



# Submittal Package



Opportunity Name, Quote Name  
Heating Green, RH2

Condair PM  
2740 Fenton Road  
Ottawa, Ontario, Canada

## Zone List

Zone Tag	Q <sub>MA</sub> CFM	Q <sub>OA</sub> %	DB <sub>OA</sub> °F	RH <sub>OA</sub> %	DB <sub>BH</sub> °F	RH <sub>BH</sub> %	DB <sub>AH</sub> °F	RH <sub>AH</sub> %	DB <sub>SD</sub> °F	RH <sub>SD</sub> %	W <sub>Duct</sub> in.	H <sub>Duct</sub> in.	H <sub>TOT</sub> lbs/hr	Absorption ft	Location	Tech
Zone(1)											-	-	8		In Space	RH2+ Series

Q<sub>MA</sub> = Mixed Air Volume

DB<sub>OA</sub> = Outside Air Design Dry Bulb Temperature

DB<sub>BH</sub> = Before Humidification Dry Bulb Temperature

DB<sub>AH</sub> = After Humidification Dry Bulb Temperature

DB<sub>SD</sub> = Space Design Dry Bulb Temperature

W<sub>Duct</sub> = Duct Width

H<sub>TOT</sub> = Total Humidification

Q<sub>OA</sub> = Outside Air

RH<sub>OA</sub> = Outside Air Design Relative Humidity

RH<sub>BH</sub> = Before Humidification Relative Humidity

RH<sub>AH</sub> = After Humidification Relative Humidity

RH<sub>SD</sub> = Space Design Relative Humidity

H<sub>Duct</sub> = Duct Height

Absorption = Absorption Distance

## Product List

<b>Zone Tag</b>	<b>Part Number</b>	<b>Item</b>	<b>Qty</b>
Zone(1)	2585378	RH2+ Space QDV, 8lbs/hr, 120/208/240V 1P	1
Zone(1)	2597928	0-10V Digital Wall Humidistat	1

## Data Sheet - Zone(1)



RH2+ Series



Opportunity Name: New RFQ

Quote Name: RH2

### Calculation Basis

Humidification Load (total)	8.0 lbs/h
Space Volume	0.00 cu.ft

### Product Data

#### RH2+ Space QDV, 8lbs/hr, 120/208/240V 1P

Rated Power:	3.00 kW	Maximum Output Range:	8 lbs/h
Power Circuit:	110-240/1/60 V/Ph/Hz	Minimum Water Pressure:	30 psig
Rated Current (MCA):	12.70 A	Maximum Water Pressure:	80 psig
Maximum Current (MOCP):	20.00 A	Width:	11.4 in.
Control Voltage:	24 V	Height:	21.4 in.
Cylinders:	1	Depth:	6.9 in.
Cylinder Type:	202	Net Weight:	16 lbs
Steam Outlet OD:	0.88 in.	Full Weight:	22 lbs
Quantity Steam Outlets:	1	Front Clearance:	48 in.
Fill Rate:	0.13 GPM	Left Clearance:	18 in.
Drain Rate:	1.60 GPM	Right Clearance:	18 in.
Nominal Capacity:	8 lbs/h	Ceiling Clearance:	18 in.
Minimum Adjustment Range:	20 %	Floor Clearance:	24 in.
Maximum Adjustment Range:	100 %	Supply Water:	0.25 in.
Minimum Output Range:	1.6 lbs/h	Drain Water OD:	0.88 in.

## A1 - RES (2585378) Description

### RH2 Space QDV, 120/240V

A technically advanced self-contained electrode steam humidifier that produces mineral free, odorless, sterile steam for maximum comfort and health in light commercial applications. Uses the patented 'auto-adaptive' control to automatically adjust to water supply conditions. Energy is conserved with efficient steam conversions rate, smart water use and lowest energy losses due to low hot water drain rates.

Unit includes status indicator lights, on/off or modulating humidity control circuit, and a disposable cylinder for low maintenance, sludge removal. The unit arrives completely assembled for wall mounting. Components are housed in a high temperature rated polycarbonate cabinet.

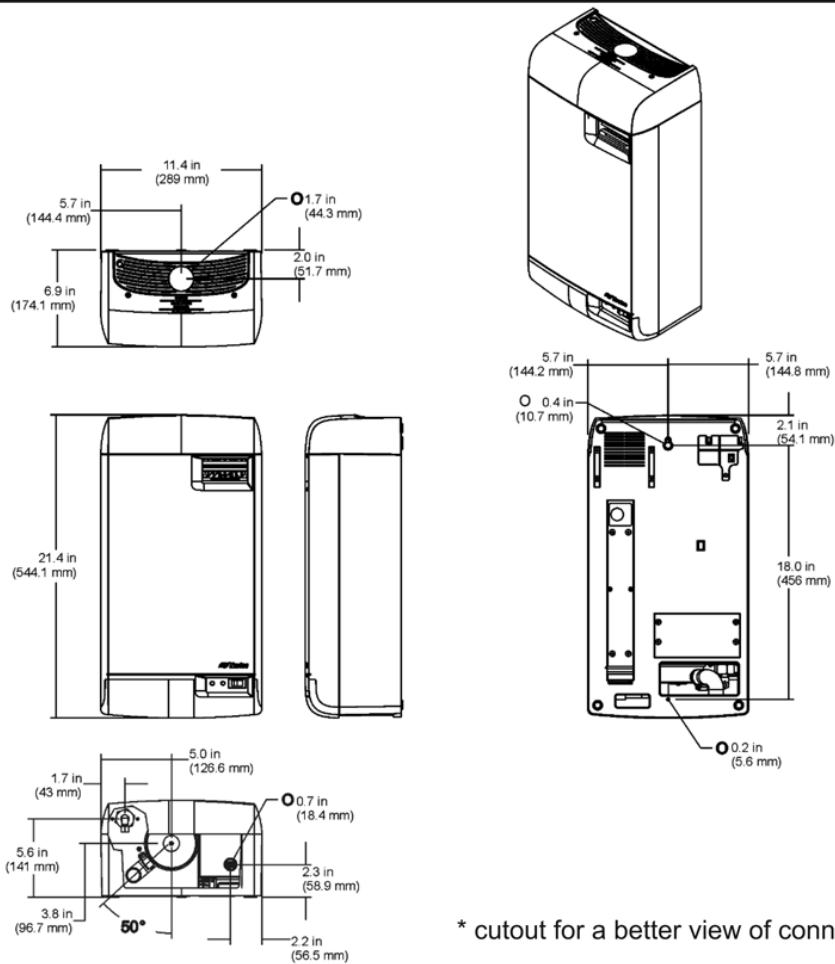
The factory installed integrated blower pack is complete for direct space humidification\*

\*Refer to the RH2 Duct for in-duct steam humidification.

## FEATURES

- Output rated at 8.0 lbs/hr at 220-240V, 6.9 lbs/hr at 208V and 4.0 lbs/hr at 110-120V
- Integral blower pack
- Pure, sterile steam humidification
- Low noise output with Quiet Drain Valve
- Low maintenance requirements
- On/Off or modulating control
- Modulating output down to 20%
- Limited manual capacity adjustment of 20%
- Long life status indicator LEDs on front of unit
- Hygienic automatic drain down after three days without a call for humidification
- Internal Drain Water tempering to 140°F (60°C) maximum, meeting local plumbing codes
- Fill cup with internal one inch air gap
- UL listed
- Two year limited warranty

## A2 - RES (2585378) Schematic



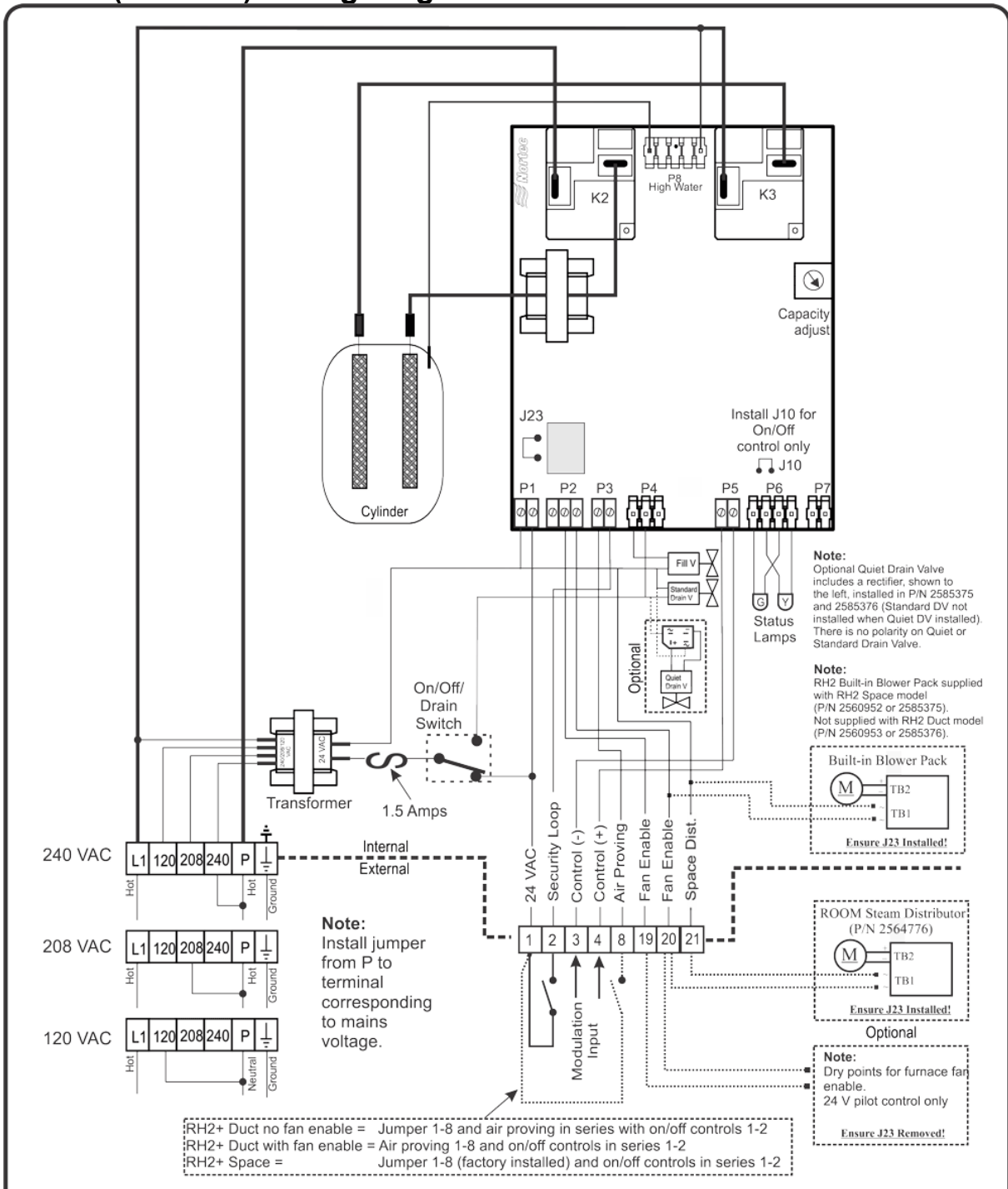
### Performance Data

	110-120/1/60 V/(phase)/Hz	208/1/60 V/(phase)/Hz	220-240/1/60 V/(phase)/Hz
Power Circuit	110-120/1/60 V/(phase)/Hz	208/1/60 V/(phase)/Hz	220-240/1/60 V/(phase)/Hz
Output Range Minimum	0.8 lbs/hr (0.4 kg/hr)	1.4 lbs/hr (0.6 kg/hr)	1.6 lbs/hr (0.7 kg/hr)
Output Range Maximum	4.0 lbs/hr (1.8 kg/hr)	6.9 lbs/hr (3.1 kg/hr)	8.0 lbs/hr (3.6 kg/hr)
Rated Input	1.5 kW	2.6 kW	3.0 kW
Rated Current	12.7 Amps	12.7 Amps	12.7 Amps
Maximum Circuit Protection	20 Amps	20 Amps	20 Amps

### Dimensional Data

Net Weight	16.0 lbs (7.5 kg)
Full Weight	22.0 lbs (10.0 kg)
Front Clearance	36 in (914 mm)
Supply Water OD	0.25 in
Drain Water OD	0.875 in
Steam Outlet OD	0.875 in

### A3 - RES (2585378) Wiring Diagram



RH2+ humidifier 120/208/240 Vac

Wiring Diagram

2568049 Revision: F

Date: 27-SEP-2018

## **A4 - Controls (2597928) Description**

### **Condair RCC**

Proportional-Integral (PI) humidity controller Condair RCC with integrated humidity sensor provides accurate humidity control in rooms. The output signal of the controller (0...10 VDC, 0...20 mA or 2...10 VDC, 4...20 mA) may be customized by jumpers.

Install the Condair RCC humidity controller in a protected and easily accessible place at least 1.5 m above the floor to the wall (mounting on flush-mounting or wall-mounting box).

Observe the following placement notes:

- Do not place the Condair RCC in niches, behind curtains, etc..
- Do not place the Condair RCC near heat sources, within the area with direct air draft or direct sunlight.



# A5 - Controls (2597928) Installation



RCC-NA  
1510142

**A** mm (inch)

**B**

**C**

**D**

**E**

	0V / GND	24V	N/A	N/A	N/A	AO 0-10V	N/A	Temp. Reset
1	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
2								
3								
4								
5								
6								
7								
8								

- 1: 0V / GND
- 2: 24 V AC/DC ±10%
- 3: Do not connect
- 4: Do not connect
- 5: Do not connect
- 6: 0...10VDC
- 7: Do not connect
- 8: Temp. Reset

For Wiring Schematic:  
Get the Condair  
Sensor Connect App

## A6 - Controls (2597928) Shop Drawing

<b>Power Supply / Stromversorgung</b>	
Operating voltage / Betriebsspannung	24 V AC 50/60 Hz $\pm$ 10%, 24VDC $\pm$ 10%
Power consumption / Leistungsaufnahme	Max. 3 VA
Terminal connectors / Klemmenanschlüsse	0.34...2.5 mm <sup>2</sup> (AWG 24...12)
<b>Signal Input / Signaleingang</b>	
Universal Input / Universaleingang	UI1, UI2
<b>Signal Output / Signalausgänge</b>	
Analog output/ Analogausgang	AO1
Analog signals / Ausgangssignale	RCC: 0...10 VDC / 0...20mA RCC-NA: 0...10 VDC
Resolution / Auflösung	39 mV or 0.078 mA
Maximum Load / Maximale Last	10 mA (@ 0...10 VDC) 20 mA (@ 0...20mA)
<b>Environment / Umgebung</b>	
Operation / Betrieb	IEC 721-3-3
Climate Conditions / Klimatische Bedingungen	Class 3 K5
Temperature / Temperatur	0...50 °C (32...122 °F)
Humidity / Feuchtigkeit	<95 %rF non-condensing / nicht kondensierend
Transport and storage / Transport & Lagerung	IEC 721-3-2 & IEC 721-3-1
Climate conditions / Klimatische Bedingungen	Class 3 K3 und Class 1 K3
Temperature / Temperatur	-25...70 °C (-13...158 °F)
Humidity / Feuchtigkeit	<95 %rF non-condensing / nicht kondensierend
Mechanical Conditions / Mech. Bedingungen	Class 2M2

## A7 - Controls (2597928) Wiring Diagram

Smartphone App - Condair Sensor Connect



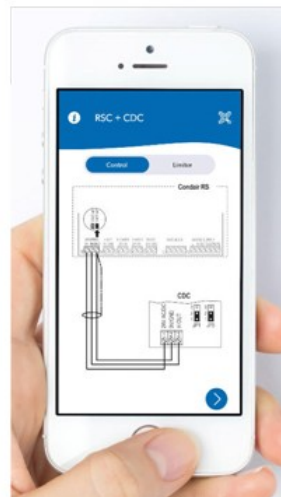
Scan the Sensor QR



Scan the Device QR



Get the Schematic



Get the Settings



### The connection diagram quickly at hand

Condair has provided the spec labels of all sensors and humidifiers with a practical QR code so that you can quickly and conveniently view the respective connection diagram and unit configuration even without the technical manual.

Install the Condair Sensor Connect app once, open the app, scan the QR-code on the sensor as well as on the humidifier and get the relevant wiring diagram and configurations.

No matter whether you are online or offline.

### Das Anschlusschema schnell im Griff

Die Typenschilder aller Fühler und die Luftbefeuchter hat Condair mit einem praktischen QR-Code versehen, sodass Sie auch ohne das Technische Handbuch, schnell und bequem das jeweilige Anschlusschema und Gerätekonfiguration ansehen können.

Einmal die Condair Sensor Connect App installieren, App öffnen, QR Code am Fühler und Luftbefeuchter scannen und das für Sie relevante Anschlusschema und Konfigurationen erhalten.

Egal ob online oder offline.

## **TERMS & CONDITIONS OF SALE**

### **PRICES:**

All prices are LIST price. All prices and discount factors are subject to change without notice.

### **ORDERS:**

All orders must be in writing (made out to Condair Inc. or Condair Ltd. hereinafter collectively referred to as Condair) or submitted through Help software, and are subject to acceptance by Condair's Credit Manager prior to production release and are contingent upon governmental regulations, availability of labor and materials, strikes, accidents, fires, and all other causes beyond the control of Condair.

### **SHIPPING TERMS:**

Shipping Terms: All packaged goods, (electric and gas-fired) humidifiers, SAM-e, Livesteam distribution systems, HP, ML and AirFog, are shipped FOB factory, standard ground freight included to the continental United States and Canada. Parts orders that are over \$1,000 net invoice value are shipped freight included. All air freight charges are extra. Export crating and export shipping costs are extra.

### **RISK OF LOSS & DAMAGE:**

Risk of loss or damage passes to the Buyer when the equipment described herein is delivered to the carrier. Any claim for goods lost or damaged in transit, shall be made by the Buyer against the carrier.

### **CHANGED OR CANCELLED ORDERS:**

- All changed or cancelled orders, in production or completed, are subject to a charge of 30%.
- Orders other than "Quick Ship Orders" for packaged products (e.g. electric, gas-fired) may generally be cancelled within 48 hours of being placed. Condair will make every effort to stop production of an order upon written notice of cancellation. If production has not started, Condair will waive the cancellation charge.
- Orders for equipment specially fabricated cannot be cancelled. E.g. SAM-e, LiveSteam, HP, ML, ME, and DL.
- Parts orders that are regular stock items are not subject to a cancellation charge. However, if a parts order is changed, which includes adding new parts to an order; this may cause a delay in delivery.

### **RETURNED GOODS:**

- Condair will accept unused equipment returned for credit only when prior approval has been given. Prior to returning goods a Return Material Authorization Number (RMA) must be obtained and it must be clearly marked on all returned goods. Goods received without an RMA will not be accepted and credit will not be issued. Any material accepted for return must be shipped back prepaid by the Buyer and must reach Condair without damage.
- An RMA will only be issued within 3-months of the equipment's shipping date.
- Any unused equipment accepted for return is subject to a 30% restocking charge.
- Equipment specially fabricated, cannot be returned. E.g. SAM-e, Livesteam, HP, ML, ME, and DL.
- Credit will only be issued to the original purchaser.
- Credit will be issued in the form of a credit note, which can be used towards a future purchase.

### **WARRANTY - UNITS:**

Condair warrants for a period of two years after installation or 30 months from the manufacturer's ship date, whichever is earlier, that Condair's manufactured and assembled products, not otherwise expressly warranted, are free from defects in material and workmanship. No warranty is made against corrosion, deterioration, or suitability of substituted materials used as a result of compliance with government regulations. Extended warranties are available for most Condair manufactured products at the time of initial product order.

Condair's obligations and liabilities under this warranty are limited to furnishing replacement parts to the customer, F.O.B. Condair's factory, providing the defective part(s) is returned freight prepaid by the Buyer. Parts used for repairs are warranted for the balance of the term of the warranty on the original humidifier or 90 days, whichever is longer.

The warranties set forth herein are in lieu of all other warranties expressed or implied by law. No liability whatsoever shall be attached to Condair until said products have been paid for in full and then said liability shall be limited to the original purchase price for the product. Any further warranty must be in writing, signed by an officer of Condair. In no event will Condair be liable for any incidental, special, indirect or consequential damages or for loss of profits, business or goodwill whether based in contract or in tort or other liability to provide indemnification or any other remedy. This limitation applies whether or not Condair has been advised or is aware of the possibility of such damages.

Condair's limited warranty on accessories, not of Condair's manufacture, such as controls, humidistats, pumps, etc. is limited to the warranty of the original equipment manufacturer from date of original shipment of the products to the Buyer.

Condair makes no warranty and assumes no liability unless the equipment is installed in strict accordance with a copy of the catalog and installation manual in effect at the date of purchase and by a contractor approved by Condair to install such equipment. Condair makes no warranty and assumes no liability whatsoever for consequential damage or damage resulting directly from misapplication, incorrect sizing or lack of proper maintenance of the equipment. Condair retains the right to change the design, specification and performance criteria of its products without notice or obligation.

Extended warranties for 1, 2, or 3 additional years can be purchased at time of order only through Help Software.

Parts or materials that are considered consumables, including but not limited to: cylinders, filters, nozzles, membranes, media, gaskets, O-rings, etc. are NOT covered by the warranty.

Condair makes no warranty and assumes no liability whatsoever for damage resulting from freezing of the humidifier, supply lines, drain lines, or quality of the water used.

#### **REPLACEMENT PARTS:**

- All requests for replacement parts, whether they are for warranty consideration or not, require a covering purchase order, prior to Condair releasing the goods. Goods will be shipped to the Buyer with an invoice.
- To obtain credit for parts covered by Condair's warranty, defective parts must be returned for inspection. To return parts the Buyer must request a Return Material Authorization (RMA) and it must be clearly marked on all returned parts. Parts returned without an RMA will not be accepted and credit will not be issued. All parts returned for credit must be shipped back prepaid by the Buyer.
- All parts must be returned within 3-months of an RMA being issued. Parts returned more than 3-months from when the RMA was issued will not be accepted.
- Credit for parts covered under warranty will be issued, if inspection indicates the returned parts are defective.

#### **PAYMENT:**

Terms of payment are net 30 days from date of invoice, unless otherwise specified. The offer of these terms is contingent upon approval by the Credit Manager at the time of receipt of the Buyer's official order. The Buyer agrees that interest on all overdue accounts may be charged monthly at a rate of 2.0% per month (24% per annum). Maintaining good credit will assist in meeting delivery. For quick ship orders, contact factory for pricing.