TECHNICAL REQUIREMENTS

Site Requirements

Note: Refer to the full specifications for detailed information about the list of specifications.

- The power supply circuit is installed in accordance with the current edition of NEC (ANSI/NFPA 70) and local codes and ordinances. Note: Always consult local and national electric codes.
- Voltage rating of 60 Hz, 115V or 208V/230V single phase.
- Properly installed insulated condensate drain line with a minimum of 30% slope if an external drain. An internal drain is highly recommended.
- If using an externally run condensate line, note the following:
  - Must be properly insulated
  - Minimum of 30% slope
  - Highly recommended to use a heat trace wire on the condensate line to inhibit freezing. This can be connected to a power output on the unit
  - If on a low floor, ensure that end of drain is above the maximum height of snow buildup.
  - Highly recommended to use a heat trace wire on the drain line - which can be connected to the a heat trace power connection on the bottom of the unit.
- Approved louvers installed with best practices to ensure no water into the wall assembly.
- The unit must be perfectly level on the vertical and horizontal axis.
- Interior clearances are only required to prevent vibrations. Leave at least 1/3" of clearance from any surface. All others clearances are only dependent on ducting.
- The unit must be tight to ducts, with zero leakage between the external ducts and the unit.
- Properly affixed ceiling bracket to studs or other supporting material.
- Unblocked vents on the exterior with no obstacles within 36" of the air intake and discharge.
- An access panel with adequate clearance to be able to access the entire bottom of the unit for servicing.

Louver Specifications

Kinds of custom and creative solutions. The possibilities are endless, from perforated panels to custom louvers.
There are two critical factors in selecting and sizing a solution that will work with AIO Ceiling Suspended units.

- **Free area:** This area on a louver/grille is open for the air to flow through. The louver, perforated panel, or other solution must have at least the amount of free area as required in the specifications below in the plenum from the unit so that ample air can enter and exit the condenser chamber. A more restrictive solution with a smaller free area can be utilized by enlarging the louver and plenum until the required free area is achieved.

  The minimum free area required is .34 sq feet for the intake vent and .34 sq feet for the exhaust vent.
- **Pressure drop:** Pressure drop is the resistance the louver/grille creates against the airflow. This resistance can create heat build-up inside the condenser portion, causing the compressor to overheat and shut down. A solution with a higher pressure drop than specified can be utilized by enlarging the louver and plenum until the pressure drop is within specification.

  The maximum total pressure for the intake and exhaust ducting (if any) and intake and exhaust louvers combined must be under 0.45 WC.

  To be clear, the entire assembly of ductwork, plenums, and louvers for the complete air circuit, in and out of the system may not exceed 0.45 WC.

Any louver or louver assembly must meet these requirements, as exceeding these limits can cause the unit to overheat and fail and void the warranty.
The following louvers are approved for AIO Ceiling Suspended units:

- Sunvent: LLA/C, LLA/M, LLA/S - available through your Ephoca distributor.
- Thermaduct: RLA8- available through your Ephoca distributor.