



# CAC

## Product Specifications

### SPLIT SYSTEM AIR CONDITIONER - 115 MBtuh

#### Standard Efficiency

##### REFRIGERATION CIRCUIT

- R-22 Refrigerant
- High efficiency tandem scroll compressors on all models
- Two stage cooling with one independent circuit for efficient operation
- Copper tube / aluminum fin coil
- High and Low pressure switches
- 0° F Low ambient fan control device
- Anti-short cycle 24 volt Time Delay
- Crankcase heater for compressor protection in low ambient conditions.



Representative photo only, some models may vary in appearance.

##### BUILT TO LAST

- Triple-coated steel, consisting of a polyester top coat, a urethane primer coat preceded by an oxide pretreatment.
- Enhanced aluminum fins mechanically bonded to copper tubes for improved heat transfer
- Pre-painted fins provide additional corrosion resistance.
- Heavy Duty enhanced coil guard is offset to protect coil from accidental damage.



##### EASY TO INSTALL AND SERVICE

- Easy Access service valves on all models
- External high and low refrigerant service ports

##### WARRANTY

- 5 year compressor limited warranty
- 1 year parts limited warranty



#### UNIT PERFORMANCE DATA (3 Phase - 60 Hz)

| Model Number | COOLING               |       |     |         | Voltage/Phase/Hz | Unit Dimensions H x W x L | Ship Weight |
|--------------|-----------------------|-------|-----|---------|------------------|---------------------------|-------------|
|              | Nominal Capacity BTUH | E.E.R | S/T | I.P.L.V |                  |                           |             |
| CAC120GHC    | 115,000               | 8.6   | .78 | 11.5    | 208/230-3-60     | 42-1/2 x 27 x 28          | 471         |
| CAC120GLC    | 115,000               | 8.6   | .78 | 11.5    | 460-3-60         | 42-1/2 x 27 x 28          | 471         |
| CAC120GSC    | 115,000               | 8.6   | .78 | 11.5    | 575-3-60         | 42-1/2 x 27 x 28          | 471         |

\* CAC120 matched with ABC120 Air Handler

|  | UNIT SPECIFICATIONS               |               |               |
|--|-----------------------------------|---------------|---------------|
| Electrical   | CAC120HC                          | CAC120LC      | CAC120SC      |
| Volts / Phase / Hertz  | 230/3/60                          | 460/3/60      | 575/3/60      |
| Voltage Min - Max  | 197-253                           | 414-506       | 517-633       |
| Total Unit Amps  | 40.1                              | 20.9          | 16.4          |
| Min. Circuit Amp.  | 44.4                              | 23.2          | 18.2          |
| Minimum Fuse Size  | 50                                | 30            | 20            |
| Max. Fuse  | 60                                | 30            | 25            |
| Compressor - PER COMPRESSOR  |                                   |               |               |
| FLA  | 17.3                              | 8.97          | 7.05          |
| LRA  | 137                               | 62            | 50            |
| Type   | Tandem Scroll                     | Tandem Scroll | Tandem Scroll |
| Condenser Fan Data   |                                   |               |               |
| Quantity   | 1                                 | 1             | 1             |
| Volts/Phase/Hertz  | 230/1/60                          | 460/1/60      | 575/1/60      |
| FLA  | 5.5                               | 3.0           | 2.3           |
| LRA  | 13.0                              | 6.6           | 6.9           |
| Blades/Diameter/Pitch  | 4/26/32                           | 4/26/32       | 4/26/32       |
| Hp - Rpm - Speeds  | 1-1100-1                          | 1-1100-1      | 1-1100-1      |
| Bearing Type   | Sleeve                            | Sleeve        | Sleeve        |
| Rotation (Shaft End)   | CW                                | CW            | CW            |
| Max. CFM   | 7500                              | 7500          | 7500          |
| Condenser Coil   |                                   |               |               |
| Rows / Fins per Inch   | 22 / 2                            | 22 / 2        | 22 / 2        |
| Total Face Area-Sq. ft.  | 26.62                             | 26.62         | 26.62         |
| Tube Diameter  | 3/8                               | 3/8           | 3/8           |
| Refrigerant  |                                   |               |               |
| Type   | R-22                              | R-22          | R-22          |
| Ounces   | Units Shipped with Holding Charge |               |               |
| Approximate Operating Charge - Ounces, Based On BAC Series Air Handler | 384                               |               |               |
| Line Size Liquid I.D. (in.)  | 5/8                               | 5/8           | 5/8           |
| Line Size Suction I.D. (in.)   | 1-1/8                             | 1-1/8         | 1-1/8         |
| Controls   |                                   |               |               |
| Compressor IPR Valve (psi) Average                                     | 500                               | 500           | 500           |
| High Press. Switch Auto Reset - Open / Close psi                       | 420-300                           | 420-300       | 420-300       |
| Low Press. Switch Auto Reset - Open- Close psi                         | 5 - 20                            | 5 - 20        | 5 - 20        |
| Contactors Amps. (Qty. 2)  | 30 x 2                            | 30 x 2        | 30 x 2        |
| Low Ambient Control - Actuation / Release                              | 250 / 115                         | 250 / 115     | 250 / 115     |
| Crankcase Heater Type  | Strap On                          | Strap On      | Strap On      |
| Misc.  |                                   |               |               |
| Shipping Weight  | 471                               | 471           | 471           |

**PERFORMANCE DATA COOLING**

| UNIT SIZE | Rated Capacity Btuh 1st /2nd Stage <sup>1</sup> | S/T | EER | I.P.L.V. | Capacity Stages % Cooling | Evaporator Rated Airflow |
|-----------|---|-----|-----|----------|---------------------------|--------------------------|
| 10 TON*   | 60,000 / 120,000                                | .78 | 9.1 | 11.0     | 50 / 100                  | 4000 SCFM                |

<sup>1</sup> Net Capacity Ratings based on ARI Test Standards, 95° F Amb. 80° F DB / 67° F WB.

\* CAC120 matched with ABC120 Air Handler



## MODEL NUMBER IDENTIFICATION GUIDE

|                       |                      |          |          |            |          |          |                       |              |              |              |
|-----------------------|----------------------|----------|----------|------------|----------|----------|-----------------------|--------------|--------------|--------------|
| <b>MODEL NUMBER</b>   | <b>C</b>             | <b>A</b> | <b>C</b> | <b>120</b> | <b>H</b> | <b>C</b> | <b>SALES CODE</b>     |              |              |              |
| <b>PRODUCT FAMILY</b> | C = Condenser        |          |          |            |          |          | <b>ELECTRICAL</b>     |              |              |              |
| <b>PRODUCT TYPE</b>   | A = Air Conditioning |          |          |            |          |          | <b>CODE</b>           | <b>VOLTS</b> | <b>PHASE</b> | <b>CYCLE</b> |
| <b>SERIES</b>         | C = Series           |          |          |            |          |          | H                     | 208/230      | 3            | 60           |
|                       |                      |          |          |            |          |          | L                     | 460          | 3            | 60           |
|                       |                      |          |          |            |          |          | S                     | 575          | 3            | 60           |
|                       |                      |          |          |            |          |          | <b>CAPACITY MBTUH</b> |              |              |              |
|                       |                      |          |          |            |          |          | 120 = 120,000         |              |              |              |

## EXTENDED REFRIGERANT LINE CORRECTION FACTORS

| Varying Line Length in Feet ( m ) vs. Total Capacity Multiplier |           |           |            |            |            |
|---|-----------|-----------|------------|------------|------------|
| 25 ( 8 )  | 50 ( 15 ) | 75 ( 23 ) | 100 ( 30 ) | 125 ( 38 ) | 150 ( 46 ) |
| 1.00  | .99       | .98       | .96        | .94        | .92        |

## VOLTAGE CORRECTION FACTORS

| Volts | Capacity | Watts |
|-------|----------|-------|
| 208   | .98      | .99   |

## MAXIMUM ALLOWABLE TONNAGE FOR EQUIVALENT LINE LENGTH

| O. D. (Inches) | Equivalent Line Length (Line + Valves + Fittings) - Type L Copper Tube |             |             |              |
|----------------|--|-------------|-------------|--------------|
|                | 25' (7.6m)   | 50' (15.2m) | 75' (22.9m) | 100' (30.5m) |
| Liquid 5/8"    | 13.7 Ton   | 9.4 Ton     | 7.4 Ton     | n/a          |
| Suction 1-1/8" | 12.5 Ton   | 8.5 Ton     | n/a         | n/a          |
| Suction 1-3/8" | 12.4 Ton   | 14.6 Ton    | 11.6 Ton    | 10.0 Ton     |

NOTE: Equivalent suction line length is designed for a pressure drop due to friction equivalent to 2° F (1.1° C)

## NOTES AND FORMULAS FOR USING EXPANDED PERFORMANCE DATA

To find leaving wet bulb and dry bulb from the expanded performance charts on the next two pages, use the following formulas. Direct interpolation is permissible. Do not extrapolate.

$$t_{db} = t_{edb} - \frac{\text{sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

$t_{wb}$  = Wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil ( $h_{wb}$ ).

$$h_{wb} = h_{ewb} - \frac{\text{sensible capacity (Btuh)}}{4.5 \times \text{cfm}}$$

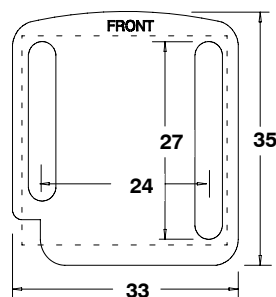
Where:  $h_{ewb}$  = Enthalpy of air entering evaporator coil.

### LEGEND

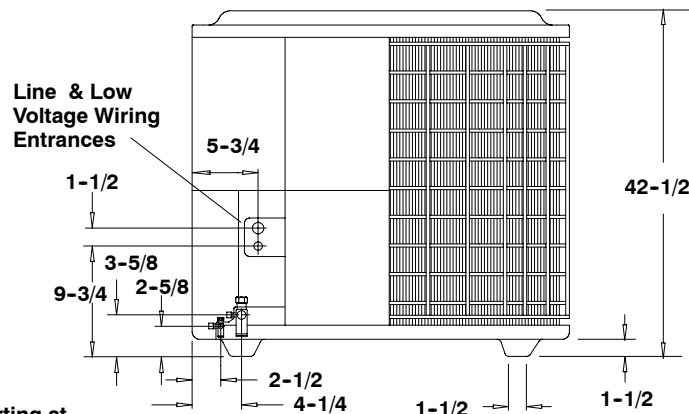
**MBh** = Total Capacity (Gross)      **S/T** = Sensible to Total Ratio  
**KW** = Unit Operating Watts      **IDB** = Indoor Dry Bulb  
 $t_{db}$  = Leaving Dry Bulb       $t_{wb}$  = Leaving Wet Bulb  
**edb** = Entering Dry Bulb      **ewb** = Entering Wet Bulb  
 $h_{wb}$  = Enthalpy of leaving wet bulb

## DIMENSIONS

ALL DIMENSIONS IN INCHES



Chassis #3



Line & Low Voltage Wiring Entrances

Minimum Mounting Pad Sizes with pad starting at 9" from structure for minimum clearance of 6".

Chassis #3      27" W X 28" D