



Commissioning Authority Shop
Drawing Review

Charlotte Office
Commissioning Group
8801 JM Keynes Drive, Suite 240
Charlotte, North Carolina 28262
Phone 704-376-7072

PROJECT: CMS Elon Park Relief ES
ML PROJECT NO: 221.038
SUBMITTAL: 233600-1-0 Air Terminal Units

DISPOSITION LEGEND

RO REVIEW ONLY

Commissioning Authority neither approves nor disapproves submittal. Notations, if any, are for Designer use.

Reviewer: Kevin Richey

Date: May 6, 2022

1. Revise reheat coil selection to meet ΔT requirement (120°F LWT)

End of Comments



SINGLE DUCT VAV SUBMITTAL

Project

CMS Grier, Hidden Valley, Newell Elementary School Relief

Date

Tuesday, April 12, 2022

Mechanical Engineer

Optima Engineering

Mechanical Contractor

Superior Mechanical Systems, Inc.

In accordance with Specification Section 233600

AIR TERMINAL UNITS

Notes:

1. Controls to be Factory Mounted and Installed, but provided by controls contractor
2. Sensors, Thermostats, and Control Devices to be provided by controls contractor

Scheduled at 95 F.
Average delta=3.6 F.

VAV BOX SCHEDULE

| Unit Tag | Model | Controller | Unit Size/Inlet | Reheat Type | Handing (Right/Left) | Primary Max Airflow (CFM) | Primary Min Airflow (CFM) | Inlet Pressure (in wg) | Discharge Pressure (in wg) | Heating Capacity (MBH) | Heating Coil APD (in wg) | Reheat Fluid Rows | Heating Coil EAT (F) | Heating Coil LAT (F) | Htg Airflow (CFM) | Heating Coil Fluid Flow (gpm) | Heating Coil EWT (F) | Heating Coil LWT (F) | Htg Fluid Pressure Drop (ft wg) | Min Unit Static Pressure (in wg) | Rad Fan NC | Disch Fan NC |
|----------|-------|--------------------------------------|--------------------------|--------------|----------------------|---------------------------|---------------------------|------------------------|----------------------------|------------------------|--------------------------|-------------------|----------------------|----------------------|-------------------|-------------------------------|----------------------|----------------------|---------------------------------|----------------------------------|------------|--------------|
| VAV 1.01 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | Water Reheat | | 600 | 180 | 1.00 | 0.20 | 14.69 | 0.27 | 2 Rows | 55 | 100.3 | 300 | 1.0 | 160 | 129.9 | 0.36 | 0.35 | 18 | 21 |
| VAV 1.02 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | Water Reheat | | 500 | 150 | 1.00 | 0.20 | 13.44 | 0.20 | 2 Rows | 55 | 104.8 | 250 | 1.0 | 160 | 132.5 | 0.36 | 0.25 | 16 | 19 |
| VAV 1.03 | 35E | Factory Installed Controls by Others | 6 Inch (89 - 515 CFM) | Water Reheat | | 300 | 90 | 1.00 | 0.20 | 9.19 | 0.13 | 2 Rows | 55 | 111.7 | 150 | 1.0 | 160 | 141.2 | 0.26 | 0.19 | 13 | 18 |
| VAV 1.04 | 35E | Factory Installed Controls by Others | 10 Inch (248 - 1430 CFM) | Water Reheat | | 750 | 230 | 1.00 | 0.20 | 17.99 | 0.21 | 2 Rows | 55 | 98.8 | 380 | 1.0 | 160 | 123.2 | 0.20 | 0.26 | 5 | 15 |
| VAV 1.05 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | Water Reheat | | 560 | 170 | 1.00 | 0.20 | 14.21 | 0.24 | 2 Rows | 55 | 102.0 | 280 | 1.0 | 160 | 130.9 | 0.36 | 0.31 | 17 | 20 |
| VAV 1.06 | 35E | Factory Installed Controls by Others | 6 Inch (89 - 515 CFM) | Water Reheat | | 400 | 120 | 1.00 | 0.20 | 10.73 | 0.22 | 2 Rows | 55 | 104.7 | 200 | 1.0 | 160 | 138.0 | 0.26 | 0.32 | 17 | 21 |
| VAV 1.07 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | Water Reheat | | 500 | 150 | 1.00 | 0.20 | 13.44 | 0.20 | 2 Rows | 55 | 104.8 | 250 | 1.0 | 160 | 132.5 | 0.36 | 0.25 | 16 | 19 |
| VAV 1.08 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 900 | 270 | 1.00 | 0.20 | 21.81 | 0.16 | 2 Rows | 55 | 99.9 | 450 | 1.0 | 160 | 115.4 | 0.25 | 0.20 | 12 | 13 |
| VAV 1.09 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | Water Reheat | | 600 | 180 | 1.00 | 0.20 | 14.69 | 0.27 | 2 Rows | 55 | 100.3 | 300 | 1.0 | 160 | 129.9 | 0.36 | 0.35 | 18 | 21 |
| VAV 1.10 | 35E | Factory Installed Controls by Others | 6 Inch (89 - 515 CFM) | Water Reheat | | 300 | 90 | 1.00 | 0.20 | 9.19 | 0.13 | 2 Rows | 55 | 111.7 | 150 | 1.0 | 160 | 141.2 | 0.26 | 0.19 | 13 | 18 |
| VAV 1.11 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | None | | 1000 | 0 | 1.00 | 0.20 | 0.00 | 0.00 | None | 55 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0.00 | 0.04 | 13 | 14 |
| VAV 1.12 | 35E | Factory Installed Controls by Others | 6 Inch (89 - 515 CFM) | Water Reheat | | 400 | 120 | 1.00 | 0.20 | 10.73 | 0.22 | 2 Rows | 55 | 104.7 | 200 | 1.0 | 160 | 138.0 | 0.26 | 0.32 | 17 | 21 |
| VAV 1.13 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | None | | 500 | 0 | 1.00 | 0.20 | 0.00 | 0.00 | None | 55 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0.00 | 0.05 | 16 | 20 |
| VAV 1.14 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1025 | 310 | 1.00 | 0.20 | 24.65 | 0.21 | 2 Rows | 55 | 98.9 | 520 | 1.2 | 160 | 118.0 | 0.35 | 0.25 | 13 | 14 |
| VAV 1.15 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | Water Reheat | | 600 | 180 | 1.00 | 0.20 | 14.69 | 0.27 | 2 Rows | 55 | 100.3 | 300 | 1.0 | 160 | 129.9 | 0.36 | 0.35 | 18 | 21 |
| VAV 1.16 | 35E | Factory Installed Controls by Others | 10 Inch (248 - 1430 CFM) | Water Reheat | | 800 | 240 | 1.00 | 0.20 | 18.38 | 0.23 | 2 Rows | 55 | 97.6 | 400 | 1.0 | 160 | 122.4 | 0.20 | 0.29 | 6 | 16 |
| VAV 1.17 | 35E | Factory Installed Controls by Others | 6 Inch (89 - 515 CFM) | Water Reheat | | 200 | 60 | 1.00 | 0.20 | 5.00 | 0.03 | 1 Row | 55 | 101.3 | 100 | 1.0 | 160 | 150.5 | 0.58 | 0.06 | 8 | 12 |
| VAV 4.01 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | Water Reheat | | 550 | 170 | 1.00 | 0.20 | 14.21 | 0.24 | 2 Rows | 55 | 102.0 | 280 | 1.0 | 160 | 130.9 | 0.36 | 0.30 | 17 | 20 |
| VAV 4.02 | 35E | Factory Installed Controls by Others | 10 Inch (248 - 1430 CFM) | Water Reheat | | 800 | 240 | 1.00 | 0.20 | 18.38 | 0.23 | 2 Rows | 55 | 97.6 | 400 | 1.0 | 160 | 122.4 | 0.20 | 0.29 | 6 | 16 |
| VAV 4.03 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1000 | 300 | 1.00 | 0.20 | 23.56 | 0.20 | 2 Rows | 55 | 98.6 | 500 | 1.1 | 160 | 116.2 | 0.30 | 0.24 | 13 | 14 |
| VAV 4.04 | 35E | Factory Installed Controls by Others | 14 Inch (486 - 2800 CFM) | Water Reheat | | 1600 | 480 | 1.00 | 0.20 | 37.58 | 0.23 | 2 Rows | 55 | 98.5 | 800 | 1.8 | 160 | 117.3 | 0.49 | 0.29 | 11 | 16 |
| VAV 4.05 | 35E | Factory Installed Controls by Others | 14 Inch (486 - 2800 CFM) | Water Reheat | | 1850 | 560 | 1.00 | 0.20 | 42.09 | 0.30 | 2 Rows | 55 | 96.9 | 930 | 2.1 | 160 | 119.0 | 0.65 | 0.38 | 13 | 19 |
| VAV 4.06 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | Water Reheat | | 600 | 180 | 1.00 | 0.20 | 14.69 | 0.27 | 2 Rows | 55 | 100.3 | 300 | 1.0 | 160 | 129.9 | 0.36 | 0.35 | 18 | 21 |
| VAV 4.07 | 35E | Factory Installed Controls by Others | 14 Inch (486 - 2800 CFM) | Water Reheat | | 1900 | 570 | 1.00 | 0.20 | 42.47 | 0.32 | 2 Rows | 55 | 96.4 | 950 | 2.1 | 160 | 118.6 | 0.65 | 0.40 | 13 | 20 |
| VAV 4.08 | 35E | Factory Installed Controls by Others | 14 Inch (486 - 2800 CFM) | Water Reheat | | 2000 | 600 | 1.00 | 0.20 | 44.03 | 0.35 | 2 Rows | 55 | 95.8 | 1000 | 2.2 | 160 | 119.0 | 0.70 | 0.44 | 14 | 21 |
| VAV 4.09 | 35E | Factory Installed Controls by Others | 14 Inch (486 - 2800 CFM) | Water Reheat | | 1500 | 450 | 1.00 | 0.20 | 35.89 | 0.21 | 2 Rows | 55 | 99.3 | 750 | 1.7 | 160 | 116.8 | 0.44 | 0.26 | 9 | 15 |
| VAV 4.10 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | None | | 500 | 0 | 1.00 | 0.20 | 0.00 | 0.00 | None | 55 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0.00 | 0.05 | 16 | 20 |
| VAV 4.11 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | Water Reheat | | 500 | 150 | 1.00 | 0.20 | 13.44 | 0.20 | 2 Rows | 55 | 104.8 | 250 | 1.0 | 160 | 132.5 | 0.36 | 0.25 | 16 | 19 |
| VAV 5.01 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 900 | 270 | 1.00 | 0.20 | 21.81 | 0.16 | 2 Rows | 55 | 99.9 | 450 | 1.0 | 160 | 115.4 | 0.25 | 0.20 | 12 | 13 |
| VAV 5.02 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1300 | 390 | 1.00 | 0.20 | 29.11 | 0.32 | 2 Rows | 55 | 96.5 | 650 | 1.5 | 160 | 120.3 | 0.52 | 0.38 | 17 | 18 |
| VAV 5.03 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1250 | 380 | 1.00 | 0.20 | 28.10 | 0.29 | 2 Rows | 55 | 96.3 | 630 | 1.4 | 160 | 118.9 | 0.46 | 0.36 | 17 | 17 |
| VAV 5.04 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1350 | 410 | 1.00 | 0.20 | 30.00 | 0.34 | 2 Rows | 55 | 95.9 | 680 | 1.5 | 160 | 120.5 | 0.56 | 0.41 | 17 | 18 |
| VAV 5.05 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1250 | 380 | 1.00 | 0.20 | 28.10 | 0.29 | 2 Rows | 55 | 96.3 | 630 | 1.4 | 160 | 118.9 | 0.46 | 0.36 | 17 | 17 |
| VAV 5.06 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1050 | 320 | 1.00 | 0.20 | 24.85 | 0.22 | 2 Rows | 55 | 98.4 | 530 | 1.2 | 160 | 117.6 | 0.35 | 0.26 | 14 | 14 |
| VAV 5.07 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1250 | 380 | 1.00 | 0.20 | 28.10 | 0.29 | 2 Rows | 55 | 96.3 | 630 | 1.4 | 160 | 118.9 | 0.46 | 0.36 | 17 | 17 |
| VAV 5.08 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1350 | 410 | 1.00 | 0.20 | 30.00 | 0.34 | 2 Rows | 55 | 95.9 | 680 | 1.5 | 160 | 120.5 | 0.56 | 0.41 | 17 | 18 |
| VAV 5.09 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1250 | 380 | 1.00 | 0.20 | 28.10 | 0.29 | 2 Rows | 55 | 96.3 | 630 | 1.4 | 160 | 118.9 | 0.46 | 0.36 | 17 | 17 |
| VAV 5.10 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1050 | 320 | 1.00 | 0.20 | 24.85 | 0.22 | 2 Rows | 55 | 98.4 | 530 | 1.2 | 160 | 117.6 | 0.35 | 0.26 | 14 | 14 |
| VAV 5.11 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1350 | 410 | 1.00 | 0.20 | 30.00 | 0.34 | 2 Rows | 55 | 95.9 | 680 | 1.5 | 160 | 120.5 | 0.56 | 0.41 | 17 | 18 |
| VAV 5.12 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | None | | 500 | 0 | 1.00 | 0.20 | 0.00 | 0.00 | None | 55 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0.00 | 0.05 | 16 | 20 |
| VAV 5.13 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | None | | 500 | 0 | 1.00 | 0.20 | 0.00 | 0.00 | None | 55 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0.00 | 0.05 | 16 | 20 |
| VAV 5.14 | 35E | Factory Installed Controls by Others | 14 Inch (486 - 2800 CFM) | Water Reheat | | 1400 | 420 | 1.00 | 0.20 | 34.16 | 0.18 | 2 Rows | 55 | 100.2 | 700 | 1.6 | 160 | 116.3 | 0.40 | 0.23 | 8 | 14 |
| VAV 5.15 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1300 | 390 | 1.00 | 0.20 | 29.11 | 0.32 | 2 Rows | 55 | 96.5 | 650 | 1.5 | 160 | 120.3 | 0.52 | 0.38 | 17 | 18 |
| VAV 5.16 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1250 | 380 | 1.00 | 0.20 | 28.10 | 0.29 | 2 Rows | 55 | 96.3 | 630 | 1.4 | 160 | 118.9 | 0.46 | 0.36 | 17 | 17 |
| VAV 5.17 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1050 | 320 | 1.00 | 0.20 | 24.85 | 0.22 | 2 Rows | 55 | 98.4 | 530 | 1.2 | 160 | 117.6 | 0.35 | 0.26 | 14 | 14 |
| VAV 5.18 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1250 | 380 | 1.00 | 0.20 | 28.10 | 0.29 | 2 Rows | 55 | 96.3 | 630 | 1.4 | 160 | 118.9 | 0.46 | 0.36 | 17 | 17 |
| VAV 6.01 | 35E | Factory Installed Controls by Others | 8 Inch (159 - 920 CFM) | Water Reheat | | 600 | 180 | 1.00 | 0.20 | 14.69 | 0.27 | 2 Rows | 55 | 100.3 | 300 | 1.0 | 160 | 129.9 | 0.36 | 0.35 | 18 | 21 |
| VAV 6.02 | 35E | Factory Installed Controls by Others | 14 Inch (486 - 2800 CFM) | Water Reheat | | 1500 | 450 | 1.00 | 0.20 | 35.89 | 0.21 | 2 Rows | 55 | 99.3 | 750 | 1.7 | 160 | 116.8 | 0.44 | 0.26 | 9 | 15 |
| VAV 6.03 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1200 | 360 | 1.00 | 0.20 | 26.88 | 0.27 | 2 Rows | 55 | 96.5 | 600 | 1.3 | 160 | 117.7 | 0.41 | 0.33 | 16 | 17 |
| VAV 6.04 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1300 | 390 | 1.00 | 0.20 | 29.11 | 0.32 | 2 Rows | 55 | 96.5 | 650 | 1.5 | 160 | 120.3 | 0.52 | 0.38 | 17 | 18 |
| VAV 6.05 | 35E | Factory Installed Controls by Others | 14 Inch (486 - 2800 CFM) | Water Reheat | | 1600 | 480 | 1.00 | 0.20 | 37.58 | 0.23 | 2 Rows | 55 | 98.5 | 800 | 1.8 | 160 | 117.3 | 0.49 | 0.29 | 11 | 16 |
| VAV 6.06 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1200 | 360 | 1.00 | 0.20 | 26.88 | 0.27 | 2 Rows | 55 | 96.5 | 600 | 1.3 | 160 | 117.7 | 0.41 | 0.33 | 16 | 17 |
| VAV 6.07 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1200 | 360 | 1.00 | 0.20 | 26.88 | 0.27 | 2 Rows | 55 | 96.5 | 600 | 1.3 | 160 | 117.7 | 0.41 | 0.33 | 16 | 17 |
| VAV 6.08 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1000 | 300 | 1.00 | 0.20 | 23.56 | 0.20 | 2 Rows | 55 | 98.6 | 500 | 1.1 | 160 | 116.2 | 0.30 | 0.24 | 13 | 14 |
| VAV 6.09 | 35E | Factory Installed Controls by Others | 12 Inch (357 - 2060 CFM) | Water Reheat | | 1200 | 360 | 1.00 | 0.20 | 26.88 | 0.27 | 2 Rows | 55 | 96.5 | 600 | 1.3 | 160 | 117.7 | 0.41 | 0.33 | 16 | 17 |
| VAV 6.10 | 35E | Factory Installed Controls by Others | 14 Inch (486 - 2800 CFM) | Water Reheat | | 1500 | 450 | 1.00 | 0.20 | 35.89 | 0.21 | 2 Rows | 55 | 99.3 | 750 | 1.7 | 160 | 116.8 | 0.44 | 0.26 | 9 | 15 |
| VAV 6.11 | 35E | Factory Installed Controls by Others | 14 Inch (486 - 2800 CFM) | Water Reheat | | 1400 | 420 | 1.00 | 0.20 | 34.16 | 0.18 | 2 Rows | 55 | 100.2 | 700 | 1.6 | 160 | 116.3 | 0.40 | 0.23 | 8 | 14 |

Guide Specification

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:25AM

HVAC Guide Specifications Single-Duct VAV Terminal Unit

Size Range:

Nominal 23 to 7100 cfm

Box liner specified to be 1" foil faced liner. Verify liner thickness complies with specification.
Contractor to verify RH/LH controls and coil connections. Controls and Coil Connections shall occur on the same side of each VAV box.

Carrier Model Number:

35EA (Analog Control)

35EC (Carrier Comfort Network® [CCN] Variable Air Volume [VAV] Electronic Control)

35ED (BACnet* VAV Electronic Controls)

35EN (No Control or direct digital controls [DDC] by Others)

35EP (Pneumatic Control)

35EV (CCN Variable Volume and Temperature [VVT] Electronic Control)

35EB (BACnet VVT Electronic Controls)

Part 1 — General

1.01 SYSTEM DESCRIPTION:

Factory-assembled, externally powered, variable air volume control terminal. Unit shall be complete with a damper assembly, flow sensor, externally mounted volume controller, collars for duct connection, and all required features. Control box shall be clearly marked with an identification label that lists such information as nominal cfm, maximum and minimum airflow limits, coil-type and coil hand, where applicable.

1.02 QUALITY ASSURANCE

- A. Insulation shall meet National Fire Protection Association (NFPA) 90A requirements for flame spread and smoke generation and Underwriters Laboratory (UL) 181 requirements for anti-erosion, corrosion, and fungus properties.
- B. Hot water coils, when specified, shall be tested for leakage at 250 psig with the coil submerged in water.
- C. Electric heating coils, when specified, shall be UL or Engineering Testing Laboratory (ETL) listed and designed to comply with UL Standard 1096.
- D. Sound power levels shall be Air-Conditioning, Heating, and Refrigeration Institute (AHRI) certified in accordance with the requirements of AHRI 880.

Part 2 — Products

2.01 EQUIPMENT

A. General:

Factory-assembled, externally powered, variable air volume control terminal. Unit shall be complete with a damper assembly, flow sensor, externally mounted volume controller, collars for duct connection and all required features. Control box shall be clearly marked with an identification label that lists such information as nominal cfm, maximum and minimum airflow limits, coil-type and coil hand, balancing chart, and tagging data, where applicable.

B. Unit Cabinet:

Constructed of 22-gage galvanized steel with round or rectangular inlet collar and rectangular discharge with slip and drive connection. All primary air inlet collars shall accommodate standard flex duct sizes

C. Insulation:

1. Standard casing shall be lined with ½-in. thick, ½-lb dual-density fiberglass insulation that meets UL 181 and NFPA 90A. Insulation shall be attached to the unit casing by adhesive and weld pins.
2. STERILINER INSULATION: Unit casing shall be lined with 13/16-in. thick, 4-lb density, rigid-board insulation with nylon-reinforced foil covering insulation fibers that meets UL 181 and NFPA 90A. Liner shall be attached to unit casing by adhesive and weld pins with full-seam-length Z-strips to enclose and seal the insulation cut edges.

D. Damper Assembly:

The control air damper assembly shall be constructed of heavy gage galvanized steel with ½-in. solid shaft rotating in Delrin† bearings. Damper shaft shall be marked on the end to indicate damper position. Damper blade shall incorporate a flexible gasket for tight airflow shutoff and operate over a full 90 degrees.

E. Controls:

1. The unit shall be equipped with an amplified flow probe located in the unit inlet. Air flow for the pressure

Inlet on all units to be rectangular per RFI #9

Acoustical lining confirmed by Carrier

Guide Specification

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:25AM

independent controller (supplied by others) shall be determined with a factory-supplied 12-point total pressure, center-averaging cross flow sensor, having a magnification resulting in no greater than 2625 fpm at 1 in. developed signal.

F. Special Features:

1. Hot Water Heating Coil:

Coil shall be mounted in a minimum 20-ga. galvanized steel casing with slip and drive discharge connections and factory mounted on the base unit as shown on the equipment drawings. Coils shall have:

- a. Aluminum fins (10 ft per in.) bonded to the copper tubes by mechanical expansion.
- b. Number of coil rows and circuits shall be selected to provide performance as required by the plans.
- c. Up to 4 rows as shown on equipment drawings or designed on the equipment schedule. Right or left-hand fittings with sweat connection sizes as indicated on equipment drawings.

* BACnet is a registered trademark of ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers).

Table Of Contents

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

| | |
|---|-----------|
| 5 IN VAV INLET HW REHEAT | 8 |
| Unit Report | 9 |
| Certified Drawing..... | 10 |
| 6 IN VAV INLET HW REHEAT | 12 |
| Unit Report | 13 |
| Certified Drawing..... | 14 |
| 8 IN VAV INLET HW REHEAT | 16 |
| Unit Report | 17 |
| Certified Drawing..... | 18 |
| 8 IN VAV INLET COOLING ONLY | 20 |
| Unit Report | 21 |
| Certified Drawing..... | 22 |
| 10 IN VAV INLET HW REHEAT | 23 |
| Unit Report | 24 |
| Certified Drawing..... | 25 |
| 12 IN VAV INLET HW REHEAT | 27 |
| Unit Report | 28 |
| Certified Drawing..... | 29 |
| 12 IN VAV INLET COOLING ONLY | 31 |
| Unit Report | 32 |
| Certified Drawing..... | 33 |
| 14 IN VAV INLET HW REHEAT | 34 |
| Unit Report | 35 |
| Certified Drawing..... | 36 |

5 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

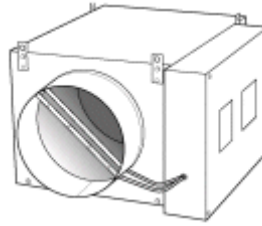
5 IN VAV INLET HW REHEAT

**Tag Cover Sheet
Unit Report
Certified Drawing**

Unit Report For 5 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM



Unit Parameters

Tag Name: **5 IN VAV INLET HW REHEAT**
 Quantity: **1**
 Model Type: **Field or Factory Installed Controls by Others**
 Model: **35E Single Duct Terminals**
 Unit and Inlet Size: **5 Inch (62 - 360 CFM)**
 Part Number: **35EN3021R050DXX00000SDH0W1100000.OP0000020000600100**
 Reheat Option: **Water Reheat**
 Insulation Lining: **Steriliner**

Dimensions

Unit Depth: **20.5** in
 Unit Width: **12.0** in
 Unit Height: **8.0** in
 Unit Operating Weight : **28** lb

*** Weights and Dimensions are approximate. Weight does not include curbs and accessories. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions, refer to certified drawings.

Warranty Information

1 Year Parts Only Warranty


Ordering Information

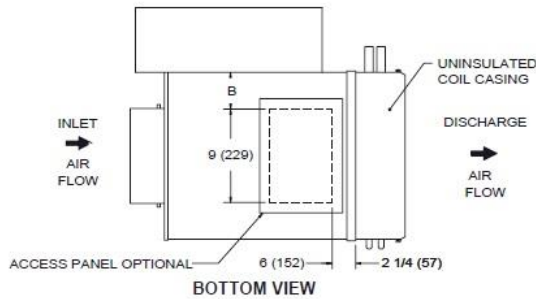
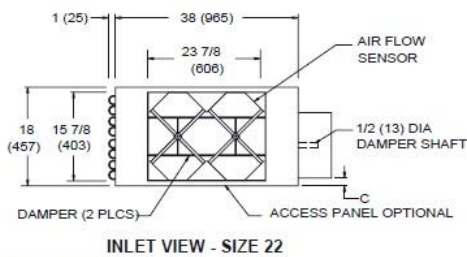
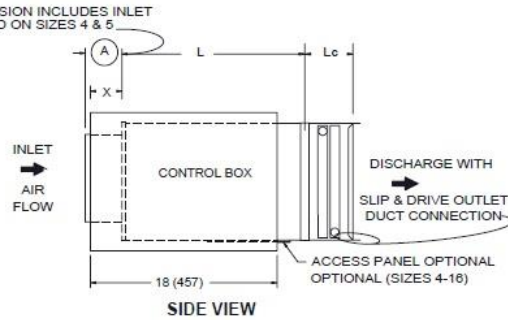
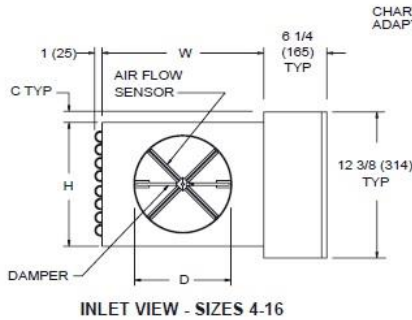
| Part Number | Description | Quantity |
|---|---|----------|
| Base Unit | | |
| 35EN3021R050DXX00000SDH0W1100000.OP0000020000600100 | 35E Single Duct Terminals | 1 |
| | Base Unit | |
| | Steriliner | |
| | 22 Gauge , Right Hand Ctrl, w/Access Panel | |
| | DXX0: Factory Installed Controls Provided by Others | |
| | 1 Row/Right | |
| | LineaCross (4 quadrant) | |
| | Hangers | |
| | Non-Fused Disconnect For Controls | |
| | 120-24 Vac Transformer | |
| | Water Coil Vent & Drain | |
| Accessories | | |

Certified Drawing for 5 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

| | | | | | |
|-----------|---|---|---|--|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | BASE UNIT WITH HOT WATER ANALOG OR DDC ELECTRONIC CONTROL | 35E |
| CATALOG # | | | | | |



STANDARD FEATURES:

- 22 Ga. Zinc coated steel construction.
- NEMA 1 steel control enclosure for electronic components
- 1/2" thick dual density fiberglass insulation meeting NFPA 90A and UL 181 safety requirements.
- Four quadrant averaging cross flow sensor
- Hot water coils. See form TS0005 for dimensions and specifications
- Variety of analog and digital control packages for pressure independent systems.
- AHRI certified sound ratings

NOTE: Right hand configuration shown, left hand available.

DIMENSIONS ARE GIVEN AS INCHES (MM)

OPTIONAL FEATURES:

- 20 Ga. Zinc coated steel construction
- Liners:
 - 1/2" dual density fiberglass
 - 1" dual density fiberglass
 - Perforated double wall 1/2"
 - Perforated double wall 1"
 - 1/2" Cellular - fibre free
- None
- Steriliner
- Sterilwall 1/2"
- Sterilwall 1"
- 1" Cellular - fibre free
- Linear averaging sensor.
- Disconnect switch for electronic controls
- 24 volt transformer.
- Left hand controls.
- Left hand water coil connection
- Dust tight control enclosure
- Bottom access panel (not available in size 22)
- Cam lock bottom access panel (not available in size 22)
- Right Hand Controls
- Right Hand Water Coil Connection
- Hanger Brackets

| INLET SIZE | NOM MAX CFM (L/s) | L | W | H | A | B | C | D | X |
|------------|-------------------|--------------|----------|--------------|-------------|-------------|------------|--------------|-------------|
| 4 | 230 (109) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 3 7/8 (98) | 7 1/4 (184) |
| 5 | 360 (170) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 4 7/8 (124) | 7 1/4 (184) |
| 6 | 520 (245) | 15 1/2 (394) | 12 (305) | 8 (203) | 3 3/8 (86) | 1 1/2 (38) | 2 1/8 (54) | 5 7/8 (149) | 7 1/4 (184) |
| 7 | 710 (335) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 6 7/8 (175) | 7 1/4 (184) |
| 8 | 925 (437) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 7 7/8 (200) | 7 1/4 (184) |
| 9 | 1200 (566) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 8 7/8 (225) | 5 1/4 (133) |
| 10 | 1450 (685) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 9 7/8 (251) | 5 1/4 (133) |
| 12 | 2100 (991) | 15 1/2 (394) | 16 (406) | 15 (381) | 3 3/8 (86) | 3 1/2 (89) | - | 11 7/8 (302) | 5 1/4 (133) |
| 14 | 2900 (1369) | 15 1/2 (394) | 20 (508) | 17 1/2 (445) | 3 3/8 (86) | 5 1/2 (140) | - | 13 7/8 (352) | 3 1/4 (83) |
| 16 | 3700 (1746) | 15 1/2 (394) | 24 (610) | 18 (457) | 3 3/8 (86) | 7 1/2 (191) | - | 15 7/8 (403) | 3 1/4 (83) |
| 22 | 7100 (3351) | 15 (381) | 38 (965) | 18 (457) | 4 1/4 (108) | NA | 1 1/8 (29) | SEE ABOVE | 5 1/4 (133) |

| | | | |
|----------|------------|-------------------|---------------------|
| JOB NAME | JOB NUMBER | LOCATION | DRAWING NUMBER |
| BUYER | BUYER # | REVISION C | SHEET 1 OF 1 |
| | | | 35E-202-3 |


PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

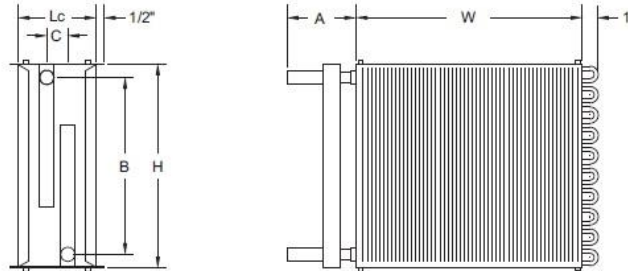
09/03/2021

Certified Drawing for 5 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM

| | | | | | |
|-----------|---|---|---|-----------------------------------|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | 35E HOT WATER REHEAT COILS | 35E |
| CATALOG # | | | | | |



- NOTES:**
1. 35E coils are shipped from the factory attached to the unit discharge. Coil discharge is configured for slip and drive field ductwork installation. Coil section is uninsulated. Coils are not for steam applications.
 2. CONNECTION TUBING – 0.032-in. thick copper, male solder connection. Refer to connection diameter shown in the table below.
 3. COIL CASING – 20-gage galvanized steel
 4. COIL TUBING – ½ in. OD x 0.016-in. thick copper
 5. COIL FINNS – 0.0045-in. thick aluminum, 10 per inch, mechanically bonded to tubing.
 6. COILS ACCESSORIES – optional air vent and drain
 7. Unit dimensions given in inches

| 35E UNIT SIZE | NO. OF ROWS IN COILS | H | W | Lc | A | B | C | WATER CONN (OD) |
|---------------|----------------------|--------|----|-------|-------|--------|--------|-----------------|
| 04, 05, 06 | 1 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 1/2 |
| | 2 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 5/8 |
| | 3 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 5 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 6 1/4 | 3 1/4 | 7/8 |
| 07, 08 | 1 Row | 10 1/4 | 12 | 5 | 3 | 8 3/4 | - | 1/2 |
| | 2 Row | 10 1/4 | 12 | 5 | 2 4/7 | 8 3/4 | - | 5/8 |
| | 3 Row | 10 1/4 | 12 | 7 1/4 | 4 1/4 | 8 3/8 | 2 3/16 | 7/8 |
| 09, 10 | 4 Row | 10 1/4 | 12 | 7 1/4 | 4 1/4 | 9 | 3 1/4 | 7/8 |
| | 1 Row | 12 3/4 | 14 | 5 | 4 1/4 | 10 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 12 3/4 | 14 | 5 | 4 1/4 | 11 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 10 7/8 | 2 3/16 | 7/8 |
| 12 | 4 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 11 1/2 | 3 1/4 | 7/8 |
| | 1 Row | 15 1/4 | 16 | 5 | 4 1/4 | 13 3/8 | 1 1/8 | 7/8 |
| | 2 Row | 15 1/4 | 16 | 5 | 4 1/4 | 14 | 1 1/16 | 7/8 |
| | 3 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 13 3/8 | 2 3/16 | 7/8 |
| 14 | 4 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 14 | 3 1/4 | 7/8 |
| | 1 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| 16 | 4 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| | 1 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| 22 | 4 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| | 1 Row | 17 3/4 | 38 | 5 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 38 | 5 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| 22 | 4 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |

PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

03/25/2021

| | | | | | | | |
|----------|--|------------|--|-------------------|---------------------|------------------|--|
| JOB NAME | | JOB NUMBER | | LOCATION | | DRAWING NUMBER | |
| BUYER | | BUYER # | | REVISION B | SHEET 1 OF 1 | 35E-202-7 | |

6 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

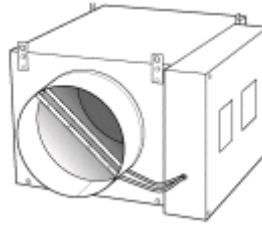
6 IN VAV INLET HW REHEAT

**Tag Cover Sheet
Unit Report
Certified Drawing**

Unit Report For 6 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM



Unit Parameters

Tag Name: **6 IN VAV INLET HW REHEAT**
 Quantity: **4**
 Model Type: **Field or Factory Installed Controls by Others**
 Model: **35E Single Duct Terminals**
 Unit and Inlet Size: **6 Inch (89 - 515 CFM)**
 Part Number: **35EN3021R060DXX000000SDH0W1200000.OP0000030000900150**
 Reheat Option: **Water Reheat**
 Insulation Lining: **Steriliner**

Dimensions

Unit Depth: **20.5** in
 Unit Width: **12.0** in
 Unit Height: **8.0** in
 Unit Operating Weight : **34** lb

*** Weights and Dimensions are approximate. Weight does not include curbs and accessories. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions, refer to certified drawings.

Warranty Information

1 Year Parts Only Warranty


Ordering Information

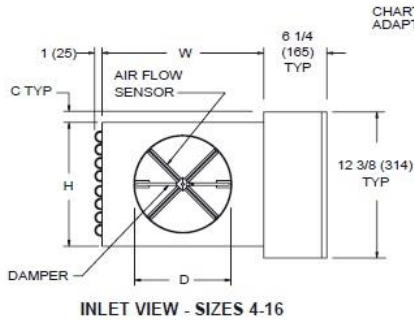
| Part Number | Description | Quantity |
|--|---|----------|
| Base Unit | | |
| 35EN3021R060DXX000000SDH0W1200000.OP0000030000900150 | 35E Single Duct Terminals | 4 |
| | Base Unit | |
| | Steriliner | |
| | 22 Gauge , Right Hand Ctrl, w/Access Panel | |
| | DXX0: Factory Installed Controls Provided by Others | |
| | 2 Row/Right | |
| | LineaCross (4 quadrant) | |
| | Hangers | |
| | Non-Fused Disconnect For Controls | |
| | 120-24 Vac Transformer | |
| | Water Coil Vent & Drain | |
| Accessories | | |

Certified Drawing for 6 IN VAV INLET HW REHEAT

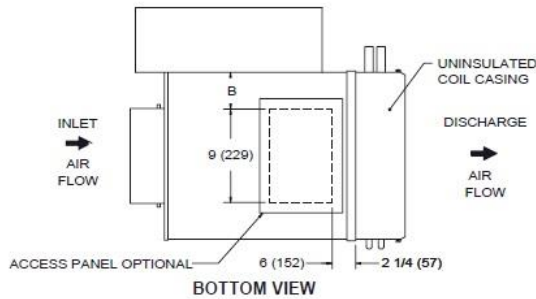
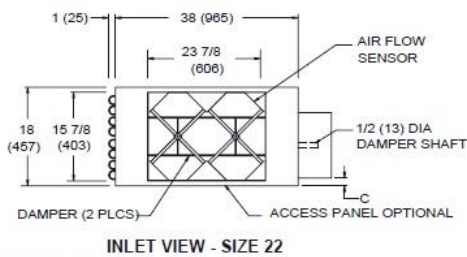
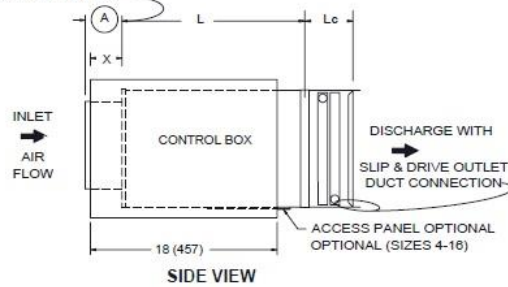
Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

| | | | | | |
|-----------|---|---|---|--|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | BASE UNIT WITH HOT WATER ANALOG OR DDC ELECTRONIC CONTROL | 35E |
| CATALOG # | | | | | |



CHARTED 'A' DIMENSION INCLUDES INLET ADAPTER PROVIDED ON SIZES 4 & 5



STANDARD FEATURES:

- 22 Ga. Zinc coated steel construction.
- NEMA 1 steel control enclosure for electronic components
- 1/2" thick dual density fiberglass insulation meeting NFPA 90A and UL 181 safety requirements.
- Four quadrant averaging cross flow sensor
- Hot water coils. See form TS0005 for dimensions and specifications
- Variety of analog and digital control packages for pressure independent systems.
- AHRI certified sound ratings

NOTE: Right hand configuration shown, left hand available.

DIMENSIONS ARE GIVEN AS INCHES (MM)

OPTIONAL FEATURES:

- 20 Ga. Zinc coated steel construction
- Liners:
 - 1/2" dual density fiberglass
 - 1" dual density fiberglass
 - Perforated double wall 1/2"
 - Perforated double wall 1"
 - 1/2" Cellular - fibre free
- None
- Steriliner
- Sterilwall 1/2"
- Sterilwall 1"
- 1" Cellular - fibre free
- Linear averaging sensor.
- Disconnect switch for electronic controls
- 24 volt transformer.
- Left hand controls.
- Left hand water coil connection
- Dust tight control enclosure
- Bottom access panel (not available in size 22)
- Cam lock bottom access panel (not available in size 22)
- Right Hand Controls
- Right Hand Water Coil Connection
- Hanger Brackets

| INLET SIZE | NOM MAX CFM (L/s) | L | W | H | A | B | C | D | X |
|------------|-------------------|--------------|----------|--------------|-------------|-------------|------------|--------------|-------------|
| 4 | 230 (109) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 3 7/8 (98) | 7 1/4 (184) |
| 5 | 360 (170) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 4 7/8 (124) | 7 1/4 (184) |
| 6 | 520 (245) | 15 1/2 (394) | 12 (305) | 8 (203) | 3 3/8 (86) | 1 1/2 (38) | 2 1/8 (54) | 5 7/8 (149) | 7 1/4 (184) |
| 7 | 710 (335) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 6 7/8 (175) | 7 1/4 (184) |
| 8 | 925 (437) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 7 7/8 (200) | 7 1/4 (184) |
| 9 | 1200 (566) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 8 7/8 (225) | 5 1/4 (133) |
| 10 | 1450 (685) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 9 7/8 (251) | 5 1/4 (133) |
| 12 | 2100 (991) | 15 1/2 (394) | 16 (406) | 15 (381) | 3 3/8 (86) | 3 1/2 (89) | - | 11 7/8 (302) | 5 1/4 (133) |
| 14 | 2900 (1369) | 15 1/2 (394) | 20 (508) | 17 1/2 (445) | 3 3/8 (86) | 5 1/2 (140) | - | 13 7/8 (352) | 3 1/4 (83) |
| 16 | 3700 (1746) | 15 1/2 (394) | 24 (610) | 18 (457) | 3 3/8 (86) | 7 1/2 (191) | - | 15 7/8 (403) | 3 1/4 (83) |
| 22 | 7100 (3351) | 15 (381) | 38 (965) | 18 (457) | 4 1/4 (108) | NA | 1 1/8 (29) | SEE ABOVE | 5 1/4 (133) |

| | | | |
|----------|------------|-------------------|---------------------|
| JOB NAME | JOB NUMBER | LOCATION | DRAWING NUMBER |
| BUYER | BUYER # | REVISION C | SHEET 1 OF 1 |
| | | | 35E-202-3 |


PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

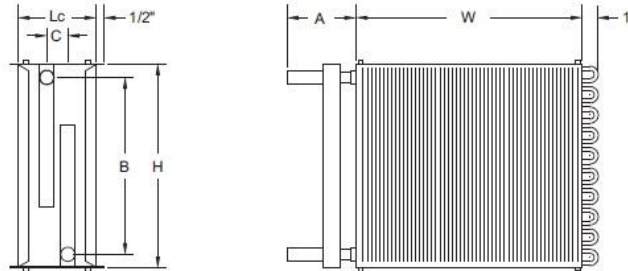
09/03/2021

Certified Drawing for 6 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM

| | | | | | |
|-----------|---|---|---|-----------------------------------|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | 35E HOT WATER REHEAT COILS | 35E |
| CATALOG # | | | | | |



- NOTES:**
1. 35E coils are shipped from the factory attached to the unit discharge. Coil discharge is configured for slip and drive field ductwork installation. Coil section is uninsulated. Coils are not for steam applications.
 2. CONNECTION TUBING – 0.032-in. thick copper, male solder connection. Refer to connection diameter shown in the table below.
 3. COIL CASING – 20-gage galvanized steel
 4. COIL TUBING – ½ in. OD x 0.016-in. thick copper
 5. COIL FINNS – 0.0045-in. thick aluminum, 10 per inch, mechanically bonded to tubing.
 6. COILS ACCESSORIES – optional air vent and drain
 7. Unit dimensions given in inches

| 35E UNIT SIZE | NO. OF ROWS IN COILS | H | W | Lc | A | B | C | WATER CONN (OD) |
|---------------|----------------------|--------|----|-------|-------|--------|--------|-----------------|
| 04, 05, 06 | 1 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 1/2 |
| | 2 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 5/8 |
| | 3 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 5 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 6 1/4 | 3 1/4 | 7/8 |
| 07, 08 | 1 Row | 10 1/4 | 12 | 5 | 3 | 8 3/4 | - | 1/2 |
| | 2 Row | 10 1/4 | 12 | 5 | 2 4/7 | 8 3/4 | - | 5/8 |
| | 3 Row | 10 1/4 | 12 | 7 1/4 | 4 1/4 | 8 3/8 | 2 3/16 | 7/8 |
| 09, 10 | 4 Row | 10 1/4 | 12 | 7 1/4 | 4 1/4 | 9 | 3 1/4 | 7/8 |
| | 1 Row | 12 3/4 | 14 | 5 | 4 1/4 | 10 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 12 3/4 | 14 | 5 | 4 1/4 | 11 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 10 7/8 | 2 3/16 | 7/8 |
| 12 | 4 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 11 1/2 | 3 1/4 | 7/8 |
| | 1 Row | 15 1/4 | 16 | 5 | 4 1/4 | 13 3/8 | 1 1/8 | 7/8 |
| | 2 Row | 15 1/4 | 16 | 5 | 4 1/4 | 14 | 1 1/16 | 7/8 |
| | 3 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 13 3/8 | 2 3/16 | 7/8 |
| 14 | 4 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 14 | 3 1/4 | 7/8 |
| | 1 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| 16 | 4 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| | 1 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| 22 | 4 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| | 1 Row | 17 3/4 | 38 | 5 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 38 | 5 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |

PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

03/25/2021

| | | | | |
|----------|------------|-------------------|---------------------|------------------|
| JOB NAME | JOB NUMBER | LOCATION | | DRAWING NUMBER |
| BUYER | BUYER # | REVISION B | SHEET 1 OF 1 | 35E-202-7 |

8 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

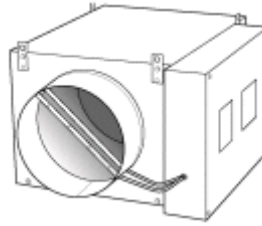
8 IN VAV INLET HW REHEAT

**Tag Cover Sheet
Unit Report
Certified Drawing**

Unit Report For 8 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM



Unit Parameters

Tag Name: **8 IN VAV INLET HW REHEAT**
 Quantity: **12**
 Model Type: **Field or Factory Installed Controls by Others**
 Model: **35E Single Duct Terminals**
 Unit and Inlet Size: **8 Inch (159 - 920 CFM)**
 Part Number: **35EN3021R080DXX00000SDH0W1200000.OP0000060001800300**
 Reheat Option: **Water Reheat**
 Insulation Lining: **Steriliner**

Dimensions

Unit Depth: **20.5** in
 Unit Width: **12.0** in
 Unit Height: **10.0** in
 Unit Operating Weight : **37** lb

*** Weights and Dimensions are approximate. Weight does not include curbs and accessories. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions, refer to certified drawings.

Warranty Information

1 Year Parts Only Warranty


Ordering Information

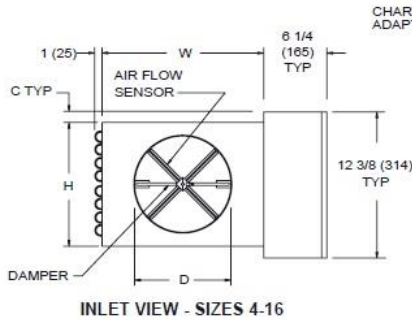
| Part Number | Description | Quantity |
|---|---|----------|
| Base Unit | | |
| 35EN3021R080DXX00000SDH0W1200000.OP0000060001800300 | 35E Single Duct Terminals | 12 |
| | Base Unit | |
| | Steriliner | |
| | 22 Gauge , Right Hand Ctrl, w/Access Panel | |
| | DXX0: Factory Installed Controls Provided by Others | |
| | 2 Row/Right | |
| | LineaCross (4 quadrant) | |
| | Hangers | |
| | Non-Fused Disconnect For Controls | |
| | 120-24 Vac Transformer | |
| | Water Coil Vent & Drain | |
| Accessories | | |

Certified Drawing for 8 IN VAV INLET HW REHEAT

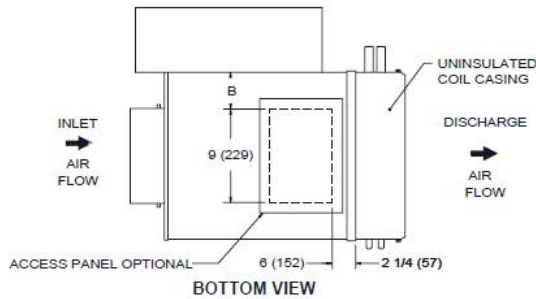
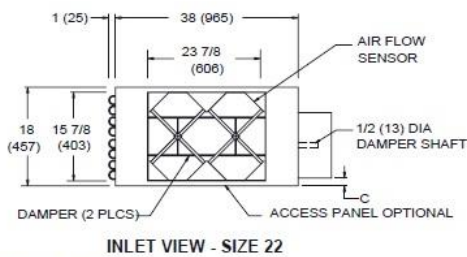
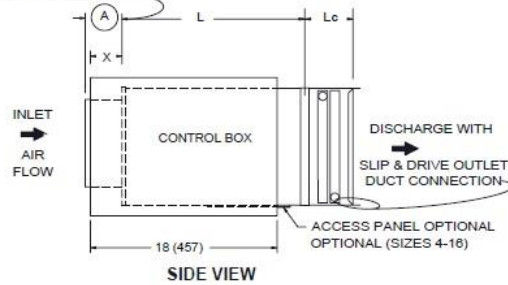
Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

| | | | | | |
|-----------|---|---|---|--|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | BASE UNIT WITH HOT WATER ANALOG OR DDC ELECTRONIC CONTROL | 35E |
| CATALOG # | | | | | |



CHARTED 'A' DIMENSION INCLUDES INLET ADAPTER PROVIDED ON SIZES 4 & 5



STANDARD FEATURES:

- 22 Ga. Zinc coated steel construction.
- NEMA 1 steel control enclosure for electronic components
- 1/2" thick dual density fiberglass insulation meeting NFPA 90A and UL 181 safety requirements.
- Four quadrant averaging cross flow sensor
- Hot water coils. See form TS0005 for dimensions and specifications
- Variety of analog and digital control packages for pressure independent systems.
- AHRI certified sound ratings

NOTE: Right hand configuration shown, left hand available.

DIMENSIONS ARE GIVEN AS INCHES (MM)

OPTIONAL FEATURES:

- 20 Ga. Zinc coated steel construction
- Liners:
 - 1/2" dual density fiberglass
 - 1" dual density fiberglass
 - Perforated double wall 1/2"
 - Perforated double wall 1"
 - 1/2" Cellular - fibre free
- Linear averaging sensor.
- Disconnect switch for electronic controls
- 24 volt transformer.
- Left hand controls.
- Left hand water coil connection
- Dust tight control enclosure
- Bottom access panel (not available in size 22)
- Cam lock bottom access panel (not available in size 22)
- None
- Steriliner
- Sterilwall 1/2"
- Sterilwall 1"
- 1" Cellular - fibre free
- Right Hand Controls
- Right Hand Water Coil Connection
- Hanger Brackets

| INLET SIZE | NOM MAX CFM (L/s) | L | W | H | A | B | C | D | X |
|------------|-------------------|--------------|----------|--------------|-------------|-------------|------------|--------------|-------------|
| 4 | 230 (109) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 3 7/8 (98) | 7 1/4 (184) |
| 5 | 360 (170) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 4 7/8 (124) | 7 1/4 (184) |
| 6 | 520 (245) | 15 1/2 (394) | 12 (305) | 8 (203) | 3 3/8 (86) | 1 1/2 (38) | 2 1/8 (54) | 5 7/8 (149) | 7 1/4 (184) |
| 7 | 710 (335) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 6 7/8 (175) | 7 1/4 (184) |
| 8 | 925 (437) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 7 7/8 (200) | 7 1/4 (184) |
| 9 | 1200 (566) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 8 7/8 (225) | 5 1/4 (133) |
| 10 | 1450 (685) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 9 7/8 (251) | 5 1/4 (133) |
| 12 | 2100 (991) | 15 1/2 (394) | 16 (406) | 15 (381) | 3 3/8 (86) | 3 1/2 (89) | - | 11 7/8 (302) | 5 1/4 (133) |
| 14 | 2900 (1369) | 15 1/2 (394) | 20 (508) | 17 1/2 (445) | 3 3/8 (86) | 5 1/2 (140) | - | 13 7/8 (352) | 3 1/4 (83) |
| 16 | 3700 (1746) | 15 1/2 (394) | 24 (610) | 18 (457) | 3 3/8 (86) | 7 1/2 (191) | - | 15 7/8 (403) | 3 1/4 (83) |
| 22 | 7100 (3351) | 15 (381) | 38 (965) | 18 (457) | 4 1/4 (108) | NA | 1 1/8 (29) | SEE ABOVE | 5 1/4 (133) |

| | | | |
|----------|------------|-------------------|---------------------|
| JOB NAME | JOB NUMBER | LOCATION | DRAWING NUMBER |
| BUYER | BUYER # | REVISION C | SHEET 1 OF 1 |
| | | | 35E-202-3 |


PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

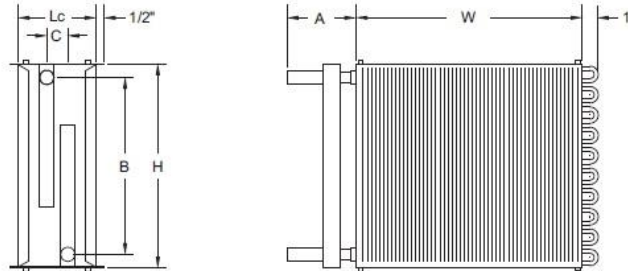
09/03/2021

Certified Drawing for 8 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM

| | | | | | |
|-----------|---|---|---|-----------------------------------|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | 35E HOT WATER REHEAT COILS | 35E |
| CATALOG # | | | | | |



- NOTES:**
1. 35E coils are shipped from the factory attached to the unit discharge. Coil discharge is configured for slip and drive field ductwork installation. Coil section is uninsulated. Coils are not for steam applications.
 2. CONNECTION TUBING – 0.032-in. thick copper, male solder connection. Refer to connection diameter shown in the table below.
 3. COIL CASING – 20-gage galvanized steel
 4. COIL TUBING – ½ in. OD x 0.016-in. thick copper
 5. COIL FINS – 0.0045-in. thick aluminum, 10 per inch, mechanically bonded to tubing.
 6. COILS ACCESSORIES – optional air vent and drain
 7. Unit dimensions given in inches

| 35E UNIT SIZE | NO. OF ROWS IN COILS | H | W | Lc | A | B | C | WATER CONN (OD) |
|---------------|----------------------|--------|----|-------|-------|--------|--------|-----------------|
| 04, 05, 06 | 1 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 1/2 |
| | 2 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 5/8 |
| | 3 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 5 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 6 1/4 | 3 1/4 | 7/8 |
| 07, 08 | 1 Row | 10 1/4 | 12 | 5 | 3 | 8 3/4 | - | 1/2 |
| | 2 Row | 10 1/4 | 12 | 5 | 2 4/7 | 8 3/4 | - | 5/8 |
| | 3 Row | 10 1/4 | 12 | 7 1/4 | 4 1/4 | 8 3/8 | 2 3/16 | 7/8 |
| 09, 10 | 1 Row | 12 3/4 | 14 | 5 | 4 1/4 | 10 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 12 3/4 | 14 | 5 | 4 1/4 | 11 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 10 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 11 1/2 | 3 1/4 | 7/8 |
| 12 | 1 Row | 15 1/4 | 16 | 5 | 4 1/4 | 13 3/8 | 1 1/8 | 7/8 |
| | 2 Row | 15 1/4 | 16 | 5 | 4 1/4 | 14 | 1 1/16 | 7/8 |
| | 3 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 13 3/8 | 2 3/16 | 7/8 |
| | 4 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 14 | 3 1/4 | 7/8 |
| 14 | 1 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| 16 | 1 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| 22 | 1 Row | 17 3/4 | 38 | 5 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 38 | 5 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |

PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

03/25/2021

| | | | | |
|----------|------------|-------------------|---------------------|------------------|
| JOB NAME | JOB NUMBER | LOCATION | | DRAWING NUMBER |
| BUYER | BUYER # | REVISION B | SHEET 1 OF 1 | 35E-202-7 |

8 IN VAV INLET COOLING ONLY

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

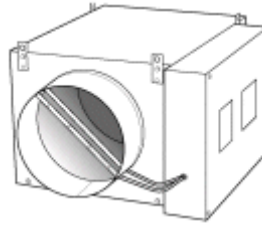
8 IN VAV INLET COOLING ONLY

**Tag Cover Sheet
Unit Report
Certified Drawing**

Unit Report For 8 IN VAV INLET COOLING ONLY

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM



Unit Parameters

Tag Name: **8 IN VAV INLET COOLING ONLY**
 Quantity: **8**
 Model Type: **Field or Factory Installed Controls by Others**
 Model: **35E Single Duct Terminals**
 Unit and Inlet Size: **8 Inch (159 - 920 CFM)**
 Part Number: **35EN3021R080DXX000000SDH00000000.000000050000000000**
 Reheat Option: **None**
 Insulation Lining: **Steriliner**

Dimensions

Unit Depth: **15.5** in
 Unit Width: **12.0** in
 Unit Height: **10.0** in
 Unit Operating Weight : **25** lb

*** Weights and Dimensions are approximate. Weight does not include curbs and accessories. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions, refer to certified drawings.

Warranty Information

1 Year Parts Only Warranty


Ordering Information

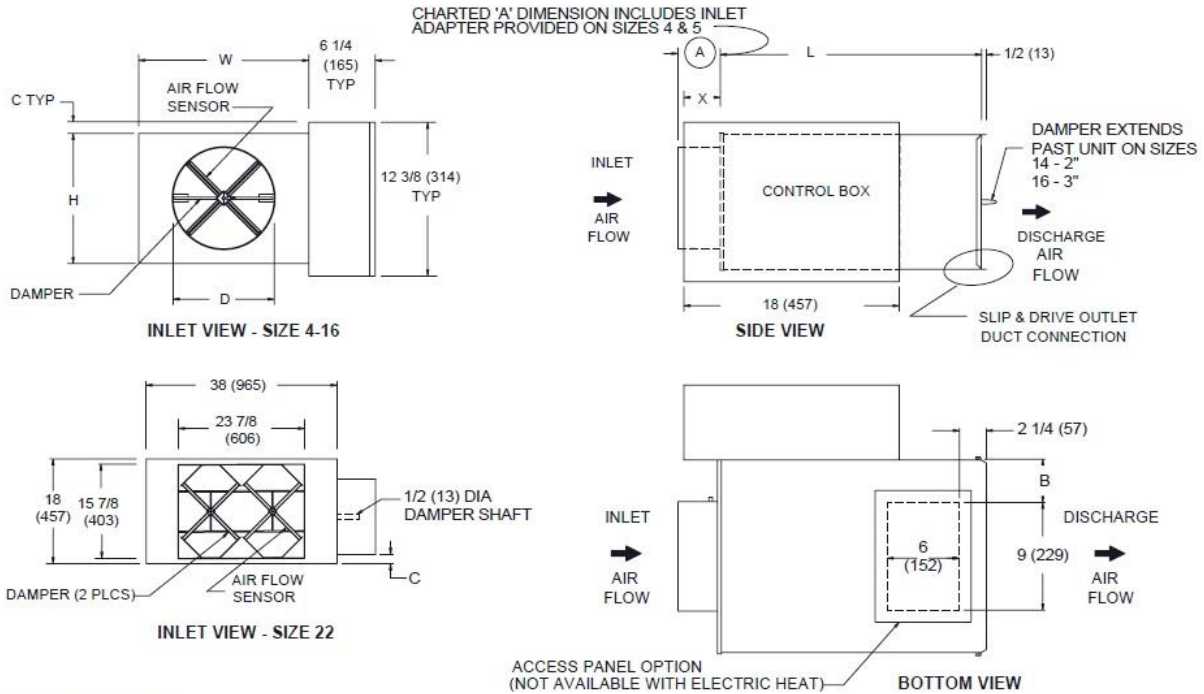
| Part Number | Description | Quantity |
|---|---|----------|
| Base Unit | | |
| 35EN3021R080DXX000000SDH0000000000.000000050000000000 | 35E Single Duct Terminals | 8 |
| | Base Unit | |
| | Steriliner | |
| | 22 Gauge , Right Hand Ctrl, w/Access Panel | |
| | DXX0: Factory Installed Controls Provided by Others | |
| | LineaCross (4 quadrant) | |
| | Hangers | |
| | Non-Fused Disconnect For Controls | |
| | 120-24 Vac Transformer | |
| Accessories | | |

Certified Drawing for 8 IN VAV INLET COOLING ONLY

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

| | | | | | |
|-----------|---|---|---|--|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | BASE UNIT WITH ANALOG OR DDC ELECTRONIC CONTROL | 35E |
| CATALOG # | | | | | |



STANDARD FEATURES:

- 22 Ga. Zinc coated steel construction.
- NEMA 1 steel control enclosure for electric or electronic components
- 1/2" thick dual density fiberglass insulation meeting NFPA 90A and UL 181 safety requirements.
- Four quadrant averaging cross flow sensor
- Variety of electric, analog, and digital control packages for pressure dependent and pressure independent systems.
- ETL listed - Adherence to UL 429 for electrically operated valves.
- AHRI 880 certified sound ratings

NOTE: Right hand configuration shown, left hand available.

OPTIONAL FEATURES:

- 20 Ga. Zinc coated steel construction
- Liners: 1/2" dual density fiberglass None
- 1" dual density fiberglass Steriliner
- Perforated double wall 1/2" Sterilwall 1/2"
- Perforated double wall 1" Sterilwall 1"
- 1/2" Cellular - fibre free 1" Cellular - fibre free
- Linear averaging sensor.
- 24 Volt transformer
- Disconnect switch for electronic controls. Hanger Brackets
- Dust tight control enclosure.
- Left hand control enclosure.
- Right hand control enclosure.
- Bottom access panel (not available in size 22)
- Cam lock bottom access panel (not available in size 22)

DIMENSIONS ARE GIVEN AS INCHES (MM)

| INLET SIZE | NOM MAX CFM(L/s) | L | W | H | A | B | C | D | X |
|------------|------------------|--------------|----------|--------------|-------------|-------------|------------|--------------|-------------|
| 4 | 230 (109) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 3 7/8 (98) | 7 1/4 (184) |
| 5 | 360 (170) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 4 7/8 (124) | 7 1/4 (184) |
| 6 | 520 (245) | 15 1/2 (394) | 12 (305) | 8 (203) | 3 3/8 (86) | 1 1/2 (38) | 2 1/8 (54) | 5 7/8 (149) | 7 1/4 (184) |
| 7 | 710 (335) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 6 7/8 (175) | 7 1/4 (184) |
| 8 | 925 (437) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 7 7/8 (200) | 7 1/4 (184) |
| 9 | 1200 (566) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 8 7/8 (225) | 5 1/4 (133) |
| 10 | 1450 (685) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 9 7/8 (251) | 5 1/4 (133) |
| 12 | 2100 (991) | 15 1/2 (394) | 16 (406) | 15 (381) | 3 3/8 (86) | 3 1/2 (89) | - | 11 7/8 (302) | 5 1/4 (133) |
| 14 | 2900 (1369) | 15 1/2 (394) | 20 (508) | 17 1/2 (445) | 3 3/8 (86) | 5 1/2 (140) | - | 13 7/8 (352) | 3 1/4 (83) |
| 16 | 3700 (1746) | 15 1/2 (394) | 24 (610) | 18 (457) | 3 3/8 (86) | 7 1/2 (191) | - | 15 7/8 (403) | 3 1/4 (83) |
| 22 | 7100 (3351) | 15 (381) | 38 (965) | 18 (457) | 4 1/4 (108) | NA | 1 1/8 (29) | SEE ABOVE | 5 1/4 (133) |

| | | | |
|----------|------------|-------------------|---------------------|
| JOB NAME | JOB NUMBER | LOCATION | DRAWING NUMBER |
| BUYER | BUYER # | REVISION E | SHEET 1 OF 1 |
| | | | 35E-202-1 |

PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

09/03/2021

10 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

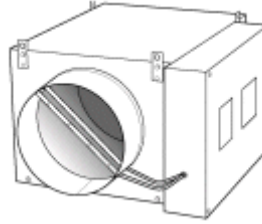
10 IN VAV INLET HW REHEAT

**Tag Cover Sheet
Unit Report
Certified Drawing**

Unit Report For 10 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM



Unit Parameters

Tag Name: **10 IN VAV INLET HW REHEAT**
 Quantity: **4**
 Model Type: **Field or Factory Installed Controls by Others**
 Model: **35E Single Duct Terminals**
 Unit and Inlet Size: **10 Inch (248 - 1430 CFM)**
 Part Number: **35EN3021R100DXX00000SDH0W1200000.OP0000075002300380**
 Reheat Option: **Water Reheat**
 Insulation Lining: **Steriliner**

Dimensions

Unit Depth: **20.5** in
 Unit Width: **14.0** in
 Unit Height: **13.0** in
 Unit Operating Weight : **46** lb

*** Weights and Dimensions are approximate. Weight does not include curbs and accessories. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions, refer to certified drawings.

Warranty Information

1 Year Parts Only Warranty

Ordering Information

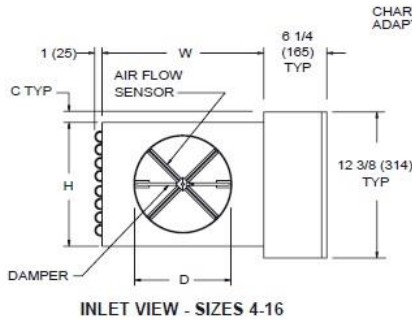
| Part Number | Description | Quantity |
|---|---|----------|
| Base Unit | | |
| 35EN3021R100DXX00000SDH0W1200000.OP0000075002300380 | 35E Single Duct Terminals | 4 |
| | Base Unit | |
| | Steriliner | |
| | 22 Gauge , Right Hand Ctrl, w/Access Panel | |
| | DXX0: Factory Installed Controls Provided by Others | |
| | 2 Row/Right | |
| | LineaCross (4 quadrant) | |
| | Hangers | |
| | Non-Fused Disconnect For Controls | |
| | 120-24 Vac Transformer | |
| | Water Coil Vent & Drain | |
| Accessories | | |

Certified Drawing for 10 IN VAV INLET HW REHEAT

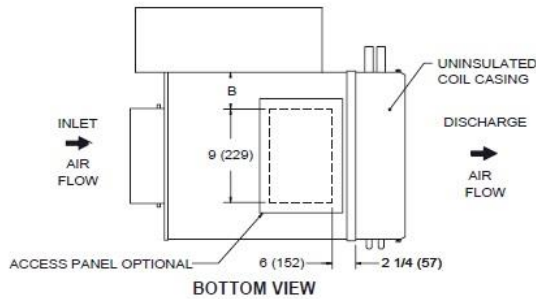
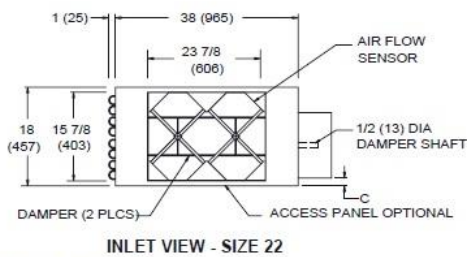
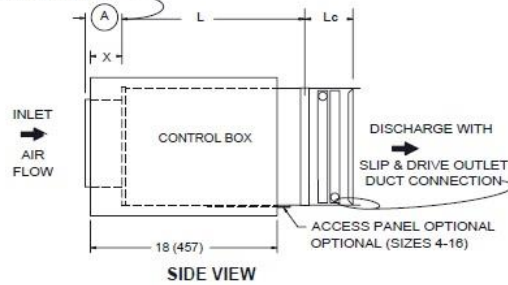
Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

| | | | | | |
|-----------|--|---|---|--|------------|
| CODE | | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | BASE UNIT WITH HOT WATER ANALOG OR DDC ELECTRONIC CONTROL | 35E |
| CATALOG # | | | | | |



CHARTED 'A' DIMENSION INCLUDES INLET ADAPTER PROVIDED ON SIZES 4 & 5



STANDARD FEATURES:

- 22 Ga. Zinc coated steel construction.
- NEMA 1 steel control enclosure for electronic components
- 1/2" thick dual density fiberglass insulation meeting NFPA 90A and UL 181 safety requirements.
- Four quadrant averaging cross flow sensor
- Hot water coils. See form TS0005 for dimensions and specifications
- Variety of analog and digital control packages for pressure independent systems.
- AHRI certified sound ratings

NOTE: Right hand configuration shown, left hand available.

DIMENSIONS ARE GIVEN AS INCHES (MM)

OPTIONAL FEATURES:

- 20 Ga. Zinc coated steel construction
- Liners:
 - 1/2" dual density fiberglass
 - 1" dual density fiberglass
 - Perforated double wall 1/2"
 - Perforated double wall 1"
 - 1/2" Cellular - fibre free
 - None
 - Steriliner
 - Sterilwall 1/2"
 - Sterilwall 1"
 - 1" Cellular - fibre free
- Linear averaging sensor.
- Disconnect switch for electronic controls
- 24 volt transformer.
- Left hand controls.
- Left hand water coil connection
- Dust tight control enclosure
- Bottom access panel (not available in size 22)
- Cam lock bottom access panel (not available in size 22)
- Right Hand Controls
- Right Hand Water Coil Connection
- Hanger Brackets

| INLET SIZE | NOM MAX CFM (L/s) | L | W | H | A | B | C | D | X |
|------------|-------------------|--------------|----------|--------------|-------------|-------------|------------|--------------|-------------|
| 4 | 230 (109) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 3 7/8 (98) | 7 1/4 (184) |
| 5 | 360 (170) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 4 7/8 (124) | 7 1/4 (184) |
| 6 | 520 (245) | 15 1/2 (394) | 12 (305) | 8 (203) | 3 3/8 (86) | 1 1/2 (38) | 2 1/8 (54) | 5 7/8 (149) | 7 1/4 (184) |
| 7 | 710 (335) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 6 7/8 (175) | 7 1/4 (184) |
| 8 | 925 (437) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 7 7/8 (200) | 7 1/4 (184) |
| 9 | 1200 (566) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 8 7/8 (225) | 5 1/4 (133) |
| 10 | 1450 (685) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 9 7/8 (251) | 5 1/4 (133) |
| 12 | 2100 (991) | 15 1/2 (394) | 16 (406) | 15 (381) | 3 3/8 (86) | 3 1/2 (89) | - | 11 7/8 (302) | 5 1/4 (133) |
| 14 | 2900 (1369) | 15 1/2 (394) | 20 (508) | 17 1/2 (445) | 3 3/8 (86) | 5 1/2 (140) | - | 13 7/8 (352) | 3 1/4 (83) |
| 16 | 3700 (1746) | 15 1/2 (394) | 24 (610) | 18 (457) | 3 3/8 (86) | 7 1/2 (191) | - | 15 7/8 (403) | 3 1/4 (83) |
| 22 | 7100 (3351) | 15 (381) | 38 (965) | 18 (457) | 4 1/4 (108) | NA | 1 1/8 (29) | SEE ABOVE | 5 1/4 (133) |

| | | | |
|----------|------------|-------------------|---------------------|
| JOB NAME | JOB NUMBER | LOCATION | DRAWING NUMBER |
| BUYER | BUYER # | REVISION C | SHEET 1 OF 1 |
| | | | 35E-202-3 |


PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

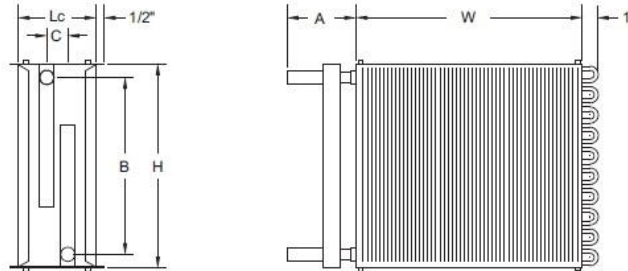
09/03/2021

Certified Drawing for 10 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM

| | | | | | |
|-----------|---|---|---|-----------------------------------|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | 35E HOT WATER REHEAT COILS | 35E |
| CATALOG # | | | | | |



- NOTES:**
1. 35E coils are shipped from the factory attached to the unit discharge. Coil discharge is configured for slip and drive field ductwork installation. Coil section is uninsulated. Coils are not for steam applications.
 2. CONNECTION TUBING – 0.032-in. thick copper, male solder connection. Refer to connection diameter shown in the table below.
 3. COIL CASING – 20-gage galvanized steel
 4. COIL TUBING – ½ in. OD x 0.016-in. thick copper
 5. COIL FINS – 0.0045-in. thick aluminum, 10 per inch, mechanically bonded to tubing.
 6. COILS ACCESSORIES – optional air vent and drain
 7. Unit dimensions given in inches

| 35E UNIT SIZE | NO. OF ROWS IN COILS | H | W | Lc | A | B | C | WATER CONN (OD) |
|---------------|----------------------|--------|----|-------|-------|--------|--------|-----------------|
| 04, 05, 06 | 1 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 1/2 |
| | 2 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 5/8 |
| | 3 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 5 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 6 1/4 | 3 1/4 | 7/8 |
| 07, 08 | 1 Row | 10 1/4 | 12 | 5 | 3 | 8 3/4 | - | 1/2 |
| | 2 Row | 10 1/4 | 12 | 5 | 2 4/7 | 8 3/4 | - | 5/8 |
| | 3 Row | 10 1/4 | 12 | 7 1/4 | 4 1/4 | 8 3/8 | 2 3/16 | 7/8 |
| | 4 Row | 10 1/4 | 12 | 7 1/4 | 4 1/4 | 9 | 3 1/4 | 7/8 |
| 09, 10 | 1 Row | 12 3/4 | 14 | 5 | 4 1/4 | 10 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 12 3/4 | 14 | 5 | 4 1/4 | 11 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 10 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 11 1/2 | 3 1/4 | 7/8 |
| 12 | 1 Row | 15 1/4 | 16 | 5 | 4 1/4 | 13 3/8 | 1 1/8 | 7/8 |
| | 2 Row | 15 1/4 | 16 | 5 | 4 1/4 | 14 | 1 1/16 | 7/8 |
| | 3 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 13 3/8 | 2 3/16 | 7/8 |
| | 4 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 14 | 3 1/4 | 7/8 |
| 14 | 1 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| 16 | 1 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| 22 | 1 Row | 17 3/4 | 38 | 5 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 38 | 5 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |

PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

03/25/2021

| | | | | |
|----------|------------|-------------------|---------------------|------------------|
| JOB NAME | JOB NUMBER | LOCATION | | DRAWING NUMBER |
| BUYER | BUYER # | REVISION B | SHEET 1 OF 1 | 35E-202-7 |

12 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

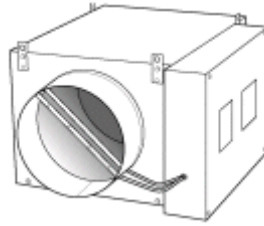
12 IN VAV INLET HW REHEAT

**Tag Cover Sheet
Unit Report
Certified Drawing**

Unit Report For 12 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM



Unit Parameters

Tag Name: **12 IN VAV INLET HW REHEAT**
 Quantity: **38**
 Model Type: **Field or Factory Installed Controls by Others**
 Model: **35E Single Duct Terminals**
 Unit and Inlet Size: **12 Inch (357 - 2060 CFM)**
 Part Number: **35EN3021R120DXX00000SDH0W1200000.OP0000102503100520**
 Reheat Option: **Water Reheat**
 Insulation Lining: **Steriliner**

Dimensions

Unit Depth: **20.5** in
 Unit Width: **16.0** in
 Unit Height: **15.0** in
 Unit Operating Weight : **56** lb

*** Weights and Dimensions are approximate. Weight does not include curbs and accessories. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions, refer to certified drawings.

Warranty Information

1 Year Parts Only Warranty


Ordering Information

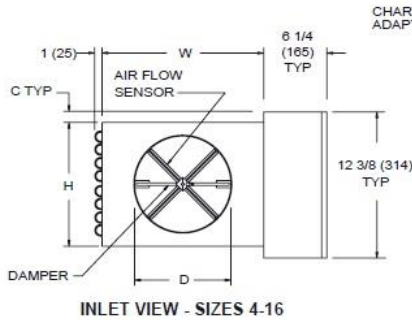
| Part Number | Description | Quantity |
|---|---|----------|
| Base Unit | | |
| 35EN3021R120DXX00000SDH0W1200000.OP0000102503100520 | 35E Single Duct Terminals | 38 |
| | Base Unit | |
| | Steriliner | |
| | 22 Gauge , Right Hand Ctrl, w/Access Panel | |
| | DXX0: Factory Installed Controls Provided by Others | |
| | 2 Row/Right | |
| | LineaCross (4 quadrant) | |
| | Hangers | |
| | Non-Fused Disconnect For Controls | |
| | 120-24 Vac Transformer | |
| | Water Coil Vent & Drain | |
| Accessories | | |

Certified Drawing for 12 IN VAV INLET HW REHEAT

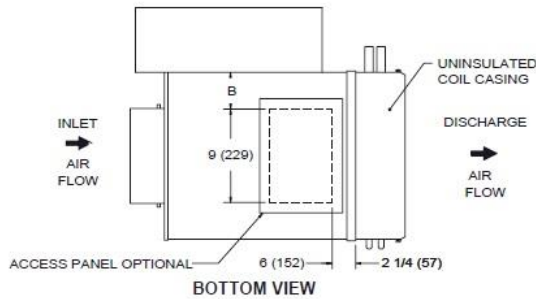
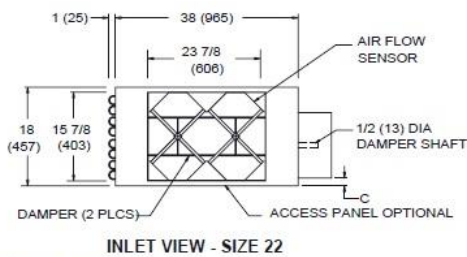
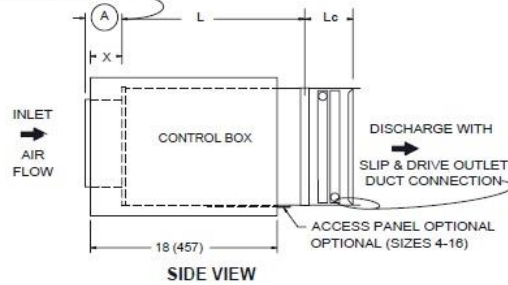
Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

| | | | | | |
|-----------|---|---|---|--|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | BASE UNIT WITH HOT WATER ANALOG OR DDC ELECTRONIC CONTROL | 35E |
| CATALOG # | | | | | |



CHARTED 'A' DIMENSION INCLUDES INLET ADAPTER PROVIDED ON SIZES 4 & 5



STANDARD FEATURES:

- 22 Ga. Zinc coated steel construction.
- NEMA 1 steel control enclosure for electronic components
- 1/2" thick dual density fiberglass insulation meeting NFPA 90A and UL 181 safety requirements.
- Four quadrant averaging cross flow sensor
- Hot water coils. See form TS0005 for dimensions and specifications
- Variety of analog and digital control packages for pressure independent systems.
- AHRI certified sound ratings

NOTE: Right hand configuration shown, left hand available.

DIMENSIONS ARE GIVEN AS INCHES (MM)

OPTIONAL FEATURES:

- 20 Ga. Zinc coated steel construction
- Liners:
 - 1/2" dual density fiberglass
 - 1" dual density fiberglass
 - Perforated double wall 1/2"
 - Perforated double wall 1"
 - 1/2" Cellular - fibre free
- Linear averaging sensor.
- Disconnect switch for electronic controls
- 24 volt transformer.
- Left hand controls.
- Left hand water coil connection
- Dust tight control enclosure
- Bottom access panel (not available in size 22)
- Cam lock bottom access panel (not available in size 22)
- None
- Steriliner
- Sterilwall 1/2"
- Sterilwall 1"
- 1" Cellular - fibre free
- Right Hand Controls
- Right Hand Water Coil Connection
- Hanger Brackets

| INLET SIZE | NOM MAX CFM (L/s) | L | W | H | A | B | C | D | X |
|------------|-------------------|--------------|----------|--------------|-------------|-------------|------------|--------------|-------------|
| 4 | 230 (109) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 3 7/8 (98) | 7 1/4 (184) |
| 5 | 360 (170) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 4 7/8 (124) | 7 1/4 (184) |
| 6 | 520 (245) | 15 1/2 (394) | 12 (305) | 8 (203) | 3 3/8 (86) | 1 1/2 (38) | 2 1/8 (54) | 5 7/8 (149) | 7 1/4 (184) |
| 7 | 710 (335) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 6 7/8 (175) | 7 1/4 (184) |
| 8 | 925 (437) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 7 7/8 (200) | 7 1/4 (184) |
| 9 | 1200 (566) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 8 7/8 (225) | 5 1/4 (133) |
| 10 | 1450 (685) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 9 7/8 (251) | 5 1/4 (133) |
| 12 | 2100 (991) | 15 1/2 (394) | 16 (406) | 15 (381) | 3 3/8 (86) | 3 1/2 (89) | - | 11 7/8 (302) | 5 1/4 (133) |
| 14 | 2900 (1369) | 15 1/2 (394) | 20 (508) | 17 1/2 (445) | 3 3/8 (86) | 5 1/2 (140) | - | 13 7/8 (352) | 3 1/4 (83) |
| 16 | 3700 (1746) | 15 1/2 (394) | 24 (610) | 18 (457) | 3 3/8 (86) | 7 1/2 (191) | - | 15 7/8 (403) | 3 1/4 (83) |
| 22 | 7100 (3351) | 15 (381) | 38 (965) | 18 (457) | 4 1/4 (108) | NA | 1 1/8 (29) | SEE ABOVE | 5 1/4 (133) |

| | | | |
|----------|------------|-------------------|---------------------|
| JOB NAME | JOB NUMBER | LOCATION | DRAWING NUMBER |
| BUYER | BUYER # | REVISION C | SHEET 1 OF 1 |
| | | | 35E-202-3 |


PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

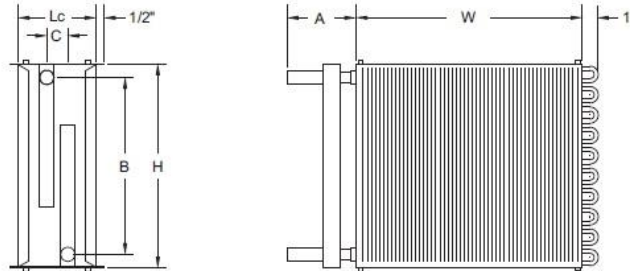
09/03/2021

Certified Drawing for 12 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM

| | | | | | |
|-----------|---|---|---|-----------------------------------|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | 35E HOT WATER REHEAT COILS | 35E |
| CATALOG # | | | | | |



- NOTES:**
1. 35E coils are shipped from the factory attached to the unit discharge. Coil discharge is configured for slip and drive field ductwork installation. Coil section is uninsulated. Coils are not for steam applications.
 2. CONNECTION TUBING – 0.032-in. thick copper, male solder connection. Refer to connection diameter shown in the table below.
 3. COIL CASING – 20-gage galvanized steel
 4. COIL TUBING – ½ in. OD x 0.016-in. thick copper
 5. COIL FINS – 0.0045-in. thick aluminum, 10 per inch, mechanically bonded to tubing.
 6. COILS ACCESSORIES – optional air vent and drain
 7. Unit dimensions given in inches

| 35E UNIT SIZE | NO. OF ROWS IN COILS | H | W | Lc | A | B | C | WATER CONN (OD) |
|---------------|----------------------|--------|----|-------|-------|--------|--------|-----------------|
| 04, 05, 06 | 1 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 1/2 |
| | 2 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 5/8 |
| | 3 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 5 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 6 1/4 | 3 1/4 | 7/8 |
| 07, 08 | 1 Row | 10 1/4 | 12 | 5 | 3 | 8 3/4 | - | 1/2 |
| | 2 Row | 10 1/4 | 12 | 5 | 2 4/7 | 8 3/4 | - | 5/8 |
| | 3 Row | 10 1/4 | 12 | 7 1/4 | 4 1/4 | 8 3/8 | 2 3/16 | 7/8 |
| | 4 Row | 10 1/4 | 12 | 7 1/4 | 4 1/4 | 9 | 3 1/4 | 7/8 |
| 09, 10 | 1 Row | 12 3/4 | 14 | 5 | 4 1/4 | 10 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 12 3/4 | 14 | 5 | 4 1/4 | 11 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 10 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 11 1/2 | 3 1/4 | 7/8 |
| 12 | 1 Row | 15 1/4 | 16 | 5 | 4 1/4 | 13 3/8 | 1 1/8 | 7/8 |
| | 2 Row | 15 1/4 | 16 | 5 | 4 1/4 | 14 | 1 1/16 | 7/8 |
| | 3 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 13 3/8 | 2 3/16 | 7/8 |
| | 4 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 14 | 3 1/4 | 7/8 |
| 14 | 1 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| 16 | 1 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| 22 | 1 Row | 17 3/4 | 38 | 5 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 38 | 5 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |

PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

03/25/2021

| | | | |
|----------|------------|-------------------|---------------------|
| JOB NAME | JOB NUMBER | LOCATION | DRAWING NUMBER |
| BUYER | BUYER # | REVISION B | SHEET 1 OF 1 |
| | | | 35E-202-7 |

12 IN VAV INLET COOLING ONLY

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

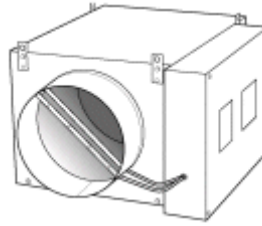
12 IN VAV INLET COOLING ONLY

**Tag Cover Sheet
Unit Report
Certified Drawing**

Unit Report For 12 IN VAV INLET COOLING ONLY

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM



Unit Parameters

Tag Name: **12 IN VAV INLET COOLING ONLY**
 Quantity: **1**
 Model Type: **Field or Factory Installed Controls by Others**
 Model: **35E Single Duct Terminals**
 Unit and Inlet Size: **12 Inch (357 - 2060 CFM)**
 Part Number: **35EN3021R120DXX000000SDH00000000.000000100000000000**
 Reheat Option: **None**
 Insulation Lining: **Steriliner**

Dimensions

Unit Depth: **15.5** in
 Unit Width: **16.0** in
 Unit Height: **15.0** in
 Unit Operating Weight : **35** lb

*** Weights and Dimensions are approximate. Weight does not include curbs and accessories. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions, refer to certified drawings.

Warranty Information

1 Year Parts Only Warranty


Ordering Information

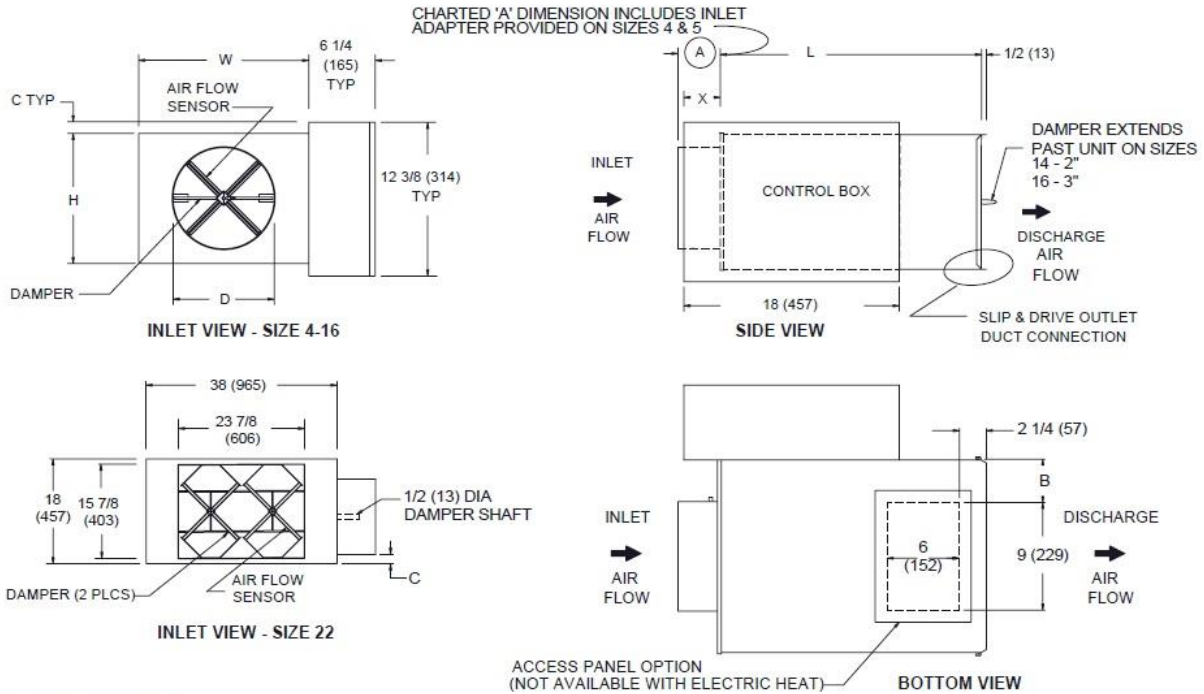
| Part Number | Description | Quantity |
|---|---|----------|
| Base Unit | | |
| 35EN3021R120DXX000000SDH00000000.000000100000000000 | 35E Single Duct Terminals | 1 |
| | Base Unit | |
| | Steriliner | |
| | 22 Gauge , Right Hand Ctrl, w/Access Panel | |
| | DXX0: Factory Installed Controls Provided by Others | |
| | LineaCross (4 quadrant) | |
| | Hangers | |
| | Non-Fused Disconnect For Controls | |
| | 120-24 Vac Transformer | |
| Accessories | | |

Certified Drawing for 12 IN VAV INLET COOLING ONLY

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM

| | | | | | |
|-----------|---|---|---|--|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | BASE UNIT WITH ANALOG OR DDC ELECTRONIC CONTROL | 35E |
| CATALOG # | | | | | |



STANDARD FEATURES:

- 22 Ga. Zinc coated steel construction.
- NEMA 1 steel control enclosure for electric or electronic components
- 1/2" thick dual density fiberglass insulation meeting NFPA 90A and UL 181 safety requirements.
- Four quadrant averaging cross flow sensor
- Variety of electric, analog, and digital control packages for pressure dependent and pressure independent systems.
- ETL listed - Adherence to UL 429 for electrically operated valves.
- AHRI 880 certified sound ratings

NOTE: Right hand configuration shown, left hand available.

OPTIONAL FEATURES:

- 20 Ga. Zinc coated steel construction
- Liners: 1/2" dual density fiberglass None
- 1" dual density fiberglass Steriliner
- Perforated double wall 1/2" Sterilwall 1/2"
- Perforated double wall 1" Sterilwall 1"
- 1/2" Cellular - fibre free 1" Cellular - fibre free
- Linear averaging sensor.
- 24 Volt transformer
- Disconnect switch for electronic controls. Hanger Brackets
- Dust tight control enclosure.
- Left hand control enclosure.
- Right hand control enclosure.
- Bottom access panel (not available in size 22)
- Cam lock bottom access panel (not available in size 22)

DIMENSIONS ARE GIVEN AS INCHES (MM)

| INLET SIZE | NOM MAX CFM(L/s) | L | W | H | A | B | C | D | X |
|------------|------------------|--------------|----------|--------------|-------------|-------------|------------|--------------|-------------|
| 4 | 230 (109) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 3 7/8 (98) | 7 1/4 (184) |
| 5 | 360 (170) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 4 7/8 (124) | 7 1/4 (184) |
| 6 | 520 (245) | 15 1/2 (394) | 12 (305) | 8 (203) | 3 3/8 (86) | 1 1/2 (38) | 2 1/8 (54) | 5 7/8 (149) | 7 1/4 (184) |
| 7 | 710 (335) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 6 7/8 (175) | 7 1/4 (184) |
| 8 | 925 (437) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 7 7/8 (200) | 7 1/4 (184) |
| 9 | 1200 (566) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 8 7/8 (225) | 5 1/4 (133) |
| 10 | 1450 (685) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 9 7/8 (251) | 5 1/4 (133) |
| 12 | 2100 (991) | 15 1/2 (394) | 16 (406) | 15 (381) | 3 3/8 (86) | 3 1/2 (89) | - | 11 7/8 (302) | 5 1/4 (133) |
| 14 | 2900 (1369) | 15 1/2 (394) | 20 (508) | 17 1/2 (445) | 3 3/8 (86) | 5 1/2 (140) | - | 13 7/8 (352) | 3 1/4 (83) |
| 16 | 3700 (1746) | 15 1/2 (394) | 24 (610) | 18 (457) | 3 3/8 (86) | 7 1/2 (191) | - | 15 7/8 (403) | 3 1/4 (83) |
| 22 | 7100 (3351) | 15 (381) | 38 (965) | 18 (457) | 4 1/4 (108) | NA | 1 1/8 (29) | SEE ABOVE | 5 1/4 (133) |

| | | | |
|--|------------|-------------------|---------------------|
| JOB NAME | JOB NUMBER | LOCATION | DRAWING NUMBER |
| BUYER | BUYER # | REVISION E | SHEET 1 OF 1 |
| PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE. | | | 35E-202-1 |

09/03/2021

14 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

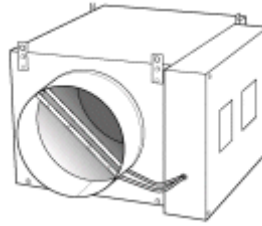
14 IN VAV INLET HW REHEAT

**Tag Cover Sheet
Unit Report
Certified Drawing**

Unit Report For 14 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM



Unit Parameters

Tag Name: **14 IN VAV INLET HW REHEAT**
 Quantity: **17**
 Model Type: **Field or Factory Installed Controls by Others**
 Model: **35E Single Duct Terminals**
 Unit and Inlet Size: **14 Inch (486 - 2800 CFM)**
 Part Number: **35EN3021R140DXX00000SDH0W1200000.OP0000200006001000**
 Reheat Option: **Water Reheat**
 Insulation Lining: **Steriliner**

Dimensions

Unit Depth: **23.0** in
 Unit Width: **20.0** in
 Unit Height: **18.0** in
 Unit Operating Weight : **68** lb

*** Weights and Dimensions are approximate. Weight does not include curbs and accessories. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions, refer to certified drawings.

Warranty Information

1 Year Parts Only Warranty


Ordering Information

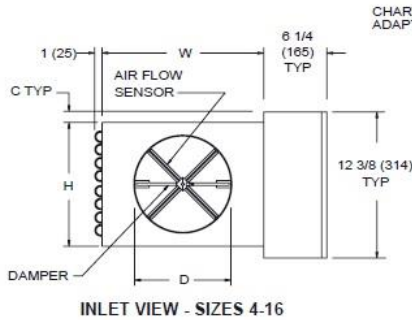
| Part Number | Description | Quantity |
|---|---|----------|
| Base Unit | | |
| 35EN3021R140DXX00000SDH0W1200000.OP0000200006001000 | 35E Single Duct Terminals | 17 |
| | Base Unit | |
| | Steriliner | |
| | 22 Gauge , Right Hand Ctrl, w/Access Panel | |
| | DXX0: Factory Installed Controls Provided by Others | |
| | 2 Row/Right | |
| | LineaCross (4 quadrant) | |
| | Hangers | |
| | Non-Fused Disconnect For Controls | |
| | 120-24 Vac Transformer | |
| | Water Coil Vent & Drain | |
| Accessories | | |

Certified Drawing for 14 IN VAV INLET HW REHEAT

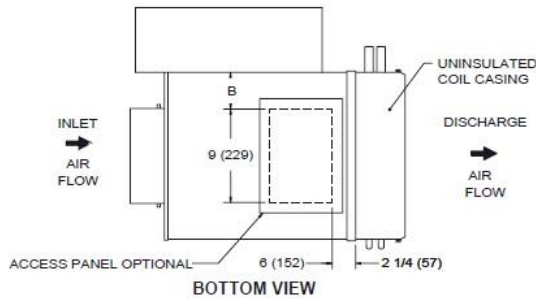
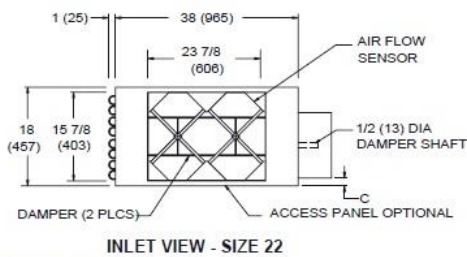
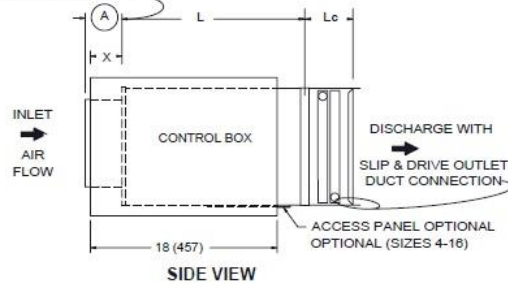
Project: CMS Elon-Hawk-Polo Ridge ES Relief
Prepared By: Paul Shelor

04/12/2022
07:32AM

| | | | | | |
|-----------|---|---|---|--|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | BASE UNIT WITH HOT WATER ANALOG OR DDC ELECTRONIC CONTROL | 35E |
| CATALOG # | | | | | |



CHARTED 'A' DIMENSION INCLUDES INLET ADAPTER PROVIDED ON SIZES 4 & 5



STANDARD FEATURES:

- 22 Ga. Zinc coated steel construction.
- NEMA 1 steel control enclosure for electronic components
- 1/2" thick dual density fiberglass insulation meeting NFPA 90A and UL 181 safety requirements.
- Four quadrant averaging cross flow sensor
- Hot water coils. See form TS0005 for dimensions and specifications
- Variety of analog and digital control packages for pressure independent systems.
- AHRI certified sound ratings

NOTE: Right hand configuration shown, left hand available.

DIMENSIONS ARE GIVEN AS INCHES (MM)

OPTIONAL FEATURES:

- 20 Ga. Zinc coated steel construction
- Liners:
 - 1/2" dual density fiberglass
 - 1" dual density fiberglass
 - Perforated double wall 1/2"
 - Perforated double wall 1"
 - 1/2" Cellular - fibre free
- Linear averaging sensor.
- Disconnect switch for electronic controls
- 24 volt transformer.
- Left hand controls.
- Left hand water coil connection
- Dust tight control enclosure
- Bottom access panel (not available in size 22)
- Cam lock bottom access panel (not available in size 22)
- None
- Steriliner
- Sterilwall 1/2"
- Sterilwall 1"
- 1" Cellular - fibre free
- Right Hand Controls
- Right Hand Water Coil Connection
- Hanger Brackets

| INLET SIZE | NOM MAX CFM (L/s) | L | W | H | A | B | C | D | X |
|------------|-------------------|--------------|----------|--------------|-------------|-------------|------------|--------------|-------------|
| 4 | 230 (109) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 3 7/8 (98) | 7 1/4 (184) |
| 5 | 360 (170) | 15 1/2 (394) | 12 (305) | 8 (203) | 5 3/8 (136) | 1 1/2 (38) | 2 1/8 (54) | 4 7/8 (124) | 7 1/4 (184) |
| 6 | 520 (245) | 15 1/2 (394) | 12 (305) | 8 (203) | 3 3/8 (86) | 1 1/2 (38) | 2 1/8 (54) | 5 7/8 (149) | 7 1/4 (184) |
| 7 | 710 (335) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 6 7/8 (175) | 7 1/4 (184) |
| 8 | 925 (437) | 15 1/2 (394) | 12 (305) | 10 (254) | 3 3/8 (86) | 1 1/2 (38) | 1 1/8 (29) | 7 7/8 (200) | 7 1/4 (184) |
| 9 | 1200 (566) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 8 7/8 (225) | 5 1/4 (133) |
| 10 | 1450 (685) | 15 1/2 (394) | 14 (356) | 12 1/2 (318) | 3 3/8 (86) | 2 1/2 (64) | - | 9 7/8 (251) | 5 1/4 (133) |
| 12 | 2100 (991) | 15 1/2 (394) | 16 (406) | 15 (381) | 3 3/8 (86) | 3 1/2 (89) | - | 11 7/8 (302) | 5 1/4 (133) |
| 14 | 2900 (1369) | 15 1/2 (394) | 20 (508) | 17 1/2 (445) | 3 3/8 (86) | 5 1/2 (140) | - | 13 7/8 (352) | 3 1/4 (83) |
| 16 | 3700 (1746) | 15 1/2 (394) | 24 (610) | 18 (457) | 3 3/8 (86) | 7 1/2 (191) | - | 15 7/8 (403) | 3 1/4 (83) |
| 22 | 7100 (3351) | 15 (381) | 38 (965) | 18 (457) | 4 1/4 (108) | NA | 1 1/8 (29) | SEE ABOVE | 5 1/4 (133) |

| | | | |
|----------|------------|-------------------|---------------------|
| JOB NAME | JOB NUMBER | LOCATION | DRAWING NUMBER |
| BUYER | BUYER # | REVISION C | SHEET 1 OF 1 |
| | | | 35E-202-3 |


PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

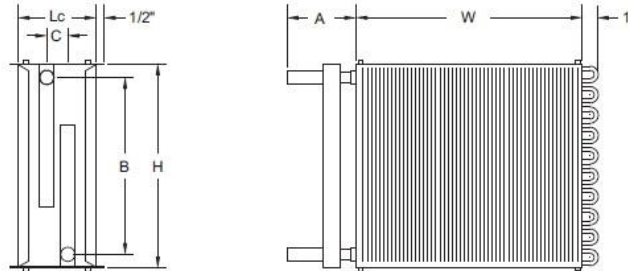
09/03/2021

Certified Drawing for 14 IN VAV INLET HW REHEAT

Project: CMS Elon-Hawk-Polo Ridge ES Relief
 Prepared By: Paul Shelor

04/12/2022
 07:32AM

| | | | | | |
|-----------|---|---|---|-----------------------------------|------------|
| CODE |  | THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. | SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT. | 35E HOT WATER REHEAT COILS | 35E |
| CATALOG # | | | | | |



- NOTES:**
1. 35E coils are shipped from the factory attached to the unit discharge. Coil discharge is configured for slip and drive field ductwork installation. Coil section is uninsulated. Coils are not for steam applications.
 2. CONNECTION TUBING – 0.032-in. thick copper, male solder connection. Refer to connection diameter shown in the table below.
 3. COIL CASING – 20-gage galvanized steel
 4. COIL TUBING – ½ in. OD x 0.016-in. thick copper
 5. COIL FINS – 0.0045-in. thick aluminum, 10 per inch, mechanically bonded to tubing.
 6. COILS ACCESSORIES – optional air vent and drain
 7. Unit dimensions given in inches

| 35E UNIT SIZE | NO. OF ROWS IN COILS | H | W | Lc | A | B | C | WATER CONN (OD) |
|---------------|----------------------|--------|----|-------|-------|--------|--------|-----------------|
| 04, 05, 06 | 1 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 1/2 |
| | 2 Row | 7 7/8 | 12 | 5 | 3 | 6 1/4 | - | 5/8 |
| | 3 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 5 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 7 7/8 | 12 | 7 1/4 | 4 1/4 | 6 1/4 | 3 1/4 | 7/8 |
| 07, 08 | 1 Row | 10 1/4 | 12 | 5 | 3 | 8 3/4 | - | 1/2 |
| | 2 Row | 10 1/4 | 12 | 5 | 2 4/7 | 8 3/4 | - | 5/8 |
| | 3 Row | 10 1/4 | 12 | 7 1/4 | 4 1/4 | 8 3/8 | 2 3/16 | 7/8 |
| | 4 Row | 10 1/4 | 12 | 7 1/4 | 4 1/4 | 9 | 3 1/4 | 7/8 |
| 09, 10 | 1 Row | 12 3/4 | 14 | 5 | 4 1/4 | 10 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 12 3/4 | 14 | 5 | 4 1/4 | 11 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 10 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 12 3/4 | 14 | 7 1/4 | 4 1/4 | 11 1/2 | 3 1/4 | 7/8 |
| 12 | 1 Row | 15 1/4 | 16 | 5 | 4 1/4 | 13 3/8 | 1 1/8 | 7/8 |
| | 2 Row | 15 1/4 | 16 | 5 | 4 1/4 | 14 | 1 1/16 | 7/8 |
| | 3 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 13 3/8 | 2 3/16 | 7/8 |
| | 4 Row | 15 1/4 | 16 | 7 1/4 | 4 1/4 | 14 | 3 1/4 | 7/8 |
| 14 | 1 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 20 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 20 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| 16 | 1 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 24 | 7 1/2 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 24 | 9 3/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |
| 22 | 1 Row | 17 3/4 | 38 | 5 | 4 1/4 | 15 7/8 | 1 1/8 | 7/8 |
| | 2 Row | 17 3/4 | 38 | 5 | 4 1/4 | 16 1/2 | 1 1/16 | 7/8 |
| | 3 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 15 7/8 | 2 3/16 | 7/8 |
| | 4 Row | 17 3/4 | 38 | 7 1/4 | 4 1/4 | 16 1/2 | 3 1/4 | 7/8 |

PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

03/25/2021

| | | | | |
|----------|------------|-------------------|---------------------|------------------|
| JOB NAME | JOB NUMBER | LOCATION | | DRAWING NUMBER |
| BUYER | BUYER # | REVISION B | SHEET 1 OF 1 | 35E-202-7 |