

INDOOR PACKAGED EQUIPMENT

COMMERCIAL INDOOR
AIR-CONDITIONING



D*H & D*V

Air-Cooled Self-Contained Units



Indoor packaged solutions for convenient floor-by-floor installation.

The D-Series Self-Contained Horizontal and Vertical Indoor Air-Conditioning packages from Johnson Controls offer a complete line of unit options for high-rise and single-story building applications.

Johnson Controls compact, low profile indoor design protects against potential vandalism and weathering and eliminates the need for any unsightly exterior equipment. The compact dimensions allow for easy installation through doorways, hallways and elevators.

Floor-by-floor installation provides independent zone and temperature control, eliminating many of the complications encountered with rooftop equipment. Renovation and restoration projects are simplified where roof load, cooling tower, and construction restrictions can present installation problems.

The D-Series Air-Cooled Self-Contained design by Johnson Controls features high efficiency, quality engineering and dependable operation.

D-SERIES FEATURES

- Ideal for tenant change/renovation
- Protected from extreme weather conditions and vandalism
- Convenient access to all parts and service needs
- Allows independent metering/temperature control
- Static capability to suit various installation requirements using centrifugal blowers and adjustable pulleys
- High-efficiency, 13 SEER packages available in 2-5 tons (horizontal)

STANDARD FEATURES

Construction

- Units are insulated with 1/2" thick, 2 lb. density acoustic fiberglass insulation
- All cabinets constructed of heavy gauge galvanized steel
- Separate evaporator and condensing modules allow for easy separation if required
- Convenient indoor access to all parts and service needs
- Available in Horizontal (2-15 tons) and Vertical (8-25 tons)
- Sizes 8 through 25 ton units utilize multiple high efficiency compressors in parallel for efficient part-load cooling
- All 2-15 ton units shipped as a factory-charged unitized package
- All 20 and 25 ton models are shipped as separate modules to suit on-site requirements
- All packaged units may be field split and installed as separate modules to suit on-site requirements
- All vertical packages are designed for free-stand mounting on the floor while horizontal ductable ceiling packages save valuable floor space
- Vertical models provide for field-convertible horizontal and vertical evaporator discharge
- All 12, 15, 20 and 25 ton models are shipped horizontal discharge as standard

Tonnage Capacities
Available in horizontal (2-15 tons)
and vertical (8-25 tons)





- Units provided with service panels equipped with lifting handles for ease of removal and handling
- Duct flanges for condenser discharge, condenser intake and evaporator discharge are provided for field installation
- Duct flange for evaporator return is incorporated into the filter frame

Compressors

- All models utilize scroll type hermetic compressors
- Compressors are mounted on rubber isolators to minimize vibration transmission
- Internal overload protection provided
- External high pressure and low pressure cutout switches are included in each compressor control circuit
- Crankcase heaters are standard on all models

Evaporator and Condenser Coils

- Both coils are constructed of internally enhanced copper tubes mechanically bonded to rippled aluminum plate fins
- Both evaporator and condenser coils are employed in a draw-through configuration
- Large evaporator coil face area minimizes potential water blow-off
- Evaporator coil has sub-cooling built into the draw-through coil

Fan Assembly

- Forward curved, double inlet and double width centrifugal blowers are used for both evaporator and condenser air movement
- Belt driven blower wheels are fabricated of galvanized steel, and employ solid steel shafts supported in permanently lubricated ball bearings
- Dynamically balanced blower wheels with variable-pitch motor sheaves allow for easy field adjustment

Refrigerant Circuits

- All 2-5 ton units have a single refrigerant circuit
- Available with R-22 refrigerant and R-410A (horizontal)
- All 8-20 ton units feature two independent refrigeration circuits
- The 25 ton unit features three independent refrigeration circuits, with fully interwoven evaporator coil circuitry
- Each refrigeration circuit includes an adjustable thermal expansion valve (with external equalizer), liquid line filter drier, sight glass/moisture indicator, and service gauge ports

Electrical Components

- All units are ETL listed
- All units are completely factory wired with all necessary relays and controls
- A 24-volt control circuit, with oversized transformer, is provided for field connection
- Manual reset protection is provided on both evaporator and condenser motors
- Manual reset high/low pressure cutout provided on each compressor control circuit
- Available in various single and three-phase voltages

Filters

- All models shipped with 2-inch thick medium-efficiency throwaway filters
- Filter rack is external to cabinet (shipped loose)

OPTIONAL FEATURES

Construction

- Corrosion-resistant coatings for evaporator and condenser coils
- Evaporator drain pan available in corrosion-resistant, stainless steel
- Discharge plenums with double-deflection grilles available to mount on top of evaporator section, for field installation (vertical models only)

Compressor

- Adjustable hot gas bypass regulator for lead compressor

Fan Assembly

- Increased horsepower motors and drive components are available for those applications where external static pressure requirements exceed the capability of the standard motor

Heating

- Available with hydronic heating in either hot water or steam coils, for field installation

Controls

- Low ambient head-pressure control damper kit allows for unit operation down to 0°F outdoor ambient
- Hot water and steam coil valve options
- Field installed airside economizer with mixing box, low leakage outside air dampers and economizer control module
- Condensate overflow switch option