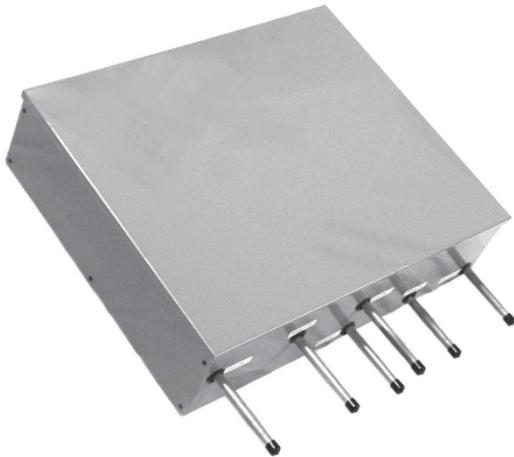


SPECIFICATION SHEET

HEAT RECOVERY UNIT FOR DOMESTIC HOT WATER FROM HVAC & REFRIGERATION SYSTEMS

DESCRIPTION:

The HotSpot 52C Dual Heat Recovery Unit captures waste heat discharged from the refrigerant cycle of two compressors and transfers that heat into a water heater tank, thereby creating low cost hot water for domestic use. Not only does the 52C substantially reduce the amount of energy required to provide domestic hot water, it also may improve the cooling efficiency of each compressor while it is operating up to 20% or more. The model 52C is designed to operate with two systems of 1½ to 5 ton cooling capacity each. For single compressor systems, see model 5C.



FEATURE HIGHLIGHTS

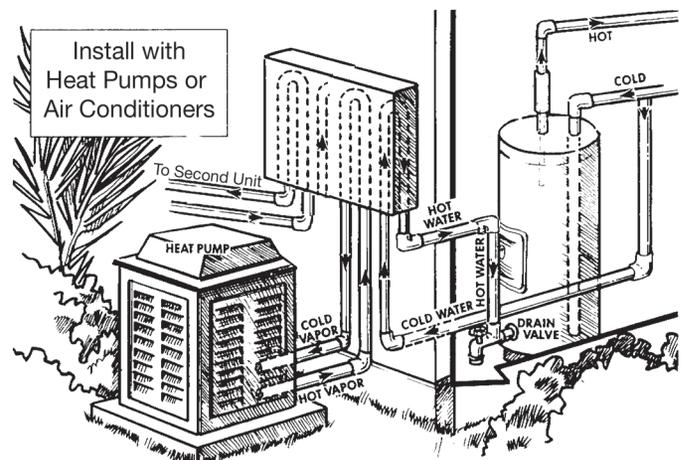
- 230 volt wiring for easy connection to compressor contactor
- Factory wired and preset controls
- Fully automatic operation
- Two high-efficiency all-copper vented double-wall counterflow heat exchangers
- Water lubricated low wattage circulator
- Grounded electrical circuit
- Sturdy aluminum cabinet with baked enamel finish for outdoor or indoor use.
- UL certified appliance
- Freeze protection included
- Water connection accessories available

APPLICATION:

The refrigerant side of each heat recovery unit heat exchanger is installed in the refrigerant hot gas line between the compressor and condenser of each condensing unit; or between compressor and reversing valve, if installed on a heat pump system. The water side of the heat exchanger is connected to the water heater tank to form a circulation loop. Power is drawn from the compressor contactor. Waste heat may be collected when either compressor operates, and the water circulating from the water heater tank is less than 140°F. A minimum refrigerant temperature of 125°F is required to allow heat recovery operation.

APPLICATION CAUTION: Installations subject to freezing ambient must make provisions for freeze protection. The heat recovery unit freeze protection circuit must draw power from the line side of the compressor contactor. Drainable hand valves are another freeze protection approach.

(800) 916-2067



SPECIFICATIONS AND INFORMATION

THESE SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

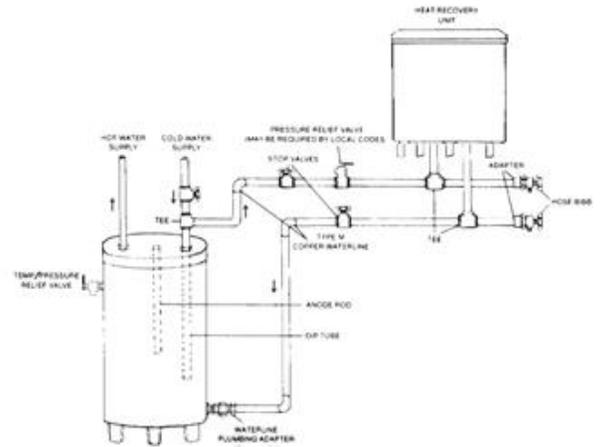
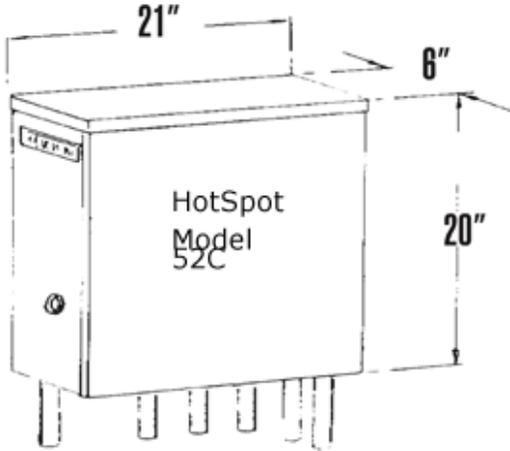
MOUNTING/LOCATION

HotSpot dual heat recovery units may be mounted indoors or outdoors. They must be mounted vertically, at a height above the top of the condenser. While normally located outdoors near the compressor equipment, they can be located in any convenient place, such as the garage or laundry room; but the refrigerant run should be kept to a minimum.

CONTROLS

HotSpot 52C models contain a water high limit control. It is factory set to 140°F. Models also contain two refrigerant gas low limits factory set to 125°F. Freeze-protected models are equipped with a water low limit. It is factory set to 50°F, and is designed to operate when water temperatures of 40°F or less are detected, in order to provide water circulation independent of compressor operation, in the event of freezing ambient temperatures.

TYPICAL WATER INSTALLATION



Optional Tank Tap installation fitting available.

WARRANTY: HotSpot heat recovery units offer a limited Parts Warranty as follows: Heat exchanger- 5 Years; Pump- 2 Years; All other components- 1 Year.

HotSpot Heat Recovery Units

MODEL	FEATURE	SHIP WEIGHT
52C	Base Model	32 lbs



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HEAT EXCHANGER

HotSpot dual heat recovery units contain two corrosion resistant all-copper double wall heat exchangers of counterflow twin tube design. Continuously vented along the entire length, the heat exchanger meets strict IAPMO safety criteria, ANSI 61, and exceeds UL requirements.

CIRCULATOR PUMP

HotSpot dual heat recovery units contain a low wattage wet rotor in-line single stage circulator. Standard models use a Taco 008 series 1/25 hp circulator. This water cooled pump is rated at 113 watts, 230 volts and .49 amps. It is designed for 125 psi working pressure and up to 230°F fluid temperature. The pump housing is bronze and the bearings are ceramic.

WATER LINE SIZING (3/4" Water Stubs)

Actual Size O. D.	Nominal Size	NOMINAL COOLING CAPACITY (BTU/H) EACH A/C SYSTEM			
		24,000	36,000	48,000	60,000
Maximum One-Way Water Line Length (Feet)					
5/8	1/2	150	80	40	24
3/4	5/8	-	150	100	50
7/8	3/4	-	-	150	150

REFRIGERANT LINE SIZING (1/2" O.D. Stubs)

Refrigerant Tube Size O. D.	R-22 Charge Addition per 10 Feet or.	NOMINAL COOLING CAPACITY (BTU/H) EACH A/C SYSTEM			
		24,000	36,000	48,000	60,000
Maximum One-Way Refrigerant Tube Length (Feet)					
1/2	1.0	16	9	5	-
5/8	2.0	30	25	13	9
3/4	3.0	-	30	30	25

THERMAL PERFORMANCE (ARI 470-2001) EACH A/C SYSTEM

Water Side	Refrigerant Side	Nominal 5 ton Cooling Capacity
EWT: 95° F LWT: 106° F Flow Rate 2.0 gpm	Entering: 178° F Leaving: 114° F Flow Rate 730 lb/hr	Heat Transferred: 11,145 Btuh Testing Performed by NRTL lab.