

FEATURES

Design

High Efficiency Components

- Reverse cycle condensing units available in voltages of 230 VAC, 220-240 VAC, 380 VAC and 460 VAC. Also available in 1ø or 3ø and 50 Hz or 60 Hz.
- There are two different models in the series - CSP and CSM*. Each uses a different control.
- High efficiency compressors and cupronickel/copper condenser coils provide maximum capacity with minimal amperage.
- Expansion valve/check valve assemblies control load balancing during operation. Pressure switches and thermal overloads enhance system protection.

Symmetrical Base Design

- Provides optimum space efficiency with 16"/41cm square footprint on the 24-48 and 24"/61cm x 12"/30.5cm on the CS60.
- Allows ease in handling and positioning.

Electrical Box

- Moisture resistant design.
- Box has remote mount capabilities with 6' harness.
- Internal components are fully serviceable.

Integral Drain Pan

- Allows for condensation removal.
- Provides for internal fastening of unit.
- Seam welded construction promotes structural integrity.
- Two sets of vibration isolators reduce vibration and ensure quiet operation.

Quality Assurance

- All surface components are constructed of or coated with materials resistant to fire and corrosion.
- Each unit is pre-charged, test run in all operating modes and leak checked.
- Charge Guard® protection provides sealed access ports, ensuring environmental protection and system integrity.
- All units meet or exceed applicable ABYC and U.S. Coast Guard regulations, CE Directives and general Air Conditioning and Refrigeration Industry (ARI) standards.

'Z' at the end of model number denotes 230V. Example CSP36RZ

* P = Passport Control (CSP) M = Manual Control (CSM)

⁽¹⁾ Ratings at 60 Hz., 50 Hz. operation will be diminished by 17%. Fully rated 50Hz. equipment is available for 220/240 VAC operation.
⁽²⁾ BTU and electrical data based on a 45°F evaporator and 100°F condenser in cool mode, and a 45°F evaporator and 130°F condenser in heat mode.
⁽³⁾ When electric box is mounted on condensing unit, add electrical box height dimension to overall unit height.



SPECIFICATIONS

Model	CS*24RZ	CS*30RZ	CS*36RZ	CS*48RZ	CS*60RZ
Capacity (BTU/H) ⁽¹⁾	24,000	30,000	36,000	48,000	60,000
Electrical Data230VAC/60 HZ/1ø.....				
Voltage (VAC)230VAC/60 HZ/1ø.....				
FLA (Full Load Amps)				
Cool ⁽²⁾	7.3	8.4	10.5	13.1	18.4
Heat ⁽²⁾	9.0	10.9	12.9	15.9	21.4
LRA	57	66	76	87	118
Max. Circuit Breaker	35	45	50	60	80
Min. Circuit Ampacity	22	26	29	35	46
Physical Data (in/cm)				
Length	16/40.6	16/40.6	16/40.6	16/40.6	24/61.0
Width	16/40.6	16/40.6	16/40.6	16/40.6	12/30.5
Height ⁽³⁾	18/45.7	18/45.7	22/55.9	22/55.9	25.3/64.4
Water Inlet/Outlet5/8"ø.....				
Base Condensation Drain5/8"ø.....				
Base Valves (discharge x suction)	3/8 x 5/8	3/8 x 5/8	3/8 x 3/4	3/8 x 3/4	5/8 x 3/4
Refrigerant R22* (oz/kg)	46/1.30	50/1.42	56/1.59	76/2.15	80/2.27
Weight (lbs/kg)				
Net	125/56.7	133/60.3	157/71.2	147/66.5	173/78.5
Ship	130/59.0	138/62.6	162/73.5	153.5/69.6	181/81.6
Electrical Box (in/cm) ⁽³⁾	CSM		CSP		
Width	11.06/28.1		11.00/27.9		
Depth	12.63/32.1		12.63/32.1		
Height ⁽³⁾	3.50/8.9		3.50/8.9		
Control	MCP		Passport		

*For alternative refrigerant, please contact us.

Installation Guidelines for Multi Ton Condensing Units

When choosing the proper model **Central System Multi Ton Condensing Unit**, primary consideration should be given to calculated BTU loads and available power supply. Special consideration should be given in determining the reverse cycle heating capacities under anticipated conditions. Reverse cycle operation is affected by the sea water temperature. As it decreases, the units heat transfer capacity also decreases and proportionately affects the output of warm air. It is not recommended that the unit be operated in the heat cycle with water temperatures below 40°F.

The location of the condensing unit should be dry and accessible for service, and provide the most direct routing of refrigerant line sets relative to the evaporator location(s). The vibration isolated condensing unit should be secured to a horizontal shelf that is designed for the weight of the unit and torsion loads from the vessel's movement. The remote electrical box may be fastened to a bulkhead using the hardware provided.

Refrigerant-grade copper tubing should be properly sized for the specific application. The suction line should be insulated with approved closed cell foam jackets (i.e., Rubatex 1/4" wall thickness). The refrigerant line ends should remain capped until the actual connections are made to prevent contamination. Tube benders are recommended to prevent kinks in the tubing, which will adversely affect the performance and longevity of the system.

When using multiple evaporators with one condensing unit, locate all unions and tee fittings properly in areas accessible for service. Use approved flaring techniques and refrigerant grade components for all connections.

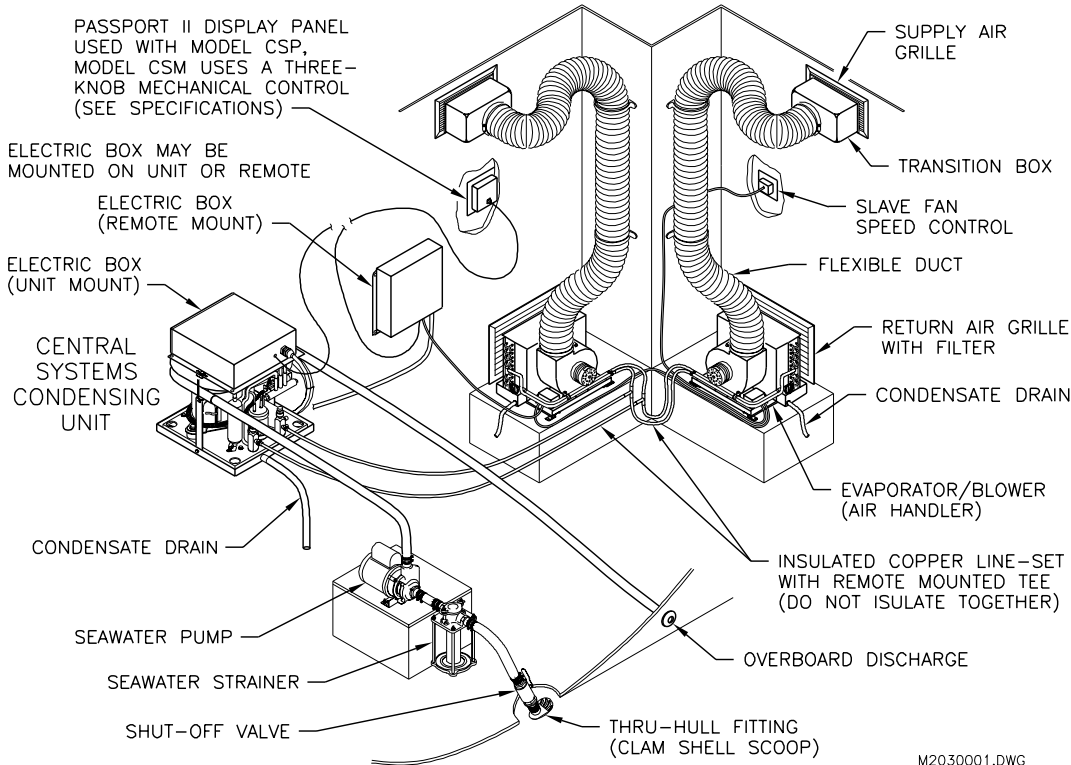
Insulate fittings using insulation tape (only after system has been leak-checked). Wrap fittings sufficiently to equal R-value of tube insulation.

Reinforced marine grade hose should be used for the sea water circuit. All hose fittings should be double clamped. The hose should be routed upward from the thru hull intake to the condensing unit to prevent air locking and provide draining of the sea water circuit. The condensation drain should be connected and routed downward to a proper sump or overboard discharge.

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

The installed line sets and evaporator(s) must be evacuated to remove air from these components and prevent moisture acidity formation. All connections should be properly leak-checked upon releasing the refrigerant charge from the condensing unit into the system. If the system is to be opened for any reason at this point or for future service, the refrigerant charge must be "pumped down" back into the condensing unit or recovered to prevent it from escaping into the atmosphere.

Never install your air conditioner air handler in bilge or engine room areas. Insure that the selected location is sealed from direct access to bilge and/or engine room vapors. Do not terminate condensate drain lines within three (3) feet of any outlet of engine or generator exhaust systems, nor in a compartment housing an engine or generator, nor in a bilge (vapors can travel up the drain line), unless the drain is connected properly to a sealed condensate or shower sump pump. Failure to comply may allow bilge or engine room vapors to mix with the air conditioners return air and contaminate living areas.



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



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