

Delphi Evaporators

Integral parts of any vehicle HVAC system, evaporators are designed to cool—and dehumidify—internal and/or external air in order to provide comfort to vehicle occupants. Delphi's Evaporators are extremely efficient, yielding exceptional heat transfer per unit of weight. With low air side and refrigerant pressure drop and high heat transfer characteristics, Delphi Evaporators offer exceptional performance. Three designs are available for maximum design and packaging flexibility:

- Multi-tank
- Rectangular tank
- U-channel

A variety of plumbing and connection options are available, further enhancing flexibility.

All Delphi Evaporators feature patented moisture management technology to help minimize retained moisture on the core and associated odors. This technology also eliminates condensate droplets from entering the air stream enabling compact module designs.

Their special aluminum alloy construction helps protect the evaporators from corrosion caused by acid rain condensation and other corrosive elements. This construction eliminates the need for any coating, and allows the evaporators to meet global environmental regulatory requirements.

► Benefits

- Exceptional refrigerant performance
 - Optimized flow paths and rib patterns for low refrigerant pressure drop with high heat transfer performance
 - Multi-tank designs for temperature uniformity and stable performance over a range of superheats
- Special aluminum alloy construction
 - Reduced mass
 - Corrosion resistant
 - Environmentally friendly (chrome free)
 - No need for coating
- Inlet/outlet pipe options yield packaging flexibility
 - Narrow manifolds leading to more effective face area
 - Various manifold designs—multi, rectangular and u-channel
 - Face plumbing
- Exceptional patented moisture management capabilities
 - Minimal retained moisture on core
 - Low odor
 - "Spitting" off the evaporator face eliminated
 - Enables compact module designs
- Compact design
 - Reduced depth
 - Reduced air side pressure drop
 - Reduced distances between valves and doors



**Delphi Evaporator
Multi-tank design**



**Delphi Evaporator
Rectangular tank design**



**Delphi Evaporator
U-channel design**

▶ Typical Applications

Delphi Evaporators are available as part of a complete HVAC module. They can be designed for front and rear systems, as well as console applications. Multiple design options are available, suitable for use in the following:

- Automobiles
- Commercial vehicles, including agricultural equipment and trucks
- Off-highway vehicles

Delphi also manufactures evaporators for stationary and transportation air conditioning applications.

▶ Performance Advantages

Delphi leverages its complete HVAC systems expertise to produce evaporators that provide maximum performance. Built on extensive knowledge of HVAC management, compact modules help reduce distances between valves and doors. Delphi's long experience with HVAC systems and components also yields evaporators with excellent noise, vibration, and harshness (NVH) characteristics.

With a strong global presence, including technical centers and customer centers, Delphi is well positioned to provide a complete HVAC system, including evaporators, to customers worldwide.



Delphi Evaporator
47 mm rectangular tank design