

# eco-Air Series **DOUBLE STACK**

Dry & Adiabatic Coolers





EVAPCO is more than a name. We are the global innovator in heat transfer solutions for the commercial HVAC, industrial refrigeration, power and industrial process markets. We pledge to make everyday life easier, more comfortable, more reliable, and more sustainable for people everywhere.



# SUSTAINABILITY FIRST

The eco-Air Double Stack is EVAPCO's latest addition to the eco-Air Series of Dry & Adiabatic coolers. The eco-Air Series of products is designed to address growing market concerns of sustainability, efficiency, and water conservation. In recent years, factors such as rising water costs, water shortages, and code changes have driven conscientious building owners and engineers to reduce water consumption on cooling applications across all industries.

Anticipating these changing market trends, EVAPCO has introduced various innovations over the years. Our team currently holds over 200 active patents around the world, with many beginning in our state-of-the-art Wilson E. Bradley Research and Development Center.

Key advancements in water and energy efficiency include the evaporative eco-ATWB hybrid coolers with finned coils and high dry-bulb switchover temperatures and the EVAPCO Water Saver™, a capacitive deionization system designed to increase water treatment cycles of concentration and significantly reduce water consumption.

EVAPCO introduced the eco-Air Series of Dry & Adiabatic coolers to maximize water efficiency. The eco-Air Double Stack cooler represents a continuing progression in our full spectrum of global heat transfer solutions, as well as a consistent commitment to the environment. Visit evapco.com to learn more about our Global Sustainability Directive and how it shapes our offerings.





# CERTIFIED PERFORMANCE

EVAPCO's eco-Air Series of Single Stack & Double Stack dry coolers is now CTI certified for thermal performance per Standard 201. The Cooling Technology Institute (CTI) is an independent third-party organization who validates the thermal performance of evaporative and dry heat rejection equipment. CTI Standard 201 was expanded to include dry coolers in 2022. CTI certification provides credibility to EVAPCO's published thermal performance ratings, ensuring every customer has peace of mind when purchasing EVAPCO products.



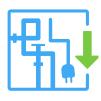
# **BENEFITS**

Any application requiring a large amount of heat rejection and a significant reduction in water usage can benefit from eco-Air Double Stack dry coolers. These applications will also gain the advantage of a simpler system set-up with a minimized amount of units, electrical connections, and piping.





REDUCE INSTALLED FOOTPRINT



REDUCE FIELD PIPING & WIRING

When selected with EVAPCO's adiabatic pad pre-cooling system, elevated ambient dry bulb temperatures can be depressed to maintain low leaving fluid temperature set-points. Water utilized by the adiabatic pad pre-cooling system evaporates off the surface of the pad, keeping the finned coil bundles completely dry.

The eco-Air Double Stack coolers are taller and wider than the smaller single stack units, with significantly more dry coil surface area and higher airflow capability to maximize heat rejection for a given footprint.

### **APPLICATIONS**

The eco-Air Double Stack product line can be applied to a wide spectrum of applications, especially those with large cooling requirements, where reducing or eliminating water usage is critical.



INDUSTRIAL PROCESSES



DATA CENTERS



HVAC



POWER GENERATION



LIQUID IMMERSION COOLING

EVAPCO's sales representatives and engineers have the tools to help you select the right product for your application.

To find out if the eco-Air Double Stack is the right solution for your project, please contact your local EVAPCO sales representative.

# eco-Air Series Double Stack Dry & Adiabatic Coolers

The eco-Air Series coolers are designed to address the market need for higher capacity dry coolers with a smaller installed footprint than options currently available in the market. The unit footprint, piping connections, and electrical connections can be halved by stacking one section on top of another to maximize surface area available for cooling, the footprint of a project can be effectively halved, therefore simplifying piping and electrical connections and improving access to optimize layout on large projects requiring multiple units.

EVAPCO's dry coolers and the dry performance of adiabatic coolers is now CTI certified per Standard 201, adding further credibility to EVAPCO's 100% thermal performance guarantee.

# **Drive System Options**

#### AC/ NEMA

- Premium efficient VFD ready motors
- Aluminum low sound fans as standard
- Belt drive
- Motors are factory wired to UL Type 4X individual fused disconnects
- Speed control by others



#### EC

- Highly efficient EC motors
- Integrated fan and motor assemblies
- Factory wired by EVAPCO to a UL Type 4 PLC control panel
- Unit can control itself or accept external communication from BMS



# Adiabatic Pre-cooling Media

- · High efficency adiabatic pre-cooling pads
- No water treatment required
- No drift
- · No recirculation pump required

# **Adiabatic Water Distribution System**

- Copper distribution piping
- Two stage water system for increased water savings
- Pressure gauge
- Water pressure regulator
- Strainer
- Make up connection
- Drain valve

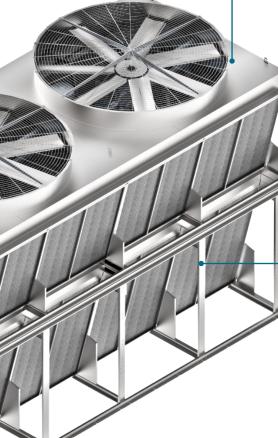




#### **No Plume**

All eco-Air units are 100% plume free





# **Electrical Termination Enclosures**

- UL Type 4X individual disconnects for AC/NEMA motor units
- UL Type 4 PLC panels for EC motor units
- Low voltage terminal box for solenoid valves and vibration switches



# **Inspection Panel**

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

# Platform with Ladder

- OSHA compliant
- Optional feature can be added to any installation

# Warranty

- 2 years for the complete unit (including drive system and heat exchanger coils)
- 2 years for the adiabatic pads (if equipped)
- 1 year for the electrical components

# Structure and Casing

- Type 304L stainless steel as standard for increased corrosion resistance and longevity
- G-235 galvanized steel available as an option



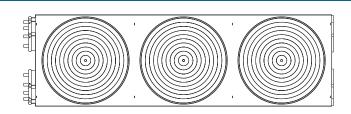
# **Heat Exchanger Coils**

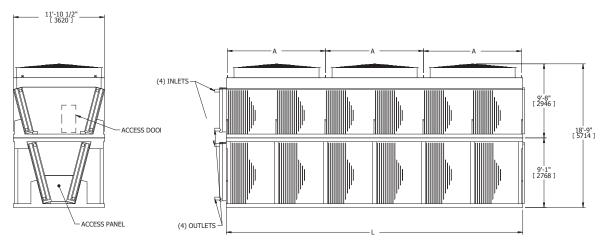
- Type 304L stainless steel coils
- Multiple fin spacings & circuiting configurations
- Heavy gauge aluminum fins
  - · Optional upgrade to coated aluminum fins for increased corrosion resistance with no impact on unit performance



eco-Air Series Dry Cooler Thermal Performance is CTI certified per STD-201.

# AC/NEMA MOTOR UNITS





Model Number	# Fans	Nominal Capacity (MBH)*	HP (kW)	Air Volume (cfm)	Unit Length (L)	Coil Volume (gal.)	Shipping Weight (lbs.)	Operating Weight (lbs.)	Heaviest Section (lbs.)
EAW-DD 33S1XL030M4	1	2400	40 (30)	187200	14′ 11-2/5″	250	14260	16580	7570
EAW-DD 33S1XL037M4	1	2510	50 (37)	199700	14′ 11-2/5″	250	14410	16730	7720
EAW-DD 33S1XL045M4	1	2640	60 (45)	214700	14′ 11-2/5″	250	14650	16970	7960
EAW-DD 33S2XL030M4	2	4780	80 (60)	374400	27′ 9″	452	26570	30550	14280
EAW-DD 33S2XL037M4	2	5000	100 (74)	399300	27′ 9″	452	26860	30840	14570
EAW-DD 33S2XL045M4	2	5250	120 (90)	429400	27′ 9″	452	27340	31320	15050
EAW-DD 33S3XL030M4	3	7130	120 (90)	561600	40′ 6-12/25″	692	39160	44820	21150
EAW-DD 33S3XL037M4	3	7460	150 (111)	599000	40′ 6-12/25″	692	39610	45260	21600
EAW-DD 33S3XL045M4	3	7830	180 (135)	644200	40′ 6-12/25″	692	40330	45980	22320

NOTES: Adiabatic Width: 13' 6"

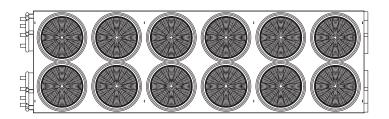
A: Module length is 14' 11-2/5"

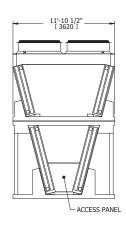
Dimensions are subject to change. Do not use for pre-fabrication.

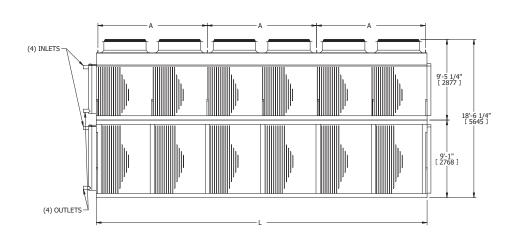
Adiabatic capacity: The adiabatic cooling effect and resulting depressed dry bulb entering the coil depends on the ambient dry bulb and associated relative humidity. Consult your sales representative, EVAPCO marketing, or Spectrum $^{TM}$  selection software for more information.

<sup>\*</sup>Nominal capacity based on 110°F-100°F at 92°F entering air dry bulb temperature.

# **EC MOTOR UNITS**







Model Number	# Fans	Nominal Capacity (MBH)*	HP (kW)	Air Volume (cfm)	Unit Length (L)	Coil Volume (gal.)	Shipping Weight (lbs.)	Operating Weight (lbs.)	Heaviest Section (lbs.)
EAW-DD 1504XL017G7	4	2810	93 (69)	236100	14′ 11-2/5″	250	14270	16790	7830
EAW-DD 1508XL017G7	8	5580	186 (139)	472300	27′ 9″	452	26480	31120	14800
EAW-DD 1512XL017G7	12	8330	278 (207)	708400	40′ 6-12/25″	692	38410	45150	21640

Adiabatic Width: 13' 6" **NOTES:** 

A: Module length is 14' 11-2/5" Dimensions are subject to change. Do not use for pre-fabrication.

Adiabatic capacity: The adiabatic cooling effect and resulting depressed dry bulb entering the coil depends on the ambient dry bulb and associated relative humidity. Consult your sales representative, EVAPCO marketing, or Spectrum $^{TM}$  selection software for more information.

<sup>\*</sup>Nominal capacity based on 110°F-100°F at 92°F entering air dry bulb temperature.



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