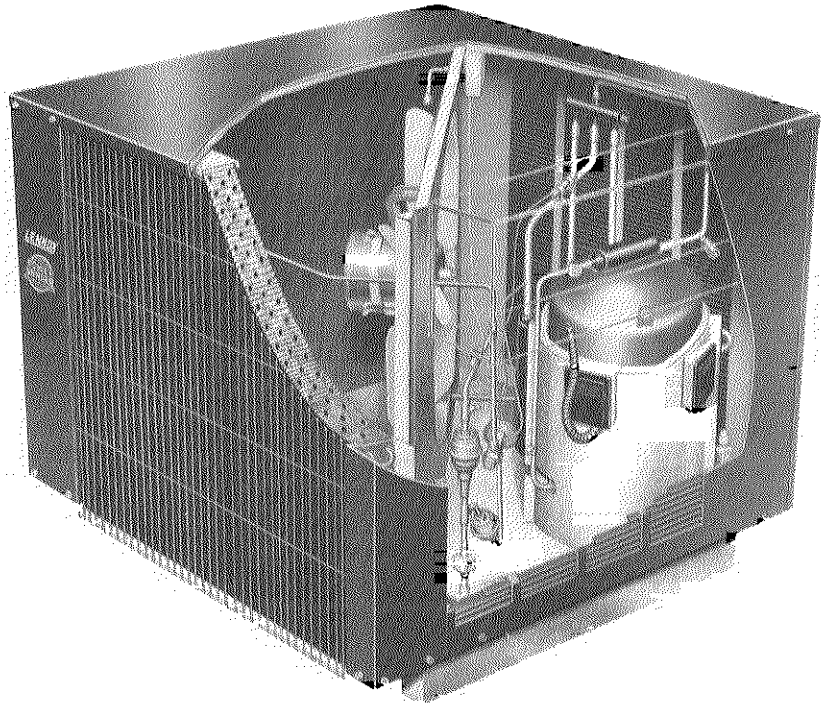
LENNOX®

HP14 POWER MINDER™ SERIES HEAT PUMP OUTDOOR UNITS

***33,800 to 59,000 Btuh Cooling Capacity**
***33,000 to 61,500 Btuh Heating Capacity**

*ARI Standard 240 Certified Ratings

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



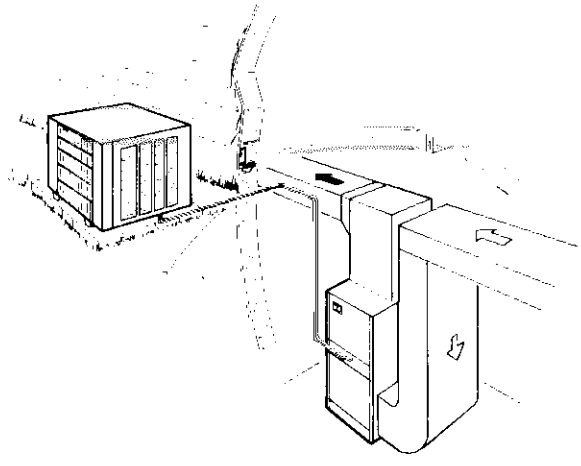
Lennox HP14 POWER MINDER With Two Speed Compressor Provides High Seasonal Efficiencies At Minimum Operating Cost

The HP14 line of outdoor units are equipped with the Lennox high efficiency two-speed compressor staged to deliver the precise heating or cooling capacity desired. The compressor operates on low speed under moderate heating or cooling loads and automatically shifts to high speed for heavy load conditions. Defrost cycles are automatic and occur only when coil conditions cause a reduction in performance.

HP14 units have SEER's of up to 12.55 with a cooling capacity range of 33,800 to 59,000 Btuh and COP ratings of up to 3.30 with heating capacities of 33,000 to 61,500 Btuh. Matching blower powered indoor units with optional supplemental electric heaters are available in up-flo, down-flo, and horizontal models. For Fuelmaster + ™ applications and complete indoor unit data see individual bulletins indexed in this tab section.

The units are shipped factory assembled, piped and wired ready for installation. Additionally, each unit is test operated at the factory before shipping to ensure unit dependability and proper operation at the job site.

Typical Application



NOTE — Specifications, Ratings and Dimensions subject to change without notice.

FEATURES

Weather Resistant Cabinet — Heavy gauge galvanized steel cabinet is subject to a five station metal wash process. This preparation results in a perfect bonding surface for the finish coat of baked-on enamel. Attractive enamel finish gives the cabinet long lasting all weather protection. Top panel is lined with thick acoustical fiberglass insulation. Drain slots in the base section provide condensate and defrost drainage. Base is sloped to assure rapid removal of water. Heavy duty support rails under the base raise the unit off of the mounting surface away from damaging moisture. Factory installed compressor cover encloses the compressor and reduces operating sound level. Constructed of heavy gauge galvanized steel and completely lined with one inch thick fiberglass insulation.

Control Box — Large size and conveniently located in the unit for easy access. Prewired at the factory. Electrical inlet holes are provided in the box and cabinet for wiring entry.

Lennox Two-Speed Compressor — The Lennox two-speed compressor is designed for superior operating efficiency at minimum cost. Two speed operation gives staging control to fit varying heating and cooling load requirements, extends service life of the compressor and provides operation economy during periods of reduced loads. Reliable compressor is hermetically sealed with built-in protection from excessive current and temperatures. Suction cooled and overload protected. Large housing, spring loaded discharge valve, high intake ports and crankcase heater result in effective slugging protection. Crankshaft is statically and dynamically computer balanced. Low clearance volume piston and cylinder yields increased volumetric efficiency. Strategically located discharge mufflers result in quiet operation. Immersible self-regulating type crankcase heater is temperature actuated to operate only when required and ensures proper lubrication at all times. Motor is located within refrigerant flow pattern resulting in low motor winding temperatures. Twin solid-state temperature sensors imbedded in motor windings provides protection from excessive temperatures. Solid-state overload protector is furnished in the unit control box. Operates at 1750 rpm at low speed and 3500 rpm at high speed. A positive interlock between speeds prevents both speeds from being energized simultaneously. Entire running gear assembly is spring mounted within the sealed housing. In addition, compressor is installed in unit on resilient rubber mounts.

Efficient Outdoor Fan — Direct drive fan moves large air volumes uniformly through the dual outdoor coils resulting in high refrigerant cooling and heating capacity. Removal of louvered cabinet panels allows complete service acess to the fan and motor. Air enters unit thru the louvered panels and is discharged thru the coils. Blow thru flow of air results in condensate removal external to unit. Fan motor is inherently protected and totally enclosed.

Dual Copper Tube Outdoor Coils — Lennox designed and constructed outdoor coils provide large surface and contact area for highest efficiency. Inverted coil circuiting prevents ice buildup at coil base in low ambients. Discharge gas enters bottom of coil during defrost and heat of refrigerant flows counter to water drainage resulting in extremely clean and unobstructed fins and tubes. Coils are constructed of precisely spaced ripple-edged fins machine fitted to copper tubes. Fin spacing allows rapid and complete water drainage. Fins are strengthened to resist bending and are equipped with collars that grip tubing for maximum contact area resulting in excellent heat transfer. Flared tubing joints and silver soldering provide tight leakproof joints. Long life copper tubing is corrosion resistant and easy to field service. Coil is thoroughly tested under pressure to insure leakproof construction. Non-corrosive coated PVC coated steel wire coil guard is furnished.

Suction Line Accumulator — Factory installed and piped. Traps and prevents large amounts of liquid refrigerant from flooding directly into the compressor and causing damage on start-ups and refrigerant cycle change.

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

Outdoor Unit Expansion Valve — Designed and sized specifically for use in heat pump system. Sensor is located on the suction line between reversing valve and compressor thus sensing suction temperature in any cycle. Factory installed and piped.

Crankcase Thermostat — Protects system from high discharge temperature and lubrication breakdown. Factory wired and installed on the compressor. Automatic reset.

Start Controls — Furnished and factory installed. Provides assistance for compressor start under loaded conditions or in the event of low voltage.

High Pressure Switch — Factory installed and wired. Protects system from abnormal operating conditions. Manual reset.

Lennox TSC-1 Timed Start Control Module — Furnished and factory installed. Prevents compressor short-cycling and also allows time for suction and discharge pressure to equalize, permitting the compressor to start in an unloaded condition. Module also provides a time delay between compressor shutoff and start-up and between speed changes.

Refrigerant Line Connections, Electrical Inlets and Service Valves — Vapor and liquid line connections are made with sweat connections. Field wiring inlets are conveniently located for ease of entry. Furnished and factory installed are a thermometer well, sight glass, a shrader fitting in the vapor and discharge lines, and a shutoff valve with gauge ports on the vapor and liquid lines.

Hi-Capacity Two Drier Check Valve System — Unique two drier (with internal check valve) system is utilized in both the cooling and heating cycles. Driers are factory installed in the liquid line assuring a clean system at all times.

Defrost Control — Units are equipped with an air pressure differential defrost control with a override termination timer. Factory installed air pressure switch, activated by the pressure difference across the outdoor coil due to frost accumulation, automatically initiates the defrost cycle. The defrost cycle is terminated by a temperature sensing element which senses the refrigerant temperature leaving the outdoor coil or by the 10 minute override timer. A defrost cycle is called for only when sufficient frost has accumulated on the coil to cause the necessary air pressure difference. Unit operation will not be interrupted by an unnecessary defrost cycle caused by changes in other parts of the system due to malfunction. The defrost control is factory set.

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

Refrigerant Line Kits (Optional) — Lines are available in several lengths and must be ordered extra. See Refrigerant Line Kit table for selection. The refrigerant 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) on one end and less any fitting (stubbed) on the opposite end for connection to the outdoor unit. Kits are not available for HP14-410/650V models and lines must be furnished by the installer. Refrigerant line length should not exceed 50 ft. in any installation. If longer length lines are required, contact your Lennox Division Service Manager.

Indoor Blower Speed Relay Kit (Optional) — Relay kit (72G86) provides optimum humidity control conditions by automatically reducing the indoor blower speed during continuous fan or low speed compressor operation. Kit must be ordered extra and field installed.

Mounting Base (Optional) — Rugged mounting base provides permanent foundation for outdoor units. High density polyethylene structural material is lightweight, sturdy, sound absorbing and will withstand the rigors of the sun, heat, cold, moisture, oil and refrigerant. Will not mildew or rot. Can be shipped singly or in packages of 6 to a carton. Use MB1-32 (83C83) 32" x 34" x 3". Shipping weight 15 lbs.

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 (LB-29740BA) and mounting box (M-1595) must be ordered extra.

Completely Tested and Certified — Units have been tested with matching indoor units in the Lennox Research Laboratory environmental test room and rated according to U.S. Department of Energy (DOE) test procedures and in accordance with ARI Standard 240-81. In addition, units are U.L. Listed and 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. and N.E.C.

SELECTOR

Outdoor Unit Model No. ★ARI Std. 270 SRN (bels)	†ARI Standard 240 Ratings											Indoor Unit	☆Check and Expansion Valve Kit
	Clg. Cap. (Btuh)	High Temp. Htg. Cap. (Btuh)	Low Temp. Htg. Cap. (Btuh)	Total Unit Clg. Watts	SEER (Btuh/ Watt)	EER (Btuh/ Watt)	Total Unit High Temp. Htg. Watts	*HSPF	High Temp. Htg. C.O.P.	Total Unit Low Temp. Htg. Watts	Low Temp. Htg. C.O.P.		
HP14-261/411V (7.8)	33,800	34,400	18,800	3930	10.60	8.60	3477	7.15	2.90	2755	2.00	CPS16-41/46V /ES16Q4	•Factory Installed
	33,800	34,400	18,800	3930	10.85	8.60	3477	7.15	2.90	2755	2.00	CP16-41V/E16Q3 CP16-46V/E16Q4	
	35,400	33,000	19,000	4003	10.90	8.85	3314	7.30	2.92	2680	2.08	CB18-51 CBS18-51	LB-34792BG
	36,600	33,600	19,600	3833	12.00	9.55	3136	8.00	3.14	2498	2.30	CB15-41FF	
HP14-311/511V HP14-313/513V (8.0)	45,500	48,500	26,200	5353	10.40	8.50	4802	7.40	2.96	3801	2.02	CP16-51V/E16Q4	•Factory Installed
	44,000	47,500	25,600	5301	9.45	8.30	5008	7.10	2.78	3949	1.90	CH16-51FF/ES16Q5	LB-34792BF
	45,500	48,500	26,200	5417	9.70	8.40	4802	7.30	2.96	3801	2.02	CH16-65V/ES16Q5	•Factory Installed
	47,500	49,500	28,400	5626	10.40	8.45	4935	7.40	2.94	3949	2.10	CB18-65 CBS18-65	LB-34792BF
	51,000	49,000	25,400	5340	12.55	9.55	4352	8.00	3.30	3384	2.20	CB15-65	
HP14-411/651V	57,000	58,500	36,000	7170	9.95	7.95	6123	7.35	2.80	4885	2.16	CH16-65V/ES16Q5	•Factory Installed
HP14-413/653V (7.8)	57,000	58,500	36,000	7170	10.05	7.95	6123	7.55	2.80	4840	2.18	CP16-65V/E16Q5	
	59,000	61,500	35,600	6982	11.00	8.45	5890	8.15	3.06	4536	2.30	CB15-65	LB-34792BF

★Sound Rating Number in accordance with ARI Standard 270.
†Rated in accordance with ARI Standard 240 and DOE; with 25 ft. of connecting refrigerant lines.
Cooling Ratings — 95° outdoor air temperature and 80°F db/67° wb entering indoor coil air.
High Temperature Heating Ratings — 47° db/43°F wb outdoor air temperature and 70°F db entering indoor coil air.
Low Temperature Heating Ratings — 17°F db/15°F wb outdoor air temperature and 70°F db entering indoor coil air.
*Heating Seasonal Performance Factor.
☆Kit must be ordered extra and field installed.
•Furnished as standard with coil and factory installed.

SPECIFICATIONS

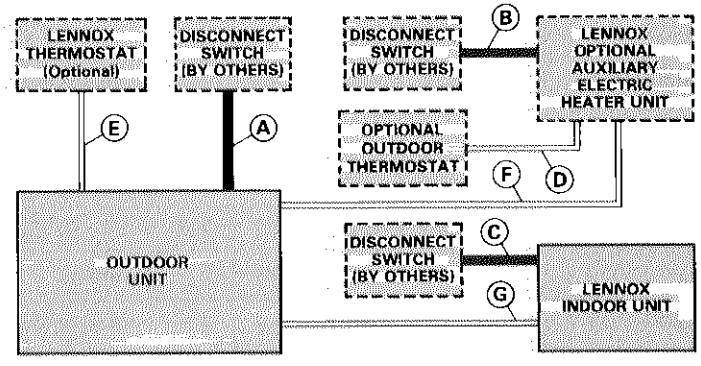
Model No.		HP14-261/411V	HP14-311/511V HP14-313/513V	HP14-411/651V HP14-413/653V
Outdoor Coil	Net face area (sq. ft.)	10.11	12.9	12.9
	Tube diameter (in.)	3/8	3/8	3/8
	No. of rows	3	3	4
	Fins per inch	15	15	15
Outdoor Fan	Diameter (in.)	20	24	24
	No. of blades	4	4	4
	Motor hp	1/5	1/4	1/4
	Cfm	2600	3300	3500
	Rpm	1100	840	850
	Watts	240	325	320
Refrigerant-22 (charge furnished)		11 lbs. 5 oz.	15 lbs. 0 oz.	18 lbs. 14 oz.
Liquid line connection (sweat)		3/8	3/8	1/2
Vapor line connection (sweat)		3/4	7/8	1-1/8
Shipping weight (lbs.)		374	408	438
Number of packages in shipment		1	1	1

ELECTRICAL DATA

Model Number		HP14-261/411V	HP14-311/511V	HP14-313/513V	HP14-411/651V	HP14-413/653V
Line voltage data — 60 hz		208/230v/1ph	208/230v/1ph	208/230v/3ph	208/230v/1ph	208/230v/3ph
Compressor	Rated load amps	17.0	22.0	16.1	32.0	20.0
	Power factor	.97	.97	.90	.97	.90
	Locked rotor amps	90.0	133.0	125.0	163.0	144.0
Outdoor Coil Fan Motor	Full load amps	2.0	2.0	2.0	2.0	2.0
	Locked rotor amps	3.5	4.0	4.0	4.0	4.0
Recommended maximum fuse or circuit breaker size (amps)		40	50	35	60	45
*Minimum circuit ampacity		23.3	29.5	22.6	42.5	27.5

*Refer to National 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 table)

B — Two or three wire power (size to heater capacity)

C — Two or three wire power (size to indoor coil blower motor)

D — Two wire low voltage (18 ga. minimum)

E — Eight wire low voltage with electric heat
Ten wire low voltage with optional outdoor thermostat

F — Five wire low voltage (18 ga. minimum)

G — Three wire low voltage (18 ga. minimum)

– Field wiring not furnished –

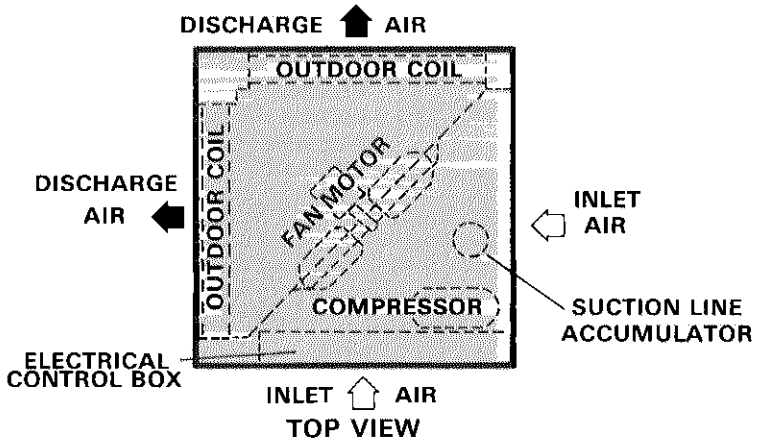
NOTE — All wiring to conform to NEC and local electrical codes.

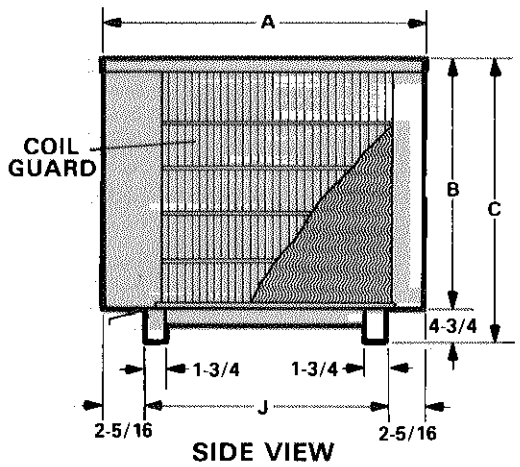
REFRIGERANT LINE KITS

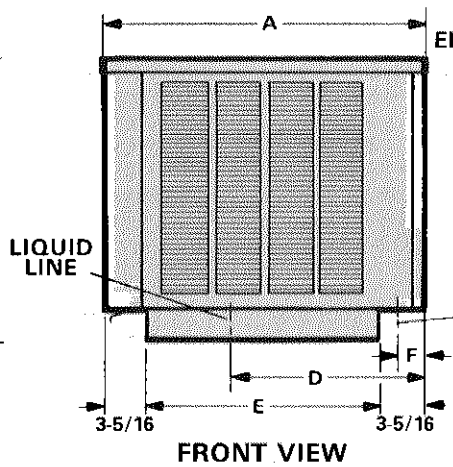
Outdoor Unit Model No.	Line Set Model No.	Length of Lines (ft.)	Liquid Line (o.d. in.)	Vapor Line (o.d. in.)
HP14-261/411V	L10-41-20	20	3/8	3/4
	L10-41-30	30		
	L10-41-40	40		
	L10-41-50	50		
HP14-310/510V	L10-65-30	30	3/8	7/8
	L10-65-40	40		
	L10-65-50	50		
HP14-410/650V	*Not Available	----	----	----

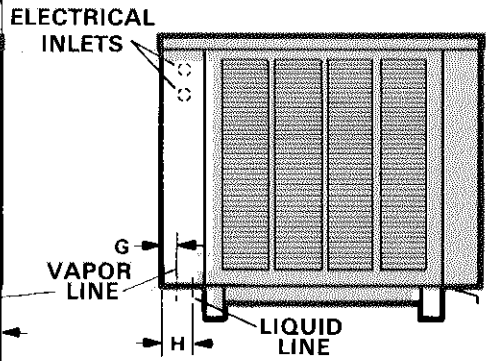
*Field fabricate.
NOTE — Refrigerant line length should not exceed 50 ft. in any installation.

DIMENSIONS (inches)



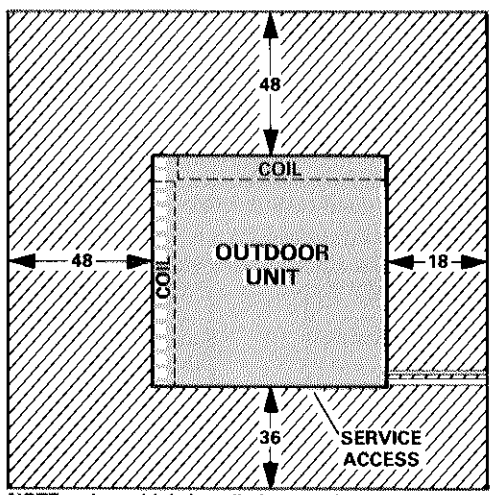






Model No.	A	B	C	D	E	F	G	H	J
HP14-261/411V	36-1/8	28-1/4	33	28-3/8	29-1/2	2-1/8	1	2-1/4	31-1/2
HP14-310/510V HP14-410/650V	40	30-1/4	35	29-1/8	33-3/8	1-5/8	1-1/2	1-3/4	35-3/8

INSTALLATION CLEARANCES (inches)



NOTE – In multiple installations, maintain a minimum of 4 ft. between units and position so the discharge air from one unit does not enter the intake of adjacent unit.

RATINGS

NOTE — To determine sensible capacity, leaving wet bulb and dry bulb temperatures not shown, in the tables, see Miscellaneous Engineering Data, Page 9.

HP14-261/411V COOLING CAPACITY WITH CPS16-41/46V/ES16Q4 HORIZONTAL OR CP16-41V/E16Q3 OR CP16-46V/E16Q4 UP-FLO & DOWN-FLO INDOOR COIL (Low Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Outdoor Coil (°F)																		
		75					85					95					105			
		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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	700	21,400	1240	.80	.92	1.00	20,100	1390	.82	.95	1.00	18,900	1530	.85	.99	1.00	17,700	1670	.88	1.00	1.00
	800	21,900	1250	.84	.98	1.00	20,700	1400	.87	1.00	1.00	19,600	1550	.90	1.00	1.00	18,400	1690	.94	1.00	1.00
	900	22,500	1260	.88	1.00	1.00	21,400	1400	.91	1.00	1.00	20,200	1560	.95	1.00	1.00	19,000	1700	.99	1.00	1.00
67	700	22,500	1260	.62	.74	.86	21,400	1400	.63	.76	.88	20,200	1560	.65	.78	.92	19,000	1700	.67	.82	.96
	800	23,500	1260	.64	.78	.91	22,100	1410	.66	.80	.94	20,600	1560	.68	.83	.98	19,200	1710	.71	.87	1.00
	900	23,900	1270	.67	.82	.96	22,400	1420	.69	.84	.99	20,900	1570	.71	.88	1.00	19,400	1710	.74	.92	1.00
71	700	24,700	1280	.46	.57	.68	23,300	1430	.47	.59	.70	21,700	1580	.48	.60	.73	20,200	1730	.48	.62	.76
	800	25,200	1280	.47	.60	.72	23,700	1430	.48	.61	.74	22,100	1590	.49	.63	.77	20,500	1730	.50	.65	.81
	900	25,600	1280	.48	.62	.76	24,000	1440	.49	.64	.78	22,400	1590	.50	.66	.82	20,700	1740	.52	.69	.85

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

HP14-261/411V COOLING CAPACITY WITH CPS16-41/46V/ES16Q4 HORIZONTAL OR CP16-41V/E16Q3 OR CP16-46V/E16Q4 UP-FLO & DOWN-FLO INDOOR COIL (High Speed Compressor Operation)

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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	1200	34,700	2940	.80	.93	1.00	32,600	3120	.82	.96	1.00	30,600	3330	.85	.99	1.00	28,300	3580	.89	1.00	1.00
	1350	35,500	2960	.83	.97	1.00	33,200	3140	.86	1.00	1.00	31,300	3370	.90	1.00	1.00	29,200	3630	.94	1.00	1.00
	1500	36,000	2980	.87	1.00	1.00	34,100	3180	.90	1.00	1.00	32,100	3410	.94	1.00	1.00	29,900	3680	.98	1.00	1.00
67	1200	37,000	3010	.62	.74	.86	34,700	3200	.64	.77	.89	32,300	3420	.66	.79	.93	29,800	3670	.68	.83	.97
	1350	37,600	3030	.64	.77	.90	35,300	3220	.66	.80	.94	32,800	3440	.68	.83	.98	30,200	3690	.71	.87	1.00
	1500	38,100	3040	.67	.81	.94	35,700	3240	.69	.84	.98	33,200	3460	.71	.87	1.00	30,500	3720	.74	.92	1.00
71	1200	39,600	3080	.46	.58	.69	37,100	3290	.47	.59	.71	34,500	3520	.48	.61	.74	31,700	3780	.49	.63	.77
	1350	40,200	3100	.47	.60	.72	37,600	3300	.48	.61	.74	34,900	3540	.49	.63	.78	32,000	3810	.50	.66	.81
	1500	40,700	3110	.48	.62	.75	38,000	3320	.49	.64	.78	35,200	3550	.50	.66	.81	32,300	3820	.52	.69	.86

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

HP14-261/411V HEATING CAPACITY WITH CPS16-41/46V/ES16Q4 HORIZONTAL OR CP16-41V/E16Q3 OR CP16-46V/E16Q4 UP-FLO & DOWN-FLO INDOOR COIL (Low Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)							
	65		60		55		50	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1200	30,000	1450	27,200	1420	24,400	1390	21,700	1360
1350	30,200	1430	27,400	1400	24,600	1370	21,900	1340
1500	30,500	1420	27,700	1390	24,900	1360	22,200	1330

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

HP14-261/411V HEATING CAPACITY WITH CPS16-41/46V/ES16Q4 HORIZONTAL OR CP16-41V/E16Q3 OR CP16-46V/E16Q4 UP-FLO & DOWN-FLO INDOOR COIL (High Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		-15	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1200	44,100	3340	32,000	2725	20,800	2250	13,800	1825	6700	1385
1350	44,800	3290	32,700	2675	21,500	2200	14,500	1775	7400	1335
1500	45,300	3250	33,200	2635	22,000	2160	15,000	1735	7900	1295

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

HP14-261/411V HEATING PERFORMANCE at 1350 cfm Indoor Coil Air Volume (CPS16-41/46V/ES16Q4, CP16-41V/E16Q3 OR CP16-46V/E16Q4)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	3290	44,800
60	3135	41,900
55	2980	39,000
50	2825	36,100
47	2730	34,300
45	2675	32,700
40	2535	28,800
35	2400	24,900
30	2300	23,200
25	2200	21,500

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

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
20	2100	19,800
17	2040	18,800
15	1995	18,100
10	1885	16,300
5	1775	14,500
0	1665	12,800
-5	1555	11,000
-10	1445	9200
-15	1335	7400
-20	1225	5600

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

RATINGS

NOTE — To determine sensible capacity, leaving wet bulb and dry bulb temperatures not shown in the tables, see Miscellaneous Engineering Data, page 9.

HP14-261/411V COOLING CAPACITY WITH CB18-51 OR CBS18-51 INDOOR COIL
(Low Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Condenser Coil (°F)																		
		75					85				95				105					
		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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	700	22,600	1270	.80	.93	1.00	21,300	1420	.82	.96	1.00	20,100	1560	.85	.99	1.00	18,800	1700	.89	1.00	1.00
	800	23,300	1280	.84	.98	1.00	21,900	1420	.87	1.00	1.00	20,700	1580	.90	1.00	1.00	19,500	1720	.94	1.00	1.00
	900	23,900	1280	.88	1.00	1.00	22,700	1430	.91	1.00	1.00	21,400	1590	.95	1.00	1.00	20,100	1730	.99	1.00	1.00
67	700	24,400	1290	.62	.74	.86	22,900	1440	.64	.76	.89	21,400	1590	.65	.79	.92	19,900	1730	.67	.82	.96
	800	24,900	1290	.65	.78	.91	23,400	1440	.66	.81	.94	21,800	1590	.68	.84	.98	20,300	1740	.71	.87	1.00
	900	25,300	1300	.67	.82	.96	23,700	1450	.69	.85	.99	22,200	1600	.72	.88	1.00	20,600	1740	.74	.92	1.00
71	700	26,200	1310	.46	.57	.68	24,600	1460	.47	.59	.71	23,000	1610	.48	.60	.73	21,300	1760	.49	.62	.76
	800	26,700	1310	.47	.60	.72	25,100	1470	.48	.61	.75	23,400	1620	.49	.63	.78	21,700	1770	.50	.66	.81
	900	27,100	1320	.49	.62	.76	25,400	1470	.49	.64	.79	23,700	1620	.51	.66	.82	21,900	1770	.52	.69	.86

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

HP14-261/411V COOLING CAPACITY WITH CB18-51 OR CBS18-51 INDOOR COIL
(High Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Condenser 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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	1200	36,900	3100	.80	.93	1.00	34,700	3290	.83	.96	1.00	32,200	3520	.86	1.00	1.00	30,100	3790	.90	1.00	1.00
	1350	37,700	3130	.84	.98	1.00	35,300	3330	.87	1.00	1.00	33,200	3570	.90	1.00	1.00	30,900	3850	.95	1.00	1.00
	1500	38,400	3150	.87	1.00	1.00	36,300	3360	.91	1.00	1.00	34,000	3610	.94	1.00	1.00	31,700	3900	.99	1.00	1.00
67	1200	39,300	3180	.62	.75	.86	36,800	3380	.64	.77	.90	34,200	3620	.66	.80	.93	31,500	3880	.69	.84	.98
	1350	40,000	3200	.65	.78	.91	37,400	3400	.66	.81	.94	34,700	3640	.69	.84	.99	31,900	3910	.72	.88	1.00
	1500	40,500	3220	.67	.81	.95	37,900	3420	.69	.84	.99	35,100	3660	.72	.88	1.00	32,200	3930	.75	.93	1.00
71	1200	42,100	3260	.46	.58	.69	39,400	3480	.47	.59	.71	36,400	3730	.48	.61	.74	33,400	4010	.49	.64	.78
	1350	42,700	3280	.47	.60	.72	39,800	3500	.48	.62	.75	36,900	3750	.49	.64	.78	33,800	4030	.51	.67	.82
	1500	43,200	3300	.48	.62	.76	40,200	3520	.49	.64	.79	37,200	3770	.51	.67	.82	34,100	4050	.52	.70	.87

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

HP14-261/411V HEATING CAPACITY WITH CB18-51 OR CBS18-51 INDOOR COIL
(Low Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)							
	65		60		55		50	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1200	27,300	1325	25,400	1315	23,600	1300	21,700	1285
1350	27,500	1305	25,700	1295	23,800	1280	21,900	1265
1500	27,700	1290	25,900	1275	24,000	1265	22,100	1250

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

HP14-261/411V HEATING CAPACITY WITH CB18-51 OR CBS18-51 INDOOR COIL
(High Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		−15	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1200	41,300	2995	31,400	2620	22,100	2215	14,200	1765	7000	1335
1350	41,800	2955	31,900	2580	22,700	2175	14,700	1725	7500	1295
1500	42,300	3030	32,400	2655	23,200	2250	15,200	1800	8000	1370

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

HP14-261/411V HEATING PERFORMANCE
at 1350 cfm Indoor Coil Air Volume (CB18-51 OR CBS18-51)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	2955	41,800
60	2860	39,300
55	2765	36,800
50	2670	34,300
47	2610	32,800
45	2580	31,900
40	2495	29,600
35	2415	27,200
30	2295	24,900
25	2175	22,700

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

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
20	2055	20,400
17	1980	19,100
15	1940	18,300
10	1830	16,500
5	1725	14,700
0	1615	12,900
−5	1510	11,100
−10	1405	9300
−15	1295	7500
−20	1190	5700

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

RATINGS

NOTE — To determine sensible capacity, leaving wet bulb and dry bulb temperatures not shown, in the tables, see Miscellaneous Engineering Data, Page 9.

HP14-261/411V COOLING CAPACITY WITH CB15-41FF INDOOR COIL
(Low Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Outdoor Coil (°F)															
		75				85				95				105			
		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)	
				76	80			76	80			76	80			76	80
63	700	22,900	1280	.80	.93	21,600	1430	.82	.96	20,300	1580	.85	.99	19,000	1730	.88	1.00
	800	23,500	1290	.84	.98	22,200	1440	.87	1.00	21,000	1590	.90	1.00	19,800	1740	.94	1.00
	900	24,200	1290	.88	1.00	22,900	1450	.91	1.00	21,700	1600	.95	1.00	20,400	1750	.99	1.00
67	700	24,700	1300	.62	.74	23,200	1450	.63	.76	21,700	1600	.65	.79	20,200	1750	.67	.82
	800	25,200	1300	.65	.78	23,700	1460	.66	.80	22,100	1610	.68	.83	20,500	1760	.71	.87
	900	25,600	1310	.67	.82	24,000	1460	.69	.85	22,400	1620	.71	.88	20,800	1760	.74	.92
71	700	26,600	1320	.46	.57	25,000	1470	.47	.59	23,300	1630	.48	.60	21,700	1780	.48	.62
	800	27,100	1320	.47	.60	25,400	1480	.48	.61	23,700	1640	.49	.63	22,000	1790	.50	.66
	900	27,400	1320	.48	.62	25,700	1480	.49	.64	24,000	1640	.51	.66	22,200	1790	.52	.69

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	105			115		
		Total Cool Cap. (Btuh)	Comp. Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb (°F) 84	Total Cool Cap. (Btuh)	Comp. Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb (°F) 84
63	700	19,000	1730	1.00	17,700	1760	1.00
	800	19,800	1740	1.00	18,500	1770	1.00
	900	20,400	1750	1.00	19,000	1780	1.00
67	700	20,200	1750	.92	18,800	1780	.96
	800	20,500	1760	.98	19,100	1790	1.00
	900	20,800	1760	1.00	19,400	1790	1.00
71	700	21,700	1780	.73	20,200	1800	.76
	800	22,000	1790	.77	20,500	1810	.81
	900	22,200	1790	.82	20,700	1810	.85

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

HP14-261/411V COOLING CAPACITY WITH CB15-41FF INDOOR COIL
(High Speed Compressor Operation)

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)	
				76	80			76	80			76	80			76	80
63	1200	37,300	3110	.80	.92	35,100	3300	.82	.96	32,900	3530	.85	.99	30,500	3790	.89	1.00
	1350	38,100	3130	.83	.97	35,700	3330	.86	1.00	33,600	3570	.89	1.00	31,300	3850	.93	1.00
	1500	38,600	3150	.86	1.00	36,600	3360	.90	1.00	34,400	3610	.93	1.00	32,100	3890	.98	1.00
67	1200	39,900	3190	.62	.74	37,400	3390	.64	.76	34,800	3620	.65	.79	32,100	3890	.68	.83
	1350	40,500	3210	.64	.77	38,000	3410	.66	.80	35,300	3650	.68	.83	32,500	3910	.71	.87
	1500	41,000	3220	.66	.80	38,400	3430	.68	.83	35,700	3660	.71	.87	32,800	3930	.74	.91
71	1200	42,800	3270	.46	.57	40,000	3480	.47	.59	37,200	3730	.48	.61	34,200	4010	.49	.63
	1350	43,400	3290	.47	.59	40,600	3500	.48	.61	37,600	3750	.49	.63	34,500	4030	.50	.66
	1500	43,900	3300	.48	.61	41,000	3520	.49	.63	38,000	3770	.50	.66	34,800	4050	.52	.68

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	105			115		
		Total Cool Cap. (Btuh)	Comp. Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb (°F) 84	Total Cool Cap. (Btuh)	Comp. Motor Watts Input	Sensible To Total Ratio (S/T) Dry Bulb (°F) 84
63	1200	32,900	3530	1.00	30,500	3790	1.00
	1350	33,600	3570	1.00	31,300	3850	1.00
	1500	34,400	3610	1.00	32,100	3890	1.00
67	1200	34,800	3620	.93	32,100	3890	.98
	1350	35,300	3650	.97	32,500	3910	1.00
	1500	35,700	3660	1.00	32,800	3930	1.00
71	1200	37,200	3730	.74	34,200	4010	.77
	1350	37,600	3750	.77	34,500	4030	.81
	1500	38,000	3770	.81	34,800	4050	.85

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

HP14-261/411V HEATING CAPACITY WITH CB15-41FF INDOOR COIL
(Low Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)							
	65		60		55		50	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1200	29,400	1490	26,600	1460	23,800	1430	21,100	1400
1350	29,700	1470	26,900	1440	24,100	1410	21,400	1380
1500	29,900	1450	27,100	1420	24,300	1390	21,600	1360

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

HP14-261/411V HEATING CAPACITY WITH CB15-41FF INDOOR COIL
(High Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		-15	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1200	44,100	3340	31,600	2740	20,400	2260	13,700	1840	6700	1395
1350	44,700	3290	32,200	2690	21,000	2210	14,300	1790	7300	1345
1500	45,200	3260	32,700	2660	21,500	2180	14,800	1760	7800	1315

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

HP14-261/411V HEATING PERFORMANCE
at 1350 cfm Indoor Coil Air Volume (CB15-41FF)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	3290	44,700
60	3140	41,700
55	2990	38,600
50	2840	35,600
47	2750	33,800
45	2690	32,200
40	2545	28,200
35	2400	24,200
30	2305	22,600
25	2210	21,000

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

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
20	2115	19,500
17	2060	18,500
15	2015	17,800
10	1905	16,100
5	1790	14,300
0	1680	12,600
-5	1570	10,800
-10	1460	9100
-15	1345	7300
-20	1235	5600

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

RATINGS

NOTE — To determine sensible capacity, leaving wet bulb and dry bulb temperatures not shown in the tables, see Miscellaneous Engineering Data section, page 9.

HP14-310/510V COOLING CAPACITY WITH CP16-51V/E16Q4 UP-FLO & DOWN-FLO INDOOR COIL
(Low Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Outdoor Coil (°F)																		
		75					85				95				105					
		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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	900	28,400	1730	.80	.92	1.00	27,000	1930	.82	.95	1.00	25,600	2130	.84	.98	1.00	24,100	2310	.86	1.00	1.00
	1000	29,000	1740	.83	.96	1.00	27,600	1940	.85	.99	1.00	26,200	2140	.88	1.00	1.00	24,800	2330	.91	1.00	1.00
	1100	29,500	1750	.86	1.00	1.00	28,200	1950	.88	1.00	1.00	26,900	2150	.91	1.00	1.00	25,500	2350	.95	1.00	1.00
67	900	30,500	1760	.62	.74	.85	29,000	1960	.63	.75	.88	27,400	2160	.64	.78	.91	25,700	2350	.66	.80	.94
	1000	31,000	1770	.64	.77	.89	29,500	1970	.65	.79	.92	27,800	2170	.67	.81	.95	26,100	2360	.69	.84	.99
	1100	31,500	1770	.66	.80	.93	29,800	1970	.67	.82	.96	28,200	2170	.69	.85	.99	26,400	2360	.71	.88	1.00
71	900	32,800	1790	.46	.57	.68	31,100	1990	.47	.58	.70	29,400	2190	.47	.60	.72	27,600	2390	.48	.61	.74
	1000	33,300	1790	.47	.59	.71	31,600	2000	.48	.60	.73	29,800	2200	.48	.62	.75	28,000	2390	.49	.64	.78
	1100	33,700	1800	.48	.61	.74	31,900	2000	.49	.62	.76	30,100	2210	.49	.64	.79	28,300	2400	.50	.66	.82

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

HP14-310/510V COOLING CAPACITY WITH CP16-51V/E16Q4 UP-FLO & DOWN-FLOW INDOOR COIL
(High Speed Compressor Operation)

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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	1600	47,100	3970	.81	.93	1.00	44,700	4250	.83	.96	1.00	42,300	4500	.85	.99	1.00	39,900	4730	.88	1.00	1.00
	1800	48,200	4010	.84	.98	1.00	45,600	4280	.87	1.00	1.00	43,400	4550	.89	1.00	1.00	41,200	4790	.93	1.00	1.00
	2000	49,100	4040	.88	1.00	1.00	46,800	4330	.90	1.00	1.00	44,500	4600	.93	1.00	1.00	42,200	4840	.97	1.00	1.00
67	1600	50,200	4080	.63	.75	.87	47,600	4360	.64	.77	.89	44,900	4610	.65	.79	.92	42,200	4830	.67	.82	.96
	1800	51,000	4110	.65	.78	.91	48,300	4390	.66	.80	.94	45,600	4640	.68	.83	.97	42,800	4860	.70	.86	1.00
	2000	51,700	4130	.67	.82	.95	48,900	4410	.69	.84	.99	46,100	4670	.71	.87	1.00	43,300	4890	.73	.90	1.00
71	1600	53,800	4200	.46	.58	.69	50,900	4480	.47	.59	.71	48,000	4740	.48	.61	.73	45,000	4970	.49	.62	.76
	1800	54,500	4230	.47	.60	.73	51,600	4510	.48	.61	.75	48,600	4770	.49	.63	.77	45,600	4990	.50	.65	.80
	2000	55,100	4250	.49	.62	.76	52,100	4530	.49	.64	.78	49,100	4790	.50	.66	.81	46,000	5010	.51	.68	.84

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

HP14-310/510V HEATING CAPACITY WITH CP16-51V/E16Q4 UP-FLO & DOWN-FLO INDOOR COIL
(Low Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)							
	65		60		55		50	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1600	39,800	1885	36,800	1875	33,800	1870	30,700	1865
1800	40,100	1865	37,100	1855	34,100	1850	31,000	1845
2000	40,300	1845	37,300	1835	34,300	1830	31,200	1825

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

HP14-310/510V HEATING CAPACITY WITH CP16-51V/E16Q4 UP-FLO & DOWN-FLO INDOOR COIL
(High Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		-15	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1600	61,600	4620	46,100	3780	30,000	3075	19,700	2520	9700	1915
1800	62,300	4530	46,800	3690	30,700	2985	20,400	2430	10,400	1825
2000	62,800	4460	47,300	3620	31,200	2915	20,900	2360	10,900	1755

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

HP14-310/510V HEATING PERFORMANCE
at 1800 cfm Indoor Coil Air Volume (CP16-51V/E16Q4)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	4530	62,300
60	4320	58,600
55	4115	54,900
50	3905	51,100
47	3780	48,900
45	3690	46,800
40	3460	41,400
35	3230	36,000
30	3105	33,300
25	2985	30,700

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

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
20	2865	28,000
17	2790	26,400
15	2730	25,400
10	2580	22,900
5	2430	20,400
0	2275	17,900
-5	2125	15,400
-10	1975	12,900
-15	1825	10,400
-20	1675	7900

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

RATINGS

NOTE – To determine sensible capacity, leaving wet bulb and dry bulb temperatures not shown in the tables, see Miscellaneous Engineering Data, Page 9.

HP14-310/510V COOLING CAPACITY WITH CH16-51FF/ES16Q5 INDOOR COIL
(Low Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Outdoor Coil (°F)															
		75					85				95				105		
		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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	900	28,000	1730	.80	.93	1.00	26,700	1920	.82	.95	1.00	25,300	2120	.84	.98	1.00	23,800	2310	.87	1.00	1.00
	1000	28,600	1730	.83	.97	1.00	27,300	1930	.85	.99	1.00	25,800	2130	.88	1.00	1.00	24,500	2320	.91	1.00	1.00
	1100	29,000	1740	.86	1.00	1.00	27,800	1940	.89	1.00	1.00	26,500	2140	.92	1.00	1.00	25,200	2340	.95	1.00	1.00
67	900	30,000	1750	.62	.74	.86	28,500	1950	.63	.76	.88	27,000	2150	.65	.78	.91	25,400	2340	.66	.81	.94
	1000	30,500	1760	.64	.77	.90	29,000	1960	.65	.79	.93	27,300	2160	.67	.82	.96	25,700	2350	.69	.84	.99
	1100	30,900	1760	.66	.80	.94	29,300	1970	.68	.82	.97	27,700	2160	.69	.85	1.00	26,000	2350	.72	.88	1.00
71	900	32,300	1780	.46	.57	.69	30,700	1980	.47	.59	.70	29,000	2190	.47	.60	.72	27,200	2380	.48	.61	.75
	1000	32,700	1780	.47	.59	.71	31,000	1990	.48	.61	.73	29,300	2190	.48	.62	.76	27,500	2380	.49	.64	.78
	1100	33,000	1790	.48	.61	.74	31,400	1990	.49	.63	.76	29,600	2200	.50	.64	.79	27,800	2390	.51	.66	.82

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

HP14-310/510V COOLING CAPACITY WITH CH16-51FF/ES16Q5 INDOOR COIL
(High Speed Compressor Operation)

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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	1600	46,200	3920	.82	.96	1.00	43,300	4180	.84	.98	1.00	41,300	4450	.85	.99	1.00	39,300	4690	.89	1.00	1.00
	1800	47,000	3960	.85	.98	1.00	44,500	4230	.87	1.00	1.00	42,400	4500	.90	1.00	1.00	40,300	4740	.93	1.00	1.00
	2000	47,800	4000	.88	1.00	1.00	45,700	4280	.91	1.00	1.00	43,500	4550	.94	1.00	1.00	41,300	4790	.97	1.00	1.00
67	1600	48,900	4030	.63	.75	.87	46,400	4310	.64	.77	.90	43,800	4560	.66	.79	.93	41,300	4790	.67	.82	.96
	1800	49,700	4060	.65	.79	.92	47,100	4340	.66	.81	.94	44,500	4590	.68	.83	.98	41,900	4810	.70	.86	1.00
	2000	50,400	4080	.67	.82	.96	47,800	4360	.69	.84	.99	45,100	4620	.71	.87	1.00	42,400	4840	.73	.90	1.00
71	1600	52,400	4150	.46	.58	.70	49,700	4440	.47	.59	.71	46,900	4700	.48	.61	.74	44,100	4920	.49	.62	.76
	1800	53,200	4180	.48	.60	.73	50,400	4460	.48	.62	.75	47,500	4720	.49	.63	.77	44,600	4950	.50	.65	.80
	2000	53,700	4200	.49	.62	.76	50,900	4480	.49	.64	.78	48,000	4740	.50	.66	.81	45,100	4970	.51	.68	.84

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

HP14-310/510V HEATING CAPACITY WITH CH16-51FF/ES16Q5 INDOOR COIL
(Low Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)							
	65		60		55		50	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1600	38,800	1990	35,800	1970	32,900	1950	30,000	1930
1800	39,000	1970	36,000	1950	33,100	1930	30,200	1910
2000	39,200	1950	36,200	1930	33,300	1910	30,400	1890

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

HP14-310/510V HEATING CAPACITY WITH CH16-51FF/ES16Q5 INDOOR COIL
(High Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		-15	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1600	60,100	4820	45,200	3935	29,500	3215	19,400	2610	9600	1985
1800	60,700	4740	45,800	3855	30,100	3135	20,000	2530	10,200	1905
2000	61,200	4670	46,300	3785	30,600	3065	20,500	2460	10,700	1835

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

HP14-310/510V HEATING PERFORMANCE
at 1800 cfm Indoor Coil Air Volume (CH16-51FF/ES16Q5)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	4740	60,700
60	4515	57,100
55	4295	53,600
50	4075	50,000
47	3940	47,900
45	3855	45,800
40	3635	40,600
35	3420	35,400
30	3280	32,800
25	3135	30,100

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
20	2995	27,500
17	2910	25,900
15	2845	24,900
10	2690	22,500
5	2530	20,000
0	2375	17,600
-5	2215	15,100
-10	2060	12,700
-15	1905	10,200
-20	1745	7800

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

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

RATINGS

NOTE — To determine sensible capacity, leaving wet bulb and dry bulb temperatures not shown, in the tables, see Miscellaneous Engineering Data, Page 9.

HP14-310/510V COOLING CAPACITY WITH CH16-65V/ES16Q5 INDOOR COIL
(Low Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Outdoor Coil (°F)																		
		75					85				95				105					
		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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	900	28,500	1730	.80	.92	1.00	27,200	1930	.81	.95	1.00	25,700	2130	.84	.98	1.00	24,200	2310	.87	1.00	1.00
	1000	29,100	1740	.83	.96	1.00	27,700	1940	.85	.99	1.00	26,300	2140	.87	1.00	1.00	25,000	2330	.91	1.00	1.00
	1100	29,600	1750	.86	1.00	1.00	28,400	1950	.88	1.00	1.00	27,000	2150	.91	1.00	1.00	25,600	2350	.95	1.00	1.00
67	900	30,700	1760	.62	.74	.85	29,100	1960	.63	.75	.88	27,500	2160	.64	.78	.91	25,800	2350	.66	.80	.94
	1000	31,200	1770	.62	.77	.89	29,600	1970	.65	.79	.92	27,900	2170	.67	.81	.95	26,200	2360	.69	.84	.99
	1100	31,600	1770	.66	.80	.93	30,000	1970	.67	.82	.96	28,300	2170	.69	.85	.99	26,500	2360	.71	.88	1.00
71	900	33,000	1790	.46	.57	.68	31,300	1990	.47	.58	.70	29,600	2190	.47	.60	.72	27,700	2390	.48	.61	.74
	1000	33,400	1790	.47	.59	.71	31,700	2000	.48	.60	.73	29,900	2200	.48	.62	.75	28,100	2390	.49	.64	.78
	1100	33,900	1800	.48	.61	.74	32,100	2000	.49	.62	.76	30,300	2210	.49	.64	.79	28,400	2400	.50	.66	.82

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

HP14-310/510V COOLING CAPACITY WITH CH16-65V/ES16Q5 INDOOR COIL
(High Speed Compressor Operation)

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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	1600	47,100	3980	.81	.93	1.00	44,700	4260	.83	.96	1.00	42,300	4510	.85	.99	1.00	39,900	4740	.88	1.00	1.00
	1800	48,200	4020	.84	.98	1.00	45,600	4290	.87	1.00	1.00	43,400	4560	.89	1.00	1.00	41,200	4800	.93	1.00	1.00
	2000	49,100	4060	.88	1.00	1.00	46,900	4340	.90	1.00	1.00	44,600	4610	.93	1.00	1.00	42,200	4850	.97	1.00	1.00
67	1600	50,300	4090	.62	.75	.87	47,600	4370	.64	.77	.89	44,900	4620	.65	.79	.92	42,200	4840	.67	.82	.96
	1800	51,100	4120	.65	.78	.91	48,400	4400	.66	.80	.94	45,600	4650	.68	.83	.97	42,800	4870	.70	.86	1.00
	2000	51,800	4150	.67	.82	.96	49,000	4420	.69	.84	.99	46,200	4680	.71	.87	1.00	43,300	4900	.73	.90	1.00
71	1600	53,800	4210	.46	.58	.69	51,000	4500	.47	.59	.71	48,000	4750	.48	.61	.73	45,100	4980	.49	.62	.76
	1800	54,600	4240	.47	.60	.73	51,600	4520	.48	.62	.75	48,700	4780	.49	.63	.77	45,600	5000	.50	.65	.80
	2000	55,200	4260	.49	.62	.76	52,200	4540	.49	.64	.78	49,100	4800	.50	.66	.81	46,000	5020	.51	.68	.84

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

HP14-310/510V HEATING CAPACITY WITH CH16-65V/ES16Q5 INDOOR COIL
(Low Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)							
	65		60		55		50	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1600	39,200	1950	36,200	1935	33,300	1915	30,400	1900
1800	39,400	1930	36,400	1915	33,500	1895	30,600	1880
2000	39,600	1910	36,600	1895	33,700	1875	30,800	1860

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

HP14-310/510V HEATING CAPACITY WITH CH16-65V/ES16Q5 INDOOR COIL
(High Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		-15	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1600	60,000	4820	45,300	3890	29,600	3150	19,400	2585	9600	1960
1800	60,600	4750	45,900	3820	30,200	3080	20,000	2515	10,200	1890
2000	61,100	4680	46,400	3750	30,700	3010	20,500	2445	10,700	1820

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

HP14-310/510V HEATING PERFORMANCE
at 1800 cfm Indoor Coil Air Volume (CH16-65V/ES16Q5)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	4750	60,600
60	4520	57,100
55	4290	53,600
50	4060	50,100
47	3920	48,000
45	3820	45,900
40	3570	40,800
35	3320	35,600
30	3200	32,900
25	3080	30,200

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

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
20	2960	27,500
17	2890	25,900
15	2825	24,900
10	2670	22,500
5	2515	20,000
0	2360	17,600
-5	2200	15,100
-10	2045	12,700
-15	1890	10,200
-20	1735	7800

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

RATINGS

NOTE — To determine sensible capacity, leaving wet bulb and dry bulb temperatures not shown in the tables, see Miscellaneous Engineering Data, page 9.

HP14-310/510V COOLING CAPACITY WITH CB18-65 OR CBS18-65 INDOOR COIL
(Low Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Condenser Coil (°F)																		
		75					85				95				105					
		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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	900	28,600	1730	.80	.93	1.00	27,200	1930	.82	.95	1.00	25,700	2120	.84	.98	1.00	24,300	2310	.87	1.00	1.00
	1000	29,200	1740	.83	.97	1.00	27,700	1940	.86	1.00	1.00	26,400	2140	.88	1.00	1.00	25,100	2330	.92	1.00	1.00
	1100	29,800	1750	.87	1.00	1.00	28,500	1950	.89	1.00	1.00	27,200	2150	.92	1.00	1.00	25,700	2340	.96	1.00	1.00
67	900	30,700	1760	.62	.74	.86	29,100	1960	.63	.76	.88	27,500	2160	.65	.78	.91	25,800	2340	.67	.81	.95
	1000	31,200	1770	.64	.77	.90	29,600	1970	.66	.79	.93	27,900	2160	.67	.82	.96	26,200	2350	.69	.85	1.00
	1100	31,600	1770	.66	.81	.94	30,000	1970	.68	.83	.97	28,300	2170	.70	.86	1.00	26,500	2360	.72	.89	1.00
71	900	32,900	1790	.46	.58	.69	31,200	1990	.47	.59	.70	29,500	2190	.47	.60	.73	27,700	2380	.48	.62	.75
	1000	33,400	1800	.47	.60	.72	31,700	2000	.48	.61	.74	29,800	2200	.49	.62	.76	28,000	2390	.50	.64	.79
	1100	33,800	1800	.48	.62	.75	32,000	2000	.49	.63	.77	30,200	2200	.50	.65	.80	28,300	2390	.51	.67	.83

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

HP14-310/510V COOLING CAPACITY WITH CB18-65 OR CBS18-65 INDOOR COIL
(High Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Condenser 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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	1600	47,800	3990	.82	.95	1.00	45,400	4250	.84	.98	1.00	42,800	4500	.87	1.00	1.00	40,600	4730	.90	1.00	1.00
	1800	48,500	4020	.86	1.00	1.00	46,400	4300	.88	1.00	1.00	44,200	4560	.91	1.00	1.00	41,900	4790	.95	1.00	1.00
	2000	50,000	4070	.90	1.00	1.00	47,700	4350	.92	1.00	1.00	45,300	4610	.96	1.00	1.00	42,900	4840	.99	1.00	1.00
67	1600	50,700	4090	.63	.76	.88	48,000	4360	.65	.78	.91	45,300	4610	.66	.81	.94	42,500	4820	.68	.83	.98
	1800	51,500	4120	.66	.80	.93	48,800	4390	.68	.82	.96	45,900	4640	.69	.85	.99	43,100	4850	.72	.88	1.00
	2000	52,200	4150	.69	.84	.98	49,400	4420	.70	.86	1.00	46,500	4660	.72	.89	1.00	43,700	4880	.75	.93	1.00
71	1600	54,100	4210	.47	.59	.71	51,200	4490	.47	.60	.73	48,300	4730	.48	.62	.75	45,200	4950	.49	.63	.78
	1800	54,800	4230	.48	.61	.74	51,900	4510	.49	.63	.77	48,800	4760	.50	.64	.79	45,800	4970	.51	.67	.82
	2000	55,400	4250	.49	.64	.78	52,400	4530	.50	.65	.80	49,300	4780	.51	.67	.83	46,200	4990	.52	.70	.86

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

HP14-310/510V HEATING CAPACITY WITH CB18-65 OR CBS18-65 INDOOR COIL
(Low Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)							
	65		60		55		50	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1600	39,500	1965	36,500	1930	33,500	1890	30,600	1855
1800	39,700	1945	36,700	1910	33,800	1870	30,800	1835
2000	39,900	1925	36,900	1890	34,000	1850	31,000	1815

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

HP14-310/510V HEATING CAPACITY WITH CB18-65 OR CBS18-65 INDOOR COIL
(High Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		−15	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1600	61,200	4525	47,300	3880	32,500	3215	21,400	2590	10,600	1965
1800	61,800	4450	47,900	3805	33,100	3140	22,000	2515	11,200	1890
2000	62,300	4380	48,400	3735	33,600	3070	22,500	2445	11,700	1820

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

HP14-310/510V HEATING PERFORMANCE
at 1800 cfm Indoor Coil Air Volume (CB18-65 OR CBS18-65)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	4450	61,800
60	4290	58,400
55	4130	55,100
50	3970	51,700
47	3875	49,700
45	3805	47,900
40	3625	43,500
35	3450	39,000
30	3295	36,100
25	3140	33,100

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
20	2985	30,200
17	2890	28,400
15	2825	27,300
10	2670	24,600
5	2515	22,000
0	2360	19,300
−5	2200	16,600
−10	2045	13,900
−15	1890	11,200
−20	1735	8500

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

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

RATINGS

NOTE — To determine sensible capacity, leaving wet bulb and dry bulb temperatures not shown, in the tables, see Miscellaneous Engineering Data, Page 9.

HP14-310/510V COOLING CAPACITY WITH CB15-65 INDOOR COIL
(Low Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Outdoor Coil (°F)																		
		75					85					95					105			
		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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	900	31,600	1760	.80	.93	1.00	30,000	1960	.82	.96	1.00	28,300	2150	.85	1.00	1.00	26,800	2360	.88	1.00	1.00
	1000	32,200	1770	.83	.96	1.00	30,700	1970	.85	.99	1.00	29,100	2170	.88	1.00	1.00	27,600	2370	.91	1.00	1.00
	1100	32,800	1770	.86	1.00	1.00	31,400	1980	.88	1.00	1.00	29,900	2190	.91	1.00	1.00	28,400	2380	.95	1.00	1.00
67	900	34,000	1780	.62	.74	.85	32,400	1990	.63	.76	.88	30,500	2190	.65	.77	.91	28,700	2380	.67	.80	.96
	1000	34,500	1790	.64	.77	.89	32,800	2000	.65	.79	.92	30,900	2200	.67	.81	.95	29,000	2390	.69	.84	.99
	1100	35,000	1800	.66	.80	.93	33,200	2000	.67	.82	.96	31,300	2210	.69	.85	.99	29,300	2400	.71	.88	1.00
71	900	36,600	1810	.46	.57	.68	34,700	2020	.47	.58	.70	32,900	2220	.47	.60	.71	30,800	2420	.47	.62	.74
	1000	37,000	1820	.47	.59	.71	35,100	2030	.48	.60	.73	33,200	2230	.48	.62	.75	31,100	2430	.49	.64	.78
	1100	37,400	1820	.48	.61	.74	35,500	2030	.49	.62	.76	33,500	2240	.49	.64	.79	31,400	2430	.51	.66	.82

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

HP14-310/510V COOLING CAPACITY WITH CB15-65 INDOOR COIL
(High Speed Compressor Operation)

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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	1600	50,600	4240	.81	.93	1.00	48,100	4530	.83	.96	1.00	45,500	4800	.85	.99	1.00	42,900	5040	.88	1.00	1.00
	1800	51,700	4270	.84	.98	1.00	48,900	4560	.86	1.00	1.00	46,600	4850	.89	1.00	1.00	44,200	5100	.92	1.00	1.00
	2000	52,500	4310	.87	1.00	1.00	50,200	4610	.90	1.00	1.00	47,700	4900	.93	1.00	1.00	45,200	5150	.96	1.00	1.00
67	1600	54,100	4360	.62	.75	.87	51,200	4650	.64	.77	.89	48,300	4920	.65	.79	.92	45,400	5160	.67	.82	.96
	1800	54,900	4390	.65	.78	.91	52,000	4680	.66	.80	.94	49,000	4950	.68	.83	.97	46,000	5190	.70	.86	1.00
	2000	55,600	4410	.67	.81	.95	52,600	4700	.68	.84	.98	49,500	4980	.70	.86	1.00	46,500	5210	.73	.90	1.00
71	1600	58,000	4490	.46	.58	.69	54,900	4790	.47	.59	.71	51,800	5060	.48	.60	.73	48,500	5300	.48	.62	.76
	1800	58,700	4510	.47	.60	.72	55,600	4810	.48	.61	.74	52,400	5090	.49	.63	.77	49,100	5330	.50	.65	.80
	2000	59,400	4530	.48	.62	.75	56,100	4830	.49	.63	.78	52,900	5110	.50	.65	.80	49,500	5350	.51	.67	.83

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

HP14-310/510V HEATING CAPACITY WITH CB15-65 INDOOR COIL
(Low Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)							
	65		60		55		50	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1600	39,200	1945	36,200	1935	33,200	1925	30,200	1915
1800	39,500	1915	36,500	1905	33,500	1895	30,500	1885
2000	39,700	1905	36,700	1895	33,700	1885	30,700	1875

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

HP14-310/510V HEATING CAPACITY WITH CB15-65 INDOOR COIL
(High Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		-15	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
1600	61,100	4690	45,700	3855	29,800	3140	19,600	2570	9700	1955
1800	61,700	4600	46,300	3765	30,400	3050	20,200	2480	10,300	1865
2000	62,200	4540	46,800	3705	30,900	2990	20,700	2420	10,800	1805

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

HP14-310/510V HEATING PERFORMANCE
at 1800 cfm Indoor Coil Air Volume (CB15-65)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	4600	61,700
60	4395	58,000
55	4190	54,300
50	3985	50,600
47	3860	48,400
45	3765	46,300
40	3535	41,000
35	3300	35,700
30	3175	33,000
25	3050	30,400

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

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
20	2925	27,700
17	2850	26,100
15	2790	25,100
10	2635	22,600
5	2480	20,200
0	2325	17,700
-5	2170	15,200
-10	2020	12,800
-15	1865	10,300
-20	1710	7800

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

RATINGS

NOTE — To determine sensible capacity, leaving wet bulb and dry bulb temperatures not shown, in the tables, see Miscellaneous Engineering Data, Page 9.

HP14-410/650V COOLING CAPACITY WITH CH16-65V/ES16Q5 INDOOR COIL
(Low Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Outdoor Coil (°F)																		
		75					85				95				105					
		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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	1100	37,200	2550	.79	.92	1.00	35,400	2690	.81	.94	1.00	33,400	2860	.84	.97	1.00	31,500	3060	.86	1.00	1.00
	1250	38,200	2550	.83	.97	1.00	36,400	2700	.85	.99	1.00	34,500	2880	.88	1.00	1.00	32,700	3090	.91	1.00	1.00
	1400	39,100	2560	.87	1.00	1.00	37,400	2710	.89	1.00	1.00	35,600	2890	.92	1.00	1.00	33,800	3110	.96	1.00	1.00
67	1100	40,100	2570	.62	.73	.85	38,100	2720	.63	.75	.87	35,900	2900	.64	.77	.90	33,700	3110	.66	.80	.93
	1250	41,000	2570	.64	.77	.90	38,900	2730	.65	.79	.92	36,600	2910	.67	.81	.95	34,400	3120	.69	.84	.99
	1400	41,600	2580	.66	.80	.94	39,500	2730	.68	.83	.97	37,200	2920	.70	.86	1.00	34,900	3130	.72	.89	1.00
71	1100	43,300	2590	.46	.57	.68	41,100	2750	.46	.58	.69	38,800	2940	.47	.59	.71	36,400	3170	.48	.61	.74
	1250	44,100	2590	.47	.59	.71	41,800	2760	.48	.60	.73	39,400	2950	.48	.62	.75	36,900	3180	.49	.64	.78
	1400	44,700	2600	.48	.61	.75	42,400	2760	.49	.63	.77	40,000	2960	.50	.65	.79	37,400	3190	.51	.67	.82

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

HP14-410/650V COOLING CAPACITY WITH CH16-65V/ES16Q5 INDOOR COIL
(High Speed Compressor Operation)

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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	2000	59,700	5660	.82	.95	1.00	57,100	6050	.84	.98	1.00	54,100	6410	.86	1.00	1.00	51,700	6750	.89	1.00	1.00
	2250	60,400	5720	.86	1.00	1.00	58,400	6130	.88	1.00	1.00	55,900	6520	.90	1.00	1.00	53,300	6860	.93	1.00	1.00
	2500	62,500	5800	.89	1.00	1.00	60,000	6220	.92	1.00	1.00	57,400	6610	.94	1.00	1.00	54,700	6950	.98	1.00	1.00
67	2000	63,800	5860	.63	.76	.88	60,800	6260	.65	.78	.91	57,700	6620	.66	.80	.93	54,600	6930	.68	.82	.97
	2250	64,900	5910	.66	.79	.93	61,800	6310	.67	.81	.95	58,600	6670	.69	.84	.98	55,300	6990	.71	.87	1.00
	2500	66,000	5960	.69	.82	.98	62,800	6360	.70	.84	1.00	59,500	6720	.72	.88	1.00	56,000	7050	.75	.92	1.00
71	2000	68,600	6080	.47	.59	.70	65,300	6490	.47	.60	.72	61,900	6860	.48	.61	.74	58,400	7170	.49	.63	.76
	2250	69,600	6130	.48	.61	.74	66,200	6530	.48	.62	.76	62,700	6900	.49	.64	.78	59,100	7210	.50	.65	.81
	2500	70,400	6170	.49	.63	.77	67,000	6570	.50	.64	.79	63,400	6940	.50	.66	.82	59,700	7250	.52	.68	.84

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

HP14-410/650V HEATING CAPACITY WITH CH16-65V/ES16Q5 INDOOR COIL
(Low Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)							
	65		60		55		50	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
2000	49,600	2730	45,600	2645	41,600	2565	37,700	2480
2250	49,900	2690	45,900	2605	41,900	2525	38,000	2440
2500	50,200	2660	46,200	2575	42,200	2495	38,300	2410

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

HP14-410/650V HEATING CAPACITY WITH CH16-65V/ES16Q5 INDOOR COIL
(High Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		-15	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
2000	75,500	6370	55,800	5055	39,500	4195	27,300	3425	13,600	2600
2250	76,200	6260	56,500	4945	40,200	4085	28,000	3315	14,300	2490
2500	76,900	6160	57,200	4845	40,900	3985	28,700	3215	15,000	2390

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

HP14-410/650V HEATING PERFORMANCE
at 2250 cfm Indoor Coil Air Volume (CH16-65V/ES16Q5)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	6260	76,200
60	5925	71,400
55	5585	66,500
50	5250	61,700
47	5050	58,800
45	4945	56,500
40	4690	50,900
35	4430	45,200
30	4255	42,700
25	4085	40,200
20	3915	37,700
17	3810	36,200
15	3725	34,800
10	3520	31,400
5	3315	28,000
0	3110	24,600
-5	2905	21,100
-10	2695	17,700
-15	2490	14,300
-20	2285	10,900

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

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

RATINGS

NOTE — To determine sensible capacity, leaving wet bulb and dry bulb temperatures not shown, in the tables, see Miscellaneous Engineering Data, Page 9.

HP14-410/650V COOLING CAPACITY WITH CP16-65V/E16Q5 UP-FLO & DOWN-FLO INDOOR COIL
(Low Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Outdoor Coil (°F)															
		75				85				95				105			
		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)	
				76 80 84				76 80 84				76 80 84				76 80 84	
63	1100	37,300	2550	.80	.92	1.00	35,400	2690	.82	.95	1.00	33,500	2860	.84	.98	1.00	31,600	3060	.87	1.00	1.00
	1250	38,300	2550	.84	.97	1.00	36,300	2700	.86	1.00	1.00	34,600	2880	.89	1.00	1.00	32,800	3090	.92	1.00	1.00
	1400	39,100	2560	.87	1.00	1.00	37,500	2710	.90	1.00	1.00	35,700	2890	.93	1.00	1.00	33,800	3110	.96	1.00	1.00
67	1100	40,200	2570	.62	.74	.85	38,100	2720	.63	.75	.88	35,700	2890	.64	.77	.91	33,800	3110	.66	.80	.94
	1250	41,000	2570	.64	.77	.90	38,900	2730	.66	.79	.93	36,700	2910	.67	.82	.96	34,400	3120	.69	.85	.99
	1400	41,600	2580	.67	.81	.95	39,500	2730	.68	.83	.98	37,200	2920	.70	.86	1.00	34,900	3130	.72	.89	1.00
71	1100	43,300	2590	.46	.57	.68	41,100	2750	.47	.58	.70	38,800	2940	.47	.59	.72	36,400	3170	.48	.61	.74
	1250	44,100	2590	.47	.59	.71	41,800	2760	.48	.61	.73	39,400	2950	.48	.62	.76	36,900	3180	.49	.64	.79
	1400	44,700	2600	.48	.62	.75	42,400	2760	.49	.63	.77	39,900	2960	.50	.65	.80	37,400	3190	.51	.67	.83

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

HP14-410/650V COOLING CAPACITY WITH CP16-65V/E16Q5 UP-FLO & DOWN-FLO INDOOR COIL
(High Speed Compressor Operation)

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)	
				76 80 84				76 80 84				76 80 84				76 80 84	
63	2000	59,500	5630	.80	.93	1.00	57,000	6020	.82	.95	1.00	54,100	6390	.84	1.00	1.00	51,600	6730	.87	1.00	1.00
	2250	60,600	5690	.84	1.00	1.00	58,300	6100	.86	1.00	1.00	55,800	6490	.88	1.00	1.00	53,300	6830	.91	1.00	1.00
	2500	62,400	5770	.87	1.00	1.00	59,900	6190	.90	1.00	1.00	57,300	6580	.92	1.00	1.00	54,700	6920	.95	1.00	1.00
67	2000	63,700	5840	.62	.74	.86	60,700	6230	.63	.76	.88	57,700	6600	.64	.78	.91	54,500	6910	.66	.80	.94
	2250	64,800	5890	.64	.77	.90	61,700	6280	.65	.80	.93	58,500	6650	.67	.82	.96	55,300	6960	.69	.85	1.00
	2500	65,700	5930	.66	.81	.95	62,600	6330	.68	.83	.97	59,300	6690	.70	.86	1.00	56,000	7010	.72	.89	1.00
71	2000	68,600	6060	.45	.57	.69	65,300	6470	.46	.58	.70	61,900	6840	.47	.59	.72	58,400	7150	.47	.61	.75
	2250	69,500	6110	.47	.59	.72	66,200	6510	.47	.60	.74	62,700	6880	.48	.62	.76	59,100	7190	.49	.64	.78
	2500	70,300	6150	.48	.61	.75	66,900	6550	.48	.63	.77	63,300	6910	.49	.64	.80	59,700	7230	.50	.66	.82

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

HP14-410/650V HEATING CAPACITY WITH CP16-65V/E16Q5 UP-FLO & DOWN-FLO INDOOR COIL
(Low Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)							
	65		60		55		50	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
2000	50,000	2680	45,900	2610	41,800	2540	37,700	2470
2250	50,400	2640	46,300	2570	42,200	2500	38,100	2430
2500	50,600	2610	46,500	2540	42,400	2470	38,300	2400

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

HP14-410/650V HEATING CAPACITY WITH CP16-65V/E16Q5 UP-FLO & DOWN-FLO INDOOR COIL
(High Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		-15	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
2000	77,400	6080	56,200	4970	39,600	4145	27,400	3365	13,500	2565
2250	78,300	5950	57,100	4840	40,500	4015	28,300	3235	14,400	2435
2500	78,900	5850	57,700	4740	41,100	3915	28,900	3135	15,000	2335

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

HP14-410/650V HEATING PERFORMANCE
at 2250 cfm Indoor Coil Air Volume (CP16-65V/E16Q5)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	5950	78,300
60	5665	73,100
55	5385	67,900
50	5100	62,600
47	4930	59,500
45	4840	57,100
40	4610	51,200
35	4380	45,300
30	4195	42,900
25	4015	40,500

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

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
20	3830	38,100
17	3720	36,600
15	3640	35,200
10	3440	31,800
5	3235	28,300
0	3035	24,800
-5	2835	21,400
-10	2635	17,900
-15	2435	14,400
-20	2230	11,000

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

RATINGS

NOTE — To determine sensible capacity, leaving wet bulb and dry bulb temperatures not shown, in the tables, see Miscellaneous Engineering Data, Page 9.

HP14-410/650V COOLING CAPACITY WITH CB15-65 INDOOR COIL
(Low Speed Compressor Operation)

Enter. Wet Bulb (°F)	Total Air Vol. (cfm)	Outdoor Air Temperature Entering Outdoor Coil (°F)																		
		75					85					95					105			
		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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	1100	38,000	2580	.80	.92	1.00	36,100	2730	.81	.95	1.00	34,100	2900	.84	.98	1.00	32,200	3110	.87	1.00	1.00
	1250	38,900	2590	.83	.97	1.00	36,700	2740	.85	1.00	1.00	35,200	2920	.88	1.00	1.00	33,400	3130	.91	1.00	1.00
	1400	39,800	2600	.87	1.00	1.00	38,100	2750	.89	1.00	1.00	36,300	2940	.92	1.00	1.00	34,400	3160	.96	1.00	1.00
67	1100	40,900	2610	.62	.73	.85	38,900	2760	.63	.75	.87	36,700	2940	.64	.77	.90	34,400	3160	.66	.80	.94
	1250	41,800	2610	.64	.77	.90	39,600	2770	.65	.79	.92	37,400	2950	.67	.82	.96	35,100	3170	.69	.84	.99
	1400	42,400	2620	.66	.80	.94	40,200	2770	.68	.83	.97	37,900	2960	.70	.86	1.00	35,600	3180	.72	.89	1.00
71	1100	44,200	2630	.46	.57	.68	42,000	2790	.46	.58	.69	39,600	2980	.47	.59	.72	37,100	3210	.48	.61	.74
	1250	45,000	2630	.47	.59	.71	42,700	2800	.48	.60	.73	40,200	2990	.48	.62	.75	37,700	3230	.49	.64	.78
	1400	45,600	2640	.48	.61	.75	43,200	2800	.49	.63	.77	40,700	3000	.50	.65	.79	38,100	3230	.51	.67	.82

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

HP14-410/650V COOLING CAPACITY WITH CB15-65 INDOOR COIL
(High Speed Compressor Operation)

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)		
				76	80	84			76	80	84			76	80	84			76	80	84
63	2000	59,000	5710	.81	.94	1.00	56,500	6110	.83	.96	1.00	53,500	6470	.85	.99	1.00	51,100	6820	.87	1.00	1.00
	2250	60,300	5770	.84	.98	1.00	57,500	6180	.86	1.00	1.00	55,100	6570	.89	1.00	1.00	52,600	6920	.91	1.00	1.00
	2500	61,400	5830	.87	1.00	1.00	59,000	6260	.90	1.00	1.00	56,400	6660	.92	1.00	1.00	53,800	7000	.95	1.00	1.00
67	2000	63,200	5930	.62	.75	.87	60,300	6330	.63	.76	.89	57,200	6700	.65	.79	.92	54,100	7020	.67	.81	.95
	2250	64,200	5970	.64	.78	.91	61,200	6380	.66	.80	.93	58,000	6750	.67	.82	.96	54,800	7070	.69	.85	.99
	2500	65,000	6010	.66	.81	.95	61,900	6420	.68	.83	.97	58,700	6790	.70	.86	.99	55,400	7110	.72	.89	1.00
71	2000	68,100	6160	.46	.58	.69	64,900	6570	.47	.59	.71	61,500	6950	.47	.60	.73	58,000	7270	.48	.62	.75
	2250	69,000	6200	.47	.60	.72	65,700	6610	.48	.61	.74	62,200	6990	.48	.62	.76	58,700	7310	.49	.64	.79
	2500	69,700	6240	.48	.61	.75	66,400	6650	.49	.63	.77	62,800	7020	.49	.65	.79	59,200	7340	.50	.66	.82

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

HP14-410/650V HEATING CAPACITY WITH CB15-65 INDOOR COIL
(Low Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)							
	65		60		55		50	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
2000	48,100	2640	44,600	2575	41,000	2510	37,400	2450
2250	48,500	2610	45,000	2545	41,400	2480	37,800	2420
2500	48,800	2580	45,300	2515	41,700	2450	38,100	2390

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

HP14-410/650V HEATING CAPACITY WITH CB15-65 INDOOR COIL
(High Speed Compressor Operation)

Indoor Coil Air Volume (cfm) 70°F db	Air Temperature Entering Outdoor Coil (°F)									
	65		45		25		5		-15	
	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input	Total Htg. Cap. (Btuh)	Comp. Motor Watts Input
2000	77,300	6100	56,400	4970	39,800	4145	27,500	3365	13,600	2565
2250	78,100	5970	57,200	4840	40,600	4015	28,300	3235	14,400	2435
2500	78,800	5860	57,900	4730	41,300	3905	29,000	3125	15,100	2325

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

HP14-410/650V HEATING PERFORMANCE
at 2250 cfm Indoor Coil Air Volume (CB15-65)

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
65	5970	78,100
60	5680	72,900
55	5390	67,800
50	5105	62,600
47	4930	59,500
45	4840	57,200
40	4610	51,400
35	4380	45,600
30	4195	43,100
25	4015	40,600

*Outdoor Temperature (°F)	Compressor Motor Watts Input	Total Output (Btuh)
20	3830	38,100
17	3720	36,600
15	3640	35,200
10	3440	31,800
5	3235	28,300
0	3035	24,800
-5	2835	21,400
-10	2635	17,900
-15	2435	14,400
-20	2230	11,000

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

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