LENNOX®

ENGINEERING DATA

HEAT PUMP OUTDOOR UNITS

HP21

INNOVATOR™ SERIES - TWO SPEED POWERSAVER®

SEER - 12.0 to 16.15

Cooling Capacity - 34,800 to 60,000 Btuh (10.2 to 17.6 kW)

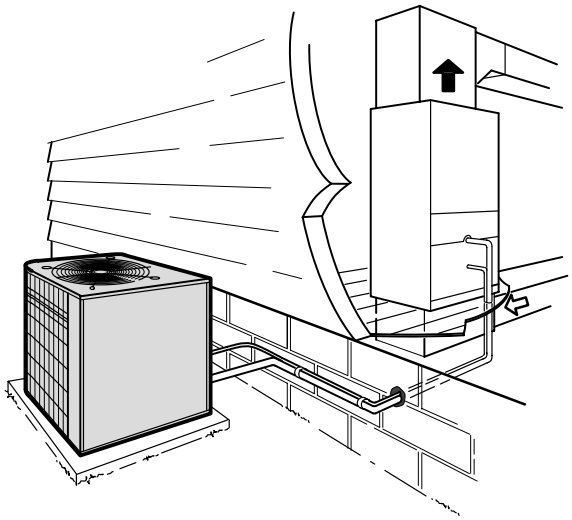
Heating Capacity - 35,000 to 57,000 Btuh (10.3 to 16.7 kW)

Bulletin No. 210058
July 2000
Supersedes April 1996

LISTED LISTED

CERTIFICATION APPLIES ONLY WHEN THE COMPLETE SYSTEM IS LISTED WITH ARI

Typical Application



MODEL NUMBER IDENTIFICATION

HP21 - 36 - 230 - 1

Unit Type
HP = Heat Pump Outdoor Unit

Series

Cooling Capacity Tons (kW)
36 = 3 (10.6)
48 = 4 (14.1)
60 = 5 (17.6)

Voltage
230 = 208/230v-1 phase-60hz
233 = 208/230v-3 phase-60hz
460 = 460v-3 phase-60hz

Minor Revision Number

FEATURES

Applications
- SEER up to 16.15.
- HSPF up to 8.50.
- 3, 4 or 5 Ton (10.6, 14.1 or 17.6 kW) sizes.
- Two-speed compressor staged for precise heating or cooling capacity with minimum operating costs. Compressor operates on low speed under light and medium heating or cooling loads and automatically shifts to high speed for heavy load conditions.
- Units are designed for applications with remotely located indoor multi-position blower-coil units or indoor add-on coils with gas or oil furnaces in FM21 control applications.
- Units equally suited for installation on a slab at grade level or on a rooftop.
- For FM21 applications, see section — Thermostats and Controls.
- For indoor unit data, see section, Coil—Blower Coil Units.
- Units are test operated at the factory insuring proper operation.
- Installer must set unit, connect refrigerant lines and make electrical connections to complete job.

Approvals
- Certified in accordance with the USE certification program, which is based on ARI Standard 210/240-94.
- Sound rated in Lennox reverberant sound test room in accordance with test conditions included in ARI Standard 270-95.
- Tested in the Lennox Research Laboratory environmental test room.
- Rated according to U.S. Department of Energy (DOE) test procedures
- Units and components within bonded for grounding to meet safety standards for servicing required by UL, NEC and CEC.
- Units are UL listed and ULC certified.
- Developed in accordance with ISO 9000 quality standards.

Equipment Warranty
- Compressor — ten year limited warranty in residential applications and five years in non-residential applications.
- All other covered components — five year limited warranty in residential applications and one year in non-residential applications.
- Refer to Lennox Equipment Limited Warranty certificate included with unit for details.

NOTE - Due to Lennox' ongoing committment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability.
Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury.
Installation and service must be performed by a qualified installer and servicing agency.

FEATURES (CONTINUED)

Unit Cabinet
- Heavy gauge steel cabinet with five station metal wash process.
- Powder paint finish provides superior rust and corrosion protection.
- Control box located in HushTone™ compressor compartment.
- Control box is conveniently located with all controls factory wired.
- Drainage holes are provided in base section for moisture removal.
- High density polyethylene feet raise unit off mounting surface away from damaging moisture.
- Corrosion resistant PVC (polyvinyl chloride) coated steel wire condenser coil guard furnished.

HushTone™ Compressor Compartment
- Compressor is located in separate, fiberglass insulated compartment to keep sound levels at a minimum.
- Large removable panel provides service access

Copper Tube Outdoor Coil
- Lennox designed and fabricated coil
- Constructed of precisely spaced ripple-edge aluminum fins machine fitted to seamless copper tubes.
- Precise coil circuiting gives uniform refrigerant distribution for high efficiency.
- Extra large wrap around “U” shaped coil configuration provides extra large surface area for excellent heat transfer with minimum air resistance.
- Fins are equipped with collars that grip tubing for maximum contact area.
- 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. Fin spacing allows rapid and complete water drainage.
- Flared tubing connections and silver soldering provide tight, leakproof joints.
- Long life copper tubing is corrosion-resistant and easy to service.
- Factory tested under high pressure to insure leakproof construction.
- HP21-48 & -60 models equipped with enhanced fin coil and rifled tubing.
- Entire coil is accessible for cleaning.

Outdoor Fan
- Efficient direct drive fan moves large volumes of air uniformly through entire outdoor coil resulting in high refrigerant cooling capacity.
- Vertical discharge of air minimizes operating sounds and eliminates hot air damage to lawn and shrubs.
- Totally enclosed fan motor provides maximum protection from weather, dust and corrosion.
- Motor rain shield provides additional protection from moisture.
- Fan service access is accomplished by removal of fan guard.
- Corrosion resistant PVC coated steel wire fan guard furnished as standard.

Two Speed Compressor
- Designed for superior efficiency at minimum operating cost.
- Two speed operation gives staging control to fit varying cooling and heating load requirements, extends operating life of compressor and provides operating economy during periods of reduced loads. During part load conditions the compressor operates in the low speed mode.
- Compressor is suction cooled, and hermetically sealed with built-in solid-state motor protection from excessive current and temperatures.
- Features vertical crankshaft, ringed valves and pistons, tuned discharge muffler, two stage oil pump and positive venting of lubrication system.
- Crankcase heater assures proper compressor lubrication.
- Running gear assembly resiliently suspended internally inside case. Compressor is installed in unit on resilient rubber mounts assuring low sound and vibration free operation.

Lennox TSC-6 Two-Speed Control Module
- 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.
- Diagnostic LED’s are furnished as an aid in troubleshooting.

Defrost Control
- Solid-state demand defrost control furnished as standard equipment.
- Defrost cycle is temperature activated and time or temperature terminated. Unit only goes into defrost when system temperatures indicate a demand.
- Defrost cycle terminates when system temperatures are satisfied or defrost time exceeds 15 minutes.

Refrigerant Line Connections, Electrical Inlets, Service Valves
- Vapor and liquid line connections made with sweat connections inside unit.
- Shrader fitting are factory installed in the vapor and discharge lines.
- 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 may be front seated to manage refrigerant charge while servicing the system.
- Field wiring inlets are conveniently located for ease of entry.
- High capacity dual flow drier is furnished and factory installed in the liquid line.

Service Light Thermostat
- Factory installed on the compressor discharge line.
- Required for operation of conditioned area thermostat with service light.

Reversing Valve
- Four-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.

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

FEATURES (CONTINUED)

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

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

Ambient Compensating Thermistor
- Reduces thermostat droop to improve the operating characteristics of the heat pump system.
- Thermistor varies heat anticipator resistance as ambient temperature changes.
- Factory installed in the discharge air stream.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Thermostat
- Thermostat not furnished and must be ordered extra.
- See Thermostat bulletin in Thermostats and Controls section and Lennox Price Book.

CCB1 EfficiencyPlus™ Humidity Control
- CCB1 Humidity Control (**35H00**) installs next to the room thermostat and allows selection of desired indoor humidity level in cooling mode.
- Controls indoor humidity by altering indoor blower speed and compressor speed.
- Humidity level desired may be set by adjusting a vertical slide to set point on a scale of 40% thru 60% (50% recommended as initial set point).
- Five indicator lights (MIN — MAX) in a bar graph configuration indicate difference between actual relative humidity and set point. This indicates demand imposed on system equipment, the more lights on, the longer the equipment will operate to obtain desired humidity level. If no lights are on, the humidity level is at or below set point.
- CCB1 is most effective when used with units that have variable speed blower motors - G32V/GHR32V gas furnaces and CB31MV blower coils.
- May also be used with units that have single speed blower motors. Usage with single speed motors requires EBR1 Blower Relay Kit. See below.

EBR1 Blower Relay Kit
- EBR1 Blower Relay Kit (**75H90**) allows CCB1 to be used with gas furnaces or blower coil units that have single speed blower motors.

Indoor Blower Speed Relay Kit
- Relay kit **(40K58)** provides humidity control conditions by automatically reducing indoor blower speed during continuous fan or low speed compressor operation.
- Kit should not be used in CCB1 Efficiency Plus Humidity Control applications.

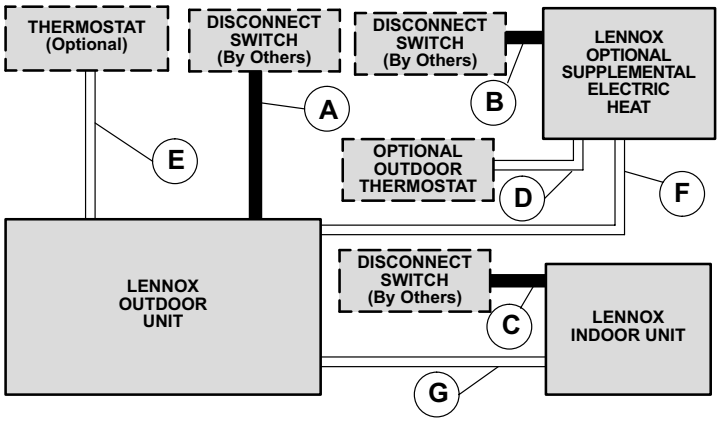
Check and Expansion Valve Kits
- Must be ordered extra and field installed on some indoor units.
- See ARI Ratings table.

Refrigerant Line Kits
- Refrigerant lines (vapor & liquid) are shipped refrigeration clean. Lines are cleaned, dried, pressurized and sealed at factory.
- Suction line fully insulated.
- L15 lines are stubbed at both ends.
- See Refrigerant Line Kit table for selection.
- Kit is not available for HP21-60 model and must be field fabricated.
- Refrigerant line length should not exceed 50 ft. (15 m) in any installation. If longer length lines are required, contact your Lennox Field Technical Consultant.

Low Ambient Kit
- Condensing units will operate satisfactorily down to 45°F (7°C) outdoor air temperature without any additional controls.
- Kit LB-57113BC (**24H77**) can be added in the field enabling unit to operate properly down to 30°F (-1°C).

Mounting Base
- Provides permanent foundation for condensing 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.
- All models use MB2-L (**69J07**), 32 x 34 x 3 in. (813 x 864 x 76 mm), shipping weight 15 lbs. (7 kg) each.

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 — Five 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.

SPECIFICATIONS

Model No.			HP21-36	HP21-48	HP21-60
Liquid line — in. (mm) o.d. connection (sweat)			3/8 (9.5)		
Vapor line — in. (mm) o.d. connection (sweat)			3/4 (19)	7/8 (22.2)	1-1/8 (28.5)
[1]Refrigerant charge furnished (HCFC - 22)			13 lbs. 13 oz. (6.27 kg)	15 lbs. 8 oz. (7.03 kg)	18 lbs. 13 oz. (8.53 kg)
Outdoor Coil	Net face area — sq. ft. (m^2)	Inner coil	17.53 (1.63)	20.81 (1.93)	23.01 (2.14)
	Net face area — sq. ft. (m^2)	Outer coil	18.22 (1.69)	21.64 (2.01)	23.92 (2.22)
	Tube diameter — in. (mm) & no. of rows		5/16 (7.9) — 2		
	Fins per inch (m)		20 (787)		
Outdoor Fan	Diameter — in. (mm) & no. of blades		24 (610) — 3		24 (610) — 4
	Motor hp		1/10 (75)	1/6 (124)	1/4 (187)
	Cfm (L/s)		3120 (1470)	3200 (1510)	4200 (1980)
	Rpm		820	815	815
	Watts		155	200	310
Shipping weight — lbs. (kg) 1 package			323 (147)	341 (155)	372 (169)
OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA					
CCB1 EfficiencyPlus™ Humidity Control			**35H00**		
EBR1 Blower Relay			**75H90**		
Indoor Blower Speed Relay Kit			**40K58**		
Mounting Base - Shipping Weight			MB2-L (**69J07**) - 15 lbs. (7 kg)		
Low Ambient Kit			LB-57113BM (**27J00**)		
Outdoor Thermostat Kit		Thermostat Kit	**56A87**		
		Mounting Box	M-1595 (**31461**)/BM-10260 (**33A09**) Canada Only		

[1]Refrigerant charge sufficient for 20 ft. (6.0 m) length of refrigerant lines.

ELECTRICAL DATA

Model No.		HP21-36	HP21-36	HP21-48	HP21-48	HP21-60	HP21-60
Line voltage data — 60 hz		208/230v 1ph	208/230v 3ph	208/230v 1ph	208/230v 3ph	208/230v 1ph	208/230v 3ph
Recommended maximum fuse or circuit breaker size (amps)		40	25	40	25	60	45
*Minimum circuit ampacity		22.7	16.6	23.0	16.9	40.2	27.0
Compressor	Rated load amps	17.6	12.7	17.6	12.7	30.8	19.9
	Power factor	.98	.90	.98	.90	.92	.90
	Locked rotor amps	90.0	60.0	90.0	60.0	141.0	91.0
Outdoor Coil Fan Motor	Full load amps	0.7		1.0		1.7	
	Locked rotor amps	1.2		1.9		2.9	

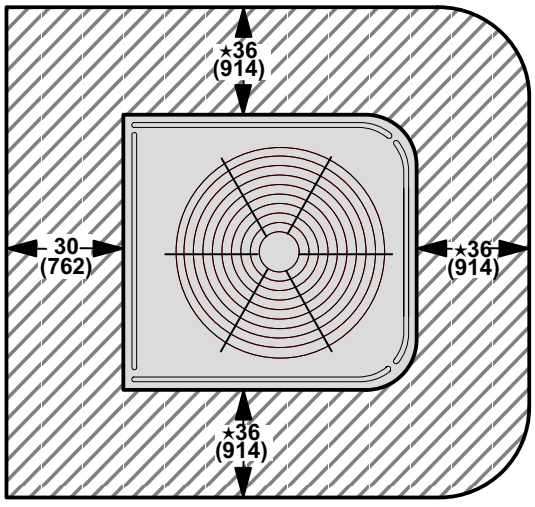
*Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.
NOTE — Extremes of operating range are plus 10% and minus 5% of line voltage.

REFRIGERANT LINE SETS

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
HP21-36	L15-41-20	20	6	3/8	9.5	3/4	19
	L15-41-30	30	9				
	L15-41-40	40	12				
	L15-41-50	50	15				
HP21-48	L15-65-30	30	9	3/8	9.5	7/8	22.2
	L15-65-40	40	12				
	L15-65-50	50	15				
HP21-60	Field Fabricate			3/8	9.5	1-1/8	28.5

Note — Refrigerant lines should not exceed 50 ft. (15 m) in any installation.

INSTALLATION CLEARANCES - IN. (MM)



★ One side of unit may be 12 in. (305 mm)
One of the remaining sides may be 6 in. (152 mm)
NOTE - 48 in (1219 mm) clearance required on top of unit
NOTE - 24 in. (610 mm) required between two units

ARI RATINGS

Unit Size & Model No. [2]Sound Rating No. (db)	[1]ARI Standard 210/240 Ratings											Indoor Units	**Check and Expansion Valve Kit Required
	Cool. Cap. Btuh (kW)	High Htg. Cap. Btuh (kW)	Low Htg. Cap. Btuh (kW)	Total Cool. Watts	SEER (EER)	Cool. C.O.P.	Total High Htg. Watts	HSPF Region IV (Region V)	High Htg. C.O.P.	Total Low Htg. Watts	Low Htg. C.O.P.		
3 Ton HP21-36 (76)	36,000 (10.5)	35,600 (10.4)	21,200 (6.2)	3840	13.05 (9.40)	2.75	3260	8.00 (6.80)	3.20	2700	2.30	**Blower Coil Unit** CB30M-41 (Multi-Position) CB30U-41/46 (Up-Flow)	●Factory Installed
	36,200 (10.6)	35,400 (10.4)	21,000 (6.2)	3800	13.05 (9.55)	2.79	3240	8.00 (6.75)	3.20	2675	2.30	**Blower Coil Unit** CB30M-46 (Multi-Position)	
	36,200 (10.6)	36,000 (10.55)	22,200 (6.5)	3700	14.65 (9.80)	2.87	3320	8.25 (7.00)	3.30	2676	2.42	[3]**Blower Coil Unit** CB31MV-41 (Multi-Position)	
	37,400 (11.0)	35,600 (10.4)	21,000 (6.2)	3865	13.05 (9.70)	2.84	3260	8.00 (6.80)	3.20	2675	2.30	**Blower Coil Unit** CB30M-51 (Multi-Position) CB30U-51 (Up-Flow)	
	37,400 (11.0)	37,000 (10.8)	22,000 (6.45)	3610	14.25 (10.35)	3.04	3225	8.50 (7.00)	3.36	2535	2.54	**Blower Coil Unit** CB31MV-51 (Multi-Position)	
	36,400 (10.67)	36,400 (10.67)	22,000 (6.45)	3785	12.25 (9.65)	3.08	3345	7.95 (6.95)	3.20	2750	2.34	[4]**Blower Coil Unit** CVP10-41/EC10Q3 (Up-Flow)	
	36,400 (10.67)	36,400 (10.67)	22,000 (6.45)	3775	12.20 (9.60)	3.08	3355	7.95 (6.95)	3.18	2750	2.34	[4]**Blower Coil Unit** CVP10-46/EC10Q4 (Up-Flow)	
	36,500 (10.69)	36,000 (10.55)	24,000 (7.03)	3960	12.10 (9.20)	2.70	3300	8.20 (7.30)	3.24	2495	2.80	**Indoor Coil (▲FM21)** C26-51/65 (Up-Flow)	
	39,000 (11.43)	36,000 (10.55)	24,000 (7.03)	3900	12.10 (10.00)	2.93	3300	8.20 (7.30)	3.24	2495	2.80	**Indoor Coil (▲FM21)** C26-65EAP (Up-Flow)	
												C33-62D (Up-Flow)	LB-85759F **(56J19)**
	34,800 (10.20)	35,000 (10.26)	21,400 (6.27)	3700	12.00 (9.60)	2.75	3535	7.55 (6.80)	2.90	2850	2.20	**Indoor Coil (▲FM21)** CR26-51 (Down-Flow)	
	39,000 (11.43)	36,000 (10.55)	24,000 (7.03)	3900	12.10 (10.00)	2.93	3300	8.20 (7.30)	3.24	2495	2.80	**Indoor Coil (▲FM21)** CH33-62D-F (Horizontal) CH23-68 (Horizontal)	
4 Ton HP21-48 (76)	41,500 (12.2)	40,000 (11.71)	23,200 (6.8)	3800	13.05 (10.90)	3.26	3445	8.10 (6.85)	3.40	2830	2.40	**Blower Coil Unit** CB30M-46 (Multi-Position) CB30U-41/46 (Up-Flow)	●Factory Installed
	43,000 (12.6)	41,000 (12.0)	23,400 (6.9)	3810	13.05 (11.30)	3.31	3430	8.20 (6.85)	3.50	2855	2.40	**Blower Coil Unit** CB30M-51 (Multi-Position) CB30U-51 (Up-Flow)	
	43,000 (12.6)	41,000 (12.0)	23,400 (6.9)	3905	13.05 (11.00)	3.23	3430	8.10 (6.85)	3.50	2855	2.40	**Blower Coil Unit** CB30M-65 (Multi-Position) CB30U-65 (Up-Flow)	
	44,000 (12.9)	40,000 (11.7)	22,000 (6.45)	3790	16.15 (11.60)	3.40	3185	8.50 (7.00)	3.68	2520	2.56	[3]**Blower Coil Unit** CB31MV-51 (Multi-Position)	
	44,000 (12.9)	40,000 (11.7)	23,000 (6.7)	3965	16.15 (11.10)	3.25	3345	8.50 (7.00)	3.48	2715	2.48	**Blower Coil Unit** CB31MV-65 (Multi-Position)	
	40,000 (11.71)	40,000 (11.71)	23,000 (6.74)	3905	12.05 (10.25)	3.21	3475	7.90 (6.70)	3.38	2885	2.34	[4]**Blower Coil Unit** CVP10-51/EC10Q4 (Up-Flow)	
	43,000 (12.60)	41,000 (12.01)	23,600 (6.91)	4040	13.10 (10.60)	3.11	3465	8.00 (6.50)	3.44	2900	2.34	**Indoor Coil (▲FM21)** C26-65EAP (Up-Flow)	
												C33-62D (Up-Flow)	LB-85759G **(56J20)**
	39,000 (11.43)	40,000 (11.72)	23,600 (6.91)	3785	12.60 (10.30)	3.00	3490	8.35 (7.05)	3.40	2880	2.40	**Indoor Coil (▲FM21)** CR26-65 (Down-Flow)	
	43,000 (12.60)	41,000 (12.01)	23,600 (6.91)	4040	13.10 (10.60)	3.11	3465	8.00 (6.50)	3.44	2900	2.34	**Indoor Coil (▲FM21)** CH33-62D-F (Horizontal) CH23-68 (Horizontal)	

NOTE - Ratings for all C26 and C33 coils include all cased and uncased coils.

[1]Certified in accordance with the USE certification program, which is based on 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 (21°C) db entering indoor coil air.

[2]Sound Rating Number rated in accordance with test conditions included in ARI Standard 270.

[3]Most popular evaporator coil.

[4]Canada Only.

●Furnished as standard with coil unit.

**Kit is required and must be ordered extra, unless shown as factory installed.

▲FM21 Heat Pump Control - Use coil listed with any Lennox furnace that meets system design requirements. See FM21 page in this section for additional data.

ARI RATINGS

Unit Size & Model No. [2]Sound Rating No. (db)	[1]ARI Standard 210/240 Ratings											Indoor Units	**Check and Expansion Valve Kit Required
	Cool. Cap. Btuh (kW)	High Htg. Cap. Btuh (kW)	Low Htg. Cap. Btuh (kW)	Total Cool. Watts	SEER (EER)	Cool. C.O.P.	Total High Htg. Watts	HSPF Region IV (Region V)	High Htg. C.O.P.	Total Low Htg. Watts	Low Htg. C.O.P.		
5 Ton HP21-60 (78)	54,000 (15.8)	54,000 (15.8)	32,200 (9.4)	5770	13.00 (9.35)	2.74	5150	7.50 (6.35)	3.10	3970	2.38	**Blower Coil Unit** CB31MV-51 (Multi-Position)	●Factory Installed
	54,500 (16.0)	53,000 (15.5)	30,200 (8.8)	5965	12.05 (9.15)	2.68	5010	7.60 (6.55)	3.10	3845	2.30	**Blower Coil Unit** CB30M-51 (Multi-Position) CB30U-51 (Up-Flow)	
	56,000 (16.41)	54,500 (15.97)	30,400 (8.9)	6055	13.35 (9.25)	2.71	5415	7.50 (6.35)	2.96	4160	2.14	[3]**Blower Coil Unit** CB31MV-65 (Multi-Position)	
	57,000 (16.7)	54,500 (16.0)	30,800 (9.0)	6190	12.05 (9.20)	2.70	5070	7.65 (6.55)	3.15	3925	2.30	**Blower Coil Unit** CB30M-65 (Multi-Position) CB30U-65 (Up-Flow)	
	55,000 (16.11)	53,000 (15.53)	30,000 (8.79)	5985	12.10 (9.15)	2.67	4990	7.85 (6.65)	3.11	3880	2.27	[4]**Blower Coil Unit** CVP10-65/EC10Q5 (Up-Flow)	
	60,000 (17.58)	57,000 (16.70)	33,000 (9.67)	6585	12.05 (9.10)	2.67	5500	7.50 (6.00)	3.00	4275	2.24	**Indoor Coil (▲FM21)** C33-62D (Up-Flow) C26-65EAP (Up-Flow)	
	60,000 (17.58)	57,000 (16.70)	33,000 (9.67)	6585	12.05 (9.10)	2.67	5500	7.50 (6.00)	3.00	4275	2.24	**Indoor Coil (▲FM21)** C26-65EAP (Up-Flow)	
												C33-62D (Up-Flow)	LB-85759G **(56J20)**
	56,000 (16.41)	54,500 (15.97)	31,400 (9.20)	6150	12.20 (9.00)	2.55	5325	7.40 (6.40)	3.00	4185	2.20	**Indoor Coil (▲FM21)** CR26-65 (Down-Flow)	
	60,000 (17.58)	57,000 (16.70)	33,000 (9.67)	6585	12.05 (9.10)	2.67	5500	7.50 (6.00)	3.00	4275	2.24	**Indoor Coil (▲FM21)** CH33-62D-F (Horizontal) CH23-68 (Horizontal)	

NOTE - Ratings for all C26 and C33 coils include all cased and uncased coils.

[1]Certified in accordance with the USE certification program, which is based on 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 (21°C) db entering indoor coil air.

[2]Sound Rating Number rated in accordance with test conditions included in ARI Standard 270.

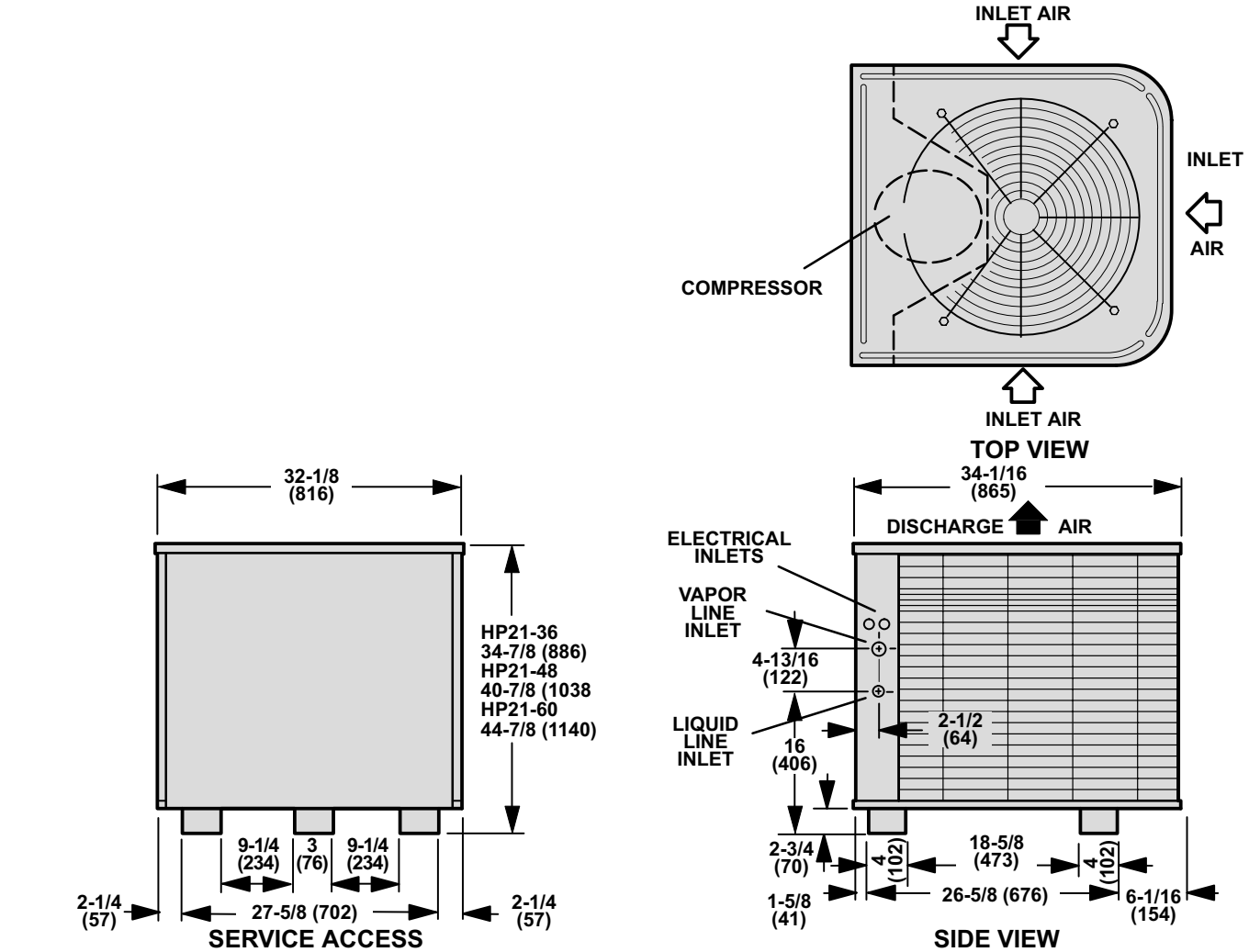
[3]Most popular evaporator coil.

[4]Canada Only.

●Furnished as standard with coil unit. **Kit is required and must be ordered extra, unless shown as factory installed.

▲FM21 Heat Pump Control - Use coil listed with any Lennox furnace that meets system design requirements. See FM21 page in this section for additional data.

DIMENSIONS - INCHES (MM)



RATINGS

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

HP21-36 — COOLING CAPACITY (Low Speed Compressor) — CB30M-41/CB30U-41/46 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)					85°F (29°C)					95°F (35°C)					105°F (41°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	7.1	24,200	1140	.77	.92	1.00	6.7	23,000	1300	.79	.95	1.00	6.4	21,800	1470	.81	.97	1.00	6.0	20,600	1620	.84	1.00	1.00
	425	900	7.3	24,800	1130	.80	.96	1.00	6.9	23,600	1300	.82	.98	1.00	6.6	22,400	1470	.85	1.00	1.00	6.2	21,300	1630	.87	1.00	1.00
	470	1000	7.4	25,400	1130	.83	.99	1.00	7.1	24,200	1300	.86	1.00	1.00	6.8	23,100	1470	.88	1.00	1.00	6.4	22,000	1640	.91	1.00	1.00
67°F (19.4°C)	375	800	7.6	26,100	1120	.59	.74	.88	7.2	24,700	1300	.60	.76	.91	6.9	23,400	1470	.61	.78	.93	6.4	22,000	1640	.63	.80	.96
	425	900	7.8	26,600	1110	.61	.77	.92	7.4	25,200	1300	.62	.79	.95	7.0	23,900	1480	.64	.82	.97	6.6	22,500	1640	.65	.84	1.00
	470	1000	7.9	27,000	1110	.63	.80	.96	7.5	25,600	1300	.64	.83	.98	7.1	24,200	1480	.66	.85	1.00	6.7	22,800	1650	.68	.88	1.00
71°F (21.7°C)	375	800	8.3	28,200	1090	.43	.57	.71	7.9	26,800	1290	.44	.58	.73	7.4	25,400	1480	.44	.60	.75	7.0	24,000	1660	.45	.61	.77
	425	900	8.4	28,700	1090	.44	.59	.74	8.0	27,300	1290	.44	.60	.76	7.6	25,900	1480	.45	.62	.79	7.2	24,400	1670	.46	.63	.81
	470	1000	8.6	29,200	1080	.45	.61	.78	8.1	27,700	1290	.45	.63	.80	7.7	26,300	1480	.46	.64	.82	7.3	24,800	1670	.47	.66	.85

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

HP21-36 — COOLING CAPACITY (High Speed Compressor) — CB30M-41/CB30U-41/46 (High Indoor Air Volume)

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	2860	.70	.83	.94	9.6	32,800	3100	.72	.85	.97	9.2	31,300	3350	.73	.87	.98	8.8	30,000	3600	.74	.89	1.00
	565	1200	10.6	36,100	2910	.74	.88	.99	10.1	34,300	3160	.75	.90	1.00	9.6	32,700	3420	.77	.92	1.00	9.2	31,500	3700	.79	.94	1.00
	660	1400	10.9	37,300	2950	.77	.92	1.00	10.4	35,500	3210	.79	.94	1.00	10.0	34,000	3490	.81	.96	1.00	9.6	32,800	3780	.82	.98	1.00
67°F (19.4°C)	470	1000	11.0	37,700	2960	.55	.67	.79	10.5	35,900	3230	.56	.68	.81	10.1	34,400	3510	.57	.70	.82	9.7	33,100	3800	.57	.71	.84
	565	1200	11.5	39,100	3010	.57	.71	.84	10.9	37,300	3290	.58	.72	.86	10.5	35,800	3600	.59	.73	.87	10.1	34,500	3900	.59	.75	.89
	660	1400	11.8	40,300	3050	.59	.74	.88	11.3	38,400	3350	.60	.76	.90	10.8	36,900	3660	.61	.77	.92	10.5	35,700	3970	.62	.78	.93
71°F (21.7°C)	470	1000	12.0	41,100	3090	.42	.53	.64	11.5	39,400	3400	.42	.54	.65	11.1	38,000	3730	.42	.54	.66	10.8	36,900	4050	.42	.55	.67
	565	1200	12.5	42,700	3150	.43	.55	.67	12.0	41,000	3480	.43	.56	.69	11.6	39,600	3820	.43	.56	.70	11.3	38,500	4160	.43	.57	.71
	660	1400	12.9	44,000	3200	.43	.57	.71	12.4	42,300	3540	.43	.58	.72	12.0	40,800	3900	.44	.59	.73	11.6	39,700	4250	.44	.59	.74

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

HP21-36 — HEATING CAPACITY (Low Speed Compressor) — CB30M-41/CB30U-41/46

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	8.1	27,700	1475	7.5	25,500	1435	6.9	23,400	1390	6.2	21,200	1350
565	1200	8.3	28,400	1410	7.7	26,200	1370	7.0	24,000	1330	6.4	21,900	1285
660	1400	8.4	28,800	1365	7.8	26,700	1320	7.2	24,500	1280	6.5	22,300	1240

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

HP21-36 — HEATING CAPACITY (High Speed Compressor) — CB30M-41/CB30U-41/46

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	12.6	43,000	3105	9.7	33,100	2745	6.7	23,000	2395	4.3	14,700	1960	2.1	7,100	1470
565	1200	13.0	44,200	3045	10.1	34,300	2685	7.1	24,200	2335	4.7	15,900	1900	2.4	8,300	1410
660	1400	13.2	45,000	3000	10.3	35,100	2640	7.3	25,000	2290	4.9	16,700	1855	2.7	9,100	1365

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

HP21-36 — HEATING PERFORMANCE CB30M-41/CB30U-41/46 at 1200 cfm (565 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3045	44,200	13.0
60	16	2950	41,800	12.3
55	13	2860	39,400	11.5
50	10	2765	37,000	10.8
47	8	2710	35,600	10.4
45	7	2685	34,300	10.1
40	4	2625	31,100	9.1
35	2	2565	27,900	8.2
30	-1	2450	26,000	7.6
25	-4	2335	24,200	7.1
20	-7	2220	22,300	6.5
17	-8	2150	21,200	6.2
15	-9	2115	20,200	5.9
10	-12	2020	17,800	5.2
5	-15	1900	15,900	4.7
0	-18	1775	14,000	4.1
-5	-21	1655	12,100	3.5
-10	-23	1535	10,200	3.0
-15	-26	1410	8,300	2.4
-20	-29	1290	6,400	1.9

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

RATINGS

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

HP21-36 — COOLING CAPACITY (Low Speed Compressor) — CB30M-46 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F						85°F (29°C)						95°F (35°C)						105°F (41°C)					
			Total Cooling Capacity		(24°C) Compressor Motor Watts 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	7.1	24,200	1140	.77	.92	1.00	6.7	23,000	1300	.79	.95	1.00	6.4	21,800	1470	.81	.97	1.00	6.0	20,600	1620	.84	1.00	1.00
	425	900	7.3	24,800	1130	.80	.96	1.00	6.9	23,600	1300	.82	.98	1.00	6.6	22,400	1470	.85	1.00	1.00	6.2	21,300	1630	.87	1.00	1.00
	470	1000	7.4	25,400	1130	.83	.99	1.00	7.1	24,200	1300	.86	1.00	1.00	6.8	23,100	1470	.88	1.00	1.00	6.4	22,000	1640	.91	1.00	1.00
67°F (19.4°C)	375	800	7.6	26,100	1120	.59	.74	.88	7.2	24,700	1300	.60	.76	.91	6.9	23,400	1470	.61	.78	.93	6.4	22,000	1640	.63	.80	.96
	425	900	7.8	26,600	1110	.61	.77	.92	7.4	25,200	1300	.62	.79	.95	7.0	23,900	1480	.64	.82	.97	6.6	22,500	1640	.65	.84	1.00
	470	1000	7.9	27,000	1110	.63	.80	.96	7.5	25,600	1300	.64	.83	.98	7.1	24,200	1480	.66	.85	1.00	6.7	22,800	1650	.68	.88	1.00
71°F (21.7°C)	375	800	8.3	28,200	1090	.43	.57	.71	7.9	26,800	1290	.44	.58	.73	7.4	25,400	1480	.44	.60	.75	7.0	24,000	1660	.45	.61	.77
	425	900	8.4	28,700	1090	.44	.59	.74	8.0	27,300	1290	.44	.60	.76	7.6	25,900	1480	.45	.62	.79	7.2	24,400	1670	.46	.63	.81
	470	1000	8.6	29,200	1080	.45	.61	.78	8.1	27,700	1290	.45	.63	.80	7.7	26,300	1480	.46	.64	.82	7.3	24,800	1670	.47	.66	.85

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

HP21-36 — COOLING CAPACITY (High Speed Compressor) — CB30M-46 (High Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			85°F						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		(29°C) Compressor Motor Watts 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	2860	.70	.83	.94	9.6	32,900	3100	.72	.85	.97	9.2	31,300	3350	.73	.87	.98	8.8	30,000	3600	.74	.89	1.00
	565	1200	10.6	36,100	2910	.74	.88	.99	10.1	34,300	3160	.75	.90	1.00	9.6	32,800	3420	.77	.92	1.00	9.2	31,500	3700	.79	.94	1.00
	660	1400	11.0	37,400	2950	.77	.92	1.00	10.4	35,500	3210	.79	.94	1.00	10.0	34,000	3490	.81	.96	1.00	9.6	32,800	3780	.82	.98	1.00
67°F (19.4°C)	470	1000	11.0	37,700	2960	.55	.67	.79	10.5	35,900	3230	.56	.68	.81	10.1	34,400	3510	.57	.70	.82	9.7	33,100	3800	.57	.71	.84
	565	1200	11.5	39,200	3010	.57	.71	.84	11.0	37,400	3290	.58	.72	.86	10.5	35,800	3600	.59	.73	.87	10.1	34,600	3900	.59	.75	.89
	660	1400	11.8	40,300	3050	.59	.74	.88	11.3	38,500	3350	.60	.76	.90	10.8	37,000	3660	.61	.77	.92	10.5	35,700	3970	.62	.78	.93
71°F (21.7°C)	470	1000	12.0	41,100	3090	.42	.53	.64	11.5	39,400	3400	.42	.54	.65	11.1	38,000	3730	.42	.54	.66	10.8	36,900	4050	.42	.55	.67
	565	1200	12.5	42,800	3150	.43	.55	.67	12.0	41,100	3480	.43	.56	.69	11.6	39,600	3820	.43	.56	.70	11.3	38,500	4160	.43	.57	.71
	660	1400	12.9	44,000	3200	.43	.57	.71	12.4	42,300	3540	.43	.58	.72	12.0	40,900	3900	.44	.59	.73	11.7	39,800	4250	.44	.59	.74

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

HP21-36 — HEATING CAPACITY (Low Speed Compressor) — CB30M-46

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	8.1	27,800	1530	7.5	25,700	1490	6.9	23,500	1445	6.2	21,300	1405
565	1200	8.3	28,400	1465	7.7	26,300	1425	7.1	24,100	1385	6.4	21,900	1340
660	1400	8.5	29,000	1420	7.9	26,800	1375	7.2	24,600	1335	6.6	22,500	1295

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

HP21-36 — HEATING CAPACITY (High Speed Compressor) — CB30M-46

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	12.6	42,900	3130	9.7	33,000	2765	6.7	22,900	2405	4.3	14,700	1970	2.1	7,100	1480
565	1200	12.9	44,000	3070	10.0	34,100	2705	7.0	24,000	2345	4.6	15,800	1910	2.4	8,200	1420
660	1400	13.2	44,900	3025	10.3	35,000	2660	7.3	24,900	2300	4.9	16,700	1865	2.7	9,100	1375

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

HP21-36 — HEATING PERFORMANCE
CB30M-46 at 1200 cfm (565 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3070	44,000	12.9
60	16	2975	41,600	12.2
55	13	2880	39,200	11.5
50	10	2790	36,800	10.8
47	8	2730	35,400	10.4
45	7	2705	34,100	10.0
40	4	2635	30,900	9.1
35	2	2565	27,700	8.1
30	-1	2455	25,800	7.6
25	-4	2345	24,000	7.0
20	-7	2230	22,100	6.5
17	-8	2165	21,000	6.2
15	-9	2125	20,000	5.9
10	-12	2035	17,600	5.2
5	-15	1910	15,800	4.6
0	-18	1790	13,900	4.1
-5	-21	1665	12,000	3.5
-10	-23	1545	10,100	3.0
-15	-26	1420	8,200	2.4
-20	-29	1300	6,300	1.8

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

RATINGS

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

HP21-36 — COOLING CAPACITY (Low Speed Compressor) — CB31MV-41 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																						
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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)	355	750	7.0	23,900	1140	.75	.90	1.00	6.7	22,700	1310	.77	.93	1.00	6.3	21,400	1460	.79	.95	1.00	5.9	20,200	1610	.82	.98	1.00
	395	840	7.2	24,400	1130	.78	.94	1.00	6.8	23,200	1300	.80	.96	1.00	6.4	22,000	1470	.83	.99	1.00	6.1	20,900	1620	.85	1.00	1.00
	425	900	7.3	24,800	1130	.80	.96	1.00	6.9	23,600	1300	.82	.98	1.00	6.6	22,400	1470	.85	1.00	1.00	6.2	21,300	1630	.87	1.00	1.00
67°F (19.4°C)	355	750	7.5	25,700	1120	.58	.72	.86	7.2	24,500	1300	.59	.74	.89	6.8	23,100	1470	.60	.76	.91	6.4	21,800	1640	.62	.78	.94
	395	840	7.7	26,300	1120	.60	.75	.90	7.3	24,900	1300	.61	.77	.92	6.9	23,600	1480	.62	.79	.95	6.5	22,200	1640	.64	.82	.98
	425	900	7.8	26,600	1110	.61	.77	.92	7.4	25,200	1300	.62	.79	.95	7.0	23,900	1480	.64	.82	.97	6.6	22,500	1640	.65	.84	1.00
71°F (21.7°C)	355	750	8.2	27,900	1100	.43	.56	.69	7.8	26,600	1290	.43	.57	.71	7.4	25,200	1480	.44	.58	.73	7.0	23,800	1660	.44	.60	.75
	395	840	8.3	28,400	1090	.44	.58	.72	7.9	27,100	1290	.44	.59	.74	7.5	25,600	1480	.44	.60	.76	7.1	24,200	1660	.45	.62	.79
	425	900	8.4	28,700	1090	.44	.59	.74	8.0	27,300	1290	.44	.60	.76	7.6	25,900	1480	.45	.62	.79	7.2	24,400	1670	.46	.63	.81

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

HP21-36 — COOLING CAPACITY (High Speed Compressor) — CB31MV-41 (High Indoor Air Volume)

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	10.3	35,200	2830	.73	.87	.98	9.8	33,500	3060	.74	.89	.99	9.3	31,900	3320	.76	.91	1.00	9.0	30,600	3580	.78	.92	1.00
	600	1275	10.6	36,000	2850	.75	.89	1.00	10.0	34,200	3100	.77	.92	1.00	9.6	32,700	3370	.78	.94	1.00	9.2	31,500	3640	.80	.95	1.00
	660	1400	10.8	36,800	2870	.77	.92	1.00	10.3	35,000	3130	.79	.94	1.00	9.8	33,500	3410	.81	.96	1.00	9.5	32,300	3690	.82	.98	1.00
67°F (19.4°C)	540	1150	11.2	38,200	2920	.57	.70	.82	10.7	36,400	3200	.57	.71	.84	10.2	34,900	3490	.58	.72	.86	9.9	33,700	3780	.59	.74	.88
	600	1275	11.4	39,000	2950	.58	.72	.85	10.9	37,200	3230	.59	.73	.87	10.5	35,700	3530	.59	.75	.89	10.1	34,500	3830	.60	.76	.91
	660	1400	11.6	39,700	2980	.59	.74	.88	11.1	37,900	3270	.60	.76	.90	10.7	36,400	3570	.61	.77	.92	10.3	35,100	3880	.62	.78	.93
71°F (21.7°C)	540	1150	12.2	41,700	3060	.42	.54	.66	11.7	40,000	3370	.43	.55	.68	11.3	38,700	3710	.43	.56	.69	11.0	37,600	4030	.43	.56	.70
	600	1275	12.5	42,600	3090	.43	.56	.69	12.0	40,900	3420	.43	.56	.70	11.6	39,500	3760	.43	.57	.71	11.3	38,400	4090	.43	.58	.72
	660	1400	12.7	43,300	3120	.43	.57	.71	12.2	41,700	3450	.43	.58	.72	11.8	40,200	3800	.44	.59	.73	11.5	39,100	4140	.44	.59	.74

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

HP21-36 — HEATING CAPACITY (Low Speed Compressor) — CB31MV-41

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
535	1135	8.0	27,300	1620	7.4	25,100	1555	6.7	22,900	1490	6.1	20,700	1430
600	1275	8.1	27,700	1570	7.5	25,500	1505	6.8	23,300	1445	6.2	21,200	1380
660	1400	8.2	28,000	1540	7.6	25,800	1475	6.9	23,600	1415	6.3	21,400	1350

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

HP21-36 — HEATING CAPACITY (High Speed Compressor) — CB31MV-41

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	
535	1135	12.7	43,500	3280	9.9	33,900	2850	7.1	24,100	2420	4.7	16,000	1975	2.3	7,900	1485
600	1275	13.0	44,300	3245	10.2	34,700	2815	7.3	24,900	2385	4.9	16,800	1940	2.5	8,700	1450
660	1400	13.2	45,000	3220	10.4	35,400	2790	7.5	25,600	2360	5.1	17,500	1915	2.8	9,400	1425

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

HP21-36 — HEATING PERFORMANCE
CB31MV-41 at 1275 cfm (600 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3245	44,300	13.0
60	16	3135	42,000	12.3
55	13	3030	39,700	11.6
50	10	2920	37,400	11.0
47	8	2855	36,000	10.6
45	7	2815	34,700	10.2
40	4	2705	31,600	9.3
35	2	2600	28,500	8.4
30	-1	2490	26,700	7.8
25	-4	2385	24,900	7.3
20	-7	2275	23,200	6.8
17	-8	2210	22,100	6.5
15	-9	2170	21,200	6.2
10	-12	2060	18,900	5.5
5	-15	1940	16,800	4.9
0	-18	1815	14,800	4.3
-5	-21	1695	12,700	3.7
-10	-23	1570	10,700	3.1
-15	-26	1450	8,700	2.5
-20	-29	1325	6,600	1.9

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

RATINGS

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

HP21-36 — COOLING CAPACITY (Low Speed Compressor) — CB30M-51/CB30U-51 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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)	425	900	7.5	25,600	1120	.80	.96	1.00	7.1	24,300	1300	.82	.99	1.00	6.8	23,100	1470	.84	1.00	1.00	6.4	22,000	1640	.87	1.00	1.00
	470	1000	7.7	26,200	1120	.83	.99	1.00	7.4	25,100	1300	.85	1.00	1.00	7.0	23,900	1480	.88	1.00	1.00	6.7	22,700	1650	.91	1.00	1.00
	520	1100	7.9	27,000	1110	.86	1.00	1.00	7.6	25,800	1300	.89	1.00	1.00	7.2	24,600	1480	.91	1.00	1.00	6.9	23,400	1660	.95	1.00	1.00
67°F (19.4°C)	425	900	8.1	27,600	1100	.61	.77	.92	7.7	26,200	1300	.62	.79	.95	7.2	24,700	1480	.63	.81	.98	6.8	23,300	1650	.65	.84	1.00
	470	1000	8.2	28,100	1100	.63	.80	.96	7.8	26,600	1290	.64	.82	.98	7.4	25,100	1480	.66	.85	1.00	6.9	23,700	1660	.67	.88	1.00
	520	1100	8.4	28,500	1090	.65	.83	.99	7.9	27,000	1290	.66	.86	1.00	7.5	25,500	1480	.68	.88	1.00	7.0	24,000	1660	.70	.92	1.00
71°F (21.7°C)	425	900	8.8	29,900	1070	.44	.59	.74	8.3	28,400	1280	.44	.60	.76	7.9	26,900	1480	.45	.62	.78	7.4	25,400	1680	.45	.63	.81
	470	1000	8.9	30,400	1070	.45	.61	.77	8.5	28,900	1280	.45	.62	.79	8.0	27,300	1490	.46	.64	.82	7.5	25,700	1680	.46	.66	.85
	520	1100	9.0	30,700	1070	.45	.63	.80	8.6	29,200	1280	.46	.64	.83	8.1	27,600	1490	.47	.66	.85	7.6	26,000	1680	.47	.68	.88

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

HP21-36 — COOLING CAPACITY (High Speed Compressor) — CB30M-51CB30M-51/CB30U-51 (High Indoor Air Volume)

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	2860	.70	.82	.94	9.8	33,500	3110	.71	.84	.96	9.4	32,000	3380	.72	.86	.98	9.0	30,700	3640	.73	.88	.99
	565	1200	10.8	36,900	2920	.73	.87	.99	10.3	35,100	3190	.75	.89	1.00	9.8	33,600	3460	.76	.91	1.00	9.5	32,300	3750	.77	.93	1.00
	660	1400	11.2	38,300	2970	.76	.91	1.00	10.7	36,500	3250	.78	.93	1.00	10.3	35,000	3550	.80	.95	1.00	9.9	33,800	3850	.81	.97	1.00
67°F (19.4°C)	470	1000	11.3	38,600	2980	.55	.67	.78	10.8	36,800	3270	.56	.68	.80	10.4	35,400	3570	.56	.69	.81	10.0	34,200	3880	.57	.70	.82
	565	1200	11.8	40,300	3050	.57	.70	.82	11.3	38,500	3350	.57	.71	.84	10.9	37,100	3670	.58	.72	.86	10.5	35,900	3990	.59	.73	.87
	660	1400	12.2	41,700	3100	.58	.73	.87	11.7	39,900	3420	.59	.75	.89	11.3	38,400	3750	.60	.76	.91	10.9	37,200	4080	.61	.77	.92
71°F (21.7°C)	470	1000	12.4	42,400	3140	.42	.53	.63	11.9	40,700	3470	.42	.53	.64	11.5	39,400	3820	.42	.54	.65	11.3	38,400	4160	.42	.54	.66
	565	1200	13.0	44,300	3220	.42	.54	.66	12.5	42,700	3570	.43	.55	.67	12.1	41,300	3930	.43	.56	.68	11.8	40,300	4300	.43	.56	.69
	660	1400	13.4	45,800	3290	.43	.56	.70	13.0	44,200	3650	.43	.57	.71	12.5	42,800	4030	.43	.58	.72	12.3	41,800	4410	.44	.58	.73

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

HP21-36 — HEATING CAPACITY (Low Speed Compressor) — CB30M-51CB30M-51/CB30U-51

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	8.3	28,200	1525	7.6	26,000	1475	6.9	23,700	1420	6.3	21,500	1370
565	1200	8.4	28,800	1460	7.8	26,500	1405	7.1	24,300	1355	6.4	22,000	1300
660	1400	8.6	29,200	1410	7.9	27,000	1360	7.3	24,800	1305	6.6	22,500	1255

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

HP21-36 — HEATING CAPACITY (High Speed Compressor) — CB30M-51CB30M-51/CB30U-51

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	12.7	43,400	3155	9.8	33,300	2775	6.7	23,000	2400	4.3	14,700	1960	2.1	7,200	1475
565	1200	13.0	44,400	3100	10.1	34,300	2720	7.0	24,000	2345	4.6	15,700	1905	2.4	8,200	1420
660	1400	13.3	45,400	3055	10.3	35,300	2675	7.3	25,000	2300	4.9	16,700	1860	2.7	9,200	1375

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

HP21-36 — HEATING PERFORMANCE
CB30M-51CB30M-51/CB30U-51 at 1200 cfm (565 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3100	44,400	13.0
60	16	3005	41,900	12.3
55	13	2905	39,500	11.6
50	10	2810	37,100	10.9
47	8	2750	35,600	10.4
45	7	2720	34,300	10.1
40	4	2645	31,100	9.1
35	2	2570	27,800	8.1
30	-1	2455	25,900	7.6
25	-4	2345	24,000	7.0
20	-7	2230	22,100	6.5
17	-8	2165	21,000	6.2
15	-9	2125	20,000	5.9
10	-12	2030	17,600	5.2
5	-15	1905	15,700	4.6
0	-18	1785	13,800	4.0
-5	-21	1665	11,900	3.5
-10	-23	1540	10,100	3.0
-15	-26	1420	8,200	2.4
-20	-29	1300	6,300	1.8

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

RATINGS

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

HP21-36 — COOLING CAPACITY (Low Speed Compressor) — CB31MV-51 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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)	330	700	7.1	24,300	1140	.73	.88	1.00	6.7	23,000	1300	.75	.90	1.00	6.4	21,700	1470	.77	.93	1.00	6.0	20,400	1620	.79	.96	1.00
	385	815	7.4	25,100	1130	.77	.93	1.00	7.0	23,800	1300	.79	.95	1.00	6.6	22,500	1470	.81	.98	1.00	6.2	21,300	1630	.84	1.00	1.00
67°F (19.4°C)	330	700	7.7	26,300	1120	.57	.70	.84	7.3	25,000	1300	.58	.72	.86	6.9	23,600	1480	.59	.74	.88	6.5	22,200	1640	.60	.76	.91
	385	815	7.9	27,100	1110	.59	.74	.89	7.5	25,700	1300	.60	.76	.91	7.1	24,300	1480	.61	.78	.94	6.7	22,900	1650	.63	.81	.97
71°F (21.7°C)	330	700	8.4	28,600	1090	.43	.55	.67	8.0	27,200	1290	.43	.56	.69	7.6	25,800	1480	.43	.57	.71	7.1	24,300	1670	.44	.58	.73
	385	815	8.6	29,400	1080	.43	.57	.71	8.2	28,000	1290	.44	.58	.73	7.8	26,500	1480	.44	.60	.71	7.3	25,000	1670	.45	.61	.77

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

HP21-36 — COOLING CAPACITY (High Speed Compressor) — CB31MV-51 (High Indoor Air Volume)

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)	570	1205	10.7	36,500	2800	.73	.87	.99	10.2	34,700	3060	.75	.89	1.00	9.7	33,200	3330	.76	.91	1.00	9.4	32,000	3610	.77	.93	1.00
	650	1375	11.0	37,700	2840	.76	.91	1.00	10.5	35,900	3120	.78	.93	1.00	10.1	34,400	3400	.79	.95	1.00	9.7	33,200	3690	.81	.96	1.00
67°F (19.4°C)	570	1205	11.7	39,900	2930	.57	.70	.83	11.2	38,100	3220	.57	.71	.84	10.8	36,700	3530	.58	.72	.86	10.4	35,500	3840	.59	.73	.87
	650	1375	12.0	41,000	2970	.58	.73	.86	11.5	39,300	3280	.59	.74	.88	11.1	37,800	3590	.60	.75	.90	10.7	36,600	3910	.61	.77	.91
71°F (21.7°C)	570	1205	12.9	43,900	3100	.42	.54	.66	12.4	42,200	3430	.43	.55	.67	12.0	40,900	3780	.43	.56	.68	11.7	39,900	4130	.43	.56	.69
	650	1375	13.2	45,100	3150	.43	.56	.69	12.7	43,500	3500	.43	.57	.70	12.4	42,200	3860	.43	.57	.71	12.0	41,100	4220	.44	.58	.72

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

HP21-36 — HEATING CAPACITY (Low Speed Compressor) — CB31MV-51

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
570	1205	7.9	26,800	1670	7.2	24,700	1595	6.6	22,600	1515	6.0	20,600	1440
650	1375	8.0	27,400	1595	7.4	25,300	1520	6.8	23,300	1445	6.2	21,200	1370

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

HP21-36 — HEATING CAPACITY (High Speed Compressor) — CB31MV-51

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	
570	1205	13.5	46,000	3250	10.5	35,700	2795	7.4	25,100	2335	4.8	16,500	1875	2.5	8,600	1405
650	1375	13.7	46,900	3210	10.7	36,600	2755	7.6	26,000	2295	5.1	17,400	1835	2.8	9,500	1365

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

HP21-36 — HEATING PERFORMANCE CB31MV-51 at 1205 cfm (570 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3250	46,000	13.5
60	16	3140	43,500	12.7
55	13	3025	41,000	12.0
50	10	2910	38,500	11.3
47	8	2840	37,000	10.8
45	7	2795	35,700	10.5
40	4	2680	32,300	9.5
35	2	2565	29,000	8.5
30	-1	2450	27,000	7.9
25	-4	2335	25,100	7.4
20	-7	2220	23,200	6.8
17	-8	2150	22,000	6.4
15	-9	2105	21,000	6.2
10	-12	1990	18,500	5.4
5	-15	1875	16,500	4.8
0	-18	1755	14,500	4.2
-5	-21	1640	12,600	3.7
-10	-23	1525	10,600	3.1
-15	-26	1405	8,600	2.5
-20	-29	1290	6,600	1.9

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

RATINGS

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

HP21-36 — COOLING CAPACITY (Low Speed Compressor) — CVP10-41/EC10Q3 (Canada Only) (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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)	235	500	5.5	18,600	1110	.68	.83	.92	5.2	17,600	1240	.70	.83	.94	4.9	16,700	1380	.71	.85	.96	4.6	15,700	1530	.72	.88	.99
	375	800	6.0	20,600	1090	.78	.95	1.00	5.8	19,800	1240	.79	.98	1.00	5.5	18,900	1380	.80	.99	1.00	5.2	17,900	1550	.82	1.00	1.00
	520	1100	6.5	22,100	1080	.86	1.00	1.00	6.3	21,500	1220	.88	1.00	1.00	6.0	20,600	1390	.89	1.00	1.00	5.8	19,700	1580	.91	1.00	1.00
67°F (19.4°C)	235	500	5.8	19,800	1100	.55	.67	.79	5.6	19,000	1230	.55	.68	.80	5.3	18,000	1380	.56	.69	.82	5.0	17,000	1540	.57	.71	.84
	375	800	6.4	21,700	1080	.61	.79	.92	6.1	20,900	1230	.61	.80	.93	5.8	19,900	1390	.62	.81	.95	5.5	18,900	1570	.63	.83	.97
	520	1100	6.6	22,500	1070	.67	.89	1.00	6.4	21,900	1220	.67	.89	1.00	6.2	21,000	1390	.68	.90	1.00	5.8	19,900	1580	.70	.93	1.00
71°F (21.7°C)	235	500	6.2	21,000	1090	.42	.55	.67	5.9	20,200	1230	.42	.55	.68	5.7	19,300	1390	.43	.56	.69	5.4	18,300	1560	.43	.56	.70
	375	800	6.6	22,500	1070	.45	.61	.77	6.4	21,900	1220	.45	.61	.77	6.2	21,100	1390	.45	.62	.79	5.9	20,200	1590	.45	.63	.80
	520	1100	6.7	22,900	1070	.47	.65	.87	6.6	22,500	1210	.47	.71	.87	6.4	21,900	1390	.48	.72	.89	6.2	21,000	1600	.48	.73	.90

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

HP21-36 — COOLING CAPACITY (High Speed Compressor) — CVP10-41/EC10Q3 (Canada Only) (High Indoor Air Volume)

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	34,500	2740	.70	.84	.95	9.5	32,300	2950	.71	.86	.98	8.8	30,000	3230	.73	.89	1.00	8.2	28,000	3560	.75	.92	1.00
	615	1300	10.8	36,700	2790	.75	.90	1.00	10.1	34,500	3030	.77	.93	1.00	9.5	32,300	3320	.79	.96	1.00	8.9	30,400	3690	.81	.99	1.00
	755	1600	11.3	38,400	2850	.80	.95	1.00	10.6	36,200	3100	.82	.99	1.00	10.1	34,500	3420	.84	1.00	1.00	9.6	32,900	3880	.86	1.00	1.00
67°F (19.4°C)	470	1000	10.8	36,900	2800	.55	.68	.81	10.2	34,800	3050	.56	.70	.83	9.6	32,700	3340	.57	.72	.85	9.0	30,800	3730	.58	.74	.87
	615	1300	11.5	39,100	2870	.58	.73	.88	10.9	37,100	3120	.59	.75	.90	10.3	35,100	3460	.60	.78	.92	9.8	33,300	3910	.61	.80	.94
	755	1600	11.9	40,700	2920	.61	.79	.95	11.4	38,900	3190	.62	.80	.97	10.8	37,000	3550	.63	.82	.99	10.3	35,100	4020	.65	.84	1.00
71°F (21.7°C)	470	1000	11.5	39,400	2880	.41	.55	.68	11.0	37,400	3130	.42	.56	.69	10.4	35,600	3480	.42	.56	.70	10.0	34,000	3950	.42	.57	.71
	615	1300	12.2	41,500	2950	.43	.58	.73	11.7	39,900	3230	.43	.59	.74	11.2	38,300	3620	.43	.59	.75	10.7	36,600	4140	.44	.60	.77
	755	1600	12.6	43,100	2990	.44	.60	.78	12.2	41,500	3290	.44	.61	.79	11.7	40,000	3710	.45	.62	.80	11.3	38,600	4280	.45	.63	.82

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

HP21-36 — HEATING CAPACITY (Low Speed Compressor) — CVP10-41/EC10Q3 (Canada Only)

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	12.9	31,100	1425	10.1	28,900	1400	7.1	26,700	1370	4.8	24,500	1345
615	1300	13.2	30,600	2015	10.3	28,300	1990	7.4	26,100	1960	5.1	23,900	1930
755	1600	13.9	32,300	1355	11.0	30,100	1325	8.1	27,800	1300	5.7	25,600	1270

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

HP21-36 — HEATING CAPACITY (High Speed Compressor) — CVP10-41/EC10Q3 (Canada Only)

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	12.9	44,100	3140	10.1	34,300	2745	7.1	24,300	2350	4.8	16,300	1835	2.3	7800	1240
615	1300	13.2	45,200	3700	10.3	35,300	3305	7.4	25,300	2910	5.1	17,300	2395	2.6	8800	1800
755	1600	13.9	47,300	2990	11.0	37,500	2595	8.1	27,500	2200	5.7	19,500	1685	3.2	11,000	1090

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

HP21-36 — HEATING PERFORMANCE
CVP10-41/EC10Q3 (Canada Only) at 1300 cfm (615 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3700	45,200	13.2
60	16	3600	42,800	12.5
55	13	3500	40,400	11.8
50	10	3405	38,100	11.2
47	8	3345	36,600	10.7
45	7	3305	35,300	10.3
40	4	3205	32,100	9.4
35	2	3105	28,900	8.5
30	-1	3010	27,100	7.9
25	-4	2910	25,300	7.4
20	-7	2810	23,500	6.9
17	-8	2750	22,400	6.6
15	-9	2690	21,600	6.3
10	-12	2540	19,500	5.7
5	-15	2395	17,300	5.1
0	-18	2245	15,200	4.5
-5	-21	2095	13,100	3.8
-10	-23	1950	11,000	3.2
-15	-26	1800	8800	2.6
-20	-29	1650	6700	2.0

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

RATINGS

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

HP21-36 — COOLING CAPACITY (Low Speed Compressor) — CVP10-46/EC10Q4 (Canada Only) (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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)	235	500	5.4	18,500	1110	.68	.83	.92	5.1	17,500	1240	.69	.83	.94	4.9	16,600	1380	.70	.85	.96	4.6	15,600	1520	.72	.88	.98
	375	800	6.0	20,500	1090	.77	.94	1.00	5.7	19,600	1240	.79	.98	1.00	5.5	18,700	1380	.80	.99	1.00	5.2	17,800	1550	.82	1.00	1.00
	520	1100	6.4	22,000	1080	.86	1.00	1.00	6.2	21,200	1220	.87	1.00	1.00	6.0	20,400	1390	.89	1.00	1.00	5.7	19,500	1570	.91	1.00	1.00
67°F (19.4°C)	235	500	5.8	19,700	1100	.54	.67	.79	5.5	18,900	1240	.55	.68	.80	5.2	17,900	1380	.56	.69	.81	5.0	16,900	1540	.57	.71	.83
	375	800	6.3	21,500	1080	.60	.78	.91	6.1	20,800	1230	.61	.79	.93	5.8	19,900	1390	.62	.81	.94	5.5	18,800	1570	.63	.83	.97
	520	1100	6.6	22,400	1070	.66	.88	1.00	6.4	21,800	1220	.67	.88	1.00	6.1	20,800	1390	.68	.90	1.00	5.8	19,800	1580	.69	.92	1.00
71°F (21.7°C)	235	500	6.1	20,900	1090	.42	.55	.67	5.9	20,100	1230	.42	.55	.67	5.6	19,200	1390	.42	.55	.68	5.3	18,200	1560	.43	.56	.70
	375	800	6.6	22,400	1070	.44	.60	.76	6.4	21,800	1220	.45	.61	.77	6.2	21,000	1390	.45	.62	.78	5.9	20,100	1580	.45	.63	.79
	520	1100	6.7	22,900	1070	.47	.65	.86	6.6	22,500	1220	.47	.70	.87	6.4	21,900	1390	.47	.71	.88	6.2	21,000	1600	.48	.72	.90

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

HP21-36 — COOLING CAPACITY (High Speed Compressor) — CVP10-46/EC10Q4 (Canada Only) (High Indoor Air Volume)

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	2740	.69	.84	.94	9.4	32,000	2950	.71	.86	.97	8.7	29,800	3210	.73	.89	1.00	8.1	27,800	3540	.75	.92	1.00
	615	1300	10.7	36,400	2780	.75	.89	1.00	10.0	34,100	3020	.77	.92	1.00	9.4	32,000	3310	.79	.95	1.00	8.8	30,000	3660	.81	.99	1.00
	755	1600	11.1	38,000	2840	.80	.95	1.00	10.5	35,900	3080	.82	.98	1.00	10.0	34,000	3390	.84	1.00	1.00	9.5	32,500	3850	.86	1.00	1.00
67°F (19.4°C)	470	1000	10.7	36,600	2790	.55	.68	.80	10.1	34,500	3040	.55	.70	.82	9.5	32,500	3330	.56	.71	.84	8.9	30,500	3710	.57	.73	.86
	615	1300	11.4	38,800	2860	.58	.72	.87	10.8	36,700	3110	.59	.74	.89	10.2	34,800	3430	.60	.76	.92	9.7	33,000	3870	.61	.78	.94
	755	1600	11.9	40,500	2910	.61	.78	.94	11.3	38,500	3180	.62	.80	.96	10.7	36,600	3530	.63	.82	.99	10.2	34,700	4000	.64	.84	1.00
71°F (21.7°C)	470	1000	11.5	39,100	2870	.41	.55	.67	10.9	37,200	3120	.41	.56	.68	10.3	35,300	3460	.42	.56	.70	9.9	33,700	3920	.42	.57	.71
	615	1300	12.1	41,200	2940	.42	.57	.72	11.6	39,600	3220	.43	.58	.73	11.1	37,900	3600	.43	.59	.75	10.6	36,200	4110	.43	.60	.76
	755	1600	12.5	42,800	2980	.44	.60	.77	12.1	41,300	3280	.44	.61	.79	11.6	39,700	3690	.44	.62	.80	11.2	38,200	4250	.45	.63	.81

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

HP21-36 — HEATING CAPACITY (Low Speed Compressor) — CVP10-46/EC10Q4 (Canada Only)

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	9.1	31,100	1495	8.4	28,800	1450	7.8	26,600	1410	7.2	24,400	1365
615	1300	8.9	30,500	2180	8.3	28,300	2135	7.6	26,100	2095	7.0	23,900	2050
755	1600	9.4	32,200	1420	8.8	30,000	1380	8.1	27,800	1335	7.5	25,600	1295

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

HP21-36 — HEATING CAPACITY (High Speed Compressor) — CVP10-46/EC10Q4 (Canada Only)

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)		
		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	
470	1000	12.8	43,800	3130	10.0	34,100	2725	7.1	24,200	2325	4.7	16,200	1805
615	1300	13.2	44,900	3715	10.3	35,200	3315	7.4	25,300	2910	5.1	17,300	2395
755	1600	13.8	47,000	2980	10.9	37,300	2575	8.0	27,400	2175	5.7	19,400	1660

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil		
		-15°F (-28°C)		
		Total Heating Capacity		Comp. Motor Watts Input
L/s	cfm	kW	Btuh	
470	1000	2.3	7800	1210
615	1300	2.6	8900	1800
755	1600	3.2	10,900	1065

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

HP21-36 — HEATING PERFORMANCE
CVP10-46/EC10Q4 (Canada Only) at 1300 cfm (615 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3715	44,900	13.2
60	16	3615	42,600	12.5
55	13	3515	40,200	11.8
50	10	3415	37,900	11.1
47	8	3355	36,500	10.7
45	7	3315	35,200	10.3
40	4	3215	32,000	9.4
35	2	3115	28,900	8.5
30	-1	3010	27,100	7.9
25	-4	2910	25,300	7.4
20	-7	2810	23,500	6.9
17	-8	2750	22,400	6.6
15	-9	2690	21,600	6.3
10	-12	2540	19,500	5.7
5	-15	2395	17,300	5.1
0	-18	2245	15,200	4.5
-5	-21	2095	13,100	3.8
-10	-23	1950	11,000	3.2
-15	-26	1800	8800	2.6
-20	-29	1650	6700	2.0

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

RATINGS

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

HP21-36 — COOLING CAPACITY (Low Speed Compressor) — C33-62D - C26-65EAP - CH33-62D-F - CH23-68 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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	7.5	25,500	1330	.82	1.00	1.00	7.1	24,300	1530	.83	1.00	1.00	6.8	23,100	1750	.84	1.00	1.00	6.4	21,800	1990	.86	1.00	1.00
	565	1200	7.9	27,100	1320	.85	1.00	1.00	7.6	25,800	1540	.87	1.00	1.00	7.2	24,500	1770	.89	1.00	1.00	6.8	23,200	2040	.91	1.00	1.00
	660	1400	8.3	28,200	1320	.89	1.00	1.00	7.9	26,900	1540	.91	1.00	1.00	7.5	25,600	1790	.93	1.00	1.00	7.1	24,200	2070	.95	1.00	1.00
67°F (19.4°C)	470	1000	7.9	27,100	1320	.64	.82	.95	7.5	25,600	1540	.65	.85	.97	7.1	24,100	1770	.66	.88	1.00	6.6	22,400	2020	.68	.92	1.00
	565	1200	8.2	28,100	1320	.67	.88	1.00	7.8	26,500	1540	.68	.92	1.00	7.3	25,000	1780	.69	.95	1.00	6.8	23,300	2040	.71	.99	1.00
	660	1400	8.4	28,800	1320	.70	.93	1.00	7.9	27,100	1540	.71	.98	1.00	7.5	25,600	1790	.72	1.00	1.00	7.1	24,100	2070	.74	1.00	1.00
71°F (21.7°C)	470	1000	8.5	28,900	1320	.48	.63	.79	8.0	27,400	1540	.48	.65	.81	7.6	25,800	1800	.49	.67	.83	7.1	24,300	2080	.49	.69	.84
	565	1200	8.8	30,000	1310	.49	.67	.84	8.3	28,400	1550	.49	.69	.85	7.9	26,800	1810	.50	.71	.87	7.3	25,000	2100	.51	.74	.90
	660	1400	9.0	30,700	1310	.50	.71	.88	8.5	29,100	1550	.51	.73	.90	8.0	27,300	1820	.51	.76	.92	7.5	25,700	2120	.52	.79	.95

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

HP21-36 — COOLING CAPACITY (High Speed Compressor) - C33-62D - C26-65EAP - CH33-62D-F - CH23-68 (High Indoor Air Volume)

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	11.0	37,500	2840	.70	.84	.96	10.4	35,400	3070	.72	.86	.99	9.7	33,200	3350	.73	.89	1.00	9.2	31,300	3720	.75	.91	1.00
	565	1200	11.6	39,500	2910	.74	.88	1.00	10.9	37,300	3150	.75	.91	1.00	10.3	35,100	3460	.77	.94	1.00	9.7	33,000	3880	.79	.97	1.00
	660	1400	12.0	41,100	2960	.77	.93	1.00	11.4	38,900	3220	.79	.96	1.00	10.8	36,800	3560	.81	.98	1.00	10.2	34,800	4020	.83	1.00	1.00
67°F (19.4°C)	470	1000	11.8	40,200	2930	.55	.68	.81	11.2	38,200	3190	.56	.69	.83	10.6	36,200	3530	.56	.71	.85	10.1	34,300	3980	.57	.73	.87
	565	1200	12.5	42,600	3010	.57	.71	.86	11.9	40,500	3290	.58	.73	.88	11.3	38,400	3670	.59	.75	.90	10.7	36,500	4170	.60	.76	.92
	660	1400	13.0	44,300	3070	.59	.74	.90	12.4	42,200	3380	.60	.76	.92	11.8	40,300	3800	.61	.78	.94	11.3	38,500	4350	.62	.80	.96
71°F (21.7°C)	470	1000	12.6	43,000	3030	.41	.54	.68	12.0	41,100	3320	.41	.55	.69	11.5	39,200	3720	.41	.56	.70	11.0	37,500	4270	.42	.57	.71
	565	1200	13.4	45,600	3100	.42	.56	.71	12.8	43,700	3460	.42	.57	.72	12.3	41,900	3920	.42	.58	.73	11.8	40,200	4520	.43	.59	.74
	660	1400	14.0	47,600	3200	.42	.58	.74	13.4	45,800	3590	.43	.59	.75	12.9	44,000	4080	.43	.60	.76	12.5	42,500	4710	.43	.61	.77

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

HP21-36 — HEATING CAPACITY (Low Speed Compressor) — C33-62D - C26-65EAP - CH33-62D-F - CH23-68

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
470	1000	12.8	29,500	1610	10.3	27,800	1560	7.7	26,000	1510	5.3	24,300	1460
565	1200	13.2	28,900	1550	10.6	27,200	1495	8.0	25,400	1445	5.7	23,700	1395
660	1400	13.5	30,400	1555	11.0	28,700	1505	8.4	26,900	1455	6.0	25,200	1405

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

HP21-36 — HEATING CAPACITY (High Speed Compressor) — C33-62D - C26-65EAP - CH33-62D-F - CH23-68

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	3240	10.3	35,200	2700	7.7	26,300	2165	5.3	18,200	1705	2.6	8800	1300
565	1200	13.2	44,900	3170	10.6	36,200	2630	8.0	27,400	2090	5.7	19,300	1630	2.9	9800	1225
660	1400	13.5	46,200	3115	11.0	37,600	2580	8.4	28,700	2040	6.0	20,600	1580	3.3	11,200	1175

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

HP21-36 — HEATING PERFORMANCE - C33-62D - C26-65EAP - CH33-62D-F - CH23-68 at 1200 cfm (565 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3170	44,900	13.2
60	16	3035	42,800	12.5
55	13	2900	40,700	11.9
50	10	2765	38,600	11.3
47	8	2685	37,400	11.0
45	7	2630	36,200	10.6
40	4	2495	33,300	9.8
35	2	2360	30,500	8.9
30	-1	2225	28,900	8.5
25	-4	2090	27,400	8.0
20	-7	1955	25,900	7.6
17	-8	1875	24,900	7.3
15	-9	1835	24,000	7.0
10	-12	1735	21,600	6.3
5	-15	1630	19,300	5.7
0	-18	1530	16,900	5.0
-5	-21	1430	14,600	4.3
-10	-23	1330	12,200	3.6
-15	-26	1225	9800	2.9
-20	-29	1125	7500	2.2

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

RATINGS

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

HP21-36 — COOLING CAPACITY (Low Speed Compressor) — CR26-51 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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	6.3	21,600	1130	.77	.93	1.00	6.0	20,600	1280	.78	.96	1.00	5.7	19,400	1430	.80	.99	1.00	5.4	18,400	1600	.82	1.00	1.00
	425	900	6.4	22,000	1130	.80	.96	1.00	6.2	21,100	1280	.81	.99	1.00	5.9	20,100	1430	.83	1.00	1.00	5.6	19,100	1610	.85	1.00	1.00
	470	1000	6.6	22,600	1130	.83	.99	1.00	6.4	21,700	1270	.84	1.00	1.00	6.1	20,700	1440	.86	1.00	1.00	5.8	19,700	1620	.88	1.00	1.00
67°F (19.4°C)	375	800	6.8	23,100	1120	.60	.75	.90	6.5	22,100	1270	.61	.77	.91	6.1	20,900	1440	.62	.80	.93	5.8	19,700	1620	.63	.82	.96
	425	900	6.9	23,600	1110	.62	.77	.93	6.6	22,600	1270	.63	.80	.95	6.3	21,400	1440	.64	.83	.97	5.9	20,200	1630	.65	.86	1.00
	470	1000	7.1	24,100	1110	.63	.80	.97	6.8	23,100	1270	.64	.82	.99	6.4	21,800	1440	.66	.85	1.00	6.0	20,600	1630	.67	.89	1.00
71°F (21.7°C)	375	800	7.2	24,600	1100	.45	.59	.75	6.9	23,600	1260	.45	.60	.76	6.6	22,500	1440	.45	.61	.77	6.2	21,300	1640	.46	.63	.79
	425	900	7.4	25,200	1100	.45	.60	.77	7.1	24,200	1260	.46	.62	.79	6.8	23,100	1440	.46	.63	.80	6.4	21,800	1650	.46	.65	.82
	470	1000	7.5	25,700	1090	.46	.62	.80	7.2	24,600	1260	.46	.63	.81	6.9	23,500	1440	.47	.65	.83	6.5	22,300	1660	.47	.67	.85

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

HP21-36 — COOLING CAPACITY (High Speed Compressor) — CR26-51 (High Indoor Air Volume)

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	10.1	34,600	2790	.72	.87	1.00	9.5	32,500	3020	.74	.89	1.00	8.9	30,300	3320	.76	.93	1.00	8.2	28,100	3650	.79	.97	1.00
	615	1300	10.4	35,600	2820	.75	.89	1.00	9.8	33,500	3060	.77	.93	1.00	9.1	31,100	3360	.79	.96	1.00	8.5	28,900	3700	.82	.99	1.00
	685	1450	10.7	36,500	2840	.78	.92	1.00	10.0	34,100	3090	.80	.96	1.00	9.4	32,000	3400	.82	.99	1.00	8.9	30,200	3810	.84	1.00	1.00
67°F (19.4°C)	540	1150	10.9	37,200	2860	.57	.71	.84	10.3	35,100	3130	.57	.72	.86	9.7	33,100	3430	.58	.74	.88	9.1	31,200	3880	.60	.77	.91
	615	1300	11.2	38,300	2900	.58	.72	.88	10.6	36,200	3170	.59	.75	.90	10.0	34,200	3500	.60	.77	.92	9.5	32,300	3970	.61	.79	.94
	685	1450	11.5	39,300	2930	.60	.74	.91	10.9	37,200	3200	.61	.77	.93	10.3	35,200	3560	.62	.79	.95	9.8	33,400	4050	.63	.82	.98
71°F (21.7°C)	540	1150	11.7	39,800	2950	.42	.56	.70	11.1	37,800	3230	.42	.57	.71	10.6	36,100	3610	.43	.58	.73	10.1	34,300	4130	.43	.59	.74
	615	1300	12.0	41,100	2990	.43	.57	.72	11.5	39,200	3280	.43	.59	.74	11.0	37,400	3690	.43	.60	.75	10.5	35,800	4220	.44	.61	.76
	685	1450	12.4	42,200	3020	.43	.59	.75	11.8	40,300	3330	.44	.60	.76	11.3	38,600	3750	.44	.61	.77	10.8	36,800	4320	.44	.62	.79

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

HP21-36 — HEATING CAPACITY (Low Speed Compressor) — CR26-51

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
545	1150	8.1	27,700	1455	7.5	25,500	1410	6.9	23,400	1365	6.2	21,300	1320
615	1300	8.7	29,700	1515	8.1	27,500	1470	7.4	25,400	1425	6.8	23,300	1380
685	1450	9.3	31,700	1575	8.6	29,500	1530	8.0	27,400	1485	7.4	25,300	1440

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

HP21-36 — HEATING CAPACITY (High Speed Compressor) — CR26-51

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	12.6	43,000	3280	9.8.	33,300	2825	.6.9	23,700	2360	4.7	16,000	1890	2.3	7900	1430
615	1300	12.7	43,500	3250	9.9	33,800	2795	7.1	24,200	2330	4.8	16,500	1860	2.5	8400	1400
685	1450	12.9	44,000	3220	10.0	34,300	2765	7.2	24,700	2300	5.0	17,000	1830	2.6	8900	1370

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

HP21-36 — HEATING PERFORMANCE CR26-51 at 1300 cfm (615 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3250	43,500	12.7
60	16	3135	41,100	12.0
55	13	3020	38,800	11.4
50	10	2910	36,400	10.7
47	8	2840	35,000	10.3
45	7	2795	33,800	9.9
40	4	2680	30,700	9.0
35	2	2570	27,600	8.1
30	-1	2450	25,900	7.6
25	-4	2330	24,200	7.1
20	-7	2210	22,400	6.6
17	-8	2140	21,400	6.3
15	-9	2095	20,600	6.0
10	-12	1980	18,600	5.4
5	-15	1860	16,500	4.8
0	-18	1745	14,500	4.2
-5	-21	1630	12,500	3.7
-10	-23	1515	10,500	3.1
-15	-26	1400	8400	2.5
-20	-29	1285	6400	1.9

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

RATINGS

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

HP21-48 — COOLING CAPACITY (Low Speed Compressor) — CB30M-46/CB30U-41/46 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																						
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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	7.2	24,600	1070	.78	.94	1.00	6.9	23,400	1250	.80	.96	1.00	6.5	22,200	1410	.82	.98	1.00	6.2	21,100	1570	.85	1.00	1.00
	425	900	7.4	25,200	1070	.81	.97	1.00	7.0	24,000	1250	.84	.99	1.00	6.7	22,900	1420	.86	1.00	1.00	6.4	21,800	1580	.89	1.00	1.00
	470	1000	7.6	25,800	1060	.85	1.00	1.00	7.2	24,700	1250	.87	1.00	1.00	6.9	23,600	1420	.90	1.00	1.00	6.6	22,500	1590	.92	1.00	1.00
67°F (19.4°C)	375	800	7.7	26,400	1060	.60	.75	.90	7.4	25,100	1250	.61	.77	.92	6.9	23,700	1420	.62	.79	.95	6.6	22,400	1590	.64	.82	.98
	425	900	7.9	26,800	1060	.62	.79	.94	7.5	25,500	1250	.63	.81	.96	7.1	24,200	1430	.64	.83	.99	6.7	22,800	1600	.66	.86	1.00
	470	1000	8.0	27,300	1050	.64	.82	.98	7.6	25,900	1250	.65	.84	.99	7.2	24,600	1430	.67	.87	1.00	6.8	23,200	1600	.69	.90	1.00
71°F (21.7°C)	375	800	8.4	28,500	1040	.44	.58	.72	7.9	27,100	1240	.44	.59	.74	7.5	25,700	1430	.44	.60	.76	7.1	24,300	1620	.45	.62	.79
	425	900	8.5	28,900	1040	.44	.60	.76	8.1	27,500	1240	.45	.61	.78	7.6	26,100	1440	.45	.63	.80	7.2	24,700	1620	.46	.65	.83
	470	1000	8.6	29,300	1040	.45	.62	.79	8.2	27,900	1240	.46	.64	.81	7.7	26,400	1440	.46	.65	.84	7.3	25,000	1630	.47	.67	.87

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

HP21-48 — COOLING CAPACITY (High Speed Compressor) — CB30M-46/CB30U-41/46 (High Indoor Air Volume)

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)	590	1250	12.0	40,800	2790	.75	.89	1.00	11.3	38,700	3050	.77	.92	1.00	10.8	37,000	3310	.79	.94	1.00	10.4	35,500	3590	.80	.95	1.00
	660	1400	12.3	41,800	2810	.78	.93	1.00	11.6	39,700	3080	.80	.95	1.00	11.1	38,000	3360	.81	.97	1.00	10.8	36,700	3650	.83	.98	1.00
	730	1550	12.5	42,700	2840	.80	.95	1.00	11.9	40,700	3110	.82	.97	1.00	11.5	39,100	3410	.84	.99	1.00	11.1	37,800	3710	.86	1.00	1.00
67°F (19.4°C)	590	1250	12.9	44,100	2880	.58	.72	.85	12.3	42,100	3170	.59	.73	.87	11.8	40,300	3470	.60	.75	.89	11.4	38,900	3770	.60	.76	.91
	660	1400	13.2	45,100	2910	.59	.74	.89	12.6	43,000	3200	.60	.76	.91	12.1	41,200	3510	.61	.78	.92	11.7	39,800	3820	.62	.79	.94
	730	1550	13.5	45,900	2930	.61	.77	.92	12.8	43,700	3230	.62	.79	.94	12.3	42,000	3550	.63	.80	.95	11.9	40,600	3870	.64	.82	.97
71°F (21.7°C)	590	1250	14.1	48,200	3010	.43	.56	.69	13.5	46,200	3330	.43	.56	.70	13.1	44,600	3680	.43	.57	.71	12.7	43,300	4020	.43	.58	.72
	660	1400	14.4	49,200	3040	.43	.57	.71	13.9	47,300	3380	.44	.58	.73	13.4	45,600	3730	.44	.59	.74	13.0	44,300	4080	.44	.60	.75
	730	1550	14.7	50,100	3070	.44	.59	.74	14.1	48,100	3410	.44	.60	.75	13.6	46,400	3770	.44	.61	.77	13.2	45,200	4130	.45	.61	.78

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

HP21-48 — HEATING CAPACITY (Low Speed Compressor) — CB30M-46/CB30U-41/46

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
590	1250	8.9	30,200	1450	8.3	28,300	1405	7.7	26,400	1355	7.2	24,400	1305
660	1400	8.9	30,500	2015	8.4	28,600	1965	7.8	26,700	1915	7.3	24,800	1870
730	1550	9.1	30,900	1390	8.5	29,000	1340	7.9	27,100	1290	7.4	25,200	1245

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

HP21-48 — HEATING CAPACITY (High Speed Compressor) — CB30M-46/CB30U-41/46

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	
590	1250	14.5	49,600	3255	11.0	37,700	2850	7.4	25,300	2445	4.9	16,700	2005	2.5	8,500	1505
660	1400	14.7	50,100	3215	11.2	38,200	2810	7.6	25,800	2405	5.0	17,200	1965	2.6	9,000	1465
730	1550	14.9	50,900	3190	11.4	39,000	2785	7.8	26,600	2380	5.3	18,000	1940	2.9	9,800	1440

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

HP21-48 — HEATING PERFORMANCE
CB30M-46/CB30U-41/46 at 1400 cfm (660 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3215	50,100	14.7
60	16	3115	47,300	13.9
55	13	3010	44,500	13.0
50	10	2910	41,700	12.2
47	8	2845	40,000	11.7
45	7	2810	38,200	11.2
40	4	2715	33,600	9.8
35	2	2625	29,100	8.5
30	-1	2515	27,400	8.0
25	-4	2405	25,800	7.6
20	-7	2295	24,200	7.1
17	-8	2230	23,200	6.8
15	-9	2190	22,100	6.5
10	-12	2090	19,300	5.7
5	-15	1965	17,200	5.0
0	-18	1840	15,200	4.5
-5	-21	1715	13,100	3.8
-10	-23	1590	11,100	3.3
-15	-26	1465	9,000	2.6
-20	-29	1340	7,000	2.1

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

RATINGS

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

HP21-48 — COOLING CAPACITY (Low Speed Compressor) — CB30M-51/CB30U-51 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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)	425	900	7.6	25,900	1060	.81	.98	1.00	7.2	24,700	1250	.83	1.00	1.00	6.9	23,600	1420	.86	1.00	1.00	6.6	22,500	1590	.89	1.00	1.00
	470	1000	7.8	26,600	1060	.85	1.00	1.00	7.5	25,500	1250	.87	1.00	1.00	7.2	24,400	1430	.90	1.00	1.00	6.8	23,200	1600	.93	1.00	1.00
	520	1100	8.0	27,400	1050	.88	1.00	1.00	7.7	26,200	1240	.90	1.00	1.00	7.3	25,000	1430	.93	1.00	1.00	7.0	23,800	1610	.96	1.00	1.00
67°F (19.4°C)	425	900	8.1	27,800	1050	.62	.78	.94	7.7	26,400	1250	.63	.81	.97	7.3	25,000	1430	.64	.83	.99	6.9	23,500	1610	.66	.86	1.00
	470	1000	8.3	28,300	1050	.64	.82	.98	7.9	26,800	1250	.65	.84	1.00	7.4	25,400	1430	.67	.87	1.00	7.0	23,900	1610	.69	.90	1.00
	520	1100	8.4	28,600	1040	.66	.85	1.00	8.0	27,200	1240	.67	.88	1.00	7.5	25,700	1430	.69	.90	1.00	7.1	24,300	1620	.71	.93	1.00
71°F (21.7°C)	425	900	8.8	30,000	1030	.44	.60	.76	8.4	28,600	1240	.45	.61	.78	7.9	27,100	1440	.45	.63	.80	7.5	25,500	1640	.46	.64	.83
	470	1000	8.9	30,500	1030	.45	.62	.79	8.5	29,000	1240	.46	.64	.81	8.0	27,400	1450	.46	.65	.84	7.6	25,900	1640	.47	.67	.87
	520	1100	9.0	30,800	1020	.46	.64	.82	8.6	29,300	1240	.47	.66	.85	8.1	27,700	1450	.47	.68	.88	7.7	26,200	1650	.48	.70	.91

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

HP21-48 — COOLING CAPACITY (High Speed Compressor) — CB30M-51/CB30U-51 (High Indoor Air Volume)

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	12.2	41,700	2710	.77	.92	1.00	11.6	39,700	2980	.79	.94	1.00	11.2	38,100	3260	.80	.96	1.00	10.8	36,800	3550	.82	.98	1.00
	755	1600	12.6	43,000	2750	.80	.96	1.00	12.0	41,100	3030	.82	.98	1.00	11.6	39,600	3330	.84	.99	1.00	11.3	38,400	3640	.86	1.00	1.00
	850	1800	13.0	44,300	2790	.84	.99	1.00	12.5	42,500	3090	.86	1.00	1.00	12.1	41,200	3410	.88	1.00	1.00	11.8	40,100	3740	.89	1.00	1.00
67°F (19.4°C)	660	1400	13.3	45,400	2820	.59	.73	.87	12.7	43,400	3130	.60	.75	.89	12.2	41,700	3440	.60	.77	.91	11.8	40,400	3750	.61	.78	.93
	755	1600	13.7	46,600	2860	.61	.77	.92	13.1	44,600	3170	.62	.79	.94	12.6	42,900	3500	.63	.80	.95	12.2	41,600	3820	.63	.81	.96
	850	1800	14.0	47,600	2900	.63	.80	.95	13.4	45,600	3220	.64	.82	.97	12.9	43,900	3550	.65	.84	.98	12.5	42,700	3880	.66	.85	.99
71°F (21.7°C)	660	1400	14.6	49,900	2980	.43	.57	.70	14.1	48,100	3330	.43	.57	.71	13.6	46,500	3680	.44	.58	.72	13.3	45,400	4040	.44	.59	.73
	755	1600	15.0	51,200	3030	.44	.59	.73	14.4	49,300	3390	.44	.59	.75	14.0	47,800	3750	.44	.60	.76	13.7	46,700	4120	.45	.61	.77
	850	1800	15.3	52,300	3070	.44	.61	.77	14.8	50,400	3430	.45	.62	.78	14.3	48,900	3810	.45	.62	.79	14.0	47,700	4180	.45	.63	.80

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

HP21-48 — HEATING CAPACITY (Low Speed Compressor) — CB30M-51/CB30U-51

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
660	1400	9.1	31,000	1420	8.5	29,000	1380	7.9	27,000	1340	7.3	25,000	1300
755	1600	9.1	31,200	1320	8.6	29,200	1280	8.0	27,200	1240	7.4	25,200	1200
850	1800	9.4	32,000	1345	8.8	30,000	1305	8.2	28,000	1265	7.6	26,000	1225

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

HP21-48 — HEATING CAPACITY (High Speed Compressor) — CB30M-51/CB30U-51

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	14.9	50,700	3175	11.2	38,200	2795	7.4	25,300	2420	4.8	16,300	1995	2.4	8,200	1495
755	1600	15.1	51,600	3135	11.5	39,100	2755	7.7	26,200	2380	5.0	17,200	1955	2.7	9,100	1455
850	1800	15.3	52,300	3100	11.7	39,800	2720	7.9	26,900	2345	5.2	17,900	1920	2.9	9,800	1420

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

HP21-48 — HEATING PERFORMANCE CB30M-51/CB30U-51 at 1600 cfm (755 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3135	51,600	15.1
60	16	3040	48,600	14.2
55	13	2945	45,700	13.4
50	10	2850	42,800	12.5
47	8	2790	41,000	12.0
45	7	2755	39,100	11.5
40	4	2670	34,400	10.1
35	2	2580	29,600	8.7
30	-1	2480	27,900	8.2
25	-4	2380	26,200	7.7
20	-7	2280	24,400	7.2
17	-8	2215	23,400	6.9
15	-9	2180	22,200	6.5
10	-12	2085	19,300	5.7
5	-15	1955	17,200	5.0
0	-18	1830	15,200	4.5
-5	-21	1705	13,200	3.9
-10	-23	1580	11,100	3.3
-15	-26	1455	9,100	2.7
-20	-29	1330	7,000	2.1

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

RATINGS

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

HP21-48 — COOLING CAPACITY (Low Speed Compressor) — CB30M-65/CB30U-65 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)					85°F (29°C)						95°F (35°C)						105°F (41°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)	520	1100	8.0	27,400	1050	.88	1.00	1.00	7.7	26,200	1240	.90	1.00	1.00	7.3	25,000	1430	.93	1.00	1.00	7.0	23,800	1610	.96	1.00	1.00
	565	1200	8.2	28,100	1050	.91	1.00	1.00	7.9	26,900	1240	.94	1.00	1.00	7.5	25,600	1430	.96	1.00	1.00	7.2	24,400	1620	.99	1.00	1.00
	615	1300	8.4	28,700	1040	.94	1.00	1.00	8.0	27,400	1240	.96	1.00	1.00	7.7	26,200	1440	.99	1.00	1.00	7.3	24,900	1630	1.00	1.00	1.00
67°F (19.4°C)	520	1100	8.4	28,700	1040	.66	.85	1.00	8.0	27,200	1240	.67	.88	1.00	7.6	25,800	1430	.69	.90	1.00	7.1	24,300	1620	.71	.93	1.00
	565	1200	8.5	29,000	1040	.68	.88	1.00	8.1	27,600	1240	.70	.91	1.00	7.6	26,100	1440	.72	.94	1.00	7.2	24,600	1620	.74	.97	1.00
	615	1300	8.6	29,300	1040	.70	.91	1.00	8.2	27,900	1240	.72	.94	1.00	7.7	26,400	1440	.74	.97	1.00	7.3	25,000	1630	.76	.99	1.00
71°F (21.7°C)	520	1100	9.1	30,900	1020	.46	.64	.82	8.6	29,300	1240	.46	.66	.85	8.1	27,800	1450	.47	.68	.87	7.7	26,200	1650	.48	.70	.90
	565	1200	9.1	31,200	1020	.47	.67	.86	8.7	29,600	1240	.47	.68	.88	8.2	28,000	1450	.48	.70	.91	7.7	26,400	1650	.49	.73	.94
	615	1300	9.2	31,400	1020	.48	.69	.89	8.8	29,900	1240	.48	.71	.91	8.3	28,300	1450	.49	.73	.94	7.8	26,700	1650	.50	.75	.97

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

HP21-48 — COOLING CAPACITY (High Speed Compressor) — CB30M-65/CB30U-65 (High Indoor Air Volume)

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	12.3	41,800	2760	.77	.92	1.00	11.7	39,800	3030	.79	.94	1.00	11.2	38,200	3320	.80	.96	1.00	10.8	36,900	3610	.82	.98	1.00
	755	1600	12.6	43,100	2790	.80	.96	1.00	12.1	41,200	3080	.82	.98	1.00	11.6	39,700	3390	.84	.99	1.00	11.3	38,500	3700	.86	1.00	1.00
	850	1800	13.0	44,400	2840	.83	.99	1.00	12.5	42,600	3140	.86	1.00	1.00	12.1	41,300	3470	.88	1.00	1.00	11.8	40,200	3800	.89	1.00	1.00
67°F (19.4°C)	660	1400	13.3	45,500	2870	.59	.73	.87	12.7	43,500	3180	.60	.75	.89	12.3	41,900	3500	.60	.76	.91	11.9	40,600	3820	.61	.78	.93
	755	1600	13.7	46,700	2910	.61	.77	.92	13.1	44,700	3230	.62	.78	.94	12.6	43,100	3560	.63	.80	.95	12.3	41,800	3890	.63	.81	.96
	850	1800	14.0	47,700	2950	.63	.80	.95	13.4	45,700	3280	.64	.82	.97	12.9	44,100	3610	.65	.83	.98	12.5	42,800	3950	.66	.85	.99
71°F (21.7°C)	660	1400	14.7	50,100	3040	.43	.56	.70	14.1	48,200	3390	.43	.57	.71	13.7	46,700	3750	.44	.58	.72	13.3	45,500	4120	.44	.59	.73
	755	1600	15.1	51,400	3090	.44	.59	.73	14.5	49,500	3450	.44	.59	.75	14.1	48,000	3820	.44	.60	.76	13.7	46,800	4190	.45	.61	.77
	850	1800	15.4	52,500	3130	.44	.61	.76	14.8	50,600	3500	.45	.61	.78	14.4	49,100	3880	.45	.62	.79	14.0	47,900	4260	.45	.63	.80

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

HP21-48 — HEATING CAPACITY (Low Speed Compressor) — CB30M-65/CB30U-65

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
660	1400	9.2	31,400	1315	8.6	29,300	1290	8.0	27,300	1260	7.4	25,200	1230
755	1600	9.3	31,800	1275	8.7	29,700	1245	8.1	27,700	1220	7.5	25,600	1190
850	1800	9.4	32,200	1240	8.9	30,200	1215	8.2	28,100	1185	7.6	26,100	1155

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

HP21-48 — HEATING CAPACITY (High Speed Compressor) — CB30M-65/CB30U-65

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	14.8	50,500	3130	11.1	38,000	2755	7.4	25,100	2390	4.7	16,100	1955	2.3	8,000	1460
755	1600	15.1	51,600	3105	11.5	39,100	2730	7.7	26,200	2365	5.0	17,200	1930	2.7	9,100	1435
850	1800	15.2	51,700	3060	11.5	39,200	2685	7.7	26,300	2320	5.1	17,300	1885	2.7	9,200	1390

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

HP21-48 — HEATING PERFORMANCE CB30M-65/CB30U-65 at 1600 cfm (755 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3105	51,600	15.1
60	16	3010	48,600	14.2
55	13	2915	45,700	13.4
50	10	2820	42,800	12.5
47	8	2760	41,000	12.0
45	7	2730	39,100	11.5
40	4	2660	34,400	10.1
35	2	2585	29,600	8.7
30	-1	2475	27,900	8.2
25	-4	2365	26,200	7.7
20	-7	2255	24,400	7.2
17	-8	2185	23,400	6.9
15	-9	2150	22,200	6.5
10	-12	2055	19,300	5.7
5	-15	1930	17,200	5.0
0	-18	1805	15,200	4.5
-5	-21	1685	13,200	3.9
-10	-23	1560	11,100	3.3
-15	-26	1435	9,100	2.7
-20	-29	1310	7,000	2.1

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

RATINGS

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

HP21-48 — COOLING CAPACITY (Low Speed Compressor) — CB31MV-51 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																						
			75°F (24°C)						85°F (29°C)						19°F (35°C)						105°F (41°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)	400	850	7.5	25,700	1070	.80	.96	1.00	7.2	24,400	1250	.82	.99	1.00	6.8	23,300	1420	.84	1.00	1.00	6.5	22,200	1590	.87	1.00	1.00
	460	980	7.8	26,500	1060	.84	1.00	1.00	7.4	25,400	1250	.86	1.00	1.00	7.1	24,200	1430	.89	1.00	1.00	6.8	23,100	1600	.92	1.00	1.00
	520	1100	8.0	27,400	1050	.88	1.00	1.00	7.7	26,200	1240	.90	1.00	1.00	7.3	25,000	1430	.93	1.00	1.00	7.0	23,800	1610	.96	1.00	1.00
67°F (19.4°C)	400	850	8.1	27,600	1050	.61	.77	.92	7.7	26,200	1250	.62	.79	.95	7.3	24,800	1430	.63	.81	.98	6.9	23,400	1610	.65	.84	1.00
	460	980	8.3	28,200	1050	.63	.81	.97	7.8	26,700	1250	.65	.83	.99	7.4	25,300	1430	.66	.86	1.00	7.0	23,900	1610	.68	.89	1.00
	520	1100	8.4	28,600	1040	.66	.85	1.00	8.0	27,200	1240	.67	.88	1.00	7.5	25,700	1430	.69	.90	1.00	7.1	24,300	1620	.71	.93	1.00
71°F (21.7°C)	400	850	8.7	29,800	1030	.44	.59	.74	8.3	28,400	1240	.44	.60	.76	7.9	26,900	1440	.45	.62	.78	7.4	25,400	1630	.45	.63	.81
	460	980	8.9	30,400	1030	.45	.62	.78	8.5	28,900	1240	.45	.63	.81	8.0	27,400	1450	.46	.65	.83	7.6	25,800	1640	.47	.67	.86
	520	1100	9.0	30,800	1020	.46	.64	.82	8.6	29,300	1240	.47	.66	.85	8.1	27,700	1450	.47	.68	.88	7.7	26,200	1650	.48	.70	.91

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

HP21-48 — COOLING CAPACITY (High Speed Compressor) — CB31MV-51 (High Indoor Air Volume)

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)	670	1425	12.5	42,600	2740	.78	.93	1.00	11.9	40,600	3010	.80	.95	1.00	11.4	39,000	3300	.81	.97	1.00	11.0	37,700	3590	.83	.98	1.00
	765	1625	12.8	43,800	2770	.81	.96	1.00	12.3	41,900	3060	.83	.98	1.00	11.8	40,300	3360	.85	.99	1.00	11.5	39,200	3680	.86	1.00	1.00
	850	1805	13.2	45,000	2810	.84	.99	1.00	12.7	43,200	3110	.86	1.00	1.00	12.3	41,800	3440	.88	1.00	1.00	11.9	40,700	3770	.89	1.00	1.00
67°F (19.4°C)	670	1425	13.6	46,300	2850	.59	.74	.88	13.0	44,300	3160	.60	.76	.90	12.5	42,600	3480	.61	.77	.92	12.1	41,300	3800	.62	.79	.94
	765	1625	13.9	47,400	2880	.61	.77	.92	13.3	45,400	3200	.62	.79	.94	12.8	43,700	3530	.63	.81	.96	12.4	42,400	3860	.64	.82	.97
	850	1805	14.2	48,300	2910	.63	.80	.95	13.6	46,300	3240	.64	.82	.97	13.1	44,600	3570	.65	.84	.98	12.7	43,300	3910	.66	.85	.99
71°F (21.7°C)	670	1425	14.9	51,000	3020	.43	.57	.71	14.4	49,100	3370	.44	.58	.72	14.0	47,600	3720	.44	.59	.73	13.6	46,400	4090	.44	.59	.74
	765	1625	15.3	52,100	3060	.44	.59	.74	14.7	50,200	3410	.44	.60	.75	14.3	48,700	3780	.44	.60	.76	13.9	47,500	4150	.45	.61	.77
	850	1805	15.6	53,100	3100	.44	.61	.77	15.0	51,200	3460	.45	.62	.78	14.5	49,600	3830	.45	.62	.79	14.2	48,500	4210	.45	.63	.80

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

HP21-48 — HEATING CAPACITY (Low Speed Compressor) — CB31MV-51

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
675	1425	8.8	29,900	1540	8.2	27,900	1500	7.6	26,000	1460	7.0	24,000	1420
765	1625	9.0	30,600	1480	8.4	28,600	1440	7.8	26,600	1395	7.2	24,600	1355
850	1805	9.1	30,900	1425	8.5	28,900	1385	7.9	26,900	1345	7.3	24,900	1305

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

HP21-48 — HEATING CAPACITY (High Speed Compressor) — CB31MV-51

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	
675	1425	14.6	49,700	3025	10.8	37,000	2580	7.0	23,800	2135	4.3	14,800	1700	2.2	7,400	1290
765	1625	14.9	50,800	2995	11.2	38,100	2550	7.3	24,900	2105	4.7	15,900	1670	2.5	8,500	1260
850	1805	15.0	51,300	2955	11.3	38,600	2510	7.4	25,400	2065	4.8	16,400	1630	2.6	9,000	1220

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

HP21-48 — HEATING PERFORMANCE CB31MV-51 at 1625 cfm (765 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	2995	50,800	14.9
60	16	2885	47,800	14.0
55	13	2775	44,800	13.1
50	10	2660	41,800	12.3
47	8	2595	40,000	11.7
45	7	2550	38,100	11.2
40	4	2440	33,400	9.8
35	2	2330	28,600	8.4
30	-1	2215	26,800	7.9
25	-4	2105	24,900	7.3
20	-7	1995	23,100	6.8
17	-8	1930	22,000	6.4
15	-9	1885	20,800	6.1
10	-12	1770	17,800	5.2
5	-15	1670	15,900	4.7
0	-18	1565	14,100	4.1
-5	-21	1465	12,200	3.6
-10	-23	1360	10,300	3.0
-15	-26	1260	8,500	2.5
-20	-29	1155	6,600	1.9

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

RATINGS

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

HP21-48 — COOLING CAPACITY (Low Speed Compressor) — CB31MV-65 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																						
			75°F (24°C)						85°F (29°C)						19°F (35°C)						105°F (41°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)	400	850	7.5	25,700	1070	.80	.96	1.00	7.2	24,400	1250	.82	.99	1.00	6.8	23,300	1420	.84	1.00	1.00	6.5	22,200	1590	.87	1.00	1.00
	460	980	7.8	26,500	1060	.84	1.00	1.00	7.4	25,400	1250	.86	1.00	1.00	7.1	24,200	1430	.89	1.00	1.00	6.8	23,100	1600	.92	1.00	1.00
	520	1100	8.0	27,400	1050	.88	1.00	1.00	7.7	26,200	1240	.90	1.00	1.00	7.3	25,000	1430	.93	1.00	1.00	7.0	23,800	1610	.96	1.00	1.00
67°F (19.4°C)	400	850	8.1	27,600	1050	.61	.77	.92	7.7	26,200	1250	.62	.79	.95	7.3	24,800	1430	.63	.81	.98	6.9	23,400	1610	.65	.84	1.00
	460	980	8.3	28,200	1050	.63	.81	.97	7.8	26,700	1250	.65	.83	.99	7.4	25,300	1430	.66	.86	1.00	7.0	23,900	1610	.68	.89	1.00
	520	1100	8.4	28,600	1040	.66	.85	1.00	8.0	27,200	1240	.67	.88	1.00	7.5	25,700	1430	.69	.90	1.00	7.1	24,300	1620	.71	.93	1.00
71°F (21.7°C)	400	850	8.7	29,800	1030	.44	.59	.74	8.3	28,400	1240	.44	.60	.76	7.9	26,900	1440	.45	.62	.78	7.4	25,400	1630	.45	.63	.81
	460	980	8.9	30,400	1030	.45	.62	.78	8.5	28,900	1240	.45	.63	.81	8.0	27,400	1450	.46	.65	.83	7.6	25,800	1640	.47	.67	.86
	520	1100	9.0	30,800	1020	.46	.64	.82	8.6	29,300	1240	.47	.66	.85	8.1	27,700	1450	.47	.68	.88	7.7	26,200	1650	.48	.70	.91

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

HP21-48 — COOLING CAPACITY (High Speed Compressor) — CB31MV-65 (High Indoor Air Volume)

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)	670	1425	12.5	42,700	2890	.78	.93	1.00	11.9	40,700	3180	.80	.95	1.00	11.4	39,000	3480	.81	.97	1.00	11.0	37,700	3790	.83	.98	1.00
	765	1625	12.9	43,900	2920	.81	.96	1.00	12.3	41,900	3230	.83	.98	1.00	11.8	40,400	3550	.85	.99	1.00	11.5	39,200	3880	.86	1.00	1.00
	850	1805	13.2	45,100	2960	.84	.99	1.00	12.7	43,200	3280	.86	1.00	1.00	12.3	41,900	3630	.88	1.00	1.00	12.0	40,800	3970	.89	1.00	1.00
67°F (19.4°C)	670	1425	13.6	46,400	3010	.59	.74	.88	13.0	44,400	3330	.60	.76	.90	12.5	42,700	3670	.61	.77	.92	12.1	41,400	4010	.62	.79	.94
	765	1625	13.9	47,500	3040	.61	.77	.92	13.3	45,400	3380	.62	.79	.94	12.8	43,700	3720	.63	.81	.96	12.4	42,400	4070	.64	.82	.97
	850	1805	14.2	48,400	3080	.63	.80	.95	13.6	46,300	3420	.64	.82	.97	13.1	44,700	3770	.65	.84	.98	12.7	43,400	4120	.66	.85	.99
71°F (21.7°C)	670	1425	14.9	51,000	3180	.43	.57	.71	14.4	49,200	3550	.44	.58	.72	14.0	47,600	3930	.44	.59	.73	13.6	46,400	4310	.44	.59	.74
	765	1625	15.3	52,200	3230	.44	.59	.74	14.7	50,300	3600	.44	.60	.75	14.3	48,700	3990	.44	.60	.76	14.0	47,600	4380	.45	.61	.77
	850	1805	15.6	53,100	3270	.44	.61	.77	15.0	51,200	3650	.45	.62	.78	14.6	49,700	4050	.45	.62	.79	14.2	48,500	4440	.45	.63	.80

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

HP21-48 — HEATING CAPACITY (Low Speed Compressor) — CB31MV-65

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
675	1425	8.8	30,100	1550	8.2	28,100	1510	7.6	26,000	1470	7.0	24,000	1430
765	1625	8.9	30,500	1480	8.4	28,500	1440	7.8	26,500	1400	7.2	24,500	1360
850	1805	9.1	30,900	1435	8.5	28,900	1395	7.9	26,900	1355	7.3	24,900	1315

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

HP21-48 — HEATING CAPACITY (High Speed Compressor) — CB31MV-65

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	
675	1425	14.4	49,000	3165	10.8	37,000	2745	7.2	24,500	2325	4.6	15,800	1890	2.3	7,700	1425
765	1625	14.7	50,200	3135	11.2	38,200	2715	7.5	25,700	2295	5.0	17,000	1860	2.6	8,900	1395
850	1805	14.8	50,400	3095	11.3	38,400	2675	7.6	25,900	2255	5.0	17,200	1820	2.7	9,100	1355

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

HP21-48 — HEATING PERFORMANCE
CB31MV-65 at 1625 cfm (765 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3135	50,200	14.7
60	16	3030	47,400	13.9
55	13	2925	44,500	13.0
50	10	2820	41,700	12.2
47	8	2755	40,000	11.7
45	7	2715	38,200	11.2
40	4	2610	33,600	9.8
35	2	2505	29,000	8.5
30	-1	2400	27,300	8.0
25	-4	2295	25,700	7.5
20	-7	2190	24,000	7.0
17	-8	2125	23,000	6.7
15	-9	2085	21,900	6.4
10	-12	1980	19,000	5.6
5	-15	1860	17,000	5.0
0	-18	1745	15,000	4.4
-5	-21	1625	13,000	3.8
-10	-23	1510	10,900	3.2
-15	-26	1395	8,900	2.6
-20	-29	1275	6,900	2.0

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

RATINGS

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

HP21-48 —COOLING CAPACITY (Low Speed Compressor) — CVP10-51/EC10Q4 (Canada Only) (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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)	235	500	5.6	19,200	1190	.69	.82	.93	5.3	18,200	1340	.70	.84	.95	5.0	17,000	1490	.71	.86	.97	4.7	15,900	1650	.73	.89	1.00
	375	800	6.4	21,800	1160	.77	.95	1.00	6.0	20,600	1320	.79	.98	1.00	5.7	19,400	1500	.81	1.00	1.00	5.4	18,300	1690	.83	1.00	1.00
	520	1100	7.0	23,900	1130	.85	1.00	1.00	6.7	22,800	1300	.87	1.00	1.00	6.3	21,600	1500	.89	1.00	1.00	6.0	20,400	1730	.92	1.00	1.00
67°F (19.4°C)	235	500	6.1	20,700	1180	.55	.67	.79	5.7	19,600	1330	.55	.68	.80	5.4	18,500	1500	.56	.69	.82	5.1	17,300	1680	.57	.71	.84
	375	800	6.9	23,600	1140	.60	.76	.90	6.5	22,300	1310	.61	.78	.92	6.2	21,000	1500	.62	.81	.95	5.7	19,600	1710	.63	.83	.98
	520	1100	7.4	25,300	1110	.65	.85	1.00	6.9	23,700	1300	.66	.89	1.00	6.5	22,300	1500	.68	.92	1.00	6.1	20,800	1730	.70	.95	1.00
71°F (21.7°C)	235	500	6.5	22,300	1150	.42	.53	.66	6.2	21,200	1320	.42	.54	.68	5.9	20,000	1500	.42	.55	.69	5.5	18,800	1700	.43	.56	.70
	375	800	7.5	25,500	1100	.44	.59	.74	7.1	24,100	1290	.44	.60	.76	6.7	22,700	1500	.45	.61	.77	6.2	21,300	1740	.45	.63	.80
	520	1100	7.9	27,100	1080	.46	.65	.82	7.5	25,600	1280	.46	.67	.84	7.1	24,100	1510	.47	.69	.86	6.6	22,600	1760	.48	.71	.89

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

HP21-48 —COOLING CAPACITY (High Speed Compressor) — CVP10-51/EC10Q4 (High Indoor Air Volume) (Canada Only)

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)	590	1250	11.1	37,900	2720	.74	.89	1.00	10.4	35,600	2940	.75	.92	1.00	9.7	33,200	3210	.77	.95	1.00	9.1	31,100	3580	.80	.98	1.00
	730	1550	11.7	39,800	2780	.78	.96	1.00	11.0	37,500	3010	.80	.98	1.00	10.4	35,500	3320	.82	1.00	1.00	9.9	33,700	3770	.84	1.00	1.00
	875	1850	12.2	41,700	2820	.83	1.00	1.00	11.7	39,800	3090	.85	1.00	1.00	11.1	38,000	3450	.86	1.00	1.00	10.7	36,400	3940	.88	1.00	1.00
67°F (19.4°C)	590	1250	12.0	41,000	2810	.58	.72	.85	11.4	38,900	3060	.59	.73	.87	10.8	36,800	3390	.59	.75	.89	10.2	34,700	3820	.60	.77	.91
	730	1550	12.7	43,500	2870	.60	.76	.91	12.1	41,200	3140	.61	.78	.93	11.5	39,100	3500	.62	.80	.95	10.8	37,000	4000	.63	.83	.98
	875	1850	13.3	45,300	2910	.63	.81	.97	12.6	43,000	3210	.64	.83	.99	12.0	41,000	3620	.65	.85	1.00	11.4	39,000	4140	.66	.88	1.00
71°F (21.7°C)	590	1250	13.0	44,500	2890	.43	.56	.71	12.5	42,500	3180	.43	.57	.72	11.9	40,600	3590	.44	.58	.73	11.3	38,700	4120	.44	.59	.74
	730	1550	13.9	47,300	2970	.44	.59	.75	13.2	45,200	3320	.44	.60	.76	12.7	43,400	3770	.45	.61	.77	12.2	41,700	4350	.45	.62	.79
	875	1850	14.4	49,200	3060	.45	.62	.79	13.9	47,500	3420	.45	.63	.80	13.4	45,600	3900	.46	.64	.81	12.9	44,000	4510	.46	.65	.83

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

HP21-48 — HEATING CAPACITY (Low Speed Compressor) — CVP10-51/EC10Q4 (Canada Only)

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
590	1250	14.3	33,000	1325	10.8	30,600	1315	7.1	28,100	1300	4.9	25,700	1290
730	1550	14.8	32,600	2060	11.2	30,200	2045	7.6	27,700	2030	5.3	25,300	2020
875	1850	15.1	34,800	1280	11.5	32,400	1265	7.9	30,000	1250	5.6	27,500	1240

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

HP21-48 — HEATING CAPACITY (High Speed Compressor) — CVP10-51/EC10Q4 (Canada Only)

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	
590	1250	14.3	48,800	3125	10.8	36,800	2715	7.1	24,200	2300	4.9	16,600	1810	2.3	7700	1185
730	1550	14.8	50,400	3825	11.2	38,300	3415	7.6	25,800	3000	5.3	18,200	2510	2.7	9300	1885
875	1850	15.1	51,400	3015	11.5	39,400	2605	7.9	26,800	2185	5.6	19,200	1695	3.0	10,300	1070

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

HP21-48 — HEATING PERFORMANCE CVP10-51/EC10Q4 (Canada Only) at 1550 cfm (730 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3825	50,400	14.8
60	16	3730	47,600	14.0
55	13	3630	44,800	13.1
50	10	3530	42,000	12.3
47	8	3475	40,300	11.8
45	7	3415	38,300	11.2
40	4	3280	33,500	9.8
35	2	3140	28,600	8.4
30	-1	3070	27,200	8.0
25	-4	3000	25,800	7.6
20	-7	2925	24,400	7.2
17	-8	2885	23,500	6.9
15	-9	2820	22,600	6.6
10	-12	2665	20,400	6.0
5	-15	2510	18,200	5.3
0	-18	2355	16,000	4.7
-5	-21	2195	13,700	4.0
-10	-23	2040	11,500	3.4
-15	-26	1885	9300	2.7
-20	-29	1730	7100	2.1

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

RATINGS

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

HP21-48 — COOLING CAPACITY (Low Speed Compressor) - C33-62D - C26-65EAP - CH33-62D-F - CH23-68 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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	9.1	31,200	1080	.86	1.00	1.00	8.7	29,800	1280	.87	1.00	1.00	8.3	28,300	1510	.89	1.00	1.00	7.9	26,800	1760	.91	1.00	1.00
	755	1600	9.5	32,300	1070	.89	1.00	1.00	9.0	30,800	1270	.91	1.00	1.00	8.6	29,200	1510	.92	1.00	1.00	8.1	27,700	1770	.95	1.00	1.00
	850	1800	9.7	33,100	1060	.92	1.00	1.00	9.3	31,600	1270	.94	1.00	1.00	8.8	30,000	1510	.96	1.00	1.00	8.3	28,400	1780	.98	1.00	1.00
67°F (19.4°C)	660	1400	9.3	31,900	1070	.68	.93	1.00	8.7	29,800	1280	.68	1.00	1.00	8.3	28,400	1510	.70	.99	1.00	7.9	26,800	1760	.72	1.00	1.00
	755	1600	9.5	32,500	1070	.70	.98	1.00	9.0	30,800	1270	.71	1.00	1.00	8.6	29,300	1510	.73	1.00	1.00	8.1	27,700	1770	.74	1.00	1.00
	850	1800	9.7	33,200	1060	.72	1.00	1.00	9.3	31,600	1270	.74	1.00	1.00	8.8	30,100	1510	.75	1.00	1.00	8.3	28,400	1780	.76	1.00	1.00
71°F (21.7°C)	660	1400	10.0	34,100	1050	.50	.70	.85	9.5	32,300	1270	.51	.72	.86	8.9	30,400	1510	.51	.74	.88	8.4	28,500	1780	.52	.77	.90
	755	1600	10.1	34,600	1050	.51	.74	.88	9.6	32,900	1260	.52	.76	.90	9.1	31,000	1510	.52	.79	.92	8.5	29,100	1790	.53	.82	.94
	850	1800	10.3	35,200	1040	.52	.77	.92	9.8	33,400	1260	.53	.80	.94	9.2	31,400	1510	.53	.83	.96	8.7	29,600	1800	.54	.86	.98

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

HP21-48 - COOLING CAPACITY (High Speed Compressor) - C33-62D - C26-65EAP - CH33-62D-F - CH23-68 (High Indoor Air Volume)

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	12.3	42,100	3120	.75	.90	1.00	11.6	39,700	3390	.77	.93	1.00	11.0	37,600	3740	.78	.96	1.00	10.3	35,300	4220	.80	.99	1.00
	755	1600	12.8	43,600	3150	.78	.94	1.00	12.1	41,400	3450	.79	.97	1.00	11.5	39,100	3830	.81	.99	1.00	10.9	37,300	4380	.83	1.00	1.00
	850	1800	13.1	44,800	3190	.81	.98	1.00	12.5	42,500	3500	.83	1.00	1.00	12.0	40,900	3950	.84	1.00	1.00	11.5	39,300	4550	.86	1.00	1.00
67°F (19.4°C)	660	1400	13.3	45,400	3200	.58	.73	.87	12.7	43,300	3530	.59	.74	.89	12.1	41,400	3980	.60	.76	.90	11.6	39,600	4560	.61	.77	.92
	755	1600	13.8	47,100	3260	.60	.75	.91	13.2	45,200	3630	.61	.77	.92	12.7	43,300	4100	.62	.79	.94	12.1	41,400	4710	.62	.80	.96
	850	1800	14.3	48,700	3320	.62	.78	.94	13.7	46,700	3710	.62	.80	.96	13.1	44,800	4200	.63	.82	.98	12.6	43,000	4840	.64	.83	1.00
71°F (21.7°C)	660	1400	14.3	48,900	3340	.43	.57	.72	13.8	47,100	3730	.43	.58	.73	13.3	45,400	4240	.44	.58	.74	12.8	43,700	4910	.44	.59	.75
	755	1600	14.9	50,800	3420	.44	.58	.75	14.4	49,000	3840	.44	.59	.76	13.9	47,500	4370	.44	.60	.77	13.4	45,800	5070	.45	.61	.78
	850	1800	15.4	52,400	3490	.44	.60	.77	14.9	50,800	3920	.45	.61	.78	14.4	49,200	4490	.45	.62	.79	13.9	47,400	5220	.45	.63	.80

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

HP21-48 — HEATING CAPACITY (Low Speed Compressor) — C33-62D - C26-65EAP - CH33-62D-F - CH23-68

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
660	1400	15.1	34,600	1265	11.4	32,100	1260	7.5	29,600	1250	5.3	27,200	1245
755	1600	15.4	33,500	1235	11.7	31,000	1230	7.8	28,600	1225	5.6	26,100	1220
850	1800	15.7	35,000	1220	12.0	32,600	1215	8.1	30,100	1210	5.8	27,600	1205

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

HP21-48 — HEATING CAPACITY (High Speed Compressor) — C33-62D - C26-65EAP - CH33-62D-F - CH23-68

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	15.1	51,600	3080	11.4	39,000	2680	7.5	25,700	2270	5.3	18,000	1895	2.5	8700	1435
755	1600	15.4	52,700	3040	11.7	40,000	2640	7.8	26,700	2230	5.6	19,000	1855	2.8	9700	1395
850	1800	15.7	53,500	3005	12.0	40,900	2605	8.1	27,600	2195	5.8	19,800	1825	3.1	10,500	1360

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

HP21-48 — HEATING PERFORMANCE - C33-62D - C26-65EAP - CH33-62D-F - CH23-68 at 1600 cfm (755 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3040	52,700	15.4
60	16	2945	49,800	14.6
55	13	2850	46,800	13.7
50	10	2755	43,900	12.9
47	8	2700	42,100	12.3
45	7	2640	40,000	11.7
40	4	2495	34,700	10.2
35	2	2350	29,400	8.6
30	-1	2290	28,000	8.2
25	-4	2230	26,700	7.8
20	-7	2170	25,400	7.4
17	-8	2135	24,600	7.2
15	-9	2085	23,700	6.9
10	-12	1970	21,300	6.2
5	-15	1855	19,000	5.6
0	-18	1740	16,700	4.9
-5	-21	1625	14,400	4.2
-10	-23	1510	12,000	3.5
-15	-26	1395	9700	2.8
-20	-29	1280	7400	2.2

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

RATINGS

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

HP21-48 — COOLING CAPACITY (Low Speed Compressor) — CR26-65 (Low Indoor Air Volume)

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)	495	1050	7.1	24,200	1150	.82	1.00	1.00	6.8	23,200	1310	.83	1.00	1.00	6.5	22,300	1490	.84	1.00	1.00	6.2	21,300	1690	.86	1.00	1.00
	540	1150	7.3	24,800	1140	.84	1.00	1.00	7.0	23,800	1310	.85	1.00	1.00	6.7	22,900	1490	.87	1.00	1.00	6.4	21,900	1700	.88	1.00	1.00
	590	1250	7.4	25,400	1140	.86	1.00	1.00	7.2	24,400	1300	.87	1.00	1.00	6.9	23,400	1490	.89	1.00	1.00	6.6	22,400	1710	.91	1.00	1.00
67°F (19.4°C)	495	1050	7.4	25,400	1140	.64	.82	.96	7.1	24,100	1310	.65	.85	.98	6.7	23,000	1490	.66	.88	1.00	6.4	21,900	1700	.67	.91	1.00
	540	1150	7.6	25,800	1130	.66	.84	.99	7.2	24,500	1300	.67	.87	1.00	6.9	23,400	1490	.68	.91	1.00	6.5	22,200	1710	.69	.94	1.00
	590	1250	7.6	26,000	1130	.67	.87	1.00	7.3	24,800	1300	.68	.90	1.00	7.0	23,800	1490	.69	.93	1.00	6.6	22,500	1710	.70	.97	1.00
71°F (21.7°C)	495	1050	7.9	27,000	1110	.47	.63	.80	7.6	25,900	1290	.48	.65	.81	7.2	24,700	1490	.48	.66	.83	6.9	23,600	1730	.49	.69	.84
	540	1150	8.0	27,300	1110	.48	.64	.82	7.7	26,200	1290	.48	.66	.84	7.4	25,100	1490	.49	.68	.85	7.0	23,900	1730	.49	.71	.87
	590	1250	8.1	27,600	1100	.49	.66	.85	7.8	26,600	1280	.49	.68	.86	7.4	25,400	1500	.49	.70	.88	7.1	24,200	1730	.50	.73	.89

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

HP21-48 — COOLING CAPACITY (High Speed Compressor) — CR26-65 (High Indoor Air Volume)

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	11.3	38,400	2680	.74	.89	1.00	10.6	36,200	2900	.76	.92	1.00	9.9	33,900	3150	.78	.95	1.00	9.3	31,800	3510	.80	.98	1.00
	710	1500	11.6	39,600	2720	.77	.93	1.00	10.9	37,300	2940	.79	.96	1.00	10.3	35,200	3220	.81	.99	1.00	9.8	33,600	3630	.83	1.00	1.00
	800	1700	11.9	40,600	2750	.81	.96	1.00	11.3	38,500	2980	.83	.99	1.00	10.8	36,800	3300	.84	1.00	1.00	10.3	35,200	3740	.86	1.00	1.00
67°F (19.4°C)	615	1300	12.0	41,100	2760	.58	.72	.86	11.4	39,000	3000	.59	.74	.88	10.9	37,100	3320	.60	.76	.90	10.3	35,200	3740	.61	.78	.92
	710	1500	12.5	42,600	2810	.60	.75	.90	11.9	40,500	3060	.61	.77	.92	11.3	38,600	3390	.62	.79	.94	10.7	36,600	3830	.63	.81	.97
	800	1700	12.8	43,800	2840	.62	.77	.94	12.3	41,800	3100	.63	.80	.96	11.7	39,800	3450	.64	.82	.99	11.1	37,800	3910	.65	.85	1.00
71°F (21.7°C)	615	1300	12.9	44,100	2840	.43	.57	.72	12.4	42,200	3110	.43	.58	.73	11.8	40,400	3470	.44	.59	.74	11.3	38,700	3980	.44	.60	.75
	710	1500	13.4	45,700	2880	.44	.59	.75	12.8	43,800	3170	.44	.60	.76	12.3	42,100	3570	.44	.61	.77	11.9	40,600	4120	.45	.62	.78
	800	1700	13.8	47,100	2920	.45	.60	.77	13.3	45,300	3230	.45	.61	.79	12.8	43,600	3670	.45	.63	.80	12.4	42,200	4230	.45	.64	.81

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

HP21-48 — HEATING CAPACITY (Low Speed Compressor) — CR26-65

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
615	1300	8.8	29,900	1370	8.1	27,700	1355	7.5	25,500	1335	6.8	23,300	1320
710	1500	9.3	31,900	1310	8.7	29,700	1295	8.1	27,500	1275	7.4	25,300	1260
800	1700	9.9	33,900	1250	9.3	31,700	1235	8.6	29,500	1215	8.0	27,300	1200

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

HP21-48 — HEATING CAPACITY (High Speed Compressor) — CR26-65

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	14.2	48,500	3230	10.7	36,500	2780	7.1	24,100	2315	4.9	16,700	1945	2.2	7520	1485
710	1500	14.7	50,000	3140	11.1	38,000	2690	7.5	25,600	2225	5.3	18,200	1855	2.7	9300	1395
800	1700	15.1	51,500	3050	11.6	39,500	2600	7.9	27,100	2135	5.8	19,700	1765	3.2	10,800	1305

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

HP21-48 — HEATING PERFORMANCE CR26-65 at 1500 cfm (710 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	3140	50,000	14.7
60	16	3035	47,200	13.8
55	13	2930	44,400	13.0
50	10	2725	41,700	12.2
47	8	2760	40,000	11.8
45	7	2690	38,000	11.1
40	4	2515	33,000	9.7
35	2	2340	28,000	8.2
30	-1	2280	26,800	7.9
25	-4	2225	25,600	7.5
20	-7	2165	24,300	7.1
17	-8	2130	23,600	6.9
15	-9	2085	22,700	6.7
10	-12	1970	20,500	6.0
5	-15	1855	18,200	5.3
0	-18	1740	16,000	4.7
-5	-21	1625	13,800	4.0
-10	-23	1510	11,500	3.4
-15	-26	1395	9300	2.7
-20	-29	1280	7100	2.1

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

RATINGS

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

HP21-60 — COOLING CAPACITY (Low Speed Compressor) — CB31MV-51 (Low Speed Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			75°F (24°C) Compressor Motor Watts Input					85°F (29°C)						95°F (35°C)						105°F (41°C)					
			Total Cooling Capacity		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)	400	850	10.2	34,700	1870	.70	.83	.95	9.7	33,000	2090	.72	.85	.98	9.1	31,200	2310	.73	.87	1.00	8.6	29,400	2530	.75	.90	1.00
	460	980	10.5	35,800	1870	.73	.87	.99	10.0	34,000	2090	.75	.89	1.00	9.4	32,100	2310	.76	.92	1.00	8.9	30,200	2540	.79	.94	1.00
	520	1100	10.8	36,700	1860	.76	.90	1.00	10.2	34,800	2090	.77	.93	1.00	9.6	32,900	2320	.79	.95	1.00	9.1	31,000	2550	.82	.98	1.00
67°F (19.4°C)	400	850	11.0	37,700	1860	.55	.67	.79	10.5	35,800	2080	.56	.69	.81	9.9	33,800	2320	.57	.70	.83	9.3	31,800	2560	.58	.72	.86
	460	980	11.3	38,700	1850	.57	.70	.83	10.8	36,700	2080	.58	.72	.85	10.2	34,700	2320	.59	.73	.88	9.6	32,600	2560	.60	.76	.90
	520	1100	11.6	39,600	1840	.58	.73	.86	11.0	37,500	2080	.59	.74	.89	10.4	35,400	2320	.60	.76	.92	9.8	33,300	2570	.62	.79	.95
71°F (21.7°C)	400	850	12.0	40,800	1830	.42	.53	.64	11.4	38,800	2070	.42	.54	.66	10.8	36,700	2320	.43	.55	.67	10.1	34,600	2570	.43	.56	.69
	460	980	12.3	41,900	1820	.43	.55	.67	11.7	39,800	2070	.43	.56	.68	11.0	37,600	2320	.43	.57	.70	10.4	35,400	2580	.44	.58	.72
	520	1100	12.5	42,800	1810	.43	.56	.70	11.9	40,600	2060	.43	.57	.71	11.3	38,400	2320	.44	.59	.74	10.6	36,100	2580	.44	.60	.76

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

HP21-60 — COOLING CAPACITY (High Speed Compressor) — CB31MV-51 (High Speed Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C) Compressor Motor Watts Input					95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		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)	670	1425	15.5	52,800	4510	.69	.81	.93	14.7	50,300	4850	.70	.83	.95	14.0	47,800	5190	.72	.85	.97	13.3	45,400	5530	.73	.87	.99
	765	1625	15.9	54,200	4550	.71	.84	.96	15.1	51,600	4900	.73	.86	.98	14.4	49,000	5250	.74	.88	.99	13.6	46,500	5600	.76	.91	1.00
	850	1805	16.2	55,300	4590	.73	.87	.98	15.4	52,700	4940	.75	.89	1.00	14.7	50,100	5310	.77	.91	1.00	13.9	47,500	5670	.78	.94	1.00
67°F (19.4°C)	670	1425	16.7	56,900	4630	.55	.66	.78	15.9	54,200	5010	.56	.68	.79	15.1	51,600	5380	.56	.69	.81	14.4	49,000	5760	.57	.70	.83
	765	1625	17.0	58,100	4680	.56	.69	.81	16.2	55,400	5060	.57	.70	.83	15.4	52,700	5440	.57	.71	.85	14.7	50,000	5830	.58	.73	.87
	850	1805	17.3	59,100	4710	.57	.71	.84	16.5	56,400	5090	.58	.72	.86	15.7	53,600	5490	.59	.74	.88	14.9	50,900	5880	.60	.76	.90
71°F (21.7°C)	670	1425	17.9	61,100	4770	.42	.53	.64	17.1	58,400	5170	.42	.53	.65	16.3	55,700	5590	.42	.54	.66	15.6	53,100	6020	.43	.55	.67
	765	1625	18.3	62,400	4800	.42	.54	.66	17.5	59,600	5220	.43	.55	.67	16.7	56,900	5650	.43	.56	.68	15.9	54,100	6080	.43	.57	.70
	850	1805	18.6	63,400	4830	.43	.55	.68	17.8	60,600	5260	.43	.56	.69	16.9	57,800	5700	.43	.57	.71	16.1	55,000	6140	.44	.58	.73

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

HP21-60 — HEATING CAPACITY (Low Speed Compressor) — CB31MV-51

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
675	1425	11.3	38,400	2485	10.5	35,800	2420	9.7	33,100	2350	8.9	30,500	2285
765	1625	11.5	39,400	2390	10.8	36,700	2320	10.0	34,100	2255	9.2	31,400	2185
850	1805	11.8	40,100	2320	11.0	37,500	2250	10.2	34,800	2185	9.4	32,200	2115

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

HP21-60 — HEATING CAPACITY (High Speed Compressor) — CB31MV-51

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	
675	1425	19.3	65,700	5220	14.7	50,100	4400	9.9	33,700	3560	6.7	23,000	2890	3.3	11,300	2205
765	1625	19.6	67,000	5145	15.1	51,400	4325	10.3	35,000	3485	7.1	24,300	2815	3.7	12,600	2130
850	1805	20.0	68,200	5085	15.4	52,600	4265	10.6	36,200	3425	7.5	25,500	2755	4.0	13,800	2070

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

HP21-60 — HEATING PERFORMANCE
CB31MV-51 at 1625 cfm (765 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	5145	67,000	19.6
60	16	4950	63,400	18.6
55	13	4755	59,800	17.5
50	10	4560	56,200	16.5
47	8	4440	54,000	15.8
45	7	4325	51,400	15.1
40	4	4045	44,800	13.1
35	2	3765	38,300	11.2
30	-1	3625	36,600	10.7
25	-4	3485	35,000	10.3
20	-7	3345	33,300	9.8
17	-8	3260	32,300	9.5
15	-9	3185	30,900	9.1
10	-12	2985	27,200	8.0
5	-15	2815	24,300	7.1
0	-18	2645	21,400	6.3
-5	-21	2470	18,500	5.4
-10	-23	2300	15,500	4.5
-15	-26	2130	12,600	3.7
-20	-29	1955	9,700	2.8

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

RATINGS

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

HP21-60 — COOLING CAPACITY (Low Speed Compressor) — CB30M-51/CB30U-51 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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)	425	900	10.3	35,100	1870	.71	.85	.97	9.8	33,300	2090	.73	.86	.99	9.2	31,500	2310	.74	.89	1.00	8.7	29,700	2540	.76	.92	1.00
	470	1000	10.6	36,000	1870	.73	.87	.99	10.0	34,100	2090	.75	.90	1.00	9.4	32,200	2310	.77	.92	1.00	8.9	30,400	2540	.79	.95	1.00
	520	1100	10.8	36,700	1860	.76	.90	1.00	10.2	34,800	2090	.77	.93	1.00	9.6	32,900	2320	.79	.95	1.00	9.1	31,000	2550	.82	.98	1.00
67°F (19.4°C)	425	900	11.2	38,100	1850	.56	.68	.81	10.6	36,100	2080	.57	.70	.82	10.0	34,100	2320	.58	.71	.85	9.4	32,100	2560	.59	.73	.87
	470	1000	11.4	38,900	1850	.57	.70	.83	10.8	36,800	2080	.58	.72	.86	10.2	34,800	2320	.59	.74	.88	9.6	32,700	2560	.60	.76	.91
	520	1100	11.6	39,600	1840	.58	.73	.86	11.0	37,500	2080	.59	.74	.89	10.4	35,400	2320	.60	.76	.92	9.8	33,300	2570	.62	.79	.95
71°F (21.7°C)	425	900	12.1	41,200	1830	.42	.54	.65	11.5	39,200	2070	.42	.55	.67	10.9	37,100	2320	.43	.56	.68	10.2	34,900	2570	.43	.57	.70
	470	1000	12.3	42,100	1820	.43	.55	.67	11.7	39,900	2060	.43	.56	.69	11.1	37,800	2320	.43	.57	.71	10.4	35,500	2580	.44	.58	.73
	520	1100	12.5	42,800	1810	.43	.56	.70	11.9	40,600	2060	.43	.57	.71	11.3	38,400	2320	.44	.59	.74	10.6	36,100	2580	.44	.60	.76

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

HP21-60 — COOLING CAPACITY (High Speed Compressor) — CB30M-51/CB30U-51 (High Indoor Air Volume)

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	15.6	53,200	4640	.69	.81	.92	14.9	50,700	4990	.70	.82	.94	14.1	48,100	5340	.71	.84	.96	13.4	45,700	5690	.73	.86	.98
	755	1600	16.0	54,700	4690	.71	.84	.96	15.3	52,100	5050	.72	.86	.97	14.5	49,500	5410	.74	.88	.99	13.8	47,000	5770	.76	.90	1.00
	850	1800	16.4	56,000	4730	.73	.87	.98	15.6	53,300	5100	.75	.89	1.00	14.9	50,700	5470	.76	.91	1.00	14.1	48,100	5850	.78	.94	1.00
67°F (19.4°C)	660	1400	16.8	57,300	4770	.55	.66	.77	16.0	54,600	5150	.55	.67	.79	15.2	52,000	5540	.56	.68	.80	14.5	49,400	5930	.57	.70	.82
	755	1600	17.2	58,700	4820	.56	.68	.80	16.4	56,000	5210	.56	.69	.82	15.6	53,300	5610	.57	.71	.84	14.8	50,600	6010	.58	.73	.86
	850	1800	17.6	59,900	4860	.57	.71	.84	16.7	57,100	5260	.58	.72	.86	15.9	54,300	5660	.59	.74	.88	15.1	51,600	6070	.60	.75	.90
71°F (21.7°C)	660	1400	18.0	61,500	4910	.42	.53	.63	17.2	58,800	5320	.42	.53	.64	16.4	56,100	5760	.42	.54	.65	15.7	53,500	6190	.42	.55	.67
	755	1600	18.5	63,000	4950	.42	.54	.65	17.7	60,300	5380	.42	.55	.67	16.9	57,500	5820	.43	.55	.68	16.0	54,700	6270	.43	.56	.70
	850	1800	18.8	64,200	4990	.43	.55	.68	18.0	61,400	5430	.43	.56	.69	17.1	58,500	5880	.43	.57	.71	16.3	55,700	6330	.44	.58	.73

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

HP21-60 — HEATING CAPACITY (Low Speed Compressor) — CB30M-51/CB30U-51

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
660	1400	11.6	39,500	2345	10.8	36,800	2280	10.0	34,200	2215	9.2	31,500	2150
755	1600	11.7	40,000	2225	11.0	37,400	2160	10.2	34,700	2095	9.4	32,100	2025
850	1800	12.0	40,900	2235	11.2	38,300	2170	10.4	35,600	2105	9.7	33,000	2040

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

HP21-60 — HEATING CAPACITY (High Speed Compressor) — CB30M-51/CB30U-51

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	19.2	65,500	5025	14.4	49,100	4225	9.4	32,100	3410	6.2	21,000	2735	3.1	10,500	2090
755	1600	19.5	66,700	4945	14.7	50,300	4145	9.8	33,300	3330	6.5	22,200	2655	3.4	11,700	2010
850	1800	19.9	67,800	4880	15.1	51,400	4080	10.1	34,400	3265	6.8	23,300	2590	3.8	12,800	1945

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

HP21-60 — HEATING PERFORMANCE CB30M-51/CB30U-51 at 1600 cfm (755 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	4945	66,700	19.5
60	16	4755	62,900	18.4
55	13	4560	59,100	17.3
50	10	4365	55,300	16.2
47	8	4250	53,000	15.5
45	7	4145	50,300	14.7
40	4	3890	43,700	12.8
35	2	3635	37,100	10.9
30	-1	3480	35,200	10.3
25	-4	3330	33,300	9.8
20	-7	3175	31,300	9.2
17	-8	3085	30,200	8.9
15	-9	3010	28,700	8.4
10	-12	2815	24,900	7.3
5	-15	2655	22,200	6.5
0	-18	2495	19,600	5.7
-5	-21	2335	17,000	5.0
-10	-23	2175	14,300	4.2
-15	-26	2010	11,700	3.4
-20	-29	1850	9,100	2.7

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

RATINGS

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

HP21-60 — COOLING CAPACITY (Low Speed Compressor) — CB31MV-65 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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)	400	850	10.1	34,600	1790	.70	.83	.95	9.6	32,900	1990	.72	.85	.97	9.1	31,100	2200	.73	.87	.99	8.6	29,300	2410	.75	.90	1.00
	495	1050	10.6	36,300	1780	.74	.89	1.00	10.1	34,500	1990	.76	.91	1.00	9.6	32,600	2210	.78	.94	1.00	9.0	30,700	2420	.80	.97	1.00
	570	1210	11.0	37,400	1770	.78	.93	1.00	10.4	35,500	1990	.80	.96	1.00	9.8	33,600	2210	.82	.98	1.00	9.3	31,800	2430	.85	1.00	1.00
67°F (19.4°C)	400	850	11.0	37,600	1770	.55	.67	.79	10.5	35,700	1990	.56	.69	.81	9.9	33,800	2210	.57	.70	.83	9.3	31,800	2430	.58	.72	.86
	495	1050	11.5	39,200	1760	.58	.72	.85	10.9	37,200	1980	.59	.73	.87	10.3	35,100	2210	.60	.75	.90	9.7	33,000	2440	.61	.77	.93
	570	1210	11.8	40,200	1750	.60	.75	.90	11.2	38,100	1980	.61	.77	.92	10.5	35,900	2210	.62	.79	.95	9.9	33,800	2450	.64	.82	.98
71°F (21.7°C)	400	850	11.9	40,700	1740	.42	.53	.64	11.3	38,700	1970	.42	.54	.66	10.7	36,600	2210	.43	.55	.67	10.1	34,500	2450	.43	.56	.69
	495	1050	12.5	42,500	1730	.43	.56	.68	11.8	40,300	1960	.43	.57	.70	11.2	38,100	2210	.43	.58	.72	10.5	35,800	2460	.44	.59	.74
	570	1210	12.7	43,500	1720	.44	.58	.72	12.1	41,200	1960	.44	.59	.74	11.4	38,900	2210	.44	.60	.76	10.7	36,500	2460	.45	.62	.79

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

HP21-60 — COOLING CAPACITY (High Speed Compressor) — CB31MV-65 (High Indoor Air Volume)

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)	670	1425	16.0	54,600	4630	.69	.81	.93	15.2	52,000	4970	.70	.83	.95	14.5	49,500	5320	.72	.85	.97	13.7	46,900	5670	.73	.87	.99
	815	1725	16.6	56,700	4690	.72	.86	.97	15.8	53,900	5050	.74	.88	.99	15.0	51,300	5420	.76	.90	1.00	14.3	48,700	5790	.77	.92	1.00
	945	2005	17.1	58,300	4740	.76	.90	1.00	16.3	55,500	5120	.77	.92	1.00	15.5	52,800	5500	.79	.95	1.00	14.7	50,200	5880	.81	.97	1.00
67°F (19.4°C)	670	1425	17.2	58,800	4760	.55	.66	.78	16.4	56,100	5140	.56	.68	.79	15.6	53,300	5530	.56	.69	.81	14.8	50,600	5910	.57	.70	.83
	815	1725	17.8	60,700	4820	.57	.70	.82	17.0	57,900	5210	.57	.71	.84	16.1	55,000	5610	.58	.73	.86	15.3	52,200	6010	.59	.74	.89
	945	2005	18.2	62,100	4860	.58	.73	.87	17.3	59,200	5260	.59	.75	.89	16.5	56,300	5680	.60	.76	.91	15.7	53,500	6090	.62	.78	.93
71°F (21.7°C)	670	1425	18.5	63,200	4890	.42	.53	.64	17.7	60,400	5310	.42	.53	.65	16.9	57,600	5740	.42	.54	.66	16.1	54,900	6180	.43	.55	.67
	815	1725	19.1	65,100	4940	.43	.55	.67	18.2	62,200	5380	.43	.55	.68	17.4	59,300	5830	.43	.56	.70	16.6	56,500	6270	.43	.57	.71
	945	2005	19.5	66,600	4990	.43	.57	.70	18.6	63,600	5430	.43	.58	.72	17.8	60,600	5890	.44	.59	.74	16.9	57,700	6350	.44	.60	.76

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

HP21-60 — HEATING CAPACITY (Low Speed Compressor) — CB31MV-65

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
675	1425	11.3	38,400	2485	10.5	35,700	2425	9.7	33,000	2360	8.9	30,300	2300
815	1725	11.7	39,800	2345	10.9	37,100	2280	10.1	34,400	2215	9.3	31,700	2155
945	2005	11.9	40,700	2260	11.1	38,000	2195	10.3	35,300	2135	9.6	32,600	2070

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

HP21-60 — HEATING CAPACITY (High Speed Compressor) — CB31MV-65

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	
675	1425	19.7	67,100	5525	14.6	49,800	4655	9.3	31,800	3760	5.9	20,300	3050	2.9	9,800	2340
815	1725	20.2	69,000	5410	15.2	51,700	4540	9.9	33,700	3645	6.5	22,200	2935	3.4	11,700	2225
945	2005	20.7	70,700	5330	15.6	53,400	4460	10.4	35,400	3565	7.0	23,900	2855	3.9	13,400	2145

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

HP21-60 — HEATING PERFORMANCE
CB31MV-65 at 1725 cfm (815 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	5410	69,000	20.2
60	16	5200	64,900	19.0
55	13	4990	60,900	17.8
50	10	4785	56,900	16.7
47	8	4660	54,500	16.0
45	7	4540	51,700	15.2
40	4	4240	44,800	13.1
35	2	3940	37,900	11.1
30	-1	3795	35,800	10.5
25	-4	3645	33,700	9.9
20	-7	3495	31,700	9.3
17	-8	3405	30,400	8.9
15	-9	3325	28,800	8.4
10	-12	3115	24,800	7.3
5	-15	2935	22,200	6.5
0	-18	2760	19,600	5.7
-5	-21	2580	16,900	5.0
-10	-23	2400	14,300	4.2
-15	-26	2225	11,700	3.4
-20	-29	2045	9,100	2.7

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

RATINGS

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

HP21-60 — COOLING CAPACITY (Low Speed Compressor) — CB30M-65/CB30U-65 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)					85°F (29°C)					95°F (35°C)					105°F (41°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)	520	1100	10.8	36,700	1770	.76	.90	1.00	10.2	34,800	1990	.77	.93	1.00	9.6	32,900	2210	.79	.95	1.00	9.1	31,000	2430	.82	.98	1.00
	565	1200	11.0	37,400	1770	.78	.93	1.00	10.4	35,500	1990	.80	.96	1.00	9.8	33,600	2210	.82	.98	1.00	9.3	31,700	2430	.85	1.00	1.00
	615	1300	11.1	38,000	1770	.80	.96	1.00	10.6	36,100	1980	.82	.98	1.00	10.0	34,200	2210	.84	1.00	1.00	9.5	32,500	2440	.87	1.00	1.00
67°F (19.4°C)	520	1100	11.6	39,600	1750	.58	.73	.86	11.0	37,500	1980	.59	.74	.89	10.4	35,400	2210	.60	.76	.92	9.8	33,300	2440	.62	.79	.94
	565	1200	11.8	40,200	1750	.59	.75	.89	11.2	38,100	1980	.61	.77	.92	10.5	35,900	2210	.62	.79	.95	9.9	33,800	2450	.63	.82	.97
	615	1300	11.9	40,700	1740	.61	.77	.92	11.3	38,600	1970	.62	.79	.95	10.7	36,400	2210	.63	.82	.97	10.0	34,200	2450	.65	.84	1.00
71°F (21.7°C)	520	1100	12.6	42,900	1720	.43	.56	.70	11.9	40,600	1960	.43	.57	.71	11.3	38,400	2210	.44	.59	.73	10.6	36,100	2460	.44	.60	.76
	565	1200	12.7	43,500	1720	.43	.58	.72	12.1	41,200	1960	.44	.59	.74	11.4	38,900	2210	.44	.60	.76	10.7	36,600	2460	.45	.62	.79
	615	1300	12.9	44,000	1710	.44	.59	.74	12.2	41,700	1960	.44	.60	.76	11.5	39,300	2210	.45	.62	.79	10.8	36,900	2460	.46	.64	.81

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

HP21-60 — COOLING CAPACITY (High Speed Compressor) — CB30M-65/CB30U-65 (High Indoor Air Volume)

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	16.6	56,800	4760	.72	.85	.96	15.9	54,100	5120	.73	.87	.98	15.1	51,400	5490	.74	.89	1.00	14.3	48,800	5860	.76	.91	1.00
	850	1800	16.9	57,800	4790	.73	.87	.98	16.1	55,100	5160	.75	.89	1.00	15.3	52,300	5540	.76	.91	1.00	14.6	49,700	5920	.78	.94	1.00
	920	1950	17.2	58,600	4820	.75	.89	1.00	16.4	55,900	5200	.77	.91	1.00	15.6	53,100	5580	.78	.94	1.00	14.8	50,500	5970	.80	.96	1.00
67°F (19.4°C)	780	1650	17.9	61,000	4890	.56	.69	.81	17.0	58,100	5290	.57	.70	.83	16.2	55,300	5690	.58	.72	.85	15.4	52,500	6100	.59	.73	.87
	850	1800	18.1	61,800	4920	.57	.70	.83	17.3	59,000	5320	.58	.72	.85	16.4	56,100	5730	.59	.74	.88	15.6	53,200	6150	.60	.75	.90
	920	1950	18.3	62,600	4940	.58	.72	.86	17.5	59,700	5350	.59	.74	.88	16.6	56,700	5770	.60	.76	.90	15.8	53,900	6190	.61	.78	.92
71°F (21.7°C)	780	1650	19.2	65,400	5020	.42	.54	.66	18.3	62,600	5460	.43	.55	.67	17.5	59,600	5910	.43	.56	.69	16.6	56,800	6370	.43	.57	.70
	850	1800	19.4	66,300	5050	.43	.55	.68	18.6	63,400	5490	.43	.56	.69	17.7	60,400	5950	.43	.57	.71	16.9	57,500	6410	.44	.58	.72
	920	1950	19.7	67,100	5070	.43	.56	.70	18.8	64,100	5520	.43	.57	.71	17.9	61,100	5980	.44	.58	.73	17.1	58,200	6450	.44	.59	.75

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

HP21-60 — HEATING CAPACITY (Low Speed Compressor) — CB30M-65/CB30U-65

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
780	1650	11.9	40,700	2085	11.1	37,900	2035	10.3	35,200	1980	9.5	32,400	1930
850	1800	12.1	41,200	2055	11.3	38,500	2000	10.5	35,700	1950	9.7	33,000	1895
920	1950	12.3	41,900	2025	11.5	39,200	1970	10.7	36,400	1920	9.9	33,700	1865

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

HP21-60 — HEATING CAPACITY (High Speed Compressor) — CB30M-65/CB30U-65

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	19.9	67,900	4930	14.9	51,000	4145	9.7	33,200	3345	6.4	21,800	2675	3.3	11,100	2040
850	1800	20.1	68,700	4880	15.2	51,800	4095	10.0	34,000	3295	6.6	22,600	2625	3.5	11,900	1990
920	1950	20.4	69,700	4835	15.5	52,800	4050	10.3	35,000	3250	6.9	23,600	2580	3.8	12,900	1945

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

HP21-60 — HEATING PERFORMANCE CB30M-65/CB30U-65 at 1800 cfm (850 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	4880	68,700	20.1
60	16	4690	64,800	19.0
55	13	4500	60,800	17.8
50	10	4310	56,900	16.7
47	8	4195	54,500	16.0
45	7	4095	51,800	15.2
40	4	3850	44,900	13.2
35	2	3600	38,000	11.1
30	-1	3450	36,000	10.6
25	-4	3295	34,000	10.0
20	-7	3140	32,000	9.4
17	-8	3050	30,800	9.0
15	-9	2975	29,200	8.6
10	-12	2780	25,300	7.4
5	-15	2625	22,600	6.6
0	-18	2465	19,900	5.8
-5	-21	2305	17,300	5.1
-10	-23	2145	14,600	4.3
-15	-26	1990	11,900	3.5
-20	-29	1830	9,200	2.7

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

RATINGS

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

HP21-60 —COOLING CAPACITY (Low Speed Compressor) — CVP10-65/EC10Q5 (Canada Only) (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F						85°F (29°C)						95°F (35°C)						105°F (41°C)					
			Total Cooling Capacity		(24°C) Compressor Motor Watts 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	9.0	30,800	1870	.71	.85	.96	8.5	29,100	2080	.72	.87	.99	8.0	27,400	2280	.74	.90	1.00	7.5	25,600	2490	.76	.93	1.00
	520	1100	9.8	33,500	1870	.77	.94	1.00	9.3	31,700	2080	.79	.97	1.00	8.8	29,900	2300	.81	.99	1.00	8.2	28,100	2530	.83	1.00	1.00
	660	1400	10.5	35,700	1860	.83	1.00	1.00	10.0	34,000	2080	.85	1.00	1.00	9.5	32,300	2310	.87	1.00	1.00	8.9	30,300	2550	.90	1.00	1.00
67°F (19.4°C)	375	800	9.8	33,300	1870	.56	.68	.82	9.2	31,500	2080	.57	.70	.84	8.7	29,700	2300	.58	.72	.86	8.1	27,800	2520	.59	.74	.88
	520	1100	10.6	36,000	1860	.60	.76	.90	10.0	34,000	2080	.61	.77	.92	9.3	31,900	2310	.62	.80	.95	8.7	29,800	2540	.64	.83	.98
	660	1400	11.0	37,700	1850	.64	.83	.98	10.5	35,700	2080	.65	.85	1.00	9.8	33,400	2310	.66	.88	1.00	9.1	31,000	2560	.68	.92	1.00
71°F (21.7°C)	375	800	10.5	35,700	1860	.42	.55	.69	9.9	33,800	2080	.43	.55	.70	9.3	31,900	2310	.43	.56	.71	8.8	29,900	2550	.43	.58	.73
	520	1100	11.3	38,700	1840	.44	.59	.74	10.7	36,500	2070	.44	.60	.76	10.1	34,400	2320	.45	.62	.78	9.4	32,100	2570	.45	.64	.80
	660	1400	11.9	40,700	1830	.45	.63	.80	11.2	38,300	2070	.46	.65	.82	10.5	35,900	2320	.46	.67	.85	9.8	33,400	2580	.47	.69	.87

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

HP21-60 —COOLING CAPACITY (High Speed Compressor) — CVP10-65/EC10Q5 (Canada Only) (High Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F						85°F (29°C)						95°F (35°C)						105°F (41°C)					
			Total Cooling Capacity		(24°C) Compressor Motor Watts 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)	825	1750	16.8	57,200	4640	.74	.89	1.00	15.9	54,300	4990	.76	.92	1.00	15.0	51,200	5340	.77	.94	1.00	14.2	48,300	5680	.79	.97	1.00
	965	2050	17.3	59,100	4700	.78	.94	1.00	16.5	56,200	5070	.80	.97	1.00	15.6	53,100	5430	.81	.99	1.00	14.7	50,200	5810	.83	1.00	1.00
	1110	2350	17.9	61,000	4750	.81	.98	1.00	17.0	58,000	5140	.83	1.00	1.00	16.2	55,200	5530	.85	1.00	1.00	15.4	52,500	5940	.87	1.00	1.00
67°F (19.4°C)	825	1750	18.0	61,400	4760	.58	.72	.86	17.1	58,300	5140	.59	.74	.88	16.2	55,200	5530	.60	.76	.90	15.2	51,900	5910	.61	.78	.93
	965	2050	18.6	63,400	4820	.60	.76	.91	17.6	60,200	5210	.61	.78	.93	16.7	57,000	5610	.62	.80	.95	15.8	53,800	6000	.64	.83	.98
	1110	2350	19.0	65,000	4870	.62	.80	.96	18.2	62,000	5270	.63	.82	.98	17.1	58,300	5670	.65	.84	1.00	16.1	54,800	6080	.66	.87	1.00
71°F (21.7°C)	825	1750	19.2	65,400	4880	.43	.57	.72	18.3	62,300	5290	.44	.58	.73	17.3	59,100	5710	.44	.59	.75	16.4	55,900	6130	.44	.60	.76
	965	2050	19.8	67,600	4940	.44	.59	.75	18.9	64,400	5360	.45	.60	.77	17.9	61,100	5800	.45	.62	.78	16.9	57,800	6250	.45	.63	.80
	1110	2350	20.3	69,200	4980	.45	.62	.79	19.3	65,900	5420	.46	.63	.80	18.3	62,600	5870	.46	.64	.82	17.3	59,100	6340	.46	.66	.84

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

HP21-60 — HEATING CAPACITY (Low Speed Compressor) — CVP10-65/EC10Q5 (Canada Only)

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
825	1750	19.7	36,100	1395	15.3	33,300	1345	10.8	30,500	1290	7.4	27,700	1235
965	2050	20.1	43,400	2090	15.7	40,600	2035	11.2	37,800	1980	7.8	35,000	1925
1110	2350	20.4	36,900	1370	16.0	34,100	1315	11.5	31,300	1260	8.1	28,500	1205

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

HP21-60 — HEATING CAPACITY (High Speed Compressor) — CVP10-65/EC10Q5 (Canada Only)

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	
825	1750	19.7	67,300	4780	15.3	52,300	4180	10.8	36,800	3575	7.4	25,300	2920	3.6	12,200	2220
965	2050	20.1	68,600	4680	15.7	53,600	4080	11.2	38,100	3480	7.8	26,600	2825	4.0	13,600	2125
1110	2350	20.4	69,600	4615	16.0	54,600	4015	11.5	39,100	3415	8.1	27,500	2760	4.2	14,500	2055

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

HP21-60 —HEATING PERFORMANCE
CVP10-65/EC10Q5 (Canada Only) at 2050 cfm (965 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	4680	68,600	20.1
60	16	4530	65,100	19.1
55	13	4380	61,500	18.0
50	10	4230	57,900	17.0
47	8	4140	55,800	16.4
45	7	4080	53,600	15.7
40	4	3925	48,200	14.1
35	2	3770	42,800	12.5
30	-1	3625	40,500	11.9
25	-4	3480	38,100	11.2
20	-7	3335	35,800	10.5
17	-8	3245	34,400	10.1
15	-9	3175	33,100	9.7
10	-12	3000	29,800	8.7
5	-15	2825	26,600	7.8
0	-18	2650	23,300	6.8
-5	-21	2475	20,100	5.9
-10	-23	2300	16,800	4.9
-15	-26	2125	13,600	4.0
-20	-29	1945	10,300	3.0

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

RATINGS

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

HP21-60 — COOLING CAPACITY (Low Speed Compressor) - C33-62D - C26-65EAP - CH33-62D-F - CH23-68 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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	12.3	42,100	1860	.84	1.00	1.00	11.8	40,200	2100	.86	1.00	1.00	11.2	38,100	2360	.88	1.00	1.00	10.5	35,700	2620	.90	1.00	1.00
	945	2000	12.7	43,300	1860	.87	1.00	1.00	12.1	41,200	2100	.89	1.00	1.00	11.4	38,900	2360	.91	1.00	1.00	10.7	36,600	2640	.93	1.00	1.00
	1040	2200	13.0	44,300	1850	.89	1.00	1.00	12.3	42,100	2100	.91	1.00	1.00	11.7	39,800	2370	.93	1.00	1.00	10.9	37,300	2640	.96	1.00	1.00
67°F (19.4°C)	850	1800	12.9	44,100	1850	.66	.88	.99	12.1	41,200	2100	.68	.91	1.00	11.3	38,600	2360	.69	.95	1.00	10.6	36,000	2630	.71	.98	1.00
	945	2000	13.1	44,600	1850	.68	.92	1.00	12.2	41,800	2100	.70	.95	1.00	11.5	39,200	2370	.71	.98	1.00	10.7	36,600	2640	.73	1.00	1.00
	1040	2200	13.2	45,000	1850	.70	.94	1.00	12.4	42,300	2100	.71	.99	1.00	11.6	39,700	2370	.73	1.00	1.00	10.9	37,300	2650	.75	1.00	1.00
71°F (21.7°C)	850	1800	13.7	46,700	1840	.49	.67	.83	12.9	44,000	2100	.50	.69	.84	12.1	41,200	2370	.50	.71	.86	11.2	38,300	2650	.51	.74	.89
	945	2000	13.9	47,400	1840	.50	.70	.85	13.1	44,600	2100	.51	.72	.87	12.3	41,800	2370	.51	.74	.90	11.4	38,800	2660	.52	.78	.92
	1040	2200	14.1	48,000	1840	.51	.72	.88	13.2	45,200	2100	.51	.75	.90	12.4	42,300	2380	.52	.77	.93	11.5	39,200	2660	.53	.81	.96

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

HP21-60 — COOLING CAPACITY (High Speed Compressor) - C33-62D - C26-65EAP - CH33-62D-F - CH23-68 (High Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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	17.7	60,400	4970	.73	.88	1.00	16.8	57,300	5350	.75	.90	1.00	15.8	54,000	5730	.77	.93	1.00	14.9	50,900	6110	.78	.96	1.00
	945	2000	18.2	62,000	5010	.76	.91	1.00	17.1	58,400	5400	.77	.94	1.00	16.2	55,300	5800	.79	.97	1.00	15.3	52,200	6190	.81	.99	1.00
	1040	2200	18.4	62,700	5050	.78	.95	1.00	17.5	59,600	5450	.80	.97	1.00	16.6	56,600	5860	.82	.99	1.00	15.7	53,500	6270	.84	1.00	1.00
67°F (19.4°C)	850	1800	18.8	64,100	5090	.57	.71	.86	17.9	61,100	5510	.58	.73	.87	17.0	58,000	5930	.59	.75	.89	16.1	54,800	6360	.60	.77	.92
	945	2000	19.3	65,700	5130	.59	.74	.89	18.3	62,500	5560	.60	.75	.91	17.4	59,400	6000	.61	.77	.93	16.4	56,000	6440	.62	.80	.95
	1040	2200	19.6	67,000	5170	.60	.76	.92	18.7	63,800	5610	.61	.78	.94	17.7	60,500	6050	.62	.80	.96	16.8	57,300	6510	.63	.82	.99
71°F (21.7°C)	850	1800	19.9	68,000	5200	.43	.56	.71	19.0	64,900	5650	.43	.57	.73	18.1	61,700	6110	.43	.58	.74	17.1	58,500	6590	.44	.60	.76
	945	2000	20.4	69,600	5240	.43	.58	.74	19.5	66,400	5700	.44	.59	.75	18.5	63,200	6190	.44	.60	.76	17.6	59,900	6680	.44	.61	.78
	1040	2200	20.8	71,000	5280	.44	.59	.76	19.8	67,700	5750	.44	.60	.77	18.9	64,400	6250	.44	.62	.79	17.9	61,000	6750	.45	.63	.81

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

HP21-60 — HEATING CAPACITY (Low Speed Compressor) — C33-62D - C26-65EAP - CH33-62D-F - CH23-68

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil									
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
850	1800	13.5	46,100	2085	12.7	43,300	2070	11.8	40,400	2055	11.0	37,600	2040
945	2000	13.2	45,200	2050	12.4	42,300	2035	11.6	39,500	2015	10.7	36,600	2000
1040	2200	13.9	47,300	2040	13.0	44,400	2025	12.2	41,600	2005	11.3	38,700	1990

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

HP21-60 — HEATING CAPACITY (High Speed Compressor) — C33-62D - C26-65EAP - CH33-62D-F - CH23-68

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	21.0	71,800	5270	16.0	54,700	4450	10.8	36,900	3630	7.4	25,400	2885	3.6	12,400	2185
945	2000	21.4	73,000	5210	16.4	55,900	4390	11.2	38,100	3570	7.8	26,600	2825	4.0	13,600	2125
1040	2200	21.6	73,800	5155	16.6	56,700	4335	11.4	39,000	3515	8.0	27,400	2770	4.2	14,400	2070

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

HP21-60 — HEATING PERFORMANCE - C33-62D - C26-65EAP - CH33-62D-F - CH23-68 at 2000 cfm (945 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	5210	73,000	21.4
60	16	5005	69,000	20.2
55	13	4800	64,900	19.0
50	10	4595	60,900	17.8
47	8	4475	58,500	17.1
45	7	4390	55,900	16.4
40	4	4180	49,400	14.5
35	2	3970	42,800	12.5
30	-1	3770	40,500	11.9
25	-4	3570	38,100	11.2
20	-7	3365	35,800	10.5
17	-8	3245	34,400	10.1
15	-9	3175	33,100	9.7
10	-12	3000	29,800	8.7
5	-15	2825	26,600	7.8
0	-18	2650	23,300	6.8
-5	-21	2475	20,100	5.9
-10	-23	2300	16,800	4.9
-15	-26	2125	13,600	4.0
-20	-29	1945	10,300	3.0

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

RATINGS

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

HP21-60 — COOLING CAPACITY (Low Speed Compressor) — CR26-65 (Low Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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	9.8	33,400	1930	.82	1.00	1.00	9.3	31,900	2150	.83	1.00	1.00	8.9	30,400	2380	.85	1.00	1.00	8.4	28,700	2610	.87	1.00	1.00
	755	1600	10.1	34,300	1920	.84	1.00	1.00	9.6	32,800	2150	.85	1.00	1.00	9.1	31,200	2380	.87	1.00	1.00	8.6	29,500	2620	.89	1.00	1.00
	825	1750	10.3	35,200	1920	.86	1.00	1.00	9.8	33,600	2150	.88	1.00	1.00	9.4	32,000	2380	.90	1.00	1.00	8.9	30,200	2630	.92	1.00	1.00
67°F (19.4°C)	685	1450	10.4	35,600	1920	.64	.81	.95	9.9	33,700	2150	.65	.84	.97	9.3	31,700	2380	.66	.87	1.00	8.7	29,600	2620	.67	.91	1.00
	755	1600	10.6	36,100	1920	.65	.84	.99	10.1	34,400	2150	.66	.87	1.00	9.4	32,200	2390	.68	.91	1.00	8.8	30,000	2630	.69	.94	1.00
	825	1750	10.8	36,700	1920	.67	.87	1.00	10.2	34,800	2150	.68	.90	1.00	9.6	32,600	2390	.69	.94	1.00	9.0	30,600	2630	.71	.97	1.00
71°F (21.7°C)	685	1450	11.1	38,000	1910	.47	.63	.79	10.6	36,100	2140	.48	.64	.81	10.0	34,100	2390	.48	.66	.82	9.3	31,900	2650	.49	.69	.85
	755	1600	11.3	38,600	1900	.48	.65	.82	10.8	36,700	2140	.48	.66	.83	10.1	34,600	2400	.49	.69	.85	9.5	32,300	2660	.49	.71	.87
	825	1750	11.5	39,200	1900	.48	.66	.84	10.9	37,200	2140	.49	.68	.86	10.3	35,000	2400	.49	.71	.88	9.6	32,700	2660	.50	.74	.90

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

HP21-60 — COOLING CAPACITY (High Speed Compressor) — CR26-65 (High Indoor Air Volume)

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																					
			75°F (24°C)						85°F (29°C)						95°F (35°C)						105°F (41°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)	825	1750	15.4	52,400	4620	.73	.88	1.00	14.6	49,800	4960	.74	.90	1.00	13.8	47,100	5300	.76	.93	1.00	13.0	44,200	5620	.78	.96	1.00
	945	2000	15.8	54,000	4670	.76	.91	1.00	15.1	51,500	5020	.77	.94	1.00	14.2	48,500	5360	.79	.96	1.00	13.4	45,600	5710	.82	.99	1.00
	1060	2250	16.3	55,500	4710	.79	.95	1.00	15.4	52,600	5070	.81	.97	1.00	14.6	49,800	5420	.83	.99	1.00	13.8	47,200	5790	.85	1.00	1.00
67°F (19.4°C)	825	1750	16.4	56,100	4730	.57	.71	.85	15.6	53,400	5100	.58	.73	.87	14.9	50,700	5470	.59	.75	.89	14.0	47,900	5840	.60	.77	.91
	945	2000	16.9	57,800	4790	.59	.74	.89	16.1	55,100	5170	.60	.76	.91	15.3	52,300	5550	.61	.78	.93	14.4	49,300	5930	.62	.80	.95
	1060	2250	17.4	59,300	4830	.61	.76	.92	16.6	56,500	5220	.62	.78	.95	15.7	53,500	5610	.63	.81	.97	14.8	50,500	6000	.64	.83	1.00
71°F (21.7°C)	825	1750	17.5	59,700	4840	.43	.56	.71	16.7	57,000	5240	.43	.57	.72	15.9	54,300	5650	.43	.58	.73	15.1	51,400	6050	.44	.59	.75
	945	2000	18.0	61,500	4890	.43	.58	.74	17.2	58,700	5300	.44	.59	.75	16.4	55,900	5720	.44	.60	.76	15.5	53,000	6150	.44	.62	.78
	1060	2250	18.5	63,100	4940	.44	.60	.76	17.6	60,200	5360	.44	.61	.78	16.8	57,300	5790	.45	.62	.79	15.9	54,300	6230	.45	.64	.81

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

HP21-60 — HEATING CAPACITY (Low Speed Compressor) — CR26-65

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil											
		65°F (18°C)			60°F (16°C)			55°F (13°C)			50°F (10°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
L/s	cfm	kW	Btuh		kW	Btuh		kW	Btuh		kW	Btuh	
825	1750	11.6	39,600	2345	10.8	36,900	2305	10.0	34,200	2265	9.2	31,500	2225
945	2000	12.6	43,100	2175	11.8	40,400	2135	11.1	37,700	2095	10.3	35,000	2055
1060	2250	13.7	46,600	2005	12.9	43,900	1965	12.1	41,200	1925	11.3	38,500	1885

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

HP21-60 — HEATING CAPACITY (High Speed Compressor) — CR26-65

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	
825	1750	19.6	67,000	5190	14.8	50,400	4355	9.7	33,200	3500	6.7	22,800	2870	3.2	10,900	2185
945	2000	20.1	68,500	5070	15.2	51,900	4235	10.2	34,700	3380	7.1	24,300	2750	3.6	12,400	2065
1060	2250	20.5	70,000	4950	15.7	53,400	4115	10.6	36,200	3260	7.6	25,800	2630	4.1	13,900	1945

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

HP21-60 — HEATING PERFORMANCE
CR26-65 at 2000 cfm (945 L/s)

*Outdoor Temperature		Compressor Motor Watts Input	Total Output	
°F	°C		Btuh	kW
65	18	5070	68,500	20.1
60	16	4870	64,600	18.9
55	13	4670	60,700	17.8
50	10	4470	56,800	16.6
47	8	4350	54,500	16.0
45	7	4235	51,900	15.2
40	4	3945	45,300	13.3
35	2	3660	38,800	11.4
30	-1	3520	36,700	10.8
25	-4	3380	34,700	10.2
20	-7	3245	32,600	9.6
17	-8	3160	31,400	9.2
15	-9	3090	30,200	8.9
10	-12	2920	27,200	8.0
5	-15	2750	24,300	7.1
0	-18	2580	21,300	6.2
-5	-21	2410	18,300	5.4
-10	-23	2235	15,400	4.5
-15	-26	2065	12,400	3.6
-20	-29	1895	9400	2.8

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