

RM Series Modulating Condensing Units

Capable of Cooling Up to Five Zones



The new RM model remote modulating condensing units are the next generation of direct-expansion, cooling only air conditioning units designed to run multiple cooling units (evaporators) with up to five independent zones. Models are available in capacities of 24, 30 and 42,000 BTU/Hr. Total cooling unit capacity should be within 15% of the condensing unit capacity.

The new RM model has a number of improvements. Higher efficiency compressors deliver full capacity even under heavy loads. The newly designed, one-piece electrical box with 3 ft. (0.9 m) cable can be remote mounted simply by removing one screw. Additional service ports have been added for ease of charging and servicing. The one-piece chassis/pan has two new drain locations. New style hold-down brackets secure all four corners and allow for easier installation and removal.

The RM assembly consists of a scroll compressor, cupronickel condenser, and service/base valves, all mounted on a newly designed condensate drain pan. Custom designed components that protect the compressor when operating at full and partial loads include: high and low pressure switches, large capacity receiver and accumulator, hot gas bypass valve, and a thermal expansion de-superheat valve. The bypass valve senses low suction pressure when cooling units are shut off, and allows refrigerant to bypass back into the compressor. The de-superheat valve evaporates refrigerant into the compressor when superheat is too high.

An electrical control and relay box is mounted on the chassis, but can be remote mounted on a 3 ft. (0.9 m) harness for easy access. It includes control triggers, time delay, power relay, and start and run capacitors with a solid state relay for single-phase units, or a contactor for three-phase compressors.

It is designed to be installed in the engine room or other mechanical space, and is not adversely affected by moisture, vibration, or ambient temperatures up to 140°F (60°C). No ventilation is required.

Key Benefits

- One RM condenser can cool up to five independent zones.
- Hot-gas bypass and de-superheat valves.
- High-efficiency scroll compressors.
- 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.
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- Corner mounting brackets for easier installation.
- High- and low-pressure switches.
- Electrical box can be mounted remotely.
- Optional seawater coil manifolds.
- Additional vibration isolation kit available.
- Charged, tested, and leak checked at the factory.

Cruisair[®]

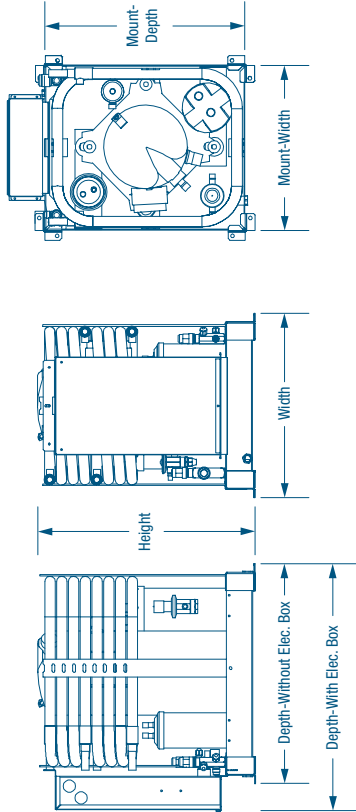
by Dometic GROUP

Specifications for RM Series Modulating Condensing Units

| Model ⁽¹⁾ | RM24 | RM30 | RM42 |
|--|------------|------------|------------|
| Capacity (BTU/h) | 24000 | 30000 | 42000 |
| Voltage (V) ⁽²⁾⁽³⁾ | 230 | 230 | 230 |
| Cycle (Hz)/Phase (Ph) | 60/1 | 60/3 | 60/1 |
| Full Load Amps (FLA) Cool (A) ⁽⁴⁾ | 8 | 8.25 | 9.2 |
| Full Load Amps (FLA) Heat (A) | N/A | N/A | N/A |
| Locked Rotor Amps (LRA) (A) | 67 | 79 | 87 |
| Max. Circuit Breaker (A) | 40 | 45 | 50 |
| Min. Circuit Ampacity (A) | 24 | 25 | 30 |
| Refrigerant Type | R417A | R417A | R417A |
| Height (in/mm) ⁽⁵⁾ | 18.5/470 | 18.5/470 | 18.5/470 |
| Width (in/mm) ⁽⁵⁾ | 15.75/401 | 15.75/401 | 15.75/401 |
| Depth-With Elec. Box (in/mm) ⁽⁵⁾ | 20.875/531 | 20.875/531 | 20.875/531 |
| Depth-Without Elec. Box (in/mm) ⁽⁵⁾ | 18.75/477 | 18.75/477 | 18.75/477 |
| Mount-Width (in) ⁽⁵⁾ | 14 | 14 | 14 |
| Mount-Depth (in) ⁽⁵⁾ | 17 | 17 | 17 |
| Seawater Connection (in/mm) | 5/16 | 5/16 | 5/16 |
| Refrigerant Line Connection-Discharge (in/mm) | 3/8 | 3/8 | 3/8 |
| Refrigerant Line Connection-Suction (in/mm) | 1/2 | 3/4 | 3/4 |
| Net Weight (lbs) ⁽⁶⁾ | 113 | 126 | 136 |
| Gross Weight (lbs) ⁽⁶⁾ | 156 | 160 | 171 |
| Height-Electrical Box (in/mm) | 16.2/412 | 16.2/412 | 16.2/412 |
| Width-Electrical Box (in/mm) | 9/229 | 9/229 | 9/229 |
| Depth-Electrical Box (in/mm) | 3.63/93 | 3.63/93 | 3.63/93 |

¹ Add a 'C' for 230V/60Hz/1-Ph, 'CK' for 230V/60Hz/3-Ph, or 'DC' for 230V/60Hz/3-Ph. For example, RM24DC = 230V/60Hz/3-ph unit.
² Some 60Hz equipment can be operated in a 50Hz environment but at a 17% decrease in capacity. Full-rated capacity can be obtained by specifying Cruisair™ 'CK' (220V/50Hz) equipment.
³ For information about voltages not shown in this sheet, please contact Dometic/Marine sales at 954-973-2477.
⁴ Compressor starting current will vary with voltage but is approximately 3 to 4 times the full-load amps.
⁵ All dimensions ± 0.30 in. (8 mm).
⁶ All weights ± 10%.

Dimensions



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.

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Specifications and availability subject to change without notice.

Dealer

