

## FEATURES

### High Quality Components

- Hermetically sealed compressor for quiet, efficient operation.
- Vibration isolators are incorporated in all mounting platforms for additional noise reduction.
- Replaceable filter/drier without refrigerant charge loss.
- Sight glass/moisture indicator assembly to monitor system refrigerant charge.

### Remote Electrical Box

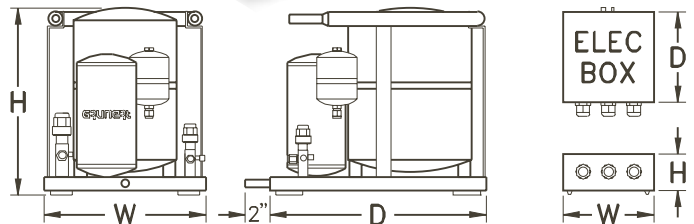
- Completely enclosed box protects all components.
- 5' harness allows for a dry, accessible mounting location.
- Low voltage (12volt) controls provide an extra margin of safety.

### Environmental Considerations

- Additional service valve permits refrigerant isolation for drier change.
- Utilizes "ozone friendly" refrigerant R-404A.

### Quality Assurance

- Each unit is assembled with a charge of nitrogen to ensure that scale does not form during soldering.
- Every unit is leak checked, test run and shipped pre-charged with refrigerant.
- Charge Guard® protection provides sealed access ports to ensure system integrity during handling and installation.
- All units meet or exceed applicable ABYC and U.S. Coast Guard regulations, CE Directives and general Air Conditioning and Refrigeration Industry (ARI) standards.



## SPECIFICATIONS

Model <sup>(1)</sup>	AC425	AC450	AC475	AC4100Z	AC4150Z	AC4200Z
Refrigerant Charge (oz/g)	R-404A					
	26/737	50/1420	50/1420	50/1420	76/2152	76/2152
Capacity (BTU/H) <sup>(2)</sup>						
26°F (-3°C)	1850	3400	5000	6500	9000	15000
0°F (-18°C)	1650	2800	4200	5500	7000	11900
-9°F (-23°C)	1500	2200	3600	4500	5500	9350
-18°F (-28°C)	1250	1800	3200	3900	4800	8480
Electrical Data						
RLA - 115v/230v (water cooled)	5.9/2.9	6.7/3.0	15.2/7.7	- /10.9	- /10.9	- /18.6
RLA - 115v/230v (air/water cooled)	6.9/3.4	7.7/3.5	16.2/8.2	- /11.4	- /11.4	N/A
LRA - 115v/230v	40/20.5	68/34	59/37	- /56	- /56	- /107
Max. Circ. Breaker 115v/230v	15/10	20/10	35/15	- /25	- /30	- /40
Min. Circ. Ampacity 115v/230v	10/5	16/7	27/14	- /20	- /20	- /30
Physical Data						
Unit Dimensions (in/cm)						
D (Depth) <sup>(3)</sup>	14.1/35.8	14.1/35.8	14.1/35.8	20.0/50.8	20.0/50.8	20.0/50.8
W (Width) <sup>(4)</sup>	13.1/33.4	13.1/33.4	13.1/33.4	17.0/43.2	17.0/43.2	17.0/43.2
H (Height)	10.5/26.7	13.6/34.6	14.8/37.5	15.3/38.7	15.3/38.7	16.0/40.6
Electrical Box Dimensions (in/cm)						
D (Depth)	10.875/27.6					
W (Width)	10.625/27.0					
H (Height)	4.0/10.2					
Weight (lbs/kg) <sup>(5)</sup>						
Net	47/21.32	78/35.38	74/33.57	75/34.02	77/34.93	92/41.73
Ship	63/28.58	94/42.64	92/41.73	93/42.18	95/43.09	110/49.90

<sup>(1)</sup> Add a 'Z' to the model number to indicate 230 VAC for models AC425 through AC475. Also add HA to model numbers for air cooled option (not available on AC4200Z).

<sup>(2)</sup> BTU/H ratings are the average rate of heat extraction from holdover plates and are not the capacity of the compressor or condensing unit. These figures are to be used to determine run times required to maintain box design temperatures.

<sup>(3)</sup> Add 2" (5.1cm) for condensate hose connector. Add additional 10.75" for air cooled option.

<sup>(4)</sup> Add 1/2" to width for air cooled option on AC425-475HA.

<sup>(5)</sup> Add 8 lbs (3.6kg) for remote electrical box. Add 20-30lbs for air cooled option. All weights include refrigerant charge. Ship weights include electric boxes.

# Installation Guidelines for AC Voltage/Hermetic Models • Passagemaker

When choosing the proper model **Passagemaker**, primary consideration should be given to calculated BTU loads and available power supply. Any special requirements (box capacity, air condenser exhaust, wiring sizes, etc.) should be determined prior to installation.

The location of the **Passagemaker** condensing unit should be dry and accessible for service. The location of the unit should provide for proper air flow through the air cooled condenser (for air/water models) so as not to overheat the system. The water cooled condenser must be connected as described in the following paragraph. The unit should be installed with the fasteners provided and secured to a horizontal surface sufficient to support the weight and torsion load from the vessel's movement. The remote electrical box may contain position-sensitive components (labeled as such on the outside of the box). Fasten in the appropriate position using the mounting hardware provided.

The seawater system must be installed below the water line and routed on a continuous incline from a dedicated thru-hull intake to the sea strainer then to the pump inlet and up to the condensing unit to prevent air locks in the seawater pump. Reinforced marine grade hose should be used for the seawater circuit, and all fittings should be double/reversed hose clamped.

The refrigeration lines connecting the holding plate(s) to the condensing unit must be constructed from refrigeration grade, dehydrated copper and must be properly insulated. All fittings are designed for flare connections, and these connections are to be made using proper flaring

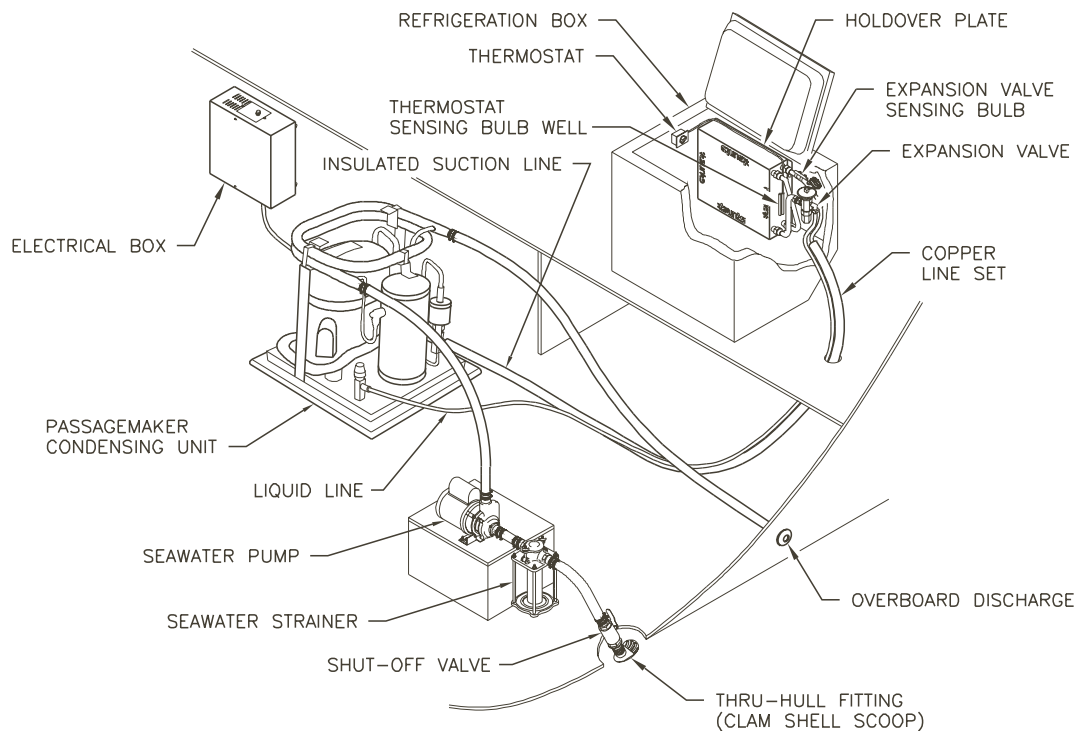
tools and techniques during installation. A non-leak compound may be used on flare connections, if desired, to prevent refrigerant leaks (due to vibration or loosening of suction side connections due to frost). This compound should be applied sparingly to the male threads of the fitting, and great care must be taken to prevent contact with the flare seat. Flare connections must be adequately tightened, usually as tight as possible, with the exception of 1/4" lines which can be crushed if the flare is over tightened. All associated mechanical components (solenoid valves, check valves and expansion valves) must be mounted in the correct position and secured properly.

Thermostats are to be located and properly secured in the box(es) or on bulkheads with sensing bulbs properly secured into the sensing wells located on the holdover plates or to box wall on flat plate applications.

Circuit breakers and wire gauges must be sized according to ABYC marine design standards. Only stranded tinned copper should be used. All equipment must be properly grounded and bonded.

Refrigerant line sets and holdover plates must be thoroughly evacuated (recommended to 200 microns) and leak checked prior to releasing refrigerant from the condensing unit into the system and start-up of the equipment. The refrigerant charge may require adjustment once the entire system is operational.

In keeping with regulations set forth by the EPA, only certified technicians should perform service on, or make adjustments to, the refrigerant circuit.



In the interest of product improvement, specifications and design as outlined herein are subject to change without prior notice.

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