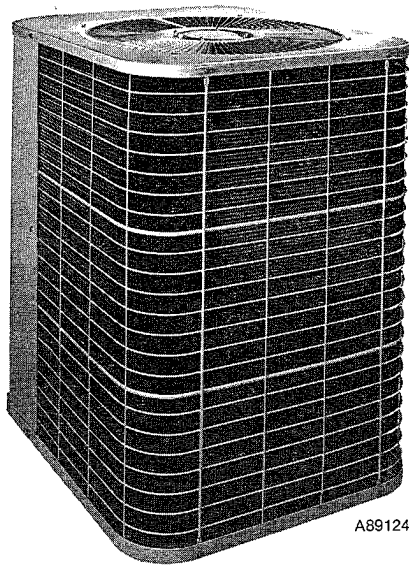


bryant**Bryant**
Air ConditioningIndianapolis, IN
City of Industry, CA**ELECTRIC
AIR CONDITIONER****590A (50 Hz)**
Sizes 030 thru 050

A89124

Model 590A Energy-Efficient Condensing Units incorporate innovative technology to provide quiet, reliable summer cooling performance. Built into these units are the features most desired by residential and commercial customers worldwide today including SEER ratings of at least 8.0 when used with components as designated by manufacturer.

FEATURES

ELECTRICAL RANGE—Three phase units are offered in 220 and 380/415 volts.

WIDE RANGE OF SIZES—Available in four nominal sizes from 030 through 050 to meet the needs for residential and light commercial applications.

WEATHER-PROTECTIVE CABINET—Steel is protected with a heavy galvanized coating, then coated with a layer of zinc phosphate to which a coat of modified polyester powder coating is applied and baked-on. This provides each unit with a hard, smooth finish that will last for many years.

All screws on cabinet exterior are coated for a long-lasting, rust-resistant, quality appearance.

TOTALLY ENCLOSED FAN MOTOR—Means greater reliability under rain conditions, dependable performance for many years. Permanent-split-capacitor-type motors provide more economical operation. Ball bearing motors standard on all units.

UNIT DESIGN—Copper tube, enhanced aluminum fin coil is designed for optimum heat transfer. Vertical air discharge carries sound and hot condenser air up and away from adjacent patio areas and foliage. New heat pump style base pan for easy removal of water, dirt and leaves.

APPLICATION VERSATILITY—The 590A can be combined with a wide variety of evaporator coils and blower packages to provide quiet, dependable comfort. Unit can be installed on a roof or at ground level on a slab.

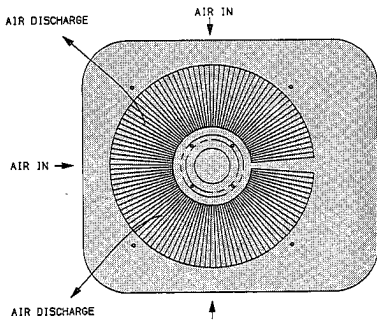
LOW SOUND LEVELS—New fan and orifice designs provide for low outdoor sound levels. Model 590A units include a compressor sound shield as standard equipment.

EXTERNAL SERVICE VALVES—Both service valves are brass, back seating type with sweat connections. Valves are externally located so refrigerant tube connections can be made quickly and easily. Each valve has a service port for ease of checking operating refrigerant pressures.

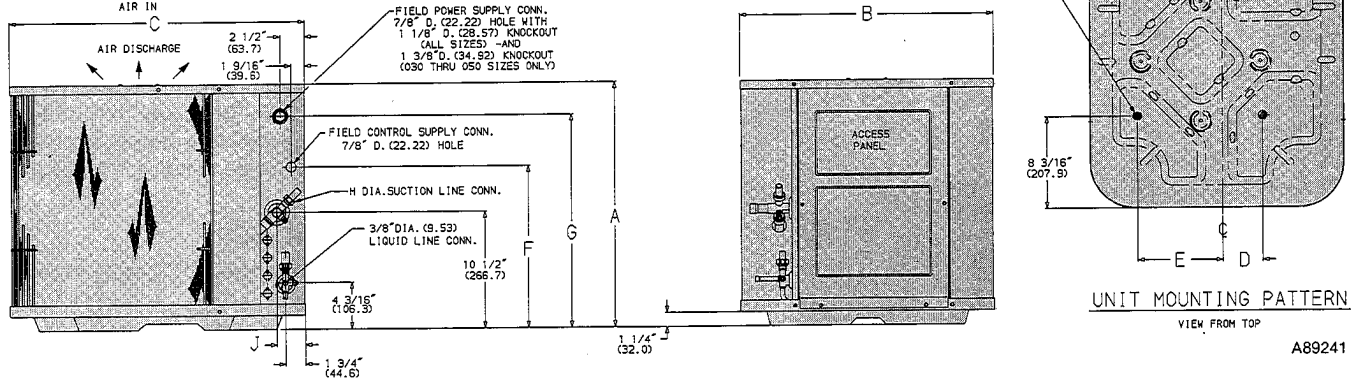
EASY SERVICEABILITY—One access panel provides access to electrical controls and compressor. Removal of top gives access to fan motor and coil.

COMPRESSOR PROTECTION—Each compressor is protected with internal temperature- and current-sensitive overloads. An internal pressure relief valve provides high-pressure protection to the refrigerant system. 590A models also include a high pressure switch as standard equipment.

Form No. PDS 590A.30.C1B



1. Allow two and one half feet (762) clearance to service end of unit, four feet (1219) above unit, six inches on one side (152), one foot (305) on remaining sides, and two feet (610) between units for proper airflow.
2. Minimum outdoor operating ambient of 55°F (12.8°C) (unless Low Ambient Control is used). Maximum 125°F (51.7°C).
3. Dimensions in parentheses are in millimeters.



DIMENSIONS

| UNIT | SERIES | OPERATION WGT. LBS. KG. | A | | B | | C | | D | | E | | F | | G | | H | | J | |
|------|--------|----------------------------|-----------|------|-----------|------|-----------|------|---------|------|----------|------|-------------|------|------------|------|-------|------|----------|------|
| | | | (FT./IN.) | (mm) | (FT./IN.) | (mm) | (FT./IN.) | (mm) | (IN.) | (mm) | (IN.) | (mm) | (FT./IN.) | (mm) | (FT./IN.) | (mm) | (IN.) | (mm) | (IN.) | (mm) |
| 030 | A | 219 99 | 2'-1 7/8" | 657 | 2'-6" | 762 | 2'-9" | 838 | 5 1/16" | 128 | 9 11/16" | 246 | 1'-3 15/16" | 405 | 1'-10 3/8" | 568 | 3/4 | 19 | 2 15/16" | 74 |
| 035 | A | 219 99 | 2'-1 7/8" | 657 | 2'-6" | 762 | 2'-9" | 838 | 5 1/16" | 128 | 9 11/16" | 246 | 1'-3 15/16" | 405 | 1'-10 3/8" | 568 | 3/4 | 19 | 2 15/16" | 74 |
| 040 | B | 229 104 | 2'-1 7/8" | 657 | 2'-6" | 762 | 2'-9" | 838 | 5 1/16" | 128 | 9 11/16" | 246 | 1'-3 15/16" | 405 | 1'-10 3/8" | 568 | 7/8 | 22 | 2 15/16" | 74 |
| 050 | A | 264 120 | 3'-1 7/8" | 962 | 2'-6" | 762 | 2'-9" | 838 | 5 1/16" | 128 | 9 11/16" | 246 | 2'-3 15/16" | 709 | 2'-10 3/8" | 873 | 7/8 | 22 | 2 15/16" | 74 |

RATINGS & PERFORMANCE

| OUTDOOR MODEL | INDOOR MODEL | EVAP. AIR L/S (CFM) | TOT CAP Kw (Btuh) | EER Btu/Watt | BELS |
|---------------|--------------------|---------------------|-------------------|--------------|------|
| 590A-030-A | 517E024 | 380 (800) | 8.44 (28,800) | 7.9 | 7.6 |
| | 517E030 | 470 (1000) | 9.32 (31,800) | 8.2 | 7.6 |
| | 519B/C036* | 470 (1000) | 9.32 (31,800) | 8.2 | 7.6 |
| 590A-035-A | 519B/C036-520B042* | 565 (1200) | 10.55 (36,000) | 8.1 | 7.6 |
| | 519B/C042-520B042 | 565 (1200) | 11.22 (38,300) | 8.3 | 7.6 |
| | 517E030 | 470 (1000) | 9.70 (33,100) | 8.0 | 7.6 |
| | 517E036 | 565 (1200) | 10.58 (36,100) | 8.2 | 7.6 |
| 590A-040-B | 517E036 | 565 (1200) | 11.46 (39,100) | 8.0 | 7.6 |
| | 519B/C036-520B042 | 565 (1200) | 11.49 (39,200) | 7.8 | 7.6 |
| | 519B/C042-520B042 | 565 (1200) | 11.57 (39,500) | 7.9 | 7.6 |
| | 519B/C042-520B048 | 800 (1700) | 12.28 (41,900) | 7.7 | 7.6 |
| | 519B/C048-520B048* | 800 (1700) | 12.42 (42,400) | 7.8 | 7.6 |
| | 519B/C048-520B060 | 945 (2000) | 12.60 (43,000) | 7.6 | 7.6 |
| 590A-050-A | 519B/C042-520B042 | 565 (1200) | 13.48 (46,000) | 8.5 | 7.6 |
| | 519B/C042-520B048 | 800 (1700) | 14.12 (48,200) | 8.3 | 7.6 |
| | 519B/C048-520B060 | 800 (1700) | 14.36 (49,000) | 8.4 | 7.6 |
| | 519B/C048-520B060 | 945 (2000) | 14.65 (50,000) | 8.2 | 7.6 |
| | 519B/C060-520B048 | 800 (1700) | 14.71 (50,200) | 8.5 | 7.6 |
| | 519B/C060-520B060* | 945 (2000) | 14.94 (51,000) | 8.3 | 7.6 |

*Tested Combination

SYSTEM DESIGN

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01-inches (.25mm) water column.
2. Minimum outdoor operating air temperature without low ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. Maximum elevation of indoor coil above or below base of outdoor unit is: indoor coil above = 50-feet (15.2m). Indoor coil below = 150-feet (45.6m). (see items 6 and 7 following)
6. For interconnecting refrigerant tube lengths greater than 50-feet (15.2m), consult long tube application bulletin available from equipment distributor.
7. Not more than 3-feet (91cm) of refrigerant tube should be buried in the ground. If necessary to bury tubes under a sidewalk, provide a minimum 6-inch vertical rise to the valve connections at the unit.
8. Use only copper wire for electric connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
9. Mixmatches of indoor coil capacity more than one size larger than outdoor unit capacity may result in inadequate indoor comfort.

SPECIFICATIONS

| MODEL | 590AQ030 | 590AZ030 |
|--|----------------------|----------------------|
| SERIES | A | A |
| ELECTRICAL | | |
| Unit Volts—Hertz—Phase | 220—3—50 | 380/415—3—50 |
| Operating Voltage Range | 198—242 | 342—440 |
| Compressor—Rated Load Amps** | 11.3 | 5.6 |
| Locked Rotor Amps | 78.3 | 45.1 |
| Condenser Fan Motor—Full Load Amps** | 1.6 | 0.8 |
| Total Units Amps | 12.9 | 6.4 |
| Min Unit Ampacity for Wire Sizing*** | 15.7 | 7.8 |
| COMPRESSOR & REFRIGERANT | | |
| Compressor—Type & RPM | Hermetic | |
| Temperature & Current Protection | Internal Line Break | |
| Refrigerant—Type & Amount Kg (lb) | R-22—2.49 (5.50) | R-22—2.49 (5.50) |
| Refrigerant Tubes (in. OD) | | |
| Vapor & Liquid (up to 15 meter/50 feet) | 3/4 & 3/8 | 3/4 & 3/8 |
| CONDENSER COIL & FAN | | |
| Coil-Height x Width—Sq. Meter (Sq. Feet) | 1.11 (12.0) | 1.11 (12.0) |
| Fan Motor—HP, Type, & r/s (RPM) | 1/4 PSC & 15.7 (940) | 1/4 PSC & 15.7 (940) |
| Volts—Hertz—Phase | 220—50—1 | 380/415—50—1 |
| Condenser Airflow—L/S (Cfm) | 1168 (2500) | 1168 (2500) |
| OPTIONAL EQUIPMENT | | |
| COMPROTEC® | Standard | Standard |
| Low-Pressure Switch Kit | 313911-751 | 313911-751 |
| High-Pressure Switch Kit | Standard | Standard |
| Support Feet Kit—4 inch (4) | 313916-701 | 313916-701 |
| PTC Start Assist | N/A | N/A |
| Crankcase Heater | Standard | Standard |
| Sound Shield | Standard | Standard |
| Indoor Thermostat and Subbase-Auto-°C | HH01PC187 | HH01PC187 |
| Indoor Thermostat and Subbase-Manual-°C | HH01PC186 | HH01PC186 |
| Indoor Thermostat and Subbase-Auto-°F | HH01PC185 | |
| Indoor Thermostat and Subbase-Manual-°F | HH01PC184 | |
| Indoor Thermostat and Subbase-Auto-°C | HH01PC187 | |
| Indoor Thermostat and Subbase-Manual-°C | HH01PC186 | |
| Low Ambient Controller | 32LT660004 | 32LT660005 |
| Low Ambient Motor† | Standard | Standard |
| Bi-flow TXV (Hard Shutoff) | 315174-76101 | 315174-76101 |
| Bi-flow TXV (RPB) | 315174-75401 | 315174-75401 |

See notes on pg. 4.

SPECIFICATIONS

| MODEL | 590AQ035 | 590AZ035 | 590AQ040 | 590AZ040 | 590AQ050 | 590AZ050 |
|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| SERIES | A | A | B | B | A | A |
| ELECTRICAL | | | | | | |
| Unit Volts—Hertz—Phase | 220—3—50 | 380/415—3—50 | 220—3—50 | 380/415—3—50 | 220—3—50 | 380/415—3—50 |
| Operating Voltage Range | 198—242 | 342—440 | 198—242 | 342—440 | 198—242 | 342—440 |
| Compressor—Rated Load Amps** | 12.2 | 6.2 | 19.6 | 10.4 | 21.4 | 9.6 |
| Locked Rotor Amps | 87.2 | 45.1 | 105.0 | 55.0 | 130.0 | 65.0 |
| Condenser Fan Motor—Full Load Amps** | 1.6 | 0.8 | 1.6 | 0.8 | 1.6 | 0.8 |
| Total Units Amps | 13.8 | 7.0 | 21.2 | 11.2 | 23.0 | 10.4 |
| Min Unit Ampacity for Wire Sizing*** | 16.9 | 8.6 | 26.1 | 13.8 | 28.4 | 12.8 |
| COMPRESSOR & REFRIGERANT | | | | | | |
| Compressor—Type & RPM | Hermetic | | | | | |
| Temperature & Current Protection | Internal Line Break | | | | | |
| Refrigerant—Type & Amount Kg (lb) | R-22—2.49 (5.50) | R-22—2.49 (5.50) | R-22—2.49 (5.50) | R-22—2.49 (5.50) | R-22—4.03 (8.88) | R-22—4.03 (8.88) |
| Refrigerant Tubes (in. OD) Vapor & Liquid (up to 15 Meter/15 Feet) | 3/4 & 3/8 | 3/4 & 3/8 | 7/8 & 3/8 | 7/8 & 3/8 | 7/8 & 3/8 | 7/8 & 3/8 |
| CONDENSER COIL & FAN | | | | | | |
| Coil-Height x Width—Sq. Meter (Sq. Feet) | 1.11 (12.0) | 1.11 (12.0) | 1.11 (12.0) | 1.11 (12.0) | 1.67 (18.0) | 1.67 (18.0) |
| Fan Motor—HP, Type, & r/s (RPM) | 1/4 PSC & 15.7 (940) | 1/4 PSC & 15.7 (940) | 1/4 PSC & 15.7 (940) | 1/4 PSC & 15.7 (940) | 1/4 PSC & 15.7 (940) | 1/4 PSC & 15.7 (940) |
| Volts—Hertz—Phase | 220—50—1 | 380/415—50—1 | 220—50—1 | 380/415—50—1 | 220—50—1 | 380/415—50—1 |
| Condenser Airflow—L/S (Cfm) | 1168 (2500) | | | | | |
| OPTIONAL EQUIPMENT | | | | | | |
| COMPROTEC® | Standard | Standard | Standard | Standard | Standard | Standard |
| Low-Pressure Switch Kit | 313911-751 | 313911-751 | 313911-751 | 313911-751 | 313911-751 | 313911-751 |
| High-Pressure Switch Kit | Standard | Standard | Standard | Standard | Standard | Standard |
| Support Feet Kit—4 inch (4) | 313916-701 | 313916-701 | 313916-701 | 313916-701 | 313916-701 | 313916-701 |
| PTC Start Assist | N/A | | | | | |
| Crankcase Heater | Standard | Standard | Standard | Standard | Standard | Standard |
| Sound Shield | Standard | Standard | Standard | Standard | Standard | Standard |
| Indoor Thermostat and Subbase-Auto | HH01PC187 | HH01PC187 | HH01PC187 | HH01PC187 | HH01PC187 | HH01PC187 |
| Indoor Thermostat and Subbase-Manual | HH01PC186 | HH01PC186 | HH01PC186 | HH01PC186 | HH01PC186 | HH01PC186 |
| Indoor Thermostat and Subbase-Auto-°F | HH01PC185 | | | | | |
| Indoor Thermostat and Subbase-Manual-°F | HH01PC184 | | | | | |
| Indoor Thermostat and Subbase-Auto-°C | HH01PC187 | | | | | |
| Indoor Thermostat and Subbase-Manual-°C | HH01PC186 | | | | | |
| Low Ambient Controller | 32LT660004 | 32LT660005 | 32LT660004 | 32LT660005 | 32LT660004 | 32LT660005 |
| Low Ambient Motor† | Standard | Standard | Standard | Standard | Standard | Standard |
| Bi-flow TXV (Hard Shutoff) | 315174-76201 | 315174-76201 | 315174-76201 | 315174-76201 | 315174-76401 | 315174-76401 |
| Bi-flow TXV (RPB) | 315174-75501 | 315174-75501 | 315174-75501 | 315174-75501 | 315174-75701 | 315174-75701 |

NOTE: Use copper wire only between disconnect switch and unit.

See unit Installation Instructions for proper installation.

*If other than 60°C copper wire is used, size can be determined from unit ampacity given in above table and applicable table of National Electric Code. Wire size selected must have current capacity not less than that of copper wire specified and must not create a voltage drop between services panel and unit in excess of 2% of unit rated voltage.

**Motor "Rated Load Amps" and "Full Load Amps" are established in accordance with underwriters laboratories (U.L., U.S.A.) Standard 465.

***"Min. Unit Ampacity" values are calculated in accordance with National Electrical Code (NEC, U.S.A.) Article 440.

†Consult Low Ambient Installation Instructions for application.

‡Length shown is as measured one way along the wire path between the unit and service panel for minimum 2% voltage drop.

††3/8" must be used on capillary tube coils.

CONDENSER ONLY RATINGS

SI

| MODEL 590A | ODA SST | 20 C | | 25 C | | 30 C | | 35 C | | 40 C | | 45 C | | 50 C | |
|---------------|------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | CAPAC | CMP | CAPAC | CMP | CAPAC | CMP | CAPAC | CMP | CAPAC | CMP | CAPAC | CMP | CAPAC | CMP |
| 030 | 2 | 10.34 | 2.69 | 9.76 | 2.83 | 9.13 | 2.96 | 8.49 | 3.09 | 7.85 | 3.20 | 7.19 | 3.30 | 6.53 | 3.38 |
| | 4 | 11.05 | 2.80 | 10.46 | 2.94 | 9.82 | 3.08 | 9.17 | 3.21 | 8.49 | 3.34 | 7.81 | 3.45 | 7.13 | 3.54 |
| | 6 | 11.77 | 2.91 | 11.17 | 3.05 | 10.53 | 3.20 | 9.86 | 3.34 | 9.16 | 3.48 | 8.44 | 3.60 | 7.74 | 3.71 |
| | 8 | 12.52 | 3.02 | 11.90 | 3.17 | 11.26 | 3.32 | 10.57 | 3.47 | 9.84 | 3.62 | 9.11 | 3.75 | 8.37 | 3.87 |
| | 10 | 13.28 | 3.14 | 12.66 | 3.29 | 12.02 | 3.45 | 11.31 | 3.61 | 10.54 | 3.76 | 9.80 | 3.91 | 9.02 | 4.04 |
| 035 | 2 | 11.28 | 2.94 | 10.52 | 3.12 | 9.77 | 3.29 | 9.03 | 3.44 | 8.29 | 3.57 | 7.56 | 3.67 | 6.85 | 3.76 |
| | 4 | 12.11 | 3.03 | 11.31 | 3.22 | 10.53 | 3.40 | 9.77 | 3.56 | 8.99 | 3.71 | 8.23 | 3.83 | 7.47 | 3.93 |
| | 6 | 12.98 | 3.12 | 12.15 | 3.32 | 11.33 | 3.52 | 10.52 | 3.69 | 9.72 | 3.85 | 8.92 | 3.99 | 8.13 | 4.10 |
| | 8 | 13.88 | 3.21 | 13.02 | 3.43 | 12.16 | 3.64 | 11.30 | 3.82 | 10.47 | 3.99 | 9.63 | 4.15 | 8.81 | 4.28 |
| | 10 | 14.81 | 3.31 | 13.89 | 3.53 | 13.00 | 3.75 | 12.10 | 3.95 | 11.23 | 4.14 | 10.36 | 4.30 | 9.51 | 4.45 |
| 040 | 2 | 12.66 | 3.49 | 11.85 | 3.68 | 11.04 | 3.83 | 10.24 | 3.96 | 9.44 | 4.06 | 8.64 | 4.13 | 7.87 | 4.17 |
| | 4 | 13.55 | 3.63 | 12.69 | 3.82 | 11.85 | 3.99 | 11.02 | 4.13 | 10.18 | 4.25 | 9.35 | 4.34 | 8.53 | 4.39 |
| | 6 | 14.46 | 3.76 | 13.58 | 3.96 | 12.69 | 4.15 | 11.82 | 4.31 | 10.94 | 4.45 | 10.08 | 4.55 | 9.22 | 4.62 |
| | 8 | 15.40 | 3.89 | 14.48 | 4.11 | 13.55 | 4.31 | 12.63 | 4.49 | 11.72 | 4.64 | 10.83 | 4.76 | 9.93 | 4.85 |
| | 10 | 16.38 | 4.03 | 15.40 | 4.27 | 14.43 | 4.48 | 13.48 | 4.67 | 12.53 | 4.83 | 11.58 | 4.97 | 10.65 | 5.08 |
| 050 | 2 | 15.31 | 3.86 | 14.38 | 4.10 | 13.43 | 4.31 | 12.50 | 4.49 | 11.59 | 4.63 | 10.69 | 4.77 | 9.83 | 4.89 |
| | 4 | 16.40 | 3.98 | 15.43 | 4.24 | 14.43 | 4.47 | 13.47 | 4.67 | 12.50 | 4.84 | 11.56 | 5.00 | 10.66 | 5.13 |
| | 6 | 17.53 | 4.10 | 16.52 | 4.38 | 15.49 | 4.64 | 14.47 | 4.86 | 13.47 | 5.04 | 12.47 | 5.20 | 11.52 | 5.37 |
| | 8 | 18.70 | 4.22 | 17.66 | 4.53 | 16.58 | 4.80 | 15.51 | 5.05 | 14.46 | 5.25 | 13.41 | 5.44 | 12.40 | 5.62 |
| | 10 | 19.89 | 4.34 | 18.83 | 4.68 | 17.72 | 4.98 | 16.58 | 5.24 | 15.48 | 5.47 | 14.37 | 5.68 | 13.30 | 5.86 |

LEGEND

CAPAC—GROSS COOLING CAPACITY KW
 CMP —COMPRESSOR POWER KW (EXCLUDES OUTDOOR FAN MOTOR)
 ODA —AIR TEMP ENTERING CONDENSER C
 SST —SATURATED SUCTION TEMP C

DETAILED COOLING CAPACITIES*

SI

| Evap Air | CONDENSER ENTERING AIR TEMPERATURES °C | | | | | | | | | | | | | | | | | | | | | | |
|---|--|------|-------------------|---------------------|-------------------|-------------------|---------------------|-------------------|-------------------|---------------------|-------------------|-------------------|---------------------|-------------------|-------------------|---------------------|-------------------|-------------------|---------------------|-------------------|------|------|--|
| | L/S | | 24 | | | 28 | | | 32 | | | 36 | | | 40 | | | 44 | | | 48 | | |
| | | | Capacity† (KW) | Comp Power KW | Total Sens† KW | Capacity† (KW) | Comp Power KW | Total Sens† KW | Capacity† (KW) | Comp Power KW | Total Sens† KW | Capacity† (KW) | Comp Power KW | Total Sens† KW | Capacity† (KW) | Comp Power KW | Total Sens† KW | Capacity† (KW) | Comp Power KW | Total Sens† KW | | | |
| 590A030-A Outdoor Section With 519B/C036 Indoor Section | | | | | | | | | | | | | | | | | | | | | | | |
| 360 | 22 | 10.8 | 5.37 | 2.81 | 10.4 | 5.20 | 2.99 | 9.98 | 5.04 | 3.16 | 9.56 | 4.88 | 3.33 | 9.11 | 4.70 | 3.49 | 8.60 | 4.51 | 3.65 | 8.06 | 4.30 | 3.81 | |
| | 20 | 10.1 | 6.15 | 2.73 | 9.71 | 5.98 | 2.90 | 9.32 | 5.81 | 3.06 | 8.90 | 5.64 | 3.22 | 8.44 | 5.44 | 3.37 | 7.93 | 5.23 | 3.53 | 7.40 | 5.02 | 3.68 | |
| | 18 | 9.42 | 6.92 | 2.65 | 9.06 | 6.75 | 2.80 | 8.67 | 6.56 | 2.96 | 8.26 | 6.37 | 3.11 | 7.80 | 6.16 | 3.26 | 7.30 | 5.93 | 3.41 | 6.80 | 5.69 | 3.56 | |
| | 16 | 8.82 | 7.63 | 2.57 | 8.49 | 7.43 | 2.72 | 8.12 | 7.21 | 2.87 | 7.72 | 6.98 | 3.02 | 7.29 | 6.72 | 3.17 | 6.84 | 6.45 | 3.33 | 6.38 | 6.16 | 3.48 | |
| 14 | 8.33 | 8.25 | 2.51 | 8.04 | 7.98 | 2.66 | 7.72 | 7.67 | 2.81 | 7.39 | 7.35 | 2.97 | 7.03 | 7.00 | 3.13 | 6.66 | 6.64 | 3.30 | 6.28 | 6.27 | 3.46 | | |
| 480 | 22 | 11.4 | 5.93 | 2.89 | 11.0 | 5.76 | 3.07 | 10.5 | 5.59 | 3.24 | 10.1 | 5.42 | 3.41 | 9.61 | 5.25 | 3.58 | 9.07 | 5.06 | 3.74 | 8.50 | 4.85 | 3.90 | |
| | 20 | 10.7 | 6.93 | 2.80 | 10.3 | 6.76 | 2.97 | 9.86 | 6.59 | 3.14 | 9.41 | 6.41 | 3.30 | 8.93 | 6.22 | 3.46 | 8.39 | 6.01 | 3.61 | 7.83 | 5.79 | 3.76 | |
| | 18 | 10.0 | 7.91 | 2.72 | 9.63 | 7.73 | 2.88 | 9.22 | 7.54 | 3.04 | 8.79 | 7.34 | 3.20 | 8.32 | 7.10 | 3.35 | 7.81 | 6.84 | 3.50 | 7.30 | 6.53 | 3.66 | |
| | 16 | 9.49 | 8.71 | 2.66 | 9.13 | 8.50 | 2.81 | 8.75 | 8.26 | 2.97 | 8.34 | 8.00 | 3.12 | 7.90 | 7.71 | 3.28 | 7.44 | 7.37 | 3.44 | 6.99 | 6.99 | 3.60 | |
| 14 | 9.20 | 9.16 | 2.62 | 8.90 | 8.87 | 2.78 | 8.57 | 8.54 | 2.94 | 8.21 | 8.20 | 3.10 | 7.83 | 7.82 | 3.26 | 7.42 | 7.41 | 3.43 | 6.99 | 6.99 | 3.60 | | |
| 580 | 22 | 11.8 | 6.35 | 2.93 | 11.3 | 6.18 | 3.11 | 10.8 | 6.01 | 3.29 | 10.4 | 5.84 | 3.46 | 9.88 | 5.66 | 3.63 | 9.33 | 5.47 | 3.79 | 8.75 | 5.27 | 3.94 | |
| | 20 | 11.1 | 7.53 | 2.85 | 10.6 | 7.35 | 3.02 | 10.2 | 7.17 | 3.19 | 9.70 | 6.99 | 3.35 | 9.21 | 6.80 | 3.51 | 8.65 | 6.59 | 3.66 | 8.07 | 6.36 | 3.81 | |
| | 18 | 10.4 | 8.65 | 2.77 | 9.97 | 8.45 | 2.93 | 9.55 | 8.24 | 3.09 | 9.13 | 8.01 | 3.25 | 8.66 | 7.74 | 3.41 | 8.17 | 7.41 | 3.57 | 7.65 | 7.07 | 3.73 | |
| | 16 | 9.90 | 9.47 | 2.71 | 9.53 | 9.23 | 2.87 | 9.15 | 8.97 | 3.03 | 8.76 | 8.67 | 3.19 | 8.33 | 8.31 | 3.35 | 7.89 | 7.88 | 3.52 | 7.43 | 7.43 | 3.69 | |
| 14 | 9.76 | 9.73 | 2.69 | 9.43 | 9.41 | 2.86 | 9.09 | 9.08 | 3.02 | 8.73 | 8.72 | 3.19 | 8.32 | 8.32 | 3.35 | 7.89 | 7.89 | 3.52 | 7.44 | 7.44 | 3.69 | | |
| Multipliers for Determining the Performance With Other Coils | | | | | | | | | | | | | | | | | | | | | | | |
| Indoor Section | | Size | | | | | | Capacity | | | | | | Power | | | | | | | | | |
| 517E | | 024 | | | | | | 0.91 | | | | | | 0.95 | | | | | | | | | |
| 519B/C | | 030 | | | | | | 1.00 | | | | | | 1.00 | | | | | | | | | |
| | | 030 | | | | | | 1.00 | | | | | | 1.00 | | | | | | | | | |

*Detailed cooling capacities are based on indoor and outdoor unit at the same elevation and connected by 7.62m (25 feet) of tubing. If other than 7.62m (25 feet) of tubing is used and/or indoor unit is located above outdoor unit, a slight variation may occur.

†Total and sensible capacities are gross capacities. Blower motor heat has not been subtracted.

‡Sensible capacities shown are based on 27°C (80°F) entering air at the indoor coil. For sensible capacities at other than 27°C (80°F) deduct 245 KW (835 Btuh) per 480 L/S (1000 Cfm) of indoor coil air for each degree below 27°C (80°F), or add 245 KW (835 Btuh) per 480 L/S (1000 Cfm) of indoor air per degree above 27°C (80°F). When the required data falls between the published data, interpolation may be performed.

System KW is total of indoor blower power plus Compressor Power plus Outdoor Fan Power.

DETAILED COOLING CAPACITIES*

SI

| Evap Air | | CONDENSER ENTERING AIR TEMPERATURES °C | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------|--|-------|---------------|----------------|-------|---------------|----------------|-------|---------------|----------------|-------|---------------|----------------|-------|---------------|----------------|-------|---------------|----------------|-------|---------------|----------------|-------|---------------|----|--|
| | | 24 | | | | 28 | | | | 32 | | | | 36 | | | | 40 | | | | 44 | | | | 48 | |
| L/S | E W B | Capacity† (KW) | | Comp Power KW | Capacity† (KW) | | Comp Power KW | Capacity† (KW) | | Comp Power KW | Capacity† (KW) | | Comp Power KW | Capacity† (KW) | | Comp Power KW | Capacity† (KW) | | Comp Power KW | Capacity† (KW) | | Comp Power KW | Capacity† (KW) | | Comp Power KW | | |
| | | Total | Sens‡ | Total | Sens‡ | Total | Sens‡ | Total | Sens‡ | Total | Sens‡ | Total | Sens‡ | Total | Sens‡ | Total | Sens‡ | Total | Sens‡ | Total | Sens‡ | Total | Sens‡ | Total | Sens‡ | | |
| 590A035-A Outdoor Section With 519B/C036-520B042 Indoor Section | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 480 | 22 | 12.6 | 6.43 | 3.26 | 12.1 | 6.24 | 3.46 | 11.6 | 6.05 | 3.65 | 11.1 | 5.86 | 3.84 | 10.6 | 5.67 | 4.02 | 10.0 | 5.48 | 4.19 | 9.46 | 5.27 | 4.36 | | | | | |
| | 20 | 11.8 | 7.47 | 3.16 | 11.3 | 7.28 | 3.35 | 10.8 | 7.09 | 3.53 | 10.4 | 6.90 | 3.70 | 9.87 | 6.70 | 3.87 | 9.32 | 6.48 | 4.04 | 8.74 | 6.26 | 4.20 | | | | | |
| | 18 | 11.0 | 8.50 | 3.06 | 10.6 | 8.30 | 3.24 | 10.1 | 8.10 | 3.41 | 9.67 | 7.89 | 3.58 | 9.20 | 7.66 | 3.74 | 8.67 | 7.40 | 3.90 | 8.13 | 7.11 | 4.07 | | | | | |
| | 16 | 10.4 | 9.37 | 2.98 | 9.98 | 9.13 | 3.15 | 9.58 | 8.89 | 3.32 | 9.17 | 8.64 | 3.49 | 8.71 | 8.36 | 3.65 | 8.23 | 8.03 | 3.82 | 7.74 | 7.67 | 3.99 | | | | | |
| 14 | 9.99 | 9.93 | 2.93 | 9.66 | 9.61 | 3.10 | 9.32 | 9.29 | 3.28 | 8.97 | 8.94 | 3.45 | 8.57 | 8.55 | 3.62 | 8.15 | 8.14 | 3.80 | 7.70 | 7.70 | 3.98 | | | | | | |
| 560 | 22 | 12.9 | 6.80 | 3.31 | 12.4 | 6.60 | 3.51 | 11.9 | 6.41 | 3.70 | 11.3 | 6.22 | 3.89 | 10.8 | 6.03 | 4.07 | 10.3 | 5.83 | 4.24 | 9.69 | 5.63 | 4.41 | | | | | |
| | 20 | 12.1 | 7.99 | 3.20 | 11.6 | 7.79 | 3.39 | 11.1 | 7.59 | 3.57 | 10.6 | 7.40 | 3.75 | 10.1 | 7.20 | 3.93 | 9.56 | 6.98 | 4.09 | 8.97 | 6.76 | 4.25 | | | | | |
| | 18 | 11.3 | 9.15 | 3.11 | 10.9 | 8.94 | 3.28 | 10.4 | 8.72 | 3.46 | 9.96 | 8.50 | 3.63 | 9.48 | 8.26 | 3.80 | 8.97 | 7.95 | 3.97 | 8.43 | 7.62 | 4.13 | | | | | |
| | 16 | 10.8 | 10.1 | 3.03 | 10.4 | 9.80 | 3.21 | 9.94 | 9.54 | 3.38 | 9.52 | 9.26 | 3.55 | 9.07 | 8.96 | 3.72 | 8.60 | 8.56 | 3.89 | 8.13 | 8.12 | 4.07 | | | | | |
| 14 | 10.5 | 10.5 | 3.00 | 10.2 | 10.1 | 3.18 | 9.80 | 9.78 | 3.36 | 9.43 | 9.41 | 3.54 | 9.03 | 9.02 | 3.71 | 8.58 | 8.58 | 3.89 | 8.12 | 8.12 | 4.07 | | | | | | |
| 700 | 22 | 13.4 | 7.39 | 3.37 | 12.8 | 7.19 | 3.56 | 12.2 | 6.99 | 3.76 | 11.7 | 6.80 | 3.95 | 11.1 | 6.60 | 4.13 | 10.6 | 6.41 | 4.31 | 9.97 | 6.20 | 4.48 | | | | | |
| | 20 | 12.5 | 8.83 | 3.26 | 12.0 | 8.62 | 3.45 | 11.5 | 8.42 | 3.63 | 11.0 | 8.22 | 3.81 | 10.4 | 8.01 | 3.99 | 9.87 | 7.79 | 4.16 | 9.27 | 7.55 | 4.32 | | | | | |
| | 18 | 11.8 | 10.2 | 3.17 | 11.3 | 9.91 | 3.35 | 10.9 | 9.64 | 3.53 | 10.4 | 9.36 | 3.71 | 9.93 | 9.05 | 3.89 | 9.42 | 8.70 | 4.06 | 8.88 | 8.33 | 4.23 | | | | | |
| | 16 | 11.3 | 11.1 | 3.10 | 10.9 | 10.8 | 3.29 | 10.5 | 10.4 | 3.47 | 10.1 | 10.0 | 3.65 | 9.65 | 9.64 | 3.83 | 9.18 | 9.18 | 4.01 | 8.69 | 8.69 | 4.19 | | | | | |
| 14 | 11.2 | 11.2 | 3.09 | 10.8 | 10.8 | 3.28 | 10.5 | 10.5 | 3.47 | 10.1 | 10.1 | 3.65 | 9.65 | 9.64 | 3.83 | 9.18 | 9.18 | 4.01 | 8.69 | 8.69 | 4.19 | | | | | | |
| Multipliers for Determining the Performance With Other Coils | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Indoor Section | | Size | | | | | | Capacity | | | | | | Power | | | | | | | | | | | | | |
| 517E | | 030 | | | | | | 0.92 | | | | | | 0.95 | | | | | | | | | | | | | |
| | | 036 | | | | | | 1.00 | | | | | | 1.00 | | | | | | | | | | | | | |
| 519B/C | | 036/40FS-160 | | | | | | 1.00 | | | | | | 1.00 | | | | | | | | | | | | | |
| | | 042/40FS-160 | | | | | | 1.06 | | | | | | 1.03 | | | | | | | | | | | | | |
| 590A040-B Outdoor Section With 519B/C048-520B048 Indoor Section | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 700 | 22 | 14.8 | 7.85 | 4.04 | 14.3 | 7.64 | 4.25 | 13.7 | 7.43 | 4.45 | 13.1 | 7.22 | 4.64 | 12.5 | 7.00 | 4.82 | 11.9 | 6.79 | 5.00 | 11.3 | 6.58 | 5.17 | | | | | |
| | 20 | 13.9 | 9.25 | 3.90 | 13.4 | 9.03 | 4.10 | 12.8 | 8.82 | 4.29 | 12.3 | 8.60 | 4.48 | 11.7 | 8.38 | 4.65 | 11.1 | 8.16 | 4.82 | 10.6 | 7.94 | 4.98 | | | | | |
| | 18 | 13.0 | 10.6 | 3.77 | 12.5 | 10.4 | 3.96 | 12.0 | 10.1 | 4.15 | 11.5 | 9.89 | 4.33 | 11.0 | 9.63 | 4.50 | 10.5 | 9.34 | 4.66 | 10.0 | 9.02 | 4.82 | | | | | |
| | 16 | 12.4 | 11.6 | 3.68 | 11.9 | 11.4 | 3.86 | 11.5 | 11.1 | 4.05 | 11.0 | 10.8 | 4.23 | 10.6 | 10.5 | 4.40 | 10.1 | 10.1 | 4.57 | 9.68 | 9.68 | 4.73 | | | | | |
| 14 | 12.1 | 12.1 | 3.64 | 11.7 | 11.7 | 3.83 | 11.3 | 11.3 | 4.02 | 10.9 | 10.9 | 4.21 | 10.5 | 10.5 | 4.39 | 10.1 | 10.1 | 4.56 | 9.68 | 9.68 | 4.73 | | | | | | |
| 800 | 22 | 15.1 | 8.25 | 4.09 | 14.6 | 8.03 | 4.29 | 14.0 | 7.82 | 4.49 | 13.4 | 7.61 | 4.69 | 12.8 | 7.39 | 4.88 | 12.1 | 7.17 | 5.05 | 11.5 | 6.96 | 5.22 | | | | | |
| | 20 | 14.2 | 9.80 | 3.94 | 13.6 | 9.59 | 4.14 | 13.1 | 9.37 | 4.34 | 12.5 | 9.15 | 4.52 | 11.9 | 8.93 | 4.70 | 11.3 | 8.70 | 4.87 | 10.8 | 8.47 | 5.02 | | | | | |
| | 18 | 13.4 | 11.3 | 3.82 | 12.8 | 11.0 | 4.01 | 12.3 | 10.8 | 4.20 | 11.8 | 10.5 | 4.38 | 11.3 | 10.2 | 4.56 | 10.8 | 9.83 | 4.73 | 10.3 | 9.48 | 4.90 | | | | | |
| | 16 | 12.8 | 12.3 | 3.73 | 12.3 | 12.0 | 3.92 | 11.8 | 11.7 | 4.11 | 11.4 | 11.3 | 4.30 | 10.9 | 10.9 | 4.48 | 10.5 | 10.5 | 4.66 | 10.0 | 10.0 | 4.83 | | | | | |
| 14 | 12.6 | 12.6 | 3.71 | 12.2 | 12.2 | 3.91 | 11.8 | 11.8 | 4.10 | 11.4 | 11.4 | 4.30 | 10.9 | 10.9 | 4.48 | 10.5 | 10.5 | 4.66 | 10.0 | 10.0 | 4.83 | | | | | | |
| 950 | 22 | 15.5 | 8.82 | 4.14 | 14.9 | 8.60 | 4.35 | 14.3 | 8.39 | 4.55 | 13.7 | 8.17 | 4.75 | 13.0 | 7.95 | 4.93 | 12.4 | 7.73 | 5.11 | 11.7 | 7.51 | 5.28 | | | | | |
| | 20 | 14.5 | 10.6 | 4.00 | 14.0 | 10.4 | 4.20 | 13.4 | 10.2 | 4.39 | 12.8 | 9.94 | 4.58 | 12.2 | 9.71 | 4.76 | 11.6 | 9.46 | 4.93 | 11.0 | 9.22 | 5.09 | | | | | |
| | 18 | 13.8 | 12.2 | 3.88 | 13.2 | 11.9 | 4.08 | 12.7 | 11.5 | 4.27 | 12.2 | 11.2 | 4.47 | 11.7 | 10.8 | 4.65 | 11.2 | 10.5 | 4.82 | 10.6 | 10.1 | 4.99 | | | | | |
| | 16 | 13.3 | 13.2 | 3.81 | 12.8 | 12.8 | 4.01 | 12.4 | 12.4 | 4.21 | 11.9 | 11.9 | 4.40 | 11.4 | 11.4 | 4.59 | 11.0 | 11.0 | 4.78 | 10.5 | 10.5 | 4.95 | | | | | |
| 14 | 13.2 | 13.2 | 3.81 | 12.8 | 12.8 | 4.01 | 12.4 | 12.4 | 4.21 | 11.9 | 11.9 | 4.40 | 11.4 | 11.4 | 4.59 | 11.0 | 11.0 | 4.78 | 10.5 | 10.5 | 4.95 | | | | | | |
| Multipliers for Determining the Performance With Other Coils | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Indoor Section | | Size | | | | | | Capacity | | | | | | Power | | | | | | | | | | | | | |
| 517E | | 036 | | | | | | 0.92 | | | | | | 0.94 | | | | | | | | | | | | | |
| 519B/C | | 036/520B042 | | | | | | 0.92 | | | | | | 0.95 | | | | | | | | | | | | | |
| | | 042/520B042 | | | | | | 0.93 | | | | | | 0.96 | | | | | | | | | | | | | |
| | | 042/520B048 | | | | | | 0.99 | | | | | | 0.99 | | | | | | | | | | | | | |
| | | 048/520B048 | | | | | | 1.00 | | | | | | 1.00 | | | | | | | | | | | | | |
| | | 048/520B060 | | | | | | 1.01 | | | | | | 1.01 | | | | | | | | | | | | | |

*Detailed cooling capacities are based on indoor and outdoor unit at the same elevation and connected by 7.62m (25 feet) of tubing. If other than 7.62m (25 feet) of tubing is used and/or indoor unit is located above outdoor unit, a slight variation may occur.

†Total and sensible capacities are gross capacities. Blower motor heat has not been subtracted.

‡Sensible capacities shown are based on 27°C (80°F) entering air at the indoor coil. For sensible capacities at other than 27°C (80°F) deduct 245 KW (835 Btu/h) per 480 L/S (1000 Cfm) of indoor coil air for each degree below 27°C (80°F), or add 245 KW (835 Btu/h) per 480 L/S (1000 Cfm) of indoor air per degree above 27°C (80°F). When the required data falls between the published data, interpolation may be performed.

System KW is total of indoor blower power plus Compressor Power plus Outdoor Fan Power.

DETAILED COOLING CAPACITIES*

SI

| 590A050-B Outdoor Section With 519B/C060-520B060 Indoor Section | | | | | | | | | | | | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 700 | 22 | 17.3 | 8.90 | 4.45 | 16.7 | 8.67 | 4.67 | 16.0 | 8.43 | 4.89 | 15.4 | 8.18 | 5.11 | 14.7 | 7.94 | 5.32 | 14.1 | 7.70 | 5.52 | 13.4 | 7.46 | 5.72 |
| | 20 | 16.2 | 10.4 | 4.29 | 15.6 | 10.1 | 4.50 | 15.0 | 9.90 | 4.71 | 14.4 | 9.65 | 4.92 | 13.8 | 9.40 | 5.12 | 13.1 | 9.15 | 5.31 | 12.5 | 8.91 | 5.50 |
| | 18 | 15.2 | 11.8 | 4.13 | 14.6 | 11.6 | 4.34 | 14.0 | 11.3 | 4.54 | 13.4 | 11.1 | 4.74 | 12.9 | 10.8 | 4.93 | 12.3 | 10.5 | 5.12 | 11.7 | 10.2 | 5.30 |
| | 16 | 14.3 | 13.1 | 4.01 | 13.8 | 12.8 | 4.22 | 13.3 | 12.5 | 4.42 | 12.8 | 12.1 | 4.61 | 12.2 | 11.8 | 4.80 | 11.7 | 11.5 | 4.99 | 11.2 | 11.1 | 5.17 |
| 14 | 13.8 | 13.8 | 3.95 | 13.4 | 13.4 | 4.16 | 13.0 | 12.9 | 4.36 | 12.5 | 12.5 | 4.57 | 12.1 | 12.1 | 4.77 | 11.6 | 11.6 | 4.97 | 11.2 | 11.2 | 5.17 | |
| 950 | 22 | 18.2 | 10.0 | 4.59 | 17.5 | 9.75 | 4.81 | 16.8 | 9.51 | 5.03 | 16.1 | 9.27 | 5.25 | 15.4 | 9.01 | 5.45 | 14.7 | 8.76 | 5.65 | 13.9 | 8.52 | 5.85 |
| | 20 | 17.1 | 11.9 | 4.42 | 16.4 | 11.7 | 4.63 | 15.7 | 11.4 | 4.84 | 15.1 | 11.2 | 5.05 | 14.4 | 10.9 | 5.25 | 13.7 | 10.7 | 5.44 | 13.0 | 10.4 | 5.63 |
| | 18 | 16.1 | 13.8 | 4.27 | 15.5 | 13.5 | 4.48 | 14.9 | 13.1 | 4.69 | 14.3 | 12.8 | 4.89 | 13.7 | 12.4 | 5.10 | 13.1 | 12.0 | 5.30 | 12.5 | 11.6 | 5.49 |
| | 16 | 15.4 | 15.0 | 4.17 | 14.8 | 14.7 | 4.38 | 14.3 | 14.2 | 4.59 | 13.8 | 13.8 | 4.80 | 13.3 | 13.3 | 5.01 | 12.7 | 12.7 | 5.22 | 12.2 | 12.2 | 5.43 |
| 14 | 15.3 | 15.2 | 4.15 | 14.8 | 14.8 | 4.37 | 14.3 | 14.3 | 4.59 | 13.8 | 13.8 | 4.80 | 13.3 | 13.3 | 5.01 | 12.7 | 12.7 | 5.22 | 12.2 | 12.2 | 5.43 | |
| 1150 | 22 | 18.7 | 10.8 | 4.66 | 17.9 | 10.6 | 4.88 | 17.2 | 10.3 | 5.10 | 16.5 | 10.1 | 5.32 | 15.7 | 9.81 | 5.52 | 15.0 | 9.56 | 5.73 | 14.2 | 9.31 | 5.92 |
| | 20 | 17.5 | 13.1 | 4.49 | 16.9 | 12.8 | 4.70 | 16.2 | 12.6 | 4.91 | 15.5 | 12.3 | 5.12 | 14.8 | 12.0 | 5.32 | 14.1 | 11.8 | 5.52 | 13.4 | 11.5 | 5.71 |
| | 18 | 16.6 | 15.0 | 4.35 | 16.0 | 14.6 | 4.57 | 15.4 | 14.2 | 4.79 | 14.8 | 13.8 | 5.00 | 14.2 | 13.3 | 5.21 | 13.6 | 12.9 | 5.41 | 13.0 | 12.5 | 5.61 |
| | 16 | 16.1 | 16.1 | 4.27 | 15.6 | 15.6 | 4.50 | 15.1 | 15.1 | 4.72 | 14.5 | 14.5 | 4.94 | 14.0 | 14.0 | 5.16 | 13.4 | 13.4 | 5.37 | 12.8 | 12.8 | 5.58 |
| 14 | 16.1 | 16.1 | 4.27 | 15.6 | 15.6 | 4.50 | 15.1 | 15.1 | 4.72 | 14.5 | 14.5 | 4.94 | 14.0 | 14.0 | 5.16 | 13.4 | 13.4 | 5.37 | 12.8 | 12.8 | 5.58 | |

Multipliers for Determining the Performance With Other Coils

| Indoor Section | Size | Capacity | Power |
|----------------|-------------|----------|-------|
| 519B/C | 042/520B042 | 0.90 | 0.94 |
| | 042/520B048 | 0.94 | 0.96 |
| | 048/520B048 | 0.96 | 0.97 |
| | 048/520B060 | 0.98 | 0.99 |
| | 060/520B048 | 0.98 | 0.98 |
| | 060/520B060 | 1.00 | 1.00 |

*Detailed cooling capacities are based on indoor and outdoor unit at the same elevation and connected by 7.62m (25 feet) of tubing. If other than 7.62m (25 feet) of tubing is used and/or indoor unit is located above outdoor unit, a slight variation may occur.

†Total and sensible capacities are gross capacities. Blower motor heat has not been subtracted.

‡Sensible capacities shown are based on 27°C (80°F) entering air at the indoor coil. For sensible capacities at other than 27°C (80°F) deduct 245 KW (835 Btuh) per 480 L/S (1000 Cfm) of indoor coil air for each degree below 27°C (80°F), or add 245 KW (835 Btuh) per 480 L/S (1000 Cfm) of indoor air per degree above 27°C (80°F). When the required data falls between the published data, interpolation may be performed.

System KW is total of indoor blower power plus Compressor Power plus Outdoor Fan Power.

CONDENSER ONLY RATINGS

ENGLISH

| MODEL 590A | ODA SST | 65 F | | 75 F | | 85 F | | 95 F | | 105 F | | 115 F | | 125 F | |
|---------------|------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | CAPAC | CMP | CAPAC | CMP | CAPAC | CMP | CAPAC | CMP | CAPAC | CMP | CAPAC | CMP | CAPAC | CMP |
| 030 | 35 | 35.5 | 2.63 | 33.4 | 2.78 | 31.0 | 2.93 | 28.6 | 3.07 | 26.2 | 3.19 | 23.7 | 3.30 | 21.2 | 3.37 |
| | 40 | 38.9 | 2.78 | 36.7 | 2.93 | 34.3 | 3.09 | 31.8 | 3.24 | 29.2 | 3.38 | 26.6 | 3.51 | 24.0 | 3.61 |
| | 45 | 42.4 | 2.93 | 40.1 | 3.09 | 37.7 | 3.26 | 35.1 | 3.42 | 32.4 | 3.58 | 29.6 | 3.72 | 26.9 | 3.84 |
| | 50 | 46.0 | 3.09 | 43.7 | 3.26 | 41.3 | 3.43 | 38.6 | 3.61 | 35.7 | 3.78 | 32.9 | 3.94 | 29.9 | 4.08 |
| 035 | 35 | 38.9 | 2.87 | 36.0 | 3.07 | 33.2 | 3.25 | 30.4 | 3.42 | 27.6 | 3.56 | 24.9 | 3.67 | 22.2 | 3.76 |
| | 40 | 42.9 | 2.98 | 39.8 | 3.20 | 36.8 | 3.41 | 33.9 | 3.59 | 30.9 | 3.76 | 28.0 | 3.89 | 25.1 | 4.00 |
| | 45 | 47.1 | 3.10 | 43.9 | 3.34 | 40.7 | 3.57 | 37.5 | 3.77 | 34.4 | 3.95 | 31.3 | 4.12 | 28.2 | 4.25 |
| | 50 | 51.6 | 3.23 | 48.1 | 3.48 | 44.7 | 3.73 | 41.3 | 3.95 | 38.0 | 4.16 | 34.7 | 4.34 | 31.5 | 4.50 |
| 040 | 35 | 43.6 | 3.41 | 40.6 | 3.62 | 37.5 | 3.79 | 34.5 | 3.93 | 31.5 | 4.04 | 28.5 | 4.11 | 25.6 | 4.15 |
| | 40 | 47.9 | 3.59 | 44.6 | 3.81 | 41.4 | 4.01 | 38.2 | 4.17 | 35.0 | 4.31 | 31.8 | 4.40 | 28.7 | 4.46 |
| | 45 | 52.3 | 3.76 | 48.9 | 4.01 | 45.4 | 4.23 | 42.0 | 4.42 | 38.6 | 4.58 | 35.3 | 4.70 | 31.9 | 4.78 |
| | 50 | 57.0 | 3.95 | 53.3 | 4.22 | 49.6 | 4.46 | 46.0 | 4.67 | 42.4 | 4.85 | 38.8 | 5.00 | 35.3 | 5.11 |
| 050 | 35 | 52.7 | 3.76 | 49.2 | 4.03 | 45.6 | 4.26 | 42.1 | 4.46 | 38.7 | 4.61 | 35.3 | 4.77 | 32.1 | 4.88 |
| | 40 | 57.9 | 3.91 | 54.2 | 4.22 | 50.4 | 4.49 | 46.7 | 4.71 | 43.0 | 4.90 | 39.4 | 5.08 | 36.0 | 5.22 |
| | 45 | 63.4 | 4.07 | 59.5 | 4.41 | 55.5 | 4.71 | 51.5 | 4.98 | 47.6 | 5.19 | 43.7 | 5.40 | 40.0 | 5.57 |
| | 50 | 69.1 | 4.22 | 65.1 | 4.61 | 60.9 | 4.95 | 56.6 | 5.24 | 52.4 | 5.49 | 48.2 | 5.73 | 44.2 | 5.92 |

LEGEND

CAPAC—GROSS COOLING CAPACITY 1000 BTU/HR
 CMP —COMPRESSOR POWER KW (EXCLUDING OUTDOOR FAN MOTOR)
 ODA —AIR TEMP ENTERING CONDENSER F
 SST —SATURATED SUCTION TEMP F

DETAILED COOLING CAPACITIES*

ENGLISH

| Indoor Coil Air | | CONDENSER ENTERING AIR TEMPERATURES °F | | | | | | | | | | | | | | |
|---|-----|--|------|---------------------|--------------------------|------|---------------------|--------------------------|------|---------------------|--------------------------|-------|---------------------|--------------------------|------|---------------------|
| | | 75 | | 85 | | 95 | | 105 | | 115 | | | | | | |
| CFM | EWB | Gross Capcty† (MBtuh) | | Comp Power KW | Gross Capcty† (MBtuh) | | Comp Power KW | Gross Capcty† (MBtuh) | | Comp Power KW | Gross Capcty† (MBtuh) | | Comp Power KW | Gross Capcty† (MBtuh) | | Comp Power KW |
| | | Total | Sens | | Total | Sens | | Total | Sens | | Total | Sens | | Total | Sens | |
| 590A030-A Outdoor Section With 519B/C036 Indoor Section | | | | | | | | | | | | | | | | |
| 750 | 72 | 37.0 | 17.9 | 2.81 | 35.1 | 17.2 | 3.06 | 33.2 | 16.4 | 3.30 | 31.0 | 15.6 | 3.52 | 28.6 | 14.7 | 3.74 |
| | 67 | 33.7 | 21.6 | 2.70 | 31.9 | 20.8 | 2.93 | 30.1 | 20.0 | 3.14 | 27.9 | 19.0 | 3.35 | 25.4 | 18.0 | 3.57 |
| | 62 | 30.6 | 25.2 | 2.59 | 28.9 | 24.3 | 2.79 | 27.0 | 23.4 | 3.00 | 24.8 | 22.3 | 3.20 | 22.6 | 21.2 | 3.41 |
| | 57 | 28.2 | 28.1 | 2.49 | 26.8 | 26.8 | 2.70 | 25.3 | 25.3 | 2.92 | 23.6 | 23.6 | 3.14 | 21.9 | 21.9 | 3.37 |
| 1000 | 72 | 39.2 | 19.8 | 2.89 | 37.1 | 19.0 | 3.14 | 35.0 | 18.2 | 3.38 | 32.7 | 17.4 | 3.61 | 30.2 | 16.4 | 3.83 |
| | 67 | 35.8 | 24.4 | 2.77 | 33.8 | 23.6 | 3.00 | 31.8 | 22.8 | 3.23 | 29.5 | 21.9 | 3.44 | 26.9 | 20.8 | 3.65 |
| | 62 | 32.6 | 29.0 | 2.66 | 30.8 | 28.1 | 2.88 | 28.9 | 27.1 | 3.09 | 26.7 | 25.9 | 3.30 | 24.5 | 24.4 | 3.52 |
| | 57 | 31.2 | 31.2 | 2.61 | 29.8 | 29.8 | 2.83 | 28.2 | 28.2 | 3.05 | 26.4 | 26.4 | 3.28 | 24.4 | 24.4 | 3.51 |
| 1250 | 72 | 40.7 | 21.4 | 2.94 | 38.4 | 20.6 | 3.19 | 36.1 | 19.8 | 3.44 | 33.8 | 18.9 | 3.67 | 31.2 | 18.0 | 3.89 |
| | 67 | 37.2 | 27.0 | 2.82 | 35.1 | 26.2 | 3.06 | 33.0 | 25.3 | 3.28 | 30.6 | 24.4 | 3.50 | 28.0 | 23.4 | 3.71 |
| | 62 | 34.1 | 32.3 | 2.71 | 32.3 | 31.3 | 2.94 | 30.4 | 30.1 | 3.16 | 28.4 | 28.4 | 3.38 | 26.3 | 26.3 | 3.61 |
| | 57 | 33.5 | 33.5 | 2.69 | 31.9 | 31.9 | 2.93 | 30.3 | 30.3 | 3.15 | 28.4 | 28.4 | 3.38 | 26.3 | 26.3 | 3.62 |
| Multipliers for Determining the Performance With Other Coils | | | | | | | | | | | | | | | | |
| Indoor Section | | Size | | | | | Capacity | | | | | Power | | | | |
| 517E | | 024 | | | | | 0.91 | | | | | 0.95 | | | | |
| | | 030 | | | | | 1.00 | | | | | 1.00 | | | | |
| 519B/C | | 030 | | | | | 1.00 | | | | | 1.00 | | | | |

*Detailed cooling capacities are based on indoor and outdoor unit at the same elevation and connected by 7.62m (25 feet) of tubing. If other than 7.62m (25 feet) of tubing is used and/or indoor unit is located above outdoor unit, a slight variation may occur.

†Total and sensible capacities are gross capacities. Blower motor heat has not been subtracted.

‡Sensible capacities shown are based on 27°C (80°F) entering air at the indoor coil. For sensible capacities at other than 27°C (80°F) deduct 245 KW (835 Btuh) per 480 L/S (1000 Cfm) of indoor coil air for each degree below 27°C (80°F), or add 245 KW (835 Btuh) per 480 L/S (1000 Cfm) of indoor air per degree above 27°C (80°F). When the required data falls between the published data, interpolation may be performed.

System KW is total of indoor blower power plus Compressor Power plus Outdoor Fan Power.

DETAILED COOLING CAPACITIES*

ENGLISH

| Indoor Coil Air | | CONDENSER ENTERING AIR TEMPERATURES °F | | | | | | | | | | | | | | |
|--|-----|--|--------------|---------------|---------------------|--------------|---------------|---------------------|--------------|---------------|---------------------|--------------|---------------|---------------------|--------------|---------------|
| | | 75 | | | 85 | | | 95 | | | 105 | | | 115 | | |
| CFM | EWB | Gross Capcty† Total | (MBtuh) Sens | Comp Power KW | Gross Capcty† Total | (MBtuh) Sens | Comp Power KW | Gross Capcty† Total | (MBtuh) Sens | Comp Power KW | Gross Capcty† Total | (MBtuh) Sens | Comp Power KW | Gross Capcty† Total | (MBtuh) Sens | Comp Power KW |
| 590A035-A Outdoor Section With 519B/C036-520B042 Indoor Section | | | | | | | | | | | | | | | | |
| 1000 | 72 | 43.1 | 21.4 | 3.26 | 40.7 | 20.5 | 3.54 | 38.4 | 19.6 | 3.80 | 36.0 | 18.8 | 4.05 | 33.5 | 17.8 | 4.29 |
| | 67 | 39.3 | 26.3 | 3.12 | 37.1 | 25.4 | 3.38 | 34.9 | 24.5 | 3.62 | 32.7 | 23.5 | 3.85 | 30.0 | 22.5 | 4.08 |
| | 62 | 35.7 | 31.1 | 2.99 | 33.8 | 30.1 | 3.22 | 31.8 | 29.1 | 3.45 | 29.5 | 27.9 | 3.67 | 27.1 | 26.6 | 3.90 |
| | 57 | 33.9 | 33.9 | 2.91 | 32.3 | 32.3 | 3.15 | 30.7 | 30.7 | 3.39 | 28.9 | 28.9 | 3.64 | 26.9 | 26.9 | 3.88 |
| 1200 | 72 | 44.5 | 22.8 | 3.32 | 42.0 | 21.9 | 3.59 | 39.5 | 21.0 | 3.86 | 37.0 | 20.1 | 4.11 | 34.4 | 19.2 | 4.36 |
| | 67 | 40.6 | 28.6 | 3.17 | 38.3 | 27.6 | 3.43 | 36.0 | 26.7 | 3.68 | 33.7 | 25.7 | 3.91 | 31.0 | 24.7 | 4.14 |
| | 62 | 37.1 | 34.0 | 3.04 | 35.1 | 33.0 | 3.28 | 33.0 | 31.9 | 3.52 | 30.9 | 30.5 | 3.75 | 28.6 | 28.6 | 3.98 |
| | 57 | 36.0 | 36.0 | 3.00 | 34.3 | 34.3 | 3.25 | 32.6 | 32.6 | 3.50 | 30.7 | 30.7 | 3.74 | 28.6 | 28.6 | 3.99 |
| 1500 | 72 | 46.0 | 24.8 | 3.38 | 43.4 | 23.8 | 3.65 | 40.7 | 22.9 | 3.92 | 38.1 | 22.0 | 4.18 | 35.4 | 21.1 | 4.42 |
| | 67 | 42.1 | 31.7 | 3.23 | 39.6 | 30.7 | 3.49 | 37.2 | 29.7 | 3.74 | 34.7 | 28.7 | 3.98 | 32.0 | 27.7 | 4.20 |
| | 62 | 38.8 | 37.8 | 3.10 | 36.8 | 36.5 | 3.36 | 34.8 | 34.8 | 3.61 | 32.8 | 32.8 | 3.86 | 30.6 | 30.6 | 4.11 |
| | 57 | 38.5 | 38.5 | 3.09 | 36.6 | 36.6 | 3.35 | 34.8 | 34.8 | 3.61 | 32.8 | 32.8 | 3.86 | 30.6 | 30.6 | 4.11 |
| Multipliers for Determining the Performance With Other Coils | | | | | | | | | | | | | | | | |
| Indoor Section | | Size | | | Capacity | | | Power | | | | | | | | |
| 517E | | 030 | | | 0.92 | | | 0.95 | | | | | | | | |
| 519B/C | | 036 | | | 1.00 | | | 1.00 | | | | | | | | |
| | | 036/40FS-160 | | | 1.00 | | | 1.00 | | | | | | | | |
| | | 042/40FS-160 | | | 1.06 | | | 1.03 | | | | | | | | |
| 590A040-A Outdoor Section With 519B/C048-520B048 Indoor Section | | | | | | | | | | | | | | | | |
| 1500 | 72 | 51.1 | 26.4 | 4.06 | 48.4 | 25.4 | 4.34 | 45.7 | 24.4 | 4.62 | 42.8 | 23.4 | 4.87 | 39.9 | 22.4 | 5.12 |
| | 67 | 46.7 | 33.0 | 3.86 | 44.2 | 32.0 | 4.13 | 41.6 | 31.0 | 4.39 | 39.0 | 29.9 | 4.63 | 36.3 | 28.9 | 4.86 |
| | 62 | 42.7 | 39.4 | 3.69 | 40.5 | 38.3 | 3.94 | 38.2 | 37.0 | 4.19 | 36.0 | 35.6 | 4.43 | 33.8 | 33.8 | 4.66 |
| | 57 | 41.5 | 41.5 | 3.64 | 39.7 | 39.7 | 3.91 | 37.8 | 37.8 | 4.17 | 35.8 | 35.8 | 4.42 | 33.8 | 33.8 | 4.66 |
| 1700 | 72 | 52.1 | 27.6 | 4.10 | 49.3 | 26.6 | 4.38 | 46.4 | 25.6 | 4.66 | 43.5 | 24.6 | 4.92 | 40.6 | 23.5 | 5.17 |
| | 67 | 47.6 | 35.0 | 3.90 | 45.0 | 34.0 | 4.18 | 42.4 | 32.9 | 4.43 | 39.7 | 31.9 | 4.68 | 36.9 | 30.7 | 4.90 |
| | 62 | 43.8 | 41.9 | 3.74 | 41.5 | 40.5 | 4.00 | 39.3 | 39.0 | 4.25 | 37.1 | 37.1 | 4.51 | 35.0 | 35.0 | 4.75 |
| | 57 | 43.1 | 43.1 | 3.71 | 41.2 | 41.2 | 3.98 | 39.2 | 39.2 | 4.25 | 37.1 | 37.1 | 4.51 | 35.0 | 35.0 | 4.75 |
| 2000 | 72 | 53.2 | 29.3 | 4.15 | 50.4 | 28.3 | 4.44 | 47.4 | 27.3 | 4.72 | 44.4 | 26.3 | 4.98 | 41.3 | 25.2 | 5.23 |
| | 67 | 48.7 | 37.8 | 3.95 | 46.0 | 36.8 | 4.22 | 43.3 | 35.7 | 4.49 | 40.5 | 34.5 | 4.73 | 37.7 | 33.4 | 4.96 |
| | 62 | 45.3 | 44.9 | 3.80 | 43.1 | 43.1 | 4.08 | 40.9 | 40.9 | 4.35 | 38.7 | 38.7 | 4.62 | 36.5 | 36.5 | 4.87 |
| | 57 | 45.1 | 45.1 | 3.80 | 43.1 | 43.1 | 4.08 | 40.9 | 40.9 | 4.35 | 38.7 | 38.7 | 4.62 | 36.5 | 36.5 | 4.86 |
| Multipliers for Determining the Performance With Other Coils | | | | | | | | | | | | | | | | |
| Indoor Section | | Size | | | Capacity | | | Power | | | | | | | | |
| 517E | | 036 | | | 0.92 | | | 0.94 | | | | | | | | |
| 519B/C | | 036/520B042 | | | 0.92 | | | 0.95 | | | | | | | | |
| | | 042/520B042 | | | 0.93 | | | 0.96 | | | | | | | | |
| | | 042/520B048 | | | 0.99 | | | 0.99 | | | | | | | | |
| | | 048/520B048 | | | 1.00 | | | 1.00 | | | | | | | | |
| | | 048/520B060 | | | 1.01 | | | 1.01 | | | | | | | | |
| 590A050-A Outdoor Section With 519B/C060-520B060 Indoor Section | | | | | | | | | | | | | | | | |
| 1500 | 72 | 59.6 | 29.9 | 4.47 | 56.6 | 28.8 | 4.78 | 53.5 | 27.7 | 5.08 | 50.4 | 26.5 | 5.37 | 47.2 | 25.4 | 5.65 |
| | 67 | 54.4 | 37.1 | 4.24 | 51.6 | 35.9 | 4.54 | 48.7 | 34.7 | 4.82 | 45.8 | 33.5 | 5.09 | 42.8 | 32.3 | 5.35 |
| | 62 | 49.6 | 44.0 | 4.03 | 47.0 | 42.7 | 4.31 | 44.4 | 41.4 | 4.58 | 41.8 | 40.1 | 4.84 | 39.2 | 38.7 | 5.10 |
| | 57 | 47.4 | 47.4 | 3.95 | 45.3 | 45.3 | 4.24 | 43.3 | 43.3 | 4.52 | 41.2 | 41.2 | 4.80 | 39.0 | 39.0 | 5.08 |
| 2000 | 72 | 62.4 | 33.3 | 4.60 | 59.2 | 32.2 | 4.90 | 55.9 | 31.0 | 5.21 | 52.5 | 29.8 | 5.50 | 49.1 | 28.6 | 5.78 |
| | 67 | 57.2 | 42.5 | 4.36 | 54.1 | 41.3 | 4.66 | 51.0 | 40.0 | 4.94 | 47.8 | 38.8 | 5.22 | 44.7 | 37.6 | 5.48 |
| | 62 | 52.6 | 50.9 | 4.16 | 49.9 | 49.3 | 4.46 | 47.3 | 47.3 | 4.74 | 44.9 | 44.9 | 5.04 | 42.5 | 42.5 | 5.33 |
| | 57 | 52.0 | 52.0 | 4.14 | 49.7 | 49.7 | 4.45 | 47.3 | 47.3 | 4.74 | 44.9 | 44.9 | 5.04 | 42.5 | 42.5 | 5.32 |
| 2400 | 72 | 64.0 | 35.8 | 4.67 | 60.6 | 34.7 | 4.98 | 57.2 | 33.5 | 5.28 | 53.6 | 32.3 | 5.57 | 50.1 | 31.1 | 5.85 |
| | 67 | 58.7 | 46.5 | 4.42 | 55.5 | 45.3 | 4.72 | 52.3 | 44.0 | 5.01 | 49.0 | 42.7 | 5.29 | 45.7 | 41.3 | 5.56 |
| | 62 | 54.8 | 54.8 | 4.26 | 52.3 | 52.3 | 4.57 | 49.8 | 49.8 | 4.88 | 47.1 | 47.1 | 5.18 | 44.5 | 44.5 | 5.47 |
| | 57 | 54.8 | 54.8 | 4.26 | 52.3 | 52.3 | 4.57 | 49.7 | 49.7 | 4.88 | 47.1 | 47.1 | 5.17 | 44.5 | 44.5 | 5.47 |
| Multipliers for Determining the Performance With Other Coils | | | | | | | | | | | | | | | | |
| Indoor Section | | Size | | | Capacity | | | Power | | | | | | | | |
| 519B/C | | 042/520B042 | | | 0.90 | | | 0.94 | | | | | | | | |
| | | 042/520B048 | | | 0.94 | | | 0.96 | | | | | | | | |
| | | 048/520B048 | | | 0.96 | | | 0.97 | | | | | | | | |
| | | 048/520B060 | | | 0.98 | | | 0.99 | | | | | | | | |
| | | 060/520B048 | | | 0.98 | | | 0.98 | | | | | | | | |
| | | 060/520B060 | | | 1.00 | | | 1.00 | | | | | | | | |

*Detailed cooling capacities are based on indoor and outdoor unit at the same elevation and connected by 7.62m (25 feet) of tubing. If other than 7.62m (25 feet) of tubing is used and/or indoor unit is located above outdoor unit, a slight variation may occur.

†Total and sensible capacities are gross capacities. Blower motor heat has not been subtracted.

‡Sensible capacities shown are based on 27°C (80°F) entering air at the indoor coil. For sensible capacities at other than 27°C (80°F) deduct 245 KW (835 Btuh) per 480 L/S (1000 Cfm) of indoor coil air for each degree below 27°C (80°F), or add 245 KW (835 Btuh) per 480 L/S (1000 Cfm) of indoor air per degree above 27°C (80°F). When the required data falls between the published data, interpolation may be performed. System KW is total of indoor blower power plus Compressor Power plus Outdoor Fan Power.

SOUND DATA

| OCTAVE BAND HZ | SOUND POWER, dB RE 1 pW | | | |
|--|-------------------------|------|------|------|
| | 030 | 035 | 040 | 050 |
| Octave Band Data | | | | |
| 125 | 56.0 | 59.0 | 59.0 | 58.0 |
| 250 | 73.5 | 73.5 | 67.5 | 67.5 |
| 500 | 69.5 | 67.5 | 74.5 | 74.5 |
| 1000 | 71.5 | 69.5 | 72.0 | 74.5 |
| 2000 | 74.5 | 69.5 | 69.0 | 68.5 |
| 4000 | 66.0 | 62.5 | 63.0 | 62.0 |
| 8000 | 56.0 | 54.0 | 58.0 | 57.0 |
| ARI Sound Rating (ARI Standard 270) | | | | |
| (bels) | 7.6 | 7.6 | 7.6 | 8.2 |

ARI (U.S.A.) Standard 275, "Standard for Application Of Sound Rated Outdoor Unitary Equipment," provides a method for estimating equipment SOUND PRESSURE levels after installation. This procedure takes into account the effects of distance from source, barriers and reflecting surfaces in estimating the sound pressure levels which can be measured on A-weighted sound pressure level meters. ARI Standard 275 uses the ARI Sound Rating number developed under Standard 270 as the indication of base unit sound POWER level. Copies of ARI Standard 275 are available from Air-Conditioning and Refrigeration Institute (Arlington, Virginia USA).

CHECK-FLO-RATER™ CHART

| Condensing Unit Size | Piston Identification No. |
|-------------------------|------------------------------|
| 030 | 63 |
| 035 | 70 |
| 040 | 80 |
| 050 | 80 |



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS