

# EBE Series R-410A Evaporators

## The New Standard In Marine High-Performance Evaporators



Compact EBE split evaporators for boats are draw-through, ductable cooling units with reverse-cycle heating. Featuring a rotatable, high-efficiency permanent split capacitor (PSC) blower in which the motor is concealed, EBE series evaporators are available in capacities from 6K to 36K BTU/hr. EBHE units have electric heat.

The EBE Series was designed for installation low in a closet, cabinet, or other enclosed space, with discharge air ducted to one or more grilles high in the cabin. EBE units can be used with a combination of plenums and flexible duct, or built-in ductwork may be used. If you are using built-in ductwork, a flexible transition between the blower and duct should be installed.

Vibration-isolation mounting is built into each EBE unit to reduce noise and vibration. The PSC blower is supported by a sturdy aluminum bracket with isolation grommets to reduce possible vibration. The blower's internal motor housing reduces the overall unit depth for easier installation and promotes quieter operation.

The drain pan and blower housing are covered with insulating foam which reduces noise and secondary condensation.

The "positive flow" drain pan has an anti-slosh, antifungal foam lining. Two 1/2 in. (13 mm) drains are located on the blower side of the drain pan.

### Key Benefits

- Compact ductable cooling or heating units
- High-velocity (HV) fully-insulated blowers are rotatable
- Insulated condensate pan with anti-slosh, anti-fungal foam lining
- Available with electric heat (EBHE models)
- High-efficiency evaporator coil
- Larger blower inlet for increased air flow across the coil
- Blower support bracket with cushioned mounts to reduce noise and vibration
- Increased metal thickness on structural parts for added strength
- Thermal expansion valve for optimal performance over a range of conditions
- Designed to be used with Emerald Series (R-410A) condensers

## Specifications for EBE Series R-410A Evaporators

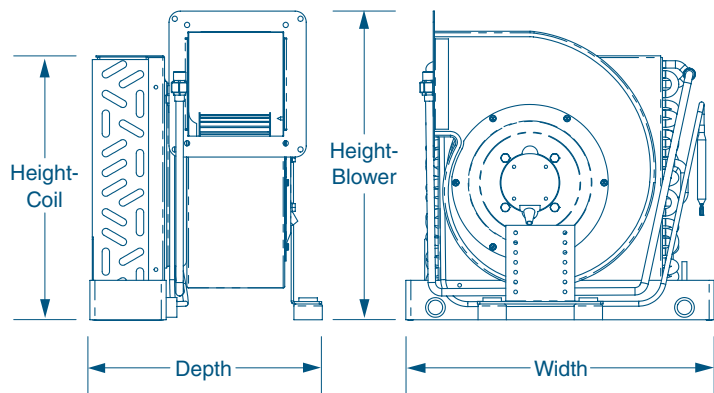
| Model <sup>(1)</sup>                      | EBE18     | EBE24      | EBE30     | EBE36     | EBHE8     | EBHE10    | EBHE12    | EBHE16    | EBHE24     |
|---|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Capacity (BTU/h)                          | 18000     | 24000      | 30000     | 36000     | 8000      | 10000     | 12000     | 16000     | 24000      |
| Voltage @ 50/60Hz 1-Ph (V)                | 230       | 230        | 230       | 230       | 230       | 230       | 230       | 230       | 230        |
| Full Load Amps (FLA) Cool (A)             | 1.15      | 1.64       | 1.64      | 7.3       | 0.98      | 0.66      | 0.56      | 0.88      | 1.64       |
| Full Load Amps (FLA) Heat (A)             | N/A       | N/A        | N/A       | N/A       | 5.4       | 7.2       | 9.26      | 9.58      | 14.68      |
| Full Load Amps (FLA) Blower (A)           | 1.15      | 1.64       | 4         | 4         | 0.98      | 0.66      | 0.56      | 1.15      | 1.64       |
| Max. Circuit Breaker (A)                  | 5         | 5          | 5         | 10        | 10        | 10        | 10        | 10        | 20         |
| Min. Circuit Ampacity (A)                 | 2         | 3          | 3         | 10        | 6         | 8         | 10        | 10        | 16         |
| Electric Heat (kW/hp)                     | N/A       | N/A        | N/A       | N/A       | 1/1.4     | 1.5/2.1   | 2/2.7     | 2/2.7     | 3/4.1      |
| Heater Amps (A)                           | N/A       | N/A        | N/A       | N/A       | 4.35      | 6.52      | 8.7       | 8.7       | 13.04      |
| Air Flow (cfm/m3h)                        | 540/918   | 800/1360   | 1000/1700 | 1200/2039 | 266/452   | 333/566   | 400/680   | 533/906   | 800/1360   |
| Height-Coil (in/mm) <sup>(2)</sup>        | 13.63/347 | 16.5/420   | 20.5/521  | 20.5/521  | 11.25/286 | 12.5/318  | 12.5/318  | 13.5/343  | 16.5/420   |
| Height-Blower (in/mm) <sup>(2)</sup>      | 15.13/385 | 17/432     | 22/559    | 22.25/566 | 12.5/318  | 13.5/343  | 13.5/343  | 15.5/394  | 17/432     |
| Width (in/mm) <sup>(2)</sup>              | 16/407    | 20/508     | 20.75/528 | 20.75/528 | 13.75/350 | 14.25/362 | 14.25/362 | 16/407    | 20/508     |
| Depth (in/mm) <sup>(2)</sup>              | 14/356    | 14.5/369   | 15/381    | 17.75/451 | 12/305    | 13.75/350 | 14.5/369  | 14.75/375 | 15/381     |
| Min. Supply Duct Size (in/mm)             | 7/178     | 9/229      | 10/254    | 10/254    | 6/152     | 6/152     | 6/152     | 7/178     | 9/229      |
| Min. Supply Air Grille Size (sq in/sq cm) | 100/645   | 140/903    | 170/1097  | 196/1265  | 49/316    | 60/387    | 70/452    | 80/516    | 140/903    |
| Min. Return Air Grille Size (sq in/sq cm) | 200/1290  | 240/1548   | 350/2258  | 360/2323  | 98/632    | 100/645   | 130/839   | 160/1032  | 240/1548   |
| Net Weight (lbs/kg) <sup>(3)</sup>        | 27/12.3   | 37.65/17.1 | 36/16.4   | 41.75/19  | 21/9.6    | 23/10.5   | 23/10.5   | 28/12.8   | 44.75/20.3 |
| Gross Weight (lbs/kg) <sup>(3)</sup>      | 35/15.9   | 49.5/22.5  | 42/19.1   | 56.5/25.7 | 29/13.2   | 31/14.1   | 31.5/14.3 | 36/16.4   | 56.25/25.6 |

<sup>1</sup> 'EBE' indicates evaporator without electric heat; 'EBHE' indicates evaporator with electric heat. Dometic Marine also offers an EBHE6-1KW and EBHE16-3KW. For more information please contact a sales representative at 954-973-2477.

<sup>2</sup> All dimensions ± 0.30 in. (8 mm).

<sup>3</sup> All weights ± 10%

## Dimensions



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Dealer



# EBE Series R-410A Evaporators

## High-Efficiency Units for Split Air Conditioners



EBE18-230V

**Marine Air's compact EBE split evaporators are draw-through, ductable cooling units with reverse-cycle heating.** Featuring a rotatable, high-efficiency permanent split capacitor (PSC) blower in which the motor is concealed, EBE series evaporators are available in capacities from 6K to 36K BTU/hr. EBHE units have electric heat.

The EBE Series was designed for installation low in a closet, cabinet, or other enclosed space, with discharge air ducted to one or more grilles high in the cabin. EBE units can be used with a combination of plenums and flexible duct, or built-in ductwork may be used. If you are using built-in ductwork, a flexible transition between the blower and duct should be installed.

Vibration-isolation mounting is built into each EBE unit to reduce noise and vibration. The PSC blower is supported by a sturdy aluminum bracket with isolation grommets to reduce possible vibration. The blower's internal motor housing reduces the overall unit depth for easier installation and promotes quieter operation.

The drain pan and blower housing are covered with insulating foam which reduces noise and secondary condensation.

The "positive flow" drain pan has an anti-slosh, antifungal foam lining. Two 1/2 in. (13 mm) drains are located on the blower side of the drain pan.

Marine Air DX evaporators can be controlled using the Elite or Passport I/O keypad displays on the Passport I/O control system.

### Key Benefits

- Compact ductable cooling or heating units.
- Rotatable, variable speed blower.
- Insulated condensate pan with anti-slosh, antifungal foam lining.
- High-efficiency blower.
- Environmentally safe R-410A refrigerant.
- Air filter included.
- "Positive Flow" water displacing condensate pan.
- Electric heat available on EBHE models.
- High efficiency evaporator coil.
- Larger blower inlet for increased air flow across coil.
- Blower bracket with vibration isolation grommets installed.
- Increased metal thickness on structural parts for strength.
- Thermal expansion valve for optimal performance over a range of conditions.

# Technical Specifications for EBE Series Evaporators

| Model                        | Capacity (BTU/hr) | Voltage (50/60Hz) | Blower Amps | Air Flow (cfm/m <sup>3</sup> h) | Elec. Heat (kW/Amps) | Dimensions (in/mm)      |                         |           |           | Weight (lb/kg) |
|------------------------------|-------------------|-------------------|-------------|---------------------------------|----------------------|-------------------------|-------------------------|-----------|-----------|----------------|
|                              |                   |                   |             |                                 |                      | Height 1 <sup>(1)</sup> | Height 2 <sup>(2)</sup> | Width     | Depth     |                |
| <b>With Electric Heat</b>    |                   |                   |             |                                 |                      |                         |                         |           |           |                |
| EBHE6-1kW-230V               | 6,000             | 230               | 0.98        | 233/395.91                      | 1.0/4.35             | 11.25/286               | 12.50/318               | 13.75/350 | 12.00/305 | 14.00/6.35     |
| EBHE8-1kW-230V               | 8,000             | 230               | 0.98        | 266/451.99                      | 1.0/4.35             | 11.25/286               | 12.50/318               | 13.75/350 | 12.00/305 | 14.00/6.35     |
| EBHE10-1.5kW-230V            | 10,000            | 230               | 0.66        | 333/565.83                      | 1.5/6.52             | 12.50/318               | 13.50/343               | 14.25/362 | 13.75/349 | 22.00/9.98     |
| EBHE12-2kW-230V              | 12,000            | 230               | 0.56        | 400/697.68                      | 2.0/8.70             | 12.50/318               | 13.50/343               | 14.25/362 | 14.50/368 | 23.00/10.43    |
| EBHE16-3kW-230V              | 16,000            | 230               | 1.15        | 533/905.67                      | 3.0/13.04            | 13.50/343               | 15.50/394               | 16.00/406 | 14.75/375 | 30.00/13.61    |
| <b>Without Electric Heat</b> |                   |                   |             |                                 |                      |                         |                         |           |           |                |
| EBE18-230V                   | 18,000            | 230               | 1.13        | 540/917.47                      | N/A                  | 13.63/346               | 15.13/384               | 16.00/406 | 14.00/356 | 32.00/14.51    |
| EBE24-230V                   | 24,000            | 230               | 1.62        | 800/1359.40                     | N/A                  | 16.50/419               | 17.00/432               | 20.00/508 | 14.50/368 | 36.00/16.33    |
| EBE30-230V                   | 30,000            | 230               | 4.0         | 1000/1699.20                    | N/A                  | 20.50/521               | 22.00/559               | 20.75/527 | 15.00/381 | 43.00/19.50    |
| EBE36-230V                   | 36,000            | 230               | 4.0         | 1200/2039.00                    | N/A                  | 20.50/521               | 22.25/565               | 20.75/527 | 17.75/451 | 42.00/19.05    |

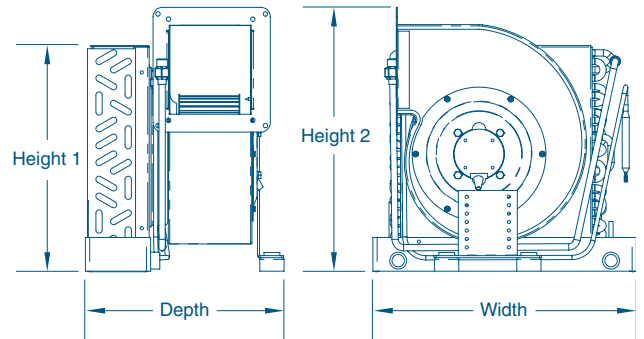
Notes:

<sup>(1)</sup> Height from base to top of evaporator coil.

<sup>(2)</sup> Height from base to top of blower flange.

| Interpreting Model Numbers |                        |               |                    |               |                            |         |
|----------------------------|------------------------|---------------|--------------------|---------------|----------------------------|---------|
| E                          | B                      | H             | E                  | X             | XkW                        | 230V    |
| Evaporator                 | High-Efficiency Blower | Electric Heat | R-410A Refrigerant | x1,000 BTU/hr | Kilowatts of Electric Heat | Voltage |

| Capacity (BTU/hr.) | Minimum Grille Sizes (sq. in/cm) |           | Minimum Duct (in/mm) |
|--------------------|----------------------------------|-----------|----------------------|
|                    | Return                           | Discharge |                      |
| 6,000              | 64/413                           | 32/206    | 4/102                |
| 8,000              | 89/574                           | 47/303    | 5/127                |
| 10,000             | 100/645                          | 60/387    | 6/152                |
| 12,000             | 130/839                          | 70/452    | 6/152                |
| 16,000             | 160/1032                         | 80/516    | 7/178                |
| 18,000             | 200/1290                         | 100/645   | 8/203                |
| 24,000             | 240/1548                         | 140/903   | 8/203                |
| 30,000             | 350/2258                         | 170/1097  | 10/254               |
| 36,000             | 360/2323                         | 196/1265  | 10/254               |



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Environmentally  
Responsible

Dealer:



115V/50 OR 60HZ  
230V/50 OR 60HZ



4,000 -  
16,000 BTU

## EMERALD TURBOVAP R410A EVAPORATING UNITS

The Dometic Emerald TurboVap (TVE) direct expansion (DX) split-gas evaporator is based on the innovative engineering advancements of the award-winning Dometic Turbo self-contained air conditioning system. TVE units work with Dometic Emerald R410A condensing units.

- Up to 15 minutes faster to install
- Rust-free composite drain pan
- Designed to be used with Emerald Series (R410A) condensers
- Drain pan features anti-slosh, "positive flow" drain channels for rapid removal of condensate
- Single adjustment screw for 270° of blower rotation
- Vibration-isolation mounts reduce noise and vibration



115V/50 OR 60HZ  
230V/50 OR 60HZ



4,000 -  
16,000 BTU

## TURBOVAP R22 OR R417A EVAPORATING UNITS

Based on the innovative engineering advancements of the award-winning Dometic Turbo self-contained air conditioning system, the TurboVap has an enclosed blower motor, better noise reduction, and easily rotated blowers. It offers improved installation ease and flexibility.

- Up to 15 minutes faster to install
- Rust-free composite drain pan
- Can be used with R22 or R417A condensers
- Drain pan features anti-slosh, "positive flow" drain channels for no rapid removal of condensate
- Single adjustment screw for 270° of blower rotation
- Vibration-isolation mounts reduce noise and vibration



230V/50 OR 60HZ

18,000 -  
24,000 BTU

### EBE R410A EVAPORATING UNITS

Compact EBE evaporators are draw-through, ductable cooling units with reverse cycle heating. Featuring a rotatable, high-efficiency permanent split capacitor (PSC) blower in which the motor is concealed.

- Compact cooling or heating units
- High-velocity (HV) fully-insulated blowers are rotatable
- Insulated condensate pan with anti-slosh, anti-fungal foam lining
- Available with electric heat
- High-efficiency evaporator coil
- Larger blower inlet for increased air flow across the coil
- Blower support bracket with cushioned mounts reduce noise and vibration

115V/50 OR 60HZ  
230V/50 OR 60HZ12,000 -  
36,000 BTU

### EBLE R410A LOW-PROFILE EVAPORATING UNITS

EBLE series low-profile evaporating units are ductable cooling and heating units. EBLE units are designed for installations where there is limited vertical space such as beneath a seat or bunk, or in overhead spaces.

- Environmentally safe R410A refrigerant
- Dual variable-speed, high-efficiency PSC blowers are rotatable
- Drain pan has anti-slosh, anti-fungal foam lining
- Exposed sheet metal is insulated against secondary condensation
- Thermal expansion valve for optimal performance over a range of conditions