

# Emerald Series (6K-16K) Condensers

## Innovative Chassis Conquers Installation Challenges



After listening to boat builders, global service teams and boat owners, Dometic engineers designed the innovative Emerald Condenser series to harness and maximize the impressive performance of R-410A refrigerant while meeting all international clean air standards.

The increase in BTU capacity is due primarily to the improved refrigerant metering design. The bi-flow thermal expansion valve for cooling provides up to a 14% increase in system capacity, which, when combined with a separate metering system for heating, attains an increase of up to 10% in heating performance. The amperage reduction of up to 27% is due to the more efficient design of the rotary compressor and properly sized refrigerant components.

The compact design of the Emerald series incorporates built-in vibration-isolating mounts, two large drain connections and numerous mounting options for installation to a smooth deck, stringer or existing rack. The incorporated lifting handles and smooth bottom allows for easy lifting and quick placement of the unit. The molded composite no-rust drain pan is shaped to provide positive drainage even when the boat heaves and rolls. The amount of standing water in the drain pan is reduced by up to 85%, which is 8x times less than a typical drain pan.

Emerald condensers can be installed quickly and easily. The drain, seawater and refrigerant connections are conveniently located to conquer installation challenges thus reducing installation time by up to fifteen minutes. The electrical box can be easily removed and located up to 5 ft. (1.5 m) away, further reducing the size of the unit while making the system more accessible. The reversing valve, pressure switches and service ports are centrally located, high on the unit for access from any side.



The reversing valve, pressure switches, and service ports are centrally located for easy maintenance access from any side.



Vibration-isolating compressor mounting system reduces noise and vibration.

### Key Benefits

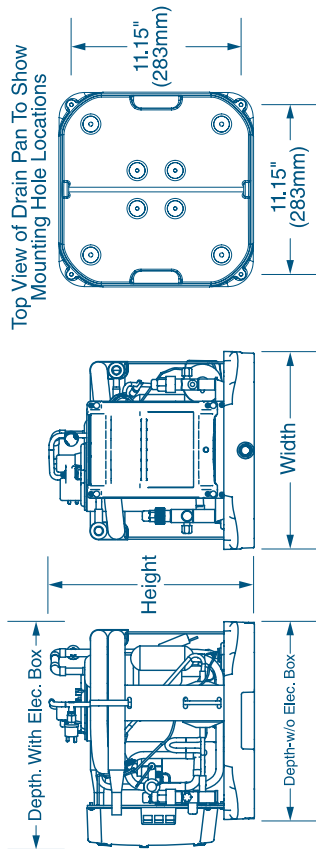
- Up to 17.5% increase in BTU capacity
- Up to 41% amperage reduction
- Up to 32% reduced start-up amps
- Up to 16% smaller
- Up to 25% lighter
- Up to 85% reduction in standing water in the drain pan
- Up to 15 minutes faster to install
- Square chassis for easy installation in tight spaces
- Three mounting options adapt to installation environments
- Rust-free composite drain pan
- Reconfigurable chassis allows optimal drain connections
- Compressor vibration-isolation mounts minimize noise and vibration
- Built-in refrigerant line filter drier reduces installation time and protects the compressor from moisture and contaminants
- Reversing valve, pressure switches, and service ports centrally located for easy maintenance access from any side
- Engineered to maximize the performance of R-410A, an environmentally safe refrigerant

### Specifications for Emerald Series (6K-16K) Condensers

Model <sup>(1)</sup>	E*8	E*10	E*12	E*16
Capacity (BTU/h) <sup>(2)</sup>	8000	10000	12000	16000
Voltage (V)	115 230	240 240 230	115 230 240	115 230 240
Cycle (Hz) <sup>(3)</sup> /Phase (Ph)	60/1	50/1	60/1	50/1
Full Load Amps (FLA) Cool (A)	3.8 1.8	4.2 2.4	5.6 2.6	7.6 3.4
Full Load Amps (FLA) Heat (A)	5.1 2.44	3.3 3.3	7.7 3.6	8.8 4.5
Locked Rotor Amps (LRA) (A)	36 17.5	17.7 17.7	42 22	28 21
Max. Circuit Breaker (A)	15 10	15 10	25 15	30 15
Min. Circuit Ampacity (A)	11 7	6 6	15 9	8 8
Refrigerant Type	410A	410A	410A	410A
Water Flow (lpm)	1.5/5.7	2.5/9.5	3/11.4	4/15.2
Max. Height (in/mm) <sup>(4)</sup>	12/305	13/331	13/331	14.1/359
Width (in/mm) <sup>(5)</sup>	13.3/338	13.3/338	13.3/338	13.3/338
Depth-Without Elec. Box (in/mm) <sup>(5)</sup>	13.3/338	13.3/338	13.3/338	13.3/338
Depth-With Elec. Box (in/mm) <sup>(5)</sup>	15.1/384	15.1/384	15.1/384	15.1/384
Seawater Inlet Connection (in/mm)	3/8 1/6	3/8 1/6	3/8 1/6	3/8 1/6
Seawater Connection Type	cupranickel tube	cupranickel tube	cupranickel tube	cupranickel tube
Refrigerant Line Connection-Discharge (in)	1/4	1/4	1/4	1/4
Refrigerant Line Connection-Suction (in)	3/8	3/8	3/8	1/2
Net Weight (lbs/kg) <sup>(4)</sup>	43/19.6	42.05/19.1	43/19.6	49/22.3
Gross Weight (lbs/kg) <sup>(4)</sup>	50/22.7	49.5/22.5	50/22.7	56/25.5
Height-Electrical Box (in/mm)	8.75/223	8.75/223	8.75/223	8.75/223
Width-Electrical Box (in/mm)	6.5/166	6.5/166	6.5/166	6.5/166
Depth-Electrical Box (in/mm)	2.63/67	2.63/67	2.63/67	2.63/67

<sup>1</sup> Replace "X" in the model name with "D" for Passport 100 digital control system, or "W" for electro-mechanical control.  
<sup>2</sup> BTU and electrical data are based on a 45°F/7.2°C evaporator and 100°F/37.8°C condenser in cool mode, and a 45°F/7.2°C evaporator and 130°F/54.4°C condenser in heat mode.  
<sup>3</sup> 60Hz units must operate at 50Hz and 50Hz units must operate at 60Hz unless data plate says otherwise.  
<sup>4</sup> All weights ± 10%.  
<sup>5</sup> All dimensions ± 10 mm

### Dimensions



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L-2703A Rev.20141024

Specifications and availability subject to change without notice.

Dealer



# Emerald Series (24K-72K) Condensers

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### Key Benefits

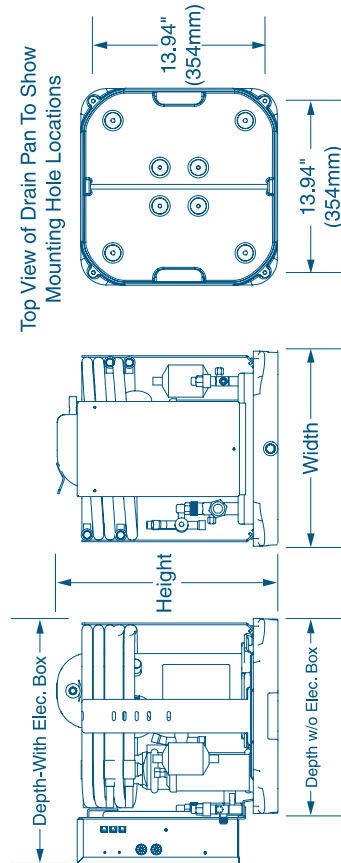
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### Specifications for Emerald Series (24K-72K) Condensers

Model <sup>(1)</sup>	E*24	E*30	E*36	E*48	E*60
Capacity (BTU/h) <sup>(2)</sup>	24000	30000	36000	48000	60000
Voltage (V)	230	230	240	230	230
Cycle (Hz) <sup>(3)</sup> / Phase (Ph)	60/1	60/3	50/3	50/3	60/1
Full Load Amps (FLA) Cool (A)	6.3	6.4	4.5	7.9	9.1
Full Load Amps (FLA) Heat (A)	7.8	8	6.2	3.6	9.2
Locked Rotor Amps (LRA) (A)	43	46	55.4	28	54
Max. Circuit Breaker (A)	30	20	15	35	40
Min. Circuit Ampacity (A)	17	18	14	10	22
Refrigerant Type	410A	410A	410A	410A	410A
Max. Height (in/mm) <sup>(4)</sup>	18/458	18/458	18/458	18/458	18/458
Width (in/mm) <sup>(4)</sup>	16/407	16/407	16/407	16/407	16/407
Depth-Without Elec. Box (in/mm) <sup>(4)</sup>	16/407	16/407	16/407	16/407	16/407
Depth-With Elec. Box (in/mm) <sup>(4)</sup>	18.8/478	18.8/478	18.8/478	18.8/478	18.8/478
Seawater Inlet Connection (in/mm)	3/8	1/2	3/8	1/2	3/8
Seawater Connection Type	cupranickle tube	cupranickle tube	cupranickle tube	cupranickle tube	cupranickle tube
Refrigerant Line Connection-Suction (in)	3/8	3/8	3/8	3/8	3/8
Refrigerant Line Connection-Discharge (in)	3/4	3/4	3/4	3/4	3/4
Net Weight (lbs/kg) <sup>(5)</sup>	98.5/44.7	104/47.2	87/39.5	100/45.4	102.25/46.4
Gross Weight (lbs/kg) <sup>(5)</sup>	129/58.6	133/60.4	117/55/53.4	132/59.9	133.5/60.6
Height-Electrical Box (in/mm)	13.25/337	13.25/337	13.25/337	13.25/337	13.25/337
Width-Electrical Box (in/mm)	7.75/197	7.75/197	7.75/197	7.75/197	7.75/197
Depth-Electrical Box (in/mm)	3.75/96	3.75/96	3.75/96	3.75/96	3.75/96

<sup>1</sup> Replace " " in the model name with "D" for Passport I/O digital control system, or "W" for electro-mechanical control.  
<sup>2</sup> BTU and electrical data are based on a 45°F/7.2°C evaporator and 100°F/37.8°C condenser in cool mode, and a 45°F/7.2°C evaporator and 130°F/54.4°C condenser in heat mode.  
<sup>3</sup> 60Hz units must not operate at 50Hz and 50Hz units must not operate at 60Hz unless data plate says otherwise.  
<sup>4</sup> All dimensions ± 0.30 in. (8 mm).  
<sup>5</sup> All weights ± 10%.

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L-2703B Rev.2014-10-24

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