

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.



Vibration-isolating compressor mounting system reduces noise and vibration.



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

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
- 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

Special Options

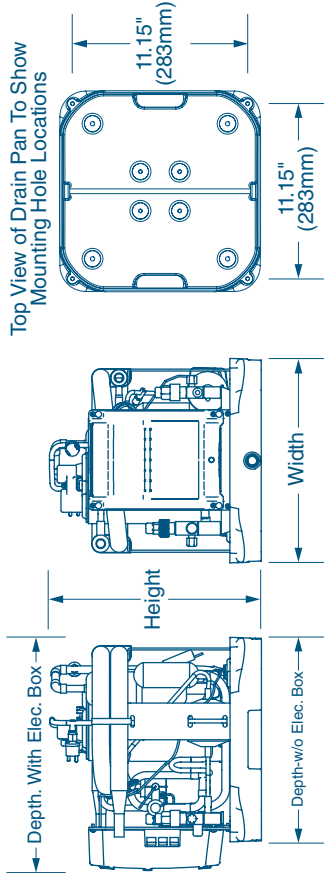
- Display cable

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

Model ⁽¹⁾	DEU6	DEU8	DEU10	DEU12	DEU16
Capacity (BTU/h) ⁽²⁾	6000	8000	10000	12000	16000
Voltage (V)	115	115	115	115	115
Cycle (Hz) ⁽³⁾ /Phase (Ph)	60/1	230	230	230	230
Full Load Amps (FLA) Cool (A)	3.8	2.4	2.4	2.6	2.79
Full Load Amps (FLA) Heat (A)	5.1	2.44	3.3	3.6	3.81
Locked Rotor Amps (LRA) (A)	36	17.5	17.7	22	21
Max. Circuit Breaker (A)	15	10	10	15	10
Min. Circuit Ampacity (A)	11	7	6	9	8
Refrigerant Type	410A	410A	410A	410A	410A
Water Flow (lpm)	1.5/5.7	2/7.6	2.5/9.5	3/11.4	4/15.2
Max. Height (in/mm) ⁽⁴⁾	12/305	12/305	13/331	13/331	14.1/359
Width (in/mm) ⁽⁴⁾	13.3/338	13.3/338	13.3/338	13.3/338	13.3/338
Depth-Without Elec. Box (in/mm) ⁽⁴⁾	13.3/338	13.3/338	13.3/338	13.3/338	13.3/338
Depth-With Elec. Box (in/mm) ⁽⁴⁾	15.1/384	15.1/384	15.1/384	15.1/384	15.1/384
Seawater Inlet Connection (in/mm)	3/8	1/2	3/8	3/8	3/8
Seawater Connection Type	cupronickel tube	cupronickel tube	cupronickel tube	cupronickel tube	cupronickel tube
Refrigerant Line Connection-Discharge (in)	1/4	1/4	1/4	1/4	1/4
Refrigerant Line Connection-Suction (in)	3/8	3/8	3/8	3/8	3/8
Net Weight (lbs/kg) ⁽⁵⁾	43/19.6	42.05/19.1	45/20.5	44.25/20.1	49/22.3
Gross Weight (lbs/kg) ⁽⁵⁾	50/22.7	49.5/22.5	50/22.7	50.5/23	56/25.5
Height-Electrical Box (in/mm)	8.75/223	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	6.5/166
Depth-Electrical Box (in/mm)	2.63/67	2.63/67	2.63/67	2.63/67	2.63/67

¹ To complete the model numbers for a specific voltage/cycle/phase, add a "410" then "1161" for 115V/60Hz/1-Phase, "2251" for 230V/50Hz/1-Phase, or "2361" for 230V/60Hz/1-Phase (e.g. DEU12-410-2361).
² 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.
³ 60Hz units must not operate at 50Hz and 50Hz units must not operate at 60Hz unless data plate says otherwise.
⁴ All dimensions ± 0.30 in. (8 mm).
⁵ All weights ± 10%.

Dimensions



DOMETIC MARINE DIVISION
 2000 N. Andrews Ave. Ex. | Pompano Beach, FL 33069 USA | Tel. 954-973-2477 | Fax: 954-979-4414
 www.Dometic.com/Marine | MarineSales@DometicUSA.com

24/7 TECH SUPPORT FOR UNITED STATES & CANADA:
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 After hours and weekends: 888-440-4494

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Specifications and availability subject to change without notice.

Dealer



Assembled in the USA



Emerald Series (24K-72K) Condensers

Innovative Chassis Conquers Installation Challenges



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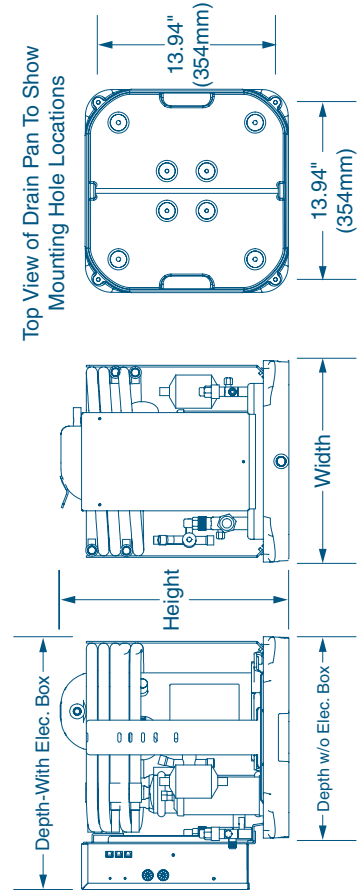
- Display cable

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

Model ⁽¹⁾	DEU24		DEU30		DEU36		DEU48		DEU60	
Capacity (BTU/h) ⁽²⁾	24000	30000	36000	48000	60000					
Voltage (V)	230	230	230	230	230	230	230	230	230	230
Cycle (Hz) ⁽³⁾ /Phase (Ph)	60/1	50/1	60/3	50/3	60/1	50/1	60/3	50/3	60/1	60/3
Full Load Amps (FLA) Cool (A)	6.3	6.4	4.5	2.7	7.3	7.9	9.1	4.44	11.9	12.08
Full Load Amps (FLA) Heat (A)	7.8	8	3.6	3.6	9.2	9.9	11.5	4.2	15.8	17.95
Locked Rotor Amps (LRA) (A)	43	46	55.4	28	54	67	74	38	105	115
Max. Circuit Breaker (A)	30	30	20	15	35	40	45	20	75	70
Min. Circuit Ampacity (A)	17	18	14	10	22	23	26	10	43	41
Refrigerant Type	410A	410A	410A	410A	410A				410A	
Max. Height (in/mm) ⁽⁴⁾	18/458	18/458	18/458	18/458	18/458	18/458	18/458	18/458	18.5/470	20/508
Width (in/mm) ⁽⁴⁾	16/407	16/407	16/407	16/407	16/407	16/407	16/407	16/407	16/407	16/407
Depth-Without Elec. Box (in/mm) ⁽⁴⁾	16/407	16/407	16/407	16/407	16/407	16/407	16/407	16/407	16/407	16/407
Depth-With Elec. Box (in/mm) ⁽⁴⁾	18.8/478	18.8/478	18.8/478	18.8/478	18.8/478	18.8/478	18.8/478	18.8/478	18.8/478	18.8/478
Seawater Inlet Connection (in/mm)	5/16	5/16	5/16	5/16	5/16	5/16	5/16	5/16	5/16	5/16
Seawater Connection Type	cupronickel tube	cupronickel tube	cupronickel tube	cupronickel tube	cupronickel tube	cupronickel tube	cupronickel tube	cupronickel tube	cupronickel tube	cupronickel tube
Refrigerant Line Connection-Discharge (in)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Refrigerant Line Connection-Suction (in) ⁽⁵⁾	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Net Weight (lbs/kg) ⁽⁵⁾	98.5/44.7	104/47.2	87/39.5	100/45.4	114.5/52	118/53.6	102.25/46.4	116/52.7	122/55.4	135/61.3
Gross Weight (lbs/kg) ⁽⁵⁾	129/58.6	133/60.4	117.55/53.4	132/59.9	147/66.7	149.5/67.9	133.5/60.6	148/67.2	153/69.4	150/68.1
Height-Electrical Box (in/mm)	13.25/337	13.25/337	13.25/337	13.25/337	13.25/337	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	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	3.75/96	3.75/96	3.75/96	3.75/96	3.75/96

¹ To complete the model numbers for a specific voltage/cycle/phase, add a -410; then -2251 for 230V/60Hz/1-Phase, -2361 for 230V/60Hz/1-Phase, -2363 for 230V/60Hz/3-Phase, -3853 for 380V/50Hz/3-Phase, or -4663 for 460V/60Hz/3-Phase (e.g. DEU36-410-2363). Other voltages available upon request.
² BTU and electrical data are based on +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.
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 www.Domestic.com/Marine | MarineSales@DomesticUSA.com


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