



## AC Voltage/ Hermetic Models dockside

### PRODUCT DESCRIPTION

The **Dockside** model of Grunert refrigeration is designed for yachts with AC power sources on board. It is an ideal unit when used in conjunction with an engine-driven system or for a stand-alone application for smaller boxes.

The **Dockside** features air and water-cooled condensers for maximum versatility. Air-cooled refrigeration offers standard efficiencies for use when a vessel is hauled. Water-cooled refrigeration provides increased efficiencies, and proper operation in high ambient temperatures.

The **Dockside** model can cool a number of different box sizes and configurations. For design assistance, contact your local dealer or the Customer Support Team at Taylor Made Environmental, Inc.

**Dockside** condensing units can be installed in any convenient location and are unaffected by vibration or moisture. All units meet or exceed applicable ABYC and U.S. Coast Guard regulations, CE Directives and General Air Conditioning and Refrigeration Industry (ARI) standards.

### FEATURES

#### High Quality Components

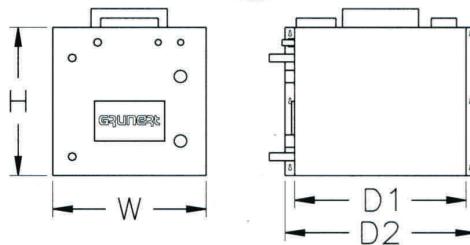
- Hermetically sealed compressor for quiet, efficient operation.
- Vibration isolators incorporated in all mounting platforms for additional noise control.
- Replaceable filter/drier.
- Sight glass/moisture indicator built in to enable monitoring of system refrigerant charge.

#### Environmental Considerations

- All units have quick disconnect fittings and are pre-charged with refrigerant for ease of installation.
- Additional service valve permits refrigerant isolation for drier change.
- Utilizes "ozone friendly" refrigerant 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.



### SPECIFICATIONS

Model	AC416HA	
Refrigerant	R-404A	
Charge (oz/g)	18/515	
Capacity (BTU/H) <sup>(1)</sup>		
26°F (-3°C)	1750	
0°F (-18°C)	1450	
-9°F (-23°C)	1350	
-18°F (-28°C)	1100	
Compressor		
Capacity (HP)	1/4	
Voltage (volts)	115	230
Compressor RLA	6.2	3.0
Fan RLA	0.26	0.14
LRA (Locked Rotor AMPS)	40.0	21.0
Maximum Circuit Breaker	15.0	10.0
Minimum Circuit Ampacity	10.0	5.0
Physical Data		
Dimensions (in/cm)		
H (Height) <sup>(2)</sup>	12.00/30.5	
W (Width)	12.00/30.5	
D1 (Depth 1)	13.50/34.3	
D2 (Depth 2)	15.00/38.1	
Weight (lbs/kg)		
Net	55/24.95	
Ship	65/29.48	

<sup>(1)</sup> BTU/H ratings are the average rate of extraction from hold over 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>(2)</sup> Add 2" to height for duct ring.

# Installation Guidelines for AC Voltage/Hermetic Models • Docksider

When choosing the **Docksider**, primary consideration should be given to calculated BTU loads and available power supply. Any special requirements (number of boxes and/or controls, refrigerant line lengths, wiring sizes, etc.) should be determined prior to installation.

The location of the **Docksider** 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 so as not to overheat the system. If air flow is restricted, 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 or vertical surface sufficient to support the weight and torsion load from the vessel's movement.

The optional seawater system must be installed below the water line and routed on a continuous incline from a dedicated thru-hull intake through a strainer 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-clamped.

The refrigeration lines connecting the evaporators to the condensing unit must be constructed with refrigeration grade, dehydrated copper and must be properly insulated. Flare connections are to be made using proper flaring tools and techniques during installation. The condensing unit has quick-disconnect fittings.

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 located 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 bulb wells located on the holding plates.

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

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.

