

R Series (5K-16K) Condensing Units

Seawater-Cooled Condensers With Reverse-Cycle Heating



R Type remote condensing units are the next generation of seawater-cooled, reverse-cycle heat pumps for cooling and heating in marine applications. Small R Type units are available in capacities from 5,000 to 16,000 BTU/hr.

These condensing units can be installed with up to two Cruisair cooling units, where the total capacity is equal to the condensing unit capacity. In the cooling mode, full performance is available in seawater up to 90°F (32°C). In reverse-cycle heating, they will provide heat in seawater as low as 40°F (4.4°C).

R Type condensers have a number of improvements over the original "F" type condensing units. A one-piece chassis/pan has a smaller footprint, with two 1/2 in. FPT drain connections. New hold-down brackets secure all four corners and allow for easier installation and removal. The one-piece electrical box with 3 ft. (0.9 m) cable can be remotely mounted. (RN models have a secondary box). Additional service ports have been added for ease of charging and servicing. The R type unit is designed as a drop-in for the older F and J type with few modifications.

Type R models are designed for installation in the vessel's engine room or other mechanical space. It is not affected by moisture, normal vibration, or ambient temperatures up to 140°F (60°C). No ventilation is required.

Three different models are available, depending on what type of control is desired. "R" use the SA3 3-knob rotary switch assembly, "RX" is controlled by the SMX II microprocessor, and "RN" uses the SMX Net. SMX models include the respective SMX II or SMX Net power/logic boards. In addition, an SMXir or the new SMXht keypad/ display, a CXP connecting cable, and a TSEP temperature sensor must be purchased separately. If networking RN units, CNP network cables are also needed.

A seawater cooling system, with pump, scoop type through-hull, seacock, strainer, and overboard discharge, is also required.

Key Benefits

- Service ports on refrigerant lines and base valves.
- Compressor vibration-isolation mounts minimize noise and vibration.
- Condensate drain pan with front and rear drain stems.
- Corner mounting brackets for easier installation.
- High-pressure switch (SMX control models also include low-pressure switch).
- Electrical box can be mounted remotely.
- Environmentally safe R-417A refrigerant.
- Ignition protected.
- Additional vibration isolation kit available.
- Charged, tested, and leak checked at the factory.

Cruisair[®]

by Dometic GROUP

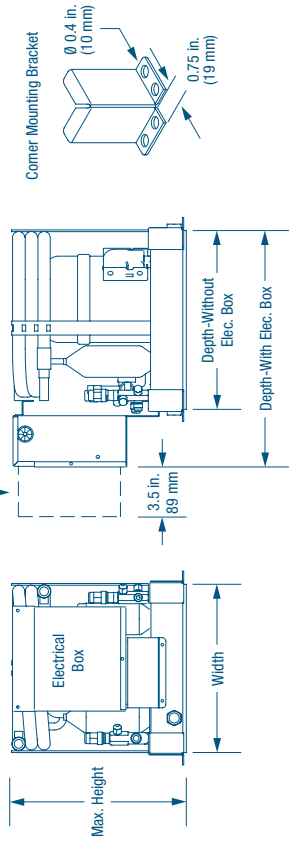
Specifications for R Series (5K-16K) Condensing Units

Model ⁽¹⁾⁽²⁾	R*5	R*7	R*10	R*12	R*16
Capacity (BTU/h)	5000	7000	10000	12000	16000
Voltage (V) ⁽³⁾	115	115	230	240	115
Cycle (Hz)/Phase (Ph)	60/1	50/1	60/1	50/1	60/1
Full Load Amps (ELA) Cool (A) ⁽⁴⁾	5	7	3.3	4.8	4.6
Full Load Amps (ELA) Heat (A)	6.2	7.7	4	3.7	5.7
Locked Rotor Amps (LRA) (A)	28	34	20	16	28
Max. Circuit Breaker (A)	28	34	20	16	28
Min. Circuit Ampacity (A)	7	13	7	11	13
Refrigerant Type	R417A	R417A	R417A	R417A	R417A
Max. Height (in/mm)	12.5/318	12.5/318	12.5/318	12.5/318	12.5/318
Width (in/mm)	12.2/310	12.2/310	12.2/310	12.2/310	12.2/310
Depth-With Elec. Box (in/mm)	17.1/435	17.1/435	17.1/435	17.1/435	17.1/435
Depth-Without Elec. Box (in/mm)	13.6/346	13.6/346	13.6/346	13.6/346	13.6/346
Seawater Connection (in/mm)	3/8/16	3/8/16	3/8/16	3/8/16	3/8/16
Refrigerant Line Connection-Discharge (in/mm)	1/4/7	1/4/7	1/4/7	1/4/7	1/4/7
Refrigerant Line Connection-Suction (in/mm)	3/8/10	3/8/10	3/8/10	3/8/10	3/8/13
Height-Electrical Box (in/mm)	11.12/283	11.12/283	11.12/283	11.12/283	11.12/283
Width-Electrical Box (in/mm) ⁽⁵⁾	7.56/193	7.56/193	7.56/193	7.56/193	7.56/193
Depth-Electrical Box (in/mm) ⁽⁶⁾	4.84/123	4.84/123	4.84/123	4.84/123	4.84/123

1 * is the designator for type of control. For mechanical controls, replace * with 'M'. For SMX Net replace with 'N', indicate 'X' for SMX II and use 'D' for Q-Logic.
 2 For a specific voltage, add the following after the capacity designator: 'C' for 230V/60Hz/1-Phase, 'CK' for 220-240/50Hz/1-Phase, 'D' for 230V/60Hz/3-Phase, 'E' for 460V/60Hz/3-Phase, and 'ECK' for 380V/50Hz/3-Phase. Adding nothing will indicate 115V/60Hz/1-Phase (not available for multi-ton models).
 3 115V, 230V, and 440V/60Hz equipment can be operated at 100V, 200V, or 380V, respectively, in a 50Hz environment but at a 17% decrease in capacity. Full-rated capacity can be obtained by specifying 'Cruisair' CK (220V/50Hz) equipment.
 4 Compressor starting current will vary with voltage but is approximately 3 to 4 times the full-load amps.
 5 Width shown is for electrical box with Q-Logic control system (RQ models). Width of electrical box with SMX II control (RX models) is 7.53 in. (192 mm), and with SMX Net control (RN models) the width is 7.69 in. (196 mm).
 6 Depth shown is for electrical box with Q-Logic control system (RQ models). Depth of electrical box with SMX II control (RX models) is 4.72 in. (120 mm), and with SMX Net control (RN models) the depth is 2.81 in. (71 mm).

Dimensions

Add 3.5 in. (89 mm) to depth for additional electrical box required for SMX Net control (RN models)



Dealer



DOMETIC MARINE DIVISION
 2000 N. Andrews Ave. | 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:
 8:00 AM to 5:00 PM Eastern Time: 800-542-2477
 After hours and weekends: 888-440-4494

INTERNATIONAL SALES & SERVICES
 Europe & the Middle East: Call +44(0)870-330-6101
 For all other areas visit our website to find your nearest distributor.

L-2431 Rev. 20130111

Specifications and availability subject to change without notice.