

Gemini® 38AU / 40RU Split System Air Conditioners and Heat Pumps with Puron® Refrigerant (R-410A) 6 to 20 Nominal Tons



Carrier's Gemini™ Split System Air Conditioners and Heat Pumps:

- An ideal solution for replacement and new construction
- Rugged, dependable construction
- Available in single and circuit scroll compressor capacity control
- Cooling capability up to 125°F (52°C) ambient and down to 40°F (4°C) ambient standard



Willis H. Carrier began training members of the heating, ventilation, air conditioning and refrigeration industry in 1905. Carrier continues to promote technical expertise in the industry with the expansion of its sustainable solutions curriculum and has recently been named a U.S. Green Building Council Education Provider (USGBC EP). To earn this status, Carrier's course materials were reviewed by a panel

of USGBC peers and deemed to provide the high level of quality required for training Leadership in Energy and Environmental Design (LEED®) professionals. The courses and workshops supporting LEED-Accredited Professional and Green Associates credential maintenance are administered through Carrier University.

The Future of the World Depends on Our Ability... to Sustain it.

As the world's leader in high technology heating, air-conditioning and refrigeration solutions, we believe that market leadership requires environmental leadership. Carrier sets industry standards for environmentally sound business practices and a commitment to sustainability across its products, services and operations. We demonstrate this commitment by creating environmentally responsible solutions that consume less energy and incorporate innovations that improve the world – indoors and out.



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Gemini® 38AU/40RU Split System

Air Conditioners and Heat Pumps

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Gemini®

The Gemini 38AU series outdoor units matched with the 40RU series indoor air handlers provide a variety of HVAC application options. Whether it's lowest first cost with the single circuit 38AUZ series, superior part

load performance from two stages of cooling with the 38AUD series or year around energy savings with the 38AUQ heat pump series, these units are designed for long dependable operation for rooftop or on-the-ground installation. All Gemini 38AU and 40RU series units use environmentally sound Puron® refrigerant. Together, they create a reliable split system that provides easy solutions to a wide range of commercial HVAC needs.

Constructed for Long Life

The 38AUZ single circuit and 38AUD dual circuit, scroll compressor models are designed and built to last. The outdoor coil construction allows for a more efficient design in a smaller cabinet size providing a reduction in refrigerant charge. Where conditions require, a special coil coating protection option is available. Cabinets are constructed of pre-painted galvanized steel, delivering unparalleled protection from the environment. Inside and outside surfaces are protected to ensure long life, good looks, and reliable operation. Safety controls are used for enhanced system protection and reliability.

Each unit utilizes the Comfort Alert™ diagnostic and troubleshooting control system. This protects the units operation and provides valuable diagnostic information when required.

Efficient Operation

Gemini air-cooled condensing units provide EERs up to 11.5 and IEERs up to 13.2, which meet the ASHRAE 90.1 efficiency levels. This high efficiency helps reduce overall operating cost and energy consumption.

Dependable Performance

The 38AU condensing units offer operating controls and components designed for performance dependability. The high efficiency hermetic scroll compressor is engineered for long life and durability. The compressors include vibration isolation for quiet operation. The high-pressure switch protects the entire refrigeration system from abnormally high operating pressures. A low-pressure switch or loss of charge switch protects the system from loss of charge. These units also include anti-short-cycling protection, which helps to protect the units against compressor failure.

All units include a crankcase heater to eliminate liquid slugging at start-up and the Comfort Alert control system provides:

- System Go LED indicator
- Fault LED indicator
- Compressor fault LED indicator
- Phase loss protection
- Phase reversal protection
- Safety pressure indicator
- Anti-short cycle protection

Gemini heat pumps come standard with a precision sized factory installed refrigerant suction line accumulator that is designed to prevent liquid from entering the compressor during low ambient conditions or switching between operations.

Ease of Installation and Service

Certified and pre-engineered factory-installed options (FIOPs) allow units to be installed in less time, reducing installed cost. FIOPs include:

- Low ambient controls which provide cooling operation down to -20°F (29°C) ambient temperatures
- Non-fused disconnect switch
- 115-v GFI (ground fault interrupter) convenience outlet, powered and non-powered available
- Special coil coating coil protection
- Louvered hail guard

Selection Guide

Cooling Performance 38AUZ,D/40RU - AHRI Certified Ratings

System Combination	Cooling Stages	Nominal Cooling Ton Size	Net Cooling Capacity (MBH)	EER	IEER	38AU Unit	
						Dimensions (in) (LxWxH)	Approx. Unit Weight (lbs)
38AUZ07/40RU07	1	6.0	71.0	11.5	12.2	59 x 46 x 42	389
38AUZ08/40RU08	1	7.5	92.0	11.2	11.8	59 x 46 x 42	391
38AUZ(D,E)08/40RU08	2	7.5	92.0	11.2	12.9	59 x 46 x 42	430
38AUZ12/40RU12	1	10.0	117.0	11.2	12.0	59 x 46 x 50	490
38AUD12/40RU12	2	10.0	117.0	11.2	11.6	59 x 46 x 50	516
38AUZ14/40RU14	1	12.5	148.0	11.0	12.0	59 x 46 x 50	520
38AUD14/40RU14	2	12.5	148.0	11.0	12.0	59 x 46 x 50	545
38AUZ16/40RU16	1	15.0	184.0	11.2	13.2	86 x 46 x 50	731
38AUD16/40RU16	2	15.0	184.0	11.2	11.8	86 x 46 x 50	745
38AUZ25/40RU25	1	20.0	240.0	11.0	12.5	86 x 67 x 50	978
38AUD25/40RU25	2	20.0	240.0	11.0	11.2	86 x 67 x 50	988

EER = Energy Efficiency Ratio IEER = Integrated Energy Efficiency Ratio

Heat Pump Cooling Performance 38AUQ/40RUQ - AHRI Certified Ratings – Cool

System Combination	Cooling Stages	Nominal Cooling Ton Size	Net Cooling Capacity (MBH)	EER	IEER	38AUQ Unit	
						Dimensions (in) (LxWxH)	Approx. Unit Weight (lbs)
38AUQ07/40RUQ07	1	6.0	70.0	11.0	12.6	59 x 46 x 42	444
38AUQ08/40RUQ08	1	7.5	89.0	11.0	12.0	59 x 46 x 42	483
38AUQ(D,E)08/40RUQ08	2	7.5	88.0	11.0	12.7	59 x 46 x 42	523
38AUQ12/40RUQ12	1	10.0	112.0	11.0	12.0	59 x 46 x 50	575
38AUQ16/40RUQ16	2	15.0	178.0	10.6	11.0	86 x 46 x 50	768
38AUQ25/40RUQ25	2	20.0	222.0	10.7	11.0	86 x 67 x 50	1015

EER = Energy Efficiency Ratio IEER = Integrated Energy Efficiency Ratio

Heat Pump Heating Performance at 47° F (8° C) 38AUQ/40RUQ – AHRI Certified Ratings – Heat

System Combination	Cooling Stages	Nominal Cooling Ton Size	Net Heating Capacity (MBH)	COP
38AUQ08/40RUQ08	1	7.5	87.0	3.3
38AUQ(D,E)08/40RUQ08	2	7.5	87.0	3.3
38AUQ12/40RUQ12	1	10.0	106.0	3.3
38AUQ16/40RUQ16	2	15.0	178.0	3.4
38AUQ25/40RUQ25	2	20.0	214.0	3.5

COP = Coefficient of Performance

40RU Air Handler Weights and Dimensions

Unit Size	Dimensions (in) (LxWxH)	Approx. Unit Weight (lbs)
40RU*07	49 x 28 x 56	399
40RU*08	49 x 28 x 56	404
40RU*12	49 x 28 x 56	425
40RU*14	89 x 28 x 56	695
40RU*16	89 x 28 x 56	713
40RU*25	89 x 28 x 56	730
40RU*28	101 x 33 x 66	1050
40RU*30	101 x 33 x 66	1062

(*40RUS Chilled Water models also available from 08 to 30, including 10 size model)

