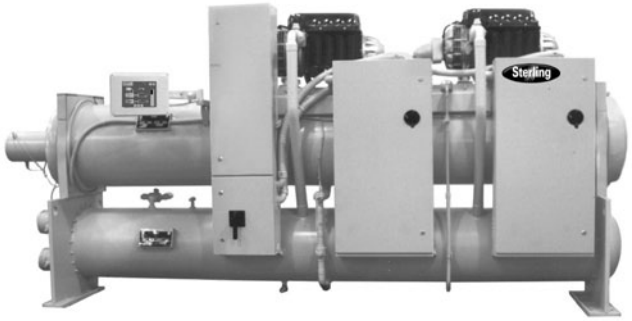
RTCW SERIES

FRICTIONLESS DESIGN PROVIDES INCREASED ENERGY EFFICIENCY



RTCW Series water-cooled central chillers from Sterling feature a magnetic-bearing design that eliminates the frictional energy and oil issues related to conventional compressor design. The result is increased energy efficiency, the elimination of oil and considerably less noise and vibration. The RTCW chillers also feature a compact design (35" wide) that reduces installation time and costs as well as saving valuable floor space. Environmentally-friendly R-134a refrigerant provides zero ODP (ozone depletion potential) and a touch-screen control center provides detailed diagnostic and performance information.

Features

- Danfoss/Turbocor semi hermetic centrifugal compressors on all RTCW models. Dual independent refrigerant circuit design from 120 to 190 tons
- Eliminate oil lubrication issues with frictionless bearing design
- Frictionless bearing design with EER of 20+ at full load and EER at 42+ at 50% capacity represents an energy savings of 35%+ plus over rotary screw designs
- Variable speed drives for each compressor for infinite unloading down to 10%
- Whisper quiet sound levels as low as 77 dBA (ARI standard 575)
- All cooling ratings are ARI certified with ETL & ETLc electrical certification. Disconnect switch is standard
- Microprocessor controller with positive freeze protection and optimal control of multiple process parameters allow the chiller to run at less than optimal plant conditions without shutdown
- Touch-screen PLC with pictorial graphics. Building automation communication optional
- Refrigeration circuits have liquid line isolation shut-off valves, electronic expansion valve for improved partial load performance, and replaceable core filter dryers
- Direct- expansion shell and tube evaporator with 3/4" insulation
- Shell & tube condenser with two independent refrigeration circuits (1)-year warranty parts and labor

Options

- No available options

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RTCW SERIES

TYPICAL PAYBACK

Typical payback at 10¢/kW cost for 24/7 operation at 90% plant utilization.
Energy savings for a 150 ton chiller vs. a non-frictionless design = 28 kW or $2.80 per hour, $23,520 per year. Local energy rebates may be applicable for further savings.

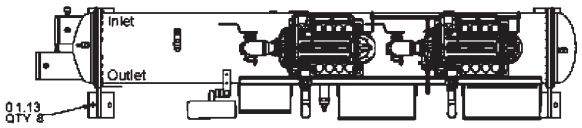
SPECIFICATIOMS

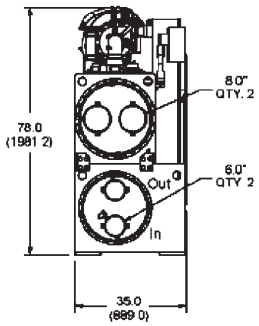
Model		RTCW-xxx (R-134a)				
		120	140	150	170	190
Dimensions and Specifications						
Cooling capacity - tons		120	140	150	170	190
Chilled water flow - gpm		288	336	360	408	456
Condenser flow, 85ºF entering		360	420	450	510	570
Energy rating - 100% loaded	EER1	22.1	21.2	21.6	20.4	19.8
Energy rating - 75% loaded	EER1	31.3	30.1	30.5	28.6	27.7
Energy rating - 50% loaded	EER1	42.3	45.9	49.1	47.6	45.9
Compressors	tons	60/60	70/70	75/75	85/85	90/90
MCA circuit size amps; 460/3/60		114.1	134.2	140	163	177.2
Dimensions (in.)	height	78				
	width	35				
	length	135		170		
Operating weight (lbs.)		6950	7050	7700	7850	7950

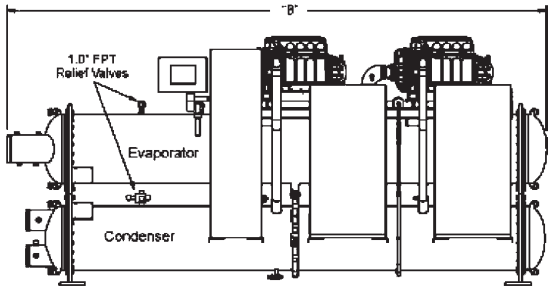
1 EER = btu/watt
Note: Capacity estimates based on 60ºF return from process, 50ºF chilled water supply temperature, and 85ºF entering cooling tower water. Consult factory for requirements below 40ºF.

Metric conversions

1 To calculate cooling capacity in Kcal/hr - multiply tons x 3.024
2 For flow liters per min (lpm) - multiply gpm x 3.785
3 For dimensions (cm) - multiply inches x 2.54
4 For weight (lbs.) - multiply lbs. x 0.454
5 For power (kW) - multiply hp x 0.746







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