

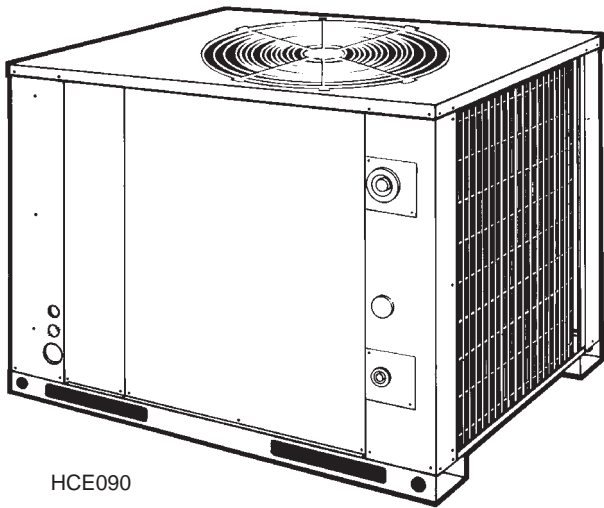


## TECHNICAL GUIDE

### SPLIT-SYSTEM AIR-COOLED CONDENSING UNITS

**H6CE090 & H4CE120**  
**7.5 AND 10 NOMINAL TONS**  
**(World 50 HZ)**

### SUNLINE 2000™



HCE090

## DESCRIPTION

These Sunline™ 2000 units are completely assembled, piped and wired at the factory to provide one-piece shipment and rigging. Each unit is pressurized with a holding charge of Refrigerant-22 for storage and/or shipping.

The compact design, clean styling, low silhouette, and quiet operation make these condensing units suitable for almost any outdoor location. On rooftops . . . because they weigh much less than a single package unit of similar capacity and are much easier to rig and support. At ground level . . . because their ample sub-cooling capacity allows them to be located 18 meters (60 feet) below the evaporator coil.

All sheet metal parts are constructed of commercial grade (G90) galvanized steel. After fabrication, each part is thoroughly cleaned to remove any grease or dirt from its surfaces. The external parts are then coated with zinc phosphate and finished with a powder paint to assure a quality finish for many years. This coating system has surpassed the 500 hour, 5% salt spray test per ASTM Standard B117.

A complete line of Evaporator Blower units is also offered to meet your precise capacity and air handling requirements. Refer to Form 550.23-TG4Y1 for more information on this air side equipment.

## FEATURES

- Condenser coil constructed of copper tubes and aluminum fins for durability and long lasting efficient operation. The coil fins are protected with a decorative grille.
- Permanently attached base rails with fork lift slots and lifting holes. This design allows for 3-way fork lift access and overhead rigging.
- Both high and low pressure controls. Since these controls are self-contained, there are no capillary lines to be damaged.
- Compressor line-break motor protection and crankcase heaters.
- Anti-short cycle timer to protect the compressor.
- A lockout circuit to prevent the unit from cycling on safety control.
- A 24-volt temperature control circuit.
- Low ambient operation to 7°C (45°F).
- A filter-drier (shipped in the unit's compressor compartment for field installation near the evaporator coil).
- Service valves with a back-seating access port for pressure testing the system. Copper stub-outs are factory mounted on the suction and liquid service valves to simplify the field piping connections.
- Separate panel for easy access to the control box without affecting air flow across the condenser coil.
- Hole in piping panel to accommodate gauge lines to refrigerant fittings in the unit.
- Packaging suitable for outdoor storage.

## APPLICATION DATA

| LIMITATION                        |              | MIN.                  | MAX.                         |
|-----------------------------------|--------------|-----------------------|------------------------------|
| Voltage Variation                 | 380/415-3-50 | 342V                  | 456V                         |
| Ambient Air on Condenser Coil.    |              | 7.2°C<br>(45°F)       | 46°C<br>(115°F) <sup>1</sup> |
| Suction Pressure at Compressor    |              | 400kPa<br>(57.5 psig) | 626kPa<br>(90.0 psig)        |
| Corresponding Temp. at Saturation |              | 0.5°C<br>(32.0°F)     | 12°C<br>(53.5°F)             |

<sup>1</sup>These units can operate at a maximum ambient temperature of 52°C (125°F) providing the wet bulb temperature of the air entering the evaporator coil does not exceed 23°C (73°F).

NOTE: Refer to Form 550.39-N1Y1 for refrigerant piping limitations.

## PHYSICAL DATA

| Model<br>HCE | Compressor          |                  | Condenser       |                     |             |        |                        |      |                |                   |                       |   |              | Unit Weight<br>kg (Lbs.) |              | Charge,<br>kg (Lbs.-Oz.)<br>(Refrigerant-22) |                  |
|--------------|---------------------|------------------|-----------------|---------------------|-------------|--------|------------------------|------|----------------|-------------------|-----------------------|---|--------------|--------------------------|--------------|--|------------------|
|              |                     |                  | Fan (Propeller) |                     |             |        | Fan Motor <sup>1</sup> |      |                | Coil <sup>3</sup> |                       |   |              |                          |              |  |                  |
|              | Rating<br>kW (Tons) | Cap.<br>(Stages) | Qty.            | Dia.<br>mm<br>(in.) | Nom.<br>CFM | Blades |                        | Qty. | kW<br>HP       | RPM               | Rotation <sup>2</sup> | Face<br>Area<br>m <sup>2</sup><br>(Ft. <sup>2</sup> ) | Rows<br>High | Ship.                    | Oper.        | Holding                                      | Oper.            |
| 090          | 25.6<br>(7.5)       | 1                | 1               | 610<br>(24)         | 4036        | 3      | 29                     | 1    | 0.56<br>(0.75) | 950               | CW                    | 1.7<br>(18.7)   | 30           | 136<br>(300)             | 134<br>(295) | 0.79<br>(1 - 12)                             | 4.7<br>(10 - 6)  |
| 120          | 34.2<br>(10)        | 1                | 2               | 610<br>(24)         | 6584        | 3      | 27                     | 2    | 0.37<br>(0.5)  | 950               | CCW                   | 2.21<br>(23.8)  | 36           | 198<br>(435)             | 195<br>(430) | 1.25<br>(2 - 12)                             | 8.1<br>(17 - 11) |

<sup>1</sup>These PSC motors are directly connected to the condenser fans and have inherent protection, ball bearings and a 48 frame.

<sup>2</sup>When viewing the shaft end of the motor.

<sup>3</sup>These condenser coils have 2 rows of 9.5mm (3/8") OD copper tubes and 16 aluminum fins per 25mm (1").

## ELECTRICAL DATA

| MODEL<br>(HCE) | VOLTAGE<br>CODE | COMPRESSOR      |      |     | CONDENSER FAN MOTOR |                |     |     | UNIT<br>AMPACITY<br>(AMPS) | MAX.<br>FUSE<br>SIZE <sup>1</sup><br>(AMPS) |
|----------------|-----------------|-----------------|------|-----|---------------------|----------------|-----|-----|----------------------------|---|
|                |                 | POWER<br>SUPPLY | FLA  | LRA | POWER<br>SUPPLY     | kW<br>(HP)     | QTY | FLA |                            |   |
| 090            | 50              | 380/415-3-50    | 17.3 | 111 | 220/240-1-50        | 0.56<br>(0.75) | 1   | 2.9 | 22.3                       | 30  |
| 120            | 50              | 380/415-3-50    | 19.6 | 118 | 220/240-1-50        | 0.37<br>(0.5)  | 2   | 2.1 | 26.2                       | 35  |

<sup>1</sup>Dual element.

<sup>2</sup>Based on three, 60°C insulated copper conductors in steel conduit.

## UNIT COOLING CAPACITIES AND POWER REQUIREMENTS

| Model<br>HCE | Suction Pressure &<br>Corresponding Temp.<br>@ Saturation |    | Temperature of Air on Condenser Coil, °F |     |     |     |     |     |     |     |     |      |     |      |
|--------------|---|----|--|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|------|
|              |   |    | 65                                       |     | 75  |     | 85  |     | 95  |     | 105 |      | 115 |      |
|              | PSIG  | °F | MBH                                      | kW* | MBH | kW* | MBH | kW* | MBH | kW* | MBH | kW*  | MBH | kW*  |
| 090          | 54.9  | 30 | 85                                       | 6.0 | 80  | 6.5 | 76  | 7.1 | 72  | 7.7 | 68  | 8.4  | 64  | 9.2  |
|              | 61.6  | 35 | 92                                       | 6.2 | 88  | 6.7 | 84  | 7.2 | 80  | 7.8 | 75  | 8.5  | 71  | 9.3  |
|              | 68.5  | 40 | 100                                      | 6.3 | 96  | 6.8 | 92  | 7.4 | 87  | 8.0 | 83  | 8.7  | 78  | 9.5  |
|              | 76.0  | 45 | 109                                      | 6.5 | 104 | 7.0 | 100 | 7.5 | 95  | 8.1 | 90  | 8.8  | 86  | 9.6  |
|              | 84.0  | 50 | 118                                      | 6.7 | 113 | 7.2 | 108 | 7.7 | 103 | 8.3 | 98  | 9.0  | 93  | 9.8  |
| 120          | 54.9  | 30 | 106                                      | 7.0 | 102 | 7.6 | 97  | 8.3 | 93  | 9.0 | 88  | 10.0 | 84  | 11.0 |
|              | 61.6  | 35 | 116                                      | 7.2 | 111 | 7.8 | 106 | 8.4 | 102 | 9.2 | 97  | 10.1 | 92  | 11.2 |
|              | 68.5  | 40 | 127                                      | 7.4 | 122 | 8.0 | 116 | 8.6 | 110 | 9.4 | 105 | 10.3 | 99  | 11.4 |
|              | 76.0  | 45 | 139                                      | 7.6 | 133 | 8.2 | 126 | 8.8 | 119 | 9.6 | 113 | 10.5 | 106 | 11.5 |
|              | 84.0  | 50 | 151                                      | 7.8 | 144 | 8.4 | 136 | 9.0 | 128 | 9.8 | 120 | 10.6 | 112 | 11.6 |

\* Includes compressor and condenser fan motor(s).

## UNIT COOLING CAPACITIES AND POWER REQUIREMENTS - SI Units

| Model<br>HCE | Suction Pressure &<br>Corresponding Temp.<br>@ Saturation |    | Temperature of Air on Condenser Coil, °C |     |    |     |    |     |    |     |    |      |    |      |
|--------------|---|----|--|-----|----|-----|----|-----|----|-----|----|------|----|------|
|              |   |    | 20                                       |     | 25 |     | 30 |     | 35 |     | 40 |      | 45 |      |
|              | kPa   | °C | kW                                       | kW* | kW | kW* | kW | kW* | kW | kW* | kW | kW*  | kW | kW*  |
| 090          | 365   | -2 | 25                                       | 6.0 | 23 | 6.5 | 22 | 7.1 | 21 | 7.7 | 20 | 8.4  | 19 | 9.2  |
|              | 413   | 1  | 27                                       | 6.2 | 26 | 6.7 | 25 | 7.2 | 23 | 7.8 | 22 | 8.5  | 21 | 9.3  |
|              | 465   | 4  | 29                                       | 6.3 | 28 | 6.8 | 27 | 7.4 | 25 | 8.0 | 24 | 8.7  | 23 | 9.5  |
|              | 520   | 7  | 32                                       | 6.5 | 30 | 7.0 | 29 | 7.5 | 28 | 8.1 | 26 | 8.8  | 25 | 9.6  |
|              | 580   | 10 | 35                                       | 6.7 | 33 | 7.2 | 32 | 7.7 | 30 | 8.3 | 29 | 9.0  | 27 | 9.8  |
| 120          | 365   | -2 | 31                                       | 7.0 | 30 | 7.6 | 28 | 8.3 | 27 | 9.0 | 26 | 10.0 | 25 | 11.0 |
|              | 413   | 1  | 34                                       | 7.2 | 33 | 7.8 | 31 | 8.4 | 30 | 9.2 | 28 | 10.1 | 27 | 11.2 |
|              | 465   | 4  | 37                                       | 7.4 | 36 | 8.0 | 34 | 8.6 | 32 | 9.4 | 31 | 10.3 | 29 | 11.4 |
|              | 520   | 7  | 41                                       | 7.6 | 39 | 8.2 | 37 | 8.8 | 35 | 9.6 | 33 | 10.5 | 31 | 11.5 |
|              | 580   | 10 | 44                                       | 7.8 | 42 | 8.4 | 40 | 9.0 | 37 | 9.8 | 35 | 10.6 | 33 | 11.6 |

\* Includes compressor and condenser fan motor(s).

**SYSTEM COOLING CAPACITIES**

| Air On Cooling Coil          |       | Temperature of Air on Condenser |                 |                        |     |     |    |                 |                 |                        |     |     |    |                 |                 |                        |     |     |    |
|------------------------------|-------|---------------------------------|-----------------|------------------------|-----|-----|----|-----------------|-----------------|------------------------|-----|-----|----|-----------------|-----------------|------------------------|-----|-----|----|
|                              |       | 95°F                            |                 |                        |     |     |    | 105°F           |                 |                        |     |     |    | 115°F           |                 |                        |     |     |    |
|                              |       | Total Cap., MBH                 | Power Input, KW | Sensible Capacity, MBH |     |     |    | Total Cap., MBH | Power Input, KW | Sensible Capacity, MBH |     |     |    | Total Cap., MBH | Power Input, KW | Sensible Capacity, MBH |     |     |    |
| Entering Dry Bulb, °F        |       |                                 |                 | Entering Dry Bulb, °F  |     |     |    |                 |                 | Entering Dry Bulb, °F  |     |     |    |                 |                 |                        |     |     |    |
| CFM                          | WB °F |                                 |                 | 86                     | 80  | 74  | 68 |                 |                 | 86                     | 80  | 74  | 68 |                 |                 | 86                     | 80  | 74  | 68 |
| <b>H6CE090A50/K5EU090A50</b> |       |                                 |                 |                        |     |     |    |                 |                 |                        |     |     |    |                 |                 |                        |     |     |    |
| 3600                         | 72    | 103                             | 8.7             | 82                     | 60  | 38  | -  | 98              | 9.3             | 80                     | 58  | 37  | -  | 93              | 9.8             | 78                     | 56  | 35  | -  |
|                              | 67    | 98                              | 8.5             | 98                     | 79  | 57  | 35 | 94              | 9.0             | 94                     | 77  | 55  | 33 | 89              | 9.6             | 89                     | 75  | 63  | 31 |
|                              | 62    | 98                              | 8.5             | 98                     | 92  | 76  | 54 | 94              | 9.0             | 94                     | 86  | 73  | 52 | 89              | 9.6             | 89                     | 83  | 72  | 50 |
|                              | 57    | 98                              | 8.5             | 98                     | 92  | 85  | 73 | 94              | 9.0             | 94                     | 87  | 81  | 70 | 89              | 9.6             | 89                     | 83  | 77  | 68 |
| 3000                         | 72    | 102                             | 8.6             | 75                     | 56  | 37  | -  | 96              | 9.2             | 73                     | 55  | 36  | -  | 91              | 9.7             | 71                     | 53  | 34  | -  |
|                              | 67    | 95                              | 8.4             | 91                     | 73  | 64  | 34 | 91              | 8.8             | 89                     | 71  | 52  | 33 | 86              | 9.4             | 86                     | 69  | 50  | 31 |
|                              | 62    | 94                              | 8.3             | 94                     | 88  | 70  | 51 | 90              | 8.8             | 90                     | 84  | 68  | 50 | 86              | 9.4             | 86                     | 80  | 66  | 48 |
|                              | 57    | 94                              | 8.3             | 94                     | 88  | 82  | 67 | 90              | 8.8             | 90                     | 84  | 78  | 65 | 86              | 9.4             | 86                     | 80  | 74  | 63 |
| 2400                         | 72    | 99                              | 8.5             | 66                     | 52  | 36  | -  | 94              | 9.1             | 66                     | 50  | 34  | -  | 89              | 9.6             | 64                     | 49  | 32  | -  |
|                              | 67    | 91                              | 8.2             | 81                     | 66  | 50  | 34 | 87              | 8.7             | 79                     | 64  | 49  | 32 | 83              | 9.2             | 77                     | 62  | 46  | 30 |
|                              | 62    | 89                              | 8.1             | 89                     | 79  | 64  | 48 | 85              | 8.6             | 85                     | 77  | 62  | 46 | 81              | 9.1             | 81                     | 74  | 59  | 44 |
|                              | 57    | 88                              | 8.1             | 88                     | 83  | 76  | 61 | 85              | 8.6             | 85                     | 79  | 74  | 59 | 81              | 9.1             | 81                     | 75  | 70  | 57 |
| <b>H4CE120A50/K4EU120A50</b> |       |                                 |                 |                        |     |     |    |                 |                 |                        |     |     |    |                 |                 |                        |     |     |    |
| 4800                         | 72    | 136                             | 10.9            | 107                    | 79  | 51  | -  | 130             | 11.7            | 105                    | 76  | 49  | -  | 123             | 12.4            | 103                    | 75  | 46  | -  |
|                              | 67    | 129                             | 10.7            | 128                    | 104 | 75  | 46 | 125             | 11.4            | 125                    | 101 | 73  | 44 | 119             | 12.2            | 119                    | 99  | 70  | 42 |
|                              | 62    | 130                             | 10.7            | 130                    | 121 | 99  | 71 | 125             | 11.4            | 125                    | 118 | 96  | 68 | 119             | 12.2            | 119                    | 110 | 94  | 66 |
|                              | 57    | 130                             | 10.7            | 130                    | 121 | 112 | 94 | 125             | 11.4            | 125                    | 116 | 107 | 92 | 119             | 12.2            | 119                    | 110 | 102 | 89 |
| 4000                         | 72    | 133                             | 10.8            | 96                     | 60  | 49  | -  | 127             | 11.5            | 96                     | 71  | 47  | -  | 123             | 12.2            | 94                     | 69  | 45  | -  |
|                              | 67    | 125                             | 10.5            | 119                    | 75  | 71  | 45 | 120             | 11.2            | 116                    | 93  | 68  | 43 | 114             | 12.0            | 112                    | 91  | 66  | 41 |
|                              | 62    | 124                             | 10.5            | 124                    | 89  | 91  | 67 | 119             | 11.2            | 119                    | 111 | 89  | 65 | 114             | 11.9            | 114                    | 106 | 86  | 62 |
|                              | 57    | 124                             | 10.5            | 124                    | 88  | 107 | 87 | 119             | 11.2            | 119                    | 111 | 103 | 85 | 114             | 11.9            | 114                    | 106 | 98  | 82 |
| 3200                         | 72    | 129                             | 10.7            | 88                     | 53  | 47  | -  | 123             | 11.4            | 86                     | 66  | 46  | -  | 117             | 12.1            | 84                     | 64  | 43  | -  |
|                              | 67    | 120                             | 10.4            | 105                    | 66  | 65  | 44 | 115             | 11.0            | 103                    | 84  | 63  | 42 | 109             | 11.7            | 100                    | 81  | 61  | 40 |
|                              | 62    | 116                             | 10.2            | 116                    | 78  | 82  | 62 | 112             | 10.9            | 112                    | 100 | 80  | 60 | 107             | 11.6            | 107                    | 97  | 77  | 57 |
|                              | 57    | 116                             | 10.2            | 116                    | 85  | 99  | 79 | 112             | 10.9            | 112                    | 104 | 95  | 77 | 107             | 11.6            | 107                    | 99  | 92  | 74 |

NOTE: These capacities are gross ratings. For net capacities, determine the KW requirement of the supply air blower motor per the published BLOWER PERFORMANCE data. Convert KW to MBH per the following equation and deduct this equivalent heat from the gross cooling ratings.

$$\text{Blower Motor KW} \times \frac{3.415 \text{ MBH}}{\text{KW}} = \text{Blower Motor Heat (MBH)}$$

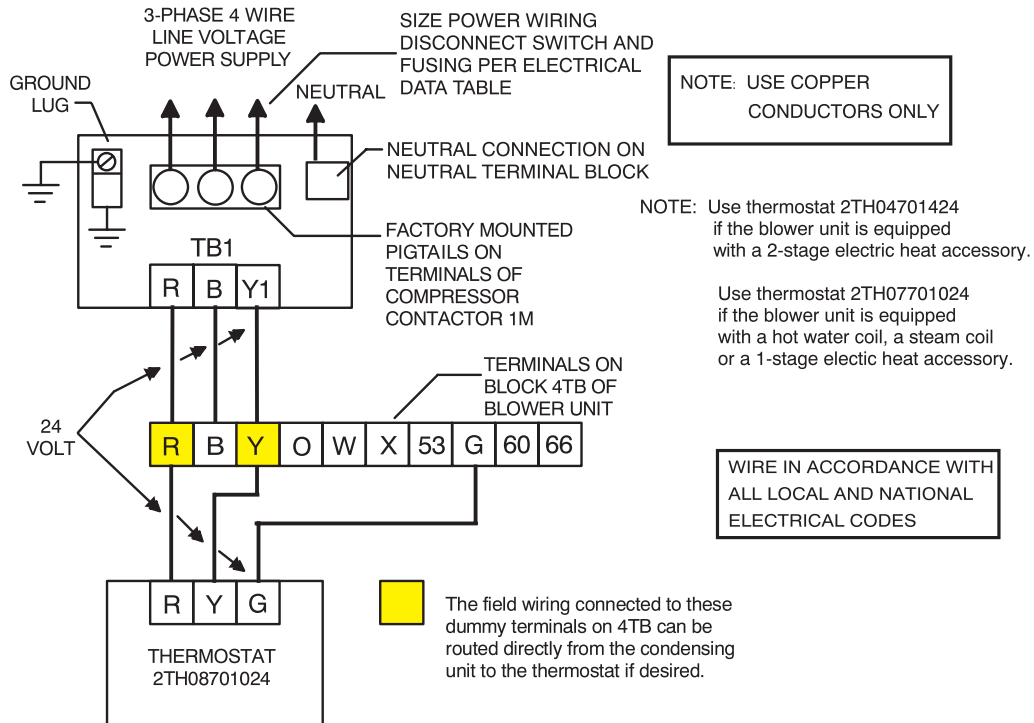
The KW input ratings listed above include the compressor and condenser fan motor(s).

### SYSTEM COOLING CAPACITIES - SI Units

| Air On Cooling Coil          |       | Temperature of Air on Condensator |                |                       |    |    |    |                |                |                       |    |    |    |                |                |                       |    |    |    |
|------------------------------|-------|-----------------------------------|----------------|-----------------------|----|----|----|----------------|----------------|-----------------------|----|----|----|----------------|----------------|-----------------------|----|----|----|
|                              |       | 27°C                              |                |                       |    |    |    | 35°C           |                |                       |    |    |    | 46°C           |                |                       |    |    |    |
|                              |       | Total Cap., kW                    | Power Input kW | Sensible Capacity, kW |    |    |    | Total Cap., kW | Power Input kW | Sensible Capacity, kW |    |    |    | Total Cap., kW | Power Input kW | Sensible Capacity, kW |    |    |    |
| Entering Dry Bulb, °C        |       |                                   |                | Entering Dry Bulb, °C |    |    |    |                |                | Entering Dry Bulb, °C |    |    |    |                |                |                       |    |    |    |
| M <sup>3</sup> /S            | WB °C |                                   |                | 31                    | 28 | 25 | 22 |                |                | 31                    | 28 | 25 | 22 |                |                | 31                    | 28 | 25 | 22 |
| <b>H6CE090A50/K5EU090A50</b> |       |                                   |                |                       |    |    |    |                |                |                       |    |    |    |                |                |                       |    |    |    |
| 1.70                         | 23    | 33.2                              | 8.0            | 25                    | 19 | 14 | -  | 31.0           | 8.8            | 24                    | 19 | 13 | -  | 27.8           | 10.0           | 23                    | 17 | 12 | -  |
|                              | 20    | 31.2                              | 7.8            | 31                    | 25 | 20 | 14 | 29.4           | 8.6            | 29                    | 25 | 19 | 13 | 26.8           | 9.7            | 27                    | 23 | 18 | 12 |
|                              | 17    | 31.2                              | 7.8            | 31                    | 29 | 26 | 20 | 29.4           | 8.6            | 29                    | 28 | 25 | 19 | 26.8           | 9.7            | 27                    | 25 | 23 | 18 |
|                              | 14    | 31.2                              | 7.8            | 31                    | 29 | 28 | 25 | 29.4           | 8.6            | 29                    | 28 | 26 | 24 | 26.7           | 9.7            | 27                    | 25 | 24 | 22 |
| 1.40                         | 23    | 32.5                              | 8.0            | 23                    | 18 | 13 | -  | 30.4           | 8.7            | 22                    | 17 | 12 | -  | 27.3           | 9.8            | 21                    | 16 | 11 | -  |
|                              | 20    | 30.2                              | 7.7            | 28                    | 23 | 18 | 13 | 28.3           | 8.4            | 27                    | 22 | 17 | 13 | 25.7           | 9.5            | 26                    | 21 | 16 | 12 |
|                              | 17    | 29.7                              | 7.6            | 30                    | 28 | 23 | 19 | 28.0           | 8.4            | 28                    | 26 | 23 | 18 | 25.6           | 9.5            | 26                    | 24 | 21 | 17 |
|                              | 14    | 29.6                              | 7.6            | 30                    | 28 | 26 | 24 | 28.0           | 8.4            | 28                    | 26 | 25 | 23 | 25.6           | 9.4            | 26                    | 24 | 23 | 21 |
| 1.10                         | 23    | 31.5                              | 7.8            | 21                    | 17 | 12 | -  | 29.4           | 8.6            | 20                    | 18 | 12 | -  | 26.5           | 9.7            | 19                    | 16 | 11 | -  |
|                              | 20    | 29.0                              | 7.5            | 25                    | 21 | 17 | 13 | 27.1           | 8.2            | 24                    | 20 | 16 | 12 | 24.6           | 9.2            | 23                    | 19 | 15 | 11 |
|                              | 17    | 27.7                              | 7.4            | 28                    | 25 | 21 | 17 | 26.2           | 8.1            | 26                    | 24 | 20 | 16 | 24.0           | 9.2            | 24                    | 23 | 19 | 15 |
|                              | 14    | 27.7                              | 7.4            | 28                    | 26 | 25 | 21 | 26.2           | 8.1            | 26                    | 25 | 23 | 20 | 24.0           | 9.2            | 24                    | 23 | 21 | 19 |
| <b>H4CE120A50/K4EU120A50</b> |       |                                   |                |                       |    |    |    |                |                |                       |    |    |    |                |                |                       |    |    |    |
| 2.30                         | 23    | 43.5                              | 10.0           | 33                    | 25 | 18 | -  | 40.8           | 11.0           | 32                    | 25 | 17 | -  | 37.1           | 12.5           | 31                    | 23 | 16 | -  |
|                              | 20    | 41.1                              | 9.8            | 40                    | 33 | 26 | 18 | 39.1           | 10.8           | 39                    | 32 | 25 | 17 | 35.8           | 12.3           | 36                    | 31 | 23 | 16 |
|                              | 17    | 41.2                              | 9.8            | 41                    | 39 | 33 | 26 | 39.1           | 10.8           | 39                    | 37 | 32 | 25 | 35.8           | 12.3           | 36                    | 34 | 30 | 24 |
|                              | 14    | 41.2                              | 9.8            | 41                    | 38 | 36 | 33 | 39.0           | 10.8           | 39                    | 37 | 34 | 32 | 35.8           | 12.3           | 36                    | 33 | 31 | 29 |
| 1.90                         | 23    | 42.6                              | 9.9            | 30                    | 24 | 17 | -  | 40.0           | 10.9           | 29                    | 23 | 16 | -  | 36.2           | 12.4           | 28                    | 22 | 15 | -  |
|                              | 20    | 38.6                              | 9.7            | 37                    | 30 | 24 | 18 | 37.4           | 10.6           | 36                    | 29 | 23 | 17 | 34.1           | 12.1           | 34                    | 28 | 22 | 15 |
|                              | 17    | 39.2                              | 9.6            | 39                    | 36 | 31 | 24 | 37.2           | 10.6           | 37                    | 35 | 29 | 23 | 34.2           | 12.0           | 34                    | 32 | 28 | 22 |
|                              | 14    | 39.2                              | 9.6            | 39                    | 37 | 35 | 31 | 37.2           | 10.6           | 37                    | 35 | 33 | 30 | 34.1           | 12.0           | 34                    | 32 | 30 | 26 |
| 1.50                         | 23    | 41.3                              | 9.8            | 27                    | 22 | 16 | -  | 38.8           | 10.8           | 26                    | 21 | 15 | -  | 35.2           | 12.2           | 25                    | 20 | 14 | -  |
|                              | 20    | 38.1                              | 9.5            | 32                    | 27 | 22 | 17 | 35.8           | 10.4           | 31                    | 26 | 21 | 16 | 32.5           | 11.8           | 30                    | 25 | 20 | 14 |
|                              | 17    | 36.5                              | 9.4            | 37                    | 33 | 27 | 22 | 34.7           | 10.3           | 35                    | 32 | 25 | 21 | 31.9           | 11.7           | 32                    | 30 | 25 | 20 |
|                              | 14    | 36.5                              | 9.4            | 36                    | 34 | 32 | 27 | 34.7           | 10.3           | 35                    | 33 | 31 | 26 | 31.9           | 11.7           | 32                    | 30 | 26 | 25 |

NOTE: These capacities are gross ratings. For net capacities, determine the KW requirement of the supply air blower motor per the published BLOWER PERFORMANCE data. The KW input ratings listed above include the compressor and condenser fan motor(s).

### FIELD WIRING



**FIELD-INSTALLED ACCESSORIES - 0°F LOW AMBIENT KITS** - An auto-transformer and temperature control maintain stable system operation by reducing the speed of the condenser fan motor.

# UNIT DIMENSIONS & CLEARANCES - HCE090 & 120

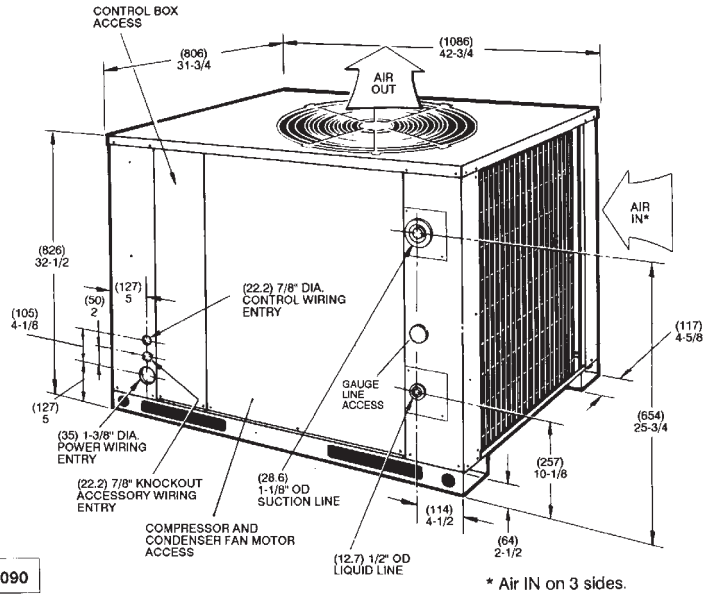
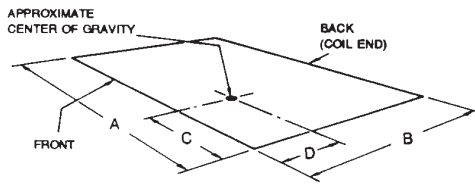
## CLEARANCES, mm (inches)

|                                  |            |
|----------------------------------|------------|
| Overhead (Top) <sup>1</sup>      | 3048 (120) |
| Front (Piping and Access Panels) | 762 (30)   |
| Left Side                        | 610 (24)   |
| Right Side                       | 610 (24)   |
| Rear                             | 610 (24)   |
| Bottom <sup>2</sup>              | 0 (0)      |

<sup>1</sup>Units must be installed outdoors. Overhanging structures or shrubs should not obstruct condenser air discharge.

<sup>2</sup>Adequate snow clearance must be provided if winter operation is expected.

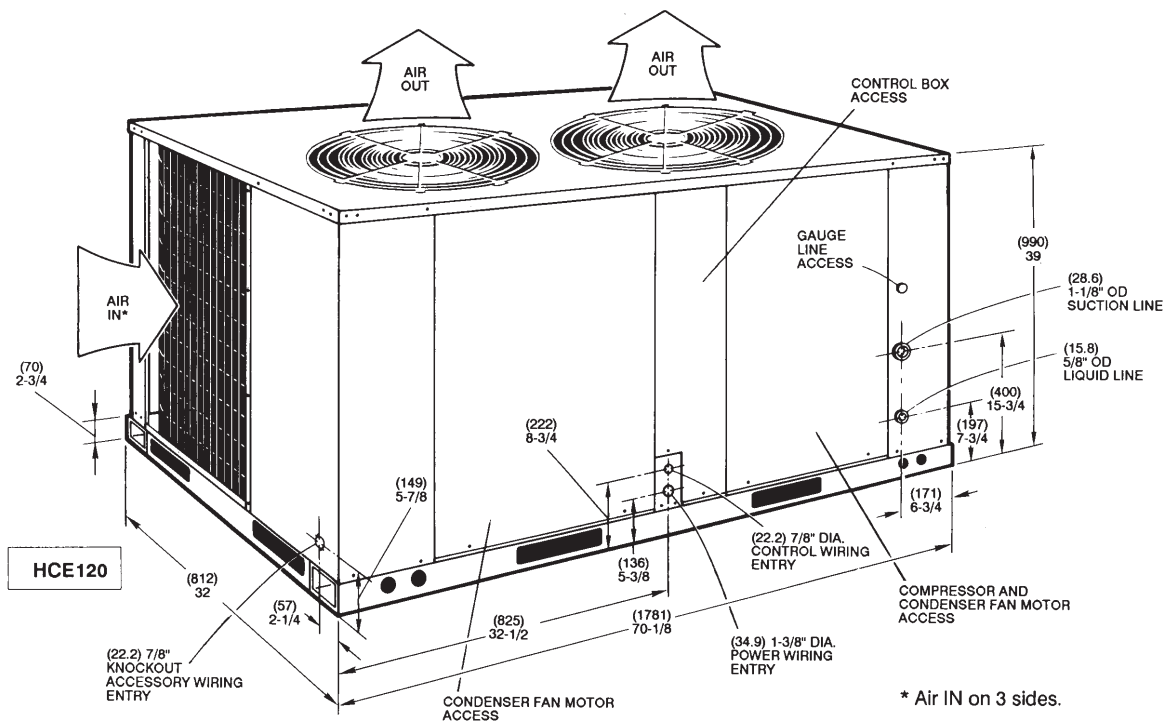
## CENTER OF GRAVITY



**HCE090**

| Unit    | Dimensions (in. / mm) |               |                 |                  |
|---------|-----------------------|---------------|-----------------|------------------|
|         | A                     | B             | C               | D                |
| 7.5 Ton | 1086/<br>42.75        | 806/<br>31.75 | 516/<br>20 5/16 | 325/<br>12 13/16 |
| 10 Ton  | 1781/<br>70.125       | 813/<br>32    | 782/<br>30.8    | 386/<br>15.2     |

All dimensions are in millimeters and inches. They are subject to change without notice. Certified dimensions will be provided upon request.



**HCE120**





Heating and Air Conditioning

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