Dometic GRUNERT

Engine Drive/ Belt Driven Models
caribbean

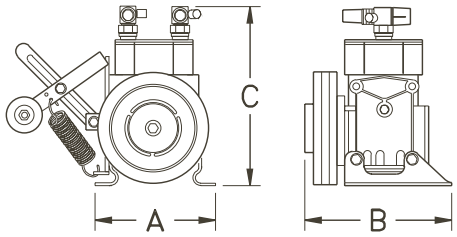
Product Description

The ***Caribbean*** models of Grunert refrigeration are designed for those yachts that utilize the power available from their main engine. Typically, all on board energy requirements are condensed into one or two engine run times per 24 hour period.

These units come standard with a PVC and stainless steel raw water condenser for improved efficiency and lower operating pressure (unlike other Grunert systems, air cooling is not an option). Add the Grunert Passagemaker to the ***Caribbean*** system for optimum flexibility for those times when you want to maintain box temperatures and the boat is unattended (or the vessel is hauled). For design assistance, contact your local Dealer or our Customer Support Team.

The compressor components for this system must be installed near or on the main engine with all necessary components nearby.

Caribbean units meet or exceed applicable U.S. Coast Guard regulations, CE Directives and general Air Conditioning and Refrigeration Industry (ARI) standards.



Features

Modular Concept
- Components can be remote mounted.
- Receiver, accumulator, drier, pressure switch and valves are on one convenient pallet.

High Quality Components
- Rebuildable compressor, including valve plates and shaft seals, for long life. (ED 150 only)

Remote Junction Box (optional)
- Enclosed box protects components and provides for convenient connections.
- Low voltage (12 volt or 24 volt) controls provide an extra margin of safety.

Environmental Considerations
- All systems have base valves with service ports for evacuation and leak checking the system, and a receiver for refrigerant storage.
- Utilizes refrigerant 409A.

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	ED75/12	ED75/24	ED150/12	ED150/24
Electrical Data				
Motor Voltage (DC)	12	24	12	24
Watts (Coil)	48	48	48	48
Amperage	4	2	4	2
Refrigerant	R-409A			
Oil	Polyolester			
Charge (oz/*g*)	6.1/*173*		16.0/*454*	
Capacity (BTU/H) [1]				
26°F (-3°C)	5000		9000	
0°F (-18°C)	4200		7000	
-9°F (-23°C)	3600		5500	
-18°F (-28°C)	3200		4800	
Compressor Data				
Cylinder/Displacement	2/1.105 IN³/REV.		2/10.3 IN³/REV.	
Dimensions (in/*cm*)				
Compressor				
A	5.5/*139.70*		7.5/*190.50*	
B	9.0/*228.60*		9.0/*228.60*	
C	5.75/*146.05*		11.25/*285.75*	
Receiver Pallet				
Height	15.0/*38.1*			
Width	14.3/*36.3*			
Depth	5.4/*13.7*			
Weight (lb/*kg*)				
Net	17/*7.71*		25/*11.34*	
Ship	22/*9.98*		30/*13.61*	

[1] BTU/H ratings are the average rate of 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.

Installation Guidelines for Engine Drive/Belt Driven Models • Caribbean

When choosing the ***Caribbean*** 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 ***Caribbean*** system components should be dry and accessible for service. Compressor components must be installed near or on the main engine with all necessary components nearby. The remote junction box (optional) should be securely fastened using the mounting hardware provided.

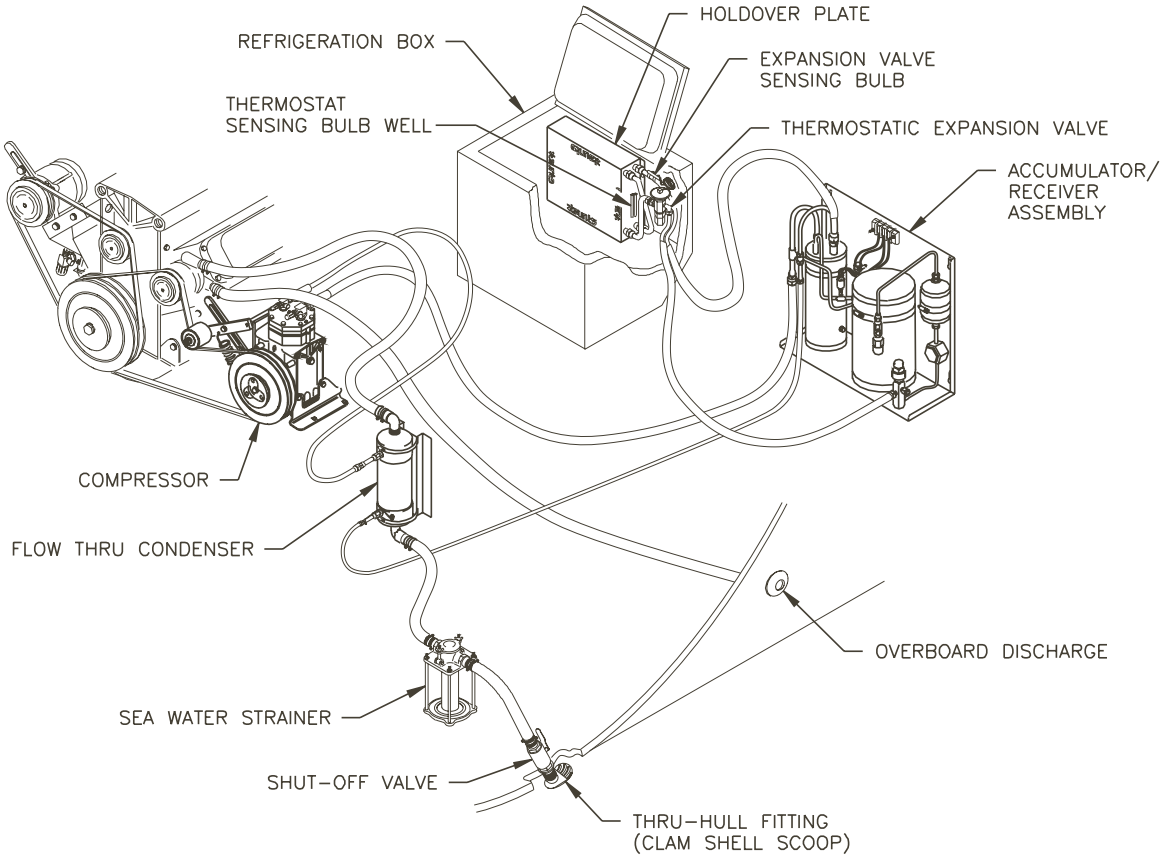
The flow thru condenser is connected to the inlet side of the engine's seawater system circuit. It should be mounted as close to vertical as practical. The sea water enters the bottom of the condenser and exits through the top. Use of water fittings of the same size or larger as the existing water supply to the engine are recommended. Reinforced marine grade hose should be used for the seawater circuit, and all fittings are to be double-clamped. *Caution:* Condenser must be connected to the vessels bonding circuit.

The refrigeration lines connecting the holding plate(s) to the condensing unit must be constructed with refrigeration grade, dehydrated copper and must be properly insulated. All fittings are designed to use 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 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 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 holding 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.



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