YORK®
Heating and Air Conditioning

***SUBMITTAL SET***

**AFFINITY LARGE**
**COMMERCIAL GEOTHERMAL/**
**WATER SOURCE HEAT PUMPS**
**SINGLE AND DUAL CAPACITY**

**MODELS:**
**HORIZONTAL: YL080 - 120**
**(7 THRU 10 NOMINAL TONS)**
**VERTICAL: YL080 - 300**
**(7 THRU 25 NOMINAL TONS)**

AHRI CERTIFIED™
www.ahridirectory.org
Water Source HP
ANSI/AHRI/ASHRAE/ISO13256-1

C ETL LISTED US
Intertek

Due to continuous product improvement, specifications are subject to change without notice.

Visit us on the web at www.yorkgeothermal.com

Additional rating information can found at
**www.ahridirectory.org**

Contractor: P.O.: _____ _____

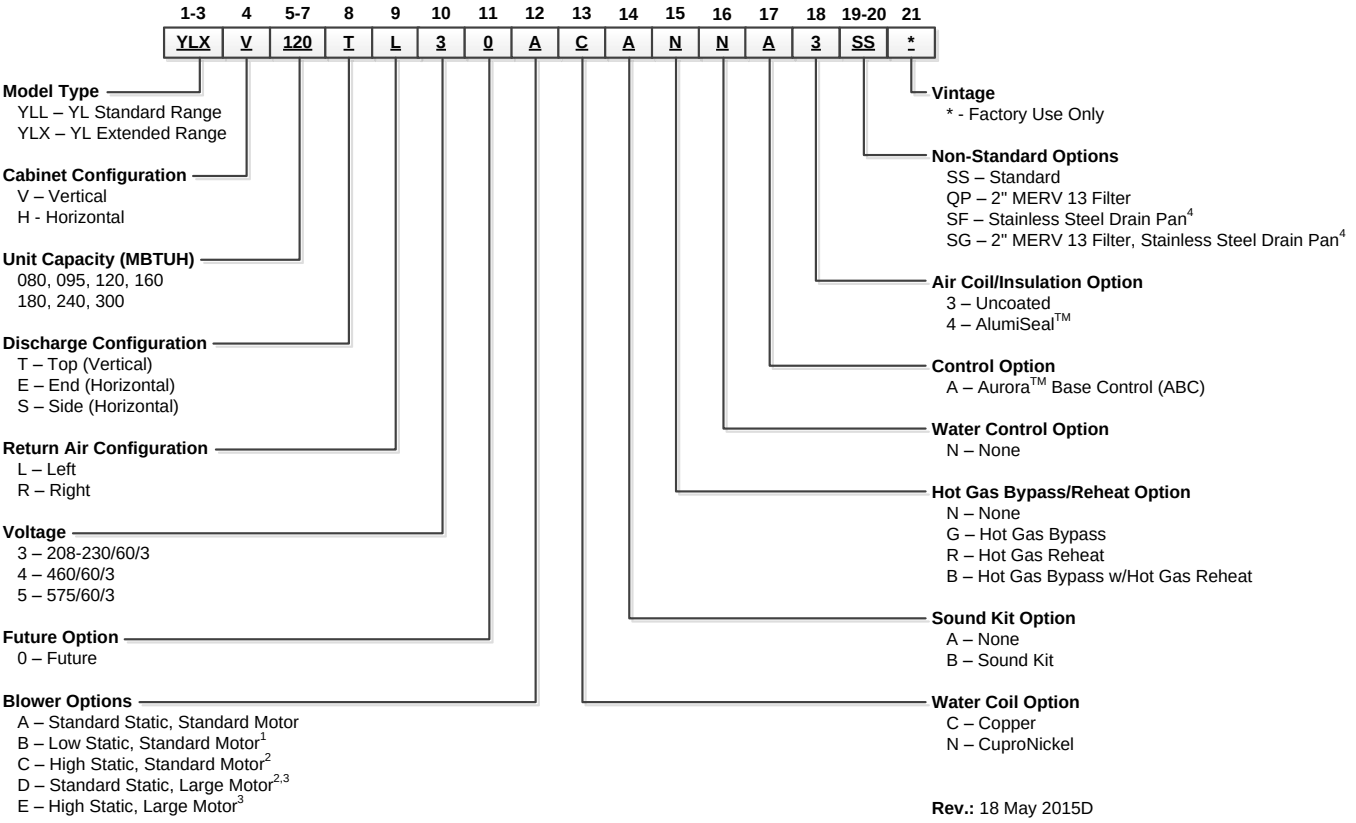
Engineer: _____

Project Name: _____ Unit Tag: _____

**Affinity Large Series**
**Single & Dual Capacity**
**7 - 25 Tons 60Hz**

YORK®

# Model Nomenclature




**Rev.:** 18 May 2015D

**Notes:**
1 – Not available on YLXV/YLLV095, 180, YLXH/YLLH080
2 – Not available on YLXV/YLLV080, 160
3 – Not available on YLXH/YLLH120, YLXV/YLLV300
4 – Not available on YLXV/YLLV160-300. Stainless steel is standard on YLXV/YLLV160-300

Contractor: P.O.: _____ _____

Engineer: _____

Project Name: _____ Unit Tag: _____

**Affinity Large Series**
**Single & Dual Capacity**
**7 - 25 Tons 60Hz**

YORK®

# AHRI/ISO 13256-1 Performance Ratings

## English (IP) Units

| Model | | Flow Rate | | Water Loop Heat Pump | | | | Ground Water Heat Pump | | | | Ground Loop Heat Pump | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Cooling EWT 86°F | | Heating EWT 68°F | | Cooling EWT 59°F | | Heating EWT 50°F | | Cooling EWT 77°F | | Heating EWT 32°F | |
| | | gpm | cfm | Capacity Btuh | EER Btuh/W | Capacity Btuh | COP | Capacity Btuh | EER Btuh/W | Capacity Btuh | COP | Capacity Btuh | EER Btuh/W | Capacity Btuh | COP |
| Horizontal | YL080 | 22.0 | 2600 | 73,000 | 15.5 | 77,700 | 4.7 | 79,000 | 22.5 | 65,800 | 4.2 | 76,000 | 17.7 | 51,300 | 3.5 |
| | YL095 | 24.0 | 3200 | 85,500 | 15.6 | 91,000 | 4.8 | 95,000 | 23.0 | 78,000 | 4.3 | 91,200 | 18.1 | 61,600 | 3.5 |
| | YL120 | 28.0 | 3600 | 113,000 | 13.8 | 140,600 | 4.6 | 129,000 | 21.9 | 115,000 | 4.1 | 119,500 | 16.2 | 89,000 | 3.4 |
| Vertical | YL080 | 22.0 | 2600 | 76,000 | 16.5 | 85,000 | 5.0 | 84,000 | 24.2 | 71,000 | 4.4 | 83,000 | 19.7 | 55,000 | 3.7 |
| | YL095 | 24.0 | 2800 | 91,000 | 17.2 | 100,000 | 5.2 | 101,000 | 25.7 | 83,000 | 4.6 | 95,000 | 19.6 | 65,000 | 3.8 |
| | YL120 | 28.0 | 3600 | 115,000 | 15.5 | 136,000 | 5.1 | 135,000 | 24.3 | 107,500 | 4.4 | 122,000 | 18.0 | 83,000 | 3.6 |
| | YL160* | 35.0 | 5000 | 166,000 | 18.9 | 154,000 | 5.1 | 178,000 | 25.3 | 130,000 | 4.6 | 171,000 | 21.0 | 97,000 | 3.7 |
| | YL180* | 45.0 | 5600 | 180,000 | 17.1 | 190,000 | 5.0 | 187,000 | 22.2 | 149,000 | 4.3 | 185,000 | 18.5 | 109,000 | 3.4 |
| | YL240* | 60.0 | 7600 | 240,000 | 16.3 | 296,000 | 5.2 | 264,000 | 22.5 | 237,000 | 4.6 | 246,000 | 17.4 | 184,000 | 3.8 |
| | YL300* | 75.0 | 9500 | 284,000 | 17.3 | 353,000 | 5.4 | 314,000 | 24.5 | 286,000 | 4.8 | 291,000 | 19.0 | 224,000 | 4.2 |

12/9/08

Cooling capacities based upon 80.6°F DB, 66.2°F WB entering air temperature
Heating capacities based upon 68°F DB, 59°F WB entering air temperature
All ratings based upon 208V operation.
* Ratings for models YL160-300 are outside the scope of the AHRI Water to Air/Brine to Air Heat Pumps Certification Program.

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Water Source HP
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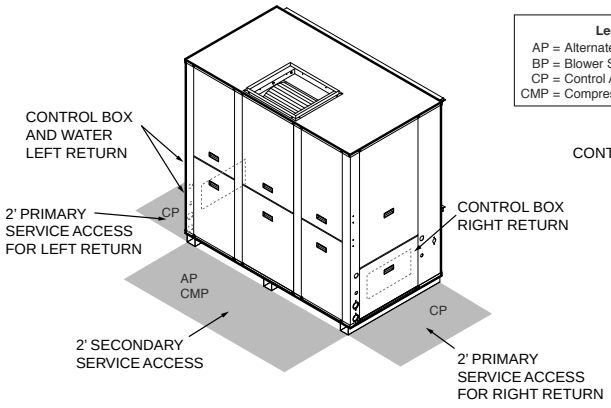
# Vertical Dimensional Data

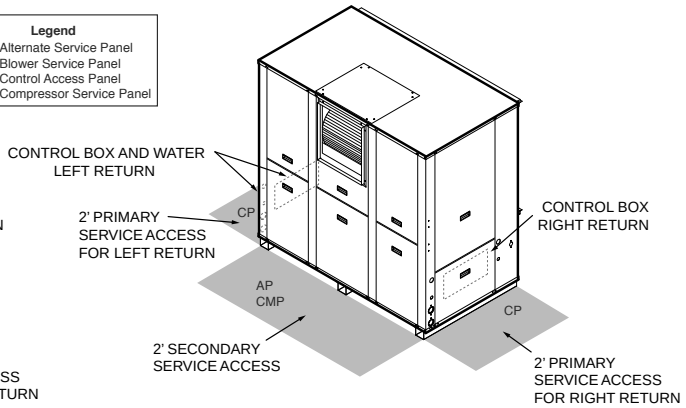
## 7-10 Tons

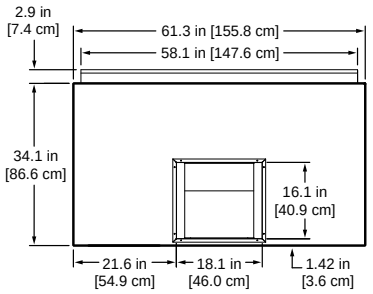
### TOP DISCHARGE



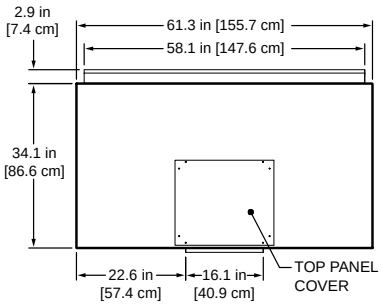

**Legend**
AP = Alternate Service Panel
BP = Blower Service Panel
CP = Control Access Panel
CMP = Compressor Service Panel

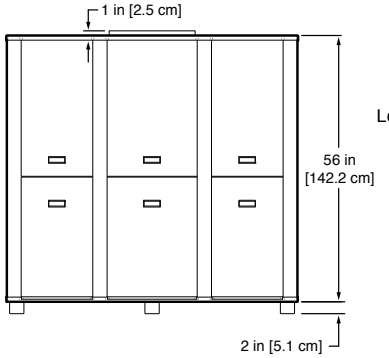
### SIDE DISCHARGE



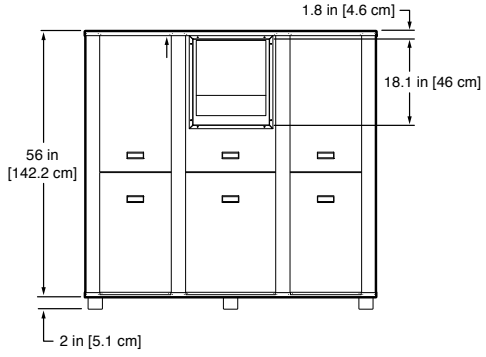




**TOP VIEW**
Left or Right Return



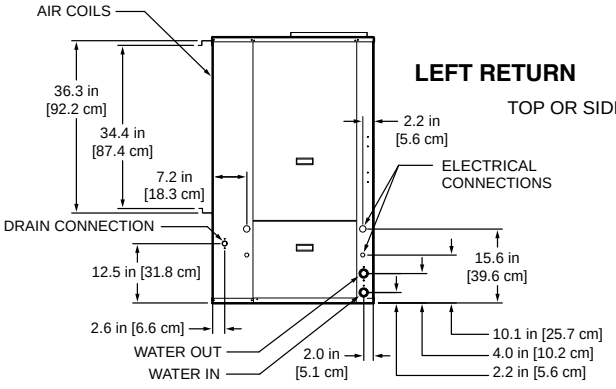



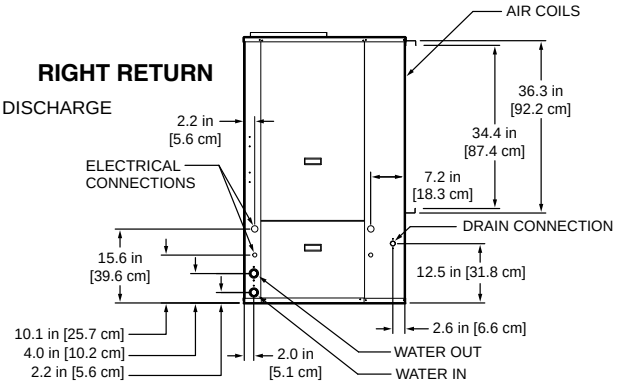

**SIDE VIEW**
Left or Right Return




**LEFT RETURN** **RIGHT RETURN**

TOP OR SIDE DISCHARGE

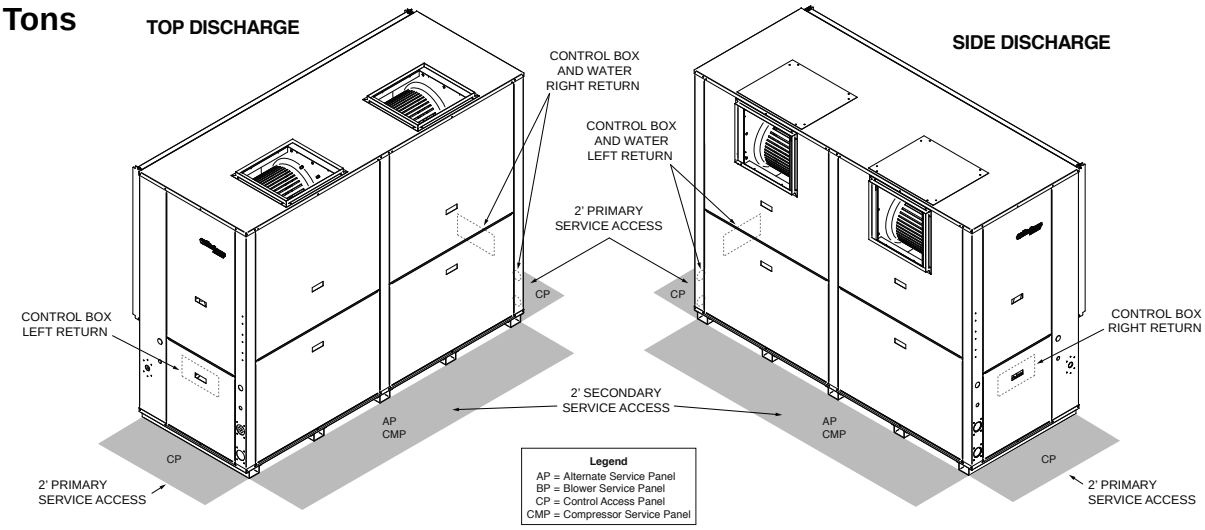


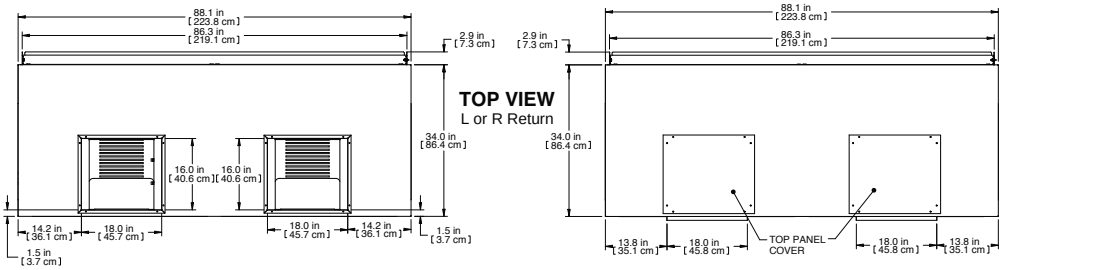



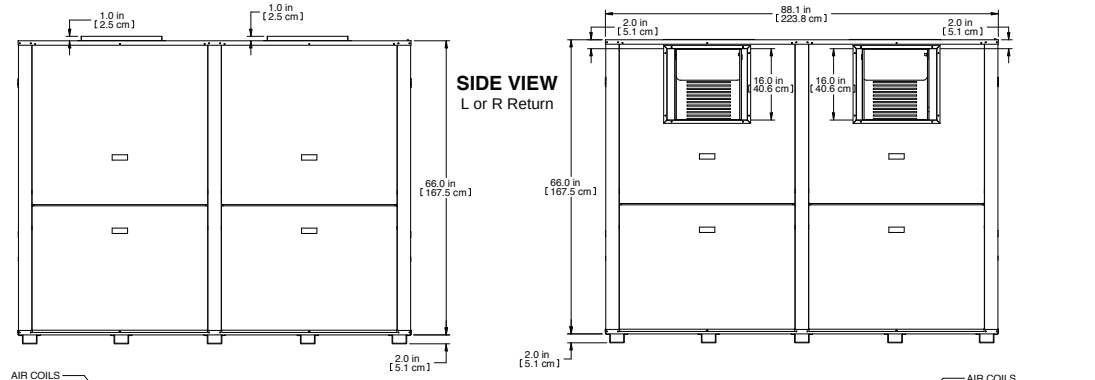

REV 2/11/08

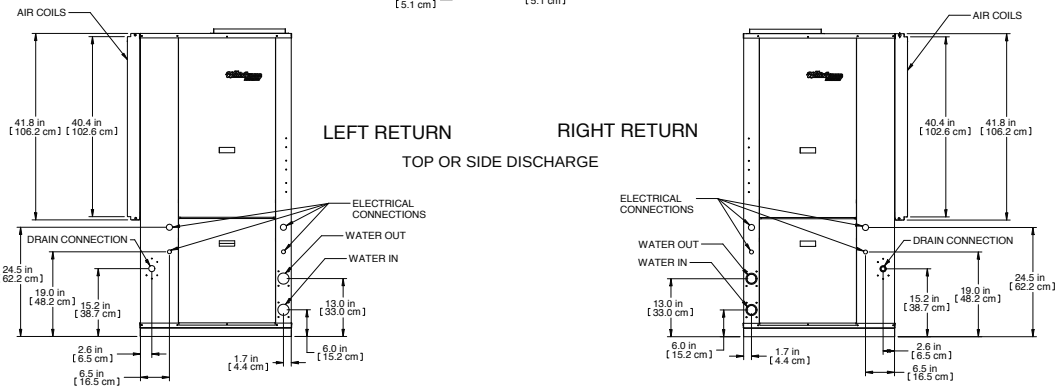
# Vertical Dimensional Data cont.

## 13-25 Tons



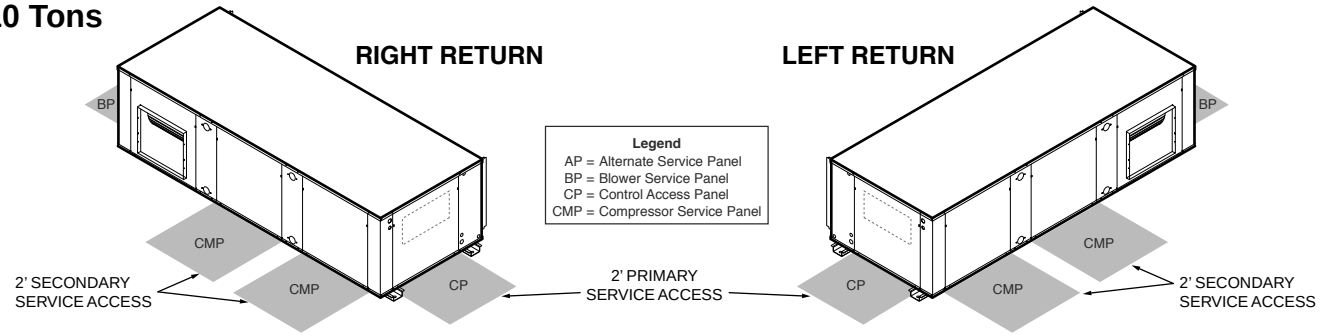



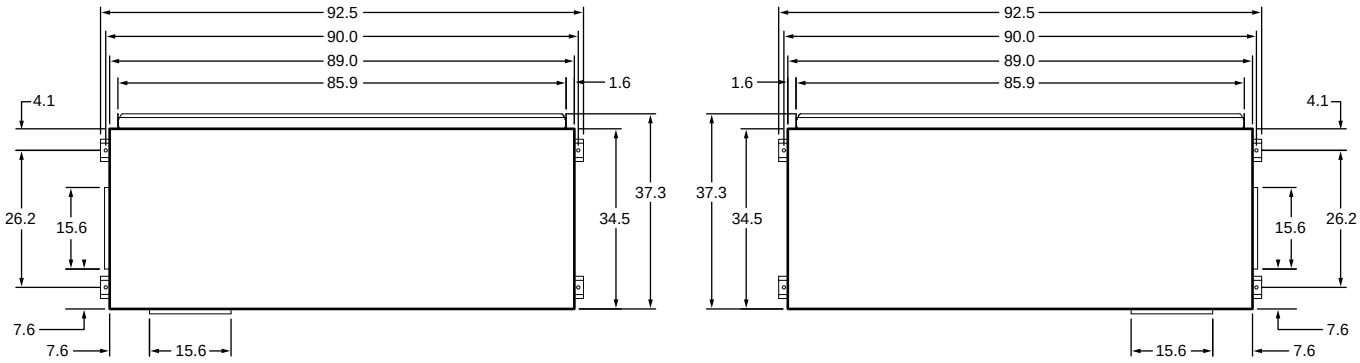



# Horizontal Dimensional Data

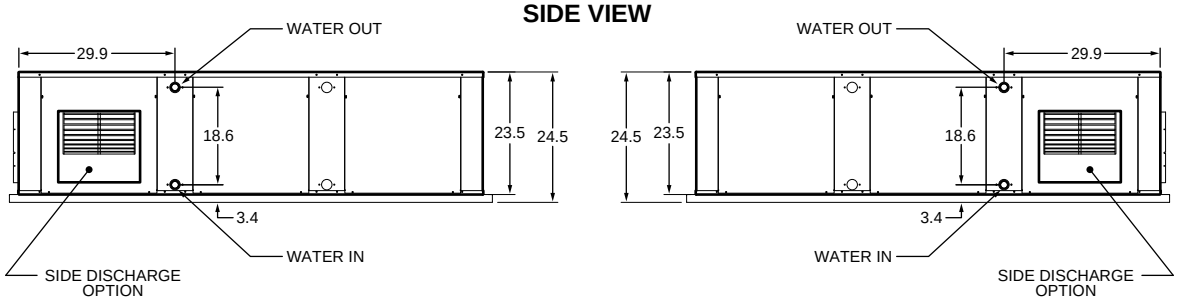
## 7-10 Tons



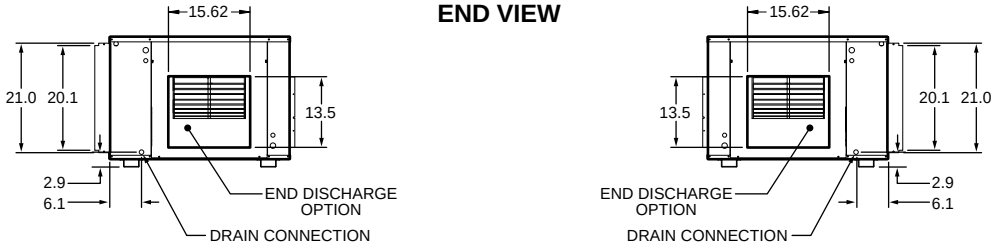

### TOP VIEW




### SIDE VIEW




### END VIEW




REV 4/28/08

# Physical Data

| | Horizontal | | | Vertical | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Model** | **080** | **095** | **120** | **080** | **095** | **120** | **160** | **180** | **240** | **300** |
| Compressor (2 each) | Copeland Scroll | | | Copeland Scroll | | | | | | |
| Factory Charge R410A, oz [kg] (per circuit) | 74 [2.10] | 84 [2.38] | 92 [2.61] | 78 [2.21] | 86 [2.44] | 100 [2.83] | 176 [4.99] | 178 [5.05] | 236 [6.69] | 240 [6.80] |
| **PSC Fan Motor & Blower** | | | | | | | | | | |
| Fan Motor- hp [W] | 1.5 [1120] | 2.0 [1492] | 3.0 [2238] | 1.0 (746) | 1.5 (1120) | 2.0 (1492) | 1.0 (746) | 1.5 (1120) | 2.0 (1492) | 3.0 (2238) |
| Blower Wheel Size (Dia x W), in. [mm] | 12 x 12 [305 x 305] | 12 x 12 [305 x 305] | 12 x 12 [305 x 305] | 15 x 11 [381 x 280] | 15 x 11 [381 x 280] | 15 x 11 [381 x 280] | 15 x 11 (2) [381 x 280] | 15 x 11 (2) [381 x 280] | 15 x 11 (2) [381 x 280] | 15 x 11 (2) [381 x 280] |
| **Coax and Water Piping** | | | | | | | | | | |
| Water Connections Size - FPT - in [mm] | 1 1/4 [31.75] | 1 1/4 [31.75] | 1 1/4 [31.75] | 1 1/4 [31.75] | 1 1/4 [31.75] | 1 1/4 [31.75] | 2 [50.8] | 2 [50.8] | 2 [50.8] | 2 [50.8] |
| HWG Connection Size - FPT - in [mm] | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Coax & Piping Water Volume - gal [l] | 2.87 [10.85] | 3.20 [12.13] | 3.46 [13.11] | 2.87 [10.85] | 3.20 [12.13] | 3.46 [13.11] | 6.50 [24.61] | 6.50 [24.61] | 7.00 [26.50] | 7.00 [26.50] |
| **Air Coil & Filters** | | | | | | | | | | |
| Air Coil Dimensions (H x W), in. [mm] | 20 x 35 [508 x 889] | 20 x 40 [508 x 1016] | 20 x 40 [508 x 1016] | 28 x 25 (711 x 635) | 32 x 25 (813 x 635) | 36 x 25 (915 x 635) | 40 x 40 (2) [1016 x 1016] | 40 x 40 (2) [1016 x 1016] | 40 x 40 (2) [1016 x 1016] | 40 x 40 (2) [1016 x 1016] |
| Air Coil Total Face Area, ft2 [m2] | 9.74 [0.91] | 11.11 [1.03] | 11.11 [1.03] | 9.72 (0.90] | 11.10 (1.03) | 12.50 (1.16) | 22.22 [2.06] | 22.22 [2.06] | 22.22 [2.06] | 22.22 [2.06] |
| Air Coil Tube Size, in [mm] | 3/8 (9.52) | 3/8 (9.52) | 3/8 (9.52) | 3/8 (9.52) | 3/8 (9.52) | 3/8 (9.52) | 3/8 (9.52) | 3/8 (9.52) | 3/8 (9.52) | 3/8 (9.52) |
| Air Coil Number of rows | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 |
| Filter Standard - 2" [50.8], in [mm] | 20 x 20 (3) [508 x 508] 20 x 25 (1) [508 x 635] | 20 x 20 (3) [508 x 508] 20 x 25 (1) [508 x 635] | 20 x 20 (3) [508 x 508] 20 x 25 (1) [508 x 635] | 28 x 36 (1) (711 x 914) 30 x 36 (1) (762 x 914) | 28 x 36 (1) (711 x 914) 30 x 36 (1) (762 x 914) | 28 x 36 (1) (711 x 914) 30 x 36 (1) (762 x 914) | 40 x 42 (2) (1016 x 1067) | 40 x 42 (2) (1016 x 1067) | 40 x 42 (2) (1016 x 1067) | 40 x 42 (2) (1016 x 1067) |
| Weight - Operating, lb [kg] | 700 [318] | 796 [361] | 843 [382] | 644 [292] | 762 [346] | 849 [385] | 1175 [533] | 1195 [542] | 1350 [612] | 1400 [635] |
| Weight - Packaged, lb [kg] | 690 [313] | 785 [356] | 830 [376] | 620 [281] | 735 [333] | 820 [372] | 1180 [535] | 1200 [544] | 1355 [614] | 1405 [637] |

11/10/2014

# Electrical Data

| Model | Rated Voltage | Voltage Min/Max | Compressor* | | | Blower Motor FLA*** | Blower HP *** | Total Unit FLA | Min Circ Amp | Max Fuse/ HACR |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | MCC | RLA | LRA | | | | | |
| **Horizontal** | | | | | | | | | | |
| **080** | 208-230/60/3 | 187/253 | 16.3 | 10.4 | 88.0 | 4.8 | 1.5 | 25.7 | 28.3 | 35.0 |
| | 460/60/3 | 414/506 | 9.0 | 5.8 | 38.0 | 2.4 | 1.5 | 13.9 | 15.4 | 20.0 |
| | 575/60/3 | 518/632 | 5.9 | 3.8 | 36.5 | 1.9 | 1.5 | 9.5 | 10.4 | 10.0 |
| **080**** | 208-230/60/3 | 187/253 | 16.3 | 10.4 | 88.0 | 6.2 | 2.0 | 27.1 | 29.7 | 40.0 |
| | 460/60/3 | 414/506 | 9.0 | 5.8 | 38.0 | 3.1 | 2.0 | 14.6 | 16.1 | 20.0 |
| | 575/60/3 | 518/632 | 5.9 | 3.8 | 36.5 | 2.5 | 2.0 | 10.1 | 11.0 | 10.0 |
| **095** | 208-230/60/3 | 187/253 | 21.2 | 13.6 | 83.1 | 6.2 | 2.0 | 33.3 | 36.7 | 50.0 |
| | 460/60/3 | 414/506 | 9.5 | 6.1 | 41.0 | 3.1 | 2.0 | 15.3 | 16.8 | 20.0 |
| | 575/60/3 | 518/632 | 7.8 | 5.0 | 34.0 | 2.5 | 2.0 | 12.5 | 13.7 | 15.0 |
| **095**** | 208-230/60/3 | 187/253 | 21.2 | 13.6 | 83.1 | 9.2 | 3.0 | 36.3 | 39.7 | 50.0 |
| | 460/60/3 | 414/506 | 9.5 | 6.1 | 41.0 | 4.3 | 3.0 | 16.5 | 18.0 | 20.0 |
| | 575/60/3 | 518/632 | 7.8 | 5.0 | 34.0 | 3.4 | 3.0 | 13.4 | 14.6 | 15.0 |
| **120** | 208-230/60/3 | 187/253 | 24.9 | 15.9 | 110.0 | 9.2 | 3.0 | 41.1 | 45.1 | 60.0 |
| | 460/60/3 | 414/506 | 12.1 | 7.7 | 52.0 | 4.3 | 3.0 | 19.8 | 21.7 | 25.0 |
| | 575/60/3 | 518/632 | 8.9 | 5.7 | 38.9 | 3.4 | 3.0 | 14.8 | 16.2 | 20.0 |
| **Vertical** | | | | | | | | | | |
| **080** | 208-230/60/3 | 187/253 | 16.3 | 10.4 | 88.0 | 3.6 | 1.0 | 24.5 | 27.1 | 35.0 |
| | 460/60/3 | 414/506 | 9.0 | 5.8 | 38.0 | 1.8 | 1.0 | 13.3 | 14.8 | 20.0 |
| | 575/60/3 | 518/632 | 5.9 | 3.8 | 36.5 | 1.5 | 1.0 | 9.0 | 9.9 | 10.0 |
| **080**** | 208-230/60/3 | 187/253 | 16.3 | 10.4 | 88.0 | 4.8 | 1.5 | 25.7 | 28.3 | 35.0 |
| | 460/60/3 | 414/506 | 9.0 | 5.8 | 38.0 | 2.4 | 1.5 | 13.9 | 15.4 | 20.0 |
| | 575/60/3 | 518/632 | 5.9 | 3.8 | 36.5 | 1.9 | 1.5 | 9.5 | 10.4 | 10.0 |
| **095** | 208-230/60/3 | 187/253 | 21.2 | 13.6 | 83.1 | 4.8 | 1.5 | 31.9 | 35.3 | 45.0 |
| | 460/60/3 | 414/506 | 9.5 | 6.1 | 41.0 | 2.4 | 1.5 | 14.6 | 16.1 | 20.0 |
| | 575/60/3 | 518/632 | 7.8 | 5.0 | 34.0 | 1.9 | 1.5 | 11.9 | 13.1 | 15.0 |
| **095**** | 208-230/60/3 | 187/253 | 21.2 | 13.6 | 83.1 | 6.2 | 2.0 | 33.3 | 36.7 | 50.0 |
| | 460/60/3 | 414/506 | 9.5 | 6.1 | 41.0 | 3.1 | 2.0 | 15.3 | 16.8 | 20.0 |
| | 575/60/3 | 518/632 | 7.8 | 5.0 | 34.0 | 2.5 | 2.0 | 12.5 | 13.7 | 15.0 |
| **120** | 208-230/60/3 | 187/253 | 24.9 | 15.9 | 110.0 | 6.2 | 2.0 | 38.1 | 42.1 | 50.0 |
| | 460/60/3 | 414/506 | 12.1 | 7.7 | 52.0 | 3.1 | 2.0 | 18.6 | 20.5 | 25.0 |
| | 575/60/3 | 518/632 | 8.9 | 5.7 | 38.9 | 2.5 | 2.0 | 13.9 | 15.3 | 20.0 |
| **120**** | 208-230/60/3 | 187/253 | 24.9 | 15.9 | 110.0 | 9.2 | 3.0 | 41.1 | 45.1 | 60.0 |
| | 460/60/3 | 414/506 | 12.1 | 7.7 | 52.0 | 4.3 | 3.0 | 19.8 | 21.7 | 25.0 |
| | 575/60/3 | 518/632 | 8.9 | 5.7 | 38.9 | 3.4 | 3.0 | 14.8 | 16.2 | 20.0 |
| **160** | 208-230/60/3 | 187/253 | 35.0 | 22.4 | 149.0 | 3.6 | 1.0 | 52.0 | 57.6 | 80.0 |
| | 460/60/3 | 414/506 | 16.5 | 10.6 | 75.0 | 1.8 | 1.0 | 24.8 | 54.0 | 35.0 |
| | 575/60/3 | 518/632 | 12.0 | 7.7 | 54.0 | 1.5 | 1.0 | 18.4 | 20.3 | 25.0 |
| **160**** | 208-230/60/3 | 187/253 | 35.0 | 22.4 | 149.0 | 4.8 | 1.5 | 54.4 | 60.0 | 80.0 |
| | 460/60/3 | 414/506 | 16.5 | 10.6 | 75.0 | 2.4 | 1.5 | 26.0 | 28.7 | 35.0 |
| | 575/60/3 | 518/632 | 12.0 | 7.7 | 54.0 | 1.9 | 1.5 | 19.2 | 21.1 | 25.0 |
| **180** | 208-230/60/3 | 187/253 | 36.2 | 23.2 | 164.0 | 4.8 | 1.5 | 56.0 | 61.8 | 80.0 |
| | 460/60/3 | 414/506 | 17.5 | 11.2 | 75.0 | 2.4 | 1.5 | 27.2 | 30.0 | 40.0 |
| | 575/60/3 | 518/632 | 12.3 | 7.9 | 54.0 | 1.9 | 1.5 | 19.6 | 21.6 | 25.0 |
| **180**** | 208-230/60/3 | 187/253 | 36.2 | 23.2 | 164.0 | 6.2 | 2.0 | 58.8 | 64.6 | 80.0 |
| | 460/60/3 | 414/506 | 17.5 | 11.2 | 75.0 | 3.1 | 2.0 | 28.6 | 31.4 | 40.0 |
| | 575/60/3 | 518/632 | 12.3 | 7.9 | 54.0 | 2.5 | 2.0 | 20.8 | 22.8 | 30.0 |
| **240** | 208-230/60/3 | 187/253 | 47.0 | 30.1 | 225.0 | 6.2 | 2.0 | 72.6 | 80.1 | 110.0 |
| | 460/60/3 | 414/506 | 26.0 | 16.6 | 114.0 | 3.1 | 2.0 | 39.5 | 43.6 | 60.0 |
| | 575/60/3 | 518/632 | 19.0 | 12.2 | 80.0 | 2.5 | 2.0 | 29.3 | 32.4 | 40.0 |
| **240**** | 208-230/60/3 | 187/253 | 47.0 | 30.1 | 225.0 | 9.2 | 3.0 | 78.6 | 86.1 | 110.0 |
| | 460/60/3 | 414/506 | 26.0 | 16.6 | 114.0 | 4.3 | 3.0 | 41.9 | 46.0 | 60.0 |
| | 575/60/3 | 518/632 | 19.0 | 12.2 | 80.0 | 3.4 | 3.0 | 31.1 | 34.2 | 45.0 |
| **300** | 208-230/60/3 | 187/253 | 52.0 | 33.3 | 239.0 | 9.2 | 3.0 | 85.0 | 93.3 | 125.0 |
| | 460/60/3 | 414/506 | 28.0 | 17.9 | 125.0 | 4.3 | 3.0 | 44.4 | 48.9 | 60.0 |
| | 575/60/3 | 518/632 | 20.0 | 12.8 | 80.0 | 3.4 | 3.0 | 32.4 | 35.6 | 45.0 |

*Ratings per each compressor - unit supplied with two 9/10/07

**With optional motor

***Ratings per each blower motor - Vertical models 160-300 supplied with two.

HACR circuit breaker in USA only

All fuses Class RK-5

Contractor:P.O.: _____ _____

Engineer: _____

Project Name: _____ Unit Tag: _____

**Affinity Large Series**
**Single & Dual Capacity**
**7 - 25 Tons 60Hz**

YORK®

# Horizontal YL080 - Blower Performance Data

### Belt Drive

Airflow in CFM with dry coil and clean air filter.

| Rated CFM | | External Static Pressure (in. w.g.) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **0.0** | **0.1** | **0.2** | **0.3** | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** | **1.0** | **1.1** | **1.2** | **1.3** | **1.4** | **1.5** |
| **2200** | MTR/SHEAVE | | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | **4.0** | **4.0** | **5.0** | **5.0** | **5.0** | **5.0** |
| | BHP | | | | 0.37 | 0.40 | 0.43 | 0.47 | 0.52 | **0.59** | **0.65** | **0.71** | **0.75** | **0.78** | **0.81** | **0.86** | **0.90** |
| | RPM | | | | 583 | 624 | 665 | 706 | 747 | **770** | **791** | **821** | **865** | **911** | **957** | **986** | **1015** |
| | TURNS OPEN | | | | 5.0 | 4.0 | 3.0 | 2.0 | 1.0 | **3.0** | **2.0** | **1.0** | **0.0** | **3.5** | **3.0** | **2.5** | **2.0** |
| **2400** | MTR/SHEAVE | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | **4.0** | **4.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** |
| | BHP | | | 0.45 | 0.49 | 0.53 | 0.59 | 0.62 | **0.67** | **0.70** | **0.74** | **0.79** | **0.85** | **0.88** | **0.91** | **0.95** | **1.08** |
| | RPM | | | 582 | 623 | 664 | 705 | 746 | **765** | **790** | **820** | **861** | **906** | **938** | **970** | **1004** | **1030** |
| | TURNS OPEN | | | 5.0 | 4.0 | 3.0 | 2.0 | 1.0 | **3.0** | **2.0** | **1.0** | **0.0** | **4.0** | **3.0** | **2.5** | **2.0** | **1.5** |
| **2600** | MTR/SHEAVE | | | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** |
| | BHP | | | 0.51 | 0.56 | 0.62 | 0.66 | 0.69 | 0.73 | 0.76 | 0.84 | 0.90 | **0.93** | **0.96** | **1.04** | **1.12** | **1.17** |
| | RPM | | | 602 | 643 | 684 | 726 | 760 | 783 | 805 | 853 | 877 | **916** | **954** | **988** | **1021** | **1051** |
| | TURNS OPEN | | | 4.5 | 3.5 | 2.5 | 1.5 | 4.0 | 3.5 | 2.5 | 2.0 | 1.5 | **3.5** | **3.0** | **2.5** | **1.5** | **1.0** |
| **2800** | MTR/SHEAVE | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** | **5.0** | |
| | BHP | | 0.53 | 0.58 | 0.64 | 0.69 | 0.76 | 0.79 | 0.80 | 0.94 | 0.99 | 1.03 | **1.15** | **1.16** | **1.17** | **1.27** | |
| | RPM | | 581 | 622 | 663 | 704 | 744 | 776 | 802 | 851 | 876 | 900 | **951** | **976** | **1001** | **1033** | |
| | TURNS OPEN | | 5.0 | 4.0 | 3.0 | 2.0 | 1.0 | 3.5 | 3.0 | 2.0 | 1.5 | 1.0 | **3.0** | **2.5** | **2.0** | **1.5** | |
| **3000** | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | |
| | BHP | 0.59 | 0.66 | 0.73 | 0.80 | 0.87 | 0.90 | 0.92 | 1.07 | 1.08 | 1.10 | **1.30** | **1.33** | **1.35** | **1.40** | **1.44** | |
| | RPM | 580 | 621 | 662 | 702 | 743 | 775 | 801 | 848 | 873 | 898 | **949** | **973** | **997** | **1022** | **1046** | |
| | TURNS OPEN | 5.0 | 4.0 | 3.0 | 2.0 | 1.0 | 3.5 | 3.0 | 2.0 | 1.5 | 1.0 | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | |
| **3200** | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | | |
| | BHP | 0.72 | 0.81 | 0.90 | 0.98 | 1.02 | 1.04 | 1.19 | 1.21 | 1.23 | **1.44** | **1.47** | **1.51** | **1.54** | **1.57** | | |
| | RPM | 620 | 661 | 701 | 741 | 773 | 799 | 846 | 871 | 895 | **946** | **970** | **994** | **1019** | **1043** | | |
| | TURNS OPEN | 4.0 | 3.0 | 2.0 | 1.0 | 3.5 | 3.0 | 2.0 | 1.5 | 1.0 | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | | |
| **3400** | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | | | |
| | BHP | 0.87 | 0.98 | 1.08 | 1.12 | 1.16 | 1.31 | 1.34 | 1.36 | **1.58** | **1.62** | **1.65** | **1.69** | **1.73** | | | |
| | RPM | 660 | 700 | 740 | 772 | 797 | 844 | 869 | 893 | **944** | **968** | **992** | **1016** | **1040** | | | |
| | TURNS OPEN | 3.0 | 2.0 | 1.0 | 3.5 | 3.0 | 2.0 | 1.5 | 1.0 | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | | | |

A C D E

07/25/07

**Bold Face Requires Larger 2 HP Motor**

A=Std Static/Std Mtr;B=Low Static/Std. Mtr;C=High Static/Std. Mtr;D=Std Static/Large Mtr;E=High Static/Large Mtr

Units factory shipped with standard static sheave and drive at 2.5 turns open (2600 cfm @ 0.4 in. ESP). Other speeds require field selection.

ISO/AHRI rating point with standard static sheave and drive at 1.5 turns open (2600 cfm @ 0.5 in. ESP). Other speeds require field selection.

For applications requiring higher static pressures, contact your local representative.

Performance data does not include drive losses and is based on sea level conditions.

Do not operate in gray region. "na" = information not available at time of printing.

All airflow is rated at lowest Voltage if unit is dual Voltage rated, i.e. 208V for 208-230V units.

For wet coil performance first calculate the face velocity of the air coil (Face Velocity [fpm] = Airflow [cfm] / Face Area [sq ft]).

Then for velocities of 200 fpm reduce the static capability by 0.03 in. wg, 300 fpm by 0.08 in. wg, and 400 fpm by 0.12in. wg.

Contractor:P.O.: _____ _____

Engineer: _____

Project Name: _____ Unit Tag: _____

**Affinity Large Series**
**Single & Dual Capacity**
**7 - 25 Tons 60Hz**

YORK®

# Horizontal YL095 - Blower Performance Data

## Belt Drive

Airflow in CFM with dry coil and clean air filter.

| Rated CFM | | External Static Pressure (in. w.g.) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **0.0** | **0.1** | **0.2** | **0.3** | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** | **1.0** | **1.2** | **1.4** | **1.6** | **1.8** | **2.0** |
| **2600** | MTR/SHEAVE | | | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | **4.0** | **4.0** | **5.0** |
| | BHP | | | 0.44 | 0.47 | 0.52 | 0.57 | 0.66 | 0.78 | 0.79 | 0.80 | 0.92 | **0.97** | **1.08** | **1.18** | **1.37** | **1.56** |
| | RPM | | | 584 | 625 | 667 | 708 | 757 | 806 | 831 | 856 | 905 | **960** | **1021** | **1082** | **1142** | **1202** |
| | TURNS OPEN | | | 5.0 | 4.0 | 3.0 | 2.0 | 4.0 | 3.0 | 2.5 | 2.0 | 1.0 | **3.0** | **2.0** | **1.0** | **0.0** | **3.0** |
| **2800** | MTR/SHEAVE | | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | **4.0** | **4.0** | **5.0** | **5.0** |
| | BHP | | 0.51 | 0.56 | 0.61 | 0.67 | 0.77 | 0.89 | 0.90 | 0.91 | 1.06 | **1.11** | **1.14** | **1.38** | **1.44** | **1.59** | **1.73** |
| | RPM | | 583 | 625 | 665 | 707 | 756 | 804 | 829 | 854 | 902 | **933** | **982** | **1055** | **1100** | **1156** | **1212** |
| | TURNS OPEN | | 5.0 | 4.0 | 3.0 | 2.0 | 4.0 | 3.0 | 2.5 | 2.0 | 1.0 | **3.5** | **2.5** | **1.5** | **0.5** | **3.5** | **2.5** |
| **3000** | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | **4.0** | **4.0** | **4.0** | **5.0** | **5.0** |
| | BHP | 0.57 | 0.64 | 0.70 | 0.76 | 0.87 | 1.00 | 1.01 | 1.03 | 1.19 | **1.25** | **1.28** | **1.33** | **1.59** | **1.64** | **1.68** | **1.91** |
| | RPM | 582 | 624 | 665 | 705 | 754 | 802 | 827 | 852 | 900 | **930** | **955** | **1005** | **1078** | **1110** | **1169** | **1228** |
| | TURNS OPEN | 5.0 | 4.0 | 3.0 | 2.0 | 4.0 | 3.0 | 2.5 | 2.0 | 1.0 | **3.5** | **3.0** | **2.0** | **0.5** | **0.0** | **3.0** | **2.0** |
| **3200** | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | |
| | BHP | 0.70 | 0.78 | 0.86 | 0.97 | 1.11 | 1.13 | 1.15 | 1.31 | 1.31 | 1.38 | 1.44 | 1.61 | 1.69 | **1.80** | **2.02** | |
| | RPM | 623 | 664 | 704 | 753 | 801 | 826 | 851 | 899 | 919 | 949 | 978 | 1036 | 1086 | **1137** | **1196** | |
| | TURNS OPEN | 4.0 | 3.0 | 2.0 | 4.0 | 3.0 | 2.5 | 2.0 | 1.0 | 4.0 | 3.5 | 3.0 | 2.5 | 1.5 | **3.5** | **2.5** | |
| **3400** | MTR/SHEAVE | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | |
| | BHP | 0.85 | 0.94 | 1.07 | 1.21 | 1.24 | 1.26 | 1.42 | 1.43 | 1.50 | 1.57 | 1.65 | 1.71 | 1.76 | **2.10** | **2.35** | |
| | RPM | 663 | 703 | 752 | 800 | 825 | 849 | 896 | 917 | 947 | 976 | 1020 | 1057 | 1094 | **1164** | **1223** | |
| | TURNS OPEN | 3.0 | 2.0 | 4.0 | 3.0 | 2.5 | 2.0 | 1.0 | 4.0 | 3.5 | 3.0 | 2.5 | 1.8 | 1.0 | **3.0** | **2.0** | |
| **3600** | MTR/SHEAVE | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | | |
| | BHP | 1.01 | 1.16 | 1.31 | 1.34 | 1.37 | 1.54 | 1.55 | 1.63 | 1.70 | 1.78 | 1.87 | 2.06 | **2.15** | **2.40** | | |
| | RPM | 702 | 751 | 798 | 823 | 848 | 894 | 915 | 945 | 974 | 1003 | 1031 | 1088 | **1133** | **1191** | | |
| | TURNS OPEN | 2.0 | 4.0 | 3.0 | 2.5 | 2.0 | 1.0 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | **3.5** | **2.5** | | |
| **3800** | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | | | |
| | BHP | 1.23 | 1.40 | 1.44 | 1.48 | 1.66 | 1.67 | 1.75 | 1.83 | 1.91 | 2.00 | 2.10 | **2.19** | **2.44** | | | |
| | RPM | 750 | 797 | 821 | 845 | 893 | 913 | 942 | 971 | 1000 | 1029 | 1086 | **1102** | **1160** | | | |
| | TURNS OPEN | 4.0 | 3.0 | 2.5 | 2.0 | 1.0 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | **4.0** | **3.0** | | | |

A B C D E

07/25/07

**Bold Face Requires Larger 2 HP Motor**

A=Std Static/Std Mtr;B=Low Static/Std. Mtr;C=High Static/Std. Mtr;D=Std Static/Large Mtr;E=High Static/Large Mtr

Units factory shipped with standard static sheave and drive at 2 turns open (3200 cfm @ 0.6 in. ESP). Other speeds require field selection.

ISO/AHRI rating point with standard static sheave and drive at 2 turns open (3200 cfm @ 0.6 in. ESP). Other speeds require field selection.

For applications requiring higher static pressures, contact your local representative.

Performance data does not include drive losses and is based on sea level conditions.

Do not operate in gray region. "na" = information not available at time of printing.

All airflow is rated at lowest Voltage if unit is dual Voltage rated, i.e. 208V for 208-230V units.

For wet coil performance first calculate the face velocity of the air coil (Face Velocity [fpm] = Airflow [cfm] / Face Area [sq ft]).

Then for velocities of 200 fpm reduce the static capability by 0.03 in. wg, 300 fpm by 0.08 in. wg, and 400 fpm by 0.12in. wg.

# Horizontal YL120 - Blower Performance Data

## Belt Drive

Airflow in CFM with dry coil and clean air filter.

| Rated CFM | | External Static Pressure (in. w.g.) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.0 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 | 2.0 |
| 3000 | MTR/SHEAVE | | | | | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 |
| | BHP | | | | | 0.80 | 0.88 | 0.96 | 1.07 | 1.09 | 1.11 | 1.13 | 1.28 | 1.36 | 1.48 | 1.67 | 1.86 |
| | RPM | | | | | 707 | 748 | 789 | 830 | 857 | 882 | 907 | 931 | 956 | 1032 | 1115 | 1198 |
| | TURNS OPEN | | | | | 5.0 | 4.0 | 3.0 | 2.0 | 5.0 | 4.5 | 4.0 | 3.5 | 2.5 | 1.0 | 4.5 | 3.5 |
| 3200 | MTR/SHEAVE | | | | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 |
| | BHP | | | | 0.90 | 0.99 | 1.09 | 1.16 | 1.22 | 1.25 | 1.27 | 1.34 | 1.49 | 1.63 | 1.77 | 1.98 | 2.08 |
| | RPM | | | | 707 | 747 | 788 | 830 | 855 | 880 | 905 | 930 | 955 | 1031 | 1107 | 1166 | 1210 |
| | TURNS OPEN | | | | 5.0 | 4.0 | 3.0 | 2.0 | 5.0 | 4.5 | 4.0 | 3.5 | 2.5 | 1.0 | 4.0 | 3.0 | 2.5 |
| 3400 | MTR/SHEAVE | | | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| | BHP | | | 0.99 | 1.09 | 1.20 | 1.19 | 1.35 | 1.38 | 1.41 | 1.44 | 1.47 | 1.55 | 1.76 | 2.06 | 2.15 | 2.24 |
| | RPM | | | 706 | 747 | 787 | 829 | 854 | 879 | 904 | 929 | 954 | 1004 | 1070 | 1137 | 1180 | 1224 |
| | TURNS OPEN | | | 5.0 | 4.0 | 3.0 | 2.0 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.0 | 4.5 | 3.5 | 2.5 | 2.0 |
| 3600 | MTR/SHEAVE | | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| | BHP | | 1.05 | 1.18 | 1.30 | 1.32 | 1.47 | 1.51 | 1.54 | 1.58 | 1.61 | 1.85 | 1.90 | 2.12 | 2.22 | 2.32 | 2.51 |
| | RPM | | 706 | 746 | 787 | 828 | 853 | 878 | 903 | 928 | 953 | 1001 | 1044 | 1103 | 1134 | 1184 | 1233 |
| | TURNS OPEN | | 5.0 | 4.0 | 3.0 | 2.0 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.0 | 5.0 | 4.0 | 3.5 | 2.5 | 1.5 |
| 3800 | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| | BHP | 1.11 | 1.25 | 1.39 | 1.53 | 1.59 | 1.63 | 1.67 | 1.71 | 1.75 | 1.99 | 2.08 | 2.16 | 2.27 | 2.37 | 2.64 | 2.75 |
| | RPM | 705 | 756 | 786 | 827 | 853 | 878 | 902 | 927 | 951 | 999 | 1037 | 1075 | 1118 | 1161 | 1219 | 1255 |
| | TURNS OPEN | 5.0 | 4.0 | 3.0 | 2.0 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.0 | 1.0 | 4.5 | 3.5 | 3.0 | 2.0 | 1.5 |
| 4000 | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| | BHP | 1.31 | 1.46 | 1.61 | 1.68 | 1.74 | 1.79 | 1.84 | 1.89 | 2.13 | 2.17 | 2.20 | 2.43 | 2.68 | 2.76 | 2.84 | 2.94 |
| | RPM | 745 | 786 | 826 | 852 | 877 | 901 | 926 | 950 | 998 | 1023 | 1047 | 1100 | 1157 | 1188 | 1231 | 1275 |
| | TURNS OPEN | 4.0 | 3.0 | 2.0 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.0 | 1.0 | 5.0 | 4.0 | 3.0 | 2.5 | 1.5 | 1.0 |
| 4200 | MTR/SHEAVE | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| | BHP | 1.52 | 1.69 | 1.85 | 1.88 | 1.90 | 1.96 | 2.02 | 2.26 | 2.30 | 2.34 | 2.57 | 2.84 | 2.91 | 2.97 | 3.28 | |
| | RPM | 785 | 825 | 851 | 876 | 900 | 925 | 949 | 997 | 1018 | 1039 | 1098 | 1155 | 1184 | 1214 | 1270 | |
| | TURNS OPEN | 3.0 | 2.0 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.0 | 1.0 | 5.0 | 4.5 | 3.5 | 2.5 | 2.0 | 1.0 | |

07/23/07

A=Std Static/Std Mtr;B=Low Static/Std. Mtr;C=High Static/Std. Mtr;D=Std Static/Large Mtr;E=High Static/Large Mtr

Units factory shipped with standard static sheave and drive at 3.0 turns open (3600 cfm @ 0.9 in. ESP). Other speeds require field selection.

ISO/AHRI rating point with standard static sheave and drive at 2.0 turns open (3600 cfm @ 1.0 in. ESP). Other speeds require field selection.

For applications requiring higher static pressures, contact your local representative.

Performance data does not include drive losses and is based on sea level conditions.

Do not operate in gray region. "na" = information not available at time of printing.

All airflow is rated at lowest Voltage if unit is dual Voltage rated, i.e. 208V for 208-230V units.

For wet coil performance first calculate the face velocity of the air coil (Face Velocity [fpm] = Airflow [cfm] / Face Area [sq ft]).

Then for velocities of 200 fpm reduce the static capability by 0.03 in. wg, 300 fpm by 0.08 in. wg, and 400 fpm by 0.12in. wg.

# Vertical YL080 - Blower Performance Data

## Belt Drive

Airflow in CFM with dry coil and clean air filter.

| Rated CFM | | External Static Pressure (in. w.g.) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.0 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | 1.1 | 1.2 | 1.3 | 1.4 | 1.5 |
| 2200 | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** |
| | BHP | 0.29 | 0.33 | 0.38 | 0.37 | 0.45 | 0.47 | 0.50 | 0.54 | 0.58 | 0.64 | 0.69 | **0.71** | **0.73** | **0.84** | **0.95** | **1.05** |
| | RPM | 437 | 478 | 518 | 539 | 586 | 617 | 647 | 677 | 707 | 736 | 765 | **775** | **809** | **843** | **876** | **909** |
| | TURNS OPEN | 4.0 | 3.0 | 2.0 | 1.5 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | **3.5** | **3.0** | **2.5** | **2.0** | **1.5** |
| 2400 | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** |
| | BHP | 0.38 | 0.44 | 0.43 | 0.52 | 0.56 | 0.59 | 0.63 | 0.68 | 0.73 | 0.78 | **0.81** | **0.83** | **0.94** | **1.05** | **1.13** | **1.20** |
| | RPM | 477 | 517 | 538 | 585 | 615 | 645 | 675 | 704 | 734 | 763 | **774** | **807** | **841** | **874** | **907** | **940** |
| | TURNS OPEN | 3.0 | 2.0 | 1.5 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | **3.5** | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** |
| 2600 | MTR/SHEAVE | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | |
| | BHP | 0.49 | 0.50 | 0.59 | 0.63 | 0.67 | 0.72 | 0.77 | 0.83 | 0.89 | **0.91** | **0.94** | **1.05** | **1.17** | **1.24** | **1.32** | |
| | RPM | 516 | 537 | 584 | 614 | 643 | 673 | 702 | 732 | 761 | **772** | **806** | **839** | **871** | **905** | **938** | |
| | TURNS OPEN | 2.0 | 1.5 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | **3.5** | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | |
| 2800 | MTR/SHEAVE | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | | |
| | BHP | 0.56 | 0.66 | 0.71 | 0.75 | 0.81 | 0.86 | 0.92 | 0.99 | **1.02** | **1.05** | **1.17** | **1.29** | **1.37** | **1.44** | | |
| | RPM | 536 | 582 | 612 | 642 | 671 | 700 | 729 | 758 | **770** | **804** | **837** | **869** | **903** | **936** | | |
| | TURNS OPEN | 1.5 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | **3.5** | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | | |
| 3000 | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | | | |
| | BHP | 0.72 | 0.78 | 0.83 | 0.89 | 0.95 | 1.02 | 1.09 | **1.12** | **1.16** | **1.29** | **1.41** | **1.49** | **1.57** | | | |
| | RPM | 581 | 611 | 640 | 669 | 698 | 727 | 756 | **768** | **802** | **835** | **867** | **900** | **933** | | | |
| | TURNS OPEN | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | **3.5** | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | | | |
| 3200 | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | | | | |
| | BHP | 0.83 | 0.90 | 0.97 | 1.03 | 1.11 | 1.18 | **1.14** | **1.27** | **1.40** | **1.53** | **1.61** | **1.70** | | | | |
| | RPM | 610 | 639 | 668 | 697 | 726 | 754 | **767** | **800** | **833** | **865** | **898** | **930** | | | | |
| | TURNS OPEN | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | **3.5** | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | | | | |
| 3400 | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | | | | | |
| | BHP | 0.97 | 1.04 | 1.11 | 1.19 | **1.23** | **1.30** | **1.37** | **1.51** | **1.64** | **1.73** | **1.82** | | | | | |
| | RPM | 637 | 666 | 695 | 725 | **731** | **765** | **798** | **830** | **862** | **895** | **927** | | | | | |
| | TURNS OPEN | 4.0 | 3.5 | 3.0 | 2.5 | **4.0** | **3.5** | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | | | | | |

07/25/07

**Bold Face Requires 1.5 HP Motor**

A=Std Static/Std Mtr;B=Low Static/Std. Mtr;C=High Static/Std. Mtr;D=Std Static/Large Mtr;E=High Static/Large Mtr

Units factory shipped with standard static sheave and drive at 3 turns open (2600 cfm @ 0.6 in. ESP). Other speeds require field selection.

ISO/AHRI rating point with standard static sheave and drive at 3 turns open (2600 cfm @ 0.6 in. ESP). Other speeds require field selection.

For applications requiring higher static pressures, contact your local representative.

Performance data does not include drive losses and is based on sea level conditions.

Do not operate in gray region. "na" = information not available at time of printing.

All airflow is rated at lowest Voltage if unit is dual Voltage rated, i.e. 208V for 208-230V units.

For wet coil performance first calculate the face velocity of the air coil (Face Velocity [fpm] = Airflow [cfm] / Face Area [sq ft]).

Then for velocities of 200 fpm reduce the static capability by 0.03 in. wg, 300 fpm by 0.08 in. wg, and 400 fpm by 0.12in. wg.

Contractor:P.O.: _____ _____

Engineer: _____

Project Name: _____ Unit Tag: _____

**Affinity Large Series**
**Single & Dual Capacity**
**7 - 25 Tons 60Hz**

YORK®

# Vertical YL095 - Blower Performance Data

### Belt Drive

Airflow in CFM with dry coil and clean air filter.

| Rated CFM | | External Static Pressure (in. w.g.) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **0.0** | **0.1** | **0.2** | **0.3** | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** | **1.0** | **1.2** | **1.4** | **1.6** | **1.8** | **2.0** |
| **2600** | MTR/SHEAVE | | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | | | |
| | BHP | | | | 0.61 | 0.64 | 0.66 | 0.68 | 0.76 | 0.81 | 0.87 | 0.89 | **0.94** | **1.05** | | | |
| | RPM | | | | 581 | 601 | 621 | 663 | 703 | 739 | 774 | 784 | **827** | **867** | | | |
| | TURNS OPEN | | | | 5.0 | 4.5 | 4.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.0 | **2.0** | **1.0** | | | |
| **2800** | MTR/SHEAVE | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | **4.0** | | | |
| | BHP | | | 0.65 | 0.66 | 0.68 | 0.75 | 0.86 | 0.87 | 0.88 | 1.02 | **1.05** | **1.14** | **1.23** | | | |
| | RPM | | | 580 | 600 | 621 | 662 | 701 | 722 | 742 | 782 | **805** | **855** | **905** | | | |
| | TURNS OPEN | | | 5.0 | 4.5 | 4.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.0 | **2.5** | **1.5** | **0.0** | | | |
| **3000** | MTR/SHEAVE | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** |
| | BHP | | 0.72 | 0.73 | 0.74 | 0.84 | 0.96 | 0.98 | 0.99 | 1.13 | 1.14 | 1.17 | 1.23 | 1.36 | 1.48 | **1.59** | **1.69** |
| | RPM | | 579 | 600 | 620 | 660 | 700 | 721 | 741 | 780 | 797 | 813 | 845 | 890 | 940 | **960** | **991** |
| | TURNS OPEN | | 5.0 | 4.5 | 4.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.0 | 3.0 | 2.5 | 2.0 | 1.0 | 0.0 | **3.0** | **2.5** |
| **3200** | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** |
| | BHP | 0.79 | 0.80 | 0.82 | 0.93 | 1.06 | 1.08 | 1.10 | 1.25 | 1.26 | 1.31 | 1.36 | 1.49 | 1.62 | **1.67** | **1.85** | **2.03** |
| | RPM | 578 | 599 | 619 | 659 | 699 | 719 | 739 | 778 | 795 | 819 | 843 | 890 | 937 | **942** | **967** | **991** |
| | TURNS OPEN | 5.0 | 4.5 | 4.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.0 | 3.0 | 2.5 | 2.0 | 1.0 | 0.0 | **3.0** | **2.5** | **2.0** |
| **3400** | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** | **5.0** |
| | BHP | 0.84 | 0.89 | 1.01 | 1.15 | 1.17 | 1.20 | 1.35 | 1.36 | 1.42 | 1.48 | 1.52 | 1.61 | **1.82** | **1.90** | **1.99** | **2.03** |
| | RPM | 597 | 619 | 658 | 697 | 718 | 738 | 776 | 794 | 818 | 841 | 857 | 888 | **940** | **963** | **986** | **1034** |
| | TURNS OPEN | 4.5 | 4.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.0 | 3.0 | 2.5 | 2.0 | 1.5 | 1.0 | **3.0** | **2.5** | **2.0** | **1.0** |
| **3600** | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** |
| | BHP | 0.97 | 1.09 | 1.23 | 1.26 | 1.29 | 1.45 | 1.47 | 1.53 | 1.60 | 1.67 | 1.74 | **1.95** | **2.05** | **2.14** | **2.19** | **2.41** |
| | RPM | 618 | 657 | 696 | 716 | 736 | 775 | 792 | 815 | 838 | 862 | 885 | **937** | **960** | **983** | **1031** | **1077** |
| | TURNS OPEN | 4.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.0 | 3.0 | 2.5 | 2.0 | 1.5 | 1.0 | **3.0** | **2.5** | **2.0** | **1.0** | **0.0** |
| **3800** | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | |
| | BHP | 1.17 | 1.32 | 1.35 | 1.38 | 1.55 | 1.57 | 1.64 | 1.71 | 1.78 | 1.86 | **2.09** | **2.18** | **2.28** | **2.34** | **2.57** | |
| | RPM | 656 | 695 | 715 | 735 | 773 | 790 | 814 | 837 | 860 | 883 | **935** | **958** | **981** | **1029** | **1074** | |
| | TURNS OPEN | 3.0 | 2.0 | 1.5 | 1.0 | 0.0 | 3.0 | 2.5 | 2.0 | 1.5 | 1.0 | **3.0** | **2.5** | **2.0** | **1.0** | **0.0** | |

A B C D E

7/25/07

**Bold Face Requires Larger 2 HP Motor**

A=Std Static/Std Mtr;B=Low Static/Std. Mtr;C=High Static/Std. Mtr;D=Std Static/Large Mtr;E=High Static/Large Mtr

Units factory shipped with standard static sheave and drive at 2 turns open (2800 cfm @ 0.6 in. ESP). Other speeds require field selection.

ISO/AHRI rating point with standard static sheave and drive at 1 turns open (2800 cfm @ 0.7 in. ESP). Other speeds require field selection.

For applications requiring higher static pressures, contact your local representative.

Performance data does not include drive losses and is based on sea level conditions.

Do not operate in gray region. "na" = information not available at time of printing.

All airflow is rated at lowest Voltage if unit is dual Voltage rated, i.e. 208V for 208-230V units.

For wet coil performance first calculate the face velocity of the air coil (Face Velocity [fpm] = Airflow [cfm] / Face Area [sq ft]).

Then for velocities of 200 fpm reduce the static capability by 0.03 in. wg, 300 fpm by 0.08 in. wg, and 400 fpm by 0.12in. wg.

# Vertical YL120 - Blower Performance Data

## Belt Drive

Airflow in CFM with dry coil and clean air filter.

| Rated CFM | | External Static Pressure (in. w.g.) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **0.0** | **0.1** | **0.2** | **0.3** | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** | **1.0** | **1.2** | **1.4** | **1.6** | **1.8** | **2.0** |
| **3200** | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | |
| | BHP | 0.50 | 0.51 | 0.59 | 0.68 | 0.68 | 0.79 | 0.92 | 0.92 | 0.92 | 1.08 | 1.16 | 1.30 | 1.31 | 1.41 | 1.59 | |
| | RPM | 418 | 438 | 480 | 521 | 541 | 582 | 623 | 644 | 665 | 705 | 732 | 787 | 826 | 867 | 932 | |
| | TURNS OPEN | 4.5 | 4.0 | 3.0 | 2.0 | 1.0 | 5.0 | 4.0 | 3.5 | 3.0 | 2.0 | 1.5 | 0.5 | 2.0 | 1.0 | 0.0 | |
| **3400** | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | | |
| | BHP | 0.58 | 0.67 | 0.77 | 0.78 | 0.90 | 1.04 | 1.05 | 1.07 | 1.16 | 1.26 | 1.28 | 1.37 | 1.47 | 1.65 | | |
| | RPM | 438 | 480 | 520 | 541 | 582 | 622 | 643 | 664 | 694 | 724 | 746 | 795 | 843 | 888 | | |
| | TURNS OPEN | 4.0 | 3.0 | 2.0 | 1.0 | 5.0 | 4.0 | 3.5 | 3.0 | 2.5 | 1.5 | 1.0 | 3.0 | 1.5 | 0.5 | | |
| **3600** | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | | |
| | BHP | 0.74 | 0.86 | 0.88 | 1.00 | 1.02 | 1.17 | 1.20 | 1.22 | 1.24 | 1.44 | 1.47 | 1.52 | 1.82 | 1.90 | | |
| | RPM | 479 | 519 | 540 | 581 | 602 | 643 | 663 | 684 | 704 | 745 | 765 | 806 | 866 | 906 | | |
| | TURNS OPEN | 3.0 | 2.0 | 1.0 | 5.0 | 4.5 | 3.5 | 3.0 | 2.5 | 2.0 | 1.0 | 3.5 | 2.5 | 1.0 | 0.0 | | |
| **3800** | MTR/SHEAVE | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | |
| | BHP | 0.94 | 0.96 | 1.10 | 1.15 | 1.24 | 1.32 | 1.35 | 1.38 | 1.41 | 1.62 | 1.66 | 1.91 | 2.06 | | | |
| | RPM | 519 | 539 | 581 | 622 | 642 | 662 | 683 | 704 | 723 | 764 | 784 | 823 | 884 | | | |
| | TURNS OPEN | 2.0 | 1.0 | 5.0 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | 3.5 | 3.0 | 2.0 | 0.5 | | | |
| **4000** | MTR/SHEAVE | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** |
| | BHP | 1.04 | 1.20 | 1.26 | 1.35 | 1.44 | 1.47 | 1.51 | 1.55 | 1.58 | 1.81 | 1.86 | 1.96 | 2.17 | **2.25** | **2.39** | **2.66** |
| | RPM | 539 | 580 | 621 | 641 | 661 | 682 | 703 | 724 | 744 | 783 | 803 | 843 | 893 | **933** | **970** | **1017** |
| | TURNS OPEN | 1.0 | 5.0 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | 1.0 | 3.0 | 2.5 | 1.5 | 0.0 | **3.5** | **2.5** | **1.5** |
| **4200** | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | **4.0** | **4.0** | **4.0** | **5.0** | **5.0** | **5.0** |
| | BHP | 1.28 | 1.36 | 1.45 | 1.54 | 1.59 | 1.63 | 1.67 | 1.72 | **1.95** | **2.01** | **2.06** | **2.19** | **2.31** | **2.48** | **2.75** | **3.03** |
| | RPM | 580 | 620 | 641 | 661 | 682 | 702 | 722 | 742 | **782** | **802** | **822** | **863** | **902** | **944** | **991** | **1037** |
| | TURNS OPEN | 5.0 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | 1.0 | **3.0** | **2.5** | **2.0** | **1.0** | **0.0** | **3.0** | **2.0** | **1.0** |
| **4400** | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | **4.0** | **4.0** | **4.0** | **5.0** | **5.0** | **5.0** | |
| | BHP | 1.46 | 1.55 | 1.65 | 1.70 | 1.75 | 1.80 | 1.85 | **2.09** | **2.15** | **2.21** | **2.28** | **2.41** | **2.54** | **2.80** | **3.08** | |
| | RPM | 620 | 640 | 660 | 681 | 701 | 722 | 742 | **781** | **801** | **821** | **841** | **881** | **919** | **965** | **1012** | |
| | TURNS OPEN | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | 1.0 | **3.0** | **2.5** | **2.0** | **1.5** | **0.5** | **3.5** | **2.5** | **1.5** | |

A B C D E

07/25/07

**Bold Face Requires Larger 3 HP Motor**

A=Std Static/Std Mtr;B=Low Static/Std. Mtr;C=High Static/Std. Mtr;D=Std Static/Large Mtr;E=High Static/Large Mtr

Units factory shipped with standard static sheave and drive at 3 turns open (3600 cfm @ 0.6 in. ESP). Other speeds require field selection.

ISO/AHRI rating point with standard static sheave and drive at 1 turns open (3600 cfm @ 0.9 in. ESP). Other speeds require field selection.

For applications requiring higher static pressures, contact your local representative.

Performance data does not include drive losses and is based on sea level conditions.

Do not operate in gray region. "na" = information not available at time of printing.

All airflow is rated at lowest Voltage if unit is dual Voltage rated, i.e. 208V for 208-230V units.

For wet coil performance first calculate the face velocity of the air coil (Face Velocity [fpm] = Airflow [cfm] / Face Area [sq ft]).

Then for velocities of 200 fpm reduce the static capability by 0.03 in. wg, 300 fpm by 0.08 in. wg, and 400 fpm by 0.12 in. wg.

Contractor:P.O.: _____ _____

Engineer: _____

Project Name: _____ Unit Tag: _____

**Affinity Large Series**
**Single & Dual Capacity**
**7 - 25 Tons 60Hz**

YORK®

# Vertical YL160 - Blower Performance Data

## Belt Drive

Airflow in CFM with dry coil and clean air filter.

| Rated CFM | | External Static Pressure (in. w.g.) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **0.0** | **0.1** | **0.2** | **0.3** | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** | **1.0** | **1.1** | **1.2** | **1.3** | **1.4** | **1.5** |
| **4400** | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** |
| | BHP | 0.29 | 0.33 | 0.38 | 0.37 | 0.45 | 0.47 | 0.50 | 0.54 | 0.58 | 0.64 | 0.69 | **0.71** | **0.73** | **0.84** | **0.95** | **1.05** |
| | RPM | 437 | 478 | 518 | 539 | 586 | 617 | 647 | 677 | 707 | 736 | 765 | **775** | **809** | **843** | **876** | **909** |
| | TURNS OPEN | 4.0 | 3.0 | 2.0 | 1.5 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | **3.5** | **3.0** | **2.5** | **2.0** | **1.5** |
| **4600** | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** |
| | BHP | 0.33 | 0.38 | 0.41 | 0.44 | 0.50 | 0.53 | 0.57 | 0.61 | 0.66 | 0.71 | 0.75 | **0.77** | **0.84** | **0.95** | **1.04** | **1.13** |
| | RPM | 457 | 498 | 528 | 562 | 601 | 631 | 661 | 691 | 720 | 750 | 770 | **791** | **825** | **858** | **892** | **925** |
| | TURNS OPEN | 3.5 | 2.5 | 1.5 | 0.5 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.0 | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** |
| **4800** | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** |
| | BHP | 0.38 | 0.44 | 0.43 | 0.52 | 0.56 | 0.59 | 0.63 | 0.68 | 0.73 | 0.78 | **0.81** | **0.83** | **0.94** | **1.05** | **1.13** | **1.20** |
| | RPM | 477 | 517 | 538 | 585 | 615 | 645 | 675 | 704 | 734 | 763 | **774** | **807** | **841** | **874** | **907** | **940** |
| | TURNS OPEN | 3.0 | 2.0 | 1.5 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | **3.5** | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** |
| **5000** | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** |
| | BHP | 0.44 | 0.47 | 0.51 | 0.58 | 0.62 | 0.66 | 0.70 | 0.75 | 0.81 | 0.85 | **0.87** | **0.94** | **1.05** | **1.15** | **1.22** | **0.60** |
| | RPM | 497 | 527 | 561 | 599 | 629 | 659 | 688 | 718 | 747 | 768 | **790** | **823** | **856** | **889** | **923** | **470** |
| | TURNS OPEN | 2.5 | 1.5 | 1.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | **0.5** |
| **5200** | MTR/SHEAVE | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | |
| | BHP | 0.49 | 0.50 | 0.59 | 0.63 | 0.67 | 0.72 | 0.77 | 0.83 | 0.89 | **0.91** | **0.94** | **1.05** | **1.17** | **1.24** | **1.32** | |
| | RPM | 516 | 537 | 584 | 614 | 643 | 673 | 702 | 732 | 761 | **772** | **806** | **839** | **871** | **905** | **938** | |
| | TURNS OPEN | 2.0 | 1.5 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | **3.5** | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | |
| **5400** | MTR/SHEAVE | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | |
| | BHP | 0.53 | 0.58 | 0.65 | 0.69 | 0.74 | 0.79 | 0.85 | 0.91 | 0.95 | **0.98** | **1.05** | **1.17** | **1.27** | **1.34** | **0.66** | |
| | RPM | 526 | 560 | 598 | 628 | 657 | 686 | 716 | 745 | 766 | **788** | **821** | **854** | **887** | **920** | **469** | |
| | TURNS OPEN | 1.5 | 1.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | **0.5** | |
| **5600** | MTR/SHEAVE | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | **5.0** | | |
| | BHP | 0.56 | 0.66 | 0.71 | 0.75 | 0.81 | 0.86 | 0.92 | 0.99 | **1.02** | **1.05** | **1.17** | **1.29** | **1.37** | **1.44** | | |
| | RPM | 536 | 582 | 612 | 642 | 671 | 700 | 729 | 758 | **770** | **804** | **837** | **869** | **903** | **936** | | |
| | TURNS OPEN | 1.5 | 5.0 | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | **3.5** | **3.0** | **2.5** | **2.0** | **1.5** | **1.0** | | |

B A E

7/25/07

**Bold Face Requires Larger 1.5 HP Motor**

A=Std Static/Std Mtr;B=Low Static/Std. Mtr;C=High Static/Std. Mtr;D=Std Static/Large Mtr;E=High Static/Large Mtr

Units factory shipped with standard static sheave and drive at 3 turns open (5000 cfm @ 0.6 in. ESP). Other speeds require field selection.

ISO/AHRI rating point with standard static sheave and drive at 2.0 turns open (5000 cfm @ 0.7 in. ESP). Other speeds require field selection.

For applications requiring higher static pressures, contact your local representative.

Performance data does not include drive losses and is based on sea level conditions.

Do not operate in gray region. "na" = information not available at time of printing.

All airflow is rated at lowest Voltage if unit is dual Voltage rated, i.e. 208V for 208-230V units.

For wet coil performance first calculate the face velocity of the air coil (Face Velocity [fpm] = Airflow [cfm] / Face Area [sq ft]).

Then for velocities of 200 fpm reduce the static capability by 0.03 in. wg, 300 fpm by 0.08 in. wg, and 400 fpm by 0.12 in. wg.

BHP is given for each blower. Multiply BHP x 2 for unit BHP.

# Vertical YL180 - Blower Performance Data

## Belt Drive

Airflow in CFM with dry coil and clean air filter.

| Rated CFM | | External Static Pressure (in. w.g.) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **0.0** | **0.1** | **0.2** | **0.3** | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** | **1.0** | **1.2** | **1.4** | **1.6** | **1.8** | **2.0** |
| **5200** | MTR/SHEAVE | | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | | | |
| | BHP | | | | 0.61 | 0.64 | 0.66 | 0.68 | 0.76 | 0.81 | 0.87 | 0.89 | **0.94** | **1.05** | | | |
| | RPM | | | | 581 | 601 | 621 | 663 | 703 | 739 | 774 | 784 | **827** | **867** | | | |
| | TURNS OPEN | | | | 5.0 | 4.5 | 4.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.5 | **2.0** | **1.0** | | | |
| **5400** | MTR/SHEAVE | | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | | | |
| | BHP | | | | 0.64 | 0.66 | 0.71 | 0.77 | 0.82 | 0.85 | 0.94 | 0.97 | **1.04** | **1.14** | | | |
| | RPM | | | | 591 | 611 | 642 | 682 | 712 | 740 | 778 | 795 | **841** | **886** | | | |
| | TURNS OPEN | | | | 4.5 | 4.0 | 3.5 | 2.5 | 1.5 | 1.0 | 0.5 | 0.0 | **1.5** | **0.5** | | | |
| **5600** | MTR/SHEAVE | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | **4.0** | | | |
| | BHP | | | 0.65 | 0.66 | 0.68 | 0.75 | 0.86 | 0.87 | 0.88 | 1.02 | **1.05** | **1.14** | **1.23** | | | |
| | RPM | | | 580 | 600 | 621 | 662 | 701 | 722 | 742 | 782 | **805** | **855** | **905** | | | |
| | TURNS OPEN | | | 5.0 | 4.5 | 4.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.0 | **2.5** | **1.5** | **0.0** | | | |
| **5800** | MTR/SHEAVE | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** |
| | BHP | | | 0.69 | 0.70 | 0.76 | 0.86 | 0.92 | 0.93 | 1.01 | 1.08 | 1.11 | 1.19 | 1.30 | 0.74 | **0.80** | **0.85** |
| | RPM | | | 590 | 610 | 641 | 681 | 711 | 731 | 761 | 790 | 809 | 850 | 898 | 470 | **480** | **496** |
| | TURNS OPEN | | | 4.5 | 4.0 | 3.5 | 2.5 | 1.5 | 1.0 | 0.5 | 0.0 | 3.0 | 2.5 | 2.0 | 1.0 | **3.0** | **2.5** |
| **6000** | MTR/SHEAVE | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** |
| | BHP | | 0.72 | 0.73 | 0.74 | 0.84 | 0.96 | 0.98 | 0.99 | 1.13 | 1.14 | 1.17 | 1.23 | 1.36 | 1.48 | **1.59** | **1.69** |
| | RPM | | 579 | 600 | 620 | 660 | 700 | 721 | 741 | 780 | 797 | 813 | 845 | 890 | 940 | **960** | **991** |
| | TURNS OPEN | | 5.0 | 4.5 | 4.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.0 | 3.0 | 2.5 | 2.0 | 1.0 | 0.0 | **3.0** | **2.5** |
| **6200** | MTR/SHEAVE | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** |
| | BHP | | 0.76 | 0.77 | 0.84 | 0.95 | 1.02 | 1.04 | 1.12 | 1.20 | 1.23 | 1.27 | 1.36 | 1.49 | **1.58** | **1.72** | **1.86** |
| | RPM | | 589 | 609 | 640 | 680 | 710 | 730 | 760 | 788 | 808 | 828 | 868 | 914 | **941** | **963** | **991** |
| | TURNS OPEN | | 4.5 | 4.0 | 3.5 | 2.5 | 1.5 | 1.0 | 0.5 | 0.0 | 2.5 | 2.0 | 1.5 | 0.5 | **3.5** | **2.5** | **2.0** |
| **6400** | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** |
| | BHP | 0.79 | 0.80 | 0.82 | 0.93 | 1.06 | 1.08 | 1.10 | 1.25 | 1.26 | 1.31 | 1.36 | 1.49 | 1.62 | **1.67** | **1.85** | **2.03** |
| | RPM | 578 | 599 | 619 | 659 | 699 | 719 | 739 | 778 | 795 | 819 | 843 | 890 | 937 | **942** | **967** | **991** |
| | TURNS OPEN | 5.0 | 4.5 | 4.0 | 3.0 | 2.0 | 1.5 | 1.0 | 0.0 | 3.0 | 2.5 | 2.0 | 1.0 | 0.0 | **3.0** | **2.5** | **2.0** |

A D C E

7/25/07

**Bold Face Requires Larger 2.0 HP Motor**

A=Std Static/Std Mtr;B=Low Static/Std. Mtr;C=High Static/Std. Mtr;D=Std Static/Large Mtr;E=High Static/Large Mtr

Units factory shipped with standard static sheave and drive at 3 turns open (5600 cfm @ 0.6 in. ESP). Other speeds require field selection.

ISO/AHRI rating point with standard static sheave and drive at 1.5 turns open (5600 cfm @ 0.7 in. ESP). Other speeds require field selection.

For applications requiring higher static pressures, contact your local representative.

Performance data does not include drive losses and is based on sea level conditions.

Do not operate in gray region. "na" = information not available at time of printing.

All airflow is rated at lowest Voltage if unit is dual Voltage rated, i.e. 208V for 208-230V units.

For wet coil performance first calculate the face velocity of the air coil (Face Velocity [fpm] = Airflow [cfm] / Face Area [sq ft]).

Then for velocities of 200 fpm reduce the static capability by 0.03 in. wg, 300 fpm by 0.08 in. wg, and 400 fpm by 0.12 in. wg.

BHP is given for each blower. Multiply BHP x 2 for unit BHP.

Contractor:P.O.: _____ _____

Engineer: _____

Project Name: _____ Unit Tag: _____

**Affinity Large Series**
**Single & Dual Capacity**
**7 - 25 Tons 60Hz**

YORK®

# Vertical YL240 - Blower Performance Data

### Belt Drive

Airflow in CFM with dry coil and clean air filter.

| Rated CFM | | External Static Pressure (in. w.g.) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.0 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 | 2.0 |
| 6400 | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | |
| | BHP | 0.50 | 0.51 | 0.59 | 0.68 | 0.68 | 0.79 | 0.92 | 0.92 | 0.92 | 1.08 | 1.16 | 1.30 | 1.31 | 1.41 | 1.59 | |
| | RPM | 418 | 438 | 480 | 521 | 541 | 582 | 623 | 644 | 665 | 705 | 732 | 787 | 826 | 867 | 932 | |
| | TURNS OPEN | 4.5 | 4.0 | 3.0 | 2.0 | 1.0 | 5.0 | 4.0 | 3.5 | 3.0 | 2.0 | 1.5 | 0.5 | 2.0 | 1.0 | 0.0 | |
| 6800 | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | | |
| | BHP | 0.58 | 0.67 | 0.77 | 0.78 | 0.90 | 1.04 | 1.05 | 1.07 | 1.16 | 1.26 | 1.28 | 1.37 | 1.47 | 1.65 | | |
| | RPM | 438 | 480 | 520 | 541 | 582 | 622 | 643 | 664 | 694 | 724 | 746 | 795 | 843 | 888 | | |
| | TURNS OPEN | 4.0 | 3.0 | 2.0 | 1.0 | 5.0 | 4.0 | 3.5 | 3.0 | 2.5 | 1.5 | 1.0 | 3.0 | 1.5 | 0.5 | | |
| 7200 | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | | |
| | BHP | 0.74 | 0.86 | 0.88 | 1.00 | 1.02 | 1.17 | 1.20 | 1.22 | 1.24 | 1.44 | 1.47 | 1.52 | 1.82 | 1.90 | | |
| | RPM | 479 | 519 | 540 | 581 | 602 | 643 | 663 | 684 | 704 | 745 | 765 | 806 | 866 | 906 | | |
| | TURNS OPEN | 3.0 | 2.0 | 1.0 | 5.0 | 4.5 | 3.5 | 3.0 | 2.5 | 2.0 | 1.0 | 3.5 | 2.5 | 1.0 | 0.0 | | |
| 7600 | MTR/SHEAVE | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | |
| | BHP | 0.94 | 0.96 | 1.10 | 1.15 | 1.24 | 1.32 | 1.35 | 1.38 | 1.41 | 1.62 | 1.66 | 1.91 | 2.06 | | | |
| | RPM | 519 | 539 | 581 | 622 | 642 | 662 | 683 | 704 | 723 | 764 | 784 | 823 | 884 | | | |
| | TURNS OPEN | 2.0 | 1.0 | 5.0 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | 3.5 | 3.0 | 2.0 | 0.5 | | | |
| 8000 | MTR/SHEAVE | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | **5.0** | **5.0** | **5.0** |
| | BHP | 1.04 | 1.20 | 1.26 | 1.35 | 1.44 | 1.47 | 1.51 | 1.55 | 1.58 | 1.81 | 1.86 | 1.96 | 2.17 | **2.25** | **2.39** | **2.66** |
| | RPM | 539 | 580 | 621 | 641 | 661 | 682 | 703 | 724 | 744 | 783 | 803 | 843 | 893 | **933** | **970** | **1017** |
| | TURNS OPEN | 1.0 | 5.0 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | 1.0 | 3.0 | 2.5 | 1.5 | 0.0 | **3.5** | **2.5** | **1.5** |
| 8400 | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | **4.0** | **4.0** | **4.0** | **5.0** | **5.0** | **5.0** |
| | BHP | 1.28 | 1.36 | 1.45 | 1.54 | 1.59 | 1.63 | 1.67 | 1.72 | **1.95** | **2.01** | **2.06** | **2.19** | **2.31** | **2.48** | **2.75** | **3.03** |
| | RPM | 580 | 620 | 641 | 661 | 682 | 702 | 722 | 742 | **782** | **802** | **822** | **863** | **902** | **944** | **991** | **1037** |
| | TURNS OPEN | 5.0 | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | 1.0 | **3.0** | **2.5** | **2.0** | **1.0** | **0.0** | **3.0** | **2.0** | **1.0** |
| 8800 | MTR/SHEAVE | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | **4.0** | **4.0** | **4.0** | **4.0** | **4.0** | **5.0** | **5.0** | **5.0** | |
| | BHP | 1.46 | 1.55 | 1.65 | 1.70 | 1.75 | 1.80 | 1.85 | **2.09** | **2.15** | **2.21** | **2.28** | **2.41** | **2.54** | **2.80** | **3.08** | |
| | RPM | 620 | 640 | 660 | 681 | 701 | 722 | 742 | **781** | **801** | **821** | **841** | **881** | **919** | **965** | **1012** | |
| | TURNS OPEN | 4.0 | 3.5 | 3.0 | 2.5 | 2.0 | 1.5 | 1.0 | **3.0** | **2.5** | **2.0** | **1.5** | **0.5** | **3.5** | **2.5** | **1.5** | |

A B C D E

7/25/07

**Bold Face Requires Larger 3.0 HP Motor**

A=Std Static/Std Mtr;B=Low Static/Std. Mtr;C=High Static/Std. Mtr;D=Std Static/Large Mtr;E=High Static/Large Mtr

Units factory shipped with standard static sheave and drive at 2.5 turns open (7600 cfm @ 0.6 in. ESP). Other speeds require field selection.

ISO/AHRI rating point with standard static sheave and drive at 2 turns open (7600 cfm @ 0.7 in. ESP). Other speeds require field selection.

For applications requiring higher static pressures, contact your local representative.

Performance data does not include drive losses and is based on sea level conditions.

Do not operate in gray region. "na" = information not available at time of printing.

All airflow is rated at lowest Voltage if unit is dual Voltage rated, i.e. 208V for 208-230V units.

For wet coil performance first calculate the face velocity of the air coil (Face Velocity [fpm] = Airflow [cfm] / Face Area [sq ft]).

Then for velocities of 200 fpm reduce the static capability by 0.03 in. wg, 300 fpm by 0.08 in. wg, and 400 fpm by 0.12 in. wg.

BHP is given for each blower. Multiply BHP x 2 for unit BHP.

# Vertical YL300 - Blower Performance Data

## Belt Drive

Airflow in CFM with dry coil and clean air filter.

| Rated CFM | | External Static Pressure (in. w.g.) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.0 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 | 2.0 |
| 8400 | MTR/SHEAVE | | | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | |
| | BHP | | | | 1.46 | 1.49 | 1.77 | 1.94 | 2.11 | 2.29 | 2.32 | 2.39 | 2.65 | 2.72 | 2.80 | 2.36 | |
| | RPM | | | | 677 | 696 | 745 | 778 | 810 | 841 | 858 | 878 | 912 | 932 | 951 | 994 | |
| | TURNS OPEN | | | | 5.0 | 4.0 | 3.0 | 2.0 | 1.0 | 4.0 | 3.5 | 3.0 | 2.0 | 1.5 | 1.0 | 4.5 | |
| 8800 | MTR/SHEAVE | | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | |
| | BHP | | | 1.55 | 1.70 | 1.86 | 2.03 | 2.21 | 2.39 | 2.42 | 2.50 | 2.75 | 2.83 | 2.91 | 2.63 | 2.61 | |
| | RPM | | | 674 | 708 | 742 | 774 | 806 | 837 | 853 | 873 | 907 | 926 | 945 | 981 | 1010 | |
| | TURNS OPEN | | | 5.0 | 4.0 | 3.0 | 2.0 | 1.0 | 4.0 | 3.5 | 3.0 | 2.0 | 1.5 | 1.0 | 4.5 | 4.0 | |
| 9200 | MTR/SHEAVE | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | |
| | BHP | | 1.63 | 1.79 | 1.96 | 2.13 | 2.31 | 2.49 | 2.52 | 2.60 | 2.85 | 2.93 | 3.01 | 2.87 | 2.87 | 2.86 | |
| | RPM | | 671 | 705 | 738 | 771 | 802 | 833 | 849 | 869 | 903 | 922 | 940 | 969 | 997 | 1025 | |
| | TURNS OPEN | | 5.0 | 4.0 | 3.0 | 2.0 | 1.0 | 4.0 | 3.5 | 3.0 | 2.0 | 1.5 | 1.0 | 4.5 | 4.0 | 3.5 | |
| 9600 | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | | |
| | BHP | 1.72 | 1.88 | 2.04 | 2.22 | 2.40 | 2.58 | 2.62 | 2.70 | 2.95 | 3.03 | 3.11 | 3.09 | 3.10 | 3.11 | | |
| | RPM | 668 | 702 | 735 | 767 | 799 | 829 | 845 | 864 | 898 | 917 | 935 | 959 | 985 | 1012 | | |
| | TURNS OPEN | 5.0 | 4.0 | 3.0 | 2.0 | 1.0 | 4.0 | 3.5 | 3.0 | 2.0 | 1.5 | 1.0 | 4.5 | 4.0 | 3.5 | | |
| 10000 | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | | | |
| | BHP | 1.96 | 2.13 | 2.31 | 2.49 | 2.68 | 2.71 | 2.79 | 3.05 | 3.13 | 3.21 | 3.29 | 3.31 | 3.33 | | | |
| | RPM | 699 | 732 | 764 | 795 | 825 | 841 | 860 | 894 | 912 | 931 | 949 | 975 | 1001 | | | |
| | TURNS OPEN | 4.0 | 3.0 | 2.0 | 1.0 | 4.0 | 3.5 | 3.0 | 2.0 | 1.5 | 1.0 | 4.5 | 4.0 | 3.5 | | | |
| 10400 | MTR/SHEAVE | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | |
| | BHP | 2.21 | 2.39 | 2.58 | 2.77 | 2.81 | 2.89 | 3.13 | 3.22 | 3.31 | 3.39 | 3.51 | 3.54 | 3.56 | | | |
| | RPM | 729 | 761 | 792 | 821 | 837 | 856 | 890 | 908 | 926 | 944 | 965 | 990 | 1016 | | | |
| | TURNS OPEN | 3.0 | 2.0 | 1.0 | 4.0 | 3.5 | 3.0 | 2.0 | 1.5 | 1.0 | 4.5 | 4.0 | 3.5 | 3.0 | | | |
| 10800 | MTR/SHEAVE | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | | |
| | BHP | 2.48 | 2.66 | 2.85 | 2.90 | 2.98 | 3.23 | 3.32 | 3.40 | 3.48 | 3.61 | 3.73 | 3.76 | | | | |
| | RPM | 758 | 788 | 818 | 833 | 852 | 885 | 904 | 922 | 939 | 960 | 980 | 1005 | | | | |
| | TURNS OPEN | 2.0 | 1.0 | 4.0 | 3.5 | 3.0 | 2.0 | 1.5 | 1.0 | 4.5 | 4.0 | 3.5 | 3.0 | | | | |

B A C

7/25/07

A=Std Static/Std Mtr;B=Low Static/Std. Mtr;C=High Static/Std. Mtr;D=Std Static/Large Mtr;E=High Static/Large Mtr

Units factory shipped with standard static sheave and drive at 3.0 turns open (9500 cfm @ 0.7 in. ESP). Other speeds require field selection.

ISO/AHRI rating point with standard static sheave and drive at 3.0 turns open (9500 cfm @ 0.7 in. ESP). Other speeds require field selection.

For applications requiring higher static pressures, contact your local representative.

Performance data does not include drive losses and is based on sea level conditions.

Do not operate in gray region. "na" = information not available at time of printing.

All airflow is rated at lowest Voltage if unit is dual Voltage rated, i.e. 208V for 208-230V units.

For wet coil performance first calculate the face velocity of the air coil (Face Velocity [fpm] = Airflow [cfm] / Face Area [sq ft]).

Then for velocities of 200 fpm reduce the static capability by 0.03 in. wg, 300 fpm by 0.08 in. wg, and 400 fpm by 0.12 in. wg.

BHP is given for each blower. Multiply BHP x 2 for unit BHP.

# Antifreeze Correction

Catalog performance can be corrected for antifreeze use. Please use the following table and note the example given.

| Antifreeze Type | Antifreeze % by wt | Cooling Capacity | Heating Capacity | Pressure Drop |
|---|---|---|---|---|
| **EWT -** degF [DegC] | | **90 [32.2]** | **30 [-1.1]** | **30 [-1.1]** |
| **Water** | 0 | 1.000 | 1.000 | 1.000 |
| **Ethylene Glycol** | 10 | 0.991 | 0.973 | 1.075 |
| | 20 | 0.979 | 0.943 | 1.163 |
| | 30 | 0.965 | 0.917 | 1.225 |
| | 40 | 0.955 | 0.890 | 1.324 |
| | 50 | 0.943 | 0.865 | 1.419 |
| **Propylene Glycol** | 10 | 0.981 | 0.958 | 1.130 |
| | 20 | 0.969 | 0.913 | 1.270 |
| | 30 | 0.950 | 0.854 | 1.433 |
| | 40 | 0.937 | 0.813 | 1.614 |
| | 50 | 0.922 | 0.770 | 1.816 |
| **Ethanol** | 10 | 0.991 | 0.927 | 1.242 |
| | 20 | 0.972 | 0.887 | 1.343 |
| | 30 | 0.947 | 0.856 | 1.383 |
| | 40 | 0.930 | 0.815 | 1.523 |
| | 50 | 0.911 | 0.779 | 1.639 |
| **Methanol** | 10 | 0.986 | 0.957 | 1.127 |
| | 20 | 0.970 | 0.924 | 1.197 |
| | 30 | 0.951 | 0.895 | 1.235 |
| | 40 | 0.936 | 0.863 | 1.323 |
| | 50 | 0.920 | 0.833 | 1.399 |

***Warning***:
*Gray area represents antifreeze concentrations greater than 35% by weight and should be avoided due to the extreme performance penalty they represent.*

## Antifreeze Correction Example

Antifreeze solution is Propylene Glycol 20% by weight. Determine the corrected heating and cooling performance at 30°F and 90°F respectively as well as pressure drop at 30°F for a Affinity Large Series YL080.

The corrected cooling capacity at 90°F would be:
78,000 MBtuh x 0.969 = 75,582 MBtuh
The corrected heating capacity at 30°F would be:
60,300 MBtuh x 0.913 = 55,054 MBtuh
The corrected pressure drop at 30°F and 22 GPM would be:
23.1 feet of head x 1.433 = 33.10 feet of head

# Reference Calculations

| Heating Calculations: | Cooling Calculations: |
|---|---|
| $LWT = EWT - \frac{HE}{GPM \times 500}$ | $LWT = EWT + \frac{HR}{GPM \times 500}$ |
| $LAT = EAT + \frac{HC}{CFM \times 1.08}$ | $LAT\ (DB) = EAT\ (DB) - \frac{SC}{CFM \times 1.08}$ |
| $TH = HC + HWC$ | $LC = TC - SC$ |
| | $S/T = \frac{SC}{TC}$ |

# Legend and Notes

**ABBREVIATIONS AND DEFINITIONS:**

CFM = airflow, cubic feet/minute
EWT = entering water temperature, Fahrenheit
GPM = water flow in gallons/minute
WPD = water pressure drop, PSI and feet of water
EAT = entering air temperature, Fahrenheit (dry bulb/wet bulb)
HC = air heating capacity, MBTUH
TC = total cooling capacity, MBTUH
SC = sensible cooling capacity, MBTUH
KW = total power unit input, kilowatts
HR = total heat of rejection, MBTUH
HE = total heat of extraction, MBTUH
HWC = hot water generator capacity, MBTUH
EER = Energy Efficient Ratio = BTU output/Watt input
COP = Coefficient of Performance = BTU output/BTU input
LWT = leaving water temperature, °F
LAT = leaving air temperature, °F
TH = total heating capacity, MBTUH
LC = latent cooling capacity, MBTUH
S/T = sensible to total cooling ratio

**Notes to Performance Data Tables**

The following notes apply to all performance data tables:

- Performance ratings are based on 80ºF DB / 67ºF WB EAT for cooling and 70ºF DB EAT for heating.
- Three flow rates are shown for each unit. The lowest flow rate shown is used for geothermal open loop/well water systems with a minimum of 50ºF EWT. The middle flow rate shown is the minimum geothermal closed loop flow rate. The highest flow rate shown is optimum for geothermal closed loop systems and the suggested flow rate for boiler/tower applications.
- The hot water generator numbers are based on a flow rate of 0.4 GPM/ton of rated capacity with an EWT of 90ºF.
- Entering water temperatures below 40ºF assumes 15% antifreeze solution.
- For non-standard EAT conditions, apply the appropriate correction factors from the Correction Factor Tables.
- Interpolation between EWT, GPM and CFM data is permissible.

# Correction Factor Tables

## Air Flow Corrections (Dual Circuit)

| Airflow | | Cooling | | | | Heating | | |
|---|---|---|---|---|---|---|---|---|
| CFM Per Ton of Clg | % of Nominal | Total Cap | Sens Cap | Power | Heat of Rej | Htg Cap | Power | Heat of Ext |
| 281 | 75% | 0.981 | 0.910 | 0.956 | 0.976 | 0.956 | 1.049 | 0.947 |
| 299 | 80% | 0.985 | 0.928 | 0.965 | 0.981 | 0.970 | 1.034 | 0.959 |
| 318 | 85% | 0.988 | 0.947 | 0.975 | 0.986 | 0.977 | 1.027 | 0.968 |
| 337 | 90% | 0.990 | 0.965 | 0.990 | 0.990 | 0.985 | 1.021 | 0.977 |
| 355 | 95% | 0.996 | 0.985 | 0.995 | 0.997 | 0.992 | 1.014 | 0.986 |
| **374** | **100%** | **1.000** | **1.000** | **1.000** | **1.000** | **1.000** | **1.000** | **1.000** |
| 393 | 105% | 1.005 | 1.030 | 1.012 | 1.014 | 1.010 | 0.993 | 1.005 |
| 412 | 110% | 1.007 | 1.044 | 1.025 | 1.013 | 1.014 | 0.991 | 1.014 |
| 430 | 115% | 1.010 | 1.065 | 1.035 | 1.018 | 1.021 | 0.987 | 1.024 |
| 449 | 120% | 1.014 | 1.086 | 1.046 | 1.024 | 1.029 | 0.981 | 1.033 |
| 468 | 125% | 1.017 | 1.106 | 1.059 | 1.027 | 1.040 | 0.980 | 1.039 |

07/25/07

## EA Corrections
## Cooling Capacity Corrections

| Entering Air WB ºF | Total Clg Cap | Sensible Cooling Capacity Multipliers - Entering DB ºF | | | | | | | | | | Power Input | Heat of Rejection |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 60 | 65 | 70 | 75 | 80 | 80.6 | 85 | 90 | 95 | 100 | | |
| 55 | 0.898 | 0.723 | 0.866 | 1.048 | 1.185 | * | * | * | * | * | * | 0.985 | 0.913 |
| 60 | 0.912 | | 0.632 | 0.880 | 1.078 | 1.244 | 1.260 | * | * | * | * | 0.994 | 0.927 |
| 65 | 0.967 | | | 0.694 | 0.881 | 1.079 | 1.085 | 1.270 | * | * | * | 0.997 | 0.972 |
| 66.2 | 0.983 | | | 0.655 | 0.842 | 1.040 | 1.060 | 1.232 | * | * | * | 0.999 | 0.986 |
| **67** | **1.000** | | | 0.616 | 0.806 | **1.000** | 1.023 | 1.193 | 1.330 | * | * | **1.000** | **1.000** |
| 70 | 1.053 | | | | 0.693 | 0.879 | 0.900 | 1.075 | 1.250 | 1.404 | * | 1.003 | 1.044 |
| 75 | 1.168 | | | | | 0.687 | 0.715 | 0.875 | 1.040 | 1.261 | 1.476 | 1.007 | 1.141 |

**NOTE**: * Sensible capacity equals total capacity at conditions shown.

11/10/09

## Heating Capacity Corrections

| Ent Air DB °F | Heating Corrections | | |
|---|---|---|---|
| | Htg Cap | Power | Heat of Ext |
| 45 | 1.062 | 0.739 | 1.158 |
| 50 | 1.050 | 0.790 | 1.130 |
| 55 | 1.037 | 0.842 | 1.096 |
| 60 | 1.025 | 0.893 | 1.064 |
| 65 | 1.012 | 0.945 | 1.030 |
| 68 | 1.005 | 0.976 | 1.012 |
| **70** | **1.000** | **1.000** | **1.000** |
| 75 | 0.987 | 1.048 | 0.970 |
| 80 | 0.975 | 1.099 | 0.930 |

11/10/09

# Operating Limits

| Operating Limits | Cooling | | Heating | |
|---|---|---|---|---|
| | (°F) | (°C) | (°F) | (°C) |
| ***Air Limits*** | | | | |
| Min. Ambient Air | 45 | 7.2 | 45 | 7.2 |
| Rated Ambient Air | 80 | 26.7 | 70 | 21.1 |
| Max. Ambient Air | 100 | 37.8 | 85 | 29.4 |
| Min. Entering Air | 50 | 10.0 | 40 | 4.4 |
| Rated Entering Air db/wb | 80.6/66.2 | 27/19 | 68 | 20.0 |
| Max. Entering Air db/wb | 110/83 | 43/28.3 | 80 | 26.7 |
| ***Water Limits*** | | | | |
| Min. Entering Water | 30 | -1.1 | 20 | -6.7 |
| Normal Entering Water | 50-110 | 10-43.3 | 30-70 | -1.1 |
| Max. Entering Water | 120 | 48.9 | 90 | 32.2 |

**NOTE:** Minimum/maximum limits are only for start-up conditions, and are meant for bringing the space up to occupancy temperature. Units are not designed to operate at the minimum/maximum conditions on a regular basis. The operating limits are dependant upon three primary factors: 1) water temperature, 2) return air temperature, and 3) ambient temperature. When any of the factors are at the minimum or maximum levels, the other two factors must be at the normal level for proper and reliable unit operation.

# Pressure Drop

| Model | GPM | Pressure Drop (psi) | | | | |
|---|---|---|---|---|---|---|
| | | 30°F | 50°F | 70°F | 90°F | 110°F |
| **080** | 10.0 | 2.48 | 2.36 | 2.29 | 2.21 | 2.14 |
| | 16.0 | 5.96 | 5.62 | 5.22 | 4.89 | 4.69 |
| | 22.0 | 10.91 | 10.38 | 9.73 | 9.12 | 8.50 |
| **095** | 12.0 | 2.22 | 2.00 | 1.92 | 1.83 | 1.67 |
| | 18.0 | 4.62 | 4.02 | 3.80 | 3.75 | 3.65 |
| | 24.0 | 7.31 | 6.81 | 5.80 | 5.60 | 5.19 |
| **120** | 16.0 | 2.03 | 1.93 | 1.88 | 1.80 | 1.50 |
| | 22.0 | 3.69 | 3.58 | 3.40 | 3.19 | 2.99 |
| | 28.0 | 5.58 | 5.50 | 5.32 | 5.00 | 4.84 |
| **160** | 20.0 | 1.20 | 1.19 | 1.18 | 1.17 | 1.16 |
| | 28.0 | 2.64 | 2.50 | 2.37 | 2.24 | 2.12 |
| | 35.0 | 3.72 | 3.65 | 3.41 | 3.36 | 3.21 |
| **180** | 22.0 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 |
| | 34.0 | 3.95 | 3.90 | 3.85 | 3.80 | 3.75 |
| | 45.0 | 6.40 | 6.10 | 6.00 | 5.80 | 5.70 |
| **240** | 30.0 | 0.90 | 0.82 | 0.75 | 0.69 | 0.63 |
| | 45.0 | 2.22 | 2.06 | 1.91 | 1.77 | 1.64 |
| | 60.0 | 3.47 | 3.29 | 3.06 | 2.88 | 2.40 |
| **300** | 35.0 | 1.84 | 1.60 | 1.39 | 1.21 | 1.05 |
| | 56.0 | 4.09 | 3.88 | 3.69 | 3.51 | 3.33 |
| | 75.0 | 6.10 | 5.95 | 5.77 | 5.45 | 5.10 |

# Horizontal YL080 - Performance Data

## Belt Drive - Dual Circuit - 2600 CFM

| EWT °F | WATER FLOW | WPD | | HEATING - EAT 70 °F | | | | | COOLING - EAT 80/67 °F | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | GPM | PSI | FT | HC | KW | HE | LAT | COP | TC | SC | S/T | KW | HR | EER |
| 20 | 10.0 | 2.5 | 5.8 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 16.0 | 6.1 | 14.0 | 46.9 | 4.43 | 31.8 | 84.7 | 3.10 | | | | | | |
| | 22.0 | 11.1 | 25.6 | 48.0 | 4.45 | 32.8 | 85.1 | 3.16 | | | | | | |
| 30 | 10.0 | 2.5 | 5.8 | Operation not recommended | | | | | | | | | | |
| | 16.0 | 6.0 | 13.8 | 54.9 | 4.53 | 39.4 | 87.5 | 3.55 | | | | | | |
| | 22.0 | 10.9 | 25.2 | 55.9 | 4.56 | 40.3 | 87.9 | 3.59 | | | | | | |
| 40 | 10.0 | 2.4 | 5.5 | 60.2 | 4.61 | 44.5 | 89.4 | 3.83 | 85.6 | 61.0 | 0.71 | 3.36 | 97.1 | 25.5 |
| | 16.0 | 5.8 | 13.4 | 62.8 | 4.66 | 47.0 | 90.4 | 3.96 | 79.6 | 58.0 | 0.73 | 3.15 | 90.4 | 25.2 |
| | 22.0 | 10.7 | 24.6 | 64.0 | 4.69 | 48.0 | 90.8 | 4.00 | 76.1 | 57.0 | 0.75 | 3.07 | 86.6 | 24.8 |
| 50 | 10.0 | 2.4 | 5.4 | 66.1 | 4.75 | 49.9 | 91.5 | 4.08 | 85.5 | 61.9 | 0.72 | 3.71 | 98.1 | 23.0 |
| | 16.0 | 5.6 | 13.0 | 70.6 | 4.80 | 54.2 | 93.1 | 4.31 | 82.5 | 60.8 | 0.74 | 3.53 | 94.6 | 23.4 |
| | 22.0 | 10.4 | 24.0 | 72.1 | 4.83 | 55.6 | 93.7 | 4.37 | 81.2 | 60.7 | 0.75 | 3.45 | 93.0 | 23.5 |
| 60 | 10.0 | 2.3 | 5.4 | 73.9 | 4.90 | 57.2 | 94.3 | 4.42 | 83.8 | 61.6 | 0.73 | 4.13 | 97.9 | 20.3 |
| | 16.0 | 5.4 | 12.5 | 78.0 | 4.94 | 61.1 | 95.8 | 4.62 | 83.3 | 61.9 | 0.74 | 3.91 | 96.6 | 21.3 |
| | 22.0 | 10.1 | 23.2 | 79.7 | 4.98 | 62.7 | 96.4 | 4.69 | 83.2 | 62.4 | 0.75 | 3.82 | 96.2 | 21.8 |
| 70 | 10.0 | 2.3 | 5.3 | 82.0 | 5.02 | 64.8 | 97.2 | 4.78 | 81.1 | 60.5 | 0.75 | 4.60 | 96.8 | 17.6 |
| | 16.0 | 5.2 | 12.1 | 84.7 | 5.08 | 67.4 | 98.2 | 4.89 | 82.2 | 61.5 | 0.75 | 4.31 | 96.9 | 19.1 |
| | 22.0 | 9.7 | 22.5 | 86.5 | 5.12 | 69.1 | 98.8 | 4.95 | 82.6 | 62.0 | 0.75 | 4.20 | 97.0 | 19.7 |
| 80 | 10.0 | 2.3 | 5.2 | 88.6 | 5.10 | 71.2 | 99.6 | 5.09 | 77.6 | 58.9 | 0.76 | 5.10 | 95.0 | 15.2 |
| | 16.0 | 5.0 | 11.6 | 90.5 | 5.19 | 72.8 | 100.2 | 5.12 | 79.6 | 60.1 | 0.76 | 4.75 | 95.8 | 16.7 |
| | 22.0 | 9.4 | 21.7 | 92.3 | 5.25 | 74.3 | 100.9 | 5.15 | 80.0 | 61.2 | 0.76 | 4.61 | 95.7 | 17.3 |
| 90 | 10.0 | 2.2 | 5.1 | 92.2 | 5.10 | 74.8 | 100.8 | 5.30 | 73.8 | 57.0 | 0.77 | 5.60 | 92.9 | 13.2 |
| | 16.0 | 4.9 | 11.3 | 95.3 | 5.26 | 77.4 | 102.0 | 5.31 | 75.6 | 58.0 | 0.77 | 5.26 | 93.5 | 14.4 |
| | 22.0 | 9.1 | 21.1 | 96.5 | 5.34 | 78.2 | 102.3 | 5.29 | 75.8 | 59.0 | 0.78 | 5.09 | 93.2 | 14.9 |
| 100 | 10.0 | 2.2 | 5.0 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 16.0 | 4.8 | 11.0 | | | | | | 70.7 | 55.7 | 0.79 | 5.84 | 90.6 | 12.1 |
| | 22.0 | 8.8 | 20.2 | | | | | | 70.6 | 56.2 | 0.80 | 5.65 | 89.9 | 12.5 |
| 110 | 10.0 | 2.1 | 4.9 | | | | | | Operation not recommended | | | | | |
| | 16.0 | 4.7 | 10.8 | | | | | | 65.0 | 53.4 | 0.82 | 6.51 | 87.2 | 10.0 |
| | 22.0 | 8.5 | 19.6 | | | | | | 64.8 | 53.3 | 0.82 | 6.32 | 86.4 | 10.2 |
| 120 | 10.0 | 2.1 | 4.9 | | | | | | Operation not recommended | | | | | |
| | 16.0 | 4.7 | 10.9 | | | | | | 59.0 | 51.5 | 0.87 | 7.29 | 83.8 | 8.1 |
| | 22.0 | 8.3 | 19.1 | | | | | | 58.9 | 52.3 | 0.89 | 7.13 | 83.3 | 8.3 |

# Horizontal YL095 - Performance Data

## Belt Drive - Dual Circuit - 3200 CFM

| EWT | WATER FLOW | WPD | | HEATING - EAT 70 °F | | | | | COOLING - EAT 80/67 °F | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °F | GPM | PSI | FT | HC | KW | HE | LAT | COP | TC | SC | S/T | KW | HR | EER |
| 20 | 12.0 | 2.1 | 4.9 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 18.0 | 5.1 | 11.9 | 55.2 | 5.46 | 36.6 | 84.0 | 2.96 | | | | | | |
| | 24.0 | 7.2 | 16.6 | 56.8 | 5.52 | 38.0 | 84.4 | 3.02 | | | | | | |
| 30 | 12.0 | 2.1 | 4.9 | Operation not recommended | | | | | | | | | | |
| | 18.0 | 4.6 | 10.7 | 71.6 | 5.57 | 52.6 | 88.7 | 3.77 | | | | | | |
| | 24.0 | 7.1 | 16.5 | 73.3 | 5.66 | 54.0 | 89.2 | 3.79 | | | | | | |
| 40 | 12.0 | 2.0 | 4.7 | 74.5 | 5.57 | 55.5 | 89.6 | 3.92 | 97.0 | 74.0 | 0.76 | 4.33 | 111.8 | 22.4 |
| | 18.0 | 4.3 | 9.8 | 82.6 | 5.70 | 63.2 | 91.9 | 4.25 | 93.5 | 72.5 | 0.78 | 4.05 | 107.3 | 23.1 |
| | 24.0 | 7.0 | 16.2 | 84.3 | 5.81 | 64.5 | 92.4 | 4.25 | 90.0 | 71.4 | 0.79 | 3.87 | 103.2 | 23.3 |
| 50 | 12.0 | 2.0 | 4.7 | 79.5 | 5.71 | 60.0 | 91.0 | 4.08 | 98.7 | 73.5 | 0.74 | 4.63 | 114.5 | 21.3 |
| | 18.0 | 4.0 | 9.3 | 89.6 | 5.83 | 69.7 | 93.9 | 4.50 | 99.6 | 71.1 | 0.71 | 4.27 | 114.2 | 23.3 |
| | 24.0 | 6.8 | 15.6 | 91.3 | 5.96 | 71.0 | 94.4 | 4.49 | 94.3 | 70.4 | 0.75 | 4.28 | 108.9 | 22.0 |
| 60 | 12.0 | 2.0 | 4.5 | 85.6 | 5.84 | 65.7 | 92.8 | 4.30 | 97.8 | 72.5 | 0.74 | 5.05 | 90.8 | 19.4 |
| | 18.0 | 3.9 | 9.0 | 94.1 | 5.97 | 73.8 | 95.2 | 4.62 | 101.3 | 70.0 | 0.69 | 4.64 | 117.1 | 21.8 |
| | 24.0 | 6.5 | 14.9 | 95.9 | 6.09 | 75.1 | 95.7 | 4.61 | 95.8 | 69.7 | 0.73 | 4.71 | 111.9 | 20.3 |
| 70 | 12.0 | 1.9 | 4.4 | 92.3 | 5.96 | 72.0 | 94.7 | 4.54 | 94.9 | 71.2 | 0.75 | 5.56 | 113.9 | 17.1 |
| | 18.0 | 3.8 | 8.8 | 97.7 | 6.09 | 77.0 | 96.3 | 4.71 | 99.5 | 69.0 | 0.69 | 5.14 | 117.1 | 19.4 |
| | 24.0 | 6.1 | 14.2 | 99.5 | 6.21 | 78.3 | 96.8 | 4.70 | 94.9 | 69.3 | 0.73 | 5.18 | 112.6 | 18.3 |
| 80 | 12.0 | 1.8 | 4.2 | 98.7 | 6.06 | 78.0 | 96.6 | 4.78 | 90.7 | 69.6 | 0.77 | 6.12 | 111.5 | 14.8 |
| | 18.0 | 3.8 | 8.7 | 102.0 | 6.19 | 80.8 | 97.5 | 4.83 | 95.1 | 68.0 | 0.72 | 5.75 | 114.7 | 16.6 |
| | 24.0 | 5.8 | 13.4 | 103.7 | 6.31 | 82.2 | 98.0 | 4.82 | 92.1 | 68.5 | 0.74 | 5.69 | 111.5 | 16.2 |
| 90 | 12.0 | 1.7 | 4.0 | 104.0 | 6.12 | 83.1 | 98.1 | 4.98 | 85.8 | 68.0 | 0.79 | 6.70 | 108.6 | 12.8 |
| | 18.0 | 3.8 | 8.7 | 108.3 | 6.26 | 87.0 | 99.3 | 5.07 | 88.9 | 67.0 | 0.75 | 6.43 | 110.9 | 13.8 |
| | 24.0 | 5.5 | 12.7 | 110.0 | 6.37 | 88.3 | 99.8 | 5.06 | 87.7 | 67.8 | 0.77 | 6.26 | 109.1 | 14.0 |
| 100 | 12.0 | 1.7 | 3.9 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 18.0 | 3.7 | 8.6 | | | | | | 81.9 | 65.8 | 0.80 | 7.16 | 106.3 | 11.4 |
| | 24.0 | 5.3 | 12.3 | | | | | | 82.2 | 67.0 | 0.81 | 6.91 | 105.7 | 11.9 |
| 110 | 12.0 | 1.7 | 3.9 | | | | | | Operation not recommended | | | | | |
| | 18.0 | 3.6 | 8.4 | | | | | | 74.9 | 64.4 | 0.86 | 7.93 | 101.9 | 9.4 |
| | 24.0 | 5.2 | 12.0 | | | | | | 75.9 | 65.9 | 0.87 | 7.65 | 102.0 | 9.9 |
| 120 | 12.0 | 1.7 | 3.9 | | | | | | Operation not recommended | | | | | |
| | 18.0 | 3.5 | 8.1 | | | | | | 68.8 | 62.6 | 0.91 | 8.69 | 98.4 | 7.9 |
| | 24.0 | 5.2 | 12.0 | | | | | | 69.2 | 63.3 | 0.91 | 8.49 | 98.2 | 8.2 |

# Horizontal YL120 - Performance Data

## Belt Drive - Dual Circuit - 3600 CFM

| EWT | WATER FLOW | WPD | | HEATING - EAT 70 °F | | | | | COOLING - EAT 80/67 °F | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °F | GPM | PSI | FT | HC | KW | HE | LAT | COP | TC | SC | S/T | KW | HR | EER |
| 20 | 16.0 | 2.7 | 6.2 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 22.0 | 4.2 | 9.7 | 74.2 | 6.13 | 53.3 | 87.1 | 3.55 | | | | | | |
| | 28.0 | 6.4 | 14.8 | 75.7 | 6.13 | 54.8 | 87.5 | 3.62 | | | | | | |
| 30 | 16.0 | 2.6 | 6.0 | Operation not recommended | | | | | | | | | | |
| | 22.0 | 4.1 | 9.4 | 88.0 | 6.25 | 66.7 | 90.6 | 4.13 | | | | | | |
| | 28.0 | 6.2 | 14.3 | 90.1 | 6.21 | 68.9 | 91.2 | 4.25 | | | | | | |
| 40 | 16.0 | 2.5 | 5.7 | 97.5 | 6.41 | 75.6 | 93.1 | 4.46 | 136.3 | 85.6 | 0.63 | 5.50 | 155.1 | 24.8 |
| | 22.0 | 4.0 | 9.1 | 100.9 | 6.39 | 79.0 | 93.9 | 4.62 | 131.8 | 84.8 | 0.64 | 5.74 | 151.4 | 23.0 |
| | 28.0 | 6.0 | 13.8 | 102.8 | 6.39 | 81.0 | 94.4 | 4.72 | 129.7 | 84.0 | 0.65 | 5.82 | 149.6 | 22.3 |
| 50 | 16.0 | 2.4 | 5.6 | 106.7 | 6.55 | 84.4 | 95.5 | 4.78 | 133.6 | 84.0 | 0.63 | 6.36 | 155.3 | 21.0 |
| | 22.0 | 3.9 | 8.9 | 113.2 | 6.56 | 90.9 | 97.1 | 5.06 | 133.0 | 83.7 | 0.63 | 6.34 | 154.6 | 21.0 |
| | 28.0 | 5.8 | 13.4 | 114.8 | 6.62 | 92.3 | 97.5 | 5.08 | 133.4 | 83.9 | 0.63 | 6.29 | 154.8 | 21.2 |
| 60 | 16.0 | 2.3 | 5.3 | 119.6 | 6.69 | 96.8 | 98.8 | 5.24 | 129.0 | 82.1 | 0.64 | 7.22 | 153.6 | 17.9 |
| | 22.0 | 3.8 | 8.7 | 125.8 | 6.73 | 102.8 | 100.4 | 5.48 | 130.9 | 82.5 | 0.63 | 6.97 | 154.7 | 18.8 |
| | 28.0 | 5.7 | 13.1 | 127.2 | 6.86 | 103.7 | 100.7 | 5.43 | 132.0 | 83.3 | 0.63 | 6.84 | 155.3 | 19.3 |
| 70 | 16.0 | 2.2 | 5.0 | 134.2 | 6.82 | 111.0 | 102.5 | 5.77 | 123.3 | 80.0 | 0.65 | 8.07 | 150.8 | 15.3 |
| | 22.0 | 3.7 | 8.5 | 139.0 | 6.88 | 115.6 | 103.8 | 5.92 | 126.4 | 81.0 | 0.64 | 7.66 | 152.5 | 16.5 |
| | 28.0 | 5.5 | 12.7 | 140.8 | 7.07 | 116.7 | 104.2 | 5.84 | 126.9 | 82.0 | 0.65 | 7.48 | 152.4 | 17.0 |
| 80 | 16.0 | 2.0 | 4.6 | 148.8 | 6.94 | 125.1 | 106.3 | 6.28 | 117.0 | 77.7 | 0.66 | 8.90 | 147.4 | 13.1 |
| | 22.0 | 3.5 | 8.2 | 153.6 | 7.01 | 129.7 | 107.5 | 6.43 | 120.0 | 79.2 | 0.66 | 8.43 | 148.8 | 14.2 |
| | 28.0 | 5.4 | 12.4 | 156.7 | 7.20 | 132.2 | 108.3 | 6.38 | 119.4 | 80.3 | 0.67 | 8.22 | 147.4 | 14.5 |
| 90 | 16.0 | 1.8 | 4.2 | 161.5 | 7.07 | 137.4 | 109.5 | 6.70 | 110.8 | 75.5 | 0.68 | 9.71 | 143.9 | 11.4 |
| | 22.0 | 3.4 | 7.8 | 170.0 | 7.09 | 145.8 | 111.7 | 7.03 | 112.6 | 77.0 | 0.68 | 9.29 | 144.3 | 12.1 |
| | 28.0 | 5.2 | 12.0 | 176.0 | 7.20 | 151.4 | 113.3 | 7.16 | 110.8 | 78.0 | 0.70 | 9.06 | 141.7 | 12.2 |
| 100 | 16.0 | 1.6 | 3.8 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 22.0 | 3.2 | 7.4 | | | | | | 104.9 | 74.4 | 0.71 | 10.25 | 139.8 | 10.2 |
| | 28.0 | 5.0 | 11.6 | | | | | | 102.5 | 75.2 | 0.73 | 10.02 | 136.7 | 10.2 |
| 110 | 16.0 | 1.5 | 3.5 | | | | | | Operation not recommended | | | | | |
| | 22.0 | 3.0 | 6.9 | | | | | | 97.5 | 71.2 | 0.73 | 11.34 | 136.2 | 8.6 |
| | 28.0 | 4.8 | 11.2 | | | | | | 95.8 | 71.8 | 0.75 | 11.10 | 133.7 | 8.6 |
| 120 | 16.0 | 1.5 | 3.5 | | | | | | Operation not recommended | | | | | |
| | 22.0 | 2.7 | 6.3 | | | | | | 91.3 | 67.5 | 0.74 | 12.56 | 134.2 | 7.3 |
| | 28.0 | 4.6 | 10.6 | | | | | | 92.0 | 68.2 | 0.74 | 12.31 | 134.0 | 7.5 |

Contractor:P.O.: _____ _____

Engineer: _____

Project Name: _____ Unit Tag: _____

**Affinity Large Series**
**Single & Dual Capacity**
**7 - 25 Tons 60Hz**

YORK®

# Vertical YL080 - Performance Data

## Belt Drive - Dual Circuit - 2600 CFM

| EWT | WATER FLOW | WPD | | HEATING - EAT 70 °F | | | | | COOLING - EAT 80/67 °F | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °F | GPM | PSI | FT | HC | KW | HE | LAT | COP | TC | SC | S/T | KW | HR | EER |
| 20 | 10.0 | 2.2 | 5.1 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 16.0 | 5.6 | 12.9 | 51.8 | 4.67 | 35.9 | 86.4 | 3.25 | | | | | | |
| | 22.0 | 10.3 | 23.7 | 52.1 | 4.85 | 35.6 | 86.6 | 3.15 | | | | | | |
| 30 | 10.0 | 2.2 | 5.1 | Operation not recommended | | | | | | | | | | |
| | 16.0 | 5.5 | 12.7 | 59.8 | 4.85 | 43.3 | 89.3 | 3.62 | | | | | | |
| | 22.0 | 10.0 | 23.1 | 60.3 | 4.92 | 43.5 | 89.5 | 3.59 | | | | | | |
| 40 | 10.0 | 2.1 | 5.0 | 65.3 | 4.95 | 48.4 | 91.3 | 3.87 | 84.2 | 58.9 | 0.70 | 3.65 | 96.7 | 23.1 |
| | 16.0 | 5.3 | 12.3 | 68.0 | 5.01 | 50.9 | 92.2 | 3.98 | 78.1 | 55.1 | 0.71 | 3.35 | 89.5 | 23.3 |
| | 22.0 | 9.7 | 22.3 | 68.8 | 5.03 | 51.7 | 92.5 | 4.01 | 72.7 | 51.7 | 0.71 | 3.28 | 83.9 | 22.2 |
| 50 | 10.0 | 2.1 | 4.8 | 71.2 | 5.09 | 53.8 | 93.4 | 4.10 | 87.5 | 59.7 | 0.68 | 3.94 | 100.9 | 22.2 |
| | 16.0 | 5.2 | 12.0 | 76.0 | 5.16 | 58.4 | 95.1 | 4.32 | 84.0 | 59.3 | 0.71 | 3.67 | 96.5 | 22.9 |
| | 22.0 | 9.4 | 21.6 | 77.4 | 5.18 | 59.8 | 95.6 | 4.38 | 81.8 | 57.2 | 0.70 | 3.63 | 94.2 | 22.5 |
| 60 | 10.0 | 2.0 | 4.6 | 79.0 | 5.23 | 61.2 | 96.1 | 4.43 | 87.6 | 59.7 | 0.68 | 4.34 | 102.4 | 20.2 |
| | 16.0 | 5.0 | 11.6 | 83.7 | 5.31 | 65.6 | 97.8 | 4.63 | 86.2 | 61.0 | 0.71 | 4.04 | 100.0 | 21.3 |
| | 22.0 | 9.0 | 20.9 | 85.7 | 5.34 | 67.4 | 98.5 | 4.70 | 85.9 | 60.2 | 0.70 | 4.01 | 99.6 | 21.4 |
| 70 | 10.0 | 1.9 | 4.4 | 87.4 | 5.37 | 69.1 | 99.1 | 4.77 | 85.3 | 59.2 | 0.69 | 4.83 | 101.8 | 17.7 |
| | 16.0 | 4.9 | 11.2 | 91.0 | 5.45 | 72.4 | 100.4 | 4.89 | 85.3 | 60.8 | 0.71 | 4.48 | 100.6 | 19.1 |
| | 22.0 | 8.7 | 20.1 | 93.2 | 5.51 | 74.4 | 101.2 | 4.96 | 85.9 | 60.5 | 0.70 | 4.43 | 101.0 | 19.4 |
| 80 | 10.0 | 1.8 | 4.2 | 95.0 | 5.51 | 76.2 | 101.8 | 5.06 | 81.6 | 58.2 | 0.71 | 5.37 | 99.9 | 15.2 |
| | 16.0 | 4.7 | 10.8 | 97.5 | 5.60 | 78.4 | 102.7 | 5.10 | 82.2 | 59.3 | 0.72 | 4.97 | 99.2 | 16.5 |
| | 22.0 | 8.4 | 19.4 | 99.7 | 5.66 | 80.3 | 103.5 | 5.16 | 83.0 | 60.1 | 0.72 | 4.88 | 99.6 | 17.0 |
| 90 | 10.0 | 1.8 | 4.1 | 100.4 | 5.62 | 81.3 | 103.8 | 5.24 | 77.0 | 56.9 | 0.74 | 5.91 | 97.2 | 13.0 |
| | 16.0 | 4.5 | 10.5 | 103.2 | 5.77 | 83.5 | 104.7 | 5.25 | 77.6 | 56.9 | 0.73 | 5.53 | 96.5 | 14.0 |
| | 22.0 | 8.2 | 18.8 | 104.7 | 5.80 | 84.9 | 105.3 | 5.30 | 78.0 | 57.8 | 0.74 | 5.40 | 96.4 | 14.4 |
| 100 | 10.0 | 1.8 | 4.1 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 16.0 | 4.4 | 10.2 | | | | | | 72.3 | 54.4 | 0.75 | 6.16 | 93.3 | 11.7 |
| | 22.0 | 7.9 | 18.2 | | | | | | 72.0 | 54.4 | 0.76 | 5.98 | 92.4 | 12.0 |
| 110 | 10.0 | 1.8 | 4.1 | | | | | | Operation not recommended | | | | | |
| | 16.0 | 4.3 | 9.9 | | | | | | 67.0 | 52.2 | 0.78 | 6.86 | 90.4 | 9.8 |
| | 22.0 | 7.7 | 17.8 | | | | | | 66.0 | 50.2 | 0.76 | 6.64 | 88.7 | 9.9 |
| 120 | 10.0 | 1.8 | 4.1 | | | | | | Operation not recommended | | | | | |
| | 16.0 | 4.2 | 9.7 | | | | | | 62.6 | 50.8 | 0.81 | 7.63 | 88.6 | 8.2 |
| | 22.0 | 7.5 | 17.4 | | | | | | 61.0 | 48.0 | 0.79 | 7.40 | 86.3 | 8.2 |

# Vertical YL095 - Performance Data

## Belt Drive - Dual Circuit - 2800 CFM

| EWT | WATER FLOW | WPD | | HEATING - EAT 70 °F | | | | | COOLING - EAT 80/67 °F | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °F | GPM | PSI | FT | HC | KW | HE | LAT | COP | TC | SC | S/T | KW | HR | EER |
| 20 | 12.0 | 2.2 | 5.1 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 18.0 | 4.7 | 10.9 | 56.8 | 5.42 | 38.3 | 86.8 | 3.07 | | | | | | |
| | 24.0 | 8.0 | 18.6 | 57.8 | 5.47 | 39.1 | 87.1 | 3.10 | | | | | | |
| 30 | 12.0 | 2.1 | 4.9 | Operation not recommended | | | | | | | | | | |
| | 18.0 | 4.7 | 10.9 | 66.4 | 5.60 | 47.3 | 89.9 | 3.47 | | | | | | |
| | 24.0 | 8.0 | 18.5 | 67.5 | 5.61 | 48.4 | 90.3 | 3.53 | | | | | | |
| 40 | 12.0 | 2.0 | 4.6 | 73.5 | 5.72 | 54.0 | 92.3 | 3.77 | 101.6 | 70.9 | 0.70 | 4.14 | 115.8 | 24.5 |
| | 18.0 | 4.6 | 10.7 | 76.4 | 5.78 | 56.7 | 93.3 | 3.88 | 97.5 | 66.1 | 0.68 | 3.80 | 110.4 | 25.7 |
| | 24.0 | 7.8 | 18.1 | 77.9 | 5.77 | 58.2 | 93.8 | 3.96 | 93.6 | 62.7 | 0.67 | 3.71 | 106.3 | 25.2 |
| 50 | 12.0 | 2.0 | 4.7 | 80.9 | 5.88 | 60.9 | 94.8 | 4.03 | 101.1 | 70.5 | 0.70 | 4.44 | 116.2 | 22.8 |
| | 18.0 | 4.4 | 10.3 | 86.5 | 5.95 | 66.2 | 96.6 | 4.26 | 98.6 | 68.1 | 0.69 | 4.19 | 112.9 | 23.5 |
| | 24.0 | 7.6 | 17.6 | 88.3 | 5.95 | 68.0 | 97.2 | 4.35 | 96.2 | 65.6 | 0.68 | 4.06 | 110.1 | 23.7 |
| 60 | 12.0 | 2.0 | 4.6 | 91.0 | 6.06 | 70.3 | 98.1 | 4.40 | 98.8 | 69.8 | 0.71 | 4.89 | 115.5 | 20.2 |
| | 18.0 | 4.2 | 9.8 | 96.4 | 6.13 | 75.5 | 99.9 | 4.61 | 97.8 | 68.8 | 0.70 | 4.62 | 113.6 | 21.2 |
| | 24.0 | 7.3 | 16.9 | 98.5 | 6.14 | 77.5 | 100.6 | 4.70 | 97.1 | 67.5 | 0.69 | 4.48 | 112.4 | 21.7 |
| 70 | 12.0 | 1.9 | 4.5 | 101.7 | 6.24 | 80.4 | 101.6 | 4.78 | 95.2 | 68.8 | 0.72 | 5.46 | 113.8 | 17.4 |
| | 18.0 | 4.0 | 9.3 | 105.7 | 6.30 | 84.2 | 102.9 | 4.91 | 95.4 | 68.4 | 0.72 | 5.10 | 112.8 | 18.7 |
| | 24.0 | 7.0 | 16.2 | 107.9 | 6.33 | 86.3 | 103.7 | 4.99 | 96.4 | 68.1 | 0.71 | 4.96 | 113.3 | 19.4 |
| 80 | 12.0 | 1.9 | 4.3 | 111.4 | 6.41 | 89.5 | 104.8 | 5.10 | 90.8 | 67.6 | 0.74 | 6.08 | 111.6 | 14.9 |
| | 18.0 | 3.8 | 8.9 | 114.0 | 6.48 | 91.9 | 105.7 | 5.16 | 91.9 | 67.3 | 0.73 | 5.65 | 111.1 | 16.3 |
| | 24.0 | 6.7 | 15.5 | 116.1 | 6.52 | 93.9 | 106.4 | 5.22 | 94.2 | 68.3 | 0.72 | 5.50 | 113.0 | 17.1 |
| 90 | 12.0 | 1.8 | 4.1 | 118.0 | 6.56 | 95.6 | 107.0 | 5.28 | 86.2 | 66.2 | 0.77 | 6.69 | 109.0 | 12.9 |
| | 18.0 | 3.7 | 8.5 | 121.0 | 6.65 | 98.3 | 108.0 | 5.33 | 87.5 | 65.5 | 0.75 | 6.26 | 108.9 | 14.0 |
| | 24.0 | 6.5 | 15.0 | 122.7 | 6.69 | 99.9 | 108.6 | 5.38 | 90.8 | 67.4 | 0.74 | 6.10 | 111.6 | 14.9 |
| 100 | 12.0 | 1.7 | 4.0 | **Operation not recommended** | | | | | Operation not recommended | | | | | |
| | 18.0 | 3.6 | 8.3 | | | | | | 82.8 | 63.4 | 0.77 | 6.95 | 106.5 | 11.9 |
| | 24.0 | 6.3 | 14.5 | | | | | | 86.3 | 65.8 | 0.76 | 6.76 | 109.4 | 12.8 |
| 110 | 12.0 | 1.7 | 3.8 | | | | | | Operation not recommended | | | | | |
| | 18.0 | 3.6 | 8.3 | | | | | | 78.0 | 61.3 | 0.79 | 7.73 | 104.4 | 10.1 |
| | 24.0 | 6.2 | 14.2 | | | | | | 80.8 | 63.5 | 0.79 | 7.48 | 106.4 | 10.8 |
| 120 | 12.0 | 1.6 | 3.7 | | | | | | Operation not recommended | | | | | |
| | 18.0 | 3.7 | 8.5 | | | | | | 73.6 | 59.4 | 0.81 | 8.60 | 103.0 | 8.6 |
| | 24.0 | 6.2 | 14.3 | | | | | | 74.6 | 61.4 | 0.82 | 8.26 | 102.8 | 9.0 |

# Vertical YL120 - Performance Data

## Belt Drive - Dual Circuit - 3600 CFM

| EWT | WATER FLOW | WPD | | HEATING - EAT 70 °F | | | | | COOLING - EAT 80/67 °F | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °F | GPM | PSI | FT | HC | KW | HE | LAT | COP | TC | SC | S/T | KW | HR | EER |
| 20 | 16.0 | 2.1 | 4.9 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 22.0 | 4.0 | 9.2 | 69.6 | 7.41 | 44.3 | 85.9 | 2.75 | | | | | | |
| | 28.0 | 5.8 | 13.4 | 72.1 | 7.42 | 46.8 | 86.5 | 2.85 | | | | | | |
| 30 | 16.0 | 2.1 | 4.9 | Operation not recommended | | | | | | | | | | |
| | 22.0 | 3.8 | 8.8 | 82.3 | 7.60 | 56.4 | 89.2 | 3.17 | | | | | | |
| | 28.0 | 5.7 | 13.1 | 84.2 | 7.61 | 58.3 | 89.7 | 3.24 | | | | | | |
| 40 | 16.0 | 2.0 | 4.7 | 92.6 | 7.69 | 66.4 | 91.8 | 3.53 | 140.9 | 100.0 | 0.71 | 6.04 | 161.5 | 23.3 |
| | 22.0 | 3.7 | 8.5 | 96.3 | 7.83 | 69.5 | 92.8 | 3.60 | 138.5 | 99.0 | 0.71 | 5.75 | 158.1 | 24.1 |
| | 28.0 | 5.6 | 12.9 | 98.0 | 7.86 | 71.2 | 93.2 | 3.66 | 137.2 | 98.0 | 0.71 | 5.59 | 156.3 | 24.5 |
| 50 | 16.0 | 1.9 | 4.5 | 103.4 | 7.94 | 76.3 | 94.6 | 3.82 | 136.9 | 97.3 | 0.71 | 6.47 | 158.9 | 21.2 |
| | 22.0 | 3.6 | 8.3 | 110.8 | 8.10 | 83.2 | 96.5 | 4.01 | 137.0 | 97.8 | 0.71 | 6.24 | 158.3 | 22.0 |
| | 28.0 | 5.5 | 12.7 | 112.8 | 8.14 | 85.0 | 97.0 | 4.06 | 135.5 | 97.1 | 0.72 | 6.07 | 156.2 | 22.3 |
| 60 | 16.0 | 1.9 | 4.4 | 118.3 | 8.24 | 90.1 | 98.4 | 4.21 | 130.9 | 94.2 | 0.72 | 7.08 | 155.1 | 18.5 |
| | 22.0 | 3.5 | 8.1 | 125.4 | 8.39 | 96.8 | 100.3 | 4.38 | 132.8 | 95.6 | 0.72 | 6.81 | 156.0 | 19.5 |
| | 28.0 | 5.4 | 12.5 | 128.0 | 8.45 | 99.2 | 100.9 | 4.44 | 131.6 | 95.5 | 0.73 | 6.63 | 154.2 | 19.9 |
| 70 | 16.0 | 1.9 | 4.3 | 134.2 | 8.58 | 104.9 | 102.5 | 4.58 | 123.7 | 90.8 | 0.73 | 7.83 | 150.4 | 15.8 |
| | 22.0 | 3.4 | 7.9 | 139.6 | 8.71 | 109.8 | 103.9 | 4.70 | 126.6 | 92.5 | 0.73 | 7.47 | 152.1 | 16.9 |
| | 28.0 | 5.3 | 12.3 | 142.9 | 8.78 | 113.0 | 104.8 | 4.77 | 126.1 | 93.0 | 0.74 | 7.27 | 150.8 | 17.3 |
| 80 | 16.0 | 1.9 | 4.3 | 148.2 | 8.95 | 117.6 | 106.1 | 4.85 | 116.1 | 87.3 | 0.75 | 8.65 | 145.6 | 13.4 |
| | 22.0 | 3.3 | 7.6 | 152.6 | 9.05 | 121.7 | 107.2 | 4.94 | 119.1 | 88.9 | 0.75 | 8.22 | 147.1 | 14.5 |
| | 28.0 | 5.2 | 12.0 | 157.0 | 9.12 | 125.9 | 108.4 | 5.04 | 119.3 | 90.4 | 0.76 | 8.00 | 146.6 | 14.9 |
| 90 | 16.0 | 1.8 | 4.2 | 157.2 | 9.36 | 125.3 | 108.4 | 4.92 | 108.7 | 83.9 | 0.77 | 9.48 | 141.1 | 11.5 |
| | 22.0 | 3.2 | 7.4 | 164.0 | 9.41 | 131.9 | 110.2 | 5.11 | 111.0 | 85.0 | 0.77 | 9.07 | 142.0 | 12.2 |
| | 28.0 | 5.0 | 11.6 | 169.5 | 9.47 | 137.2 | 111.6 | 5.25 | 112.0 | 87.0 | 0.78 | 8.83 | 142.1 | 12.7 |
| 100 | 16.0 | 1.7 | 3.9 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 22.0 | 3.1 | 7.1 | | | | | | 103.1 | 81.1 | 0.79 | 10.02 | 137.2 | 10.3 |
| | 28.0 | 4.8 | 11.1 | | | | | | 104.5 | 83.1 | 0.79 | 9.77 | 137.9 | 10.7 |
| 110 | 16.0 | 1.4 | 3.3 | | | | | | Operation not recommended | | | | | |
| | 22.0 | 2.9 | 6.7 | | | | | | 95.9 | 77.3 | 0.81 | 11.07 | 133.7 | 8.7 |
| | 28.0 | 4.5 | 10.4 | | | | | | 97.5 | 78.7 | 0.81 | 10.81 | 134.4 | 9.0 |
| 120 | 16.0 | 1.4 | 3.3 | | | | | | Operation not recommended | | | | | |
| | 22.0 | 2.7 | 6.2 | | | | | | 90.4 | 74.1 | 0.82 | 12.23 | 132.1 | 7.4 |
| | 28.0 | 4.1 | 9.5 | | | | | | 91.3 | 75.0 | 0.82 | 11.98 | 132.2 | 7.6 |

# Vertical YL160 - Performance Data

## Belt Drive - Dual Circuit - 5000 CFM

| EWT | WATER FLOW | WPD | | HEATING - EAT 70 °F | | | | | COOLING - EAT 80/67 °F | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °F | GPM | PSI | FT | HC | KW | HE | LAT | COP | TC | SC | S/T | KW | HR | EER |
| 20 | 20.0 | 1.2 | 2.8 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 28.0 | 2.7 | 6.3 | | | | | | | | | | | |
| | 35.0 | 3.9 | 8.9 | | | | | | | | | | | |
| 30 | 20.0 | 1.2 | 2.8 | Operation not recommended | | | | | | | | | | |
| | 28.0 | 2.6 | 6.1 | 87.3 | 8.70 | 57.6 | 84.2 | 2.94 | | | | | | |
| | 35.0 | 3.7 | 8.6 | 89.1 | 8.87 | 58.8 | 84.5 | 2.94 | | | | | | |
| 40 | 20.0 | 1.2 | 2.8 | 98.2 | 8.91 | 67.8 | 86.2 | 3.23 | 168.0 | 119.0 | 0.71 | 7.66 | 194.1 | 21.9 |
| | 28.0 | 2.6 | 5.9 | 101.2 | 8.97 | 70.6 | 86.7 | 3.31 | 171.0 | 120.2 | 0.70 | 7.40 | 196.3 | 23.1 |
| | 35.0 | 3.7 | 8.5 | 103.6 | 9.10 | 72.5 | 87.2 | 3.34 | 174.0 | 122.0 | 0.70 | 7.27 | 198.8 | 23.9 |
| 50 | 20.0 | 1.2 | 2.7 | 111.9 | 9.19 | 80.6 | 88.7 | 3.57 | 163.5 | 117.8 | 0.72 | 8.22 | 191.5 | 19.9 |
| | 28.0 | 2.5 | 5.8 | 115.2 | 9.26 | 83.6 | 89.3 | 3.65 | 167.1 | 119.3 | 0.71 | 7.93 | 194.2 | 21.1 |
| | 35.0 | 3.7 | 8.4 | 118.1 | 9.32 | 86.2 | 89.9 | 3.71 | 170.3 | 120.6 | 0.71 | 7.68 | 196.5 | 22.2 |
| 60 | 20.0 | 1.2 | 2.7 | 124.1 | 9.48 | 91.8 | 91.0 | 3.84 | 159.3 | 114.3 | 0.72 | 8.84 | 189.4 | 18.0 |
| | 28.0 | 2.4 | 5.6 | 127.8 | 9.56 | 95.1 | 91.7 | 3.92 | 162.0 | 115.8 | 0.72 | 8.54 | 191.1 | 19.0 |
| | 35.0 | 3.5 | 8.2 | 130.9 | 9.64 | 98.0 | 92.2 | 3.98 | 164.4 | 117.2 | 0.71 | 8.27 | 192.6 | 19.9 |
| 70 | 20.0 | 1.2 | 2.7 | 136.4 | 9.77 | 103.0 | 93.3 | 4.09 | 155.0 | 110.8 | 0.71 | 9.46 | 187.3 | 16.4 |
| | 28.0 | 2.4 | 5.5 | 140.3 | 9.86 | 106.7 | 94.0 | 4.17 | 156.8 | 112.4 | 0.72 | 9.14 | 188.0 | 17.2 |
| | 35.0 | 3.4 | 7.9 | 143.8 | 9.95 | 109.8 | 94.6 | 4.23 | 158.4 | 113.8 | 0.72 | 8.86 | 188.6 | 17.9 |
| 80 | 20.0 | 1.2 | 2.7 | 148.6 | 10.07 | 114.2 | 95.5 | 4.33 | 149.2 | 106.9 | 0.72 | 10.30 | 184.4 | 14.5 |
| | 28.0 | 2.3 | 5.3 | 151.4 | 10.11 | 116.9 | 96.0 | 4.39 | 151.0 | 108.5 | 0.72 | 9.98 | 185.1 | 15.1 |
| | 35.0 | 3.4 | 7.8 | 154.8 | 10.21 | 119.9 | 96.7 | 4.44 | 152.6 | 109.9 | 0.72 | 9.70 | 185.7 | 15.7 |
| 90 | 20.0 | 1.2 | 2.7 | 160.8 | 10.31 | 125.6 | 97.8 | 4.57 | 141.7 | 101.8 | 0.72 | 10.90 | 178.9 | 13.0 |
| | 28.0 | 2.2 | 5.2 | 162.5 | 10.37 | 127.1 | 98.1 | 4.59 | 144.8 | 103.4 | 0.71 | 10.71 | 181.3 | 13.5 |
| | 35.0 | 3.4 | 7.8 | 165.8 | 10.47 | 130.0 | 98.7 | 4.64 | 146.8 | 106.0 | 0.72 | 10.54 | 182.8 | 13.9 |
| 100 | 20.0 | 1.2 | 2.7 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 28.0 | 2.2 | 5.0 | | | | | | 136.7 | 101.3 | 0.74 | 11.80 | 176.9 | 11.6 |
| | 35.0 | 3.2 | 7.5 | | | | | | 138.7 | 103.5 | 0.75 | 11.62 | 178.4 | 11.9 |
| 110 | 20.0 | 1.2 | 2.7 | | | | | | Operation not recommended | | | | | |
| | 28.0 | 2.1 | 4.9 | | | | | | 128.4 | 99.0 | 0.77 | 12.90 | 172.4 | 10.0 |
| | 35.0 | 3.2 | 7.4 | | | | | | 130.7 | 101.1 | 0.77 | 12.71 | 174.0 | 10.3 |
| 120 | 20.0 | 1.2 | 2.7 | | | | | | Operation not recommended | | | | | |
| | 28.0 | 2.1 | 4.8 | | | | | | 118.0 | 95.2 | 0.81 | 14.27 | 166.7 | 8.3 |
| | 35.0 | 3.0 | 6.9 | | | | | | 120.4 | 97.0 | 0.81 | 13.99 | 168.2 | 8.6 |

# Vertical YL180 - Performance Data

## Belt Drive - Dual Circuit - 5600 CFM

| EWT | WATER FLOW | WPD | | HEATING - EAT 70 °F | | | | | COOLING - EAT 80/67 °F | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °F | GPM | PSI | FT | HC | KW | HE | LAT | COP | TC | SC | S/T | KW | HR | EER |
| 20 | 22.0 | 1.5 | 3.5 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 34.0 | 4.0 | 9.2 | | | | | | | | | | | |
| | 45.0 | 6.4 | 14.9 | | | | | | | | | | | |
| 30 | 22.0 | 1.5 | 3.5 | Operation not recommended | | | | | | | | | | |
| | 34.0 | 4.0 | 9.1 | 119.7 | 10.20 | 84.9 | 87.8 | 3.44 | | | | | | |
| | 45.0 | 6.4 | 14.8 | 123.0 | 10.33 | 87.8 | 88.3 | 3.49 | | | | | | |
| 40 | 22.0 | 1.5 | 3.5 | 129.6 | 10.43 | 94.1 | 89.4 | 3.64 | 176.8 | 122.3 | 0.69 | 8.78 | 206.8 | 20.1 |
| | 34.0 | 3.9 | 9.1 | 134.9 | 10.64 | 98.6 | 90.3 | 3.72 | 179.7 | 127.8 | 0.71 | 8.42 | 208.4 | 21.3 |
| | 45.0 | 6.3 | 14.4 | 140.0 | 10.82 | 103.1 | 91.1 | 3.79 | 182.8 | 129.7 | 0.71 | 8.03 | 210.2 | 22.8 |
| 50 | 22.0 | 1.5 | 3.5 | 146.0 | 10.89 | 108.8 | 92.1 | 3.93 | 172.5 | 121.3 | 0.70 | 9.49 | 204.9 | 18.2 |
| | 34.0 | 3.9 | 9.0 | 151.7 | 11.10 | 113.9 | 93.1 | 4.01 | 175.7 | 124.7 | 0.71 | 9.11 | 206.8 | 19.3 |
| | 45.0 | 6.1 | 14.1 | 157.0 | 11.30 | 118.4 | 94.0 | 4.07 | 178.7 | 127.8 | 0.72 | 8.77 | 208.6 | 20.4 |
| 60 | 22.0 | 1.5 | 3.5 | 166.1 | 11.39 | 127.2 | 95.5 | 4.27 | 168.4 | 120.3 | 0.71 | 10.30 | 203.5 | 16.3 |
| | 34.0 | 3.9 | 8.9 | 172.3 | 11.60 | 132.7 | 96.5 | 4.35 | 172.1 | 123.2 | 0.72 | 9.91 | 205.9 | 17.4 |
| | 45.0 | 6.1 | 14.0 | 178.0 | 11.79 | 137.8 | 97.4 | 4.42 | 175.4 | 125.8 | 0.72 | 9.55 | 208.0 | 18.4 |
| 70 | 22.0 | 1.5 | 3.5 | 186.1 | 11.89 | 145.5 | 98.8 | 4.59 | 164.3 | 119.3 | 0.73 | 11.11 | 202.2 | 14.8 |
| | 34.0 | 3.8 | 8.9 | 192.8 | 12.09 | 151.6 | 99.9 | 4.67 | 168.4 | 121.6 | 0.72 | 10.70 | 204.9 | 15.7 |
| | 45.0 | 6.0 | 13.9 | 199.0 | 12.28 | 157.1 | 100.9 | 4.75 | 172.1 | 123.8 | 0.72 | 10.33 | 207.3 | 16.7 |
| 80 | 22.0 | 1.5 | 3.5 | 210.6 | 12.43 | 168.2 | 102.8 | 4.97 | 161.0 | 117.6 | 0.73 | 11.98 | 201.9 | 13.4 |
| | 34.0 | 3.8 | 8.8 | 217.9 | 12.62 | 174.8 | 104.0 | 5.06 | 165.1 | 119.9 | 0.73 | 11.57 | 204.5 | 14.3 |
| | 45.0 | 5.9 | 13.6 | 224.0 | 12.79 | 180.4 | 105.0 | 5.13 | 168.8 | 122.1 | 0.72 | 11.20 | 207.0 | 15.1 |
| 90 | 22.0 | 1.5 | 3.5 | 237.8 | 12.99 | 193.5 | 107.3 | 5.37 | 159.7 | 115.5 | 0.72 | 13.02 | 204.1 | 12.3 |
| | 34.0 | 3.8 | 8.8 | 245.6 | 13.18 | 200.7 | 108.6 | 5.46 | 163.2 | 117.3 | 0.72 | 12.54 | 206.0 | 13.0 |
| | 45.0 | 5.8 | 13.4 | 249.0 | 13.30 | 203.6 | 109.2 | 5.49 | 165.5 | 120.3 | 0.73 | 12.06 | 206.6 | 13.7 |
| 100 | 22.0 | 1.5 | 3.5 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 34.0 | 3.8 | 8.7 | | | | | | 159.2 | 115.7 | 0.73 | 13.63 | 205.7 | 11.7 |
| | 45.0 | 5.7 | 13.2 | | | | | | 161.7 | 118.4 | 0.73 | 13.23 | 206.8 | 12.2 |
| 110 | 22.0 | 1.5 | 3.5 | | | | | | Operation not recommended | | | | | |
| | 34.0 | 3.7 | 8.7 | | | | | | 155.1 | 114.0 | 0.73 | 14.78 | 205.5 | 10.5 |
| | 45.0 | 5.7 | 13.2 | | | | | | 157.8 | 116.4 | 0.74 | 14.40 | 206.9 | 11.0 |
| 120 | 22.0 | 1.5 | 3.5 | | | | | | Operation not recommended | | | | | |
| | 34.0 | 3.7 | 8.6 | | | | | | 151.9 | 112.8 | 0.74 | 16.01 | 206.5 | 9.5 |
| | 45.0 | 5.6 | 12.9 | | | | | | 155.0 | 115.0 | 0.74 | 15.75 | 208.7 | 9.8 |

# Vertical YL240 - Performance Data

## Belt Drive - Dual Circuit - 7600 CFM

| EWT | WATER FLOW | WPD | | HEATING - EAT 70 °F | | | | | COOLING - EAT 80/67 °F | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °F | GPM | PSI | FT | HC | KW | HE | LAT | COP | TC | SC | S/T | KW | HR | EER |
| 20 | 30.0 | 0.9 | 2.2 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 45.0 | 2.3 | 5.3 | | | | | | | | | | | |
| | 60.0 | 3.7 | 8.6 | | | | | | | | | | | |
| 30 | 30.0 | 0.9 | 2.1 | Operation not recommended | | | | | | | | | | |
| | 45.0 | 2.2 | 5.1 | 178.9 | 10.81 | 142.0 | 89.8 | 4.85 | | | | | | |
| | 60.0 | 3.5 | 8.0 | 192.0 | 10.93 | 154.7 | 91.4 | 5.15 | | | | | | |
| 40 | 30.0 | 0.9 | 2.0 | 192.4 | 11.12 | 154.5 | 91.4 | 5.07 | 267.0 | 178.0 | 0.67 | 9.13 | 298.1 | 29.3 |
| | 45.0 | 2.1 | 4.9 | 200.6 | 11.22 | 162.3 | 92.4 | 5.24 | 268.7 | 182.7 | 0.68 | 8.82 | 298.8 | 30.5 |
| | 60.0 | 3.4 | 7.8 | 212.9 | 11.35 | 174.1 | 93.9 | 5.50 | 273.3 | 185.5 | 0.68 | 8.73 | 303.1 | 31.3 |
| 50 | 30.0 | 0.8 | 1.9 | 215.1 | 11.51 | 175.9 | 94.2 | 5.48 | 266.3 | 180.4 | 0.68 | 9.69 | 299.4 | 27.5 |
| | 45.0 | 2.1 | 4.7 | 224.4 | 11.64 | 184.7 | 95.3 | 5.65 | 268.2 | 182.2 | 0.68 | 9.39 | 300.2 | 28.6 |
| | 60.0 | 3.3 | 7.6 | 233.7 | 11.78 | 193.5 | 96.5 | 5.82 | 270.0 | 184.0 | 0.68 | 9.08 | 301.0 | 29.7 |
| 60 | 30.0 | 0.8 | 1.8 | 242.6 | 11.92 | 201.9 | 97.6 | 5.96 | 258.2 | 175.7 | 0.68 | 10.32 | 293.4 | 25.0 |
| | 45.0 | 2.0 | 4.6 | 253.3 | 12.10 | 212.0 | 98.9 | 6.14 | 260.3 | 177.8 | 0.68 | 10.02 | 294.5 | 26.0 |
| | 60.0 | 3.2 | 7.3 | 264.0 | 12.27 | 222.1 | 100.2 | 6.31 | 262.4 | 180.0 | 0.69 | 9.72 | 295.5 | 27.0 |
| 70 | 30.0 | 0.8 | 1.7 | 270.1 | 12.34 | 228.0 | 100.9 | 6.42 | 250.2 | 171.0 | 0.68 | 10.94 | 287.5 | 22.9 |
| | 45.0 | 1.9 | 4.4 | 282.2 | 12.55 | 239.4 | 102.4 | 6.59 | 252.4 | 173.5 | 0.69 | 10.65 | 288.8 | 23.7 |
| | 60.0 | 3.1 | 7.1 | 294.3 | 12.77 | 250.8 | 103.9 | 6.76 | 254.7 | 175.9 | 0.69 | 10.35 | 290.0 | 24.6 |
| 80 | 30.0 | 0.7 | 1.7 | 303.3 | 12.77 | 259.7 | 104.9 | 6.96 | 235.4 | 168.2 | 0.71 | 11.67 | 275.3 | 20.2 |
| | 45.0 | 1.8 | 4.2 | 317.2 | 13.03 | 272.7 | 106.6 | 7.13 | 237.7 | 170.7 | 0.72 | 11.38 | 276.5 | 20.9 |
| | 60.0 | 3.0 | 6.9 | 327.2 | 13.22 | 282.0 | 107.9 | 7.25 | 240.0 | 173.2 | 0.72 | 11.08 | 277.8 | 21.7 |
| 90 | 30.0 | 0.7 | 1.6 | 339.8 | 13.22 | 294.7 | 109.4 | 7.53 | 217.3 | 163.6 | 0.75 | 12.36 | 259.5 | 17.6 |
| | 45.0 | 1.8 | 4.1 | 355.6 | 13.53 | 309.5 | 111.3 | 7.70 | 222.0 | 166.1 | 0.75 | 12.12 | 263.4 | 18.3 |
| | 60.0 | 2.9 | 6.7 | 360.0 | 13.68 | 313.3 | 111.9 | 7.71 | 225.2 | 170.4 | 0.76 | 11.81 | 265.5 | 19.1 |
| 100 | 30.0 | 0.7 | 1.5 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 45.0 | 1.7 | 3.9 | | | | | | 209.2 | 160.0 | 0.76 | 12.87 | 253.1 | 16.3 |
| | 60.0 | 2.7 | 6.3 | | | | | | 212.4 | 163.6 | 0.77 | 12.84 | 256.2 | 16.5 |
| 110 | 30.0 | 0.6 | 1.4 | | | | | | Operation not recommended | | | | | |
| | 45.0 | 1.6 | 3.8 | | | | | | 196.1 | 153.4 | 0.78 | 13.70 | 242.9 | 14.3 |
| | 60.0 | 2.4 | 5.5 | | | | | | 199.5 | 156.7 | 0.79 | 13.86 | 246.8 | 14.4 |
| 120 | 30.0 | 0.6 | 1.4 | | | | | | Operation not recommended | | | | | |
| | 45.0 | 1.6 | 3.6 | | | | | | 182.1 | 147.2 | 0.81 | 14.59 | 231.9 | 12.5 |
| | 60.0 | 2.4 | 5.5 | | | | | | 185.9 | 150.0 | 0.81 | 14.91 | 236.7 | 12.5 |

Contractor:P.O.: _____ _____

Engineer: _____

Project Name: _____ Unit Tag: _____

**Affinity Large Series**
**Single & Dual Capacity**
**7 - 25 Tons 60Hz**

YORK®

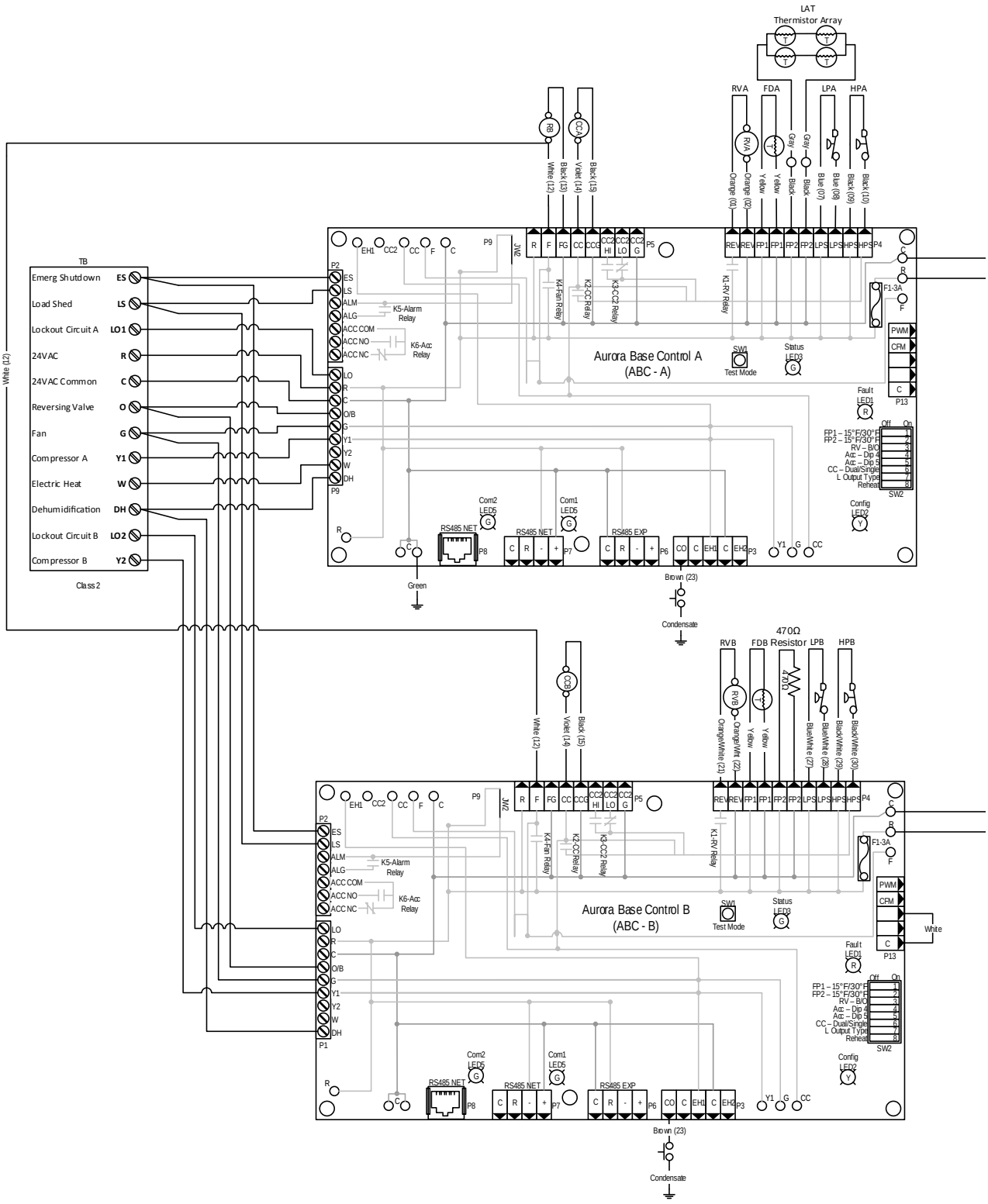
# Vertical YL300 - Performance Data

## Belt Drive - Dual Circuit - 9500 CFM

| EWT | WATER FLOW | WPD | | HEATING - EAT 70 °F | | | | | COOLING - EAT 80/67 °F | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °F | GPM | PSI | FT | HC | KW | HE | LAT | COP | TC | SC | S/T | KW | HR | EER |
| 20 | 35.0 | 2.0 | 4.6 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 56.0 | 4.2 | 9.7 | | | | | | | | | | | |
| | 75.0 | 6.3 | 14.7 | | | | | | | | | | | |
| 30 | 35.0 | 1.8 | 4.3 | Operation not recommended | | | | | | | | | | |
| | 56.0 | 4.1 | 9.4 | 218.4 | 17.07 | 160.2 | 89.3 | 3.75 | | | | | | |
| | 75.0 | 6.1 | 14.1 | 225.0 | 17.15 | 166.5 | 89.9 | 3.85 | | | | | | |
| 40 | 35.0 | 1.7 | 4.0 | 233.3 | 17.71 | 172.9 | 90.7 | 3.86 | 305.4 | 209.0 | 0.68 | 12.95 | 349.6 | 23.6 |
| | 56.0 | 4.0 | 9.2 | 244.1 | 17.74 | 183.6 | 91.8 | 4.03 | 314.6 | 211.1 | 0.67 | 12.36 | 356.7 | 25.4 |
| | 75.0 | 6.0 | 13.9 | 254.7 | 17.87 | 193.7 | 92.8 | 4.18 | 320.0 | 214.3 | 0.67 | 11.84 | 360.4 | 27.0 |
| 50 | 35.0 | 1.6 | 3.7 | 259.0 | 18.25 | 196.7 | 93.2 | 4.16 | 297.0 | 207.8 | 0.70 | 14.25 | 345.6 | 20.8 |
| | 56.0 | 3.9 | 9.0 | 272.3 | 18.42 | 209.5 | 94.5 | 4.33 | 303.8 | 210.5 | 0.69 | 13.60 | 350.2 | 22.3 |
| | 75.0 | 6.0 | 13.7 | 284.4 | 18.58 | 221.0 | 95.7 | 4.49 | 310.0 | 213.0 | 0.69 | 13.02 | 354.4 | 23.8 |
| 60 | 35.0 | 1.5 | 3.5 | 289.6 | 18.82 | 225.4 | 96.2 | 4.51 | 289.4 | 206.6 | 0.71 | 15.77 | 343.2 | 18.3 |
| | 56.0 | 3.8 | 8.7 | 306.3 | 19.16 | 240.9 | 97.9 | 4.68 | 296.6 | 209.2 | 0.71 | 15.06 | 348.0 | 19.7 |
| | 75.0 | 5.9 | 13.5 | 321.4 | 19.47 | 255.0 | 99.3 | 4.84 | 303.1 | 211.5 | 0.70 | 14.41 | 352.3 | 21.0 |
| 70 | 35.0 | 1.4 | 3.2 | 320.2 | 19.39 | 254.0 | 99.2 | 4.84 | 281.7 | 205.4 | 0.73 | 17.30 | 340.7 | 16.3 |
| | 56.0 | 3.7 | 8.5 | 340.2 | 19.90 | 272.3 | 101.2 | 5.01 | 289.3 | 207.8 | 0.72 | 16.51 | 345.7 | 17.5 |
| | 75.0 | 5.8 | 13.3 | 358.4 | 20.36 | 288.9 | 102.9 | 5.16 | 296.3 | 210.0 | 0.71 | 15.80 | 350.2 | 18.7 |
| 80 | 35.0 | 1.3 | 3.0 | 356.7 | 19.98 | 288.5 | 102.8 | 5.23 | 274.6 | 204.5 | 0.74 | 18.82 | 338.8 | 14.6 |
| | 56.0 | 3.6 | 8.3 | 381.1 | 20.68 | 310.5 | 105.1 | 5.40 | 282.2 | 206.9 | 0.73 | 18.03 | 343.7 | 15.7 |
| | 75.0 | 5.6 | 13.0 | 399.2 | 21.18 | 326.9 | 106.9 | 5.52 | 289.1 | 209.1 | 0.72 | 17.32 | 348.2 | 16.7 |
| 90 | 35.0 | 1.2 | 2.8 | 396.7 | 20.59 | 326.4 | 106.7 | 5.65 | 267.4 | 199.9 | 0.75 | 21.03 | 339.2 | 12.7 |
| | 56.0 | 3.5 | 8.1 | 426.0 | 21.49 | 352.6 | 109.5 | 5.81 | 275.4 | 202.9 | 0.74 | 19.87 | 343.2 | 13.9 |
| | 75.0 | 5.5 | 12.6 | 440.0 | 22.00 | 364.9 | 110.9 | 5.86 | 282.0 | 208.1 | 0.74 | 18.84 | 346.3 | 15.0 |
| 100 | 35.0 | 1.1 | 2.6 | Operation not recommended | | | | | Operation not recommended | | | | | |
| | 56.0 | 3.4 | 7.9 | | | | | | 268.7 | 199.5 | 0.74 | 22.12 | 344.2 | 12.1 |
| | 75.0 | 5.3 | 12.2 | | | | | | 275.0 | 204.0 | 0.74 | 20.85 | 346.2 | 13.2 |
| 110 | 35.0 | 1.0 | 2.4 | | | | | | Operation not recommended | | | | | |
| | 56.0 | 3.3 | 7.7 | | | | | | 263.4 | 195.6 | 0.74 | 24.38 | 346.6 | 10.8 |
| | 75.0 | 5.1 | 11.8 | | | | | | 268.0 | 199.8 | 0.75 | 22.87 | 346.0 | 11.7 |
| 120 | 35.0 | 1.0 | 2.3 | | | | | | Operation not recommended | | | | | |
| | 56.0 | 3.2 | 7.5 | | | | | | 252.8 | 193.6 | 0.77 | 26.86 | 344.5 | 9.4 |
| | 75.0 | 5.0 | 11.6 | | | | | | 258.0 | 197.3 | 0.76 | 25.33 | 344.4 | 10.2 |

# Wiring Schematic - Aurora Base Control

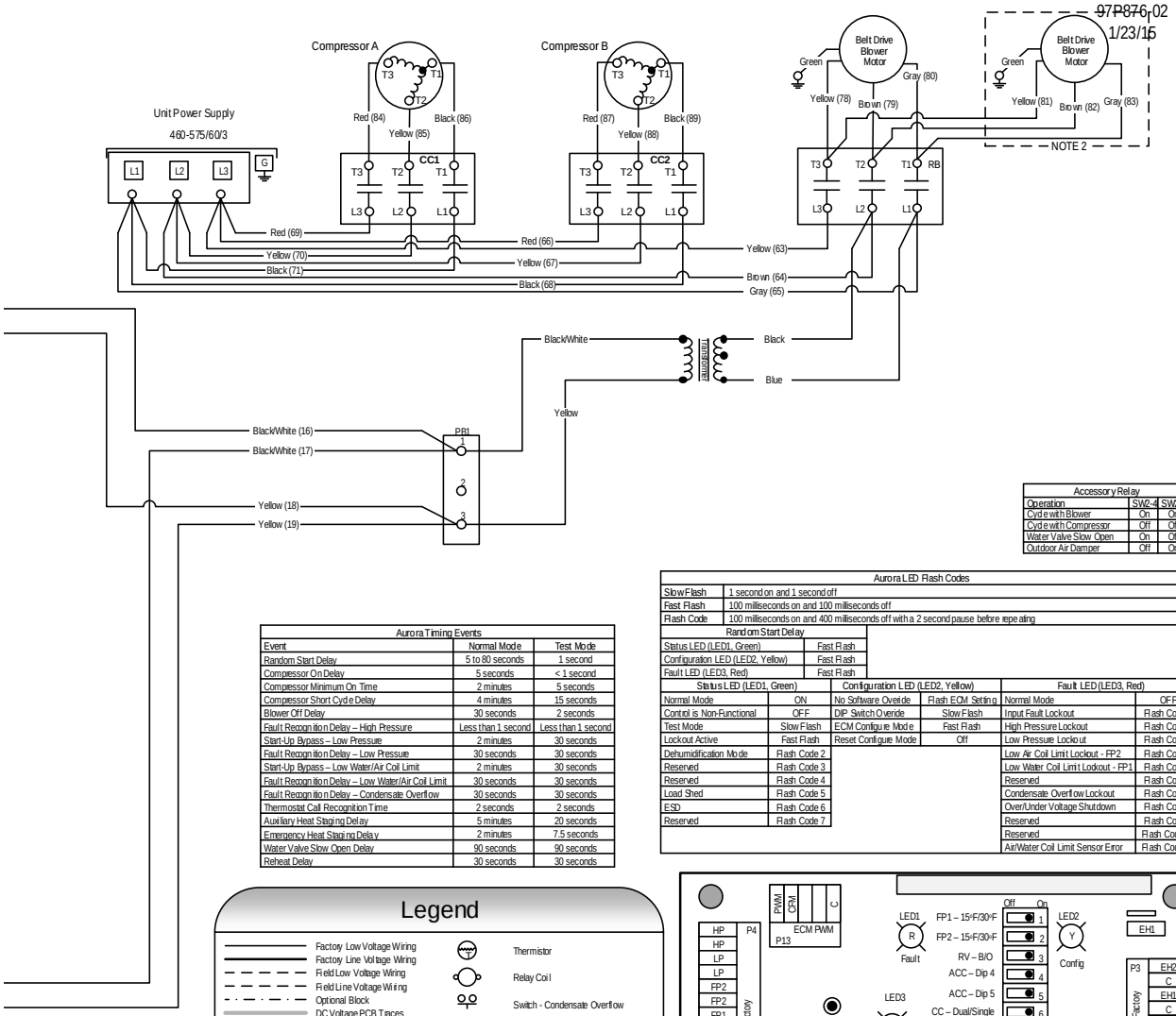
## 460/-575/60/3



# Wiring Schematic - Aurora Base Control cont.

## 460-575/60/3

97P876-02
1/23/15




| Accessory Relay | | |
|---|---|---|
| Operation | SW2-4 | SW2-5 |
| Cycle with Blower | On | On |
| Cycle with Compressor | Off | Off |
| Water Valve Slow Open | On | Off |
| Outdoor Air Damper | Off | On |

| Aurora Timing Events | | |
|---|---|---|
| Event | Normal Mode | Test Mode |
| Random Start Delay | 5 to 80 seconds | 1 second |
| Compressor On Delay | 5 seconds | < 1 second |
| Compressor Minimum On Time | 2 minutes | 5 seconds |
| Compressor Short Cycle Delay | 4 minutes | 15 seconds |
| Blower Off Delay | 30 seconds | 2 seconds |
| Fault Recognition Delay – High Pressure | Less than 1 second | Less than 1 second |
| Start-Up Bypass – Low Pressure | 2 minutes | 30 seconds |
| Fault Recognition Delay – Low Pressure | 30 seconds | 30 seconds |
| Start-Up Bypass – Low Water/Air Coil Limit | 2 minutes | 30 seconds |
| Fault Recognition Delay – Low Water/Air Coil Limit | 30 seconds | 30 seconds |
| Fault Recognition Delay – Condensate Overflow | 30 seconds | 30 seconds |
| Thermostat Call Recognition Time | 2 seconds | 2 seconds |
| Auxiliary Heat Staging Delay | 5 minutes | 20 seconds |
| Emergency Heat Staging Delay | 2 minutes | 7.5 seconds |
| Water Valve Slow Open Delay | 90 seconds | 90 seconds |
| Reheat Delay | 30 seconds | 30 seconds |

| Aurora LED Flash Codes | |
|---|---|
| Slow Flash | 1 second on and 1 second off |
| Fast Flash | 100 milliseconds on and 100 milliseconds off |
| Flash Code | 100 milliseconds on and 400 milliseconds off with a 2 second pause before repeating |

| Random Start Delay | |
|---|---|
| Status LED (LED1, Green) | Fast Flash |
| Configuration LED (LED2, Yellow) | Fast Flash |
| Fault LED (LED3, Red) | Fast Flash |

| Status LED (LED1, Green) | | Configuration LED (LED2, Yellow) | | Fault LED (LED3, Red) | |
|---|---|---|---|---|---|
| Normal Mode | ON | No Software Override | Flash ECM Setting | Normal Mode | OFF |
| Control is Non-Functional | OFF | DIP Switch Override | Slow Flash | Input Fault Lockout | Flash Code 1 |
| Test Mode | Slow Flash | ECM Configure Mode | Fast Flash | High Pressure Lockout | Flash Code 2 |
| Lockout Active | Fast Flash | Reset Configure Mode | Off | Low Pressure Lockout | Flash Code 3 |
| Dehumidification Mode | Flash Code 2 | | | Low Air Coil Limit Lockout - FP2 | Flash Code 4 |
| Reserved | Flash Code 3 | | | Low Water Coil Limit Lockout - FP1 | Flash Code 5 |
| Reserved | Flash Code 4 | | | Reserved | Flash Code 6 |
| Load Shed | Flash Code 5 | | | Condensate Overflow Lockout | Flash Code 7 |
| ESD | Flash Code 6 | | | Over/Under Voltage Shutdown | Flash Code 8 |
| Reserved | Flash Code 7 | | | Reserved | Flash Code 9 |
| | | | | Reserved | Flash Code 10 |
| | | | | Air/Water Coil Limit Sensor Error | Flash Code 11 |

## Legend

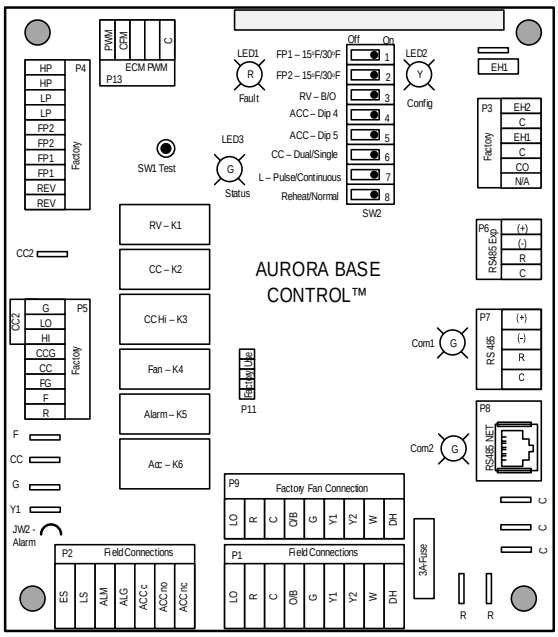
- Factory Low Voltage Wiring
- Factory Line Voltage Wiring
- Field Low Voltage Wiring
- Field Line Voltage Wiring
- Optional Block
- DC Voltage PCB Traces
- Field Zone Sensor Wiring
- Internal Junction
- Quick Connect Terminal
- Field Wiring Lug
- Ground
- Relay Contacts – N.O., N.C.
- Capacitor
- Fuse
- Thermistor
- Relay Coil
- Switch - Condensate Overflow
- Switch - High pressure
- Switch - Low pressure
- Polarized connector
- Light Emitting Diode - Green
- Light Emitting Diode - Yellow
- Light Emitting Diode - Red

CCA – Compressor Contactor A
CCB – Compressor Contactor B
CO – Condensate Overflow Sensor
ES – Emergency Shutdown
HPA – High Pressure Switch A
HPB – High Pressure Switch B
LPA – Low Pressure Switch A
LPB – Low Pressure Switch B
FDA – Freeze Detection Sensor A
FDB – Freeze Detection Sensor B
F1 – Fuse

SW1 – Push button
SW2 – DIP package 8 position
RB – Blower Relay
RVA – Reversing Valve Coil A
RVB – Reversing Valve Coil B
PGM – Phase Guard Monitor
RH – Reheat Valve Coil

## Notes:

1 – Only on units equipped with two fan motors.



# Engineering Guide Specifications

### General

Furnish and install York Water Source Heat Pumps, as indicated on the plans. Equipment shall be completely assembled, piped and internally wired. Capacities and characteristics as listed in the schedule and the specifications that follow. The reverse cycle heating/cooling units shall be either suspended type with horizontal air inlet and discharge or floor mounted type with horizontal air inlet and vertical upflow/side air discharge. Units shall be AHRI/ISO 13256-1 certified (080-120) and listed by a nationally recognized safety-testing laboratory or agency, such as ETL Testing Laboratory. Each unit shall be computer run-tested at the factory with conditioned water and operation verified to catalog data. The units shall be designed to operate with entering liquid temperature between 20°F and 120°F [-6.7°C and 48.9°C]. Refer to the performance data tables actual operating range.

### Casing and Cabinet

The cabinet shall be fabricated from heavy-gauge galvanized steel and finished with corrosion-resistant powder coating (vertical units). This corrosion protection system shall meet the stringent 1000 hour salt spray test per ASTM B117. The interior shall be insulated with 1/2-inch thick, multi-density, Cleanable aluminum foil coated glass fiber with edges sealed or tucked under flanges to prevent the introduction of glass fibers into the discharge air. Standard cabinet panel insulation must meet NFPA 90A requirements, air erosion and mold growth limits of UL-181, stringent fungal resistance test per ASTM-C1071 and ASTM G21, and shall meet zero level bacteria growth per ASTM G22. Unit insulation must meet these stringent requirements or unit(s) will not be accepted.

Blower and compressor compartment access panels shall be 'lift-out' removable with supply and return ductwork in place.

A duct collar shall be provided on the supply air opening. Standard size 2 in. [5.1 cm] disposable filters shall be provided with each unit. The upflow vertical units shall have a removable insulated divider panel between the air handling section and the compressor section to minimize the transmission of compressor noise and to permit operational service testing without air bypass. Vertical units shall be supplied with left or right horizontal air inlet and top or side air discharge. Horizontal units shall be supplied with left or right air inlet and end or side air discharge.

Option: A 2 in. [5.1 cm] wide MERV 13 filter shall be installed In filter rack for high efficiency filter applications.

The compressor shall be double isolation mounted (160-300) using selected durometer grommets to provide vibration free compressor mounting. The compressor mounting bracket shall be acoustically deadened galvanized steel to prevent vibration transmission to the cabinet.

Option: A Super Quiet Sound package shall include multi-density full coverage compressor blanket.

The drain pan shall be of plastic (080-120) or stainless steel (080-300) construction to inhibit corrosion inhibit bacterial growth. Drain outlet shall be located on pan as to allow complete and unobstructed drainage of condensate. The unit as standard will be supplied with solid-state electronic condensate overflow protection. Mechanical float switches WILL NOT be accepted. Vertical units shall be furnished with a copper FPT condensate drain connection and an internal factory installed condensate trap. Horizontal units shall have a pipe drain connection suitable for standard 3/4 in. PVC glue fittings.

### Refrigerant Circuit

All units shall utilize the non-ozone depleting and low global warming potential refrigerant R-410A. All units shall contain a sealed refrigerant circuit including a hermetic motor-compressor, bidirectional thermostatic expansion valve, finned tube air-to-refrigerant heat exchanger, reversing valve, coaxial tube water-to-refrigerant heat exchanger, optional hot water generator coil, and service ports.

Compressors shall be high-efficiency single scroll type designed for heat pump duty and mounted on vibration isolators.

The air coil shall be sized for low-face velocity and constructed of lanced aluminum fins bonded to rifled aluminum tubes in a staggered pattern not less than three rows deep for enhanced performance. AlumiSeal™ electro-coated air coil for maximum protection against formicary corrosion.

The coaxial water-to-refrigerant heat exchanger shall be designed for low water pressure drop and constructed of a convoluted copper inner tube and a steel outer tube. Refrigerant to air heat exchangers shall utilize enhanced corrugated lanced aluminum fins and rifled copper tube construction rated to withstand 600 PSIG (4135 kPa) refrigerant working pressure. Refrigerant to water heat exchangers shall be of copper inner water tube and steel refrigerant outer tube design, rated to withstand 600 PSIG (4135 kPa) working refrigerant pressure and 450 PSIG (3101 kPa) working water pressure. The thermostatic expansion valve shall provide proper superheat over the entire liquid temperature range with minimal "hunting." The valve shall operate bi-directionally without the use of check valves.

# Engineering Guide Specifications cont.

Option: Cupronickel refrigerant to water heat exchangers shall be of copper-nickel inner water tube and steel refrigerant outer tube design, rated to withstand 600 PSIG (4135 kPa) working refrigerant pressure and 450 PSIG (3101 kPa) working water pressure. Water lines shall also be of cupronickel construction.

Option: Insulated water-to-refrigerant heat exchanger and refrigerant suction lines shall be insulated to prevent condensation at low liquid temperatures.
Option: Insulated water-to-refrigerant heat exchanger, water lines and refrigerant suction lines shall be insulated to prevent condensation at low liquid temperatures below 50 °F.

### Blower and Motor Assembly

All units shall have belt-driven centrifugal blowers. Blower motors shall be permanently lubricated with thermal overload protection. Units supplied without permanently lubricated motors must provide external oilers for easy service. The blower shall be double-width double inlet forward curved with dynamically balanced wheels. Blower motors shall be 1725 rpm, 56 frame sealed ball bearing type. The drive shall include fixed pitch blower sheave and variable pitch motor sheave sized for 115% of the blower brake horsepower. The blower and motor assembly must be capable of overcoming the external static pressures as shown on the schedule. Airflow / Static pressure rating of the unit shall be based on a wet coil and a clean filter in place. Ratings based on a dry coil and/or no filter, or on an ESP less than 0.25 in. (6.35 mm w.g.) shall NOT be acceptable.

Option: Various blower drive packages for selectable static pressure/airflow.

Option: High static blower motors available on select models.

### Electrical

A control box shall be located within the unit compressor compartment and shall contain a 75VA transformer, 24 Volt activated, 2 pole compressor contactor, terminal block for thermostat wiring and solid-state controller for complete unit operation. Electro-mechanical operation WILL NOT be accepted. Units shall be name-plated for use with time delay fuses or HACR circuit breakers. Unit controls shall be 24 Volt and provide heating or cooling as required by the remote thermostat/sensor.

An Aurora microprocessor-based controller that interfaces with a multi-stage electronic thermostat to monitor and control unit operation shall be provided. The control shall provide operational sequencing, blower speed control, high and low pressure switch monitoring, freeze detection, condensate overflow sensing, lockout mode control, LED status and fault indicators, fault memory, field selectable options and accessory output. The control shall provide fault retry three times before locking out to limit nuisance trips.

A detachable terminal block with screw terminals will be provided for field control wiring. All units shall have knockouts for entrance of low and line voltage wiring. The blower motor and control box shall be harness plug wired for easy removal.

### Piping

Supply and return water connections shall be copper fittings which eliminate the need for backup wrenches when making field connections. Optionally, all water piping shall be insulated to prevent condensation at low liquid temperatures.

# Revision Guide

| Pages: | Description: | Date: | By: |
|---|---|---|---|
| All | Removed FX10 Controls, Added Aurora Base Control | 01 June 2015 | MA |
| 2,7 | Updated Nomenclature, Updated Physical Data Table | 23 Jan 2015 | MA |
| All | First Published | 21 Oct 2013 | DS |