"	69.4	51.8	149 - 315	11330 - 18290
EAVCD-9120P	20	213 - 377	39' - 47/8"	77.2	57.6	164 - 315	12560 - 18840

### Notes:

A: Two incremental fin lengths available: 3' 10-1/16" or 4' 3-3/16"

Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Min Capacity: 3 Row, 6 FPI, Shortest Incremental Fin Length, 0.01" fin thickness

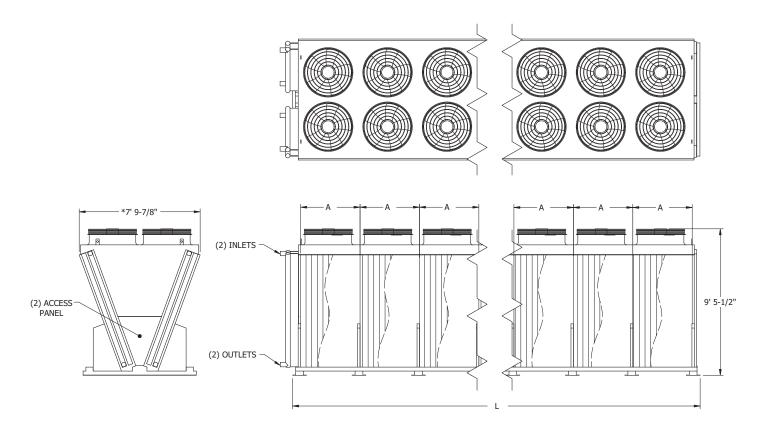
Max Capacity: 6 Row, 12 FPI, Longest Incremental Fin Length, 0.01" fin thickness

<sup>\*</sup> Adiabatic width: 7' 8-3/8"

<sup>†</sup> Nominal Capacity Range shown at 20°F TD

# V Coil Configuration - EC Motor

## **Engineering Data**



### Twin Fan, 8' Wide Models

		Nominal Capacity		Total Fa	n Power	NH3 Charge	Operating
Model Name	# Fans	Range (Tons)†	Unit Length Range (L)	HP	kW	(lbs.)	Weight (lbs.)
EAVCD-9102Z	2	26 - 47	4' 10-3/8" - 5' 3-3/8"	7.8	5.8	34 - 58	1930 - 2980
EAVCD-9104Z	4	52 - 93	8' 8-3/8" - 9' 6-5/8"	15.4	11.5	50 - 95	3060 - 5110
EAVCD-9106Z	6	77 - 141	12' 6-1/2" - 13' 9-3/4"	23.2	17.3	67 - 132	4350 - 7420
EAVCD-9108Z	8	103 - 187	16' 4-1/2" - 18' 0"	30.8	23.0	84 - 169	5670 - 9780
EAVCD-9110Z	10	129 - 234	20' 2-5/8" - 22' 4-1/8"	38.6	28.8	101 - 206	7000 - 12130
EAVCD-9112Z	12	155 - 281	24' 5/8" - 26' 7-3/8"	46.4	34.6	117 - 243	8280 - 14430
EAVCD-9114Z	14	178 - 328	27' 10-3/4" - 30' 10-1/2"	54	40.3	134 - 280	9580 - 16750
EAVCD-9116Z	16	203 - 375	31' 8-3/4" - 35' 1-3/4"	61.8	46.1	151 - 318	10870 - 19070
EAVCD-9118Z	18	229 - 423	35' 6-7/8" - 39' 4-7/8"	69.4	51.8	167 - 355	12180 - 21360
EAVCD-9120Z	20	250 - 449	39' 4-7/8"	77.2	57.6	184 - 355	13480 - 21930

### Notes:

Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

<sup>\*</sup> Adiabatic width: 8' 3-7/8"

A: Two incremental fin lengths available: 3' 10-1/16" or 4' 3-3/16"

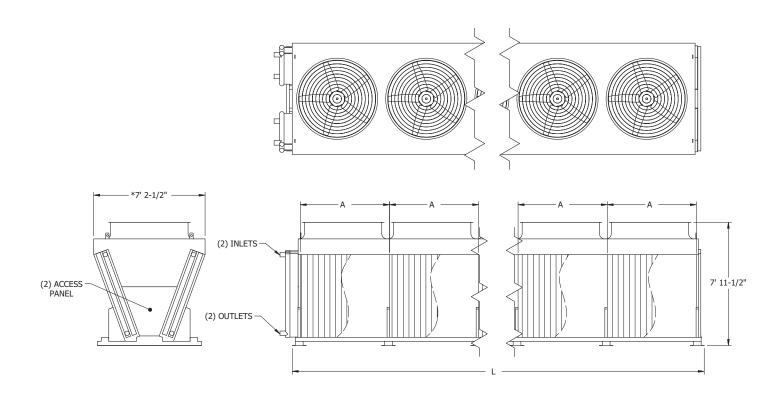
<sup>†</sup> Nominal Capacity Range shown at 20°F TD

Min Capacity: 3 Row, 6 FPI, Shortest Incremental Fin Length, 0.01" fin thickness

Max Capacity: 6 Row, 12 FPI, Longest Incremental Fin Length, 0.01" fin thickness

## V Coil Configuration - NEMA Motor

## **Engineering Data**



### Single Fan, 7' Wide Models

		Nominal Capacity		Total Fa	n Power	NH3 Charge	Operating
Model Name	# Fans	Range (Tons)†	Unit Length Range (L)	HP Range	kW Range	(lbs.)	Weight (lbs.)
EAVCD-15S1P	1	28 - 67	6' 9-3/8" - 8' 8-3/8"	5 - 10	3.7 - 7.5	37 - 78	2310 - 4030
EAVCD-15S2P	2	55 - 133	12' 6-1/2" - 16' 4-1/2"	10 - 20	7.4 - 15	60 - 137	3990 - 7380
EAVCD-15S3P	3	83 - 200	18' 3-1/2" - 24' 5/8"	15 - 30	11.1 - 22.5	82 - 196	5740 - 10790
EAVCD-15S4P	4	110 - 266	24' 5/8" - 31' 8-3/4"	20 - 40	14.8 - 30	104 - 256	7390 - 14100
EAVCD-15S5P	5	136 - 332	29' 9-3/4" - 39' 4-7/8"	25 - 50	18.5 - 37.5	127 - 315	9110 - 17480
EAVCD-15S6P	6	164 - 364	35' 6-7/8" - 39' 4-7/8"	30 - 60	22.2 - 45	149 - 315	10810 - 18190

### Notes:

A: Three incremental fin lengths available: 5'9-1/16", 6'4-3/4" or 7'8-1/8"

Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Min Capacity: 3 Row, 6 FPI, Shortest Incremental Fin Length, 0.01" fin thickness

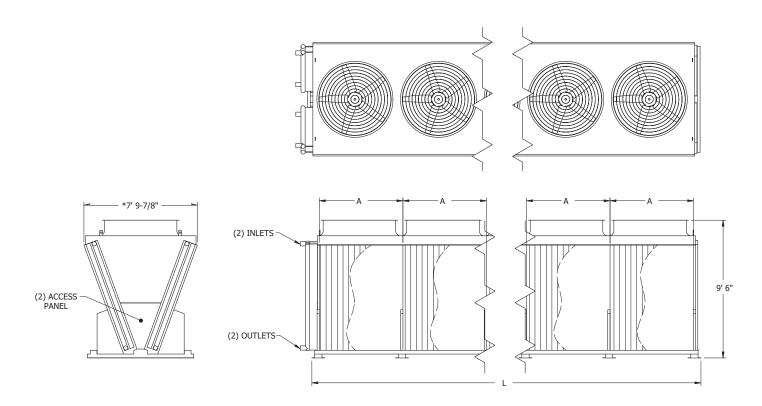
Max Capacity: 6 Row, 12 FPI, Longest Incremental Fin Length, 0.01" fin thickness

<sup>\*</sup> Adiabatic width: 7' 8-3/8"

<sup>†</sup> Nominal Capacity Range shown at 20°F TD

## V Coil Configuration - NEMA Motor

## **Engineering Data**



### Single Fan, 8' Wide Models

Model Name	# Fans	Nominal Capacity Range (Tons)†	Unit Length Range (L)		n Power	NH3 Charge (lbs.)	Operating Weight (lbs.)
Model Name	π ι σιις	Kange (Tons)	Offit Leftgill Range (L)	HP Range	kW Range	(103.)	Weight (103.)
EAVCD-15S1Z	1	32 - 74	6' 9-3/8" - 8' 8-3/8"	5 - 10	3.7 - 7.5	42 - 87	2520 - 4720
EAVCD-15S2Z	2	62 - 149	12' 6-1/2" - 16' 4-1/2"	10 - 20	7.4 - 15	67 - 154	4330 - 8640
EAVCD-15S3Z	3	94 - 224	18' 3-1/2" - 24' 5/8"	15 - 30	11.1 - 22.5	92 - 221	6190 - 12630
EAVCD-15S4Z	4	127 - 298	24' 5/8" - 31' 8-3/4"	20 - 40	14.8 - 30	117 - 288	7960 - 16520
EAVCD-15S5Z	5	156 - 373	29' 9-3/4" - 39' 4-7/8"	25 - 50	18.5 - 37.5	142 - 355	9800 - 20480
EAVCD-15S6Z	6	187 - 420	35' 6-7/8" - 39' 4-7/8"	30 - 60	22.2 - 45	167 - 355	11620 - 21220

### Notes:

A: Two incremental fin lengths available: 5' 9-1/16", 6' 4-3/4" or 7' 8-1/8"

Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Min Capacity: 3 Row, 6 FPI, Shortest Incremental Fin Length, 0.01" fin thickness

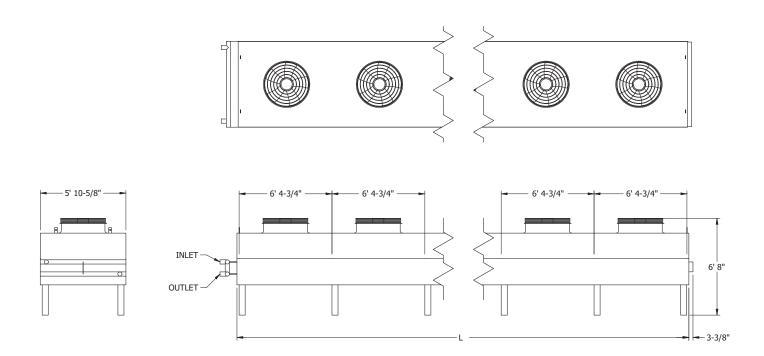
Max Capacity: 6 Row, 12 FPI, Longest Incremental Fin Length, 0.01" fin thickness

<sup>\*</sup> Adiabatic width: 8' 3-7/8"

<sup>†</sup> Nominal Capacity Range shown at 20°F TD

# Flat Coil Configuration - EC Motor

## **Engineering Data**



## Single Fan, 6' Wide Models

Model Name	# Fans	Nominal Capacity Range (Tons)†	Unit Length (L)	Total Fa	an Power kW	NH3 Charge (lbs.)	Operating Weight (lbs.)
EAFCD-91S1W	1	14 - 24	6' 8-1/4"	3.9	2.9	17 - 28	1190 - 1730
EAFCD-91S2W	2	29 - 49	13' 0"	7.8	5.8	27 - 49	2030 - 3080
EAFCD-91S3W	3	43 - 73	19' 5-3/4"	11.5	8.6	38 - 70	3030 - 4610
EAFCD-91S4W	4	57 - 98	25' 10-1/2"	15.4	11.5	48 - 90	3780 - 5870
EAFCD-91S5W	5	71 - 123	32' 3-1/4"	19.3	14.4	58 - 111	4700 - 7310
EAFCD-91S6W	6	85 - 147	38' 8 "	23.2	17.3	68 - 132	5540 - 8670

#### Notes

Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

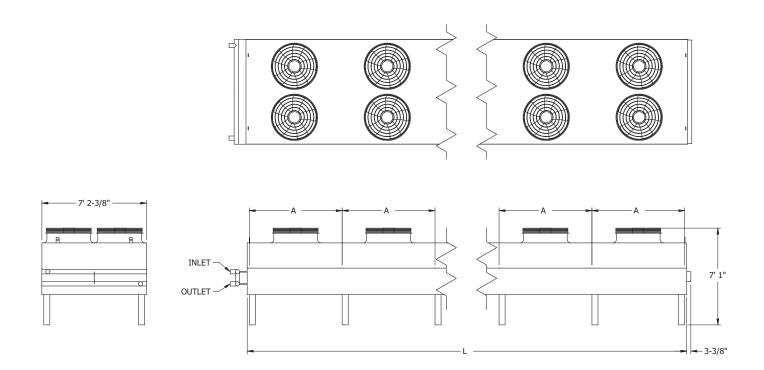
 $\label{eq:mincond} \mbox{Min Capacity: 3 Row, 6 FPI, Shortest Incremental Fin Length, 0.01" fin thickness}$ 

Max Capacity: 6 Row, 12 FPI, Longest Incremental Fin Length, 0.01" fin thickness

<sup>†</sup> Nominal Capacity Range shown at 20°F TD

# Flat Coil Configuration - EC Motor

## **Engineering Data**



### Twin Fan, 7' Wide Models

		Nominal Capacity		Total Fa	n Power	NH3 Charge	Operating	
Model Name	# Fans	Range (Tons)†	Unit Length Range (L)	HP	kW	(lbs.)	Weight (lbs.)	
EAFCD-9102P	2	22 - 43	6' 8-1/4" - 7' 11-1/2"	7.8	5.8	20 - 39	1450 - 2350	
EAFCD-9104P	4	44 - 84	13' 0" - 15' 7-5/8"	15.4	11.5	33 - 69	2520 - 4370	
EAFCD-9106P	6	66 - 127	19' 5-3/4" - 23' 3-3/4"	23.2	17.3	45 - 98	3750 - 6400	
EAFCD-9108P	8	88 - 170	25' 10-1/2" - 30' 11-7/8"	30.8	23.0	57 - 128	4730 - 8430	
EAFCD-9110P	10	109 - 211	32' 3-1/4" - 38' 8 "	38.6	28.8	70 - 158	5880 - 10450	
EAFCD-9112P	12	131 - 226	38' 8 "	46.4	34.6	82 - 158	6940 - 10690	

#### Notes:

A: Two incremental fin lengths available: 6' 4-3/4" or 7' 8-1/8"

Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

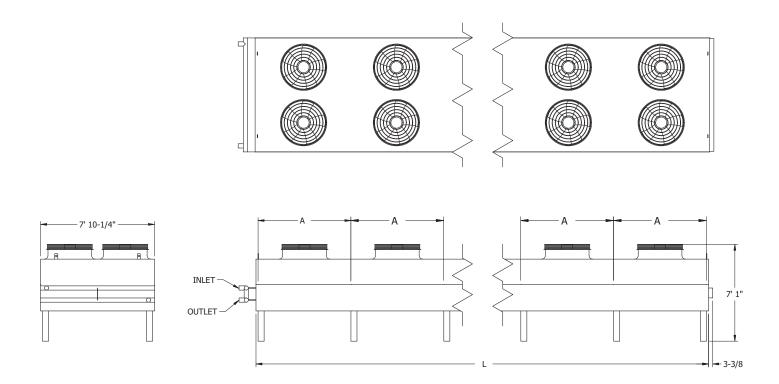
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Max Capacity: 6 Row, 12 FPI, Longest Incremental Fin Length, 0.01" fin thickness

<sup>†</sup> Nominal Capacity Range shown at 20°F TD

# Flat Coil Configuration - EC Motor

## **Engineering Data**



Twin Fan, 8' Wide Models

		Nominal Capacity		Total Fa	n Power	NH3 Charge	Operating	
Model Name	# Fans	Range (Tons)†	Unit Length Range (L)	HP	kW	(lbs.)	Weight (lbs.)	
EAFCD-9102Z	2	23 - 45	6' 8-1/4" - 7' 11-1/2"	7.8	5.8	23 - 44	1540 - 2540	
EAFCD-9104Z	4	47 - 90	13' 0" - 15' 7-5/8"	15.4	11.5	37 - 77	2660 - 4730	
EAFCD-9106Z	6	68 - 135	19' 5-3/4" - 23' 3-3/4"	23.2	17.3	51 - 111	3970 - 6920	
EAFCD-9108Z	8	93 - 179	25' 10-1/2" - 30' 11-7/8"	30.8	23.0	64 - 144	5000 - 9120	
EAFCD-9110Z	10	115 - 223	32' 3-1/4" - 38' 8 "	38.6	28.8	78 - 178	6210 - 11310	
EAFCD-9112Z	12	139 - 244	38' 8 "	46.4	34.6	92 - 178	7340 - 11560	

#### Notes

A: Two incremental fin lengths available: 6' 4-3/4" or 7' 8-1/8"

Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

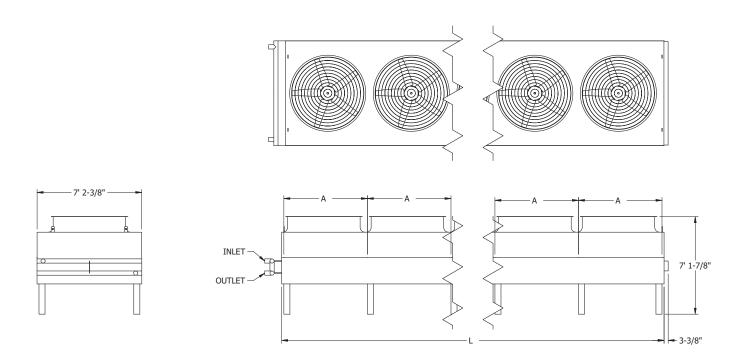
 $\label{lem:min-condition} \mbox{Min Capacity: 3 Row, 6 FPI, Shortest Incremental Fin Length, 0.01" fin thickness}$ 

Max Capacity: 6 Row, 12 FPI, Longest Incremental Fin Length, 0.01" fin thickness

<sup>†</sup> Nominal Capacity Range shown at 20°F TD

## Flat Coil Configuration - NEMA Motor

## **Engineering Data**



## Single Fan, 7' Wide Models

		Nominal Capacity		Total Fa	n Power	NH3 Charge	Operating	
Model Name	# Fans	Range (Tons)†	Unit Length Range (L)	HP Range	kW Range	(lbs.)	Weight (lbs.)	
EAFCD-15S1P	1	20 - 50	6' 1/2" - 7' 11-1/2"	5 - 10	3.7 - 7.5	19 - 39	1620 - 2670	
EAFCD-15S2P	2	41 - 99	11' 9-5/8" - 15' 7-5/8"	10 - 20	7.4 - 15	30 - 69	2850 - 5020	
EAFCD-15S3P	3	61 - 149	17' 6-3/4" - 23' 3-3/4"	15 - 30	11.1 - 22.5	41 - 98	4250 - 7360	
EAFCD-15S4P	4	81 - 198	23' 3-3/4" - 30' 11-7/8"	20 - 40	14.8 - 30	52 - 128	5390 - 9710	
EAFCD-15S5P	5	101 - 248	29' 7/8" - 38' 8 "	25 - 50	18.5 - 37.5	64 - 158	6710 - 12060	
EAFCD-15S6P	6	119 - 261	34' 9" - 38' 8 "	30 - 60	22.2 - 45	75 - 158	7930 - 12550	

#### Notes:

A: Three incremental fin lengths available: 5' 9-1/16", 6' 4-3/4" or 7' 8-1/8"

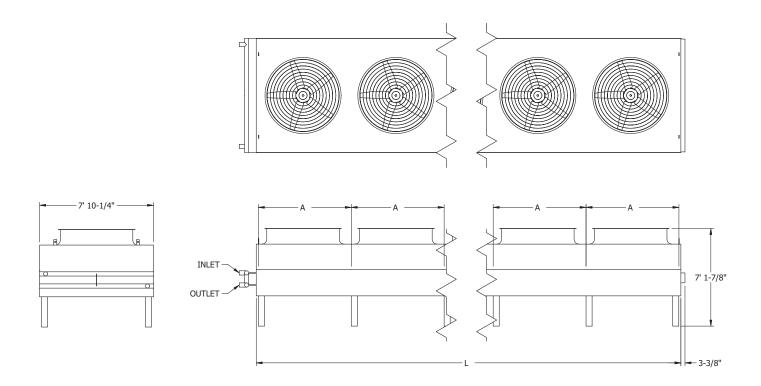
Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Min Capacity: 3 Row, 6 FPI, Shortest Incremental Fin Length, 0.01" fin thickness Max Capacity: 6 Row, 12 FPI, Longest Incremental Fin Length, 0.01" fin thickness

<sup>†</sup> Nominal Capacity Range shown at 20°F TD

## Flat Coil Configuration - NEMA Motor

## **Engineering Data**



### Single Fan, 8' Wide Models

		Nominal Capacity			n Power	NH3 Charge	Operating	
Model Name	# Fans	Range (Tons)†	Unit Length Range (L)	HP Range	kW Range	(lbs.)	Weight (lbs.)	
EAFCD-15S1Z	1	22 - 54	6' 1/2" - 7' 11-1/2"	5 - 10	3.7 - 7.5	21 - 44	1700 - 2860	
EAFCD-15S2Z	2	44 - 107	11' 9-5/8" - 15' 7-5/8"	10 - 20	7.4 - 15	34 - 77	2990 - 5370	
EAFCD-15S3Z	3	66 - 161	17' 6-3/4" - 23' 3-3/4"	15 - 30	11.1 - 22.5	46 - 111	4450 - 7890	
EAFCD-15S4Z	4	87 - 214	23' 3-3/4" - 30' 11-7/8"	20 - 40	14.8 - 30	59 - 144	5650 - 10400	
EAFCD-15S5Z	5	108 - 268	29' 7/8" - 38' 8 "	25 - 50	18.5 - 37.5	71 - 178	7020 - 12920	
EAFCD-15S6Z	6	128 - 284	34' 9" - 38' 8 "	30 - 60	22.2 - 45	84 - 178	8310 - 13420	

#### Notes

A: Three incremental fin lengths available: 5'9-1/16", 6'4-3/4" or 7'8-1/8"

Dimensions are subject to change. Do not use for pre-fabrication. Quantity of coil connections subject to change based on refrigerant and design conditions.

Min Capacity: 3 Row, 6 FPI, Shortest Incremental Fin Length, 0.01" fin thickness Max Capacity: 6 Row, 12 FPI, Longest Incremental Fin Length, 0.01" fin thickness

<sup>†</sup> Nominal Capacity Range shown at 20°F TD

## Wiring and Control Options

Factory wiring and control options are available for both air cooled and adiabatic condensers. All wiring follows UL recognized standards. Many eco-Air Series configurations allow for single point power and factory mounted components. Please consult your sales representative or EVAPCO Marketing for job specific details.

**Common Terminal Box** (standard) - All motors wired to a common terminal box located on the end panel opposite refrigerant connections. Factory wiring and design complies with UL Recognized Standards.



**Individual Motor Disconnect Switches** (optional) - Mounted at each fan motor to give the user the ability to isolate individual motor power feeds.





## Wiring and Control Options

**EVAPCO Control Package** – Operating sequence and fan speed control based on real time heat loads and ambient conditions.



- EVAPCO PLC Controller
- Supervisory control system integration
- Fan speed control
  - EC Motor Option: Modbus control of EC fan
  - NEMA Motor Option: Packaged VFD fan speed control with bypass switch
- UL Listed
- NEMA 3R Rated
- Thermal overload and short circuit protection of each motor
- Operate and fault indicator lights on outside of panel
- Refrigerant Pressure Sensor (shipped loose)
- Ambient Temperature Sensor
- Rain/Sun Protection Hood (optional)
- Solenoid control of adiabatic pre-cooling system (if equipped)

Solenoid Control of Adiabatic Pre-cooling System (if equipped)



Adiabatic water supply solenoid valve arrangement

The EVAPCO Control Package is factory mounted and wired when configuration and shipping limitations allow.



### UL (cUL) Compliance

All Components are UL Recognized

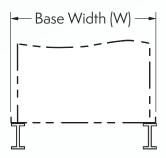


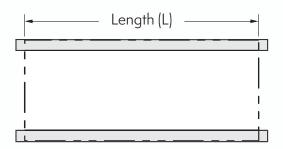
The entire unit is UL Listed when provided with factory mounted and wired EVAPCO Control Package.



# Structural Steel Support

eco-Air Series Supporting Steel Dimensions						
V Models	Base Width (W)					
4' Wide	4′ 2″					
7' Wide	7′ 2-1/2″					
8' Wide	7′ 3-3/4″					
F Models	Base Width (W)					
6' Wide	5′ 7-5/16″					
7' Wide	6′ 11-1/8″					
8' Wide	7′ 7″					





Length as shown on "unit length range (L)" in catalog table

- 1. These are suggested arrangements for preliminary layout purposes. Consult your EVAPCO representative for factory certified steel support drawings.
- 2. The recommended support for the eco-Air Series condensers is structural I-beams running the entire length of the unit. Mounting holes, 3/4" in diameter are provided for bolting to the structural steel.
- 3. Beams should be sized in accordance with accepted structural practices. Maximum deflection of beam under unit to be 1/360 of the unit length, not to exceed 1/2".
- 5. Beams should be level before setting the unit in place. Do not level the unit by shimming between it and the I-beams.
- 6. Support beams and Anchor bolts are to be furnished by others.
- 7. Dimensions, weights and data are subject to change without notice. Refer to the factory certified drawings for exact dimensions.

## **EVAPCO Technical Support Services**

### **EVAPCO** Representatives

Your EVAPCO representative is the local expert you can count on to help you with all your industrial refrigeration needs—from getting quotes, to answering questions, to helping you manage your projects and orders. Find your local representative, by visiting evapco.com now.

### SPECTRUM™ by EVAPCO

SPECTRUM $^{\text{\tiny M}}$  is a new industry leading computer selection program that makes it easy for you to find and optimize the right EVAPCO solutions for every project. Evaluate thermal performance, layout, and energy



requirements across units; analyze optional equipment features; and generate complete specifications and unit drawings—all within a friendly and intuitive format. Contact your EVAPCO representative to access SPECTRUM™ now.

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Bookmark evapco.com for the latest and most complete product information. The website contains a multitude of information and resources including:

- Unit certified drawings
- Steel support drawings
- Scaled isometric views in CAD
- 3-D models in Revit
- Product catalogs

- Rigging instructions
- Operation and maintenance instructions
- White papers
- Videos
- Logo apparel and merchandise





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