

Johnson Controls Rooftop Units



Series 10 and Series 20 Ultra-high Efficiency
Commercial Rooftop Units

6.5-23 Tons



Finding the right solution for comfort cooling in commercial spaces requires more than just temperature regulation. It requires precise operational control, flexibility to suit a wide range of applications and simple but reliable operation. That's why Series 10 and 20 Ultra-high Efficiency (UHE) Commercial Rooftop Units by Johnson Controls have been designed specifically to deliver improved efficiency with intelligent control and operational flexibility – all in the same footprints as our existing 6.5–25 ton rooftop units.

EFFICIENCY THROUGH CONTROL

Rising energy costs and expanded performance standards are becoming a bigger challenge for commercial spaces.

Series 10 and Series 20 Ultra-high Efficiency products are designed to meet that challenge through increased efficiencies that meet many new energy requirements. With efficiencies reaching as high as 21 IEER, these products comply with the latest federal and state requirements, as well as the Consortium for Energy Efficiency's Advanced Tier. These impressive efficiencies are achieved through the optimization of advanced technologies, including:

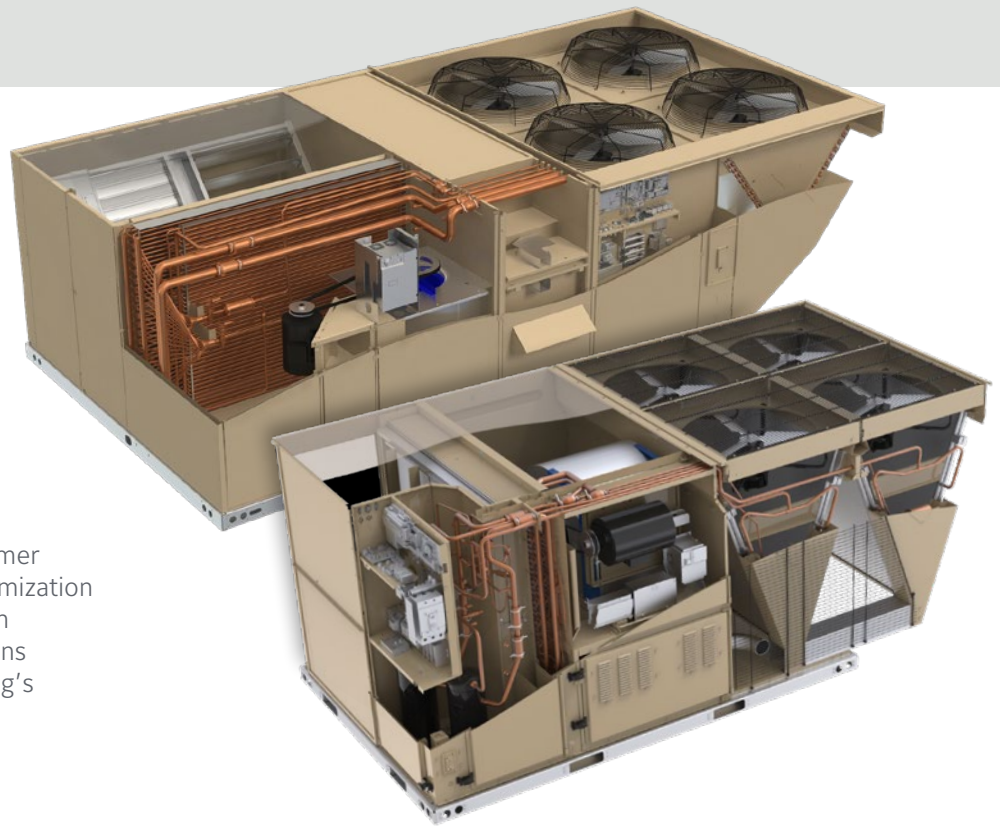
- **Smart Equipment controls** to maximize system monitoring and adjustment for extended equipment life and reduced operating costs
- **IntelliSpeed™ discrete fan control (DFC)** to allow for variation of the fan speed based on number of cooling stages engaged
- **2-speed UltraTech™ compressors** to enable 3 or 4 stages of cooling, providing greater accuracy in cooling needs
- **ECM fan motors** that adjust their RPM to maintain optimum airflow over the condenser coils



64%

GREATER EFFICIENCY PERFORMANCE OVER LEGACY MODELS

Delivering the highest efficiency, dual-circuit model in the industry with up to 21 IEER.



IMPRESSIVE FLEXIBILITY

To meet changing building codes and customer needs, products require new levels of customization and flexibility. Built exclusively to order, each ultra-high efficiency unit has a host of options and accessories to perfectly match a building's needs and make specification as simple as possible. In addition to common options, these units feature advanced options like:

Optional MagnaDRY™ reheat system

Utilizes a separate reheat coil to reduce moisture levels without overcooling. UHE models have IEER ratings up to 60% higher than the existing reheat models. The reheat coil is integrated into the base unit.

Optional Variable Air Volume (VAV)

Alternative blower control option that uses a variable frequency drive and pressure transducer to maintain constant static pressure in the supply duct. VAV units have 3 or 4 stages of cooling to meet VAV requirements in ASHRAE 90.1-2013 and 2015 IECC.

2-stage heating operation

Both gas heat and electric heat options are available to boost heating efficiency and comfort.

Verasys®-compatible control system

Allows integration with a vast array of mechanical and electronic equipment via an intuitive, optional, pre-programmed controls system.

Common roof curb within product family

Increases flexibility for faster specification and easier replacement.

Feature	Benefit	Series 10 6.5-12.5T Rooftop Up to 21.2 IEER	Series 20 15-23T Rooftop Up to 18 IEER
New sine wave evaporator coil	Increased efficiency	X	X
Patent-pending double row condenser coil	Increased efficiency	8.5 and 12.5 ton	
Multiple independent refrigeration circuits	Reliability	2 circuits	2 circuits
Multiple stages of compressor operation	Comfort control, meets building codes: ASHRAE 90.1-2013, IECC 2015	3 stages	3 or 4 stages dependent on tonnage
Reheat as option of ZT base model	Humidity control (ordering simplicity and code compliance)	X	X
ECM condenser fan motors	Increased efficiency, comfort control	X	X
CEE Advanced Tier efficiency	Reduced operational costs	Exceeds	Meets*
Uses existing footprint	Replacement opportunity	X	X
IntelliSpeed™ and VAV fan control	Efficiency and comfort	X	X
Smart Equipment controls	Ease of commissioning, integration and service	X	X

*All models excluding 23 ton units meet CEE Advanced Tier requirements

LEADING RELIABILITY AND SERVICE

Series 10 and Series 20 Ultra-high Efficiency Commercial Rooftop Units are designed, engineered and assembled in the United States by Johnson Controls, the name trusted for leadership in the HVAC category since the invention of the electric room thermostat in 1885. And we back it with industry-standard certifications, lab-verified performance, field-tested quality and class-leading service and support.

- Two independent refrigeration circuits**
 Independent circuits add built-in redundancy for greater peace of mind.
- Greater efficiency in the same size footprint**
 Provides a direct replacement for earlier Series 10 and 20 models and an easier upgrade path while building onto an established product platform of the highest quality.
- Slide-out motor and blower assembly**
 Intelligent design allows for easier adjustment and service access on Series 10 models.
- Hinged and toolless access panels**
 All cabinet doors used as typical access points to service or repair a unit are hinged to provide a simplified interaction during startup and service. These are standard or optional by platform.