



## Light Commercial DAQ Air Handler

### MECHANICAL GUIDE SPECIFICATIONS FOR DAQ SERIES COMMERCIAL SPLITS AIR HANDLER UNITS 7.5 AND 10 TON.

#### RELATED SECTIONS (As Specified by the Construction Specification Institute)

- Section 23 06 80 Schedules for Decentralized HVAC Equipment
  - 23 06 80.13 Decentralized Unitary HVAC Equipment Schedule:
  - Schedule is per the project specification requirements.
- Section 23 07 16 HVAC equipment insulation
  - 23 07 16.13.A. Evaporator fan compartment
- Section 23 09 13 Instrumentation and control devices for HVAC
  - 23 09 13.23 Sensors and Transmitters
  - 23 09 13.23.A. Thermostats
- Section 23 09 33 Electric and Electronic Control System for HVAC
  - 23 09 33.13.A. General
  - 23 09 33.13.B. Safeties
- Section 23 09 93 Sequence of Operations for HVAC Control
  - 23 09 93.13.A. INSERT SEQUENCE OF OPERATION
- Section 23 40 13 Panel Air Filters
  - 23 40 13.13.A. Standard filter section
- Section 23 81 26 Large-Capacity Split-System Air-Conditioners

#### GENERAL

- Units are designed for convertible airflow orientation to serve downflow or horizontal applications.
- All units are charged with R-32 refrigerant and run-tested at the factory to check modes of operation and proper fan rotation.
- Unit meets ASHRAE 90.1 minimum efficiency requirements.
- Unit shall be designed to conform to ASHRAE 15.
- All units are rated in accordance with AHRI Standards 340/360.
- Units are ETL listed and certified under US and Canadian standards of safety requirements per UL 60335-2-40 4<sup>th</sup> Edition.
- Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
- Unit shall be designed in accordance with ISO 9001 and shall be manufactured in a facility registered by ISO 9001:2015.
- Unit shall be subjected to a completely automated run test on the assembly line. The data for each unit will be stored at the factory and must be available upon request.
- Unit shake tested to assurance level 1, ASTM D4169 to ensure shipping reliability.

#### VOLTAGES

- All units are available in 208/240V 3-phase 60 Hz and 460V 3-phase 60 Hz.
- Main power supply voltage, phase, and frequency must match those required by the manufacturer.

#### WARRANTY

- Complete warranty details are available from your local dealer/contractor or at [www.daikinac.com](http://www.daikinac.com).

#### CABINET

- Unit cabinets are made with 0.042" thick, ~19-gauge galvanized steel.
- Interior surfaces in the indoor air section are single wall insulated with a minimum 1/2 in. thick, 1 1/2 lb./ft<sup>3</sup> density, flexible fiberglass insulation bonded with a phenolic binder, Aluminum foil-faced on

the air side.

- Evaporator fan compartment interior cabinet insulation shall conform to AHRI Standards 340/360 minimum exterior sweat criteria.
- Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
- Cabinet finish panel is tested for 500 hours in a salt spray test in accordance with ASTM B117 standard for salt spray resistance.
- Unit includes a condensate drain pan.
- Unit must comply with ASHRAE Standard 62.1

#### ACCESS PANEL

- All Cabinet panels are designed to be easily removable for servicing Unit.

#### CONTROLS

- Units are factory-wired with color-coded wires with low-voltage control circuit protected by a resettable circuit breaker on the 24-v transformer side. Transformer shall have 75VA capability.
- Units have single-point power connections.
- Unit to be provided with a terminal block for connection and control wiring.
- Units come with a grounding lug as standard.
- Units come standard with 5kA SCCR rating.

#### DRAIN PAN

- Unit includes a sloped condensate drain pan made of a corrosion resistant material compliant with ASHRAE Standard 62.1. Shall use a 3/4" -14 NPT drain connection.
- Connection shall be made per manufacturer's recommendations. No base pan penetration, other than those authorized by the manufacturer, is permitted.

#### COILS

- Units have two refrigerant circuits.
- On all units, each refrigerant circuit has a TXV metering device.
- Coils are qualified to UL 60335-2-40 burst test.

#### FILTRATION

- The unit includes factory-installed 2" thick pleated throwaway filters, with dimensions selected based on commercial availability and low face velocity.
- Filters shall be held in place by a pivoting filter tray, facilitating easy removal and installation.

#### FANS

- ECM direct-drive, multi-speed motors. All motors are thermally protected and use permanently lubricated bearings.
- Shall have a maximum continuous bhp rating for continuous duty operation; no safety factors above that rating shall be required. Motor to include inherent automatic-reset thermal overload protection or circuit breaker and permanent lubricated bearings.
- Evaporator blowers consist of (2) double width, double inlet (DWDI) type, Class I construction blowers with aluminum fan wheels and blades.
- Motors shall have slow ramp up to speed capabilities.

#### COOLING/HEATING OPERATION RANGE OF OUTDOOR AMBIENT TEMPERATURE

- The Cooling/Heating operating range is between 55°F (0°F with Low Ambient Kit) and 115°F outdoor ambient temperature.

#### STORAGE AND HANDLING

- Unit to be stored and handled per manufacturer's recommendations.

FIELD-INSTALLED OPTIONS

- Electric Heat 15, 20, 30 kW.