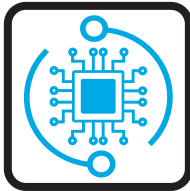


## PCGH-3R - 4 WAY CASSETTE



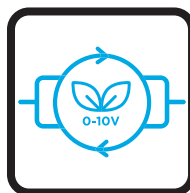
### FEATURES

#### CONTROL FLEXIBILITY



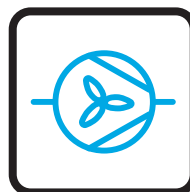
Two types of control system: Intelligent control board (I-Control) controlled via Infra-red handset and/or Intelligent wired wall pad or Flexible control (W-Control) permitting operation with external thermostat applications both controls allows configuration for 2 or 4-pipe settings.

#### EFFICIENT EC MOTOR



EC motors allow the centrifugal fan to operate at optimum airflow performance, energy efficiency and quiet operation. EC motors include driven control PCB, constant torque, permanent magnet and 3 speeds pre-set or modulating with a 0-10 VDC signal for precise air balancing control.

#### FAN BLOWER



Backward-curved centrifugal fan, statically and dynamically balanced to operate at optimum 4 way airflow performance, energy efficiency and quiet operation. Fire-retardant plastic fan impellers for lightweight and corrosion-resistant operation.



## CASING

Enclosure constructed from galvanized steel, integral fan mounting rails, and internal fire resistant insulation. Front panel is made from high impact polystyrene RAL 9010 ensuring durability and a sleek appearance.



## WATER COILS

Built with seamless copper tubes and headers, mechanically expanded into corrugated aluminium fin material for a permanent primary to secondary surface bond. Tested at 500 psi, with maximum operating limits at 300 psi.



## READY TO INSTALL

The PCGH-3R range is offered as a complete package including as standard items such as an integrated Sauermann Condensate Pump, Internal drain pan, NBR insulation and MERV 4 filter. Furthermore, we offer multiple optional accessories.

## KEY POINTS

- Plug and play control box
- Auto Dynamic Balancing with I-Control
- High Cooling capacity up to 51 MBH



## ACCESSORIES

- IR Handset or Wired Wall Pad (Available with I-Control)
- Thermostat Controller (Available with W-Control)
- Electric heater up to 3kW
- 2 or 3 Way On/Off & Modulating Valves
- Belimo Valve Kit
- Plastic Fresh Air Intake Flange
- MERV 8 filter

\*Please refer to page 86 for further information and accessories.

## TECHNICAL SPECIFICATIONS

Hydronic 4 way Cassette; 3R; 2 Pipe with **EC Motor**

| UNIT<br>GENERAL<br>SPECS | PCG(H)-3R-[Size]-V-AECM                 |     |         | 04                              | 08       | 12       | 20       | 24       |
|--------------------------|-----------------------------------------|-----|---------|---------------------------------|----------|----------|----------|----------|
|                          | Configuration                           |     |         | 2-pipe                          |          |          |          |          |
|                          | Number of Fan Blowers                   |     |         | Single                          |          |          |          |          |
|                          | Power Supply (V/Ph/Hz)                  |     |         | 110-120/1/60                    |          |          |          |          |
|                          |                                         |     |         | 208-240/1/60                    |          |          |          |          |
| AIR                      | Total<br>Air Flow                       | H   | CFM     | 338                             | 476      | 765      | 1300     | 1618     |
|                          |                                         | M   |         | 224                             | 425      | 618      | 941      | 1494     |
|                          |                                         | L   |         | 118                             | 118      | 212      | 482      | 600      |
| COOLING                  | Cooling<br>Capacity                     | H   | BTU/Hr  | 11907                           | 17236    | 24201    | 37785    | 50990    |
|                          |                                         | M   |         | 8762                            | 15478    | 20606    | 31527    | 48387    |
|                          |                                         | L   |         | 5220                            | 5443     | 8526     | 18830    | 23557    |
|                          | Sensible Cooling<br>Capacity            | H   |         | 7880                            | 11463    | 16230    | 25286    | 34245    |
|                          |                                         | M   |         | 5687                            | 10246    | 13677    | 20843    | 32386    |
|                          |                                         | L   |         | 3323                            | 3517     | 5556     | 12154    | 15168    |
| HEATING                  | Heating<br>Capacity                     | H   | BTU/Hr  | 18509                           | 26794    | 37622    | 58739    | 79266    |
|                          |                                         | M   |         | 13621                           | 24062    | 32034    | 49010    | 75219    |
|                          |                                         | L   |         | 8115                            | 8462     | 13255    | 29272    | 36620    |
|                          | Max. Electric Heater<br>Capacity @ 115V |     | kw      | 0.5                             | 1        | 1.5      | 2        | 2        |
|                          | Max. Electric Heater<br>Capacity @ 220V |     |         | 1                               | 2        | 3        | 4        | 4        |
| SOUND                    | Pressure Level (Outlet)                 |     | dB(A)   | 43/39/27                        | 50/40/26 | 56/53/32 | 58/53/37 | 64/61/41 |
|                          | Power Level (Outlet)                    |     |         | 52/48/36                        | 59/49/35 | 65/62/41 | 67/63/44 | 73/70/50 |
| ELECTRICAL               | Power Input                             | H   | W       | 21                              | 47       | 82       | 140      | 220      |
|                          |                                         | M   |         | 14.8                            | 18       | 67       | 100      | 178      |
|                          |                                         | L   |         | 11                              | 11       | 16       | 27       | 50       |
|                          | Running Current 115V (H)                |     | A       | 0.37                            | 0.82     | 1.43     | 2.44     | 3.83     |
|                          | Running Current 220V (H)                |     |         | 0.19                            | 0.43     | 0.75     | 1.27     | 2        |
| HYDRONIC                 | Cooling<br>Water Flow Rate              | H   | GPM     | 2.35                            | 3.4      | 4.78     | 7.81     | 10.07    |
|                          |                                         | M   |         | 1.73                            | 3.06     | 4.07     | 6.23     | 9.56     |
|                          |                                         | L   |         | 1.03                            | 1.07     | 1.68     | 3.72     | 4.65     |
|                          | Cooling<br>Pressure Drop                | H   | Ft. hd. | 12.08                           | 15.05    | 16.8     | 12.72    | 16.53    |
|                          |                                         | M   |         | 6.95                            | 12.4     | 12.58    | 9.18     | 15.05    |
|                          |                                         | L   |         | 2.74                            | 1.89     | 2.57     | 3.63     | 4.12     |
|                          | Heating<br>Water Flow Rate              | H   | GPM     | Same as cooling water flow rate |          |          |          |          |
|                          |                                         | M   |         |                                 |          |          |          |          |
|                          |                                         | L   |         |                                 |          |          |          |          |
|                          | Heating<br>Pressure Drop                | H   | Ft. hd. | 10.87                           | 13.55    | 15.12    | 12.44    | 14.88    |
|                          |                                         | M   |         | 6.26                            | 11.16    | 11.32    | 8.26     | 13.54    |
|                          |                                         | L   |         | 2.46                            | 1.7      | 2.31     | 3.27     | 3.71     |
| Water Content            |                                         | Gal | 0.33    | 0.41                            | 0.47     | 0.64     | 0.79     |          |

### TESTING CONDITIONS (RATED AT AHRI STANDARD 440):

#### a. Cooling mode (2-pipe/ 4-pipe):

- Return air temperature: DB 80°F/WB 67°F
- Inlet/ outlet water temperature: 45°F/ 55°F

#### b. Heating mode (2-pipe):

- Return air temperature: 70°F
- Inlet water temperature: 140°F
- Water flow-rate: Same as cooling mode

## TECHNICAL SPECIFICATIONS

Hydronic 4 way Cassette; 3R; 4 Pipe with **EC Motor**

| UNIT<br>GENERAL<br>SPECS | PCG(H)-3R-[Size]-P-AECM      |   |         | 04           | 08       | 12       | 20       | 24       |
|--------------------------|------------------------------|---|---------|--------------|----------|----------|----------|----------|
|                          | Configuration                |   |         | 4-pipe       |          |          |          |          |
|                          | Number of Fan Blowers        |   |         | Single       |          |          |          |          |
|                          | Power Supply (V/Ph/Hz)       |   |         | 110-120/1/60 |          |          |          |          |
|                          |                              |   |         | 208-240/1/60 |          |          |          |          |
| AIR                      | Total<br>Air Flow            | H | CFM     | 338          | 476      | 765      | 1300     | 1618     |
|                          |                              | M |         | 224          | 425      | 618      | 641      | 1494     |
|                          |                              | L |         | 118          | 118      | 212      | 482      | 600      |
| COOLING                  | Cooling<br>Capacity          | H | BTU/Hr  | 9408         | 13472    | 18493    | 28587    | 38476    |
|                          |                              | M |         | 6923         | 12098    | 15746    | 23852    | 36512    |
|                          |                              | L |         | 4125         | 4255     | 6515     | 14246    | 17776    |
|                          | Sensible Cooling<br>Capacity | H |         | 6303         | 9092     | 12641    | 20492    | 26386    |
|                          |                              | M |         | 4549         | 8126     | 10653    | 16053    | 24953    |
|                          |                              | L |         | 2658         | 2789     | 4327     | 9361     | 11687    |
| HEATING                  | Heating<br>Capacity          | H | BTU/Hr  | 11353        | 15318    | 22158    | 34154    | 45798    |
|                          |                              | M |         | 8355         | 14069    | 18911    | 28562    | 42897    |
|                          |                              | L |         | 4996         | 5138     | 8268     | 17064    | 21271    |
| SOUND                    | Pressure Level (Outlet)      |   | dB(A)   | 43/39/27     | 50/40/26 | 56/53/32 | 58/53/37 | 64/61/41 |
|                          | Power Level (Outlet)         |   |         | 52/48/36     | 59/49/35 | 65/62/41 | 67/63/44 | 73/70/50 |
| ELECTRICAL               | Power Input                  | H | W       | 21           | 47       | 82       | 140      | 220      |
|                          |                              | M |         | 14.8         | 18       | 67       | 100      | 178      |
|                          |                              | L |         | 11           | 11       | 16       | 27       | 50       |
|                          | Running Current 115V (H)     |   | A       | 0.37         | 0.82     | 1.43     | 2.44     | 3.83     |
|                          | Running Current 220V (H)     |   |         | 0.19         | 0.43     | 0.75     | 1.27     | 2        |
| HYDRONIC                 | Cooling<br>Water Flow Rate   | H | GPM     | 1.86         | 2.66     | 3.65     | 5.65     | 7.6      |
|                          |                              | M |         | 1.37         | 2.39     | 3.11     | 4.71     | 7.21     |
|                          |                              | L |         | 0.81         | 0.84     | 1.29     | 2.81     | 3.51     |
|                          | Cooling<br>Pressure Drop     | H | Ft. hd. | 11.72        | 11.97    | 11.54    | 9.62     | 11.14    |
|                          |                              | M |         | 6.75         | 9.86     | 8.64     | 6.95     | 10.14    |
|                          |                              | L |         | 2.66         | 1.5      | 1.76     | 2.75     | 2.77     |
|                          | Heating<br>Water Flow Rate   | H | GPM     | 0.57         | 0.76     | 1.1      | 1.7      | 2.28     |
|                          |                              | M |         | 0.42         | 0.7      | 0.94     | 1.42     | 2.14     |
|                          |                              | L |         | 0.25         | 0.26     | 0.41     | 0.85     | 1.06     |
|                          | Heating<br>Pressure Drop     | H | Ft. hd. | 1.66         | 3.44     | 6.86     | 6.91     | 6.65     |
|                          |                              | M |         | 0.96         | 2.95     | 5.16     | 5.01     | 5.91     |
|                          |                              | L |         | 0.38         | 0.48     | 1.16     | 1.98     | 1.67     |
|                          | Chilled Water Content        |   | Gal     | 0.22         | 0.27     | 0.31     | 0.43     | 0.53     |
|                          | Hot Water Content            |   |         | 0.11         | 0.14     | 0.16     | 0.21     | 0.26     |

### TESTING CONDITIONS (RATED AT AHRI STANDARD 440):

**a. Cooling mode (2-pipe/ 4-pipe):**

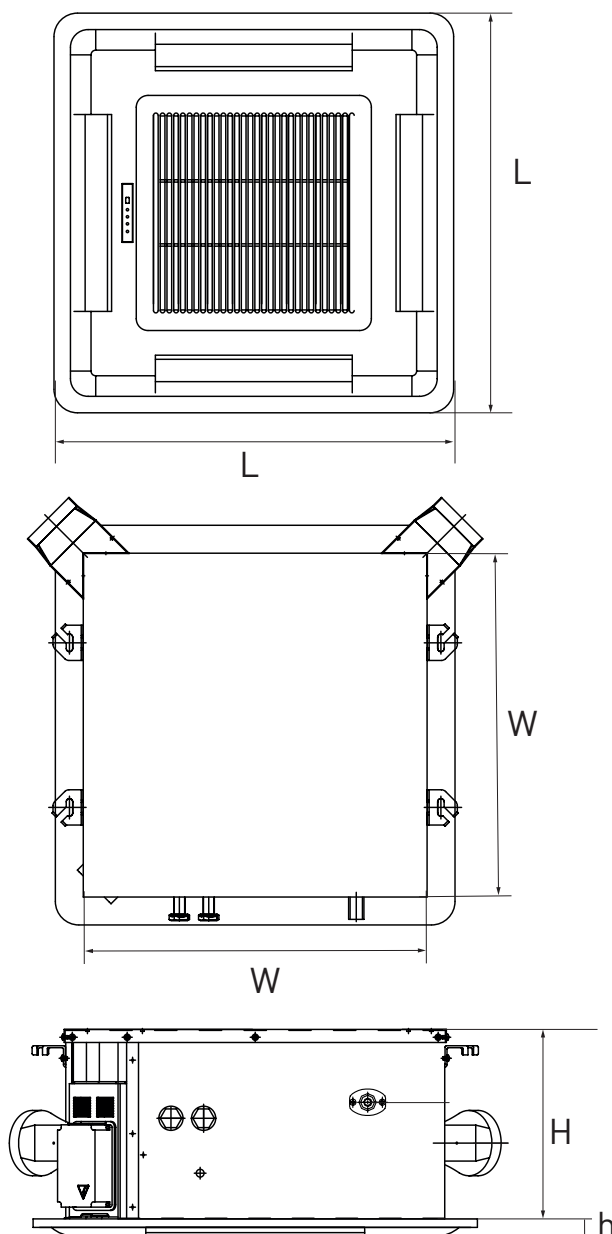
- Return air temperature: DB 80°F/WB 67°F
- Inlet/ outlet water temperature: 45°F/ 55°F

**b. Heating mode (4-pipe):**

- Return air temperature: 70°F
- Inlet water temperature: 180°F/140°F

(All dimensions are approximate within 1/16 of an inch of those indicated)

## DIMENSIONAL DRAWINGS, DATA & WEIGHTS



| PCGH                                |                        |            |             | 04                                         | 08      | 12       | 20       | 24       |
|-------------------------------------|------------------------|------------|-------------|--------------------------------------------|---------|----------|----------|----------|
| CONSTRUCTION<br>AND PACKING<br>DATA | Water<br>Connections   | Type       |             | FNPT (Threaded Female)                     |         |          |          |          |
|                                     |                        | In         | inch        | 3/4                                        |         |          |          |          |
|                                     |                        | Out        |             | Outside diameter: 1 Inside diameter: 13/16 |         |          |          |          |
|                                     | Condensate<br>Drainage |            | L<br>W<br>H | 22-15/16                                   |         | 28-3/4   | 32-11/16 | 37-13/16 |
|                                     | Unit<br>Dimensions     |            |             | 10-1/16                                    |         | 11-7/16  | 10-1/4   | 11-7/16  |
|                                     | Panel<br>Dimensions    |            |             | 10-1/16                                    | 11-7/16 | 10-1/4   | 11-7/16  |          |
|                                     |                        |            | W<br>h      | 26-3/4                                     |         | 32-11/16 | 38-9/16  | 44-7/8   |
|                                     |                        |            |             | 1-1/8                                      |         |          |          |          |
|                                     | WEIGHT                 | Net Weight | lbs         |                                            | 62      | 66       | 79       | 110      |