

**C5H3V  
Variable Speed Heat Pump  
with R-454B Refrigerant  
3 to 5 Nominal Tons**



## PRODUCT DATA



Model C5H3V is another breakthrough product providing up to 10 HSPF2 heating efficiency and up to 23 SEER2 cooling efficiency. The variable speed capacity control results in strong heating capacity as the outdoor temperature drops resulting in less reliance on auxiliary heat. Lower speed operation is available when needed in cooling for enhanced comfort and dehumidification.

This product has been designed and manufactured to meet Energy Star® criteria for energy efficiency when matched with appropriate coil components. Refer to the AHRI directory ([www.ahridirectory.org](http://www.ahridirectory.org)) for the most up-to-date ratings information.

### Industry leading Features / Benefits

#### Energy Efficiency

- Up to 23 SEER2, 13 EER2, 9.5 HSPF2
- Indoor air quality accessories available

#### Sound

- Sound level as low as 55 dBA in low speed

#### Comfort

- Variable speed compressor with capacity range from 20-100%
- Air cooled variable frequency drive
  - Ion™ Black System Control required
  - Energy Tracking capability with the Ion™ Black System Control and latest software version  
(Energy Tracking has the ability to monitor and estimate the energy consumption of your Ion™ system.)

#### Reliability

- Non-ozone depleting, low global warming potential R-454B refrigerant
- High pressure switch
- Suction and discharge pressure transducer
- Electronic expansion valve (EXV) for optimum heating performance
- Filter drier (field installed)
- Internal compressor stator heat standard
- Balanced refrigeration system for maximum reliability

#### Flexibility and Installation:

- Power-V™ Technology compatible
- 2 control wires to outdoor unit
- Minimum and maximum airflow adjustments
- Compressor heating capacity control
- Dual Fuel capable

#### Durability

Protection Package:

- Solid, durable sheet metal construction
- Baked-on, complete outer coverage, powder paint

#### Applications

- Heating mode operation down to -13°F (-25°C) outdoor ambient temperature.
- Cooling mode operation up to 125°F (51.7°C) outdoor ambient temperature.
- Long-line - up to 250 feet (76.2 m) total equivalent length, up to 200 feet (60.7 m) for 5T and 100 feet (30.5 m) for 3T and 4T outdoor above indoor, or up to 80 ft. (24.4 m) indoor above outdoor (See Longline Guide for more information.)
- Low ambient cooling down to 0°F (-17.8°C) when enabled with the Ion™ Black System Control.

## MODEL NUMBER NOMENCLATURE

| C                                  | 5           | H      | 3           | V                  | 24                                        | A            | K                 | A               | A               | A            |
|------------------------------------|-------------|--------|-------------|--------------------|-------------------------------------------|--------------|-------------------|-----------------|-----------------|--------------|
| Brand                              | Refrigerant | Type   | SEER2       | OD Design Type     | Nominal Capacity                          | Feature      | Voltage           | Special Feature | Region          | Major Series |
| C= Ion™ Day & Night<br>Day & Night | 5= R-454B   | H = HP | 3= 23 SEER2 | V = Variable Speed | 36 = 3 Tons<br>48 = 4 Tons<br>60 = 5 Tons | A = Standard | K = 208--230-60-1 | A = Standard    | A = Standard HP | A = Initial  |



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to [www.ahridirectory.org](http://www.ahridirectory.org).



This product has been designed and manufactured to meet Energy Star criteria for energy efficiency when matched with appropriate coil components. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. If either of the product should fail to meet these requirements, proper charge and air flow may reduce energy efficiency and shorten equipment life.

## CATALOG ORDERING NUMBERS

| Size | Model Number |
|------|--------------|
| 36   | C5H3V36AKAAA |
| 48   | C5H3V48AKAAA |
| 60   | C5H3V60AKAAA |

## STANDARD FEATURES

| FEATURES                                       | Unit Size |    |    |
|------------------------------------------------|-----------|----|----|
|                                                | 36        | 48 | 60 |
| R-454B Refrigerant                             | X         | X  | X  |
| Variable Speed Rotary Compressor               | X         | X  |    |
| Variable Speed Scroll Compressor               |           |    | X  |
| Air-Cooling Variable Frequency Drive           | X         | X  | X  |
| Factory Provided, Field-Installed Filter Drier | X         | X  | X  |
| Front-Seating Service Valves                   | X         | X  | X  |
| In-unit Pressure and Temperature Protection    | X         | X  | X  |
| Suction and Discharge Pressure Transducers     | X         | X  | X  |
| High Pressure Switch                           | X         | X  | X  |
| Compressor Stator Heat                         | X         | X  | X  |
| Utility Interface Connections                  | X         | X  | X  |
| Energy Tracking Capability                     | X         | X  | X  |
| Sound Blanket                                  | X         | X  | X  |
| Outdoor Air Temperature Sensor                 | X         | X  | X  |
| Long Line Capability                           | X         | X  | X  |

X = Standard

## AHRI RATINGS

**NOTE:** Ratings contained in this document are subject to change at any time.

For AHRI ratings certificates, please refer to the AHRI directory [www.ahridirectory.org](http://www.ahridirectory.org)

Additional ratings and system combinations can be accessed via the Ratings Database here: [Day & Night Ratings](#)

## MIN/MAX AIRFLOW TABLES

The indoor airflow delivered by this system varies significantly based on outdoor temperature, indoor unit combination, and system demand. The airflows on these tables are for duct design considerations.

Duct systems capable of these ranges will ensure the system will deliver full capacity at all outdoor temperatures.

Minimum and maximum airflows can be adjusted from these numbers in the Ion™ Black System Control Heat Pump Setup screen.

| Size | Cooling - Comfort Mode |             | Cooling - Efficiency Mode |             |
|------|------------------------|-------------|---------------------------|-------------|
|      | Max Airflow            | Min Airflow | Max Airflow               | Min Airflow |
| 36   | 900                    | 325         | 1200                      | 550         |
| 48   | 1200                   | 500         | 1680                      | 615         |
| 60   | 1400                   | 500         | 1725                      | 850         |

| Size | Heating - Comfort Mode |             | Heating - Efficiency Mode |             |
|------|------------------------|-------------|---------------------------|-------------|
|      | Max Airflow            | Min Airflow | Max Airflow               | Min Airflow |
| 36   | 1200                   | 325         | 1400                      | 650         |
| 48   | 1610                   | 500         | 1610                      | 600         |
| 60   | 1600                   | 500         | 1850                      | 850         |

## PHYSICAL DATA

| UNIT SIZE                   | 36                                         | 48          | 60                    |
|-----------------------------|--------------------------------------------|-------------|-----------------------|
| COMPRESSOR TYPE             | Variable Speed Rotary                      |             | Variable Speed Scroll |
| REFRIGERANT                 | R-454B                                     |             |                       |
| Charge lb* (kg)             | 12.1 (5.49)                                | 12.3 (5.58) | 13.0 (5.90)           |
| Outdoor Htg Exp. Device     | EXV                                        | EXV         | EXV                   |
| COND FAN                    | Forward Swept Propeller Type, Direct Drive |             |                       |
| Air Discharge               | Vertical                                   |             |                       |
| Maximum Air Qty (CFM)       | 4700                                       | 5000        | 5000                  |
| Motor HP                    | 1/3                                        | 1/3         | 1/3                   |
| Motor RPM                   | 200-750                                    | 200-800     | 200-800               |
| COND COIL                   |                                            |             |                       |
| Face Area (sq ft.)          | 30.1                                       | 30.1        | 30.1                  |
| Fins per In.                | 20                                         | 20          | 20                    |
| Rows                        | 2                                          | 2           | 2                     |
| Circuits                    | 8                                          | 9           | 9                     |
| VALVE CONNECT. (In. ID)     |                                            |             |                       |
| Vapor                       | 7/8                                        | 7/8         | 7/8                   |
| Liquid                      | 3/8                                        |             |                       |
| REFRIGERANT TUBES† (In. OD) |                                            |             |                       |
| Rated Vapor†                | 7/8                                        | 1-1/8       | 1 - 1/8               |
| Max Rated Liquid Line‡      | 3/8                                        |             |                       |

\*.For 15 ft. lineset

†.Units are rated with 25 ft (7.6 m) of lineset length. See Vapor Line Sizing and Cooling Capacity Loss table when using other sizes and lengths of lineset.

‡.See Liquid Line Sizing For Cooling Only Systems with R-454B Refrigerant tables.

**Note:** See unit Installation Instruction for proper installation.

## ELECTRICAL DATA

| UNIT SIZE | V-PH      | OPER VOLTS* |     | COMPR |      | FAN  | MCA  | MAX FUSE† or<br>CKT BRK AMPS | SCCR    |
|-----------|-----------|-------------|-----|-------|------|------|------|------------------------------|---------|
|           |           | MAX         | MIN | MRC   | RLA  | FLA  |      |                              |         |
| 36        | 208-230-1 | 253         | 197 | 25    | 14.3 | 0.88 | 23.8 | 25                           | 5kA rms |
| 48        |           |             |     | 35    | 20.4 | 0.88 | 31.0 | 40                           | 5kA rms |
| 60        |           |             |     | 35    | 27.4 | 0.88 | 37.5 | 40                           | 5kA rms |

\*. Permissible limits of the voltage range at which the unit will operate satisfactorily

†. Time-Delay fuse.

FLA - Full Load Amps, MCA-Minimum Circuit Amps, MRC - Maximum Rated Current, RLA-Rated Load Amps

SCCR - Short-Circuit Current Rating

**NOTE:** Control circuit is 24-V on all units and requires external power source. Copper wire must be used from service disconnect to unit.

All motors/compressors contain internal overload protection.

## REFRIGERANT PIPING LENGTH LIMITATIONS

### Maximum Line Lengths:

The maximum allowable equivalent length for Heat Pumps varies depending on the vertical separation. See the tables below for allowable lengths depending on whether the outdoor unit is on the same level, above or below the outdoor unit.

**Maximum Line Lengths for Heat Pump Applications**

|                                | <b>MAXIMUM ACTUAL LENGTH*</b><br>ft (m) | <b>MAXIMUM EQUIVALENT LENGTH†</b><br>ft (m) | <b>MAXIMUM VERTICAL SEPARATION</b><br>ft (m) |
|--------------------------------|-----------------------------------------|---------------------------------------------|----------------------------------------------|
| Units on equal level           | 200 (61.0)                              | 250 (76.2)                                  | N/A                                          |
| Outdoor unit ABOVE indoor unit | 200 (61.0)                              | 250 (76.2)                                  | 5T - 200 (61.0)<br>3T/4T - 100 (30.5)        |
| Outdoor unit BELOW indoor unit | 200 (61.0)                              | 250 (76.2)                                  | 80 (24.4)                                    |

\*. Maximum actual length not to exceed 200 ft (61 m)

†. Equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

## LONG LINE APPLICATIONS

An application is considered Long Line when the refrigerant level in the system requires the use of accessories to maintain acceptable refrigerant management for systems reliability. C5H3V Heat Pumps do not require any additional accessories for Long Line applications. Defining a system as long line depends on the liquid line diameter, actual length of the tubing, and vertical separation between the indoor and outdoor units.

For heat pump systems, the chart below shows when an application is considered Long Line.

**Refrigerant Long Line Description ft (m)**

| <b>Liquid Line Size</b> | <b>Units On Same Level ft (m)</b> | <b>Outdoor Above Indoor ft (m)</b> | <b>Outdoor Below Indoor ft (m)</b>   |
|-------------------------|-----------------------------------|------------------------------------|--------------------------------------|
| 3/8                     | 80 (24.4)                         | 80 (24.4)                          | 20 (6.1) vertical or 80 (24.4) total |

**NOTE:** See Long Line Guideline for details

## COOLING CAPACITY LOSS TABLE

| <b>Nominal Size (Btuh)</b> | <b>Line OD (in)</b> | <b>Cooling Capacity Loss (%)</b> |           |           |           |            |            |            |            |            |            |            |
|----------------------------|---------------------|----------------------------------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|------------|
|                            |                     | <b>Equivalent Length (ft)</b>    |           |           |           |            |            |            |            |            |            |            |
|                            |                     | <b>25</b>                        | <b>50</b> | <b>75</b> | <b>80</b> | <b>100</b> | <b>125</b> | <b>150</b> | <b>175</b> | <b>200</b> | <b>225</b> | <b>250</b> |
| <b>36000</b>               | 5/8                 | 1.7                              | 3.9       | 6.0       | 6.5       | 8.2        | 10.2       | 12.0       | 13.8       | 15.4       | 17.0       | 18.4       |
|                            | 3/4                 | 0.4                              | 1.3       | 2.3       | 2.5       | 3.4        | 4.4        | 5.4        | 6.4        | 7.3        | 8.3        | 9.1        |
|                            | 7/8                 | 0.0                              | 0.6       | 1.1       | 1.2       | 1.8        | 2.5        | 3.2        | 3.9        | 4.5        | 5.2        | 5.8        |
| <b>48000</b>               | 3/4                 | 1.2                              | 2.6       | 4.0       | 4.5       | 5.7        | 7.3        | 8.6        | 10.0       | 11.3       | 12.5       | 13.7       |
|                            | 7/8                 | 0.5                              | 1.2       | 2.0       | 2.3       | 3.1        | 4.0        | 4.9        | 5.8        | 6.8        | 7.6        | 8.4        |
|                            | 1 1/8               | 0.0                              | 0.2       | 0.5       | 0.7       | 1.1        | 1.6        | 2.1        | 2.6        | 3.1        | 3.5        | 4.0        |
| <b>60000</b>               | 3/4                 | 1.6                              | 3.5       | 5.4       | 5.8       | 7.3        | 9.1        | 10.8       | 12.4       | 13.9       | 15.3       | 16.6       |
|                            | 7/8                 | 0.7                              | 1.6       | 2.8       | 3.0       | 3.9        | 5.0        | 6.1        | 7.1        | 8.1        | 9.1        | 10.0       |
|                            | 1 1/8               | 0.0                              | 0.3       | 0.8       | 0.9       | 1.3        | 1.8        | 2.3        | 2.8        | 3.3        | 3.8        | 4.3        |

## ACCESSORIES

| KIT NUMBER  | KIT NAME                    | 36 | 48 | 60 |
|-------------|-----------------------------|----|----|----|
| NASA00401SJ | SOUND BLANKET (ACCUMULATOR) | X  | X  |    |
| NASA00501SJ | SOUND BLANKET (ACCUMULATOR) |    |    | X  |
| NASA00201SF | SUPPORT FEET                | X  | X  | X  |
| NASA00106SS | SNOW STAND                  | X  | X  | X  |

X = Accessory

## ACCESSORY USAGE GUIDELINE

| ACCESSORY                    | REQUIRED FOR<br>LOW-AMBIENT COOLING<br>APPLICATIONS<br>(Below 55°F/12.8°C) | REQUIRED FOR LONG LINE<br>APPLICATIONS | REQUIRED FOR SEA<br>COAST APPLICATIONS<br>(Within 2 miles/3.22 km) |
|------------------------------|----------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------|
| Compressor Stator Heat       | Standard with Ion™ Black System Control                                    | No                                     | No                                                                 |
| Evaporator Freeze Protection | Standard with Ion™ Black System Control                                    | No                                     | No                                                                 |
| Low-Ambient Control          | Standard with Ion™ Black System Control                                    | No                                     | No                                                                 |
| Support Feet                 | Recommended                                                                | No                                     | Recommended                                                        |
| Winter Start Control         | Standard with Ion™ Black System Control                                    | No                                     | No                                                                 |

## Accessory Description and Usage

### Snow Stand

Coated wire rack which supports unit 18 in. (457.2 mm) above mounting pad to allow for drainage from unit base.

Usage Guideline:

Suggested in the following applications:

- Unit installations in heavy snowfall areas.
- Unit installations in snow drift locations.
- Unit installations in areas of prolonged subfreezing temperatures.
- All commercial installations.

### Sound Blanket (Accumulator)

Wraparound sound reducing cover for the accumulator. Reduces possible transient tones that may resonate in the accumulator due to variability in system operation.

Usage Guideline:

Although all units are designed and tested to eliminate unpleasant tones, in the unlikely event a transient tone is experienced, this sound blanket can reduce the tone by up to 10 dB.

### Support Feet

Four or five stick-on plastic feet that raise the unit 4 in. (101.6 mm) above the mounting pad. This allows sand, dirt, and other debris to be flushed from the unit base, minimizing corrosion.

Usage Guideline:

Suggested in the following applications:

Coastal installations.

Windy areas or where debris is normally circulating.

Rooftop installations.

For improved sound ratings.

## SOUND POWER LEVEL

| Unit Size | Typical Octave Band Spectrum (dB, without tone adjustment) | Min Cooling | Nominal* Cooling | Min Heating | Nominal* Heating |
|-----------|------------------------------------------------------------|-------------|------------------|-------------|------------------|
| 36        | Speed                                                      | 900         | 4200             | 900         | 4320             |
|           | 125                                                        | 61.3        | 65.4             | 65.3        | 65.6             |
|           | 250                                                        | 61.1        | 61.7             | 62.0        | 60.4             |
|           | 500                                                        | 51.2        | 61.4             | 50.2        | 58.1             |
|           | 1000                                                       | 46.3        | 56.3             | 45.5        | 55.0             |
|           | 2000                                                       | 39.9        | 54.3             | 37.3        | 53.8             |
|           | 4000                                                       | 36.6        | 52.3             | 37.3        | 53.0             |
|           | 8000                                                       | 45.0        | 53.3             | 45.6        | 52.6             |
|           | Sound Rating (dBA)                                         | 56          | 64               | 55          | 68               |
| 48        | Speed                                                      | 900         | 3300             | 900         | 3720             |
|           | 125                                                        | 61.3        | 64.5             | 65.1        | 65.8             |
|           | 250                                                        | 55.7        | 68.1             | 56.3        | 60.8             |
|           | 500                                                        | 53.9        | 65.2             | 53.7        | 60.7             |
|           | 1000                                                       | 52.2        | 61.2             | 45.1        | 54.2             |
|           | 2000                                                       | 41.5        | 57.4             | 39.8        | 54.1             |
|           | 4000                                                       | 37.7        | 54.7             | 36.7        | 53.6             |
|           | 8000                                                       | 42.8        | 56.6             | 40.1        | 59.8             |
|           | Sound Rating (dBA)                                         | 56          | 67               | 56          | 68               |
| 60        | Speed                                                      | 960         | 3540             | 900         | 4440             |
|           | 125                                                        | 65.4        | 72.0             | 61.6        | 69.2             |
|           | 250                                                        | 57.6        | 69.1             | 56.4        | 66.9             |
|           | 500                                                        | 56.3        | 66.1             | 53.1        | 65.6             |
|           | 1000                                                       | 48.4        | 64.3             | 44.9        | 62.5             |
|           | 2000                                                       | 46.1        | 63.8             | 44.0        | 63.0             |
|           | 4000                                                       | 43.7        | 56.8             | 47.1        | 62.4             |
|           | 8000                                                       | 44.2        | 58.4             | 44.9        | 61.6             |
|           | Sound Rating (dBA)                                         | 58          | 72               | 55          | 71               |

\*. Nominal condition data taken from maximum speed operating at 95°F in cooling and 47°F in heating.

Note: Tested in compliance with AHRI 270-2008 but not listed with AHRI.

## CHARGING SUBCOOLING

| UNIT SIZE | MOMINAL SUBCOOLING* | REQUIRED SUBCOOLING °F (°C) - See System Control                                        |
|-----------|---------------------|-----------------------------------------------------------------------------------------|
| 36        | 7                   | Subcooling recommendation displayed on System Control in Charging Mode must be followed |
| 48        | 7                   |                                                                                         |
| 60        | 10                  |                                                                                         |

\*. Nominal subcooling targets for use as reference or in specific applications with 25 ft. (7.6 m) lineset, 95°F outdoor ambient, and 80°F/67°F indoor DB/WB.

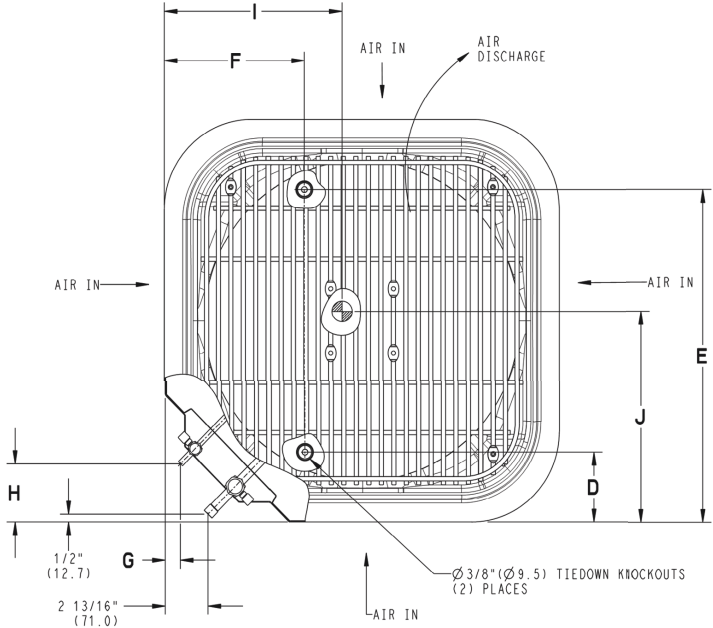
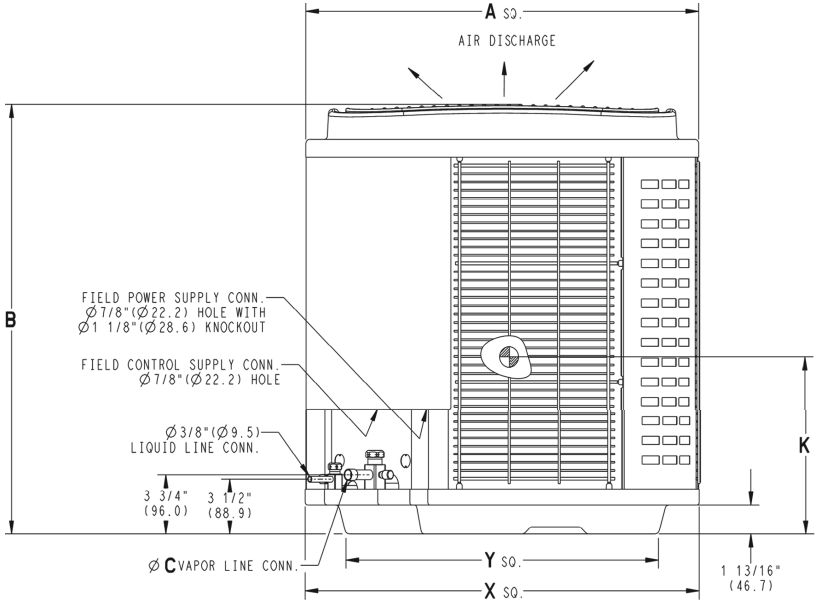
DIMENSIONS

| UNIT         | SERIES | ELECTRICAL CHARACTERISTICS |   |   |   |    | A     |    | B    |        | C    |      | D    |      | E     |    | F    |       | G    |     | H     |    | I    |      | J    |       | K    |    | OPERATING WEIGHT |       | SHIPPING WEIGHT |       | SHIPPING LENGTH / WIDTH (Sq.) |     | SHIPPING HEIGHT |     |       |     |       |    |       |    |        |
|--------------|--------|----------------------------|---|---|---|----|-------|----|------|--------|------|------|------|------|-------|----|------|-------|------|-----|-------|----|------|------|------|-------|------|----|------------------|-------|-----------------|-------|-------------------------------|-----|-----------------|-----|-------|-----|-------|----|-------|----|--------|
|              |        |                            |   |   |   |    | INCH  | MM | INCH | MM     | INCH | MM   | INCH | MM   | INCH  | MM | INCH | MM    | INCH | MM  | INCH  | MM | INCH | MM   | INCH | MM    | INCH | MM | INCH             | MM    | Lbs             | Kgs   | Lbs                           | Kgs | INCH            | MM  | INCH  | MM  |       |    |       |    |        |
| C5H3V35**AAA | A      | Y                          | N | N | N | 35 | 889,0 | 47 | 3/16 | 1199,0 | 7/8  | 22,2 | 6    | 9/16 | 166,1 | 28 | 7/16 | 722,8 | 9    | 1/8 | 231,3 | 1  | 1/8  | 28,2 | 3    | 13/16 | 97,4 | 16 | 1/4              | 412,8 | 17              | 1/4   | 438,2                         | 23  | 584,2           | 300 | 136,1 | 331 | 150,1 | 38 | 965,0 | 51 | 1295,7 |
| C5H3V48**AAA | A      | Y                          | N | N | N | 35 | 889,0 | 47 | 3/16 | 1199,0 | 7/8  | 22,2 | 6    | 9/16 | 166,1 | 28 | 7/16 | 722,8 | 9    | 1/8 | 231,3 | 1  | 1/8  | 28,2 | 3    | 13/16 | 97,4 | 15 | 1/2              | 393,7 | 16              | 405,4 | 22                            | 1/2 | 571,5           | 328 | 148,8 | 369 | 162,8 | 38 | 965,0 | 51 | 1295,7 |
| C5H3V90**AAA | A      | Y                          | N | N | N | 35 | 889,0 | 47 | 3/16 | 1199,0 | 7/8  | 22,2 | 6    | 9/16 | 166,1 | 28 | 7/16 | 722,8 | 9    | 1/8 | 231,3 | 1  | 1/8  | 28,2 | 3    | 13/16 | 97,4 | 14 | 1/2              | 398,3 | 16              | 405,4 | 22                            | 1/2 | 571,5           | 349 | 168,3 | 379 | 171,9 | 38 | 965,0 | 51 | 1295,7 |

|              |              |          |          |
|--------------|--------------|----------|----------|
| 208-230-1-50 | 208/230-3-50 | 460-3-60 | 575-3-60 |
|--------------|--------------|----------|----------|

Y=YES  
N=NO

NOTES:  
1. CENTER OF GRAVITY

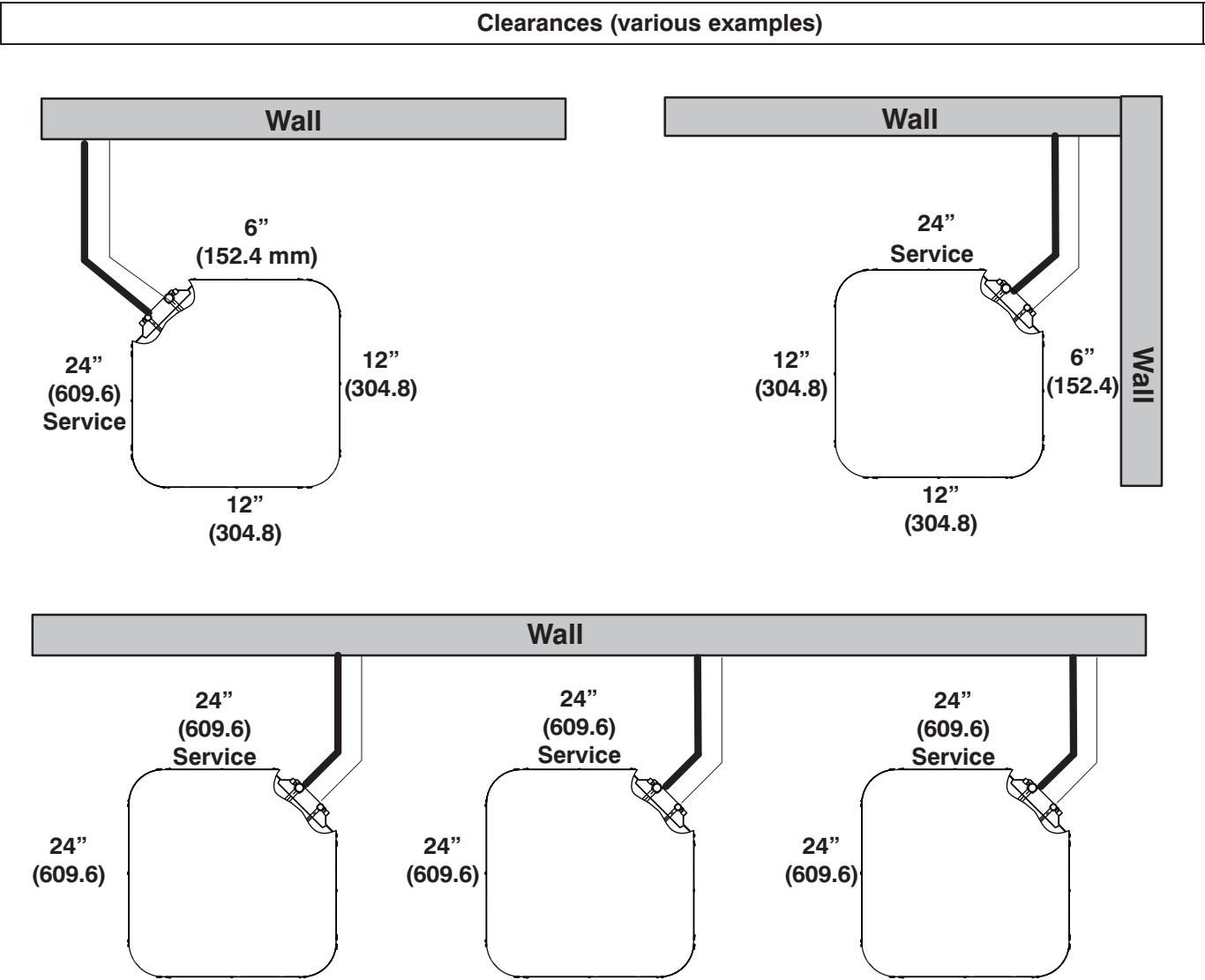


| UNIT SIZE | "X"                                                   |      | "Y"                                                     |    |       |       |
|-----------|-------------------------------------------------------|------|---------------------------------------------------------|----|-------|-------|
|           | MINIMUM GROUND MOUNTING<br>PAD APPLICATION DIMENSIONS |      | MINIMUM ROOF-TOP MOUNTING<br>PAD APPLICATION DIMENSIONS |    |       |       |
| -         | 23                                                    | 1/8  | 587.3                                                   | 17 | 7/8   | 454.6 |
| -         | 25                                                    | 3/4  | 654.0                                                   | 20 | 7/16  | 518.5 |
| -         | 31                                                    | 3/16 | 792.5                                                   | 22 | 15/16 | 583.2 |
| 36,48,60  | 35                                                    |      | 889.0                                                   | 26 | 3/4   | 679.7 |

NOTE: ALL DIMENSIONS IN INCH (MM) U.S. ECCN: Not Subject to Regulation (N.S.R.)

SD9026-4 C5H3V REV. -

CLEARANCES



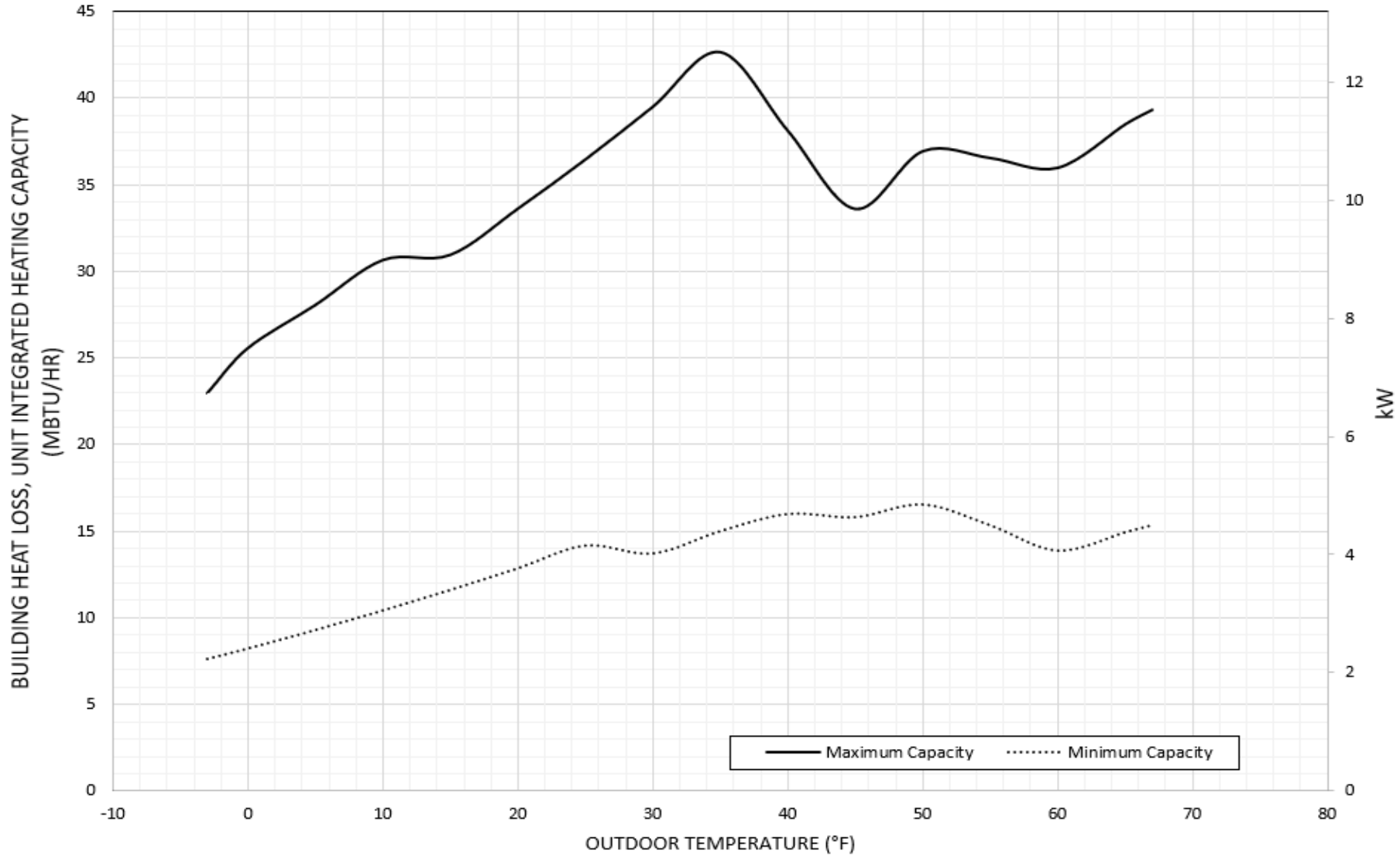
Note: Numbers in ( ) = mm

**IMPORTANT:** When installing multiple units in an alcove, roof well, or partially enclosed area, ensure there is adequate ventilation to prevent re-circulation of discharge air.

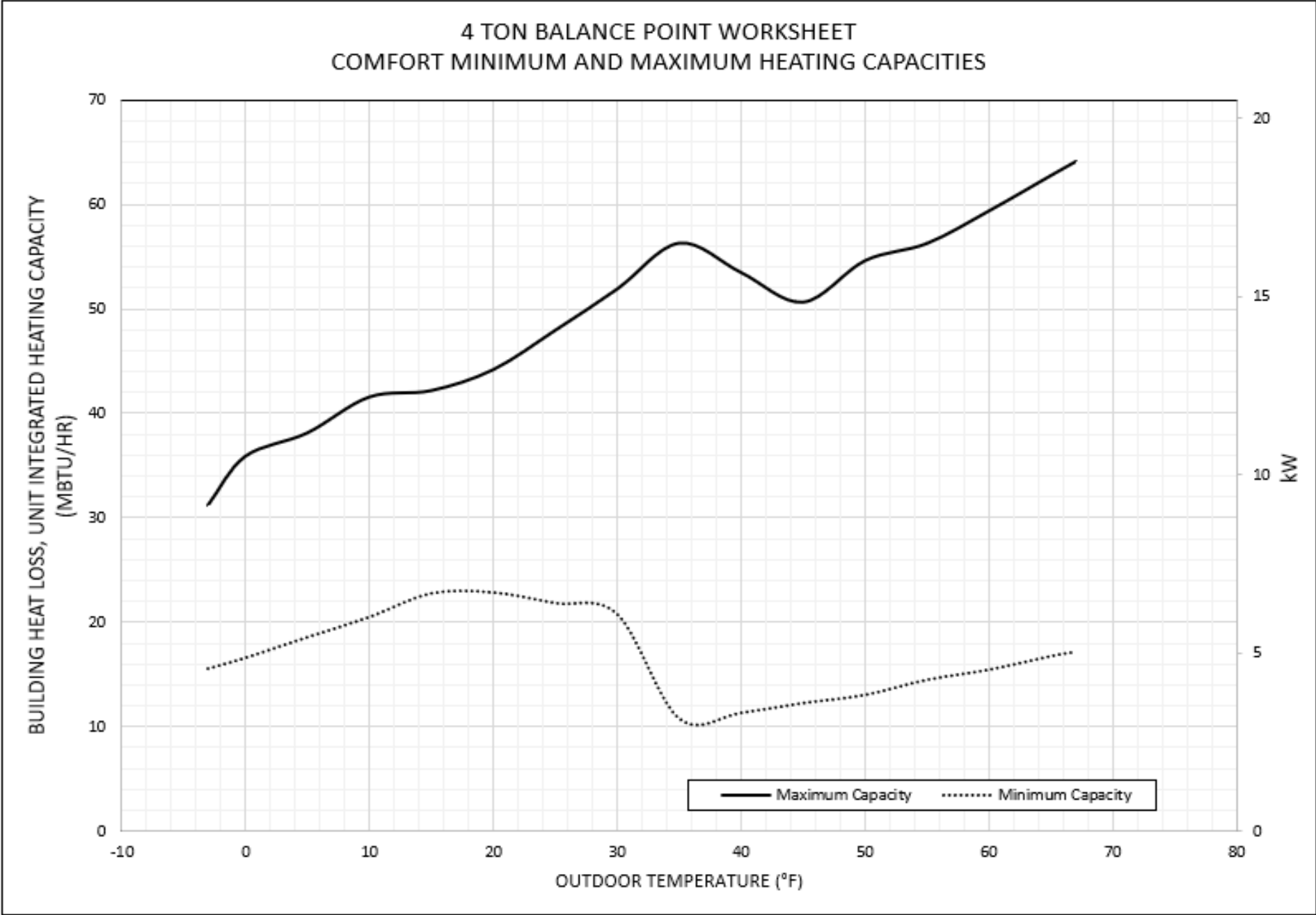


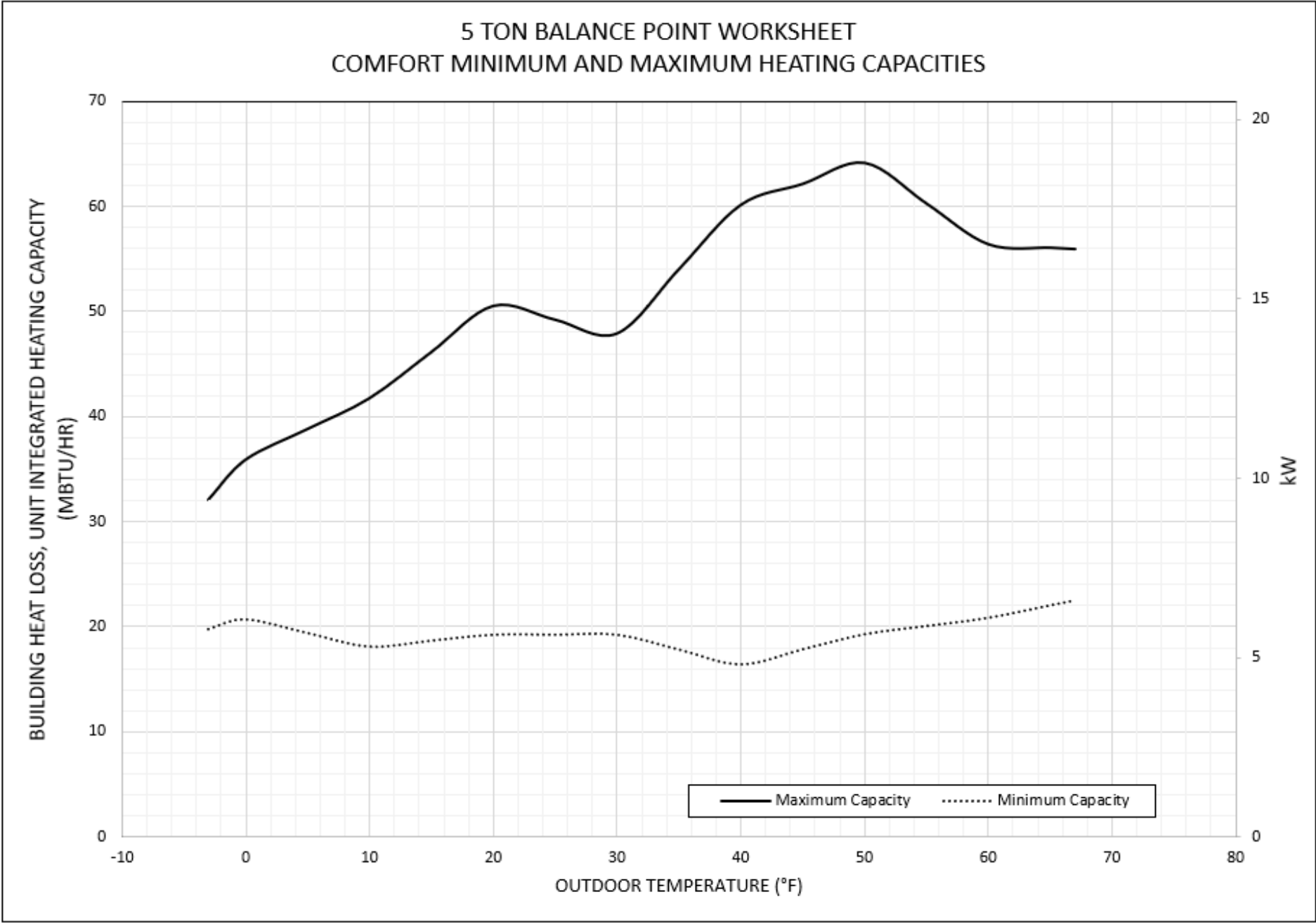
BALANCE POINT WORKSHEET

3 TON BALANCE POINT WORKSHEET  
COMFORT MINIMUM AND MAXIMUM HEATING CAPACITIES



BALANCE POINT WORKSHEET - Continued





Detailed Cooling Capacities# - Comfort + Dehumidify Mode

| EVAPORATOR AIR<br>°F (°C)   |               | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |                    |       |                       |            |                    |             |                       |            |                    |       |                       |              |                    |       |                       |            |                    |              |                       |            |                    |       |                       |     |      |      |      |
|-----------------------------|---------------|---------------------------------------------|--------------------|-------|-----------------------|------------|--------------------|-------------|-----------------------|------------|--------------------|-------|-----------------------|--------------|--------------------|-------|-----------------------|------------|--------------------|--------------|-----------------------|------------|--------------------|-------|-----------------------|-----|------|------|------|
|                             |               | 65.0 (18.3)                                 |                    |       | 75.0 (23.9)           |            |                    | 85.0 (29.4) |                       |            | 95.0 (35.0)        |       |                       | 105.0 (40.6) |                    |       | 115.0 (46.1)          |            |                    | 125.0 (51.7) |                       |            |                    |       |                       |     |      |      |      |
| EDB                         | EWB           | ID<br>SCFM                                  | Capacity<br>MBtuh† |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity<br>MBtuh† |             | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity<br>MBtuh† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtuh† |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity<br>MBtuh† |              | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity<br>MBtuh† |       | Total<br>Sys.<br>KW** |     |      |      |      |
|                             |               |                                             | Total              | Sens‡ |                       |            | Total              | Sens‡       |                       |            | Total              | Sens‡ |                       |              | Total              | Sens‡ |                       |            | Total              | Sens‡        |                       |            | Total              | Sens‡ |                       |     |      |      |      |
| C5H3V36 Maximum Demand      |               |                                             |                    |       |                       |            |                    |             |                       |            |                    |       |                       |              |                    |       |                       |            |                    |              |                       |            |                    |       |                       |     |      |      |      |
| 75<br>(23.9)                | 72.0 (22.2)   | 900                                         | 44.5               | 17    | 1.79                  | 875        | 40                 | 15.9        | 2.03                  | 850        | 40                 | 15.7  | 2.15                  | 800          | 36.4               | 14.5  | 2.44                  | 750        | 33.8               | 13.4         | 3.39                  | 700        | 31.6               | 12.5  | 3.87                  | 625 | 29   | 11.5 | 4.33 |
|                             | 67.0 (19.4)   |                                             | 40                 | 21.4  | 1.85                  |            | 36.2               | 20          | 2.1                   |            | 36                 | 19.9  | 2.18                  |              | 32.8               | 18.4  | 2.46                  |            | 30.4               | 17           | 3.4                   |            | 28.4               | 15.8  | 3.87                  |     | 26   | 14.4 | 4.29 |
|                             | 63.0 (17.2)†† |                                             | 37                 | 24.8  | 1.91                  |            | 33.4               | 23.2        | 2.14                  |            | 33.2               | 23.2  | 2.21                  |              | 30.2               | 21.4  | 2.47                  |            | 28                 | 19.7         | 3.41                  |            | 26                 | 18.4  | 3.85                  |     | 23.8 | 16.7 | 4.25 |
|                             | 57.0 (13.9)   |                                             | 32.8               | 30    | 1.95                  |            | 29.6               | 28          | 2.18                  |            | 29.4               | 28    | 2.23                  |              | 26.8               | 25.8  | 2.48                  |            | 24.8               | 23.8         | 3.4                   |            | 23                 | 22.2  | 3.83                  |     | 21   | 20   | 4.22 |
| 80<br>(26.7)                | 72.0 (22.2)   | 900                                         | 44.5               | 21.4  | 1.8                   | 875        | 40                 | 20          | 2.04                  | 850        | 40                 | 20    | 2.16                  | 800          | 36.4               | 18.4  | 2.44                  | 750        | 33.8               | 17           | 3.4                   | 700        | 31.4               | 15.9  | 3.87                  | 625 | 28.8 | 14.5 | 4.31 |
|                             | 67.0 (19.4)   |                                             | 40                 | 25.8  | 1.86                  |            | 36.2               | 24.2        | 2.1                   |            | 36                 | 24.2  | 2.19                  |              | 32.8               | 22.2  | 2.46                  |            | 30.4               | 20.6         | 3.41                  |            | 28.4               | 19.2  | 3.88                  |     | 26   | 17.4 | 4.3  |
|                             | 63.0 (17.2)†† |                                             | 37                 | 29.4  | 1.91                  |            | 33.4               | 27.4        | 2.14                  |            | 33                 | 27.4  | 2.2                   |              | 30.2               | 25.2  | 2.47                  |            | 28                 | 23.4         | 3.41                  |            | 26                 | 21.8  | 3.85                  |     | 23.8 | 19.7 | 4.27 |
|                             | 57.0 (13.9)   |                                             | 34.2               | 32.8  | 1.95                  |            | 31                 | 30.6        | 2.18                  |            | 30.8               | 30.4  | 2.23                  |              | 28                 | 28    | 2.47                  |            | 26                 | 25.6         | 3.4                   |            | 24.2               | 24    | 3.84                  |     | 22   | 21.8 | 4.23 |
| C5H3V36 Intermediate Demand |               |                                             |                    |       |                       |            |                    |             |                       |            |                    |       |                       |              |                    |       |                       |            |                    |              |                       |            |                    |       |                       |     |      |      |      |
| 75<br>(23.9)                | 72.0 (22.2)   | 570                                         | 28                 | 10.8  | 0.82                  | 540        | 25                 | 9.9         | 1.02                  | 520        | 24.6               | 9.8   | 1.12                  | 500          | 22.4               | 9     | 1.32                  | 480        | 21.8               | 8.7          | 2.02                  | 470        | 21.2               | 8.4   | 2.45                  | 430 | 20   | 8    | 2.88 |
|                             | 67.0 (19.4)   |                                             | 25.2               | 13.6  | 0.88                  |            | 22.4               | 12.5        | 1.07                  |            | 22                 | 12.3  | 1.15                  |              | 20                 | 11.3  | 1.34                  |            | 19.5               | 10.9         | 2.04                  |            | 18.9               | 10.6  | 2.45                  |     | 17.9 | 9.9  | 2.88 |
|                             | 63.0 (17.2)†† |                                             | 23.2               | 15.7  | 0.93                  |            | 20.6               | 14.4        | 1.11                  |            | 20.2               | 14.2  | 1.18                  |              | 18.3               | 13.2  | 1.36                  |            | 17.9               | 12.6         | 2.06                  |            | 17.3               | 12.3  | 2.45                  |     | 16.3 | 11.5 | 2.86 |
|                             | 57.0 (13.9)   |                                             | 20.4               | 18.9  | 0.99                  |            | 18.1               | 17.3        | 1.15                  |            | 17.7               | 17.1  | 1.21                  |              | 16                 | 15.9  | 1.37                  |            | 15.6               | 15.2         | 2.05                  |            | 15.1               | 14.8  | 2.44                  |     | 14.2 | 13.7 | 2.83 |
| 80<br>(26.7)                | 72.0 (22.2)   | 570                                         | 28                 | 13.6  | 0.82                  | 540        | 24.8               | 12.5        | 1.01                  | 520        | 24.4               | 12.4  | 1.11                  | 500          | 22.2               | 11.4  | 1.31                  | 480        | 21.8               | 11           | 2.03                  | 470        | 21                 | 10.7  | 2.44                  | 430 | 19.9 | 10   | 2.88 |
|                             | 67.0 (19.4)   |                                             | 25.2               | 16.4  | 0.89                  |            | 22.4               | 15          | 1.07                  |            | 22                 | 14.9  | 1.16                  |              | 19.9               | 13.8  | 1.34                  |            | 19.5               | 13.2         | 2.04                  |            | 18.9               | 12.9  | 2.45                  |     | 17.8 | 12   | 2.87 |
|                             | 63.0 (17.2)†† |                                             | 23                 | 18.5  | 0.93                  |            | 20.6               | 17          | 1.11                  |            | 20.2               | 16.8  | 1.18                  |              | 18.3               | 15.6  | 1.37                  |            | 17.8               | 14.9         | 2.05                  |            | 17.2               | 14.5  | 2.44                  |     | 16.3 | 13.5 | 2.86 |
|                             | 57.0 (13.9)   |                                             | 21.4               | 20.4  | 0.97                  |            | 19                 | 18.8        | 1.14                  |            | 18.7               | 18.4  | 1.2                   |              | 17.1               | 17    | 1.38                  |            | 16.5               | 16.3         | 2.05                  |            | 16                 | 15.9  | 2.44                  |     | 15   | 14.8 | 2.84 |
| C5H3V36 Minimum Demand      |               |                                             |                    |       |                       |            |                    |             |                       |            |                    |       |                       |              |                    |       |                       |            |                    |              |                       |            |                    |       |                       |     |      |      |      |
| 75<br>(23.9)                | 72.0 (22.2)   | 400                                         | 19.6               | 7.6   | 0.49                  | 375        | 17.3               | 6.9         | 0.65                  | 350        | 16.8               | 6.7   | 0.76                  | 350          | 15.3               | 6.2   | 0.9                   | 350        | 15.7               | 6.3          | 1.46                  | 350        | 15.7               | 6.3   | 1.84                  | 325 | 15.3 | 6.1  | 2.26 |
|                             | 67.0 (19.4)   |                                             | 17.6               | 9.5   | 0.55                  |            | 15.5               | 8.6         | 0.7                   |            | 15                 | 8.3   | 0.79                  |              | 13.6               | 7.8   | 0.93                  |            | 14                 | 7.9          | 1.49                  |            | 14                 | 7.9   | 1.85                  |     | 13.6 | 7.6  | 2.26 |
|                             | 63.0 (17.2)†† |                                             | 16.1               | 11    | 0.59                  |            | 14.1               | 10          | 0.73                  |            | 13.6               | 9.6   | 0.81                  |              | 12.4               | 9     | 0.95                  |            | 12.7               | 9.1          | 1.49                  |            | 12.8               | 9.1   | 1.87                  |     | 12.4 | 8.7  | 2.25 |
|                             | 57.0 (13.9)   |                                             | 14.1               | 13.1  | 0.64                  |            | 12.3               | 11.9        | 0.77                  |            | 11.9               | 11.5  | 0.85                  |              | 10.8               | 10.8  | 0.96                  |            | 11.1               | 10.9         | 1.51                  |            | 11.1               | 10.9  | 1.86                  |     | 10.7 | 10.4 | 2.23 |
| 80<br>(26.7)                | 72.0 (22.2)   | 400                                         | 19.6               | 9.6   | 0.49                  | 375        | 17.3               | 8.7         | 0.65                  | 350        | 16.7               | 8.4   | 0.75                  | 350          | 15.2               | 7.9   | 0.9                   | 350        | 15.7               | 8            | 1.47                  | 350        | 15.7               | 8     | 1.85                  | 325 | 15.3 | 7.7  | 2.27 |
|                             | 67.0 (19.4)   |                                             | 17.5               | 11.5  | 0.55                  |            | 15.4               | 10.4        | 0.7                   |            | 14.9               | 10.1  | 0.79                  |              | 13.6               | 9.5   | 0.93                  |            | 13.9               | 9.5          | 1.48                  |            | 14                 | 9.5   | 1.86                  |     | 13.6 | 9.1  | 2.26 |
|                             | 63.0 (17.2)†† |                                             | 16                 | 12.9  | 0.59                  |            | 14.1               | 11.8        | 0.73                  |            | 13.6               | 11.4  | 0.82                  |              | 12.3               | 10.7  | 0.94                  |            | 12.7               | 10.8         | 1.5                   |            | 12.7               | 10.8  | 1.85                  |     | 12.4 | 10.3 | 2.26 |
|                             | 57.0 (13.9)   |                                             | 14.8               | 14.2  | 0.62                  |            | 13                 | 12.9        | 0.76                  |            | 12.6               | 12.4  | 0.83                  |              | 11.6               | 11.5  | 0.95                  |            | 11.8               | 11.7         | 1.5                   |            | 11.8               | 11.7  | 1.86                  |     | 11.4 | 11.2 | 2.25 |

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

Detailed Cooling Capacities# - Comfort + Dehumidify Mode (Continued)

| EVAPORATOR AIR<br>°F (°C)   |               | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |
|-----------------------------|---------------|---------------------------------------------|---------------------|-------|-----------------------|------------|---------------------|-------|-----------------------|------------|---------------------|-------|-----------------------|------------|---------------------|-------|-----------------------|------------|---------------------|-------|-----------------------|------------|---------------------|-------|-----------------------|------------|---------------------|-------|-----------------------|
| EDB                         | EWB           | ID<br>SCFM                                  | 65.0 (18.3)         |       |                       | ID<br>SCFM | 75.0 (23.9)         |       |                       | ID<br>SCFM | 85.0 (29.4)         |       |                       | ID<br>SCFM | 95.0 (35.0)         |       |                       | ID<br>SCFM | 105.0 (40.6)        |       |                       | ID<br>SCFM | 115.0 (46.1)        |       |                       | ID<br>SCFM | 125.0 (51.7)        |       |                       |
|                             |               |                                             | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** |            | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** |            | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** |            | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** |            | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** |            | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** |            | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** |
|                             |               |                                             | Total               | Sens‡ | Total                 |            | Sens‡               | Total | Sens‡                 |            | Total               | Sens‡ | Total                 |            | Sens‡               | Total | Sens‡                 |            | Total               | Sens‡ | Total                 |            | Sens‡               | Total | Sens‡                 |            | Total               | Sens‡ | Total                 |
| C5H3V48 Maximum Demand      |               |                                             |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 1200                                        | 67                  | 25.2  | 2.1                   | 1200       | 53.5                | 20.2  | 2.39                  | 1200       | 59.5                | 22.4  | 2.98                  | 1100       | 47.5                | 19    | 3.19                  | 1000       | 44                  | 16.6  | 3.79                  | 1000       | 41                  | 15.5  | 4.29                  | 900        | 37                  | 14.1  | 4.74                  |
|                             | 67.0 (19.4)   |                                             | 61                  | 32    | 2.19                  |            | 48.5                | 25.8  | 2.46                  |            | 54                  | 29    | 3.04                  |            | 43                  | 24.4  | 3.21                  |            | 40                  | 21.4  | 3.81                  |            | 37.2                | 20.2  | 4.28                  |            | 33.6                | 18.4  | 4.71                  |
|                             | 63.0 (17.2)†† |                                             | 56.5                | 37.4  | 2.25                  |            | 45                  | 30.2  | 2.51                  |            | 50                  | 34.2  | 3.08                  |            | 40                  | 28.8  | 3.25                  |            | 36.8                | 25    | 3.79                  |            | 34.4                | 24    | 4.26                  |            | 31.2                | 21.8  | 4.7                   |
|                             | 57.0 (13.9)   |                                             | 51                  | 45.5  | 2.33                  |            | 40.5                | 36.8  | 2.57                  |            | 44.5                | 41.5  | 3.09                  |            | 35.6                | 35    | 3.24                  |            | 32.8                | 30.4  | 3.76                  |            | 30.8                | 29    | 4.21                  |            | 28                  | 26.4  | 4.64                  |
| 80<br>(26.7)                | 72.0 (22.2)   | 1200                                        | 67                  | 32    | 2.11                  | 1200       | 53.5                | 25.8  | 2.4                   | 1200       | 59.5                | 29    | 2.99                  | 1100       | 47.5                | 24.4  | 3.21                  | 1000       | 43.5                | 21.2  | 3.76                  | 1000       | 40.5                | 20.2  | 4.25                  | 900        | 37                  | 18.3  | 4.77                  |
|                             | 67.0 (19.4)   |                                             | 61                  | 38.5  | 2.2                   |            | 48.5                | 31.4  | 2.47                  |            | 54                  | 35.4  | 3.05                  |            | 43                  | 29.8  | 3.23                  |            | 39.5                | 26    | 3.77                  |            | 37                  | 24.8  | 4.27                  |            | 33.4                | 22.4  | 4.72                  |
|                             | 63.0 (17.2)†† |                                             | 56.5                | 44    | 2.25                  |            | 45                  | 35.8  | 2.51                  |            | 50                  | 40.5  | 3.08                  |            | 40                  | 34.2  | 3.25                  |            | 36.8                | 29.6  | 3.79                  |            | 34.2                | 28.6  | 4.23                  |            | 31.2                | 25.8  | 4.7                   |
|                             | 57.0 (13.9)   |                                             | 52.5                | 49.5  | 2.29                  |            | 42                  | 39.5  | 2.53                  |            | 47                  | 44.5  | 3.07                  |            | 37.6                | 37.4  | 3.24                  |            | 34.6                | 32.6  | 3.78                  |            | 32.8                | 30.8  | 4.25                  |            | 29.6                | 27.8  | 4.68                  |
| C5H3V48 Intermediate Demand |               |                                             |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 730                                         | 39                  | 14.8  | 0.91                  | 730        | 31.6                | 12    | 1.15                  | 730        | 35.6                | 13.4  | 1.54                  | 700        | 29.4                | 11.8  | 1.76                  | 730        | 32.6                | 12.4  | 2.66                  | 770        | 32.6                | 12.4  | 3.31                  | 730        | 45.5                | 17.1  | 3.63                  |
|                             | 67.0 (19.4)   |                                             | 35.4                | 18.9  | 0.99                  |            | 28.6                | 15.4  | 1.21                  |            | 32.2                | 17.3  | 1.59                  |            | 26.6                | 15.3  | 1.8                   |            | 29.4                | 15.8  | 2.67                  |            | 29.6                | 16    | 3.32                  |            | 27                  | 14.8  | 3.7                   |
|                             | 63.0 (17.2)†† |                                             | 32.6                | 22    | 1.04                  |            | 26.4                | 18.1  | 1.25                  |            | 29.6                | 20.4  | 1.61                  |            | 24.4                | 18    | 1.81                  |            | 27.2                | 18.4  | 2.69                  |            | 27.2                | 18.9  | 3.3                   |            | 24.8                | 17.5  | 3.67                  |
|                             | 57.0 (13.9)   |                                             | 29                  | 26.8  | 1.1                   |            | 23.4                | 22    | 1.29                  |            | 26.4                | 24.6  | 1.64                  |            | 21.8                | 21.6  | 1.83                  |            | 24                  | 22.4  | 2.67                  |            | 24.2                | 22.8  | 3.28                  |            | 22.2                | 21    | 3.63                  |
| 80<br>(26.7)                | 72.0 (22.2)   | 730                                         | 39                  | 18.9  | 0.92                  | 730        | 31.4                | 15.4  | 1.15                  | 730        | 35.4                | 17.3  | 1.54                  | 700        | 29.2                | 15.3  | 1.75                  | 730        | 32.4                | 15.8  | 2.66                  | 770        | 32.6                | 16    | 3.31                  | 730        | 29.6                | 14.8  | 3.71                  |
|                             | 67.0 (19.4)   |                                             | 35.2                | 23    | 0.98                  |            | 28.4                | 18.8  | 1.21                  |            | 32                  | 21.2  | 1.58                  |            | 26.4                | 18.7  | 1.79                  |            | 29.4                | 19.2  | 2.68                  |            | 29.4                | 19.6  | 3.3                   |            | 26.8                | 18.2  | 3.7                   |
|                             | 63.0 (17.2)†† |                                             | 32.6                | 26.2  | 1.04                  |            | 26.2                | 21.4  | 1.24                  |            | 29.6                | 24.2  | 1.61                  |            | 24.4                | 21.4  | 1.82                  |            | 27                  | 21.8  | 2.67                  |            | 27.2                | 22.4  | 3.31                  |            | 24.8                | 20.8  | 3.68                  |
|                             | 57.0 (13.9)   |                                             | 30.6                | 28.6  | 1.07                  |            | 24.8                | 23.4  | 1.27                  |            | 28.2                | 26.2  | 1.63                  |            | 23                  | 23    | 1.81                  |            | 25.4                | 23.8  | 2.68                  |            | 25.8                | 24.2  | 3.3                   |            | 23.6                | 22.2  | 3.66                  |
| C5H3V48 Minimum Demand      |               |                                             |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |            |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 500                                         | 26                  | 9.8   | 0.52                  | 500        | 21                  | 8     | 0.71                  | 500        | 24.4                | 9.2   | 1.03                  | 500        | 20.4                | 8.3   | 1.19                  | 600        | 26.6                | 10.1  | 2.12                  | 650        | 28.4                | 10.8  | 2.87                  | 650        | 26.2                | 10    | 3.23                  |
|                             | 67.0 (19.4)   |                                             | 23.4                | 12.6  | 0.58                  |            | 18.9                | 10.3  | 0.76                  |            | 22                  | 11.8  | 1.07                  |            | 18.4                | 10.7  | 1.22                  |            | 24                  | 12.9  | 2.15                  |            | 25.6                | 13.8  | 2.87                  |            | 23.6                | 13    | 3.22                  |
|                             | 63.0 (17.2)†† |                                             | 21.6                | 14.8  | 0.63                  |            | 17.3                | 12.1  | 0.78                  |            | 20.2                | 13.9  | 1.09                  |            | 16.8                | 12.6  | 1.24                  |            | 22                  | 15.1  | 2.15                  |            | 23.6                | 16.2  | 2.87                  |            | 21.8                | 15.4  | 3.22                  |
|                             | 57.0 (13.9)   |                                             | 19                  | 17.8  | 0.67                  |            | 15.4                | 14.5  | 0.82                  |            | 17.9                | 16.7  | 1.11                  |            | 15                  | 15    | 1.25                  |            | 19.5                | 18.2  | 2.16                  |            | 20.8                | 19.6  | 2.85                  |            | 19.5                | 18.4  | 3.19                  |
| 80<br>(26.7)                | 72.0 (22.2)   | 500                                         | 25.8                | 12.6  | 0.52                  | 500        | 20.8                | 10.3  | 0.71                  | 500        | 24.2                | 11.9  | 1.03                  | 500        | 20.4                | 10.8  | 1.19                  | 600        | 26.4                | 12.9  | 2.12                  | 650        | 28.2                | 13.8  | 2.87                  | 650        | 37.4                | 17.3  | 3.14                  |
|                             | 67.0 (19.4)   |                                             | 23.2                | 15.4  | 0.58                  |            | 18.7                | 12.6  | 0.75                  |            | 21.8                | 14.5  | 1.07                  |            | 18.3                | 13.2  | 1.22                  |            | 23.8                | 15.7  | 2.14                  |            | 25.6                | 16.9  | 2.88                  |            | 23.6                | 16    | 3.23                  |
|                             | 63.0 (17.2)†† |                                             | 21.4                | 17.6  | 0.62                  |            | 17.3                | 14.4  | 0.79                  |            | 20.2                | 16.6  | 1.1                   |            | 16.8                | 15.1  | 1.24                  |            | 22                  | 17.8  | 2.15                  |            | 23.6                | 19.2  | 2.88                  |            | 21.6                | 18.4  | 3.2                   |
|                             | 57.0 (13.9)   |                                             | 20.2                | 19    | 0.64                  |            | 16.4                | 15.4  | 0.8                   |            | 19.1                | 17.8  | 1.1                   |            | 16                  | 16    | 1.25                  |            | 20.6                | 19.4  | 2.15                  |            | 22.2                | 20.8  | 2.88                  |            | 20.8                | 19.5  | 3.21                  |

Detailed Cooling Capacities# - Comfort + Dehumidify Mode (Continued)

| EVAPORATOR AIR<br>°F (°C)   |               | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
|-----------------------------|---------------|---------------------------------------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|--------------|---------------------|-------|-----------------------|--------------|---------------------|-------|-----------------------|--------------|---------------------|-------|-----------------------|
|                             |               | 65.0 (18.3)                                 |                     |       |                       | 75.0 (23.9) |                     |       |                       | 85.0 (29.4) |                     |       |                       | 95.0 (35.0) |                     |       |                       | 105.0 (40.6) |                     |       |                       | 115.0 (46.1) |                     |       |                       | 125.0 (51.7) |                     |       |                       |
| EDB                         | EWB           | ID<br>SCFM                                  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** |
|                             |               |                                             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |              | Total               | Sens‡ |                       |              | Total               | Sens‡ |                       |              | Total               | Sens‡ |                       |
| C5H3V60 Maximum Demand      |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 1400                                        | 67                  | 26.8  | 3.16                  | 1400        | 66                  | 26.4  | 3.36                  | 1400        | 65                  | 25.8  | 3.73                  | 1300        | 60.5                | 23.8  | 4.04                  | 1250         | 57.5                | 22.2  | 4.63                  | 1125         | 53                  | 19.8  | 5.19                  | 1100         | 47.5                | 17.1  | 5.54                  |
|                             | 67.0 (19.4)   |                                             | 60.5                | 33.8  | 3.19                  |             | 59.5                | 33.4  | 3.37                  |             | 58.5                | 32.8  | 3.71                  |             | 55                  | 30.4  | 4.04                  |              | 52                  | 28.6  | 4.59                  |              | 48                  | 25.2  | 5.14                  |              | 43                  | 22    | 5.47                  |
|                             | 63.0 (17.2)†† |                                             | 56                  | 39    | 3.23                  |             | 55                  | 39    | 3.39                  |             | 54                  | 38.5  | 3.7                   |             | 50.5                | 35.6  | 4                     |              | 48                  | 33.4  | 4.57                  |              | 44                  | 29.4  | 5.08                  |              | 39.5                | 25.8  | 5.41                  |
|                             | 57.0 (13.9)   |                                             | 50                  | 47    | 3.26                  |             | 49                  | 47    | 3.4                   |             | 48                  | 46.5  | 3.68                  |             | 45                  | 43    | 3.96                  |              | 42.5                | 40.5  | 4.49                  |              | 39                  | 35.6  | 5                     |              | 35                  | 31.2  | 5.32                  |
| 80<br>(26.7)                | 72.0 (22.2)   | 1400                                        | 67                  | 33.8  | 3.17                  | 1400        | 66                  | 33.4  | 3.37                  | 1400        | 64.5                | 33    | 3.71                  | 1300        | 60.5                | 30.6  | 4.05                  | 1250         | 57.5                | 28.6  | 4.64                  | 1125         | 53                  | 25.2  | 5.21                  | 1100         | 47.5                | 22    | 5.55                  |
|                             | 67.0 (19.4)   |                                             | 60.5                | 40.5  | 3.19                  |             | 59.5                | 40.5  | 3.38                  |             | 58.5                | 40    | 3.71                  |             | 54.5                | 37    | 4.01                  |              | 52                  | 34.8  | 4.6                   |              | 47.5                | 30.6  | 5.11                  |              | 43                  | 26.8  | 5.48                  |
|                             | 63.0 (17.2)†† |                                             | 56                  | 46    | 3.23                  |             | 55                  | 46    | 3.39                  |             | 54                  | 45.5  | 3.7                   |             | 50.5                | 42    | 4                     |              | 48                  | 39.5  | 4.57                  |              | 44                  | 34.8  | 5.08                  |              | 39.5                | 30.6  | 5.41                  |
|                             | 57.0 (13.9)   |                                             | 51.5                | 51.5  | 3.24                  |             | 51                  | 51    | 3.4                   |             | 50.5                | 50    | 3.69                  |             | 47.5                | 46.5  | 3.99                  |              | 45                  | 43.5  | 4.53                  |              | 41                  | 38.5  | 5.02                  |              | 37.2                | 33.4  | 5.38                  |
| C5H3V60 Intermediate Demand |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 850                                         | 40.5                | 16.4  | 1.6                   | 850         | 40                  | 16.1  | 1.74                  | 850         | 40                  | 16.1  | 2.02                  | 820         | 38.5                | 15.3  | 2.38                  | 750          | 33.8                | 13.1  | 2.57                  | 710          | 35.6                | 13.3  | 3.47                  | 700          | 31.8                | 11.5  | 3.76                  |
|                             | 67.0 (19.4)   |                                             | 36.6                | 20.4  | 1.63                  |             | 35.8                | 20.2  | 1.75                  |             | 36                  | 20.4  | 2.04                  |             | 34.8                | 19.4  | 2.41                  |              | 30.2                | 16.8  | 2.57                  |              | 32                  | 16.7  | 3.46                  |              | 28.6                | 14.5  | 3.72                  |
|                             | 63.0 (17.2)†† |                                             | 33.6                | 23.8  | 1.65                  |             | 33                  | 23.6  | 1.78                  |             | 33.2                | 23.6  | 2.07                  |             | 31.8                | 22.6  | 2.41                  |              | 27.8                | 19.7  | 2.59                  |              | 29.2                | 19.3  | 3.43                  |              | 26.2                | 16.9  | 3.7                   |
|                             | 57.0 (13.9)   |                                             | 29.8                | 28.4  | 1.67                  |             | 29.2                | 28.4  | 1.8                   |             | 29.2                | 28.6  | 2.07                  |             | 28.2                | 27.4  | 2.42                  |              | 24.6                | 23.6  | 2.59                  |              | 25.6                | 23.2  | 3.4                   |              | 23                  | 20.4  | 3.65                  |
| 80<br>(26.7)                | 72.0 (22.2)   | 850                                         | 40.5                | 20.6  | 1.6                   | 850         | 39.5                | 20.4  | 1.72                  | 850         | 40                  | 20.4  | 2.02                  | 820         | 38.5                | 19.5  | 2.39                  | 750          | 33.6                | 16.9  | 2.56                  | 710          | 30                  | 14.9  | 2.85                  | 700          | 31.6                | 14.6  | 3.75                  |
|                             | 67.0 (19.4)   |                                             | 36.4                | 24.6  | 1.63                  |             | 35.8                | 24.6  | 1.76                  |             | 36                  | 24.6  | 2.05                  |             | 34.6                | 23.6  | 2.4                   |              | 29.4                | 20.2  | 2.5                   |              | 31.8                | 20.2  | 3.45                  |              | 28.6                | 17.6  | 3.74                  |
|                             | 63.0 (17.2)†† |                                             | 33.6                | 27.8  | 1.65                  |             | 32.8                | 27.8  | 1.77                  |             | 33                  | 28    | 2.06                  |             | 31.8                | 26.8  | 2.41                  |              | 27.6                | 23.4  | 2.58                  |              | 24.8                | 20.8  | 2.88                  |              | 22.8                | 18.6  | 3.21                  |
|                             | 57.0 (13.9)   |                                             | 31                  | 31    | 1.67                  |             | 30.6                | 30.6  | 1.79                  |             | 30.8                | 30.6  | 2.07                  |             | 29.8                | 29.2  | 2.41                  |              | 26.2                | 25.2  | 2.58                  |              | 23.6                | 22    | 2.86                  |              | 21.8                | 19.6  | 3.19                  |
| C5H3V60 Minimum Demand      |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 575                                         | 26.6                | 10.8  | 0.98                  | 575         | 26                  | 10.6  | 1.03                  | 575         | 26.6                | 10.7  | 1.26                  | 575         | 26.6                | 10.5  | 1.61                  | 500          | 20.8                | 8.2   | 1.62                  | 500          | 26.2                | 9.9   | 2.7                   | 500          | 23.6                | 8.6   | 2.95                  |
|                             | 67.0 (19.4)   |                                             | 24                  | 13.6  | 1.02                  |             | 23.4                | 13.4  | 1.07                  |             | 23.8                | 13.5  | 1.29                  |             | 23.8                | 13.4  | 1.64                  |              | 18.6                | 10.6  | 1.66                  |              | 23.6                | 12.2  | 2.73                  |              | 21.2                | 10.7  | 2.96                  |
|                             | 63.0 (17.2)†† |                                             | 22.2                | 15.8  | 1.04                  |             | 21.6                | 15.7  | 1.1                   |             | 21.8                | 15.8  | 1.32                  |             | 21.8                | 15.6  | 1.66                  |              | 17                  | 12.5  | 1.68                  |              | 21.4                | 14    | 2.7                   |              | 19.3                | 12.3  | 2.94                  |
|                             | 57.0 (13.9)   |                                             | 19.5                | 19    | 1.07                  |             | 19                  | 18.9  | 1.13                  |             | 19.1                | 19    | 1.34                  |             | 19.1                | 18.7  | 1.68                  |              | 15.3                | 14.7  | 1.7                   |              | 18.7                | 16.6  | 2.7                   |              | 16.9                | 14.8  | 2.94                  |
| 80<br>(26.7)                | 72.0 (22.2)   | 575                                         | 26.6                | 13.6  | 0.98                  | 575         | 26                  | 13.5  | 1.04                  | 575         | 26.4                | 13.6  | 1.25                  | 575         | 26.4                | 13.5  | 1.6                   | 500          | 20.8                | 10.7  | 1.63                  | 500          | 26.2                | 12.3  | 2.71                  | 500          | 23.6                | 10.8  | 2.96                  |
|                             | 67.0 (19.4)   |                                             | 24                  | 16.4  | 1.02                  |             | 23.4                | 16.3  | 1.08                  |             | 23.8                | 16.5  | 1.3                   |             | 23.6                | 16.3  | 1.63                  |              | 18.6                | 13.1  | 1.66                  |              | 23.4                | 14.6  | 2.71                  |              | 21.2                | 12.9  | 2.97                  |
|                             | 63.0 (17.2)†† |                                             | 22                  | 18.6  | 1.04                  |             | 21.4                | 18.5  | 1.1                   |             | 21.8                | 18.7  | 1.32                  |             | 21.6                | 18.6  | 1.65                  |              | 17                  | 15    | 1.69                  |              | 21.4                | 16.4  | 2.71                  |              | 19.3                | 14.5  | 2.95                  |
|                             | 57.0 (13.9)   |                                             | 20.4                | 20.4  | 1.05                  |             | 20.2                | 20.2  | 1.12                  |             | 20.4                | 20.2  | 1.33                  |             | 20.4                | 20    | 1.66                  |              | 16.4                | 15.7  | 1.69                  |              | 19.5                | 18.2  | 2.71                  |              | 17.8                | 15.9  | 2.95                  |

# Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per AHRI standard 210/240-2008. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur

† Total and sensible capacities are net capacities. Blower motor heat has been subtracted.

‡ Sensible capacities shown are based on 80°F (27°C) entering air at the indoor coil. For sensible capacities at other than 80°F (27°C), deduct 835 Btu/h (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80°F (27°C), or add 835 Btu/h (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80°F (27°C).

\*\* System kw is total of indoor and outdoor unit kilowatts.

# Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per AHRI standard 210/240-08. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

EDB — Entering Dry Bulb

EWB — Entering Wet Bulb

Detailed Cooling Capacities# - Cooling Efficiency Mode

| EVAPORATOR AIR<br>°F (°C)   |               | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
|-----------------------------|---------------|---------------------------------------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|--------------|---------------------|-------|-----------------------|--------------|---------------------|-------|-----------------------|--------------|---------------------|-------|-----------------------|
|                             |               | 65.0 (18.3)                                 |                     |       |                       | 75.0 (23.9) |                     |       |                       | 85.0 (29.4) |                     |       |                       | 95.0 (35.0) |                     |       |                       | 105.0 (40.6) |                     |       |                       | 115.0 (46.1) |                     |       |                       | 125.0 (51.7) |                     |       |                       |
| EDB                         | EWB           | ID<br>SCFM                                  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** |
|                             |               |                                             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |              | Total               | Sens‡ |                       |              | Total               | Sens‡ |                       |              | Total               | Sens‡ |                       |
| C5H3V36 Maximum Demand      |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 1200                                        | 46.5                | 17.7  | 1.99                  | 1200        | 42                  | 16.6  | 2.24                  | 1200        | 42                  | 16.5  | 2.34                  | 1200        | 38.5                | 15.4  | 2.65                  | 1200         | 36                  | 14.4  | 3.69                  | 1200         | 33.8                | 13.6  | 4.19                  | 1200         | 31.4                | 12.8  | 4.69                  |
|                             | 67.0 (19.4)   |                                             | 42                  | 23.6  | 2.06                  |             | 38                  | 22.4  | 2.31                  |             | 37.8                | 22.4  | 2.38                  |             | 34.6                | 21.2  | 2.67                  |              | 32.4                | 20.2  | 3.7                   |              | 30.4                | 19.4  | 4.19                  |              | 28.4                | 18.5  | 4.69                  |
|                             | 63.0 (17.2)†† |                                             | 38.5                | 28.2  | 2.1                   |             | 35                  | 26.8  | 2.35                  |             | 34.8                | 27.2  | 2.41                  |             | 32                  | 25.8  | 2.7                   |              | 29.8                | 24.6  | 3.7                   |              | 28                  | 23.8  | 4.19                  |              | 26.2                | 23    | 4.66                  |
|                             | 57.0 (13.9)   |                                             | 35.2                | 33.8  | 2.15                  |             | 32.2                | 31.8  | 2.39                  |             | 32.2                | 31.8  | 2.42                  |             | 29.8                | 29.8  | 2.69                  |              | 28.2                | 27.8  | 3.71                  |              | 26.8                | 26.4  | 4.19                  |              | 25.2                | 25    | 4.63                  |
| 80<br>(26.7)                | 72.0 (22.2)   | 1200                                        | 46                  | 23.6  | 1.97                  | 1200        | 42                  | 22.4  | 2.24                  | 1200        | 41.5                | 22.6  | 2.32                  | 1200        | 38.5                | 21.2  | 2.66                  | 1200         | 35.8                | 20.2  | 3.68                  | 1200         | 33.6                | 19.4  | 4.18                  | 1200         | 31.2                | 18.6  | 4.67                  |
|                             | 67.0 (19.4)   |                                             | 42                  | 29.4  | 2.07                  |             | 37.8                | 28    | 2.3                   |             | 37.6                | 28.4  | 2.37                  |             | 34.6                | 27    | 2.68                  |              | 32.4                | 25.8  | 3.71                  |              | 31.4                | 23    | 3.47                  |              | 26                  | 16.6  | 3.49                  |
|                             | 63.0 (17.2)†† |                                             | 39                  | 34    | 2.12                  |             | 35.2                | 32.4  | 2.35                  |             | 35                  | 33    | 2.41                  |             | 32.2                | 31.4  | 2.69                  |              | 30.4                | 29.6  | 3.71                  |              | 28.8                | 28.4  | 4.2                   |              | 27.2                | 26.8  | 4.67                  |
|                             | 57.0 (13.9)   |                                             | 37.6                | 36    | 2.12                  |             | 34.2                | 33.8  | 2.35                  |             | 34.4                | 33.8  | 2.41                  |             | 32                  | 31.8  | 2.7                   |              | 30.2                | 29.8  | 3.71                  |              | 28.6                | 28.4  | 4.18                  |              | 27                  | 26.8  | 4.66                  |
| C5H3V36 Intermediate Demand |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 850                                         | 24                  | 9.7   | 0.6                   | 800         | 21.2                | 8.9   | 0.76                  | 700         | 20.6                | 8.5   | 0.84                  | 750         | 19.9                | 8.4   | 1.1                   | 850          | 19.4                | 8.3   | 1.7                   | 850          | 20.8                | 8.8   | 2.28                  | 850          | 19.1                | 8.2   | 2.59                  |
|                             | 67.0 (19.4)   |                                             | 21.4                | 13.8  | 0.67                  |             | 19                  | 12.7  | 0.82                  |             | 18.4                | 12    | 0.89                  |             | 17.8                | 12    | 1.14                  |              | 17.4                | 12.4  | 1.74                  |              | 18.7                | 12.8  | 2.31                  |              | 17.1                | 12.3  | 2.6                   |
|                             | 63.0 (17.2)†† |                                             | 19.8                | 17.1  | 0.72                  |             | 17.5                | 15.6  | 0.86                  |             | 16.9                | 14.7  | 0.92                  |             | 16.3                | 14.8  | 1.16                  |              | 16                  | 15.4  | 1.76                  |              | 17.2                | 16    | 2.32                  |              | 15.8                | 15.3  | 2.61                  |
|                             | 57.0 (13.9)   |                                             | 19.1                | 18.4  | 0.73                  |             | 17                  | 16.8  | 0.88                  |             | 16.2                | 16    | 0.93                  |             | 15.8                | 15.8  | 1.16                  |              | 15.9                | 15.7  | 1.76                  |              | 16.8                | 16.7  | 2.31                  |              | 15.7                | 15.5  | 2.6                   |
| 80<br>(26.7)                | 72.0 (22.2)   | 850                                         | 23.8                | 13.9  | 0.6                   | 800         | 21.2                | 12.7  | 0.76                  | 700         | 20.6                | 12    | 0.85                  | 750         | 19.8                | 12.1  | 1.1                   | 850          | 19.3                | 12.4  | 1.7                   | 850          | 20.8                | 12.9  | 2.3                   | 850          | 18.9                | 12.3  | 2.58                  |
|                             | 67.0 (19.4)   |                                             | 21.4                | 18    | 0.66                  |             | 19                  | 16.5  | 0.82                  |             | 18.4                | 15.4  | 0.89                  |             | 17.7                | 15.6  | 1.13                  |              | 17.4                | 16.4  | 1.73                  |              | 18.7                | 16.9  | 2.31                  |              | 17.1                | 16.3  | 2.59                  |
|                             | 63.0 (17.2)†† |                                             | 20.6                | 19.8  | 0.69                  |             | 18.3                | 18.1  | 0.84                  |             | 17.5                | 17.2  | 0.91                  |             | 17.1                | 17    | 1.15                  |              | 17.2                | 17    | 1.74                  |              | 18.2                | 18    | 2.32                  |              | 16.9                | 16.7  | 2.59                  |
|                             | 57.0 (13.9)   |                                             | 20.6                | 19.7  | 0.69                  |             | 18.2                | 18    | 0.84                  |             | 17.4                | 17.2  | 0.91                  |             | 17                  | 17    | 1.14                  |              | 17.1                | 16.9  | 1.74                  |              | 18.1                | 17.9  | 2.31                  |              | 16.9                | 16.7  | 2.6                   |
| C5H3V36 Minimum Demand      |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 550                                         | 11.3                | 5     | 0.18                  | 550         | 9.8                 | 4.5   | 0.3                   | 550         | 9.3                 | 4.4   | 0.38                  | 675         | 9.4                 | 4.8   | 0.56                  | 675          | 10.1                | 4.9   | 0.92                  | 675          | 14.2                | 6.3   | 1.55                  | 675          | 12.9                | 5.8   | 1.78                  |
|                             | 67.0 (19.4)   |                                             | 10                  | 7.6   | 0.23                  |             | 8.7                 | 7.1   | 0.34                  |             | 8.2                 | 7.1   | 0.4                   |             | 8.3                 | 8     | 0.58                  |              | 8.9                 | 8.1   | 0.95                  |              | 12.6                | 9.5   | 1.57                  |              | 11.4                | 9     | 1.78                  |
|                             | 63.0 (17.2)†† |                                             | 9.5                 | 9.1   | 0.25                  |             | 8.3                 | 8.2   | 0.35                  |             | 8                   | 7.8   | 0.41                  |             | 8.2                 | 8.2   | 0.58                  |              | 8.7                 | 8.6   | 0.95                  |              | 11.7                | 11.6  | 1.59                  |              | 10.8                | 10.6  | 1.79                  |
|                             | 57.0 (13.9)   |                                             | 9.4                 | 9.1   | 0.25                  |             | 8.3                 | 8.2   | 0.35                  |             | 7.9                 | 7.8   | 0.41                  |             | 8.2                 | 8.2   | 0.58                  |              | 8.7                 | 8.6   | 0.95                  |              | 11.7                | 11.6  | 1.59                  |              | 10.7                | 10.6  | 1.78                  |
| 80<br>(26.7)                | 72.0 (22.2)   | 550                                         | 11.2                | 7.7   | 0.18                  | 550         | 9.7                 | 7.2   | 0.3                   | 550         | 9.2                 | 7.2   | 0.37                  | 675         | 9.3                 | 8.1   | 0.55                  | 675          | 9.9                 | 8.2   | 0.91                  | 675          | 14.1                | 9.5   | 1.55                  | 675          | 12.8                | 9.1   | 1.78                  |
|                             | 67.0 (19.4)   |                                             | 10.3                | 9.8   | 0.22                  |             | 9                   | 8.9   | 0.32                  |             | 8.7                 | 8.6   | 0.39                  |             | 9                   | 9     | 0.56                  |              | 9.5                 | 9.4   | 0.92                  |              | 12.8                | 12.4  | 1.58                  |              | 11.7                | 11.6  | 1.78                  |
|                             | 63.0 (17.2)†† |                                             | 10.2                | 9.8   | 0.22                  |             | 9                   | 8.9   | 0.32                  |             | 8.7                 | 8.6   | 0.39                  |             | 9                   | 9     | 0.56                  |              | 9.5                 | 9.4   | 0.93                  |              | 12.7                | 12.6  | 1.57                  |              | 11.7                | 11.5  | 1.78                  |
|                             | 57.0 (13.9)   |                                             | 10.2                | 9.8   | 0.22                  |             | 9                   | 8.9   | 0.32                  |             | 8.7                 | 8.6   | 0.39                  |             | 9                   | 9     | 0.56                  |              | 9.5                 | 9.4   | 0.93                  |              | 12.7                | 12.5  | 1.58                  |              | 11.7                | 11.5  | 1.79                  |

Detailed Cooling Capacities# - Cooling Efficiency Mode (Continued)

| EVAPORATOR AIR<br>°F (°C)   |               | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |       |      |      |
|-----------------------------|---------------|---------------------------------------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|--------------|---------------------|-------|-----------------------|--------------|---------------------|-------|-----------------------|--------------|-------|------|------|
|                             |               | 65.0 (18.3)                                 |                     |       |                       | 75.0 (23.9) |                     |       |                       | 85.0 (29.4) |                     |       |                       | 95.0 (35.0) |                     |       |                       | 105.0 (40.6) |                     |       |                       | 115.0 (46.1) |                     |       |                       | 125.0 (51.7) |       |      |      |
| EDB                         | EWB           | ID<br>SCFM                                  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** |              |       |      |      |
|                             |               |                                             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |              | Total               | Sens‡ |                       |              | Total               | Sens‡ |                       | Total        | Sens‡ |      |      |
| C5H3V48 Maximum Demand      |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |       |      |      |
| 75<br>(23.9)                | 72.0 (22.2)   | 1425                                        | 69                  | 25.8  | 2.19                  | 1575        | 55.5                | 21    | 2.56                  | 1650        | 61.5                | 23    | 3.22                  | 1680        | 50                  | 20.2  | 3.49                  | 1650         | 46.5                | 17.9  | 4.12                  | 1650         | 43                  | 16.8  | 4.63                  | 1650         | 39    | 15.6 | 5.13 |
|                             | 67.0 (19.4)   |                                             | 62.5                | 34    | 2.27                  |             | 50.5                | 28.4  | 2.65                  |             | 56                  | 32    | 3.29                  |             | 45.5                | 28.6  | 3.55                  |              | 42                  | 25.6  | 4.12                  |              | 39                  | 24.4  | 4.63                  |              | 35.4  | 23.2 | 5.1  |
|                             | 63.0 (17.2)†† |                                             | 58                  | 40.5  | 2.33                  |             | 46.5                | 34.2  | 2.68                  |             | 51.5                | 39    | 3.31                  |             | 42                  | 35    | 3.57                  |              | 39                  | 31.6  | 4.13                  |              | 36                  | 30.4  | 4.59                  |              | 33    | 29.2 | 5.09 |
|                             | 57.0 (13.9)   |                                             | 53                  | 48.5  | 2.4                   |             | 43                  | 40.5  | 2.72                  |             | 48.5                | 45    | 3.34                  |             | 40                  | 39.5  | 3.58                  |              | 37.4                | 35.2  | 4.13                  |              | 35                  | 33    | 4.59                  |              | 32.4  | 30.6 | 5.08 |
| 80<br>(26.7)                | 72.0 (22.2)   | 1425                                        | 69                  | 33.8  | 2.19                  | 1575        | 55                  | 28.2  | 2.55                  | 1650        | 61                  | 31.8  | 3.21                  | 1680        | 49.5                | 28.4  | 3.48                  | 1650         | 46                  | 25.6  | 4.1                   | 1650         | 42.5                | 24.4  | 4.62                  | 1650         | 39    | 23.2 | 5.17 |
|                             | 67.0 (19.4)   |                                             | 62.5                | 42    | 2.28                  |             | 50                  | 35.6  | 2.63                  |             | 55.5                | 40.5  | 3.27                  |             | 47.5                | 37.6  | 3.59                  |              | 42                  | 33.2  | 4.13                  |              | 38.5                | 32    | 4.58                  |              | 35.2  | 35   | 4.92 |
|                             | 63.0 (17.2)†† |                                             | 58                  | 48    | 2.33                  |             | 46.5                | 41.5  | 2.67                  |             | 52                  | 47.5  | 3.31                  |             | 43                  | 41.5  | 3.56                  |              | 40                  | 37.6  | 4.13                  |              | 37.4                | 35.2  | 4.61                  |              | 34.6  | 32.6 | 5.1  |
|                             | 57.0 (13.9)   |                                             | 55.5                | 52    | 2.36                  |             | 45.5                | 43    | 2.68                  |             | 51.5                | 48    | 3.31                  |             | 42.5                | 42.5  | 3.55                  |              | 40                  | 37.4  | 4.14                  |              | 37.4                | 35.2  | 4.62                  |              | 34.6  | 32.6 | 5.1  |
| C5H3V48 Intermediate Demand |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |       |      |      |
| 75<br>(23.9)                | 72.0 (22.2)   | 1050                                        | 36.4                | 14    | 0.75                  | 1000        | 28.6                | 11.1  | 0.94                  | 990         | 31.8                | 12.7  | 1.28                  | 1030        | 28.4                | 11.9  | 1.61                  | 1150         | 31.6                | 12.5  | 2.44                  | 1280         | 34.8                | 13.7  | 3.45                  | 1350         | 31.8  | 12.9 | 3.9  |
|                             | 67.0 (19.4)   |                                             | 33                  | 19.1  | 0.83                  |             | 25.8                | 15.3  | 1                     |             | 28.6                | 18.7  | 1.34                  |             | 25.6                | 16.7  | 1.65                  |              | 28.4                | 17.7  | 2.46                  |              | 31.6                | 19.7  | 3.47                  |              | 28.8  | 19.2 | 3.89 |
|                             | 63.0 (17.2)†† |                                             | 30.4                | 23    | 0.88                  |             | 23.8                | 18.6  | 1.04                  |             | 26.4                | 23.2  | 1.37                  |             | 23.6                | 20.4  | 1.68                  |              | 26.4                | 21.8  | 2.49                  |              | 29.2                | 24.4  | 3.47                  |              | 26.8  | 24.2 | 3.9  |
|                             | 57.0 (13.9)   |                                             | 28.4                | 26.6  | 0.92                  |             | 22.4                | 21    | 1.07                  |             | 26                  | 24.2  | 1.38                  |             | 22.6                | 22.6  | 1.69                  |              | 25.4                | 23.8  | 2.49                  |              | 28.2                | 26.6  | 3.46                  |              | 26.4  | 24.8 | 3.88 |
| 80<br>(26.7)                | 72.0 (22.2)   | 1050                                        | 36.2                | 19    | 0.75                  | 1000        | 28.4                | 15.3  | 0.94                  | 990         | 31.4                | 18.7  | 1.28                  | 1030        | 28.2                | 16.7  | 1.62                  | 1150         | 31.2                | 17.7  | 2.43                  | 1280         | 34.4                | 19.7  | 3.44                  | 1350         | 47.5  | 24.4 | 3.78 |
|                             | 67.0 (19.4)   |                                             | 32.8                | 24    | 0.83                  |             | 25.6                | 19.5  | 1                     |             | 28.6                | 24.4  | 1.34                  |             | 25.4                | 21.4  | 1.65                  |              | 28.4                | 23    | 2.47                  |              | 31.4                | 25.6  | 3.47                  |              | 28.6  | 25.4 | 3.89 |
|                             | 63.0 (17.2)†† |                                             | 30.4                | 28    | 0.87                  |             | 24                  | 22.6  | 1.04                  |             | 28                  | 26    | 1.35                  |             | 24.2                | 24.2  | 1.67                  |              | 27.2                | 25.6  | 2.48                  |              | 30.2                | 28.4  | 3.47                  |              | 28.2  | 26.6 | 3.88 |
|                             | 57.0 (13.9)   |                                             | 30.2                | 28.2  | 0.88                  |             | 23.8                | 22.4  | 1.03                  |             | 27.8                | 26    | 1.35                  |             | 24.2                | 24    | 1.68                  |              | 27                  | 25.4  | 2.47                  |              | 30                  | 28.4  | 3.46                  |              | 28.2  | 26.6 | 3.9  |
| C5H3V48 Minimum Demand      |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |       |      |      |
| 75<br>(23.9)                | 72.0 (22.2)   | 615                                         | 20.6                | 8.2   | 0.33                  | 615         | 16.1                | 6.6   | 0.46                  | 660         | 17.2                | 7.1   | 0.64                  | 700         | 17.7                | 7.6   | 0.96                  | 900          | 24.6                | 9.8   | 1.83                  | 1100         | 30.6                | 12.1  | 2.96                  | 1200         | 28    | 11.4 | 3.37 |
|                             | 67.0 (19.4)   |                                             | 18.6                | 11.7  | 0.39                  |             | 14.4                | 9.7   | 0.5                   |             | 15.4                | 10.6  | 0.68                  |             | 15.8                | 11    | 0.99                  |              | 22                  | 14    | 1.85                  |              | 27.6                | 17.3  | 2.97                  |              | 38    | 21.6 | 3.29 |
|                             | 63.0 (17.2)†† |                                             | 17.1                | 14.4  | 0.43                  |             | 13.3                | 12.1  | 0.53                  |             | 14.2                | 13.2  | 0.7                   |             | 14.6                | 13.7  | 1.02                  |              | 20.4                | 17.3  | 1.87                  |              | 25.6                | 21.4  | 2.98                  |              | 35.4  | 26   | 3.28 |
|                             | 57.0 (13.9)   |                                             | 16.5                | 15.5  | 0.44                  |             | 13.1                | 12.3  | 0.54                  |             | 14.2                | 13.2  | 0.7                   |             | 14.3                | 14.2  | 1.02                  |              | 19.7                | 18.5  | 1.88                  |              | 24.6                | 23.2  | 2.97                  |              | 32.6  | 30.6 | 3.27 |
| 80<br>(26.7)                | 72.0 (22.2)   | 615                                         | 20.4                | 11.7  | 0.33                  | 615         | 15.9                | 9.7   | 0.46                  | 660         | 17                  | 10.7  | 0.63                  | 700         | 17.5                | 11.1  | 0.95                  | 900          | 24.2                | 14    | 1.81                  | 1100         | 30.4                | 17.2  | 2.96                  | 1200         | 27.8  | 17   | 3.37 |
|                             | 67.0 (19.4)   |                                             | 18.5                | 15.1  | 0.39                  |             | 14.3                | 12.7  | 0.5                   |             | 15.5                | 13.4  | 0.66                  |             | 15.7                | 14.5  | 0.99                  |              | 22                  | 18.1  | 1.85                  |              | 27.6                | 22.4  | 2.98                  |              | 25.2  | 22.6 | 3.36 |
|                             | 63.0 (17.2)†† |                                             | 17.7                | 16.6  | 0.41                  |             | 14.1                | 13.3  | 0.51                  |             | 15.3                | 14.2  | 0.67                  |             | 15.4                | 15.3  | 1                     |              | 21.2                | 19.9  | 1.87                  |              | 26.4                | 24.8  | 2.98                  |              | 25    | 23.4 | 3.38 |
|                             | 57.0 (13.9)   |                                             | 17.7                | 16.6  | 0.41                  |             | 14.1                | 13.3  | 0.51                  |             | 15.3                | 14.2  | 0.67                  |             | 15.4                | 15.3  | 1                     |              | 21                  | 19.8  | 1.85                  |              | 26.4                | 24.8  | 2.99                  |              | 24.8  | 23.4 | 3.36 |



Detailed Cooling Capacities# - Cooling Efficiency Mode (Continued)

| EVAPORATOR AIR<br>°F (°C)   |               | CONDENSER ENTERING AIR TEMPERATURES °F (°C) |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
|-----------------------------|---------------|---------------------------------------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|-------------|---------------------|-------|-----------------------|--------------|---------------------|-------|-----------------------|--------------|---------------------|-------|-----------------------|--------------|---------------------|-------|-----------------------|
|                             |               | 65.0 (18.3)                                 |                     |       |                       | 75.0 (23.9) |                     |       |                       | 85.0 (29.4) |                     |       |                       | 95.0 (35.0) |                     |       |                       | 105.0 (40.6) |                     |       |                       | 115.0 (46.1) |                     |       |                       | 125.0 (51.7) |                     |       |                       |
| EDB                         | EWB           | ID<br>SCFM                                  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM  | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** | ID<br>SCFM   | Capacity<br>MBtu/h† |       | Total<br>Sys.<br>KW** |
|                             |               |                                             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |             | Total               | Sens‡ |                       |              | Total               | Sens‡ |                       |              | Total               | Sens‡ |                       |              | Total               | Sens‡ |                       |
| C5H3V60 Maximum Demand      |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 1625                                        | 69                  | 27.4  | 3.34                  | 1725        | 68                  | 27    | 3.59                  | 1725        | 67                  | 26.4  | 3.96                  | 1725        | 65                  | 25.4  | 4.5                   | 1725         | 62                  | 23.8  | 5.15                  | 1725         | 57.5                | 21.6  | 5.8                   | 1725         | 50                  | 18.2  | 5.95                  |
|                             | 67.0 (19.4)   |                                             | 62                  | 35.4  | 3.35                  |             | 61.5                | 35.6  | 3.62                  |             | 60.5                | 35.2  | 3.96                  |             | 58.5                | 34.2  | 4.47                  |              | 56                  | 32.4  | 5.12                  |              | 52                  | 29.8  | 5.73                  |              | 45                  | 25.8  | 5.84                  |
|                             | 63.0 (17.2)†† |                                             | 57.5                | 41.5  | 3.4                   |             | 56.5                | 42.5  | 3.62                  |             | 55.5                | 42    | 3.94                  |             | 54                  | 41    | 4.46                  |              | 51.5                | 39.5  | 5.07                  |              | 48                  | 36.4  | 5.69                  |              | 41.5                | 31.8  | 5.8                   |
|                             | 57.0 (13.9)   |                                             | 51.5                | 50.5  | 3.42                  |             | 51                  | 51    | 3.63                  |             | 50.5                | 50.5  | 3.93                  |             | 49.5                | 48.5  | 4.43                  |              | 48                  | 46    | 5.06                  |              | 45                  | 42    | 5.64                  |              | 39.5                | 35.6  | 5.76                  |
| 80<br>(26.7)                | 72.0 (22.2)   | 1625                                        | 69                  | 35.4  | 3.35                  | 1725        | 68                  | 35.8  | 3.6                   | 1725        | 66                  | 35.2  | 3.91                  | 1725        | 64.5                | 34.2  | 4.48                  | 1725         | 61.5                | 32.6  | 5.13                  | 1725         | 57                  | 29.8  | 5.77                  | 1725         | 49.5                | 25.8  | 5.92                  |
|                             | 67.0 (19.4)   |                                             | 62                  | 43    | 3.36                  |             | 61                  | 44    | 3.59                  |             | 60                  | 44    | 3.94                  |             | 58.5                | 43    | 4.46                  |              | 56                  | 41    | 5.13                  |              | 52                  | 38    | 5.74                  |              | 45.5                | 33.2  | 5.85                  |
|                             | 63.0 (17.2)†† |                                             | 57.5                | 49.5  | 3.39                  |             | 56.5                | 51    | 3.61                  |             | 55.5                | 50.5  | 3.93                  |             | 54.5                | 49.5  | 4.48                  |              | 52                  | 47.5  | 5.1                   |              | 48.5                | 44.5  | 5.71                  |              | 42.5                | 38    | 5.84                  |
|                             | 57.0 (13.9)   |                                             | 54                  | 54    | 3.39                  |             | 54.5                | 54.5  | 3.63                  |             | 54                  | 53.5  | 3.95                  |             | 53                  | 52    | 4.46                  |              | 51                  | 49    | 5.07                  |              | 48                  | 44.5  | 5.69                  |              | 42.5                | 38    | 5.84                  |
| C5H3V60 Intermediate Demand |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 1000                                        | 37                  | 15.1  | 1.3                   | 1000        | 36.2                | 14.8  | 1.45                  | 1000        | 35.6                | 14.5  | 1.65                  | 1100        | 35.8                | 14.6  | 2.07                  | 1260         | 36.4                | 14.7  | 2.67                  | 1260         | 40                  | 15.4  | 3.68                  | 1260         | 34.6                | 13.1  | 3.88                  |
|                             | 67.0 (19.4)   |                                             | 33.4                | 20    | 1.34                  |             | 32.6                | 19.8  | 1.49                  |             | 32                  | 19.5  | 1.69                  |             | 32.2                | 20.2  | 2.11                  |              | 32.6                | 21    | 2.7                   |              | 36                  | 21.4  | 3.67                  |              | 31.2                | 18.6  | 3.86                  |
|                             | 63.0 (17.2)†† |                                             | 30.6                | 23.8  | 1.37                  |             | 30                  | 23.6  | 1.52                  |             | 29.4                | 23.4  | 1.72                  |             | 29.4                | 24.4  | 2.13                  |              | 30                  | 26    | 2.72                  |              | 33.2                | 26.2  | 3.68                  |              | 28.8                | 23    | 3.85                  |
|                             | 57.0 (13.9)   |                                             | 28                  | 28    | 1.4                   |             | 27.6                | 27.6  | 1.54                  |             | 27.2                | 27    | 1.74                  |             | 28                  | 27.4  | 2.15                  |              | 29                  | 28    | 2.72                  |              | 31.4                | 29.2  | 3.66                  |              | 27.8                | 25    | 3.85                  |
| 80<br>(26.7)                | 72.0 (22.2)   | 1000                                        | 36.8                | 20    | 1.3                   | 1000        | 36                  | 19.9  | 1.44                  | 1000        | 35.4                | 19.6  | 1.65                  | 1100        | 35.6                | 20.2  | 2.07                  | 1260         | 36.2                | 21.2  | 2.67                  | 1260         | 40                  | 21.6  | 3.69                  | 1260         | 34.4                | 18.6  | 3.88                  |
|                             | 67.0 (19.4)   |                                             | 33.2                | 24.8  | 1.34                  |             | 32.4                | 24.8  | 1.48                  |             | 31.8                | 24.6  | 1.69                  |             | 32                  | 25.8  | 2.11                  |              | 32.6                | 27.4  | 2.7                   |              | 35.8                | 27.4  | 3.66                  |              | 31.2                | 24.2  | 3.87                  |
|                             | 63.0 (17.2)†† |                                             | 30.8                | 28.6  | 1.37                  |             | 30                  | 28.6  | 1.51                  |             | 29.4                | 28.6  | 1.71                  |             | 30                  | 29.4  | 2.13                  |              | 31.2                | 30    | 2.71                  |              | 33.6                | 31.4  | 3.66                  |              | 29.8                | 26.8  | 3.86                  |
|                             | 57.0 (13.9)   |                                             | 29.8                | 29.8  | 1.37                  |             | 29.4                | 29.4  | 1.52                  |             | 29                  | 29    | 1.71                  |             | 30                  | 29.4  | 2.13                  |              | 31.2                | 30    | 2.71                  |              | 33.6                | 31.4  | 3.67                  |              | 29.8                | 26.8  | 3.87                  |
| C5H3V60 Minimum Demand      |               |                                             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |             |                     |       |                       |              |                     |       |                       |              |                     |       |                       |              |                     |       |                       |
| 75<br>(23.9)                | 72.0 (22.2)   | 875                                         | 21.2                | 9.2   | 0.46                  | 875         | 20.2                | 8.9   | 0.57                  | 875         | 19.2                | 8.6   | 0.75                  | 1000        | 19.4                | 8.8   | 1.08                  | 1000         | 21.6                | 9.4   | 1.59                  | 1000         | 30                  | 11.7  | 2.74                  | 1000         | 26.4                | 10.1  | 3.03                  |
|                             | 67.0 (19.4)   |                                             | 19.3                | 13.6  | 0.53                  |             | 18.3                | 13.4  | 0.64                  |             | 17.3                | 13.1  | 0.8                   |             | 17.4                | 13.9  | 1.13                  |              | 19.3                | 14.4  | 1.64                  |              | 26.8                | 16.5  | 2.75                  |              | 23.8                | 14.5  | 3.04                  |
|                             | 63.0 (17.2)†† |                                             | 18                  | 17    | 0.58                  |             | 17                  | 16.8  | 0.68                  |             | 16.2                | 16.1  | 0.84                  |             | 16.6                | 16.3  | 1.14                  |              | 18.2                | 17.5  | 1.66                  |              | 24.6                | 20.2  | 2.77                  |              | 21.8                | 17.9  | 3.04                  |
|                             | 57.0 (13.9)   |                                             | 17.7                | 17.7  | 0.59                  |             | 16.9                | 16.9  | 0.68                  |             | 16.2                | 16.1  | 0.84                  |             | 16.6                | 16.3  | 1.15                  |              | 18.2                | 17.4  | 1.67                  |              | 23.6                | 22    | 2.77                  |              | 21.2                | 19.1  | 3.04                  |
| 80<br>(26.7)                | 72.0 (22.2)   | 875                                         | 21                  | 13.5  | 0.45                  | 875         | 19.9                | 13.3  | 0.56                  | 875         | 18.9                | 13    | 0.74                  | 1000        | 19.1                | 14    | 1.07                  | 1000         | 21.4                | 14.4  | 1.59                  | 1000         | 29.8                | 16.6  | 2.74                  | 1000         | 26.2                | 14.5  | 3.03                  |
|                             | 67.0 (19.4)   |                                             | 19.2                | 17.8  | 0.53                  |             | 18.3                | 17.7  | 0.63                  |             | 17.5                | 16.6  | 0.79                  |             | 17.9                | 17.5  | 1.11                  |              | 19.6                | 18.8  | 1.63                  |              | 26.8                | 21.4  | 2.76                  |              | 23.6                | 18.9  | 3.03                  |
|                             | 63.0 (17.2)†† |                                             | 18.8                | 18.8  | 0.54                  |             | 18.1                | 18.1  | 0.64                  |             | 17.4                | 17.3  | 0.8                   |             | 17.9                | 17.5  | 1.11                  |              | 19.6                | 18.8  | 1.63                  |              | 25.4                | 23.8  | 2.77                  |              | 22.8                | 20.4  | 3.04                  |
|                             | 57.0 (13.9)   |                                             | 18.8                | 18.8  | 0.54                  |             | 18.1                | 18.1  | 0.64                  |             | 17.3                | 17.3  | 0.8                   |             | 17.8                | 17.5  | 1.11                  |              | 19.6                | 18.8  | 1.64                  |              | 25.4                | 23.6  | 2.77                  |              | 22.8                | 20.4  | 3.04                  |

# Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per AHRI standard 210/240-2008. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur

† Total and sensible capacities are net capacities. Blower motor heat has been subtracted.

‡ Sensible capacities shown are based on 80°F (27°C) entering air at the indoor coil. For sensible capacities at other than 80°F (27°C), deduct 835 Btu/h (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80°F (27°C), or add 835 Btu/h (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80°F (27°C).

\*\* System kw is total of indoor and outdoor unit kilowatts.

# Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per AHRI standard 210/240-08. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

EDB — Entering Dry Bulb

EWB — Entering Wet Bulb

Heat Pump Heating Performance - Comfort Mode

| INDOOR<br>AIR °F (°C)       | OUTDOOR ENTERING AIR TEMPERATURES °F (°C) |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |       |       |      |
|-----------------------------|-------------------------------------------|------------|-------------------|-------|-----------------------|------------|-------------------|-------|-----------------------|------------|-------------------|-------|-----------------------|------------|-------------------|-------|-----------------------|------------|-------------------|-------|-----------------------|------------|-------------------|-------|-----------------------|------------|-------------------|-------|-----------------------|-------|-------|------|
|                             | -3 (-19.4)                                |            |                   |       | 7 (-13.9)             |            |                   |       | 17 (-8.3)             |            |                   |       | 27 (-2.8)             |            |                   |       | 37 (2.7)              |            |                   |       | 47 (8.3)              |            |                   |       | 57 (13.9)             |            |                   |       | 67 (19.4)             |       |       |      |
|                             | EDB                                       | ID<br>SCFM | Capacity<br>MBtuh |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity<br>MBtuh |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity<br>MBtuh |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity<br>MBtuh |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity<br>MBtuh |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity<br>MBtuh |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity<br>MBtuh |       | Total<br>Sys.<br>KW** |       |       |      |
|                             |                                           |            | Total             | Sens‡ |                       |            | Total             | Sens‡ |                       |            | Total             | Sens‡ |                       |            | Total             | Sens‡ |                       |            | Total             | Sens‡ |                       |            | Total             | Sens‡ |                       |            | Total             | Sens‡ |                       | Total | Sens‡ |      |
| C5H3V36 Maximum Demand      |                                           |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |       |       |      |
| 65 (18.3)                   | 720                                       | 23         | 21                | 2.98  | 750                   | 29.2       | 26.8              | 3.51  | 780                   | 32.2       | 29.4              | 3.35  | 1030                  | 37.8       | 33.6              | 3.34  | 1170                  | 41         | 37.2              | 3.18  | 1005                  | 35         | 35                | 2.44  | 1015                  | 36.8       | 36.8              | 2.21  | 1000                  | 40    | 40    | 2.09 |
| 70 (21.1)                   |                                           | 22.8       | 21                | 3.09  |                       | 29         | 26.8              | 3.63  |                       | 32         | 29.2              | 3.5   |                       | 37.6       | 33.4              | 3.49  |                       | 40.5       | 37                | 3.32  |                       | 34.6       | 34.6              | 2.57  |                       | 36.4       | 36.4              | 2.35  |                       | 39.5  | 39.5  | 2.24 |
| 75 (23.9)                   |                                           | 22.6       | 21                | 3.25  |                       | 29         | 26.6              | 3.79  |                       | 31.8       | 29                | 3.64  |                       | 37.4       | 33.2              | 3.65  |                       | 40.5       | 36.6              | 3.51  |                       | 34.2       | 34.2              | 2.71  |                       | 36         | 36                | 2.48  |                       | 39.5  | 39.5  | 2.4  |
| C5H3V36 Intermediate Demand |                                           |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |       |       |      |
| 65 (18.3)                   | 460                                       | 12.3       | 11.3              | 1.45  | 470                   | 15.7       | 14.4              | 1.63  | 480                   | 18.4       | 16.8              | 1.67  | 580                   | 21.8       | 19.3              | 1.66  | 630                   | 23.8       | 21.6              | 1.59  | 590                   | 22.4       | 22.4              | 1.47  | 575                   | 22.2       | 22.2              | 1.22  | 570                   | 24    | 24    | 1.16 |
| 70 (21.1)                   |                                           | 12.2       | 11.2              | 1.54  |                       | 15.5       | 14.2              | 1.71  |                       | 18.2       | 16.6              | 1.75  |                       | 21.4       | 19.1              | 1.72  |                       | 23.6       | 21.4              | 1.68  |                       | 22         | 22                | 1.54  |                       | 22         | 22                | 1.31  |                       | 23.6  | 23.6  | 1.22 |
| 75 (23.9)                   |                                           | 12         | 11                | 1.6   |                       | 15.3       | 14                | 1.79  |                       | 18         | 16.4              | 1.84  |                       | 21.2       | 18.9              | 1.81  |                       | 23.2       | 21.2              | 1.75  |                       | 21.8       | 21.8              | 1.64  |                       | 21.6       | 21.6              | 1.39  |                       | 23.2  | 23.2  | 1.29 |
| C5H3V36 Minimum Demand      |                                           |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |       |       |      |
| 65 (18.3)                   | 325                                       | 7.8        | 7.1               | 0.96  | 325                   | 9.9        | 9.1               | 1.05  | 325                   | 12.3       | 11.2              | 1.14  | 350                   | 14.2       | 12.6              | 1.11  | 360                   | 15.6       | 14.2              | 1.1   | 375                   | 16.1       | 16.1              | 1.13  | 350                   | 15         | 15                | 0.88  | 350                   | 15.6  | 15.6  | 0.77 |
| 70 (21.1)                   |                                           | 7.6        | 7                 | 1     |                       | 9.7        | 8.9               | 1.09  |                       | 12.1       | 11                | 1.2   |                       | 14         | 12.4              | 1.17  |                       | 15.4       | 14                | 1.16  |                       | 15.9       | 15.9              | 1.19  |                       | 14.8       | 14.8              | 0.94  |                       | 15.4  | 15.4  | 0.83 |
| 75 (23.9)                   |                                           | 7.4        | 6.8               | 1.04  |                       | 9.5        | 8.8               | 1.14  |                       | 11.9       | 10.8              | 1.25  |                       | 13.8       | 12.2              | 1.23  |                       | 15.2       | 13.8              | 1.22  |                       | 15.6       | 15.6              | 1.25  |                       | 14.6       | 14.6              | 1     |                       | 15.1  | 15.1  | 0.89 |
| C5H3V48 Maximum Demand      |                                           |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |       |       |      |
| 65 (18.3)                   | 1600                                      | 31.4       | 29                | 3.93  | 1605                  | 39         | 35.8              | 4.72  | 1585                  | 43         | 39.5              | 4.2   | 1490                  | 50         | 44                | 4.26  | 1325                  | 56         | 51                | 4.61  | 1400                  | 53         | 53                | 4.11  | 1400                  | 58         | 58                | 4.15  | 1400                  | 62    | 62    | 4.23 |
| 70 (21.1)                   |                                           | 31.2       | 28.8              | 4.12  |                       | 39.5       | 36.2              | 4.71  |                       | 43         | 39                | 4.44  |                       | 49.5       | 44                | 4.45  |                       | 55.5       | 50.5              | 4.84  |                       | 52.5       | 52.5              | 4.32  |                       | 57.5       | 57.5              | 4.39  |                       | 61    | 61    | 4.45 |
| 75 (23.9)                   |                                           | 31         | 28.6              | 4.29  |                       | 39.5       | 36                | 4.91  |                       | 40         | 36.4              | 4.51  |                       | 49         | 43.5              | 4.66  |                       | 55         | 50                | 5.04  |                       | 52         | 52                | 4.54  |                       | 57         | 57                | 4.61  |                       | 60.5  | 60.5  | 4.69 |
| C5H3V48 Intermediate Demand |                                           |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |       |       |      |
| 65 (18.3)                   | 870                                       | 20.8       | 19.1              | 2.54  | 890                   | 27.2       | 25                | 2.89  | 930                   | 30.2       | 27.6              | 2.77  | 895                   | 31.4       | 27.8              | 2.41  | 845                   | 26.2       | 23.8              | 1.73  | 870                   | 26.2       | 26.2              | 1.65  | 870                   | 28.6       | 28.6              | 1.64  | 870                   | 33.4  | 33.4  | 1.7  |
| 70 (21.1)                   |                                           | 21         | 19.3              | 2.65  |                       | 24.6       | 22.6              | 3.11  |                       | 29.6       | 27                | 2.89  |                       | 31         | 27.6              | 2.54  |                       | 25.8       | 23.4              | 1.83  |                       | 25.8       | 25.8              | 1.76  |                       | 28.8       | 28.8              | 1.77  |                       | 32.8  | 32.8  | 1.81 |
| 75 (23.9)                   |                                           | 20.8       | 19.1              | 2.8   |                       | 26.8       | 24.6              | 3.17  |                       | 29.4       | 26.8              | 3.03  |                       | 30.6       | 27.2              | 2.65  |                       | 25.4       | 23                | 1.93  |                       | 25.4       | 25.4              | 1.87  |                       | 28.4       | 28.4              | 1.88  |                       | 32.4  | 32.4  | 1.94 |
| C5H3V48 Minimum Demand      |                                           |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |       |       |      |
| 65 (18.3)                   | 500                                       | 15.8       | 14.5              | 2.01  | 530                   | 19.7       | 18.1              | 2.19  | 600                   | 23.2       | 21.2              | 2.19  | 600                   | 21.8       | 19.3              | 1.67  | 600                   | 11.3       | 10.3              | 0.7   | 600                   | 12.7       | 12.7              | 0.76  | 600                   | 14.9       | 14.9              | 0.8   | 600                   | 17.7  | 17.7  | 0.82 |
| 70 (21.1)                   |                                           | 15.6       | 14.4              | 2.12  |                       | 19.5       | 17.9              | 2.27  |                       | 23         | 21                | 2.31  |                       | 21.4       | 19.1              | 1.75  |                       | 11.1       | 10.1              | 0.76  |                       | 12.3       | 12.3              | 0.82  |                       | 14.6       | 14.6              | 0.87  |                       | 16.8  | 16.8  | 0.88 |
| 75 (23.9)                   |                                           | 15.4       | 14.1              | 2.21  |                       | 18.9       | 17.3              | 2.37  |                       | 22.6       | 20.6              | 2.42  |                       | 21.2       | 18.9              | 1.8   |                       | 10.7       | 9.7               | 0.8   |                       | 12         | 12                | 0.87  |                       | 14.5       | 14.5              | 0.94  |                       | 16.6  | 16.6  | 0.95 |
| C5H3V60 Maximum Demand      |                                           |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |       |       |      |
| 65 (18.3)                   | 1400                                      | 33         | 30.2              | 3.78  | 1400                  | 45.5       | 41.5              | 4.8   | 1460                  | 54         | 49.5              | 5.04  | 1650                  | 63.5       | 56.5              | 5.14  | 1645                  | 68         | 62                | 5.39  | 1425                  | 69         | 69                | 6.13  | 1415                  | 62.5       | 62.5              | 4.82  | 1300                  | 54    | 54    | 3.49 |
| 70 (21.1)                   |                                           | 32.6       | 30                | 3.95  |                       | 45         | 41.5              | 5     |                       | 53.5       | 49                | 5.23  |                       | 63         | 56                | 5.37  |                       | 68         | 61.5              | 5.69  |                       | 69         | 69                | 6.48  |                       | 62         | 62                | 5.08  |                       | 53.5  | 53.5  | 3.7  |
| 75 (23.9)                   |                                           | 32.4       | 29.8              | 4.13  |                       | 45         | 41.5              | 5.23  |                       | 53.5       | 48.5              | 5.52  |                       | 62.5       | 55.5              | 5.62  |                       | 67         | 61                | 5.91  |                       | 68         | 68                | 6.73  |                       | 61         | 61                | 5.32  |                       | 53    | 53    | 3.9  |
| C5H3V60 Intermediate Demand |                                           |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |       |       |      |
| 65 (18.3)                   | 800                                       | 24.4       | 22.4              | 2.77  | 800                   | 31         | 28.6              | 3.09  | 850                   | 34.6       | 31.6              | 2.98  | 920                   | 37         | 32.8              | 2.7   | 915                   | 35.8       | 32.6              | 2.51  | 855                   | 37.4       | 37.4              | 2.95  | 875                   | 35.4       | 35.4              | 2.51  | 830                   | 34.8  | 34.8  | 2.14 |
| 70 (21.1)                   |                                           | 24.2       | 22.2              | 2.91  |                       | 30.8       | 28.2              | 3.27  |                       | 34.2       | 31.2              | 3.13  |                       | 36.6       | 32.6              | 2.84  |                       | 35.4       | 32.2              | 2.65  |                       | 37         | 37                | 3.12  |                       | 35         | 35                | 2.66  |                       | 34.4  | 34.4  | 2.29 |
| 75 (23.9)                   |                                           | 23.8       | 22                | 3.03  |                       | 30.4       | 28                | 3.43  |                       | 34         | 31                | 3.3   |                       | 36.2       | 32.2              | 2.98  |                       | 35         | 31.8              | 2.8   |                       | 36.6       | 36.6              | 3.29  |                       | 34.6       | 34.6              | 2.83  |                       | 34    | 34    | 2.44 |
| C5H3V60 Minimum Demand      |                                           |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |            |                   |       |                       |       |       |      |
| 65 (18.3)                   | 500                                       | 20.2       | 18.7              | 2.47  | 500                   | 24         | 22                | 2.57  | 550                   | 24.8       | 22.6              | 2.27  | 550                   | 23.8       | 21                | 1.85  | 550                   | 19.2       | 17.5              | 1.37  | 570                   | 20.4       | 20.4              | 1.57  | 600                   | 21.8       | 21.8              | 1.54  | 600                   | 24    | 24    | 1.52 |
| 70 (21.1)                   |                                           | 20         | 18.4              | 2.59  |                       | 23.6       | 21.8              | 2.68  |                       | 24.4       | 22.2              | 2.37  |                       | 23.4       | 20.8              | 1.95  |                       | 18.9       | 17.2              | 1.47  |                       | 20.2       | 20.2              | 1.7   |                       | 21.6       | 21.6              | 1.67  |                       | 23.8  | 23.8  | 1.66 |
| 75 (23.9)                   |                                           | 19.8       | 18.2              | 2.71  |                       | 23.4       | 21.6              | 2.83  |                       | 24.2       | 22                | 2.5   |                       | 23.2       | 20.6              | 2.07  |                       | 18.7       | 17                | 1.58  |                       | 20         | 20                | 1.83  |                       | 21.4       | 21.4              | 1.81  |                       | 23.6  | 23.6  | 1.8  |

Heat Pump Heating Performance - Efficiency Mode

| INDOOR<br>AIR<br>°F (°C)    | OUTDOOR ENTERING AIR TEMPERATURES °F (°C) |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |       |      |      |
|-----------------------------|-------------------------------------------|------------|----------|-------|-----------------------|------------|----------|-------|-----------------------|------------|----------|-------|-----------------------|------------|----------|-------|-----------------------|------------|----------|-------|-----------------------|------------|----------|-------|-----------------------|------------|----------|-------|-----------------------|-------|------|------|
|                             | -3 (-19.4)                                |            |          |       | 7 (-13.9)             |            |          |       | 17 (-8.3)             |            |          |       | 27 (-2.8)             |            |          |       | 37 (2.7)              |            |          |       | 47 (8.3)              |            |          |       | 57 (13.9)             |            |          |       | 67 (19.4)             |       |      |      |
|                             | EDB                                       | ID<br>SCFM | Capacity |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity |       | Total<br>Sys.<br>KW** | ID<br>SCFM | Capacity |       | Total<br>Sys.<br>KW** |       |      |      |
| Total                       |                                           |            | Sens‡    | Total |                       |            | Sens‡    | Total |                       |            | Sens‡    | Total |                       |            | Sens‡    | Total |                       |            | Sens‡    | Total |                       |            | Sens‡    | Total |                       |            | Sens‡    | Total |                       | Sens‡ |      |      |
| C5H3V36 Maximum Demand      |                                           |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |       |      |      |
| 65 (18.3)                   | 1400                                      | 23.6       | 21.8     | 3.01  | 1400                  | 29.2       | 27       | 3.34  | 1400                  | 32.6       | 29.8     | 3.25  | 1400                  | 38         | 34       | 3.3   | 1400                  | 41         | 37.6     | 3.16  | 1400                  | 35.6       | 35.6     | 2.47  | 1400                  | 37.4       | 37.4     | 2.26  | 1400                  | 41    | 41   | 2.15 |
| 70 (21.1)                   |                                           | 23.4       | 21.6     | 3.12  |                       | 29.2       | 26.8     | 3.54  |                       | 32.4       | 29.6     | 3.49  |                       | 38         | 33.8     | 3.48  |                       | 41         | 37.2     | 3.34  |                       | 34.2       | 34.2     | 2.62  |                       | 37.2       | 37.2     | 2.4   |                       | 40.5  | 40.5 | 2.26 |
| 75 (23.9)                   |                                           | 23.4       | 21.4     | 3.27  |                       | 29         | 26.6     | 3.66  |                       | 32.2       | 29.4     | 3.55  |                       | 37.8       | 33.6     | 3.64  |                       | 40.5       | 37       | 3.49  |                       | 35         | 35       | 2.76  |                       | 36.8       | 36.8     | 2.54  |                       | 40    | 40   | 2.39 |
| C5H3V36 Intermediate Demand |                                           |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |       |      |      |
| 65 (18.3)                   | 900                                       | 12.6       | 11.6     | 1.41  | 900                   | 16         | 14.7     | 1.55  | 900                   | 18.7       | 17.1     | 1.56  | 800                   | 21         | 18.6     | 1.47  | 700                   | 17         | 15.5     | 0.99  | 700                   | 16.1       | 16.1     | 0.89  | 700                   | 18.1       | 18.1     | 0.85  | 700                   | 20    | 20   | 0.83 |
| 70 (21.1)                   |                                           | 12.4       | 11.4     | 1.48  |                       | 15.8       | 14.5     | 1.63  |                       | 18.5       | 16.9     | 1.64  |                       | 20.6       | 18.4     | 1.55  |                       | 16.7       | 15.2     | 1.05  |                       | 15.9       | 15.9     | 0.96  |                       | 17.8       | 17.8     | 0.92  |                       | 20    | 20   | 0.91 |
| 75 (23.9)                   |                                           | 12.3       | 11.3     | 1.55  |                       | 15.6       | 14.3     | 1.71  |                       | 18.3       | 16.7     | 1.72  |                       | 20.4       | 18.1     | 1.63  |                       | 16.5       | 15       | 1.12  |                       | 15.6       | 15.6     | 1.02  |                       | 17.5       | 17.5     | 0.99  |                       | 19.9  | 19.9 | 0.98 |
| C5H3V36 Minimum Demand      |                                           |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |       |      |      |
| 65 (18.3)                   | 650                                       | 8          | 7.3      | 0.9   | 650                   | 10.1       | 9.3      | 0.95  | 650                   | 12.4       | 11.3     | 0.99  | 650                   | 12.7       | 11.2     | 0.83  | 650                   | 5.5        | 5        | 0.32  | 650                   | 6.7        | 6.7      | 0.35  | 650                   | 8.2        | 8.2      | 0.33  | 650                   | 9.4   | 9.4  | 0.32 |
| 70 (21.1)                   |                                           | 7.8        | 7.2      | 0.94  |                       | 9.9        | 9.1      | 1     |                       | 12.2       | 11.2     | 1.05  |                       | 12.4       | 11       | 0.88  |                       | 5.4        | 4.9      | 0.35  |                       | 6.2        | 6.2      | 0.38  |                       | 8          | 8        | 0.37  |                       | 9.4   | 9.4  | 0.36 |
| 75 (23.9)                   |                                           | 7.6        | 7        | 0.99  |                       | 9.7        | 8.9      | 1.05  |                       | 12         | 11       | 1.11  |                       | 12.2       | 10.9     | 0.93  |                       | 5.2        | 4.7      | 0.38  |                       | 6.3        | 6.3      | 0.41  |                       | 7.8        | 7.8      | 0.41  |                       | 9.4   | 9.4  | 0.39 |
| C5H3V48 Maximum Demand      |                                           |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |       |      |      |
| 65 (18.3)                   | 1600                                      | 26.8       | 24.6     | 3.27  | 1605                  | 40.5       | 37.2     | 4.64  | 1565                  | 43.5       | 39.5     | 4.25  | 1360                  | 50         | 44.5     | 4.24  | 1325                  | 56         | 51       | 4.61  | 1400                  | 53         | 53       | 4.11  | 1400                  | 58         | 58       | 4.15  | 1400                  | 62    | 62   | 4.23 |
| 70 (21.1)                   |                                           | 26.2       | 24.2     | 3.4   |                       | 40         | 37       | 4.77  |                       | 43         | 39       | 4.47  |                       | 49.5       | 44       | 4.45  |                       | 55.5       | 50.5     | 4.84  |                       | 48.5       | 48.5     | 3.82  |                       | 57.5       | 57.5     | 4.39  |                       | 61    | 61   | 4.45 |
| 75 (23.9)                   |                                           | 26         | 24       | 3.56  |                       | 40         | 36.8     | 5.01  |                       | 41         | 37.6     | 4.55  |                       | 49         | 43.5     | 4.66  |                       | 55         | 50       | 5.04  |                       | 52         | 52       | 4.54  |                       | 57         | 57       | 4.61  |                       | 60.5  | 60.5 | 4.69 |
| C5H3V48 Intermediate Demand |                                           |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |       |      |      |
| 65 (18.3)                   | 1140                                      | 19.2       | 17.7     | 2.4   | 1140                  | 27.2       | 25       | 2.83  | 1090                  | 29.2       | 26.8     | 2.61  | 1020                  | 29.8       | 26.4     | 2.22  | 1005                  | 26.8       | 24.4     | 1.75  | 930                   | 26         | 26       | 1.62  | 850                   | 29.2       | 29.2     | 1.66  | 850                   | 33.4  | 33.4 | 1.72 |
| 70 (21.1)                   |                                           | 19.4       | 17.8     | 2.56  |                       | 27         | 24.8     | 2.95  |                       | 29         | 26.4     | 2.76  |                       | 29.4       | 26       | 2.33  |                       | 26.4       | 24       | 1.86  |                       | 25.6       | 25.6     | 1.73  |                       | 28.6       | 28.6     | 1.77  |                       | 32.8  | 32.8 | 1.82 |
| 75 (23.9)                   |                                           | 18.6       | 17.1     | 2.52  |                       | 27         | 24.8     | 3.09  |                       | 28.6       | 26       | 2.89  |                       | 29         | 25.8     | 2.44  |                       | 26         | 23.6     | 1.96  |                       | 25.2       | 25.2     | 1.84  |                       | 28.4       | 28.4     | 1.89  |                       | 32.2  | 32.2 | 1.94 |
| C5H3V48 Minimum Demand      |                                           |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |       |      |      |
| 65 (18.3)                   | 900                                       | 16         | 14.7     | 1.89  | 900                   | 19.9       | 18.3     | 2.01  | 900                   | 22.2       | 20.2     | 1.94  | 900                   | 18.7       | 16.7     | 1.29  | 760                   | 11.5       | 10.5     | 0.69  | 600                   | 12.8       | 12.8     | 0.75  | 600                   | 15         | 15       | 0.8   | 600                   | 17.6  | 17.6 | 0.82 |
| 70 (21.1)                   |                                           | 15.8       | 14.5     | 1.98  |                       | 19.6       | 18       | 2.11  |                       | 21.8       | 19.8     | 2.03  |                       | 18.4       | 16.4     | 1.36  |                       | 11.2       | 10.2     | 0.74  |                       | 11.5       | 11.5     | 0.71  |                       | 14.9       | 14.9     | 0.87  |                       | 16.9  | 16.9 | 0.88 |
| 75 (23.9)                   |                                           | 15.6       | 14.3     | 2.08  |                       | 19.1       | 17.5     | 2.2   |                       | 19.7       | 17.9     | 2.19  |                       | 18.1       | 16.1     | 1.45  |                       | 10.9       | 10       | 0.79  |                       | 12.2       | 12.2     | 0.87  |                       | 14.4       | 14.4     | 0.93  |                       | 16.6  | 16.6 | 0.95 |
| C5H3V60 Maximum Demand      |                                           |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |       |      |      |
| 65 (18.3)                   | 1690                                      | 33.4       | 30.8     | 3.88  | 1850                  | 50         | 46       | 5.47  | 1850                  | 54.5       | 50       | 5.09  | 1850                  | 64         | 56.5     | 5.18  | 1765                  | 69         | 62.5     | 5.47  | 1425                  | 70         | 70       | 6.25  | 1425                  | 62.5       | 62.5     | 4.82  | 1425                  | 54.5  | 54.5 | 3.44 |
| 70 (21.1)                   |                                           | 33.2       | 30.6     | 4.05  |                       | 49.5       | 45.5     | 5.67  |                       | 50.5       | 46       | 5.36  |                       | 63.5       | 56.5     | 5.41  |                       | 68         | 62       | 5.66  |                       | 60.5       | 60.5     | 5.47  |                       | 62         | 62       | 5.08  |                       | 54    | 54   | 3.65 |
| 75 (23.9)                   |                                           | 33         | 30.4     | 4.24  |                       | 49.5       | 45.5     | 5.95  |                       | 54         | 49       | 5.57  |                       | 64         | 57       | 5.62  |                       | 67         | 61.5     | 5.88  |                       | 69         | 69       | 6.88  |                       | 61         | 61       | 5.29  |                       | 53.5  | 53.5 | 3.86 |
| C5H3V60 Intermediate Demand |                                           |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |       |      |      |
| 65 (18.3)                   | 1450                                      | 22         | 20.2     | 2.44  | 1450                  | 30.2       | 27.6     | 2.86  | 1450                  | 34         | 31       | 2.78  | 1485                  | 39.5       | 35       | 2.69  | 1470                  | 32.8       | 29.8     | 2.16  | 1245                  | 35         | 35       | 2.47  | 1245                  | 33.8       | 33.8     | 2.15  | 1245                  | 32.8  | 32.8 | 1.78 |
| 70 (21.1)                   |                                           | 21.8       | 20       | 2.58  |                       | 29.8       | 27.4     | 2.99  |                       | 33.6       | 30.6     | 2.91  |                       | 38         | 33.8     | 2.83  |                       | 32.4       | 29.4     | 2.29  |                       | 34.4       | 34.4     | 2.6   |                       | 32.4       | 32.4     | 2.17  |                       | 31.6  | 31.6 | 1.75 |
| 75 (23.9)                   |                                           | 21.6       | 19.8     | 2.71  |                       | 29.6       | 27.2     | 3.14  |                       | 33.2       | 30.4     | 3.06  |                       | 38.5       | 34       | 2.99  |                       | 32         | 29.2     | 2.43  |                       | 34.2       | 34.2     | 2.78  |                       | 33         | 33       | 2.45  |                       | 32.4  | 32.4 | 2.06 |
| C5H3V60 Minimum Demand      |                                           |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |            |          |       |                       |       |      |      |
| 65 (18.3)                   | 1250                                      | 16.5       | 15.2     | 1.87  | 1250                  | 20.4       | 18.7     | 1.93  | 1250                  | 24.4       | 22.2     | 1.96  | 1140                  | 25.6       | 22.6     | 1.74  | 980                   | 13.7       | 12.5     | 0.82  | 850                   | 14.5       | 14.5     | 0.87  | 850                   | 15.4       | 15.4     | 0.81  | 850                   | 17.9  | 17.9 | 0.79 |
| 70 (21.1)                   |                                           | 16.3       | 15       | 1.97  |                       | 20         | 18.5     | 2.02  |                       | 24.2       | 22       | 2.09  |                       | 25.2       | 22.4     | 1.84  |                       | 13.3       | 12.1     | 0.89  |                       | 12.2       | 12.2     | 0.89  |                       | 15         | 15       | 0.9   |                       | 17.5  | 17.5 | 0.89 |
| 75 (23.9)                   |                                           | 16         | 14.7     | 2.06  |                       | 19.8       | 18.2     | 2.13  |                       | 23.8       | 21.8     | 2.19  |                       | 25         | 22.2     | 1.96  |                       | 12.9       | 11.7     | 0.96  |                       | 13.7       | 13.7     | 1.04  |                       | 14.7       | 14.7     | 0.99  |                       | 17.1  | 17.1 | 0.99 |

NOTES:  
\*\* The kW values include the compressor, outdoor fan motor, and indoor blower motor. The kW from supplement heaters should be added to these values to obtain Total Sys. kilowatts.  
†The Btuh heating capacity values shown are net integrated values from which the defrost effect has been subtracted. The Btuh heating from supplement heaters should be added to those values to obtain Total Sys. capacity.  
NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.  
EDB — Entering Dry Bulb

## Guide specifications

### General

## AIR-COOLED, SPLIT-SYSTEM HEAT PUMP

C5H3V

3 TO 5 NOMINAL TONS

### System Description

Outdoor-mounted, air-cooled, split-system heat pump unit suitable for ground or rooftop installation. Unit consists of a hermetic compressor, an air-cooled coil, forward-swept blade propeller-type condenser fan, and a control box. Unit will discharge supply air upward as shown on contract drawings. Unit will be used in a refrigeration circuit to match up to a packaged fan coil or coil unit.

### Quality Assurance

- Unit will be rated in accordance with the latest edition of AHRI Standard 240.
- Unit will be certified for capacity and efficiency, and listed in the latest AHRI directory.
- Unit construction will comply with latest edition of ASHRAE and with NEC.
- Unit will be constructed in accordance with UL standards and will carry the UL label of approval. Unit will have C-UL approval.
- Unit cabinet will be capable of withstanding Federal Test Method Standard No. 141 (Method 6061) 500-hr salt spray test.
- Air-cooled condenser coils are pressure tested and the outdoor units are leak tested.
- Unit constructed in ISO9001 approved facility.

### Delivery, Storage, and Handling

- Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

### Warranty (for inclusion by specifying engineer)

- U.S. and Canada only.

## PRODUCTS

### Equipment

- Factory-assembled, single-piece, air-cooled heat pump. Contained within the unit enclosure is all factory wiring, piping, controls, compressor, refrigerant charge R-454B refrigerant, and special features required prior to field start-up.

### Unit Cabinet

- Unit cabinet will be constructed of galvanized steel, bonderized, and coated with a powder coat paint.

### Fans

- Condenser fan will be direct-drive propeller type, forward swept blade, discharging air upward.
- Condenser fan motors will be totally enclosed, 1-phase type with class B insulation and permanently lubricated.
- Fan blades will be statically and dynamically balanced.
- Condenser fan openings will be equipped with coated steel wire safety guards.

### Compressor

- Compressor will be hermetically sealed.
- Compressor will be mounted on rubber vibration isolators.
- Compressor will be covered with a sound absorbing blanket.

### Condenser Coil

- Condenser coil will be air cooled.
- Coil will be constructed of aluminum fins mechanically bonded to copper or aluminum tubes which are then cleaned, dehydrated, and sealed.

### Refrigeration Components

- Refrigeration circuit components will include liquid-line and vapor line front-seating shutoff valve with provisions for sweat or mechanical connections, system charge of R-454B refrigerant, PVE compressor oil, accumulator, electronic expansion valve, reversing valve, and pressure equalization valve.
- Unit will be equipped with high-pressure switch, suction and discharge pressure transducers, and filter drier for R-454B refrigerant.

### Operating Characteristics

- The capacity of the unit will meet or exceed \_\_\_\_\_ Btuh at a suction temperature of \_\_\_\_\_ °F (°C). The power consumption at full load will not exceed \_\_\_\_\_ kW.
- Combination of the unit and the evaporator or fan coil unit will have a total net cooling capacity of \_\_\_\_\_ Btuh or greater at conditions of \_\_\_\_\_ CFM entering air temperature at the evaporator at \_\_\_\_\_ °F (°C) wet bulb and \_\_\_\_\_ °F (°C) dry bulb, and air entering the unit at \_\_\_\_\_ °F (°C).
- The system will have a SEER2 of \_\_\_\_\_ Btuh/watt or greater at DOE conditions.

### Electrical Requirements

- Nominal unit electrical characteristics will be \_\_\_\_\_ v, single phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of \_\_\_\_\_ v to \_\_\_\_\_ v.
- Unit electrical power will be single point connection.
- Control circuit will be 24v.

### Special Features

- Refer to section of this literature identifying accessories and descriptions for specific features and available enhancements.
- Ion™ Black System Control with appropriate software version is required for full featured operation.

## System Design Summary

1. System must be installed with factory approved R454B Indoor unit only.
2. Factory authorized dissipation control board must be installed with indoor unit.
3. Must use Ion™ Black System Control listed in pre-sale literature only
4. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01-in. wc.
5. This product is qualified for low ambient cooling operation (below 55°F / 12.8°C) with an Ion™ Black System Control **ONLY**.
6. The maximum outdoor operating ambient in cooling mode is 125°F (51.7°C).
7. Minimum outdoor operating air temperature for heating mode is -13°F (-25°C).
8. For reliable operation, unit must be level in all horizontal planes.
9. For interconnecting refrigerant tube lengths greater than 80 ft (23.4 m) and/or elevation differences between indoor and outdoor units greater than 20 ft (6.1 m), consult Residential Piping and Long Line Guideline and Service Manual available from equipment distributor.
10. If any refrigerant tubing is buried, provide a 6 in. (152.4 mm) vertical rise to the valve connections at the unit. Refrigerant tubing lengths up to 36 in. (914.4 mm) may be buried without further consideration. Do not bury refrigerant lines longer than 36 in. (914.4 mm).
11. Use only copper wire for electrical connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
12. Do not apply capillary tube indoor coils to these units.
13. Factory-supplied filter drier must be installed.

