

Split System Outdoor Condensing Units RC-Series



- Design flexibility - Units available for 100% outside air or recirculated air applications.
- Reliable operation – Units fully tested in factory.
- Designed for outdoor installation - Unit constructed of galvanized steel with MAGNI® 555-coated hardware.
- Environmentally friendly - Units use R410A refrigerant.

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RCC RATED IN ACCORDANCE TO
ANSI/ARI 210/240-2003 OR 340/360-2000.

Split System Outdoor Condensing Units

WEATHER-RITE™ split system outdoor condensing units are typically installed in new or retrofit commercial and industrial applications, such as hotels, sports arenas, office buildings and manufacturing facilities.

Features of RC-Series

Long-Lasting Construction Provided by:

- Heavy-duty cabinet constructed of galvanized steel panels and mounted on two steel rails to facilitate rigging and installation.
- Two-coat, primer-paint finish on both interior and exterior of cabinet panels that meets the 1,000 Salt Spray Test as described in ASTM B117, "Standard Practice for Operating Salt Spray (Fog) Apparatus".
- Stainless steel and/or MAGNI 555®-coated hardware to help prevent fastener corrosion.
- Vinyl-coated condenser fan guards to help ensure long-term durability.
- Condenser coils composed of aluminum fins and mechanically-expanded, seamless copper refrigeration tubing to help ensure long-term efficient heat transfer from tube to fin.
- Optional harsh environment protection coating on coils and cabinet that exceeds the 10,000 Salt Spray Test as described in ASTM B117, "Standard Practice for Operating Salt Spray (Fog) Apparatus".

Ease of Maintenance Provided by:

- Direct-drive condenser fans with permanently-lubricated or sealed ball bearings that require little maintenance and no oiling.
- Liquid line shut-off valve to isolate liquid line for upkeep and/or repairs.
- Liquid and suction line service ports that provide hose connections when charging refrigerant into system.
- Suction line accumulators that help eliminate return of liquid refrigerant back to compressor.
- Optional 115V GFCI electric receptacle to provide easy-access power to service technician at unit.

Reliable, Efficient System Operation Provided by:

- Condenser fans that are both statically and dynamically balanced in order to provide smooth performance.
- High-efficiency scroll compressors with crankcase heaters to help prevent refrigerant migration.
- Assembly, testing and installation preparation by factory staff, including charging of compressors with oil and charging of circuits with nitrogen holding charge.
- Optional phase/voltage monitor to help detect abnormalities in electric supply.
- Optional digital scroll compressor assembly that provides continuous capacity modulation for part load conditions.
- Optional fan cycling or variable speed head pressure control to help ensure proper unit operation at low ambient temperatures.
- Optional liquid line check and relief valves to reduce excessive pressure or reversed refrigerant flow.

Suit Most Applications with Availability of:

- Optional connection for hot gas reheat to re-warm dehumidified air to a neutral discharge temperature.
- Optional direct digital or electromechanical controls to meet a wide range of operational needs.

Direct Digital Controller for RC-Series

The WEATHER-RITE™ ALC Control is a direct digital controller that can efficiently monitor and control WEATHER-RITE™ condensing units. Features and benefits of the ALC Control include:

- Greater control of equipment with ability to monitor room temperature and humidity, outside air temperature and humidity and leaving air temperature, as well as to change a number of setpoints (as applicable depending on equipment type and application).
- Detect problems earlier with ability to monitor status of compressor(s), supply fan and exhaust fan (as applicable depending on equipment type and application).
- Design flexibility as the controller can operate in a stand-alone capacity or in conjunction with a Building Management System (BMS) via the BACnet®, Modbus, Lonworks® and N2 protocols.
- Simple field set-up without the need for additional downloads or technical assistance as the protocol point mapping is pre-set in the factory.

- Customizable with digital outputs, analog outputs and universal inputs. Customized programming to meet a specific application's sequence of operation is also available.



ALC CONTROLS

Configurations & Capacities

RCA Unit (Air-Cooled for 100% Outside Air Applications)

Design: Heat is transferred from refrigerant to air at condenser coil by condenser fan(s).

Function: In conjunction with complementary air handler or air turnover unit, provides cooled and dehumidified air to the conditioned space.

Application: Ideal for applications requiring cooled and dehumidified 100% outdoor air for make-up air cooling.

RCA Model	Ambient Temperature (°F/°C)	Saturated Suction Temperature (°F/°C)									
		35.0/-1.7		40.0/4.4		45.0/7.2		50.0/10.0		55.0/12.8	
		Btu/h	kW	Btu/h	kW	Btu/h	kW	Btu/h	kW	Btu/h	kW
051	95.0/35.0	37,700	11.0	41,000	12.0	45,000	13.2	49,000	14.4	52,000	15.2
	105.0/40.6	35,000	10.3	38,000	11.1	41,000	12.0	45,000	13.2	49,000	14.4
061	95.0/35.0	45,000	13.2	49,000	14.4	53,000	15.5	57,000	16.7	62,000	18.2
	105.0/40.6	42,000	12.3	46,000	13.5	50,000	14.7	54,000	15.8	58,000	17.0
071	95.0/35.0	60,200	17.6	66,000	19.3	71,000	20.8	77,000	22.6	82,000	24.0
	105.0/40.6	56,000	16.4	61,000	17.9	66,000	19.3	71,000	20.8	77,000	22.6
101	95.0/35.0	89,000	26.1	97,000	28.4	105,000	30.8	113,000	33.1	122,000	35.8
	105.0/40.6	83,000	24.3	90,000	26.4	98,000	28.7	106,000	31.1	113,000	33.1
141	95.0/35.0	113,000	33.1	124,000	36.3	133,000	39.0	143,000	41.9	153,000	44.8
	105.0/40.6	106,000	31.1	115,000	33.7	124,000	36.3	134,000	39.3	144,000	42.2
171	95.0/35.0	144,000	42.2	157,000	46.0	170,000	49.8	183,000	53.6	198,000	58.0
	105.0/40.6	133,000	39.0	146,000	42.8	158,000	46.3	171,000	50.1	185,000	54.2
201	95.0/35.0	167,000	48.9	182,000	53.3	197,000	57.7	213,000	62.4	230,000	67.4
	105.0/40.6	155,000	45.4	170,000	49.8	185,000	54.2	199,000	58.3	215,000	63.0
271	95.0/35.0	213,000	62.4	232,000	68.0	252,000	73.9	273,000	80.0	294,000	86.2
	105.0/40.6	197,000	57.7	216,000	63.3	236,000	69.2	254,000	74.4	275,000	80.6
361	95.0/35.0	240,000	70.3	260,000	76.2	283,000	82.9	306,000	89.7	332,000	97.3
	105.0/40.6	221,000	64.8	243,000	71.2	264,000	77.4	285,000	83.5	309,000	90.6
421	95.0/35.0	306,000	89.7	334,000	97.9	359,000	105.2	391,000	114.6	421,000	123.4
	105.0/40.6	285,000	83.5	309,000	90.6	338,000	99.1	365,000	107.0	391,000	114.6

RCC Unit (Air-Cooled for Recirculated Air Applications)

Design: Heat is transferred from refrigerant to air at condenser coil by condenser fan(s).

Function: In conjunction with complementary air handler or air turnover unit, provides cooled air to the conditioned space.

Application: Ideal for applications requiring cooled, recirculated air.

RCC Model	Ambient Temperature (°F/°C)	Saturated Suction Temperature (°F/°C)									
		35.0/-1.7		40.0/4.4		45.0/7.2		50.0/10.0		55.0/12.8	
		Btu/h	kW	Btu/h	kW	Btu/h	kW	Btu/h	kW	Btu/h	kW
044	95.0/35.0	29,000	8.5	32,000	9.4	35,100	10.3	38,500	11.3	41,500	12.2
	105.0/40.6	27,100	7.9	29,800	8.7	32,500	9.5	35,500	10.4	38,800	11.4
054	95.0/35.0	39,000	11.4	42,500	12.5	46,500	13.6	50,500	14.8	54,500	16.0
	105.0/40.6	36,000	10.6	39,500	11.6	43,000	12.6	47,000	13.8	50,500	14.8
064	95.0/35.0	49,000	14.4	53,500	15.7	58,000	17.0	63,000	18.5	68,000	19.9
	105.0/40.6	45,000	13.2	49,500	14.5	54,000	15.8	58,500	17.1	63,500	18.6
074	95.0/35.0	64,500	18.9	70,000	20.5	76,500	22.4	83,000	24.3	89,500	26.2
	105.0/40.6	59,500	17.4	65,000	19.0	71,000	20.8	77,000	22.6	83,500	24.5
104	95.0/35.0	75,500	22.1	82,000	24.0	89,000	26.1	97,000	28.4	104,500	30.6
	105.0/40.6	69,500	20.4	76,500	22.4	83,000	24.3	90,000	26.4	97,000	28.4
134	95.0/35.0	90,000	26.4	97,500	28.6	105,000	30.8	114,500	33.6	123,500	36.2
	105.0/40.6	83,000	24.3	91,000	26.7	98,500	28.9	106,500	31.2	114,500	33.6
154	95.0/35.0	130,500	38.2	142,000	41.6	154,500	45.3	167,500	49.1	180,500	52.9
	105.0/40.6	121,000	35.5	132,500	38.8	144,500	42.3	156,000	45.7	168,500	49.4
194	95.0/35.0	148,000	43.4	160,500	47.0	174,000	51.0	187,500	55.0	202,000	59.2
	105.0/40.6	138,000	40.4	150,000	44.0	163,000	47.8	175,500	51.4	189,500	55.5
254	95.0/35.0	205,000	60.1	222,500	65.2	241,500	70.8	261,500	76.6	282,000	82.6
	105.0/40.6	189,500	55.5	207,000	60.7	225,000	65.9	243,000	71.2	263,500	77.2
314	95.0/35.0	267,500	78.4	289,500	84.8	313,000	91.7	339,500	99.5	365,000	107.0
	105.0/40.6	248,500	72.8	271,000	79.4	294,000	86.2	317,500	93.1	339,000	99.4
374	95.0/35.0	308,000	90.3	335,000	98.2	353,500	103.6	390,500	114.4	419,500	122.9
	105.0/40.6	288,000	84.4	311,000	91.1	338,000	99.1	364,500	106.8	388,500	113.9
414	95.0/35.0	339,500	99.5	372,500	109.2	400,500	117.4	435,500	127.6	468,000	137.2
	105.0/40.6	319,000	93.5	348,000	102.0	374,000	109.6	407,500	119.4	438,000	128.4

Thank you for your business!

Installation Code and Annual Inspections: All installation and service of WEATHER-RITE™ equipment must be performed by a contractor qualified in the installation and service of equipment sold and supplied by Weather-Rite LLC and conform to all requirements set forth in the WEATHER-RITE™ manuals and all applicable governmental authorities pertaining to the installation, service, operation and labeling of the equipment. To help facilitate optimum performance and safety, Weather-Rite LLC recommends that a qualified contractor conduct, at a minimum, annual inspections of your WEATHER-RITE™ equipment and perform service where necessary, using only replacement parts sold and supplied by Weather-Rite LLC.

Further Information: Applications, engineering and detailed guidance on systems design, installation and equipment performance is available through WEATHER-RITE™ representatives. Please contact us for any further information you may require, including the Installation, Operation and Service Manual.

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Products are not approved for residential use, except for models UHA[S] 30- UHA[S] 75.

This document is intended to assist licensed professionals in the exercise of their professional judgment.

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