



## 24V DC Air Conditioners

Model SMB14ACR

### General Description

The Marvair® 24V DC air conditioners are self contained, water cooled units designed for use in either fresh or salt water. All units are factory charged with refrigerant, wired and tested.

The 24V DC air conditioner has a variable capacity of 7,000 to 14,000 BTUH. All units use the environmentally friendly, non-ozone depleting R-134a refrigerant. R-134a is non-flammable, has an A1 safety classification by ASHRAE and is listed on the EPA on their SNAP list.

The air conditioner without circulating pump draws between 13 and 32 nominal amps making it ideal for sailboats, powerboats and any place cooling is desired. The air conditioner can be operated directly from batteries or dockside and, with the appropriate charging device, run from a conventional 12 VDC system. It provides an ideal solution for cooling when off-grid or renewable power sources, e.g., solar photovoltaic (PV), fuel cells or wind generated electricity are available. To conserve space, the control box is always remotely mounted from the air conditioner on a 4.5 ft. (137 cm) heavy duty cable.



To ensure years of dependable performance:

- Stainless steel base pan complete with stainless steel hold down clamps and two barb (5/8") condensate drain fittings, one on each end of the pan.
- An insulated base pan prevents sweating and minimizes movement and sound.
- The evaporator coil is constructed of lanced aluminum fins and rifled copper tubing for optimum heat transfer. The coil is dipped in a polyester enamel and is rated to 1,000 hours when tested to ASTM B117.
- A compact, high static motorized impeller. The motorized impeller moves conditioned air quietly and efficiently and is designed to be used with ductwork and grille. Three duct outlets - one on each side and one on the top of the plenum.
- Operating voltage: Nominal 24V DC.
- Locked rotor protection. Compressor has locked rotor protection on the control board. Compressor will attempt to start 11 times and then lock out. Air mover has independent locked rotor protection.
- Over/under voltage protection. Compressor and air mover will shut down if voltage exceeds limits.
- Thermal protection. Compressor and the air mover both have thermal cut-outs.
- Polarity protection.

Marvair® is an ISO 9001-2008 certified company.

Installation is facilitated by a readily accessible terminal strip for both the 24V DC power input and the thermostat wiring.

## Accessories

- o-LED Control.
- DC water pump.
- Plumbing fittings.
- Grilles, transitions and other duct materials.

## Model Identification

**S**

S = Marine

**M**

Refrigerant  
M = R-134a

**B**

Controller  
B = Electronic  
Control Board

**14**

Nominal Capacity  
14 = 7,000 to  
14,000 BTUH

**AC**

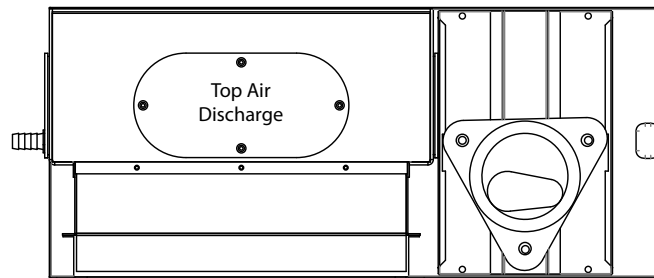
System Type  
AC = Air Conditioner

**R**

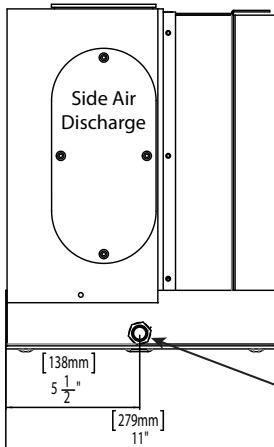
Voltage  
R = 24V DC

## Dimensional Data (inches/mm)

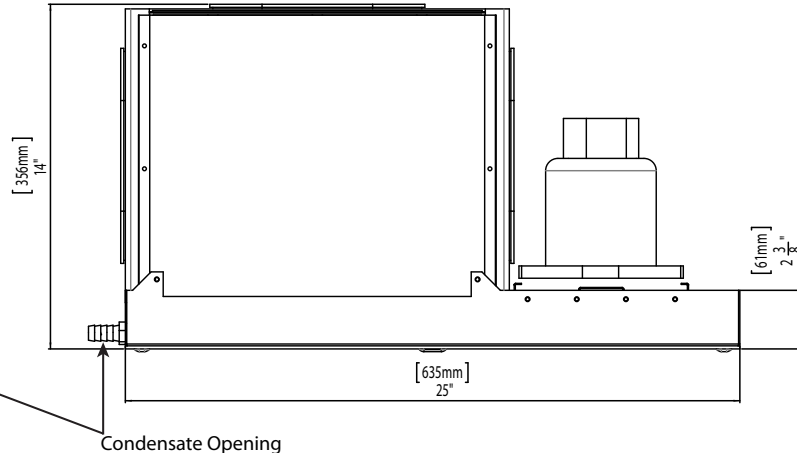
TOP VIEW



SIDE VIEW



FRONT VIEW



ALL CONDENSATE OPENINGS REQUIRE A 5/8" [16mm] FITTING. ALL DIMENSIONS IN BRACKETS ARE MILLIMETERS.  
(The control box is always mounted remote from the air conditioner.)

As part of the Marvair® continuous improvement program, specifications are subject to change without notice.

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