

COMMERCIAL COMFORT SYSTEMS

SINGLE PACKAGED UNITS  
SERIES 40



25-40 TONS

# Options and flexibility



# Get the comfort and performance that's right for you.

Even though one building may look like another, there's no one commercial HVAC system that fits all. Your comfort and efficiency needs are unique. With Johnson Controls Series 40 single packaged units, you can take advantage of expanded options that provide greater design flexibility. We offer environmentally responsible HFC-410A units to meet nearly any heating and cooling need, from the simple to the complex, including:

- Cooling Only
- Cooling/Gas Heating (Natural Gas or Propane)
- Cooling/Electric Heat
- Cooling/Hot Water Heat
- Cooling/Steam Heat

## Greater versatility and efficiency

The Johnson Controls 25-40 ton single packaged units are easy to install, use, and maintain. Factory-installed options, such as economizers, power exhaust, high-efficiency motors, high-efficiency filtration, barometric relief dampers, low ambient operation to 0°F, high-capacity evaporator coils, and single-point power, make these single packaged units even more versatile.

- HFC-410A refrigerant for environmentally responsible operation
- Scroll compressors for efficiency and longevity
- Multiple refrigeration circuits for greater turndown and excellent unloading capabilities
- Variable frequency drives for superior efficiency and precise control
- A broad range of airflows and static pressures for most any application
- Single-point power for quick and easy electric connection
- High-efficiency motors for improved efficiency



Capacities  
25 – 40 tons  
Efficiency  
10.0 to 10.5 EER / 80% SSE



**Even as a stand alone unit, you get total control with the following features:**

**Single or Multiple Zones** for constant- or variable-air volume

**365-Day Real Time Clock** with automatic Daylight Savings Time adjustment.

**Occupancy Schedule** allowing two different occupied schedules per day for each of the seven days of the week.

**20 Holiday Schedules** with a length of up to 99 days, each with flexible start times.

**Energy-Saving Economizer Operation** with the flexibility of using dry bulb, outside enthalpy and differential enthalpy. Our economizer enthalpy control has setpoints for outside air temperature, supply air temperature, small space cooling demand, and large space cooling demand.

**Demand-based Ventilation** control using CO<sub>2</sub> sensing for improved indoor air quality.

**Comfort Ventilation Control** tempers the ventilation air when heating or cooling is not required, saving energy.

**Temperature and Humidity Algorithm** offsets the operating setpoint based on high humidity in the space—with programmable limits to control humidity.

**Low and High Ambient Lockout** to prevent cooling below or heating above a programmable setpoint of outside air temperature.

**Space Temperature Alarm** in the event that temperatures exceed programmable limits.

**Smoke Purge** automatically ventilates space when smoke is detected.

**Dirty Filter Switch** to detect dirty filters.

**Intelligent Recovery** brings space temperature to the occupied setpoint just before occupancy. The control will “learn” how much runtime is required to heat or cool the space to setpoint before occupants arrive.

**Anti-Short Cycle Delay** of 5 minutes to prevent energy-wasting short cycling.

**Gas Monitor** for safe heat operation.

**Long lasting durability and easy maintenance are part of the package**

- Rain hoods ship pre-installed and simply rotate into place – an easy job for one person.
- Easy service access with hinged and latched doors on both sides of the unit.
- Durable finish, made of powder-painted, galvanized steel.
- Extended flue connection on gas units to eliminate the possibility of corrosion in the furnace heat exchanger.
- Double-wall construction with galvanized sheet metal liner to protect against microbial growth.
- Pitched roof design for natural drainage.
- Rigid sheet metal inner liner to keep insulation out of the air stream.
- Sloped drain pan protects against pan corrosion and bacterial growth.

**Connect to the industry’s most advanced commercial control system**

Johnson Controls Series 40 single packaged units can be easily integrated into the Commercial Comfort Systems family of controls. These controls are specifically engineered for Johnson Controls single packaged units. They provide patented Johnson Controls technologies, including self-tuning algorithms, in a complete package. The controllers, sensors and damper assemblies are engineered and pre-configured so they’re easy to startup and commission. No programming or any specialized controls knowledge is needed to run the system. The sleek, innovative system manager has an integrated, browser-based interface for remote monitoring, accessible by its own color touchscreen display. As a result, the Johnson Controls Series 40 single packaged units will give you maximum comfort and efficiency.



**SERIES 40 GAS/ELECTRIC CONSTANT VOLUME AND VAV (MEETS OR EXCEEDS ASHRAE 90.1 STANDARDS)**

| Model<br>(HFC-410A) | Cooling Capacity | Efficiency | Gas Heating Performance |            |       | Unit Dimension<br>(in.) | Model<br>(HCFC-22) | Cooling Capacity | Efficiency | Heating Performance |            |       | Unit Dimension<br>(in.) |
|---------------------|------------------|------------|-------------------------|------------|-------|-------------------------|--------------------|------------------|------------|---------------------|------------|-------|-------------------------|
|                     | MBH              | EER        | MBH Input               | MBH Output | % SSE |                         |                    | MBH              | EER        | MBH Input           | MBH Output | % SSE |                         |
| V22AN2              | 310              | 10.5       | 233                     | 186        | 80.0  | 64 H                    | T22AN2             | 323              | 10.0       | 233                 | 186        | 80.0  | 64 H                    |
| V22AN4              | 310              | 10.5       | 466                     | 373        | 80.0  |                         | T22AN4             | 323              | 10.0       | 466                 | 373        | 80.0  |                         |
| V23AN2              | 390              | 10.1       | 233                     | 186        | 80.0  | x                       | T23AN2             | 366              | 9.5        | 233                 | 186        | 80.0  | x                       |
| V23AN4              | 390              | 10.1       | 466                     | 373        | 80.0  | 240 W                   | T23AN4             | 366              | 9.5        | 466                 | 373        | 80.0  | 240 W                   |
| V24AN2              | 502              | 10.2       | 233                     | 186        | 80.0  |                         | T24AN2             | 504              | 9.5        | 233                 | 186        | 80.0  |                         |
| V24AN4              | 502              | 10.2       | 466                     | 373        | 80.0  | x                       | T24AN4             | 504              | 9.5        | 466                 | 373        | 80.0  | x                       |
| V24AN7              | 502              | 10.2       | 699                     | 560        | 80.0  | 92 D                    | T24AN7             | 504              | 9.5        | 699                 | 560        | 80.0  | 92 D                    |

**SERIES 40 ELECTRIC/ELECTRIC CONSTANT VOLUME AND VAV (MEETS OR EXCEEDS ASHRAE 90.1 STANDARDS)**

| Model<br>(HFC-410A) | Cooling Capacity | Efficiency | Electric Heating Performance (kW) |      |      | Unit Dimension<br>(in.) | Model<br>(HCFC-22) | Cooling Capacity | Efficiency | Heating Performance (kW) |      |      | Unit Dimension<br>(in.) |
|---------------------|------------------|------------|-----------------------------------|------|------|-------------------------|--------------------|------------------|------------|--------------------------|------|------|-------------------------|
|                     | MBH              | EER        | 240V                              | 480V | 600V |                         |                    | MBH              | EER        | 240V                     | 480V | 600V |                         |
| V22AE4              | 310              | 10.5       | 40                                | 40   | 40   | 64 H                    | T22AE4             | 323              | 10.0       | 40                       | 40   | 40   | 64 H                    |
| V22AE8              | 310              | 10.5       | 80                                | 80   | 80   |                         | T22AE8             | 323              | 10.0       | 80                       | 80   | 80   |                         |
| V22AE1              | 310              | 10.5       | -                                 | 108  | 108  | x                       | T22AE1             | 323              | 10.0       | -                        | 108  | 108  | x                       |
| V23AE4              | 390              | 10.1       | 40                                | 40   | 40   | 240 W                   | T23AE4             | 366              | 9.5        | 40                       | 40   | 40   | 240 W                   |
| V23AE8              | 390              | 10.1       | 80                                | 80   | 80   |                         | T23AE8             | 366              | 9.5        | 80                       | 80   | 80   |                         |
| V23AE1              | 390              | 10.1       | -                                 | 108  | 108  | x                       | T23AE1             | 366              | 9.5        | -                        | 108  | 108  | x                       |
| V24AE4              | 502              | 10.2       | 40                                | 40   | 40   | 92 D                    | T24AE4             | 504              | 9.5        | 40                       | 40   | 40   | 92 D                    |
| V24AE8              | 502              | 10.2       | 80                                | 80   | 80   |                         | T24AE8             | 504              | 9.5        | 80                       | 80   | 80   |                         |
| V24AE1              | 502              | 10.2       | -                                 | 108  | 108  |                         | T24AE1             | 504              | 9.5        | -                        | 108  | 108  |                         |

Johnson Controls provides a complete selection of commercial comfort systems, along with the industry's broadest line of HVAC controls. We've got whatever you need to create a comfortable, safe and sustainable environment.