

Standards & Certifications

ARES make-up Air Blowers and Evaporative Coolers

A. All units must have:

1. AMCA blowers tested in accordance with publication 211.
2. ETL listed blower sections.

H. Mechanical Arrangement units shall consist of:

1. Blower section containing supply blower(s) with galvanized housing, galvanized wheel, steel shaft, and ball bearings, blower motor, cast iron pulley and adjustable sheave.
2. Electrical cabinet isolated from the air stream with a removable access panel located behind the outer service panel. Includes provision for factory provided component mounting, wiring, and high voltage field wiring connections.
3. Optional discharge dampers may be provided. Dampers shall be parallel blade, with blade seals, of galvanized steel construction with nylon bushings. Damper may be either gravity type or operate from single point 2-position actuator.
4. An optional down discharge airflow supply plenum shall be available.
5. An evaporative cooler with standard 2" rigid media sized not to exceed 350 FPM shall be provided. The Evaporative Cooler shall be furnished with a 304 stainless steel reservoir pan, thermally protected fractional voltage pump, regulated water flow, pump relay and bleed-off protection. The distribution tube shall be of schedule 40 PVC construction.
6. Optional SH Series Cooler for lower water consumption uses 1" poly media sized not to exceed 350 FPM shall be provided in a V-bank arrangement. The evaporative cooler shall be furnished with a 304 stainless steel drain pan, water flow regulator with 2 position solenoid valve controlled by sensors located on the downstream side of the media. The sensors measure the water saturation of the media causing the water solenoid valve to cycle on and off to keep the pad saturated. No water is recycled on to the media all water is evaporated with exception to 1 – 3 gallons and hour which is used to wash the media clean of scale, mineral deposits along with any dirt from the air.
7. All evaporative coolers come standard with a 12 year rust through warranty on the Stainless Steel Pans and have a optional complete Stainless Steel Evaporative Cabinet Available with a 12 year rust through warranty on the cabinet.

I. Cabinet:

1. Cabinetry shall be die-formed G90, 20 gauge minimum Galvanized steel, with tops cross broke for added strength, and to prevent water pooling on unit top.
2. Large service panels shall be provided of easy lift out design.
3. Down Discharge plenum to be internally insulated with 1" 1 ½ lb. mastic backed insulation.
4. Cabinet shall not exceed 39" in height from top of roof curb or support base.

J. Mounting:

1. Rooftop units shall be provided with lifting hangars (field installed) and will be suitable for slab or curb mounting.

K. Supply Blower:

1. Motor shall be Open Drip Proof type with permanently lubricated ball bearings, and adjustable sheaves, standard NEMA frame size and service factor and Class B windings. Two speed motor option available.

L. Voltage:

1. Motor shall be available at all voltages and have horsepower ratings up to 10 h.p.
2. Motor wiring shall be enclosed in flexible metallic sheathed BX conduit.
3. Motor shall be activated through a Magnetic Motor Starter.
4. Motors not thermally protected internally shall be protected by IEC overload protection.

N. Electrical Systems:

1. All electrical components shall be UL listed or recognized.
2. 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.
3. All high voltage wiring shall be enclosed in flexible metallic sheathed BX and include the identifying marker corresponding to the wiring diagram.
4. All control wiring shall terminate at terminal strips with an identifying marker to correspond with the wiring diagram marker.
5. Optional 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.
6. Remote Control Panel (field installed) to have push button control with status indicator lights (off / cool / vent). Optional and two speed motor switch included on panel is shipped separately for field mounting by others.