

STANDARDS & CERTIFICATIONS

ARES Electric Rooftop & Indoor Make-up Air Units

Standard Specifications:

- A. Units shall range in size from 10 kW to 120 kW and are available in 1 to 5 stages of heat control. Heat shall be sequentially controlled by duct mounted thermostatic controls. SCR modulating controls will also be available as an option.
- B. Air volumes shall range from 1,000 cfm to 10,000 cfm.
- C. Cabinetry shall be die-formed G90, 20 gauge minimum Galvanized steel with tops cross broken for added strength, and to prevent water pooling on unit top. Cabinetry interior may be specified with optional 1" mastic backed, 1-1/2 pound density insulation.
- D. Supply blower motor shall be Open Drip Proof type with permanently lubricated ball bearings, Class B windings, adjustable sheaves, standard NEMA frame size and service factor. Two-speed motor option will be available. Motors shall be available at all voltages, and have horsepower ratings of up to 10 h.p.
- E. Motor shall be activated through a Magnetic Motor Starter. Motors not thermally protected internally shall be protected by IEC overload protection.
- F. All electrical components shall be UL listed or recognized. All wire shall be rated to meet or exceed electrical requirements for voltage, ampacity, and dielectric strength of sheathing and temperature rating per location. Minimum temperature rating shall be 105° C. All high voltage wiring shall be enclosed in flexible metallic sheathed BX and include the identifying marker corresponding to the wiring diagram. Unit Control Panel includes 24 volt transformer, line and low voltage terminal blocks, blower motor starter and overload (if motor not thermally protected), fuse block, relays, and air proving switch.
- G. Remote Control Panel (field installed) is to have push button control with status indicator lights, (off / cool / vent / heat). Optional R/A two position switch, and two speed motor switch shall be included on panel when applicable.
- H. An evaporative cooler with standard 2" rigid media sized not to exceed 350 FPM shall be provided as a standard option. The Evaporative Cooler shall be furnished with a 304 stainless steel reservoir pan, thermally protected fractional horsepower pump, regulated water flow, and bleed-off protection. The distribution manifold shall be of schedule 40 PVC construction. High Efficiency Evaporative module will also be available as an additional option.
- I. Blower cabinets shall be available with optional motorized damper, standard equipped with 2 a position actuator, spring returned when powered "off", and blade seals. Available motorized configurations will include 100% outside air inlet damper, outside air/ return air mixing box, and back draft damper. An optional modulating damper actuator will be available for the outside air / return air mixing box configuration. The back-draft damper shall also be available as an optional non-motorized, aluminum, blast open type.
- J. Cabinet shall not exceed 39" in height from top of roof curb or support base.
- K. All units must have:
- L. U.L. labels on heater inserts
- M. ETL labels on blower section and heater section.
- N. Heater frame and control box shall be constructed of 22 gauge galvanized metal or heavier. The control box shall have a permanently attached hinged cover of the same material. All terminal screws, nuts, and washers shall be made of a corrosive resistant material.
- O. Insulator grommets and bushings shall be made of high temperature ceramic and shall be securely positioned in a galvanized steel rack.
- P. Elements shall be of open coil type and shall be made of the highest-grade nickel chromium resistance wire.
- Q. Heaters shall be furnished with automatic limit thermostat (UL listed for 100,000 cycles).
- R. Heaters shall be furnished with manual re-set limit thermostats in the power legs in lieu of fusible links.
- S. Heaters shall be furnished with built-in branch fuses where necessary in order to meet UL requirements.
- T. Heaters shall be listed by Underwriters Laboratories, Inc. for "zero clearance installation".