

DuraSea Rooftop Air-Cooled Air Conditioner

Drop-In Cooling Unit That Requires No Plumbing or Ducting



DuraSea Rooftop air conditioners are built to endure harsh marine environments. Ideal for patrol boats, house boats, and other vessels, they are designed to be installed on a flat deck or rooftop and cool the area directly below. They are air cooled and require no plumbing or ducting.

The air-distribution box (ADB), sold separately, attaches to the underside of the unit. Accessible from the interior cabin, the ADB contains the thermostat, fan controls, return-air vent and two supply-air vents that blow in opposite directions for increased cooling capability. The three-speed blower works in cooling and ventilation-only modes.

Both the condenser and evaporator coils are coated using the ElectroFin® E-coat process which provides superior resistance to salt-air corrosion and UV damage when compared to spray coating. E-coat employs electrically charged molecules to coat the components for complete and uniform coverage with no material bridging between the fins. The E-coat material was salt-spray tested for 5,000 hours, not 1,000 like competing units. In addition, the condenser and evaporator fans are also corrosion resistant and will not rust. Unlike the competition, we use oversize coils for improved performance and dehumidification.

Rugged and strong, the DuraSea Rooftop weighs only 103 lbs. (46.7 kg). The heavy-duty reinforcement plate ties the evaporator and condenser together to minimize vibration and movement. A vibration-isolating L-bracket on the compressor and fan motor is incorporated for additional stabilization. Rubber clamps and bushings further control noise and vibration. The powder-coated base pan is 15% thicker than other models.



Key Benefits

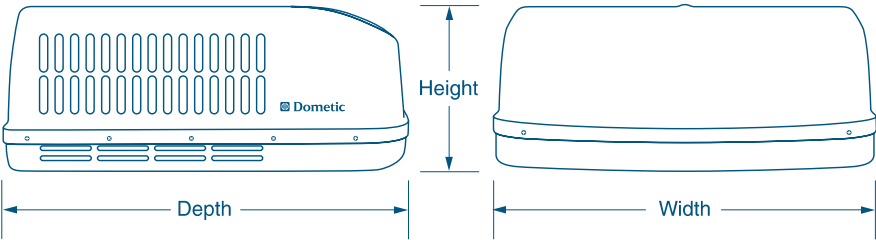
- Air-cooled unit designed for rooftop or deckmount installation
- No plumbing or ducting required
- Provides 15,000 BTU/hr. of cooling (60Hz model only)
- Rugged and strong, yet lightweight
- High efficiency, low power consumption
- ElectroFin® E-coat process for superior resistance to corrosion and UV damage
- Vibration-free operation
- Compressor stabilization to endure extreme motion
- Three-speed high-performance fan for cooling and ventilation
- Sealed motor and bearings
- Stainless-steel fan-motor shaft
- Oversize coils for better performance and dehumidification
- Environmentally safe R-410A refrigerant
- Air distribution box (sold separately) includes mechanical control and interior panel
- Optional electric heat

Technical Specifications for DuraSea Rooftop Air Conditioner

Model	DuraSea Rooftop	
Capacity (BTU/hr)	15000	12000
Voltage/Cycle	115V/60Hz	240V/50Hz
Run Amps	15.3	7.0
Locked Rotor Amps (LRA)	66.0	28.0
Refrigerant Type	R-410A	R-410A
Height (in/mm)	13.1/334	13.1/334
Width (in/mm)	29.8/759	29.8/759
Depth (in/mm)	34.8/886	34.8/886
Net Weight (lbs/kg)	103/46.7	102/46.3

¹ All dimensions ± 0.30 in. (8 mm).
² All weights ± 10%

Dimensions



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L-3010 Rev. 20150109 Specifications and availability subject to change without notice.

Dealer



Exceeds
6,000 Hr. Salt-
Spray Test

DuraSea Series Air-Cooled Condensers

The Only Marinized Air-Cooled Condenser



Dometic DuraSea air conditioning condensing units are designed for maximum durability in the harshest of nautical applications. These rugged units offer long service life, exceptional performance, energy conservation, and reliability.

The DuraSea's cabinet is constructed of stainless-steel 304, which resists heavy salt-spray and also provides UV protection. Designed for deck or rooftop mounting, the optional risers elevate the unit above the mounting surface to provide excellent water drainage and protect the coil from debris and salt water. To further fortify the unit from severe marine conditions, corrosion-resistant stainless-steel fasteners are used, and all other external components have a protective coating. The control box and compressor are strategically located within the cabinet for easy service access and for extra protection against corrosion.

All DuraSea units employ scroll compressors, the latest in high-efficiency, reliable compressor technology. They reduce noise and vibration, and have a higher tolerance of liquid refrigerant and system contaminants. Scroll compressors also feature low start torque to minimize the starting-current spike that occurs with old-technology compressors. Units are available in 410A refrigerant or 417A refrigerant for retrofit of existing systems.

The new 7.5- and 10-ton sizes offer a compact footprint in an "industrial" styled equipment design that includes forklift slots and lifting eyes.



DCA60 shown with service panel removed and optional risers which protect the unit from debris.

Key Benefits

- Designed for workboats, platform, and military vessels
- Built to withstand the harsh elements of the commercial marine environment
- Operates with most evaporators
- Hermetically-sealed scroll compressor with internal overload protection
- Permanently lubricated fan motor with Ingress Protection of IP 54 or better
- High-efficiency copper tube and aluminum fin coil with dipped E-coating that exceeds 6,000-hour salt spray test
- Copper tube/copper fin coil upgrade available for the ultimate in corrosion protection
- Brass base valves with sweat connections and service ports
- Vertical fan mount design
- High- and low-pressure controls
- Heavy-duty contactor with lug connections
- Optional risers elevate the unit above the mounting surface to protect the coil from salt water and debris (3-ton to 6-ton models only)
- Optional stainless-steel 316 cabinet construction for maximum corrosion resistance

Special Options

- Nema 4 electric box
- Fan cycling control
- Three-phase monitor
- Crankcase heater

Radome Environmental Control Units

Keeps Sensitive Domed Electronics Cool



Safe navigation relies on your ship's radar and communications equipment, and as with all electronics, overheating leads to equipment failure. The Radome Environmental Control Unit (ECU) is specifically designed to provide air conditioning within the dome enclosure, ensuring optimum temperatures for the critical equipment inside.

As you would expect from the world leader in marine air conditioning technology, this air-cooled unit is built for at-sea conditions. Although small and lightweight to provide ease of installation and maintenance, the Radome ECU is designed to exceed the cooling requirements of pleasure boat, commercial vessel, and military ship applications. Rugged construction with corrosion-resistant materials allows the unit to be operated in the most extreme conditions at sea.

The Radome ECU's highly efficient yet powerful rotary compressor provides quieter operation, increased reliability, and reduced amperage. Its raised-lance fin and the rifled tubing design of the evaporator and condenser coils provide maximum capacity. Three configurations are offered: interior dome self-contained, remoted ducted self-contained, and split-gas.

The Radome ECU is not limited to marine applications. It can also control the temperature and humidity levels of on-land locations such as electronics enclosures, telecommunications shelters, vaults, buildings, trailers, vans, and cleanrooms.

The Radome ECU is available in three configurations:



Split-gas configuration



Remote ducted self-contained (ideal for low pedestal applications)



Interior dome self-contained (exhaust kit is available for low pedestal applications to correct condenser air short cycling)

Key Benefits

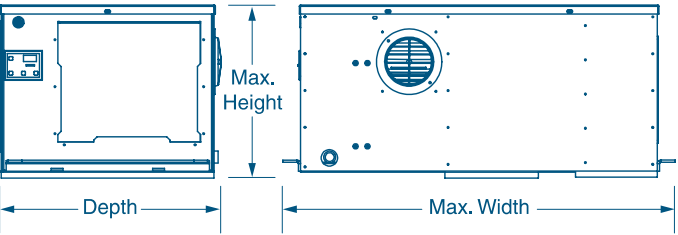
- Three configurations available
- Compact, lightweight, and easy to install
- Air-cooled - no plumbing required
- Durable corrosion-resistant coating
- Environmentally safe R-417A refrigerant
- R-22 units can be retrofitted to R-417A to comply with global environmental regulations
- Reliable, solid-state digital control maintains ideal temperature
- Control circuitry monitors and protects the unit
- High-efficiency rotary compressor is quiet and reliable
- Raised lance fin and rifled tubing for maximum capacity
- Optional electric heat
- Charged, tested, and leak checked at the factory
- Charge Guard protection provides sealed access ports, ensuring environmental protection and chiller module integrity
- Meets or exceeds applicable ABYC and US Coast Guard regulations, CE directives, and general Air Conditioning and Refrigeration (ARI) standards

Specifications for Radome Environmental Control Units

Model ⁽¹⁾	HSA16K		
Capacity (BTU/h)	16000		
Voltage (V) ⁽²⁾	115	230	220
Cycle (Hz)/Phase (Ph)	60/1		50/1
Full Load Amps (FLA) Cool (A)	14.54	7.2	6.9
Full Load Amps (FLA) Heat (A)	9.84	TBD	
Full Load Amps (FLA) Blower (A)	2.95	1.8	
Locked Rotor Amps (LRA) (A)	54	29	32
Optional Electric Heat (kW)	1		
Max. Circuit Breaker (A)	40	20	
Min. Circuit Ampacity (A)	25	14	13
Refrigerant Type	417A		
Max. Height (in/mm)	14.5/369		
Width (in/mm)	18/458		
Max. Depth (in/mm) ⁽³⁾	30/762		
Net Weight (lbs/kg) ⁽³⁾	99/45	99.35/45.1	96/43.6
Gross Weight (lbs/kg)	215/97.6	106.25/48.2	115/52.2

¹ Specifications in this table are for the interior self-contained configuration. For information about different configurations please contact a Dometic Marine sales representative at 954-973-2477.
² 230V/60Hz unit can be operated at 200-220V/50Hz
³ All dimensions ± 0.30 in. (8 mm).
⁴ All weights ± 10%

Dimensions



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Dealer

