LENNOX®
ENGINEERING DATA

HP23 SERIES HEAT PUMP OUTDOOR UNITS RFC™ or EXPANSION VALVE SYSTEMS

10.05 to 11.55 SEER

*11,800 to 62,000 Btuh (3.5 to 18.2 kW) Cooling Capacity

*11,500 to 60,500 Btuh (3.4 to 17.7 kW) Heating Capacity

*ARI Standard 210/241 Certified Ratings

HP23
Bulletin No. 210032
April 1994
Supersedes September 1993

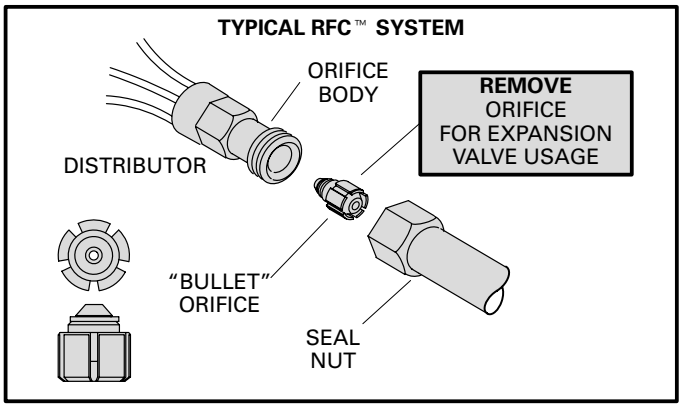
CERTIFICATION APPLIES ONLY WHEN THE COMPLETE SYSTEM IS LISTED WITH ARI

CERTIFICATION APPLIES ONLY WHEN USED WITH PROPER COMPONENTS AS LISTED WITH ARI

FEATURES

Application — HP23 series heat pump outdoor units consist of eight models ranging from 1 to 5 tons (3.5 to 17.6 kW). Units have SEER's up to 11.55 with a cooling capacity range of 11,800 to 62,000 Btuh (3.5 to 18.2 kW) and COP of up to 3.54 with heating capacity range of 11,500 to 60,500 Btuh (3.4 to 17.7 kW). Units are designed for use with remotely located indoor blower coil units or indoor add-on coils in FM21 applications. Outdoor units may be installed on a slab at grade level or on a rooftop. A variety of matching up-flo, down-flo or horizontal indoor blower coil units, with optional supplemental electric heat provide selective sizing and installation versatility. For FM21 controls information, see bulletin indexed in this tab section. For complete data on indoor blower coil units and FM21 coils, see tab section, Coils — Blower Coil Units. HP23 units are test operated at the factory to insure proper operation and are shipped ready for installation. Installer has only to locate unit and make refrigerant line and electrical connections to complete the installation.

Refrigerant Control Choice — A choice of refrigerant flow controls is available. Use an RFC™ refrigerant metering orifice for an economical installation restricted to specific indoor coils or select a coil with factory or field installed check and expansion valve for a larger selection of indoor units and maximum seasonal efficiency.

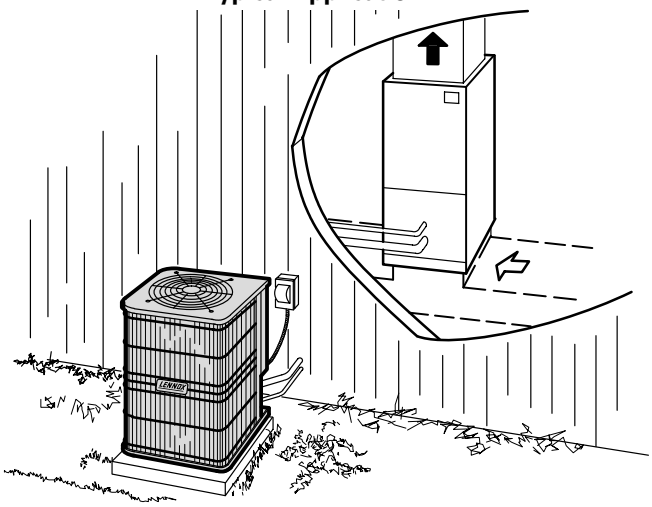


Refrigerant Flow Control — HP23 units are applicable to Lennox RFC systems when matched with specific indoor coils. RFC (Refrigerant Flow Control) is a very accurate means of metering refrigerant in a system. Metering control is accomplished by the exact sizing of the refrigerant metering orifice located in the distributor on the coil. Design of the bullet shaped orifice allows for reverse flow during the heating cycle. As the refrigerant flows in the reverse direction the orifice moves back to a free flow position, eliminating the need for a check valve and related piping. The entire principle of the RFC system involves the matching of the indoor coil with the proper size orifice in the metering device. The RFC system equalizes pressures instantly after the compressor stops, eliminating the need for any extra controls and allowing the compressor to start unloaded.

Approvals — Units have been tested with matching indoor units in the Lennox Research Laboratory and rated according to U.S. Department of Energy (DOE) test procedures and in accordance with ARI Standard 210/240-89. In addition, units have been sound rated in the Lennox reverberant sound test room in accordance with ARI Standard 270-84. Units and components within are bonded for grounding to meet safety standards for servicing required by U.L., N.E.C. and C.E.C. Units are U.L. listed and C.S.A. certified.

Equipment Warranty — Compressor has a limited warranty for five years. All other covered components have a limited warranty for five years in residential installations and one year in non-residential installations. Refer to the Equipment Limited Warranty certificate included with the unit for details.

Typical Application



♧The maple leaf symbol in this bulletin denotes Canadian only usage where applicable
NOTE — Specifications, Ratings and Dimensions subject to change without notice.

FEATURES (Continued)

Weather Resistant Cabinet and Base Section — Heavy gauge galvanized steel cabinet and base section are subjected to a five station metal wash process prior to a finish coat application of baked-on outdoor enamel. Attractive enamel finish provides the cabinet and base section with long lasting protection from rust and corrosion. Drainage holes are provided in the base section for moisture removal. High density polyethylene base supports raise the unit off of the mounting surface away from damaging moisture.

Accessible Control Box — Conveniently located for easy access. All controls are pre-wired at the factory.

Copper Tube/Enhanced Fin Outdoor Coil — Lennox designed and fabricated coil is constructed of precisely spaced ripple-edged aluminum fins machine fitted to seamless copper tubes. Four-sided wrap-around coil configuration provides extra large surface area with low air resistance. Lanced fins provide maximum exposure of the fin surface to air stream resulting in excellent heat transfer. Fins are equipped with collars that grip the tubing for maximum contact area. Precise circuiting provides uniform refrigerant distribution for high efficiency. Flared shoulder tubing connections and silver soldering result in tight, leakproof joints. Long-life copper tubing is corrosion-resistant and easy to field service. Coil is factory tested under high pressure to insure leakproof construction. Entire coil is accessible for cleaning. Corrosion-resistant PVC coated steel wire coil guard is furnished as standard.

Dependable and Quiet Compressor — Compressor is hermetically sealed and provides trouble-free operation and long service life. Built-in protection devices assure protection from excessive current and temperatures. Refrigerant cooled and overload protected. HP23-141 is equipped with a rotary compressor. HP23-211 thru HP23-650 models are furnished with a crankcase heater as standard equipment to ensure proper compressor lubrication at all times. Heater is temperature actuated to operate only when required. The compressor components are spring mounted within the sealed housing. In addition, the compressor is installed in the unit on resilient rubber mounts for quiet and vibration free operation. Muffler, factory installed in discharge line, reduces operating sound levels.

Suction Line Accumulator — Factory installed and piped accumulator is furnished on HP23-141, -460, -510 and -650 models only. Accumulator prevents large amounts of liquid refrigerant from entering the compressor eliminating damage on start-ups and refrigerant cycle changes.

Reversing Valve — Factory installed 4-way reversing valve provides a rapid change in refrigerant flow direction resulting in quick changeover from cooling to heating and vice-versa. Valve operates on pressure differential between outdoor unit and indoor unit.

Expansion Valve — Designed and sized specifically for use in heat pump system. Sensing bulb is located on the suction line between the reversing valve and compressor to sense suction temperature in any cycle. Factory installed and piped.

Defrost Control — Solid-state time/temperature defrost control is furnished as standard equipment. Control initiates a defrost cycle every 30, 60 or 90 minutes of compressor "on" time at outdoor temperatures below 35° F (2°C) (factory setting 60 minutes). Maximum defrost cycle is 14 minutes. Defrost thermostat mounted on the liquid line determines when a defrost cycle is required and when to terminate a cycle.

Start Controls — Factory installed start capacitor and potential relay provides assistance for compressor start under loaded conditions, low voltage or low ambient conditions.

Powerful Outdoor Coil Fan — Efficient direct drive fan moves large air volumes uniformly through the entire outdoor coil resulting in high refrigerant capacity. Vertical discharge of air minimizes operating sounds and eliminates hot air damage to lawn and shrubs. Fan motor is inherently protected and totally enclosed for maximum protection from weather, dust and corrosion. Rain shield on motor provides additional protection from moisture. Fan service access is provided by removal of fan guard. Corrosion-resistant PVC coated steel wire fan guard is furnished as standard.

Refrigerant Line Connections, Electrical Inlets and Service Valves — Liquid and vapor line connections are located outside the unit cabinet and are made with sweat connections. Fully serviceable brass service valves prevent corrosion and provide easy access to refrigerant system. Liquid and vapor valves can be fully shut off, and the liquid valve can be backseated to manage refrigerant charge while servicing the system. Field installed thermometer well is furnished for installation in the liquid line. Valves and gauge ports are accessible outside the unit cabinet. See dimension drawing. In addition, a high capacity drier with internal check valve and strainer are furnished and factory installed in the liquid line.

OPTIONAL ACCESSORIES (Must Be Ordered Extra)

Check and Expansion Valve Kits (Optional for CB19/CBH19 and CH19 Units) — For maximum seasonal efficiency, use a check and expansion valve matched to indoor unit. Must be ordered extra and field installed on indoor coil unit. See ARI Ratings table for kit selection.

NOTE — When HP23 units are used with CB19/CBH19 indoor blower coil units with a check and expansion valve, CB19/CBH19 units must be field altered by removing the RFC refrigerant metering orifice. The orifice is easily removed at the liquid line connection on the indoor unit. See illustration on previous page.

Low Ambient Control Kit (Optional for Expansion Valve Systems Only) — Units will operate satisfactorily in the cooling mode down to 45°F (7°C) outdoor air temperature without any additional controls. For cases where operation of the unit is required at low ambients, a Low Ambient Control Kit LB-57113BM **(27J00)** can be added in the field, enabling the unit to operate properly down to 30°F (–1°C).

Outdoor Thermostat Kit (Optional) — An outdoor thermostat can be used to lock out some of the electric heating elements on indoor units where two stage control is applicable. Outdoor thermostat maintains the heating load on the low power input as long as possible before allowing the full power load to come on the line. Thermostat kit LB-29740BA **(56A87)** and mounting box M-1595 **(31461)** or ♔BM-10260 **(33A09)** must be ordered extra.

Thermostat (Optional) — Thermostat is not furnished with the unit and must be ordered extra. See Thermostats bulletin in Accessories Section and Lennox Price Book.

Mounting Base (Optional) — Mounting base provides a permanent foundation for outdoor units. High density polyethylene structural material is lightweight, sturdy, sound absorbing and will withstand the effects of sun, heat, cold, moisture, oil and refrigerant. Will not mildew or decompose. Can be shipped singly or in packages of six to a carton. Use MB1-24 **(78H50)** 32" x 34" x 3" (813 mm x 864 mm x 76 mm), shipping weight 15 lbs. (7 kg) each.

Refrigerant Line Kits (Optional) — Lines are available in several lengths. See Refrigerant Line Kit table. Lines (vapor and liquid) are shipped refrigeration clean. Lines are cleaned, dried, pressurized and sealed at the factory. Vapor line is fully insulated. Lines are furnished with a flare fitting (indoor unit connection) at one end and stubbed (no fitting) at the opposite end for connection to outdoor unit. Kits are not available for the HP23-141 and HP23-650 models and lines must be furnished by the installer. Refrigerant line length should not exceed 50 ft. (15 m) in any installation. If longer lines are needed, contact your Lennox Field Service Consultant.

♔ ***Monitor Kit (Optional)*** — Field installed Monitor Kit LB-52359CA **(76F53)** includes ambient compensating thermistor and service light thermostat. Thermistor reduces thermostat droop to improve the operating characteristics of the heat pump system. Service light thermostat allows operation of the service light on the indoor thermostat.

Timed-Off Control (Optional) — Timed off control LB-61378A **(47J35)** Prevents compressor short-cycling and also allows time for suction and discharge pressure to equalize, permitting the compressor to start in an unloaded condition. Automatic reset control provides a five minute time delay between compressor shutoff and start-up. (Standard on HP23-651-653).

ARI RATINGS

Outdoor Unit Model No. ★ARI Std. 270 SRN (bels)	†ARI Standard 210/240 Ratings											Indoor Unit	☆Check and Expansion Valve Kit Required
	Cool. Cap. Btuh (kW)	High Temp. Htg. Cap. Btuh (kW)	Low Temp. Htg. Cap. Btuh (kW)	Total Unit Cool. Watts	SEER (EER) (Btuh/ Watt)	Cool. C.O.P.	Total Unit High Temp. Htg. Watts	◆HSPF Region IV (Region V)	High Temp. Htg. C.O.P.	Total Unit Low Temp. Htg. Watts	Low Temp. Htg. C.O.P.		
HP23-141 (7.6)	11,800 (3.46)	11,600 (3.40)	7,300 (2.14)	1180	10.55 (10.00)	2.95	1205	6.80 (5.90)	2.82	1090	1.96	**CR18-21	LB-85759F **(56J19)**
	12,000 (3.52)	11,800 (3.46)	7,200 (2.11)	1180	10.05 (10.15)	2.95	1184	7.00 (5.90)	2.92	1060	2.00	**C22-21(FC) **CH22-21	††RFC IV
	12,000 (3.52)	11,800 (3.46)	7,200 (2.11)	1180	11.30 (10.15)	2.95	1185	7.00 (5.90)	2.92	1060	2.00	**C22-21(FC) ***CR22-21/B24 **CH22-21	‡Factory Installed
	12,200 (3.57)	11,800 (3.46)	7,200 (2.11)	1184	10.55 (10.15)	2.95	1175	7.00 (5.90)	2.92	1055	2.00	**C22-26(FC)	††RFC IV
	12,200 (3.57)	11,800 (3.46)	7,200 (2.11)	1201	11.55 (10.15)	2.95	1175	7.00 (5.90)	2.94	1050	2.00	**C22-26(FC) **C22-26W(FC)	‡Factory Installed
	12,500 (3.66)	11,500 (3.37)	7,200 (2.11)	1180	10.55 (10.70)	3.15	1085	6.90 (6.00)	3.10	1000	2.10	*CB19-21 *CBH19-21	††RFC III
	12,500 (3.66)	11,500 (3.37)	7,200 (2.11)	1180	11.55 (10.70)	3.15	1085	6.90 (6.00)	3.10	1000	2.10	*CB19-21 *CBH19-21	LB-34792BJ **(84H87)**
HP23-211 (7.6)	17,500 (5.13)	17,800 (5.22)	9,900 (2.90)	1885	10.05 (9.30)	2.75	1800	6.80 (5.90)	2.90	1495	1.94	**CR18-21	LB-85759F **(56J19)**
	18,200 (5.33)	18,200 (5.33)	10,800 (3.16)	1805	10.05 (10.05)	2.95	1690	7.20 (5.90)	3.16	1494	2.12	**C22-21(FC) **CH22-21	††RFC IV
	18,200 (5.33)	18,200 (5.33)	10,800 (3.16)	1805	11.05 (10.05)	2.95	1690	7.20 (5.90)	3.16	1494	2.12	**C22-21(FC) ***CR22-21/B24 **CH22-21	‡Factory Installed
	18,500 (5.42)	18,500 (5.42)	10,000 (2.93)	1895	10.55 (9.75)	2.85	1760	7.00 (6.00)	3.08	1480	1.98	**CR18-31	LB-85759F **(56J19)**
	18,900 (5.50)	19,000 (5.57)	10,100 (2.96)	1900	10.80 (9.95)	2.90	1730	7.00 (5.90)	3.22	1470	2.00	♲ *CVP10-26/ EC10Q3	‡Factory Installed
	19,000 (5.57)	18,400 (5.39)	10,800 (3.16)	1820	10.05 (10.40)	3.05	1700	7.30 (5.90)	3.16	1492	2.12	**C22-26(FC)	††RFC IV
	19,000 (5.57)	18,400 (5.39)	10,800 (3.16)	1820	11.10 (10.40)	3.05	1700	7.30 (5.90)	3.17	1493	2.12	**C22-26(FC) **C22-26W(FC)	●Factory Installed
	19,400 (5.68)	18,000 (5.27)	9,900 (2.90)	1800	11.05 (10.75)	3.15	1605	7.20 (6.00)	3.28	1360	2.12	*CB19-21 *CBH19-21	††RFC III
	19,400 (5.68)	18,000 (5.27)	9,900 (2.90)	1800	11.55 (10.75)	3.15	1605	7.20 (6.00)	3.28	1360	2.12	*CB19-21 *CBH19-21	LB-34792BE **(25G86)**
HP23-261 (7.6)	23,000 (6.74)	23,000 (6.74)	12,600 (3.69)	2475	10.25 (9.30)	2.75	2295	6.80 (5.90)	2.94	1865	1.98	**CR18-31	LB-85759F **(56J19)**
	23,600 (6.91)	23,400 (6.86)	12,600 (3.69)	2485	10.55 (9.50)	2.80	2240	6.90 (5.90)	3.06	1850	2.00	♲ *CVP10-26/ EC10Q3	‡Factory Installed
	23,600 (6.91)	23,400 (6.86)	12,600 (3.69)	2485	10.55 (9.50)	2.80	2270	6.85 (5.90)	3.02	1865	1.98	**CR18-41	LB-85759F **(56J19)**
	24,000 (7.03)	23,200 (6.80)	12,600 (3.69)	2410	10.05 (9.95)	2.90	2195	7.10 (6.00)	3.10	1825	2.00	**C22-26(FC)	††RFC IV
	24,000 (7.03)	23,200 (6.80)	12,600 (3.69)	2410	10.70 (9.95)	2.90	2195	7.10 (6.00)	3.10	1825	2.00	**C22-26(FC) **C22-26W(FC)	‡Factory Installed
	24,200 (7.09)	23,200 (6.80)	12,400 (3.63)	2350	10.65 (10.30)	3.00	2075	7.10 (5.90)	3.28	1700	2.12	*CB19-26 *CBH19-26	††RFC III
	24,200 (7.09)	23,200 (6.80)	12,400 (3.63)	2350	11.15 (10.30)	3.00	2075	7.10 (5.90)	3.28	1700	2.12	*CB19-26 *CBH19-26	LB-34792BE **(25G86)**
	24,400 (7.15)	23,000 (6.74)	12,600 (3.69)	2415	10.50 (10.10)	2.95	2200	7.00 (5.90)	3.06	1835	2.00	**CH22-31	††RFC IV
	24,400 (7.03)	23,000 (6.74)	12,600 (3.69)	2415	10.80 (10.10)	2.95	2200	7.00 (5.90)	3.06	1835	2.00	**CH22-31	‡Factory Installed
	25,000 (7.33)	23,400 (6.86)	12,600 (3.69)	2435	10.55 (10.25)	3.00	2435	7.00 (5.90)	3.14	1860	2.00	**C22-31(FC)	††RFC IV
	25,000 (7.33)	23,400 (6.86)	12,600 (3.69)	2435	11.05 (10.25)	3.00	2185	7.00 (5.90)	3.14	1860	2.00	**C22-31(FC) **C22-31W(FC) ***CR22-31/B24 ***CR22-31W/B24	‡Factory Installed

**For FM21 Heat Pump Control use with any Lennox furnace that meets system design requirements. See FM21 page in this section for additional data.
***CR22 coils are only used with B24 series blower units.
★Sound Rating Number in accordance with ARI Standard 270. ☆Kit is required and must be ordered extra for field installation, unless shown as factory installed.
†Rated in accordance with ARI Standard 210/240 with 25 ft. (7.6 m) of connecting refrigerant lines;
Cooling Ratings — 95°F (35°C) outdoor air temperature and 80°F (27°C) db/67°F (19°C) wb entering indoor coil air.
High Temperature Heating Ratings — 47°F (8°C) db/43°F (6°C) wb outdoor air temperature and 70°F (21°C) db entering indoor coil air.
Low Temperature Heating Ratings — 17°F db/15°F wb outdoor air temperature and 70°F db (21°C) entering indoor coil air. tomorrow
††RFCIII metering orifice furnished with CB19/CBH19 indoor blower coil unit. RFCIV metering orifice furnished with C22(FC), and CH22 "RFC" coils.
◆Heating Seasonal Performance Factor. ‡Furnished as standard with coil. ♲ Canadian usage only. *Blower powered indoor coil unit.
NOTE — B24 Blower not included in ratings for CR22 series coils. B24 shown for matching reference only.

ARI RATINGS

Outdoor Unit Model No. ★ARI Std. 270 SRN (bels)	†ARI Standard 210/240 Ratings											Indoor Unit	☆Check and Expansion Valve Kit Required
	Cool. Cap. Btuh (kW)	High Temp. Htg. Cap. Btuh (kW)	Low Temp. Htg. Cap. Btuh (kW)	Total Unit Cool. Watts	SEER (EER) (Btuh/ Watt)	Cool. C.O.P.	Total Unit High Temp. Htg. Watts	◆HSPF Region IV (Region V)	High Temp. Htg. C.O.P.	Total Unit Low Temp. Htg. Watts	Low Temp. Htg. C.O.P.		
HP23-311 (7.6)	29,000 (8.50)	29,600 (8.67)	16,200 (4.75)	3180	10.05 (9.10)	2.65	2685	7.20 (6.00)	3.22	2145	2.22	✧ *CVP10-26/ EC10Q3	‡Factory Installed
	29,000 (8.50)	28,000 (8.20)	15,400 (4.51)	3130	10.55 (9.25)	2.70	2754	7.30 (6.10)	2.98	2135	2.12	***CR22-31/B24 ***CR22-31W/B24	
	29,200 (8.56)	28,600 (8.38)	15,600 (4.57)	3195	10.05 (9.15)	2.70	2785	7.40 (6.30)	3.02	2175	2.10	**CH22-31	††RFC IV
	29,200 (8.56)	28,600 (8.38)	15,600 (4.57)	3195	10.30 (9.15)	2.70	2785	7.40 (6.30)	3.00	2175	2.10	**CH22-31	‡Factory Installed
	29,200 (8.56)	29,200 (8.60)	16,200 (4.75)	3190	10.05 (9.15)	2.70	2710	7.10 (6.00)	3.16	2160	2.20	**CR18-41	LB-85759F **(56J19)**
	29,400 (8.61)	29,600 (8.67)	16,200 (4.75)	3190	10.05 (9.20)	2.70	2685	7.20 (6.00)	3.22	2145	2.22	✧ *CVP10-31/ EC10Q3	‡Factory Installed
	29,600 (8.67)	28,600 (8.38)	15,600 (4.57)	3205	10.05 (9.25)	2.70	2745	7.20 (6.20)	3.04	2165	2.10	**CH22-41	††RFC IV
	29,600 (8.67)	28,600 (8.38)	15,600 (4.57)	3205	10.40 (9.25)	2.70	2745	7.20 (6.20)	3.04	2165	2.10	**CH22-41	‡Factory Installed
	30,000 (8.80)	28,600 (8.38)	15,600 (4.57)	3225	10.05 (9.30)	2.70	2760	7.40 (6.30)	3.02	2175	2.10	**C22-31(FC)	††RFC IV
	30,000 (8.80)	28,600 (8.38)	15,600 (4.57)	3225	10.55 (9.30)	2.70	2760	7.40 (6.30)	3.02	2175	2.10	**C22-31(FC) **C22-31W(FC)	‡Factory Installed
	30,000 (8.80)	29,400 (8.61)	16,100 (4.72)	3100	10.05 (9.65)	2.80	2540	7.50 (6.20)	3.40	2020	2.32	*CB19-31 *CBH19-31	††RFC III
	30,000 (8.80)	29,400 (8.61)	16,100 (4.72)	3100	10.55 (9.65)	2.80	2540	7.50 (6.20)	3.40	2020	2.32	*CB19-31 *CBH19-31	LB-34792BG **(44G34)**
	30,200 (8.85)	28,600 (8.38)	15,000 (4.40)	3225	10.05 (9.35)	2.75	2745	7.20 (6.20)	3.04	2225	2.00	**C22-41(FC)	††RFC IV
	30,200 (8.85)	28,600 (8.38)	15,000 (4.40)	3225	10.70 (9.35)	2.75	2745	7.20 (6.20)	3.04	2225	2.00	**C22-41(FC) ***CR22-41/B24	‡Factory Installed
U.S. & CANADA HS23-411 (7.6) **U.S. ONLY** HS23-413 (8.0)	33,600 (9.84)	33,200 (9.73)	21,200 (6.21)	3810	10.00 (8.80)	2.60	3225	7.00 (5.90)	3.00	2630	2.36	✧ *CVP10-31/ EC10Q3	‡Factory Installed
	34,400 (10.08)	33,600 (9.85)	21,200 (6.21)	3840	10.00 (8.95)	2.60	3195	7.05 (6.00)	3.10	2625	2.36	✧ *CVP10-46/ EC10Q4	
	34,600 (10.14)	33,600 (9.85)	21,200 (6.21)	3850	10.00 (9.00)	2.60	3185	7.00 (5.90)	3.10	2620	2.36	✧ *CVP10-41/ EC10Q3	
	35,000 (10.25)	35,200 (10.31)	20,200 (5.92)	3760	10.55 (9.30)	2.73	3220	7.00 (6.05)	3.20	2530	2.34	**CR18-41	LB-85759F **(56J19)**
	35,000 (10.26)	33,600 (9.84)	17,800 (5.22)	3675	10.55 (9.55)	2.80	3150	7.05 (6.10)	3.12	2535	2.06	***CR22-41/B24	‡Factory Installed
	35,400 (10.37)	34,200 (10.02)	17,800 (5.22)	3760	10.05 (9.45)	2.75	3160	7.05 (6.10)	3.16	2580	2.02	**C22-41(FC) **CH22-41	††RFC IV
	35,400 (10.37)	34,200 (10.02)	17,800 (5.22)	3760	10.60 (9.45)	2.75	3160	7.05 (6.10)	3.16	2580	2.02	**C22-41(FC) **CH22-41	●Factory Installed
	36,000 (10.55)	36,000 (10.54)	20,000 (5.86)	3675	11.05 (9.90)	2.75	2970	7.15 (6.20)	3.54	2340	2.50	*CB19-41 *CBH19-41	††RFC III
	36,000 (10.55)	36,000 (10.54)	20,000 (5.86)	3675	11.05 (9.90)	2.75	2970	7.15 (6.20)	3.54	2340	2.50	*CB19-41 *CBH19-41	LB-34792BG **(44G34)**
	36,000 (10.55)	36,000 (10.55)	19,000 (5.57)	3775	11.00 (9.65)	2.80	3155	7.20 (6.25)	3.34	2505	2.22	**C22-46(FC)	‡Factory Installed

**For FM21 Heat Pump Control use with any Lennox furnace that meets system design requirements. See FM21 page in this section for additional data.
***CR22 coils are only used with B24 series blower units.
★Sound Rating Number in accordance with ARI Standard 270. ☆Kit is required and must be ordered extra for field installation, unless shown as factory installed.
†Rated in accordance with ARI Standard 210/240 with 25 ft. (7.6 m) of connecting refrigerant lines;
Cooling Ratings — 95°F (35°C) outdoor air temperature and 80°F (27°C) db/67°F (19°C) wb entering indoor coil air.
High Temperature Heating Ratings — 47°F (8°C) db/43°F (6°C) wb outdoor air temperature and 70°F (21°C) db entering indoor coil air.
Low Temperature Heating Ratings — 17°F db/15°F wb outdoor air temperature and 70°F db (21°C) entering indoor coil air. tomorrow
††RFCIII metering orifice furnished with CB19/CBH19 indoor blower coil unit. RFCIV metering orifice furnished with C22(FC), and CH22 "RFC" coils.
◆Heating Seasonal Performance Factor. ‡Furnished as standard with coil. ✧ Canadian usage only. *Blower powered indoor coil unit.
NOTE — B24 Blower not included in ratings for CR22 series coils. B24 shown for matching reference only.

ARI RATINGS

Outdoor Unit Model No. ★ARI Std. 270 SRN (bels)	†ARI Standard 210/240 Ratings											Indoor Unit	☆Check and Expansion Valve Kit Required
	Cool. Cap. Btuh (kW)	High Temp. Htg. Cap. Btuh (kW)	Low Temp. Htg. Cap. Btuh (kW)	Total Unit Cool. Watts	SEER (EER) (Btuh/ Watt)	Cool. C.O.P.	Total Unit High Temp. Htg. Watts	◆HSPF Region IV (Region V)	High Temp. Htg. C.O.P.	Total Unit Low Temp. Htg. Watts	Low Temp. Htg. C.O.P.		
♤ **Canada Only** HP23-413 (7.6)	33,400 (9.78)	33,000 (9.67)	21,000 (6.15)	3790	10.00 (8.80)	2.60	3255	7.00 (6.00)	2.95	2645	2.32	♤ **CR18-41	LB-85759F **(56J19)**
	33,600 (9.84)	33,200 (9.73)	21,200 (6.21)	3810	10.00 (8.80)	2.60	3225	7.10 (6.05)	3.00	2630	2.36	♤ *CVP10-31/ EC10Q3	‡Factory Installed
	34,400 (10.08)	33,600 (9.85)	21,200 (6.21)	3840	10.00 (8.95)	2.60	3195	7.20 (6.10)	3.10	2625	2.36	♤ *CVP10-46/ EC10Q4	
	34,500 (10.11)	32,400 (9.50)	18,400 (5.39)	3845	10.05 (8.95)	2.60	3290	7.00 (6.20)	2.90	2525	2.14	♤***CR22-41/B24	
	34,600 (10.14)	33,600 (9.85)	21,200 (6.21)	3850	10.00 (9.00)	2.60	3185	7.20 (6.10)	3.10	2620	2.36	♤ *CVP10-41/ EC10Q3	
	35,000 (10.26)	33,400 (9.79)	21,000 (6.15)	3710	10.00 (9.45)	2.75	3015	7.50 (6.35)	3.25	2475	2.50	♤ *CB19-41 ♤ *CBH19-41	††RFC III
	35,000 (10.26)	33,400 (9.79)	21,000 (6.15)	3710	10.30 (9.45)	2.75	3015	7.50 (6.35)	3.25	2475	2.50	♤ *CB19-41 ♤ *CBH19-41	LB-34792BG **(44G34)**
	35,600 (10.43)	34,200 (10.02)	17,800 (5.22)	3760	10.05 (9.45)	2.75	3161	7.50 (6.20)	3.16	2578	2.02	♤ **C22-41(FC) ♤ **CH22-41	††RFC IV
	35,600 (10.43)	32,200 (9.43)	19,600 (5.74)	3905	10.05 (9.10)	2.65	3235	7.00 (6.20)	2.92	2525	2.24	♤ **CH22-41	‡Factory Installed
	36,000 (10.55)	32,400 (9.50)	18,400 (5.39)	4200	10.05 (8.55)	2.50	3160	7.00 (6.20)	3.00	2506	2.14	♤ **C22-41(FC)	
	36,800 (10.78)	33,200 (9.73)	19,600 (5.74)	4420	10.05 (8.30)	2.45	3150	7.20 (6.50)	3.12	2453	2.34	♤ **C22-46(FC)	
HP23-461 HP23-463 (8.0)	40,000 (11.72)	41,000 (12.01)	24,200 (7.09)	4420	10.20 (9.05)	2.65	3980	7.25 (6.30)	3.02	3195	2.22	**CR18-41	LB-85759G **(56J20)**
	42,000 (12.31)	41,500 (12.16)	24,600 (7.21)	4475	10.50 (9.35)	2.75	3880	7.35 (6.40)	3.12	3145	2.30	♤ *CVP10-41/ EC10Q3 ♤ *CVP10-46/ EC10Q4	‡Factory Installed
	42,000 (12.31)	41,000 (12.01)	24,200 (7.09)	4320	10.05 (9.70)	2.85	3660	7.65 (6.55)	3.28	2970	2.38	*CB19-41 *CBH19-41	††RFC III
	42,000 (12.31)	41,000 (12.01)	24,200 (7.09)	4320	11.05 (9.70)	2.85	3660	7.65 (6.55)	3.28	2970	2.38	*CB19-41 *CBH19-41	LB-34792BG **(44G34)**
	43,000 (12.60)	43,000 (12.60)	25,000 (7.33)	4550	11.00 (9.45)	2.75	3930	7.60 (6.55)	3.20	3175	2.30	**C22-46(FC)	‡Factory Installed
	43,000 (12.60)	43,000 (12.60)	25,000 (7.33)	4555	11.05 (9.40)	2.75	3905	7.60 (6.50)	3.22	3165	2.32	**C22-51(FC) ***CR22-51/B24 **CH22-51	

**For FM21 Heat Pump Control use with any Lennox furnace that meets system design requirements. See FM21 page in this section for additional data.
***CR22 coils are only used with B24 series blower units.
★Sound Rating Number in accordance with ARI Standard 270. ☆Kit is required and must be ordered extra for field installation, unless shown as factory installed.
†Rated in accordance with ARI Standard 210/240 with 25 ft. (7.6 m) of connecting refrigerant lines;
Cooling Ratings — 95°F (35°C) outdoor air temperature and 80°F (27°C) db/67°F (19°C) wb entering indoor coil air.
High Temperature Heating Ratings — 47°F (8°C) db/43°F (6°C) wb outdoor air temperature and 70°F (21°C) db entering indoor coil air.
Low Temperature Heating Ratings — 17°F db/15°F wb outdoor air temperature and 70°F db (21°C) entering indoor coil air. tomorrow
††RFCIII metering orifice furnished with CB19/CBH19 indoor blower coil unit. RFCIV metering orifice furnished with C22(FC), and CH22 "RFC" coils.
◆Heating Seasonal Performance Factor. ‡Furnished as standard with coil. ♤ Canadian usage only. *Blower powered indoor coil unit.
NOTE — B24 Blower not included in ratings for CR22 series coils. B24 shown for matching reference only.

ARI RATINGS

Outdoor Unit Model No. ★ARI Std. 270 SRN (bels)	†ARI Standard 210/240 Ratings											Indoor Unit	☆Check and Expansion Valve Kit Required
	Cool. Cap. Btuh (kW)	High Temp. Htg. Cap. Btuh (kW)	Low Temp. Htg. Cap. Btuh (kW)	Total Unit Cool. Watts	SEER (EER) (Btuh/ Watt)	Cool. C.O.P.	Total Unit High Temp. Htg. Watts	◆HSPF Region IV (Region V)	High Temp. Htg. C.O.P.	Total Unit Low Temp. Htg. Watts	Low Temp. Htg. C.O.P.		
HP23-511 HP23-513 (8.4)	47,000 (13.77)	46,500 (13.62)	27,400 (8.03)	4975	10.05 (9.45)	2.75	4425	7.15 (6.20)	3.08	3405	2.36	**CR18-51	LB-85759G **(56J20)**
	47,000 (13.77)	47,500 (13.92)	27,800 (8.15)	4960	10.05 (9.45)	2.75	4330	7.30 (6.30)	3.22	3375	2.40	♢ *CVP10-46/ EC10Q4 ♢ *CVP10-51/ EC10Q4	‡Factory Installed
	48,000 (14.06)	46,500 (13.62)	27,000 (7.91)	4955	10.55 (9.70)	2.85	4290	7.30 (6.50)	3.18	3315	2.38	***CR22-51/B24 **CH22-51	
	48,500 (14.21)	47,000 (13.77)	27,000 (7.91)	5035	11.00 (9.60)	2.80	4295	7.50 (6.55)	3.20	3345	2.36	**C22-51(FC)	
	49,000 (14.36)	48,000 (14.06)	27,800 (8.15)	4895	10.20 (10.00)	2.95	4095	7.70 (6.55)	3.44	3230	2.50	*CB19-51 *CBH19-51	††RFC III
	49,000 (14.36)	48,000 (14.06)	27,800 (8.15)	4895	10.65 (10.00)	2.95	4095	7.70 (6.55)	3.44	3230	2.50	*CB19-51 *CBH19-51	LB-34792BF **(25G87)**
	49,000 (14.36)	47,000 (13.77)	27,000 (7.91)	5015	11.05 (9.75)	2.85	4275	7.30 (6.55)	3.20	3335	2.36	**CH22-65	‡Factory Installed
	49,500 (14.50)	47,000 (13.77)	27,000 (7.91)	5110	11.10 (9.65)	2.80	4390	7.30 (6.55)	3.14	3375	2.34	**C22-65(FC) ***CR22-65/B24	
	49,500 (14.50)	48,500 (14.21)	28,000 (8.20)	5055	10.55 (9.80)	2.85	4200	7.55 (6.45)	3.38	3335	2.46	**CH19-51	LB-34792BF **(25G87)**
HP23-651 HP23-653 (8.4)	56,000 (16.41)	59,500 (17.43)	35,800 (10.49)	6255	10.05 (8.95)	2.60	5610	7.45 (6.40)	3.10	4370	2.40	♢ *CVP10-51/ EC10Q4	‡Factory Installed
	57,000 (16.70)	59,000 (17.29)	35,600 (10.43)	6300	10.05 (9.05)	2.65	5650	7.30 (6.45)	3.06	4385	2.38	**CR18-65	LB-85759G **(56J20)**
	58,000 (16.99)	59,500 (17.43)	35,600 (10.43)	6110	10.40 (9.50)	2.80	5310	7.75 (6.75)	3.28	4130	2.50	*CB19-51 *CBH19-51	LB-34792BK **(23J38)**
	58,500 (17.14)	59,500 (17.43)	35,800 (10.49)	6335	10.20 (9.20)	2.70	5575	7.40 (6.45)	3.12	4355	2.40	♢ *CVP10-65/ EC10Q5	‡Factory Installed
	60,000 (17.58)	57,000 (16.70)	34,000 (9.97)	6120	10.55 (9.80)	2.85	5700	7.45 (6.60)	2.92	4230	2.36	***CR22-65/B24 **CH22-65	
	61,000 (17.87)	60,000 (17.58)	36,200 (10.61)	6425	10.40 (9.50)	2.80	5460	7.60 (6.65)	3.22	4320	2.46	*CB19-65 *CBH19-65	LB-34792BK **(23J38)**
	62,000 (18.17)	60,500 (17.73)	36,200 (10.61)	6455	10.55 (9.60)	2.80	5430	7.65 (6.65)	3.26	4300	2.46	**CH19-65	
	62,000 (18.17)	57,000 (16.70)	35,000 (10.26)	6360	10.60 (9.75)	3.10	5565	7.50 (6.65)	3.00	4130	2.48	**C22-65(FC)	‡Factory Installed

**For FM21 Heat Pump Control use with any Lennox furnace that meets system design requirements. See FM21 page in this section for additional data.
***CR22 coils are only used with B24 series blower units.
★Sound Rating Number in accordance with ARI Standard 270. ☆Kit is required and must be ordered extra for field installation, unless shown as factory installed.
†Rated in accordance with ARI Standard 210/240 with 25 ft. (7.6 m) of connecting refrigerant lines;
Cooling Ratings — 95°F (35°C) outdoor air temperature and 80°F (27°C) db/67°F (19°C) wb entering indoor coil air.
High Temperature Heating Ratings — 47°F (8°C) db/43°F (6°C) wb outdoor air temperature and 70°F (21°C) db entering indoor coil air.
Low Temperature Heating Ratings — 17°F db/15°F wb outdoor air temperature and 70°F db (21°C) entering indoor coil air. tomorrow
††RFCIII metering orifice furnished with CB19/CBH19 indoor blower coil unit. RFCIV metering orifice furnished with C22(FC), and CH22 "RFC" coils.
◆Heating Seasonal Performance Factor. ‡Furnished as standard with coil. ♢ Canadian usage only. *Blower powered indoor coil unit.
NOTE — B24 Blowers are not included in ratings for CR22 and series coils. B24 shown for matching reference only.

SPECIFICATIONS

Model No.			HP23-141	HP23-211	HP23-261	HP23-311
Outdoor Coil	Net face area sq. ft. (m^2)	Outer coil	12.6 (1.17)	12.6 (1.17)	12.6 (1.17)	14.7 (1.37)
		Inner coil	- - - -	- - - -	- - - -	- - - -
	Tube diameter in. (mm) & no. of rows		3/8 (9.5) — 1	3/8 (9.5) — 1	3/8 (9.5) — 1	3/8 (9.5) — 1
	Fins per inch (m)		20 (787)	20 (787)	20 (787)	20 (787)
Outdoor Fan	Diameter — in. (mm) & no. of blades		20 (508) — 3	20 (508) — 3	20 (508) — 3	20 (508) — 3
	Motor hp (W)		1/6 (124)	1/6 (124)	1/6 (124)	1/6 (124)
	Cfm (L/s)		2630 (1240)	2630 (1240)	2630 (1240)	2665 (1260)
	Rpm		840	840	840	850
	Watts		210	210	210	210
*Refrigerant charge furnished (HCFC - 22)			5 lbs. 3 oz. (2.35 kg)	5 lbs. 6 oz. (2.44 kg)	6 lbs. 2 oz. (2.78 kg)	7 lbs. 3 oz. (3.26 kg)
Liquid line — in. (mm) o.d. connection (sweat)			**3/8 (9.5)	***3/8 (9.5)	***3/8 (9.5)	3/8 (9.5)
Vapor line — in. (mm) o.d. connection (sweat)			1/2 (2.7)	5/8 (15.8)	5/8 (15.8)	3/4 (19)
Shipping weight lbs. (kg) 1 package			133 (60)	161 (73)	162 (73)	171 (78)

*Refrigerant charge sufficient for 20 ft. (6.1 m) length of refrigerant lines.
**Furnished with 3/8 in. x 1/4 in. (9.5 mm x 6.4 mm) reducer adaptor for refrigerant line connection.
***Furnished with 3/8 in. x 5/16 in. (9.5 mm x 8 mm) reducer adaptor for refrigerant line connection.

SPECIFICATIONS

Model No.			HP23-411 HP23-413	HP23-461 HP23-463	HP23-511 HP23-513	HP23-651 HP23-653
Outdoor Coil	Net face area sq. ft. (m^2)	Outer coil	14.7 (1.37)	20.0 (1.86)	20.0 (1.86)	20.0 (1.86)
		Inner coil	3.9 (0.36)	- - - -	6.3 (0.59)	19.0 (1.77)
	Tube diameter in. (mm) & no. of rows		3/8 (9.5) — 1.3	3/8 (9.5) — 1	3/8 (9.5) — 1.3	3/8 (9.5) — 2
	Fins per inch (m)		20 (787)	20 (787)	20 (787)	20 (787)
Outdoor Fan	Diameter — in. (mm) & no. of blades		20 (508) — 3	24 (610) — 4	24 (610) — 4	24 (610) — 4
	Motor hp (W)		1/6 (124)	1/4 (187)	1/4 (187)	1/4 (187)
	Cfm (L/s)		2600 (1225)	3980 (1880)	3980 (1880)	3950 (1865)
	Rpm		845	840	830	825
	Watts		200	350	340	370
*Refrigerant charge furnished (HCFC - 22)			7 lbs. 14 oz. (3.57 kg)	8 lbs. 3 oz. (3.71 kg)	9 lbs. 6 oz. (4.25 kg)	12 lbs. 13 oz. (5.81 kg)
Liquid line — in. (mm) o.d. connection (sweat)			3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
Vapor line — in. (mm) o.d. connection (sweat)			3/4 (19)	7/8 (22.2)	7/8 (22.2)	1-1/8 (28.5)
Shipping weight lbs. (kg) 1 package			204 (93)	224 (102)	269 (122)	294 (133)

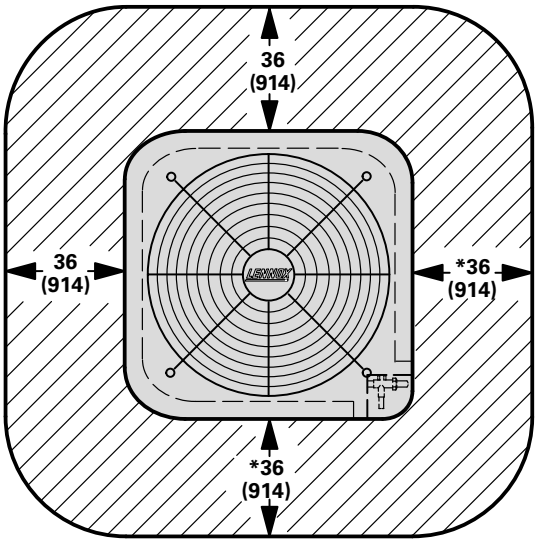
*Refrigerant charge sufficient for 20 ft. (6.1 m) length of refrigerant lines.

REFRIGERANT LINE KITS

Outdoor Unit Model No.	Line Set Model No.	Length of Lines		Liquid Line Outside Diameter		Vapor Line Outside Diameter	
		ft.	m	in.	mm	in.	mm
**HP23-141	*Not available	- - -	- - -	**1/4	**6.4	1/2	2.7
**HP23-211 **HP23-261	L10-21-20	20	6	**5/16	**8	5/8	15.8
	L10-21-25	25	8				
	L10-21-35	35	11				
	L10-21-50	50	15				
HP23-311 HP23-410	L10-41-20	20	6	3/8	9.5	3/4	19
	L10-41-30	30	9				
	L10-41-40	40	12				
	L10-41-50	50	15				
HP23-460 HP23-510 HP23-650	L10-65-30	30	9	3/8	9.5	7/8	22.2
	L10-65-40	40	12				
	L10-65-50	50	15				
HP23-650	*Not available	- - -	- - -	3/8	9.5	1-1/8	28.5

*Field fabricate.
**HP23-141, HP23-211 & HP23-261 units will accept 3/8 in. (9.5 mm) liquid lines. Adaptors furnished with outdoor units will allow use with 1/4 in. (6.4 mm) liquid line (HP23-141) and 5/16 in. (8 mm) liquid line (HP23-211 & 261).

INSTALLATION CLEARANCES — inches (mm)



NOTE — 48 in. (1219 mm) clearance required on top of unit.
***NOTE — One side must be 36 in. (914 mm) for service.**
Two of the remaining three sides may be 12 in. (305 mm)

ELECTRICAL DATA

Model No.		HP23-141	HP23-211	HP23-261	HP23-311	HP23-411	HP23-413	
Line voltage data — 60 hz.		208/230v 1ph	208/230v 1ph	208/230v 1ph	208/230v 1ph	208/230v 1ph	208/230v 3ph	460v 3ph
Compressor	Rated load amps	5.0	8.1	10.9	13.7	16.2	11.6	5.1
	Power factor	.97	.99	.95	.97	.91	.88	.88
	Locked rotor amps	26.3	49.0	61.0	75.0	96.0	65.1	32.8
Outdoor Coil Fan Motor	Full load amps	1.1	1.1	1.1	1.1	1.1	1.1	0.6
	Locked rotor amps	1.7	1.7	1.7	1.7	1.7	1.7	0.9
Rec. max. fuse or circuit breaker size (amps)		15	15	25	30	35	25	15
*Minimum circuit ampacity		7.4	11.3	14.8	18.2	21.3	15.6	7.0

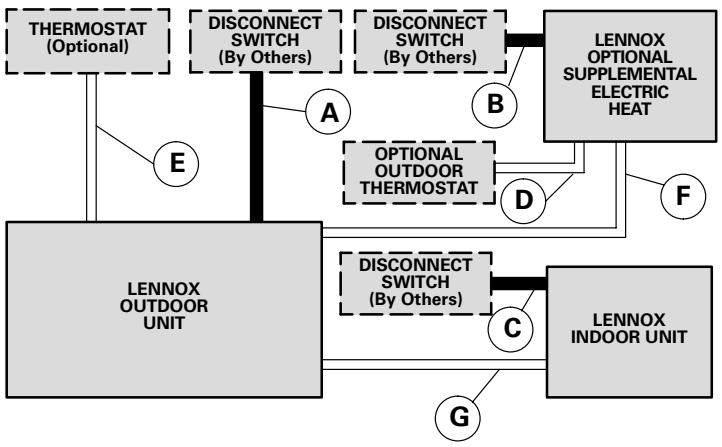
*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.
NOTE — Extremes of operating range are plus 10% and minus 5% of line voltage.

ELECTRICAL DATA

Model No.		HP23-461	HP23-463		HP23-511	HP23-513			HP23-651	HP23-653		
Line voltage data — 60 hz		208/230v 1ph	208/230v 3ph	460v 3ph	208/230v 1ph	208/230v 3ph	460v 3ph	575v 3ph	208/230v 1ph	208/230v 3ph	460v 3ph	575v 3ph
Compressor	Rated load amps	20.3	11.6	5.6	24.4	16.1	8.4	7.1	30.8	17.4	9.7	8.4
	Power factor	.97	.88	.88	.98	.78	.78	.82	.98	.78	.78	.84
	Locked rotor amps	107.4	73.4	37.7	135.0	137.0	68.0	58.0	147.0	150.0	73.0	62.0
Outdoor Coil Fan Motor	Full load amps	1.7	1.7	1.1	1.7	1.7	1.1	1.1	1.7	1.7	1.1	1.1
	Locked rotor amps	3.1	3.1	2.2	3.1	3.1	2.2	2.2	3.1	3.1	2.2	2.2
Recommended maximum fuse or circuit breaker size (amps)		45	25	15	50	35	20	15	60	40	20	20
*Minimum circuit ampacity		27.0	16.2	8.2	32.2	21.9	11.6	10.0	40.2	23.5	13.3	11.6

*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.
NOTE — Extremes of operating range are plus 10% and minus 5% of line voltage.

FIELD WIRING

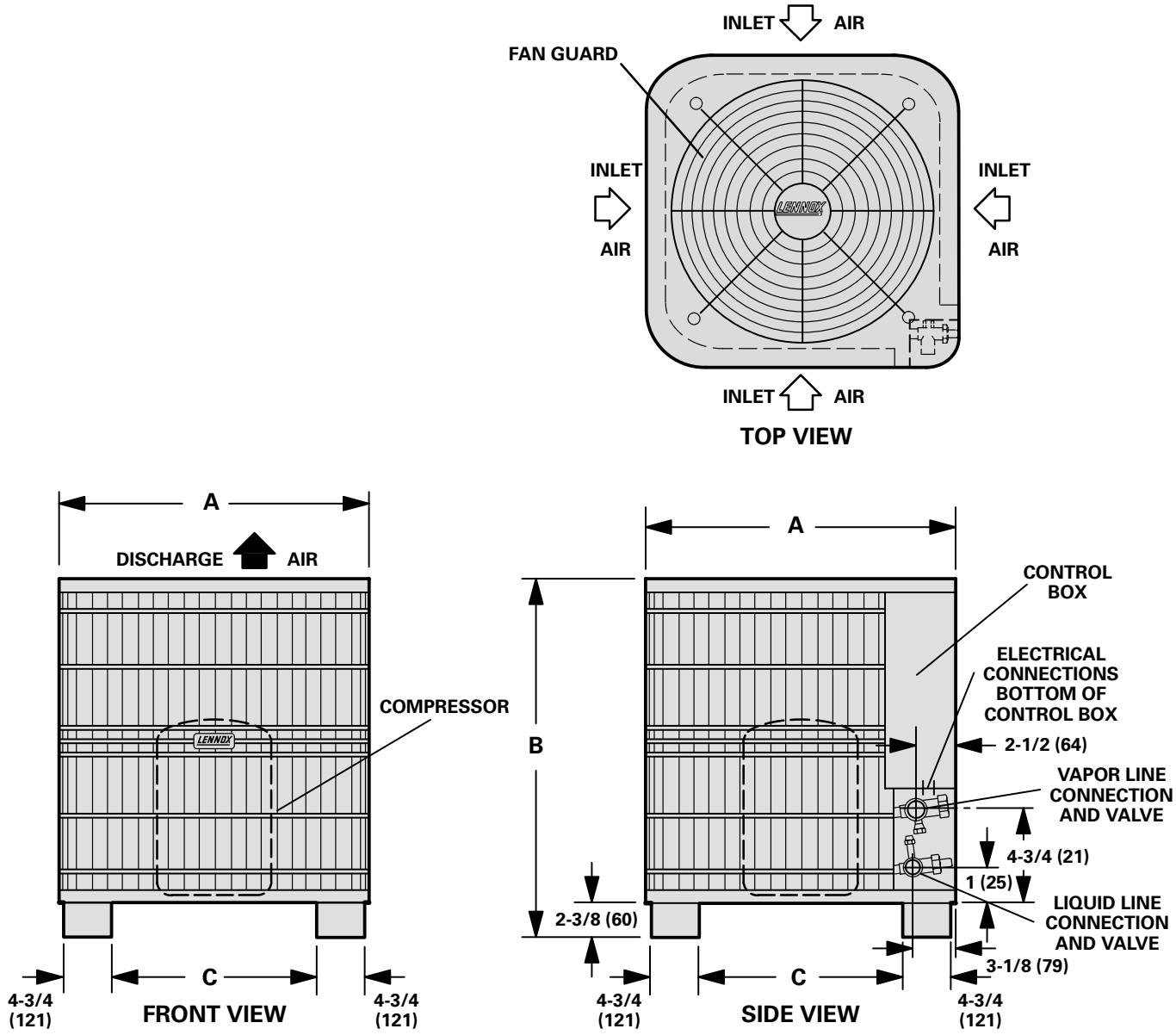


A — Two or Three Wire Power (see Electrical Data)
B — Two or Three Wire Power (size to heater capacity)
C — Two Wire Power (size to indoor coil blower motor)
D — Two Wire Low Voltage — 18 ga. minimum
E — Eight Wire Low Voltage — 18 ga. minimum — with Electric Heat
— Ten Wire Low Voltage with Optional Outdoor Thermostat
F — Four Wire Low Voltage — 18 ga. minimum
G — Three Wire Low Voltage — 18 ga. minimum

— Field Wiring Not Furnished —

All wiring must conform to NEC or CEC and local electrical codes.

DIMENSIONS — inches (mm)



Model No.		A	B	C
HP23-141, HP23-211, HP23-261	in.	26-3/8	26-3/8	16-7/8
	mm	670	670	429
HP23-311, HP23-411-413	in.	26-3/8	30-3/8	16-7/8
	mm	670	772	429
HP23-461-463, HP23-511-513, HP23-651-653	in.	31-5/16	34-3/8	21-3/16
	mm	795	873	538

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-141 COOLING CAPACITY WITH CR18-21 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	190	400	3.5	11,900	730	.76	.92	1.00	3.4	11,500	810	.77	.93	1.00	3.3	11,100	900	.78	.95	1.00	3.1	10,600	990	.80	.97	1.00
	210	450	3.6	12,300	740	.79	.95	1.00	3.5	11,800	820	.80	.97	1.00	3.3	11,300	910	.81	.99	1.00	3.2	10,800	1000	.83	1.00	1.00
	235	500	3.7	12,500	740	.81	.98	1.00	3.5	12,100	830	.83	1.00	1.00	3.4	11,600	910	.84	1.00	1.00	3.3	11,100	1000	.86	1.00	1.00
67°F (19.4°C)	190	400	3.7	12,500	740	.60	.75	.89	3.5	12,000	820	.60	.76	.91	3.4	11,500	910	.61	.78	.92	3.2	11,000	1000	.62	.79	.94
	210	450	3.8	12,800	750	.61	.77	.93	3.6	12,300	830	.62	.79	.94	3.5	11,800	920	.63	.81	.96	3.3	11,300	1010	.64	.83	.98
	235	500	3.8	13,100	750	.63	.80	.96	3.7	12,500	840	.64	.82	.98	3.5	12,000	920	.65	.84	1.00	3.4	11,500	1010	.66	.86	1.00
71°F (21.7°C)	190	400	3.8	13,100	750	.44	.59	.75	3.7	12,600	840	.45	.60	.76	3.5	12,100	920	.45	.61	.77	3.4	11,600	1010	.45	.62	.78
	210	450	3.9	13,400	760	.45	.61	.77	3.8	12,900	840	.45	.62	.79	3.6	12,300	930	.46	.63	.80	3.5	11,800	1020	.46	.64	.81
	235	500	4.0	13,700	760	.46	.63	.80	3.8	13,100	850	.46	.64	.81	3.7	12,600	940	.46	.65	.83	3.5	12,000	1030	.47	.66	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-141 HEATING CAPACITY WITH CR18-21 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
190	400	4.1	14,100	905	3.3	11,100	820	2.4	8100	735	1.6	5500	620	0.8	2800	470
210	450	4.2	14,200	880	3.3	11,300	795	2.4	8300	710	1.7	5700	595	0.8	2900	450
235	500	4.2	14,400	865	3.3	11,400	780	2.5	8400	695	1.7	5800	580	0.9	3000	430

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-141 HEATING PERFORMANCE at 450 cfm (210 L/s) Indoor Coil Air Volume (CR18-21)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	880	14,200	4.2
60	16	860	13,500	4.0
55	13	840	12,800	3.8
50	10	820	12,100	3.5
47	8	810	11,600	3.4
45	7	795	11,300	3.3
40	4	770	10,300	3.0
35	2	745	9400	2.8
30	-1	725	8800	2.6
25	-4	710	8300	2.4
20	-7	695	7700	2.3
17	-8	685	7300	2.1
15	-9	670	7100	2.1
10	-12	635	6400	1.9
5	-15	595	5700	1.7
0	-18	560	5000	1.5
-5	-21	520	4300	1.3
-10	-23	485	3600	1.1
-15	-26	450	2900	0.8
-20	-29	410	2200	0.6

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-141 COOLING CAPACITY WITH C22-21(FC) OR CR22-21/B24 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	140	300	3.4	11,500	730	.70	.84	.96	3.3	11,100	810	.71	.86	.98	3.1	10,600	890	.72	.87	.99	3.0	10,100	980	.74	.89	1.00
	190	400	3.6	12,400	740	.76	.92	1.00	3.5	11,900	820	.77	.94	1.00	3.3	11,400	910	.79	.96	1.00	3.2	10,900	1000	.80	.99	1.00
	235	500	3.8	13,100	750	.82	.99	1.00	3.7	12,500	840	.83	1.00	1.00	3.5	12,000	920	.85	1.00	1.00	3.4	11,500	1020	.87	1.00	1.00
67°F (19.4°C)	140	300	3.5	12,100	730	.56	.69	.82	3.4	11,600	820	.56	.70	.84	3.3	11,100	910	.57	.71	.85	3.1	10,700	1000	.58	.73	.87
	190	400	3.8	13,100	750	.59	.75	.90	3.7	12,500	840	.60	.76	.91	3.5	12,000	920	.61	.78	.93	3.4	11,500	1010	.62	.80	.95
	235	500	4.0	13,800	760	.63	.80	.97	3.9	13,200	850	.64	.82	.99	3.7	12,600	930	.65	.84	1.00	3.5	12,000	1030	.66	.87	1.00
71°F (21.7°C)	140	300	3.7	12,600	740	.42	.56	.70	3.5	12,100	830	.42	.56	.70	3.4	11,700	920	.43	.57	.71	3.3	11,100	1010	.43	.58	.73
	190	400	4.0	13,600	760	.44	.59	.75	3.8	13,100	840	.44	.60	.76	3.7	12,600	940	.44	.61	.77	3.5	12,000	1030	.45	.62	.79
	235	500	4.2	14,400	770	.45	.63	.80	4.0	13,800	860	.45	.64	.82	3.9	13,200	950	.46	.65	.83	3.7	12,600	1040	.46	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-141 COOLING CAPACITY WITH C22-21(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	140	300	3.1	10,700	710	.70	.84	.96	3.3	11,100	810	.71	.86	.98	3.1	10,600	890	.72	.87	.99	3.0	10,100	980	.74	.89	1.00
	190	400	3.4	11,600	720	.76	.92	1.00	3.5	11,900	820	.77	.94	1.00	3.3	11,400	910	.79	.96	1.00	3.2	10,900	1000	.80	.99	1.00
	235	500	3.6	12,300	730	.82	.99	1.00	3.7	12,500	840	.83	1.00	1.00	3.5	12,000	920	.85	1.00	1.00	3.4	11,500	1020	.87	1.00	1.00
67°F (19.4°C)	140	300	3.3	11,300	710	.56	.69	.82	3.4	11,600	820	.56	.70	.84	3.3	11,100	910	.57	.71	.85	3.1	10,700	1000	.58	.73	.87
	190	400	3.6	12,300	730	.59	.75	.90	3.7	12,500	840	.60	.76	.91	3.5	12,000	920	.61	.78	.93	3.4	11,500	1010	.62	.80	.95
	235	500	3.8	13,000	740	.63	.80	.97	3.9	13,200	850	.64	.82	.99	3.7	12,600	930	.65	.84	1.00	3.5	12,000	1030	.66	.87	1.00
71°F (21.7°C)	140	300	3.5	11,800	720	.42	.56	.70	3.5	12,100	830	.42	.56	.70	3.4	11,700	920	.43	.57	.71	3.3	11,100	1010	.43	.58	.73
	190	400	3.8	12,800	740	.44	.59	.75	3.8	13,100	840	.44	.60	.76	3.7	12,600	940	.44	.61	.77	3.5	12,000	1030	.45	.62	.79
	235	500	4.0	13,600	750	.45	.63	.80	4.0	13,800	860	.45	.64	.82	3.9	13,200	950	.46	.65	.83	3.7	12,600	1040	.46	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-141 HEATING CAPACITY WITH C22-21(FC) OR CR22-21/B24 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
140	300	4.0	13,800	945	3.1	10,700	795	2.2	7500	710	1.5	5000	585	0.7	2400	440
190	400	4.2	14,200	945	3.3	11,100	795	2.3	7900	710	1.6	5400	585	0.8	2800	440
235	500	4.2	14,500	840	3.3	11,400	690	2.4	8200	600	1.7	5700	480	0.9	3100	335

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-141 HEATING PERFORMANCE at 400 cfm (190 L/s) Indoor Coil Air Volume (C22-21(FC) or CR22-21/B24)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	945	14,200	4.2
60	16	905	13,400	3.9
55	13	865	12,700	3.7
50	10	825	11,900	3.5
47	8	805	11,500	3.4
45	7	795	11,100	3.3
40	4	770	10,100	3.0
35	2	750	9100	2.7
30	-1	730	8500	2.5
25	-4	710	7900	2.3
20	-7	685	7400	2.2
17	-8	675	7000	2.1
15	-9	660	6800	2.0
10	-12	625	6100	1.8
5	-15	585	5400	1.6
0	-18	550	4800	1.4
-5	-21	515	4100	1.2
-10	-23	475	3400	1.0
-15	-26	440	2800	0.8
-20	-29	405	2100	0.6

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-141 COOLING CAPACITY WITH CH22-21 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)			
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	140	300	3.4	11,500	730	.70	.84	.96	3.3	11,100	810	.71	.86	.98	3.1	10,600	890	.72	.87	.99	3.0	10,100	980	.74	.89	1.00
	190	400	3.6	12,400	740	.76	.92	1.00	3.5	11,900	820	.77	.94	1.00	3.3	11,400	910	.79	.96	1.00	3.2	10,900	1000	.80	.99	1.00
	235	500	3.8	13,000	750	.82	.99	1.00	3.7	12,500	830	.83	1.00	1.00	3.5	12,000	920	.85	1.00	1.00	3.4	11,500	1010	.87	1.00	1.00
67°F (19.4°C)	140	300	3.5	12,100	730	.56	.69	.82	3.4	11,600	820	.56	.70	.84	3.3	11,100	910	.57	.72	.85	3.1	10,700	1000	.58	.73	.87
	190	400	3.8	13,100	750	.59	.75	.90	3.7	12,500	840	.60	.76	.91	3.5	12,000	920	.61	.78	.93	3.4	11,500	1010	.62	.80	.95
	235	500	4.0	13,700	760	.63	.80	.97	3.9	13,200	850	.64	.82	.99	3.7	12,600	930	.65	.84	1.00	3.5	12,000	1030	.66	.87	1.00
71°F (21.7°C)	140	300	3.7	12,600	740	.42	.56	.70	3.5	12,100	830	.42	.56	.70	3.4	11,600	920	.43	.57	.71	3.3	11,100	1010	.43	.58	.73
	190	400	4.0	13,600	760	.44	.59	.75	3.8	13,100	850	.44	.60	.76	3.7	12,500	940	.44	.61	.77	3.5	12,000	1030	.45	.62	.79
	235	500	4.2	14,300	770	.45	.63	.80	4.0	13,800	860	.45	.64	.82	3.9	13,200	950	.46	.65	.83	3.7	12,500	1040	.46	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-141 COOLING CAPACITY WITH CH22-21 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)			
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	140	300	3.1	10,700	710	.70	.84	.96	3.3	11,100	810	.71	.86	.98	3.1	10,600	890	.72	.87	.99	3.0	10,100	980	.74	.89	1.00
	190	400	3.4	11,600	720	.76	.92	1.00	3.5	11,900	820	.77	.94	1.00	3.3	11,400	910	.79	.96	1.00	3.2	10,900	1000	.80	.99	1.00
	235	500	3.6	12,200	730	.82	.99	1.00	3.7	12,500	830	.83	1.00	1.00	3.5	12,000	920	.85	1.00	1.00	3.4	11,500	1010	.87	1.00	1.00
67°F (19.4°C)	140	300	3.3	11,300	710	.56	.69	.82	3.4	11,600	820	.56	.70	.84	3.3	11,100	910	.57	.72	.85	3.1	10,700	1000	.58	.73	.87
	190	400	3.6	12,300	730	.59	.75	.90	3.7	12,500	840	.60	.76	.91	3.5	12,000	920	.61	.78	.93	3.4	11,500	1010	.62	.80	.95
	235	500	3.8	12,900	740	.63	.80	.97	3.9	13,200	850	.64	.82	.99	3.7	12,600	930	.65	.84	1.00	3.5	12,000	1030	.66	.87	1.00
71°F (21.7°C)	140	300	3.5	11,800	720	.42	.56	.70	3.5	12,100	830	.42	.56	.70	3.4	11,600	920	.43	.57	.71	3.3	11,100	1010	.43	.58	.73
	190	400	3.8	12,800	740	.44	.59	.75	3.8	13,100	850	.44	.60	.76	3.7	12,500	940	.44	.61	.77	3.5	12,000	1030	.45	.62	.79
	235	500	4.0	13,500	750	.45	.63	.80	4.0	13,800	860	.45	.64	.82	3.9	13,200	950	.46	.65	.83	3.7	12,500	1040	.46	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-141 HEATING CAPACITY WITH CH22-21 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
140	300	4.0	13,500	1015	3.1	10,700	930	2.3	8000	845	1.4	4800	720	0.6	2100	570
190	400	4.1	14,100	900	3.3	11,300	815	2.5	8600	730	1.6	5400	610	0.8	2700	455
235	550	4.2	14,400	850	3.4	11,600	765	2.6	9000	680	1.7	5700	555	0.9	3100	405

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-141 HEATING PERFORMANCE at 400 cfm (190 L/s) Indoor Coil Air Volume (CH22-21)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	900	14,100	4.1
60	16	880	13,300	3.9
55	13	860	12,600	3.7
50	10	840	11,800	3.5
47	8	825	11,400	3.3
45	7	815	11,300	3.3
40	4	795	11,000	3.2
35	2	775	10,700	3.1
30	-1	750	9700	2.8
25	-4	730	8600	2.5
20	-7	710	7600	2.2
17	-8	700	7000	2.1
15	-9	685	6700	2.0
10	-12	645	6000	1.8
5	-15	610	5400	1.6
0	-18	570	4700	1.4
-5	-21	530	4100	1.2
-10	-23	495	3400	1.0
-15	-26	455	2700	0.8
-20	-29	420	2100	0.6

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-141 COOLING CAPACITY WITH C22-26(FC) OR C22-26W(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	140	300	3.4	11,600	730	.70	.84	.96	3.3	11,200	810	.71	.85	.98	3.1	10,700	900	.73	.87	1.00	3.0	10,200	990	.74	.89	1.00
	190	400	3.7	12,600	740	.76	.92	1.00	3.5	12,100	830	.77	.94	1.00	3.4	11,500	920	.79	.96	1.00	3.2	11,000	1010	.80	.99	1.00
	235	500	3.9	13,200	750	.82	.99	1.00	3.7	12,700	840	.83	1.00	1.00	3.6	12,200	930	.85	1.00	1.00	3.4	11,700	1020	.87	1.00	1.00
67°F (19.4°C)	140	300	3.6	12,200	740	.56	.69	.82	3.4	11,700	820	.56	.70	.84	3.3	11,200	910	.57	.71	.85	3.1	10,700	1000	.58	.73	.87
	190	400	3.9	13,200	750	.59	.75	.90	3.7	12,700	840	.60	.76	.91	3.5	12,100	930	.61	.78	.93	3.4	11,600	1020	.62	.80	.95
	235	500	4.1	13,900	770	.63	.80	.97	3.9	13,300	850	.64	.82	.99	3.7	12,700	940	.65	.84	1.00	3.5	12,100	1030	.66	.87	1.00
71°F (21.7°C)	140	300	3.7	12,700	740	.42	.56	.70	3.6	12,200	830	.42	.56	.70	3.4	11,700	920	.43	.57	.71	3.3	11,200	1010	.43	.58	.73
	190	400	4.0	13,800	760	.44	.59	.75	3.9	13,200	850	.44	.60	.76	3.7	12,700	940	.44	.61	.77	3.5	12,100	1030	.45	.62	.79
	235	500	4.2	14,500	780	.45	.63	.80	4.1	13,900	860	.45	.64	.81	3.9	13,300	950	.46	.65	.83	3.7	12,700	1040	.46	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-141 COOLING CAPACITY WITH C22-26(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	140	300	3.2	10,800	710	.70	.84	.96	3.3	11,200	810	.71	.85	.98	3.1	10,700	900	.73	.87	1.00	3.0	10,200	990	.74	.89	1.00
	190	400	3.5	11,800	720	.76	.92	1.00	3.5	12,100	830	.77	.94	1.00	3.4	11,500	920	.79	.96	1.00	3.2	11,000	1010	.80	.99	1.00
	235	500	3.6	12,400	730	.82	.99	1.00	3.7	12,700	840	.83	1.00	1.00	3.6	12,200	930	.85	1.00	1.00	3.4	11,700	1020	.87	1.00	1.00
67°F (19.4°C)	140	300	3.3	11,400	720	.56	.69	.82	3.4	11,700	820	.56	.70	.84	3.3	11,200	910	.57	.71	.85	3.1	10,700	1000	.58	.73	.87
	190	400	3.6	12,400	730	.59	.75	.90	3.7	12,700	840	.60	.76	.91	3.5	12,100	930	.61	.78	.93	3.4	11,600	1020	.62	.80	.95
	235	500	3.8	13,100	750	.63	.80	.97	3.9	13,300	850	.64	.82	.99	3.7	12,700	940	.65	.84	1.00	3.5	12,100	1030	.66	.87	1.00
71°F (21.7°C)	140	300	3.5	11,900	720	.42	.56	.70	3.6	12,200	830	.42	.56	.70	3.4	11,700	920	.43	.57	.71	3.3	11,200	1010	.43	.58	.73
	190	400	3.8	13,000	740	.44	.59	.75	3.9	13,200	850	.44	.60	.76	3.7	12,700	940	.44	.61	.77	3.5	12,100	1030	.45	.62	.79
	235	500	4.0	13,700	760	.45	.63	.80	4.1	13,900	860	.45	.64	.81	3.9	13,300	950	.46	.65	.83	3.7	12,700	1040	.46	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-141 HEATING CAPACITY WITH C22-26(FC) OR C22-26W(FC) INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
140	300	4.0	13,800	935	3.1	10,700	850	2.2	7600	765	1.5	5000	650	0.7	2400	505
190	400	4.2	14,200	870	3.3	11,100	785	2.3	7900	700	1.6	5400	580	0.8	2800	435
235	500	4.2	14,500	830	3.3	11,400	745	2.4	8200	660	1.7	5700	540	0.9	3000	395

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-141 HEATING PERFORMANCE at 400 cfm (190 L/s) Indoor Coil Air Volume (C22-26(FC) or C22-26W(FC))

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	870	14,200	4.2
60	16	850	13,500	4.0
55	13	825	12,700	3.7
50	10	805	12,000	3.5
47	8	795	11,500	3.4
45	7	785	11,100	3.3
40	4	765	10,100	3.0
35	2	745	9100	2.7
30	-1	720	8500	2.5
25	-4	700	7900	2.3
20	-7	680	7400	2.2
17	-8	670	7000	2.1
15	-9	655	6800	2.0
10	-12	620	6100	1.8
5	-15	580	5400	1.6
0	-18	545	4800	1.4
-5	-21	510	4100	1.2
-10	-23	475	3400	1.0
-15	-26	435	2800	0.8
-20	-29	400	2100	0.6

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-141 COOLING CAPACITY WITH CB19-21 OR CBH19-21 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	200	400	3.9	13,200	740	.76	.91	1.00	3.7	12,700	820	.77	.93	1.00	3.5	12,100	910	.78	.96	1.00	3.4	11,600	1000	.80	.98	1.00
	210	450	4.0	13,500	750	.79	.96	1.00	3.8	13,000	830	.80	.98	1.00	3.7	12,500	920	.81	.99	1.00	3.5	11,900	1010	.83	1.00	1.00
	235	500	4.1	13,900	750	.81	.99	1.00	3.9	13,300	840	.83	1.00	1.00	3.8	12,800	930	.84	1.00	1.00	3.6	12,300	1020	.86	1.00	1.00
67°F (19.4°C)	200	400	4.1	13,900	750	.60	.74	.89	3.9	13,400	840	.60	.76	.90	3.8	12,800	930	.61	.77	.92	3.6	12,200	1010	.62	.79	.94
	210	450	4.2	14,300	760	.61	.77	.93	4.0	13,700	840	.62	.79	.94	3.8	13,100	930	.63	.81	.96	3.7	12,500	1020	.64	.83	.98
	235	500	4.2	14,500	760	.63	.80	.96	4.1	13,900	850	.64	.82	.98	3.9	13,300	940	.65	.84	1.00	3.7	12,700	1030	.66	.87	1.00
71°F (21.7°C)	200	400	4.3	14,700	770	.44	.58	.74	4.1	14,100	850	.45	.59	.75	4.0	13,500	940	.45	.60	.77	3.8	12,900	1030	.45	.61	.78
	210	450	4.4	15,000	770	.45	.60	.77	4.2	14,400	860	.45	.61	.78	4.0	13,800	950	.46	.62	.79	3.9	13,200	1040	.46	.64	.81
	235	500	4.5	15,300	780	.46	.62	.80	4.3	14,700	860	.46	.63	.81	4.1	14,100	950	.46	.65	.82	3.9	13,400	1040	.47	.66	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-141 COOLING CAPACITY WITH CB19-21 OR CBH19-21 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	200	400	3.6	12,400	720	.76	.91	1.00	3.7	12,700	820	.77	.93	1.00	3.5	12,100	910	.78	.96	1.00	3.4	11,600	1000	.80	.98	1.00
	210	450	3.7	12,700	730	.79	.96	1.00	3.8	13,000	830	.80	.98	1.00	3.7	12,500	920	.81	.99	1.00	3.5	11,900	1010	.83	1.00	1.00
	235	500	3.8	13,100	730	.81	.99	1.00	3.9	13,300	840	.83	1.00	1.00	3.8	12,800	930	.84	1.00	1.00	3.6	12,300	1020	.86	1.00	1.00
67°F (19.4°C)	200	400	3.8	13,100	730	.60	.74	.89	3.9	13,400	840	.60	.76	.90	3.8	12,800	930	.61	.77	.92	3.6	12,200	1010	.62	.79	.94
	210	450	4.0	13,500	740	.61	.77	.93	4.0	13,700	840	.62	.79	.94	3.8	13,100	930	.63	.81	.96	3.7	12,500	1020	.64	.83	.98
	235	500	4.0	13,700	740	.63	.80	.96	4.1	13,900	850	.64	.82	.98	3.9	13,300	940	.65	.84	1.00	3.7	12,700	1030	.66	.87	1.00
71°F (21.7°C)	200	400	4.1	13,900	750	.44	.58	.74	4.1	14,100	850	.45	.59	.75	4.0	13,500	940	.45	.60	.77	3.8	12,900	1030	.45	.61	.78
	210	450	4.2	14,200	750	.45	.60	.77	4.2	14,400	860	.45	.61	.78	4.0	13,800	950	.46	.62	.79	3.9	13,200	1040	.46	.64	.81
	235	500	4.2	14,500	760	.46	.62	.80	4.3	14,700	860	.46	.63	.81	4.1	14,100	950	.46	.65	.82	3.9	13,400	1040	.47	.66	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-141 HEATING CAPACITY WITH CB19-21 OR CBH19-21 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
200	400	4.1	14,000	825	3.2	11,000	755	2.3	8000	685	1.6	5400	585	0.8	2700	445
210	450	4.1	14,100	800	3.3	11,100	735	2.4	8100	665	1.6	5600	560	0.8	2800	420
235	500	4.2	14,300	785	3.3	11,300	715	2.4	8300	645	1.7	5700	545	0.9	3000	405

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-141 HEATING PERFORMANCE at 450 cfm (210 L/s) Indoor Coil Air Volume (CB19-21 or CBH19-21)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	800	14,100	4.1
60	16	785	13,400	3.9
55	13	770	12,700	3.7
50	10	750	11,900	3.5
47	8	745	11,500	3.4
45	7	735	11,100	3.3
40	4	710	10,200	3.0
35	2	690	9300	2.7
30	-1	675	8700	2.5
25	-4	665	8100	2.4
20	-7	650	7500	2.2
17	-8	645	7200	2.1
15	-9	630	6900	2.0
10	-12	595	6200	1.8
5	-15	560	5600	1.6
0	-18	525	4900	1.4
-5	-21	490	4200	1.2
-10	-23	455	3500	1.0
-15	-26	420	2800	0.8
-20	-29	385	2200	0.6

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-211 COOLING CAPACITY WITH CR18-21 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	270	575	5.5	18,900	1280	.74	.89	1.00	5.3	18,000	1420	.75	.91	1.00	4.9	16,800	1550	.77	.94	1.00	4.6	15,800	1670	.79	.97	1.00
	305	650	5.7	19,500	1290	.76	.92	1.00	5.4	18,400	1430	.78	.94	1.00	5.1	17,400	1560	.80	.97	1.00	4.8	16,300	1690	.82	1.00	1.00
	340	725	5.9	20,000	1300	.79	.95	1.00	5.5	18,900	1440	.81	.97	1.00	5.2	17,800	1580	.83	.99	1.00	4.9	16,600	1710	.86	1.00	1.00
67°F (19.4°C)	270	575	5.9	20,000	1300	.58	.72	.86	5.5	18,900	1440	.59	.74	.88	5.2	17,900	1580	.60	.76	.90	4.9	16,600	1710	.61	.79	.93
	305	650	6.0	20,600	1310	.60	.75	.90	5.7	19,500	1450	.61	.77	.92	5.4	18,300	1590	.62	.79	.94	5.0	17,100	1720	.63	.82	.98
	340	725	6.2	21,000	1320	.61	.77	.93	5.8	19,900	1460	.62	.79	.96	5.5	18,700	1600	.64	.82	.98	5.1	17,400	1740	.65	.85	1.00
71°F (21.7°C)	270	575	6.1	20,900	1320	.43	.58	.72	5.8	19,900	1460	.44	.59	.74	5.5	18,700	1600	.44	.60	.75	5.1	17,500	1740	.45	.62	.77
	305	650	6.3	21,600	1330	.44	.59	.75	6.0	20,400	1470	.44	.60	.76	5.6	19,200	1620	.45	.62	.78	5.3	18,000	1760	.45	.64	.80
	340	725	6.5	22,100	1340	.45	.61	.77	6.1	20,900	1480	.45	.62	.79	5.8	19,700	1630	.45	.64	.81	5.4	18,400	1770	.46	.66	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-211 HEATING CAPACITY WITH CR18-21 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
270	575	6.5	22,300	1560	5.0	16,900	1360	3.4	11,500	1155	2.2	7400	930	1.1	3700	705
305	650	6.6	22,500	1540	5.0	17,200	1335	3.5	11,800	1135	2.3	7700	910	1.1	3900	685
340	725	6.7	22,800	1520	5.1	17,400	1315	3.5	12,000	1110	2.3	7900	890	1.2	4100	665

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-211 HEATING PERFORMANCE at 650 cfm (305 L/s) Indoor Coil Air Volume (CR18-21)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1540	22,500	6.6
60	16	1490	21,200	6.2
55	13	1440	19,900	5.8
50	10	1385	18,600	5.5
47	8	1355	17,800	5.2
45	7	1335	17,200	5.0
40	4	1290	15,600	4.6
35	2	1240	14,100	4.1
30	-1	1185	12,900	3.8
25	-4	1135	11,800	3.5
20	-7	1080	10,600	3.1
17	-8	1045	9900	2.9
15	-9	1025	9600	2.8
10	-12	965	8600	2.5
5	-15	910	7700	2.3
0	-18	855	6700	2.0
-5	-21	795	5800	1.7
-10	-23	740	4900	1.4
-15	-26	685	3900	1.1
-20	-29	630	3000	0.9

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-211 COOLING CAPACITY WITH C22-21(FC) OR CR22-21/B24 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)			
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	190	400	4.5	15,400	1220	.64	.78	.89	4.3	14,600	1310	.65	.79	.91	4.1	13,900	1410	.66	.82	.94	3.9	13,200	1550	.67	.84	.96
	285	600	5.3	18,000	1250	.70	.86	1.00	5.1	17,400	1350	.71	.88	1.00	4.8	16,500	1460	.73	.90	1.00	4.4	15,100	1610	.76	.95	1.00
	375	800	6.0	20,400	1270	.75	.92	1.00	5.7	19,400	1370	.77	.95	1.00	5.3	18,100	1490	.80	.98	1.00	4.5	15,500	1670	.87	1.00	1.00
67°F (19.4°C)	190	400	4.7	16,200	1240	.51	.63	.75	4.6	15,600	1320	.51	.64	.76	4.4	15,100	1440	.52	.65	.77	4.1	14,100	1580	.53	.67	.79
	285	600	5.8	19,700	1270	.54	.68	.82	5.5	18,900	1360	.54	.69	.84	5.2	17,900	1490	.55	.71	.86	4.5	15,300	1660	.58	.77	.93
	375	800	6.5	22,200	1290	.57	.72	.89	6.2	21,100	1390	.58	.74	.92	5.1	17,300	1530	.62	.82	1.00	4.7	16,100	1700	.64	.86	1.00
71°F (21.7°C)	190	400	5.1	17,300	1250	.38	.51	.62	4.9	16,800	1340	.39	.51	.63	4.7	16,200	1460	.39	.52	.64	4.4	15,000	1610	.39	.53	.65
	285	600	6.2	21,300	1280	.40	.53	.67	5.9	20,300	1380	.40	.54	.68	5.0	17,100	1520	.41	.58	.73	4.7	16,000	1700	.42	.59	.75
	375	800	7.0	23,800	1310	.41	.56	.71	5.7	19,400	1410	.42	.61	.79	5.3	18,200	1550	.43	.62	.81	5.0	17,000	1740	.44	.65	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-211 COOLING CAPACITY WITH C22-21(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)			
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	190	400	4.2	14,400	1210	.64	.78	.89	4.3	14,600	1310	.65	.79	.91	4.1	13,900	1410	.66	.82	.94	3.9	13,200	1550	.67	.84	.96
	285	600	5.0	17,000	1240	.70	.86	1.00	5.1	17,400	1350	.71	.88	1.00	4.8	16,500	1460	.73	.90	1.00	4.4	15,100	1610	.76	.95	1.00
	375	800	5.7	19,400	1260	.75	.92	1.00	5.7	19,400	1370	.77	.95	1.00	5.3	18,100	1490	.80	.98	1.00	4.5	15,500	1670	.87	1.00	1.00
67°F (19.4°C)	190	400	4.5	15,200	1230	.51	.63	.75	4.6	15,600	1320	.51	.64	.76	4.4	15,100	1440	.52	.65	.77	4.1	14,100	1580	.53	.67	.79
	285	600	5.5	18,700	1260	.54	.68	.82	5.5	18,900	1360	.54	.69	.84	5.2	17,900	1490	.55	.71	.86	4.5	15,300	1660	.58	.77	.93
	375	800	6.2	21,200	1280	.57	.72	.89	6.2	21,100	1390	.58	.74	.92	5.1	17,300	1530	.62	.82	1.00	4.7	16,100	1700	.64	.86	1.00
71°F (21.7°C)	190	400	4.8	16,300	1240	.38	.51	.62	4.9	16,800	1340	.39	.51	.63	4.7	16,200	1460	.39	.52	.64	4.4	15,000	1610	.39	.53	.65
	285	600	5.9	20,300	1270	.40	.53	.67	5.9	20,300	1380	.40	.54	.68	5.0	17,100	1520	.41	.58	.73	4.7	16,000	1700	.42	.59	.75
	375	800	6.7	22,800	1300	.41	.56	.71	5.7	19,400	1410	.42	.61	.79	5.3	18,200	1550	.43	.62	.81	5.0	17,000	1740	.44	.65	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-211 HEATING CAPACITY WITH C22-21(FC) OR CR22-21/B24 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
190	400	6.3	21,600	1460	4.7	15,900	1320	3.0	10,100	1180	1.7	5900	985	0.7	2400	760
285	600	6.7	22,900	1380	5.0	17,100	1235	3.3	11,300	1095	2.1	7200	900	1.1	3700	675
375	800	6.9	23,700	1345	5.2	17,900	1200	3.5	12,100	1060	2.3	7900	865	1.3	4400	640

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-211 HEATING PERFORMANCE at 600 cfm (285 L/s) Indoor Coil Air Volume (C22-21(FC) or CR22-21/B24)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1380	22,900	6.7
60	16	1345	21,500	6.3
55	13	1305	20,100	5.9
50	10	1270	18,600	5.5
47	8	1250	17,800	5.2
45	7	1235	17,100	5.0
40	4	1205	15,500	4.5
35	2	1175	13,800	4.0
30	-1	1135	12,600	3.7
25	-4	1095	11,300	3.3
20	-7	1060	10,000	2.9
17	-8	1035	9300	2.7
15	-9	1010	8900	2.6
10	-12	955	8100	2.4
5	-15	900	7200	2.1
0	-18	845	6300	1.8
-5	-21	790	5400	1.6
-10	-23	730	4500	1.3
-15	-26	675	3700	1.1
-20	-29	620	2800	0.8

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-211 COOLING CAPACITY WITH CH22-21 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	190	400	4.5	15,400	1220	.64	.78	.89	4.3	14,600	1310	.65	.80	.91	4.0	13,800	1410	.66	.82	.94	3.9	13,200	1550	.67	.84	.96
	285	600	5.3	18,000	1250	.70	.86	1.00	5.1	17,300	1350	.71	.88	1.00	4.8	16,500	1460	.73	.91	1.00	4.4	15,100	1610	.76	.95	1.00
	375	800	5.9	20,200	1270	.76	.93	1.00	5.7	19,300	1370	.77	.95	1.00	5.3	18,000	1490	.80	.98	1.00	4.5	15,400	1670	.87	1.00	1.00
67°F (19.4°C)	190	400	4.7	16,200	1240	.51	.63	.75	4.6	15,600	1320	.51	.64	.76	4.4	15,000	1440	.52	.65	.77	4.2	14,200	1580	.53	.67	.79
	285	600	5.8	19,700	1270	.54	.68	.82	5.5	18,900	1360	.54	.69	.84	5.2	17,800	1490	.55	.71	.86	4.5	15,300	1660	.58	.77	.93
	375	800	6.5	22,100	1290	.57	.72	.89	6.2	21,000	1390	.58	.74	.92	5.0	17,200	1530	.62	.83	1.00	4.7	16,100	1700	.64	.86	1.00
71°F (21.7°C)	190	400	5.1	17,300	1250	.39	.51	.62	4.9	16,800	1340	.39	.51	.63	4.7	16,200	1460	.39	.52	.64	4.4	15,000	1610	.39	.53	.65
	285	600	6.2	21,200	1280	.40	.53	.67	5.9	20,300	1380	.40	.54	.68	5.0	17,100	1520	.41	.58	.73	4.7	16,000	1700	.42	.59	.75
	375	800	7.0	23,800	1310	.41	.56	.72	5.7	19,400	1410	.42	.60	.79	5.3	18,200	1550	.43	.62	.81	5.0	17,000	1740	.44	.64	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-211 COOLING CAPACITY WITH CH22-21 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	190	400	4.2	14,400	1210	.64	.78	.89	4.3	14,600	1310	.65	.80	.91	4.0	13,800	1410	.66	.82	.94	3.9	13,200	1550	.67	.84	.96
	285	600	5.0	17,000	1240	.70	.86	1.00	5.1	17,300	1350	.71	.88	1.00	4.8	16,500	1460	.73	.91	1.00	4.4	15,100	1610	.76	.95	1.00
	375	800	5.6	19,200	1260	.76	.93	1.00	5.7	19,300	1370	.77	.95	1.00	5.3	18,000	1490	.80	.98	1.00	4.5	15,400	1670	.87	1.00	1.00
67°F (19.4°C)	190	400	4.5	15,200	1230	.51	.63	.75	4.6	15,600	1320	.51	.64	.76	4.4	15,000	1440	.52	.65	.77	4.2	14,200	1580	.53	.67	.79
	285	600	5.5	18,700	1260	.54	.68	.82	5.5	18,900	1360	.54	.69	.84	5.2	17,800	1490	.55	.71	.86	4.5	15,300	1660	.58	.77	.93
	375	800	6.2	21,100	1280	.57	.72	.89	6.2	21,000	1390	.58	.74	.92	5.0	17,200	1530	.62	.83	1.00	4.7	16,100	1700	.64	.86	1.00
71°F (21.7°C)	190	400	4.8	16,300	1240	.39	.51	.62	4.9	16,800	1340	.39	.51	.63	4.7	16,200	1460	.39	.52	.64	4.4	15,000	1610	.39	.53	.65
	285	600	5.9	20,200	1270	.40	.53	.67	5.9	20,300	1380	.40	.54	.68	5.0	17,100	1520	.41	.58	.73	4.7	16,000	1700	.42	.59	.75
	375	800	6.7	22,800	1300	.41	.56	.72	5.7	19,400	1410	.42	.60	.79	5.3	18,200	1550	.43	.62	.81	5.0	17,000	1740	.44	.64	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-211 HEATING CAPACITY WITH CH22-21 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
190	400	6.3	21,400	1490	4.6	15,700	1340	2.9	9900	1190	1.7	5800	990	0.7	2400	765
285	600	6.7	22,700	1405	5.0	16,900	1255	3.3	11,100	1105	2.1	7000	905	1.1	3600	680
375	800	6.9	23,400	1365	5.2	17,700	1215	3.5	11,800	1065	2.3	7800	865	1.3	4300	640

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-211 HEATING PERFORMANCE at 600 cfm (285 L/s) Indoor Coil Air Volume (CH22-21)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1405	22,700	6.7
60	16	1365	21,200	6.2
55	13	1330	19,800	5.8
50	10	1290	18,400	5.4
47	8	1270	17,600	5.2
45	7	1255	16,900	5.0
40	4	1220	15,300	4.5
35	2	1185	13,600	4.0
30	-1	1145	12,300	3.6
25	-4	1105	11,100	3.3
20	-7	1065	9800	2.9
17	-8	1040	9100	2.7
15	-9	1015	8700	2.5
10	-12	960	7900	2.3
5	-15	905	7000	2.1
0	-18	850	6100	1.8
-5	-21	790	5300	1.6
-10	-23	735	4400	1.3
-15	-26	680	3600	1.1
-20	-29	625	2700	0.8

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-211 COOLING CAPACITY WITH CR18-31 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)			
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	270	575	5.8	19,700	1300	.73	.87	1.00	5.5	18,600	1430	.74	.89	1.00	5.1	17,500	1570	.76	.92	1.00	4.8	16,300	1690	.78	.96	1.00
	305	650	5.9	20,200	1310	.75	.91	1.00	5.6	19,100	1450	.77	.93	1.00	5.3	18,000	1580	.79	.96	1.00	4.9	16,700	1710	.81	.99	1.00
	340	725	6.1	20,800	1310	.78	.94	1.00	5.7	19,600	1450	.80	.96	1.00	5.4	18,300	1590	.82	.99	1.00	5.0	17,200	1730	.84	1.00	1.00
67°F (19.4°C)	270	575	6.2	21,000	1320	.57	.71	.85	5.8	19,900	1460	.58	.72	.87	5.5	18,700	1600	.59	.75	.89	5.1	17,400	1740	.60	.77	.92
	305	650	6.3	21,600	1330	.58	.73	.88	6.0	20,400	1470	.59	.75	.90	5.6	19,100	1620	.61	.77	.93	5.2	17,800	1750	.62	.80	.96
	340	725	6.5	22,200	1340	.60	.76	.91	6.1	20,900	1480	.61	.78	.94	5.7	19,600	1630	.62	.80	.97	5.3	18,100	1770	.64	.84	1.00
71°F (21.7°C)	270	575	6.5	22,300	1340	.42	.56	.71	6.2	21,100	1490	.43	.57	.72	5.8	19,900	1640	.43	.58	.74	5.4	18,500	1780	.44	.60	.76
	305	650	6.7	23,000	1350	.43	.58	.73	6.4	21,700	1500	.43	.59	.75	6.0	20,400	1650	.44	.60	.76	5.6	19,000	1800	.44	.62	.79
	340	725	6.9	23,500	1360	.44	.59	.75	6.5	22,200	1510	.44	.61	.77	6.1	20,800	1670	.45	.62	.79	5.7	19,400	1810	.45	.64	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-211 COOLING CAPACITY WITH CVP10-26/EC10Q3 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)			
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	270	575	5.7	19,400	1340	.74	.89	1.00	5.4	18,300	1450	.76	.92	1.00	5.0	17,100	1560	.78	.95	1.00	4.7	16,000	1670	.80	.98	1.00
	305	650	5.8	19,900	1350	.77	.93	1.00	5.5	18,700	1460	.79	.96	1.00	5.2	17,700	1580	.81	.99	1.00	4.9	16,600	1690	.83	1.00	1.00
	340	725	6.0	20,400	1350	.80	.96	1.00	5.7	19,300	1470	.82	.99	1.00	5.3	18,200	1590	.84	1.00	1.00	5.0	17,100	1710	.86	1.00	1.00
67°F (19.4°C)	270	575	6.1	20,700	1360	.58	.72	.87	5.7	19,500	1480	.59	.74	.89	5.4	18,300	1590	.60	.76	.91	5.0	17,100	1710	.62	.79	.94
	305	650	6.2	21,200	1360	.60	.75	.90	5.9	20,000	1480	.61	.77	.92	5.5	18,800	1600	.62	.80	.95	5.1	17,400	1720	.64	.83	.98
	340	725	6.4	21,700	1360	.61	.78	.94	6.0	20,400	1490	.63	.80	.96	5.6	19,100	1610	.64	.83	.99	5.2	17,800	1730	.66	.87	1.00
71°F (21.7°C)	270	575	6.4	22,000	1370	.43	.57	.72	6.1	20,800	1500	.44	.58	.74	5.7	19,600	1620	.44	.59	.75	5.4	18,300	1740	.45	.61	.77
	305	650	6.6	22,600	1370	.44	.59	.75	6.3	21,400	1500	.44	.60	.76	5.9	20,000	1630	.45	.62	.78	5.4	18,600	1750	.45	.63	.81
	340	725	6.8	23,100	1370	.45	.61	.77	6.4	21,800	1500	.45	.62	.79	6.0	20,400	1640	.46	.64	.81	5.6	19,000	1760	.46	.66	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-211 HEATING CAPACITY WITH CR18-31 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
270	575	6.5	22,200	1565	5.0	16,900	1360	3.4	11,500	1155	2.2	7400	930	1.1	3700	705
305	650	6.6	22,500	1545	5.0	17,200	1340	3.5	11,800	1135	2.3	7700	910	1.1	3900	685
340	725	6.7	22,700	1525	5.1	17,400	1315	3.5	12,000	1115	2.3	7900	890	1.2	4100	665

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-211 HEATING CAPACITY WITH CVP10-26/EC10Q3 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
270	575	6.7	22,900	1525	5.1	17,400	1290	3.5	11,800	1055	2.2	7600	835	1.1	3700	635
305	650	6.8	23,200	1500	5.2	17,600	1270	3.5	12,000	1035	2.3	7800	815	1.2	4000	610
340	725	6.9	23,400	1480	5.2	17,800	1245	3.6	12,200	1015	2.3	8000	795	1.2	4200	590

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-211 HEATING PERFORMANCE at 650 cfm (305 L/s) Indoor Coil Air Volume (CR18-31)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1545	22,500	6.6
60	16	1495	21,200	6.2
55	13	1440	19,900	5.8
50	10	1390	18,600	5.5
47	8	1360	17,800	5.2
45	7	1340	17,200	5.0
40	4	1290	15,600	4.6
35	2	1245	14,100	4.1
30	-1	1190	12,900	3.8
25	-4	1135	11,800	3.5
20	-7	1080	10,600	3.1
17	-8	1045	9900	2.9
15	-9	1025	9600	2.8
10	-12	965	8600	2.5
5	-15	910	7700	2.3
0	-18	855	6700	2.0
-5	-21	795	5800	1.7
-10	-23	740	4900	1.4
-15	-26	685	3900	1.1
-20	-29	630	3000	0.9

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

HP23-211 HEATING PERFORMANCE at 650 cfm (305 L/s) Indoor Coil Air Volume (CVP10-26/EC10Q3)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1500	23,200	6.8
60	16	1445	21,800	6.4
55	13	1385	20,400	6.0
50	10	1325	19,100	5.6
47	8	1290	18,300	5.4
45	7	1270	17,600	5.2
40	4	1215	16,000	4.7
35	2	1160	14,400	4.2
30	-1	1095	13,200	3.9
25	-4	1035	12,000	3.5
20	-7	975	10,800	3.2
17	-8	935	10,100	3.0
15	-9	915	9700	2.8
10	-12	865	8800	2.6
5	-15	815	7800	2.3
0	-18	765	6900	2.0
-5	-21	715	5900	1.7
-10	-23	660	4900	1.4
-15	-26	610	4000	1.2
-20	-29	560	3000	0.9

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-211 COOLING CAPACITY WITH C22-26(FC) OR C22-26W(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	190	400	4.6	15,600	1230	.64	.77	.89	4.3	14,800	1320	.65	.79	.91	4.2	14,300	1430	.66	.81	.93	4.0	13,500	1570	.67	.83	.95
	285	600	5.6	19,000	1260	.69	.84	.99	5.3	18,200	1360	.70	.86	1.00	5.0	17,200	1480	.72	.89	1.00	4.4	15,000	1640	.76	.96	1.00
	375	800	6.3	21,500	1290	.74	.90	1.00	6.0	20,400	1390	.76	.93	1.00	5.0	17,000	1520	.83	1.00	1.00	4.6	15,700	1700	.86	1.00	1.00
67°F (19.4°C)	190	400	4.8	16,500	1240	.50	.63	.75	4.7	16,100	1330	.51	.63	.75	4.5	15,500	1450	.51	.64	.77	4.2	14,500	1590	.52	.66	.79
	285	600	6.1	20,700	1280	.53	.66	.81	5.8	19,800	1380	.54	.68	.82	5.0	17,200	1510	.56	.72	.88	4.5	15,400	1680	.58	.77	.94
	375	800	6.9	23,500	1310	.56	.70	.87	5.5	18,800	1400	.60	.79	.98	5.2	17,600	1540	.61	.82	1.00	4.8	16,400	1720	.63	.86	1.00
71°F (21.7°C)	190	400	5.2	17,900	1260	.38	.51	.62	5.1	17,400	1350	.38	.51	.62	4.9	16,600	1470	.38	.51	.63	4.4	14,900	1630	.39	.53	.66
	285	600	6.5	22,300	1290	.39	.53	.66	5.8	19,900	1400	.40	.55	.69	5.1	17,300	1540	.41	.57	.73	4.7	16,200	1720	.41	.59	.75
	375	800	7.4	25,200	1310	.40	.56	.70	5.8	19,800	1420	.42	.60	.78	5.4	18,500	1570	.42	.62	.81	5.0	17,200	1760	.43	.64	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-211 COOLING CAPACITY WITH C22-26(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	190	400	4.3	14,600	1220	.64	.77	.89	4.3	14,800	1320	.65	.79	.91	4.2	14,300	1430	.66	.81	.93	4.0	13,500	1570	.67	.83	.95
	285	600	5.3	18,000	1250	.69	.84	.99	5.3	18,200	1360	.70	.86	1.00	5.0	17,200	1480	.72	.89	1.00	4.4	15,000	1640	.76	.96	1.00
	375	800	6.0	20,500	1280	.74	.90	1.00	6.0	20,400	1390	.76	.93	1.00	5.0	17,000	1520	.83	1.00	1.00	4.6	15,700	1700	.86	1.00	1.00
67°F (19.4°C)	190	400	4.5	15,500	1230	.50	.63	.75	4.7	16,100	1330	.51	.63	.75	4.5	15,500	1450	.51	.64	.77	4.2	14,500	1590	.52	.66	.79
	285	600	5.8	19,700	1270	.53	.66	.81	5.8	19,800	1380	.54	.68	.82	5.0	17,200	1510	.56	.72	.88	4.5	15,400	1680	.58	.77	.94
	375	800	6.6	22,500	1300	.56	.70	.87	5.5	18,800	1400	.60	.79	.98	5.2	17,600	1540	.61	.82	1.00	4.8	16,400	1720	.63	.86	1.00
71°F (21.7°C)	190	400	5.0	16,900	1250	.38	.51	.62	5.1	17,400	1350	.38	.51	.62	4.9	16,600	1470	.38	.51	.63	4.4	14,900	1630	.39	.53	.66
	285	600	6.2	21,300	1280	.39	.53	.66	5.8	19,900	1400	.40	.55	.69	5.1	17,300	1540	.41	.57	.73	4.7	16,200	1720	.41	.59	.75
	375	800	7.1	24,200	1300	.40	.56	.70	5.8	19,800	1420	.42	.60	.78	5.4	18,500	1570	.42	.62	.81	5.0	17,200	1760	.43	.64	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-211 HEATING CAPACITY WITH C22-26(FC) OR C22-26W(FC) INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
190	400	6.4	21,900	1445	4.7	16,000	1310	3.0	10,100	1175	1.8	6000	985	0.7	2400	760
285	600	6.8	23,100	1360	5.1	17,300	1225	3.3	11,400	1090	2.1	7200	900	1.1	3700	675
375	800	7.0	23,900	1325	5.3	18,000	1190	3.5	12,100	1055	2.3	8000	865	1.3	4400	640

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-211 HEATING PERFORMANCE at 600 cfm (285 L/s) Indoor Coil Air Volume (C22-26(FC) or C22-26W(FC))

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1360	23,100	6.8
60	16	1325	21,700	6.4
55	13	1295	20,200	5.9
50	10	1260	18,800	5.5
47	8	1240	18,000	5.3
45	7	1225	17,300	5.1
40	4	1195	15,600	4.6
35	2	1165	13,900	4.1
30	-1	1130	12,700	3.7
25	-4	1090	11,400	3.3
20	-7	1055	10,100	3.0
17	-8	1035	9300	2.7
15	-9	1010	9000	2.6
10	-12	955	8100	2.4
5	-15	900	7200	2.1
0	-18	845	6300	1.8
-5	-21	790	5500	1.6
-10	-23	730	4600	1.3
-15	-26	675	3700	1.1
-20	-29	620	2800	0.8

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-211 COOLING CAPACITY WITH CB19-21 OR CBH19-21 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	270	575	5.7	19,400	1320	.75	.91	1.00	5.4	18,500	1440	.77	.93	1.00	5.2	17,600	1570	.78	.95	1.00	4.9	16,600	1690	.80	.98	1.00
	305	650	5.9	20,000	1330	.78	.94	1.00	5.6	19,000	1450	.80	.97	1.00	5.3	18,100	1580	.81	.99	1.00	5.0	17,100	1710	.83	1.00	1.00
	340	725	6.0	20,500	1340	.81	.98	1.00	5.7	19,600	1460	.82	1.00	1.00	5.4	18,600	1600	.84	1.00	1.00	5.2	17,700	1730	.86	1.00	1.00
67°F (19.4°C)	270	575	6.0	20,600	1340	.59	.73	.88	5.8	19,700	1470	.60	.75	.90	5.5	18,700	1600	.61	.77	.92	5.2	17,600	1720	.62	.79	.94
	305	650	6.2	21,200	1340	.61	.76	.91	5.9	20,200	1480	.62	.78	.93	5.6	19,100	1610	.63	.80	.96	5.3	18,000	1740	.64	.83	.98
	340	725	6.3	21,600	1350	.62	.79	.95	6.0	20,600	1480	.63	.81	.97	5.7	19,500	1620	.64	.84	1.00	5.4	18,400	1750	.66	.87	1.00
71°F (21.7°C)	270	575	6.4	21,900	1350	.44	.58	.73	6.1	20,900	1490	.44	.59	.75	5.8	19,800	1630	.45	.60	.76	5.5	18,700	1770	.45	.61	.78
	305	650	6.6	22,500	1360	.45	.60	.76	6.3	21,400	1500	.45	.61	.77	5.9	20,300	1640	.45	.62	.79	5.6	19,200	1780	.46	.64	.81
	340	725	6.7	23,000	1360	.45	.62	.79	6.4	21,900	1500	.46	.63	.80	6.1	20,700	1650	.46	.64	.82	5.7	19,600	1800	.47	.66	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIII HP23-211 COOLING CAPACITY WITH CB19-21 OR CBH19-21 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	270	575	5.4	18,400	1310	.75	.91	1.00	5.4	18,500	1440	.77	.93	1.00	5.2	17,600	1570	.78	.95	1.00	4.9	16,600	1690	.80	.98	1.00
	305	650	5.6	19,000	1320	.78	.94	1.00	5.6	19,000	1450	.80	.97	1.00	5.3	18,100	1580	.81	.99	1.00	5.0	17,100	1710	.83	1.00	1.00
	340	725	5.7	19,500	1330	.81	.98	1.00	5.7	19,600	1460	.82	1.00	1.00	5.4	18,600	1600	.84	1.00	1.00	5.2	17,700	1730	.86	1.00	1.00
67°F (19.4°C)	270	575	5.7	19,600	1330	.59	.73	.88	5.8	19,700	1470	.60	.75	.90	5.5	18,700	1600	.61	.77	.92	5.2	17,600	1720	.62	.79	.9
	305	650	5.9	20,200	1330	.61	.76	.91	5.9	20,200	1480	.62	.78	.93	5.6	19,100	1610	.63	.80	.96	5.3	18,000	1740	.64	.83	.98
	340	725	6.0	20,600	1340	.62	.79	.95	6.0	20,600	1480	.63	.81	.97	5.7	19,500	1620	.64	.84	1.00	5.4	18,400	1750	.66	.87	1.00
71°F (21.7°C)	270	575	6.1	20,900	1340	.44	.58	.73	6.1	20,900	1490	.44	.59	.75	5.8	19,800	1630	.45	.60	.76	5.5	18,700	1770	.45	.61	.78
	305	650	6.3	21,500	1350	.45	.60	.76	6.3	21,400	1500	.45	.61	.77	5.9	20,300	1640	.45	.62	.79	5.6	19,200	1780	.46	.64	.81
	340	725	6.4	22,000	1350	.45	.62	.79	6.4	21,900	1500	.46	.63	.80	6.1	20,700	1650	.46	.64	.82	5.7	19,600	1800	.47	.66	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-211 HEATING CAPACITY WITH CB19-21 OR CBH19-21 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
270	575	6.7	22,800	1440	5.0	17,200	1275	3.4	11,600	1105	2.2	7400	905	1.1	3700	685
305	650	6.7	23,000	1420	5.1	17,400	1250	3.5	11,800	1085	2.3	7700	880	1.1	3900	665
340	725	6.8	23,200	1400	5.2	17,700	1230	3.5	12,000	1065	2.3	7900	860	1.2	4100	640

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-211 HEATING PERFORMANCE at 650 cfm (305 L/s) Indoor Coil Air Volume (CB19-21 or CBH19-21)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1420	23,000	6.7
60	16	1375	21,600	6.3
55	13	1335	20,300	5.9
50	10	1295	18,900	5.5
47	8	1270	18,100	5.3
45	7	1250	17,400	5.1
40	4	1215	15,800	4.6
35	2	1175	14,200	4.2
30	-1	1130	13,000	3.8
25	-4	1085	11,800	3.5
20	-7	1040	10,600	3.1
17	-8	1015	9900	2.9
15	-9	990	9500	2.8
10	-12	935	8600	2.5
5	-15	880	7700	2.3
0	-18	825	6700	2.0
-5	-21	770	5800	1.7
-10	-23	720	4800	1.4
-15	-26	665	3900	1.1
-20	-29	610	3000	0.9

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-261 COOLING CAPACITY WITH CR18-31 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	365	775	7.0	24,000	1730	.75	.90	1.00	6.7	22,700	1830	.76	.92	1.00	6.2	21,300	1960	.78	.95	1.00	5.8	19,900	2120	.80	.98	1.00
	415	875	7.2	24,600	1750	.77	.93	1.00	6.8	23,300	1850	.79	.96	1.00	6.4	21,900	1990	.81	.98	1.00	6.0	20,500	2150	.83	1.00	1.00
	460	975	7.4	25,200	1760	.80	.96	1.00	7.0	23,800	1870	.82	.99	1.00	6.6	22,400	2000	.84	1.00	1.00	6.2	21,200	2190	.86	1.00	1.00
67°F (19.4°C)	365	775	7.5	25,600	1770	.58	.73	.87	7.1	24,200	1880	.59	.75	.89	6.7	22,800	2020	.60	.77	.91	6.2	21,300	2190	.62	.79	.94
	415	875	7.7	26,300	1780	.60	.75	.90	7.3	24,800	1890	.61	.78	.93	6.8	23,300	2030	.62	.80	.95	6.4	21,800	2220	.64	.83	.98
	460	975	7.9	26,800	1790	.62	.78	.94	7.4	25,300	1900	.63	.80	.96	6.9	23,700	2050	.64	.83	.99	6.5	22,100	2240	.66	.86	1.00
71°F (21.7°C)	365	775	7.9	27,100	1790	.44	.58	.73	7.5	25,700	1910	.44	.59	.74	7.1	24,200	2070	.44	.60	.76	6.7	22,700	2260	.45	.62	.77
	415	875	8.1	27,800	1800	.44	.59	.75	7.7	26,400	1930	.45	.60	.77	7.3	24,800	2090	.45	.62	.78	6.8	23,200	2290	.46	.64	.81
	460	975	8.3	28,400	1810	.45	.61	.78	7.9	26,900	1940	.45	.62	.79	7.4	25,300	2100	.46	.64	.81	6.9	23,700	2310	.46	.66	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-261 COOLING CAPACITY WITH CVP10-26/EC10Q3 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	365	775	7.1	24,200	1770	.77	.93	1.00	6.7	23,000	1910	.78	.95	1.00	6.4	21,800	2060	.80	.98	1.00	6.1	20,700	2210	.82	1.00	1.00
	415	875	7.3	24,800	1780	.80	.97	1.00	6.9	23,600	1930	.81	.99	1.00	6.6	22,500	2090	.83	1.00	1.00	6.3	21,400	2250	.85	1.00	1.00
	460	975	7.5	25,500	1790	.82	.99	1.00	7.1	24,300	1950	.84	1.00	1.00	6.8	23,200	2120	.85	1.00	1.00	6.5	22,100	2280	.87	1.00	1.00
67°F (19.4°C)	365	775	7.6	25,800	1800	.60	.75	.89	7.2	24,600	1960	.61	.77	.91	6.8	23,300	2120	.62	.79	.93	6.4	21,900	2270	.63	.81	.96
	415	875	7.7	26,400	1810	.62	.78	.93	7.4	25,100	1970	.63	.80	.95	7.0	23,800	2130	.64	.82	.98	6.5	22,300	2290	.65	.85	1.00
	460	975	7.9	26,900	1820	.63	.81	.97	7.5	25,600	1980	.65	.83	.99	7.1	24,200	2150	.66	.86	1.00	6.7	22,800	2310	.67	.89	1.00
71°F (21.7°C)	365	775	8.1	27,500	1830	.45	.59	.75	7.7	26,200	2000	.45	.60	.76	7.3	24,800	2170	.45	.61	.77	6.9	23,400	2340	.46	.63	.79
	415	875	8.2	28,100	1840	.45	.60	.77	7.9	26,800	2010	.46	.61	.79	7.4	25,400	2190	.46	.63	.80	7.0	23,900	2370	.47	.65	.82
	460	975	8.4	28,700	1850	.46	.63	.80	8.0	27,300	2030	.46	.64	.81	7.6	25,800	2210	.47	.66	.83	7.1	24,300	2380	.47	.68	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-261 HEATING CAPACITY WITH CR18-31 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
365	775	8.9	30,400	2045	6.6	22,600	1755	4.3	14,600	1465	2.8	9400	1185	1.3	4600	895
410	875	9.0	30,800	2015	6.7	22,900	1730	4.4	14,900	1440	2.8	9700	1160	1.5	5000	870
460	975	9.1	31,000	1990	6.8	23,200	1700	4.5	15,200	1410	2.9	10,000	1130	1.5	5200	840

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-261 HEATING CAPACITY WITH CVP10-26/EC10Q3 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
365	775	9.1	30,900	1980	6.7	22,900	1710	4.3	14,800	1440	2.8	9500	1170	1.4	4700	885
415	875	9.2	31,300	1950	6.8	23,300	1685	4.4	15,100	1415	2.9	9800	1145	1.5	5000	860
460	975	9.2	31,500	1925	6.9	23,500	1655	4.5	15,300	1385	3.0	10,100	1115	1.6	5300	830

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-261 HEATING PERFORMANCE at 875 cfm (410 L/s) Indoor Coil Air Volume (CR18-31)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2015	30,800	9.0
60	16	1945	28,900	8.5
55	13	1875	27,000	7.9
50	10	1800	25,100	7.4
47	8	1760	24,000	7.0
45	7	1730	22,900	6.7
40	4	1655	20,400	6.0
35	2	1580	17,800	5.2
30	-1	1510	16,400	4.8
25	-4	1440	14,900	4.4
20	-7	1370	13,500	4.0
17	-8	1330	12,600	3.7
15	-9	1300	12,100	3.5
10	-12	1230	10,900	3.2
5	-15	1160	9700	2.8
0	-18	1085	8500	2.5
-5	-21	1015	7400	2.2
-10	-23	940	6200	1.8
-15	-26	870	5000	1.5
-20	-29	800	3800	1.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

⌖ HP23-261 HEATING PERFORMANCE at 875 cfm (415 L/s) Indoor Coil Air Volume (CVP10-26/EC10Q3)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1950	31,300	9.2
60	16	1885	29,300	8.6
55	13	1820	27,400	8.0
50	10	1750	25,500	7.5
47	8	1710	24,300	7.1
45	7	1685	23,300	6.8
40	4	1615	20,600	6.0
35	2	1545	18,000	5.3
30	-1	1480	16,600	4.9
25	-4	1415	15,100	4.4
20	-7	1350	13,600	4.0
17	-8	1315	12,700	3.7
15	-9	1285	12,200	3.6
10	-12	1215	11,000	3.2
5	-15	1145	9800	2.9
0	-18	1070	8600	2.5
-5	-21	1000	7400	2.2
-10	-23	930	6200	1.8
-15	-26	860	5000	1.5
-20	-29	790	3800	1.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-261 COOLING CAPACITY WITH CR18-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	365	775	7.2	24,500	1740	.75	.90	1.00	6.8	23,200	1850	.76	.93	1.00	6.4	21,800	1980	.78	.95	1.00	6.0	20,400	2150	.80	.98	1.00
	415	875	7.4	25,200	1760	.77	.94	1.00	7.0	23,800	1870	.79	.96	1.00	6.6	22,400	2000	.81	.99	1.00	6.2	21,000	2180	.83	1.00	1.00
	460	975	7.6	25,800	1770	.80	.97	1.00	7.1	24,300	1880	.82	.99	1.00	6.7	23,000	2020	.84	1.00	1.00	6.4	21,700	2210	.86	1.00	1.00
67°F (19.4°C)	365	775	7.7	26,200	1780	.59	.73	.87	7.2	24,700	1890	.60	.75	.89	6.8	23,300	2030	.61	.77	.92	6.4	21,700	2220	.62	.80	.94
	415	875	7.9	26,800	1790	.60	.76	.91	7.4	25,300	1900	.61	.78	.93	7.0	23,800	2050	.62	.80	.96	6.5	22,200	2240	.64	.83	.99
	460	975	8.0	27,400	1790	.62	.78	.94	7.6	25,800	1920	.63	.81	.97	7.1	24,300	2070	.64	.83	1.00	6.6	22,600	2260	.66	.87	1.00
71°F (21.7°C)	365	775	8.1	27,700	1800	.44	.58	.73	7.7	26,300	1930	.44	.59	.74	7.2	24,700	2080	.44	.60	.76	6.8	23,200	2290	.45	.62	.78
	415	875	8.3	28,400	1810	.44	.59	.75	7.9	26,900	1940	.45	.61	.77	7.4	25,300	2100	.45	.62	.79	6.9	23,700	2310	.46	.64	.81
	460	975	8.5	29,100	1820	.45	.61	.78	8.1	27,500	1950	.45	.62	.80	7.6	25,800	2120	.46	.64	.82	7.1	24,200	2330	.47	.66	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-261 HEATING CAPACITY WITH CR18-41 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
365	775	9.0	30,700	2005	6.7	22,800	1730	4.3	14,700	1455	2.8	9500	1180	1.4	4700	890
415	875	9.1	31,100	1980	6.8	23,100	1705	4.4	15,000	1430	2.9	9800	1150	1.5	5000	865
460	975	9.2	31,300	1950	6.9	23,400	1675	4.5	15,300	1400	2.9	10,000	1125	1.5	5200	840

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-261 HEATING PERFORMANCE at 875 cfm (415 L/s) Indoor Coil Air Volume (CR18-41)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1980	31,100	9.1
60	16	1910	29,100	8.5
55	13	1840	27,200	8.0
50	10	1775	25,300	7.4
47	8	1735	24,200	7.1
45	7	1705	23,100	6.8
40	4	1630	20,500	6.0
35	2	1560	17,900	5.2
30	-1	1495	16,500	4.8
25	-4	1430	15,000	4.4
20	-7	1360	13,500	4.0
17	-8	1325	12,700	3.7
15	-9	1295	12,200	3.6
10	-12	1220	11,000	3.2
5	-15	1150	9800	2.9
0	-18	1080	8600	2.5
-5	-21	1010	7400	2.2
-10	-23	935	6200	1.8
-15	-26	865	5000	1.5
-20	-29	795	3800	1.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-261 COOLING CAPACITY WITH C22-26(FC) OR C22-26W(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	285	600	6.8	23,200	1720	.65	.80	.94	6.4	22,000	1820	.66	.83	.97	6.1	20,700	1950	.68	.86	1.00	5.7	19,400	2110	.69	.90	1.00
	375	800	7.3	25,000	1760	.70	.89	1.00	6.9	23,600	1870	.72	.93	1.00	6.5	22,200	2000	.74	.96	1.00	6.1	20,800	2180	.77	1.00	1.00
	470	1000	7.7	26,300	1780	.77	.97	1.00	7.2	24,700	1890	.79	1.00	1.00	6.9	23,500	2050	.82	1.00	1.00	6.5	22,200	2250	.84	1.00	1.00
67°F (19.4°C)	285	600	7.2	24,400	1740	.52	.64	.77	6.8	23,200	1850	.52	.65	.79	6.4	21,900	1990	.53	.67	.81	6.0	20,500	2170	.54	.69	.84
	375	800	7.7	26,400	1780	.55	.69	.86	7.3	25,000	1900	.56	.71	.88	6.9	23,500	2050	.57	.74	.92	6.4	22,000	2240	.58	.77	.95
	470	1000	8.1	27,800	1800	.58	.75	.95	7.7	26,200	1930	.59	.78	.98	7.2	24,600	2080	.60	.81	1.00	6.7	23,000	2290	.62	.85	1.00
71°F (21.7°C)	285	600	7.5	25,600	1770	.39	.51	.64	7.1	24,300	1880	.39	.52	.65	6.7	23,000	2030	.40	.53	.66	6.3	21,600	2220	.40	.54	.68
	375	800	8.1	27,700	1800	.40	.54	.69	7.7	26,200	1930	.41	.56	.70	7.2	24,700	2090	.41	.57	.72	6.8	23,200	2300	.42	.58	.75
	470	1000	8.5	29,100	1820	.42	.58	.74	8.1	27,500	1950	.42	.59	.77	7.6	25,900	2130	.43	.61	.79	7.1	24,300	2350	.43	.63	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-261 COOLING CAPACITY WITH C22-26(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	285	600	6.6	22,600	1700	.65	.80	.94	6.4	22,000	1820	.66	.83	.97	6.1	20,700	1950	.68	.86	1.00	5.7	19,400	2110	.69	.90	1.00
	375	800	7.1	24,400	1740	.70	.89	1.00	6.9	23,600	1870	.72	.93	1.00	6.5	22,200	2000	.74	.96	1.00	6.1	20,800	2180	.77	1.00	1.00
	470	1000	7.5	25,700	1760	.77	.97	1.00	7.2	24,700	1890	.79	1.00	1.00	6.9	23,500	2050	.82	1.00	1.00	6.5	22,200	2250	.84	1.00	1.00
67°F (19.4°C)	285	600	7.0	23,800	1720	.52	.64	.77	6.8	23,200	1850	.52	.65	.79	6.4	21,900	1990	.53	.67	.81	6.0	20,500	2170	.54	.69	.84
	375	800	7.6	25,800	1760	.55	.69	.86	7.3	25,000	1900	.56	.71	.88	6.9	23,500	2050	.57	.74	.92	6.4	22,000	2240	.58	.77	.95
	470	1000	8.0	27,200	1780	.58	.75	.95	7.7	26,200	1930	.59	.78	.98	7.2	24,600	2080	.60	.81	1.00	6.7	23,000	2290	.62	.85	1.00
71°F (21.7°C)	285	600	7.3	25,000	1750	.39	.51	.64	7.1	24,300	1880	.39	.52	.65	6.7	23,000	2030	.40	.53	.66	6.3	21,600	2220	.40	.54	.68
	375	800	7.9	27,100	1780	.40	.54	.69	7.7	26,200	1930	.41	.56	.70	7.2	24,700	2090	.41	.57	.72	6.8	23,200	2300	.42	.58	.75
	470	1000	8.4	28,500	1800	.42	.58	.74	8.1	27,500	1950	.42	.59	.77	7.6	25,900	2130	.43	.61	.79	7.1	24,300	2350	.43	.63	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-261 HEATING CAPACITY WITH C22-26(FC) OR C22-26W(FC) INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
285	600	8.1	27,600	1940	5.7	19,600	1685	3.3	11,400	1435	1.9	6400	1170	0.6	2100	890
375	800	8.8	30,000	1895	6.4	21,900	1640	4.0	13,800	1385	2.6	8800	1120	1.3	4500	845
470	1000	8.7	29,800	1860	6.4	21,800	1610	4.0	13,600	1355	2.5	8600	1090	1.3	4300	810

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-261 HEATING PERFORMANCE at 800 cfm (375 L/s) Indoor Coil Air Volume (C22-26(FC) or C22-26W(FC))

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1895	30,000	8.8
60	16	1830	28,000	8.2
55	13	1765	26,100	7.6
50	10	1705	24,100	7.1
47	8	1665	23,000	6.7
45	7	1640	21,900	6.4
40	4	1575	19,400	5.7
35	2	1505	16,800	4.9
30	-1	1445	15,300	4.5
25	-4	1385	13,800	4.0
20	-7	1325	12,200	3.6
17	-8	1290	11,300	3.3
15	-9	1260	10,900	3.2
10	-12	1190	9800	2.9
5	-15	1120	8800	2.6
0	-18	1050	7700	2.3
-5	-21	985	6600	1.9
-10	-23	915	5500	1.6
-15	-26	845	4500	1.3
-20	-29	775	3400	1.0

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-261 COOLING CAPACITY WITH CB19-26 OR CBH19-26 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	365	775	7.1	24,400	1770	.77	.93	1.00	6.8	23,200	1920	.78	.95	1.00	6.4	22,000	2070	.80	.97	1.00	6.1	20,800	2210	.82	1.00	1.00
	415	875	7.3	25,000	1780	.79	.96	1.00	7.0	23,800	1940	.81	.99	1.00	6.6	22,600	2090	.83	1.00	1.00	6.3	21,500	2250	.85	1.00	1.00
	460	975	7.5	25,500	1790	.82	.99	1.00	7.1	24,400	1950	.84	1.00	1.00	6.8	23,300	2120	.86	1.00	1.00	6.5	22,100	2280	.88	1.00	1.00
67°F (19.4°C)	365	775	7.6	25,900	1800	.60	.75	.90	7.2	24,600	1960	.61	.77	.91	6.8	23,300	2120	.62	.79	.93	6.4	21,900	2270	.63	.81	.96
	415	875	7.8	26,500	1810	.62	.78	.93	7.4	25,200	1970	.63	.80	.95	7.0	23,800	2140	.64	.83	.98	6.6	22,400	2290	.65	.85	1.00
	460	975	7.9	27,000	1820	.64	.81	.97	7.5	25,600	1990	.65	.84	.99	7.1	24,300	2150	.66	.86	1.00	6.7	22,800	2320	.67	.89	1.00
71°F (21.7°C)	365	775	8.0	27,400	1830	.45	.59	.75	7.6	26,100	2000	.45	.60	.76	7.2	24,700	2170	.45	.61	.78	6.8	23,300	2340	.46	.63	.79
	415	875	8.2	28,100	1840	.45	.61	.77	7.8	26,700	2010	.46	.62	.79	7.4	25,300	2190	.46	.64	.81	7.0	23,900	2360	.47	.65	.82
	460	975	8.4	28,600	1850	.46	.63	.80	8.0	27,200	2020	.46	.64	.82	7.6	25,800	2200	.47	.66	.84	7.1	24,300	2380	.47	.68	.86

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIII HP23-261 COOLING CAPACITY WITH CB19-26 OR CBH19-26 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	365	775	7.0	23,800	1750	.77	.93	1.00	6.8	23,200	1920	.78	.95	1.00	6.4	22,000	2070	.80	.97	1.00	6.1	20,800	2210	.82	1.00	1.00
	415	875	7.1	24,400	1760	.79	.96	1.00	7.0	23,800	1940	.81	.99	1.00	6.6	22,600	2090	.83	1.00	1.00	6.3	21,500	2250	.85	1.00	1.00
	460	975	7.6	26,100	1770	.82	.99	1.00	7.1	24,400	1950	.84	1.00	1.00	6.8	23,300	2120	.86	1.00	1.00	6.5	22,100	2280	.88	1.00	1.00
67°F (19.4°C)	365	775	7.4	25,300	1780	.60	.75	.90	7.2	24,600	1960	.61	.77	.91	6.8	23,300	2120	.62	.79	.93	6.4	21,900	2270	.63	.81	.96
	415	875	7.6	25,900	1790	.62	.78	.93	7.4	25,200	1970	.63	.80	.95	7.0	23,800	2140	.64	.83	.98	6.6	22,400	2290	.65	.85	1.00
	460	975	7.7	26,400	1800	.64	.81	.97	7.5	25,600	1990	.65	.84	.99	7.1	24,300	2150	.66	.86	1.00	6.7	22,800	2320	.67	.89	1.00
71°F (21.7°C)	365	775	7.9	26,800	1810	.45	.59	.75	7.6	26,100	2000	.45	.60	.76	7.2	24,700	2170	.45	.61	.78	6.8	23,300	2340	.46	.63	.79
	415	875	8.1	27,500	1820	.45	.61	.77	7.8	26,700	2010	.46	.62	.79	7.4	25,300	2190	.46	.64	.81	7.0	23,900	2360	.47	.65	.82
	460	975	8.2	28,000	1830	.46	.63	.80	8.0	27,200	2020	.46	.64	.82	7.6	25,800	2200	.47	.66	.84	7.1	24,300	2380	.47	.68	.86

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-261 HEATING CAPACITY WITH CB19-26 OR CBH19-26 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
365	775	9.0	30,600	1945	6.6	22,600	1685	4.2	14,400	1430	2.7	9300	1160	1.3	4600	880
415	875	9.1	31,000	1915	6.7	23,000	1660	4.3	14,800	1400	2.8	9600	1135	1.4	4900	850
460	975	9.1	31,200	1890	6.8	23,200	1630	4.4	15,000	1375	2.9	9800	1105	1.5	5100	825

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-261 HEATING PERFORMANCE at 875 cfm (415 L/s) Indoor Coil Air Volume (CB19-26 or CBH19-26)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1915	31,000	9.1
60	16	1850	29,000	8.5
55	13	1790	27,100	7.9
50	10	1725	25,200	7.4
47	8	1685	24,000	7.0
45	7	1660	23,000	6.7
40	4	1590	20,400	6.0
35	2	1525	17,800	5.2
30	-1	1460	16,300	4.8
25	-4	1400	14,800	4.3
20	-7	1340	13,300	3.9
17	-8	1300	12,400	3.6
15	-9	1275	11,900	3.5
10	-12	1205	10,800	3.2
5	-15	1135	9600	2.8
0	-18	1060	8400	2.5
-5	-21	990	7200	2.1
-10	-23	920	6100	1.8
-15	-26	850	4900	1.4
-20	-29	780	3700	1.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-261 COOLING CAPACITY WITH CH22-31 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	285	600	6.9	23,500	1730	.65	.80	.94	6.5	22,300	1830	.66	.82	.96	6.2	21,000	1960	.68	.86	1.00	5.8	19,700	2130	.69	.89	1.00
	375	800	7.4	25,400	1760	.70	.89	1.00	7.0	24,000	1870	.72	.92	1.00	6.6	22,500	2010	.74	.96	1.00	6.2	21,000	2200	.77	1.00	1.00
	470	1000	7.8	26,600	1780	.77	.97	1.00	7.4	25,200	1900	.79	1.00	1.00	7.0	23,800	2060	.81	1.00	1.00	6.6	22,500	2260	.84	1.00	1.00
67°F (19.4°C)	285	600	7.3	24,800	1750	.52	.64	.77	6.9	23,600	1860	.52	.65	.79	6.5	22,300	2000	.53	.67	.81	6.1	20,900	2180	.54	.69	.84
	375	800	7.8	26,700	1780	.55	.69	.86	7.4	25,300	1910	.56	.71	.88	7.0	23,900	2060	.57	.73	.91	6.6	22,400	2260	.58	.77	.95
	470	1000	8.2	28,100	1810	.58	.74	.95	7.8	26,600	1930	.59	.77	.98	7.3	25,000	2100	.60	.81	1.00	6.9	23,400	2310	.62	.85	1.00
71°F (21.7°C)	285	600	7.6	25,900	1770	.39	.51	.64	7.2	24,600	1890	.39	.52	.65	6.8	23,300	2040	.40	.53	.66	6.4	22,000	2240	.40	.54	.68
	375	800	8.2	28,000	1800	.40	.54	.69	7.8	26,600	1930	.41	.55	.70	7.4	25,100	2100	.41	.57	.72	6.9	23,600	2320	.42	.58	.74
	470	1000	8.6	29,400	1820	.42	.57	.74	8.2	27,900	1960	.42	.59	.76	7.7	26,300	2140	.42	.60	.79	7.2	24,700	2370	.43	.63	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-261 COOLING CAPACITY WITH CH22-31 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	285	600	6.6	22,400	1710	.65	.80	.94	6.5	22,300	1830	.66	.82	.96	6.2	21,000	1960	.68	.86	1.00	5.8	19,700	2130	.69	.89	1.00
	375	800	7.3	24,800	1740	.70	.89	1.00	7.0	24,000	1870	.72	.92	1.00	6.6	22,500	2010	.74	.96	1.00	6.2	21,000	2200	.77	1.00	1.00
	470	1000	7.6	26,000	1760	.77	.97	1.00	7.4	25,200	1900	.79	1.00	1.00	7.0	23,800	2060	.81	1.00	1.00	6.6	22,500	2260	.84	1.00	1.00
67°F (19.4°C)	285	600	7.1	24,200	1730	.52	.64	.77	6.9	23,600	1860	.52	.65	.79	6.5	22,300	2000	.53	.67	.81	6.1	20,900	2180	.54	.69	.84
	375	800	7.6	26,100	1760	.55	.69	.86	7.4	25,300	1910	.56	.71	.88	7.0	23,900	2060	.57	.73	.91	6.6	22,400	2260	.58	.77	.95
	470	1000	8.1	27,500	1790	.58	.74	.95	7.8	26,600	1930	.59	.77	.98	7.3	25,000	2100	.60	.81	1.00	6.9	23,400	2310	.62	.85	1.00
71°F (21.7°C)	285	600	7.4	25,300	1750	.39	.51	.64	7.2	24,600	1890	.39	.52	.65	6.8	23,300	2040	.40	.53	.66	6.4	22,000	2240	.40	.54	.68
	375	800	8.0	27,400	1780	.40	.54	.69	7.8	26,600	1930	.41	.55	.70	7.4	25,100	2100	.41	.57	.72	6.9	23,600	2320	.42	.58	.74
	470	1000	8.4	28,800	1800	.42	.57	.74	8.2	27,900	1960	.42	.59	.76	7.7	26,300	2140	.42	.60	.79	7.2	24,700	2370	.43	.63	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-261 HEATING CAPACITY WITH CH22-31 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
285	600	8.5	28,900	1940	6.1	20,900	1690	3.8	12,900	1440	2.2	7600	1180	1.0	3400	895
375	800	8.8	29,900	1895	6.4	22,000	1645	4.1	13,900	1395	2.5	8600	1130	1.3	4400	850
470	1000	9.1	31,200	1860	6.8	23,300	1610	4.5	15,300	1365	2.9	10,000	1100	1.7	5700	820

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-261 HEATING PERFORMANCE at 800 cfm (375 L/s) Indoor Coil Air Volume (CH22-31)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1895	29,900	8.8
60	16	1830	28,000	8.2
55	13	1770	26,000	7.6
50	10	1710	24,100	7.1
47	8	1670	22,900	6.7
45	7	1645	22,000	6.4
40	4	1580	19,700	5.8
35	2	1515	17,400	5.1
30	-1	1455	15,600	4.6
25	-4	1395	13,900	4.1
20	-7	1335	12,200	3.6
17	-8	1300	11,200	3.3
15	-9	1270	10,700	3.1
10	-12	1200	9700	2.8
5	-15	1130	8600	2.5
0	-18	1060	7600	2.2
-5	-21	990	6500	1.9
-10	-23	920	5500	1.6
-15	-26	850	4400	1.3
-20	-29	780	3300	1.0

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-261 COOLING CAPACITY WITH C22-31(FC), C22-31W(FC), CR22-31/B24 OR CR22-31W/B24 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	285	600	7.0	24,000	1740	.65	.79	.94	6.7	22,700	1850	.66	.82	.97	6.2	21,300	1980	.68	.85	1.00	5.8	19,900	2140	.69	.89	1.00
	375	800	7.6	25,800	1770	.70	.89	1.00	7.1	24,300	1890	.72	.93	1.00	6.7	22,700	2030	.75	.97	1.00	6.2	21,300	2210	.77	1.00	1.00
	470	1000	7.9	27,100	1790	.77	.98	1.00	7.5	25,500	1910	.79	1.00	1.00	7.1	24,100	2080	.82	1.00	1.00	6.7	22,800	2280	.85	1.00	1.00
67°F (19.4°C)	285	600	7.5	25,600	1770	.51	.63	.77	7.1	24,200	1880	.52	.65	.79	6.7	22,800	2030	.53	.66	.81	6.3	21,400	2220	.54	.68	.84
	375	800	8.1	27,500	1800	.55	.69	.85	7.6	25,900	1930	.56	.71	.88	7.2	24,400	2080	.57	.73	.91	6.7	22,800	2280	.58	.76	.95
	470	1000	8.4	28,700	1820	.58	.75	.94	7.9	27,100	1950	.59	.78	.98	7.4	25,400	2120	.60	.81	1.00	6.9	23,700	2330	.62	.85	1.00
71°F (21.7°C)	285	600	7.9	27,100	1790	.39	.51	.63	7.5	25,700	1920	.39	.52	.65	7.1	24,200	2080	.40	.52	.66	6.7	22,700	2280	.40	.54	.67
	375	800	8.5	29,100	1820	.40	.54	.68	8.1	27,500	1960	.41	.55	.70	7.6	25,900	2130	.41	.56	.72	7.1	24,200	2360	.41	.58	.74
	470	1000	8.9	30,400	1840	.41	.57	.74	8.4	28,700	1980	.42	.59	.76	7.9	27,000	2170	.42	.60	.79	7.4	25,200	2400	.43	.62	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-261 COOLING CAPACITY WITH C22-31(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	285	600	7.0	23,400	1720	.65	.79	.94	6.7	22,700	1850	.66	.82	.97	6.2	21,300	1980	.68	.85	1.00	5.8	19,900	2140	.69	.89	1.00
	375	800	7.6	25,200	1750	.70	.89	1.00	7.1	24,300	1890	.72	.93	1.00	6.7	22,700	2030	.75	.97	1.00	6.2	21,300	2210	.77	1.00	1.00
	470	1000	7.9	26,500	1770	.77	.98	1.00	7.5	25,500	1910	.79	1.00	1.00	7.1	24,100	2080	.82	1.00	1.00	6.7	22,800	2280	.85	1.00	1.00
67°F (19.4°C)	285	600	7.5	25,000	1750	.51	.63	.77	7.1	24,200	1880	.52	.65	.79	6.7	22,800	2030	.53	.66	.81	6.3	21,400	2220	.54	.68	.84
	375	800	8.1	26,700	1780	.55	.69	.85	7.6	25,900	1930	.56	.71	.88	7.2	24,400	2080	.57	.73	.91	6.7	22,800	2280	.58	.76	.95
	470	1000	8.4	28,100	1800	.58	.75	.94	7.9	27,100	1950	.59	.78	.98	7.4	25,400	2120	.60	.81	1.00	6.9	23,700	2330	.62	.85	1.00
71°F (21.7°C)	285	600	7.9	26,500	1770	.39	.51	.63	7.5	25,700	1920	.39	.52	.65	7.1	24,200	2080	.40	.52	.66	6.7	22,700	2280	.40	.54	.67
	375	800	8.5	28,500	1800	.40	.54	.68	8.1	27,500	1960	.41	.55	.70	7.6	25,900	2130	.41	.56	.72	7.1	24,200	2360	.41	.58	.74
	470	1000	8.9	39,800	1820	.41	.57	.74	8.4	28,700	1980	.42	.59	.76	7.9	27,000	2170	.42	.60	.79	7.4	25,200	2400	.43	.62	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-261 HEATING CAPACITY WITH C22-31(FC), C22-31W(FC), CR22-31/B24 OR CR22-31W/B24 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
285	600	8.6	29,500	1905	6.2	21,000	1685	3.6	12,200	1470	2.1	7100	1200	0.9	3100	915
375	800	9.0	30,700	1860	6.5	22,100	1640	3.9	13,400	1420	2.4	8300	1155	1.2	4200	870
470	1000	9.4	32,100	1825	6.9	23,600	1610	4.3	14,800	1390	2.9	9800	1125	1.7	5700	835

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-261 HEATING PERFORMANCE at 800 cfm (375 L/s) Indoor Coil Air Volume (C22-31(FC) or CR22-31/B24)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	1860	30,700	9.0
60	16	1800	28,600	8.4
55	13	1745	26,500	7.8
50	10	1690	24,500	7.2
47	8	1660	23,200	6.8
45	7	1640	22,100	6.5
40	4	1590	19,400	5.7
35	2	1540	16,700	4.9
30	-1	1480	15,000	4.4
25	-4	1420	13,400	3.9
20	-7	1365	11,700	3.4
17	-8	1330	10,700	3.1
15	-9	1300	10,300	3.0
10	-12	1225	9300	2.7
5	-15	1155	8300	2.4
0	-18	1085	7300	2.1
-5	-21	1010	6300	1.8
-10	-23	940	5300	1.6
-15	-26	870	4200	1.2
-20	-29	795	3200	0.9

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-311 COOLING CAPACITY WITH CVP10-26/EC10Q3 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	460	975	8.7	29,600	2340	.77	.93	1.00	8.3	28,300	2520	.78	.95	1.00	7.9	26,800	2700	.80	.98	1.00	7.4	25,400	2870	.82	1.00	1.00
	505	1075	8.9	30,400	2360	.79	.96	1.00	8.5	28,900	2540	.81	.98	1.00	8.0	27,400	2730	.83	1.00	1.00	7.6	26,100	2920	.84	1.00	1.00
	555	1175	9.1	30,900	2370	.82	.99	1.00	8.6	29,500	2570	.83	1.00	1.00	8.2	28,100	2760	.85	1.00	1.00	7.8	26,600	2950	.87	1.00	1.00
67°F (19.4°C)	460	975	9.3	31,700	2400	.60	.75	.90	8.8	30,100	2590	.61	.77	.92	8.4	28,500	2780	.62	.79	.94	7.9	26,800	2960	.63	.82	.96
	505	1075	9.4	32,200	2410	.62	.78	.93	9.0	30,700	2610	.62	.80	.95	8.5	29,000	2800	.64	.82	.97	8.0	27,200	2990	.65	.85	1.00
	555	1175	9.6	32,700	2420	.63	.80	.96	9.1	31,000	2620	.64	.82	.98	8.6	29,300	2820	.65	.85	1.00	8.1	27,600	3010	.67	.88	1.00
71°F (21.7°C)	460	975	9.8	33,600	2450	.45	.59	.75	9.4	32,000	2660	.45	.60	.76	8.9	30,400	2860	.45	.61	.78	8.4	28,600	3070	.46	.63	.79
	505	1075	10.1	34,400	2460	.45	.60	.77	9.6	32,600	2680	.46	.62	.78	9.0	30,800	2890	.46	.63	.80	8.5	29,100	3090	.46	.65	.82
	555	1175	10.2	34,800	2480	.46	.62	.79	9.7	33,100	2690	.46	.63	.81	9.2	31,300	2910	.47	.65	.83	8.6	29,400	3120	.47	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-311 HEATING CAPACITY WITH CVP10-26/EC10Q3 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
460	975	11.0	37,600	2460	8.3	28,400	2090	5.6	19,000	1715	3.6	12,400	1370	1.8	6200	1035
505	1075	11.1	37,900	2435	8.4	28,700	2060	5.6	19,300	1690	3.7	12,600	1345	1.9	6400	1010
555	1175	11.2	38,200	2405	8.5	29,000	2035	5.7	19,600	1665	3.8	12,900	1315	2.0	6800	980

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-311 HEATING PERFORMANCE at 1075 cfm (505 L/s) Indoor Coil Air Volume (CVP10-26/EC10Q3)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2435	37,900	11.1
60	16	2340	35,700	10.5
55	13	2250	33,400	9.8
50	10	2155	31,200	9.1
47	8	2100	29,800	8.7
45	7	2060	28,700	8.4
40	4	1970	25,800	7.6
35	2	1875	23,000	6.7
30	-1	1780	21,200	6.2
25	-4	1690	19,300	5.7
20	-7	1600	17,400	5.1
17	-8	1545	16,300	4.8
15	-9	1510	15,700	4.6
10	-12	1425	14,200	4.2
5	-15	1345	12,600	3.7
0	-18	1260	11,100	3.3
-5	-21	1175	9500	2.8
-10	-23	1095	8000	2.3
-15	-26	1010	6400	1.9
-20	-29	925	4900	1.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-311 COOLING CAPACITY WITH C22-31(FC), C22-31W(FC), CR22-31/B24 OR CR22-31W/B24 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	375	800	8.6	29,400	2350	.69	.84	.97	8.2	28,000	2530	.70	.86	.99	7.7	26,400	2710	.72	.89	1.00	7.3	24,900	2880	.74	.92	1.00
	470	1000	9.1	30,900	2390	.74	.91	1.00	8.6	29,200	2580	.76	.94	1.00	8.1	27,700	2770	.77	.97	1.00	7.6	26,100	2960	.80	1.00	1.00
	565	1200	9.4	32,000	2420	.79	.97	1.00	8.9	30,400	2620	.81	.99	1.00	8.4	28,800	2830	.83	1.00	1.00	8.0	27,300	3030	.85	1.00	1.00
67°F (19.4°C)	375	800	9.1	31,200	2400	.55	.68	.81	8.7	29,700	2600	.55	.69	.83	8.2	28,100	2790	.56	.71	.85	7.8	26,500	2980	.57	.73	.88
	470	1000	9.6	32,900	2440	.57	.72	.88	9.1	31,200	2650	.58	.74	.90	8.6	29,500	2850	.59	.76	.93	8.1	27,700	3050	.60	.79	.96
	565	1200	10.0	34,000	2470	.60	.77	.95	9.4	32,200	2690	.61	.79	.97	8.9	30,400	2900	.62	.82	1.00	8.4	28,500	3110	.64	.85	1.00
71°F (21.7°C)	375	800	9.7	33,000	2440	.41	.54	.68	9.2	31,400	2660	.41	.55	.69	8.7	29,800	2870	.42	.56	.70	8.2	28,100	3080	.42	.57	.72
	470	1000	10.2	34,700	2490	.42	.57	.72	9.7	33,000	2710	.42	.58	.73	9.1	31,200	2930	.43	.59	.75	8.6	29,400	3160	.43	.60	.77
	565	1200	10.5	35,900	2520	.43	.59	.76	10.0	34,100	2750	.44	.61	.78	9.4	32,200	2980	.44	.62	.80	8.9	30,300	3210	.45	.64	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-311 COOLING CAPACITY WITH C22-31(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	375	800	8.4	28,700	2340	.69	.84	.97	8.2	28,000	2530	.70	.86	.99	7.7	26,400	2710	.72	.89	1.00	7.3	24,900	2880	.74	.92	1.00
	470	1000	8.8	30,200	2380	.74	.91	1.00	8.6	29,200	2580	.76	.94	1.00	8.1	27,700	2770	.77	.97	1.00	7.6	26,100	2960	.80	1.00	1.00
	565	1200	9.2	31,300	2410	.79	.97	1.00	8.9	30,400	2620	.81	.99	1.00	8.4	28,800	2830	.83	1.00	1.00	8.0	27,300	3030	.85	1.00	1.00
67°F (19.4°C)	375	800	8.9	30,500	2390	.55	.68	.81	8.7	29,700	2600	.55	.69	.83	8.2	28,100	2790	.56	.71	.85	7.8	26,500	2980	.57	.73	.88
	470	1000	9.4	32,200	2430	.57	.72	.88	9.1	31,200	2650	.58	.74	.90	8.6	29,500	2850	.59	.76	.93	8.1	27,700	3050	.60	.79	.96
	565	1200	9.8	33,300	2460	.60	.77	.95	9.4	32,200	2690	.61	.79	.97	8.9	30,400	2900	.62	.82	1.00	8.4	28,500	3110	.64	.85	1.00
71°F (21.7°C)	375	800	9.5	32,300	2430	.41	.54	.68	9.2	31,400	2660	.41	.55	.69	8.7	29,800	2870	.42	.56	.70	8.2	28,100	3080	.42	.57	.72
	470	1000	10.0	34,000	2480	.42	.57	.72	9.7	33,000	2710	.42	.58	.73	9.1	31,200	2930	.43	.59	.75	8.6	29,400	3160	.43	.60	.77
	565	1200	10.3	35,200	2510	.43	.59	.76	10.0	34,100	2750	.44	.61	.78	9.4	32,200	2980	.44	.62	.80	8.9	30,300	3210	.45	.64	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-311 HEATING CAPACITY WITH C22-31(FC), C22-31W(FC), CR22-31/B24 OR CR22-31W/B24 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
375	800	11.0	37,500	2605	8.1	27,800	2210	5.3	18,100	1820	3.3	11,400	1460	1.6	5400	1115
470	1000	11.2	38,300	2530	8.4	28,700	2140	5.5	18,900	1750	3.6	12,200	1390	1.8	6200	1045
565	1200	11.0	37,600	2475	8.2	28,000	2085	5.3	18,200	1695	3.4	11,500	1335	1.6	5500	990

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-311 HEATING PERFORMANCE at 1000 cfm (470 L/s) Indoor Coil Air Volume (C22-31(FC) or CR22-31/B24)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2530	38,300	11.2
60	16	2435	36,000	10.6
55	13	2335	33,600	9.8
50	10	2240	31,300	9.2
47	8	2180	29,900	8.8
45	7	2140	28,700	8.4
40	4	2040	25,800	7.6
35	2	1940	22,900	6.7
30	-1	1845	20,900	6.1
25	-4	1750	18,900	5.5
20	-7	1650	17,000	5.0
17	-8	1595	15,800	4.6
15	-9	1560	15,200	4.5
10	-12	1475	13,700	4.0
5	-15	1390	12,200	3.6
0	-18	1300	10,700	3.1
-5	-21	1215	9200	2.7
-10	-23	1130	7700	2.3
-15	-26	1045	6200	1.8
-20	-29	955	4700	1.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-311 WITH CH22-31 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	375	800	8.4	28,700	2330	.69	.84	.97	8.0	27,400	2510	.70	.86	.99	7.6	26,000	2700	.71	.89	1.00	7.2	24,500	2870	.73	.92	1.00
	470	1000	8.9	30,300	2370	.73	.90	1.00	8.5	28,900	2570	.75	.93	1.00	8.0	27,200	2750	.77	.96	1.00	7.6	25,800	2940	.79	.99	1.00
	565	1200	9.2	31,400	2400	.78	.96	1.00	8.7	29,800	2600	.80	.99	1.00	8.3	28,400	2810	.82	1.00	1.00	7.9	27,000	3010	.84	1.00	1.00
67°F (19.4°C)	375	800	8.9	30,200	2370	.55	.68	.81	8.4	28,800	2570	.55	.69	.83	8.0	27,400	2760	.56	.71	.85	7.6	25,900	2950	.57	.73	.87
	470	1000	9.3	31,900	2420	.57	.72	.88	8.9	30,400	2620	.58	.74	.90	8.5	28,900	2830	.59	.76	.92	8.0	27,200	3030	.60	.79	.95
	565	1200	9.7	33,100	2450	.60	.76	.94	9.2	31,500	2660	.61	.78	.97	8.8	29,900	2870	.62	.81	1.00	8.2	28,100	3080	.63	.84	1.00
71°F (21.7°C)	375	800	9.3	31,600	2410	.41	.54	.68	8.9	30,200	2610	.41	.55	.69	8.4	28,700	2820	.42	.56	.70	8.0	27,200	3030	.42	.57	.72
	470	1000	9.8	33,400	2460	.42	.57	.72	9.3	31,800	2670	.42	.58	.73	8.9	30,300	2890	.43	.59	.75	8.4	28,600	3110	.43	.61	.77
	565	1200	10.2	34,700	2490	.43	.59	.76	9.7	33,100	2710	.44	.61	.78	9.2	31,400	2940	.44	.62	.80	8.7	29,600	3170	.45	.64	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-311 WITH CH22-31 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	375	800	8.2	28,000	2320	.69	.84	.97	8.0	27,400	2510	.70	.86	.99	7.6	26,000	2700	.71	.89	1.00	7.2	24,500	2870	.73	.92	1.00
	470	1000	8.7	29,600	2360	.73	.90	1.00	8.5	28,900	2570	.75	.93	1.00	8.0	27,200	2750	.77	.96	1.00	7.6	25,800	2940	.79	.99	1.00
	565	1200	9.0	30,700	2390	.78	.96	1.00	8.7	29,800	2600	.80	.99	1.00	8.3	28,400	2810	.82	1.00	1.00	7.9	27,000	3010	.84	1.00	1.00
67°F (19.4°C)	375	800	8.6	29,500	2360	.55	.68	.81	8.4	28,800	2570	.55	.69	.83	8.0	27,400	2760	.56	.71	.85	7.6	25,900	2950	.57	.73	.87
	470	1000	9.1	31,200	2410	.57	.72	.88	8.9	30,400	2620	.58	.74	.90	8.5	28,900	2830	.59	.76	.92	8.0	27,200	3030	.60	.79	.95
	565	1200	9.5	32,400	2440	.60	.76	.94	9.2	31,500	2660	.61	.78	.97	8.8	29,900	2870	.62	.81	1.00	8.2	28,100	3080	.63	.84	1.00
71°F (21.7°C)	375	800	9.1	30,900	2400	.41	.54	.68	8.9	30,200	2610	.41	.55	.69	8.4	28,700	2820	.42	.56	.70	8.0	27,200	3030	.42	.57	.72
	470	1000	9.6	32,700	2450	.42	.57	.72	9.3	31,800	2670	.42	.58	.73	8.9	30,300	2890	.43	.59	.75	8.4	28,600	3110	.43	.61	.77
	565	1200	10.0	34,000	2480	.43	.59	.76	9.7	33,100	2710	.44	.61	.78	9.2	31,400	2940	.44	.62	.80	8.7	29,600	3170	.45	.64	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-311 HEATING CAPACITY WITH CH22-31 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
375	800	10.6	36,200	2720	7.9	26,800	2310	5.1	17,400	1905	3.0	10,400	1535	1.3	4400	1190
470	1000	11.1	38,000	2570	8.4	28,700	2165	5.6	19,200	1755	3.6	12,200	1390	1.8	6200	1045
565	1200	11.1	37,900	2550	8.4	28,500	2145	5.6	19,100	1735	3.5	12,100	1370	1.8	6100	1025

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-311 HEATING PERFORMANCE at 1000 cfm (470 L/s) Indoor Coil Air Volume (CH22-31)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2570	38,000	11.1
60	16	2470	35,700	10.5
55	13	2365	33,400	9.8
50	10	2265	31,100	9.1
47	8	2205	29,700	8.7
45	7	2165	28,700	8.4
40	4	2060	26,100	7.6
35	2	1955	23,500	6.9
30	-1	1855	21,400	6.3
25	-4	1755	19,200	5.6
20	-7	1655	17,100	5.0
17	-8	1595	15,800	4.6
15	-9	1560	15,200	4.5
10	-12	1475	13,700	4.0
5	-15	1390	12,200	3.6
0	-18	1300	10,700	3.1
-5	-21	1215	9200	2.7
-10	-23	1130	7700	2.3
-15	-26	1045	6200	1.8
-20	-29	955	4700	1.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-311 COOLING CAPACITY WITH CR18-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	460	975	8.7	29,800	2340	.75	.91	1.00	8.3	28,400	2520	.77	.93	1.00	7.9	26,900	2700	.78	.96	1.00	7.4	25,300	2870	.80	.98	1.00
	505	1075	8.9	30,400	2360	.78	.94	1.00	8.5	28,900	2550	.79	.96	1.00	8.0	27,400	2720	.81	.98	1.00	7.6	25,900	2900	.83	1.00	1.00
	555	1175	9.1	31,000	2380	.80	.96	1.00	8.6	29,400	2570	.81	.98	1.00	8.2	28,000	2750	.83	1.00	1.00	7.7	26,400	2940	.85	1.00	1.00
67°F (19.4°C)	460	975	9.3	31,700	2400	.59	.74	.88	8.9	30,200	2590	.60	.75	.90	8.4	28,500	2780	.61	.77	.92	7.9	26,800	2960	.62	.80	.94
	505	1075	9.5	32,300	2410	.60	.76	.91	9.0	30,700	2610	.61	.78	.93	8.5	29,000	2800	.62	.80	.95	8.0	27,300	2990	.64	.82	.98
	555	1175	9.6	32,900	2430	.62	.78	.94	9.1	31,200	2630	.63	.80	.96	8.6	29,500	2820	.64	.82	.99	8.1	27,700	3010	.65	.85	1.00
71°F (21.7°C)	460	975	9.8	33,600	2440	.44	.58	.73	9.4	32,000	2650	.44	.59	.75	8.9	30,300	2860	.44	.60	.76	8.4	28,500	3060	.45	.62	.78
	505	1075	10.0	34,200	2460	.44	.59	.75	9.6	32,600	2670	.45	.61	.77	9.1	30,900	2890	.45	.62	.79	8.5	29,100	3090	.46	.63	.80
	555	1175	10.2	34,800	2480	.45	.61	.78	9.7	33,100	2690	.45	.62	.79	9.2	31,300	2910	.46	.64	.81	8.6	29,500	3120	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-311 COOLING CAPACITY WITH CVP10-31/EC10Q3 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	460	975	8.7	29,800	2340	.75	.91	1.00	8.3	28,300	2520	.77	.93	1.00	7.9	26,800	2700	.79	.96	1.00	7.4	25,300	2860	.80	.98	1.00
	505	1075	8.9	30,400	2360	.78	.94	1.00	8.4	28,800	2540	.79	.96	1.00	8.0	27,300	2720	.81	.99	1.00	7.6	25,900	2900	.83	1.00	1.00
	555	1175	9.1	30,900	2370	.80	.96	1.00	8.6	29,400	2560	.82	.99	1.00	8.2	27,900	2750	.83	1.00	1.00	7.8	26,600	2940	.85	1.00	1.00
67°F (19.4°C)	460	975	9.3	31,700	2400	.59	.73	.88	8.9	30,300	2590	.60	.75	.90	8.4	28,600	2780	.61	.77	.92	7.9	27,000	2970	.62	.80	.94
	505	1075	9.5	32,400	2410	.60	.76	.91	9.0	30,800	2610	.61	.77	.93	8.6	29,200	2810	.62	.80	.95	8.0	27,400	2990	.63	.82	.98
	555	1175	9.6	32,900	2430	.62	.78	.94	9.2	31,300	2630	.63	.80	.96	8.6	29,500	2830	.64	.82	.99	8.1	27,800	3020	.65	.85	1.00
71°F (21.7°C)	460	975	9.9	33,900	2450	.44	.58	.73	9.4	32,200	2660	.44	.59	.75	9.0	30,600	2870	.44	.60	.76	8.4	28,800	3080	.45	.62	.78
	505	1075	10.1	34,500	2470	.44	.59	.75	9.6	32,800	2680	.45	.60	.77	9.1	31,100	2900	.45	.62	.78	8.6	29,300	3100	.45	.63	.80
	555	1175	10.3	35,000	2480	.45	.61	.77	9.8	33,300	2700	.45	.62	.79	9.2	31,500	2920	.46	.63	.81	8.7	29,700	3130	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-311 HEATING CAPACITY WITH CR18-41 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
460	975	11.0	37,400	2495	8.3	28,200	2115	5.5	18,900	1730	3.6	12,300	1380	1.8	6100	1045
505	1075	11.0	37,600	2470	8.4	28,500	2085	5.6	19,200	1705	3.7	12,600	1355	1.9	6400	1015
555	1175	11.1	38,000	2440	8.4	28,800	2060	5.7	19,500	1680	3.8	12,900	1330	2.0	6700	990

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-311 HEATING CAPACITY WITH CVP10-31/EC10Q3 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
460	975	11.0	37,600	2460	8.3	28,400	2090	5.6	19,000	1720	3.6	12,400	1370	1.8	6200	1035
505	1075	11.1	37,800	2435	8.4	28,600	2065	5.7	19,300	1695	3.7	12,600	1345	1.9	6500	1010
555	1175	11.2	38,100	2410	8.5	29,000	2040	5.7	19,600	1665	3.8	13,000	1320	2.0	6800	985

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-311 HEATING PERFORMANCE at 1075 cfm (505 L/s) Indoor Coil Air Volume (CR18-41)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2470	37,600	11.0
60	16	2375	35,400	10.4
55	13	2280	33,200	9.7
50	10	2185	31,000	9.1
47	8	2125	29,600	8.7
45	7	2085	28,500	8.4
40	4	1990	25,700	7.5
35	2	1895	22,900	6.7
30	-1	1800	21,000	6.2
25	-4	1705	19,200	5.6
20	-7	1610	17,400	5.1
17	-8	1555	16,200	4.7
15	-9	1520	15,600	4.6
10	-12	1440	14,100	4.1
5	-15	1355	12,600	3.7
0	-18	1270	11,000	3.2
-5	-21	1185	9500	2.8
-10	-23	1100	7900	2.3
-15	-26	1015	6400	1.9
-20	-29	935	4900	1.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

HP23-311 HEATING PERFORMANCE at 1075 cfm (505 L/s) Indoor Coil Air Volume (CVP10-31/EC10Q3)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2435	37,800	11.1
60	16	2340	35,600	10.4
55	13	2250	33,300	9.8
50	10	2155	31,100	9.1
47	8	2100	29,800	8.7
45	7	2065	28,600	8.4
40	4	1970	25,800	7.6
35	2	1875	23,000	6.7
30	-1	1785	21,200	6.2
25	-4	1695	19,300	5.7
20	-7	1600	17,500	5.1
17	-8	1545	16,400	4.8
15	-9	1515	15,700	4.6
10	-12	1430	14,200	4.2
5	-15	1345	12,600	3.7
0	-18	1260	11,100	3.3
-5	-21	1180	9500	2.8
-10	-23	1095	8000	2.3
-15	-26	1010	6500	1.9
-20	-29	930	4900	1.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-311 WITH CH22-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	375	800	8.5	29,100	2340	.70	.84	.98	8.1	27,800	2530	.71	.87	1.00	7.7	26,300	2710	.72	.90	1.00	7.3	24,800	2880	.74	.93	1.00
	470	1000	9.0	30,700	2380	.74	.91	1.00	8.6	29,200	2580	.76	.94	1.00	8.1	27,500	2770	.78	.97	1.00	7.6	26,100	2960	.80	1.00	1.00
	565	1200	9.3	31,700	2410	.79	.97	1.00	8.9	30,200	2620	.81	1.00	1.00	8.5	28,900	2830	.83	1.00	1.00	8.0	27,400	3040	.85	1.00	1.00
67°F (19.4°C)	375	800	8.9	30,500	2380	.55	.69	.82	8.6	29,200	2580	.56	.70	.84	8.1	27,800	2770	.56	.71	.86	7.7	26,200	2960	.57	.73	.88
	470	1000	9.5	32,300	2430	.58	.73	.89	9.0	30,800	2630	.59	.74	.91	8.6	29,200	2840	.60	.77	.93	8.1	27,500	3040	.61	.80	.96
	565	1200	9.8	33,500	2460	.60	.77	.95	9.3	31,900	2670	.61	.79	.98	8.9	30,200	2890	.63	.82	1.00	8.4	28,500	3100	.64	.86	1.00
71°F (21.7°C)	375	800	9.3	31,900	2420	.41	.54	.69	9.0	30,600	2630	.42	.55	.70	8.5	29,000	2830	.42	.56	.71	8.1	27,500	3040	.42	.57	.72
	470	1000	9.9	33,800	2470	.42	.57	.73	9.5	32,300	2680	.43	.58	.74	9.0	30,700	2910	.43	.60	.76	8.5	29,000	3130	.44	.61	.77
	565	1200	10.3	35,100	2500	.44	.60	.77	9.8	33,500	2730	.44	.61	.79	9.3	31,800	2960	.44	.63	.81	8.8	29,900	3190	.45	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-311 WITH CH22-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	375	800	8.3	28,400	2330	.70	.84	.98	8.1	27,800	2530	.71	.87	1.00	7.7	26,300	2710	.72	.90	1.00	7.3	24,800	2880	.74	.93	1.00
	470	1000	8.8	30,000	2370	.74	.91	1.00	8.6	29,200	2580	.76	.94	1.00	8.1	27,500	2770	.78	.97	1.00	7.6	26,100	2960	.80	1.00	1.00
	565	1200	9.1	31,000	2400	.79	.97	1.00	8.9	30,200	2620	.81	1.00	1.00	8.5	28,900	2830	.83	1.00	1.00	8.0	27,400	3040	.85	1.00	1.00
67°F (19.4°C)	375	800	8.7	29,800	2370	.55	.69	.82	8.6	29,200	2580	.56	.70	.84	8.1	27,800	2770	.56	.71	.86	7.7	26,200	2960	.57	.73	.88
	470	1000	9.3	31,600	2420	.58	.73	.89	9.0	30,800	2630	.59	.74	.91	8.6	29,200	2840	.60	.77	.93	8.1	27,500	3040	.61	.80	.96
	565	1200	9.6	32,800	2450	.60	.77	.95	9.3	31,900	2670	.61	.79	.98	8.9	30,200	2890	.63	.82	1.00	8.4	28,500	3100	.64	.86	1.00
71°F (21.7°C)	375	800	9.1	31,200	2410	.41	.54	.69	9.0	30,600	2630	.42	.55	.70	8.5	29,000	2830	.42	.56	.71	8.1	27,500	3040	.42	.57	.72
	470	1000	9.7	33,100	2460	.42	.57	.73	9.5	32,300	2680	.43	.58	.74	9.0	30,700	2910	.43	.60	.76	8.5	29,000	3130	.44	.61	.77
	565	1200	10.1	34,400	2490	.44	.60	.77	9.8	33,500	2730	.44	.61	.79	9.3	31,800	2960	.44	.63	.81	8.8	29,900	3190	.45	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-311 HEATING CAPACITY WITH CH22-41 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
375	800	11.0	37,500	2590	8.2	27,900	2200	5.3	18,200	1815	3.3	11,400	1455	1.6	5400	1115
470	1000	11.3	38,400	2515	8.4	28,800	2125	5.6	19,000	1735	3.6	12,300	1375	1.8	6300	1035
565	1200	11.5	39,100	2460	8.6	29,500	2070	5.8	19,700	1685	3.8	13,000	1325	2.1	7000	985

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-311 HEATING PERFORMANCE at 1000 cfm (470 L/s) Indoor Coil Air Volume (CH22-41)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2515	38,400	11.3
60	16	2415	36,100	10.6
55	13	2320	33,700	9.9
50	10	2220	31,400	9.2
47	8	2165	30,000	8.8
45	7	2125	28,800	8.4
40	4	2025	25,900	7.6
35	2	1930	22,900	6.7
30	-1	1830	21,000	6.2
25	-4	1735	19,000	5.6
20	-7	1640	17,100	5.0
17	-8	1585	15,900	4.7
15	-9	1550	15,300	4.5
10	-12	1465	13,800	4.0
5	-15	1375	12,300	3.6
0	-18	1290	10,800	3.2
-5	-21	1205	9300	2.7
-10	-23	1120	7800	2.3
-15	-26	1035	6300	1.8
-20	-29	950	4800	1.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-311 COOLING CAPACITY WITH CB19-31 OR CBH19-31 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	460	975	9.1	30,900	2370	.77	.93	1.00	8.6	29,400	2560	.79	.95	1.00	8.2	27,900	2750	.80	.98	1.00	7.7	26,300	2930	.82	1.00	1.00
	505	1075	9.3	31,600	2390	.79	.96	1.00	8.8	30,100	2590	.81	.98	1.00	8.4	28,600	2780	.83	1.00	1.00	7.9	27,000	2970	.85	1.00	1.00
	555	1175	9.4	32,200	2410	.82	.98	1.00	9.0	30,700	2610	.83	1.00	1.00	8.6	29,200	2810	.85	1.00	1.00	8.1	27,700	3010	.87	1.00	1.00
67°F (19.4°C)	460	975	9.6	32,700	2420	.60	.76	.90	9.1	31,100	2620	.61	.77	.92	8.6	29,400	2820	.62	.80	.94	8.1	27,600	3010	.63	.82	.97
	505	1075	9.8	33,300	2440	.62	.78	.93	9.3	31,600	2640	.63	.80	.95	8.8	29,900	2840	.64	.83	.98	8.2	28,100	3030	.65	.85	1.00
	555	1175	9.9	33,800	2450	.63	.81	.96	9.4	32,100	2660	.64	.83	.99	8.9	30,300	2860	.65	.86	1.00	8.4	28,500	3060	.67	.88	1.00
71°F (21.7°C)	460	975	10.1	34,500	2470	.45	.59	.75	9.6	32,900	2680	.45	.60	.77	9.1	31,100	2900	.46	.62	.78	8.6	29,300	3110	.46	.63	.80
	505	1075	10.3	35,200	2490	.45	.61	.77	9.8	33,500	2710	.46	.62	.79	9.3	31,700	2920	.46	.64	.81	8.7	29,800	3140	.47	.65	.83
	555	1175	10.5	35,800	2500	.46	.62	.80	10.0	34,000	2720	.46	.64	.81	9.4	32,200	2950	.47	.65	.83	8.8	30,200	3160	.47	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIII HP23-311 COOLING CAPACITY WITH CB19-31 OR CBH19-31 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	460	975	8.8	30,200	2360	.77	.93	1.00	8.6	29,400	2560	.79	.95	1.00	8.2	27,900	2750	.80	.98	1.00	7.7	26,300	2930	.82	1.00	1.00
	505	1075	9.1	30,900	2380	.79	.96	1.00	8.8	30,100	2590	.81	.98	1.00	8.4	28,600	2780	.83	1.00	1.00	7.9	27,000	2970	.85	1.00	1.00
	555	1175	9.2	31,500	2400	.82	.98	1.00	9.0	30,700	2610	.83	1.00	1.00	8.6	29,200	2810	.85	1.00	1.00	8.1	27,700	3010	.87	1.00	1.00
67°F (19.4°C)	460	975	9.4	32,000	2410	.60	.76	.90	9.1	31,100	2620	.61	.77	.92	8.6	29,400	2820	.62	.80	.94	8.1	27,600	3010	.63	.82	.97
	505	1075	9.6	32,600	2430	.62	.78	.93	9.3	31,600	2640	.63	.80	.95	8.8	29,900	2840	.64	.83	.98	8.2	28,100	3030	.65	.85	1.00
	555	1175	9.7	33,100	2440	.63	.81	.96	9.4	32,100	2660	.64	.83	.99	8.9	30,300	2860	.65	.86	1.00	8.4	28,500	3060	.67	.88	1.00
71°F (21.7°C)	460	975	9.9	33,800	2460	.45	.59	.75	9.6	32,900	2680	.45	.60	.77	9.1	31,100	2900	.46	.62	.78	8.6	29,300	3110	.46	.63	.80
	505	1075	10.1	34,500	2480	.45	.61	.77	9.8	33,500	2710	.46	.62	.79	9.3	31,700	2920	.46	.64	.81	8.7	29,800	3140	.47	.65	.83
	555	1175	10.3	35,100	2490	.46	.62	.80	10.0	34,000	2720	.46	.64	.81	9.4	32,200	2950	.47	.65	.83	8.8	30,200	3160	.47	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-311 HEATING CAPACITY WITH CB19-31 OR CBH19-31 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
460	975	11.0	37,600	2390	8.3	28,300	2040	5.5	18,900	1690	3.6	12,200	1355	1.8	6100	1025
505	1075	11.1	37,800	2365	8.4	28,600	2015	5.6	19,100	1665	3.7	12,500	1330	1.9	6400	1000
555	1175	11.2	38,100	2340	8.5	28,900	1990	5.7	19,500	1640	3.8	12,800	1305	2.0	6700	975

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-311 HEATING PERFORMANCE at 1075 cfm (505 L/s) Indoor Coil Air Volume (CB19-31 or CBH19-31)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2365	37,800	11.1
60	16	2275	35,600	10.4
55	13	2190	33,300	9.8
50	10	2105	31,100	9.1
47	8	2050	29,700	8.7
45	7	2015	28,600	8.4
40	4	1925	25,700	7.5
35	2	1840	22,900	6.7
30	-1	1750	21,000	6.2
25	-4	1665	19,100	5.6
20	-7	1580	17,300	5.1
17	-8	1530	16,100	4.7
15	-9	1495	15,500	4.5
10	-12	1410	14,000	4.1
5	-15	1330	12,500	3.7
0	-18	1245	10,900	3.2
-5	-21	1165	9400	2.8
-10	-23	1080	7900	2.3
-15	-26	1000	6400	1.9
-20	-29	915	4800	1.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-311 COOLING CAPACITY WITH C22-41(FC) OR CR22-41/B24 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	375	800	8.7	29,600	2350	.69	.84	.97	8.2	28,100	2540	.71	.87	1.00	7.8	26,600	2720	.72	.89	1.00	7.3	25,000	2890	.74	.93	1.00
	470	1000	9.1	31,200	2400	.74	.91	1.00	8.6	29,400	2590	.76	.95	1.00	8.2	27,900	2780	.78	.97	1.00	7.7	26,300	2960	.80	1.00	1.00
	565	1200	9.5	32,300	2430	.79	.98	1.00	8.9	30,300	2630	.84	1.00	1.00	8.5	29,100	2830	.83	1.00	1.00	8.1	27,600	3040	.85	1.00	1.00
67°F (19.4°C)	375	800	9.2	31,400	2400	.55	.68	.81	8.8	29,900	2600	.56	.69	.83	8.3	28,300	2800	.56	.71	.85	7.8	26,600	2990	.57	.73	.88
	470	1000	9.7	33,100	2450	.57	.72	.88	9.2	31,400	2650	.58	.74	.90	8.7	29,700	2860	.60	.76	.93	8.2	27,900	3060	.61	.79	.96
	565	1200	10.0	34,200	2480	.60	.77	.95	9.5	32,500	2690	.61	.79	.97	9.0	30,600	2910	.63	.82	1.00	8.4	28,700	3110	.64	.86	1.00
71°F (21.7°C)	375	800	9.7	33,200	2450	.41	.54	.68	9.3	31,600	2660	.42	.55	.69	8.8	30,000	2870	.42	.56	.70	8.3	28,300	3080	.42	.57	.72
	470	1000	10.3	35,000	2490	.42	.57	.72	9.8	33,300	2720	.43	.58	.73	9.2	31,500	2940	.43	.59	.75	8.7	29,600	3160	.44	.61	.77
	565	1200	10.6	36,200	2520	.44	.60	.76	10.1	34,400	2760	.44	.61	.78	9.5	32,400	2990	.44	.63	.80	8.9	30,500	3220	.45	.64	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-311 COOLING CAPACITY WITH C22-41(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	375	800	8.5	28,900	2340	.69	.84	.97	8.2	28,100	2540	.71	.87	1.00	7.8	26,600	2720	.72	.89	1.00	7.3	25,000	2890	.74	.93	1.00
	470	1000	8.9	30,500	2390	.74	.91	1.00	8.6	29,400	2590	.76	.95	1.00	8.2	27,900	2780	.78	.97	1.00	7.7	26,300	2960	.80	1.00	1.00
	565	1200	9.3	31,600	2420	.79	.98	1.00	8.9	30,300	2630	.84	1.00	1.00	8.5	29,100	2830	.83	1.00	1.00	8.1	27,600	3040	.85	1.00	1.00
67°F (19.4°C)	375	800	9.0	30,700	2390	.55	.68	.81	8.8	29,900	2600	.56	.69	.83	8.3	28,300	2800	.56	.71	.85	7.8	26,600	2990	.57	.73	.88
	470	1000	9.5	32,400	2440	.57	.72	.88	9.2	31,400	2650	.58	.74	.90	8.7	29,700	2860	.60	.76	.93	8.2	27,900	3060	.61	.79	.96
	565	1200	9.8	33,500	2470	.60	.77	.95	9.5	32,500	2690	.61	.79	.97	9.0	30,600	2910	.63	.82	1.00	8.4	28,700	3110	.64	.86	1.00
71°F (21.7°C)	375	800	9.5	32,500	2440	.41	.54	.68	9.3	31,600	2660	.42	.55	.69	8.8	30,000	2870	.42	.56	.70	8.3	28,300	3080	.42	.57	.72
	470	1000	10.0	34,300	2480	.42	.57	.72	9.8	33,300	2720	.43	.58	.73	9.2	31,500	2940	.43	.59	.75	8.7	29,600	3160	.44	.61	.77
	565	1200	10.4	35,500	2510	.44	.60	.76	10.1	34,400	2760	.44	.61	.78	9.5	32,400	2990	.44	.63	.80	8.9	30,500	3220	.45	.64	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-311 HEATING CAPACITY WITH C22-41(FC) OR CR22-41/B24 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
375	800	11.0	37,600	2220	8.2	27,900	2240	5.3	18,100	2260	3.3	11,400	1985	1.6	5400	1510
470	1000	11.3	38,500	2145	8.4	28,800	2165	5.6	19,000	2185	3.6	12,200	1910	1.8	6200	1435
565	1200	11.5	39,100	2095	8.6	29,500	2115	5.7	19,600	2135	3.8	12,900	1860	2.0	6900	1385

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-311 HEATING PERFORMANCE at 1000 cfm (470 L/s) Indoor Coil Air Volume (C22-41(FC) or CR22-41/B24)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2145	38,500	11.3
60	16	2150	36,100	10.6
55	13	2155	33,800	9.9
50	10	2160	31,400	9.2
47	8	2165	30,000	8.8
45	7	2165	28,800	8.4
40	4	2170	25,900	7.6
35	2	2175	22,900	6.7
30	-1	2180	20,900	6.1
25	-4	2185	19,000	5.6
20	-7	2195	17,000	5.0
17	-8	2195	15,800	4.6
15	-9	2150	15,200	4.5
10	-12	2030	13,700	4.0
5	-15	1910	12,200	3.6
0	-18	1795	10,700	3.1
-5	-21	1675	9200	2.7
-10	-23	1555	7700	2.3
-15	-26	1435	6200	1.8
-20	-29	1320	4700	1.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS — U.S. HP23-411-413 AND CANADA HP23-413

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-411-413 COOLING CAPACITY WITH CVP10-31/EC10Q3 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	545	1150	10.1	34,400	2910	.73	.88	1.00	9.5	32,500	3120	.75	.91	1.00	9.0	30,600	3320	.77	.93	1.00	8.4	28,700	3510	.79	.97	1.00
	615	1300	10.3	35,300	2940	.76	.92	1.00	9.8	33,300	3150	.78	.94	1.00	9.2	31,300	3360	.80	.97	1.00	8.6	29,400	3560	.82	1.00	1.00
	685	1450	10.5	35,900	2960	.79	.95	1.00	10.0	34,100	3180	.81	.97	1.00	9.4	32,100	3390	.83	1.00	1.00	8.9	30,300	3620	.85	1.00	1.00
67°F (19.4°C)	545	1150	10.8	36,800	2980	.57	.72	.86	10.2	34,800	3210	.58	.74	.87	9.6	32,800	3430	.59	.75	.90	9.0	30,700	3640	.61	.78	.92
	615	1300	11.0	37,700	3010	.59	.74	.89	10.4	35,600	3240	.60	.76	.91	9.8	33,600	3460	.61	.78	.94	9.2	31,400	3680	.63	.81	.97
	685	1450	11.3	38,500	3030	.61	.77	.93	10.6	36,300	3270	.62	.79	.95	10.0	34,100	3490	.63	.81	.98	9.3	31,900	3710	.65	.84	1.00
71°F (21.7°C)	545	1150	11.4	39,000	3050	.43	.57	.71	10.8	37,000	3290	.43	.58	.73	10.2	34,900	3530	.44	.59	.74	9.6	32,700	3770	.44	.61	.76
	615	1300	11.7	40,000	3080	.43	.58	.74	11.1	37,800	3320	.44	.59	.76	10.4	35,600	3570	.44	.61	.77	9.8	33,400	3810	.45	.63	.79
	685	1450	12.0	40,800	3100	.44	.60	.77	11.3	38,600	3350	.45	.61	.78	10.6	36,300	3600	.45	.63	.80	9.9	33,900	3850	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-411-413 COOLING CAPACITY WITH CVP10-41/EC10Q3 OR CVP10-46/EC10Q4 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	545	1150	10.4	35,400	2940	.74	.89	1.00	9.8	33,300	3150	.76	.91	1.00	9.2	31,400	3360	.77	.94	1.00	8.6	29,500	3550	.79	.97	1.00
	615	1300	10.6	36,300	2970	.77	.92	1.00	10.1	34,300	3190	.78	.95	1.00	9.4	32,200	3400	.80	.98	1.00	8.9	30,300	3620	.83	1.00	1.00
	685	1450	10.8	37,000	2990	.79	.96	1.00	10.3	35,000	3220	.81	.99	1.00	9.7	33,000	3450	.83	1.00	1.00	9.1	31,200	3680	.85	1.00	1.00
67°F (19.4°C)	545	1150	11.1	37,800	3020	.58	.72	.86	10.5	35,700	3240	.59	.74	.88	9.8	33,500	3470	.60	.76	.90	9.2	31,400	3690	.61	.78	.93
	615	1300	11.3	38,700	3040	.59	.75	.90	10.7	36,500	3270	.61	.77	.92	10.1	34,300	3510	.62	.79	.94	9.4	32,100	3730	.63	.82	.97
	685	1450	11.6	39,500	3060	.61	.77	.93	10.9	37,200	3300	.62	.80	.96	10.2	34,900	3530	.64	.82	.99	9.6	32,600	3760	.65	.85	1.00
71°F (21.7°C)	545	1150	11.8	40,100	3080	.43	.57	.72	11.1	38,000	3330	.43	.58	.73	10.5	35,800	3580	.44	.59	.75	9.8	33,500	3820	.44	.61	.77
	615	1300	12.0	41,000	3110	.44	.59	.74	11.4	38,800	3360	.44	.60	.76	10.7	36,500	3610	.45	.61	.78	10.0	34,200	3860	.45	.63	.80
	685	1450	12.3	41,900	3130	.44	.60	.77	11.6	39,500	3390	.45	.62	.79	10.9	37,100	3650	.45	.63	.81	10.2	34,700	3900	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-411-413 HEATING CAPACITY WITH CVP10-31/EC10Q3 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
545	1150	11.8	40,200	3010	9.2	31,500	2600	6.5	22,200	2190	4.7	16,100	1795	2.3	8000	1375
615	1300	11.9	40,600	2915	9.3	31,900	2510	6.6	22,600	2095	4.8	16,500	1705	2.5	8400	1280
685	1450	12.0	41,100	2915	9.5	32,300	2510	6.8	23,100	2100	5.0	16,900	1705	2.6	8900	1280

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-411-413 HEATING CAPACITY WITH CVP10-41/EC10Q3 OR CVP10-46/EC10Q4 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
545	1150	11.9	40,700	2955	9.3	31,800	2565	6.6	22,400	2170	4.7	16,100	1785	2.4	8100	1365
615	1300	12.0	41,100	2860	9.4	32,100	2470	6.7	22,700	2080	4.8	16,500	1695	2.5	8400	1270
685	1450	12.2	41,600	2865	9.6	32,600	2475	6.8	23,200	2080	5.0	17,000	1695	2.6	8900	1275

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-411-413 HEATING PERFORMANCE at 1300 cfm (615 L/s) Indoor Coil Air Volume (CVP10-41 or CVP10-46)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2860	41,100	12.0
60	16	2765	39,000	11.4
55	13	2670	37,000	10.8
50	10	2575	34,900	10.2
47	8	2520	33,700	9.9
45	7	2470	32,100	9.4
40	4	2355	28,300	8.3
35	2	2245	24,400	7.2
30	-1	2160	23,600	6.9
25	-4	2080	22,700	6.7
20	-7	1995	21,900	6.4
17	-8	1945	21,400	6.3
15	-9	1905	20,600	6.0
10	-12	1800	18,600	5.5
5	-15	1695	16,500	4.8
0	-18	1590	14,500	4.2
-5	-21	1485	12,500	3.7
-10	-23	1375	10,500	3.1
-15	-26	1270	8400	2.5
-20	-29	1165	6400	1.9

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

HP23-411-413 HEATING PERFORMANCE at 1300 cfm (615 L/s) Indoor Coil Air Volume (CVP10-31/EC10Q3)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2915	40,600	11.9
60	16	2815	38,600	11.3
55	13	2715	36,600	10.7
50	10	2615	34,600	10.1
47	8	2555	33,400	9.8
45	7	2510	31,900	9.3
40	4	2390	28,100	8.2
35	2	2270	24,200	7.1
30	-1	2185	23,400	6.9
25	-4	2095	22,600	6.6
20	-7	2010	21,800	6.4
17	-8	1955	21,300	6.2
15	-9	1915	20,500	6.0
10	-12	1810	18,500	5.4
5	-15	1705	16,500	4.8
0	-18	1595	14,400	4.2
-5	-21	1490	12,400	3.6
-10	-23	1385	10,400	3.0
-15	-26	1280	8400	2.5
-20	-29	1175	6400	1.9

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-411-413 COOLING CAPACITY WITH CR18-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																						
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	540	1150	10.5	35,700	2760	.73	.88	1.00	9.9	33,900	2960	.75	.91	1.00	9.3	31,900	3150	.77	.93	1.00	8.8	29,900	3330	.79	.96	1.00
	615	1300	10.8	36,700	2790	.76	.92	1.00	10.2	34,700	2990	.78	.94	1.00	9.6	32,700	3190	.80	.97	1.00	9.0	30,600	3380	.82	.99	1.00
	685	1450	11.0	37,600	2810	.79	.95	1.00	10.4	35,500	3020	.81	.97	1.00	9.8	33,400	3220	.83	.99	1.00	9.2	31,500	3420	.85	1.00	1.00
67°F (19.4°C)	540	1150	11.1	38,000	2830	.58	.72	.86	10.6	36,000	3040	.58	.74	.88	9.9	33,900	3240	.59	.76	.90	9.3	31,800	3440	.61	.78	.92
	615	1300	11.4	39,000	2850	.59	.74	.89	10.8	36,900	3070	.60	.76	.91	10.2	34,700	3280	.61	.78	.94	9.5	32,500	3480	.63	.81	.97
	685	1450	11.7	39,800	2870	.61	.77	.93	11.0	37,600	3090	.62	.79	.95	10.3	35,300	3310	.63	.82	.98	9.7	33,000	3520	.65	.84	1.00
71°F (21.7°C)	540	1150	11.8	40,200	2880	.43	.57	.72	11.2	38,100	3110	.43	.58	.73	10.5	35,900	3330	.44	.59	.75	9.9	33,700	3550	.44	.61	.76
	615	1300	12.1	41,200	2910	.44	.59	.74	11.4	39,000	3140	.44	.60	.76	10.8	36,800	3370	.44	.61	.77	10.1	34,500	3600	.45	.63	.80
	685	1450	12.3	42,000	2930	.44	.60	.77	11.6	39,700	3170	.45	.62	.78	11.0	37,400	3400	.45	.63	.80	10.3	35,100	3630	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-411-413 HEATING CAPACITY WITH CR18-41 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
540	1150	13.1	44,700	3040	9.9	33,800	2550	6.6	22,400	2055	4.5	15,200	1645	2.2	7600	1250
615	1300	13.2	45,100	2990	10.0	34,200	2500	6.7	22,800	2005	4.6	15,600	1595	2.3	8000	1200
685	1450	13.4	45,700	2950	10.2	34,700	2460	6.8	23,300	1965	4.7	16,200	1555	2.5	8500	1160

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-411-413 HEATING PERFORMANCE at 1300 cfm (615 L/s) Indoor Coil Air Volume (CR18-41)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2990	45,100	13.2
60	16	2870	42,600	12.5
55	13	2750	40,000	11.7
50	10	2630	37,400	11.0
47	8	2555	35,800	10.5
45	7	2500	34,200	10.0
40	4	2360	30,100	8.8
35	2	2220	26,000	7.6
30	-1	2115	24,400	7.2
25	-4	2005	22,800	6.7
20	-7	1900	21,200	6.2
17	-8	1835	20,200	5.9
15	-9	1795	19,500	5.7
10	-12	1695	17,600	5.2
5	-15	1595	15,600	4.6
0	-18	1495	13,700	4.0
-5	-21	1395	11,800	3.5
-10	-23	1300	9900	2.9
-15	-26	1200	8000	2.3
-20	-29	1100	6100	1.8

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS — U.S. HP23-411-413 AND CANADA HP23-413

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-411-413 COOLING CAPACITY WITH C22-41(FC) OR CR22-41/B24 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	470	1000	10.4	35,600	2800	.72	.86	.98	9.8	33,600	3010	.73	.88	1.00	9.3	31,700	3210	.75	.91	1.00	8.7	29,600	3400	.77	.94	1.00
	565	1200	10.8	36,900	2850	.76	.91	1.00	10.2	34,900	3060	.77	.94	1.00	9.6	32,700	3270	.79	.97	1.00	9.0	30,600	3470	.82	1.00	1.00
	660	1400	11.1	38,000	2880	.80	.96	1.00	10.5	35,800	3100	.82	.99	1.00	9.9	33,900	3320	.84	1.00	1.00	9.3	31,800	3540	.86	1.00	1.00
67°F (19.4°C)	470	1000	11.0	37,700	2870	.57	.70	.84	10.5	35,700	3090	.57	.72	.86	9.8	33,600	3300	.58	.74	.88	9.2	31,500	3520	.60	.76	.90
	565	1200	11.5	39,300	2910	.59	.74	.89	10.9	37,100	3140	.60	.76	.91	10.2	34,900	3360	.61	.78	.93	9.6	32,700	3580	.62	.81	.96
	660	1400	11.8	40,400	2940	.61	.77	.94	11.2	38,200	3170	.62	.80	.96	10.5	35,800	3410	.64	.82	.99	9.8	33,500	3630	.65	.85	1.00
71°F (21.7°C)	470	1000	11.6	39,700	2920	.42	.56	.70	11.0	37,700	3160	.43	.57	.72	10.4	35,500	3390	.43	.58	.73	9.8	33,300	3620	.44	.60	.75
	565	1200	12.1	41,400	2970	.43	.58	.74	11.5	39,100	3210	.44	.60	.75	10.8	36,900	3450	.44	.61	.77	10.1	34,600	3700	.45	.62	.79
	660	1400	12.5	42,500	3000	.44	.61	.78	11.8	40,200	3250	.45	.62	.79	11.1	37,900	3500	.45	.64	.81	10.4	35,500	3750	.46	.65	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-411-413 COOLING CAPACITY WITH C22-41(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	470	1000	10.3	35,300	2810	.72	.86	.98	9.8	33,600	3010	.73	.88	1.00	9.3	31,700	3210	.75	.91	1.00	8.7	29,600	3400	.77	.94	1.00
	565	1200	10.7	36,600	2860	.76	.91	1.00	10.2	34,900	3060	.77	.94	1.00	9.6	32,700	3270	.79	.97	1.00	9.0	30,600	3470	.82	1.00	1.00
	660	1400	11.0	37,700	2890	.80	.96	1.00	10.5	35,800	3100	.82	.99	1.00	9.9	33,900	3320	.84	1.00	1.00	9.3	31,800	3540	.86	1.00	1.00
67°F (19.4°C)	470	1000	11.0	37,400	2880	.57	.70	.84	10.5	35,700	3090	.57	.72	.86	9.8	33,600	3300	.58	.74	.88	9.2	31,500	3520	.60	.76	.90
	565	1200	11.4	39,000	2920	.59	.74	.89	10.9	37,100	3140	.60	.76	.91	10.2	34,900	3360	.61	.78	.93	9.6	32,700	3580	.62	.81	.96
	660	1400	11.7	40,100	2950	.61	.77	.94	11.2	38,200	3170	.62	.80	.96	10.5	35,800	3410	.64	.82	.99	9.8	33,500	3630	.65	.85	1.00
71°F (21.7°C)	470	1000	11.5	39,400	2930	.42	.56	.70	11.0	37,700	3160	.43	.57	.72	10.4	35,500	3390	.43	.58	.73	9.8	33,300	3620	.44	.60	.75
	565	1200	11.9	41,100	2980	.43	.58	.74	11.5	39,100	3210	.44	.60	.75	10.8	36,900	3450	.44	.61	.77	10.1	34,600	3700	.45	.62	.79
	660	1400	12.2	42,200	3010	.44	.61	.78	11.8	40,200	3250	.45	.62	.79	11.1	37,900	3500	.45	.64	.81	10.4	35,500	3750	.46	.65	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-411-413 HEATING CAPACITY WITH C22-41(FC) OR CR22-41/B24 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	13.0	44,500	2925	9.8	33,500	2485	6.5	22,100	2035	4.4	15,000	1645	2.2	7600	1240
565	1200	13.1	44,700	2895	9.9	33,700	2455	6.6	22,400	2005	4.5	15,300	1610	2.3	7800	1210
660	1400	13.5	46,200	2815	10.3	35,200	2375	7.0	23,800	1925	4.9	16,800	1530	2.7	9300	1130

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-411-413 HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume (C22-41(FC) or CR22-41/B24)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2895	44,700	13.1
60	16	2785	42,100	12.3
55	13	2680	39,500	11.6
50	10	2570	36,900	10.8
47	8	2505	35,400	10.4
45	7	2455	33,700	9.9
40	4	2325	29,700	8.7
35	2	2200	25,600	7.5
30	-1	2100	24,000	7.0
25	-4	2005	22,400	6.6
20	-7	1910	20,700	6.1
17	-8	1855	19,800	5.8
15	-9	1810	19,000	5.6
10	-12	1710	17,100	5.0
5	-15	1610	15,300	4.5
0	-18	1510	13,400	3.9
-5	-21	1410	11,500	3.4
-10	-23	1310	9700	2.8
-15	-26	1210	7800	2.3
-20	-29	1110	5900	1.7

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS — U.S. HP23-411-413 AND CANADA HP23-413

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-411-413 WITH CH22-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	470	1000	10.4	35,600	2780	.72	.86	.98	9.9	33,900	2990	.73	.88	1.00	9.4	32,000	3190	.75	.91	1.00	8.8	30,100	3380	.76	.94	1.00
	565	1200	10.9	37,100	2820	.76	.90	1.00	10.3	35,200	3040	.77	.93	1.00	9.7	33,200	3240	.79	.96	1.00	9.1	31,200	3450	.81	1.00	1.00
	660	1400	11.2	38,100	2850	.80	.95	1.00	10.6	36,300	3070	.81	.98	1.00	10.1	34,300	3290	.83	1.00	1.00	9.5	32,500	3520	.85	1.00	1.00
67°F (19.4°C)	470	1000	11.0	37,500	2830	.57	.71	.84	10.5	35,700	3050	.57	.72	.86	9.9	33,800	3270	.58	.74	.87	9.3	31,800	3480	.59	.76	.90
	565	1200	11.5	39,100	2880	.59	.74	.89	10.9	37,100	3100	.60	.76	.91	10.3	35,200	3330	.61	.78	.93	9.7	33,000	3550	.62	.81	.96
	660	1400	11.8	40,300	2910	.61	.77	.94	11.2	38,300	3140	.62	.79	.96	10.6	36,100	3370	.64	.82	.99	10.0	34,000	3600	.65	.85	1.00
71°F (21.7°C)	470	1000	11.5	39,300	2880	.42	.56	.70	11.0	37,400	3110	.43	.57	.72	10.4	35,400	3340	.43	.59	.73	9.8	33,300	3570	.44	.60	.75
	565	1200	12.0	40,900	2930	.43	.59	.74	11.4	39,000	3170	.44	.60	.76	10.8	36,800	3410	.44	.61	.77	10.2	34,700	3650	.45	.63	.79
	660	1400	12.4	42,200	2960	.44	.61	.78	11.8	40,100	3200	.45	.62	.79	11.1	38,000	3450	.45	.63	.81	10.5	35,800	3700	.46	.66	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIV HP23-411-413 WITH CH22-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	470	1000	10.3	35,300	2790	.72	.86	.98	9.9	33,900	2990	.73	.88	1.00	9.4	32,000	3190	.75	.91	1.00	8.8	30,100	3380	.76	.94	1.00
	565	1200	10.8	36,800	2830	.76	.90	1.00	10.3	35,200	3040	.77	.93	1.00	9.7	33,200	3240	.79	.96	1.00	9.1	31,200	3450	.81	1.00	1.00
	660	1400	11.1	37,800	2860	.80	.95	1.00	10.6	36,300	3070	.81	.98	1.00	10.1	34,300	3290	.83	1.00	1.00	9.5	32,500	3520	.85	1.00	1.00
67°F (19.4°C)	470	1000	10.9	37,200	2840	.57	.71	.84	10.5	35,700	3050	.57	.72	.86	9.9	33,800	3270	.58	.74	.87	9.3	31,800	3480	.59	.76	.90
	565	1200	11.4	38,800	2890	.59	.74	.89	10.9	37,100	3100	.60	.76	.91	10.3	35,200	3330	.61	.78	.93	9.7	33,000	3550	.62	.81	.96
	660	1400	11.7	40,000	2920	.61	.77	.94	11.2	38,300	3140	.62	.79	.96	10.6	36,100	3370	.64	.82	.99	10.0	34,000	3600	.65	.85	1.00
71°F (21.7°C)	470	1000	11.4	39,000	2890	.42	.56	.70	11.0	37,400	3110	.43	.57	.72	10.4	35,400	3340	.43	.59	.73	9.8	33,300	3570	.44	.60	.75
	565	1200	11.9	40,600	2940	.43	.59	.74	11.4	39,000	3170	.44	.60	.76	10.8	36,800	3410	.44	.61	.77	10.2	34,700	3650	.45	.63	.79
	660	1400	12.3	41,900	2970	.44	.61	.78	11.8	40,100	3200	.45	.62	.79	11.1	38,000	3450	.45	.63	.81	10.5	35,800	3700	.46	.66	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-411-413 HEATING CAPACITY WITH CH22-41 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	12.8	43,800	2965	9.6	32,800	2525	6.3	21,600	2085	4.1	14,100	1690	2.0	6700	1285
565	1200	13.1	44,800	2900	9.9	33,800	2465	6.6	22,500	2025	4.4	15,000	1630	2.3	7700	1225
660	1400	13.3	45,500	2855	10.1	34,600	2415	6.8	23,300	1975	4.6	15,800	1580	2.5	8400	1175

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-411-413 HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume (CH22-41)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2900	44,800	13.1
60	16	2795	42,100	12.3
55	13	2685	39,500	11.6
50	10	2580	36,800	10.8
47	8	2515	35,300	10.3
45	7	2465	33,800	9.9
40	4	2340	30,100	8.8
35	2	2210	26,400	7.7
30	-1	2115	24,500	7.2
25	-4	2025	22,500	6.6
20	-7	1930	20,600	6.0
17	-8	1870	19,400	5.7
15	-9	1830	18,700	5.5
10	-12	1730	16,900	5.0
5	-15	1630	15,000	4.4
0	-18	1525	13,200	3.9
-5	-21	1425	11,300	3.3
-10	-23	1325	9500	2.8
-15	-26	1225	7700	2.3
-20	-29	1125	5800	1.7

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS — U.S. HP23-411-413 AND CANADA HP23-413

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-411-413 COOLING CAPACITY WITH CB19-41 OR CBH19-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	545	1150	11.0	37,700	2820	.75	.90	1.00	10.5	35,700	3050	.76	.93	1.00	9.8	33,600	3270	.78	.95	1.00	9.3	31,600	3470	.80	.98	1.00
	615	1300	11.3	38,700	2850	.78	.94	1.00	10.8	36,700	3090	.79	.96	1.00	10.1	34,600	3320	.81	.98	1.00	9.5	32,400	3520	.83	1.00	1.00
	685	1450	11.6	39,700	2880	.80	.96	1.00	11.0	37,600	3120	.82	.98	1.00	10.4	35,400	3350	.84	1.00	1.00	9.8	33,400	3570	.87	1.00	1.00
67°F (19.4°C)	545	1150	11.7	39,900	2890	.59	.73	.87	11.1	37,800	3130	.60	.75	.89	10.4	35,500	3360	.61	.77	.92	9.7	33,200	3570	.62	.80	.95
	615	1300	12.0	40,900	2920	.60	.76	.91	11.3	38,700	3160	.62	.78	.93	10.6	36,300	3390	.63	.81	.96	9.9	33,900	3600	.64	.84	.99
	685	1450	12.2	41,700	2940	.62	.79	.95	11.5	39,400	3190	.63	.81	.97	10.8	37,000	3420	.65	.84	1.00	10.1	34,400	3630	.66	.87	1.00
71°F (21.7°C)	545	1150	12.3	42,100	2960	.44	.58	.73	11.7	39,900	3210	.44	.59	.75	11.0	37,600	3450	.45	.60	.76	10.3	35,200	3670	.45	.62	.78
	615	1300	12.6	43,100	2990	.45	.60	.76	12.0	40,800	3240	.45	.61	.77	11.3	38,400	3490	.45	.63	.79	10.5	35,800	3710	.46	.65	.82
	685	1450	12.9	44,000	3010	.45	.62	.78	12.2	41,600	3270	.46	.63	.80	11.4	39,000	3520	.46	.65	.82	10.7	36,400	3740	.47	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIII HP23-411-413 COOLING CAPACITY WITH CB19-41 OR CBH19-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	545	1150	11.0	37,400	2830	.75	.90	1.00	10.5	35,700	3050	.76	.93	1.00	9.8	33,600	3270	.78	.95	1.00	9.3	31,600	3470	.80	.98	1.00
	615	1300	11.3	38,400	2860	.78	.94	1.00	10.8	36,700	3090	.79	.96	1.00	10.1	34,600	3320	.81	.98	1.00	9.5	32,400	3520	.83	1.00	1.00
	685	1450	11.5	39,400	2890	.80	.96	1.00	11.0	37,600	3120	.82	.98	1.00	10.4	35,400	3350	.84	1.00	1.00	9.8	33,400	3570	.87	1.00	1.00
67°F (19.4°C)	545	1150	11.6	39,600	2900	.59	.73	.87	11.1	37,800	3130	.60	.75	.89	10.4	35,500	3360	.61	.77	.92	9.7	33,200	3570	.62	.80	.95
	615	1300	11.9	40,600	2930	.60	.76	.91	11.3	38,700	3160	.62	.78	.93	10.6	36,300	3390	.63	.81	.96	9.9	33,900	3600	.64	.84	.99
	685	1450	12.2	41,500	2950	.62	.79	.95	11.5	39,400	3190	.63	.81	.97	10.8	37,000	3420	.65	.84	1.00	10.1	34,400	3630	.66	.87	1.00
71°F (21.7°C)	545	1150	12.2	41,800	2970	.44	.58	.73	11.7	39,900	3210	.44	.59	.75	11.0	37,600	3450	.45	.60	.76	10.3	35,200	3670	.45	.62	.78
	615	1300	12.5	42,800	3000	.45	.60	.76	12.0	40,800	3240	.45	.61	.77	11.3	38,400	3490	.45	.63	.79	10.5	35,800	3710	.46	.65	.82
	685	1450	12.8	43,700	3020	.45	.62	.78	12.2	41,600	3270	.46	.63	.80	11.4	39,000	3520	.46	.65	.82	10.7	36,400	3740	.47	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-411-413 HEATING CAPACITY WITH CB19-41 OR CBH19-41 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
545	1150	13.4	45,600	2855	10.0	34,200	2425	6.6	22,400	1990	4.5	15,200	1605	2.2	7500	1220
615	1300	13.5	46,000	2805	10.1	34,600	2375	6.7	22,900	1940	4.6	15,600	1555	2.3	7900	1170
685	1450	13.7	46,600	2765	10.3	35,200	2335	6.9	23,400	1900	4.7	16,100	1515	2.5	8500	1130

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-411-413 HEATING PERFORMANCE at 1300 cfm (615 L/s) Indoor Coil Air Volume (CB19-41 or CBH19-41)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2805	46,000	13.5
60	16	2700	43,300	12.7
55	13	2595	40,600	11.9
50	10	2490	37,900	11.1
47	8	2425	36,300	10.6
45	7	2375	34,600	10.1
40	4	2250	30,400	8.9
35	2	2130	26,300	7.7
30	-1	2035	24,600	7.2
25	-4	1940	22,900	6.7
20	-7	1845	21,200	6.2
17	-8	1790	20,100	5.9
15	-9	1750	19,400	5.7
10	-12	1655	17,500	5.1
5	-15	1555	15,600	4.6
0	-18	1460	13,700	4.0
-5	-21	1365	11,800	3.5
-10	-23	1265	9800	2.9
-15	-26	1170	7900	2.3
-20	-29	1075	6000	1.8

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-411-413 COOLING CAPACITY WITH C22-46(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	470	1000	10.7	36,600	2820	.71	.86	.98	10.2	34,700	3030	.73	.88	1.00	9.6	32,700	3240	.74	.91	1.00	9.0	30,700	3430	.76	.94	1.00
	565	1200	11.3	38,400	2870	.75	.90	1.00	10.6	36,200	3090	.77	.93	1.00	10.0	34,000	3300	.79	.96	1.00	9.4	32,000	3510	.81	.99	1.00
	660	1400	11.6	39,600	2900	.79	.95	1.00	11.0	37,400	3130	.81	.98	1.00	10.4	35,400	3360	.83	1.00	1.00	9.7	33,100	3580	.85	1.00	1.00
67°F (19.4°C)	470	1000	11.3	38,400	2870	.56	.70	.84	10.7	36,400	3100	.57	.72	.85	10.1	34,400	3320	.58	.74	.87	9.5	32,300	3530	.59	.76	.90
	565	1200	11.8	40,300	2920	.59	.74	.88	11.2	38,100	3150	.60	.75	.90	10.5	35,900	3380	.61	.78	.93	9.8	33,600	3610	.62	.80	.96
	660	1400	12.2	41,600	2960	.61	.77	.93	11.5	39,300	3200	.62	.79	.96	10.8	37,000	3440	.63	.82	.99	10.1	34,600	3670	.65	.85	1.00
71°F (21.7°C)	470	1000	11.8	40,100	2910	.42	.56	.70	11.2	38,100	3150	.43	.57	.72	10.6	36,000	3390	.43	.58	.73	9.9	33,800	3620	.44	.60	.75
	565	1200	12.3	42,000	2970	.43	.58	.74	11.7	39,800	3210	.44	.59	.75	11.0	37,600	3460	.44	.61	.77	10.4	35,400	3710	.45	.62	.79
	660	1400	12.7	43,300	3000	.44	.61	.78	12.0	41,000	3260	.45	.62	.79	11.3	38,700	3510	.45	.64	.81	10.6	36,300	3770	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-411-413 HEATING CAPACITY WITH C22-46(FC) INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	12.8	43,800	2960	9.6	32,800	2515	6.3	21,400	2070	4.2	14,300	1675	2.0	6800	1275
565	1200	13.1	44,700	2895	9.9	33,700	2455	6.6	22,400	2005	4.5	15,300	1610	2.3	7800	1210
660	1400	13.3	45,500	2845	10.1	34,500	2405	6.8	23,100	1955	4.7	16,000	1565	2.5	8600	1160

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-411-413 HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume (C22-46(FC))

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2895	44,700	13.1
60	16	2785	42,100	12.3
55	13	2680	39,500	11.6
50	10	2570	36,900	10.8
47	8	2505	35,400	10.4
45	7	2455	33,700	9.9
40	4	2325	29,700	8.7
35	2	2200	25,600	7.5
30	-1	2100	24,000	7.0
25	-4	2005	22,400	6.6
20	-7	1910	20,700	6.1
17	-8	1855	19,800	5.8
15	-9	1810	19,000	5.6
10	-12	1710	17,100	5.0
5	-15	1610	15,300	4.5
0	-18	1510	13,400	3.9
-5	-21	1410	11,500	3.4
-10	-23	1310	9700	2.8
-15	-26	1210	7800	2.3
-20	-29	1110	5900	1.7

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATING — CANADA HP23-413 ONLY

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-413 COOLING CAPACITY WITH CR18-41 INDOOR COIL UNIT

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Outdoor Coil (°F)																		
		85					95					105					115			
		Total Cool. Cap. (Btuh)	Comp. Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb (°F)			Total Cool. Cap. (Btuh)	Comp. Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb (°F)			Total Cool. Cap. (Btuh)	Comp. Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb (°F)			Total Cool. Cap. (Btuh)	Comp. Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb (°F)		
				75	80	85			75	80	85			75	80	85			75	80	85
63	1300	37,200	2810	.76	.91	1.00	35,300	3040	.77	.93	1.00	33,200	3250	.79	.96	1.00	31,000	3450	.82	.99	1.00
	1450	38,100	2840	.78	.94	1.00	36,100	3070	.80	.96	1.00	34,000	3290	.82	.99	1.00	31,800	3490	.85	1.00	1.00
67	1300	39,600	2880	.59	.74	.89	37,500	3120	.60	.76	.91	35,200	3350	.61	.78	.93	32,900	3550	.62	.81	.96
	1450	40,400	2910	.60	.76	.92	38,200	3150	.62	.78	.95	35,900	3380	.63	.81	.97	33,400	3580	.64	.84	1.00
71	1300	41,900	2950	.43	.58	.74	39,700	3200	.44	.60	.75	37,300	3440	.44	.61	.77	34,900	3660	.45	.63	.79
	1450	42,700	2980	.44	.60	.76	40,400	3230	.44	.61	.78	38,000	3470	.45	.63	.80	35,500	3690	.45	.65	.82

NOTE — All values are gross capacities and do not include indoor coil blower motor heat deduction.

HP23-413 HEATING CAPACITY WITH CR18-41 INDOOR COIL UNIT

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		–15	
	Total Htg. Cap. (Btuh)	Comp. Mtr. Input (W)	Total Htg. Cap. (Btuh)	Comp. Mtr. Input (W)	Total Htg. Cap. (Btuh)	Comp. Mtr. Input (W)	Total Htg. Cap. (Btuh)	Comp. Mtr. Input (W)	Total Htg. Cap. (Btuh)	Comp. Mtr. Input (W)
1300	45,100	2990	34,200	2500	22,800	2005	15,600	1595	8000	1200
1450	45,700	2950	34,700	2460	23,300	1965	16,200	1555	8500	1160

*Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-413 HEATING PERFORMANCE at 1300 cfm Indoor Coil Air Volume (CR18-41)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	2990	45,100
60	2870	42,600
55	2750	40,000
50	2630	37,400
47	2555	35,800
45	2500	34,200
40	2360	30,100
35	2220	26,000
30	2115	24,400
25	2005	22,800
20	1900	21,200
17	1835	20,200
15	1795	19,500
10	1695	17,600
5	1595	15,600
0	1495	13,700
–5	1395	11,800
–10	1300	9900
–15	1200	8000
–20	1100	6100

*Outdoor temperature at 70% relative humidity. Indoor temperature at 70°F.

COOLING AND HEATING RATING — CANADA HP23-413 ONLY

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-413 COOLING CAPACITY WITH CVP10-31/EC10Q3 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	545	1150	10.1	34,400	2910	.73	.88	1.00	9.5	32,500	3120	.75	.91	1.00	9.0	30,600	3320	.77	.93	1.00	8.4	28,700	3510	.79	.97	1.00
	615	1300	10.3	35,300	2940	.76	.92	1.00	9.8	33,300	3150	.78	.94	1.00	9.2	31,300	3360	.80	.97	1.00	8.6	29,400	3560	.82	1.00	1.00
	685	1450	10.5	35,900	2960	.79	.95	1.00	10.0	34,100	3180	.81	.97	1.00	9.4	32,100	3390	.83	1.00	1.00	8.9	30,300	3620	.85	1.00	1.00
67°F (19.4°C)	545	1150	10.8	36,800	2980	.57	.72	.86	10.2	34,800	3210	.58	.74	.87	9.6	32,800	3430	.59	.75	.90	9.0	30,700	3640	.61	.78	.92
	615	1300	11.0	37,700	3010	.59	.74	.89	10.4	35,600	3240	.60	.76	.91	9.8	33,600	3460	.61	.78	.94	9.2	31,400	3680	.63	.81	.97
	685	1450	11.3	38,500	3030	.61	.77	.93	10.6	36,300	3270	.62	.79	.95	10.0	34,100	3490	.63	.81	.98	9.3	31,900	3710	.65	.84	1.00
71°F (21.7°C)	545	1150	11.4	39,000	3050	.43	.57	.71	10.8	37,000	3290	.43	.58	.73	10.2	34,900	3530	.44	.59	.74	9.6	32,700	3770	.44	.61	.76
	615	1300	11.7	40,000	3080	.43	.58	.74	11.1	37,800	3320	.44	.59	.76	10.4	35,600	3570	.44	.61	.77	9.8	33,400	3810	.45	.63	.79
	685	1450	12.0	40,800	3100	.44	.60	.77	11.3	38,600	3350	.45	.61	.78	10.6	36,300	3600	.45	.63	.80	9.9	33,900	3850	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-413 COOLING CAPACITY WITH CVP10-41/EC10Q3 OR CVP10-46/EC10Q4 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	545	1150	10.4	35,400	2940	.74	.89	1.00	9.8	33,300	3150	.76	.91	1.00	9.2	31,400	3360	.77	.94	1.00	8.6	29,500	3550	.79	.97	1.00
	615	1300	10.6	36,300	2970	.77	.92	1.00	10.1	34,300	3190	.78	.95	1.00	9.4	32,200	3400	.80	.98	1.00	8.9	30,300	3620	.83	1.00	1.00
	685	1450	10.8	37,000	2990	.79	.96	1.00	10.3	35,000	3220	.81	.99	1.00	9.7	33,000	3450	.83	1.00	1.00	9.1	31,200	3680	.85	1.00	1.00
67°F (19.4°C)	545	1150	11.1	37,800	3020	.58	.72	.86	10.5	35,700	3240	.59	.74	.88	9.8	33,500	3470	.60	.76	.90	9.2	31,400	3690	.61	.78	.93
	615	1300	11.3	38,700	3040	.59	.75	.90	10.7	36,500	3270	.61	.77	.92	10.1	34,300	3510	.62	.79	.94	9.4	32,100	3730	.63	.82	.97
	685	1450	11.6	39,500	3060	.61	.77	.93	10.9	37,200	3300	.62	.80	.96	10.2	34,900	3530	.64	.82	.99	9.6	32,600	3760	.65	.85	1.00
71°F (21.7°C)	545	1150	11.8	40,100	3080	.43	.57	.72	11.1	38,000	3330	.43	.58	.73	10.5	35,800	3580	.44	.59	.75	9.8	33,500	3820	.44	.61	.77
	615	1300	12.0	41,000	3110	.44	.59	.74	11.4	38,800	3360	.44	.60	.76	10.7	36,500	3610	.45	.61	.78	10.0	34,200	3860	.45	.63	.80
	685	1450	12.3	41,900	3130	.44	.60	.77	11.6	39,500	3390	.45	.62	.79	10.9	37,100	3650	.45	.63	.81	10.2	34,700	3900	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-413 HEATING CAPACITY WITH CVP10-31/EC10Q3 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
545	1150	11.8	40,200	3010	9.2	31,500	2600	6.5	22,200	2190	4.7	16,100	1795	2.3	8000	1375
615	1300	11.9	40,600	2915	9.3	31,900	2510	6.6	22,600	2095	4.8	16,500	1705	2.5	8400	1280
685	1450	12.0	41,100	2915	9.5	32,300	2510	6.8	23,100	2100	5.0	16,900	1705	2.6	8900	1280

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-413 HEATING CAPACITY WITH CVP10-41/EC10Q3 OR CVP10-46/EC10Q4 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil														
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
545	1150	11.9	40,700	2955	9.3	31,800	2565	6.6	22,400	2170	4.7	16,100	1785	2.4	8100	1365
615	1300	12.0	41,100	2860	9.4	32,100	2470	6.7	22,700	2080	4.8	16,500	1695	2.5	8400	1270
685	1450	12.2	41,600	2865	9.6	32,600	2475	6.8	23,200	2080	5.0	17,000	1695	2.6	8900	1275

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-413 HEATING PERFORMANCE at 1300 cfm (615 L/s) Indoor Coil Air Volume (CVP10-31/EC10Q3)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2915	40,600	11.9
60	16	2815	38,600	11.3
55	13	2715	36,600	10.7
50	10	2615	34,600	10.1
47	8	2555	33,400	9.8
45	7	2510	31,900	9.3
40	4	2390	28,100	8.2
35	2	2270	24,200	7.1
30	-1	2185	23,400	6.9
25	-4	2095	22,600	6.6
20	-7	2010	21,800	6.4
17	-8	1955	21,300	6.2
15	-9	1915	20,500	6.0
10	-12	1810	18,500	5.4
5	-15	1705	16,500	4.8
0	-18	1595	14,400	4.2
-5	-21	1490	12,400	3.6
-10	-23	1385	10,400	3.0
-15	-26	1280	8400	2.5
-20	-29	1175	6400	1.9

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

HP23-413 HEATING PERFORMANCE at 1300 cfm (615 L/s) Indoor Coil Air Volume (CVP10-41 or CVP10-46)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2860	41,100	12.0
60	16	2765	39,000	11.4
55	13	2670	37,000	10.8
50	10	2575	34,900	10.2
47	8	2520	33,700	9.9
45	7	2470	32,100	9.4
40	4	2355	28,300	8.3
35	2	2245	24,400	7.2
30	-1	2160	23,600	6.9
25	-4	2080	22,700	6.7
20	-7	1995	21,900	6.4
17	-8	1945	21,400	6.3
15	-9	1905	20,600	6.0
10	-12	1800	18,600	5.5
5	-15	1695	16,500	4.8
0	-18	1590	14,500	4.2
-5	-21	1485	12,500	3.7
-10	-23	1375	10,500	3.1
-15	-26	1270	8400	2.5
-20	-29	1165	6400	1.9

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATING — CANADA HP23-413 ONLY

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

♢ HP23-413 COOLING CAPACITY WITH C22-41(FC) OR CR22-41/B24 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	470	1000	10.2	34,700	2830	.72	.87	.99	9.7	33,200	3030	.74	.89	1.00	9.3	31,700	3220	.75	.91	1.00	8.8	30,000	3400	.77	.94	1.00
	565	1200	10.6	36,100	2870	.76	.92	1.00	10.1	34,500	3070	.78	.95	1.00	9.6	32,700	3270	.79	.97	1.00	9.1	31,000	3460	.81	.99	1.00
	660	1400	10.9	37,100	2900	.80	.97	1.00	10.4	35,500	3110	.82	.99	1.00	9.9	33,800	3320	.84	1.00	1.00	9.4	32,100	3520	.86	1.00	1.00
67°F (19.4°C)	470	1000	10.8	36,800	2890	.57	.71	.85	10.3	35,200	3100	.58	.72	.86	9.8	33,500	3310	.58	.74	.88	9.3	31,800	3500	.59	.76	.90
	565	1200	11.2	38,200	2930	.59	.75	.90	10.7	36,600	3150	.60	.76	.91	10.2	34,800	3360	.61	.78	.93	9.6	32,900	3560	.62	.80	.96
	660	1400	11.5	39,300	2960	.62	.78	.95	11.0	37,600	3180	.63	.80	.97	10.5	35,700	3400	.64	.82	.99	9.9	33,700	3600	.65	.85	1.00
71°F (21.7°C)	470	1000	11.4	38,800	2940	.43	.57	.71	10.9	37,200	3170	.43	.57	.72	10.4	35,400	3390	.43	.58	.73	9.8	33,600	3590	.44	.59	.75
	565	1200	11.8	40,300	2980	.44	.59	.75	11.3	38,500	3210	.44	.60	.76	10.8	36,700	3440	.44	.61	.77	10.2	34,700	3650	.45	.62	.79
	660	1400	12.2	41,500	3010	.45	.61	.78	11.6	39,500	3250	.45	.62	.80	11.0	37,600	3480	.45	.64	.82	10.4	35,500	3700	.46	.65	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

♢ RFCIV HP23-413 COOLING CAPACITY WITH C22-41(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	470	1000	10.1	34,300	2840	.72	.87	.99	9.7	33,200	3030	.74	.89	1.00	9.3	31,700	3220	.75	.91	1.00	8.8	30,000	3400	.77	.94	1.00
	565	1200	10.5	35,900	2880	.76	.92	1.00	10.1	34,500	3070	.78	.95	1.00	9.6	32,700	3270	.79	.97	1.00	9.1	31,000	3460	.81	.99	1.00
	660	1400	10.8	36,900	2910	.80	.97	1.00	10.4	35,500	3110	.82	.99	1.00	9.9	33,800	3320	.84	1.00	1.00	9.4	32,100	3520	.86	1.00	1.00
67°F (19.4°C)	470	1000	10.7	36,500	2900	.57	.71	.85	10.3	35,200	3100	.58	.72	.86	9.8	33,500	3310	.58	.74	.88	9.3	31,800	3500	.59	.76	.90
	565	1200	11.1	37,900	2940	.59	.75	.90	10.7	36,600	3150	.60	.76	.91	10.2	34,800	3360	.61	.78	.93	9.6	32,900	3560	.62	.80	.96
	660	1400	11.4	39,000	2970	.62	.78	.95	11.0	37,600	3180	.63	.80	.97	10.5	35,700	3400	.64	.82	.99	9.9	33,700	3600	.65	.85	1.00
71°F (21.7°C)	470	1000	11.3	38,500	2950	.43	.57	.71	10.9	37,200	3170	.43	.57	.72	10.4	35,400	3390	.43	.58	.73	9.8	33,600	3590	.44	.59	.75
	565	1200	11.7	40,000	2990	.44	.59	.75	11.3	38,500	3210	.44	.60	.76	10.8	36,700	3440	.44	.61	.77	10.2	34,700	3650	.45	.62	.79
	660	1400	12.1	41,200	3020	.45	.61	.78	11.6	39,500	3250	.45	.62	.80	11.0	37,600	3480	.45	.64	.82	10.4	35,500	3700	.46	.65	.84

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

♢ HP23-413 HEATING PERFORMANCE WITH C22-41(FC) OR CR22-41/B24 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	11.8	40,100	2945	8.9	30,200	2495	5.8	19,800	1880	4.0	13,700	1420	2.0	6700	1075
565	1200	12.0	40,800	2905	9.0	30,800	2455	6.0	20,500	1840	4.2	14,300	1380	2.1	7300	1035
660	1400	12.2	41,500	2880	9.3	31,600	2425	6.2	21,200	1815	4.4	15,100	1350	2.3	8000	1010

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

♢ HP23-413 PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume (C22-41(FC) or CR22-41/B24)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2905	40,800	12.0
60	16	2795	38,400	11.3
55	13	2685	36,100	10.6
50	10	2575	33,800	9.9
47	8	2510	32,400	9.5
45	7	2455	30,800	9.0
40	4	2305	26,800	7.9
35	2	2160	22,800	6.7
30	-1	2000	21,700	6.4
25	-4	1840	20,500	6.0
20	-7	1680	19,300	5.7
17	-8	1585	18,600	5.5
15	-9	1550	17,900	5.2
10	-12	1465	16,100	4.7
5	-15	1380	14,300	4.2
0	-18	1290	12,600	3.7
-5	-21	1205	10,800	3.2
-10	-23	1120	9100	2.7
-15	-26	1035	7300	2.1
-20	-29	950	5600	1.6

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATING — CANADA HP23-413 ONLY

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-413 COOLING CAPACITY WITH CB19-41 OR CBH19-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	545	1150	10.5	35,700	2950	.75	.91	1.00	9.9	33,800	3170	.77	.93	1.00	9.3	31,800	3380	.79	.96	1.00	8.8	29,900	3590	.81	.98	1.00
	615	1300	10.8	36,700	2980	.78	.94	1.00	10.1	34,600	3210	.80	.97	1.00	9.6	32,800	3430	.82	.99	1.00	9.0	30,800	3650	.84	1.00	1.00
	685	1450	11.0	37,500	3010	.81	.97	1.00	10.4	35,600	3240	.83	.99	1.00	9.8	33,600	3470	.85	1.00	1.00	9.3	31,700	3700	.87	1.00	1.00
67°F (19.4°C)	545	1150	11.1	37,800	3020	.59	.74	.88	10.5	35,800	3250	.60	.76	.90	9.9	33,700	3470	.61	.78	.92	9.2	31,500	3690	.62	.81	.95
	615	1300	11.3	38,700	3040	.61	.77	.92	10.7	36,600	3280	.62	.79	.94	10.1	34,400	3510	.63	.82	.97	9.4	32,200	3730	.65	.84	1.00
	685	1450	11.6	39,500	3060	.63	.80	.95	10.9	37,200	3300	.64	.82	.98	10.2	34,900	3540	.65	.85	1.00	9.6	32,700	3770	.67	.88	1.00
71°F (21.7°C)	545	1150	11.7	39,900	3080	.44	.58	.74	11.1	37,800	3320	.44	.59	.75	10.4	35,600	3570	.45	.61	.77	9.8	33,400	3810	.45	.62	.79
	615	1300	12.0	40,900	3100	.45	.60	.76	11.3	38,600	3360	.45	.61	.78	10.7	36,400	3610	.46	.63	.80	10.0	34,100	3860	.46	.65	.82
	685	1450	12.2	41,700	3130	.45	.62	.79	11.5	39,400	3380	.46	.63	.81	10.9	37,100	3640	.46	.65	.83	10.1	34,600	3890	.47	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIII HP23-413 COOLING CAPACITY WITH CB19-41 OR CBH19-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	545	1150	10.4	35,400	2960	.75	.91	1.00	9.9	33,800	3170	.77	.93	1.00	9.3	31,800	3380	.79	.96	1.00	8.8	29,900	3590	.81	.98	1.00
	615	1300	10.7	36,400	2990	.78	.94	1.00	10.1	34,600	3210	.80	.97	1.00	9.6	32,800	3430	.82	.99	1.00	9.0	30,800	3650	.84	1.00	1.00
	685	1450	10.9	37,200	3020	.81	.97	1.00	10.4	35,600	3240	.83	.99	1.00	9.8	33,600	3470	.85	1.00	1.00	9.3	31,700	3700	.87	1.00	1.00
67°F (19.4°C)	545	1150	11.0	37,500	3030	.59	.74	.88	10.5	35,800	3250	.60	.76	.90	9.9	33,700	3470	.61	.78	.92	9.2	31,500	3690	.62	.81	.95
	615	1300	11.3	38,400	3050	.61	.77	.92	10.7	36,600	3280	.62	.79	.94	10.1	34,400	3510	.63	.82	.97	9.4	32,200	3730	.65	.84	1.00
	685	1450	11.5	39,200	3070	.63	.80	.95	10.9	37,200	3300	.64	.82	.98	10.2	34,900	3540	.65	.85	1.00	9.6	32,700	3770	.67	.88	1.00
71°F (21.7°C)	545	1150	11.6	39,600	3090	.44	.58	.74	11.1	37,800	3320	.44	.59	.75	10.4	35,600	3570	.45	.61	.77	9.8	33,400	3810	.45	.62	.79
	615	1300	11.9	40,600	3110	.45	.60	.76	11.3	38,600	3360	.45	.61	.78	10.7	36,400	3610	.46	.63	.80	10.0	34,100	3860	.46	.65	.82
	685	1450	12.1	41,400	3140	.45	.62	.79	11.5	39,400	3380	.46	.63	.81	10.9	37,100	3640	.46	.65	.83	10.1	34,600	3890	.47	.67	.85

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-413 HEATING CAPACITY WITH CB19-41 OR CBH19-41 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
545	1150	12.0	40,800	2900	9.3	31,700	2530	6.5	22,100	2150	4.7	15,900	1775	2.3	7900	1355
615	1300	12.0	41,100	2805	9.4	32,100	2435	6.6	22,500	2060	4.8	16,300	1680	2.4	8300	1265
685	1450	12.2	41,600	2810	9.6	32,600	2435	6.7	23,000	2060	4.9	16,800	1685	2.6	8800	1265

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-413 HEATING PERFORMANCE at 1300 cfm (615 L/s) Indoor Coil Air Volume (CB19-41 or CBH19-41)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2805	41,100	12.0
60	16	2715	39,100	11.5
55	13	2625	37,000	10.8
50	10	2535	34,900	10.2
47	8	2480	33,600	9.8
45	7	2435	32,100	9.4
40	4	2325	28,200	8.3
35	2	2215	24,300	7.1
30	-1	2135	23,400	6.9
25	-4	2060	22,500	6.6
20	-7	1980	21,600	6.3
17	-8	1935	21,100	6.2
15	-9	1890	20,300	5.9
10	-12	1785	18,300	5.4
5	-15	1680	16,300	4.8
0	-18	1575	14,300	4.2
-5	-21	1475	12,300	3.6
-10	-23	1370	10,300	3.0
-15	-26	1265	8300	2.4
-20	-29	1160	6300	1.8

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATING — CANADA HP23-413 ONLY

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-413 COOLING CAPACITY WITH CH22-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	470	1000	9.8	33,500	2800	.72	.87	.99	9.4	32,200	3010	.73	.89	1.00	9.0	30,800	3200	.75	.91	1.00	8.6	29,300	3380	.76	.93	1.00
	565	1200	10.2	34,700	2840	.76	.91	1.00	9.8	33,400	3050	.78	.94	1.00	9.3	31,900	3250	.79	.96	1.00	8.9	30,300	3440	.81	.99	1.00
	660	1400	10.5	35,700	2870	.80	.96	1.00	10.1	34,400	3080	.82	.98	1.00	9.6	32,900	3290	.83	1.00	1.00	9.2	31,400	3500	.85	1.00	1.00
67°F (19.4°C)	470	1000	10.3	35,200	2850	.57	.71	.85	9.9	33,800	3070	.58	.73	.86	9.5	32,400	3270	.58	.74	.87	9.1	30,900	3470	.59	.76	.89
	565	1200	10.7	36,600	2900	.59	.74	.90	10.3	35,000	3120	.60	.76	.91	9.8	33,600	3330	.61	.78	.93	9.4	32,000	3530	.62	.80	.95
	660	1400	11.0	37,500	2920	.62	.77	.95	10.6	36,200	3150	.63	.79	.97	10.1	34,600	3370	.64	.82	.99	9.6	32,900	3580	.65	.84	1.00
71°F (21.7°C)	470	1000	10.8	36,900	2900	.43	.57	.71	10.4	35,400	3120	.43	.58	.72	9.9	33,900	3340	.43	.59	.73	9.5	32,300	3550	.44	.60	.75
	565	1200	11.2	38,300	2940	.44	.59	.75	10.8	36,900	3170	.44	.60	.76	10.3	35,300	3400	.44	.61	.77	9.8	33,500	3610	.45	.63	.79
	660	1400	11.6	39,500	2970	.45	.61	.79	11.1	37,900	3210	.45	.62	.80	10.6	36,300	3440	.45	.64	.81	10.1	34,400	3660	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-413 COOLING CAPACITY WITH C22-46(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	470	1000	10.5	35,700	2840	.72	.87	.99	10.0	34,200	3050	.73	.88	1.00	9.6	32,700	3250	.74	.91	1.00	9.1	31,100	3430	.76	.93	1.00
	565	1200	11.0	37,400	2890	.76	.92	1.00	10.5	35,700	3100	.77	.94	1.00	10.0	34,000	3300	.79	.96	1.00	9.5	32,300	3500	.80	.99	1.00
	660	1400	11.3	38,600	2920	.80	.96	1.00	10.8	36,900	3140	.81	.98	1.00	10.2	34,800	3330	.84	1.00	1.00	9.8	33,300	3560	.85	1.00	1.00
67°F (19.4°C)	470	1000	11.0	37,500	2890	.57	.71	.84	10.5	35,900	3110	.58	.72	.86	10.0	34,300	3320	.58	.74	.87	9.6	32,600	3520	.59	.76	.89
	565	1200	11.5	39,300	2940	.59	.74	.89	11.0	37,600	3160	.60	.76	.91	10.5	35,800	3380	.61	.78	.93	10.0	34,000	3580	.62	.80	.95
	660	1400	11.8	40,400	2970	.62	.78	.94	11.3	38,700	3200	.63	.80	.96	10.8	36,800	3420	.64	.82	.99	10.2	34,800	3630	.65	.85	1.00
71°F (21.7°C)	470	1000	11.5	39,100	2940	.43	.56	.71	11.0	37,500	3160	.43	.57	.72	10.5	35,900	3380	.43	.58	.73	10.0	34,000	3590	.44	.59	.75
	565	1200	12.0	40,900	2980	.44	.59	.75	11.5	39,200	3220	.44	.60	.76	10.9	37,300	3440	.44	.61	.77	10.4	35,400	3660	.45	.62	.79
	660	1400	12.3	42,100	3020	.45	.61	.78	11.8	40,300	3260	.45	.62	.80	11.2	38,300	3490	.45	.64	.81	10.6	36,300	3710	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-413 HEATING CAPACITY WITH CH22-41 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	12.3	42,000	3080	9.4	32,000	2580	6.4	21,700	2075	4.2	14,200	1685	2.0	6900	1280
565	1200	12.5	42,700	3020	9.6	32,700	2525	6.6	22,500	2020	4.4	15,000	1630	2.3	7700	1225
660	1400	12.7	43,200	2975	9.7	33,200	2475	6.7	23,000	1970	4.5	15,500	1580	2.4	8100	1175

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-413 HEATING CAPACITY WITH C22-46(FC) INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	11.9	40,600	3115	9.1	30,900	2665	6.1	20,700	2200	4.2	14,500	1830	2.1	7100	1440
565	1200	12.1	41,300	2850	9.3	31,600	2400	6.3	21,400	1935	4.5	15,200	1565	2.3	7800	1175
660	1400	12.3	42,000	2820	9.4	32,200	2370	6.4	22,000	1910	4.6	15,800	1540	2.5	8400	1150

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

♤ HP23-413 HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume (CH22-41)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3020	42,700	12.5
60	16	2900	40,300	11.8
55	13	2780	37,900	11.1
50	10	2660	35,500	10.4
47	8	2590	34,000	10.0
45	7	2525	32,700	9.6
40	4	2370	29,600	8.7
35	2	2210	26,400	7.7
30	-1	2115	24,500	7.2
25	-4	2020	22,500	6.6
20	-7	1925	20,600	6.0
17	-8	1870	19,400	5.7
15	-9	1830	18,700	5.5
10	-12	1730	16,900	5.0
5	-15	1630	15,000	4.4
0	-18	1525	13,200	3.9
-5	-21	1425	11,300	3.3
-10	-23	1325	9500	2.8
-15	-26	1225	7700	2.3
-20	-29	1120	5800	1.7

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

♤ HP23-413 HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume (C22-46(FC))

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2850	41,300	12.1
60	16	2740	39,100	11.5
55	13	2630	36,800	10.8
50	10	2520	34,600	10.1
47	8	2455	33,200	9.7
45	7	2400	31,600	9.3
40	4	2250	27,600	8.1
35	2	2105	23,600	6.9
30	-1	2020	22,500	6.6
25	-4	1935	21,400	6.3
20	-7	1850	20,300	5.9
17	-8	1800	19,700	5.8
15	-9	1760	18,900	5.5
10	-12	1665	17,100	5.0
5	-15	1565	15,200	4.5
0	-18	1470	13,300	3.9
-5	-21	1370	11,500	3.4
-10	-23	1275	9600	2.8
-15	-26	1175	7800	2.3
-20	-29	1080	5900	1.7

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-461-463 COOLING CAPACITY WITH CR18-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	615	1300	12.2	41,500	3200	.72	.87	.99	11.5	39,300	3450	.74	.89	1.00	10.9	37,100	3690	.75	.92	1.00	10.2	34,900	3900	.77	.94	1.00
	685	1450	12.4	42,400	3230	.75	.90	1.00	11.8	40,100	3480	.76	.92	1.00	11.1	38,000	3730	.78	.95	1.00	10.5	35,700	3950	.80	.97	1.00
	755	1600	12.7	43,200	3260	.77	.93	1.00	12.0	41,000	3520	.79	.95	1.00	11.4	38,800	3760	.81	.97	1.00	10.7	36,400	3980	.83	.99	1.00
67°F (19.4°C)	615	1300	12.9	44,000	3280	.57	.71	.84	12.3	41,900	3550	.57	.72	.86	11.6	39,600	3790	.58	.74	.88	10.9	37,200	4020	.59	.76	.91
	685	1450	13.2	45,100	3310	.58	.73	.87	12.5	42,800	3580	.59	.75	.89	11.9	40,500	3830	.60	.76	.92	11.1	38,000	4070	.61	.79	.94
	755	1600	13.5	46,000	3340	.59	.75	.90	12.8	43,700	3610	.60	.77	.93	12.1	41,200	3870	.62	.79	.95	11.3	38,700	4100	.63	.81	.98
71°F (21.7°C)	615	1300	13.7	46,600	3360	.42	.56	.70	13.0	44,400	3630	.42	.57	.72	12.3	42,000	3900	.43	.58	.73	11.6	39,500	4150	.43	.60	.75
	685	1450	14.0	47,800	3390	.43	.58	.73	13.3	45,400	3670	.43	.59	.74	12.6	42,900	3940	.43	.60	.76	11.8	40,300	4190	.44	.61	.78
	755	1600	14.3	48,700	3420	.43	.59	.75	13.6	46,300	3700	.44	.60	.76	12.8	43,700	3970	.44	.61	.78	12.0	41,000	4220	.45	.63	.80

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-461-463 HEATING CAPACITY WITH CR18-41 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
615	1300	14.9	50,700	3620	11.5	39,100	3080	8.0	27,300	2535	5.3	18,200	2035	2.6	9000	1545
685	1450	15.0	51,300	3570	11.6	39,700	3030	8.2	27,900	2485	5.5	18,800	1985	2.8	9600	1495
755	1600	15.2	51,900	3525	11.8	40,300	2985	8.4	28,500	2440	5.7	19,300	1940	3.0	10,100	1450

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-461-463 HEATING PERFORMANCE at 1450 cfm (685 L/s) Indoor Coil Air Volume (CR18-41)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3570	51,300	15.0
60	16	3435	48,500	14.2
55	13	3300	45,700	13.4
50	10	3165	42,900	12.6
47	8	3085	41,200	12.1
45	7	3030	39,700	11.6
40	4	2885	36,100	10.6
35	2	2740	32,400	9.5
30	-1	2610	30,200	8.9
25	-4	2485	27,900	8.2
20	-7	2360	25,600	7.5
17	-8	2285	24,300	7.1
15	-9	2235	23,400	6.9
10	-12	2110	21,100	6.2
5	-15	1985	18,800	5.5
0	-18	1865	16,500	4.8
-5	-21	1740	14,200	4.2
-10	-23	1615	11,900	3.5
-15	-26	1495	9600	2.8
-20	-29	1370	7300	2.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-461-463 COOLING CAPACITY WITH CVP10-41/EC10Q3 OR CVP10-46/EC10Q4 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	615	1300	12.5	42,700	3240	.73	.87	1.00	11.9	40,500	3490	.74	.90	1.00	11.2	38,300	3730	.76	.92	1.00	10.5	35,800	3950	.78	.95	1.00
	685	1450	12.8	43,600	3270	.75	.90	1.00	12.1	41,400	3530	.77	.93	1.00	11.4	39,000	3770	.79	.95	1.00	10.8	36,700	3990	.81	.98	1.00
	755	1600	13.0	44,300	3290	.78	.93	1.00	12.3	42,100	3550	.79	.96	1.00	11.7	39,800	3800	.81	.98	1.00	11.0	37,500	4040	.84	1.00	1.00
67°F (19.4°C)	615	1300	13.4	45,600	3330	.57	.71	.85	12.7	43,200	3600	.58	.73	.87	12.0	40,900	3850	.59	.74	.89	11.3	38,400	4090	.60	.77	.91
	685	1450	13.7	46,600	3360	.58	.73	.88	13.0	44,200	3630	.59	.75	.90	12.3	41,800	3890	.60	.77	.92	11.5	39,200	4130	.62	.80	.95
	755	1600	13.9	47,500	3380	.60	.75	.91	13.2	45,100	3660	.61	.77	.93	12.5	42,600	3920	.62	.80	.96	11.7	39,800	4160	.63	.82	.99
71°F (21.7°C)	615	1300	14.2	48,400	3410	.42	.57	.71	13.5	46,100	3690	.43	.58	.72	12.8	43,600	3970	.43	.59	.74	12.0	41,000	4220	.43	.60	.75
	685	1450	14.5	49,600	3440	.43	.58	.73	13.8	47,100	3730	.43	.59	.74	13.0	44,500	4000	.44	.60	.76	12.2	41,800	4260	.44	.62	.78
	755	1600	14.9	50,700	3470	.43	.59	.75	14.1	48,000	3760	.44	.60	.77	13.2	45,200	4040	.44	.62	.79	12.4	42,400	4290	.45	.64	.81

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-461-463 COOLING CAPACITY WITH C22-46(FC) INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	565	1200	12.6	43,100	3280	.70	.84	.97	12.0	41,000	3540	.71	.86	.99	11.4	38,800	3790	.73	.89	1.00	10.7	36,500	4020	.74	.92	1.00
	660	1400	13.1	44,800	3330	.73	.88	1.00	12.5	42,500	3600	.74	.91	1.00	11.8	40,200	3850	.76	.93	1.00	11.0	37,700	4090	.78	.96	1.00
	755	1600	13.5	46,200	3360	.76	.92	1.00	12.8	43,800	3640	.78	.94	1.00	12.1	41,400	3900	.80	.97	1.00	11.3	38,700	4140	.82	1.00	1.00
67°F (19.4°C)	565	1200	13.3	45,300	3340	.55	.69	.82	12.6	43,100	3620	.56	.70	.84	12.0	40,900	3880	.57	.72	.86	11.3	38,500	4120	.58	.74	.88
	660	1400	13.8	47,100	3390	.57	.71	.86	13.1	44,800	3670	.58	.73	.88	12.4	42,400	3940	.59	.75	.90	11.7	39,800	4190	.60	.77	.93
	755	1600	14.2	48,400	3430	.59	.74	.90	13.5	46,100	3720	.60	.76	.93	12.8	43,600	3990	.61	.78	.95	12.0	40,900	4240	.62	.81	.98
71°F (21.7°C)	565	1200	13.9	47,300	3400	.41	.55	.69	13.2	45,100	3680	.41	.56	.70	12.5	42,800	3960	.42	.57	.71	11.8	40,300	4210	.42	.58	.73
	660	1400	14.4	49,100	3450	.42	.57	.72	13.7	46,800	3740	.42	.58	.73	13.0	44,300	4020	.43	.59	.75	12.2	41,700	4280	.43	.60	.76
	755	1600	14.8	50,500	3490	.43	.59	.75	14.1	48,100	3790	.43	.60	.76	13.3	45,500	4070	.43	.61	.78	12.5	42,700	4330	.44	.63	.80

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-461-463 HEATING CAPACITY WITH CVP10-41/EC10Q3 OR CVP10-46/EC10Q4 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
615	1300	15.2	51,800	3480	11.7	39,900	2980	8.1	27,800	2480	5.4	18,500	2005	2.7	9200	1520
685	1450	15.4	52,400	3430	11.9	40,500	2930	8.3	28,400	2430	5.6	19,100	1955	2.8	9700	1470
755	1600	15.5	52,900	3385	12.0	41,100	2890	8.5	29,000	2390	5.7	19,600	1910	3.0	10,300	1425

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-461-463 HEATING CAPACITY WITH C22-46(FC) INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
565	1200	15.0	51,100	3565	11.5	39,200	3065	7.9	27,100	2565	5.2	17,700	2060	2.5	8600	1565
660	1400	15.2	52,000	3495	11.8	40,100	2995	8.2	28,000	2495	5.5	18,600	1985	2.8	9500	1495
755	1600	15.5	52,800	3435	12.0	40,900	2935	8.4	28,800	2435	5.7	19,300	1930	3.0	10,200	1435

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-461-463 HEATING PERFORMANCE at 1400 cfm (660 L/s) Indoor Coil Air Volume (C22-46(FC))

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3495	52,000	15.2
60	16	3365	49,100	14.4
55	13	3240	46,200	13.5
50	10	3115	43,300	12.7
47	8	3040	41,500	12.2
45	7	2995	40,100	11.8
40	4	2875	36,600	10.7
35	2	2760	33,100	9.7
30	-1	2625	30,600	9.0
25	-4	2495	28,000	8.2
20	-7	2365	25,500	7.5
17	-8	2285	24,000	7.0
15	-9	2235	23,100	6.8
10	-12	2110	20,800	6.1
5	-15	1985	18,600	5.5
0	-18	1865	16,300	4.8
-5	-21	1740	14,000	4.1
-10	-23	1615	11,700	3.4
-15	-26	1495	9500	2.8
-20	-29	1370	7200	2.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

HP23-461-463 HEATING PERFORMANCE at 1450 cfm (685 L/s) Indoor Coil Air Volume (CVP10-41 or CVP10-46)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3430	52,400	15.4
60	16	3305	49,500	14.5
55	13	3180	46,600	13.7
50	10	3060	43,700	12.8
47	8	2985	42,000	12.3
45	7	2930	40,500	11.9
40	4	2800	36,800	10.8
35	2	2665	33,000	9.7
30	-1	2550	30,700	9.0
25	-4	2430	28,400	8.3
20	-7	2315	26,100	7.6
17	-8	2250	24,700	7.2
15	-9	2200	23,700	6.9
10	-12	2075	21,400	6.3
5	-15	1955	19,100	5.6
0	-18	1835	16,700	4.9
-5	-21	1715	14,400	4.2
-10	-23	1590	12,100	3.5
-15	-26	1470	9700	2.8
-20	-29	1350	7400	2.2

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-461-463 COOLING CAPACITY WITH CB19-41 OR CBH19-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	615	1300	12.5	42,800	3240	.74	.90	1.00	11.9	40,700	3500	.76	.92	1.00	11.3	38,500	3740	.77	.94	1.00	10.6	36,300	3970	.79	.96	1.00
	685	1450	12.9	43,900	3280	.77	.93	1.00	12.2	41,600	3540	.78	.95	1.00	11.5	39,400	3790	.80	.97	1.00	10.9	37,200	4020	.82	.99	1.00
	755	1600	13.1	44,700	3310	.79	.95	1.00	12.5	42,600	3570	.81	.97	1.00	11.8	40,400	3830	.83	.99	1.00	11.1	38,000	4070	.85	1.00	1.00
67°F (19.4°C)	615	1300	13.3	45,400	3320	.58	.73	.87	12.6	43,100	3590	.59	.75	.89	12.0	40,800	3850	.60	.77	.91	11.2	38,300	4080	.61	.79	.94
	685	1450	13.6	46,500	3350	.60	.75	.90	12.9	44,100	3620	.61	.77	.92	12.2	41,600	3880	.62	.80	.95	11.4	39,000	4120	.63	.82	.97
	755	1600	13.9	47,400	3380	.61	.78	.93	13.2	44,900	3650	.62	.80	.96	12.4	42,300	3910	.64	.82	.98	11.6	39,600	4150	.65	.85	1.00
71°F (21.7°C)	615	1300	14.1	48,000	3400	.43	.57	.73	13.4	45,700	3680	.44	.58	.74	12.7	43,200	3950	.44	.60	.75	11.9	40,600	4200	.45	.61	.77
	685	1450	14.4	49,100	3430	.44	.59	.75	13.7	46,700	3720	.44	.60	.76	12.9	44,100	3990	.45	.62	.78	12.1	41,400	4240	.45	.63	.80
	755	1600	14.7	50,000	3460	.45	.61	.77	13.9	47,500	3740	.45	.62	.79	13.2	44,900	4020	.45	.64	.81	12.3	42,000	4270	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIII HP23-461-463 COOLING CAPACITY WITH CB19-41 OR CBH19-41 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	615	1300	12.1	41,400	3190	.74	.90	1.00	11.9	40,700	3500	.76	.92	1.00	11.3	38,500	3740	.77	.94	1.00	10.6	36,300	3970	.79	.96	1.00
	685	1450	12.5	42,500	3230	.77	.93	1.00	12.2	41,600	3540	.78	.95	1.00	11.5	39,400	3790	.80	.97	1.00	10.9	37,200	4020	.82	.99	1.00
	755	1600	12.7	43,300	3260	.79	.95	1.00	12.5	42,600	3570	.81	.97	1.00	11.8	40,400	3830	.83	.99	1.00	11.1	38,000	4070	.85	1.00	1.00
67°F (19.4°C)	615	1300	12.9	44,000	3270	.58	.73	.87	12.6	43,100	3590	.59	.75	.89	12.0	40,800	3850	.60	.77	.91	11.2	38,300	4080	.61	.79	.94
	685	1450	13.3	45,400	3300	.60	.75	.90	12.9	44,100	3620	.61	.77	.92	12.2	41,600	3880	.62	.80	.95	11.4	39,000	4120	.63	.82	.97
	755	1600	13.5	46,000	3330	.61	.78	.93	13.2	44,900	3650	.62	.80	.96	12.4	42,300	3910	.64	.82	.98	11.6	39,600	4150	.65	.85	1.00
71°F (21.7°C)	615	1300	13.7	46,600	3350	.43	.57	.73	13.4	45,700	3680	.44	.58	.74	12.7	43,200	3950	.44	.60	.75	11.9	40,600	4200	.45	.61	.77
	685	1450	14.0	47,700	3380	.44	.59	.75	13.7	46,700	3720	.44	.60	.76	12.9	44,100	3990	.45	.62	.78	12.1	41,400	4240	.45	.63	.80
	755	1600	14.2	48,600	3410	.45	.61	.77	13.9	47,500	3740	.45	.62	.79	13.2	44,900	4020	.45	.64	.81	12.3	42,000	4270	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-461-463 HEATING CAPACITY WITH CB19-41 OR CBH19-41 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
615	1300	15.1	51,700	3415	11.6	39,700	2940	8.1	27,500	2460	5.3	18,200	1995	2.6	9000	1510
685	1450	15.3	52,300	3365	11.8	40,300	2890	8.2	28,100	2410	5.5	18,800	1945	2.8	9600	1460
755	1600	15.5	52,800	3320	12.0	40,800	2845	8.4	28,600	2365	5.7	19,400	1900	3.0	10,200	1415

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-461-463 HEATING PERFORMANCE at 1450 cfm (685 L/s) Indoor Coil Air Volume (CB19-41 or CBH19-41)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3365	52,300	15.3
60	16	3245	49,300	14.4
55	13	3130	46,400	13.6
50	10	3010	43,500	12.7
47	8	2940	41,800	12.2
45	7	2890	40,300	11.8
40	4	2760	36,500	10.7
35	2	2630	32,800	9.6
30	-1	2520	30,400	8.9
25	-4	2410	28,100	8.2
20	-7	2300	25,700	7.5
17	-8	2235	24,300	7.1
15	-9	2185	23,400	6.9
10	-12	2065	21,100	6.2
5	-15	1945	18,800	5.5
0	-18	1825	16,500	4.8
-5	-21	1705	14,200	4.2
-10	-23	1580	11,900	3.5
-15	-26	1460	9600	2.8
-20	-29	1340	7300	2.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-461-463 COOLING CAPACITY WITH C22-51(FC) OR CR22-51/B24 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	565	1200	12.6	43,100	3280	.70	.84	.97	12.0	41,000	3550	.71	.87	.99	11.4	38,800	3800	.73	.89	1.00	10.7	36,500	4030	.75	.92	1.00
	660	1400	13.1	44,800	3340	.73	.88	1.00	12.5	42,500	3610	.75	.91	1.00	11.8	40,100	3860	.77	.94	1.00	11.0	37,700	4100	.79	.97	1.00
	755	1600	13.5	46,200	3370	.76	.92	1.00	12.8	43,800	3650	.78	.95	1.00	12.1	41,400	3920	.80	.98	1.00	11.4	38,900	4160	.83	1.00	1.00
67°F (19.4°C)	565	1200	13.2	45,200	3350	.55	.69	.82	12.6	43,100	3630	.56	.70	.84	12.0	40,800	3890	.57	.72	.86	11.3	38,400	4130	.58	.74	.88
	660	1400	13.8	47,100	3400	.57	.72	.87	13.1	44,800	3680	.58	.73	.89	12.4	42,300	3950	.59	.75	.91	11.7	39,800	4200	.60	.78	.94
	755	1600	14.2	48,400	3440	.59	.75	.91	13.5	46,000	3730	.60	.76	.93	12.7	43,500	4000	.61	.79	.96	12.0	40,800	4260	.63	.82	.99
71°F (21.7°C)	565	1200	13.8	47,200	3400	.41	.55	.69	13.2	45,000	3690	.42	.56	.70	12.5	42,700	3970	.42	.57	.72	11.8	40,200	4230	.42	.58	.73
	660	1400	14.4	49,100	3460	.42	.57	.72	13.7	46,800	3750	.42	.58	.73	13.0	44,300	4030	.43	.59	.75	12.2	41,600	4290	.43	.61	.77
	755	1600	14.8	50,500	3500	.43	.59	.75	14.1	48,000	3800	.43	.60	.77	13.3	45,400	4080	.44	.61	.78	12.5	42,700	4350	.44	.63	.81

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-461-463 COOLING CAPACITY WITH CH22-51 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	565	1200	12.5	42,800	3250	.70	.84	.97	12.0	41,000	3520	.71	.86	.99	11.4	38,900	3780	.72	.89	1.00	10.8	36,700	4010	.74	.92	1.00
	660	1400	12.9	44,100	3300	.73	.87	1.00	12.4	42,400	3570	.75	.90	1.00	11.8	40,200	3830	.76	.93	1.00	11.1	37,800	4070	.78	.97	1.00
	755	1600	13.4	45,600	3330	.76	.91	1.00	12.7	43,400	3610	.78	.94	1.00	12.1	41,200	3870	.80	.98	1.00	11.5	39,100	4130	.82	1.00	1.00
67°F (19.4°C)	565	1200	13.3	45,300	3320	.55	.69	.82	12.7	43,300	3600	.56	.70	.84	12.0	41,100	3870	.57	.72	.85	11.4	38,800	4110	.58	.74	.88
	660	1400	13.7	46,700	3370	.57	.71	.86	13.1	44,700	3650	.58	.73	.88	12.5	42,500	3920	.59	.75	.90	11.8	40,100	4180	.60	.77	.93
	755	1600	14.0	47,900	3400	.59	.73	.91	13.4	45,800	3690	.60	.76	.93	12.7	43,400	3970	.61	.78	.95	12.0	41,000	4220	.62	.81	.98
71°F (21.7°C)	565	1200	13.9	47,400	3390	.41	.55	.69	13.3	45,400	3670	.41	.56	.70	12.6	43,100	3950	.42	.57	.71	11.9	40,600	4210	.42	.58	.73
	660	1400	14.4	49,200	3430	.42	.57	.72	13.8	47,000	3730	.42	.58	.73	13.0	44,500	4010	.43	.59	.74	12.3	42,000	4270	.43	.60	.76
	755	1600	14.8	50,500	3470	.43	.58	.75	14.1	48,100	3770	.43	.60	.76	13.4	45,600	4050	.43	.61	.78	12.6	43,000	4320	.44	.63	.80

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-461-463 HEATING CAPACITY WITH C22-51(FC) OR CR22-51/B24 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
565	1200	15.1	51,500	3530	11.6	39,500	3040	8.0	27,300	2555	5.2	17,700	2050	2.5	8600	1560
660	1400	15.4	52,400	3455	11.8	40,400	2965	8.3	28,200	2480	5.5	18,600	1980	2.8	9500	1485
755	1600	15.6	53,100	3395	12.0	41,100	2905	8.5	28,900	2420	5.7	19,400	1920	3.0	10,200	1425

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-461-463 HEATING CAPACITY WITH CH22-51 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
565	1200	15.1	51,600	3525	11.7	39,800	3035	8.2	28,000	2555	5.2	17,800	2055	2.5	8700	1560
660	1400	15.4	52,400	3450	11.9	40,600	2965	8.4	28,800	2480	5.5	18,600	1980	2.8	9500	1490
755	1600	15.6	53,100	3390	12.1	41,300	2905	8.6	29,500	2420	5.7	19,300	1920	3.0	10,200	1430

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-461-463 HEATING PERFORMANCE at 1400 cfm (660 L/s) Indoor Coil Air Volume (C22-51(FC) or CR22-51/B24)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3455	52,400	15.4
60	16	3330	49,400	14.5
55	13	3210	46,500	13.6
50	10	3085	43,500	12.7
47	8	3010	41,800	12.3
45	7	2965	40,400	11.8
40	4	2850	36,800	10.8
35	2	2735	33,300	9.8
30	-1	2610	30,700	9.0
25	-4	2480	28,200	8.3
20	-7	2350	25,600	7.5
17	-8	2275	24,100	7.1
15	-9	2225	23,200	6.8
10	-12	2100	20,900	6.1
5	-15	1980	18,600	5.5
0	-18	1855	16,400	4.8
-5	-21	1730	14,100	4.1
-10	-23	1610	11,800	3.5
-15	-26	1485	9500	2.8
-20	-29	1365	7200	2.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

HP23-461-463 HEATING PERFORMANCE at 1400 cfm (660 L/s) Indoor Coil Air Volume (CH22-51)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3450	52,400	15.4
60	16	3325	49,500	14.5
55	13	3205	46,500	13.6
50	10	3080	43,600	12.8
47	8	3010	41,800	12.3
45	7	2965	40,600	11.9
40	4	2850	37,700	11.0
35	2	2735	34,800	10.2
30	-1	2610	31,800	9.3
25	-4	2480	28,800	8.4
20	-7	2350	25,900	7.6
17	-8	2275	24,100	7.1
15	-9	2225	23,200	6.8
10	-12	2105	20,900	6.1
5	-15	1980	18,600	5.5
0	-18	1855	16,300	4.8
-5	-21	1735	14,100	4.1
-10	-23	1610	11,800	3.5
-15	-26	1490	9500	2.8
-20	-29	1365	7200	2.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-511-513 COOLING CAPACITY WITH CR18-51 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	685	1450	14.1	48,000	3630	.72	.86	.99	13.5	45,900	3910	.73	.89	1.00	12.9	43,900	4200	.74	.90	1.00	12.2	41,700	4500	.76	.92	1.00
	780	1650	14.4	49,300	3670	.74	.90	1.00	13.8	47,100	3950	.76	.91	1.00	13.2	45,000	4250	.77	.93	1.00	12.6	42,900	4560	.79	.95	1.00
	875	1850	14.8	50,500	3700	.77	.92	1.00	14.2	48,300	3990	.79	.94	1.00	13.5	46,100	4290	.80	.96	1.00	12.9	43,900	4610	.82	.98	1.00
67°F (19.4°C)	685	1450	14.9	50,800	3710	.56	.71	.84	14.2	48,600	4000	.57	.72	.85	13.6	46,400	4310	.58	.73	.87	13.0	44,300	4620	.59	.75	.89
	780	1650	15.3	52,200	3740	.58	.73	.87	14.6	49,900	4040	.59	.74	.89	14.0	47,600	4350	.60	.76	.91	13.3	45,300	4670	.61	.78	.93
	875	1850	15.6	53,300	3770	.60	.75	.91	14.9	50,900	4080	.61	.77	.93	14.2	48,500	4390	.61	.79	.95	13.5	46,200	4710	.63	.81	.97
71°F (21.7°C)	685	1450	15.7	53,500	3780	.42	.56	.70	15.0	51,300	4090	.42	.57	.71	14.4	49,100	4410	.42	.58	.72	13.7	46,800	4730	.43	.59	.74
	780	1650	16.1	54,900	3820	.43	.58	.73	15.4	52,600	4130	.43	.59	.74	14.7	50,300	4460	.43	.60	.75	14.0	47,900	4790	.44	.61	.77
	875	1850	16.4	56,100	3850	.43	.59	.75	15.7	53,700	4170	.44	.60	.77	15.0	51,200	4500	.44	.61	.78	14.3	48,800	4830	.44	.63	.80

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-511-513 HEATING CAPACITY WITH CR18-51 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
685	1450	17.6	60,000	4115	13.3	45,500	3445	8.9	30,500	2770	6.1	20,700	2190	3.0	10,300	1660
780	1650	17.8	60,600	4045	13.5	46,100	3375	9.1	31,100	2700	6.2	21,300	2120	3.2	10,800	1590
875	1850	18.0	61,400	2435	13.7	46,900	1760	9.3	31,900	1090	6.4	22,000	505	3.4	11,600	–15

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-511-513 HEATING PERFORMANCE at 1650 cfm (780 L/s) Indoor Coil Air Volume (CR18-51)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	4045	60,600	17.8
60	16	3875	57,200	16.8
55	13	3710	53,700	15.7
50	10	3540	50,300	14.7
47	8	3440	48,200	14.1
45	7	3375	46,100	13.5
40	4	3205	40,800	12.0
35	2	3040	35,600	10.4
30	-1	2870	33,300	9.8
25	-4	2700	31,100	9.1
20	-7	2535	28,800	8.4
17	-8	2435	27,500	8.1
15	-9	2380	26,500	7.8
10	-12	2250	23,900	7.0
5	-15	2120	21,300	6.2
0	-18	1985	18,700	5.5
-5	-21	1855	16,100	4.7
-10	-23	1725	13,500	4.0
-15	-26	1590	10,800	3.2
-20	-29	1460	8200	2.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

♢ HP23-511-513 COOLING CAPACITY WITH CVP10-46/EC10Q4 OR CVP10-51/EC10Q4 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	685	1450	14.0	47,800	3620	.72	.86	.99	13.4	45,700	3900	.73	.87	1.00	12.7	43,500	4190	.74	.90	1.00	12.1	41,300	4490	.76	.93	1.00
	780	1650	14.4	49,000	3660	.75	.89	1.00	13.7	46,700	3950	.76	.93	1.00	13.1	44,700	4240	.77	.95	1.00	12.5	42,600	4540	.79	.97	1.00
	875	1850	14.7	50,100	3690	.77	.94	1.00	14.0	47,900	3980	.79	.96	1.00	13.4	45,800	4280	.81	.97	1.00	12.8	43,800	4590	.82	.99	1.00
67°F (19.4°C)	685	1450	14.9	50,900	3710	.56	.70	.84	14.3	48,700	4010	.57	.71	.85	13.7	46,600	4310	.58	.73	.87	13.0	44,400	4630	.58	.78	.89
	780	1650	15.4	52,400	3740	.58	.72	.87	14.6	49,900	4050	.59	.74	.89	14.0	47,700	4360	.59	.75	.91	13.3	45,400	4670	.60	.77	.93
	875	1850	15.6	53,400	3770	.60	.75	.91	14.9	50,900	4080	.60	.76	.93	14.2	48,600	4400	.61	.78	.95	13.6	46,300	4710	.62	.80	.97
71°F (21.7°C)	685	1450	15.9	54,100	3790	.42	.56	.70	15.2	51,800	4110	.42	.57	.71	14.5	49,600	4430	.42	.58	.72	13.9	47,300	4760	.43	.59	.73
	780	1650	16.2	55,400	3830	.42	.57	.72	15.6	53,100	4150	.43	.58	.74	14.9	50,800	4480	.43	.59	.75	14.2	48,300	4810	.43	.60	.76
	875	1850	16.6	56,600	3870	.43	.59	.75	15.9	54,200	4190	.43	.60	.76	15.2	51,700	4520	.44	.61	.78	14.4	49,200	4840	.44	.62	.80

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-511-513 COOLING CAPACITY WITH C22-51(FC) OR CR22-51/B24 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	660	1400	14.7	50,300	3690	.72	.86	.98	14.1	48,100	3980	.73	.88	1.00	13.5	46,000	4290	.74	.90	1.00	12.8	43,700	4600	.75	.92	1.00
	755	1600	15.2	51,800	3730	.74	.89	1.00	14.5	49,500	4030	.76	.91	1.00	13.9	47,300	4340	.77	.94	1.00	13.2	45,100	4660	.79	.96	1.00
	850	1800	15.6	53,200	3760	.77	.93	1.00	14.9	50,800	4070	.79	.95	1.00	14.2	48,500	4390	.80	.97	1.00	13.5	46,200	4720	.82	.99	1.00
67°F (19.4°C)	660	1400	15.4	52,600	3750	.56	.71	.84	14.8	50,400	4060	.57	.72	.86	14.2	48,300	4380	.58	.73	.87	13.5	46,100	4710	.59	.75	.89
	755	1600	15.9	54,300	3790	.58	.73	.88	15.2	52,000	4110	.59	.75	.89	14.6	49,700	4440	.60	.76	.91	13.9	47,400	4770	.61	.78	.93
	850	1800	16.3	55,700	3830	.60	.75	.91	15.6	53,300	4160	.61	.77	.93	14.9	51,000	4480	.62	.79	.95	14.2	48,500	4810	.63	.81	.98
71°F (21.7°C)	660	1400	16.0	54,700	3810	.42	.57	.71	15.4	52,500	4130	.42	.57	.72	14.8	50,400	4460	.43	.58	.73	14.1	48,100	4800	.43	.59	.74
	755	1600	16.6	56,600	3860	.43	.58	.73	15.9	54,300	4190	.43	.59	.74	15.2	51,800	4520	.43	.60	.76	14.5	49,400	4860	.44	.61	.77
	850	1800	17.0	58,100	3900	.43	.59	.76	16.3	55,700	4230	.44	.60	.77	15.6	53,200	4570	.44	.62	.79	14.9	50,700	4910	.44	.63	.80

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

♢ HP23-511-513 HEATING CAPACITY WITH CVP10-46/EC10Q4 OR CVP10-51/EC10Q4 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
685	1450	17.8	60,700	4010	13.5	46,000	3370	9.0	30,800	2730	6.1	20,900	2160	3.0	10,400	1640
780	1650	18.0	61,300	3945	13.7	46,600	3300	9.2	31,400	2660	6.3	21,500	2095	3.2	11,000	1575
875	1850	18.2	62,000	3895	13.9	47,400	3250	9.4	32,200	2610	6.5	22,300	2045	3.4	11,700	1525

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-511-513 HEATING CAPACITY WITH C22-51(FC) OR CR22-51/B24 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
660	1400	17.8	60,900	4010	13.4	45,800	3380	8.9	30,200	2755	5.9	20,300	2175	2.9	9900	1650
755	1600	18.1	61,800	3945	13.7	46,700	3315	9.1	31,100	2690	6.2	21,200	2110	3.2	10,800	1585
850	1800	18.3	62,500	3890	13.9	47,400	3260	9.3	31,700	2635	6.4	21,800	2055	3.4	11,500	1530

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

♢HP23-511-513 HEATING PERFORMANCE at 1650 cfm (780 L/s) Indoor Coil Air Volume (CVP10-46 or CVP10-51)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3945	61,300	18.0
60	16	3780	57,800	16.9
55	13	3620	54,300	15.9
50	10	3460	50,800	14.9
47	8	3365	48,700	14.3
45	7	3300	46,600	13.7
40	4	3140	41,300	12.1
35	2	2980	36,000	10.5
30	-1	2820	33,700	9.9
25	-4	2660	31,400	9.2
20	-7	2500	29,200	8.6
17	-8	2405	27,800	8.1
15	-9	2355	26,800	7.9
10	-12	2225	24,100	7.1
5	-15	2095	21,500	6.3
0	-18	1965	18,900	5.5
-5	-21	1835	16,200	4.7
-10	-23	1705	13,600	4.0
-15	-26	1575	11,000	3.2
-20	-29	1445	8300	2.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

HP23-511-513 HEATING PERFORMANCE at 1600 cfm (755 L/s)
Indoor Coil Air Volume (C22-51(FC) or CR22-51/B24)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3945	61,800	18.1
60	16	3785	58,200	17.1
55	13	3630	54,600	16.0
50	10	3470	51,100	15.0
47	8	3375	48,900	14.3
45	7	3315	46,700	13.7
40	4	3165	41,200	12.1
35	2	3015	35,700	10.5
30	-1	2850	33,400	9.8
25	-4	2690	31,100	9.1
20	-7	2525	28,800	8.4
17	-8	2425	27,400	8.0
15	-9	2370	26,300	7.7
10	-12	2240	23,800	7.0
5	-15	2110	21,200	6.2
0	-18	1980	18,600	5.5
-5	-21	1850	16,000	4.7
-10	-23	1715	13,400	3.9
-15	-26	1585	10,800	3.2
-20	-29	1455	8200	2.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-511-513 COOLING CAPACITY WITH CH22-51 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	660	1400	14.1	48,100	3650	.71	.85	.98	13.6	46,300	3940	.72	.87	1.00	13.1	44,600	4250	.73	.89	1.00	12.5	42,600	4570	.75	.92	1.00
	755	1600	14.5	49,500	3680	.74	.88	1.00	14.0	47,600	3980	.75	.90	1.00	13.4	45,700	4300	.77	.93	1.00	12.8	43,700	4630	.78	.96	1.00
	850	1800	14.9	50,800	3710	.77	.91	1.00	14.3	48,700	4020	.78	.93	1.00	13.7	46,600	4340	.80	.96	1.00	13.1	44,700	4670	.81	.99	1.00
67°F (19.4°C)	660	1400	14.9	50,700	3720	.56	.70	.84	14.3	48,900	4030	.57	.72	.85	13.7	46,900	4350	.57	.73	.86	13.2	45,000	4680	.58	.75	.88
	755	1600	15.2	52,000	3750	.58	.72	.87	14.7	50,000	4070	.58	.74	.89	14.1	48,100	4400	.59	.76	.90	13.5	46,100	4730	.60	.77	.92
	850	1800	15.6	53,400	3780	.59	.74	.91	15.0	51,200	4100	.60	.76	.93	14.3	48,900	4440	.61	.78	.95	13.7	46,900	4770	.62	.80	.97
71°F (21.7°C)	660	1400	15.6	53,300	3780	.42	.56	.70	15.0	51,300	4110	.42	.57	.71	14.4	49,300	4440	.42	.58	.72	13.8	47,100	4770	.42	.59	.73
	755	1600	16.0	54,700	3820	.42	.58	.73	15.4	52,700	4150	.43	.59	.74	14.8	50,600	4490	.43	.60	.75	14.2	48,300	4830	.43	.61	.76
	850	1800	16.4	55,900	3860	.43	.59	.75	15.8	53,800	4190	.43	.60	.77	15.1	51,500	4530	.44	.61	.78	14.4	49,200	4870	.44	.63	.80

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-511-513 HEATING CAPACITY WITH CH22-51 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
660	1400	17.8	60,700	4040	13.5	45,900	3400	9.0	30,700	2760	6.0	20,400	2175	2.9	10,000	1650
755	1600	18.0	61,500	3980	13.7	46,700	3335	9.2	31,400	2695	6.2	21,100	2115	3.2	10,800	1590
850	1800	18.2	62,200	3930	13.9	47,400	3285	9.4	32,100	2645	6.4	21,800	2060	3.4	11,500	1535

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-511-513 HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume (CH22-51)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3980	61,500	18.0
60	16	3815	58,000	17.0
55	13	3655	54,400	15.9
50	10	3495	50,900	14.9
47	8	3400	48,700	14.3
45	7	3335	46,700	13.7
40	4	3185	41,600	12.2
35	2	3035	36,600	10.7
30	-1	2865	34,000	10.0
25	-4	2695	31,400	9.2
20	-7	2530	28,900	8.5
17	-8	2430	27,400	8.0
15	-9	2375	26,300	7.7
10	-12	2245	23,700	6.9
5	-15	2115	21,100	6.2
0	-18	1980	18,600	5.5
-5	-21	1850	16,000	4.7
-10	-23	1720	13,400	3.9
-15	-26	1590	10,800	3.2
-20	-29	1455	8200	2.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-511-513 COOLING CAPACITY WITH CB19-51 OR CBH19-51 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	685	1450	14.7	50,200	3690	.74	.88	1.00	14.1	48,100	3990	.75	.90	1.00	13.5	46,100	4290	.76	.92	1.00	12.8	43,800	4600	.77	.94	1.00
	780	1650	15.1	51,700	3730	.76	.92	1.00	14.5	49,500	4030	.78	.94	1.00	13.8	47,200	4340	.79	.96	1.00	13.2	45,000	4660	.81	.98	1.00
	875	1850	15.5	52,900	3760	.79	.95	1.00	14.8	50,600	4070	.81	.97	1.00	14.2	48,300	4390	.82	.99	1.00	13.6	46,300	4710	.84	1.00	1.00
67°F (19.4°C)	685	1450	15.6	53,300	3770	.58	.72	.86	14.9	50,900	4080	.58	.73	.87	14.2	48,600	4390	.59	.75	.89	13.6	46,500	4710	.60	.77	.91
	780	1650	16.0	54,600	3810	.59	.75	.90	15.3	52,100	4120	.60	.77	.91	14.6	49,800	4440	.61	.78	.93	13.9	47,400	4760	.62	.80	.96
	875	1850	16.3	55,700	3840	.61	.78	.94	15.6	53,200	4160	.62	.79	.96	14.9	50,800	4480	.63	.81	.98	14.1	48,200	4800	.64	.84	1.00
71°F (21.7°C)	685	1450	16.4	56,000	3850	.43	.57	.72	15.7	53,700	4170	.43	.58	.73	15.0	51,300	4500	.43	.59	.74	14.3	48,800	4830	.44	.60	.76
	780	1650	16.8	57,500	3890	.44	.59	.75	16.1	55,000	4220	.44	.60	.76	15.4	52,500	4540	.44	.61	.77	14.7	50,000	4870	.45	.62	.79
	875	1850	17.2	58,700	3920	.44	.61	.77	16.4	56,100	4250	.45	.62	.79	15.7	53,600	4580	.45	.63	.80	14.9	50,800	4910	.46	.65	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

RFCIII HP23-511-513 COOLING CAPACITY WITH CB19-51 OR CBH19-51 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	685	1450	14.6	49,800	3690	.74	.88	1.00	14.1	48,100	3990	.75	.90	1.00	13.5	46,100	4290	.76	.92	1.00	12.8	43,800	4600	.77	.94	1.00
	780	1650	15.0	51,300	3730	.76	.92	1.00	14.5	49,500	4030	.78	.94	1.00	13.8	47,200	4340	.79	.96	1.00	13.2	45,000	4660	.81	.98	1.00
	875	1850	15.4	52,500	3760	.79	.95	1.00	14.8	50,600	4070	.81	.97	1.00	14.2	48,300	4390	.82	.99	1.00	13.6	46,300	4710	.84	1.00	1.00
67°F (19.4°C)	685	1450	15.5	52,900	3770	.58	.72	.86	14.9	50,900	4080	.58	.73	.87	14.2	48,600	4390	.59	.75	.89	13.6	46,500	4710	.60	.77	.91
	780	1650	15.9	54,200	3810	.59	.75	.90	15.3	52,100	4120	.60	.77	.91	14.6	49,800	4440	.61	.78	.93	13.9	47,400	4760	.62	.80	.96
	875	1850	16.2	55,300	3840	.61	.78	.94	15.6	53,200	4160	.62	.79	.96	14.9	50,800	4480	.63	.81	.98	14.1	48,200	4800	.64	.84	1.00
71°F (21.7°C)	685	1450	16.3	55,600	3850	.43	.57	.72	15.7	53,700	4170	.43	.58	.73	15.0	51,300	4500	.43	.59	.74	14.3	48,800	4830	.44	.60	.76
	780	1650	16.7	57,100	3890	.44	.59	.75	16.1	55,000	4220	.44	.60	.76	15.4	52,500	4540	.44	.61	.77	14.7	50,000	4870	.45	.62	.79
	875	1850	17.1	58,300	3920	.44	.61	.77	16.4	56,100	4250	.45	.62	.79	15.7	53,600	4580	.45	.63	.80	14.9	50,800	4910	.46	.65	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-511-513 HEATING CAPACITY WITH CB19-51 OR CBH19-51 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
685	1450	18.0	61,600	3830	13.7	46,600	3250	9.1	31,000	2670	6.1	20,900	2135	3.0	10,400	1620
780	1650	18.2	62,200	3760	13.8	47,200	3180	9.3	31,600	2600	6.3	21,500	2065	3.2	11,000	1550
875	1850	18.5	63,000	3710	14.0	47,900	3135	9.5	32,400	2555	6.5	22,300	2015	3.5	11,800	1500

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-511-513 HEATING PERFORMANCE at 1650 cfm (780 L/s) Indoor Coil Air Volume (CB19-51 or CBH19-51)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3760	62,200	18.2
60	16	3615	58,600	17.2
55	13	3470	55,100	16.1
50	10	3325	51,500	15.1
47	8	3240	49,300	14.4
45	7	3180	47,200	13.8
40	4	3035	41,700	12.2
35	2	2890	36,300	10.6
30	-1	2745	33,900	9.9
25	-4	2600	31,600	9.3
20	-7	2455	29,200	8.6
17	-8	2370	27,800	8.1
15	-9	2320	26,800	7.9
10	-12	2190	24,100	7.1
5	-15	2065	21,500	6.3
0	-18	1935	18,900	5.5
-5	-21	1805	16,200	4.7
-10	-23	1680	13,600	4.0
-15	-26	1550	11,000	3.2
-20	-29	1420	8300	2.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-511-513 WITH CH22-65 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	660	1400	14.4	49,000	3670	.71	.85	.98	13.8	47,000	3970	.72	.87	1.00	13.3	45,300	4280	.73	.89	1.00	12.7	43,400	4600	.74	.92	1.00
	755	1600	14.7	50,300	3700	.74	.88	1.00	14.2	48,400	4010	.75	.90	1.00	13.6	46,500	4330	.76	.93	1.00	13.0	44,500	4660	.78	.97	1.00
	850	1800	15.1	51,500	3730	.77	.91	1.00	14.5	49,500	4040	.78	.95	1.00	13.9	47,500	4370	.80	.97	1.00	13.3	45,500	4710	.81	1.00	1.00
67°F (19.4°C)	660	1400	15.2	51,700	3740	.56	.70	.83	14.6	49,700	4050	.56	.71	.84	14.0	47,900	4380	.57	.73	.86	13.5	45,900	4720	.58	.74	.87
	755	1600	15.6	53,200	3780	.57	.72	.87	14.9	51,000	4100	.58	.73	.88	14.4	49,000	4430	.59	.75	.90	13.8	47,000	4770	.60	.77	.92
	850	1800	15.9	54,300	3810	.59	.74	.91	15.3	52,100	4130	.60	.75	.92	14.7	50,000	4470	.61	.77	.94	14.0	47,800	4800	.62	.79	.96
71°F (21.7°C)	660	1400	16.0	54,700	3820	.41	.56	.69	15.4	52,700	4150	.42	.57	.70	14.8	50,500	4490	.42	.58	.71	14.1	48,200	4830	.42	.59	.73
	755	1600	16.4	56,100	3860	.42	.57	.72	15.8	53,800	4190	.42	.58	.73	15.2	51,700	4530	.43	.59	.75	14.4	49,300	4870	.43	.60	.76
	850	1800	16.8	57,200	3900	.43	.58	.75	16.1	54,900	4230	.43	.59	.76	15.4	52,500	4570	.44	.61	.78	14.7	50,200	4910	.44	.62	.79

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-511-513 COOLING CAPACITY WITH C22-65(FC) OR CR22-65/B24 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	660	1400	15.3	52,200	3740	.72	.86	.98	14.6	49,800	4040	.73	.88	1.00	13.9	47,500	4350	.74	.90	1.00	13.2	45,200	4660	.76	.92	1.00
	755	1600	15.8	53,800	3780	.74	.89	1.00	15.0	51,300	4080	.76	.92	1.00	14.3	48,700	4410	.77	.94	1.00	13.7	46,600	4720	.79	.96	1.00
	850	1800	16.1	55,000	3820	.77	.93	1.00	15.4	52,600	4130	.79	.95	1.00	14.7	50,300	4450	.80	.98	1.00	14.0	47,600	4780	.82	1.00	1.00
67°F (19.4°C)	660	1400	16.1	55,100	3820	.56	.70	.84	15.5	52,800	4140	.57	.71	.85	14.8	50,400	4460	.58	.73	.87	14.0	47,900	4790	.59	.75	.89
	755	1600	16.6	56,800	3870	.58	.73	.87	15.9	54,200	4190	.59	.74	.89	15.2	51,700	4520	.60	.76	.91	14.4	49,200	4850	.61	.78	.93
	850	1800	17.1	58,200	3900	.60	.75	.91	16.3	55,500	4230	.61	.77	.93	15.5	52,800	4560	.62	.79	.95	14.7	50,300	4890	.63	.81	.98
71°F (21.7°C)	660	1400	17.0	58,100	3900	.42	.56	.70	16.3	55,700	4230	.42	.57	.71	15.6	53,100	4560	.42	.58	.72	14.8	50,500	4900	.43	.59	.74
	755	1600	17.6	59,900	3950	.43	.58	.73	16.8	57,200	4280	.43	.58	.74	16.0	54,600	4620	.43	.59	.75	15.2	51,900	4950	.44	.61	.77
	850	1800	17.9	61,000	3990	.43	.59	.76	17.1	58,400	4320	.44	.60	.77	16.3	55,700	4660	.44	.61	.78	15.5	52,900	5000	.44	.63	.80

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-511-513 HEATING CAPACITY WITH CH22-65 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
660	1400	17.9	61,200	3980	13.5	46,200	3355	9.0	30,800	2735	6.0	20,400	2165	3.0	10,100	1640
755	1600	18.2	62,000	3920	13.8	47,000	3295	9.3	31,600	2675	6.2	21,200	2105	3.2	10,800	1580
850	1800	18.3	62,600	3870	14.0	47,600	3245	9.4	32,200	2625	6.4	21,900	2055	3.4	11,500	1530

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-511-513 HEATING CAPACITY WITH C22-65(FC) OR CR22-65/B24 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
660	1400	17.6	59,900	4145	13.2	45,100	3470	8.7	29,800	2800	5.9	20,100	2200	2.9	9900	1670
755	1600	17.8	60,700	4080	13.5	45,900	3405	9.0	30,600	2735	6.1	20,900	2135	3.1	10,700	1605
850	1800	18.0	61,400	4025	13.7	46,600	3350	9.2	31,300	2680	6.3	21,600	2080	3.3	11,300	1550

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-511-513 HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume (CH22-65)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3920	62,000	18.2
60	16	3760	58,400	17.1
55	13	3605	54,800	16.1
50	10	3450	51,200	15.0
47	8	3355	49,100	14.4
45	7	3295	47,000	13.8
40	4	3150	41,900	12.3
35	2	3000	36,800	10.8
30	-1	2840	34,200	10.0
25	-4	2675	31,600	9.3
20	-7	2515	29,000	8.5
17	-8	2415	27,500	8.1
15	-9	2365	26,400	7.7
10	-12	2235	23,800	7.0
5	-15	2105	21,200	6.2
0	-18	1970	18,600	5.5
-5	-21	1840	16,000	4.7
-10	-23	1710	13,400	3.9
-15	-26	1580	10,800	3.2
-20	-29	1450	8200	2.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

HP23-511-513 HEATING PERFORMANCE at 1600 cfm (755 L/s)
Indoor Coil Air Volume (C22-65(FC) or CR22-65/B24)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	4080	60,700	17.8
60	16	3910	57,200	16.8
55	13	3740	53,700	15.7
50	10	3570	50,200	14.7
47	8	3470	48,100	14.1
45	7	3405	45,900	13.5
40	4	3245	40,500	11.9
35	2	3085	35,100	10.3
30	-1	2910	32,900	9.6
25	-4	2735	30,600	9.0
20	-7	2560	28,400	8.3
17	-8	2455	27,000	7.9
15	-9	2400	26,000	7.6
10	-12	2270	23,500	6.9
5	-15	2135	20,900	6.1
0	-18	2000	18,300	5.4
-5	-21	1870	15,800	4.6
-10	-23	1735	13,200	3.9
-15	-26	1605	10,700	3.1
-20	-29	1470	8100	2.4

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-511-513 COOLING CAPACITY WITH CH19-51 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	780	1650	15.3	52,300	3740	.76	.92	1.00	14.6	49,900	4050	.78	.94	1.00	13.9	47,600	4360	.79	.96	1.00	13.3	45,500	4680	.80	.98	1.00
	875	1850	15.7	53,500	3780	.79	.95	1.00	15.0	51,200	4090	.80	.97	1.00	14.4	49,000	4410	.82	.99	1.00	13.7	46,700	4730	.84	1.00	1.00
67°F (19.4°C)	780	1650	16.1	55,100	3820	.59	.75	.89	15.4	52,600	4140	.60	.76	.91	14.7	50,200	4460	.61	.78	.93	13.9	47,600	4780	.62	.80	.95
	875	1850	16.5	56,300	3860	.61	.77	.93	15.8	53,800	4170	.62	.79	.95	15.0	51,100	4500	.63	.81	.97	14.2	48,600	4820	.64	.83	1.00
71°F (21.7°C)	780	1650	17.0	58,000	3910	.43	.59	.74	16.3	55,500	4230	.44	.60	.76	15.5	52,900	4560	.44	.61	.77	14.7	50,300	4890	.45	.62	.79
	875	1850	17.4	59,300	3940	.44	.60	.77	16.6	56,600	4270	.45	.62	.79	15.8	54,000	4600	.45	.63	.80	15.0	51,300	4930	.45	.64	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-511-513 HEATING CAPACITY WITH CH19-51 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (–4°C)			5°F (–15°C)			–15°F (–28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
780	1650	18.3	62,600	3760	13.9	47,500	3175	9.3	31,900	2595	6.4	21,800	2055	3.3	11,100	1545
875	1850	18.5	63,300	3710	14.2	48,300	3125	9.6	32,700	2545	6.6	22,600	2005	3.5	11,900	1495

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-511-513 HEATING PERFORMANCE at 1650 cfm (780 L/s) Indoor Coil Air Volume (CH19-51)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3760	62,600	18.3
60	16	3615	59,000	17.3
55	13	3470	55,400	16.2
50	10	3325	51,800	15.2
47	8	3235	49,700	14.6
45	7	3175	47,500	13.9
40	4	3030	42,100	12.3
35	2	2885	36,600	10.7
30	-1	2740	34,300	10.0
25	-4	2595	31,900	9.3
20	-7	2450	29,600	8.7
17	-8	2365	28,200	8.3
15	-9	2310	27,100	7.9
10	-12	2185	24,400	7.1
5	-15	2055	21,800	6.4
0	-18	1930	19,100	5.6
-5	-21	1800	16,400	4.8
-10	-23	1675	13,800	4.0
-15	-26	1545	11,100	3.3
-20	-29	1420	8500	2.5

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

♢HP23-651-653 COOLING CAPACITY WITH CVP10-51/EC10Q4 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	910	1925	16.9	57,600	4640	.73	.87	1.00	16.1	55,100	4990	.74	.89	1.00	15.4	52,600	5340	.75	.91	1.00	14.7	50,200	5670	.77	.95	1.00
	1015	2150	17.3	59,000	4670	.75	.90	1.00	16.6	56,600	5030	.76	.93	1.00	15.8	53,800	5390	.78	.96	1.00	15.0	51,300	5730	.80	.97	1.00
	1120	2375	17.6	60,000	4700	.78	.94	1.00	16.8	57,400	5070	.79	.96	1.00	16.1	54,900	5430	.81	.98	1.00	15.4	52,700	5780	.83	1.00	1.00
67°F (19.4°C)	910	1925	18.0	61,400	4750	.57	.71	.85	17.2	58,700	5120	.58	.72	.86	16.4	56,000	5490	.58	.74	.88	15.6	53,400	5840	.59	.75	.90
	1015	2150	18.4	62,700	4780	.58	.73	.88	17.6	60,000	5160	.59	.75	.90	16.7	57,100	5530	.60	.76	.92	15.9	54,400	5890	.61	.78	.94
	1120	2375	18.7	63,900	4810	.60	.75	.91	17.9	61,000	5190	.61	.77	.93	17.0	58,000	5570	.62	.79	.95	16.2	55,300	5930	.63	.81	.98
71°F (21.7°C)	910	1925	19.1	65,200	4850	.42	.57	.71	18.3	62,400	5240	.43	.57	.72	17.5	59,700	5630	.43	.58	.73	16.6	56,800	6010	.43	.59	.74
	1015	2150	19.5	66,600	4890	.43	.58	.73	18.7	63,800	5280	.43	.59	.74	17.8	60,900	5670	.44	.60	.76	17.0	57,900	6060	.44	.61	.77
	1120	2375	19.8	67,700	4920	.44	.59	.75	19.0	64,800	5320	.44	.60	.77	18.1	61,900	5710	.44	.61	.78	17.2	58,800	6100	.45	.62	.80

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-651-653 COOLING CAPACITY WITH CR18-65 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	910	1925	17.3	58,900	4670	.73	.88	1.00	16.5	56,300	5030	.74	.90	1.00	15.8	53,800	5390	.75	.91	1.00	15.0	51,200	5730	.77	.94	1.00
	1015	2150	17.7	60,300	4710	.75	.91	1.00	16.9	57,700	5080	.77	.92	1.00	16.1	55,000	5440	.78	.94	1.00	15.3	52,200	5790	.80	.97	1.00
	1120	2375	18.0	61,500	4750	.78	.93	1.00	17.3	58,900	5120	.79	.95	1.00	16.4	56,100	5480	.81	.97	1.00	15.6	53,300	5840	.83	.99	1.00
67°F (19.4°C)	910	1925	18.3	62,300	4770	.57	.72	.85	17.5	59,600	5140	.58	.73	.87	16.7	56,900	5520	.59	.74	.88	15.9	54,100	5870	.59	.76	.90
	1015	2150	18.6	63,600	4810	.59	.74	.88	17.8	60,900	5190	.59	.75	.90	17.0	58,000	5560	.60	.77	.92	16.1	55,100	5930	.61	.79	.94
	1120	2375	19.0	64,800	4840	.60	.76	.92	18.1	61,900	5220	.61	.78	.94	17.3	59,000	5600	.62	.79	.96	16.4	56,000	5970	.63	.81	.98
71°F (21.7°C)	910	1925	19.2	65,600	4860	.42	.57	.71	18.4	62,900	5250	.43	.58	.72	17.6	60,100	5640	.43	.59	.74	16.8	57,200	6020	.43	.60	.75
	1015	2150	19.6	67,000	4900	.43	.58	.74	18.8	64,100	5300	.43	.59	.75	18.0	61,300	5690	.44	.60	.76	17.1	58,300	6080	.44	.62	.78
	1120	2375	20.0	68,200	4930	.44	.60	.76	19.1	65,300	5330	.44	.61	.77	18.3	62,300	5730	.44	.62	.79	17.3	59,200	6120	.45	.63	.80

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

♢HP23-651-653 HEATING CAPACITY WITH CVP10-51/EC10Q4 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
910	1925	21.6	73,600	5260	16.7	57,100	4430	11.8	40,400	3605	7.9	27,100	2840	4.0	13,600	2145
1015	2150	21.7	74,200	5210	16.9	57,700	4380	12.0	41,000	3555	8.1	27,700	2785	4.1	14,100	2095
1120	2375	21.9	74,800	5160	17.1	58,400	4330	12.2	41,600	3505	8.3	28,400	2735	4.3	14,800	2045

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-651-653 HEATING CAPACITY WITH CR18-65 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
910	1925	21.5	73,200	5320	16.7	56,900	4470	11.8	40,200	3625	7.9	27,000	2850	4.0	13,500	2155
***	2150	21.6	73,800	5265	16.9	57,500	4420	12.0	40,800	3575	8.1	27,600	2795	4.1	14,100	2100
***	2375	21.8	74,500	5215	17.0	58,100	4365	12.1	41,400	3520	8.3	28,300	2745	4.3	14,800	2050

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

♢HP23-651-653 HEATING PERFORMANCE at 2150 cfm (1015 L/s) Indoor Coil Air Volume (CVP10-51/EC10Q4)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	5210	74,200	21.7
60	16	5000	70,200	20.6
55	13	4790	66,200	19.4
50	10	4580	62,200	18.2
47	8	4455	59,800	17.5
45	7	4380	57,700	16.9
40	4	4185	52,500	15.4
35	2	3995	47,300	13.9
30	-1	3775	44,100	12.9
25	-4	3555	41,000	12.0
20	-7	3335	37,800	11.1
17	-8	3205	35,900	10.5
15	-9	3135	34,500	10.1
10	-12	2960	31,100	9.1
5	-15	2785	27,700	8.1
0	-18	2615	24,300	7.1
-5	-21	2440	20,900	6.1
-10	-23	2270	17,500	5.1
-15	-26	2095	14,100	4.1
-20	-29	1920	10,800	3.2

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

HP23-651-653 HEATING PERFORMANCE at 2150 cfm (1015 L/s) Indoor Coil Air Volume (CR18-65)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	5265	73,800	21.6
60	16	5050	69,800	20.5
55	13	4840	65,900	19.3
50	10	4625	61,900	18.1
47	8	4495	59,500	17.4
45	7	4420	57,500	16.9
40	4	4220	52,300	15.3
35	2	4025	47,100	13.8
30	-1	3800	44,000	12.9
25	-4	3575	40,800	12.0
20	-7	3350	37,600	11.0
17	-8	3215	35,700	10.5
15	-9	3145	34,400	10.1
10	-12	2970	31,000	9.1
5	-15	2795	27,600	8.1
0	-18	2625	24,200	7.1
-5	-21	2450	20,900	6.1
-10	-23	2275	17,500	5.1
-15	-26	2100	14,100	4.1
-20	-29	1930	10,700	3.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-651-653 COOLING CAPACITY WITH CB19-51 OR CBH19-51 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	910	1925	17.8	60,900	4730	.75	.90	1.00	17.1	58,300	5100	.76	.92	1.00	16.3	55,600	5460	.77	.94	1.00	15.5	52,900	5820	.79	.96	1.00
	1015	2150	18.2	62,200	4770	.77	.93	1.00	17.5	59,600	5150	.79	.95	1.00	16.6	56,700	5520	.80	.97	1.00	15.9	54,100	5880	.82	.99	1.00
	1120	2375	18.6	63,400	4800	.80	.96	1.00	17.8	60,700	5190	.81	.98	1.00	17.0	58,000	5560	.83	.99	1.00	16.2	55,300	5930	.85	1.00	1.00
67°F (19.4°C)	910	1925	18.8	64,200	4830	.59	.73	.87	18.0	61,400	5210	.59	.75	.89	17.2	58,700	5590	.60	.76	.91	16.3	55,700	5950	.61	.78	.93
	1015	2150	19.2	65,500	4860	.60	.76	.91	18.3	62,600	5250	.61	.77	.93	17.5	59,800	5630	.62	.79	.95	16.6	56,800	6000	.63	.81	.97
	1120	2375	19.5	66,700	4890	.62	.78	.94	18.7	63,700	5280	.63	.80	.96	17.8	60,600	5670	.64	.82	.98	16.9	57,700	6050	.65	.84	1.00
71°F (21.7°C)	910	1925	19.8	67,600	4920	.44	.58	.73	19.0	64,700	5320	.44	.59	.74	18.1	61,900	5710	.44	.60	.76	17.3	58,900	6100	.45	.61	.77
	1015	2150	20.2	68,900	4950	.44	.60	.76	19.3	65,900	5360	.44	.61	.77	18.5	63,000	5760	.45	.62	.78	17.6	60,000	6150	.45	.63	.80
	1120	2375	20.6	70,200	4980	.45	.61	.78	19.7	67,100	5390	.45	.63	.79	18.8	64,100	5800	.46	.64	.81	17.8	60,900	6190	.46	.65	.83

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-651-653 HEATING CAPACITY WITH CB19-51 OR CBH19-51 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
910	1925	21.7	74,000	5105	16.8	57,300	4315	11.8	40,200	3535	7.9	26,900	2795	3.9	13,400	2110
1015	2150	21.9	74,600	5050	17.0	57,900	4265	12.0	40,800	3485	8.1	27,500	2740	4.1	14,000	2060
1120	2375	22.0	75,200	5000	17.1	58,500	4215	12.2	41,500	3430	8.3	28,200	2690	4.3	14,700	2010

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-651-653 HEATING PERFORMANCE at 2150 cfm (1015 L/s) Indoor Coil Air Volume (CB19-51 or CBH19-51)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	5050	74,600	21.9
60	16	4855	70,500	20.7
55	13	4655	66,500	19.5
50	10	4455	62,400	18.3
47	8	4340	60,000	17.6
45	7	4265	57,900	17.0
40	4	4085	52,600	15.4
35	2	3900	47,300	13.9
30	-1	3695	44,100	12.9
25	-4	3485	40,800	12.0
20	-7	3275	37,600	11.0
17	-8	3150	35,600	10.4
15	-9	3080	34,300	10.0
10	-12	2910	30,900	9.1
5	-15	2740	27,500	8.1
0	-18	2570	24,100	7.1
-5	-21	2400	20,800	6.1
-10	-23	2230	17,400	5.1
-15	-26	2060	14,000	4.1
-20	-29	1890	10,700	3.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

♢HP23-651-653 COOLING CAPACITY WITH CVP10-65/EC10Q5 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	910	1925	17.8	60,700	4730	.74	.89	1.00	17.1	58,200	5090	.75	.91	1.00	16.2	55,400	5460	.77	.93	1.00	15.5	52,900	5800	.78	.95	1.00
	1015	2150	18.2	62,200	4770	.77	.92	1.00	17.4	59,300	5140	.78	.94	1.00	16.6	56,600	5510	.80	.96	1.00	15.8	53,800	5870	.81	.98	1.00
	1120	2375	18.5	63,200	4800	.79	.95	1.00	17.8	60,600	5180	.81	.97	1.00	16.9	57,800	5550	.82	.99	1.00	16.1	55,100	5920	.84	1.00	1.00
67°F (19.4°C)	910	1925	18.8	64,300	4830	.58	.73	.87	18.0	61,500	5210	.59	.74	.88	17.2	58,700	5590	.60	.76	.90	16.3	55,800	5950	.61	.78	.92
	1015	2150	19.2	65,600	4860	.60	.75	.90	18.4	62,700	5250	.60	.77	.92	17.5	59,800	5630	.61	.78	.94	16.6	56,600	6000	.62	.81	.96
	1120	2375	19.5	66,700	4890	.61	.77	.93	18.6	63,600	5280	.62	.79	.95	17.8	60,600	5670	.63	.81	.98	16.9	57,800	6050	.64	.84	1.00
71°F (21.7°C)	910	1925	19.9	67,800	4920	.43	.58	.72	19.0	65,000	5320	.43	.58	.74	18.2	62,100	5720	.44	.59	.75	17.3	59,100	6110	.44	.61	.76
	1015	2150	20.3	69,200	4960	.44	.59	.75	19.4	66,200	5360	.44	.60	.76	18.5	63,200	5770	.44	.61	.77	17.6	60,100	6160	.45	.62	.79
	1120	2375	20.6	70,300	4990	.44	.61	.77	19.7	67,200	5390	.45	.62	.79	18.8	64,100	5800	.45	.63	.80	17.8	60,900	6200	.46	.64	.82

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-651-653 COOLING CAPACITY WITH C22-65(FC) OR CR22-65/B24 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	850	1800	18.2	59,300	4780	.72	.86	.99	17.5	56,900	5160	.73	.88	1.00	16.7	54,000	5540	.74	.90	1.00	15.9	51,200	5900	.76	.93	1.00
	945	2000	18.6	60,700	4820	.74	.89	1.00	17.9	57,900	5210	.75	.91	1.00	17.1	55,100	5590	.77	.93	1.00	16.4	52,300	5960	.79	.96	1.00
	1040	2200	19.0	62,100	4850	.76	.91	1.00	18.2	59,100	5240	.78	.94	1.00	17.5	56,200	5630	.79	.96	1.00	16.6	53,200	6010	.81	.99	1.00
67°F (19.4°C)	850	1800	19.2	62,800	4880	.56	.70	.84	18.5	60,100	5280	.57	.71	.85	17.7	57,300	5680	.58	.73	.87	16.7	54,400	6070	.59	.75	.89
	945	2000	19.6	64,200	4920	.57	.72	.87	18.9	61,300	5320	.58	.74	.88	17.8	58,500	5730	.59	.75	.90	16.8	55,600	6120	.60	.77	.93
	1040	2200	20.0	65,400	4950	.59	.74	.90	19.0	62,500	5360	.60	.76	.92	17.9	59,500	5770	.61	.78	.94	16.9	56,500	6170	.62	.80	.96
71°F (21.7°C)	850	1800	20.0	66,000	4970	.42	.56	.70	19.1	63,200	5380	.42	.57	.71	18.1	60,500	5800	.42	.58	.72	17.0	57,500	6220	.43	.59	.74
	945	2000	20.2	67,600	5010	.42	.57	.72	19.1	64,500	5430	.43	.58	.73	18.1	61,600	5850	.43	.59	.75	17.1	58,600	6270	.43	.60	.76
	1040	2200	20.3	68,800	50400	.43	.58	.74	19.2	65,800	5470	.43	.59	.76	18.2	62,700	5900	.43	.61	.77	17.2	59,500	6310	.44	.62	.79

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

♢HP23-651-653 HEATING CAPACITY WITH CVP10-65/EC10Q5 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
910	1925	21.7	73,900	5210	16.8	57,300	4395	11.8	40,400	3585	8.0	27,200	2830	4.0	13,600	2140
1015	2150	21.8	74,500	5155	17.0	57,900	4345	12.0	41,000	3535	8.1	27,800	2775	4.2	14,200	2085
1120	2375	22.0	75,200	5105	17.2	58,600	4290	12.2	41,700	3485	8.3	28,400	2725	4.3	14,800	2035

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-651-653 HEATING CAPACITY WITH C22-65(FC) OR CR22-65/B24 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
850	1800	22.1	75,400	5400	16.9	57,500	4445	11.5	39,300	3500	7.5	25,700	2705	3.7	12,500	2050
945	2000	22.5	76,700	5345	17.2	58,800	4390	11.9	40,500	3440	7.9	26,900	2650	4.0	13,800	1990
1040	2200	22.8	77,700	5300	17.5	59,800	4350	12.2	41,600	3400	8.2	28,000	2610	4.3	14,800	1950

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

♢HP23-651-653 HEATING PERFORMANCE at 2150 cfm (1015 L/s) Indoor Coil Air Volume (CVP10-65/EC10Q5)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	5155	74,500	21.8
60	16	4950	70,500	20.7
55	13	4745	66,500	19.5
50	10	4540	62,400	18.3
47	8	4420	60,000	17.6
45	7	4345	57,900	17.0
40	4	4155	52,700	15.4
35	2	3965	47,500	13.9
30	-1	3750	44,300	13.0
25	-4	3535	41,000	14.9
20	-7	3320	37,800	11.1
17	-8	3190	35,900	10.5
15	-9	3120	34,500	10.1
10	-12	2950	31,100	9.1
5	-15	2775	27,800	8.1
0	-18	2605	24,400	7.1
-5	-21	2430	21,000	6.2
-10	-23	2260	17,600	5.2
-15	-26	2085	14,200	4.2
-20	-29	1915	10,800	3.2

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

HP23-651-653 HEATING PERFORMANCE at 2000 cfm (945 L/s)
Indoor Coil Air Volume (C22-65(FC) or CR22-65/B24)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	5345	76,700	22.5
60	16	5105	72,300	21.2
55	13	4865	68,000	19.9
50	10	4625	63,600	18.6
47	8	4480	61,000	17.9
45	7	4390	58,800	17.2
40	4	4165	53,200	15.6
35	2	3935	47,600	14.0
30	-1	3690	44,100	12.9
25	-4	3440	40,500	11.9
20	-7	3195	37,000	10.8
17	-8	3045	34,900	10.2
15	-9	2980	33,500	9.8
10	-12	2815	30,200	8.9
5	-15	2650	26,900	7.9
0	-18	2485	23,600	6.9
-5	-21	2320	20,400	6.0
-10	-23	2155	17,100	5.0
-15	-26	1990	13,800	4.0
-20	-29	1830	10,500	3.1

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F(21°C).

COOLING AND HEATING RATINGS

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-651-653 COOLING CAPACITY WITH CH22-65 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	615	1300	16.9	57,600	4590	.64	.78	.88	16.3	55,500	4940	.65	.79	.90	15.6	53,400	5280	.66	.80	.91	15.0	51,200	5610	.67	.81	.93
	755	1600	17.8	60,700	4690	.68	.81	.95	17.2	58,600	5050	.69	.83	.96	16.5	56,300	5400	.70	.84	.98	15.8	53,800	5730	.72	.86	1.00
	895	1900	18.5	63,200	4750	.72	.85	1.00	17.8	60,600	5130	.73	.87	1.00	17.1	58,400	5490	.75	.89	1.00	16.3	55,700	5830	.76	.91	1.00
67°F (19.4°C)	615	1300	17.9	61,000	4690	.51	.65	.75	17.2	58,800	5060	.51	.65	.76	16.6	56,600	5410	.52	.66	.77	15.9	54,200	5760	.52	.67	.79
	755	1600	18.8	64,100	4790	.53	.67	.80	18.1	61,900	5170	.54	.68	.81	17.5	59,700	5540	.54	.69	.83	16.8	57,200	5890	.55	.70	.84
	895	1900	19.6	66,800	4860	.55	.70	.85	18.8	64,300	5240	.56	.71	.87	18.2	62,000	5620	.57	.72	.88	17.2	58,600	5900	.58	.74	.91
71°F (21.7°C)	615	1300	18.9	64,400	4790	.38	.52	.63	18.2	62,000	5170	.38	.53	.64	17.5	59,800	5540	.38	.53	.65	16.8	57,300	5900	.39	.54	.66
	755	1600	19.9	67,800	4880	.39	.54	.67	19.2	65,400	5280	.39	.55	.68	18.4	62,800	5630	.39	.55	.69	17.3	59,100	5810	.40	.56	.70
	895	1900	20.6	70,200	4950	.40	.56	.70	19.7	67,100	5240	.40	.56	.72	18.5	63,100	5470	.41	.58	.73	17.5	59,800	5700	.41	.59	.75

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-651-653 COOLING CAPACITY WITH CB19-65 OR CBH19-65 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	910	1925	19.0	64,900	4840	.73	.87	1.00	18.2	62,000	5220	.74	.89	1.00	17.3	59,100	5600	.75	.92	1.00	16.5	56,200	5970	.77	.94	1.00
	1015	2150	19.5	66,500	4880	.75	.90	1.00	18.5	63,300	5270	.76	.93	1.00	17.7	60,400	5660	.78	.95	1.00	16.8	57,300	6030	.80	.97	1.00
	1120	2375	19.8	67,600	4910	.78	.93	1.00	19.0	64,700	5310	.79	.96	1.00	18.0	61,500	5700	.81	.98	1.00	17.2	58,600	6090	.82	1.00	1.00
67°F (19.4°C)	910	1925	20.1	68,600	4940	.57	.71	.85	19.2	65,600	5340	.58	.73	.87	18.3	62,500	5730	.58	.74	.88	17.3	59,100	6120	.59	.76	.90
	1015	2150	20.6	70,200	4980	.58	.73	.88	19.7	67,100	5380	.59	.75	.90	18.7	63,800	5790	.60	.77	.92	17.7	60,500	6170	.61	.79	.94
	1120	2375	20.9	71,400	5010	.60	.76	.91	20.0	68,200	5420	.61	.77	.93	19.0	64,700	5830	.62	.79	.96	18.0	61,500	6220	.63	.82	.98
71°F (21.7°C)	910	1925	21.0	71,600	5020	.42	.57	.71	20.1	68,600	5440	.43	.57	.72	19.2	65,400	5850	.43	.58	.74	18.2	62,200	6260	.43	.59	.75
	1015	2150	21.4	73,100	5060	.43	.58	.74	20.5	70,000	5480	.43	.59	.75	19.6	66,800	5900	.44	.60	.76	18.6	63,600	6310	.44	.61	.78
	1120	2375	21.8	74,400	5090	.44	.60	.76	20.8	71,100	5520	.44	.61	.77	19.9	67,800	5940	.44	.62	.79	18.9	64,600	6350	.45	.63	.81

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-651-653 HEATING CAPACITY WITH CH22-65 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
615	1300	22.1	75,300	5450	16.8	57,400	4525	11.5	39,100	3600	7.5	25,600	2810	3.7	12,600	2135
755	1600	22.3	76,200	5355	17.1	58,300	4425	11.8	40,100	3505	7.8	26,600	2715	4.0	13,600	2040
895	1900	22.6	77,100	5275	17.3	59,100	4350	12.0	40,900	3430	8.0	27,400	2640	4.2	14,400	1965

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-651-653 HEATING CAPACITY WITH CB19-65 OR CBH19-65 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil															
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
910	1925	22.0	75,100	5030	17.1	58,200	4270	12.0	41,000	3515	8.1	27,500	2785	4.0	13,700	2105
1015	2150	22.2	75,700	4975	17.2	58,800	4215	12.2	41,600	3465	8.2	28,100	2735	4.2	14,300	2055
1120	2375	22.4	76,400	4925	17.4	59,500	4165	12.4	42,200	3410	8.4	28,700	2680	4.4	15,000	2000

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-651-653 HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume (CH22-65)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	5355	76,200	22.3
60	16	5120	71,900	21.1
55	13	4890	67,500	19.8
50	10	4655	63,200	18.5
47	8	4515	60,500	17.7
45	7	4425	58,300	17.1
40	4	4205	52,700	15.4
35	2	3985	47,200	13.8
30	-1	3745	43,600	12.8
25	-4	3505	40,100	11.8
20	-7	3265	36,500	10.7
17	-8	3120	34,400	10.1
15	-9	3050	33,100	9.7
10	-12	2885	29,800	8.7
5	-15	2715	26,600	7.8
0	-18	2545	23,300	6.8
-5	-21	2375	20,100	5.9
-10	-23	2210	16,800	4.9
-15	-26	2040	13,600	4.0
-20	-29	1870	10,300	3.0

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

HP23-651-653 HEATING PERFORMANCE at 2150 cfm (1015 L/s) Indoor Coil Air Volume (CB19-65 or CBH19-65)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	4975	75,700	22.2
60	16	4785	71,600	21.0
55	13	4595	67,500	19.8
50	10	4400	63,400	18.6
47	8	4290	61,000	17.9
45	7	4215	58,800	17.2
40	4	4040	53,500	15.7
35	2	3865	48,100	14.1
30	-1	3665	44,900	13.2
25	-4	3465	41,600	12.2
20	-7	3260	38,300	11.2
17	-8	3140	36,300	10.6
15	-9	3075	34,900	10.2
10	-12	2905	31,500	9.2
5	-15	2735	28,100	8.2
0	-18	2565	24,600	7.2
-5	-21	2395	21,200	6.2
-10	-23	2225	17,800	5.2
-15	-26	2055	14,300	4.2
-20	-29	1885	10,900	3.2

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

NOTE — For Temperatures and Capacities not shown in tables, see bulletin — Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

HP23-651-653 COOLING CAPACITY WITH CH19-65 INDOOR COIL UNIT

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Compressor Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb		
	L/s	cfm	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C	kW	Btuh		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17.2°C)	1015	2150	19.4	66,200	4880	.75	.91	1.00	18.6	63,500	5270	.77	.93	1.00	17.8	60,500	5660	.78	.95	1.00	16.8	57,200	6040	.80	.97	1.00
	1120	2375	19.8	67,700	4920	.78	.94	1.00	19.0	64,700	5310	.79	.96	1.00	18.0	61,600	5700	.81	.98	1.00	17.2	58,600	6090	.83	1.00	1.00
67°F (19.4°C)	1015	2150	20.5	69,900	4980	.58	.74	.89	19.6	66,900	5380	.59	.75	.90	18.7	63,800	5790	.60	.77	.92	17.7	60,300	6180	.61	.79	.95
	1120	2375	20.8	71,000	5010	.60	.76	.92	19.8	67,700	5420	.61	.78	.94	19.0	64,700	5830	.62	.80	.96	18.0	61,400	6230	.63	.83	.98
71°F (21.7°C)	1015	2150	21.5	73,300	5060	.43	.58	.74	20.6	70,200	5480	.43	.59	.75	19.6	67,000	5900	.43	.60	.76	18.7	63,800	6320	.44	.61	.78
	1120	2375	21.8	74,400	5090	.43	.59	.76	20.9	71,200	5520	.44	.60	.78	19.9	67,900	5940	.44	.62	.79	18.9	64,500	6360	.45	.63	.81

NOTE — All values are gross capacities and do not include evaporator coil blower motor heat deduction.

HP23-651-653 HEATING CAPACITY WITH CH19-65 INDOOR COIL UNIT

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			45°F (7°C)			25°F (–4°C)			5°F (–15°C)			–15°F (–28°C)		
		Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input	Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
1015	2150	22.2	75,900	4955	17.3	58,900	4205	12.2	41,600	3455	8.2	28,100	2725	4.2	14,300	2050
1120	2375	22.4	76,500	4905	17.4	59,500	4150	12.4	42,200	3405	8.4	28,700	2675	4.4	15,000	2000

NOTE — Heating capacities include the effect of defrost cycles in the temperature range where they occur.

HP23-651-653 HEATING PERFORMANCE at 2150 cfm (1015 L/s) Indoor Coil Air Volume (CH19-65)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	4955	75,900	22.2
60	16	4765	71,700	21.0
55	13	4575	67,600	19.8
50	10	4385	63,500	18.6
47	8	4275	61,000	17.9
45	7	4205	58,900	17.3
40	4	4030	53,500	15.7
35	2	3855	48,200	14.1
30	-1	3655	44,900	13.2
25	-4	3455	41,600	12.2
20	-7	3255	38,300	11.2
17	-8	3135	36,300	10.6
15	-9	3065	34,900	10.2
10	-12	2895	31,500	9.2
5	-15	2725	28,100	8.2
0	-18	2560	24,600	7.2
-5	-21	2390	21,200	6.2
-10	-23	2220	17,800	5.2
-15	-26	2050	14,300	4.2
-20	-29	1880	10,900	3.2

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).