Product
Data Sheet

Wall Mounted Pro

APP10N3H1

KEY FEATURES

- **No outdoor unit**
  The single package design means no outdoor unit, freeing up space on rooftops and at ground level and enabling installations in buildings without space for an outdoor unit.
- **BLDC twin rotary inverter compressor**
  The state-of-the-art, twin rotary BLDC inverter compressor operates efficiently, quietly, and with minimal vibration. AIO is ideal for any room or area that requires between 4,000 and 10,500 BTU.
- **High-efficiency ECM fans with auto ESP**
  High-efficiency ECM fans enable efficient and quiet operation as the EC motor can ramp up or down depending on the need. Automatically adjusted external static pressure ensures correct airflow.
- **Cold climate heat pump**
  The heat pump operates efficiently down to 5°F outdoor temperature.
- **Optional ERV Module**
  The optional ERV module enables make up/fresh air in the most efficient method possible.
- **Optional 1,800 Watt electric heat**
  The optional electric heating system operates alongside the heat pump when the latter lacks adequate power. This electric heating setup consists of two 900W heaters, strategically staged to optimize efficiency while minimizing the consumption of electric heat. The unit offers configuration options for electric heat usage: it can be set to use no electric heat, 900W electric heat, or 1,800W electric heat, providing flexibility and energy management capabilities.
- **Intelligent defrosting**
  AIO's intelligent defrosting system means more time heating and less time on reverse cycle defrost.
- **Coil cooling system**
  The condensate mister system drizzles the condensate on the outdoor heat exchanger coils, lowering the coil's temperature and increasing efficiency and performance.
- **Quiet**
  With whisper-quiet operation as low as 27 decibels, the occupant will barely notice AIO is operating.
- **No outside noise infiltration**
  AIO has the lowest STC and OITC rating among comparable units. This means less outside noise intruding into the room day and night
- **Versatile on/off options**
  AIO's low voltage connection enables connection to any occupancy system, key-card, window sensors, fire alarms, etc.; as long as it can send a signal to AIO via low voltage, the unit can be easily turned on or off.
- **Corrosion protection**
  AIO comes standard with corrosion protection, assuring many years of trouble-free performance.
- **Minimal clearances and compact footprint**
  AIO's compact form with no line sets means there is no need to access the sides of the unit. Mount units with as little as 3/4 inch clearance on all sides. Compact footprints take up minimum space.
- **Leak protection**
  A drain alarm will activate if the drain becomes clogged, and the system will be shut off, preventing water damage.
- **Easy to service**
  AIO can be easily maintained and repaired from the front or bottom of the unit without having to remove the unit from the wall or ceiling. AIO can also be quickly swapped out with a replacement, reducing downtime.
- **Versatile controls**
  AIO includes an onboard touch controller and an optional iOS and android app. AIO can be used with optional wall-mounted controllers, including a touch screen 7-day programmable and third-party controllers from any company using the optional 3rd party kit. An optional BACnet and Modbus module enables interfacing with building management systems
- **10-Year limited warranty**
  An industry-leading ten-year limited warranty provides peace of mind. Comprehensive on-site one-year parts and labor. Nine-year parts warranty on the compressor.

  Available extended on-site comprehensive parts and labor warranty for five, ten and 15 years..

INSTALLATION

Airflow

Fresh air volume

Indoor	Type	ECM centrifugal
	Supply connection	Integrated front
	Return connection	Integrated bottom
	Filter	MERV 3
Outdoor	Type	ECM centrifugal

General

Compressor

Refrigerant	Type	123
Type	BLDC twin rotary inverter	

Modes

Timers	Dependent on controller
Restricted modes	Heat only, cool only, temperature limiting

Condensate

Pipe	Size	3/4" Outside diameter
	Material	Rubber

Sound

Sound

Indoor	STC	40
	OITC	35
Outdoor	dB(A)	28-55

Dimensions

Physical data

Dimensions	Net	115V dim
Weight	Net	back

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, single phase in 115V or 208/230V in accordance with the model specified
- Interior clearances as follows:
  - Sides of unit to wall: 1″
  - Bottom of unit to floor 1″
  - Top of unit to any obstruction: 3.5″
- Unblocked vents on the exterior and no obstacles within 36″.
- An internal drain is highly recommended.
- If using an externally run condensate line, note the following:
  - Must be properly insulated
  - Minimum of 30% slope
  - 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 to prevent freezing. This 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.
- 8″ diameter ducts through the wall which protrude 1/8″ into the unit's EPDM backing to ensure a tight seal.
- The unit must be perfectly level on the vertical and horizontal axis.
- The unit must be tight to the wall, with zero leakage between the external ducts and the unit. Use insulating material if wall is not level.
- Properly affixed wall bracket to wall studs or other supporting material. Note the wall bracket has several places that must be secured.

Louver Specifications

AIO Wall Mounted Pro units can be vented through all 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 Wall Mounted Pro 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 0.34 sq feet for the intake vent and 0.34 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 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 or 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 Wall Mounted Pro:
- Sunvent: LLA/C, LLA/M, LLA/S - available through your Ephoca distributor.
- Thermaduct: RLA9 - available through your Ephoca distributor.

Electrical

General

Heating (max)	14.2
Volt range	103-127
Heating (nominal)	5.8
Cooling (max)	14.7
Cooling (nominal)	6.9
Input power (off mode)	1.5
Input power (standby)	10.8
Power factor (%)	0.96
Power supply	Hardwire or LCDI
Hz/phase	60 Hz single phase

Motors

Compressor	RLA	9.35
	LRA	9.35
Indoor ECM fan motor	W (max)	50
	F.L.A.	0.4
	HP	0.07
Outdoor ECM fan motor	W (max)	150
	F.L.A.	1.3
	HP	0.20

Circuit breakers

MOCP	115V, heat pump only
Recommended breaker size	20
MCA	20

LCDI Power Cord

Plug Type	5-20P
Amps	20

WIRING DIAGRAM

Heat Pump Only