

# :: WELCOME TO THE REBIRTH OF COOL

The Russell™ By Rheem Commercial Renaissance™ Line



**3–12.5 Ton Package Air Conditioners**  
(RACCZR, RACCZT, RACDZT, RACDZS, RACDZR)

**3–12.5 Ton Package Gas Electric Units**  
(RGECZR, RGECZT, RGEDZT, RGEDZS, RGEDZR)

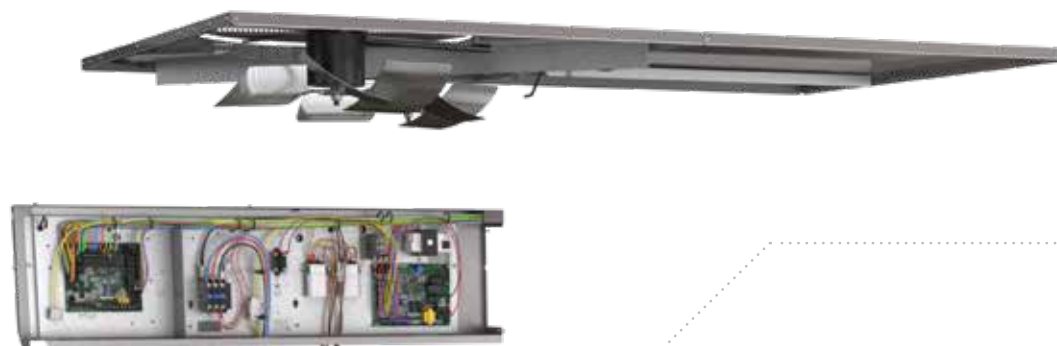
**3–10 Ton Package Heat Pumps**  
(RHPCZR, RHPCZT, RHPDZT, RHPDZS)

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**TRADE GUIDE**

# renaissance™

## COMMERCIAL HVAC LINE

A revival of innovation and performance in commercial HVAC.



7.5–12.5 Ton Cabinet is Shown

SOME MASTERPIECES ARE MADE FROM PAINT OR STONE. OURS, FROM METAL.

**INTRODUCING THE RUSSELL™ BY RHEEM COMMERCIAL RENAISSANCE™ LINE—** the result of years of research and development, creative engineering and innovation. Made with smart new features and exclusive advantages—all delivered with renowned performance and dependability—the Renaissance Line is a signature piece offered by Russell By Rheem from a growing portfolio of industry-leading, commercial HVAC solutions.

### TIER COMPARISON

Models	Single-Stage Cooling	Two-Stage Cooling	ECM Indoor Motor	VFD Technology	HumidiDry™	2018 DOE Efficiency Standards Compliant
<b>6 Ton ZT Models</b> (RACCZT, RGEZT, RHPCZT)		✓	✓		Optional	✓
<b>7.5–12.5 Ton ZT Models</b> (RACDZT, RGEDZT, RHPDZT)		✓		Standard	Optional	✓
<b>7.5–12.5 Ton ZS Models</b> (RACDZS, RGEDZS, RHPDZS)		✓		Optional	Optional	✓
<b>3–5 Ton ZR Models</b> (RACCZR, RGEZR, RHPCZR)	✓		✓		Optional	✓
<b>7.5–12.5 Ton ZR Models</b> (RACDZR, RGEDZR)	✓					✓

BASED ON SMART THINKING AND  
INVENTIVE PROBLEM SOLVING—  
**A REFINED SOLUTION TO  
ENHANCE PRODUCTIVITY.**



*7.5–12.5 Ton Cabinet is Shown*

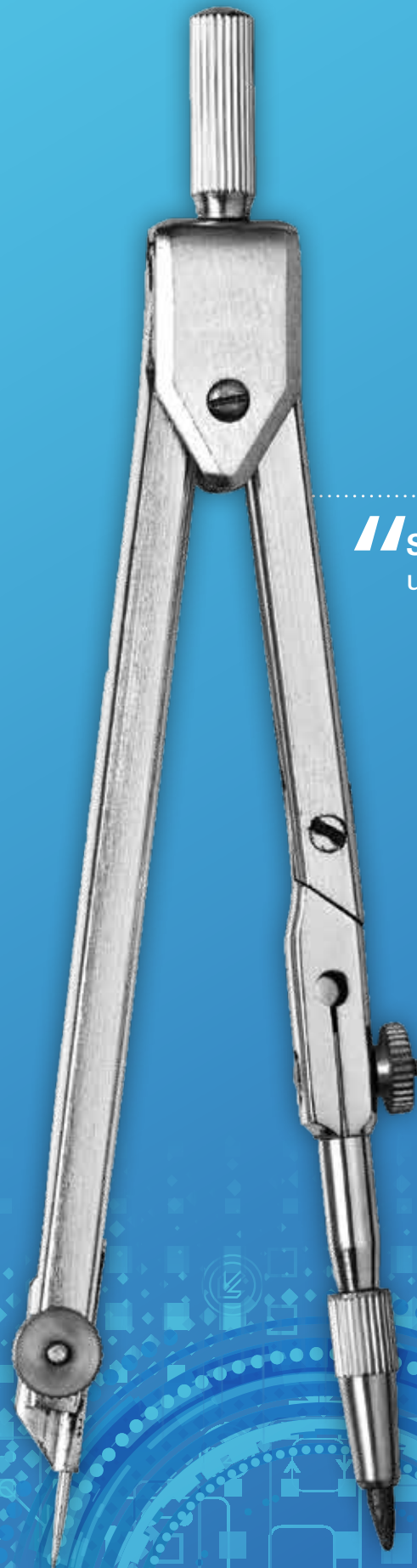
Redesigned for today's demanding commercial applications, the Renaissance™ Line is packed with smart thinking—like high-quality critical components, lean manufacturing processes and robust design features—including the strengthened, solid, single-piece top, durable panels, plus Scroll™ compressor technology. Russell™ By Rheem offers inventive engineering that delivers easy installability, smart serviceability and industry-leading efficiencies for uptime dependability in a wide range of rooftop environments.

- Simple drop-in replacement—cutting installation time in half for substantial cost savings
- Build-to-order systems for all efficiency levels
- First system in the dehumidification market with built-in Variable Frequency Drive (VFD)<sup>1</sup>
- SmartShield™ Coil System Full MicroChannel Coil—an industry first for full indoor and outdoor MicroChannel Coils in commercial package heat pumps—decreases the amount of required refrigerant, connection brazing and overall weight
- SmartShield Coil System Heat Pump Defrost System virtually eliminates ice build-up<sup>2</sup>
- The 3–6Ton Renaissance Line is the first in the industry to offer a single-phase reheat solution, HumidiDry™, for commercial applications

**::PROVEN FASTER & EASIER SERVICEABILITY!**

When performing industry-standard service & preventative maintenance, the Renaissance Commercial Line reduces the service time by up to 100 minutes over other commercial HVAC brands.<sup>3</sup>

<sup>1</sup>VFD Technology and HumidiDry are available on ZS/ZT models, and HumidiDry is available on 3–6Ton models. <sup>2</sup>Available on 3–6Ton Heat Pumps Only. <sup>3</sup>Per a MIAT Commercial HVAC Competitive Time Study conducted June 4–6, 2019.



**// Simplicity is the  
ultimate sophistication. //**

—Leonardo DaVinci

## THE RENAISSANCE™ LINE. COMFORTABLY SMART.

Engineers were given a challenge: Build an innovative package rooftop product line to meet the new demands of a wide range of commercial applications. They delivered an inventive solution that improves every aspect, from replacement to dependability and from installability to serviceability.

### RUSSELL™ BY RHEEM DIAGNOSTICS

#### 1 RENAISSANCE CORECOMMAND™ CONTROL

Dual 7-Segment LED Display delivers enhanced diagnostics with 43 easy-to-understand fault codes, complete fault history and input / output options to meet building compliance needs.

### SMARTSHIELD™ COIL SYSTEM

#### 2 ELECTROFIN® E-COAT PROCESS TECHNOLOGY

A factory-applied condenser coating that delivers superior corrosion resistance for indoor and outdoor coils to operate in the harshest of environments.

#### 3 FULL MICROCHANNEL COIL

Full indoor and outdoor MicroChannel Coils maximize reliability while decreasing the amount of required refrigerant, connection brazing and overall weight. We're proud to offer the industry's first full indoor and outdoor MicroChannel Coil for commercial package heat pumps.<sup>1</sup>

#### 4 HEAT PUMP DEFROST SYSTEM<sup>1</sup>

Rheem-exclusive, patent-pending Microchannel Defrost System that virtually eliminates ice build-up, preventing operation failure.

### VELOCIFIN™<sup>2</sup>

#### 5 HEAT EXCHANGER

A patent-pending, complete redesign of the heat exchanger tubing that meets customer and agency (AFUE, FER, ANSI Z21.47) requirements, and increases heat transfer through an innovative velocity concept—improving overall product efficiency.

### RUSSELL BY RHEEM HUMIDIDRY™

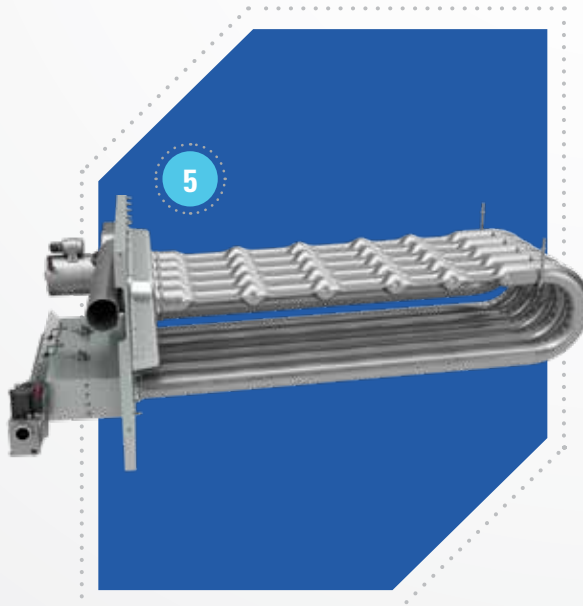
6 The first in the dehumidification market to incorporate a VFD that operates at a lower speed on first-stage cooling, saving energy, enhancing performance and increasing comfort.<sup>3</sup>

### SERVICEMART

7 QWIK-CHANGE FLEX-FIT RACK Allows easy changeover between 2" and 4" filters.

8 QWIK-SLIDE BLOWER ASSEMBLY Extremely easy access and removal of blower assembly to service internal components.

9 QWIK-CLEAN DRAIN PAN Composite material pan that slides out completely for easy cleaning and features a standard overflow sensor.



7.5–12.5 Ton Cabinet is Shown

### NEW FEATURES

10 EXTERNAL LOCKABLE GAUGE PORTS Enables measuring pressures without opening the cabinet door and affecting unit performance.

11 IMPROVED FOOTPRINT Drop-in replacement cuts installation time in half for substantial cost savings.

<sup>1</sup>Available on 3–6 Ton Heat Pumps only. <sup>2</sup>Only applicable to 3–6 Ton Gas Electric models. <sup>3</sup>HumidiDry is available on 7–12.5 Ton ZS/ZT models and 3–6 Ton models.

// **Perfection** is not when there is nothing left to add, but... nothing left to take away. //

—Antoine de Saint-Exupéry

## :: THE LEADING-EDGE OF EFFICIENCY— A NEW AGE IN SAVINGS.

Energy efficiency, savings, compliance and guarantees are important to you. That's why we had the Renaissance™ Line re-engineered from the ground up—all to meet the exacting standards of the industry as well as its customers. The Renaissance Line delivers a smart mixture of enhanced energy cost savings, available rebates, regulation compliance and an industry-leading warranty.

## HIGH-EFFICIENCY SAVINGS

The Renaissance™ Line delivers improved energy savings of over 30% when compared to current baseline technology available in most commercial units operating in the marketplace—translating into savings of thousands of dollars over the life of the equipment.

## CUSTOMIZED SOLUTIONS

The Renaissance Line offers a wide variety of heating and cooling solutions and build-to-order systems to suit the customer's business needs, design and application requirements—so there's no need to overpay for unnecessary "packages." The efficiency level and factory-installed options needed are chosen, with most factory-installed options and field-installed accessories available across all product tiers—so customers get a customized solution to suit their business needs.

## REBATE OPPORTUNITY

With industry-leading efficiencies of up to 14.8 IEER, the Renaissance Line may qualify for a variety of utility rebates—helping business customers realize substantial savings for a greater return on their investment, at purchase and year after year.



7.5–12.5 Ton  
Cabinet is Shown

:: VISIONARY FORM MEETS FLEXIBLE FUNCTION.

From new construction to replacement projects and more, the new Russell™ By Rheem Commercial Renaissance™ Line offers a variety of commercial heating and cooling products that meet all design and application requirements. Whether your customers are retail, hotels, restaurants, offices, schools, senior care or gyms, you can connect a new, customized Renaissance unit quickly and efficiently—providing comfort and peace-of-mind.

DOE EFFICIENCY STANDARDS COMPLIANT

Loaded with innovative and improved technologies for compliance with the Department of Energy’s (DOE) IEER standards effective as of January 2018.

CALIFORNIA TITLE 24 / ASHRAE 90.1 COMPLIANT

Achieves advanced energy efficiency and performance with our exclusive features to meet ASHRAE 90.1-2007<sup>1</sup>, ASHRAE 90.1-2013, ASHRAE 90.1-2016<sup>2</sup>, ASHRAE 62.1 and California Title 24 regulations.

GUARANTEED PERFORMANCE

Industry-leading commercial limited warranty includes:

- Stainless Steel Heat Exchanger – 20 Years
- Aluminized Heat Exchanger – 10 Years
- Scroll™ Compressor – 5 Years
- All Other Parts – 1 Year

<sup>1</sup>Applies to RGEDZR, RACDZR and RHPDZR models only. <sup>2</sup>Applies to 3–6 Ton models only.

PACKAGE HEAT PUMPS

COOLING DATA						HEAT INPUT				PHYSICAL DATA	
Model	Nominal Tonnage	Gross Capacity (BTUH)	AHRI Rated Net Capacity (BTUH)	Nominal CFM/AHRI (CFM)	IEER	47 Capacity	Cop 47 Efficiency	17 Capacity	Cop 17 Efficiency	Dimensions H x W x L (inches)	Shipping Weight (lbs)
RHPCZR036	3.0	36,000	35,400	1,200/1,280	N/A	34,400	3.7	20,000	2.4	41 x 45 x 78	595
RHPCZR048	4.0	47,000	46,000	1,600/1,685	N/A	46,000	3.5	20,000	2.0	41 x 45 x 78	618
RHPCZR060	5.0	59,500	57,500	2,000/2,050	N/A	57,500	3.5	35,000	2.0	41 x 45 x 78	621
RHPCZT072	6.0	70,000	68,400	2,400/2,400	14.1	68,000	3.4	41,000	2.25	41 x 45 x 78	621
RHPDZS090A**	7.5	89,000	86,000	3,000/3,030	12.2	86,000	3.3	48,000	2.3	50 x 58 x 89	814–825
RHPDZS102A**	8.5	101,000	98,000	3,400/3,345	12.2	98,000	3.3	60,000	2.3	50 x 58 x 89	850–861
RHPDZS120A**	10.0	119,000	114,000	4,000/4,060	12.2	114,000	3.3	72,000	2.3	50 x 58 x 89	902–913
RHPDZT090A**	7.5	89,000	86,000	3,000/3,030	14.1	86,000	3.4	48,000	2.3	50 x 58 x 89	814–825
RHPDZT102A**	8.5	101,000	98,000	3,400/3,345	14.1	98,000	3.4	60,000	2.3	50 x 58 x 89	850–861
RHPDZT120A**	10.0	119,000	114,000	4,000/4,060	14.1	114,000	3.4	72,000	2.3	50 x 58 x 89	902–913

COOLING DATA						HEAT INPUT		PHYSICAL DATA	
Model	Nominal Tonnage	Gross Capacity (BTUH)	AHRI Rated Net Capacity (BTUH)	Nominal CFM/AHRI (CFM)	IEER	Standard (BTUH)	High (BTUH)	Dimensions H x W x L (inches)	Shipping Weight (lbs)
RGECZR036	3.0	36,000	35,400	1,200/1,300	N/A	75,000	52,500	41 x 45 x 78	645
RGECZR048	4.0	48,000	47,500	1,600/1,730	N/A	75,000	52,500	41 x 45 x 78	668
RGECZR060	5.0	60,000	57,500	2,000/1,950	N/A	75,000	52,500	41 x 45 x 78	671
RGECZT072***07	6.0	70,000	68,000	2,400/2,400	14.6	52,500	75,000	41 x 45 x 78	620
RGECZT072***12	6.0	70,000	68,000	2,400/2,400	14.6	84,000	120,000	41 x 45 x 78	620
RGEDZR090A***15	7.5	88,000	85,000	3,000/3,175	12.7	105,000	150,000	50 x 58 x 89	878
RGEDZR090A***20	7.5	88,000	85,000	3,000/3,175	12.7	143,000	205,000	50 x 58 x 89	878
RGEDZR102A***15	8.5	99,000	96,000	3,400/3,200	12.7	105,000	150,000	50 x 58 x 89	907
RGEDZR102A***22	8.5	99,000	96,000	3,400/3,200	12.7	157,500	225,000	50 x 58 x 89	907
RGEDZR120A***15	10.0	118,000	114,000	4,000/3,480	12.7	105,000	150,000	50 x 58 x 89	935
RGEDZR120A***22	10.0	118,000	114,000	4,000/3,480	12.7	157,500	225,000	50 x 58 x 89	935
RGEDZS090***15	7.5	88,000	85,000	3,000/3,175	12.7	105,000	150,000	50 x 58 x 89	878
RGEDZS090***20	7.5	88,000	85,000	3,000/3,175	12.7	143,000	205,000	50 x 58 x 89	878
RGEDZS102***15	8.5	99,000	96,000	3,400/3,225	12.7	105,000	150,000	50 x 58 x 89	907
RGEDZS102***22	8.5	99,000	96,000	3,400/3,225	12.7	157,500	225,000	50 x 58 x 89	907
RGEDZS120***15	10.0	118,000	114,000	4,000/3,480	12.7	105,000	150,000	50 x 58 x 89	935
RGEDZS120***22	10.0	118,000	114,000	4,000/3,480	12.7	157,000	225,000	50 x 58 x 89	935
RGEDZS150***15	12.5	148,000	142,000	5,000/3,750	12.2	105,000	150,000	60 x 58 x 89	1,133
RGEDZS150***22	12.5	148,000	142,000	5,000/3,750	12.2	157,500	225,000	60 x 58 x 89	1,133
RGEDZT090***15	7.5	88,000	85,000	3,000/3,175	14.6	105,000	150,000	50 x 58 x 89	878
RGEDZT090***20	7.5	88,000	85,000	3,000/3,175	14.6	143,000	205,000	50 x 58 x 89	878
RGEDZT102***15	8.5	99,000	96,000	3,400/3,225	14.6	105,000	150,000	50 x 58 x 89	907
RGEDZT102***22	8.5	99,000	96,000	3,400/3,225	14.6	157,500	225,000	50 x 58 x 89	907
RGEDZT120***15	10.0	118,000	114,000	4,000/3,480	14.6	105,000	150,000	50 x 58 x 89	935
RGEDZT120***22	10.0	118,000	114,000	4,000/3,480	14.6	157,500	225,000	50 x 58 x 89	935
RGEDZT150***15	12.5	148,000	142,000	5,000/3,750	14	105,000	150,000	60 x 58 x 89	1,133
RGEDZT150***22	12.5	148,000	142,000	5,000/3,750	14	157,500	225,000	60 x 58 x 89	1,133
RGEDZT150***15	12.5	148,000	142,000	5,000/3,750	14	105,000	150,000	60 x 58 x 89	1,133
RGEDZT150***22	12.5	148,000	142,000	5,000/3,750	14	157,500	225,000	60 x 58 x 89	1,133

PACKAGE AIR CONDITIONERS

COOLING DATA						HEAT INPUT		PHYSICAL DATA	
Model	Nominal Tonnage	Gross Capacity (BTUH)	AHRI Rated Net Capacity (BTUH)	Nominal CFM/AHRI (CFM)	IEER	Low	High	Dimensions H x W x L (inches)	Shipping Weight (lbs)
RACCZR036	3.0	36,000	35,400	1,200/1,300	N/A	N/A	N/A	41 x 45 x 78	595
RACCZR048	4.0	49,000	47,500	1,600/1,730	N/A	N/A	N/A	41 x 45 x 78	618
RACCZR060	5.0	59,500	57,500	2,000/1,950	N/A	N/A	N/A	41 x 45 x 78	621
RACCZT072	6.0	70,000	68,000	2,400/2,400	14.8	N/A	N/A	41 x 45 x 78	620
RACDZR090	7.5	88,000	85,000	3,000/3,175	12.9	N/A	N/A	50 x 58 x 89	775
RACDZR102	8.5	99,000	96,000	3,400/3,200	12.9	N/A	N/A	50 x 58 x 89	801
RACDZR120	10.0	118,000	114,000	4,000/3,480	12.9	N/A	N/A	50 x 58 x 89	830
RACDZS090	7.5	88,000	85,000	3,000/3,200	12.9	N/A	N/A	50 x 58 x 89	775
RACDZS102	8.5	99,000	96,000	3,400/3,225	12.9	N/A	N/A	50 x 58 x 89	801
RACDZS120	10.0	118,000	114,000	4,000/3,480	12.9	N/A	N/A	50 x 58 x 89	830
RACDZS150	12.5	148,000	142,000	5,000/4,150	12.4	N/A	N/A	60 x 58 x 89	1,032
RACDZT090	7.5	88,000	85,000	3,000/3,200	14.8	N/A	N/A	50 x 58 x 89	775
RACDZT102	8.5	99,000	96,000	3,400/3,225	14.8	N/A	N/A	50 x 58 x 89	801
RACDZT120	10.0	118,000	114,000	4,000/3,480	14.8	N/A	N/A	50 x 58 x 89	830
RACDZT150	12.5	148,000	142,000	5,000/4,150	14.2	N/A	N/A	60 x 58 x 89	1,032

:: CUSTOMIZED SOLUTIONS TO HELP GROW YOUR BUSINESS.



7.5–12.5 Ton  
Cabinet is Shown

## FLEXIBLE PRODUCT OPTIONS

The Russell™ By Rheem Renaissance™ Line is full of smart options and must-have accessories, which can be factory- or field-installed—so your customers get a customized solution to suit their business needs.

## FASTER LEADTIME

With a redesigned, technologically advanced commercial production facility, it's easy to take advantage of improved factory lead times on build-to-order systems with custom options to help avoid business downtime.

## RUSSELL BY RHEEM COMMERCIAL KWIKCOMFORT® FINANCING

The Russell By Rheem brand has partnered with Fernwood Capital to offer customized financing plans that meet the specific needs of the customer, allowing them to obtain commercial equipment, with total project costs of \$5,000–\$3 million, that will help build their continued business growth.

## RUSSELL BY RHEEM PROTECTION PLUS® PLANS

Russell By Rheem has partnered with AIG® to offer parts and labor extended service agreements, for commercial applications that allow you to provide customers with a full-service, world-class solution for their long-term HVAC needs.

## WIDE PRODUCT AVAILABILITY ACROSS THE UNITED STATES AND CANADA

Russell™ By Rheem offers an ever-expanding range of heating & cooling solutions, plus distribution in US and Canada, making it easy to get the right product at the right time and in the right place, driving uptime for your business.

## :: WHY RUSSELL™ BY RHEEM COMMERCIAL?



With the addition of the all-new Renaissance™ Line, Russell™ By Rheem delivers a wide range of efficient, dependable and cost-effective commercial heating and cooling options—so businesses can optimize indoor environments, as well as budgets. From advanced technologies and easy-service features to industry-leading innovation, our commercial products deliver durable, long-lasting performance to get the job done every day.

Russell By Rheem is a new name in HVAC backed by 70+ years in the temperature control industry developed to give homeowners and business owners the solutions to meet their needs and budget through practical, dependable HVAC products, offering great performance with only the bells and whistles that matter, to keep your family or employees comfortable day after day.

**// Recognizing the need is the primary condition for design. //**

—Charles Eames



### RUSSELL™ BY RHEEM-OWNED SELECTION TOOL SOFTWARE

Russell By Rheem offers a free software portfolio developed with easy-to-use, smart selection tools you need to specify, select and document all Russell By Rheem equipment, including factory-installed options and field-installed accessories, for all commercial applications.



### BAS/EMS COMPATIBLE (BUILDING AUTOMATION SYSTEM / ENERGY MANAGEMENT SYSTEM)

Every product in the Renaissance™ Line offers the latest in comfort management technology. Factory-installed ClearControl™, Direct Digital Control (DDC) and sensors can connect to LonWorks™, BACnet® and Modbus® BAS/EMS systems for remote monitoring and precise control—allowing faster problem solving if service is ever required. They also help the unit operate more efficiently and reduce energy costs.



### BIM SUPPORT

Russell By Rheem offers a comprehensive engineering documentation and imagery content database, so you can more accurately design and estimate job costs in less time. This includes spec data, 2- and 3-D CAD® files and Revit® files that are BIM software compatible.



### DEDICATED TECHNICAL SUPPORT

Uptime is critical to your business customers. That's why there is a dedicated Support Team standing by to answer your questions—plus with resources such as My.RussellByRheem.com, our Innovative Learning Centers, live product assistance and more, we're here to support you at every step.



## :: READY TO HELP YOUR CUSTOMERS CREATE THEIR NEXT COMMERCIAL MASTERPIECE?

No matter what project you need to spec, the Renaissance™ Line offers you the best fit for commercial rooftop applications—delivering masterful performance, easy installability and smart serviceability—plus, industry-leading efficiencies and the renowned Russell™ By Rheem dependability you trust.

Visit [RussellByRheem.com](http://RussellByRheem.com) today.

*In keeping with its policy of continuous progress & program improvement, Russell By Rheem reserves the right to make changes without notice.*