FORM NO. A22-188 REV. 1 Supersedes Form No. A22-188

CONDENSING UNITS

UARL-JEZ

16 SEER Two-Stage Models Efficiencies up to 17.10 SEER Nominal Sizes 2 to 5 Tons [7.03 kW] to [17.06 kW]

Four Models

Cooling Capacities 22,800 to 58,000 BTU/HR [6.68 kW] to [16.99 kW]

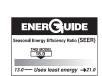




Equipped with the Award Winning *Comfort Control System*[™]

- Increased Reliability
- On-Board Diagnostics
- Fault Recall
- Active Protection[™]







The Ruud *Ultra Series*[®] High Efficiency Two-Stage UARL- JEZ Condensing Unit was designed with performance in mind. These units offer comfort, energy conservation and dependability for single, multifamily and light commercial applications.

The Ruud *Ultra Series®* Two-Stage UARL- JEZ Condensing Units are the result of an ongoing development program for improved efficiencies. With system SEER's ranging to 17.10, these units continue a tradition of high efficiency.

- The Comfort Control System[™] provides on-board diagnostics and fault history for condensing units with single-phase compressors by detecting system and electrical problems without adding sensors. It can also communicate "fault codes" to enabled "L terminal" thermostats. The integrated diagnostics with Active Protection prevents compressor operation when damage would occur.
- 7-Segment LED Display is exclusive only to Ruud products. The information-display quickly and accurately shows technicians the source of malfunctions.
- Ten-year conditional unit replacement warranty.
- Compressor sound blanket is standard to provide quiet operation.
- Reliable Copeland Two-Stage Scroll[™] Compressor for precise temperature control providing ultimate comfort.
- Comfort Alert[™] Diagnostics comes installed in each Ruud *Ultra Series* model.
- All controls are accessible by removing one service panel. Removable top grille provides access to the condenser fan motor and condenser coil.
- Attractive, louvered wrap-around jacket protects the coil from yard hazards and weather extremes. Top grille is steel reinforced for extra strength. Cabinet is powder painted for all-weather protection.
- Air is discharged upward away from bushes and shrubs. The discharge pattern of the top grille provides minimum air restriction, resulting in quiet fan operation.
- Exclusive Combination Grille/Motor Mount secures the motor to the underside of the discharge grille. The grille protects the motor windings and bearings from rain and snow.
- For quiet operation and improved efficiency, the 2, 3, and 4 ton models feature an 8-pole motor with a 3-blade outdoor fan. The 5 ton model features the GE[®] ECM two-speed motor with a 3-blade outdoor fan.
- All models meet or exceed a 1000-hour salt spray test per ASTM B117 Standard Practice for Operating Salt Spray Testing Apparatus.
- On-demand dehumidification terminal, when matched with a Ultra Series[®] Air Handler or premium ECM Gas Furnace products, adjusts airflow to help control humidity, for unsurpassed comfort in the cooling mode.







ARI Standard 210/240 UAC

FEATURES & BENEFITS OF THE COMFORT CONTROL SYSTEM

- The Ruud exclusive 7-Segment LED Display easily shows system operating status codes and diagnostic codes.
- A Sealed Switch replaces the standard



contactor and features optical control and latching mechanism. The sealed switch prevents infiltration of insects and dust



insects and dust. A minimal switching arc, by the optical control, offers greater reliability. The latching mechanism consumes less power while reducing chatter.

The Status Indication and System Diagnostics feature thermostat communication capability, built-in diagnostics, high & low voltage monitoring and high & low pressure switch monitoring. The thermostat communication capability alerts the

homeowner to any necessary service requirements. Faster, more accurate service is provided by the built-in diagnostics, by providing the HVAC professional with dependable information. With the high and low voltage monitoring feature, the control provides alerts for out-of-range condi-



tions. In addition, high and low pressure-switch monitoring prevents the system from operating outside of its normal parameters.

STANDARD FEATURES

UARL- JEZ Condensing Units

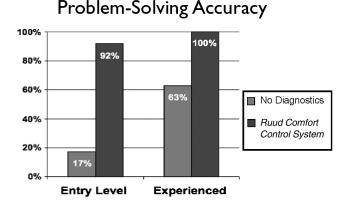
- Scroll compressor is hermetically sealed and incorporates internal high temperature motor overload protection, and durable insulation on the motor windings. It is externally mounted on rubber grommets to reduce vibration and noise.
- 2. Compressors have an internal pressure relief assembly to protect against excessive pressure differential.
- **3.** All refrigerant connections are on the exterior of the unit, located close to the ground for neat appearing installations.
- Cabinet is constructed of powder painted galvanized steel. The full wrap-around louvered grille protects the coil from damage.
- 5. Sound Blanket-enhanced compressor sound blanket is standard.
- 6. Copper tube—aluminum fin coils are used on all models.
- 7. The control box is located in the top corner of the cabinet providing for easy access through a service panel.
- 8. Service valves are standard on all models.
- **9.** Field connections for power and control wiring are kept separate.
- 10. Every unit is factory charged and run-tested.
- 11. Separate compressor compartment for easy service access.
- **12.** Drawn, painted base pan for extra corrosion resistance and sound reduction.
- **13.** The **UARL- JEZ** has a 10-year limited parts warranty, plus a 10-year conditional unit replacement warranty.
- 14. Hard Start Kits—Standard on all JEZ models.
- 15. Control Box Cover.
- **16.** The UARL- JEZ is shipped with a liquid line filter drier, and also features factory-installed low and high pressure controls, and time delay control.
- 17. The 2, 3 and 4 ton models feature an 8-pole motor with a 3-blade outdoor fan. The 5 ton model features the GE[®] ECM two-speed motor with a 3-blade outdoor fan.

- The fault recall feature will allow for the last six fault-codes to be displayed, and will retain these codes even if power failure occurs.
- Built-in short-cycle protection allows the compressor to restart easily without oil removal.
- A 30-second minimum run-time for every compressor call allows the oil to return to the compressor.
- Active Protection monitors the system to prevent nuisance lockouts and prevents compressor operation when potentially harmful conditions are detected.
- The compressor and fan are controlled independently, which reduces the starting load and light dimming.
- A manual push-button is offered to operate the compressor and fan for 5 seconds to allow for an operation check.



In order to save time and money, replacement automo-

tive fuses can be utilized instead of replacing the entire control board.



COPELAND SCROLL TWO-STAGE ULTRA TECH[™] COMPRESSOR

The Copeland 2-Stage Scroll UltraTech[™] compressor is the key to efficiency for this Ruud model. It's the latest in high-efficiency

compressor technology. The advanced scroll compressor offers low noise and vibration characteristics and features tolerance to liquid refrigerant and system contamination. The Copeland Scroll UltraTech[™] also has low start torque, eliminating start problems in the field. And its unique design enables the UARL- JEZ condensing unit to perform efficiently, quietly and reliably.



All controls and compressor are accessible for servicing by removal of the service panel.

Field Installed Accessories

Low Ambient Control—Cycles outdoor fan to maintain adequate condensing pressures assuring liquid refrigerant flow to the coil. Allows indoor cooling with outdoor temperatures down to 0°F [-17.8°C]. (Model No. RXAD-A07) It is recommended that this control be installed in units

to be operated at outdoor ambient temperatures under 45°F [7[°]C].

Thermostats-





200-Series *

Programmable

300-Series * **Deluxe Programmable**



100-Series * Non-Programmable

Brand	Unique Model Number Prefix		Descriptor (3 Characters)	Series (3 Characters)	System (2 Characters)	Type (2 Characters)
U	HC	-	TST	101	GE	MS
			TST=Thermostat	100=Non-Programmable	GE=Gas/Oil/Electric	SS=Single-Stage
				200=Programmable	HP=Heat Pump	MS=Multi-Stage
UHC	=Ruud			300=Deluxe Programmable	MD=Modulating Furnace	
					DF=Dual Fuel	
					UN=Universal AC/HP/GE	

* Photos are representative. Actual models may vary.

For detailed thermostat match-up information, see specification sheet form number T22-001.

Model Number Identification

U	<u>A</u>	<u>R</u>	Ŀ	<u> </u>	J	E	Z
RUUD	REMOTE CONDENSING UNIT	16-SEER	DESIGN SERIES	COOLING CAPACITY 024 = 24,000 BTU/HR [7.03 kW] 036 = 36,000 BTU/HR [10.55 kW] 048 = 48,000 BTU/HR [14.07 kW] 060 = 60,000 BTU/HR [17.06 kW]	ELECTRICAL DESIGNATION J = 208/230V-1-60	<u>VARIATIONS</u> E = EQUIPPED WITH THE <i>COMFORT</i> <i>CONTROL SYSTEM</i> **	COOLING CONNECTION <u>FITTING</u> Z = SWEAT W/SCROLL

Compressor Crankcase Heater (CCH)—While scroll compressors usually do not require crankcase heaters, there are instances when a heater should be added. Refrigerant migration during the off cycle can result in a noisy start up. Add a crankcase heater to minimize refrigeration migration, and to hep eliminate any start up noise or bearing "wash out."

Performance Data @ ARI Standard Conditions—Cooling

Outdoor	Model Numbers			Net	Net	Indoor	Airflow		ARI Ratin	Ig	Sound
Unit UARL-	ID Coil	ID Air Mover	Stage Sensible BTU/H [kW]		Latent BTU/H [kW]	1st Stage CFM [L/s]	2nd Stage CFM [L/s]	EER	Total Capacity BTU/H [kW]	SEER	Rating db
			1	13,750 [4.0]	4,650 [1.4]	600 [283]		13.22			71
		-BHM-17J ①	2	18,550 [5.4]	6,450 [1.9]		825 [389]	12.39	25,000 [7.3]	16.10	74
		-BHIM-17J ()	1 - dehumid	13,050 [3.8]	5,250 [1.5]	525 [248]		13.17	23,000 [7.3]	10.10	71
	RCQD-2417A		2 - dehumid	17,700 [5.2]	7,000 [2.1]		675 [319]	12.60			74
	110QD-2417A	COIL ONLY		18,200 [5.3]	6,400 [1.9]	600 [283]	825 [389]	11.45	24,600 [7.2]	14.25	74
		-GFD-06?MCK?		18,550 [5.4]	6,450 [1.9]	600 [283]	800 [378]	12.24	25,000 [7.3]	15.85	74
024JEZ		-GFD-07?MCK?		18,600 [5.5]	6,400 [1.9]	600 [283]	800 [378]	12.33	25,000 [7.3]	15.90	74
UZ4JEZ		-GPL-05?BMK		18,650 [5.5]	6,550 [1.9]	600 [283]	775 [366]	12.49	25,200 [7.4]	15.80	74
		COIL ONLY		15,800 [4.6]	7,000 [2.1]	625 [295]	825 [389]	10.66	22,800 [6.7]	14.05	74
	RCHL-24	-GFD-06?MCK?		16,250 [4.8]	6,950 [2.0]	600 [283]	800 [378]	11.66	23,200 [6.8]	16.10	74
		-GFD-07?MCK?		16,300 [4.8]	7,100 [2.1]	600 [283]	800 [378]	11.76	23,400 [6.9]	16.20	74
		-GPL-05?BMK		16,350 [4.8]	7,050 [2.1]	600 [283]	775 [366]	11.87	23,400 [6.9]	16.10	74
		-GGD-06?MCK		16,350 [4.8]	7,050 [2.1]	600 [283]	800 [378]	11.92	23,400 [6.9]	16.45	74
		-GGD-07?MCK		16,350 [4.8]	7,050 [2.1]	625 [295]	800 [378]	11.82	23,400 [6.9]	16.35	74
			1	20,850 [6.1]	6,050 [1.8]	900 [425]		14.65			71
			2	27,850 [8.2]	9,350 [2.7]		1,175 [555]	13.24	07 000 140 01	17.00	72
		-BHM-24J ①	1 - dehumid	19,300 [5.7]	6,800 [2.0]	750 [354]		14.50	37,200 [10.9]	17.00	71
			2 - dehumid	25,700 [7.5]	11,000 [3.2]		950 [448]	13.59			72
		COIL ONLY		27,050 [7.9]	9,350 [2.7]	875 [413]	1,175 [555]	11.98	36,400 [10.7]	14.90	72
	D00D 00044	-GFD-09?ZCM?		27,750 [8.1]	9,250 [2.7]	850 [401]	1,150 [543]	12.91	37,000 [10.8]	16.90	72
	RCQD-3624A	-GFD-10?ZCM?		27,650 [8.1]	9,350 [2.7]	850 [401]	1,175 [555]	12.73	37,000 [10.8]	16.80	72
		-GFD-12?ZCM?		27,700 [8.1]	9,300 [2.7]	900 [425]	1,225 [578]	12.80	37,000 [10.8]	16.75	72
		-GPL-07?BRK		27,550 [8.1]	9,250 [2.7]	900 [425]	1,200 [566]	12.55	36,800 [10.8]	16.50	72
		-GPL-07?BRQ		27,800 [8.1]	9,400 [2.8]	875 [413]	1,200 [566]	13.07	37,200 [10.9]	17.10	72
036JEZ		-GPL-10?BRM		27,700 [8.1]	9,300 [2.7]	925 [437]	1,225 [578]	12.87	37,000 [10.8]	16.80	72
		-GPL-12?ARM		27,750 [8.1]	9,250 [2.7]	1,000 [472]	1,250 [590]	12.93	37,000 [10.8]	16.70	72
		COIL ONLY		27,050 [7.9]	9,350 [2.7]	875 [413]	1,175 [555]	11.98	36,400 [10.7]	14.90	72
		-GFD-06?MCK?		27,300 [8.0]	9,100 [2.7]	875 [413]	1,175 [555]	11.97	36,400 [10.7]	15.85	72
		-GFD-07?MCK?		27,250 [8.0]	9,150 [2.7]	900 [425]	1,200 [566]	11.90	36,400 [10.7]	15.95	72
		-GFD-09?ZCM?		27,700 [8.1]	9,300 [2.7]	850 [401]	1,150 [543]	12.82	37,000 [10.8]	16.85	72
	RCQD-3621A	-GFD-10?ZCM?		27,600 [8.1]	9,200 [2.7]	850 [401]	1,175 [555]	12.64	36,800 [10.8]	16.75	72
		-GPL-05?BMK		27,300 [8.0]	9,100 [2.7]	900 [425]	1,200 [566]	12.01	36,400 [10.7]	15.85	72
		-GPL-07?BRK		27,500 [8.1]	9,300 [2.7]	900 [425]	1,200 [566]	12.46	36,800 [10.8]	16.45	72
		-GPL-07?BRQ		27,750 [8.1]	9,250 [2.7]	875 [413]	1,200 [566]	12.98	37,000 [10.8]	17.05	72
		-GPL-10?BRM		27,650 [8.1]	9,350 [2.7]	925 [437]	1,225 [578]	12.77	37,000 [10.8]	16.70	72

NOTES: 1) Highest sales volume tested combination required by D.O.E. test procedures.

[] Designates Metric Conversions

Performance Data @ ARI Standard Conditions—Cooling (cont.)

Outdoor	Model	Numbers		Net	Net	Indoor	Airflow		ARI Ratin	g	Sound
Unit UARL-	ID Coil	ID Air Mover	Stage	Sensible BTU/H [kW]	Latent BTU/H [kW]	1st Stage CFM [L/s]	2nd Stage CFM [L/s]	EER	Total Capacity BTU/H [kW]	SEER	Rating db
		COIL ONLY		25,000 [7.3]	9,200 [2.7]	900 [425]	1,200 [566]	11.24	34,200 [10.0]	13.95	72
		-GFD-06?MCK?		25,100 [7.4]	9,300 [2.7]	875 [413]	1,175 [555]	11.40	34,400 [10.1]	15.05	72
		-GFD-07?MCK?		25,050 [7.3]	9,150 [2.7]	900 [425]	1,200 [566]	11.37	34,200 [10.0]	15.15	72
		-GFD-09?ZCM?		25,650 [7.5]	9,150 [2.7]	850 [401]	1,150 [543]	12.27	34,800 [10.2]	16.00	72
		-GFD-10?ZCM?		25,550 [7.5]	9,250 [2.7]	850 [401]	1,175 [555]	12.11	34,800 [10.2]	15.90	72
		-GPL-05?BMK		25,150 [7.4]	9,250 [2.7]	900 [425]	1,200 [566]	11.49	34,400 [10.1]	15.10	72
036JEZ	RCHL-36	-GPL-07?BRK		25,450 [7.5]	9,150 [2.7]	900 [425]	1,200 [566]	11.93	34,600 [10.1]	15.60	72
		-GPL-07?BRQ		25,750 [7.5]	9,250 [2.7]	875 [413]	1,200 [566]	12.42	35,000 [10.3]	16.20	72
		-GPL-10?BRM		25,650 [7.5]	9,150 [2.7]	925 [437]	1,225 [578]	12.25	34,800 [10.2]	15.90	72
		-GGD-06?MCK		25,200 [7.4]	9,200 [2.7]	900 [425]	1,225 [578]	11.54	34,400 [10.1]	15.35	72
		-GGD-07?MCK		25,100 [7.4]	9,300 [2.7]	925 [437]	1,225 [578]	11.43	34,400 [10.1]	15.25	72
		-GGD-09?ZCM		25,650 [7.5]	9,150 [2.7]	800 [378]	1,175 [555]	12.22	34,800 [10.2]	16.15	72
		-GGD-10?ZCM		25,650 [7.5]	9,150 [2.7]	825 [389]	1,175 [555]	12.22	34,800 [10.2]	16.10	72
			1	27,650 [8.1]	7,850 [2.3]	1,200 [566]		13.75			71
			2	36,250 [10.6]	11,250 [3.3]		1,600 [755]	12.58	47 500 540 01	10.00	72
	-BHM-25J ①	-BHM-25J ①	1 - dehumid	25,650 [7.5]	9,150 [2.7]	1,000 [472]		13.81	47,500 [13.9]	16.00	71
			2 - dehumid	33,300 [9.8]	13,700 [4.0]		1,275 [602]	12.95			72
		COIL ONLY		35,750 [10.5]	11,250 [3.3]	1,200 [566]	1,600 [755]	11.58	47,000 [13.8]	13.95	72
	RCQD-4824A	-GFD-09?ZCM?		35,750 [10.5]	11,250 [3.3]	1,150 [543]	1,600 [755]	11.56	47,000 [13.8]	15.10	72
TROUB TOE		-GFD-10?ZCM?		35,550 [10.4]	10,950 [3.2]	1,175 [555]	1,625 [767]	11.25	46,500 [13.6]	14.85	72
		-GFD-12?ZCM?		35,900 [10.5]	11,100 [3.3]	1,225 [578]	1,650 [779]	11.74	47,000 [13.8]	15.00	72
		-GPL-07?BRQ		36,050 [10.6]	10,950 [3.2]	1,225 [578]	1,625 [767]	11.97	47,000 [13.8]	15.35	72
		-GPL-10?BRM		35,850 [10.5]	11,150 [3.3]	1,200 [566]	1,625 [767]	11.72	47,000 [13.8]	15.15	72
		-GPL-12?ARM		36,050 [10.6]	11,450 [3.4]	1,250 [590]	1,575 [743]	12.01	47,500 [13.9]	15.20	72
		COIL ONLY		35,750 [10.5]	11,250 [3.3]	1,200 [566]	1,600 [755]	11.58	47,000 [13.8]	13.95	72
048JEZ		-GFD-09?ZCM?		35,700 [10.5]	11,300 [3.3]	1,150 [543]	1,600 [755]	11.45	47,000 [13.8]	15.00	72
040012	RCQD-4821A	-GFD-10?ZCM?		35,450 [10.4]	11,050 [3.2]	1,175 [555]	1,625 [767]	11.14	46,500 [13.6]	14.70	72
		-GPL-07?BRQ		36,000 [10.6]	11,000 [3.2]	1,225 [578]	1,625 [767]	11.87	47,000 [13.8]	15.25	72
		-GPL-10?BRM		35,800 [10.5]	11,200 [3.3]	1,220 [566]	1,625 [767]	11.61	47,000 [13.8]	15.05	72
		COIL ONLY		33,600 [9.8]	10,900 [3.2]	1,200 [566]	1,600 [755]	10.95	44,500 [13.0]	13.45	72
		-GFD-09?ZCM?		33,850 [9.9]	10,650 [3.1]	1,150 [543]	1,600 [755]	11.17	44,500 [13.0]	14.75	72
		-GFD-10?ZCM?		33,550 [9.8]	10,050 [3.1]	1,175 [555]	1,625 [767]	10.89	44,500 [13.0]	14.75	72
		-GFD-10?ZCM?					1,650 [779]	11.26	45,000 [13.2]	14.50	72
				33,950 [9.9]	11,050 [3.2]	1,225 [578]					
	RCHL-48	-GPL-07?BRQ		34,200 [10.0]	10,800 [3.2]	1,225 [578]	1,625 [767]	11.55	45,000 [13.2]	15.00	72
		-GPL-10?BRM		34,000 [10.0]	11,000 [3.2]	1,200 [566]	1,625 [767]	11.33	45,000 [13.2]	14.85	72
		-GPL-12?ARM		34,250 [10.0]	10,750 [3.2]	1,250 [590]	1,575 [743]	11.56	45,000 [13.2]	14.90	72
		-GGD-10?ZCM		33,650 [9.9]	10,850 [3.2]	1,175 [555]	1,625 [767]	10.98	44,500 [13.0]	14.65	72
		-GGD-12?ZCM		33,800 [9.9]	10,700 [3.1]	1,225 [578]	1,650 [779]	11.14	44,500 [13.0]	14.75	72
			1	30,650 [9.0]	11,550 [3.4]	1,275 [602]	4 075 (704)	13.28			76
		-BHM-26J ①	2	41,450 [12.1]	16,550 [4.9]	4 050 [400]	1,675 [791]	12.18	58,000 [17.0]	15.80	78
			1 - dehumid	28,450 [8.3]	12,150 [3.6]	1,050 [496]	4 050 (007)	13.01			76
			2 - dehumid	37,450 [11.0]	17,450 [5.1]	1.050 (500)	1,350 [637]	12.07	F7 000 140 7	14.00	78
000		COIL ONLY		40,450 [11.9]	16,550 [4.9]	1,250 [590]	1,675 [791]	11.44	57,000 [16.7]	14.20	78
060JEZ	RCQD-6024A	-GFD-09?ZCM?		39,850 [11.7]	15,650 [4.6]	1,150 [543]	1,600 [755]	11.25	55,500 [16.3]	15.05	78
		-GFD-10?ZCM?		39,650 [11.6]	15,850 [4.6]	1,175 [555]	1,625 [767]	11.00	55,500 [16.3]	14.80	78
		-GFD-12?ZCM?		39,950 [11.7]	16,050 [4.7]	1,225 [578]	1,650 [779]	11.39	56,000 [16.4]	14.95	78
		-GPL-07?BRQ		40,100 [11.8]	15,900 [4.7]	1,225 [578]	1,625 [767]	11.58	56,000 [16.4]	15.25	78
		-GPL-10?BRM		39,950 [11.7]	16,050 [4.7]	1,200 [566]	1,625 [767]	11.38	56,000 [16.4]	15.10	78
		-GPL-12?ARM		40,150 [11.8]	15,850 [4.6]	1,250 [590]	1,575 [743]	11.61	56,000 [16.4]	15.15	78

NOTES: 1 Highest sales volume tested combination required by D.O.E. test procedures.

[] Designates Metric Conversions

Performance Data @ ARI Standard Conditions—Cooling

-						1		-			
Outdoor	Model	Numbers		Net	Net	Indoor	Airflow		ARI Ratin	g	Sound
Unit UARL-	ID Coil	ID Air Mover	Stage	Sensible BTU/H [kW]	Latent BTU/H [kW]	1st Stage CFM [L/s]	2nd Stage CFM [L/s]	EER	Total Capacity BTU/H [kW]	SEER	Rating db
		COIL ONLY		36,900 [10.8]	17,600 [5.2]	1,275 [602]	1,700 [802]	11.03	54,500 [16.0]	13.75	78
		-GFD-09?ZCM?		37,200 [10.9]	17,800 [5.2]	1,150 [543]	1,600 [755]	11.34	55,000 [16.1]	15.00	78
		-GFD-10?ZCM?		36,950 [10.8]	17,550 [5.1]	1,175 [555]	1,625 [767]	11.11	54,500 [16.0]	14.80	78
		-GFD-12?ZCM?		37,300 [10.9]	17,700 [5.2]	1,225 [578]	1,650 [779]	11.42	55,000 [16.1]	14.90	78
060JEZ		-GPL-07?BRQ		37,550 [11.0]	17,450 [5.1]	1,225 [578]	1,625 [767]	11.64	55,000 [16.1]	15.20	78
UOUJEZ	RCHL-60 ①	-GPL-10?BRM		37,350 [10.9]	17,650 [5.2]	1,200 [566]	1,625 [767]	11.47	55,000 [16.1]	15.05	78
		-GPL-12?ARM		37,600 [11.0]	17,400 [5.1]	1,250 [590]	1,575 [743]	11.66	55,000 [16.1]	15.10	78
		-GGD-09?ZCM		36,950 [10.8]	17,550 [5.1]	1,175 [555]	1,675 [791]	11.10	54,500 [16.0]	14.95	78
		-GGD-10?ZCM		37,050 [10.9]	17,450 [5.1]	1,175 [555]	1,625 [767]	11.19	54,500 [16.0]	14.95	78
		-GGD-12?ZCM		37,200 [10.9]	17,800 [5.2]	1,225 [578]	1,650 [779]	11.32	55,000 [16.1]	15.00	78

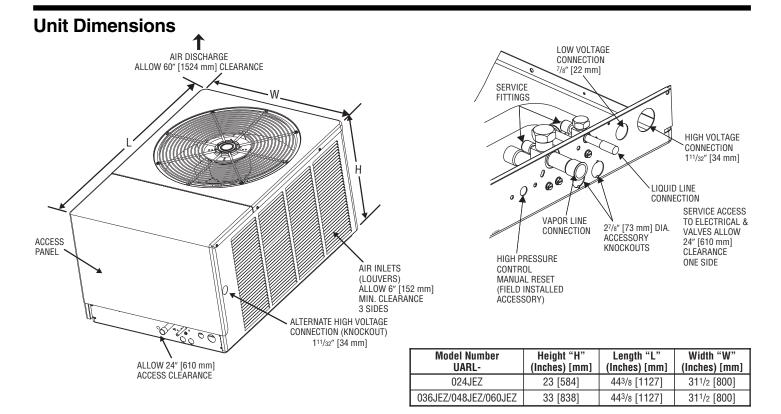
NOTES: 1 Highest sales volume tested combination required by D.O.E. test procedures.

Electrical and Physical Data

			ELECTF	RICAL				PHYSICAL						
Model	Phase	Compressor		Fan Motor Min.		Fuse or HACR Circuit Breaker		(Dutdooi	r Coil		Weight		
Number UARL-	Frequency (Hz) Voltage (Volts)	Rated Load Amperes (RLA)	Locked Rotor Amperes (LRA)	Amperes	Ampacity	Min.	Max.	Face Area Sq. Ft. [m²]	No. Rows	CFM [L/s]	R-410a Oz. [g]	Net Lbs. [kg]	Shipping Lbs. [kg]	
024JEZ	1-60-208/230	10.3/10.3	52	0.8	14/14	20/20	20/20	15.8 [1.47]	1	2285 [1078]	117 [3311]	190 [86.2]	200 [90.7]	
036JEZ	1-60-208/230	16.7/16.7	82	1.0	22/22	30/30	35/35	23.0 [2.14]	1	3900 [1841]	157 [4445]	236 [107]	246 [111.6]	
048JEZ	1-60-208/230	21.2/21.2	96	1.0	28/28	35/35	45/45	23.0 [2.14]	1	3900 [1841]	154 [4354]	236 [107]	246 [111.6]	
060JEZ	1-60-208/230	25.6/25.6	118	2.8	35/35	45/45	60/60	23.0 [2.14]		HS*3500 [1652] LS*2800 [1322]	224 [6350]	305 [138]	315 [142.9]	

*HS = high speed

*LS = low speed



[] Designates Metric Conversions

Condensing Unit Refrigerant Line Size Information

2-Stage	Liquid Line			Outdoor (Liquid I unit above Inc	Line Size loor Coil (Co	oling Only)			Outdoor u	Liquid L nit Below Ind	_ine Size loor Coil (Co	oling Only)	
R-410A	Connection	(Inch O.D.)		Total Equivalent Length—Feet [m]						Tota	l Equivalent	Length—Fee	et [m]	
	Size (Inch I.D.)		25 [7.62]	50 [15.24]	75 [22.86]	100 [30.48]	125 [38.10]	150 [45.72]	25 [7.62]	50 [15.24]	75 [22.86]	100 [30.48]	125 [38.10]	150 [45.72]
				Minim	um Vertical S	eparation—	Feet [m]			Maxim	um Vertical S	eparation—	Feet [m]	
		1/4* [6.35]	0	0	17 [5.18]	43 [13.10]	70 [21.33]	95 [28.95]	25 [7.62]	10 [3.04]	N/A	N/A	N/A	N/A
2 Ton	5/16″ [7.94]	5/16 [7.94]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	40 [12.19]	35 [10.66]	29 [8.83]	22 [6.70]
		3/8 [9.53]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	45 [13.71]	42 [12.80]	39 [11.88]	37 [11.28]
0 Ten	5/16″	5/16* [7.94]	0	0	0	0	0	7	25 [7.62]	39 [11.88]	28 [8.53]	16 [4.87]	5 [1.52]	N/A
3 Ton	[7.94]	3/8 [9.53]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	51 [15.54]	48 [14.63]	44 [13.41]	40 [12.19]
4 Ten	3/8″	5/16* [7.94]	0	0	8 [2.43]	32 [9.75]	55 [16.76]	80 [24.38]	25 [7.62]	15 [4.57]	N/A	N/A	N/A	N/A
4 Ton	[9.53]	3/8 [9.53]	0	0	0	0	0	0	25 [7.62]	47 [14.32]	40 [12.19]	32 [9.75]	24 [7.31]	17 [5.18]
5 Top	3/8″	3/8* [9.53]	0	0	0	0	0	0	25 [7.62]	41 [12.49]	30 [9.14]	20 [6.09]	10 [3.04]	0
5 101	5 Ton [9.53]	1/2 [12.7]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	56 [17.06]	54 [16.45]	52 [15.84]	50 [15.24]

NOTES: N/A = Application not recommended.

*Standard line size

	Suction Line Length/Size and Capacity Multiplier											
	ge R-410A apacity Model	2 Ton	3 Ton	4 Ton	5 Ton							
Suction Line	Connection Size	3/4" [19	.05] I.D.	7/8" [22	.23] I.D.							
	n Line Run et [m]	5/8"[15.88 mm]0.D. Std.* 3/4" [19.05 mm]0.D. Opt.	⁵ /8" [15.88 mm] O.D. Opt. 3/4" [19.05 mm] O.D. Std.*	³ /4" [19.05 mm] O.D. Opt. 7/8" [22.23 mm] O.D. Std.*								
25' [7.62]	Optional Standard Optional	 1.00 1.00	.99 1.00 N/A	1.00 1.00 N/A	.99 1.00 N/A							
50' [15.24]	Optional Standard Optional	 .99 1.00	.98 .99 N/A	.98 .99 N/A	.98 .99 N/A							
100' [30.48]	Optional Standard Optional	 .97 .98	.95 .97 N/A	.95 .97 N/A	.94 .97 N/A							
150' [45.72]	Optional Standard Optional	 .95 .97	.91 .95 N/A	.93 .95 N/A	.91 .95 N/A							

NOTES: Line size not recommended due to inadequate oil return.

*Standard line size

[] Designates Metric Conversions

GENERAL TERMS OF LIMITED WARRANTY

Ruud will furnish a replacement for any part of this product which fails in normal use and service within the applicable period stated, in accordance with the terms of the limited warranty.

For Complete Details of the Limited Warranty, Including Applicable Terms and Conditions, See Your Local Installer or Contact the Manufacturer for a Copy.

Limited Parts Warranty:

Ruud *Ultra Series®* equipment features a 10-year limited parts warranty.*

*This ten-year limited parts warranty is applicable only to single-phase products installed in residential applications.

UARL- JEZ Conditional Replacement Warranty:

Ruud will provide a replacement model (if an exact replacement is not available, an equivalent product will be provided) to the original purchaser if the compressor fails within 10 years (providing the unit is installed with a new Ruud Air Handler OR Ruud Indoor Coil with a Ruud Gas Furnace, and is properly matched as specified by Ruud and/or listed in the Air Conditioning Institute (ARI) published rating, and if additional conditions are satisfied. See product warranty card for additional information.

BEFORE PURCHASING THIS APPLIANCE, READ IMPORTANT ENERGY COST AND EFFICIENCY INFORMATION AVAILABLE FROM YOUR RETAILER.

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.

RUUD AIR CONDITIONING DIVISION



5600 Old Greenwood Road, Fort Smith, Arkansas 72908

"In keeping with its policy of continuous progress and product improvement, Ruud reserves the right to make changes without notice."
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