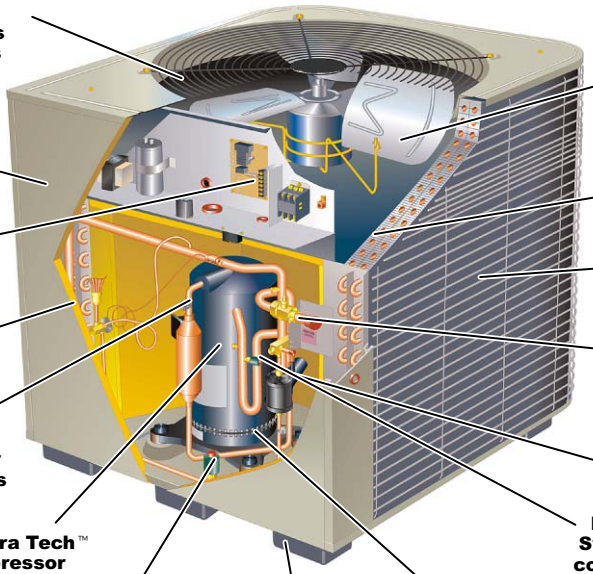
LENNOX

ENGINEERING DATA

SP

S-CLASS SPLIT SYSTEM HEAT PUMP UNITS - 60HZ
3 to 5 Tons
SEER up to 17.0

Bulletin No. 210391
May 2004
Supersedes March 2004



Heavy duty PVC coated steel wire fan guard provides safety and resists corrosion

Heavy Gauge steel cabinet with powder paint finish improves handling and resists corrosion

Microprocessor based defrost control board

HushTone™ cabinet technology reduces sound levels

Discharge temperature switch protects compressor from excessive temperatures

Copeland Scroll Ultra Tech™ Two-Stage Compressor

High Pressure switch protects compressor from excessive pressures

Support feet raise unit off ground for ease of handling

Crankcase heater protects compressor from liquid floodback

Low Pressure Switch protects compressor from loss of charge

Reversing Valve

Brass service valves allow for isolation of refrigerant in outdoor unit

PVC coated coil guard resists corrossion

Enhanced fin, copper tube outdoor coil

Independent motor mount allows service access without removing top panel

ENERGY STAR

ISO 9001 REGISTERED QUALITY SYSTEMS

LENNOX R410A

MODEL NUMBER IDENTIFICATION

S P A 036 H 4 - - 1 Y

Family

Unit Type
S = Split System Air Conditioner
P = Split System Heat Pump

Major Design Sequence
A = 1st Generation
B = 2nd Generation
C = 3rd Generation
E - 4th Generation

Nominal Cooling Capacity
036 = 3 tons (10.6 kW)
048 = 4 tons (14.1 kW)
060 = 5 tons (17.6 kW)

Efficiency
S = Standard Efficiency
H = High Efficiency

Refrigerant
2 = R-22
4 = R-410A

Minor Revision Number
1 = 1st Revision
2 = 2nd Revision
3 = 3rd Revision

Voltage
Y = 208/230V-3ph-60hz

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CERTIFICATIONS

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 and CEC.

Units are UL and ULC listed.

ENERGY STAR® certified units are designed to use less energy, help save money on utility bills, and help protect the environment.

ISO 9001 Registered Manufacturing Quality System.

CABINET

Heavy-gauge galvanized steel cabinet with five station metal wash process.

Powder paint finish provides superior rust and corrosion protection.

Separate compressor and control compartment insulated with thick fiberglass insulation. Compartment provides protection from the weather and keeps sound transmission at a minimum.

Control box is located in the compressor and controls compartment with all controls factory wired.

Large removable panel provides complete service access.

Drainage holes are provided in base section for moisture removal.

High density polyethylene feet raise the unit off of the mounting surface away from damaging moisture.

Non-corrosive PVC (polyvinyl chloride) coated steel wire outdoor coil guard is furnished.

Refrigerant Line Connections, Electrical Inlets and Service Valves

Vapor and liquid lines are located inside unit cabinet and are made with sweat connections. See dimension drawing.

Fully serviceable brass service valves prevent corrosion and provide access to refrigerant system. Vapor valve can be fully shut off, while liquid valve may be front seated to manage refrigerant charge while servicing system.

Vapor and liquid line service valves and gauge ports are located inside the cabinet.

High capacity drier with internal check valve and strainer are furnished and factory installed in the liquid line.

Field wiring inlets conveniently located for ease of entry. See dimension drawing.

REFRIGERATION SYSTEM

Refrigerant

Non-chlorine, ozone friendly, R-410A.

Unit pre-charged with refrigerant. See Specification table.

Hi-Capacity Liquid Line Drier

Factory installed in the liquid line, the drier traps moisture or dirt that could contaminate the refrigerant system.

100% molecular-sieve, bead type bi-flow drier.

Copper Tube/Enhanced Fin Coil

Lennox designed and fabricated coil.

Ripple-edged aluminum fins.

Copper tube construction is corrosion resistant and easy to service.

Precise coil circuiting gives uniform refrigerant distribution for high efficiency.

Wrap around “U” shaped configuration provides extra large surface area with low air resistance.

Fin collars grip tubing for maximum contact area.

Inverted coil circuiting prevents ice buildup at coil base in low ambient operating conditions.

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 shoulder tubing connections/silver soldering construction.

Coil is factory tested under high pressure to insure leakproof construction.

Entire coil is accessible for cleaning.

Expansion Valve - Outdoor Unit

Designed and sized specifically for use in heat pump system.

Sensing bulb is located on the suction line between the coil and the reversing valve thus sensing evaporator out temperature in any cycle.

Factory installed and piped.

Outdoor Coil Fan

Direct drive fan moves large air volumes uniformly through entire outdoor coil for high refrigerant cooling capacity.

Vertical air discharge minimizes operating sounds and provides locating flexibility.

Fan motor is inherently protected.

Motor totally enclosed for maximum protection from weather, dust and corrosion.

Rain shield on motor provides additional protection from moisture.

Corrosion resistant PVC (polyvinyl chloride) coated steel wire fan guard is furnished as standard.

Fan service access accomplished by removal of fan guard.

Reversing Valve

4-way interchange reversing valve effects a rapid change in direction of refrigerant flow resulting in quick changeover from cooling to heating and vice versa.

Valve operates on pressure differential between outdoor unit and indoor unit of the system. Factory installed.

Discharge Temperature Switch

Shuts off unit if operating conditions cause the compressor discharge line temperature to rise above setpoint.

Protects compressor from excessive pressure/temperature.

Automatic reset when temperature drops below setpoint.

High Pressure Switch

Shuts off unit if abnormal operating conditions cause the discharge pressure to rise above setting.

Protects compressor from excessive condensing pressure.

Automatic reset.

Low Pressure Switch

Shuts off unit if suction pressure falls below setting.

Provides loss of charge and freeze-up protection.

Automatic reset.

FEATURES AND BENEFITS

COMPRESSOR

Copeland Scroll Ultra Tech™ Two-Stage Compressor

Compressor features high efficiency with uniform suction flow, constant discharge flow and high volumetric efficiency and quiet operation.

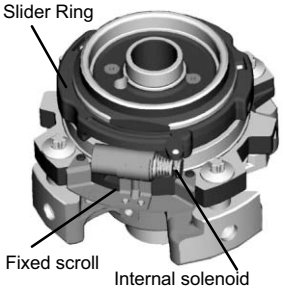
Compressor consists of two involute spiral scrolls matched together to generate a series of crescent shaped gas pockets between them.

During compression, one scroll remains stationary while the other scroll orbits around it.

Gas is drawn into the outer pocket, the pocket is sealed as the scroll rotates.

As the spiral movement continues, gas pockets are pushed to the center of the scrolls. Volume between the pockets is simultaneously reduced.

When pocket reaches the center, gas is now at high pressure and is forced out of a port located in the center of the fixed scrolls. During compression, several pockets are compressed simultaneously resulting in a smooth continuous compression cycle.



Continuous flank contact, maintained by centrifugal force, minimizes gas leakage and maximizes efficiency.

Scroll compressor is tolerant to the effects of slugging and contaminants. If this occurs, scrolls separate, allowing liquid or contaminants to to be worked toward the center and discharged.

On the fixed scroll there are two bypass ports in the first suction pocket. On the outside of the fixed scroll there is a “slider ring” that is controlled by an internal solenoid that will rotate and cover the bypass ports. When the thermostat calls for first-stage cooling, the bypass ports are open and the compressor operates at 67% capacity, creating more cost-effective and efficient compressor operation. The bypassed refrigerant is returned to the compressor housing through the bypass ports. When the thermostat calls for second-stage cooling, the internal solenoid is energized, the slider ring rotates and covers the bypass ports, and the compressor operates at full capacity.

Low gas pulses during compression reduces operational sound levels.

Compressor motor is internally protected from excessive current and temperature.

Compressor is installed in the unit on specially formulated, resilient rubber mounts for better sound dampening and vibration free operation.

Crankcase Heater

Crankcase heater prevents migration of liquid refrigerant into compressor and ensures proper compressor lubrication.

Factory installed.

CONTROLS

Defrost Control

Solid-state control furnished as standard.

Gives a demand defrost cycle whenever system heating performance falls below optimum levels. The sensing element on coil determines when defrost cycle is required and when to terminate cycle.

Anti-short cycle (5 minutes) incorporated into the board.

Diagnostic LED’s furnished as an aid in troubleshooting.

Conveniently located in control box.

SUMMARY

SEER up to 17.0.

Heating COP up to 3.72.

HSPF (Region IV) up to 9.0.

Sound levels as low as 72 dB.

3 through 5 ton (10.6 through 17.6 kW).

Three phase power supply.

Vertical air discharge allows concealment behind shrubs at grade level or out of sight on a roof.

Designed for applications with remotely located indoor blower-coil units or indoor add-on coils. See Coils and Blower Coils sections for indoor unit data.

Units shipped completely factory assembled, piped and wired. Each unit is test operated at the factory insuring proper operation. Installer must set outdoor unit, connect refrigerant lines and make electrical connections to complete job.

WARRANTY

Compressor - limited warranty for five years.

All other covered components - limited warranty for one year.

Refer to Lennox Equipment Limited Warranty certificate included with unit for specific details.

FIELD INSTALLED ACCESSORIES - MUST BE ORDERED EXTRA

REFRIGERATION SYSTEM

Refrigerant Line Kits

Refrigerant lines (vapor & liquid) are shipped refrigeration clean. Lines are cleaned, dried, pressurized and sealed at factory.
Vapor line fully insulated.
L15 lines are stubbed at both ends.
See Specifications table for selection.
Not available for SPA060 model, 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 or Lennox Applications department at 1-800-453-6669.

Check/Expansion Valve Kits

Must be ordered extra and field installed on certain evaporator units.
See ARI Ratings tables.
Chatleff style fitting.

CABINET

Hail Guards

Constructed of flat steel wire mesh painted to match cabinet.
Surrounds unit on all three coil sides to prevent damage to the coil.

Mounting Base

Provides permanent foundation for outdoor units.
High density polyethylene structural material is lightweight, sturdy, sound-absorbing, and will withstand the rigors of the sun, heat, cold, moisture, oil, and refrigerant. Will not mildew or rot.
Can be shipped singly or in packages of 6 to a carton.

CONTROLS

Thermostat

Thermostat not furnished with unit. See Thermostats bulletin in the Controls Section and Lennox Price Book.

Freezestat

Installs on or near the outlet line of the evaporator.
Senses suction line temperature and cycles the compressor off when suction line temperature falls below it's setpoint.
Opens at 29°F (-2°C) and closes at 58°F (14°C).

Indoor Blower Speed Relay Kit

Kit allows the indoor blower to operate at high-speed during second-stage compressor operation and low-speed during first-stage compressor operation.
Relay kit also provides optimum humidity control conditions by automatically reducing indoor blower speed during continuous fan.

Mild Weather Kit

Heat pump units operate satisfactorily in the heating mode at outdoor air temperatures up to 75°F (24°C).
Mild Weather Kit can be field installed, allowing heating operation above 75°F (24°C).

Time Delay Relay Kit

Delays the indoor blower-off time during the cooling cycle.
See ARI Ratings tables for usage.

Low Ambient Kits

Units will operate satisfactorily down to 45°F (7°C) outdoor air temperature without any additional controls.
Kit can be added in the field enabling unit to operate properly down to 30°F (-1°C) or 0°F (-17.7°C).
Freezestat is required when a low ambient kit is used.
A compressor lock-out thermostat should be added to terminate compressor operation below recommended operation conditions (on/off operation, 30°F (-1°C) or modulating operation, 0°F (-18°C).

Monitor Kit - Service Light

Contains ambient compensating thermistor and service light thermostat.
For use with thermostats requiring input for indicator lights.

Outdoor Thermostat Kit

An outdoor thermostat can be used to lock out some of the electric heating elements on indoor units where two stage control is applicable.
Outdoor thermostat maintains the heating load on the low power input as long as possible before allowing the full power load to come on the line.
Thermostat kit and mounting box must be ordered extra.

FIELD INSTALLED ACCESSORIES

Model No.			SPA036H4	SPA048H4	SPA060H4
Compressor Low Ambient Cut-Off			**45F08**	**45F08**	**45F08**
Freezestat		3/8 in. tubing	**93G35**	**93G35**	**93G35**
		1/2 in. tubing	**39H29**	**39H29**	**39H29**
		5/8 in. tubing	**50A93**	**50A93**	**50A93**
Hail Guards			**79M17**	**79M18**	**79M18**
Indoor Blower Speed Relay Kit			**40K58**	**40K58**	**40K58**
[1] **Low Ambient Kits**		to 30°F (-1°C)	**34M72**	**34M72**	**34M72**
	[2] to 0°F (-18°C)	Controller	**43N88**	**43N88**	**43N88**
		Relay	**37H96**	**37H96**	**37H96**
		Condenser Fan Motor - 208/230V	**69H73**	**69H73**	**69H73**
		460V	**69H74**	**69H74**	**69H74**
		Run Capacitor	**53H32**	**53H32**	**53H32**
Mild Weather Kit			**33M07**	**33M07**	**33M07**
Monitor Kit - Service Light			**76F53**	**76F53**	**76F53**
Mounting Base		Catalog No. (Model No.)	**69J07** (MB2-L)	**69J07** (MB2-L)	**69J07** (MB2-L)
		Net Weight	15 lbs. (7 kg)	15 lbs. (7 kg)	15 lbs. (7 kg)
		Dimensions - in. (mm)	32 x 34 x 3 (813 x 864 x 76)	32 x 34 x 3 (813 x 864 x 76)	32 x 34 x 3 (813 x 864 x 76)
Outdoor Thermostat Kit		Thermostat Kit	**56A87**	**56A87**	**56A87**
		Mounting Box - U.S.	**31461**	**31461**	**31461**
		Canada	**33A09**	**33A09**	**33A09**
Refrigerant Line Set		15 ft. (4.6 m) length	L15-65-15	L15-65-15	Field Fabricate
		30 ft. (9 m) length	L15-65-30	L15-65-30	Field Fabricate
		40 ft. (12 m) length	L15-65-40	L15-65-40	Field Fabricate
		50 ft. (15 m) length	L15-65-50	L15-65-50	Field Fabricate
Time Delay Relay Kit			**58M81**	**58M81**	**58M81**

[1] 3/8 in. Freezestat must be ordered separately.
[2] Relay is required for proper operation (order separately). Condenser fan motor and capacitor must be replaced (order separately).

SPECIFICATIONS

General Data	Nominal Tonnage / Model No.	3 SPA036H4	4 SPA048H4	5 SPA060H4
[1] Cooling Performance	Net Cooling Capacity - Btuh (kW)	36,000 (10.6)	48,000 (14.1)	59,000 (17.3)
	Net Heating Capacity - Btuh (kW)	33,000 (9.7)	44,500 (13.0)	54,000 (15.8)
	Total Cooling Watts	3135	4175	5290
	SEER	17.0	16.0	15.0
	EER	12.40	11.90	11.35
	HSPF Region IV (V)	9.0 (7.6)	8.5 (7.2)	8.35 (7.25)
	[2] Sound Rating Number (dB)	72	75	76
Refrigerant	[3] R-410A furnished	11 lbs. 0 oz. (5.00 kg)	12 lbs. 14 oz. (5.84 kg)	14 lbs. 6 oz. (6.52 kg)
Compressor Type (No.)		Copeland Scroll Ultra Tech™ Two-Stage Compressor (1)	Copeland Scroll Ultra Tech™ Two-Stage Compressor (1)	Copeland Scroll Ultra Tech™ Two-Stage Compressor (1)
Connections (sweat)	Liquid line o.d. - in. (mm)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
	Vapor line o.d. - in. (mm)	7/8 (22.2)	7/8 (22.2)	1-1/8 (28.5)
Outdoor Coil	Net face area sq. ft. (m^2) - Outer Coil	16.04 (1.49)	24.06 (2.24)	24.06 (2.24)
	Inner Coil	15.56 (1.45)	23.33 (2.17)	23.33 (2.17)
	Tube diameter - in. (mm)	5/16 (0.52)	5/16 (0.52)	5/16 (0.52)
	Number of rows	2	2	2
	Fins per inch (m)	22	22	22
Outdoor Fan	Diameter in. (mm) and no. of blades	24 (610) - 3	24 (610) - 4	24 (610) - 4
	Motor hp (W)	1/10 (74.8)	1/4 (187)	1/4 (187)
	Cfm (L/s)	3159 (1485)	3900 (1840)	4200 (1980)
	Rpm	825	820	820
	Watts	170	300	350

1 Certified in accordance with USE certification program which is based on ARI Standard 210/240 with 25 ft. (7.6 m) of connecting refrigerant lines.
2 Sound Rating Number rated in accordance with test conditions included in ARI Standard 270.
3 Refrigerant charge sufficient for 15 ft. (4.6 m) length of refrigerant lines.

ARI RATINGS — 3 TON

Outdoor Unit Model No. / Unit Size		[1] ARI Standard 210/240 Ratings																
		Cooling Capacity		High Temp. Heating Capacity		Low Temp. Heating Capacity		Efficiency				Total Cool. Watts	Total High Htg. Watts	Total Low Htg. Watts	High Htg. COP	Low Htg. COP	Indoor Unit Model No.	Check/ Expansion Valve
										HSPF								
		Btuh	kW	Btuh	kW	Btuh	kW	SEER	EER	IV	V							
SPA036 3 Ton	**Blower Coil Units**	34,200	10.0	32,800	9.6	19,900	5.8	14.75	11.15	8.35	7.15	3065	2790	2475	3.44	2.36	[2] CB30M-31 (Multi)	[3] Field Installed
		34,200	10.0	32,800	9.6	19,900	5.8	14.75	11.15	8.35	7.15	3065	2790	2475	3.44	2.36	[2] CB30U-31 (Up-Flow)	[3] Field Installed
		34,200	10.0	32,800	9.6	19,900	5.8	14.75	11.15	8.35	7.15	3065	2790	2475	3.44	2.36	[2] CBX32M-030 (Multi)	Factory Installed
		34,400	10.1	33,000	9.7	20,000	5.9	14.80	11.20	8.40	7.15	3075	2770	2475	3.50	2.36	[2] CB30M-41 (Multi)	[3] Field Installed
		34,400	10.1	33,000	9.7	20,000	5.9	14.80	11.20	8.40	7.15	3075	2770	2475	3.50	2.36	[2] CBX32M-036 (Multi)	Factory Installed
		34,400	10.1	32,800	9.6	20,000	5.9	14.70	11.20	8.40	7.20	3065	2760	2465	3.48	2.38	[2] CB30M-46 (Multi)	[3] Field Installed
		34,400	10.1	32,800	9.6	20,000	5.9	14.80	11.20	8.40	7.20	3075	2770	2460	3.48	2.38	[2] CB30U-41/46 (Up-Flow)	[3] Field Installed
		34,600	10.1	32,400	9.5	19,500	5.7	15.90	11.70	8.65	7.40	2960	2685	2370	3.54	2.40	[4] CBX32MV-024/030 (Multi)	Factory Installed
		34,800	10.2	32,600	9.6	19,600	5.7	16.45	11.75	8.70	7.35	2965	2645	2350	3.62	2.44	[4] CB31MV-41 (Multi)	[3] Field Installed
		34,800	10.2	32,600	9.6	19,600	5.7	16.45	11.75	8.70	7.35	2965	2645	2350	3.62	2.44	[4] CBX32MV-036 (Multi)	Factory Installed
		35,600	10.4	33,000	9.7	19,900	5.8	14.75	11.65	8.50	7.25	3050	2700	2420	3.58	2.40	[2] CB30M-51 (Multi)	[3] Field Installed
		35,600	10.4	33,000	9.7	19,900	5.8	14.75	11.65	8.50	7.25	3050	2700	2420	3.58	2.40	[2] CB30U-51 (Up-Flow)	[3] Field Installed
		35,600	10.4	33,000	9.7	19,900	5.8	14.75	11.65	8.50	7.25	3050	2700	2420	3.58	2.40	[2] CBX32M-048 (Multi)	[3] Field Installed
		36,000	10.6	32,400	9.5	19,300	5.7	17.00	12.40	9.00	7.60	2905	2550	2260	3.72	2.50	[4] CB31MV-51 (Multi)	[3] Field Installed
		36,000	10.6	32,400	9.5	19,300	5.7	17.00	12.40	9.00	7.60	2905	2550	2260	3.72	2.50	[4,5] CBX32MV-048 (Multi)	[3] Field Installed
	Up-Flow Coils	34,600	10.1	32,200	9.4	19,700	5.8	14.25	11.05	7.90	6.85	3130	2945	2610	3.20	2.22	[2] C33-44C	Field Installed
		34,600	10.1	32,000	9.4	19,600	5.7	14.25	11.05	7.75	6.70	3130	2995	2645	3.14	2.16	[2] C33-48B/C	Field Installed
		34,600	10.1	32,000	9.4	19,600	5.7	14.25	11.05	7.75	6.70	3130	2995	2645	3.14	2.16	[2] CX34-44/48B/C-6F	[3] Field Installed
	Up-Flow/ Coils with Furnace	34,800	10.2	31,800	9.3	19,400	5.7	16.00	11.50	8.10	7.00	3030	2845	2510	3.28	2.26	[4] C33-44C with G61MPV-36C-090	Field Installed
		35,000	10.3	31,600	9.3	19,300	5.7	15.95	11.55	7.90	6.85	3030	2895	2555	3.20	2.22	[4] C33-48B with [6] G61MPV-36B	Field Installed
		35,000	10.3	31,600	9.3	19,300	5.7	15.95	11.55	7.90	6.85	3030	2895	2555	3.20	2.22	[4] CX34-44/48B-6F with [6] G61MPV-36B	[3] Field Installed
		35,000	10.3	31,600	9.3	19,200	5.6	15.65	11.80	8.20	7.05	2960	2790	2450	3.32	2.30	[4] C33-44C with G60UHV-36B-090	Field Installed
		35,000	10.3	31,400	9.2	19,100	5.6	15.60	11.80	8.00	6.90	2960	2840	2495	3.24	2.24	[4] C33-48B with G60UHV-36B-090	Field Installed
		35,000	10.3	31,400	9.2	19,100	5.6	15.60	11.80	8.00	6.90	2960	2840	2495	3.24	2.24	[4] CX34-44/48B-6F with G60UHV-36B-090	[3] Field Installed
	Down-Flow Coils	34,600	10.1	32,400	9.5	19,800	5.8	14.20	11.05	8.05	6.95	3130	2905	2580	3.26	2.24	[2] CR26-48N/W-F	Field Installed
	Down-Flow Coils with Furnace	35,200	10.3	32,000	9.4	19,300	5.7	15.80	11.90	8.40	7.20	2960	2735	2410	3.42	2.34	[4] CR26-48N-F with [6] G60DFV-60C	Field Installed
	Horizontal Coils	34,400	10.1	32,400	9.5	19,800	5.8	14.15	11.00	8.05	6.95	3130	2900	2590	3.28	2.24	[2] CH23-51	Field Installed
		34,800	10.2	32,800	9.6	19,900	5.8	14.30	11.10	8.15	6.95	3130	2850	2550	3.38	2.28	[2] CH23-65	Field Installed
		35,000	10.3	32,600	9.6	19,900	5.8	14.40	11.15	8.00	6.90	3135	2890	2570	3.30	2.26	[2] CH33-44/48B-2F	Field Installed
		35,000	10.3	32,400	9.5	19,800	5.8	14.45	11.15	7.95	6.90	3135	2935	2600	3.24	2.22	[2] CH33-48C-2F	Field Installed
	Horizontal Coils with Furnace	35,200	10.3	32,200	9.4	19,500	5.7	16.10	11.60	8.30	7.10	3030	2790	2465	3.38	2.32	[4] CH33-44/48B-2F with G61MPV-36B-070	Field Installed
		35,200	10.3	32,000	9.4	19,400	5.7	16.10	11.60	8.15	7.00	3035	2835	2500	3.30	2.28	[4] CH33-48C-2F with G61MPV-36C-090	Field Installed
		35,400	10.4	32,000	9.4	19,300	5.7	15.80	11.95	8.40	7.20	2965	2735	2410	3.42	2.34	[4] CH33-44/48B-2F with G60UHV-36B-090	Field Installed

NOTE - Use FM21 Control with any listed coil and furnace that meets system design requirements. See FM21 page in Controls section for additional data.
NOTE - Ratings for all C33 coils include all cased and uncased coils.

1 Certified in accordance with 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 (-8.3°C) db/15°F (-9.4°C) wb outdoor air temperature and 70°F (21°C) db entering indoor coil air.

2 Blower must be capable of time-off blower delay, high-speed cooling/heating operation during second-stage compressor operation, and low-speed cooling/heating operation during first-stage compressor operation. Time Delay Relay Kit and Indoor Blower Speed Relay Kit are recommended for field installation.

3 **Factory installed expansion valve on indoor unit MUST be replaced.**

4 Blower control must be set for a time-off blower delay.

5 Most popular blower coil combination.

6 Includes all heat sizes for this model.

ARI RATINGS — 4 TON

Outdoor Unit Model No. Unit Size		[1] ARI Standard 210/240 Ratings																Check/ Expansion Valve
		Cooling Capacity		High Temp. Heating Capacity		Low Temp. Heating Capacity		Efficiency				Total Cool. Watts	Total High Htg. Watts	Total Low Htg. Watts	High Htg. COP	Low Htg. COP	Indoor Unit Model No.	
										HSPF								
		Btuh	kW	Btuh	kW	Btuh	kW	SEER	EER	IV	V							
SPA048 4 Ton	**Blower Coil Units**	44,000	12.9	44,000	12.9	25,800	7.6	14.40	11.00	8.25	7.05	4015	3705	3285	3.48	2.30	[2] CB30M-41 (Multi)	[3] Field Installed
		44,000	12.9	44,000	12.9	25,800	7.6	14.40	11.00	8.25	7.05	4015	3705	3285	3.48	2.30	[2] CBX32M-036 (Multi)	[3] Field Installed
		44,000	12.9	44,000	12.9	25,800	7.6	14.40	11.00	8.25	7.05	4015	3705	3285	3.48	2.30	[2] CB30M-46 (Multi)	[3] Field Installed
		44,000	12.9	44,000	12.9	25,800	7.6	14.40	11.00	8.25	7.05	4015	3705	3285	3.48	2.30	[2] CBX32M-042 (Multi)	Factory Installed
		44,000	12.9	44,000	12.9	25,800	7.6	14.10	11.00	8.25	7.00	4015	3710	3290	3.48	2.30	[2] CB30U-41/46 (Up-Flow)	[2] Field Installed
		44,000	12.9	44,000	12.9	26,000	7.6	15.25	10.85	8.30	7.05	4060	3725	3320	3.46	2.30	[4] CB31MV-41 (Multi)	[3] Field Installed
		44,000	12.9	44,000	12.9	26,000	7.6	15.25	10.85	8.30	7.05	4060	3725	3320	3.46	2.30	[4] CBX32MV-036 (Multi)	[3] Field Installed
		46,000	13.5	44,500	13.0	26,200	7.7	14.35	11.25	8.40	7.10	4085	3610	3280	3.62	2.34	[2] CB30U-51 (Up-Flow)	[3] Field Installed
		46,500	13.6	44,500	13.0	26,000	7.6	14.60	11.40	8.40	7.10	4075	3630	3265	3.60	2.34	[2] CB30M-51 (Multi)	[3] Field Installed
		46,500	13.6	44,500	13.0	26,000	7.6	14.60	11.40	8.40	7.10	4075	3630	3265	3.60	2.34	[2] CBX32M-048 (Multi)	Factory Installed
		47,000	13.8	44,500	13.0	26,000	7.6	14.55	11.55	8.30	7.05	4075	3660	3290	3.56	2.32	[2] CB30M-65 (Multi)	[3.] Field Installed
		47,000	13.8	44,500	13.0	26,000	7.6	14.55	11.55	8.30	7.05	4075	3660	3290	3.56	2.32	[2] CBX32M-060 (Multi)	Factory Installed
		47,000	13.8	44,000	12.9	25,800	7.6	16.00	11.60	8.40	7.10	4055	3615	3235	3.56	2.34	[4] CB31MV-65 (Multi)	[3] Field Installed
		47,000	13.8	44,000	12.9	25,800	7.6	16.00	11.60	8.40	7.10	4055	3615	3235	3.56	2.34	[4] CBX32MV-060 (Multi)	Factory Installed
		47,000	13.8	44,500	13.0	26,000	7.6	15.00	11.50	8.35	7.05	4085	3655	3285	3.56	2.32	[2] CB30U-65 (Up-Flow)	[3] Field Installed
		47,000	13.8	44,500	13.0	26,000	7.6	16.00	11.60	8.50	7.20	4050	3600	3225	3.62	2.36	[4] CB31MV-51 (Multi)	[3] Field Installed
		47,000	13.8	44,500	13.0	26,000	7.6	16.00	11.60	8.50	7.20	4050	3600	3225	3.62	2.36	[4,5] CBX32MV-048 (Multi)	Factory Installed
	Up-Flow/ Coils	47,500	13.9	44,000	12.9	26,000	7.6	14.35	11.40	7.90	6.75	4175	3855	3460	3.34	2.20	[2] C33-62D	Field Installed
		47,500	13.9	44,000	12.9	26,000	7.6	14.35	11.40	7.90	6.75	4175	3855	3460	3.34	2.20	[2] CX34-62D-6F	Factory Installed
	Up-Flow/ Coils with Furnaces	47,500	13.9	44,000	12.9	25,600	7.5	15.75	11.65	8.05	6.85	4075	3755	3360	3.44	2.24	[4] C33-62D with G61MPV-60D-135	Field Installed
		47,500	13.9	44,000	12.9	25,600	7.5	15.75	11.65	8.05	6.85	4075	3755	3360	3.44	2.24	[4] CX34-62D-6F with G61MPV-60D-135	Factory Installed
		48,000	14.1	43,500	12.7	25,400	7.4	15.85	12.00	8.15	6.95	3995	3650	3265	3.50	2.28	[4] C33-62D with G60UHV-60D-135	Field Installed
		48,000	14.1	43,500	12.7	25,400	7.4	15.85	12.00	8.15	6.95	3995	3650	3265	3.50	2.28	[4] CX34-62D-6F with G60UHV-60D-135	Factory Installed
	Down-Flow Coils	45,500	13.3	44,000	12.9	26,000	7.6	13.85	11.00	7.80	6.70	4145	3910	3480	3.30	2.18	[2] CR26-48N/W-F	Field Installed
	Down-Flow Coils with Furnaces	46,000	13.5	43,500	12.7	25,600	7.5	15.55	11.50	8.10	6.90	4000	3735	3325	3.42	2.26	[4] CR26-48N-F with [6] G60DFV-60C	Field Installed
	Horizontal Coils	47,000	13.8	44,000	12.9	26,000	7.6	14.20	11.30	7.80	6.65	4165	3880	3500	3.32	2.18	[2] CH33-62D-2F	Field Installed
		47,500	13.9	45,000	13.2	26,400	7.7	14.35	11.40	8.35	7.05	4170	3685	3335	3.58	2.32	[2] CH23-68	Field Installed
	Horizontal Coils with Furnaces	47,000	13.8	44,000	12.9	25,600	7.5	15.55	11.55	7.95	6.75	4070	3780	3405	3.42	2.20	[4] CH33-62D-2F with G61MPV-60D-135	Field Installed
		47,500	13.9	43,500	12.7	25,400	7.4	15.70	11.90	8.10	6.85	3990	3680	3315	3.46	2.24	[4] CH33-62D-2F with G60UHV-60D-135	Field Installed

NOTE - Use FM21 Control with any listed coil and furnace that meets system design requirements. See FM21 page in Controls section for additional data.
NOTE - Ratings for all C33 coils include all cased and uncased coils.

1 Certified in accordance with 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 (-8.3°C) db/15°F (-9.4°C) wb outdoor air temperature and 70°F (21°C) db entering indoor coil air.

2 Blower must be capable of time-off blower delay, high-speed cooling/heating operation during second-stage compressor operation, and low-speed cooling/heating operation during first-stage compressor operation. Time Delay Relay Kit and Indoor Blower Speed Relay Kit are recommended for field installation.

3 **Factory installed expansion valve on indoor unit MUST be replaced.**

4 Blower control must be set for a time-off blower delay.

5 Most popular blower coil combination.

6 Includes all heat sizes for this model.

ARI RATINGS — 5 TON

Outdoor Unit Model No. / Unit Size		[1] ARI Standard 210/240 Ratings																
		Cooling Capacity		High Temp. Heating Capacity		Low Temp. Heating Capacity		Efficiency		HSPF		Total Cool. Watts	Total High Htg. Watts	Total Low Htg. Watts	High Htg. COP	Low Htg. COP	Indoor Unit Model No.	Check/ Expansion Valve
		Btuh	kW	Btuh	kW	Btuh	kW	SEER	EER	IV	V							
SPA060 5 Ton	**Blower Coil Units**	56,500	16.6	53,000	15.5	33,400	9.8	14.10	10.80	7.85	6.90	5220	4800	4385	3.24	2.24	[2] CB30M-51 (Multi)	[3] Field Installed
		56,500	16.6	53,000	15.5	33,400	9.8	14.10	10.80	7.85	6.90	5220	4800	4385	3.24	2.24	[2] CBX32M-048 (Multi)	Factory Installed
		55,500	16.3	52,000	15.2	32,800	9.6	13.90	11.00	7.85	6.95	5045	4750	4285	3.20	2.24	[2] CB30U-51 (Up-Flow)	[3] Field Installed
		57,000	16.7	53,500	15.7	32,000	9.4	15.00	10.90	8.35	7.25	5230	4725	3890	3.32	2.40	[4] CB31MV-51 (Multi)	[3] Field Installed
		57,000	16.7	53,500	15.7	32,000	9.4	15.00	10.90	8.35	7.25	5230	4725	3890	3.32	2.40	[4] CBX32MV-048 (Multi)	Factory Installed
		57,500	16.9	53,000	15.5	33,400	9.8	14.10	11.00	7.80	6.85	5240	4820	4405	3.22	2.22	[2] CB30U-65 (Up-Flow)	[3] Field Installed
		57,500	16.9	53,500	15.7	33,600	9.8	14.00	10.90	7.80	6.85	5270	4810	4430	3.26	2.22	[2] CB30M-65 (Multi)	[3] Field Installed
		57,500	16.9	53,500	15.7	33,600	9.8	14.00	10.90	7.80	6.85	5270	4810	4430	3.26	2.22	[2] CBX32M-060 (Multi)	Factory Installed
		57,500	16.9	54,000	15.8	32,400	9.5	15.00	11.00	8.20	7.15	5235	4855	4010	3.26	2.36	[4] CB31MV-65 (Multi)	[3] Field Installed
		57,500	16.9	54,000	15.8	32,400	9.5	15.00	11.00	8.20	7.15	5235	4855	4010	3.26	2.36	[4,5] CBX32MV-060 (Multi)	Factory Installed
	Up-Flow/ Coils	59,000	17.3	53,000	15.5	33,200	9.7	13.85	11.15	7.50	6.65	5290	4930	4540	3.16	2.14	[2] C33-62D	Field Installed
		59,000	17.3	53,000	15.5	33,200	9.7	13.85	11.15	7.50	6.65	5290	4930	4540	3.16	2.14	[2] CX34-62D-6F	Factory Installed
	Up-Flow/ Coils with Furnaces	58,500	17.1	52,000	15.2	32,800	9.6	14.80	11.35	7.55	6.70	5150	4850	4440	3.14	2.16	[4] C33-62D with G60UHV-60D-135	Field Installed
		58,500	17.1	52,000	15.2	32,800	9.6	14.80	11.35	7.55	6.70	5150	4850	4440	3.14	2.16	[4] CX34-62D-6F with G60UHV-60D-135	Factory Installed
		59,000	17.3	52,500	15.4	33,200	9.7	15.05	11.25	7.60	6.70	5255	4900	4510	3.14	2.16	[4] C33-62D with G61MPV-60D-135	Field Installed
		59,000	17.3	52,500	15.4	33,200	9.7	15.05	11.25	7.60	6.70	5255	4900	4510	3.14	2.16	[4] CX34-62D-6F with G61MPV-60D-135	Factory Installed
	Down-Flow Coils	56,000	16.4	52,000	15.2	33,000	9.7	13.70	10.90	7.65	6.75	5130	4875	4410	3.12	2.20	[2] CR26-60N/W-F	Field Installed
	Down-Flow Coils with Furnaces	57,000	16.7	52,500	15.4	33,200	9.7	14.75	11.00	7.80	6.85	5175	4800	4385	3.20	2.22	[4] CR26-60W-F with G60DFV-60D-135	Field Installed
	Horizontal Coils	58,000	17.0	52,500	15.4	33,200	9.7	13.70	11.00	7.40	6.60	5275	4980	4570	3.08	2.12	[2] CH33-62D-2F	Field Installed
		58,000	17.0	53,000	15.5	33,200	9.7	13.85	11.15	7.90	6.95	5200	4725	4325	3.28	2.24	[2] CH23-68	Field Installed
	Horizontal Coils with Furnaces	57,500	16.9	52,000	15.2	32,600	9.6	14.65	11.20	7.50	6.60	5135	4890	4490	3.12	2.12	[4] CH33-62D-2F with G60UHV-60D-135	Field Installed
		58,000	17.0	52,500	15.4	33,000	9.7	14.90	11.05	7.50	6.65	5245	4955	4545	3.10	2.12	[4] CH33-62D-2F with G61MPV-60D-135	Field Installed

NOTE - Use FM21 Control with any listed coil and furnace that meets system design requirements. See FM21 page in Controls section for additional data.
NOTE - Ratings for all C33 coils include all cased and uncased coils.

1 Certified in accordance with 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 (-8.3°C) db/15°F (-9.4°C) wb outdoor air temperature and 70°F (21°C) db entering indoor coil air.

2 Blower must be capable of time-off blower delay, high-speed cooling/heating operation during second-stage compressor operation, and low-speed cooling/heating operation during first-stage compressor operation. Time Delay Relay Kit and Indoor Blower Speed Relay Kit are recommended for field installation.

3 **Factory installed expansion valve on indoor unit MUST be replaced.**

4 Blower control must be set for a time-off blower delay.

5 Most popular blower coil combination.

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

SPA036 - CB30M-31 - CB30U-31 - CBX32M-030 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.2	7.7	1.21	.77	.92	1.00	24.8	7.3	1.41	.79	.95	1.00	23.2	6.8	1.63	.81	.98	1.00	21.8	6.4	1.90	.84	1.00	1.00
	900	425	27.0	7.9	1.21	.80	.96	1.00	25.4	7.4	1.41	.82	.98	1.00	24.0	7.0	1.64	.84	1.00	1.00	22.6	6.6	1.90	.88	1.00	1.00
	1000	470	27.6	8.1	1.22	.82	.98	1.00	26.2	7.7	1.42	.85	1.00	1.00	24.8	7.3	1.64	.88	1.00	1.00	23.2	6.8	1.91	.91	1.00	1.00
67°F (19°C)	800	380	28.0	8.2	1.22	.60	.74	.88	26.6	7.8	1.42	.61	.76	.91	25.0	7.3	1.64	.62	.78	.94	23.2	6.8	1.91	.64	.81	.97
	900	425	28.8	8.4	1.23	.62	.77	.92	27.2	8.0	1.42	.63	.79	.95	25.6	7.5	1.65	.64	.82	.98	23.8	7.0	1.91	.66	.85	1.00
	1000	470	29.4	8.6	1.23	.63	.80	.95	27.8	8.1	1.43	.65	.82	.98	26.2	7.7	1.65	.66	.85	1.00	24.2	7.1	1.91	.69	.88	1.00
71°F (22°C)	800	380	29.8	8.7	1.23	.45	.58	.71	28.2	8.3	1.43	.45	.60	.73	26.6	7.8	1.65	.46	.61	.75	24.8	7.3	1.92	.47	.63	.78
	900	425	30.6	9.0	1.24	.46	.60	.74	29.0	8.5	1.43	.46	.61	.76	27.4	8.0	1.66	.47	.63	.79	25.4	7.4	1.92	.48	.65	.82
	1000	470	31.2	9.1	1.24	.47	.62	.77	29.6	8.7	1.44	.47	.63	.79	27.8	8.1	1.66	.48	.65	.82	26.0	7.6	1.93	.49	.67	.85

SPA036 - CB30M-31 - CB30U-31 - CBX32M-030 - SECOND STAGE COOLING CAPACITY

Entering Wet Bulb Tempera-ture	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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	34.2	10.0	2.22	.75	.89	1.00	32.2	9.4	2.49	.77	.92	1.00	30.0	8.8	2.79	.79	.95	1.00	27.8	8.1	3.13	.82	.99	1.00
	1200	565	35.4	10.4	2.23	.79	.95	1.00	33.4	9.8	2.50	.82	.98	1.00	31.2	9.1	2.80	.84	1.00	1.00	29.2	8.6	3.14	.88	1.00	1.00
67°F (19°C)	1000	470	36.2	10.6	2.24	.59	.73	.86	34.2	10.0	2.51	.60	.74	.88	32.0	9.4	2.81	.62	.77	.92	29.6	8.7	3.15	.63	.80	.96
	1200	565	37.6	11.0	2.25	.62	.77	.92	35.4	10.4	2.53	.63	.79	.95	33.2	9.7	2.82	.65	.82	.98	30.6	9.0	3.17	.67	.85	1.00
71°F (22°C)	1000	470	38.5	11.3	2.26	.45	.58	.70	36.2	10.6	2.53	.45	.59	.72	34.0	10.0	2.84	.46	.60	.74	31.4	9.2	3.18	.46	.62	.77
	1200	565	40.0	11.7	2.28	.46	.60	.74	37.6	11.0	2.55	.46	.62	.77	35.2	10.3	2.85	.47	.63	.79	32.6	9.6	3.19	.48	.65	.83

SPA036 - CB30M-31 - CB30U-31 - CBX32M-030 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.5	8.6	1.70	27.4	8.0	1.65	25.3	7.4	1.59	23.1	6.8	1.54
900	425	30.0	8.8	1.63	27.9	8.2	1.58	25.8	7.6	1.53	23.7	6.9	1.47

SPA036 - CB30M-31 - CB30U-31 - CBX32M-030 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	40.0	11.7	2.54	29.9	8.8	2.31	19.2	5.6	2.08	12.9	3.8	1.85	5.8	1.7	1.38
1200	565	42.0	12.3	2.43	31.9	9.3	2.21	21.2	6.2	1.97	14.9	4.4	1.74	7.8	2.3	1.27

SPA036 - CB30M-31 - CB30U-31 - CBX32M-030 - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.43	42.0	12.3
60	16	2.38	39.7	11.6
55	13	2.33	37.4	11.0
50	10	2.28	35.1	10.3
47	8	2.24	33.7	9.9
45	7	2.21	31.9	9.3
40	4	2.12	27.3	8.0
35	2	2.03	22.8	6.7
30	-1	2.00	22.0	6.4
25	-4	1.97	21.2	6.2
20	-7	1.95	20.4	6.0
17	-8	1.93	19.9	5.8
15	-9	1.91	19.0	5.6
10	-12	1.86	16.7	4.9
5	-15	1.74	14.9	4.4
0	-18	1.62	13.1	3.8
-5	-21	1.51	11.3	3.3
-10	-23	1.39	9.5	2.8
-15	-26	1.27	7.8	2.3
-20	-29	1.16	6.0	1.8

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

SPA036 - CB30M-41 - CBX32M-036 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.4	7.7	1.21	.77	.92	1.00	24.8	7.3	1.41	.79	.95	1.00	23.4	6.9	1.63	.81	.98	1.00	21.8	6.4	1.90	.84	1.00	1.00
	900	425	27.2	8.0	1.21	.80	.96	1.00	25.6	7.5	1.41	.82	.98	1.00	24.0	7.0	1.64	.85	1.00	1.00	22.8	6.7	1.91	.88	1.00	1.00
	1000	470	27.8	8.1	1.22	.83	.99	1.00	26.4	7.7	1.42	.85	1.00	1.00	25.0	7.3	1.64	.88	1.00	1.00	23.4	6.9	1.91	.92	1.00	1.00
67°F (19°C)	800	380	28.2	8.3	1.22	.60	.74	.88	26.6	7.8	1.42	.61	.76	.91	25.0	7.3	1.64	.63	.78	.94	23.4	6.9	1.91	.64	.81	.98
	900	425	29.0	8.5	1.23	.62	.77	.92	27.4	8.0	1.42	.63	.79	.95	25.8	7.6	1.65	.65	.82	.98	24.0	7.0	1.91	.67	.85	1.00
	1000	470	29.6	8.7	1.23	.64	.80	.96	28.0	8.2	1.43	.65	.82	.98	26.2	7.7	1.65	.67	.85	1.00	24.4	7.2	1.92	.69	.89	1.00
71°F (22°C)	800	380	30.0	8.8	1.23	.45	.58	.71	28.4	8.3	1.43	.45	.60	.73	26.8	7.9	1.66	.46	.61	.76	25.0	7.3	1.92	.47	.63	.78
	900	425	30.8	9.0	1.24	.46	.60	.74	29.2	8.6	1.44	.46	.62	.76	27.4	8.0	1.66	.47	.63	.79	25.6	7.5	1.92	.48	.65	.82
	1000	470	31.4	9.2	1.24	.46	.62	.77	29.8	8.7	1.44	.47	.63	.79	28.0	8.2	1.66	.48	.65	.82	26.0	7.6	1.93	.49	.67	.86

SPA036 - CB30M-41 - CBX32M-036 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	34.2	10.0	2.22	.75	.90	1.00	32.2	9.4	2.49	.77	.92	1.00	30.2	8.9	2.79	.80	.96	1.00	28.0	8.2	3.13	.83	.99	1.00
	1200	565	35.6	10.4	2.23	.80	.96	1.00	33.6	9.8	2.50	.82	.98	1.00	31.4	9.2	2.80	.85	1.00	1.00	29.2	8.6	3.15	.88	1.00	1.00
	1400	660	36.8	10.8	2.25	.84	1.00	1.00	34.8	10.2	2.52	.86	1.00	1.00	32.8	9.6	2.82	.90	1.00	1.00	30.6	9.0	3.16	.94	1.00	1.00
67°F (19°C)	1000	470	36.4	10.7	2.24	.59	.73	.86	34.4	10.1	2.51	.60	.75	.89	32.2	9.4	2.81	.62	.77	.92	29.8	8.7	3.16	.64	.80	.96
	1200	565	38.0	11.1	2.26	.62	.77	.92	35.6	10.4	2.53	.63	.79	.95	33.4	9.8	2.83	.65	.82	.98	30.8	9.0	3.17	.67	.86	1.00
	1400	660	39.0	11.4	2.27	.64	.81	.97	36.6	10.7	2.54	.66	.84	.99	34.2	10.0	2.84	.68	.87	1.00	31.6	9.3	3.18	.70	.91	1.00
71°F (22°C)	1000	470	38.5	11.3	2.27	.45	.58	.70	36.4	10.7	2.54	.45	.59	.72	34.0	10.0	2.84	.46	.60	.74	31.6	9.3	3.18	.46	.62	.77
	1200	565	40.0	11.7	2.28	.46	.60	.74	37.8	11.1	2.55	.46	.62	.77	35.4	10.4	2.85	.47	.63	.80	32.8	9.6	3.20	.48	.66	.83
	1400	660	41.0	12.0	2.29	.47	.63	.79	39.0	11.4	2.56	.47	.65	.81	36.2	10.6	2.87	.48	.67	.85	33.6	9.8	3.21	.49	.69	.89

SPA036 - CB30M-41 - CBX32M-036 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.7	8.7	1.68	27.6	8.1	1.63	25.4	7.4	1.57	23.3	6.8	1.52
900	425	30.2	8.9	1.61	28.0	8.2	1.56	25.9	7.6	1.50	23.8	7.0	1.45
1000	470	30.6	9.0	1.55	28.5	8.4	1.50	26.4	7.7	1.45	24.2	7.1	1.40

SPA036 - CB30M-41 - CBX32M-036 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	39.7	11.6	2.51	30.3	8.9	2.29	20.4	6.0	2.06	14.3	4.2	1.83	6.9	2.0	1.37
1200	565	40.6	11.9	2.40	31.2	9.1	2.18	21.3	6.2	1.95	15.2	4.5	1.72	7.8	2.3	1.26
1400	660	41.2	12.1	2.33	31.8	9.3	2.11	21.9	6.4	1.88	15.8	4.6	1.65	8.4	2.5	1.19

SPA036 - CB30M-41 - CBX32M-036 - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.40	40.6	11.9
60	16	2.35	38.5	11.3
55	13	2.30	36.3	10.6
50	10	2.25	34.2	10.0
47	8	2.22	32.9	9.6
45	7	2.18	31.2	9.1
40	4	2.09	27.1	7.9
35	2	2.00	22.9	6.7
30	-1	1.98	22.1	6.5
25	-4	1.95	21.3	6.2
20	-7	1.93	20.5	6.0
17	-8	1.91	20.0	5.9
15	-9	1.89	19.1	5.6
10	-12	1.84	17.0	5.0
5	-15	1.72	15.2	4.5
0	-18	1.61	13.3	3.9
-5	-21	1.49	11.5	3.4
-10	-23	1.38	9.7	2.8
-15	-26	1.26	7.8	2.3
-20	-29	1.15	6.0	1.8

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

SPA036 - CB30M-46 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.4	7.7	1.21	.77	.92	1.00	24.8	7.3	1.41	.79	.95	1.00	23.4	6.9	1.63	.81	.98	1.00	21.8	6.4	1.90	.84	1.00	1.00
	900	425	27.2	8.0	1.21	.80	.96	1.00	25.6	7.5	1.41	.82	.98	1.00	24.0	7.0	1.64	.85	1.00	1.00	22.8	6.7	1.91	.88	1.00	1.00
	1000	470	27.8	8.1	1.22	.83	.99	1.00	26.4	7.7	1.42	.85	1.00	1.00	25.0	7.3	1.64	.88	1.00	1.00	23.4	6.9	1.91	.92	1.00	1.00
67°F (19°C)	800	380	28.2	8.3	1.22	.60	.74	.88	26.6	7.8	1.42	.61	.76	.91	25.0	7.3	1.64	.63	.78	.94	23.4	6.9	1.91	.64	.81	.98
	900	425	29.0	8.5	1.23	.62	.77	.92	27.4	8.0	1.42	.63	.79	.95	25.8	7.6	1.65	.65	.82	.98	24.0	7.0	1.91	.67	.85	1.00
	1000	470	29.6	8.7	1.23	.64	.80	.96	28.0	8.2	1.43	.65	.82	.98	26.2	7.7	1.65	.67	.85	1.00	24.4	7.2	1.92	.69	.89	1.00
71°F (22°C)	800	380	30.0	8.8	1.23	.45	.58	.71	28.4	8.3	1.43	.45	.60	.73	26.8	7.9	1.66	.46	.61	.76	25.0	7.3	1.92	.47	.63	.78
	900	425	30.8	9.0	1.24	.46	.60	.74	29.2	8.6	1.44	.46	.62	.76	27.4	8.0	1.66	.47	.63	.79	25.6	7.5	1.92	.48	.65	.82
	1000	470	31.4	9.2	1.24	.46	.62	.77	29.8	8.7	1.44	.47	.63	.79	28.0	8.2	1.66	.48	.65	.82	26.0	7.6	1.93	.49	.67	.86

SPA036 - CB30M-46 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	34.2	10.0	2.22	.75	.90	1.00	32.2	9.4	2.49	.77	.92	1.00	30.2	8.9	2.79	.80	.96	1.00	28.0	8.2	3.13	.83	.99	1.00
	1200	565	35.6	10.4	2.23	.80	.96	1.00	33.6	9.8	2.50	.82	.98	1.00	31.4	9.2	2.80	.85	1.00	1.00	29.2	8.6	3.15	.88	1.00	1.00
	1400	660	36.8	10.8	2.25	.84	1.00	1.00	34.8	10.2	2.52	.86	1.00	1.00	32.8	9.6	2.82	.90	1.00	1.00	30.6	9.0	3.16	.94	1.00	1.00
67°F (19°C)	1000	470	36.4	10.7	2.24	.59	.73	.86	34.4	10.1	2.51	.60	.75	.89	32.2	9.4	2.81	.62	.77	.92	29.8	8.7	3.16	.64	.80	.96
	1200	565	38.0	11.1	2.26	.62	.77	.92	35.6	10.4	2.53	.63	.79	.95	33.4	9.8	2.83	.65	.82	.98	30.8	9.0	3.17	.67	.86	1.00
	1400	660	39.0	11.4	2.27	.64	.81	.97	36.6	10.7	2.54	.66	.84	.99	34.2	10.0	2.84	.68	.87	1.00	31.6	9.3	3.18	.70	.91	1.00
71°F (22°C)	1000	470	38.5	11.3	2.27	.45	.58	.70	36.4	10.7	2.54	.45	.59	.72	34.0	10.0	2.84	.46	.60	.74	31.6	9.3	3.18	.46	.62	.77
	1200	565	40.0	11.7	2.28	.46	.60	.74	37.8	11.1	2.55	.46	.62	.77	35.4	10.4	2.85	.47	.63	.80	32.8	9.6	3.20	.48	.66	.83
	1400	660	41.0	12.0	2.29	.47	.63	.79	39.0	11.4	2.56	.47	.65	.81	36.2	10.6	2.87	.48	.67	.85	33.6	9.8	3.21	.49	.69	.89

SPA036 - CB30M-46 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.7	8.7	1.68	27.6	8.1	1.63	25.4	7.4	1.57	23.3	6.8	1.52
900	425	30.3	8.9	1.61	28.1	8.2	1.56	26.0	7.6	1.50	23.8	7.0	1.45
1000	470	30.6	9.0	1.55	28.5	8.4	1.50	26.3	7.7	1.45	24.2	7.1	1.40

SPA036 - CB30M-46 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	39.8	11.7	2.51	30.4	8.9	2.29	20.4	6.0	2.06	14.3	4.2	1.83	7.0	2.1	1.37
1200	565	40.6	11.9	2.40	31.2	9.1	2.18	21.2	6.2	1.95	15.1	4.4	1.72	7.8	2.3	1.26
1400	660	41.2	12.1	2.33	31.8	9.3	2.11	21.8	6.4	1.88	15.7	4.6	1.65	8.4	2.5	1.19

SPA036 - CB30M-46 - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.40	40.6	11.9
60	16	2.35	38.5	11.3
55	13	2.30	36.3	10.6
50	10	2.25	34.2	10.0
47	8	2.22	32.9	9.6
45	7	2.18	31.2	9.1
40	4	2.09	27.0	7.9
35	2	2.00	22.8	6.7
30	-1	1.98	22.0	6.4
25	-4	1.95	21.2	6.2
20	-7	1.93	20.5	6.0
17	-8	1.91	20.0	5.9
15	-9	1.89	19.1	5.6
10	-12	1.84	17.0	5.0
5	-15	1.72	15.1	4.4
0	-18	1.61	13.3	3.9
-5	-21	1.49	11.5	3.4
-10	-23	1.38	9.7	2.8
-15	-26	1.26	7.8	2.3
-20	-29	1.15	6.0	1.8

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

SPA036 - CB30U-41/46 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.4	7.7	1.21	.77	.92	1.00	25.0	7.3	1.41	.79	.95	1.00	23.4	6.9	1.63	.81	.98	1.00	21.8	6.4	1.90	.84	1.00	1.00
	900	425	27.0	7.9	1.21	.80	.96	1.00	25.6	7.5	1.41	.82	.98	1.00	24.2	7.1	1.64	.85	1.00	1.00	22.8	6.7	1.91	.88	1.00	1.00
	1000	470	27.8	8.1	1.22	.83	.99	1.00	26.4	7.7	1.42	.85	1.00	1.00	25.0	7.3	1.64	.88	1.00	1.00	23.4	6.9	1.91	.92	1.00	1.00
67°F (19°C)	800	380	28.2	8.3	1.22	.60	.74	.88	26.8	7.9	1.42	.61	.76	.91	25.2	7.4	1.64	.63	.78	.94	23.4	6.9	1.91	.64	.81	.98
	900	425	29.0	8.5	1.23	.62	.77	.92	27.4	8.0	1.42	.63	.79	.95	25.8	7.6	1.65	.65	.82	.98	24.0	7.0	1.91	.66	.85	1.00
	1000	470	29.6	8.7	1.23	.64	.80	.96	28.0	8.2	1.43	.65	.82	.98	26.2	7.7	1.65	.67	.85	1.00	24.4	7.2	1.92	.69	.89	1.00
71°F (22°C)	800	380	29.8	8.7	1.23	.45	.59	.71	28.4	8.3	1.43	.45	.60	.73	26.8	7.9	1.66	.46	.61	.76	25.0	7.3	1.92	.47	.63	.78
	900	425	30.8	9.0	1.24	.46	.61	.75	29.2	8.6	1.44	.46	.61	.76	27.4	8.0	1.66	.47	.63	.79	25.6	7.5	1.92	.48	.65	.82
	1000	470	31.4	9.2	1.24	.47	.62	.77	29.8	8.7	1.44	.47	.63	.79	28.0	8.2	1.67	.48	.65	.82	26.2	7.7	1.93	.49	.67	.86

SPA036 - CB30U-41/46 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	34.4	10.1	2.22	.75	.90	1.00	32.4	9.5	2.49	.77	.92	1.00	30.2	8.9	2.79	.80	.96	1.00	28.0	8.2	3.13	.83	.99	1.00
	1200	565	35.6	10.4	2.24	.79	.96	1.00	33.6	9.8	2.50	.82	.98	1.00	31.4	9.2	2.80	.85	1.00	1.00	29.4	8.6	3.15	.88	1.00	1.00
	1400	660	36.8	10.8	2.25	.84	.99	1.00	34.8	10.2	2.52	.86	1.00	1.00	32.8	9.6	2.82	.90	1.00	1.00	30.6	9.0	3.16	.94	1.00	1.00
67°F (19°C)	1000	470	36.6	10.7	2.24	.59	.73	.86	34.4	10.1	2.51	.60	.75	.89	32.2	9.4	2.82	.62	.77	.92	29.8	8.7	3.16	.63	.80	.96
	1200	565	38.0	11.1	2.26	.62	.77	.92	35.8	10.5	2.53	.63	.79	.95	33.4	9.8	2.83	.65	.82	.98	30.8	9.0	3.17	.67	.86	1.00
	1400	660	39.0	11.4	2.27	.64	.81	.97	36.6	10.7	2.54	.66	.84	.99	34.2	10.0	2.84	.68	.87	1.00	31.6	9.3	3.18	.70	.91	1.00
71°F (22°C)	1000	470	38.5	11.3	2.27	.45	.58	.70	36.4	10.7	2.54	.45	.59	.72	34.2	10.0	2.84	.46	.60	.74	31.6	9.3	3.18	.46	.62	.77
	1200	565	40.0	11.7	2.28	.46	.60	.74	37.8	11.1	2.55	.46	.62	.77	35.4	10.4	2.85	.47	.64	.80	32.8	9.6	3.20	.48	.66	.83
	1400	660	41.0	12.0	2.29	.47	.63	.79	39.0	11.4	2.56	.47	.65	.82	36.4	10.7	2.87	.48	.67	.85	33.6	9.8	3.21	.49	.69	.89

SPA036 - CB30U-41/46 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.7	8.7	1.68	27.5	8.1	1.63	25.4	7.4	1.58	23.3	6.8	1.52
900	425	30.2	8.9	1.61	28.0	8.2	1.56	25.9	7.6	1.51	23.8	7.0	1.45
1000	470	30.6	9.0	1.55	28.5	8.4	1.50	26.3	7.7	1.45	24.2	7.1	1.40

SPA036 - CB30U-41/46 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	39.8	11.7	2.51	30.4	8.9	2.29	20.4	6.0	2.06	14.3	4.2	1.83	7.0	2.1	1.37
1200	565	40.6	11.9	2.41	31.2	9.1	2.19	21.2	6.2	1.95	15.1	4.4	1.73	7.8	2.3	1.26
1400	660	41.2	12.1	2.33	31.8	9.3	2.11	21.8	6.4	1.88	15.7	4.6	1.65	8.4	2.5	1.19

SPA036 - CB30U-41/46 - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.41	40.6	11.9
60	16	2.36	38.5	11.3
55	13	2.30	36.3	10.6
50	10	2.25	34.2	10.0
47	8	2.22	32.9	9.6
45	7	2.19	31.2	9.1
40	4	2.10	27.0	7.9
35	2	2.01	22.8	6.7
30	-1	1.98	22.0	6.4
25	-4	1.95	21.2	6.2
20	-7	1.93	20.4	6.0
17	-8	1.91	20.0	5.9
15	-9	1.89	19.1	5.6
10	-12	1.84	16.9	5.0
5	-15	1.73	15.1	4.4
0	-18	1.61	13.3	3.9
-5	-21	1.50	11.5	3.4
-10	-23	1.38	9.6	2.8
-15	-26	1.26	7.8	2.3
-20	-29	1.15	6.0	1.8

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

SPA036 - CBX32MV-024/030 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.2	7.7	1.21	.77	.92	1.00	24.8	7.3	1.41	.79	.95	1.00	23.2	6.8	1.63	.81	.98	1.00	21.8	6.4	1.90	.84	1.00	1.00
	900	425	27.0	7.9	1.21	.80	.96	1.00	25.4	7.4	1.41	.82	.98	1.00	24.0	7.0	1.64	.84	1.00	1.00	22.6	6.6	1.90	.88	1.00	1.00
	1000	470	27.6	8.1	1.22	.82	.98	1.00	26.2	7.7	1.42	.85	1.00	1.00	24.8	7.3	1.64	.88	1.00	1.00	23.2	6.8	1.91	.91	1.00	1.00
67°F (19°C)	800	380	28.0	8.2	1.22	.60	.74	.88	26.6	7.8	1.42	.61	.76	.91	25.0	7.3	1.64	.62	.78	.94	23.2	6.8	1.91	.64	.81	.97
	900	425	28.8	8.4	1.23	.62	.77	.92	27.2	8.0	1.42	.63	.79	.95	25.6	7.5	1.65	.64	.82	.98	23.8	7.0	1.91	.66	.85	1.00
	1000	470	29.4	8.6	1.23	.63	.80	.95	27.8	8.1	1.43	.65	.82	.98	26.2	7.7	1.65	.66	.85	1.00	24.2	7.1	1.91	.69	.88	1.00
71°F (22°C)	800	380	29.8	8.7	1.23	.45	.58	.71	28.2	8.3	1.43	.45	.60	.73	26.6	7.8	1.65	.46	.61	.75	24.8	7.3	1.92	.47	.63	.78
	900	425	30.6	9.0	1.24	.46	.60	.74	29.0	8.5	1.43	.46	.61	.76	27.4	8.0	1.66	.47	.63	.79	25.4	7.4	1.92	.48	.65	.82
	1000	470	31.2	9.1	1.24	.47	.62	.77	29.6	8.7	1.44	.47	.63	.79	27.8	8.1	1.66	.48	.65	.82	26.0	7.6	1.93	.49	.67	.85

SPA036 - CBX32MV-024/030 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	34.8	10.2	2.23	.77	.92	1.00	32.8	9.6	2.49	.79	.95	1.00	30.6	9.0	2.79	.82	.98	1.00	28.4	8.3	3.14	.85	1.00	1.00
	1200	565	35.4	10.4	2.23	.79	.95	1.00	33.4	9.8	2.50	.82	.98	1.00	31.2	9.1	2.80	.84	1.00	1.00	29.2	8.6	3.14	.88	1.00	1.00
	1320	625	36.2	10.6	2.24	.82	.98	1.00	34.0	10.0	2.51	.84	1.00	1.00	32.0	9.4	2.81	.87	1.00	1.00	29.8	8.7	3.16	.91	1.00	1.00
67°F (19°C)	1100	520	37.0	10.8	2.25	.60	.75	.89	34.8	10.2	2.52	.62	.77	.92	32.6	9.6	2.82	.63	.79	.95	30.2	8.9	3.16	.65	.83	.98
	1200	565	37.6	11.0	2.25	.62	.77	.92	35.4	10.4	2.53	.63	.79	.95	33.2	9.7	2.82	.65	.82	.98	30.6	9.0	3.17	.67	.85	1.00
	1320	625	38.5	11.3	2.26	.63	.79	.95	36.0	10.6	2.53	.65	.82	.98	33.8	9.9	2.83	.66	.85	1.00	31.0	9.1	3.17	.69	.89	1.00
71°F (22°C)	1100	520	39.0	11.4	2.27	.45	.59	.72	36.8	10.8	2.54	.46	.60	.74	34.6	10.1	2.84	.46	.62	.77	32.0	9.4	3.19	.47	.64	.80
	1200	565	40.0	11.7	2.28	.46	.60	.74	37.6	11.0	2.55	.46	.62	.77	35.2	10.3	2.85	.47	.63	.79	32.6	9.6	3.19	.48	.65	.83
	1320	625	40.5	11.9	2.29	.46	.62	.77	38.0	11.1	2.56	.47	.63	.79	35.6	10.4	2.86	.48	.65	.82	33.0	9.7	3.20	.49	.68	.86

SPA036 - CBX32MV-024/030 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.1	8.5	1.70	27.0	7.9	1.65	24.9	7.3	1.59	22.8	6.7	1.54
900	425	29.6	8.7	1.63	27.4	8.0	1.58	25.3	7.4	1.53	23.2	6.8	1.47
1000	470	30.0	8.8	1.57	27.9	8.2	1.52	25.8	7.6	1.47	23.6	6.9	1.42

SPA036 - CBX32MV-024/030 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1100	520	39.6	11.6	2.48	30.2	8.9	2.25	20.3	5.9	2.02	14.3	4.2	1.79	7.1	2.1	1.32
1200	565	40.1	11.8	2.43	30.7	9.0	2.21	20.8	6.1	1.97	14.8	4.3	1.74	7.6	2.2	1.27
1320	625	40.6	11.9	2.39	31.2	9.1	2.16	21.3	6.2	1.93	15.3	4.5	1.70	8.1	2.4	1.23

SPA036 - CBX32MV-024/030 - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.43	40.1	11.8
60	16	2.38	37.9	11.1
55	13	2.33	35.8	10.5
50	10	2.28	33.7	9.9
47	8	2.24	32.4	9.5
45	7	2.21	30.7	9.0
40	4	2.12	26.6	7.8
35	2	2.03	22.5	6.6
30	-1	2.00	21.6	6.3
25	-4	1.97	20.8	6.1
20	-7	1.95	20.0	5.9
17	-8	1.93	19.5	5.7
15	-9	1.91	18.7	5.5
10	-12	1.86	16.6	4.9
5	-15	1.74	14.8	4.3
0	-18	1.62	13.0	3.8
-5	-21	1.51	11.2	3.3
-10	-23	1.39	9.4	2.8
-15	-26	1.27	7.6	2.2
-20	-29	1.16	5.9	1.7

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

SPA036 - CB31MV-41 - CBX32MV-036 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	795	375	26.4	7.7	1.21	.77	.92	1.00	24.8	7.3	1.41	.79	.95	1.00	23.4	6.9	1.63	.81	.98	1.00	21.8	6.4	1.90	.84	1.00	1.00
	855	405	26.8	7.9	1.21	.79	.94	1.00	25.4	7.4	1.41	.81	.97	1.00	23.8	7.0	1.64	.83	1.00	1.00	22.4	6.6	1.90	.86	1.00	1.00
	900	425	27.2	8.0	1.21	.80	.96	1.00	25.6	7.5	1.41	.82	.98	1.00	24.0	7.0	1.64	.85	1.00	1.00	22.8	6.7	1.91	.88	1.00	1.00
67°F (19°C)	795	375	28.2	8.3	1.22	.60	.74	.88	26.6	7.8	1.42	.61	.76	.91	25.0	7.3	1.64	.62	.78	.94	23.4	6.9	1.91	.64	.81	.97
	855	405	28.6	8.4	1.22	.61	.76	.90	27.2	8.0	1.42	.62	.78	.93	25.4	7.4	1.65	.64	.80	.96	23.6	6.9	1.91	.66	.84	.99
	900	425	29.0	8.5	1.23	.62	.77	.92	27.4	8.0	1.42	.63	.79	.95	25.8	7.6	1.65	.65	.82	.98	24.0	7.0	1.91	.67	.85	1.00
71°F (22°C)	795	375	30.0	8.8	1.23	.45	.58	.71	28.4	8.3	1.43	.45	.60	.73	26.6	7.8	1.66	.46	.61	.75	25.0	7.3	1.92	.47	.63	.78
	855	405	30.4	8.9	1.24	.46	.60	.73	29.0	8.5	1.43	.46	.61	.75	27.2	8.0	1.66	.46	.62	.77	25.4	7.4	1.92	.47	.64	.80
	900	425	30.8	9.0	1.24	.46	.60	.74	29.2	8.6	1.44	.46	.62	.76	27.4	8.0	1.66	.47	.63	.79	25.6	7.5	1.92	.48	.65	.82

SPA036 - CB31MV-41 - CBX32MV-036 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1135	535	35.2	10.3	2.23	.78	.94	1.00	33.2	9.7	2.50	.80	.97	1.00	31.0	9.1	2.80	.83	.99	1.00	28.8	8.4	3.14	.87	1.00	1.00
	1225	580	35.8	10.5	2.24	.80	.96	1.00	33.6	9.8	2.50	.82	.99	1.00	31.6	9.3	2.81	.85	1.00	1.00	29.4	8.6	3.15	.89	1.00	1.00
	1275	600	36.0	10.6	2.24	.81	.97	1.00	34.0	10.0	2.51	.83	1.00	1.00	31.8	9.3	2.81	.87	1.00	1.00	29.8	8.7	3.15	.90	1.00	1.00
67°F (19°C)	1135	535	37.4	11.0	2.25	.61	.76	.90	35.2	10.3	2.52	.62	.78	.93	33.0	9.7	2.82	.64	.81	.97	30.4	8.9	3.17	.66	.84	1.00
	1225	580	38.0	11.1	2.26	.62	.77	.93	35.8	10.5	2.53	.63	.80	.96	33.4	9.8	2.83	.65	.83	.98	31.0	9.1	3.17	.67	.86	1.00
	1275	600	38.5	11.3	2.26	.63	.79	.94	36.0	10.6	2.53	.64	.81	.97	33.8	9.9	2.83	.66	.84	1.00	31.0	9.1	3.17	.68	.88	1.00
71°F (22°C)	1135	535	39.5	11.6	2.28	.45	.59	.73	37.4	11.0	2.55	.46	.61	.75	35.0	10.3	2.85	.47	.62	.78	32.4	9.5	3.19	.47	.65	.81
	1225	580	40.0	11.7	2.28	.46	.61	.75	38.0	11.1	2.55	.46	.62	.77	35.4	10.4	2.86	.47	.64	.80	32.8	9.6	3.20	.48	.66	.84
	1275	600	40.5	11.9	2.29	.46	.61	.76	38.0	11.1	2.56	.47	.63	.79	35.6	10.4	2.86	.47	.65	.82	33.0	9.7	3.20	.48	.67	.85

SPA036 - CB31MV-41 - CBX32MV-036 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
795	375	29.2	8.6	1.68	27.1	7.9	1.63	24.9	7.3	1.57	22.8	6.7	1.52
855	405	29.6	8.7	1.63	27.4	8.0	1.57	25.3	7.4	1.52	23.2	6.8	1.46
900	425	29.7	8.7	1.61	27.6	8.1	1.56	25.5	7.5	1.50	23.4	6.9	1.45

SPA036 - CB31MV-41 - CBX32MV-036 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1135	535	39.9	11.7	2.43	30.5	8.9	2.21	20.6	6.0	1.99	14.4	4.2	1.76	7.3	2.1	1.30
1225	580	40.3	11.8	2.39	30.9	9.1	2.17	21.0	6.2	1.95	14.8	4.3	1.72	7.7	2.3	1.26
1275	600	40.5	11.9	2.37	31.1	9.1	2.15	21.2	6.2	1.93	15.0	4.4	1.70	7.9	2.3	1.24

SPA036 - CB31MV-41 - CBX32MV-036 - HEATING PERFORMANCE at 1225 cfm (580 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.39	40.3	11.8
60	16	2.34	38.2	11.2
55	13	2.29	36.0	10.6
50	10	2.24	33.9	9.9
47	8	2.21	32.6	9.6
45	7	2.17	30.9	9.1
40	4	2.08	26.8	7.9
35	2	2.00	22.6	6.6
30	-1	1.97	21.8	6.4
25	-4	1.95	21.0	6.2
20	-7	1.92	20.1	5.9
17	-8	1.90	19.6	5.7
15	-9	1.88	18.8	5.5
10	-12	1.83	16.6	4.9
5	-15	1.72	14.8	4.3
0	-18	1.60	13.1	3.8
-5	-21	1.49	11.3	3.3
-10	-23	1.37	9.5	2.8
-15	-26	1.26	7.7	2.3
-20	-29	1.14	5.9	1.7

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

SPA036 - CB30M-51 - CB30U-51 - CBX32M-048 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.8	7.9	1.21	.77	.92	1.00	25.4	7.4	1.41	.79	.95	1.00	23.8	7.0	1.64	.82	.98	1.00	22.4	6.6	1.90	.85	1.00	1.00
	900	425	27.6	8.1	1.22	.80	.96	1.00	26.2	7.7	1.41	.82	.99	1.00	24.6	7.2	1.64	.85	1.00	1.00	23.2	6.8	1.91	.89	1.00	1.00
	1000	470	28.4	8.3	1.22	.83	.99	1.00	27.0	7.9	1.42	.86	1.00	1.00	25.6	7.5	1.65	.88	1.00	1.00	24.0	7.0	1.91	.92	1.00	1.00
67°F (19°C)	800	380	28.8	8.4	1.23	.60	.74	.88	27.2	8.0	1.42	.61	.76	.91	25.6	7.5	1.65	.63	.79	.94	23.8	7.0	1.91	.64	.81	.98
	900	425	29.6	8.7	1.23	.62	.77	.92	28.0	8.2	1.43	.63	.80	.95	26.2	7.7	1.65	.65	.82	.98	24.4	7.2	1.92	.67	.85	1.00
	1000	470	30.2	8.9	1.24	.64	.80	.96	28.6	8.4	1.43	.65	.83	.99	26.8	7.9	1.66	.67	.86	1.00	25.0	7.3	1.92	.69	.89	1.00
71°F (22°C)	800	380	30.6	9.0	1.24	.45	.59	.72	29.0	8.5	1.43	.46	.60	.74	27.2	8.0	1.66	.46	.61	.76	25.4	7.4	1.92	.47	.63	.79
	900	425	31.4	9.2	1.24	.46	.61	.75	29.8	8.7	1.44	.46	.62	.77	28.0	8.2	1.67	.47	.63	.79	26.2	7.7	1.93	.48	.65	.82
	1000	470	32.2	9.4	1.25	.47	.62	.78	30.4	8.9	1.45	.47	.64	.80	28.6	8.4	1.67	.48	.66	.83	26.6	7.8	1.93	.49	.68	.86

SPA036 - CB30M-51 - CB30U-51 - CBX32M-048 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	35.4	10.4	2.23	.75	.90	1.00	33.4	9.8	2.50	.77	.92	1.00	31.0	9.1	2.80	.80	.96	1.00	28.8	8.4	3.14	.83	.99	1.00
	1200	565	36.8	10.8	2.25	.80	.96	1.00	34.6	10.1	2.51	.82	.98	1.00	32.4	9.5	2.82	.85	1.00	1.00	30.4	8.9	3.16	.88	1.00	1.00
	1400	660	38.0	11.1	2.26	.84	1.00	1.00	36.0	10.6	2.53	.87	1.00	1.00	34.0	10.0	2.83	.90	1.00	1.00	31.6	9.3	3.18	.94	1.00	1.00
67°F (19°C)	1000	470	37.6	11.0	2.25	.59	.73	.86	35.4	10.4	2.52	.60	.75	.89	33.2	9.7	2.83	.62	.77	.92	30.8	9.0	3.17	.63	.80	.96
	1200	565	39.0	11.4	2.27	.62	.77	.92	36.8	10.8	2.54	.63	.80	.95	34.4	10.1	2.84	.65	.82	.98	31.8	9.3	3.18	.67	.86	1.00
	1400	660	40.0	11.7	2.28	.65	.82	.97	37.8	11.1	2.55	.66	.84	1.00	35.2	10.3	2.85	.68	.88	1.00	32.6	9.6	3.20	.70	.92	1.00
71°F (22°C)	1000	470	39.5	11.6	2.28	.45	.58	.70	37.6	11.0	2.55	.45	.59	.72	35.2	10.3	2.85	.46	.60	.75	32.6	9.6	3.19	.46	.62	.77
	1200	565	41.5	12.2	2.29	.46	.61	.75	39.0	11.4	2.57	.46	.62	.77	36.4	10.7	2.87	.47	.64	.80	33.8	9.9	3.21	.48	.66	.83
	1400	660	42.5	12.5	2.31	.47	.63	.79	40.0	11.7	2.58	.48	.65	.82	37.4	11.0	2.88	.48	.67	.85	34.6	10.1	3.23	.49	.70	.89

SPA036 - CB30M-51 - CB30U-51 - CBX32M-048 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.9	8.8	1.66	27.8	8.1	1.61	25.7	7.5	1.56	23.6	6.9	1.51
900	425	30.4	8.9	1.59	28.3	8.3	1.54	26.1	7.6	1.49	24.0	7.0	1.44
1000	470	30.7	9.0	1.53	28.6	8.4	1.48	26.5	7.8	1.43	24.3	7.1	1.38

SPA036 - CB30M-51 - CB30U-51 - CBX32M-048 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	40.0	11.7	2.47	30.5	8.9	2.26	20.5	6.0	2.05	14.4	4.2	1.83	7.1	2.1	1.37
1200	565	40.7	11.9	2.36	31.2	9.1	2.15	21.2	6.2	1.94	15.1	4.4	1.72	7.8	2.3	1.26
1400	660	41.3	12.1	2.29	31.8	9.3	2.08	21.8	6.4	1.87	15.7	4.6	1.65	8.4	2.5	1.19

SPA036 - CB30M-51 - CB30U-51 - CBX32M-048 - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.36	40.7	11.9
60	16	2.31	38.6	11.3
55	13	2.26	36.4	10.7
50	10	2.22	34.2	10.0
47	8	2.19	32.9	9.6
45	7	2.15	31.2	9.1
40	4	2.07	27.0	7.9
35	2	1.98	22.8	6.7
30	-1	1.96	22.0	6.4
25	-4	1.94	21.2	6.2
20	-7	1.91	20.4	6.0
17	-8	1.90	19.9	5.8
15	-9	1.88	19.1	5.6
10	-12	1.83	16.9	5.0
5	-15	1.72	15.1	4.4
0	-18	1.60	13.3	3.9
-5	-21	1.49	11.4	3.3
-10	-23	1.37	9.6	2.8
-15	-26	1.26	7.8	2.3
-20	-29	1.14	6.0	1.8

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

SPA036 - CB31MV-51 - CBX32MV-048 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F	845	400	27.2	8.0	1.22	.79	.94	1.00	25.6	7.5	1.41	.81	.97	1.00	24.2	7.1	1.64	.83	1.00	1.00	22.8	6.7	1.90	.86	1.00	1.00
(17°C)	965	455	28.0	8.2	1.22	.82	.99	1.00	26.6	7.8	1.42	.85	1.00	1.00	25.2	7.4	1.65	.87	1.00	1.00	23.8	7.0	1.91	.91	1.00	1.00
67°F	845	400	29.0	8.5	1.23	.61	.76	.90	27.4	8.0	1.43	.62	.78	.93	25.8	7.6	1.65	.64	.80	.96	24.0	7.0	1.92	.65	.83	1.00
(19°C)	965	455	30.0	8.8	1.23	.63	.79	.95	28.4	8.3	1.43	.65	.82	.98	26.6	7.8	1.65	.66	.85	1.00	24.6	7.2	1.92	.68	.88	1.00
71°F	845	400	31.0	9.1	1.24	.45	.60	.73	29.2	8.6	1.44	.46	.61	.75	27.6	8.1	1.66	.46	.62	.77	25.6	7.5	1.93	.47	.64	.80
(22°C)	965	455	31.8	9.3	1.25	.46	.62	.76	30.2	8.9	1.44	.47	.63	.79	28.4	8.3	1.67	.47	.65	.82	26.4	7.7	1.93	.48	.67	.85

SPA036 - CB31MV-51 - CBX32MV-048 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F	1205	570	36.8	10.8	2.25	.80	.96	1.00	34.6	10.1	2.51	.82	.98	1.00	32.4	9.5	2.82	.85	1.00	1.00	30.4	8.9	3.16	.89	1.00	1.00
(17°C)	1380	650	37.8	11.1	2.26	.84	1.00	1.00	35.8	10.5	2.53	.86	1.00	1.00	33.6	9.8	2.83	.90	1.00	1.00	31.4	9.2	3.18	.94	1.00	1.00
67°F	1205	570	39.0	11.4	2.27	.62	.77	.92	36.6	10.7	2.54	.63	.80	.95	34.2	10.0	2.84	.65	.83	.99	31.6	9.3	3.18	.67	.86	1.00
(19°C)	1380	650	40.0	11.7	2.28	.64	.81	.97	37.6	11.0	2.55	.66	.84	1.00	35.0	10.3	2.85	.68	.87	1.00	32.4	9.5	3.19	.70	.91	1.00
71°F	1205	570	41.0	12.0	2.30	.46	.61	.75	39.0	11.4	2.57	.47	.62	.77	36.4	10.7	2.87	.47	.64	.80	33.6	9.8	3.21	.48	.66	.84
(22°C)	1380	650	42.5	12.5	2.31	.47	.63	.79	40.0	11.7	2.58	.48	.65	.81	37.2	10.9	2.88	.48	.67	.85	34.4	10.1	3.23	.49	.69	.89

SPA036 - CB31MV-51 - CBX32MV-048 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
845	400	29.4	8.6	1.62	27.3	8.0	1.57	25.2	7.4	1.52	23.0	6.7	1.47
965	455	29.8	8.7	1.54	27.7	8.1	1.49	25.6	7.5	1.44	23.5	6.9	1.39

SPA036 - CB31MV-51 - CBX32MV-048 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1205	570	40.3	11.8	2.39	30.9	9.1	2.17	21.0	6.2	1.95	14.8	4.3	1.72	7.7	2.3	1.26
1380	650	40.5	11.9	2.37	31.1	9.1	2.15	21.2	6.2	1.93	15.0	4.4	1.70	7.9	2.3	1.24

SPA036 - CB31MV-51 - CBX32MV-048 - HEATING PERFORMANCE at 1205 cfm (570 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.36	40.2	11.8
60	16	2.31	38.0	11.1
55	13	2.26	35.9	10.5
50	10	2.22	33.7	9.9
47	8	2.19	32.4	9.5
45	7	2.15	30.7	9.0
40	4	2.07	26.5	7.8
35	2	1.98	22.4	6.6
30	-1	1.96	21.5	6.3
25	-4	1.93	20.7	6.1
20	-7	1.91	19.8	5.8
17	-8	1.90	19.3	5.7
15	-9	1.88	18.5	5.4
10	-12	1.83	16.3	4.8
5	-15	1.72	14.5	4.2
0	-18	1.60	12.8	3.8
-5	-21	1.49	11.0	3.2
-10	-23	1.37	9.3	2.7
-15	-26	1.25	7.5	2.2
-20	-29	1.14	5.8	1.7

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

SPA036 - C33-44C - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.4	7.7	1.21	.78	.92	1.00	25.0	7.3	1.41	.79	.95	1.00	23.6	6.9	1.64	.82	.98	1.00	22.0	6.4	1.90	.85	1.00	1.00
	900	425	27.2	8.0	1.21	.80	.96	1.00	25.8	7.6	1.41	.82	.98	1.00	24.2	7.1	1.64	.85	1.00	1.00	22.8	6.7	1.91	.88	1.00	1.00
	1000	470	28.0	8.2	1.22	.83	.99	1.00	26.4	7.7	1.42	.85	1.00	1.00	25.0	7.3	1.65	.88	1.00	1.00	23.6	6.9	1.91	.92	1.00	1.00
67°F (19°C)	800	380	28.4	8.3	1.22	.61	.75	.88	26.8	7.9	1.42	.62	.77	.91	25.2	7.4	1.65	.64	.79	.94	23.6	6.9	1.91	.66	.82	.97
	900	425	29.2	8.6	1.23	.63	.78	.92	27.6	8.1	1.43	.64	.80	.94	26.0	7.6	1.65	.66	.82	.98	24.2	7.1	1.92	.68	.85	1.00
	1000	470	29.8	8.7	1.23	.65	.80	.95	28.2	8.3	1.43	.66	.83	.98	26.6	7.8	1.65	.68	.85	1.00	24.6	7.2	1.92	.70	.89	1.00
71°F (22°C)	800	380	30.2	8.9	1.24	.47	.60	.72	28.8	8.4	1.43	.47	.61	.74	27.0	7.9	1.66	.48	.62	.76	25.2	7.4	1.92	.49	.64	.79
	900	425	31.0	9.1	1.24	.48	.62	.75	29.4	8.6	1.44	.48	.63	.77	27.8	8.1	1.66	.49	.64	.79	26.0	7.6	1.93	.50	.66	.82
	1000	470	31.8	9.3	1.25	.49	.64	.78	30.2	8.9	1.44	.49	.65	.80	28.4	8.3	1.67	.50	.66	.82	26.4	7.7	1.93	.51	.68	.86

SPA036 - C33-44C - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	34.6	10.1	2.23	.76	.89	1.00	32.6	9.6	2.49	.77	.92	1.00	30.6	9.0	2.79	.80	.95	1.00	28.4	8.3	3.13	.83	.99	1.00
	1200	565	36.0	10.6	2.24	.80	.95	1.00	34.0	10.0	2.51	.82	.98	1.00	31.8	9.3	2.81	.85	1.00	1.00	29.6	8.7	3.16	.88	1.00	1.00
	1400	660	37.0	10.8	2.25	.83	.99	1.00	35.0	10.3	2.52	.86	1.00	1.00	33.2	9.7	2.83	.89	1.00	1.00	31.0	9.1	3.17	.93	1.00	1.00
67°F (19°C)	1000	470	36.8	10.8	2.25	.60	.73	.86	34.8	10.2	2.52	.61	.75	.88	32.6	9.6	2.82	.63	.77	.91	30.2	8.9	3.16	.64	.80	.95
	1200	565	38.5	11.3	2.26	.63	.77	.91	36.2	10.6	2.53	.64	.79	.94	33.8	9.9	2.83	.66	.82	.98	31.2	9.1	3.18	.68	.85	1.00
	1400	660	39.5	11.6	2.28	.65	.81	.96	37.2	10.9	2.55	.67	.84	.99	34.8	10.2	2.85	.69	.87	1.00	32.0	9.4	3.19	.71	.91	1.00
71°F (22°C)	1000	470	39.0	11.4	2.27	.46	.58	.70	37.0	10.8	2.54	.47	.60	.72	34.6	10.1	2.85	.47	.61	.74	32.2	9.4	3.19	.48	.63	.77
	1200	565	40.5	11.9	2.29	.48	.61	.75	38.5	11.3	2.56	.48	.62	.77	36.0	10.6	2.86	.49	.64	.79	33.2	9.7	3.21	.50	.66	.83
	1400	660	42.0	12.3	2.30	.49	.64	.79	39.5	11.6	2.57	.49	.65	.81	36.8	10.8	2.88	.50	.67	.84	34.2	10.0	3.22	.51	.70	.88

SPA036 - C33-44C - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.0	8.5	1.81	27.0	7.9	1.76	24.9	7.3	1.70	22.9	6.7	1.64
900	425	29.6	8.7	1.73	27.5	8.1	1.68	25.5	7.5	1.62	23.5	6.9	1.57
1000	470	30.0	8.8	1.67	28.0	8.2	1.62	25.9	7.6	1.56	23.9	7.0	1.50

SPA036 - C33-44C - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	38.9	11.4	2.66	29.7	8.7	2.43	20.0	5.9	2.18	14.1	4.1	1.93	6.8	2.0	1.45
1200	565	39.8	11.7	2.55	30.6	9.0	2.31	20.9	6.1	2.06	15.0	4.4	1.82	7.7	2.3	1.33
1400	660	40.4	11.8	2.47	31.2	9.1	2.24	21.5	6.3	1.99	15.6	4.6	1.74	8.3	2.4	1.26

SPA036 - C33-44C - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.55	39.8	11.7
60	16	2.49	37.7	11.0
55	13	2.44	35.6	10.4
50	10	2.38	33.5	9.8
47	8	2.35	32.2	9.4
45	7	2.31	30.6	9.0
40	4	2.21	26.5	7.8
35	2	2.12	22.4	6.6
30	-1	2.09	21.7	6.4
25	-4	2.06	20.9	6.1
20	-7	2.03	20.2	5.9
17	-8	2.02	19.7	5.8
15	-9	1.99	18.9	5.5
10	-12	1.94	16.8	4.9
5	-15	1.82	15.0	4.4
0	-18	1.70	13.2	3.9
-5	-21	1.57	11.4	3.3
-10	-23	1.45	9.5	2.8
-15	-26	1.33	7.7	2.3
-20	-29	1.21	5.9	1.7

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

SPA036 - C33-48B/C - CX34-44/48B/C - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.4	7.7	1.21	.78	.92	1.00	25.0	7.3	1.41	.79	.94	1.00	23.6	6.9	1.63	.82	.97	1.00	22.0	6.4	1.90	.85	1.00	1.00
	900	425	27.2	8.0	1.22	.80	.95	1.00	25.8	7.6	1.41	.82	.98	1.00	24.2	7.1	1.64	.85	1.00	1.00	22.8	6.7	1.91	.88	1.00	1.00
	1000	470	27.8	8.1	1.22	.83	.98	1.00	26.4	7.7	1.42	.85	1.00	1.00	25.0	7.3	1.64	.88	1.00	1.00	23.6	6.9	1.91	.92	1.00	1.00
67°F (19°C)	800	380	28.2	8.3	1.22	.61	.75	.88	26.8	7.9	1.42	.62	.76	.90	25.2	7.4	1.65	.64	.79	.94	23.6	6.9	1.91	.65	.82	.97
	900	425	29.0	8.5	1.23	.63	.77	.91	27.6	8.1	1.43	.64	.79	.94	26.0	7.6	1.65	.66	.82	.97	24.2	7.1	1.91	.68	.85	1.00
	1000	470	29.8	8.7	1.23	.65	.80	.95	28.2	8.3	1.43	.66	.82	.98	26.4	7.7	1.66	.68	.85	1.00	24.6	7.2	1.92	.70	.89	1.00
71°F (22°C)	800	380	30.2	8.9	1.24	.47	.60	.72	28.6	8.4	1.43	.48	.61	.74	27.0	7.9	1.66	.48	.62	.76	25.2	7.4	1.92	.49	.64	.79
	900	425	31.0	9.1	1.24	.48	.61	.75	29.4	8.6	1.44	.48	.63	.77	27.8	8.1	1.66	.49	.64	.79	25.8	7.6	1.93	.50	.66	.82
	1000	470	31.6	9.3	1.25	.49	.63	.77	30.0	8.8	1.44	.49	.65	.79	28.2	8.3	1.67	.50	.66	.82	26.4	7.7	1.93	.51	.68	.86

SPA036 - C33-48B/C - CX34-44/48B/C - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	34.6	10.1	2.23	.75	.89	1.00	32.8	9.6	2.49	.77	.91	1.00	30.6	9.0	2.79	.80	.95	1.00	28.4	8.3	3.14	.83	.98	1.00
	1200	565	36.0	10.6	2.24	.79	.94	1.00	34.0	10.0	2.51	.81	.97	1.00	31.8	9.3	2.81	.84	1.00	1.00	29.8	8.7	3.16	.88	1.00	1.00
	1400	660	37.2	10.9	2.25	.83	.99	1.00	35.2	10.3	2.52	.86	1.00	1.00	33.2	9.7	2.83	.89	1.00	1.00	31.0	9.1	3.17	.93	1.00	1.00
67°F (19°C)	1000	470	37.0	10.8	2.25	.60	.73	.85	34.8	10.2	2.52	.61	.75	.88	32.6	9.6	2.82	.62	.77	.91	30.4	8.9	3.16	.64	.80	.95
	1200	565	38.5	11.3	2.26	.63	.77	.91	36.2	10.6	2.53	.64	.79	.94	34.0	10.0	2.84	.65	.82	.97	31.4	9.2	3.18	.68	.85	1.00
	1400	660	39.5	11.6	2.28	.65	.81	.95	37.2	10.9	2.55	.67	.83	.99	34.8	10.2	2.85	.68	.86	1.00	32.2	9.4	3.19	.71	.91	1.00
71°F (22°C)	1000	470	39.0	11.4	2.27	.47	.59	.70	37.0	10.8	2.54	.47	.60	.72	34.6	10.1	2.85	.47	.61	.74	32.2	9.4	3.19	.48	.63	.77
	1200	565	40.5	11.9	2.29	.48	.61	.74	38.5	11.3	2.56	.48	.62	.76	36.0	10.6	2.87	.49	.64	.79	33.4	9.8	3.21	.50	.66	.82
	1400	660	42.0	12.3	2.30	.49	.64	.78	39.5	11.6	2.58	.50	.65	.81	37.0	10.8	2.88	.50	.67	.84	34.2	10.0	3.22	.51	.70	.88

SPA036 - C33-48B/C - CX34-44/48B/C - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	28.8	8.4	1.84	26.8	7.9	1.79	24.8	7.3	1.74	22.7	6.7	1.68
900	425	29.4	8.6	1.76	27.3	8.0	1.71	25.3	7.4	1.66	23.2	6.8	1.61
1000	470	29.8	8.7	1.70	27.8	8.1	1.65	25.8	7.6	1.60	23.7	6.9	1.55

SPA036 - C33-48B/C - CX34-44/48B/C - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	38.6	11.3	2.72	29.5	8.6	2.47	19.9	5.8	2.21	14.0	4.1	1.96	6.8	2.0	1.46
1200	565	39.5	11.6	2.61	30.4	8.9	2.36	20.8	6.1	2.10	14.9	4.4	1.85	7.7	2.3	1.35
1400	660	40.2	11.8	2.53	31.1	9.1	2.28	21.5	6.3	2.02	15.6	4.6	1.77	8.4	2.5	1.27

SPA036 - C33-48B/C - CX34-44/48B/C - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.61	39.5	11.6
60	16	2.55	37.4	11.0
55	13	2.49	35.3	10.3
50	10	2.43	33.2	9.7
47	8	2.40	32.0	9.4
45	7	2.36	30.4	8.9
40	4	2.26	26.3	7.7
35	2	2.16	22.3	6.5
30	-1	2.13	21.5	6.3
25	-4	2.10	20.8	6.1
20	-7	2.07	20.0	5.9
17	-8	2.05	19.6	5.7
15	-9	2.03	18.7	5.5
10	-12	1.97	16.7	4.9
5	-15	1.85	14.9	4.4
0	-18	1.72	13.1	3.8
-5	-21	1.60	11.3	3.3
-10	-23	1.48	9.5	2.8
-15	-26	1.35	7.7	2.3
-20	-29	1.23	5.9	1.7

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

SPA036 - C33-44C with G61MPV-36C-090 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	595	280	24.4	7.2	1.20	.71	.84	.95	23.2	6.8	1.39	.73	.85	.98	21.8	6.4	1.62	.75	.88	1.00	20.4	6.0	1.89	.77	.91	1.00
	750	355	25.8	7.6	1.21	.75	.89	1.00	24.6	7.2	1.40	.77	.92	1.00	23.0	6.7	1.63	.79	.95	1.00	21.4	6.3	1.90	.82	.98	1.00
	900	425	27.2	8.0	1.21	.80	.95	1.00	25.6	7.5	1.41	.82	.98	1.00	24.2	7.1	1.64	.84	1.00	1.00	22.8	6.7	1.91	.88	1.00	1.00
67°F (19°C)	595	280	26.0	7.6	1.21	.57	.69	.80	24.8	7.3	1.41	.58	.70	.82	23.4	6.9	1.63	.59	.72	.84	21.8	6.4	1.90	.60	.74	.87
	750	355	27.8	8.1	1.22	.59	.73	.85	26.4	7.7	1.42	.60	.74	.88	24.8	7.3	1.64	.62	.76	.91	23.2	6.8	1.91	.63	.79	.94
	900	425	29.0	8.5	1.23	.62	.77	.91	27.6	8.1	1.43	.63	.79	.94	25.8	7.6	1.65	.65	.81	.97	24.0	7.0	1.91	.67	.85	1.00
71°F (22°C)	595	280	27.8	8.1	1.22	.45	.55	.66	26.4	7.7	1.42	.45	.56	.67	25.0	7.3	1.64	.45	.57	.69	23.4	6.9	1.91	.46	.58	.71
	750	355	29.6	8.7	1.23	.45	.58	.70	28.2	8.3	1.43	.46	.59	.71	26.4	7.7	1.65	.46	.60	.73	24.8	7.3	1.92	.47	.61	.76
	900	425	31.0	9.1	1.24	.47	.61	.74	29.4	8.6	1.44	.47	.62	.76	27.6	8.1	1.66	.48	.63	.78	25.8	7.6	1.93	.49	.65	.82

SPA036 - C33-44C with G61MPV-36C-090 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	975	460	34.2	10.0	2.22	.74	.88	1.00	32.4	9.5	2.49	.76	.90	1.00	30.2	8.9	2.79	.79	.94	1.00	28.0	8.2	3.13	.81	.97	1.00
	1185	560	35.8	10.5	2.24	.79	.94	1.00	33.8	9.9	2.51	.81	.97	1.00	31.6	9.3	2.81	.84	1.00	1.00	29.4	8.6	3.15	.87	1.00	1.00
	1435	675	37.4	11.0	2.25	.84	1.00	1.00	35.4	10.4	2.52	.87	1.00	1.00	33.4	9.8	2.83	.90	1.00	1.00	31.2	9.1	3.18	.95	1.00	1.00
67°F (19°C)	975	460	36.6	10.7	2.25	.59	.72	.84	34.6	10.1	2.51	.60	.74	.87	32.4	9.5	2.82	.62	.76	.90	30.0	8.8	3.16	.63	.79	.94
	1185	560	38.0	11.1	2.26	.62	.76	.90	36.0	10.6	2.53	.63	.78	.93	33.6	9.8	2.83	.65	.81	.97	31.2	9.1	3.17	.67	.85	1.00
	1435	675	39.5	11.6	2.28	.66	.82	.97	37.4	11.0	2.55	.67	.84	1.00	34.8	10.2	2.85	.69	.88	1.00	32.2	9.4	3.19	.72	.92	1.00
71°F (22°C)	975	460	38.5	11.3	2.27	.45	.58	.69	36.6	10.7	2.54	.46	.59	.71	34.4	10.1	2.84	.46	.60	.73	32.0	9.4	3.19	.47	.62	.76
	1185	560	40.5	11.9	2.29	.47	.61	.74	38.0	11.1	2.56	.47	.62	.76	35.8	10.5	2.86	.48	.64	.78	33.2	9.7	3.21	.49	.66	.82
	1435	675	42.0	12.3	2.30	.49	.64	.80	39.5	11.6	2.57	.50	.66	.82	37.0	10.8	2.88	.51	.68	.85	34.4	10.1	3.22	.52	.71	.89

SPA036 - C33-44C with G61MPV-36C-090 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
596	280	27.2	8.0	2.04	25.2	7.4	1.97	23.3	6.8	1.91	21.3	6.2	1.84
750	355	28.2	8.3	1.85	26.2	7.7	1.78	24.2	7.1	1.71	22.3	6.5	1.65
901	425	29.1	8.5	1.73	27.2	8.0	1.66	25.2	7.4	1.60	23.3	6.8	1.53

SPA036 - C33-44C with G61MPV-36C-090 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
974	460	38.4	11.3	2.67	29.3	8.6	2.38	19.6	5.7	2.04	13.7	4.0	1.94	6.6	1.9	1.45
1185	560	39.4	11.5	2.55	30.3	8.9	2.26	20.6	6.0	1.92	14.7	4.3	1.82	7.6	2.2	1.33
1436	680	40.6	11.9	2.45	31.5	9.2	2.16	21.8	6.4	1.83	15.9	4.7	1.72	8.8	2.6	1.24

SPA036 - C33-44C with G61MPV-36C-090 - HEATING PERFORMANCE at 1185 cfm (560 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.55	39.4	11.5
60	16	2.49	37.3	10.9
55	13	2.44	35.2	10.3
50	10	2.38	33.1	9.7
47	8	2.35	31.9	9.3
45	7	2.26	30.3	8.9
40	4	2.03	26.2	7.7
35	2	1.81	22.2	6.5
30	-1	1.87	21.4	6.3
25	-4	1.92	20.6	6.0
20	-7	1.98	19.9	5.8
17	-8	2.02	19.4	5.7
15	-9	1.99	18.6	5.5
10	-12	1.94	16.5	4.8
5	-15	1.82	14.7	4.3
0	-18	1.70	12.9	3.8
-5	-21	1.57	11.1	3.3
-10	-23	1.45	9.4	2.8
-15	-26	1.33	7.6	2.2
-20	-29	1.21	5.8	1.7

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

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

SPA036 - C33-48B with G61MPV-36B - CX34-44/48B-6F with G61MPV-36B - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	595	280	24.2	7.1	1.20	.71	.83	.95	23.0	6.7	1.39	.73	.85	.97	21.6	6.3	1.62	.74	.88	1.00	20.2	5.9	1.89	.77	.91	1.00
	750	355	25.8	7.6	1.21	.75	.89	1.00	24.4	7.2	1.40	.77	.91	1.00	23.0	6.7	1.63	.79	.94	1.00	21.4	6.3	1.90	.82	.98	1.00
	900	425	27.2	8.0	1.21	.79	.95	1.00	25.6	7.5	1.41	.82	.98	1.00	24.2	7.1	1.64	.84	1.00	1.00	22.8	6.7	1.90	.88	1.00	1.00
67°F (19°C)	595	280	26.0	7.6	1.21	.57	.69	.80	24.8	7.3	1.40	.58	.70	.81	23.4	6.9	1.63	.59	.72	.84	21.8	6.4	1.90	.60	.74	.87
	750	355	27.6	8.1	1.22	.60	.72	.85	26.2	7.7	1.42	.60	.74	.87	24.8	7.3	1.64	.62	.76	.90	23.0	6.7	1.91	.63	.79	.94
	900	425	29.0	8.5	1.23	.62	.77	.91	27.4	8.0	1.42	.63	.79	.94	25.8	7.6	1.65	.65	.81	.97	24.0	7.0	1.91	.67	.84	1.00
71°F (22°C)	595	280	27.6	8.1	1.22	.45	.56	.66	26.4	7.7	1.42	.45	.56	.67	25.0	7.3	1.64	.45	.57	.69	23.4	6.9	1.91	.46	.58	.71
	750	355	29.4	8.6	1.23	.46	.58	.70	28.0	8.2	1.43	.46	.59	.71	26.4	7.7	1.66	.46	.60	.73	24.8	7.3	1.92	.47	.61	.76
	900	425	30.8	9.0	1.24	.47	.61	.74	29.4	8.6	1.44	.48	.62	.76	27.6	8.1	1.66	.48	.63	.78	25.8	7.6	1.93	.49	.65	.81

SPA036 - C33-48B with G61MPV-36B - CX34-44/48B-6F with G61MPV-36B - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	975	460	34.4	10.1	2.22	.74	.88	1.00	32.4	9.5	2.49	.76	.90	1.00	30.4	8.9	2.79	.78	.93	1.00	28.2	8.3	3.13	.81	.97	1.00
	1185	560	36.0	10.6	2.24	.79	.93	1.00	34.0	10.0	2.51	.81	.96	1.00	31.8	9.3	2.81	.83	.99	1.00	29.6	8.7	3.15	.87	1.00	1.00
	1435	675	37.4	11.0	2.25	.84	.99	1.00	35.4	10.4	2.52	.87	1.00	1.00	33.4	9.8	2.83	.90	1.00	1.00	31.2	9.1	3.18	.94	1.00	1.00
67°F (19°C)	975	460	36.6	10.7	2.25	.59	.72	.84	34.6	10.1	2.52	.60	.73	.86	32.4	9.5	2.82	.61	.76	.90	30.2	8.9	3.16	.63	.78	.93
	1185	560	38.5	11.3	2.26	.62	.76	.90	36.0	10.6	2.53	.63	.78	.93	33.8	9.9	2.83	.65	.81	.96	31.2	9.1	3.18	.67	.84	1.00
	1435	675	39.5	11.6	2.28	.66	.81	.96	37.4	11.0	2.55	.67	.84	.99	35.0	10.3	2.85	.69	.87	1.00	32.2	9.4	3.19	.72	.92	1.00
71°F (22°C)	975	460	38.5	11.3	2.27	.46	.58	.69	36.6	10.7	2.54	.46	.59	.71	34.4	10.1	2.85	.46	.60	.73	32.0	9.4	3.19	.47	.62	.76
	1185	560	40.5	11.9	2.29	.47	.61	.74	38.0	11.1	2.56	.48	.62	.76	35.8	10.5	2.86	.48	.63	.78	33.4	9.8	3.21	.49	.66	.82
	1435	675	42.0	12.3	2.30	.49	.64	.79	39.5	11.6	2.58	.50	.66	.82	37.2	10.9	2.88	.51	.68	.85	34.4	10.1	3.22	.52	.70	.89

SPA036 - C33-48B with G61MPV-36B - CX34-44/48B-6F with G61MPV-36B - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
596	280	27.0	7.9	2.07	25.0	7.3	2.01	23.1	6.8	1.95	21.1	6.2	1.88
750	355	28.0	8.2	1.88	26.0	7.6	1.82	24.0	7.0	1.75	22.1	6.5	1.69
900	425	28.9	8.5	1.76	27.0	7.9	1.70	25.0	7.3	1.63	23.0	6.7	1.57

SPA036 - C33-48B with G61MPV-36B - CX34-44/48B-6F with G61MPV-36B - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
975	460	38.1	11.2	2.72	29.0	8.5	2.48	19.5	5.7	2.22	13.6	4.0	1.98	6.6	1.9	1.48
1185	560	39.1	11.5	2.60	30.0	8.8	2.36	20.5	6.0	2.10	14.6	4.3	1.86	7.6	2.2	1.36
1435	680	40.3	11.8	2.51	31.2	9.1	2.26	21.7	6.4	2.01	15.8	4.6	1.76	8.8	2.6	1.27

SPA036 - C33-48B w/ G61MPV-36B - CX34-44/48B-6F w/ G61MPV-36B HEATING PERFORMANCE at 1185 cfm (560 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.60	39.1	11.5
60	16	2.55	37.0	10.8
55	13	2.49	34.9	10.2
50	10	2.43	32.9	9.6
47	8	2.40	31.6	9.3
45	7	2.36	30.0	8.8
40	4	2.26	26.0	7.6
35	2	2.16	22.0	6.4
30	-1	2.13	21.2	6.2
25	-4	2.10	20.5	6.0
20	-7	2.08	19.7	5.8
17	-8	2.06	19.3	5.7
15	-9	2.04	18.5	5.4
10	-12	1.98	16.4	4.8
5	-15	1.86	14.6	4.3
0	-18	1.73	12.9	3.8
-5	-21	1.61	11.1	3.3
-10	-23	1.48	9.3	2.7
-15	-26	1.36	7.6	2.2
-20	-29	1.24	5.8	1.7

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

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

SPA036 - C33-44C with G60UHV-36B-090 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	705	335	25.6	7.5	1.20	.74	.88	1.00	24.2	7.1	1.40	.76	.90	1.00	22.8	6.7	1.63	.78	.93	1.00	21.2	6.2	1.89	.81	.97	1.00
	820	385	26.4	7.7	1.21	.77	.92	1.00	25.0	7.3	1.41	.79	.95	1.00	23.6	6.9	1.64	.82	.98	1.00	22.0	6.4	1.90	.85	1.00	1.00
	950	450	27.4	8.0	1.22	.81	.96	1.00	26.0	7.6	1.41	.83	.99	1.00	24.4	7.2	1.64	.86	1.00	1.00	23.0	6.7	1.91	.89	1.00	1.00
67°F (19°C)	705	335	27.4	8.0	1.22	.59	.72	.84	26.0	7.6	1.41	.60	.73	.86	24.6	7.2	1.64	.61	.75	.89	22.8	6.7	1.91	.63	.78	.92
	820	385	28.4	8.3	1.22	.61	.75	.88	27.0	7.9	1.42	.62	.76	.91	25.4	7.4	1.65	.63	.79	.94	23.6	6.9	1.91	.65	.82	.97
	950	450	29.4	8.6	1.23	.63	.78	.93	27.8	8.1	1.43	.64	.80	.95	26.2	7.7	1.65	.66	.83	.99	24.2	7.1	1.92	.68	.86	1.00
71°F (22°C)	705	335	29.2	8.6	1.23	.45	.57	.69	27.8	8.1	1.43	.46	.58	.70	26.2	7.7	1.65	.46	.59	.72	24.4	7.2	1.92	.47	.61	.75
	820	385	30.2	8.9	1.24	.46	.60	.72	28.8	8.4	1.43	.46	.60	.74	27.0	7.9	1.66	.47	.62	.76	25.2	7.4	1.92	.48	.63	.79
	950	450	31.2	9.1	1.24	.47	.62	.76	29.6	8.7	1.44	.47	.63	.77	27.8	8.1	1.67	.48	.64	.80	26.0	7.6	1.93	.49	.66	.83

SPA036 - C33-44C with G60UHV-36B-090 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1010	475	34.6	10.1	2.23	.75	.89	1.00	32.6	9.6	2.49	.77	.92	1.00	30.6	9.0	2.79	.79	.95	1.00	28.2	8.3	3.13	.82	.99	1.00
	1175	555	35.8	10.5	2.24	.78	.93	1.00	33.8	9.9	2.50	.81	.96	1.00	31.6	9.3	2.81	.83	.99	1.00	29.4	8.6	3.15	.87	1.00	1.00
	1185	560	35.8	10.5	2.24	.79	.94	1.00	33.8	9.9	2.50	.81	.97	1.00	31.6	9.3	2.81	.84	1.00	1.00	29.4	8.6	3.15	.87	1.00	1.00
67°F (19°C)	1010	475	36.8	10.8	2.25	.60	.73	.85	34.8	10.2	2.52	.61	.74	.88	32.6	9.6	2.82	.62	.77	.91	30.2	8.9	3.16	.64	.80	.95
	1175	555	38.0	11.1	2.26	.62	.76	.90	36.0	10.6	2.53	.63	.78	.93	33.6	9.8	2.83	.64	.81	.96	31.0	9.1	3.17	.67	.84	1.00
	1185	560	38.0	11.1	2.26	.62	.76	.90	36.0	10.6	2.53	.63	.78	.93	33.6	9.8	2.83	.65	.81	.97	31.0	9.1	3.17	.67	.85	1.00
71°F (22°C)	1010	475	39.0	11.4	2.27	.46	.58	.70	37.0	10.8	2.54	.46	.59	.72	34.6	10.1	2.85	.47	.61	.74	32.2	9.4	3.19	.48	.62	.77
	1175	555	40.5	11.9	2.29	.47	.60	.73	38.0	11.1	2.56	.47	.61	.75	35.8	10.5	2.86	.48	.63	.78	33.0	9.7	3.20	.49	.65	.81
	1185	560	40.5	11.9	2.29	.47	.61	.74	38.0	11.1	2.56	.47	.62	.76	35.8	10.5	2.86	.48	.63	.78	33.0	9.7	3.21	.49	.66	.82

SPA036 - C33-44C with G60UHV-36B-090 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
705	335	28.0	8.2	1.90	26.0	7.6	1.84	24.0	7.0	1.78	22.0	6.4	1.72
820	390	28.7	8.4	1.78	26.7	7.8	1.72	24.7	7.2	1.66	22.7	6.7	1.60
950	450	29.6	8.7	1.65	27.6	8.1	1.58	25.6	7.5	1.52	23.6	6.9	1.46

SPA036 - C33-44C with G60UHV-36B-090 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1010	475	38.6	11.3	2.65	29.5	8.6	2.41	19.8	5.8	2.15	13.9	4.1	1.91	6.9	2.0	1.42
1175	555	39.2	11.5	2.55	30.1	8.8	2.31	20.4	6.0	2.06	14.5	4.2	1.81	7.5	2.2	1.33
1185	560	39.6	11.6	2.49	30.5	8.9	2.25	20.8	6.1	2.00	14.9	4.4	1.75	7.9	2.3	1.27

SPA036 - C33-44C with G60UHV-36B-090 - HEATING PERFORMANCE at 1175 cfm (555 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.55	39.2	11.5
60	16	2.50	37.1	10.9
55	13	2.44	35.0	10.3
50	10	2.38	32.9	9.6
47	8	2.35	31.7	9.3
45	7	2.31	30.1	8.8
40	4	2.21	26.0	7.6
35	2	2.12	22.0	6.4
30	-1	2.09	21.2	6.2
25	-4	2.06	20.4	6.0
20	-7	2.03	19.7	5.8
17	-8	2.01	19.2	5.6
15	-9	1.99	18.4	5.4
10	-12	1.93	16.3	4.8
5	-15	1.81	14.5	4.2
0	-18	1.69	12.8	3.8
-5	-21	1.57	11.0	3.2
-10	-23	1.45	9.3	2.7
-15	-26	1.33	7.5	2.2
-20	-29	1.21	5.8	1.7

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

SPA036 - C33-48B with G60UHV-36B-090 - CX34-44/48B with G60UHV-36B-090 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	705	335	25.4	7.4	1.20	.74	.88	1.00	24.2	7.1	1.40	.76	.90	1.00	22.8	6.7	1.63	.78	.93	1.00	21.2	6.2	1.89	.81	.96	1.00
	820	385	26.4	7.7	1.21	.77	.92	1.00	25.0	7.3	1.41	.79	.95	1.00	23.6	6.9	1.64	.82	.98	1.00	22.0	6.4	1.90	.85	1.00	1.00
	900	425	27.0	7.9	1.21	.79	.95	1.00	25.6	7.5	1.41	.81	.97	1.00	24.2	7.1	1.64	.84	1.00	1.00	22.6	6.6	1.90	.87	1.00	1.00
67°F (19°C)	705	335	27.2	8.0	1.22	.59	.72	.84	26.0	7.6	1.41	.60	.73	.86	24.4	7.2	1.64	.61	.75	.89	22.8	6.7	1.90	.62	.77	.92
	820	385	28.4	8.3	1.22	.61	.75	.88	26.8	7.9	1.42	.62	.76	.90	25.2	7.4	1.65	.63	.79	.94	23.6	6.9	1.91	.65	.81	.97
	900	425	29.0	8.5	1.23	.62	.77	.91	27.4	8.0	1.42	.63	.79	.93	25.8	7.6	1.65	.65	.81	.97	24.0	7.0	1.91	.67	.84	1.00
71°F (22°C)	705	335	29.0	8.5	1.23	.46	.57	.69	27.6	8.1	1.43	.46	.58	.70	26.0	7.6	1.65	.46	.59	.72	24.4	7.2	1.92	.47	.61	.74
	820	385	30.2	8.9	1.24	.47	.59	.72	28.6	8.4	1.43	.47	.60	.73	27.0	7.9	1.66	.47	.61	.76	25.2	7.4	1.92	.48	.63	.78
	900	425	30.8	9.0	1.24	.47	.61	.74	29.4	8.6	1.44	.47	.62	.76	27.6	8.1	1.66	.48	.63	.78	25.8	7.6	1.93	.49	.65	.81

SPA036 - C33-48B with G60UHV-36B-090 - CX34-44/48B with G60UHV-36B-090 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1010	475	34.6	10.1	2.23	.75	.89	1.00	32.8	9.6	2.49	.77	.91	1.00	30.6	9.0	2.79	.79	.95	1.00	28.4	8.3	3.14	.82	.98	1.00
	1175	555	35.8	10.5	2.24	.78	.93	1.00	33.8	9.9	2.51	.80	.96	1.00	31.6	9.3	2.81	.83	.99	1.00	29.4	8.6	3.15	.86	1.00	1.00
	1275	600	36.4	10.7	2.24	.80	.96	1.00	34.4	10.1	2.51	.82	.98	1.00	32.2	9.4	2.81	.85	1.00	1.00	30.2	8.9	3.16	.89	1.00	1.00
67°F (19°C)	1010	475	37.0	10.8	2.25	.60	.73	.85	34.8	10.2	2.52	.61	.74	.88	32.6	9.6	2.82	.62	.77	.91	30.4	8.9	3.16	.64	.79	.95
	1175	555	38.0	11.1	2.26	.62	.75	.89	36.0	10.6	2.53	.63	.78	.92	33.6	9.8	2.83	.64	.80	.96	31.2	9.1	3.17	.66	.84	.99
	1275	600	38.5	11.3	2.27	.63	.78	.92	36.6	10.7	2.54	.64	.80	.95	34.2	10.0	2.84	.66	.83	.98	31.6	9.3	3.18	.68	.86	1.00
71°F (22°C)	1010	475	39.0	11.4	2.27	.46	.58	.70	37.0	10.8	2.54	.46	.59	.72	34.6	10.1	2.85	.47	.60	.74	32.2	9.4	3.19	.48	.62	.77
	1175	555	40.5	11.9	2.29	.47	.60	.73	38.0	11.1	2.56	.47	.61	.75	35.8	10.5	2.86	.48	.63	.78	33.2	9.7	3.20	.49	.65	.81
	1275	600	41.0	12.0	2.29	.48	.62	.75	39.0	11.4	2.56	.48	.63	.77	36.4	10.7	2.87	.49	.65	.80	33.6	9.8	3.21	.50	.67	.84

SPA036 - C33-48B with G60UHV-36B-090 - CX34-44/48B with G60UHV-36B-090 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
700	330	27.8	8.1	1.93	25.8	7.6	1.87	23.8	7.0	1.81	21.8	6.4	1.75
820	390	28.5	8.4	1.81	26.5	7.8	1.76	24.5	7.2	1.70	22.5	6.6	1.64
900	425	29.4	8.6	1.68	27.4	8.0	1.62	25.4	7.4	1.56	23.4	6.9	1.50

SPA036 - C33-48B with G60UHV-36B-090 - CX34-44/48B with G60UHV-36B-090 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1010	475	38.2	11.2	2.70	29.2	8.6	2.46	19.7	5.8	2.20	13.9	4.1	1.95	6.9	2.0	1.46
1175	555	38.8	11.4	2.61	29.8	8.7	2.36	20.3	5.9	2.10	14.5	4.2	1.85	7.5	2.2	1.36
1275	600	39.7	11.6	2.46	30.7	9.0	2.21	21.2	6.2	1.95	15.4	4.5	1.70	8.4	2.5	1.21

SPA036 - C33-48B with G60UHV-36B-090 - CX34-44/48B with G60UHV-36B-090 - HEATING PERFORMANCE at 1175 cfm (555 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.61	38.8	11.4
60	16	2.55	36.8	10.8
55	13	2.49	34.7	10.2
50	10	2.43	32.7	9.6
47	8	2.40	31.4	9.2
45	7	2.36	29.8	8.7
40	4	2.26	25.8	7.6
35	2	2.16	21.8	6.4
30	-1	2.13	21.1	6.2
25	-4	2.10	20.3	5.9
20	-7	2.08	19.6	5.7
17	-8	2.06	19.1	5.6
15	-9	2.04	18.3	5.4
10	-12	1.98	16.2	4.7
5	-15	1.85	14.5	4.2
0	-18	1.73	12.7	3.7
-5	-21	1.61	11.0	3.2
-10	-23	1.48	9.2	2.7
-15	-26	1.36	7.5	2.2
-20	-29	1.24	5.7	1.7

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

SPA036 - CR26-48N/W-F - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.4	7.7	1.21	.78	.92	1.00	25.0	7.3	1.41	.80	.95	1.00	23.6	6.9	1.63	.82	.98	1.00	22.0	6.4	1.90	.85	1.00	1.00
	900	425	27.0	7.9	1.21	.81	.96	1.00	25.8	7.6	1.41	.83	.98	1.00	24.2	7.1	1.64	.85	1.00	1.00	23.0	6.7	1.91	.89	1.00	1.00
	1000	470	27.6	8.1	1.22	.83	.98	1.00	26.4	7.7	1.42	.86	1.00	1.00	25.0	7.3	1.65	.89	1.00	1.00	23.6	6.9	1.91	.93	1.00	1.00
67°F (19°C)	800	380	28.2	8.3	1.22	.62	.75	.88	26.8	7.9	1.42	.63	.77	.91	25.2	7.4	1.65	.64	.79	.94	23.6	6.9	1.91	.66	.82	.97
	900	425	28.8	8.4	1.23	.64	.78	.91	27.6	8.1	1.43	.64	.80	.95	26.0	7.6	1.65	.66	.83	.98	24.2	7.1	1.92	.68	.86	1.00
	1000	470	29.4	8.6	1.23	.65	.80	.95	28.2	8.3	1.43	.66	.83	.98	26.4	7.7	1.65	.68	.86	1.00	24.6	7.2	1.92	.70	.89	1.00
71°F (22°C)	800	380	29.8	8.7	1.23	.47	.60	.72	28.6	8.4	1.43	.47	.61	.74	27.0	7.9	1.66	.48	.63	.76	25.2	7.4	1.92	.49	.64	.79
	900	425	30.6	9.0	1.24	.48	.62	.75	29.4	8.6	1.44	.48	.63	.77	27.6	8.1	1.66	.49	.65	.79	25.8	7.6	1.93	.49	.67	.83
	1000	470	31.2	9.1	1.24	.49	.64	.77	30.0	8.8	1.44	.49	.65	.80	28.4	8.3	1.67	.50	.66	.83	26.4	7.7	1.93	.51	.69	.86

SPA036 - CR26-48N/W-F - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	34.6	10.1	2.22	.76	.89	1.00	32.8	9.6	2.49	.78	.92	1.00	30.6	9.0	2.79	.80	.95	1.00	28.4	8.3	3.13	.83	.99	1.00
	1200	565	36.0	10.6	2.24	.80	.95	1.00	34.0	10.0	2.51	.82	.98	1.00	31.8	9.3	2.81	.85	1.00	1.00	29.8	8.7	3.15	.89	1.00	1.00
	1400	660	37.0	10.8	2.25	.84	.99	1.00	35.0	10.3	2.52	.86	1.00	1.00	33.2	9.7	2.83	.90	1.00	1.00	31.0	9.1	3.18	.94	1.00	1.00
67°F (19°C)	1000	470	36.8	10.8	2.25	.61	.73	.86	34.8	10.2	2.52	.62	.75	.88	32.6	9.6	2.82	.63	.78	.92	30.2	8.9	3.16	.65	.81	.95
	1200	565	38.5	11.3	2.26	.63	.77	.91	36.2	10.6	2.53	.64	.80	.94	33.8	9.9	2.84	.66	.82	.97	31.4	9.2	3.18	.68	.86	1.00
	1400	660	39.5	11.6	2.27	.65	.81	.96	37.2	10.9	2.55	.67	.84	.99	34.6	10.1	2.85	.69	.87	1.00	32.0	9.4	3.19	.72	.91	1.00
71°F (22°C)	1000	470	39.0	11.4	2.27	.47	.59	.71	36.8	10.8	2.54	.47	.60	.73	34.6	10.1	2.85	.47	.61	.75	32.2	9.4	3.19	.48	.63	.78
	1200	565	40.5	11.9	2.29	.47	.62	.75	38.5	11.3	2.56	.48	.63	.77	35.8	10.5	2.86	.49	.65	.80	33.2	9.7	3.21	.50	.67	.83
	1400	660	41.5	12.2	2.30	.49	.64	.79	39.5	11.6	2.57	.50	.66	.81	36.8	10.8	2.88	.50	.68	.85	34.2	10.0	3.22	.52	.70	.89

SPA036 - CR26-48N/W-F - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.3	8.6	1.76	27.2	8.0	1.71	25.1	7.4	1.66	23.0	6.7	1.60
900	425	29.8	8.7	1.69	27.8	8.1	1.64	25.7	7.5	1.58	23.6	6.9	1.53
1000	470	30.3	8.9	1.63	28.2	8.3	1.58	26.1	7.6	1.53	24.1	7.1	1.47

SPA036 - CR26-48N/W-F - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	39.2	11.5	2.61	30.0	8.8	2.38	20.3	5.9	2.13	14.3	4.2	1.89	7.0	2.1	1.42
1200	565	40.0	11.7	2.50	30.8	9.0	2.27	21.1	6.2	2.03	15.1	4.4	1.79	7.8	2.3	1.31
1400	660	40.7	11.9	2.43	31.5	9.2	2.20	21.8	6.4	1.96	15.8	4.6	1.72	8.5	2.5	1.24

SPA036 - CR26-48N/W-F - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.50	40.0	11.7
60	16	2.45	37.9	11.1
55	13	2.40	35.8	10.5
50	10	2.34	33.7	9.9
47	8	2.31	32.4	9.5
45	7	2.27	30.8	9.0
40	4	2.18	26.7	7.8
35	2	2.09	22.6	6.6
30	-1	2.06	21.8	6.4
25	-4	2.03	21.1	6.2
20	-7	2.00	20.3	5.9
17	-8	1.98	19.8	5.8
15	-9	1.96	19.0	5.6
10	-12	1.91	16.9	5.0
5	-15	1.79	15.1	4.4
0	-18	1.67	13.2	3.9
-5	-21	1.55	11.4	3.3
-10	-23	1.43	9.6	2.8
-15	-26	1.31	7.8	2.3
-20	-29	1.19	5.9	1.7

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

SPA036 - CR26-48N-F with G60DFV-60C - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	795	375	26.2	7.7	1.21	.77	.91	1.00	25.0	7.3	1.41	.79	.94	1.00	23.4	6.9	1.63	.81	.97	1.00	21.8	6.4	1.90	.84	1.00	1.00
	845	400	26.6	7.8	1.21	.78	.93	1.00	25.2	7.4	1.41	.80	.96	1.00	23.8	7.0	1.64	.83	.99	1.00	22.2	6.5	1.90	.86	1.00	1.00
	940	445	27.2	8.0	1.22	.81	.96	1.00	25.8	7.6	1.41	.83	.99	1.00	24.4	7.2	1.64	.86	1.00	1.00	23.0	6.7	1.91	.89	1.00	1.00
67°F (19°C)	795	375	28.0	8.2	1.22	.61	.74	.87	26.8	7.9	1.42	.62	.76	.90	25.2	7.4	1.65	.63	.78	.93	23.4	6.9	1.91	.65	.81	.97
	845	400	28.4	8.3	1.22	.62	.75	.89	27.0	7.9	1.42	.62	.77	.92	25.4	7.4	1.65	.64	.80	.95	23.8	7.0	1.91	.66	.83	.99
	940	445	29.0	8.5	1.23	.63	.78	.92	27.8	8.1	1.43	.64	.80	.96	26.2	7.7	1.65	.66	.83	.99	24.4	7.2	1.92	.68	.86	1.00
71°F (22°C)	795	375	29.6	8.7	1.23	.46	.59	.72	28.4	8.3	1.43	.46	.60	.73	26.8	7.9	1.66	.47	.62	.75	25.2	7.4	1.92	.48	.63	.78
	845	400	30.0	8.8	1.24	.46	.60	.73	28.8	8.4	1.43	.47	.61	.75	27.2	8.0	1.66	.47	.62	.77	25.4	7.4	1.92	.48	.64	.80
	940	445	30.8	9.0	1.24	.47	.62	.75	29.4	8.6	1.44	.48	.63	.77	27.8	8.1	1.67	.48	.65	.80	26.0	7.6	1.93	.49	.67	.83

SPA036 - CR26-48N-F with G60DFV-60C - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1110	525	35.2	10.3	2.23	.77	.92	1.00	33.2	9.7	2.50	.79	.95	1.00	31.0	9.1	2.80	.82	.98	1.00	28.8	8.4	3.14	.85	1.00	1.00
	1210	570	35.8	10.5	2.24	.79	.95	1.00	33.8	9.9	2.51	.82	.97	1.00	31.8	9.3	2.81	.84	1.00	1.00	29.6	8.7	3.15	.88	1.00	1.00
	1335	630	36.6	10.7	2.25	.82	.97	1.00	34.4	10.1	2.51	.84	1.00	1.00	32.6	9.6	2.82	.87	1.00	1.00	30.4	8.9	3.17	.91	1.00	1.00
67°F (19°C)	1110	525	37.6	11.0	2.26	.60	.75	.88	35.4	10.4	2.52	.62	.77	.91	33.2	9.7	2.83	.63	.79	.94	30.8	9.0	3.17	.65	.82	.98
	1210	570	38.0	11.1	2.26	.62	.77	.91	36.0	10.6	2.53	.64	.79	.94	33.8	9.9	2.83	.65	.82	.97	31.2	9.1	3.18	.67	.85	1.00
	1335	630	39.0	11.4	2.27	.64	.79	.94	36.6	10.7	2.54	.65	.82	.97	34.4	10.1	2.84	.67	.85	1.00	31.8	9.3	3.19	.69	.89	1.00
71°F (22°C)	1110	525	39.5	11.6	2.28	.46	.60	.72	37.4	11.0	2.55	.46	.61	.74	35.2	10.3	2.85	.47	.62	.77	32.6	9.6	3.20	.48	.64	.80
	1210	570	40.5	11.9	2.28	.46	.61	.74	38.0	11.1	2.56	.47	.62	.77	35.8	10.5	2.86	.48	.64	.79	33.2	9.7	3.21	.49	.66	.83
	1335	630	41.0	12.0	2.29	.48	.63	.77	39.0	11.4	2.57	.48	.64	.79	36.4	10.7	2.87	.49	.66	.82	33.8	9.9	3.21	.50	.68	.86

SPA036 - CR26-48N-F with G60DFV-60C - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
795	375	28.7	8.4	1.74	26.6	7.8	1.69	24.6	7.2	1.63	22.5	6.6	1.58
845	400	29.1	8.5	1.71	27.0	7.9	1.66	25.0	7.3	1.60	22.9	6.7	1.55
950	450	29.5	8.6	1.65	27.5	8.1	1.59	25.4	7.4	1.54	23.4	6.9	1.48

SPA036 - CR26-48N-F with G60DFV-60C - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1110	525	39.2	11.5	2.53	30.0	8.8	2.30	20.2	5.9	2.06	14.2	4.2	1.82	7.2	2.1	1.34
1210	570	39.6	11.6	2.49	30.4	8.9	2.26	20.6	6.0	2.02	14.6	4.3	1.78	7.6	2.2	1.30
1335	630	39.9	11.7	2.44	30.7	9.0	2.21	20.9	6.1	1.97	14.9	4.4	1.73	7.9	2.3	1.25

SPA036 - CR26-48N-F with G60DFV-60C - HEATING PERFORMANCE at 1210 cfm (570 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.49	39.6	11.6
60	16	2.44	37.5	11.0
55	13	2.38	35.4	10.4
50	10	2.33	33.3	9.8
47	8	2.30	32.0	9.4
45	7	2.26	30.4	8.9
40	4	2.17	26.3	7.7
35	2	2.07	22.2	6.5
30	-1	2.05	21.4	6.3
25	-4	2.02	20.6	6.0
20	-7	1.99	19.8	5.8
17	-8	1.97	19.3	5.7
15	-9	1.95	18.5	5.4
10	-12	1.90	16.4	4.8
5	-15	1.78	14.6	4.3
0	-18	1.66	12.9	3.8
-5	-21	1.54	11.1	3.3
-10	-23	1.42	9.3	2.7
-15	-26	1.30	7.6	2.2
-20	-29	1.19	5.8	1.7

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

SPA036 - CH23-51 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.2	7.7	1.21	.78	.93	1.00	24.8	7.3	1.41	.80	.95	1.00	23.4	6.9	1.63	.83	.98	1.00	22.0	6.4	1.90	.86	1.00	1.00
	900	425	27.0	7.9	1.21	.81	.96	1.00	25.6	7.5	1.41	.83	.99	1.00	24.2	7.1	1.64	.86	1.00	1.00	23.0	6.7	1.91	.90	1.00	1.00
	1000	470	27.6	8.1	1.22	.84	.99	1.00	26.4	7.7	1.42	.86	1.00	1.00	25.2	7.4	1.65	.89	1.00	1.00	23.6	6.9	1.91	.93	1.00	1.00
67°F (19°C)	800	380	28.0	8.2	1.22	.62	.75	.89	26.6	7.8	1.42	.63	.77	.91	25.2	7.4	1.65	.64	.80	.94	23.4	6.9	1.91	.66	.83	.98
	900	425	28.8	8.4	1.23	.63	.78	.92	27.4	8.0	1.42	.65	.80	.95	25.8	7.6	1.65	.66	.83	.98	24.0	7.0	1.91	.68	.86	1.00
	1000	470	29.6	8.7	1.23	.65	.81	.96	28.0	8.2	1.43	.67	.83	.99	26.2	7.7	1.65	.69	.86	1.00	24.4	7.2	1.92	.71	.90	1.00
71°F (22°C)	800	380	29.8	8.7	1.23	.47	.60	.73	28.4	8.3	1.43	.47	.61	.74	26.8	7.9	1.66	.48	.63	.77	25.0	7.3	1.92	.49	.65	.80
	900	425	30.6	9.0	1.24	.48	.62	.75	29.2	8.6	1.44	.48	.63	.77	27.4	8.0	1.66	.49	.65	.80	25.6	7.5	1.92	.50	.67	.83
	1000	470	31.4	9.2	1.24	.49	.64	.78	29.8	8.7	1.44	.49	.65	.80	28.0	8.2	1.67	.50	.67	.83	26.2	7.7	1.93	.51	.69	.87

SPA036 - CH23-51 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	34.4	10.1	2.22	.76	.90	1.00	32.6	9.6	2.49	.78	.93	1.00	30.4	8.9	2.79	.81	.96	1.00	28.4	8.3	3.13	.84	.99	1.00
	1200	565	35.8	10.5	2.24	.80	.95	1.00	33.8	9.9	2.51	.83	.98	1.00	31.8	9.3	2.81	.86	1.00	1.00	29.8	8.7	3.16	.89	1.00	1.00
	1400	660	37.0	10.8	2.25	.85	.99	1.00	35.2	10.3	2.52	.87	1.00	1.00	33.2	9.7	2.83	.91	1.00	1.00	31.2	9.1	3.18	.95	1.00	1.00
67°F (19°C)	1000	470	36.6	10.7	2.25	.61	.74	.87	34.6	10.1	2.52	.62	.76	.89	32.4	9.5	2.82	.64	.78	.92	30.2	8.9	3.16	.65	.81	.96
	1200	565	38.0	11.1	2.26	.63	.78	.92	35.8	10.5	2.53	.65	.80	.95	33.6	9.8	2.83	.67	.83	.98	31.2	9.1	3.18	.69	.87	1.00
	1400	660	39.0	11.4	2.27	.66	.82	.97	36.8	10.8	2.54	.68	.85	.99	34.6	10.1	2.84	.70	.88	1.00	32.0	9.4	3.19	.72	.92	1.00
71°F (22°C)	1000	470	38.5	11.3	2.27	.47	.59	.71	36.6	10.7	2.54	.47	.60	.73	34.4	10.1	2.84	.48	.62	.76	32.0	9.4	3.19	.48	.64	.78
	1200	565	40.0	11.7	2.28	.48	.62	.75	38.0	11.1	2.56	.49	.63	.78	35.6	10.4	2.86	.49	.65	.81	33.2	9.7	3.21	.50	.68	.84
	1400	660	41.5	12.2	2.30	.49	.65	.80	39.0	11.4	2.57	.50	.66	.82	36.6	10.7	2.87	.51	.69	.86	34.0	10.0	3.22	.52	.71	.90

SPA036 - CH23-51 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.3	8.6	1.75	27.3	8.0	1.70	25.2	7.4	1.65	23.1	6.8	1.60
900	425	29.8	8.7	1.68	27.8	8.1	1.63	25.7	7.5	1.58	23.6	6.9	1.53
1000	470	30.3	8.9	1.62	28.2	8.3	1.57	26.2	7.7	1.52	24.1	7.1	1.47

SPA036 - CH23-51 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	39.3	11.5	2.60	30.0	8.8	2.37	20.2	5.9	2.14	14.2	4.2	1.90	7.0	2.1	1.42
1200	565	40.1	11.8	2.49	30.8	9.0	2.27	21.0	6.2	2.03	15.0	4.4	1.80	7.8	2.3	1.32
1400	660	40.8	12.0	2.42	31.5	9.2	2.20	21.7	6.4	1.96	15.7	4.6	1.73	8.5	2.5	1.25

SPA036 - CH23-51 - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.49	40.1	11.8
60	16	2.44	38.0	11.1
55	13	2.39	35.8	10.5
50	10	2.34	33.7	9.9
47	8	2.30	32.5	9.5
45	7	2.27	30.8	9.0
40	4	2.18	26.7	7.8
35	2	2.08	22.6	6.6
30	-1	2.06	21.8	6.4
25	-4	2.03	21.0	6.2
20	-7	2.01	20.3	5.9
17	-8	1.99	19.8	5.8
15	-9	1.97	19.0	5.6
10	-12	1.92	16.9	5.0
5	-15	1.80	15.0	4.4
0	-18	1.68	13.2	3.9
-5	-21	1.56	11.4	3.3
-10	-23	1.44	9.6	2.8
-15	-26	1.32	7.8	2.3
-20	-29	1.20	5.9	1.7

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

SPA036 - CH23-65 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.4	7.7	1.21	.78	.93	1.00	25.0	7.3	1.41	.80	.95	1.00	23.6	6.9	1.63	.83	.98	1.00	22.2	6.5	1.90	.86	1.00	1.00
	900	425	27.2	8.0	1.22	.81	.96	1.00	25.8	7.6	1.41	.83	.99	1.00	24.6	7.2	1.64	.86	1.00	1.00	23.2	6.8	1.91	.90	1.00	1.00
	1000	470	28.0	8.2	1.22	.84	.99	1.00	26.8	7.9	1.42	.86	1.00	1.00	25.4	7.4	1.65	.90	1.00	1.00	24.0	7.0	1.91	.93	1.00	1.00
67°F (19°C)	800	380	28.2	8.3	1.22	.62	.76	.89	26.8	7.9	1.42	.63	.77	.92	25.4	7.4	1.65	.65	.80	.95	23.6	6.9	1.91	.66	.83	.98
	900	425	29.2	8.6	1.23	.64	.78	.93	27.6	8.1	1.43	.65	.81	.95	26.0	7.6	1.65	.67	.83	.99	24.2	7.1	1.92	.69	.87	1.00
	1000	470	29.8	8.7	1.23	.65	.81	.96	28.2	8.3	1.43	.67	.84	.99	26.4	7.7	1.66	.69	.87	1.00	24.6	7.2	1.92	.71	.90	1.00
71°F (22°C)	800	380	30.0	8.8	1.23	.47	.60	.73	28.6	8.4	1.43	.47	.61	.75	27.0	7.9	1.66	.48	.63	.77	25.2	7.4	1.92	.49	.65	.80
	900	425	31.0	9.1	1.24	.48	.62	.75	29.4	8.6	1.44	.48	.63	.78	27.8	8.1	1.66	.49	.65	.80	26.0	7.6	1.93	.50	.67	.84
	1000	470	31.8	9.3	1.25	.49	.64	.78	30.2	8.9	1.44	.49	.65	.81	28.2	8.3	1.67	.50	.67	.84	26.4	7.7	1.93	.51	.70	.87

SPA036 - CH23-65 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	34.8	10.2	2.23	.76	.90	1.00	32.8	9.6	2.50	.79	.93	1.00	30.8	9.0	2.80	.81	.96	1.00	28.6	8.4	3.14	.84	1.00	1.00
	1200	565	36.2	10.6	2.24	.81	.96	1.00	34.2	10.0	2.51	.83	.99	1.00	32.2	9.4	2.81	.86	1.00	1.00	30.2	8.9	3.16	.90	1.00	1.00
	1400	660	37.4	11.0	2.25	.85	1.00	1.00	35.6	10.4	2.53	.88	1.00	1.00	33.6	9.8	2.83	.91	1.00	1.00	31.4	9.2	3.18	.95	1.00	1.00
67°F (19°C)	1000	470	36.8	10.8	2.25	.61	.74	.87	35.0	10.3	2.52	.62	.76	.89	32.8	9.6	2.82	.64	.78	.93	30.4	8.9	3.17	.66	.82	.96
	1200	565	38.5	11.3	2.26	.64	.78	.93	36.2	10.6	2.53	.65	.81	.95	34.0	10.0	2.84	.67	.84	.99	31.4	9.2	3.18	.69	.87	1.00
	1400	660	39.5	11.6	2.28	.66	.83	.98	37.2	10.9	2.55	.68	.85	1.00	34.8	10.2	2.85	.70	.89	1.00	32.2	9.4	3.19	.73	.93	1.00
71°F (22°C)	1000	470	39.0	11.4	2.27	.46	.59	.71	37.0	10.8	2.54	.47	.61	.73	34.6	10.1	2.85	.48	.62	.76	32.2	9.4	3.19	.49	.64	.79
	1200	565	40.5	11.9	2.29	.47	.62	.76	38.5	11.3	2.56	.49	.64	.78	36.0	10.6	2.86	.49	.65	.81	33.4	9.8	3.21	.50	.68	.84
	1400	660	42.0	12.3	2.30	.49	.65	.80	39.5	11.6	2.57	.50	.67	.83	37.0	10.8	2.88	.51	.69	.86	34.2	10.0	3.22	.52	.72	.90

SPA036 - CH23-65 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.6	8.7	1.71	27.5	8.1	1.66	25.4	7.4	1.61	23.3	6.8	1.56
900	425	30.1	8.8	1.64	28.0	8.2	1.59	25.9	7.6	1.54	23.8	7.0	1.49
1000	470	30.6	9.0	1.58	28.5	8.4	1.54	26.4	7.7	1.49	24.3	7.1	1.44

SPA036 - CH23-65 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	39.5	11.6	2.54	30.2	8.9	2.32	20.3	5.9	2.09	14.2	4.2	1.86	6.9	2.0	1.39
1200	565	40.4	11.8	2.44	31.1	9.1	2.22	21.2	6.2	1.99	15.1	4.4	1.76	7.8	2.3	1.29
1400	660	41.1	12.0	2.36	31.8	9.3	2.15	21.9	6.4	1.92	15.8	4.6	1.69	8.5	2.5	1.22

SPA036 - CH23-65 - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.44	40.4	11.8
60	16	2.39	38.3	11.2
55	13	2.34	36.2	10.6
50	10	2.29	34.0	10.0
47	8	2.26	32.7	9.6
45	7	2.22	31.1	9.1
40	4	2.13	26.9	7.9
35	2	2.04	22.7	6.7
30	-1	2.02	21.9	6.4
25	-4	1.99	21.2	6.2
20	-7	1.97	20.4	6.0
17	-8	1.95	19.9	5.8
15	-9	1.93	19.1	5.6
10	-12	1.88	17.0	5.0
5	-15	1.76	15.1	4.4
0	-18	1.65	13.3	3.9
-5	-21	1.53	11.5	3.4
-10	-23	1.41	9.6	2.8
-15	-26	1.29	7.8	2.3
-20	-29	1.17	6.0	1.8

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

SPA036 - CH33-44/48B-2F - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.6	7.8	1.21	.78	.93	1.00	25.2	7.4	1.41	.80	.95	1.00	23.8	7.0	1.64	.82	.98	1.00	22.2	6.5	1.90	.85	1.00	1.00
	900	425	27.4	8.0	1.22	.81	.96	1.00	26.0	7.6	1.41	.83	.99	1.00	24.4	7.2	1.64	.86	1.00	1.00	23.0	6.7	1.91	.89	1.00	1.00
	1000	470	28.0	8.2	1.22	.83	.99	1.00	26.6	7.8	1.42	.86	1.00	1.00	25.4	7.4	1.65	.89	1.00	1.00	23.8	7.0	1.91	.93	1.00	1.00
67°F (19°C)	800	380	28.6	8.4	1.22	.61	.75	.88	27.0	7.9	1.42	.63	.77	.91	25.4	7.4	1.65	.64	.79	.94	23.6	6.9	1.91	.66	.82	.98
	900	425	29.4	8.6	1.23	.63	.78	.92	27.8	8.1	1.43	.64	.80	.95	26.0	7.6	1.65	.66	.83	.99	24.2	7.1	1.92	.68	.86	1.00
	1000	470	30.0	8.8	1.24	.65	.81	.96	28.4	8.3	1.43	.66	.83	.99	26.6	7.8	1.66	.68	.86	1.00	24.8	7.3	1.92	.71	.90	1.00
71°F (22°C)	800	380	30.4	8.9	1.24	.47	.60	.72	28.8	8.4	1.43	.47	.61	.74	27.2	8.0	1.66	.48	.62	.76	25.4	7.4	1.92	.49	.64	.79
	900	425	31.4	9.2	1.24	.47	.61	.75	29.6	8.7	1.44	.48	.63	.77	27.8	8.1	1.67	.49	.65	.80	26.0	7.6	1.93	.50	.67	.83
	1000	470	32.0	9.4	1.25	.48	.63	.78	30.4	8.9	1.45	.49	.65	.80	28.4	8.3	1.67	.50	.67	.83	26.6	7.8	1.93	.51	.69	.87

SPA036 - CH33-44/48B-2F - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	35.0	10.3	2.23	.76	.90	1.00	33.0	9.7	2.49	.78	.92	1.00	30.8	9.0	2.80	.80	.96	1.00	28.6	8.4	3.14	.83	.99	1.00
	1200	565	36.4	10.7	2.24	.80	.95	1.00	34.2	10.0	2.51	.82	.98	1.00	32.0	9.4	2.81	.85	1.00	1.00	30.0	8.8	3.16	.89	1.00	1.00
	1400	660	37.6	11.0	2.26	.84	1.00	1.00	35.6	10.4	2.53	.87	1.00	1.00	33.6	9.8	2.83	.90	1.00	1.00	31.4	9.2	3.18	.94	1.00	1.00
67°F (19°C)	1000	470	37.2	10.9	2.25	.60	.73	.86	35.2	10.3	2.52	.61	.75	.89	33.0	9.7	2.82	.63	.77	.92	30.4	8.9	3.17	.65	.81	.96
	1200	565	38.5	11.3	2.27	.63	.77	.92	36.6	10.7	2.54	.64	.80	.95	34.2	10.0	2.84	.66	.83	.98	31.6	9.3	3.18	.68	.86	1.00
	1400	660	40.0	11.7	2.28	.65	.81	.97	37.6	11.0	2.55	.67	.84	1.00	35.0	10.3	2.85	.69	.87	1.00	32.4	9.5	3.19	.72	.92	1.00
71°F (22°C)	1000	470	39.5	11.6	2.28	.46	.59	.71	37.2	10.9	2.55	.47	.60	.73	35.0	10.3	2.85	.47	.61	.75	32.4	9.5	3.20	.48	.63	.78
	1200	565	41.0	12.0	2.29	.48	.61	.75	39.0	11.4	2.56	.48	.63	.77	36.2	10.6	2.87	.49	.65	.80	33.6	9.8	3.21	.50	.67	.83
	1400	660	42.5	12.5	2.31	.49	.64	.79	40.0	11.7	2.58	.49	.66	.82	37.2	10.9	2.88	.50	.68	.85	34.4	10.1	3.23	.52	.70	.89

SPA036 - CH33-44/48B-2F - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.1	8.5	1.79	27.1	7.9	1.73	25.0	7.3	1.68	23.0	6.7	1.63
900	425	29.7	8.7	1.72	27.6	8.1	1.66	25.5	7.5	1.61	23.5	6.9	1.56
1000	470	30.1	8.8	1.65	28.1	8.2	1.60	26.0	7.6	1.54	24.0	7.0	1.49

SPA036 - CH33-44/48B-2F - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	39.0	11.4	2.65	29.8	8.7	2.41	20.1	5.9	2.16	14.1	4.1	1.92	6.8	2.0	1.44
1200	565	39.9	11.7	2.54	30.7	9.0	2.30	21.0	6.2	2.05	15.0	4.4	1.81	7.7	2.3	1.33
1400	660	40.6	11.9	2.45	31.4	9.2	2.21	21.7	6.4	1.97	15.7	4.6	1.72	8.4	2.5	1.24

SPA036 - CH33-44/48B-2F - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.54	39.9	11.7
60	16	2.48	37.8	11.1
55	13	2.43	35.7	10.5
50	10	2.37	33.6	9.8
47	8	2.34	32.3	9.5
45	7	2.30	30.7	9.0
40	4	2.20	26.6	7.8
35	2	2.11	22.5	6.6
30	-1	2.08	21.7	6.4
25	-4	2.05	21.0	6.2
20	-7	2.02	20.2	5.9
17	-8	2.01	19.8	5.8
15	-9	1.98	18.9	5.5
10	-12	1.93	16.8	4.9
5	-15	1.81	15.0	4.4
0	-18	1.69	13.2	3.9
-5	-21	1.57	11.4	3.3
-10	-23	1.45	9.6	2.8
-15	-26	1.33	7.7	2.3
-20	-29	1.20	5.9	1.7

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

SPA036 - CH33-48C-2F - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	26.8	7.9	1.21	.78	.92	1.00	25.2	7.4	1.41	.80	.95	1.00	23.8	7.0	1.64	.82	.98	1.00	22.2	6.5	1.90	.85	1.00	1.00
	900	425	27.6	8.1	1.22	.81	.96	1.00	26.0	7.6	1.41	.83	.99	1.00	24.6	7.2	1.64	.86	1.00	1.00	23.2	6.8	1.91	.89	1.00	1.00
	1000	470	28.2	8.3	1.22	.83	.99	1.00	26.8	7.9	1.42	.86	1.00	1.00	25.4	7.4	1.65	.89	1.00	1.00	24.0	7.0	1.91	.93	1.00	1.00
67°F (19°C)	800	380	28.6	8.4	1.22	.62	.75	.88	27.2	8.0	1.42	.63	.77	.91	25.4	7.4	1.65	.64	.79	.94	23.8	7.0	1.91	.66	.82	.98
	900	425	29.4	8.6	1.23	.63	.78	.92	27.8	8.1	1.43	.65	.80	.95	26.2	7.7	1.65	.66	.83	.98	24.4	7.2	1.92	.68	.86	1.00
	1000	470	30.2	8.9	1.24	.65	.81	.96	28.4	8.3	1.43	.67	.83	.98	26.8	7.9	1.66	.68	.86	1.00	24.8	7.3	1.92	.70	.90	1.00
71°F (22°C)	800	380	30.6	9.0	1.24	.47	.60	.72	29.0	8.5	1.44	.48	.61	.74	27.2	8.0	1.66	.48	.63	.76	25.4	7.4	1.92	.49	.64	.79
	900	425	31.4	9.2	1.24	.48	.62	.75	29.8	8.7	1.44	.49	.63	.77	28.0	8.2	1.67	.49	.65	.80	26.2	7.7	1.93	.50	.67	.83
	1000	470	32.0	9.4	1.25	.49	.64	.78	30.4	8.9	1.45	.50	.65	.80	28.6	8.4	1.67	.50	.67	.83	26.6	7.8	1.93	.51	.69	.86

SPA036 - CH33-48C-2F - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1000	470	35.2	10.3	2.23	.76	.89	1.00	33.2	9.7	2.50	.78	.92	1.00	31.0	9.1	2.80	.80	.95	1.00	28.6	8.4	3.14	.83	.99	1.00
	1200	565	36.6	10.7	2.24	.80	.95	1.00	34.4	10.1	2.51	.82	.98	1.00	32.2	9.4	2.81	.85	1.00	1.00	30.2	8.9	3.16	.89	1.00	1.00
	1400	660	37.8	11.1	2.26	.84	1.00	1.00	35.6	10.4	2.53	.87	1.00	1.00	33.6	9.8	2.83	.90	1.00	1.00	31.4	9.2	3.18	.94	1.00	1.00
67°F (19°C)	1000	470	37.4	11.0	2.25	.61	.73	.86	35.2	10.3	2.52	.62	.75	.88	33.0	9.7	2.83	.63	.77	.92	30.6	9.0	3.17	.65	.80	.95
	1200	565	39.0	11.4	2.27	.63	.77	.91	36.6	10.7	2.54	.64	.80	.94	34.2	10.0	2.84	.66	.82	.98	31.6	9.3	3.18	.68	.86	1.00
	1400	660	40.0	11.7	2.28	.66	.81	.97	37.6	11.0	2.55	.67	.84	.99	35.2	10.3	2.85	.69	.87	1.00	32.4	9.5	3.19	.72	.91	1.00
71°F (22°C)	1000	470	39.5	11.6	2.28	.47	.59	.71	37.4	11.0	2.55	.47	.60	.73	35.0	10.3	2.85	.48	.62	.75	32.6	9.6	3.19	.49	.63	.78
	1200	565	41.0	12.0	2.29	.48	.62	.75	39.0	11.4	2.57	.49	.63	.77	36.4	10.7	2.87	.49	.65	.80	33.6	9.8	3.21	.50	.67	.83
	1400	660	42.5	12.5	2.31	.49	.64	.79	40.0	11.7	2.58	.50	.66	.82	37.4	11.0	2.88	.51	.68	.85	34.6	10.1	3.23	.52	.71	.89

SPA036 - CH33-48C-2F - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
800	380	29.1	8.5	1.79	27.1	7.9	1.73	25.0	7.3	1.68	23.0	6.7	1.63
900	425	29.7	8.7	1.72	27.6	8.1	1.66	25.5	7.5	1.61	23.5	6.9	1.56
1000	470	30.1	8.8	1.65	28.1	8.2	1.60	26.0	7.6	1.54	24.0	7.0	1.49

SPA036 - CH33-48C-2F - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1000	470	39.0	11.4	2.65	29.8	8.7	2.41	20.1	5.9	2.16	14.1	4.1	1.92	6.8	2.0	1.44
1200	565	39.9	11.7	2.54	30.7	9.0	2.30	21.0	6.2	2.05	15.0	4.4	1.81	7.7	2.3	1.33
1400	660	40.6	11.9	2.45	31.4	9.2	2.21	21.7	6.4	1.97	15.7	4.6	1.72	8.4	2.5	1.24

SPA036 - CH33-48C-2F - HEATING PERFORMANCE at 1200 cfm (565 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.54	39.9	11.7
60	16	2.48	37.8	11.1
55	13	2.43	35.7	10.5
50	10	2.37	33.6	9.8
47	8	2.34	32.3	9.5
45	7	2.30	30.7	9.0
40	4	2.20	26.6	7.8
35	2	2.11	22.5	6.6
30	-1	2.08	21.7	6.4
25	-4	2.05	21.0	6.2
20	-7	2.02	20.2	5.9
17	-8	2.01	19.8	5.8
15	-9	1.98	18.9	5.5
10	-12	1.93	16.8	4.9
5	-15	1.81	15.0	4.4
0	-18	1.69	13.2	3.9
-5	-21	1.57	11.4	3.3
-10	-23	1.45	9.6	2.8
-15	-26	1.33	7.7	2.3
-20	-29	1.20	5.9	1.7

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

SPA036 - CH33-44/48B-2F with G61MPV-36B - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	595	280	24.6	7.2	1.20	.72	.84	.96	23.2	6.8	1.40	.73	.86	.98	21.8	6.4	1.62	.75	.88	1.00	20.4	6.0	1.89	.77	.91	1.00
	750	355	26.2	7.7	1.21	.75	.89	1.00	24.8	7.3	1.41	.77	.92	1.00	23.2	6.8	1.63	.79	.95	1.00	21.6	6.3	1.90	.82	.99	1.00
	900	425	27.4	8.0	1.22	.80	.95	1.00	25.8	7.6	1.41	.82	.98	1.00	24.4	7.2	1.64	.85	1.00	1.00	23.0	6.7	1.91	.88	1.00	1.00
67°F (19°C)	595	280	26.2	7.7	1.21	.57	.69	.80	25.0	7.3	1.41	.58	.70	.82	23.6	6.9	1.63	.59	.72	.84	22.0	6.4	1.90	.60	.74	.87
	750	355	28.0	8.2	1.22	.59	.73	.85	26.6	7.8	1.42	.60	.74	.88	25.0	7.3	1.64	.62	.76	.91	23.4	6.9	1.91	.63	.79	.95
	900	425	29.4	8.6	1.23	.62	.77	.91	27.8	8.1	1.43	.64	.79	.94	26.0	7.6	1.65	.65	.82	.98	24.2	7.1	1.92	.67	.85	1.00
71°F (22°C)	595	280	28.0	8.2	1.22	.45	.55	.66	26.6	7.8	1.42	.45	.56	.67	25.2	7.4	1.64	.45	.57	.69	23.6	6.9	1.91	.46	.58	.71
	750	355	29.8	8.7	1.23	.45	.58	.70	28.4	8.3	1.43	.46	.59	.71	26.6	7.8	1.66	.46	.60	.74	25.0	7.3	1.92	.47	.62	.76
	900	425	31.2	9.1	1.24	.47	.61	.74	29.6	8.7	1.44	.47	.62	.76	27.8	8.1	1.67	.48	.64	.79	26.0	7.6	1.93	.49	.66	.82

SPA036 - CH33-44/48B-2F with G61MPV-36B - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	975	460	34.6	10.1	2.22	.75	.88	1.00	32.6	9.6	2.49	.77	.91	1.00	30.6	9.0	2.79	.79	.94	1.00	28.2	8.3	3.13	.82	.98	1.00
	1185	560	36.2	10.6	2.24	.79	.94	1.00	34.0	10.0	2.51	.81	.98	1.00	31.8	9.3	2.81	.84	1.00	1.00	29.8	8.7	3.16	.88	1.00	1.00
	1435	675	37.8	11.1	2.26	.85	1.00	1.00	35.8	10.5	2.53	.88	1.00	1.00	33.8	9.9	2.83	.91	1.00	1.00	31.6	9.3	3.18	.95	1.00	1.00
67°F (19°C)	975	460	37.0	10.8	2.25	.59	.72	.85	34.8	10.2	2.52	.60	.74	.87	32.6	9.6	2.82	.62	.76	.90	30.2	8.9	3.16	.64	.79	.94
	1185	560	38.5	11.3	2.27	.62	.77	.91	36.4	10.7	2.54	.64	.79	.94	34.0	10.0	2.84	.65	.82	.98	31.4	9.2	3.18	.67	.85	1.00
	1435	675	40.0	11.7	2.28	.66	.82	.98	37.6	11.0	2.55	.68	.85	1.00	35.2	10.3	2.85	.70	.88	1.00	32.4	9.5	3.20	.72	.93	1.00
71°F (22°C)	975	460	39.0	11.4	2.27	.45	.58	.69	37.0	10.8	2.54	.46	.59	.71	34.6	10.1	2.85	.47	.60	.74	32.2	9.4	3.19	.47	.62	.76
	1185	560	41.0	12.0	2.29	.47	.61	.74	38.5	11.3	2.56	.48	.62	.76	36.0	10.6	2.87	.48	.64	.79	33.4	9.8	3.21	.49	.66	.83
	1435	675	42.5	12.5	2.31	.49	.64	.80	40.0	11.7	2.58	.50	.66	.83	37.4	11.0	2.89	.51	.68	.86	34.6	10.1	3.23	.52	.71	.90

SPA036 - CH33-44/48B-2F with G61MPV-36B - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
595	280	27.4	8.0	1.99	25.5	7.5	1.93	23.5	6.9	1.87	21.5	6.3	1.80
750	355	28.4	8.3	1.80	26.4	7.7	1.74	24.5	7.2	1.67	22.5	6.6	1.61
900	425	29.4	8.6	1.68	27.4	8.0	1.62	25.4	7.4	1.56	23.4	6.9	1.49

SPA036 - CH33-44/48B-2F with G61MPV-36B - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
975	460	38.8	11.4	2.60	29.6	8.7	2.37	19.8	5.8	2.13	13.8	4.0	1.89	6.6	1.9	1.42
1185	560	39.8	11.7	2.49	30.6	9.0	2.26	20.8	6.1	2.02	14.8	4.3	1.78	7.6	2.2	1.30
1435	680	41.0	12.0	2.39	31.8	9.3	2.16	22.0	6.4	1.92	16.0	4.7	1.68	8.8	2.6	1.21

SPA036- CH33-44/48B-2F with G61MPV-36B - HEATING PERFORMANCE at 1185 cfm (560 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.49	39.8	11.7
60	16	2.44	37.7	11.0
55	13	2.38	35.6	10.4
50	10	2.33	33.5	9.8
47	8	2.30	32.2	9.4
45	7	2.26	30.6	9.0
40	4	2.16	26.5	7.8
35	2	2.07	22.4	6.6
30	-1	2.04	21.6	6.3
25	-4	2.02	20.8	6.1
20	-7	1.99	20.0	5.9
17	-8	1.97	19.5	5.7
15	-9	1.95	18.7	5.5
10	-12	1.90	16.6	4.9
5	-15	1.78	14.8	4.3
0	-18	1.66	13.0	3.8
-5	-21	1.54	11.2	3.3
-10	-23	1.42	9.4	2.8
-15	-26	1.30	7.6	2.2
-20	-29	1.18	5.9	1.7

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

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

SPA036 - CH33-48C-2F with G61MPV-36C-090 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	595	280	24.6	7.2	1.20	.72	.84	.96	23.2	6.8	1.40	.73	.86	.98	22.0	6.4	1.62	.75	.88	1.00	20.4	6.0	1.89	.77	.91	1.00
	750	355	26.2	7.7	1.21	.76	.89	1.00	24.8	7.3	1.41	.77	.92	1.00	23.2	6.8	1.63	.79	.95	1.00	21.6	6.3	1.90	.82	.99	1.00
	900	425	27.4	8.0	1.22	.80	.95	1.00	26.0	7.6	1.41	.82	.98		24.4	7.2	1.64	.85	1.00	1.00	23.0	6.7	1.91	.88	1.00	1.00
67°F (19°C)	595	280	26.2	7.7	1.21	.58	.69	.80	25.0	7.3	1.41	.59	.70	.82	23.6	6.9	1.63	.59	.72	.84	22.0	6.4	1.90	.60	.74	.87
	750	355	28.0	8.2	1.22	.60	.73	.86	26.6	7.8	1.42	.61	.75	.88	25.0	7.3	1.64	.62	.77	.91	23.2	6.8	1.91	.63	.79	.94
	900	425	29.4	8.6	1.23	.63	.77	.91	27.8	8.1	1.43	.64	.79	.94	26.0	7.6	1.65	.66	.82	.98	24.2	7.1	1.92	.67	.85	1.00
71°F (22°C)	595	280	28.0	8.2	1.22	.45	.56	.66	26.6	7.8	1.42	.45	.57	.68	25.2	7.4	1.64	.46	.58	.69	23.6	6.9	1.91	.46	.59	.71
	750	355	29.8	8.7	1.23	.46	.58	.70	28.4	8.3	1.43	.46	.59	.72	26.6	7.8	1.66	.47	.60	.74	25.0	7.3	1.92	.47	.62	.76
	900	425	31.2	9.1	1.24	.47	.61	.75	29.6	8.7	1.44	.48	.62	.76	27.8	8.1	1.66	.48	.64	.79	26.0	7.6	1.93	.49	.66	.82

SPA036 - CH33-48C-2F with G61MPV-36C-090 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	975	460	34.8	10.2	2.23	.75	.88	1.00	32.8	9.6	2.49	.77	.91	1.00	30.6	9.0	2.80	.79	.94	1.00	28.4	8.3	3.14	.82	.98	1.00
	1185	560	36.4	10.7	2.24	.79	.94	1.00	34.2	10.0	2.51	.81	.97	1.00	32.0	9.4	2.81	.84	1.00	1.00	30.0	8.8	3.16	.88	1.00	1.00
	1435	675	37.8	11.1	2.26	.85	1.00	1.00	36.0	10.6	2.53	.87	1.00	1.00	33.8	9.9	2.83	.91	1.00	1.00	31.8	9.3	3.18	.95	1.00	1.00
67°F (19°C)	975	460	37.0	10.8	2.25	.60	.72	.85	35.0	10.3	2.52	.61	.74	.87	32.8	9.6	2.82	.62	.76	.90	30.4	8.9	3.16	.64	.79	.94
	1185	560	38.5	11.3	2.27	.62	.77	.91	36.4	10.7	2.54	.64	.79	.94	34.2	10.0	2.84	.65	.82	.97	31.4	9.2	3.18	.67	.85	1.00
	1435	675	40.0	11.7	2.29	.66	.82	.97	37.8	11.1	2.55	.68	.85	1.00	35.2	10.3	2.85	.70	.88		32.6	9.6	3.20	.72	.92	1.00
71°F (22°C)	975	460	39.0	11.4	2.27	.46	.58	.70	37.0	10.8	2.55	.47	.59	.72	34.8	10.2	2.85	.47	.61	.74	32.2	9.4	3.19	.48	.62	.76
	1185	560	41.0	12.0	2.29	.48	.61	.74	38.5	11.3	2.56	.48	.62	.76	36.2	10.6	2.87	.49	.64	.79	33.6	9.8	3.21	.50	.66	.83
	1435	675	42.5	12.5	2.31	.49	.65	.80	40.0	11.7	2.58	.50	.66	.82	37.6	11.0	2.89	.51	.69	.86	34.6	10.1	3.23	.52	.71	.90

SPA036 - CH33-48C-2F with G61MPV-36C-090 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
595	280	27.3	8.0	2.02	25.3	7.4	1.95	23.4	6.9	1.88	21.5	6.3	1.81
750	355	28.1	8.2	1.85	26.2	7.7	1.78	24.2	7.1	1.71	22.3	6.5	1.64
900	425	29.2	8.6	1.72	27.3	8.0	1.65	25.3	7.4	1.58	23.4	6.9	1.51

SPA036 - CH33-48C-2F with G61MPV-36C-090 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
975	460	38.5	11.3	2.66	29.3	8.6	2.42	19.7	5.8	2.17	13.7	4.0	1.93	6.6	1.9	1.44
1185	560	39.5	11.6	2.54	30.3	8.9	2.30	20.7	6.1	2.05	14.7	4.3	1.81	7.6	2.2	1.32
1435	680	40.7	11.9	2.44	31.5	9.2	2.20	21.9	6.4	1.95	15.9	4.7	1.71	8.8	2.6	1.22

SPA036 - CH33-48C-2F with G61MPV-36C-090 - HEATING PERFORMANCE at 1185 cfm (560 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.54	39.5	11.6
60	16	2.48	37.4	11.0
55	13	2.43	35.3	10.3
50	10	2.37	33.2	9.7
47	8	2.34	32.0	9.4
45	7	2.30	30.3	8.9
40	4	2.20	26.3	7.7
35	2	2.11	22.2	6.5
30	-1	2.08	21.4	6.3
25	-4	2.05	20.7	6.1
20	-7	2.02	19.9	5.8
17	-8	2.00	19.4	5.7
15	-9	1.98	18.6	5.5
10	-12	1.93	16.5	4.8
5	-15	1.81	14.7	4.3
0	-18	1.69	12.9	3.8
-5	-21	1.57	11.2	3.3
-10	-23	1.44	9.4	2.8
-15	-26	1.32	7.6	2.2
-20	-29	1.20	5.8	1.7

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

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

SPA036 - CH33-44/48B-2F with G60UHV-36B-090 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	705	335	25.8	7.6	1.21	.75	.88	1.00	24.4	7.2	1.40	.76	.90	1.00	23.0	6.7	1.63	.78	.93	1.00	21.4	6.3	1.90	.81	.97	1.00
	820	385	26.8	7.9	1.21	.78	.92	1.00	25.2	7.4	1.41	.80	.95	1.00	23.8	7.0	1.64	.82	.98	1.00	22.2	6.5	1.90	.85	1.00	1.00
	915	430	27.6	8.1	1.22	.80	.96	1.00	26.0	7.6	1.41	.83	.99	1.00	24.6	7.2	1.64	.85	1.00	1.00	23.2	6.8	1.91	.89	1.00	1.00
67°F (19°C)	705	335	27.6	8.1	1.22	.59	.72	.84	26.2	7.7	1.42	.60	.74	.86	24.6	7.2	1.64	.61	.75	.89	23.0	6.7	1.91	.63	.78	.93
	820	385	28.8	8.4	1.23	.61	.75	.88	27.2	8.0	1.42	.62	.77	.91	25.6	7.5	1.65	.64	.79	.94	23.8	7.0	1.91	.65	.82	.98
	915	430	29.4	8.6	1.23	.63	.78	.92	27.8	8.1	1.43	.64	.80	.95	26.2	7.7	1.65	.66	.82	.98	24.4	7.2	1.92	.68	.86	1.00
71°F (22°C)	705	335	29.4	8.6	1.23	.46	.58	.69	28.0	8.2	1.43	.46	.59	.71	26.4	7.7	1.65	.47	.60	.73	24.6	7.2	1.92	.47	.61	.75
	820	385	30.6	9.0	1.24	.47	.60	.72	29.0	8.5	1.44	.47	.61	.74	27.2	8.0	1.66	.48	.62	.76	25.4	7.4	1.92	.48	.64	.79
	915	430	31.4	9.2	1.24	.47	.61	.75	29.8	8.7	1.44	.48	.63	.77	28.0	8.2	1.67	.49	.64	.79	26.2	7.7	1.93	.49	.66	.82

SPA036 - CH33-44/48B-2F with G60UHV-36B-090 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1010	475	35.0	10.3	2.23	.76	.89	1.00	33.0	9.7	2.49	.77	.92	1.00	30.8	9.0	2.80	.80	.95	1.00	28.4	8.3	3.14	.83	.99	1.00
	1175	555	36.0	10.6	2.24	.79	.94	1.00	34.0	10.0	2.51	.81	.97	1.00	31.8	9.3	2.81	.84	1.00	1.00	29.6	8.7	3.15	.87	1.00	1.00
	1300	615	36.8	10.8	2.25	.81	.97	1.00	34.6	10.1	2.52	.84	1.00	1.00	32.6	9.6	2.82	.87	1.00	1.00	30.6	9.0	3.17	.91	1.00	1.00
67°F (19°C)	1010	475	37.2	10.9	2.25	.60	.73	.86	35.2	10.3	2.52	.61	.75	.88	33.0	9.7	2.82	.62	.77	.92	30.4	8.9	3.17	.64	.80	.96
	1175	555	38.5	11.3	2.27	.62	.76	.90	36.2	10.6	2.53	.63	.78	.93	34.0	10.0	2.84	.65	.81	.97	31.4	9.2	3.18	.67	.85	1.00
	1300	615	39.5	11.6	2.27	.63	.79	.94	37.0	10.8	2.54	.65	.81	.97	34.4	10.1	2.84	.67	.84	1.00	31.8	9.3	3.19	.69	.88	1.00
71°F (22°C)	1010	475	39.5	11.6	2.28	.46	.58	.70	37.2	10.9	2.55	.46	.59	.72	35.0	10.3	2.85	.47	.61	.75	32.4	9.5	3.19	.48	.63	.77
	1175	555	40.5	11.9	2.29	.47	.60	.74	38.5	11.3	2.56	.47	.62	.76	36.0	10.6	2.86	.48	.63	.79	33.4	9.8	3.21	.49	.66	.82
	1300	615	41.5	12.2	2.30	.47	.62	.76	39.0	11.4	2.57	.48	.63	.79	36.6	10.7	2.87	.49	.65	.82	34.0	10.0	3.22	.50	.68	.85

SPA036 - CH33-44/48B-2F with G60UHV-36B-090 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
705	335	28.2	8.3	1.85	26.2	7.7	1.79	24.2	7.1	1.73	22.2	6.5	1.68
820	385	28.9	8.5	1.73	26.9	7.9	1.67	24.9	7.3	1.62	22.9	6.7	1.56
915	430	29.5	8.6	1.67	27.5	8.1	1.61	25.4	7.4	1.55	23.4	6.9	1.49

SPA036 - CH33-44/48B-2F with G60UHV-36B-090 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1010	475	39.0	11.4	2.58	29.8	8.7	2.35	20.0	5.9	2.10	14.0	4.1	1.87	7.0	2.1	1.39
1175	555	39.6	11.6	2.49	30.4	8.9	2.26	20.6	6.0	2.01	14.6	4.3	1.78	7.6	2.2	1.30
1300	615	40.0	11.7	2.44	30.8	9.0	2.20	21.0	6.2	1.96	15.0	4.4	1.72	8.0	2.3	1.25

SPA036 - CH33-44/48B-2F with G60UHV-36B-090 - HEATING PERFORMANCE at 1175 cfm (555 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.49	39.6	11.6
60	16	2.44	37.5	11.0
55	13	2.38	35.4	10.4
50	10	2.33	33.3	9.8
47	8	2.30	32.0	9.4
45	7	2.26	30.4	8.9
40	4	2.16	26.3	7.7
35	2	2.07	22.2	6.5
30	-1	2.04	21.4	6.3
25	-4	2.01	20.6	6.0
20	-7	1.99	19.8	5.8
17	-8	1.97	19.3	5.7
15	-9	1.95	18.5	5.4
10	-12	1.89	16.4	4.8
5	-15	1.78	14.6	4.3
0	-18	1.66	12.8	3.8
-5	-21	1.54	11.1	3.3
-10	-23	1.42	9.3	2.7
-15	-26	1.30	7.6	2.2
-20	-29	1.18	5.8	1.7

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

SPA048 - CB30M-41 - CBX32M-036 - CB30M-46 - CBX32M-042 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F	875	415	32.6	9.6	1.59	.73	.86	.99	31.0	9.1	1.84	.75	.89	1.00	29.2	8.6	2.12	.76	.91	1.00	27.2	8.0	2.44	.79	.95	1.00
(17°C)	1200	565	35.0	10.3	1.58	.80	.96	1.00	33.2	9.7	1.83	.82	.98	1.00	31.4	9.2	2.10	.84	1.00	1.00	29.6	8.7	2.42	.87	1.00	1.00
67°F	875	415	34.8	10.2	1.58	.58	.70	.83	33.0	9.7	1.83	.59	.72	.85	31.4	9.2	2.10	.60	.74	.87	29.4	8.6	2.42	.61	.76	.90
(19°C)	1200	565	37.6	11.0	1.58	.62	.77	.92	35.6	10.4	1.82	.63	.79	.95	33.6	9.8	2.09	.64	.81	.97	31.6	9.3	2.40	.66	.84	1.00
71°F	875	415	37.0	10.8	1.58	.44	.56	.68	35.2	10.3	1.82	.44	.57	.69	33.4	9.8	2.09	.45	.58	.71	31.4	9.2	2.41	.45	.59	.73
(22°C)	1200	565	40.0	11.7	1.57	.46	.60	.74	38.0	11.1	1.81	.46	.61	.76	36.0	10.6	2.08	.47	.63	.79	33.6	9.8	2.39	.47	.65	.81

SPA048 - CB30M-41 - CBX32M-036 - CB30M-46 - CBX32M-042 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F	1250	590	43.5	12.7	2.85	.75	.88	1.00	41.5	12.2	3.20	.76	.91	1.00	39.0	11.4	3.59	.78	.94	1.00	36.2	10.6	4.02	.81	.97	1.00
(17°C)	1500	710	45.5	13.3	2.87	.79	.94	1.00	43.0	12.6	3.22	.80	.96	1.00	40.5	11.9	3.61	.83	.99	1.00	37.6	11.0	4.04	.86	1.00	1.00
67°F	1250	590	46.5	13.6	2.88	.59	.72	.85	44.0	12.9	3.23	.60	.74	.87	41.5	12.2	3.62	.61	.76	.90	38.5	11.3	4.05	.62	.78	.94
(19°C)	1500	710	48.5	14.2	2.90	.61	.76	.90	45.5	13.3	3.25	.62	.78	.93	43.0	12.6	3.64	.64	.80	.96	40.0	11.7	4.07	.66	.83	.99
71°F	1250	590	49.0	14.4	2.91	.45	.57	.69	46.5	13.6	3.26	.45	.58	.71	44.0	12.9	3.65	.45	.59	.73	41.0	12.0	4.09	.46	.61	.75
(22°C)	1500	710	51.0	14.9	2.93	.46	.60	.73	48.5	14.2	3.29	.46	.61	.75	45.5	13.3	3.68	.47	.62	.78	42.5	12.5	4.11	.47	.64	.81

SPA048 - CB30M-41 - CBX32M-036 - CB30M-46 - CBX32M-042 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
875	415	38.2	11.2	2.37	35.4	10.4	2.34	32.7	9.6	2.31	30.0	8.8	2.29
1200	565	39.8	11.7	2.10	37.1	10.9	2.07	34.3	10.1	2.04	31.6	9.3	2.02

SPA048 - CB30M-41 - CBX32M-036 - CB30M-46 - CBX32M-042 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1250	590	53.9	15.8	3.35	40.6	11.9	3.04	26.5	7.8	2.72	18.4	5.4	2.41	9.2	2.7	1.81
1500	710	54.8	16.1	3.20	41.5	12.2	2.90	27.4	8.0	2.58	19.3	5.7	2.27	10.1	3.0	1.66

SPA048 - CB30M-41 - CBX32M-036 - CB30M-46 - CBX32M-042 HEATING PERFORMANCE at 1500 cfm (710 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.20	54.8	16.1
60	16	3.13	51.8	15.2
55	13	3.06	48.8	14.3
50	10	2.99	45.8	13.4
47	8	2.95	44.0	12.9
45	7	2.90	41.5	12.2
40	4	2.78	35.5	10.4
35	2	2.65	29.4	8.6
30	-1	2.62	28.4	8.3
25	-4	2.58	27.4	8.0
20	-7	2.54	26.4	7.7
17	-8	2.52	25.9	7.6
15	-9	2.49	24.6	7.2
10	-12	2.42	21.6	6.3
5	-15	2.27	19.3	5.7
0	-18	2.12	17.0	5.0
-5	-21	1.97	14.7	4.3
-10	-23	1.81	12.4	3.6
-15	-26	1.66	10.1	3.0
-20	-29	1.51	7.8	2.3

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

SPA048 - CB30U-41/46 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	34.4	10.1	1.58	.78	.93	1.00	32.8	9.6	1.83	.80	.96	1.00	30.8	9.0	2.11	.82	.98	1.00	29.0	8.5	2.43	.85	1.00	1.00
	1200	565	35.0	10.3	1.58	.80	.96	1.00	33.4	9.8	1.83	.82	.98	1.00	31.4	9.2	2.10	.84	1.00	1.00	29.8	8.7	2.42	.87	1.00	1.00
	1250	590	35.4	10.4	1.58	.81	.97	1.00	33.6	9.8	1.83	.83	.99	1.00	31.8	9.3	2.10	.86	1.00	1.00	30.2	8.9	2.42	.89	1.00	1.00
67°F (19°C)	1100	520	36.8	10.8	1.58	.61	.75	.89	35.0	10.3	1.82	.62	.77	.92	33.0	9.7	2.10	.63	.79	.95	31.0	9.1	2.41	.65	.82	.98
	1200	565	37.6	11.0	1.58	.62	.77	.92	35.6	10.4	1.82	.63	.79	.95	33.8	9.9	2.09	.64	.81	.97	31.6	9.3	2.40	.66	.84	1.00
	1250	590	37.8	11.1	1.58	.63	.78	.93	36.0	10.6	1.82	.64	.80	.96	34.0	10.0	2.09	.65	.83	.98	31.8	9.3	2.40	.67	.86	1.00
71°F (22°C)	1100	520	39.0	11.4	1.57	.45	.59	.72	37.4	11.0	1.81	.46	.60	.74	35.4	10.4	2.08	.46	.61	.76	33.2	9.7	2.39	.47	.63	.79
	1200	565	40.0	11.7	1.57	.46	.60	.74	38.0	11.1	1.81	.46	.61	.76	36.0	10.6	2.08	.47	.63	.78	33.8	9.9	2.39	.47	.65	.81
	1250	590	40.0	11.7	1.57	.46	.61	.75	38.5	11.3	1.81	.47	.62	.77	36.2	10.6	2.08	.47	.64	.80	34.0	10.0	2.39	.48	.65	.83

SPA048 - CB30U-41/46 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	44.5	13.0	2.86	.77	.92	1.00	42.5	12.5	3.21	.79	.94	1.00	40.0	11.7	3.60	.81	.97	1.00	37.0	10.8	4.03	.84	1.00	1.00
	1500	710	45.5	13.3	2.87	.78	.94	1.00	43.0	12.6	3.22	.80	.96	1.00	40.5	11.9	3.61	.83	.99	1.00	37.6	11.0	4.04	.86	1.00	1.00
	1550	730	45.5	13.3	2.87	.79	.95	1.00	43.5	12.7	3.22	.81	.97	1.00	40.5	11.9	3.61	.84	1.00	1.00	38.0	11.1	4.04	.87	1.00	1.00
67°F (19°C)	1400	660	47.5	13.9	2.89	.60	.74	.88	45.0	13.2	3.25	.61	.76	.91	42.5	12.5	3.64	.63	.78	.94	39.5	11.6	4.07	.64	.81	.97
	1500	710	48.5	14.2	2.90	.61	.76	.90	46.0	13.5	3.25	.62	.78	.93	43.0	12.6	3.64	.64	.80	.96	40.0	11.7	4.08	.66	.83	.99
	1550	730	48.5	14.2	2.90	.62	.77	.91	46.0	13.5	3.26	.63	.79	.94	43.5	12.7	3.64	.64	.81	.97	40.5	11.9	4.08	.66	.84	1.00
71°F (22°C)	1400	660	50.5	14.8	2.93	.45	.59	.72	48.0	14.1	3.28	.46	.60	.73	45.0	13.2	3.67	.46	.61	.76	42.0	12.3	4.10	.47	.63	.79
	1500	710	51.0	14.9	2.93	.46	.60	.73	48.5	14.2	3.29	.46	.61	.75	45.5	13.3	3.68	.47	.62	.78	42.5	12.5	4.12	.47	.64	.81
	1550	730	51.5	15.1	2.94	.46	.60	.74	49.0	14.4	3.29	.46	.61	.76	46.0	13.5	3.68	.47	.63	.79	43.0	12.6	4.12	.48	.65	.82

SPA048 - CB30U-41/46 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1110	525	39.4	11.5	2.17	36.6	10.7	2.14	33.8	9.9	2.12	31.0	9.1	2.09
1200	565	40.0	11.7	2.10	37.2	10.9	2.08	34.4	10.1	2.05	31.6	9.3	2.02
1250	590	40.2	11.8	2.07	37.4	11.0	2.05	34.6	10.1	2.02	31.9	9.3	2.00

SPA048 - CB30U-41/46 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1400	660	54.3	15.9	3.26	41.0	12.0	2.95	26.9	7.9	2.63	18.8	5.5	2.32	9.6	2.8	1.72
1500	710	54.8	16.1	3.21	41.5	12.2	2.90	27.4	8.0	2.58	19.3	5.7	2.27	10.1	3.0	1.67
1550	730	55.0	16.1	3.18	41.7	12.2	2.88	27.6	8.1	2.56	19.5	5.7	2.25	10.3	3.0	1.64

SPA048 - CB30U-41/46 - HEATING PERFORMANCE at 1500 cfm (710 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.21	54.8	16.1
60	16	3.14	51.8	15.2
55	13	3.06	48.8	14.3
50	10	2.99	45.7	13.4
47	8	2.95	43.9	12.9
45	7	2.90	41.5	12.2
40	4	2.78	35.4	10.4
35	2	2.66	29.3	8.6
30	-1	2.62	28.4	8.3
25	-4	2.58	27.4	8.0
20	-7	2.55	26.4	7.7
17	-8	2.52	25.8	7.6
15	-9	2.49	24.6	7.2
10	-12	2.42	21.6	6.3
5	-15	2.27	19.3	5.7
0	-18	2.12	17.0	5.0
-5	-21	1.97	14.7	4.3
-10	-23	1.82	12.4	3.6
-15	-26	1.67	10.1	3.0
-20	-29	1.52	7.8	2.3

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

SPA048 - CB31MV-41 - CBX32MV-036 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	965	455	33.4	9.8	1.59	.75	.89	1.00	31.8	9.3	1.84	.77	.92	1.00	29.8	8.7	2.11	.79	.94	1.00	28.0	8.2	2.43	.81	.98	1.00
	1080	510	34.2	10.0	1.58	.77	.93	1.00	32.6	9.6	1.83	.79	.95	1.00	30.6	9.0	2.11	.82	.98	1.00	28.8	8.4	2.43	.84	1.00	1.00
	1085	510	34.4	10.1	1.59	.78	.93	1.00	32.6	9.6	1.83	.79	.95	1.00	30.6	9.0	2.11	.82	.98	1.00	28.8	8.4	2.43	.84	1.00	1.00
67°F (19°C)	965	455	35.8	10.5	1.58	.59	.72	.85	34.0	10.0	1.83	.60	.74	.87	32.0	9.4	2.10	.61	.76	.90	30.0	8.8	2.42	.62	.78	.94
	1080	510	36.6	10.7	1.58	.60	.75	.89	34.8	10.2	1.82	.61	.76	.91	33.0	9.7	2.10	.63	.79	.94	30.8	9.0	2.41	.64	.81	.97
	1085	510	36.8	10.8	1.58	.60	.75	.89	35.0	10.3	1.82	.61	.77	.91	33.0	9.7	2.10	.63	.79	.94	30.8	9.0	2.41	.64	.81	.97
71°F (22°C)	965	455	38.0	11.1	1.58	.45	.57	.69	36.2	10.6	1.82	.45	.58	.71	34.2	10.0	2.09	.45	.59	.73	32.2	9.4	2.40	.46	.61	.75
	1080	510	39.0	11.4	1.57	.45	.59	.72	37.2	10.9	1.81	.45	.60	.74	35.2	10.3	2.09	.46	.61	.76	33.0	9.7	2.39	.47	.63	.78
	1085	510	39.0	11.4	1.57	.45	.59	.72	37.2	10.9	1.81	.46	.60	.74	35.2	10.3	2.09	.46	.61	.76	33.0	9.7	2.39	.47	.63	.78

SPA048 - CB31MV-41 - CBX32MV-036 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1380	650	44.5	13.0	2.86	.77	.91	1.00	42.0	12.3	3.21	.78	.94	1.00	39.5	11.6	3.60	.81	.97	1.00	37.0	10.8	4.03	.84	1.00	1.00
	1545	730	45.5	13.3	2.87	.79	.95	1.00	43.0	12.6	3.22	.81	.97	1.00	40.5	11.9	3.61	.84	1.00	1.00	38.0	11.1	4.04	.87	1.00	1.00
	1550	730	45.5	13.3	2.87	.79	.95	1.00	43.0	12.6	3.22	.81	.97	1.00	40.5	11.9	3.61	.84	1.00	1.00	38.0	11.1	4.04	.87	1.00	1.00
67°F (19°C)	1380	650	47.5	13.9	2.89	.60	.74	.88	45.0	13.2	3.24	.61	.76	.90	42.5	12.5	3.63	.62	.78	.93	39.5	11.6	4.06	.64	.81	.97
	1545	730	48.5	14.2	2.91	.62	.77	.91	46.0	13.5	3.26	.63	.79	.94	43.0	12.6	3.65	.64	.81	.97	40.0	11.7	4.08	.66	.84	1.00
	1550	730	48.5	14.2	2.91	.62	.77	.92	46.0	13.5	3.26	.63	.79	.94	43.0	12.6	3.65	.64	.81	.97	40.0	11.7	4.08	.66	.84	1.00
71°F (22°C)	1380	650	50.0	14.7	2.92	.45	.58	.71	47.5	13.9	3.28	.45	.60	.73	45.0	13.2	3.67	.46	.61	.75	42.0	12.3	4.10	.47	.63	.78
	1545	730	51.5	15.1	2.94	.46	.60	.74	48.5	14.2	3.29	.46	.61	.76	46.0	13.5	3.68	.47	.63	.78	43.0	12.6	4.12	.48	.65	.82
	1550	730	51.5	15.1	2.94	.46	.60	.74	49.0	14.4	3.29	.46	.61	.76	46.0	13.5	3.68	.47	.63	.79	43.0	12.6	4.12	.48	.65	.82

SPA048 - CB31MV-41 - CBX32MV-036 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
965	455	38.1	11.2	2.30	35.4	10.4	2.27	32.7	9.6	2.24	30.0	8.8	2.20
1080	510	38.8	11.4	2.18	36.1	10.6	2.15	33.4	9.8	2.11	30.7	9.0	2.08

SPA048 - CB31MV-41 - CBX32MV-036 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1380	650	54.2	15.9	3.25	40.9	12.0	2.96	26.8	7.9	2.65	18.7	5.5	2.35	9.4	2.8	1.74
1545	730	55.0	16.1	3.17	41.7	12.2	2.87	27.6	8.1	2.57	19.5	5.7	2.26	10.2	3.0	1.66

SPA048 - CB31MV-41 - CBX32MV-036 - HEATING PERFORMANCE at 1545 cfm (730 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.17	55.0	16.1
60	16	3.10	52.0	15.2
55	13	3.03	49.0	14.4
50	10	2.96	46.0	13.5
47	8	2.92	44.2	13.0
45	7	2.87	41.7	12.2
40	4	2.76	35.6	10.4
35	2	2.64	29.5	8.6
30	-1	2.60	28.6	8.4
25	-4	2.57	27.6	8.1
20	-7	2.53	26.6	7.8
17	-8	2.51	26.1	7.6
15	-9	2.48	24.9	7.3
10	-12	2.41	21.8	6.4
5	-15	2.26	19.5	5.7
0	-18	2.11	17.2	5.0
-5	-21	1.96	14.8	4.3
-10	-23	1.81	12.5	3.7
-15	-26	1.66	10.2	3.0
-20	-29	1.51	7.8	2.3

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

SPA048 - CB30U-51 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	34.8	10.2	1.58	.78	.93	1.00	33.2	9.7	1.83	.80	.95	1.00	31.6	9.3	2.10	.82	.98	1.00	29.6	8.7	2.42	.85	1.00	1.00
	1200	565	35.6	10.4	1.58	.80	.95	1.00	34.0	10.0	1.83	.82	.98	1.00	32.4	9.5	2.10	.84	1.00	1.00	30.6	9.0	2.41	.87	1.00	1.00
	1300	615	36.4	10.7	1.58	.82	.97	1.00	34.8	10.2	1.82	.84	1.00	1.00	33.0	9.7	2.10	.87	1.00	1.00	31.4	9.2	2.41	.90	1.00	1.00
67°F (19°C)	1100	520	37.4	11.0	1.58	.61	.75	.89	35.6	10.4	1.82	.62	.77	.91	33.8	9.9	2.09	.63	.79	.94	31.8	9.3	2.40	.65	.82	.98
	1200	565	38.0	11.1	1.58	.62	.77	.92	36.4	10.7	1.82	.63	.79	.94	34.4	10.1	2.09	.65	.81	.97	32.2	9.4	2.40	.66	.84	1.00
	1300	615	38.5	11.3	1.57	.63	.79	.94	37.0	10.8	1.82	.64	.81	.97	34.8	10.2	2.09	.66	.84	.99	32.8	9.6	2.40	.68	.87	1.00
71°F (22°C)	1100	520	40.0	11.7	1.57	.46	.59	.72	38.0	11.1	1.81	.46	.60	.74	36.0	10.6	2.08	.46	.62	.76	34.0	10.0	2.39	.47	.63	.79
	1200	565	40.5	11.9	1.57	.46	.61	.74	39.0	11.4	1.81	.47	.62	.76	36.8	10.8	2.08	.47	.63	.79	34.6	10.1	2.38	.48	.65	.81
	1300	615	41.5	12.2	1.57	.47	.62	.76	39.5	11.6	1.81	.47	.63	.78	37.4	11.0	2.07	.48	.65	.81	35.2	10.3	2.38	.48	.66	.84

SPA048 - CB30U-51 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	46.0	13.5	2.88	.77	.91	1.00	44.0	12.9	3.23	.79	.94	1.00	41.5	12.2	3.62	.81	.97	1.00	38.5	11.3	4.05	.84	1.00	1.00
	1600	755	47.5	13.9	2.89	.80	.95	1.00	45.0	13.2	3.24	.82	.98	1.00	42.5	12.5	3.64	.85	1.00	1.00	40.0	11.7	4.08	.88	1.00	1.00
	1800	850	49.0	14.4	2.91	.83	.99	1.00	46.5	13.6	3.26	.85	1.00	1.00	44.0	12.9	3.65	.88	1.00	1.00	41.5	12.2	4.10	.92	1.00	1.00
67°F (19°C)	1400	660	49.0	14.4	2.91	.60	.74	.88	46.5	13.6	3.26	.61	.76	.90	44.0	12.9	3.66	.63	.78	.93	41.0	12.0	4.09	.64	.81	.97
	1600	755	50.5	14.8	2.93	.62	.77	.92	48.0	14.1	3.28	.63	.79	.95	45.0	13.2	3.67	.65	.82	.98	42.0	12.3	4.10	.67	.85	1.00
	1800	850	51.5	15.1	2.94	.64	.80	.96	49.0	14.4	3.29	.65	.83	.98	46.0	13.5	3.68	.67	.86	1.00	43.0	12.6	4.12	.69	.89	1.00
71°F (22°C)	1400	660	52.0	15.2	2.95	.45	.59	.72	49.5	14.5	3.30	.46	.60	.73	47.0	13.8	3.69	.46	.61	.76	44.0	12.9	4.13	.47	.63	.78
	1600	755	53.5	15.7	2.96	.46	.61	.75	51.0	14.9	3.32	.47	.62	.77	48.0	14.1	3.71	.47	.64	.79	45.0	13.2	4.15	.48	.65	.82
	1800	850	55.0	16.1	2.98	.47	.63	.78	52.0	15.2	3.33	.47	.64	.80	49.0	14.4	3.72	.48	.66	.83	46.0	13.5	4.16	.49	.68	.86

SPA048 - CB30U-51 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1100	520	39.6	11.6	2.12	36.8	10.8	2.09	34.0	10.0	2.07	31.2	9.1	2.05
1200	565	40.2	11.8	2.05	37.4	11.0	2.03	34.7	10.2	2.01	31.9	9.3	1.99
1300	615	40.6	11.9	2.00	37.9	11.1	1.98	35.1	10.3	1.95	32.3	9.5	1.93

SPA048 - CB30U-51 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1400	660	54.7	16.0	3.18	41.3	12.1	2.90	27.0	7.9	2.61	18.8	5.5	2.32	9.5	2.8	1.73
1600	755	55.4	16.2	3.08	42.0	12.3	2.81	27.7	8.1	2.52	19.5	5.7	2.23	10.2	3.0	1.63
1800	850	56.1	16.4	3.01	42.7	12.5	2.73	28.4	8.3	2.44	20.2	5.9	2.15	10.9	3.2	1.56

SPA048 - CB30U-51 - HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.08	55.4	16.2
60	16	3.02	52.3	15.3
55	13	2.95	49.3	14.4
50	10	2.89	46.2	13.5
47	8	2.85	44.4	13.0
45	7	2.81	42.0	12.3
40	4	2.69	35.8	10.5
35	2	2.58	29.7	8.7
30	-1	2.55	28.7	8.4
25	-4	2.52	27.7	8.1
20	-7	2.49	26.7	7.8
17	-8	2.47	26.1	7.6
15	-9	2.44	24.9	7.3
10	-12	2.38	21.9	6.4
5	-15	2.23	19.5	5.7
0	-18	2.08	17.2	5.0
-5	-21	1.93	14.9	4.4
-10	-23	1.78	12.5	3.7
-15	-26	1.63	10.2	3.0
-20	-29	1.48	7.8	2.3

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

SPA048 - CB30M-51 - CBX32M-048 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	35.4	10.4	1.58	.78	.93	1.00	33.6	9.8	1.83	.80	.96	1.00	31.8	9.3	2.10	.82	.98	1.00	30.0	8.8	2.42	.85	1.00	1.00
	1200	565	36.2	10.6	1.58	.80	.96	1.00	34.4	10.1	1.82	.82	.98	1.00	32.6	9.6	2.10	.84	1.00	1.00	30.8	9.0	2.41	.87	1.00	1.00
	1300	615	37.0	10.8	1.58	.82	.98	1.00	35.2	10.3	1.82	.84	1.00	1.00	33.4	9.8	2.09	.87	1.00	1.00	31.6	9.3	2.40	.90	1.00	1.00
67°F (19°C)	1100	520	38.0	11.1	1.58	.61	.75	.89	36.2	10.6	1.82	.62	.77	.92	34.0	10.0	2.09	.63	.79	.95	32.0	9.4	2.40	.64	.82	.98
	1200	565	38.5	11.3	1.57	.62	.77	.92	36.8	10.8	1.81	.63	.79	.95	34.8	10.2	2.09	.65	.81	.97	32.6	9.6	2.40	.66	.84	1.00
	1300	615	39.5	11.6	1.57	.63	.79	.95	37.6	11.0	1.81	.65	.81	.97	35.4	10.4	2.08	.66	.84	1.00	33.2	9.7	2.39	.68	.87	1.00
71°F (22°C)	1100	520	40.5	11.9	1.57	.45	.59	.72	38.5	11.3	1.81	.46	.60	.74	36.4	10.7	2.08	.46	.61	.76	34.2	10.0	2.39	.47	.63	.79
	1200	565	41.0	12.0	1.57	.46	.60	.74	39.5	11.6	1.81	.46	.62	.76	37.2	10.9	2.07	.47	.63	.79	34.8	10.2	2.38	.47	.65	.81
	1300	615	42.0	12.3	1.57	.46	.62	.76	40.0	11.7	1.81	.47	.63	.79	37.8	11.1	2.07	.47	.65	.81	35.4	10.4	2.38	.48	.66	.84

SPA048 - CB30M-51 - CBX32M-048 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	46.5	13.6	2.88	.77	.92	1.00	44.0	12.9	3.23	.79	.94	1.00	41.5	12.2	3.62	.81	.97	1.00	39.0	11.4	4.06	.84	1.00	1.00
	1600	755	48.0	14.1	2.90	.80	.96	1.00	45.5	13.3	3.25	.82	.98	1.00	43.0	12.6	3.64	.85	1.00	1.00	40.5	11.9	4.08	.88	1.00	1.00
	1800	850	49.0	14.4	2.91	.83	.99	1.00	46.5	13.6	3.27	.85	1.00	1.00	44.5	13.0	3.66	.88	1.00	1.00	41.5	12.2	4.10	.92	1.00	1.00
67°F (19°C)	1400	660	50.0	14.7	2.92	.60	.74	.88	47.0	13.8	3.27	.61	.76	.90	44.5	13.0	3.66	.63	.78	.94	41.5	12.2	4.09	.64	.81	.97
	1600	755	51.0	14.9	2.93	.62	.77	.92	48.5	14.2	3.29	.63	.80	.95	45.5	13.3	3.68	.65	.82	.98	42.5	12.5	4.11	.67	.85	1.00
	1800	850	52.5	15.4	2.95	.64	.81	.96	49.5	14.5	3.30	.65	.83	.99	46.5	13.6	3.69	.67	.86	1.00	43.5	12.7	4.13	.69	.89	1.00
71°F (22°C)	1400	660	52.5	15.4	2.95	.45	.59	.72	50.0	14.7	3.31	.46	.60	.73	47.0	13.8	3.70	.46	.61	.76	44.0	12.9	4.14	.47	.63	.78
	1600	755	54.0	15.8	2.97	.46	.61	.75	51.5	15.1	3.32	.47	.62	.77	48.5	14.2	3.71	.47	.64	.79	45.0	13.2	4.16	.48	.65	.82
	1800	850	55.5	16.3	2.98	.47	.63	.78	52.5	15.4	3.34	.47	.64	.80	49.5	14.5	3.73	.48	.66	.83	46.0	13.5	4.17	.49	.68	.86

SPA048 - CB30M-51 - CBX32M-048 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1100	520	39.6	11.6	2.12	36.8	10.8	2.09	34.0	10.0	2.07	31.2	9.1	2.05
1200	565	40.3	11.8	2.05	37.5	11.0	2.03	34.7	10.2	2.01	31.9	9.3	1.98
1300	615	40.6	11.9	2.00	37.9	11.1	1.98	35.1	10.3	1.95	32.3	9.5	1.93

SPA048 - CB30M-51 - CBX32M-048 - SECOND STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1400	660	54.8	16.1	3.17	41.2	12.1	2.90	26.8	7.9	2.62	18.5	5.4	2.33
1600	755	55.7	16.3	3.07	42.1	12.3	2.80	27.7	8.1	2.52	19.4	5.7	2.23
1800	850	56.3	16.5	2.99	42.7	12.5	2.72	28.3	8.3	2.44	20.0	5.9	2.15

Indoor Coil Air Volume 70°F db (21°C db)		-15°F (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW	
1400	660	9.2	2.7	1.73
1600	755	10.1	3.0	1.63
1800	850	10.7	3.1	1.55

SPA048 - CB30M-51 - CBX32M-048 - HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.07	55.7	16.3
60	16	3.00	52.6	15.4
55	13	2.94	49.5	14.5
50	10	2.88	46.4	13.6
47	8	2.84	44.6	13.1
45	7	2.80	42.1	12.3
40	4	2.69	35.9	10.5
35	2	2.58	29.7	8.7
30	-1	2.55	28.7	8.4
25	-4	2.52	27.7	8.1
20	-7	2.49	26.7	7.8
17	-8	2.47	26.1	7.6
15	-9	2.44	24.8	7.3
10	-12	2.38	21.8	6.4
5	-15	2.23	19.4	5.7
0	-18	2.08	17.1	5.0
-5	-21	1.93	14.8	4.3
-10	-23	1.78	12.5	3.7
-15	-26	1.63	10.1	3.0
-20	-29	1.48	7.8	2.3

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

SPA048 - CB30M-65 - CBX32M-060 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	35.6	10.4	1.58	.78	.93	1.00	33.8	9.9	1.83	.80	.95	1.00	32.0	9.4	2.10	.82	.98	1.00	30.0	8.8	2.42	.84	1.00	1.00
	1200	565	36.4	10.7	1.58	.80	.95	1.00	34.6	10.1	1.82	.82	.98	1.00	32.6	9.6	2.10	.84	1.00	1.00	30.8	9.0	2.41	.87	1.00	1.00
	1300	615	37.0	10.8	1.58	.82	.98	1.00	35.2	10.3	1.82	.84	1.00	1.00	33.4	9.8	2.09	.87	1.00	1.00	31.6	9.3	2.40	.90	1.00	1.00
67°F (19°C)	1100	520	38.0	11.1	1.57	.61	.75	.89	36.0	10.6	1.82	.62	.77	.91	34.0	10.0	2.09	.63	.79	.94	32.0	9.4	2.40	.65	.82	.97
	1200	565	38.5	11.3	1.57	.62	.77	.92	36.8	10.8	1.81	.63	.79	.94	34.8	10.2	2.09	.65	.81	.97	32.6	9.6	2.40	.66	.84	1.00
	1300	615	39.5	11.6	1.57	.63	.79	.94	37.4	11.0	1.81	.64	.81	.97	35.2	10.3	2.08	.66	.84	.99	33.0	9.7	2.39	.68	.87	1.00
71°F (22°C)	1100	520	40.5	11.9	1.57	.46	.59	.72	38.5	11.3	1.81	.46	.60	.74	36.4	10.7	2.08	.47	.62	.76	34.2	10.0	2.39	.47	.63	.78
	1200	565	41.0	12.0	1.57	.46	.61	.74	39.0	11.4	1.81	.47	.62	.76	37.2	10.9	2.08	.47	.63	.78	35.0	10.3	2.38	.48	.65	.81
	1300	615	42.0	12.3	1.57	.47	.62	.76	40.0	11.7	1.81	.47	.63	.78	37.8	11.1	2.07	.48	.65	.81	35.6	10.4	2.38	.49	.66	.84

SPA048 - CB30M-65 - CBX32M-060 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	47.0	13.8	2.89	.77	.91	1.00	44.5	13.0	3.24	.78	.93	1.00	42.0	12.3	3.63	.81	.96	1.00	39.0	11.4	4.06	.83	.99	1.00
	1600	755	48.5	14.2	2.90	.80	.95	1.00	46.0	13.5	3.25	.82	.97	1.00	43.0	12.6	3.64	.84	1.00	1.00	40.5	11.9	4.08	.87	1.00	1.00
	1800	850	49.5	14.5	2.92	.83	.98	1.00	47.0	13.8	3.27	.85	1.00	1.00	44.5	13.0	3.66	.88	1.00	1.00	42.0	12.3	4.10	.91	1.00	1.00
67°F (19°C)	1400	660	50.0	14.7	2.92	.60	.74	.87	47.5	13.9	3.27	.61	.76	.90	44.5	13.0	3.66	.63	.78	.93	41.5	12.2	4.10	.64	.81	.96
	1600	755	51.5	15.1	2.94	.62	.77	.92	48.5	14.2	3.29	.63	.79	.94	46.0	13.5	3.68	.65	.81	.97	42.5	12.5	4.12	.67	.85	1.00
	1800	850	52.5	15.4	2.95	.64	.80	.95	49.5	14.5	3.30	.65	.82	.98	47.0	13.8	3.69	.67	.85	1.00	43.5	12.7	4.13	.69	.89	1.00
71°F (22°C)	1400	660	53.0	15.5	2.95	.46	.59	.72	50.0	14.7	3.31	.46	.60	.73	47.5	13.9	3.70	.46	.61	.75	44.5	13.0	4.14	.47	.63	.78
	1600	755	54.5	16.0	2.97	.46	.61	.75	51.5	15.1	3.33	.47	.62	.76	48.5	14.2	3.72	.47	.63	.79	45.5	13.3	4.16	.48	.65	.82
	1800	850	55.5	16.3	2.99	.47	.63	.78	53.0	15.5	3.34	.48	.64	.80	50.0	14.7	3.74	.48	.66	.82	46.5	13.6	4.17	.49	.68	.86

SPA048 - CB30M-65 - CBX32M-060 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1100	520	39.5	11.6	2.13	36.8	10.8	2.11	34.0	10.0	2.09	31.2	9.1	2.07
1200	565	40.1	11.8	2.07	37.4	11.0	2.05	34.6	10.1	2.03	31.8	9.3	2.01
1300	615	40.6	11.9	2.02	37.8	11.1	2.00	35.1	10.3	1.98	32.3	9.5	1.95

SPA048 - CB30M-65 - CBX32M-060 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1400	660	54.6	16.0	3.20	41.1	12.0	2.93	26.8	7.9	2.65	18.6	5.5	2.35	9.3	2.7	1.75
1600	755	55.4	16.2	3.10	41.9	12.3	2.83	27.6	8.1	2.55	19.4	5.7	2.25	10.1	3.0	1.65
1800	850	56.1	16.4	3.03	42.6	12.5	2.76	28.3	8.3	2.48	20.1	5.9	2.18	10.8	3.2	1.58

SPA048 - CB30M-65 - CBX32M-060 - HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.10	55.4	16.2
60	16	3.04	52.3	15.3
55	13	2.98	49.3	14.4
50	10	2.91	46.2	13.5
47	8	2.87	44.4	13.0
45	7	2.83	41.9	12.3
40	4	2.72	35.7	10.5
35	2	2.61	29.6	8.7
30	-1	2.58	28.6	8.4
25	-4	2.55	27.6	8.1
20	-7	2.51	26.6	7.8
17	-8	2.49	26.0	7.6
15	-9	2.47	24.8	7.3
10	-12	2.41	21.8	6.4
5	-15	2.25	19.4	5.7
0	-18	2.10	17.1	5.0
-5	-21	1.95	14.8	4.3
-10	-23	1.80	12.5	3.7
-15	-26	1.65	10.1	3.0
-20	-29	1.50	7.8	2.3

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

SPA048 - CB31MV-65 - CBX32MV-060 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1090	515	35.6	10.4	1.58	.78	.92	1.00	33.8	9.9	1.83	.79	.95	1.00	31.8	9.3	2.10	.82	.98	1.00	30.0	8.8	2.42	.84	1.00	1.00
	1140	540	36.0	10.6	1.58	.79	.94	1.00	34.0	10.0	1.82	.80	.96	1.00	32.2	9.4	2.10	.83	.99	1.00	30.4	8.9	2.41	.86	1.00	1.00
	1205	570	36.4	10.7	1.58	.80	.95	1.00	34.6	10.1	1.82	.82	.98	1.00	32.8	9.6	2.10	.84	1.00	1.00	31.0	9.1	2.41	.87	1.00	1.00
67°F (19°C)	1090	515	37.8	11.1	1.58	.61	.75	.88	36.0	10.6	1.82	.62	.77	.91	34.0	10.0	2.09	.63	.79	.94	32.0	9.4	2.40	.64	.81	.97
	1140	540	38.5	11.3	1.57	.61	.76	.90	36.4	10.7	1.82	.62	.78	.92	34.4	10.1	2.09	.64	.80	.95	32.2	9.4	2.40	.65	.83	.98
	1205	570	38.5	11.3	1.57	.62	.77	.92	36.8	10.8	1.81	.63	.79	.94	34.8	10.2	2.09	.65	.81	.97	32.6	9.6	2.40	.66	.84	1.00
71°F (22°C)	1090	515	40.5	11.9	1.57	.46	.59	.72	38.5	11.3	1.81	.46	.60	.74	36.4	10.7	2.08	.47	.61	.76	34.2	10.0	2.39	.47	.63	.78
	1140	540	40.5	11.9	1.57	.46	.60	.73	39.0	11.4	1.81	.46	.61	.75	36.8	10.8	2.08	.47	.62	.77	34.6	10.1	2.38	.47	.64	.80
	1205	570	41.0	12.0	1.57	.46	.61	.74	39.5	11.6	1.81	.47	.62	.76	37.2	10.9	2.08	.47	.63	.79	35.0	10.3	2.38	.48	.65	.81

SPA048 - CB31MV-65 - CBX32MV-060 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1555	735	48.0	14.1	2.90	.79	.94	1.00	45.5	13.3	3.25	.81	.97	1.00	43.0	12.6	3.64	.83	.99	1.00	40.0	11.7	4.08	.87	1.00	1.00
	1625	765	48.5	14.2	2.90	.80	.95	1.00	46.0	13.5	3.26	.82	.98	1.00	43.5	12.7	3.65	.85	1.00	1.00	41.0	12.0	4.09	.88	1.00	1.00
	1725	815	49.0	14.4	2.91	.82	.97	1.00	46.5	13.6	3.26	.84	.99	1.00	44.0	12.9	3.66	.86	1.00	1.00	41.5	12.2	4.10	.90	1.00	1.00
67°F (19°C)	1555	735	51.0	14.9	2.93	.62	.76	.91	48.5	14.2	3.28	.63	.78	.93	45.5	13.3	3.68	.64	.81	.96	42.5	12.5	4.11	.66	.84	.99
	1625	765	51.5	15.1	2.94	.62	.77	.92	49.0	14.4	3.29	.63	.79	.95	46.0	13.5	3.68	.65	.82	.97	43.0	12.6	4.12	.67	.85	1.00
	1725	815	52.0	15.2	2.94	.63	.79	.94	49.5	14.5	3.30	.64	.81	.97	46.5	13.6	3.69	.66	.84	.99	43.5	12.7	4.12	.68	.87	1.00
71°F (22°C)	1555	735	54.0	15.8	2.97	.46	.60	.74	51.5	15.1	3.32	.47	.61	.76	48.5	14.2	3.72	.47	.63	.78	45.0	13.2	4.15	.48	.65	.81
	1625	765	54.5	16.0	2.97	.46	.61	.75	52.0	15.2	3.33	.47	.62	.77	49.0	14.4	3.72	.47	.64	.79	45.5	13.3	4.16	.48	.66	.82
	1725	815	55.0	16.1	2.98	.47	.62	.76	52.5	15.4	3.34	.47	.63	.79	49.5	14.5	3.73	.48	.65	.81	46.0	13.5	4.17	.49	.67	.84

SPA048 - CB31MV-65 - CBX32MV-060 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1090	515	38.9	11.4	2.14	36.2	10.6	2.12	33.5	9.8	2.09	30.7	9.0	2.07
1140	540	39.1	11.5	2.11	36.4	10.7	2.08	33.7	9.9	2.06	30.9	9.1	2.04
1205	570	39.6	11.6	2.05	36.9	10.8	2.03	34.1	10.0	2.00	31.4	9.2	1.98

SPA048 - CB31MV-65 - CBX32MV-060 - SECOND STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1625	765	55.3	16.2	3.08	41.7	12.2	2.81	27.4	8.0	2.53	19.1	5.6	2.23
1720	810	56.0	16.4	3.03	42.4	12.4	2.76	28.1	8.2	2.47	19.8	5.8	2.18

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil		
		-15°F (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW	
1625	765	10.0	2.9	1.63
1720	810	10.7	3.1	1.58

SPA048 - CB31MV-65 - CBX32MV-060 - HEATING PERFORMANCE at 1625 cfm (765 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.08	55.3	16.2
60	16	3.02	52.2	15.3
55	13	2.95	49.1	14.4
50	10	2.89	46.0	13.5
47	8	2.85	44.2	13.0
45	7	2.81	41.7	12.2
40	4	2.71	35.6	10.4
35	2	2.60	29.5	8.6
30	-1	2.57	28.4	8.3
25	-4	2.53	27.4	8.0
20	-7	2.49	26.4	7.7
17	-8	2.47	25.7	7.5
15	-9	2.45	24.5	7.2
10	-12	2.38	21.4	6.3
5	-15	2.23	19.1	5.6
0	-18	2.08	16.9	5.0
-5	-21	1.93	14.6	4.3
-10	-23	1.78	12.3	3.6
-15	-26	1.63	10.0	2.9
-20	-29	1.48	7.7	2.3

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

SPA048 - CB30U-65 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	35.6	10.4	1.58	.78	.93	1.00	33.8	9.9	1.83	.80	.95	1.00	32.0	9.4	2.10	.82	.98	1.00	30.0	8.8	2.42	.84	1.00	1.00
	1200	565	36.4	10.7	1.58	.80	.95	1.00	34.6	10.1	1.82	.82	.98	1.00	32.8	9.6	2.10	.84	1.00	1.00	31.0	9.1	2.41	.87	1.00	1.00
	1300	615	37.2	10.9	1.58	.82	.98	1.00	35.4	10.4	1.82	.84	1.00	1.00	33.6	9.8	2.09	.87	1.00	1.00	31.8	9.3	2.40	.90	1.00	1.00
67°F (19°C)	1100	520	38.0	11.1	1.57	.61	.75	.89	36.4	10.7	1.82	.62	.77	.91	34.2	10.0	2.09	.63	.79	.94	32.2	9.4	2.40	.64	.81	.97
	1200	565	39.0	11.4	1.57	.62	.77	.92	37.0	10.8	1.81	.63	.79	.94	35.0	10.3	2.09	.64	.81	.97	32.8	9.6	2.40	.66	.84	1.00
	1300	615	39.5	11.6	1.57	.63	.79	.94	37.6	11.0	1.81	.64	.81	.97	35.6	10.4	2.08	.66	.84	.99	33.4	9.8	2.39	.68	.87	1.00
71°F (22°C)	1100	520	40.5	11.9	1.57	.46	.59	.72	39.0	11.4	1.81	.46	.60	.74	36.8	10.8	2.08	.46	.61	.76	34.6	10.1	2.39	.47	.63	.78
	1200	565	41.5	12.2	1.57	.46	.60	.74	39.5	11.6	1.81	.47	.62	.76	37.4	11.0	2.07	.47	.63	.78	35.2	10.3	2.38	.48	.65	.81
	1300	615	42.0	12.3	1.57	.47	.62	.76	40.0	11.7	1.81	.47	.63	.78	38.0	11.1	2.07	.48	.64	.81	35.8	10.5	2.38	.48	.66	.84

SPA048 - CB30U-65 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	47.0	13.8	2.89	.77	.91	1.00	44.5	13.0	3.24	.78	.94	1.00	42.0	12.3	3.63	.81	.96	1.00	39.0	11.4	4.06	.83	.99	1.00
	1600	755	48.5	14.2	2.90	.80	.95	1.00	46.0	13.5	3.26	.82	.98	1.00	43.5	12.7	3.65	.84	1.00	1.00	41.0	12.0	4.09	.87	1.00	1.00
	1800	850	49.5	14.5	2.92	.83	.99	1.00	47.0	13.8	3.27	.85	1.00	1.00	45.0	13.2	3.67	.88	1.00	1.00	42.0	12.3	4.11	.91	1.00	1.00
67°F (19°C)	1400	660	50.0	14.7	2.92	.60	.74	.87	47.5	13.9	3.28	.61	.76	.90	45.0	13.2	3.66	.62	.78	.93	42.0	12.3	4.10	.64	.80	.96
	1600	755	51.5	15.1	2.94	.62	.77	.92	49.0	14.4	3.29	.63	.79	.94	46.0	13.5	3.68	.65	.82	.97	43.0	12.6	4.12	.66	.85	1.00
	1800	850	53.0	15.5	2.95	.64	.80	.96	50.0	14.7	3.31	.65	.82	.98	47.0	13.8	3.70	.67	.85	1.00	43.5	12.7	4.13	.69	.89	1.00
71°F (22°C)	1400	660	53.0	15.5	2.96	.46	.59	.71	50.5	14.8	3.31	.46	.60	.73	47.5	13.9	3.70	.46	.61	.75	44.5	13.0	4.14	.47	.63	.78
	1600	755	54.5	16.0	2.98	.46	.61	.75	52.0	15.2	3.33	.47	.62	.76	49.0	14.4	3.72	.47	.63	.79	46.0	13.5	4.16	.48	.65	.82
	1800	850	56.0	16.4	2.99	.47	.62	.78	53.0	15.5	3.35	.48	.64	.80	50.0	14.7	3.74	.48	.66	.82	47.0	13.8	4.18	.49	.68	.86

SPA048 - CB30U-65 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1100	520	39.7	11.6	2.13	36.9	10.8	2.11	34.2	10.0	2.09	31.4	9.2	2.07
1200	565	40.0	11.7	2.07	37.2	10.9	2.05	34.4	10.1	2.03	31.7	9.3	2.00
1300	615	40.6	11.9	2.02	37.8	11.1	2.00	35.1	10.3	1.97	32.3	9.5	1.95

SPA048 - CB30U-65 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1400	660	54.7	16.0	3.19	41.2	12.1	2.92	26.9	7.9	2.63	18.7	5.5	2.34	9.4	2.8	1.74
1600	755	55.4	16.2	3.10	41.9	12.3	2.82	27.6	8.1	2.54	19.4	5.7	2.25	10.1	3.0	1.65
1800	850	56.1	16.4	3.03	42.6	12.5	2.75	28.3	8.3	2.47	20.1	5.9	2.18	10.8	3.2	1.58

SPA048 - CB30U-65 - HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.10	55.4	16.2
60	16	3.03	52.3	15.3
55	13	2.97	49.3	14.4
50	10	2.91	46.2	13.5
47	8	2.87	44.4	13.0
45	7	2.82	41.9	12.3
40	4	2.71	35.8	10.5
35	2	2.60	29.6	8.7
30	-1	2.57	28.6	8.4
25	-4	2.54	27.6	8.1
20	-7	2.51	26.6	7.8
17	-8	2.49	26.0	7.6
15	-9	2.46	24.8	7.3
10	-12	2.40	21.8	6.4
5	-15	2.25	19.4	5.7
0	-18	2.10	17.1	5.0
-5	-21	1.95	14.8	4.3
-10	-23	1.80	12.5	3.7
-15	-26	1.65	10.1	3.0
-20	-29	1.49	7.8	2.3

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

SPA048 - CB31MV-51 - CBX32MV-048 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1090	515	35.4	10.4	1.58	.78	.93	1.00	33.6	9.8	1.83	.80	.95	1.00	31.8	9.3	2.10	.82	.98	1.00	29.8	8.7	2.42	.84	1.00	1.00
	1140	540	35.8	10.5	1.58	.79	.94	1.00	34.0	10.0	1.82	.81	.97	1.00	32.2	9.4	2.10	.83	.99	1.00	30.4	8.9	2.41	.86	1.00	1.00
	1205	570	36.2	10.6	1.58	.80	.96	1.00	34.4	10.1	1.82	.82	.98	1.00	32.6	9.6	2.10	.85	1.00	1.00	30.8	9.0	2.41	.88	1.00	1.00
67°F (19°C)	1090	515	38.0	11.1	1.58	.61	.75	.89	36.0	10.6	1.82	.62	.77	.91	34.0	10.0	2.09	.63	.79	.94	32.0	9.4	2.40	.64	.81	.97
	1140	540	38.5	11.3	1.58	.61	.76	.90	36.4	10.7	1.82	.62	.78	.93	34.4	10.1	2.09	.64	.80	.96	32.2	9.4	2.40	.65	.83	.99
	1205	570	39.0	11.4	1.57	.62	.77	.92	37.0	10.8	1.81	.63	.79	.95	34.8	10.2	2.09	.65	.82	.98	32.6	9.6	2.40	.66	.85	1.00
71°F (22°C)	1090	515	40.5	11.9	1.57	.45	.59	.72	38.5	11.3	1.81	.46	.60	.74	36.4	10.7	2.08	.46	.61	.76	34.2	10.0	2.39	.47	.63	.78
	1140	540	41.0	12.0	1.57	.46	.60	.73	39.0	11.4	1.81	.46	.61	.75	36.8	10.8	2.08	.46	.62	.77	34.6	10.1	2.38	.47	.64	.80
	1205	570	41.5	12.2	1.57	.46	.61	.75	39.5	11.6	1.81	.46	.62	.77	37.2	10.9	2.07	.47	.63	.79	35.0	10.3	2.38	.47	.65	.82

SPA048 - CB31MV-51 - CBX32MV-048 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1555	735	47.5	13.9	2.90	.79	.95	1.00	45.0	13.2	3.25	.81	.97	1.00	42.5	12.5	3.63	.84	1.00	1.00	40.0	11.7	4.07	.87	1.00	1.00
	1625	765	48.0	14.1	2.90	.80	.96	1.00	45.5	13.3	3.25	.82	.99	1.00	43.0	12.6	3.64	.85	1.00	1.00	40.5	11.9	4.08	.88	1.00	1.00
	1725	815	49.0	14.4	2.91	.82	.98	1.00	46.0	13.5	3.26	.84	1.00	1.00	44.0	12.9	3.65	.87	1.00	1.00	41.0	12.0	4.09	.90	1.00	1.00
67°F (19°C)	1555	735	51.0	14.9	2.93	.62	.77	.91	48.0	14.1	3.28	.63	.79	.94	45.5	13.3	3.67	.64	.81	.97	42.5	12.5	4.11	.66	.84	1.00
	1625	765	51.5	15.1	2.94	.62	.78	.93	48.5	14.2	3.29	.64	.80	.96	45.5	13.3	3.68	.65	.82	.98	42.5	12.5	4.11	.67	.86	1.00
	1725	815	52.0	15.2	2.94	.63	.79	.95	49.0	14.4	3.30	.65	.82	.97	46.0	13.5	3.68	.66	.84	1.00	43.0	12.6	4.12	.68	.88	1.00
71°F (22°C)	1555	735	54.0	15.8	2.97	.46	.60	.74	51.0	14.9	3.32	.46	.62	.76	48.0	14.1	3.71	.47	.63	.79	45.0	13.2	4.15	.47	.65	.81
	1625	765	54.5	16.0	2.97	.46	.61	.75	51.5	15.1	3.33	.47	.62	.77	48.5	14.2	3.72	.47	.64	.80	45.5	13.3	4.16	.48	.66	.83
	1725	815	55.0	16.1	2.98	.47	.62	.77	52.0	15.2	3.33	.47	.63	.79	49.0	14.4	3.73	.48	.65	.82	46.0	13.5	4.17	.48	.67	.85

SPA048 - CB31MV-51 - CBX32MV-048 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1090	515	39.0	11.4	2.12	36.3	10.6	2.10	33.5	9.8	2.07	30.8	9.0	2.05
1140	540	39.3	11.5	2.09	36.5	10.7	2.07	33.8	9.9	2.04	31.0	9.1	2.01
1205	570	39.6	11.6	2.05	36.9	10.8	2.03	34.1	10.0	2.00	31.4	9.2	1.98

SPA048 - CB31MV-51 - CBX32MV-048 - SECOND STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1560	735	55.3	16.2	3.09	41.7	12.2	2.82	27.3	8.0	2.54	19.0	5.6	2.26
1625	765	55.6	16.3	3.06	42.0	12.3	2.79	27.6	8.1	2.51	19.3	5.7	2.23
1720	810	56.0	16.4	3.03	42.4	12.4	2.76	28.0	8.2	2.47	19.7	5.8	2.19

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil		
		-15°F (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW	
1560	735	9.8	2.9	1.66
1625	765	10.1	3.0	1.63
1720	810	10.5	3.1	1.59

SPA048 - CB31MV-51 - CBX32MV-048 - HEATING PERFORMANCE at 1625 cfm (765 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.06	55.6	16.3
60	16	3.00	52.5	15.4
55	13	2.94	49.4	14.5
50	10	2.87	46.3	13.6
47	8	2.84	44.5	13.0
45	7	2.79	42.0	12.3
40	4	2.68	35.8	10.5
35	2	2.57	29.6	8.7
30	-1	2.54	28.6	8.4
25	-4	2.51	27.6	8.1
20	-7	2.48	26.6	7.8
17	-8	2.46	26.0	7.6
15	-9	2.44	24.7	7.2
10	-12	2.37	21.6	6.3
5	-15	2.23	19.3	5.7
0	-18	2.08	17.0	5.0
-5	-21	1.93	14.7	4.3
-10	-23	1.78	12.4	3.6
-15	-26	1.63	10.1	3.0
-20	-29	1.48	7.8	2.3

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

SPA048 - C33-62D - CX34-62D-6F - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	36.0	10.6	1.58	.79	.93	1.00	34.2	10.0	1.82	.81	.96	1.00	32.4	9.5	2.10	.84	.99	1.00	30.6	9.0	2.41	.86	1.00	1.00
	1200	565	36.8	10.8	1.58	.81	.96	1.00	35.0	10.3	1.82	.83	.99	1.00	33.2	9.7	2.09	.86	1.00	1.00	31.6	9.3	2.40	.89	1.00	1.00
	1300	615	37.4	11.0	1.58	.83	.99	1.00	.0	.0	.00	.85		1.00	34.2	10.0	2.09	.88	1.00	1.00	32.4	9.5	2.40	.92	1.00	1.00
67°F (19°C)	1100	520	38.5	11.3	1.57	.62	.76	.89	36.4	10.7	1.82	.64	.78	.92	34.6	10.1	2.09	.65	.81	.95	32.6	9.6	2.40	.67	.83	.99
	1200	565	39.0	11.4	1.57	.64	.78	.92	37.2	10.9	1.81	.65	.80	.95	35.2	10.3	2.08	.67	.83	.98	33.0	9.7	2.39	.68	.86	1.00
	1300	615	40.0	11.7	1.57	.65	.80	.95	38.0	11.1	1.81	.66	.83	.98	36.0	10.6	2.08	.68	.85	1.00	33.6	9.8	2.39	.70	.88	1.00
71°F (22°C)	1100	520	41.0	12.0	1.57	.48	.60	.73	39.0	11.4	1.81	.48	.62	.75	37.0	10.8	2.07	.49	.63	.78	35.0	10.3	2.38	.49	.65	.80
	1200	565	41.5	12.2	1.57	.48	.62	.75	40.0	11.7	1.81	.49	.64		37.8	11.1	2.07	.49	.65		35.6	10.4	2.38	.50	.67	.83
	1300	615	42.5	12.5	1.57	.49	.63	.77	40.5	11.9	1.81	.50	.65	.80	38.5	11.3	2.07	.50	.67	.82	36.2	10.6	2.38	.51	.68	.85

SPA048 - C33-62D - CX34-62D-6F - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	47.5	13.9	2.89	.78	.92	1.00	45.0	13.2	3.25	.80	.94	1.00	42.5	12.5	3.64	.82	.97	1.00	40.0	11.7	4.07	.85	1.00	1.00
	1600	755	49.0	14.4	2.91	.81	.96	1.00	46.5	13.6	3.26	.83	.99	1.00	44.0	12.9	3.66	.86	1.00	1.00	41.5	12.2	4.10	.89	1.00	1.00
	1800	850	50.5	14.8	2.93	.84	.99	1.00	48.0	14.1	3.28	.86	1.00	1.00	45.5	13.3	3.68	.89	1.00	1.00	43.0	12.6	4.12	.93	1.00	1.00
67°F (19°C)	1400	660	50.5	14.8	2.93	.62	.75	.88	48.0	14.1	3.28	.63	.77	.91	45.5	13.3	3.67	.64	.79	.94	42.5	12.5	4.11	.66	.82	.97
	1600	755	52.0	15.2	2.95	.64	.78	.92	49.5	14.5	3.30	.65	.80	.95	46.5	13.6	3.69	.67	.83	.98	43.5	12.7	4.13	.69	.86	1.00
	1800	850	53.5	15.7	2.96	.66	.81	.96	50.5	14.8	3.31	.67	.84	.99	47.5	13.9	3.71	.69	.87	1.00	44.5	13.0	4.14	.71	.90	1.00
71°F (22°C)	1400	660	53.5	15.7	2.97	.47	.60	.73	51.0	14.9	3.32	.48	.61	.74	48.5	14.2	3.71	.49	.63	.76	45.5	13.3	4.16	.49	.65	.79
	1600	755	55.5	16.3	2.98	.48	.62	.76	52.5	15.4	3.34	.49	.64	.78	49.5	14.5	3.73	.50	.65	.80	46.5	13.6	4.18	.50	.67	.83
	1800	850	56.5	16.6	3.00	.49	.64	.79	54.0	15.8	3.36	.50	.66	.81	51.0	14.9	3.75	.51	.68	.84	47.5	13.9	4.19	.52	.70	.87

SPA048 - C33-62D - CX34-62D-6F - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1100	520	39.4	11.5	2.22	36.6	10.7	2.20	33.9	9.9	2.18	31.1	9.1	2.17
1200	565	39.9	11.7	2.15	37.1	10.9	2.13	34.4	10.1	2.12	31.6	9.3	2.10
1300	615	40.3	11.8	2.09	37.6	11.0	2.08	34.8	10.2	2.06	32.1	9.4	2.04

SPA048 - C33-62D - CX34-62D-6F - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1400	660	54.5	16.0	3.32	41.0	12.0	3.04	26.8	7.9	2.75	18.6	5.5	2.44	9.4	2.8	1.82
1600	755	55.2	16.2	3.22	41.7	12.2	2.94	27.5	8.1	2.64	19.3	5.7	2.34	10.1	3.0	1.71
1800	850	55.8	16.4	3.13	42.3	12.4	2.85	28.1	8.2	2.56	19.9	5.8	2.25	10.7	3.1	1.63

SPA048 - C33-62D - CX34-62D-6F - HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.22	55.2	16.2
60	16	3.15	52.1	15.3
55	13	3.09	49.1	14.4
50	10	3.02	46.0	13.5
47	8	2.98	44.2	13.0
45	7	2.94	41.7	12.2
40	4	2.82	35.6	10.4
35	2	2.71	29.5	8.6
30	-1	2.68	28.5	8.4
25	-4	2.64	27.5	8.1
20	-7	2.61	26.5	7.8
17	-8	2.59	25.9	7.6
15	-9	2.56	24.7	7.2
10	-12	2.50	21.6	6.3
5	-15	2.34	19.3	5.7
0	-18	2.18	17.0	5.0
-5	-21	2.02	14.7	4.3
-10	-23	1.87	12.4	3.6
-15	-26	1.71	10.1	3.0
-20	-29	1.55	7.8	2.3

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

SPA048 - C33-62D with G61MPV-60D-135 - CX34-62D-6F with G61MPV-60D-135 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	890	420	33.8	9.9	1.59	.74	.87	.99	32.2	9.4	1.83	.76	.89	1.00	.0	.0	.00	.77		1.00	28.6	8.4	2.43	.79	.95	1.00
	1085	510	35.6	10.4	1.58	.78	.92	1.00	34.0	10.0	1.83	.80	.95	1.00	32.0	9.4	2.10	.82	.98	1.00	30.2	8.9	2.41	.85	1.00	1.00
	1225	580	36.8	10.8	1.58	.81	.96	1.00	35.0	10.3	1.82	.83	.99	1.00	33.2	9.7	2.09	.86	1.00	1.00	31.6	9.3	2.40	.89	1.00	1.00
67°F (19°C)	890	420	36.0	10.6	1.58	.59	.71	.83	34.4	10.1	1.82	.59	.73	.85	32.6	9.6	2.10	.61	.74	.87	30.8	9.0	2.41	.62	.76	.90
	1085	510	38.0	11.1	1.58	.61	.75	.88	36.0	10.6	1.82	.62	.77	.91	34.2	10.0	2.09	.64	.79	.94	32.2	9.4	2.40	.65	.82	.97
	1225	580	39.0	11.4	1.57	.63	.78	.92	37.2	10.9	1.81	.65	.80	.95	35.2	10.3	2.08	.66	.83	.98	33.2	9.7	2.39	.68	.86	1.00
71°F (22°C)	890	420	38.5	11.3	1.57	.45	.57	.68	36.8	10.8	1.82	.46	.58	.70	35.0	10.3	2.08	.46	.59	.71	33.0	9.7	2.40	.46	.60	.73
	1085	510	40.5	11.9	1.57	.46	.59	.72	38.5	11.3	1.81	.47	.61	.74	36.8	10.8	2.08	.47	.62	.76	34.6	10.1	2.38	.48	.64	.79
	1225	580	41.5	12.2	1.57	.48	.62	.75	40.0	11.7	1.81	.48	.63	.77	37.8	11.1	2.07	.49	.65	.78	35.6	10.4	2.38	.49	.66	.82

SPA048 - C33-62D with G61MPV-60D-135 - CX34-62D-6F with G61MPV-60D-135 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1415	670	47.5	13.9	2.89	.78	.92	1.00	45.0	13.2	3.25	.79	.94	1.00	42.5	12.5	3.64	.82	.97	1.00	40.0	11.7	4.07	.85	1.00	1.00
	1600	755	49.0	14.4	2.91	.81	.96	1.00	46.5	13.6	3.26	.83	.98	1.00	44.0	12.9	3.65	.85	1.00	1.00	41.5	12.2	4.10	.89	1.00	1.00
	1730	815	50.0	14.7	2.92	.82	.98	1.00	47.5	13.9	3.27	.85	1.00	1.00	45.0	13.2	3.67	.88	1.00	1.00	42.5	12.5	4.11	.91	1.00	1.00
67°F (19°C)	1415	670	50.5	14.8	2.93	.61	.75	.88	48.0	14.1	3.28	.63	.77	.91	45.5	13.3	3.67	.64	.79	.94	42.5	12.5	4.11	.66	.82	.97
	1600	755	52.0	15.2	2.94	.64	.78	.92	49.5	14.5	3.30	.65	.80	.95	46.5	13.6	3.69	.66	.83	.98	43.5	12.7	4.13	.68	.86	1.00
	1730	815	53.0	15.5	2.95	.65	.80	.95	50.0	14.7	3.31	.66	.82	.97	47.5	13.9	3.70	.68	.85	1.00	44.0	12.9	4.14	.70	.88	1.00
71°F (22°C)	1415	670	53.5	15.7	2.97	.47	.60	.72	51.0	14.9	3.32	.47	.61	.74	48.5	14.2	3.71	.48	.63	.76	45.5	13.3	4.16	.49	.64	.79
	1600	755	55.0	16.1	2.98	.48	.62	.75	52.5	15.4	3.34	.48	.63	.77	49.5	14.5	3.73	.49	.65	.80	46.5	13.6	4.17	.50	.67	.83
	1730	815	56.0	16.4	2.99	.49	.63	.77	53.5	15.7	3.35	.49	.65	.79	50.5	14.8	3.74	.50	.66	.82	47.0	13.8	4.18	.51	.68	.85

SPA048 - C33-62D with G61MPV-60D-135 - CX34-62D-6F with G61MPV-60D-135 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
595	280	27.3	8.0	2.02	25.3	7.4	1.95	23.4	6.9	1.88	21.5	6.3	1.81
750	355	28.1	8.2	1.85	26.2	7.7	1.78	24.2	7.1	1.71	22.3	6.5	1.64
900	425	29.2	8.6	1.72	27.3	8.0	1.65	25.3	7.4	1.58	23.4	6.9	1.51

SPA048 - C33-62D with G61MPV-60D-135 - CX34-62D-6F with G61MPV-60D-135 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1415	670	54.0	15.8	3.30	40.6	11.9	3.02	26.4	7.7	2.73	18.3	5.4	2.42	9.2	2.7	1.80
1600	755	54.8	16.1	3.21	41.4	12.1	2.93	27.2	8.0	2.64	19.1	5.6	2.33	10.0	2.9	1.71
1730	815	55.0	16.1	3.15	41.6	12.2	2.87	27.4	8.0	2.57	19.3	5.7	2.27	10.2	3.0	1.64

SPA048 - C33-62D with G61MPV-60D-135
SPA048 - CX34-62D-6F with G61MPV-60D-135
HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.21	54.8	16.1
60	16	3.15	51.8	15.2
55	13	3.08	48.7	14.3
50	10	3.02	45.7	13.4
47	8	2.98	43.9	12.9
45	7	2.93	41.4	12.1
40	4	2.82	35.3	10.3
35	2	2.71	29.2	8.6
30	-1	2.67	28.2	8.3
25	-4	2.64	27.2	8.0
20	-7	2.60	26.2	7.7
17	-8	2.58	25.6	7.5
15	-9	2.56	24.4	7.2
10	-12	2.49	21.3	6.2
5	-15	2.33	19.1	5.6
0	-18	2.18	16.8	4.9
-5	-21	2.02	14.5	4.2
-10	-23	1.86	12.2	3.6
-15	-26	1.71	10.0	2.9
-20	-29	1.55	7.7	2.3

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

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

SPA048 - C33-62D with G60UHV-60D-135 - CX34-62D-6F with G60UHV-60D-135 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1065	505	35.4	10.4	1.58	.77	.92	1.00	33.8	9.9	1.83	.79	.94	1.00	31.8	9.3	2.10	.82	.97	1.00	30.0	8.8	2.42	.84	1.00	1.00
	1140	540	36.0	10.6	1.58	.79	.94	1.00	34.4	10.1	1.82	.81	.96	1.00	32.4	9.5	2.10	.84	.99	1.00	30.8	9.0	2.41	.86	1.00	1.00
	1220	575	36.8	10.8	1.58	.81	.96	1.00	35.0	10.3	1.82	.83	.99	1.00	33.2	9.7	2.09	.86	1.00	1.00	31.6	9.3	2.40	.89	1.00	1.00
67°F (19°C)	1065	505	37.8	11.1	1.58	.61	.75	.88	36.0	10.6	1.82	.62	.76	.90	34.2	10.0	2.09	.64	.79	.93	32.2	9.4	2.40	.65	.81	.96
	1140	540	38.5	11.3	1.57	.62	.76	.89	36.6	10.7	1.82	.63	.78	.92	34.6	10.1	2.09	.65	.81	.96	32.6	9.6	2.40	.66	.83	.99
	1220	575	39.0	11.4	1.57	.64	.78	.92	37.2	10.9	1.81	.65	.80	.95	35.2	10.3	2.08	.66	.83	.98	33.2	9.7	2.39	.68	.86	1.00
71°F (22°C)	1065	505	40.5	11.9	1.57	.46	.59	.72	38.5	11.3	1.81	.47	.60	.74	36.6	10.7	2.08	.47	.62	.76	34.4	10.1	2.38	.48	.63	.78
	1140	540	41.0	12.0	1.57	.47	.60	.73	39.0	11.4	1.81	.47	.62	.75	37.2	10.9	2.08	.48	.63	.78	35.0	10.3	2.38	.48	.65	.80
	1220	575	41.5	12.2	1.57	.48	.62	.75	40.0	11.7	1.81	.48	.63	.77	37.8	11.1	2.07	.49	.65	.78	35.6	10.4	2.38	.50	.66	.83

SPA048 - C33-62D with G60UHV-60D-135 - CX34-62D-6F with G60UHV-60D-135 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1520	720	48.5	14.2	2.90	.79	.94	1.00	46.0	13.5	3.26	.81	.96	1.00	43.5	12.7	3.65	.84	.99	1.00	40.5	11.9	4.08	.87	1.00	1.00
	1630	770	49.0	14.4	2.91	.81	.96	1.00	46.5	13.6	3.26	.83	.99	1.00	44.0	12.9	3.66	.86	1.00	1.00	41.5	12.2	4.10	.89	1.00	1.00
	1765	830	50.0	14.7	2.92	.83	.99	1.00	47.5	13.9	3.27	.85	1.00	1.00	45.0	13.2	3.67	.88	1.00	1.00	42.5	12.5	4.11	.92	1.00	1.00
67°F (19°C)	1520	720	51.0	14.9	2.94	.62	.77	.90	49.0	14.4	3.29	.64	.79	.93	46.0	13.5	3.68	.65	.81	.96	43.0	12.6	4.12	.67	.84	.99
	1630	770	52.0	15.2	2.95	.64	.78	.92	49.5	14.5	3.30	.65	.80	.95	46.5	13.6	3.69	.66	.83	.98	43.5	12.7	4.13	.68	.86	1.00
	1765	830	53.0	15.5	2.96	.65	.80	.95	50.5	14.8	3.31	.66	.83	.98	47.5	13.9	3.70	.68	.85	1.00	44.0	12.9	4.14	.70	.89	1.00
71°F (22°C)	1520	720	54.5	16.0	2.97	.47	.61	.74	52.0	15.2	3.33	.48	.62	.76	49.0	14.4	3.73	.48	.64	.78	46.0	13.5	4.17	.49	.65	.81
	1630	770	55.5	16.3	2.99	.48	.62	.76	52.5	15.4	3.34	.48	.63	.78	50.0	14.7	3.74	.49	.65	.80	46.5	13.6	4.18	.50	.67	.83
	1765	830	56.0	16.4	3.00	.49	.64	.78	53.5	15.7	3.35	.49	.65	.80	50.5	14.8	3.75	.50	.67	.83	47.0	13.8	4.19	.51	.69	.86

SPA048 - C33-62D with G60UHV-60D-135 - CX34-62D-6F with G60UHV-60D-135 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1065	505	38.5	11.3	2.23	35.8	10.5	2.21	33.1	9.7	2.19	30.3	8.9	2.17
1140	540	38.9	11.4	2.18	36.2	10.6	2.16	33.5	9.8	2.14	30.8	9.0	2.11
1220	575	39.6	11.6	2.13	36.9	10.8	2.11	34.1	10.0	2.09	31.4	9.2	2.07

SPA048 - C33-62D with G60UHV-60D-135 - CX34-62D-6F with G60UHV-60D-135 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1520	715	54.1	15.9	3.24	40.7	11.9	2.96	26.5	7.8	2.67	18.4	5.4	2.36	9.4	2.8	1.74
1630	770	54.6	16.0	3.19	41.2	12.1	2.91	27.0	7.9	2.62	18.9	5.5	2.31	9.9	2.9	1.69
1765	830	55.1	16.1	3.14	41.7	12.2	2.86	27.5	8.1	2.57	19.4	5.7	2.26	10.4	3.0	1.64

SPA048 - C33-62D with G60UHV-60D-135
SPA048 - CX34-62D-6F with G60UHV-60D-135
HEATING PERFORMANCE at 1630 cfm (770 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.19	54.6	16.0
60	16	3.13	51.6	15.1
55	13	3.06	48.5	14.2
50	10	3.00	45.5	13.3
47	8	2.96	43.7	12.8
45	7	2.91	41.2	12.1
40	4	2.81	35.1	10.3
35	2	2.70	29.0	8.5
30	-1	2.66	28.0	8.2
25	-4	2.62	27.0	7.9
20	-7	2.58	26.0	7.6
17	-8	2.56	25.4	7.4
15	-9	2.53	24.2	7.1
10	-12	2.47	21.2	6.2
5	-15	2.31	18.9	5.5
0	-18	2.16	16.7	4.9
-5	-21	2.00	14.4	4.2
-10	-23	1.85	12.1	3.5
-15	-26	1.69	9.9	2.9
-20	-29	1.54	7.6	2.2

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

SPA048 - CR26-48N/W-F - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	34.8	10.2	1.58	.78	.92	1.00	33.0	9.7	1.83	.80	.95	1.00	31.4	9.2	2.11	.82	.98	1.00	29.4	8.6	2.42	.85	1.00	1.00
	1200	565	35.4	10.4	1.58	.80	.95	1.00	33.8	9.9	1.83	.82	.97	1.00	32.0	9.4	2.10	.84	1.00	1.00	30.2	8.9	2.42	.88	1.00	1.00
	1300	615	36.0	10.6	1.58	.82	.97	1.00	34.4	10.1	1.82	.84	.99	1.00	32.6	9.6	2.10	.87	1.00	1.00	31.0	9.1	2.41	.90	1.00	1.00
67°F (19°C)	1100	520	37.2	10.9	1.58	.62	.75	.88	35.6	10.4	1.82	.63	.77	.91	33.6	9.8	2.09	.64	.79	.94	31.6	9.3	2.40	.66	.82	.97
	1200	565	37.8	11.1	1.58	.63	.77	.91	36.2	10.6	1.82	.64	.79	.94	34.2	10.0	2.09	.66	.81	.97	32.2	9.4	2.40	.67	.84	.99
	1300	615	38.5	11.3	1.57	.64	.79	.94	36.8	10.8	1.82	.65	.81	.96	34.8	10.2	2.09	.67	.84	.99	32.6	9.6	2.40	.69	.87	1.00
71°F (22°C)	1100	520	39.5	11.6	1.57	.47	.60	.73	37.8	11.1	1.81	.48	.61	.74	36.0	10.6	2.08	.48	.62	.76	33.8	9.9	2.39	.49	.64	.79
	1200	565	40.0	11.7	1.57	.48	.62	.75	38.5	11.3	1.81	.48	.63	.76	36.6	10.7	2.08	.49	.64	.79	34.4	10.1	2.38	.50	.66	.81
	1300	615	41.0	12.0	1.57	.49	.63	.76	39.0	11.4	1.81	.49	.64	.78	37.2	10.9	2.08	.49	.65	.81	35.0	10.3	2.38	.50	.67	.84

SPA048 - CR26-48N/W-F - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	45.5	13.3	2.87	.77	.91	1.00	43.5	12.7	3.22	.79	.93	1.00	41.0	12.0	3.61	.81	.96	1.00	38.0	11.1	4.05	.84	.99	1.00
	1600	755	47.0	13.8	2.88	.80	.94	1.00	44.5	13.0	3.24	.82	.97	1.00	42.0	12.3	3.63	.84	.99	1.00	39.5	11.6	4.06	.87	1.00	1.00
	1800	850	48.0	14.1	2.90	.82	.98	1.00	45.5	13.3	3.25	.85	.99	1.00	43.0	12.6	3.64	.88	1.00	1.00	40.5	11.9	4.08	.91	1.00	1.00
67°F (19°C)	1400	660	48.5	14.2	2.90	.61	.74	.87	46.0	13.5	3.26	.62	.76	.89	43.5	12.7	3.65	.63	.78	.92	40.5	11.9	4.08	.65	.81	.96
	1600	755	50.0	14.7	2.92	.63	.77	.91	47.5	13.9	3.27	.64	.79	.94	44.5	13.0	3.66	.66	.82	.96	41.5	12.2	4.10	.67	.85	.99
	1800	850	51.0	14.9	2.93	.65	.80	.94	48.5	14.2	3.29	.66	.82	.97	45.5	13.3	3.68	.68	.85	.99	42.5	12.5	4.11	.70	.88	1.00
71°F (22°C)	1400	660	51.5	15.1	2.94	.47	.60	.72	49.0	14.4	3.29	.47	.60	.73	46.5	13.6	3.69	.48	.62	.75	43.5	12.7	4.13	.48	.63	.78
	1600	755	52.5	15.4	2.95	.47	.62	.75	50.0	14.7	3.31	.48	.63	.76	47.5	13.9	3.70	.49	.64	.79	44.5	13.0	4.14	.50	.66	.82
	1800	850	54.0	15.8	2.97	.49	.64	.77	51.5	15.1	3.32	.49	.65	.79	48.5	14.2	3.72	.50	.66	.82	45.5	13.3	4.16	.51	.68	.85

SPA048 - CR26-48N/W-F - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1100	520	39.0	11.4	2.29	36.4	10.7	2.26	33.7	9.9	2.23	31.0	9.1	2.20
1200	565	39.5	11.6	2.22	36.8	10.8	2.19	34.1	10.0	2.16	31.5	9.2	2.13
1300	615	39.9	11.7	2.16	37.3	10.9	2.13	34.6	10.1	2.10	32.0	9.4	2.07

SPA048 - CR26-48N/W-F - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1400	660	54.0	15.8	3.39	40.8	12.0	3.08	26.8	7.9	2.76	18.8	5.5	2.45	9.4	2.8	1.82
1600	755	54.7	16.0	3.29	41.5	12.2	2.99	27.5	8.1	2.67	19.5	5.7	2.35	10.1	3.0	1.72
1800	850	55.3	16.2	3.21	42.1	12.3	2.91	28.1	8.2	2.59	20.1	5.9	2.27	10.7	3.1	1.64

SPA048 - CR26-48N/W-F - HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.29	54.7	16.0
60	16	3.22	51.7	15.2
55	13	3.15	48.7	14.3
50	10	3.08	45.7	13.4
47	8	3.04	43.9	12.9
45	7	2.99	41.5	12.2
40	4	2.87	35.4	10.4
35	2	2.74	29.3	8.6
30	-1	2.71	28.4	8.3
25	-4	2.67	27.5	8.1
20	-7	2.63	26.5	7.8
17	-8	2.61	26.0	7.6
15	-9	2.58	24.8	7.3
10	-12	2.51	21.8	6.4
5	-15	2.35	19.5	5.7
0	-18	2.20	17.1	5.0
-5	-21	2.04	14.8	4.3
-10	-23	1.88	12.5	3.7
-15	-26	1.72	10.1	3.0
-20	-29	1.57	7.8	2.3

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

SPA048 - CR26-48N-F with G60DFV-60C - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1125	530	34.8	10.2	1.58	.77	.92	1.00	33.0	9.7	1.83	.79	.95	1.00	31.2	9.1	2.11	.82	.97	1.00	29.2	8.6	2.42	.84	1.00	1.00
	1150	545	35.0	10.3	1.58	.78	.93	1.00	33.2	9.7	1.83	.80	.96	1.00	31.4	9.2	2.10	.82	.98	1.00	29.4	8.6	2.42	.85	1.00	1.00
	1310	620	36.0	10.6	1.58	.81	.97	1.00	34.2	10.0	1.82	.84	.99	1.00	32.4	9.5	2.10	.86	1.00	1.00	30.8	9.0	2.41	.89	1.00	1.00
67°F (19°C)	1125	530	37.2	10.9	1.58	.61	.75	.88	35.4	10.4	1.82	.62	.76	.91	33.6	9.8	2.09	.63	.79	.94	31.6	9.3	2.40	.65	.81	.97
	1150	545	37.4	11.0	1.58	.62	.75	.89	35.6	10.4	1.82	.62	.77	.92	33.8	9.9	2.09	.64	.79	.94	31.6	9.3	2.40	.65	.82	.97
	1310	620	38.5	11.3	1.57	.64	.79	.93	36.6	10.7	1.82	.65	.81	.96	34.6	10.1	2.09	.66	.83	.98	32.6	9.6	2.40	.68	.86	1.00
71°F (22°C)	1125	530	39.5	11.6	1.57	.46	.60	.72	37.8	11.1	1.81	.46	.60	.74	35.8	10.5	2.08	.46	.62	.76	33.8	9.9	2.39	.47	.63	.78
	1150	545	39.5	11.6	1.57	.46	.60	.73	38.0	11.1	1.81	.47	.61	.74	36.0	10.6	2.08	.47	.62	.76	34.0	10.0	2.39	.48	.63	.79
	1310	620	40.5	11.9	1.57	.48	.62	.76	39.0	11.4	1.81	.48	.63	.78	37.0	10.8	2.08	.48	.65	.80	34.8	10.2	2.38	.49	.66	.83

SPA048 - CR26-48N-F with G60DFV-60C - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1560	735	48.5	14.2	2.56	.77	.91	1.00	44.0	12.9	3.23	.80	.96	1.00	41.5	12.2	3.62	.83	.98	1.00	39.0	11.4	4.06	.86	1.00	1.00
	1640	775	49.0	14.4	2.56	.78	.92	1.00	44.5	13.0	3.24	.82	.97	1.00	42.0	12.3	3.63	.84	.99	1.00	39.5	11.6	4.06	.88	1.00	1.00
	1855	875	50.0	14.7	2.57	.81	.96	1.00	45.5	13.3	3.25	.85	1.00	1.00	43.0	12.6	3.64	.88	1.00	1.00	40.5	11.9	4.08	.91	1.00	1.00
67°F (19°C)	1560	735	51.5	15.1	2.59	.61	.75	.87	47.0	13.8	3.27	.63	.78	.92	44.5	13.0	3.66	.64	.80	.95	41.5	12.2	4.10	.66	.83	.98
	1640	775	52.0	15.2	2.60	.62	.76	.89	47.5	13.9	3.28	.64	.79	.94	45.0	13.2	3.67	.65	.82	.97	42.0	12.3	4.10	.67	.85	.99
	1855	875	53.0	15.5	2.61	.64	.78	.93	48.5	14.2	3.29	.66	.82	.97	45.5	13.3	3.68	.68	.85	.99	42.5	12.5	4.11	.70	.89	1.00
71°F (22°C)	1560	735	54.5	16.0	2.62	.47	.60	.72	50.0	14.7	3.30	.47	.62	.75	47.0	13.8	3.70	.48	.63	.77	44.0	12.9	4.14	.49	.65	.80
	1640	775	55.0	16.1	2.63	.47	.61	.73	50.5	14.8	3.31	.48	.63	.77	47.5	13.9	3.70	.48	.64	.79	44.5	13.0	4.14	.49	.66	.82
	1855	875	56.0	16.4	2.64	.48	.62	.76	51.5	15.1	3.32	.49	.65	.80	48.5	14.2	3.72	.49	.66	.82	45.5	13.3	4.16	.50	.68	.86

SPA048 - CR26-48N-F with G60DFV-60C - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1125	530	38.4	11.3	2.24	35.7	10.5	2.21	33.1	9.7	2.18	30.4	8.9	2.15
1150	545	38.5	11.3	2.22	35.8	10.5	2.19	33.2	9.7	2.16	30.5	8.9	2.13
1310	620	39.3	11.5	2.14	36.7	10.8	2.11	34.0	10.0	2.08	31.3	9.2	2.05

SPA048 - CR26-48N-F with G60DFV-60C - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1560	735	54.0	15.8	3.30	40.8	12.0	3.00	26.8	7.9	2.68	18.8	5.5	2.37	9.6	2.8	1.75
1640	775	54.3	15.9	3.26	41.1	12.0	2.96	27.1	7.9	2.65	19.1	5.6	2.34	9.9	2.9	1.71
1855	875	54.9	16.1	3.18	41.7	12.2	2.88	27.7	8.1	2.57	19.7	5.8	2.26	10.5	3.1	1.63

SPA048 - CR26-48N-F with G60DFV-60C - HEATING PERFORMANCE at 1640 cfm (775 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.26	54.3	15.9
60	16	3.19	51.3	15.0
55	13	3.12	48.3	14.2
50	10	3.05	45.3	13.3
47	8	3.01	43.5	12.7
45	7	2.96	41.1	12.0
40	4	2.84	35.1	10.3
35	2	2.72	29.0	8.5
30	-1	2.69	28.1	8.2
25	-4	2.65	27.1	7.9
20	-7	2.61	26.1	7.6
17	-8	2.59	25.6	7.5
15	-9	2.56	24.4	7.2
10	-12	2.49	21.4	6.3
5	-15	2.34	19.1	5.6
0	-18	2.18	16.8	4.9
-5	-21	2.02	14.5	4.2
-10	-23	1.87	12.2	3.6
-15	-26	1.71	9.9	2.9
-20	-29	1.56	7.7	2.3

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

SPA048 - CH33-62D-2F - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	35.6	10.4	1.58	.78	.92	1.00	33.8	9.9	1.83	.80	.95	1.00	32.0	9.4	2.10	.83	.98	1.00	30.2	8.9	2.42	.85	1.00	1.00
	1200	565	36.4	10.7	1.58	.80	.95	1.00	34.6	10.1	1.82	.82	.98	1.00	32.8	9.6	2.10	.85	1.00	1.00	31.0	9.1	2.41	.88	1.00	1.00
	1300	615	37.0	10.8	1.58	.82	.98	1.00	35.2	10.3	1.82	.84	1.00	1.00	33.6	9.8	2.09	.87	1.00	1.00	31.8	9.3	2.40	.90	1.00	1.00
67°F (19°C)	1100	520	38.0	11.1	1.58	.62	.76	.89	36.2	10.6	1.82	.63	.77	.91	34.2	10.0	2.09	.64	.80	.94	32.2	9.4	2.40	.66	.82	.97
	1200	565	39.0	11.4	1.57	.63	.78	.91	37.0	10.8	1.82	.65	.80	.94	34.8	10.2	2.08	.66	.82	.97	32.8	9.6	2.40	.68	.85	1.00
	1300	615	39.5	11.6	1.57	.65	.79	.94	37.6	11.0	1.81	.66	.82	.97	35.6	10.4	2.08	.68	.84	.99	33.4	9.8	2.39	.69	.87	1.00
71°F (22°C)	1100	520	40.5	11.9	1.57	.48	.61	.73	38.5	11.3	1.81	.48	.62	.75	36.4	10.7	2.08	.49	.63	.77	34.4	10.1	2.38	.49	.65	.79
	1200	565	41.0	12.0	1.57	.48	.62	.75	39.5	11.6	1.81	.49	.63	.77	37.2	10.9	2.07	.49	.64	.79	35.2	10.3	2.38	.50	.66	.82
	1300	615	42.0	12.3	1.57	.49	.63	.77	40.0	11.7	1.81	.49	.64	.79	38.0	11.1	2.07	.50	.66	.81	35.6	10.4	2.38	.51	.68	.84

SPA048 - CH33-62D-2F - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	47.0	13.8	2.89	.77	.91	1.00	44.5	13.0	3.24	.79	.93	1.00	42.0	12.3	3.63	.81	.96	1.00	39.5	11.6	4.06	.84	1.00	1.00
	1600	755	48.5	14.2	2.90	.80	.95	1.00	46.0	13.5	3.26	.82	.97	1.00	43.5	12.7	3.65	.85	1.00	1.00	41.0	12.0	4.09	.88	1.00	1.00
	1800	850	50.0	14.7	2.92	.83	.98	1.00	47.0	13.8	3.27	.85	1.00	1.00	44.5	13.0	3.67	.88	1.00	1.00	42.0	12.3	4.11	.91	1.00	1.00
67°F (19°C)	1400	660	50.0	14.7	2.92	.62	.75	.87	47.5	13.9	3.27	.63	.76	.89	45.0	13.2	3.66	.64	.78	.92	42.0	12.3	4.10	.66	.81	.96
	1600	755	51.5	15.1	2.94	.63	.77	.91	49.0	14.4	3.29	.64	.79	.94	46.0	13.5	3.68	.66	.82	.97	43.0	12.6	4.12	.68	.85	1.00
	1800	850	53.0	15.5	2.96	.65	.80	.95	50.0	14.7	3.31	.66	.82	.98	47.0	13.8	3.70	.68	.85	1.00	44.0	12.9	4.14	.70	.89	1.00
71°F (22°C)	1400	660	53.0	15.5	2.96	.47	.60	.72	50.5	14.8	3.31	.48	.61	.74	47.5	13.9	3.70	.48	.62	.76	44.5	13.0	4.15	.49	.64	.78
	1600	755	54.5	16.0	2.97	.48	.62	.75	52.0	15.2	3.33	.49	.63	.77	49.0	14.4	3.73	.50	.64	.79	46.0	13.5	4.17	.50	.66	.82
	1800	850	56.0	16.4	2.99	.49	.64	.78	53.0	15.5	3.35	.50	.65	.80	50.0	14.7	3.74	.50	.67	.83	47.0	13.8	4.18	.51	.69	.86

SPA048 - CH33-62D-2F - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1100	520	39.1	11.5	2.26	36.5	10.7	2.24	33.8	9.9	2.21	31.1	9.1	2.18
1200	565	39.6	11.6	2.20	36.9	10.8	2.17	34.3	10.1	2.15	31.6	9.3	2.12
1300	615	40.1	11.8	2.13	37.4	11.0	2.11	34.7	10.2	2.08	32.0	9.4	2.06

SPA048 - CH33-62D-2F - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1400	660	54.2	15.9	3.35	40.8	12.0	3.07	26.6	7.8	2.79	18.5	5.4	2.49	9.3	2.7	1.85
1600	755	55.0	16.1	3.24	41.6	12.2	2.96	27.4	8.0	2.68	19.3	5.7	2.38	10.1	3.0	1.74
1800	850	55.6	16.3	3.15	42.2	12.4	2.88	28.0	8.2	2.59	19.9	5.8	2.30	10.7	3.1	1.66

SPA048 - CH33-62D-2F - HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.24	55.0	16.1
60	16	3.17	51.9	15.2
55	13	3.11	48.9	14.3
50	10	3.05	45.9	13.5
47	8	3.01	44.1	12.9
45	7	2.96	41.6	12.2
40	4	2.85	35.5	10.4
35	2	2.74	29.4	8.6
30	-1	2.71	28.4	8.3
25	-4	2.68	27.4	8.0
20	-7	2.65	26.5	7.8
17	-8	2.63	25.9	7.6
15	-9	2.61	24.7	7.2
10	-12	2.54	21.7	6.4
5	-15	2.38	19.3	5.7
0	-18	2.22	17.0	5.0
-5	-21	2.06	14.7	4.3
-10	-23	1.90	12.4	3.6
-15	-26	1.74	10.1	3.0
-20	-29	1.58	7.8	2.3

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

SPA048 - CH23-68 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	36.0	10.6	1.58	.79	.94	1.00	34.2	10.0	1.82	.81	.96	1.00	32.4	9.5	2.10	.84	.99	1.00	30.6	9.0	2.41	.87	1.00	1.00
	1200	565	36.8	10.8	1.58	.82	.97	1.00	35.0	10.3	1.82	.84	.99	1.00	33.2	9.7	2.09	.86	1.00	1.00	31.6	9.3	2.40	.90	1.00	1.00
	1300	615	37.6	11.0	1.58	.84	.99	1.00	35.8	10.5	1.82	.86	1.00	1.00	34.2	10.0	2.09	.89	1.00	1.00	32.4	9.5	2.40	.92	1.00	1.00
67°F (19°C)	1100	520	38.5	11.3	1.57	.62	.76	.90	36.6	10.7	1.82	.63	.78	.93	34.6	10.1	2.09	.65	.81	.96	32.6	9.6	2.40	.66	.83	.99
	1200	565	39.0	11.4	1.57	.64	.79	.93	37.4	11.0	1.81	.65	.81	.95	35.2	10.3	2.08	.66	.83	.98	33.2	9.7	2.39	.68	.86	1.00
	1300	615	40.0	11.7	1.57	.65	.81	.96	38.0	11.1	1.81	.66	.83	.98	35.8	10.5	2.08	.68	.86	1.00	33.6	9.8	2.39	.70	.89	1.00
71°F (22°C)	1100	520	41.0	12.0	1.57	.48	.61	.74	39.5	11.6	1.81	.47	.62	.75	37.2	10.9	2.08	.48	.63	.78	35.0	10.3	2.38	.49	.65	.80
	1200	565	42.0	12.3	1.57	.48	.62	.76	40.0	11.7	1.81	.48	.63	.78	38.0	11.1	2.07	.49	.65	.80	35.6	10.4	2.38	.50	.67	.83
	1300	615	42.5	12.5	1.57	.49	.64	.78	40.5	11.9	1.80	.49	.65	.80	38.5	11.3	2.07	.49	.67	.83	36.2	10.6	2.38	.51	.69	.86

SPA048 - CH23-68 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	47.5	13.9	2.89	.78	.92	1.00	45.0	13.2	3.25	.80	.95	1.00	42.5	12.5	3.64	.83	.98	1.00	40.0	11.7	4.07	.86	1.00	1.00
	1600	755	49.0	14.4	2.91	.82	.97	1.00	46.5	13.6	3.26	.84	.99	1.00	44.0	12.9	3.66	.87	1.00	1.00	41.5	12.2	4.10	.90	1.00	1.00
	1800	850	50.5	14.8	2.93	.85	1.00	1.00	48.0	14.1	3.28	.88	1.00	1.00	46.0	13.5	3.68	.91	1.00	1.00	43.0	12.6	4.12	.94	1.00	1.00
67°F (19°C)	1400	660	50.5	14.8	2.93	.62	.76	.89	48.0	14.1	3.28	.63	.78	.92	45.5	13.3	3.67	.64	.80	.95	42.0	12.3	4.11	.66	.83	.98
	1600	755	52.0	15.2	2.95	.64	.79	.93	49.5	14.5	3.30	.65	.81	.96	46.5	13.6	3.69	.67	.84	.99	43.5	12.7	4.13	.69	.87	1.00
	1800	850	53.5	15.7	2.96	.66	.83	.97	50.5	14.8	3.31	.68	.85	.99	47.5	13.9	3.70	.69	.88	1.00	44.5	13.0	4.14	.72	.91	1.00
71°F (22°C)	1400	660	54.0	15.8	2.97	.47	.60	.73	51.5	15.1	3.32	.47	.61	.75	48.5	14.2	3.71	.48	.63	.77	45.0	13.2	4.15	.49	.65	.80
	1600	755	55.5	16.3	2.99	.48	.63	.77	52.5	15.4	3.34	.48	.64	.79	49.5	14.5	3.73	.49	.66	.81	46.5	13.6	4.17	.50	.68	.85
	1800	850	57.0	16.7	3.00	.49	.65	.80	54.0	15.8	3.36	.50	.66	.82	51.0	14.9	3.75	.50	.68	.85	47.5	13.9	4.19	.52	.71	.89

SPA048 - CH23-68 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1100	520	40.1	11.8	2.09	37.3	10.9	2.07	34.5	10.1	2.05	31.7	9.3	2.03
1200	565	40.6	11.9	2.03	37.8	11.1	2.01	35.0	10.3	1.99	32.2	9.4	1.97
1300	615	41.1	12.0	1.98	38.3	11.2	1.96	35.5	10.4	1.94	32.7	9.6	1.92

SPA048 - CH23-68 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1400	660	55.4	16.2	3.12	41.8	12.3	2.86	27.3	8.0	2.60	19.0	5.6	2.32	9.6	2.8	1.72
1600	755	56.1	16.4	3.02	42.5	12.5	2.77	28.0	8.2	2.50	19.7	5.8	2.23	10.3	3.0	1.63
1800	850	56.7	16.6	2.95	43.1	12.6	2.70	28.6	8.4	2.43	20.3	5.9	2.16	10.9	3.2	1.56

SPA048 - CH23-68 - HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.02	56.1	16.4
60	16	2.96	53.0	15.5
55	13	2.90	49.9	14.6
50	10	2.85	46.8	13.7
47	8	2.81	45.0	13.2
45	7	2.77	42.5	12.5
40	4	2.66	36.2	10.6
35	2	2.56	30.0	8.8
30	-1	2.53	29.0	8.5
25	-4	2.50	28.0	8.2
20	-7	2.48	27.0	7.9
17	-8	2.46	26.4	7.7
15	-9	2.44	25.1	7.4
10	-12	2.38	22.0	6.4
5	-15	2.23	19.7	5.8
0	-18	2.08	17.3	5.1
-5	-21	1.93	15.0	4.4
-10	-23	1.78	12.6	3.7
-15	-26	1.63	10.3	3.0
-20	-29	1.48	7.9	2.3

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

SPA048 - CH33-62D-2F with G61MPV-60D-135 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	890	420	33.4	9.8	1.59	.74	.86	.98	31.8	9.3	1.84	.75	.88	1.00	30.2	8.9	2.11	.77	.91		28.2	8.3	2.43	.79	.94	1.00
	1085	510	35.4	10.4	1.58	.77	.91	1.00	33.6	9.8	1.83	.79	.94	1.00	31.8	9.3	2.10	.81	.97	1.00	29.8	8.7	2.42	.84	1.00	1.00
	1225	580	36.4	10.7	1.58	.80	.95	1.00	34.6	10.1	1.82	.82	.98	1.00	32.8	9.6	2.10	.85	1.00	1.00	31.0	9.1	2.41	.88	1.00	1.00
67°F (19°C)	890	420	35.6	10.4	1.58	.59	.71	.82	34.0	10.0	1.83	.60	.72	.84	32.2	9.4	2.10	.61	.74	.87	30.2	8.9	2.41	.62	.76	.90
	1085	510	37.6	11.0	1.58	.61	.75	.87	35.8	10.5	1.82	.62	.76	.90	34.0	10.0	2.09	.63	.78	.93	31.8	9.3	2.40	.65	.81	.96
	1225	580	39.0	11.4	1.57	.63	.77	.91	37.0	10.8	1.81	.64	.79	.94	35.0	10.3	2.08	.66	.82	.97	32.8	9.6	2.40	.67	.85	1.00
71°F (22°C)	890	420	38.0	11.1	1.58	.46	.57	.68	36.2	10.6	1.82	.46	.58	.70	34.4	10.1	2.09	.46	.59	.71	32.6	9.6	2.40	.47	.60	.73
	1085	510	40.0	11.7	1.57	.47	.60	.72	38.0	11.1	1.81	.47	.60	.73	36.2	10.6	2.08	.47	.62	.75	34.2	10.0	2.39	.48	.63	.78
	1225	580	41.0	12.0	1.57	.48	.61	.75	39.5	11.6	1.81	.48	.63	.77	37.2	10.9	2.07	.49	.64	.79	35.2	10.3	2.38	.49	.66	.82

SPA048 - CH33-62D-2F with G61MPV-60D-135 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1415	670	47.0	13.8	2.89	.77	.91	1.00	44.5	13.0	3.24	.79	.93	1.00	42.0	12.3	3.63	.81	.96	1.00	39.5	11.6	4.06	.84	.99	1.00
	1600	755	48.5	14.2	2.90	.80	.94	1.00	46.0	13.5	3.26	.82	.97	1.00	43.5	12.7	3.64	.84	1.00	1.00	41.0	12.0	4.09	.87	1.00	1.00
	1730	815	49.5	14.5	2.91	.81	.97	1.00	46.5	13.6	3.26	.83	.99	1.00	44.0	12.9	3.66	.86	1.00	1.00	41.5	12.2	4.10	.90	1.00	1.00
67°F (19°C)	1415	670	50.0	14.7	2.92	.61	.74	.87	47.5	13.9	3.27	.62	.76	.89	44.5	13.0	3.67	.64	.78	.92	42.0	12.3	4.10	.65	.81	.96
	1600	755	51.5	15.1	2.94	.63	.77	.91	49.0	14.4	3.29	.64	.79	.93	46.0	13.5	3.68	.66	.82	.97	43.0	12.6	4.12	.68	.85	1.00
	1730	815	52.0	15.2	2.95	.64	.79	.93	49.5	14.5	3.30	.65	.81	.96	46.5	13.6	3.69	.67	.84	.99	43.5	12.7	4.13	.69	.87	1.00
71°F (22°C)	1415	670	53.0	15.5	2.96	.47	.60	.72	50.5	14.8	3.31	.47	.61	.74	47.5	13.9	3.70	.48	.62	.76	44.5	13.0	4.15	.49	.64	.78
	1600	755	54.5	16.0	2.97	.48	.62	.75	52.0	15.2	3.33	.48	.63	.77	49.0	14.4	3.72	.49	.64	.79	46.0	13.5	4.17	.50	.66	.82
	1730	815	55.5	16.3	2.99	.48	.63	.76	52.5	15.4	3.34	.49	.64	.78	49.5	14.5	3.73	.49	.66	.81	46.5	13.6	4.18	.50	.68	.84

SPA048 - CH33-62D-2F with G61MPV-60D-135 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
890	420	37.3	10.9	2.45	34.7	10.2	2.42	32.0	9.4	2.39	29.4	8.6	2.36
1085	510	38.4	11.3	2.26	35.8	10.5	2.23	33.1	9.7	2.20	30.5	8.9	2.17
1225	580	39.2	11.5	2.17	36.6	10.7	2.14	33.9	9.9	2.11	31.3	9.2	2.08

SPA048 - CH33-62D-2F with G61MPV-60D-135 - SECOND STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1415	670	53.7	15.7	3.34	40.4	11.8	3.07	26.3	7.7	2.78	18.2	5.3	2.49
1600	755	54.6	16.0	3.23	41.3	12.1	2.96	27.2	8.0	2.67	19.1	5.6	2.38
1730	815	54.8	16.1	3.17	41.5	12.2	2.90	27.4	8.0	2.61	19.3	5.7	2.32

Indoor Coil Air Volume 70°F db (21°C db)		-15°F (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW	
1415	670	9.1	2.7	1.85
1600	755	10.0	2.9	1.74
1730	815	10.2	3.0	1.68

SPA048 - CH33-62D-2F with G61MPV-60D-135 - HEATING PERFORMANCE at 1600 cfm (755 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.23	54.6	16.0
60	16	3.17	51.6	15.1
55	13	3.10	48.6	14.2
50	10	3.04	45.6	13.4
47	8	3.00	43.8	12.8
45	7	2.96	41.3	12.1
40	4	2.84	35.2	10.3
35	2	2.73	29.1	8.5
30	-1	2.70	28.1	8.2
25	-4	2.67	27.2	8.0
20	-7	2.64	26.2	7.7
17	-8	2.63	25.6	7.5
15	-9	2.60	24.4	7.2
10	-12	2.54	21.4	6.3
5	-15	2.38	19.1	5.6
0	-18	2.22	16.8	4.9
-5	-21	2.06	14.5	4.2
-10	-23	1.90	12.2	3.6
-15	-26	1.74	10.0	2.9
-20	-29	1.58	7.7	2.3

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

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

SPA048 - CH33-62-2F with G60UHV-60D-135 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1065	505	35.2	10.3	1.58	.77	.91	1.00	33.4	9.8	1.83	.79	.93	1.00	31.6	9.3	2.10	.81	.96	1.00	29.6	8.7	2.42	.83	.99	1.00
	1140	540	35.8	10.5	1.58	.78	.93	1.00	34.0	10.0	1.83	.80	.96	1.00	32.0	9.4	2.10	.83	.98	1.00	30.2	8.9	2.41	.85	1.00	1.00
	1220	575	36.4	10.7	1.58	.80	.95	1.00	34.6	10.1	1.82	.82	.98	1.00	32.8	9.6	2.10	.85	1.00	1.00	31.0	9.1	2.41	.88	1.00	1.00
67°F (19°C)	1065	505	37.4	11.0	1.58	.61	.74	.87	35.6	10.4	1.82	.62	.76	.89	33.8	9.9	2.09	.63	.78	.92	31.8	9.3	2.40	.65	.80	.95
	1140	540	38.0	11.1	1.58	.62	.76	.89	36.2	10.6	1.82	.63	.77	.91	34.4	10.1	2.09	.64	.80	.94	32.2	9.4	2.40	.66	.82	.98
	1220	575	39.0	11.4	1.57	.63	.77	.91	37.0	10.8	1.81	.64	.80	.94	35.0	10.3	2.08	.66	.82	.97	32.8	9.6	2.40	.68	.85	1.00
71°F (22°C)	1065	505	40.0	11.7	1.57	.46	.59	.71	38.0	11.1	1.81	.47	.60	.73	36.0	10.6	2.08	.47	.61	.75	34.0	10.0	2.39	.48	.63	.77
	1140	540	40.5	11.9	1.57	.47	.60	.73	38.5	11.3	1.81	.47	.61	.75	36.6	10.7	2.08	.48	.63	.77	34.6	10.1	2.38	.48	.64	.79
	1220	575	41.0	12.0	1.57	.48	.62	.75	39.5	11.6	1.81	.48	.63	.77	37.2	10.9	2.07	.49	.64	.79	35.2	10.3	2.38	.50	.66	.82

SPA048 - CH33-62-2F with G60UHV-60D-135 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1520	720	50.0	14.7	2.57	.77	.90	1.00	45.5	13.3	3.25	.80	.95	1.00	43.0	12.6	3.64	.83	.98	1.00	40.0	11.7	4.07	.86	1.00	1.00
	1630	770	51.0	14.9	2.58	.78	.92	1.00	46.0	13.5	3.26	.82	.97	1.00	43.5	12.7	3.65	.85	1.00	1.00	41.0	12.0	4.09	.88	1.00	1.00
	1765	830	52.0	15.2	2.59	.80	.95	1.00	47.0	13.8	3.27	.84	1.00	1.00	44.5	13.0	3.66	.87	1.00	1.00	42.0	12.3	4.10	.90	1.00	1.00
67°F (19°C)	1520	720	53.0	15.5	2.61	.61	.74	.87	48.5	14.2	3.28	.63	.78	.91	45.5	13.3	3.67	.64	.80	.95	42.5	12.5	4.11	.66	.83	.98
	1630	770	54.0	15.8	2.62	.62	.76	.89	49.0	14.4	3.29	.64	.79	.94	46.0	13.5	3.69	.66	.82	.97	43.0	12.6	4.12	.68	.85	1.00
	1765	830	55.0	16.1	2.63	.63	.77	.91	50.0	14.7	3.30	.66	.81	.96	47.0	13.8	3.69	.67	.84	.99	44.0	12.9	4.13	.69	.87	1.00
71°F (22°C)	1520	720	56.0	16.4	2.64	.47	.60	.72	51.0	14.9	3.32	.48	.62	.75	48.5	14.2	3.72	.48	.63	.77	45.5	13.3	4.16	.49	.65	.80
	1630	770	57.0	16.7	2.65	.47	.60	.73	52.0	15.2	3.33	.48	.63	.77	49.0	14.4	3.73	.49	.64	.79	46.0	13.5	4.17	.50	.66	.82
	1765	830	58.0	17.0	2.66	.48	.62	.75	53.0	15.5	3.34	.49	.64	.79	50.0	14.7	3.74	.50	.66	.81	46.5	13.6	4.18	.51	.68	.85

SPA048 - CH33-62-2F with G60UHV-60D-135 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1065	505	38.3	11.2	2.27	35.6	10.4	2.25	32.9	9.6	2.22	30.2	8.9	2.19
1140	540	38.7	11.3	2.22	36.0	10.6	2.19	33.3	9.8	2.16	30.6	9.0	2.14
1220	575	39.4	11.5	2.18	36.7	10.8	2.15	34.0	10.0	2.13	31.3	9.2	2.10

SPA048 - CH33-62-2F with G60UHV-60D-135 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1520	715	54.0	15.8	3.26	40.6	11.9	2.99	26.5	7.8	2.71	18.4	5.4	2.42	9.4	2.8	1.78
1630	770	54.5	16.0	3.21	41.1	12.0	2.94	27.0	7.9	2.66	18.9	5.5	2.37	9.9	2.9	1.73
1765	830	55.0	16.1	3.15	41.6	12.2	2.88	27.5	8.1	2.60	19.4	5.7	2.31	10.4	3.0	1.67

SPA048 - CH33-62-2F with G60UHV-60D-135 - HEATING PERFORMANCE at 1630 cfm (770 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.21	54.5	16.0
60	16	3.14	51.4	15.1
55	13	3.08	48.4	14.2
50	10	3.02	45.4	13.3
47	8	2.98	43.6	12.8
45	7	2.94	41.1	12.0
40	4	2.83	35.0	10.3
35	2	2.72	29.0	8.5
30	-1	2.69	28.0	8.2
25	-4	2.66	27.0	7.9
20	-7	2.63	26.0	7.6
17	-8	2.61	25.4	7.4
15	-9	2.59	24.2	7.1
10	-12	2.52	21.1	6.2
5	-15	2.37	18.9	5.5
0	-18	2.21	16.6	4.9
-5	-21	2.05	14.4	4.2
-10	-23	1.89	12.1	3.5
-15	-26	1.73	9.9	2.9
-20	-29	1.57	7.6	2.2

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

SPA060 - CB30M-51 - CBX32M-048 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1300	615	43.0	12.6	2.05	.77	.91	1.00	41.0	12.0	2.39	.78	.94	1.00	39.0	11.4	2.78	.80	.96	1.00	36.4	10.7	3.22	.83	.99	1.00
	1400	660	44.0	12.9	2.04	.78	.94	1.00	41.5	12.2	2.39	.80	.96	1.00	39.5	11.6	2.77	.82	.98	1.00	37.2	10.9	3.21	.85	1.00	1.00
	1500	710	44.5	13.0	2.04	.80	.96	1.00	42.5	12.5	2.38	.82	.98	1.00	40.0	11.7	2.77	.84	1.00	1.00	38.0	11.1	3.21	.87	1.00	1.00
67°F (19°C)	1300	615	46.0	13.5	2.04	.60	.74	.87	44.0	12.9	2.38	.61	.76	.90	41.5	12.2	2.76	.62	.77	.93	39.0	11.4	3.20	.63	.80	.96
	1400	660	46.5	13.6	2.04	.61	.76	.90	44.5	13.0	2.37	.62	.77	.92	42.0	12.3	2.75	.63	.80	.95	39.5	11.6	3.19	.65	.82	.98
	1500	710	47.5	13.9	2.03	.62	.77	.92	45.0	13.2	2.37	.63	.79	.95	42.5	12.5	2.75	.65	.82	.97	40.0	11.7	3.19	.66	.84	1.00
71°F (22°C)	1300	615	48.5	14.2	2.03	.45	.59	.71	46.5	13.6	2.37	.45	.60	.73	44.0	12.9	2.74	.46	.61	.75	41.5	12.2	3.17	.46	.62	.77
	1400	660	49.5	14.5	2.03	.46	.60	.73	47.0	13.8	2.36	.46	.61	.75	44.5	13.0	2.74	.46	.62	.77	42.0	12.3	3.17	.47	.63	.79
	1500	710	50.0	14.7	2.03	.46	.61	.75	48.0	14.1	2.36	.46	.62	.77	45.5	13.3	2.74	.47	.63	.79	42.5	12.5	3.16	.47	.65	.81

SPA060 - CB30M-51 - CBX32M-048 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1650	780	57.0	16.7	3.68	.75	.89	1.00	54.0	15.8	4.13	.77	.92	1.00	50.5	14.8	4.63	.79	.95	1.00	47.0	13.8	5.18	.82	.98	1.00
	1850	875	58.5	17.1	3.70	.78	.93	1.00	55.0	16.1	4.15	.80	.96	1.00	52.0	15.2	4.65	.82	.98	1.00	48.0	14.1	5.20	.85	1.00	1.00
	2050	970	59.5	17.4	3.72	.80	.96	1.00	56.5	16.6	4.16	.82	.98	1.00	53.0	15.5	4.66	.85	1.00	1.00	49.5	14.5	5.23	.88	1.00	1.00
67°F (19°C)	1650	780	60.5	17.7	3.73	.59	.73	.86	57.5	16.9	4.18	.60	.74	.88	54.0	15.8	4.68	.61	.77	.91	50.5	14.8	5.24	.63	.79	.95
	1850	875	62.0	18.2	3.75	.61	.75	.89	58.5	17.1	4.20	.62	.77	.92	55.5	16.3	4.70	.63	.79	.95	51.5	15.1	5.26	.65	.82	.98
	2050	970	63.0	18.5	3.77	.62	.78	.93	60.0	17.6	4.22	.64	.80	.95	56.0	16.4	4.72	.65	.82	.98	52.5	15.4	5.28	.67	.85	1.00
71°F (22°C)	1650	780	64.0	18.8	3.77	.45	.58	.70	60.5	17.7	4.23	.45	.59	.72	57.0	16.7	4.73	.46	.60	.74	53.5	15.7	5.29	.46	.62	.76
	1850	875	65.0	19.0	3.80	.46	.60	.73	62.0	18.2	4.25	.46	.61	.75	58.5	17.1	4.76	.46	.62	.77	54.5	16.0	5.32	.47	.64	.80
	2050	970	67.0	19.6	3.82	.46	.61	.75	63.5	18.6	4.27	.47	.62	.77	60.0	17.6	4.78	.47	.64	.80	55.5	16.3	5.33	.48	.66	.83

SPA060 - CB30M-51 - CBX32M-048 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1300	615	48.3	14.2	2.87	45.5	13.3	2.78	42.6	12.5	2.70	39.8	11.7	2.61
1400	660	48.0	14.1	2.97	45.2	13.2	2.88	42.3	12.4	2.80	39.5	11.6	2.71
1500	710	49.6	14.5	2.72	46.8	13.7	2.63	43.9	12.9	2.54	41.1	12.0	2.46

SPA060 - CB30M-51 - CBX32M-048 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1650	780	64.1	18.8	4.15	49.5	14.5	3.89	33.7	9.9	3.65	24.9	7.3	3.17	12.4	3.6	2.34
1850	875	64.9	19.0	4.04	50.3	14.7	3.78	34.5	10.1	3.53	25.7	7.5	3.05	13.2	3.9	2.22
2050	970	65.3	19.1	3.94	50.7	14.9	3.68	34.9	10.2	3.44	26.1	7.6	2.96	13.6	4.0	2.13

SPA060 - CB30M-51 - CBX32M-048 - HEATING PERFORMANCE at 1850 cfm (875 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.04	64.9	19.0
60	16	3.97	61.7	18.1
55	13	3.90	58.4	17.1
50	10	3.83	55.1	16.1
47	8	3.78	53.1	15.6
45	7	3.78	50.3	14.7
40	4	3.77	43.0	12.6
35	2	3.75	35.8	10.5
30	-1	3.64	35.2	10.3
25	-4	3.53	34.5	10.1
20	-7	3.42	33.9	9.9
17	-8	3.36	33.5	9.8
15	-9	3.33	32.1	9.4
10	-12	3.26	28.9	8.5
5	-15	3.05	25.7	7.5
0	-18	2.84	22.6	6.6
-5	-21	2.64	19.5	5.7
-10	-23	2.43	16.3	4.8
-15	-26	2.22	13.2	3.9
-20	-29	2.02	10.0	2.9

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

SPA060 - CB30U-51 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1300	615	42.5	12.5	2.05	.76	.91	1.00	40.5	11.9	2.39	.78	.93	1.00	38.5	11.3	2.78	.80	.96	1.00	36.2	10.6	3.22	.83	.99	1.00
	1400	660	43.0	12.6	2.05	.78	.93	1.00	41.0	12.0	2.39	.80	.96	1.00	39.0	11.4	2.77	.82	.98	1.00	37.0	10.8	3.21	.85	1.00	1.00
	1500	710	44.0	12.9	2.04	.80	.95	1.00	42.0	12.3	2.38	.82	.98	1.00	40.0	11.7	2.77	.84	1.00	1.00	37.8	11.1	3.21	.87	1.00	1.00
67°F (19°C)	1300	615	45.0	13.2	2.04	.60	.74	.87	43.0	12.6	2.38	.61	.75	.90	41.0	12.0	2.76	.62	.77	.92	38.5	11.3	3.20	.64	.80	.95
	1400	660	46.0	13.5	2.04	.61	.76	.89	44.0	12.9	2.38	.62	.77	.92	41.5	12.2	2.76	.63	.79	.95	39.0	11.4	3.19	.65	.82	.98
	1500	710	46.5	13.6	2.04	.62	.77	.92	44.5	13.0	2.37	.63	.79	.94	42.0	12.3	2.75	.65	.81	.97	39.5	11.6	3.19	.66	.84	.99
71°F (22°C)	1300	615	48.0	14.1	2.03	.45	.59	.71	46.0	13.5	2.37	.46	.60	.73	43.5	12.7	2.74	.46	.61	.75	41.0	12.0	3.18	.46	.62	.77
	1400	660	49.0	14.4	2.03	.46	.60	.73	46.5	13.6	2.36	.46	.61	.75	44.5	13.0	2.74	.47	.62	.77	42.0	12.3	3.17	.47	.64	.79
	1500	710	49.5	14.5	2.03	.46	.61	.75	47.5	13.9	2.36	.47	.62	.76	45.0	13.2	2.73	.47	.63	.79	42.5	12.5	3.17	.47	.65	.81

SPA060 - CB30U-51 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1500	710	55.0	16.1	3.66	.73	.86	.98	52.5	15.4	4.11	.75	.89	1.00	49.5	14.5	4.60	.77	.92	1.00	46.0	13.5	5.16	.79	.95	1.00
	1700	800	56.5	16.6	3.68	.76	.90	1.00	53.5	15.7	4.13	.78	.93	1.00	50.5	14.8	4.63	.80	.96	1.00	47.5	13.9	5.18	.82	.99	1.00
	1900	895	58.0	17.0	3.70	.78	.93	1.00	55.0	16.1	4.15	.80	.96	1.00	52.0	15.2	4.65	.82	.99	1.00	48.5	14.2	5.20	.86	1.00	1.00
67°F (19°C)	1500	710	58.5	17.1	3.70	.59	.71	.83	55.5	16.3	4.16	.59	.72	.85	52.5	15.4	4.65	.60	.74	.88	49.0	14.4	5.21	.62	.77	.91
	1700	800	60.0	17.6	3.73	.60	.73	.86	57.0	16.7	4.18	.61	.75	.89	54.0	15.8	4.68	.62	.77	.92	50.5	14.8	5.24	.64	.80	.95
	1900	895	61.5	18.0	3.74	.61	.76	.90	58.5	17.1	4.20	.62	.78	.93	55.0	16.1	4.70	.64	.80	.96	51.5	15.1	5.26	.66	.83	.99
71°F (22°C)	1500	710	62.0	18.2	3.75	.45	.57	.68	59.0	17.3	4.20	.45	.58	.70	55.5	16.3	4.71	.45	.59	.72	52.0	15.2	5.27	.46	.60	.74
	1700	800	63.5	18.6	3.77	.45	.58	.71	60.5	17.7	4.23	.46	.59	.72	57.0	16.7	4.73	.46	.61	.75	53.5	15.7	5.30	.47	.62	.77
	1900	895	65.0	19.0	3.79	.46	.60	.73	62.0	18.2	4.25	.46	.61	.75	58.5	17.1	4.75	.47	.62	.77	54.5	16.0	5.32	.48	.64	.80

SPA060 - CB30U-51 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1300	615	48.5	14.2	2.84	45.5	13.3	2.82	42.4	12.4	2.79	39.3	11.5	2.76
1400	660	48.9	14.3	2.76	45.8	13.4	2.73	42.7	12.5	2.70	39.6	11.6	2.68
1500	710	49.7	14.6	2.69	46.6	13.7	2.66	43.5	12.7	2.64	40.4	11.8	2.61

SPA060 - CB30U-51 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1500	710	62.9	18.4	4.30	48.5	14.2	4.01	33.1	9.7	3.74	24.5	7.2	3.23	12.1	3.5	2.40
1700	800	63.7	18.7	4.16	49.3	14.4	3.87	33.9	9.9	3.60	25.3	7.4	3.09	12.9	3.8	2.26
1900	895	64.6	18.9	4.05	50.2	14.7	3.76	34.8	10.2	3.48	26.2	7.7	2.98	13.8	4.0	2.14

SPA060 - CB30U-51 - HEATING PERFORMANCE at 1700 cfm (800 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.16	63.7	18.7
60	16	4.08	60.5	17.7
55	13	4.01	57.3	16.8
50	10	3.93	54.1	15.9
47	8	3.88	52.2	15.3
45	7	3.87	49.3	14.4
40	4	3.85	42.3	12.4
35	2	3.83	35.3	10.3
30	-1	3.71	34.6	10.1
25	-4	3.60	33.9	9.9
20	-7	3.48	33.3	9.8
17	-8	3.41	32.9	9.6
15	-9	3.38	31.6	9.3
10	-12	3.30	28.4	8.3
5	-15	3.09	25.3	7.4
0	-18	2.88	22.2	6.5
-5	-21	2.67	19.1	5.6
-10	-23	2.46	16.0	4.7
-15	-26	2.26	12.9	3.8
-20	-29	2.05	9.9	2.9

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

SPA060 - CB31MV-51 - CBX32MV-048 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1295	610	43.0	12.6	2.05	.76	.91	1.00	41.0	12.0	2.39	.78	.94	1.00	39.0	11.4	2.78	.80	.96	1.00	36.4	10.7	3.22	.82	.99	1.00
	1400	660	44.0	12.9	2.04	.78	.94	1.00	41.5	12.2	2.39	.80	.96	1.00	39.5	11.6	2.77	.82	.98	1.00	37.2	10.9	3.21	.85	1.00	1.00
	1505	710	44.5	13.0	2.04	.80	.96	1.00	42.5	12.5	2.38	.82	.98	1.00	40.0	11.7	2.77	.84	1.00	1.00	38.0	11.1	3.21	.87	1.00	1.00
67°F (19°C)	1295	610	46.0	13.5	2.04	.60	.74	.87	43.5	12.7	2.38	.61	.75	.90	41.5	12.2	2.76	.62	.77	.92	39.0	11.4	3.20	.63	.80	.96
	1400	660	46.5	13.6	2.04	.61	.76	.90	44.5	13.0	2.37	.62	.77	.92	42.0	12.3	2.75	.63	.80	.95	39.5	11.6	3.19	.65	.82	.98
	1505	710	47.5	13.9	2.04	.62	.77	.92	45.0	13.2	2.37	.63	.79	.95	42.5	12.5	2.75	.65	.82	.97	40.0	11.7	3.19	.66	.84	1.00
71°F (22°C)	1295	610	48.5	14.2	2.03	.45	.58	.71	46.5	13.6	2.37	.45	.59	.73	44.0	12.9	2.74	.46	.61	.75	41.5	12.2	3.17	.46	.62	.77
	1400	660	49.5	14.5	2.03	.46	.60	.73	47.0	13.8	2.36	.46	.61	.75	44.5	13.0	2.74	.46	.62	.77	42.0	12.3	3.17	.47	.63	.79
	1505	710	50.0	14.7	2.03	.46	.61	.75	48.0	14.1	2.36	.46	.62	.77	45.5	13.3	2.73	.47	.63	.79	42.5	12.5	3.16	.47	.65	.82

SPA060 - CB31MV-51 - CBX32MV-048 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1850	875	58.5	17.1	3.70	.78	.93	1.00	55.0	16.1	4.15	.80	.96	1.00	52.0	15.2	4.65	.82	.98	1.00	48.5	14.2	5.20	.85	1.00	1.00
	2000	945	59.0	17.3	3.71	.79	.95	1.00	56.0	16.4	4.16	.82	.98	1.00	52.5	15.4	4.66	.84	1.00	1.00	49.5	14.5	5.22	.87	1.00	1.00
	2150	1015	60.0	17.6	3.72	.81	.97	1.00	57.0	16.7	4.17	.84	.99	1.00	53.5	15.7	4.67	.86	1.00	1.00	50.5	14.8	5.24	.90	1.00	1.00
67°F (19°C)	1850	875	62.0	18.2	3.75	.61	.75	.89	58.5	17.1	4.20	.62	.77	.92	55.5	16.3	4.70	.63	.79	.95	51.5	15.1	5.26	.65	.82	.98
	2000	945	63.0	18.5	3.76	.62	.77	.92	59.5	17.4	4.21	.63	.79	.95	56.0	16.4	4.71	.65	.82	.97	52.0	15.2	5.27	.66	.85	1.00
	2150	1015	63.5	18.6	3.78	.63	.79	.94	60.5	17.7	4.22	.64	.81	.97	56.5	16.6	4.72	.66	.84	.99	53.0	15.5	5.28	.68	.87	1.00
71°F (22°C)	1850	875	65.0	19.0	3.80	.46	.60	.73	62.0	18.2	4.25	.46	.61	.75	58.5	17.1	4.76	.46	.62	.77	54.5	16.0	5.32	.47	.64	.80
	2000	945	66.0	19.3	3.81	.46	.61	.75	63.0	18.5	4.27	.46	.62	.77	59.5	17.4	4.77	.47	.63	.79	55.5	16.3	5.33	.48	.65	.82
	2150	1015	67.0	19.6	3.83	.47	.62	.76	64.0	18.8	4.28	.47	.63	.79	60.0	17.6	4.78	.47	.65	.81	56.0	16.4	5.35	.48	.67	.84

SPA060 - CB31MV-51 - CBX32MV-048 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1295	610	47.8	14.0	2.84	44.8	13.1	2.81	41.7	12.2	2.78	38.6	11.3	2.75
1400	660	48.4	14.2	2.76	45.3	13.3	2.73	42.2	12.4	2.70	39.1	11.5	2.67
1505	710	49.0	14.4	2.69	45.9	13.5	2.66	42.8	12.5	2.63	39.7	11.6	2.60

SPA060 - CB31MV-51 - CBX32MV-048 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1850	875	65.9	19.3	4.02	49.9	14.6	3.78	32.9	9.6	3.56	23.7	6.9	3.09	12.1	3.5	2.27
2000	945	66.3	19.4	3.95	50.3	14.7	3.71	33.3	9.8	3.48	24.1	7.1	3.02	12.5	3.7	2.19
2150	1015	66.9	19.6	3.89	50.9	14.9	3.65	33.9	9.9	3.42	24.7	7.2	2.96	13.1	3.8	2.13

SPA060 - CB31MV-51 - CBX32MV-048 - HEATING PERFORMANCE at 2000 cfm (945 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.95	66.3	19.4
60	16	3.88	62.7	18.4
55	13	3.81	59.1	17.3
50	10	3.75	55.6	16.3
47	8	3.71	53.4	15.6
45	7	3.71	50.3	14.7
40	4	3.70	42.6	12.5
35	2	3.69	34.8	10.2
30	-1	3.59	34.0	10.0
25	-4	3.48	33.3	9.8
20	-7	3.38	32.5	9.5
17	-8	3.31	32.0	9.4
15	-9	3.29	30.6	9.0
10	-12	3.22	27.0	7.9
5	-15	3.02	24.1	7.1
0	-18	2.81	21.2	6.2
-5	-21	2.61	18.3	5.4
-10	-23	2.40	15.4	4.5
-15	-26	2.19	12.5	3.7
-20	-29	1.99	9.6	2.8

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

SPA060 - CB30U-65 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1300	615	43.5	12.7	2.05	.76	.91	1.00	41.5	12.2	2.39	.78	.93	1.00	39.0	11.4	2.77	.80	.96	1.00	36.8	10.8	3.22	.82	.99	1.00
	1400	660	44.0	12.9	2.04	.78	.93	1.00	42.0	12.3	2.39	.80	.95	1.00	40.0	11.7	2.77	.82	.98	1.00	37.4	11.0	3.21	.84	1.00	1.00
	1500	710	45.0	13.2	2.04	.80	.95	1.00	42.5	12.5	2.38	.81	.98	1.00	40.5	11.9	2.76	.84	1.00	1.00	38.0	11.1	3.20	.87	1.00	1.00
67°F (19°C)	1300	615	46.0	13.5	2.04	.60	.74	.87	44.0	12.9	2.38	.61	.75	.89	42.0	12.3	2.75	.62	.77	.92	39.5	11.6	3.19	.63	.79	.95
	1400	660	47.0	13.8	2.04	.61	.75	.89	45.0	13.2	2.37	.62	.77	.92	42.5	12.5	2.75	.63	.79	.94	40.0	11.7	3.19	.65	.82	.98
	1500	710	47.5	13.9	2.03	.62	.77	.92	45.5	13.3	2.37	.63	.79	.94	43.0	12.6	2.75	.64	.81	.97	40.5	11.9	3.18	.66	.84	.99
71°F (22°C)	1300	615	49.0	14.4	2.03	.46	.59	.71	47.0	13.8	2.36	.46	.60	.73	44.5	13.0	2.74	.46	.61	.75	42.0	12.3	3.17	.47	.62	.77
	1400	660	50.0	14.7	2.03	.46	.60	.73	47.5	13.9	2.36	.46	.61	.75	45.0	13.2	2.74	.47	.62	.76	42.5	12.5	3.17	.47	.63	.79
	1500	710	50.5	14.8	2.03	.46	.61	.75	48.5	14.2	2.36	.47	.62	.76	46.0	13.5	2.73	.47	.63	.78	43.0	12.6	3.16	.48	.65	.81

SPA060 - CB30U-65 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1700	800	58.0	17.0	3.70	.76	.89	1.00	55.0	16.1	4.14	.77	.92	1.00	51.5	15.1	4.65	.79	.95	1.00	48.0	14.1	5.20	.82	.98	1.00
	1900	895	59.5	17.4	3.72	.78	.93	1.00	56.5	16.6	4.16	.80	.95	1.00	53.0	15.5	4.66	.82	.98	1.00	49.5	14.5	5.22	.85	1.00	1.00
	2100	990	60.5	17.7	3.73	.80	.96	1.00	57.5	16.9	4.18	.82	.98	1.00	54.0	15.8	4.69	.85	1.00	1.00	51.0	14.9	5.25	.88	1.00	1.00
67°F (19°C)	1700	800	61.5	18.0	3.75	.60	.73	.86	58.5	17.1	4.20	.61	.75	.88	55.5	16.3	4.70	.62	.77	.91	51.5	15.1	5.26	.63	.79	.95
	1900	895	63.0	18.5	3.77	.61	.75	.89	60.0	17.6	4.22	.62	.77	.92	56.5	16.6	4.72	.63	.79	.95	52.5	15.4	5.28	.65	.82	.98
	2100	990	64.5	18.9	3.78	.62	.78	.92	61.0	17.9	4.23	.64	.80	.95	57.5	16.9	4.73	.65	.82	.98	53.5	15.7	5.29	.67	.85	1.00
71°F (22°C)	1700	800	65.0	19.0	3.80	.45	.58	.71	62.0	18.2	4.25	.46	.59	.72	58.5	17.1	4.75	.46	.60	.74	55.0	16.1	5.32	.47	.62	.77
	1900	895	67.0	19.6	3.82	.46	.60	.73	63.5	18.6	4.27	.46	.61	.75	60.0	17.6	4.78	.47	.62	.77	56.0	16.4	5.34	.47	.64	.80
	2100	990	68.0	19.9	3.84	.47	.61	.75	64.5	18.9	4.29	.47	.62	.77	61.0	17.9	4.80	.48	.64	.80	57.0	16.7	5.36	.48	.66	.83

SPA060 - CB30U-65 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1300	615	48.5	14.2	2.87	45.4	13.3	2.84	42.3	12.4	2.81	39.2	11.5	2.78
1400	660	48.9	14.3	2.79	45.8	13.4	2.76	42.7	12.5	2.74	39.6	11.6	2.71
1500	710	49.5	14.5	2.72	46.5	13.6	2.69	43.4	12.7	2.67	40.3	11.8	2.64

SPA060 - CB30U-65 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1700	800	64.1	18.8	4.17	49.5	14.5	3.91	33.8	9.9	3.67	25.0	7.3	3.18	12.5	3.7	2.35
1900	895	64.8	19.0	4.06	50.2	14.7	3.80	34.5	10.1	3.56	25.7	7.5	3.07	13.2	3.9	2.24
2100	990	65.4	19.2	3.97	50.8	14.9	3.71	35.1	10.3	3.47	26.3	7.7	2.98	13.8	4.0	2.15

SPA060 - CB30U-65 - HEATING PERFORMANCE at 1900 cfm (895 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.06	64.8	19.0
60	16	3.99	61.5	18.0
55	13	3.91	58.2	17.1
50	10	3.84	55.0	16.1
47	8	3.80	53.0	15.5
45	7	3.80	50.2	14.7
40	4	3.79	43.0	12.6
35	2	3.78	35.9	10.5
30	-1	3.67	35.2	10.3
25	-4	3.56	34.5	10.1
20	-7	3.44	33.8	9.9
17	-8	3.38	33.4	9.8
15	-9	3.35	32.1	9.4
10	-12	3.28	28.8	8.4
5	-15	3.07	25.7	7.5
0	-18	2.86	22.6	6.6
-5	-21	2.65	19.4	5.7
-10	-23	2.44	16.3	4.8
-15	-26	2.24	13.2	3.9
-20	-29	2.03	10.0	2.9

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

SPA060 - CB30M-65 - CBX32M-060 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1400	660	44.0	12.9	2.05	.78	.93	1.00	42.0	12.3	2.39	.80	.95	1.00	39.5	11.6	2.77	.82	.98	1.00	37.4	11.0	3.21	.85	1.00	1.00
	1500	710	44.5	13.0	2.04	.80	.95	1.00	42.5	12.5	2.38	.82	.97	1.00	40.5	11.9	2.76	.84	.99	1.00	38.0	11.1	3.20	.87	1.00	1.00
	1600	755	45.5	13.3	2.04	.81	.97	1.00	43.0	12.6	2.38	.83	.99	1.00	41.0	12.0	2.76	.86	1.00	1.00	39.0	11.4	3.20	.89	1.00	1.00
67°F (19°C)	1400	660	46.5	13.6	2.04	.61	.76	.89	44.5	13.0	2.37	.62	.77	.92	42.0	12.3	2.75	.63	.79	.94	39.5	11.6	3.19	.65	.82	.97
	1500	710	47.5	13.9	2.03	.62	.77	.91	45.0	13.2	2.37	.63	.79	.94	42.5	12.5	2.75	.64	.81	.97	40.5	11.9	3.18	.66	.84	.99
	1600	755	48.0	14.1	2.03	.63	.79	.94	45.5	13.3	2.37	.64	.81	.96	43.5	12.7	2.75	.66	.83	.98	41.0	12.0	3.18	.67	.86	1.00
71°F (22°C)	1400	660	49.5	14.5	2.03	.46	.60	.73	47.0	13.8	2.36	.46	.61	.75	45.0	13.2	2.74	.47	.62	.77	42.5	12.5	3.17	.47	.63	.79
	1500	710	50.0	14.7	2.03	.46	.61	.75	48.0	14.1	2.36	.47	.62	.76	45.5	13.3	2.73	.47	.63	.78	43.0	12.6	3.16	.48	.65	.81
	1600	755	51.0	14.9	2.03	.47	.62	.76	48.5	14.2	2.36	.47	.63	.78	46.0	13.5	2.73	.48	.64	.80	43.5	12.7	3.16	.49	.66	.83

SPA060 - CB30M-65 - CBX32M-060 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1800	850	58.5	17.1	3.70	.77	.91	1.00	55.5	16.3	4.15	.78	.94	1.00	52.0	15.2	4.65	.81	.96	1.00	49.0	14.4	5.21	.83	.99	1.00
	2000	945	60.0	17.6	3.72	.79	.94	1.00	56.5	16.6	4.17	.81	.97	1.00	53.5	15.7	4.67	.83	.99	1.00	50.0	14.7	5.23	.86	1.00	1.00
	2200	1040	61.0	17.9	3.74	.81	.97	1.00	58.0	17.0	4.19	.83	.99	1.00	54.5	16.0	4.69	.86	1.00	1.00	51.5	15.1	5.26	.89	1.00	1.00
67°F (19°C)	1800	850	62.0	18.2	3.75	.60	.74	.88	59.0	17.3	4.20	.61	.76	.90	55.5	16.3	4.71	.63	.78	.93	52.0	15.2	5.27	.64	.81	.96
	2000	945	63.0	18.5	3.77	.62	.77	.91	60.0	17.6	4.22	.63	.78	.93	56.5	16.6	4.72	.64	.81	.96	53.0	15.5	5.28	.66	.84	.99
	2200	1040	64.5	18.9	3.79	.63	.79	.94	61.0	17.9	4.24	.64	.81	.96	57.5	16.9	4.74	.66	.84	.99	53.5	15.7	5.30	.68	.87	1.00
71°F (22°C)	1800	850	65.0	19.0	3.80	.46	.59	.72	62.5	18.3	4.25	.46	.60	.73	59.0	17.3	4.76	.47	.61	.76	55.0	16.1	5.33	.47	.63	.78
	2000	945	67.0	19.6	3.82	.46	.60	.74	63.5	18.6	4.28	.47	.62	.76	60.0	17.6	4.78	.47	.63	.78	56.0	16.4	5.35	.48	.65	.81
	2200	1040	68.0	19.9	3.84	.47	.62	.76	65.0	19.0	4.29	.47	.63	.78	61.0	17.9	4.79	.48	.65	.81	57.0	16.7	5.36	.49	.67	.84

SPA060 - CB30M-65 - CBX32M-060 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1400	660	48.9	14.3	2.79	45.8	13.4	2.76	42.6	12.5	2.74	39.5	11.6	2.72
1500	710	49.3	14.4	2.72	46.2	13.5	2.69	43.0	12.6	2.67	39.9	11.7	2.65
1600	755	49.9	14.6	2.66	46.8	13.7	2.63	43.7	12.8	2.61	40.5	11.9	2.59

SPA060 - CB30M-65 - CBX32M-060 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1800	850	64.5	18.9	4.09	49.7	14.6	3.86	33.9	9.9	3.63	25.1	7.4	3.17	12.5	3.7	2.33
2000	945	65.2	19.1	4.00	50.4	14.8	3.76	34.6	10.1	3.54	25.8	7.6	3.07	13.2	3.9	2.24
2200	1040	65.7	19.3	3.91	50.9	14.9	3.68	35.1	10.3	3.45	26.3	7.7	2.99	13.7	4.0	2.15

SPA060 - CB30M-65 - CBX32M-060 - HEATING PERFORMANCE at 2000 cfm (945 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.00	65.2	19.1
60	16	3.93	61.9	18.1
55	13	3.87	58.6	17.2
50	10	3.80	55.3	16.2
47	8	3.76	53.3	15.6
45	7	3.76	50.4	14.8
40	4	3.75	43.2	12.7
35	2	3.75	35.9	10.5
30	-1	3.64	35.3	10.3
25	-4	3.54	34.6	10.1
20	-7	3.44	34.0	10.0
17	-8	3.37	33.6	9.8
15	-9	3.35	32.2	9.4
10	-12	3.28	28.9	8.5
5	-15	3.07	25.8	7.6
0	-18	2.86	22.7	6.7
-5	-21	2.65	19.5	5.7
-10	-23	2.44	16.4	4.8
-15	-26	2.24	13.2	3.9
-20	-29	2.03	10.1	3.0

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

SPA060 - CB31MV-65 - CBX32MV-060 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1295	610	43.0	12.6	2.05	.76	.91	1.00	41.0	12.0	2.39	.78	.93	1.00	39.0	11.4	2.78	.80	.95	1.00	36.6	10.7	3.22	.82	.98	1.00
	1400	660	44.0	12.9	2.05	.78	.93	1.00	42.0	12.3	2.39	.80	.95	1.00	39.5	11.6	2.77	.82	.98	1.00	37.4	11.0	3.21	.85	1.00	1.00
	1505	710	44.5	13.0	2.04	.80	.95	1.00	42.5	12.5	2.38	.82	.97	1.00	40.5	11.9	2.76	.84	1.00	1.00	38.0	11.1	3.21	.87	1.00	1.00
67°F (19°C)	1295	610	46.0	13.5	2.04	.60	.74	.87	44.0	12.9	2.38	.61	.75	.89	41.5	12.2	2.76	.62	.77	.92	39.0	11.4	3.19	.64	.80	.95
	1400	660	46.5	13.6	2.04	.61	.76	.89	44.5	13.0	2.37	.62	.77	.92	42.0	12.3	2.75	.63	.79	.94	39.5	11.6	3.19	.65	.82	.97
	1505	710	47.5	13.9	2.03	.62	.77	.92	45.0	13.2	2.37	.63	.79	.94	42.5	12.5	2.75	.64	.81	.97	40.5	11.9	3.18	.66	.84	.99
71°F (22°C)	1295	610	48.5	14.2	2.03	.46	.59	.71	46.5	13.6	2.37	.46	.60	.73	44.0	12.9	2.74	.46	.61	.75	41.5	12.2	3.17	.47	.62	.77
	1400	660	49.5	14.5	2.03	.46	.60	.73	47.0	13.8	2.36	.46	.61	.75	45.0	13.2	2.74	.47	.62	.77	42.5	12.5	3.17	.47	.63	.79
	1505	710	50.0	14.7	2.03	.46	.61	.75	48.0	14.1	2.36	.47	.62	.76	45.5	13.3	2.73	.47	.63	.79	43.0	12.6	3.16	.48	.65	.81

SPA060 - CB31MV-65 - CBX32MV-060 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1850	875	58.5	17.1	3.70	.77	.92	1.00	55.5	16.3	4.15	.79	.95	1.00	52.5	15.4	4.65	.81	.97	1.00	49.0	14.4	5.21	.84	1.00	1.00
	2000	945	59.5	17.4	3.72	.79	.94	1.00	56.5	16.6	4.16	.81	.97	1.00	53.0	15.5	4.66	.84	.99	1.00	49.5	14.5	5.22	.87	1.00	1.00
	2150	1015	60.5	17.7	3.73	.81	.96	1.00	57.5	16.9	4.18	.83	.99	1.00	54.0	15.8	4.68	.86	1.00	1.00	51.0	14.9	5.24	.89	1.00	1.00
67°F (19°C)	1850	875	62.0	18.2	3.75	.61	.75	.89	59.0	17.3	4.20	.62	.77	.91	55.5	16.3	4.70	.63	.79	.94	52.0	15.2	5.26	.65	.82	.97
	2000	945	63.0	18.5	3.76	.62	.77	.91	60.0	17.6	4.22	.63	.79	.93	56.5	16.6	4.72	.64	.81	.96	52.5	15.4	5.28	.66	.84	.99
	2150	1015	64.0	18.8	3.78	.63	.78	.93	60.5	17.7	4.23	.64	.80	.96	57.0	16.7	4.73	.66	.83	.98	53.0	15.5	5.29	.68	.86	1.00
71°F (22°C)	1850	875	66.0	19.3	3.80	.46	.59	.72	62.5	18.3	4.25	.46	.60	.74	59.0	17.3	4.76	.47	.62	.76	55.0	16.1	5.32	.47	.64	.79
	2000	945	67.0	19.6	3.82	.46	.61	.74	63.5	18.6	4.27	.47	.62	.76	60.0	17.6	4.77	.47	.63	.78	56.0	16.4	5.34	.48	.65	.81
	2150	1015	68.0	19.9	3.83	.47	.62	.76	64.5	18.9	4.28	.47	.63	.78	60.5	17.7	4.78	.48	.64	.81	56.5	16.6	5.35	.49	.66	.84

SPA060 - CB31MV-65 - CBX32MV-060 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1295	610	48.4	14.2	2.94	45.2	13.2	2.92	42.1	12.3	2.89	38.9	11.4	2.87
1400	660	49.0	14.4	2.86	45.8	13.4	2.83	42.7	12.5	2.81	39.5	11.6	2.78
1505	710	49.6	14.5	2.78	46.4	13.6	2.76	43.2	12.7	2.73	40.1	11.8	2.71

SPA060 - CB31MV-65 - CBX32MV-060 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1850	875	66.6	19.5	4.15	50.4	14.8	3.90	33.1	9.7	3.66	24.0	7.0	3.20	12.2	3.6	2.34
2000	945	67.0	19.6	4.08	50.8	14.9	3.83	33.5	9.8	3.59	24.4	7.2	3.13	12.6	3.7	2.27
2150	1015	67.6	19.8	4.01	51.4	15.1	3.76	34.1	10.0	3.52	25.0	7.3	3.05	13.2	3.9	2.20

SPA060 - CB31MV-65 - CBX32MV-060 - HEATING PERFORMANCE at 2000 cfm (945 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.08	67.0	19.6
60	16	4.01	63.4	18.6
55	13	3.95	59.8	17.5
50	10	3.88	56.2	16.5
47	8	3.84	54.0	15.8
45	7	3.83	50.8	14.9
40	4	3.81	42.9	12.6
35	2	3.79	35.0	10.3
30	-1	3.69	34.3	10.1
25	-4	3.59	33.5	9.8
20	-7	3.49	32.8	9.6
17	-8	3.43	32.4	9.5
15	-9	3.41	30.9	9.1
10	-12	3.34	27.3	8.0
5	-15	3.13	24.4	7.2
0	-18	2.91	21.4	6.3
-5	-21	2.70	18.5	5.4
-10	-23	2.49	15.6	4.6
-15	-26	2.27	12.6	3.7
-20	-29	2.06	9.7	2.8

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

SPA060 - C33-62D - CX34-62D-6F - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1300	615	43.5	12.7	2.04	.77	.91	1.00	42.0	12.3	2.39	.79	.94	1.00	39.5	11.6	2.77	.81	.96	1.00	37.4	11.0	3.21	.84	.99	1.00
	1400	660	44.5	13.0	2.04	.79	.94	1.00	42.5	12.5	2.38	.81	.96	1.00	40.5	11.9	2.76	.84	.99	1.00	38.0	11.1	3.20	.86	1.00	1.00
	1500	710	45.5	13.3	2.04	.81	.96	1.00	43.0	12.6	2.38	.83	.98	1.00	41.0	12.0	2.76	.85	1.00	1.00	39.0	11.4	3.20	.88	1.00	1.00
67°F (19°C)	1300	615	46.5	13.6	2.04	.61	.75	.87	44.5	13.0	2.37	.62	.76	.90	42.0	12.3	2.75	.64	.79	.93	40.0	11.7	3.19	.65	.81	.96
	1400	660	47.5	13.9	2.03	.63	.77	.90	45.0	13.2	2.37	.64	.79	.92	43.0	12.6	2.75	.65	.81	.96	40.5	11.9	3.18	.67	.83	.99
	1500	710	48.0	14.1	2.03	.64	.77	.92	45.5	13.3	2.37	.65	.79	.95	43.5	12.7	2.74	.66	.83	.98	41.0	12.0	3.18	.68	.86	1.00
71°F (22°C)	1300	615	49.5	14.5	2.03	.47	.60	.72	47.0	13.8	2.36	.47	.60	.74	45.0	13.2	2.74	.48	.62	.76	42.5	12.5	3.17	.49	.64	.78
	1400	660	50.0	14.7	2.03	.48	.61	.74	48.0	14.1	2.36	.48	.62	.76	45.5	13.3	2.73	.49	.64	.78	43.0	12.6	3.16	.50	.65	.81
	1500	710	51.0	14.9	2.03	.48	.62	.76	49.0	14.4	2.36	.49	.64	.77	46.5	13.6	2.73	.49	.65	.80	44.0	12.9	3.16	.50	.67	.83

SPA060 - C33-62D - CX34-62D-6F - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1800	850	59.5	17.4	3.72	.78	.92	1.00	56.5	16.6	4.17	.80	.94	1.00	53.5	15.7	4.67	.82	.97	1.00	49.5	14.5	5.23	.85	1.00	1.00
	2000	945	61.0	17.9	3.74	.80	.95	1.00	58.0	17.0	4.19	.82	.98	1.00	54.5	16.0	4.69	.85	1.00	1.00	51.5	15.1	5.26	.88	1.00	1.00
	2200	1040	62.0	18.2	3.76	.82	.98	1.00	59.0	17.3	4.21	.85	1.00	1.00	56.0	16.4	4.71	.88	1.00	1.00	53.0	15.5	5.28	.91	1.00	1.00
67°F (19°C)	1800	850	63.0	18.5	3.77	.62	.76	.88	60.0	17.6	4.22	.63	.77	.91	56.5	16.6	4.72	.64	.79	.94	53.0	15.5	5.29	.66	.82	.97
	2000	945	64.5	18.9	3.79	.63	.78	.91	61.5	18.0	4.24	.65	.80	.94	58.0	17.0	4.74	.66	.82	.97	54.0	15.8	5.31	.68	.85	1.00
	2200	1040	66.0	19.3	3.80	.65	.80	.95	62.5	18.3	4.26	.66	.82	.97	59.0	17.3	4.76	.68	.85	1.00	55.0	16.1	5.32	.70	.89	1.00
71°F (22°C)	1800	850	67.0	19.6	3.82	.48	.60	.73	63.5	18.6	4.28	.48	.61	.74	60.5	17.7	4.78	.49	.63	.77	56.5	16.6	5.35	.49	.65	.79
	2000	945	68.0	19.9	3.84	.48	.62	.76	65.0	19.0	4.30	.49	.63	.77	61.5	18.0	4.81	.49	.65	.80	57.5	16.9	5.37	.50	.67	.83
	2200	1040	70.0	20.5	3.86	.49	.64	.78	66.0	19.3	4.32	.50	.65	.80	62.5	18.3	4.82	.50	.67	.82	58.5	17.1	5.39	.51	.69	.86

SPA060 - C33-62D - CX34-62D-6F - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1300	615	48.2	14.1	2.98	45.1	13.2	2.96	42.1	12.3	2.94	39.0	11.4	2.92
1400	660	48.7	14.3	2.89	45.6	13.4	2.87	42.5	12.5	2.85	39.4	11.5	2.82
1500	710	49.2	14.4	2.82	46.1	13.5	2.80	43.0	12.6	2.78	39.9	11.7	2.76

SPA060 - C33-62D - CX34-62D-6F - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1800	850	36.8	10.8	4.23	22.2	6.5	4.00	6.6	1.9	3.78	-2.1	-.6	3.29	12.3	3.6	2.40
2000	945	64.3	18.8	4.12	49.8	14.6	3.86	34.2	10.0	3.61	25.5	7.5	3.12	13.1	3.8	2.27
2200	1040	64.9	19.0	4.01	50.4	14.8	3.75	34.8	10.2	3.51	26.1	7.6	3.02	13.7	4.0	2.17

SPA060 - C33-62D - CX34-62D-6F - HEATING PERFORMANCE at 2000 cfm (945 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.12	64.5	18.9
60	16	4.05	61.3	18.0
55	13	3.99	58.0	17.0
50	10	3.92	54.7	16.0
47	8	3.88	52.8	15.5
45	7	3.89	49.9	14.6
40	4	3.89	42.8	12.5
35	2	3.90	35.6	10.4
30	-1	3.78	35.0	10.3
25	-4	3.67	34.3	10.1
20	-7	3.56	33.7	9.9
17	-8	3.49	33.3	9.8
15	-9	3.47	32.0	9.4
10	-12	3.40	28.7	8.4
5	-15	3.18	25.6	7.5
0	-18	2.97	22.5	6.6
-5	-21	2.75	19.3	5.7
-10	-23	2.53	16.2	4.7
-15	-26	2.31	13.1	3.8
-20	-29	2.10	10.0	2.9

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

SPA060 - C33-62D with G60UHV-60D-135 - CX34-62D-6F with G60UHV-60D-135 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1230	580	43.0	12.6	2.05	.76	.89	1.00	41.0	12.0	2.39	.77	.91	1.00	39.0	11.4	2.78	.79	.94	1.00	36.8	10.8	3.22	.82	.97	1.00
	1340	630	44.0	12.9	2.04	.78	.92	1.00	42.0	12.3	2.39	.79	.94	1.00	40.0	11.7	2.77	.82	.97	1.00	37.4	11.0	3.21	.84	1.00	1.00
	1400	660	44.5	13.0	2.04	.79	.93	1.00	42.5	12.5	2.38	.80	.96	1.00	40.0	11.7	2.76	.83	.99	1.00	38.0	11.1	3.20	.86	1.00	1.00
67°F (19°C)	1230	580	45.5	13.3	2.04	.60	.73	.86	43.5	12.7	2.38	.61	.75	.88	41.5	12.2	2.76	.62	.76	.90	39.0	11.4	3.19	.64	.79	.94
	1340	630	46.5	13.6	2.04	.61	.75	.88	44.5	13.0	2.37	.62	.77	.90	42.5	12.5	2.75	.64	.79	.93	40.0	11.7	3.19	.65	.81	.96
	1400	660	47.0	13.8	2.03	.62	.76	.89	45.0	13.2	2.37	.63	.78	.92	43.0	12.6	2.75	.64	.80	.95	40.5	11.9	3.18	.66	.83	.98
71°F (22°C)	1230	580	48.5	14.2	2.03	.46	.59	.71	46.5	13.6	2.37	.47	.59	.72	44.5	13.0	2.74	.47	.60	.73	42.0	12.3	3.17	.48	.62	.76
	1340	630	49.5	14.5	2.03	.47	.60	.72	47.5	13.9	2.36	.47	.60	.74	45.0	13.2	2.73	.48	.62	.76	42.5	12.5	3.16	.48	.64	.79
	1400	660	50.0	14.7	2.03	.47	.60	.73	48.0	14.1	2.36	.48	.62	.75	45.5	13.3	2.73	.48	.63	.77	43.0	12.6	3.16	.49	.65	.80

SPA060 - C33-62D with G60UHV-60D-135 - CX34-62D-6F with G60UHV-60D-135 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1760	830	59.0	17.3	3.71	.77	.91	1.00	56.0	16.4	4.17	.79	.94	1.00	53.0	15.5	4.66	.81	.96	1.00	49.5	14.5	5.22	.84	1.00	1.00
	1905	900	60.0	17.6	3.73	.79	.93	1.00	57.5	16.9	4.18	.81	.96	1.00	54.0	15.8	4.68	.83	.99	1.00	50.5	14.8	5.24	.86	1.00	1.00
	2000	945	61.0	17.9	3.74	.80	.95	1.00	58.0	17.0	4.19	.82	.97	1.00	54.5	16.0	4.69	.85	1.00	1.00	51.5	15.1	5.26	.88	1.00	1.00
67°F (19°C)	1760	830	63.0	18.5	3.76	.61	.75	.87	59.5	17.4	4.21	.62	.76	.90	56.5	16.6	4.72	.64	.78	.93	53.0	15.5	5.28	.65	.81	.96
	1905	900	64.0	18.8	3.77	.62	.76	.90	60.5	17.7	4.23	.64	.78	.92	57.5	16.9	4.74	.65	.81	.95	53.5	15.7	5.30	.67	.84	.99
	2000	945	64.5	18.9	3.78	.63	.77	.91	61.0	17.9	4.24	.64	.79	.94	58.0	17.0	4.74	.66	.82	.97	54.0	15.8	5.30	.68	.85	1.00
71°F (22°C)	1760	830	67.0	19.6	3.81	.47	.60	.72	63.5	18.6	4.27	.48	.61	.74	60.0	17.6	4.78	.48	.62	.76	56.0	16.4	5.34	.49	.64	.79
	1905	900	68.0	19.9	3.83	.47	.61	.74	64.5	18.9	4.29	.48	.62	.76	61.0	17.9	4.79	.49	.64	.78	57.0	16.7	5.36	.49	.65	.81
	2000	945	68.0	19.9	3.84	.48	.61	.75	65.0	19.0	4.30	.48	.63	.77	61.5	18.0	4.80	.49	.65	.79	57.5	16.9	5.37	.50	.66	.82

SPA060 - C33-62D with G60UHV-60D-135 - CX34-62D-6F with G60UHV-60D-135 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1235	585	47.1	13.8	3.02	44.1	12.9	3.00	41.1	12.0	2.97	38.0	11.1	2.95
1340	630	47.8	14.0	2.93	44.8	13.1	2.91	41.7	12.2	2.88	38.7	11.3	2.86
1400	660	48.2	14.1	2.88	45.1	13.2	2.86	42.1	12.3	2.83	39.1	11.5	2.81

SPA060 - C33-62D with G60UHV-60D-135 - CX34-62D-6F with G60UHV-60D-135 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1765	835	63.3	18.6	4.25	48.8	14.3	4.00	33.2	9.7	3.77	24.6	7.2	3.27	12.3	3.6	2.40
1905	900	63.9	18.7	4.18	49.4	14.5	3.93	33.8	9.9	3.70	25.2	7.4	3.20	12.9	3.8	2.33
2000	945	64.1	18.8	4.13	49.6	14.5	3.88	34.0	10.0	3.65	25.4	7.4	3.14	13.1	3.8	2.27

SPA060 - C33-62D with G60UHV-60D-135 CX34-62D-6F with G60UHV-60D-135 - HEATING PERFORMANCE at 1905 cfm (900 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.18	63.9	18.7
60	16	4.11	60.7	17.8
55	13	4.04	57.4	16.8
50	10	3.97	54.2	15.9
47	8	3.93	52.2	15.3
45	7	3.93	49.4	14.5
40	4	3.93	42.3	12.4
35	2	3.93	35.2	10.3
30	-1	3.82	34.5	10.1
25	-4	3.70	33.8	9.9
20	-7	3.58	33.2	9.7
17	-8	3.51	32.8	9.6
15	-9	3.49	31.5	9.2
10	-12	3.42	28.2	8.3
5	-15	3.20	25.2	7.4
0	-18	2.98	22.1	6.5
-5	-21	2.76	19.0	5.6
-10	-23	2.54	16.0	4.7
-15	-26	2.33	12.9	3.8
-20	-29	2.11	9.8	2.9

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

SPA060 - C33-62D with G61MPV-60D-135 - CX34-62D-6F with G61MPV-60D-135 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	42.0	12.3	2.05	.74	.86	.98	40.0	11.7	2.40	.75	.88	1.00	37.8	11.1	2.78	.77	.91	1.00	35.6	10.4	3.23	.79	.94	1.00
	1345	635	44.0	12.9	2.04	.77	.92	1.00	42.0	12.3	2.39	.79	.94	1.00	40.0	11.7	2.77	.81	.97	1.00	37.4	11.0	3.21	.84	1.00	1.00
	1540	725	45.5	13.3	2.04	.81	.96	1.00	43.5	12.7	2.38	.83	.99	1.00	41.0	12.0	2.76	.85	1.00	1.00	39.0	11.4	3.19	.89	1.00	1.00
67°F (19°C)	1100	520	44.5	13.0	2.04	.59	.71	.83	42.5	12.5	2.38	.59	.72	.85	40.5	11.9	2.76	.61	.74	.87	38.0	11.1	3.20	.61	.76	.90
	1345	635	46.5	13.6	2.04	.61	.75	.88	44.5	13.0	2.37	.62	.77	.90	42.5	12.5	2.75	.64	.79	.93	40.0	11.7	3.19	.65	.81	.96
	1540	725	48.0	14.1	2.03	.63	.77	.92	46.0	13.5	2.37	.65	.80	.95	43.5	12.7	2.74	.66	.83	.98	41.0	12.0	3.18	.68	.86	1.00
71°F (22°C)	1100	520	47.0	13.8	2.04	.46	.57	.69	45.0	13.2	2.37	.46	.58	.70	43.0	12.6	2.75	.46	.59	.71	41.0	12.0	3.18	.46	.60	.73
	1345	635	49.5	14.5	2.03	.47	.59	.73	47.5	13.9	2.36	.47	.60	.74	45.0	13.2	2.73	.47	.62	.76	42.5	12.5	3.17	.48	.63	.78
	1540	725	51.0	14.9	2.03	.48	.62	.76	49.0	14.4	2.36	.48	.63	.78	46.5	13.6	2.73	.49	.65	.80	44.0	12.9	3.16	.50	.66	.83

SPA060 - C33-62D with G61MPV-60D-135 - CX34-62D-6F with G61MPV-60D-135 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1790	845	59.5	17.4	3.72	.78	.91	1.00	56.5	16.6	4.17	.79	.94	1.00	53.0	15.5	4.67	.81	.97	1.00	49.5	14.5	5.22	.84	1.00	1.00
	1990	940	61.0	17.9	3.74	.80	.95	1.00	58.0	17.0	4.19	.82	.97	1.00	54.5	16.0	4.69	.85	1.00	1.00	51.5	15.1	5.26	.88	1.00	1.00
	2195	1035	62.5	18.3	3.76	.83	.98	1.00	59.0	17.3	4.21	.85	1.00	1.00	56.0	16.4	4.72	.88	1.00	1.00	53.0	15.5	5.29	.91	1.00	1.00
67°F (19°C)	1790	845	63.0	18.5	3.77	.61	.75	.88	60.0	17.6	4.22	.62	.77	.90	56.5	16.6	4.72	.64	.79	.93	53.0	15.5	5.28	.65	.82	.97
	1990	940	64.5	18.9	3.78	.63	.77	.91	61.0	17.9	4.24	.65	.79	.94	58.0	17.0	4.74	.66	.82	.97	54.0	15.8	5.30	.68	.85	1.00
	2195	1035	66.0	19.3	3.80	.65	.80	.95	62.5	18.3	4.26	.66	.83	.98	59.0	17.3	4.76	.68	.85	1.00	55.0	16.1	5.32	.70	.89	1.00
71°F (22°C)	1790	845	67.0	19.6	3.82	.47	.60	.72	63.5	18.6	4.27	.47	.61	.74	60.0	17.6	4.78	.48	.62	.76	56.5	16.6	5.35	.49	.64	.79
	1990	940	68.0	19.9	3.84	.48	.62	.75	65.0	19.0	4.30	.49	.63	.77	61.5	18.0	4.80	.49	.65	.79	57.5	16.9	5.37	.50	.66	.82
	2195	1035	70.0	20.5	3.86	.49	.64	.78	66.0	19.3	4.32	.50	.65	.80	62.5	18.3	4.82	.51	.67	.83	58.5	17.1	5.39	.51	.69	.86

SPA060 - C33-62D with G61MPV-60D-135 - CX34-62D-6F with G61MPV-60D-135 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1100	520	46.4	13.6	3.18	43.3	12.7	3.16	40.2	11.8	3.13	37.1	10.9	3.10
1345	635	47.9	14.0	2.93	44.8	13.1	2.90	41.7	12.2	2.88	38.6	11.3	2.85
1540	725	48.7	14.3	2.78	45.6	13.4	2.76	42.5	12.5	2.73	39.4	11.5	2.71

SPA060 - C33-62D with G61MPV-60D-135 - CX34-62D-6F with G61MPV-60D-135 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1790	845	63.3	18.6	4.22	48.7	14.3	3.99	33.1	9.7	3.77	24.4	7.2	3.28	12.0	3.5	2.41
1990	940	64.4	18.9	4.12	49.8	14.6	3.89	34.2	10.0	3.67	25.5	7.5	3.18	13.1	3.8	2.31
2195	1035	65.4	19.2	4.04	50.8	14.9	3.81	35.2	10.3	3.59	26.5	7.8	3.10	14.1	4.1	2.23

SPA060 - C33-62D with G61MPV-60D-135
SPA060 - CX34-62D-6F with G61MPV-60D-135 - HEATING PERFORMANCE at 1990 cfm (940 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.12	64.4	18.9
60	16	4.06	61.1	17.9
55	13	3.99	57.9	17.0
50	10	3.93	54.6	16.0
47	8	3.89	52.7	15.4
45	7	3.89	49.8	14.6
40	4	3.89	42.7	12.5
35	2	3.90	35.5	10.4
30	-1	3.79	34.9	10.2
25	-4	3.67	34.2	10.0
20	-7	3.56	33.5	9.8
17	-8	3.49	33.2	9.7
15	-9	3.47	31.9	9.3
10	-12	3.40	28.6	8.4
5	-15	3.18	25.5	7.5
0	-18	2.97	22.4	6.6
-5	-21	2.75	19.3	5.7
-10	-23	2.53	16.2	4.7
-15	-26	2.31	13.1	3.8
-20	-29	2.10	9.9	2.9

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

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

SPA060 - CR26-60N/W-F - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1300	615	43.5	12.7	2.05	.78	.92	1.00	41.5	12.2	2.39	.80	.95	1.00	39.0	11.4	2.77	.82	.97	1.00	36.8	10.8	3.22	.84	.99	1.00
	1400	660	44.0	12.9	2.04	.80	.95	1.00	42.0	12.3	2.39	.82	.97	1.00	40.0	11.7	2.77	.84	.99	1.00	37.6	11.0	3.21	.87	1.00	1.00
	1500	710	44.5	13.0	2.04	.82	.97	1.00	42.5	12.5	2.38	.83	.99	1.00	40.5	11.9	2.76	.86	1.00	1.00	38.5	11.3	3.20	.89	1.00	1.00
67°F (19°C)	1300	615	46.0	13.5	2.04	.62	.75	.88	44.0	12.9	2.38	.62	.77	.91	42.0	12.3	2.76	.64	.79	.94	39.0	11.4	3.19	.65	.81	.96
	1400	660	47.0	13.8	2.04	.63	.77	.91	45.0	13.2	2.37	.64	.79	.93	42.5	12.5	2.75	.65	.81	.96	40.0	11.7	3.19	.67	.84	.99
	1500	710	47.5	13.9	2.03	.64	.79	.93	45.5	13.3	2.37	.65	.81	.96	43.0	12.6	2.75	.66	.83	.98	40.5	11.9	3.18	.68	.86	1.00
71°F (22°C)	1300	615	48.5	14.2	2.03	.47	.60	.73	46.5	13.6	2.36	.47	.61	.74	44.5	13.0	2.74	.47	.62	.76	42.0	12.3	3.17	.48	.64	.78
	1400	660	49.5	14.5	2.03	.48	.62	.75	47.5	13.9	2.36	.48	.63	.76	45.0	13.2	2.74	.48	.64	.78	42.5	12.5	3.16	.49	.65	.81
	1500	710	50.0	14.7	2.03	.48	.63	.76	48.0	14.1	2.36	.49	.64	.78	46.0	13.5	2.73	.49	.65	.80	43.0	12.6	3.16	.50	.67	.83

SPA060 - CR26-60N/W-F - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1500	710	56.0	16.4	3.67	.75	.88	.99	53.0	15.5	4.12	.77	.90	1.00	50.0	14.7	4.62	.79	.93	1.00	46.5	13.6	5.17	.81	.96	1.00
	1700	800	57.5	16.9	3.69	.77	.91	1.00	54.5	16.0	4.14	.79	.94	1.00	51.5	15.1	4.64	.81	.96	1.00	48.0	14.1	5.19	.84	.99	1.00
	1900	895	59.0	17.3	3.71	.80	.95	1.00	56.0	16.4	4.16	.82	.97	1.00	52.5	15.4	4.66	.85	.99	1.00	49.5	14.5	5.22	.88	1.00	1.00
67°F (19°C)	1500	710	59.5	17.4	3.72	.60	.73	.84	56.5	16.6	4.17	.61	.74	.87	53.5	15.7	4.67	.62	.76	.89	50.0	14.7	5.23	.64	.78	.93
	1700	800	61.0	17.9	3.74	.61	.75	.88	58.0	17.0	4.19	.62	.76	.90	54.5	16.0	4.69	.64	.79	.93	51.0	14.9	5.25	.65	.81	.96
	1900	895	62.5	18.3	3.76	.63	.78	.91	59.5	17.4	4.21	.65	.80	.94	56.0	16.4	4.71	.66	.82	.97	52.0	15.2	5.27	.68	.85	.99
71°F (22°C)	1500	710	62.5	18.3	3.76	.46	.58	.70	60.0	17.6	4.22	.47	.59	.71	56.5	16.6	4.72	.47	.60	.73	53.0	15.5	5.28	.48	.62	.76
	1700	800	64.5	18.9	3.79	.47	.60	.72	61.5	18.0	4.24	.47	.61	.74	58.0	17.0	4.75	.48	.62	.76	54.5	16.0	5.31	.48	.64	.79
	1900	895	66.0	19.3	3.81	.48	.62	.75	63.0	18.5	4.26	.49	.63	.77	59.5	17.4	4.77	.49	.65	.79	55.5	16.3	5.33	.50	.66	.82

SPA060 - CR26-60N/W-F - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1300	615	48.6	14.2	2.89	45.5	13.3	2.87	42.4	12.4	2.84	39.3	11.5	2.81
1400	660	49.0	14.4	2.81	45.9	13.5	2.78	42.9	12.6	2.76	39.8	11.7	2.73
1500	710	49.4	14.5	2.74	46.3	13.6	2.72	43.3	12.7	2.69	40.2	11.8	2.66

SPA060 - CR26-60N/W-F - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1500	710	62.9	18.4	4.36	48.5	14.2	4.07	33.2	9.7	3.80	24.5	7.2	3.29	12.2	3.6	2.44
1700	800	63.7	18.7	4.22	49.3	14.4	3.93	34.0	10.0	3.66	25.3	7.4	3.15	13.0	3.8	2.30
1900	895	64.4	18.9	4.11	50.0	14.7	3.82	34.7	10.2	3.55	26.0	7.6	3.04	13.7	4.0	2.19

SPA060 - CR26-60N/W-F - HEATING PERFORMANCE at 1700 cfm (800 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.22	63.7	18.7
60	16	4.14	60.5	17.7
55	13	4.06	57.3	16.8
50	10	3.99	54.1	15.9
47	8	3.94	52.2	15.3
45	7	3.93	49.3	14.4
40	4	3.92	42.3	12.4
35	2	3.90	35.3	10.3
30	-1	3.78	34.6	10.1
25	-4	3.66	34.0	10.0
20	-7	3.54	33.3	9.8
17	-8	3.47	32.9	9.6
15	-9	3.44	31.6	9.3
10	-12	3.36	28.4	8.3
5	-15	3.15	25.3	7.4
0	-18	2.94	22.3	6.5
-5	-21	2.72	19.2	5.6
-10	-23	2.51	16.1	4.7
-15	-26	2.30	13.0	3.8
-20	-29	2.08	9.9	2.9

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

SPA060 - CR26-60W-F with G60DFV-60D-135 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1195	565	42.5	12.5	2.05	.76	.89	1.00	40.5	11.9	2.40	.77	.92	1.00	38.5	11.3	2.78	.79	.94	1.00	36.0	10.6	3.23	.81	.97	1.00
	1340	630	43.5	12.7	2.05	.78	.93	1.00	41.5	12.2	2.39	.80	.95	1.00	39.5	11.6	2.77	.82	.97	1.00	36.8	10.8	3.22	.84	1.00	1.00
	1465	690	44.5	13.0	2.04	.80	.95	1.00	42.5	12.5	2.38	.82	.98	1.00	40.0	11.7	2.77	.84	1.00	1.00	37.8	11.1	3.21	.87	1.00	1.00
67°F (19°C)	1195	565	45.0	13.2	2.04	.60	.73	.86	43.0	12.6	2.38	.61	.74	.88	41.0	12.0	2.76	.62	.76	.90	38.5	11.3	3.20	.63	.79	.93
	1340	630	46.0	13.5	2.04	.61	.75	.89	44.0	12.9	2.38	.62	.77	.91	42.0	12.3	2.75	.63	.79	.94	39.5	11.6	3.19	.65	.82	.97
	1465	690	47.0	13.8	2.03	.63	.78	.92	45.0	13.2	2.37	.64	.79	.94	42.5	12.5	2.75	.65	.82	.97	40.0	11.7	3.18	.67	.84	.99
71°F (22°C)	1195	565	47.5	13.9	2.03	.45	.58	.70	45.5	13.3	2.37	.46	.59	.72	43.5	12.7	2.74	.46	.60	.73	41.0	12.0	3.18	.47	.61	.76
	1340	630	49.0	14.4	2.03	.46	.60	.73	47.0	13.8	2.36	.47	.61	.75	44.5	13.0	2.74	.47	.62	.76	42.0	12.3	3.17	.48	.64	.79
	1465	690	50.0	14.7	2.03	.47	.61	.75	47.5	13.9	2.36	.47	.63	.77	45.5	13.3	2.73	.48	.64	.79	42.5	12.5	3.16	.48	.65	.82

SPA060 - CR26-60W-F with G60DFV-60D-135 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1710	805	57.5	16.9	3.69	.77	.91	1.00	54.5	16.0	4.14	.79	.94	1.00	51.5	15.1	4.64	.81	.96	1.00	48.0	14.1	5.19	.84	.99	1.00
	1890	890	59.0	17.3	3.71	.80	.94	1.00	56.0	16.4	4.16	.82	.97	1.00	52.5	15.4	4.66	.84	.99	1.00	49.0	14.4	5.22	.87	1.00	1.00
	2095	990	60.0	17.6	3.72	.82	.97	1.00	57.0	16.7	4.18	.84	.99	1.00	53.5	15.7	4.68	.87	1.00	1.00	50.5	14.8	5.24	.90	1.00	1.00
67°F (19°C)	1710	805	61.0	17.9	3.74	.61	.75	.88	58.0	17.0	4.19	.62	.76	.90	54.5	16.0	4.69	.63	.78	.93	51.0	14.9	5.25	.65	.81	.96
	1890	890	62.5	18.3	3.75	.63	.77	.91	59.0	17.3	4.21	.64	.79	.93	56.0	16.4	4.71	.65	.81	.96	52.0	15.2	5.27	.67	.85	.99
	2095	990	63.5	18.6	3.77	.64	.79	.94	60.5	17.7	4.22	.66	.82	.96	57.0	16.7	4.73	.67	.84	.99	53.0	15.5	5.28	.69	.88	1.00
71°F (22°C)	1710	805	64.5	18.9	3.79	.46	.60	.72	61.0	17.9	4.24	.47	.61	.74	58.0	17.0	4.75	.47	.62	.76	54.5	16.0	5.31	.48	.63	.78
	1890	890	66.0	19.3	3.80	.47	.62	.75	62.5	18.3	4.26	.48	.63	.76	59.0	17.3	4.76	.49	.64	.79	55.5	16.3	5.33	.49	.66	.82
	2095	990	67.0	19.6	3.82	.48	.63	.77	64.0	18.8	4.28	.49	.64	.79	60.0	17.6	4.78	.49	.66	.82	56.5	16.6	5.35	.50	.68	.85

SPA060 - CR26-60W-F with G60DFV-60D-135 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1195	565	47.4	13.9	2.98	44.4	13.0	2.95	41.4	12.1	2.92	38.3	11.2	2.89
1340	630	48.0	14.1	2.84	45.0	13.2	2.81	42.0	12.3	2.78	38.9	11.4	2.75
1465	690	48.4	14.2	2.75	45.4	13.3	2.72	42.3	12.4	2.69	39.3	11.5	2.66

SPA060 - CR26-60W-F with G60DFV-60D-135 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1710	805	63.6	18.6	4.18	49.0	14.4	3.92	33.5	9.8	3.68	24.8	7.3	3.19	12.3	3.6	2.35
1890	890	64.4	18.9	4.09	49.8	14.6	3.83	34.3	10.1	3.59	25.6	7.5	3.10	13.1	3.8	2.26
2095	990	64.9	19.0	3.99	50.3	14.7	3.73	34.8	10.2	3.49	26.1	7.6	3.00	13.6	4.0	2.16

SPA060 - CR26-60W-F with G60DFV-60D-135 - HEATING PERFORMANCE at 1890 cfm (890 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.09	64.4	18.9
60	16	4.02	61.1	17.9
55	13	3.95	57.9	17.0
50	10	3.87	54.6	16.0
47	8	3.83	52.7	15.4
45	7	3.83	49.8	14.6
40	4	3.82	42.7	12.5
35	2	3.81	35.6	10.4
30	-1	3.70	34.9	10.2
25	-4	3.59	34.3	10.1
20	-7	3.48	33.6	9.8
17	-8	3.41	33.2	9.7
15	-9	3.38	31.9	9.3
10	-12	3.31	28.7	8.4
5	-15	3.10	25.6	7.5
0	-18	2.89	22.4	6.6
-5	-21	2.68	19.3	5.7
-10	-23	2.47	16.2	4.7
-15	-26	2.26	13.1	3.8
-20	-29	2.05	10.0	2.9

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

SPA060 - CH33-62D-2F - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1300	615	43.5	12.7	2.05	.77	.90	1.00	41.5	12.2	2.39	.78	.93	1.00	39.0	11.4	2.77	.80	.95	1.00	36.8	10.8	3.22	.83	.98	1.00
	1400	660	44.0	12.9	2.04	.78	.92	1.00	42.0	12.3	2.39	.80	.95	1.00	40.0	11.7	2.77	.82	.98	1.00	37.6	11.0	3.21	.85	1.00	1.00
	1500	710	45.0	13.2	2.04	.80	.95	1.00	42.5	12.5	2.38	.82	.97	1.00	40.5	11.9	2.76	.84	1.00	1.00	38.5	11.3	3.20	.87	1.00	1.00
67°F (19°C)	1300	615	46.0	13.5	2.04	.61	.74	.87	44.0	12.9	2.38	.62	.76	.89	41.5	12.2	2.76	.63	.78	.92	39.5	11.6	3.19	.65	.80	.95
	1400	660	47.0	13.8	2.04	.62	.76	.89	44.5	13.0	2.37	.63	.78	.91	42.5	12.5	2.75	.65	.80	.94	40.0	11.7	3.19	.66	.82	.97
	1500	710	47.5	13.9	2.03	.63	.77	.91	45.5	13.3	2.37	.64	.79	.94	43.0	12.6	2.75	.66	.82	.96	40.5	11.9	3.18	.67	.84	.99
71°F (22°C)	1300	615	48.5	14.2	2.03	.47	.60	.72	46.5	13.6	2.36	.47	.61	.73	44.5	13.0	2.74	.48	.62	.75	42.0	12.3	3.17	.49	.63	.77
	1400	660	49.5	14.5	2.03	.48	.61	.73	47.5	13.9	2.36	.48	.62	.75	45.0	13.2	2.74	.49	.63	.77	42.5	12.5	3.17	.49	.65	.80
	1500	710	50.5	14.8	2.03	.48	.62	.75	48.0	14.1	2.36	.49	.63	.77	46.0	13.5	2.73	.49	.64	.79	43.0	12.6	3.16	.50	.66	.81

SPA060 - CH33-62D-2F - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1800	850	59.0	17.3	3.71	.77	.91	1.00	56.0	16.4	4.16	.79	.93	1.00	52.5	15.4	4.66	.81	.96	1.00	49.0	14.4	5.22	.84	.99	1.00
	2000	945	60.0	17.6	3.73	.79	.93	1.00	57.0	16.7	4.18	.81	.96	1.00	54.0	15.8	4.68	.83	.99	1.00	50.5	14.8	5.24	.87	1.00	1.00
	2200	1040	61.5	18.0	3.74	.81	.96	1.00	58.0	17.0	4.19	.83	.99	1.00	55.0	16.1	4.69	.86	1.00	1.00	52.0	15.2	5.27	.89	1.00	1.00
67°F (19°C)	1800	850	62.5	18.3	3.75	.61	.74	.87	59.0	17.3	4.21	.63	.76	.89	56.0	16.4	4.71	.64	.78	.92	52.0	15.2	5.27	.66	.81	.96
	2000	945	64.0	18.8	3.77	.63	.77	.90	60.5	17.7	4.23	.64	.79	.93	57.0	16.7	4.73	.65	.81	.96	53.5	15.7	5.29	.67	.84	.99
	2200	1040	65.0	19.0	3.79	.64	.79	.93	62.0	18.2	4.24	.65	.81	.96	58.0	17.0	4.75	.67	.84	.99	54.5	16.0	5.31	.69	.87	1.00
71°F (22°C)	1800	850	66.0	19.3	3.81	.48	.60	.72	63.0	18.5	4.26	.48	.61	.74	59.5	17.4	4.77	.48	.62	.76	55.5	16.3	5.34	.49	.64	.78
	2000	945	67.0	19.6	3.83	.48	.61	.74	64.0	18.8	4.29	.49	.63	.76	60.5	17.7	4.79	.49	.64	.78	57.0	16.7	5.36	.50	.66	.81
	2200	1040	69.0	20.2	3.85	.49	.63	.76	65.0	19.0	4.30	.49	.64	.78	62.0	18.2	4.81	.50	.66	.81	58.0	17.0	5.38	.51	.68	.84

SPA060 - CH33-62D-2F - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1300	615	47.8	14.0	3.05	44.8	13.1	3.02	41.8	12.3	3.00	38.7	11.3	2.97
1400	660	48.4	14.2	2.96	45.4	13.3	2.93	42.3	12.4	2.91	39.3	11.5	2.88
1500	710	48.8	14.3	2.88	45.8	13.4	2.85	42.8	12.5	2.83	39.7	11.6	2.80

SPA060 - CH33-62D-2F - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1800	850	63.6	18.6	4.30	49.1	14.4	4.05	33.6	9.8	3.82	24.9	7.3	3.32	12.5	3.7	2.45
2000	945	64.2	18.8	4.18	49.7	14.6	3.93	34.2	10.0	3.70	25.5	7.5	3.21	13.1	3.8	2.33
2200	1040	64.8	19.0	4.10	50.3	14.7	3.85	34.8	10.2	3.62	26.1	7.6	3.13	13.7	4.0	2.25

SPA060 - CH33-62D-2F - HEATING PERFORMANCE at 2000 cfm (945 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.18	64.2	18.8
60	16	4.11	60.9	17.8
55	13	4.04	57.7	16.9
50	10	3.98	54.5	16.0
47	8	3.93	52.5	15.4
45	7	3.93	49.7	14.6
40	4	3.93	42.6	12.5
35	2	3.93	35.5	10.4
30	-1	3.81	34.9	10.2
25	-4	3.70	34.2	10.0
20	-7	3.59	33.6	9.8
17	-8	3.52	33.2	9.7
15	-9	3.50	31.9	9.3
10	-12	3.43	28.7	8.4
5	-15	3.21	25.5	7.5
0	-18	2.99	22.4	6.6
-5	-21	2.77	19.3	5.7
-10	-23	2.55	16.2	4.7
-15	-26	2.33	13.1	3.8
-20	-29	2.12	10.0	2.9

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

SPA060 - CH23-68 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1300	615	44.0	12.9	2.05	.78	.92	1.00	42.0	12.3	2.39	.79	.94	1.00	39.5	11.6	2.78	.82	.97	1.00	37.6	11.0	3.22	.84	.99	1.00
	1400	660	44.5	13.0	2.05	.80	.94	1.00	42.5	12.5	2.39	.82	.97	1.00	40.5	11.9	2.77	.84	.99	1.00	38.5	11.3	3.21	.87	1.00	1.00
	1500	710	45.5	13.3	2.04	.81	.97	1.00	43.5	12.7	2.38	.83	.99	1.00	41.5	12.2	2.77	.86	1.00	1.00	39.0	11.4	3.20	.89	1.00	1.00
67°F (19°C)	1300	615	46.5	13.6	2.04	.61	.75	.88	44.5	13.0	2.38	.62	.77	.91	42.5	12.5	2.76	.64	.79	.93	40.0	11.7	3.20	.65	.81	.96
	1400	660	47.5	13.9	2.04	.63	.77	.91	45.5	13.3	2.38	.64	.79	.93	43.0	12.6	2.75	.65	.81	.96	40.5	11.9	3.19	.67	.84	.99
	1500	710	48.0	14.1	2.04	.64	.79	.93	46.0	13.5	2.37	.65	.81	.96	43.5	12.7	2.75	.66	.83	.98	41.0	12.0	3.19	.68	.86	1.00
71°F (22°C)	1300	615	50.0	14.7	2.03	.47	.60	.72	47.5	13.9	2.37	.47	.61	.74	45.5	13.3	2.74	.48	.62	.76	43.0	12.6	3.17	.48	.64	.79
	1400	660	50.5	14.8	2.03	.47	.61	.75	48.5	14.2	2.36	.48	.62	.76	46.0	13.5	2.74	.48	.64	.78	43.5	12.7	3.17	.49	.65	.81
	1500	710	51.5	15.1	2.03	.48	.62	.76	49.0	14.4	2.36	.48	.64	.78	46.5	13.6	2.74	.49	.65	.80	44.0	12.9	3.17	.50	.67	.83

SPA060 - CH23-68 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1600	755	58.0	17.0	3.70	.76	.90	1.00	55.0	16.1	4.15	.78	.92	1.00	52.0	15.2	4.65	.80	.95	1.00	48.5	14.2	5.21	.83	.98	1.00
	1800	850	59.5	17.4	3.72	.79	.93	1.00	56.5	16.6	4.17	.81	.96	1.00	53.5	15.7	4.67	.83	.98	1.00	50.0	14.7	5.23	.86	1.00	1.00
	2000	945	61.0	17.9	3.74	.81	.96	1.00	58.0	17.0	4.19	.84	.99	1.00	55.0	16.1	4.69	.87	1.00	1.00	51.5	15.1	5.26	.90	1.00	1.00
67°F (19°C)	1600	755	61.5	18.0	3.75	.61	.74	.86	58.5	17.1	4.20	.62	.75	.89	55.0	16.1	4.70	.63	.78	.91	51.5	15.1	5.26	.65	.80	.95
	1800	850	63.0	18.5	3.77	.62	.76	.90	60.0	17.6	4.22	.63	.78	.92	56.5	16.6	4.72	.65	.81	.95	52.5	15.4	5.28	.67	.84	.98
	2000	945	64.5	18.9	3.79	.64	.79	.93	61.5	18.0	4.24	.65	.81	.96	57.5	16.9	4.74	.67	.84	.98	54.0	15.8	5.30	.69	.87	1.00
71°F (22°C)	1600	755	66.0	19.3	3.80	.46	.59	.71	62.5	18.3	4.26	.47	.60	.73	59.0	17.3	4.76	.48	.62	.75	55.0	16.1	5.33	.48	.63	.77
	1800	850	67.0	19.6	3.82	.47	.61	.74	64.0	18.8	4.28	.47	.62	.76	60.5	17.7	4.79	.49	.63	.78	56.5	16.6	5.35	.49	.65	.81
	2000	945	69.0	20.2	3.84	.48	.63	.77	65.0	19.0	4.30	.49	.64	.79	61.5	18.0	4.80	.49	.66	.81	57.5	16.9	5.37	.51	.68	.85

SPA060 - CH23-68 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1300	615	49.0	14.4	2.78	45.9	13.5	2.76	42.7	12.5	2.73	39.6	11.6	2.71
1400	660	49.5	14.5	2.70	46.4	13.6	2.68	43.3	12.7	2.66	40.1	11.8	2.64
1500	710	49.9	14.6	2.63	46.8	13.7	2.61	43.6	12.8	2.59	40.5	11.9	2.57

SPA060 - CH23-68 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1600	755	64.2	18.8	4.11	49.5	14.5	3.87	33.7	9.9	3.64	24.9	7.3	3.17	12.4	3.6	2.34
1800	850	64.9	19.0	3.99	50.2	14.7	3.75	34.4	10.1	3.52	25.6	7.5	3.05	13.1	3.8	2.22
2000	945	65.5	19.2	3.90	50.8	14.9	3.66	35.0	10.3	3.43	26.2	7.7	2.96	13.7	4.0	2.13

SPA060 - CH23-68 - HEATING PERFORMANCE at 1800 cfm (850 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.99	64.9	19.0
60	16	3.92	61.6	18.1
55	13	3.85	58.3	17.1
50	10	3.79	55.1	16.1
47	8	3.75	53.1	15.6
45	7	3.75	50.2	14.7
40	4	3.74	43.0	12.6
35	2	3.73	35.8	10.5
30	-1	3.63	35.1	10.3
25	-4	3.52	34.4	10.1
20	-7	3.41	33.7	9.9
17	-8	3.35	33.3	9.8
15	-9	3.32	32.0	9.4
10	-12	3.26	28.7	8.4
5	-15	3.05	25.6	7.5
0	-18	2.84	22.4	6.6
-5	-21	2.63	19.3	5.7
-10	-23	2.43	16.2	4.7
-15	-26	2.22	13.1	3.8
-20	-29	2.01	10.0	2.9

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

SPA060 - CH33-62D-2F with G60UHV-60D-135 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1230	580	42.5	12.5	2.05	.75	.88	1.00	40.5	11.9	2.39	.77	.91	1.00	38.5	11.3	2.78	.79	.93	1.00	36.2	10.6	3.22	.81	.96	1.00
	1340	630	43.5	12.7	2.05	.77	.91	1.00	41.5	12.2	2.39	.79	.93	1.00	39.5	11.6	2.77	.81	.96	1.00	37.0	10.8	3.22	.83	.99	1.00
	1400	660	44.0	12.9	2.04	.78	.92	1.00	42.0	12.3	2.39	.80	.95	1.00	40.0	11.7	2.77	.82	.97	1.00	37.4	11.0	3.21	.84	1.00	1.00
67°F (19°C)	1230	580	45.0	13.2	2.04	.60	.73	.85	43.0	12.6	2.38	.61	.74	.87	41.0	12.0	2.76	.62	.76	.89	38.5	11.3	3.20	.63	.78	.92
	1340	630	46.0	13.5	2.04	.61	.74	.87	44.0	12.9	2.38	.62	.76	.89	42.0	12.3	2.76	.63	.78	.92	39.5	11.6	3.19	.65	.80	.95
	1400	660	46.5	13.6	2.04	.62	.75	.88	44.5	13.0	2.37	.63	.77	.91	42.5	12.5	2.75	.64	.79	.94	40.0	11.7	3.19	.66	.82	.97
71°F (22°C)	1230	580	48.0	14.1	2.03	.46	.58	.70	46.0	13.5	2.37	.47	.59	.72	43.5	12.7	2.74	.47	.60	.73	41.5	12.2	3.18	.47	.62	.75
	1340	630	49.0	14.4	2.03	.47	.60	.72	47.0	13.8	2.36	.47	.61	.73	44.5	13.0	2.74	.48	.62	.75	42.0	12.3	3.17	.48	.63	.78
	1400	660	49.5	14.5	2.03	.47	.60	.73	47.5	13.9	2.36	.48	.61	.75	45.0	13.2	2.74	.48	.63	.76	42.5	12.5	3.17	.49	.64	.79

SPA060 - CH33-62D-2F with G60UHV-60D-135 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1760	830	58.5	17.1	3.70	.76	.90	1.00	55.5	16.3	4.15	.78	.92	1.00	52.5	15.4	4.65	.80	.95	1.00	49.0	14.4	5.21	.83	.98	1.00
	1905	900	59.5	17.4	3.72	.78	.92	1.00	56.5	16.6	4.17	.80	.95	1.00	53.0	15.5	4.67	.82	.97	1.00	50.0	14.7	5.23	.85	1.00	1.00
	2000	945	60.0	17.6	3.73	.79	.93	1.00	57.0	16.7	4.18	.81	.96	1.00	53.5	15.7	4.68	.83	.99	1.00	50.5	14.8	5.24	.86	1.00	1.00
67°F (19°C)	1760	830	62.0	18.2	3.75	.61	.74	.86	59.0	17.3	4.20	.62	.76	.88	55.5	16.3	4.71	.63	.78	.91	52.0	15.2	5.27	.65	.80	.95
	1905	900	63.0	18.5	3.76	.62	.76	.88	59.5	17.4	4.22	.63	.77	.91	56.5	16.6	4.72	.64	.80	.94	53.0	15.5	5.28	.66	.82	.98
	2000	945	63.5	18.6	3.77	.63	.76	.90	60.5	17.7	4.23	.64	.78	.92	57.0	16.7	4.73	.65	.81	.95	53.5	15.7	5.29	.67	.84	.99
71°F (22°C)	1760	830	66.0	19.3	3.80	.47	.59	.71	62.5	18.3	4.26	.48	.60	.73	59.0	17.3	4.77	.48	.62	.75	55.5	16.3	5.33	.49	.63	.78
	1905	900	67.0	19.6	3.82	.48	.60	.73	63.5	18.6	4.27	.48	.62	.75	60.0	17.6	4.78	.49	.63	.77	56.5	16.6	5.35	.49	.65	.80
	2000	945	67.0	19.6	3.83	.48	.61	.74	64.0	18.8	4.28	.48	.62	.76	60.5	17.7	4.79	.49	.64	.78	57.0	16.7	5.36	.50	.66	.81

SPA060 - CH33-62D-2F with G60UHV-60D-135 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1235	585	46.9	13.7	3.09	43.9	12.9	3.06	40.8	12.0	3.03	37.8	11.1	3.00
1340	630	47.5	13.9	2.99	44.5	13.0	2.97	41.5	12.2	2.94	38.5	11.3	2.91
1400	660	47.9	14.0	2.95	44.9	13.2	2.92	41.9	12.3	2.89	38.9	11.4	2.86

SPA060 - CH33-62D-2F with G60UHV-60D-135 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1765	835	63.1	18.5	4.30	48.7	14.3	4.05	33.3	9.8	3.82	24.6	7.2	3.33	12.4	3.6	2.44
1905	900	63.6	18.6	4.22	49.2	14.4	3.97	33.8	9.9	3.74	25.1	7.4	3.25	12.9	3.8	2.36
2000	945	63.7	18.7	4.18	49.3	14.4	3.94	33.9	9.9	3.71	25.2	7.4	3.21	13.0	3.8	2.33

SPA060 - CH33-62D-2F with G60UHV-60D-135 - HEATING PERFORMANCE at 1905 cfm (900 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.22	63.6	18.6
60	16	4.15	60.4	17.7
55	13	4.08	57.2	16.8
50	10	4.01	53.9	15.8
47	8	3.97	52.0	15.2
45	7	3.97	49.2	14.4
40	4	3.97	42.2	12.4
35	2	3.96	35.1	10.3
30	-1	3.85	34.4	10.1
25	-4	3.74	33.8	9.9
20	-7	3.63	33.1	9.7
17	-8	3.56	32.7	9.6
15	-9	3.54	31.4	9.2
10	-12	3.47	28.2	8.3
5	-15	3.25	25.1	7.4
0	-18	3.03	22.1	6.5
-5	-21	2.80	19.0	5.6
-10	-23	2.58	15.9	4.7
-15	-26	2.36	12.9	3.8
-20	-29	2.14	9.8	2.9

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

SPA060 - CH33-62D-2F with G61MPV-60D-135 - FIRST STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1100	520	41.5	12.2	2.05	.73	.86	.97	39.5	11.6	2.40	.75	.87	.99	37.4	11.0	2.79	.76	.90	1.00	35.2	10.3	3.23	.78	.93	1.00
	1345	635	43.5	12.7	2.05	.77	.91	1.00	41.5	12.2	2.39	.79	.93	1.00	39.5	11.6	2.77	.81	.96	1.00	37.0	10.8	3.22	.83	.99	1.00
	1540	725	45.0	13.2	2.04	.80	.95	1.00	43.0	12.6	2.38	.82	.97	1.00	40.5	11.9	2.76	.84	1.00	1.00	38.5	11.3	3.20	.87	1.00	1.00
67°F (19°C)	1100	520	44.0	12.9	2.05	.59	.71	.82	42.0	12.3	2.39	.60	.72	.84	40.0	11.7	2.77	.60	.74	.86	37.6	11.0	3.21	.61	.75	.89
	1345	635	46.0	13.5	2.04	.61	.74	.87	44.0	12.9	2.38	.62	.76	.89	42.0	12.3	2.76	.63	.78	.92	39.5	11.6	3.19	.65	.80	.95
	1540	725	47.5	13.9	2.03	.63	.77	.91	45.5	13.3	2.37	.64	.79	.94	43.0	12.6	2.75	.66	.82	.97	40.5	11.9	3.18	.67	.84	1.00
71°F (22°C)	1100	520	46.5	13.6	2.04	.46	.57	.68	44.5	13.0	2.37	.46	.58	.69	42.5	12.5	2.75	.46	.59	.71	40.0	11.7	3.18	.47	.60	.73
	1345	635	49.0	14.4	2.03	.47	.59	.72	47.0	13.8	2.36	.47	.60	.73	44.5	13.0	2.74	.47	.62	.75	42.0	12.3	3.17	.48	.63	.77
	1540	725	50.5	14.8	2.03	.48	.62	.75	48.0	14.1	2.36	.48	.63	.77	46.0	13.5	2.73	.49	.64	.79	43.5	12.7	3.16	.49	.66	.81

SPA060 -CH33-62D-2F with G61MPV-60D-135 - SECOND STAGE COOLING CAPACITY

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		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	L/s	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1790	845	58.5	17.1	3.71	.77	.90	1.00	55.5	16.3	4.16	.78	.93	1.00	52.5	15.4	4.66	.80	.95	1.00	49.0	14.4	5.21	.83	.99	1.00
	1990	940	60.0	17.6	3.73	.79	.93	1.00	57.0	16.7	4.18	.81	.96	1.00	54.0	15.8	4.68	.83	.99	1.00	50.5	14.8	5.24	.87	1.00	1.00
	2195	1035	61.5	18.0	3.74	.81	.96	1.00	58.5	17.1	4.19	.84	.99	1.00	55.0	16.1	4.70	.86	1.00	1.00	52.0	15.2	5.27	.90	1.00	1.00
67°F (19°C)	1790	845	62.0	18.2	3.75	.61	.74	.87	59.0	17.3	4.21	.62	.76	.89	55.5	16.3	4.71	.63	.78	.92	52.0	15.2	5.27	.65	.81	.95
	1990	940	63.5	18.6	3.77	.63	.77	.90	60.5	17.7	4.23	.64	.78	.92	57.0	16.7	4.73	.65	.81	.95	53.5	15.7	5.29	.67	.84	.99
	2195	1035	65.0	19.0	3.79	.64	.79	.93	62.0	18.2	4.25	.66	.81	.96	58.0	17.0	4.75	.67	.84	.99	54.5	16.0	5.31	.69	.87	1.00
71°F (22°C)	1790	845	66.0	19.3	3.80	.47	.59	.71	62.5	18.3	4.26	.47	.61	.73	59.5	17.4	4.77	.48	.62	.75	55.5	16.3	5.33	.49	.63	.78
	1990	940	67.0	19.6	3.83	.48	.61	.74	64.0	18.8	4.28	.49	.62	.76	60.5	17.7	4.79	.49	.64	.78	57.0	16.7	5.36	.50	.66	.81
	2195	1035	69.0	20.2	3.85	.49	.63	.76	65.0	19.0	4.30	.49	.64	.79	62.0	18.2	4.81	.50	.66	.81	58.0	17.0	5.37	.51	.68	.84

SPA060 - CH33-62D-2F with G61MPV-60D-135 - FIRST STAGE HEATING CAPACITY

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 kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1100	520	46.2	13.5	3.26	43.1	12.6	3.23	40.1	11.8	3.20	37.0	10.8	3.17
1345	635	47.6	14.0	2.99	44.5	13.0	2.96	41.4	12.1	2.93	38.4	11.3	2.90
1540	725	48.4	14.2	2.84	45.4	13.3	2.81	42.3	12.4	2.78	39.2	11.5	2.75

SPA060 - CH33-62D-2F with G61MPV-60D-135 - SECOND STAGE HEATING CAPACITY

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 (-26°C)		
		Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input	Total Heating Capacity		Comp. Motor kW Input
cfm	L/s	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW	
1790	845	63.0	18.5	4.29	48.6	14.2	4.05	33.1	9.7	3.82	24.4	7.2	3.32	12.0	3.5	2.45
1990	940	64.0	18.8	4.18	49.6	14.5	3.94	34.1	10.0	3.71	25.4	7.4	3.21	13.0	3.8	2.34
2195	1035	65.0	19.0	4.11	50.6	14.8	3.86	35.1	10.3	3.63	26.4	7.7	3.14	14.0	4.1	2.26

SPA060 - CH33-62D-2F with G61MPV-60D-135 - HEATING PERFORMANCE at 1990 cfm (940 L/s) Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.18	64.0	18.8
60	16	4.12	60.8	17.8
55	13	4.05	57.6	16.9
50	10	3.98	54.4	15.9
47	8	3.94	52.4	15.4
45	7	3.94	49.6	14.5
40	4	3.93	42.5	12.5
35	2	3.93	35.4	10.4
30	-1	3.82	34.8	10.2
25	-4	3.71	34.1	10.0
20	-7	3.59	33.5	9.8
17	-8	3.53	33.1	9.7
15	-9	3.50	31.8	9.3
10	-12	3.43	28.6	8.4
5	-15	3.21	25.4	7.4
0	-18	2.99	22.3	6.5
-5	-21	2.77	19.2	5.6
-10	-23	2.56	16.1	4.7
-15	-26	2.34	13.0	3.8
-20	-29	2.12	9.9	2.9

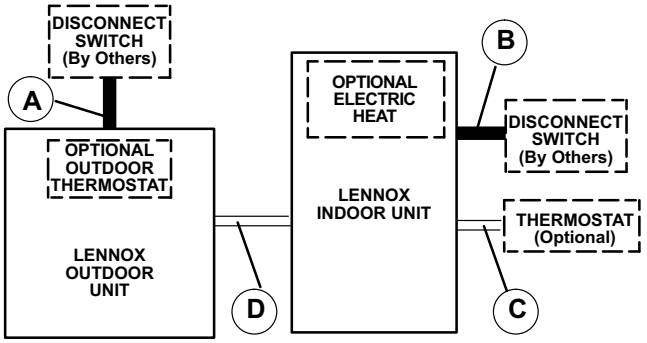
*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

ELECTRICAL DATA

	Model No.	SPA036H4	SPA048H4	SPA060H4
Electrical Data	Line voltage data - 60hz	208/230V-3ph	208/230V-3ph	208/230V-3ph
	[1] Maximum overcurrent protection (amps)	25	30	40
	[2] Minimum circuit ampacity	14.7	18.6	23.7
Compressor	Rated load amps	11.2	13.5	17.6
	Locked rotor amps	58	88	123
	Power factor	0.98	0.99	0.99
Outdoor Coil Fan Motor	Full load amps	0.7	1.7	1.7
	Locked rotor amps	2	3.1	3.1

NOTE — Extremes of operating range are plus 10% and minus 5% of line voltage.
[1] HACR type breaker or fuse.
[2] Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

FIELD WIRING

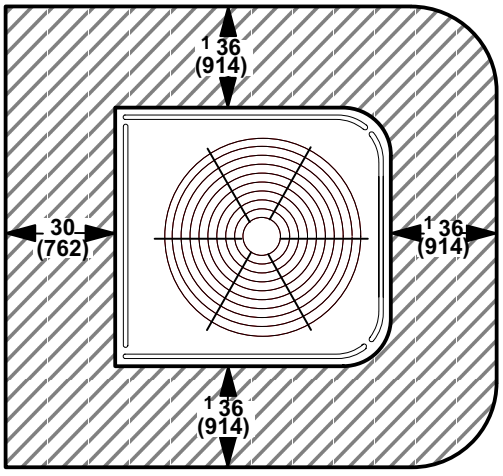


A — Two Wire Power (see Electrical Data)
B — Two or Three Wire Power (size to heater capacity)
C — Twelve Wire Low Voltage — 18 ga. minimum
— Fourteen Wire Low Voltage with Optional Outdoor Thermostat
D — Eight Wire Low Voltage — 18 ga. minimum
— Ten Wire Low Voltage with Optional Outdoor Thermostat

— Field Wiring Not Furnished —

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

INSTALLATION CLEARANCES



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

L CONNECTION® BUILDING AUTOMATION SYSTEM

NETWORK THERMOSTAT CONTROL (REQUIRED) - DDC that allows network control of S-Class Packaged Units or Splits over L Connection™ Network

Description	Order No.
NTC1 - 2 Htg.-3 Clg.	17M10

Network Control Up To 31 Units - Large LCD Display Screen - 7 Day Programming plus Holidays - Six Different Time/Temperature Schedules per Day - Storage of Last 75 Alarms With Time/Date - Remote Access (with NCP PC Software)

NCP1 Network Control Panel	59L21

ZONE TEMPERATURE SENSORS (One sensor required per unit)

Description	Order No.
Wall-Mount After Hours Override Button - Terminal Block Connection - Network Jack for L Connection PC Software	
Wall Mounted Zone Sensor - With warmer/cooler adjustment	56L80
Wall Mounted Zone Sensor - Without warmer/cooler adjustment	94L60
Miniature Wall-Mount - Terminal Block Connection	
Miniature Wall Mounted Zone Sensor	94L61
Wall-Mount - Terminal Block Connection	
Wall Mounted Zone Sensor - use with Building Controller (BC1) for monitoring critical areas	59M04
Wall-Mount - Leaded Connection	
Flush Mount Zone Sensor	76M32
Temperature Averaging Kit	
Two zone sensors for temperature averaging in one room	23M20
Duct-Mount (For return air duct)	
Duct Mounted Zone Sensor	56L81

ZONE HUMIDITY SENSOR

Wall Mounted Zone Humidity Sensor	17M50
Duct Mounted Relative Humidity Sensor	76M31

OUTDOOR TEMPERATURE SENSOR

Mounted in watertight enclosure with a sun shield. Use with Building Controller (BC1) to monitor outdoor temperature	59M05

CO_2 SENSORS

Sensor - white case, CO_2 display	77N39
Sensor - white case, no display	87N53
Sensor - black case, CO_2 display	87N52
Sensor - duct mounted, black, no display	87N54

Continued on next page ▶

L CONNECTION® BUILDING AUTOMATION SYSTEM

	Description	Order No.
AFTER HOURS REMOTE OVERRIDE BUTTON		
	After Hours Remote Override Button - Wall Plate furnished (Use with Duct Mounted Zone Sensor if required)	**56L16**
[1] PC SOFTWARE		
	**FOR SETUP, CONFIGURATION AND SCHEDULE ADJUSTMENT OF THE NETWORK CONTROL PANEL (NCP)** **Network Control Panel (NCP) Software** For Remote/Local NCP access *NOTE - Requires PC Converter Kit (96L78) for local access and Network Modem Kit (94L62) for remote access*	**96L82**
	**FOR SETUP, CONFIGURATION AND SERVICING OF NETWORK THERMOSTAT CONTROL (NTC)** **Unit Controller Software** For Remote/Local network control *NOTE - Requires PC Converter Kit (96L78) for local access and Network Modem Kit (94L62) for remote access*	**96L80**
NETWORK MODEM KIT - Provides direct digital communication between a single rooftop unit (or network of rooftop units) and the Network Control Panel		
	Connects phone line directly to L Connection network - Includes modem, PC Converter, cables *NOTE - Requires either NCP software and/or Unit Controller Software*	**94L62**
BUILDING CONTROLLER		
	BC1-1 - Use to control lights, vent hoods, exhaust fans, sprinklers and other devices based upon unit occupied operation or time schedule.	**17M12**
kWH DEMAND CONTROLLER		
	Use with the Building Controller, the monitor sends a 24VAC output to a building control device to load shed when electrical demand is high. *NOTE - Requires kWH meter with KYZ output.*	**76M33**

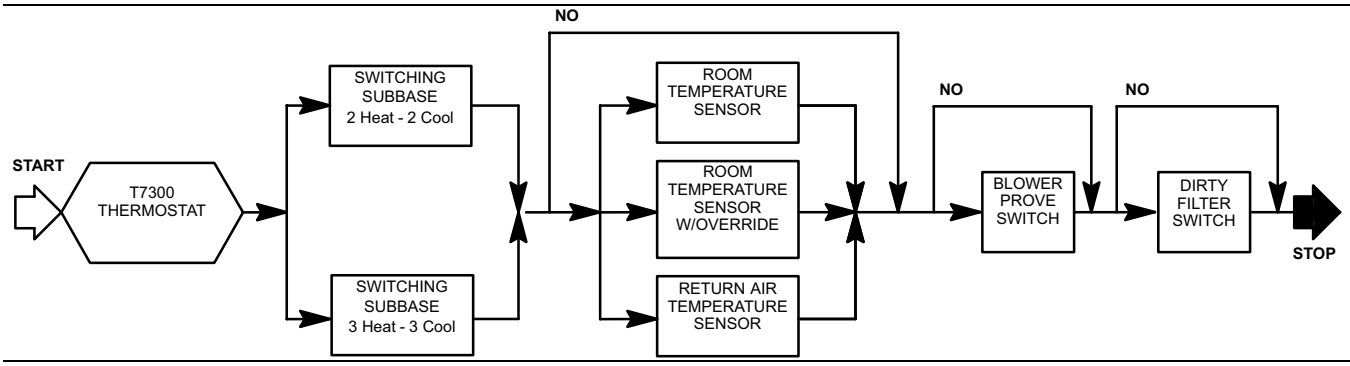
[1] Computer system requirements: IBM compatible PC with Pentium or higher processor, Microsoft® Windows® 95, 98, Me, 2000, XP, or NT®. (Windows® 95, Windows® 98, Windows® Me, Windows® 2000, Windows® XP, and Windows® NT® are registered trademarks of Microsoft Corp.), 256 MB RAM (more memory may be required to run additional applications simultaneously), requires at least 20 MB of free hard drive space, VGA or higher resolution monitor (screen resolution must be 800 X 600 or higher and 256 colors), CD-ROM drive, mouse or compatible pointing device, serial COM port, PC modem (model no. USR5699B, USR5610B, USR5686E, 005686-03, 3CP5610A, 3CP5699A, 005687-03, or USR3686D is recommended) for remote connections.

L CONNECTION® BUILDING AUTOMATION SYSTEM

	Description	Order No.
AMBIENT LIGHT SENSOR		
	Use with the Building Controller and Network Control Panel for automatic lighting control	**34M67**
NEMA 1 ENCLOSURES		
	NEMA Enclosure	**17M11**
	For Network Modem Kit or Building Controller	**34M23**
	For Network Control Panel	**34M24**
NETWORK PHONE LINE AUTO-ROUTER		
(Allows modem, fax and phone to share one line - routes signal to connect to device automatically)		
	Network Phone Line Auto-Router	**34M22**
NETWORK BUS TO PC CONVERTER KIT		
	Allows PC connection to L Connection network - Required for any L Connection PC software when used on a local network	**96L78**
COMMUNICATION CABLE		
	500 ft. Roll - RS-485 twisted pair communication wire - plenum rated	**27M19**
	1000 ft. Roll - RS-485 twisted pair communication wire - plenum rated	**94L63**
	2500 ft. Roll - RS-485 twisted pair communication wire - plenum rated	**68M25**
NETWORK CONTROL PANEL WALL TRANSFORMER - Separate power supply for NCP (if desired)		
Screw terminals		
	Transformer - 20VA, Class 2, Primary 120V, 60Hz, Secondary 24V	**18M13**
MISCELLANEOUS COMPONENTS		
	Air Flow Switch	**18L89**
	Dirty Filter Switch	**31L11**
	Outdoor Air Sensor	**14K92**
	Discharge Air Sensor	**99K64**
	Return Air Sensor	**99K64**

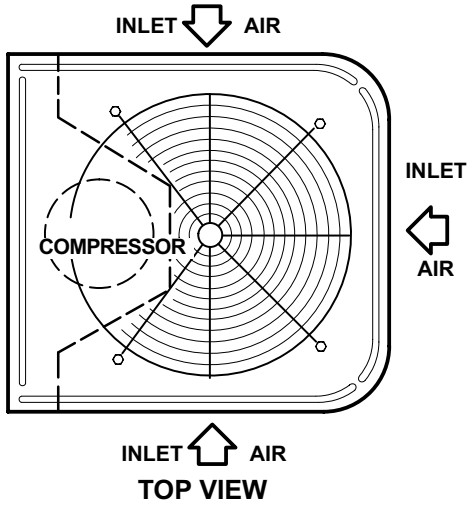
OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS - FIELD INSTALLED

System and Component Description	
HONEYWELL T7300 THERMOSTAT	
Thermostat - Programmable, internal or optional remote temperature sensing (sensor required), touch sensitive keyboard, automatic switching, °F or °C readout, no anticipator, droop/no droop selection, indicator LED's, hour/day programming, override capabilities, time and operational mode readout, stage status indicators, battery back-up, subbase choice, manual system switch (Heat-Off-Auto-Cool), fan switch (Auto-On)	**60L59**
Subbase - Selectable staging, indicator LED's, auxiliary relay output for economizer operation	
2 Heat / 2 Cool	**37L55**
3 Heat / 3 Cool	**37L53**
Sensor - Room temperature	**58C92**
Sensor - Room temperature with 3 hour override and setpoint adjustment	**86G67**
Sensor - Return air temperature	**27C40**
Blower Proving Switch - Monitors blower operation, locks out unit in case of blower failure	**30K49**
Dirty Filter Switch - Senses static pressure increase indicating a dirty filter condition	**30K48**

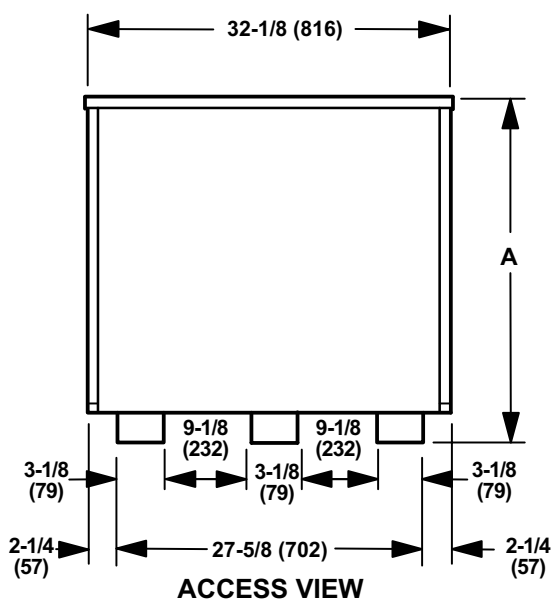


DIMENSIONS AND WEIGHTS - INCHES (MM)

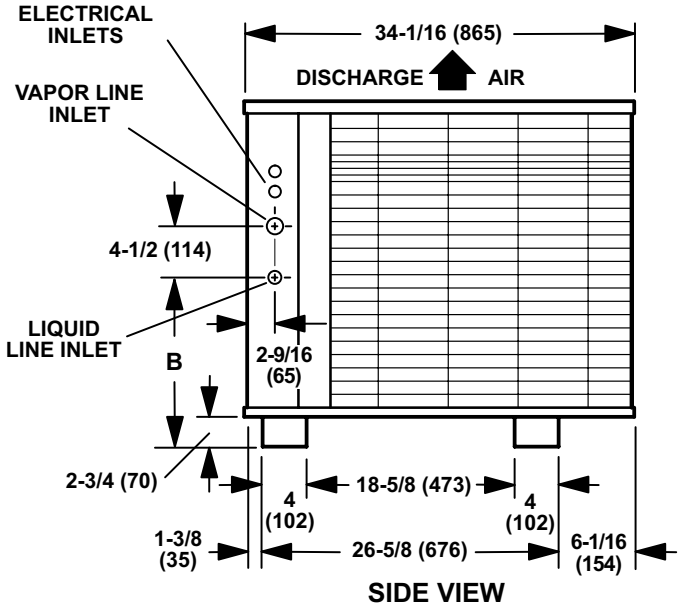
	Model No.	SPA036H4	SPA048H4	SPA060H4
Shipping Data	lbs. (kg) 1 package	262 (119)	318 (144)	340 (154)



TOP VIEW



ACCESS VIEW



SIDE VIEW

Model No.	A		B	
	in.	mm	in.	mm
SPA036	30-7/8	784	12-3/4	324
SPA048 SPA060	44-7/8	1140	14-1/4	362

SECTION 15730
UNITARY AIR CONDITIONING EQUIPMENT

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
  1. Split System Air Conditioning and Heat Pump Units.

B. Related Sections:
  1. Division I – General Requirements.
  2. Section 05580 – Formed Metal Fabrications: Custom enclosures for the unit.
  3. Section 15080 – Mechanical Insulation: Duct and pipe insulation for the unit.
  4. Section 15800 – Air Distribution: Ducts, duct accessories, fans, air terminal units, air outlets & inlets, and air cleaning devices associated with the unit.
  5. Section 15900 – HVAC Instrumentation and Controls: Controls for the unit.
  6. Section 15950 – Testing, Adjusting and Balancing: Procedures for testing, adjusting and balancing the unit.

1.2 REFERENCES

A. ASNI/ASHRAE Standard 15 – 2001: Safety Standard for Refrigeration Systems.

B. ASHRAE Standard 62.1 – 2001: Ventilation Standard for Acceptable Indoor Air Quality.

C. ARI Standard 210/240-94: Unitary Air Conditioning Equipment (capacities from 0 to 65 kBtuh).

D. ARI Standard 270: Sound Rating of Outdoor Unitary Equipment.

E. NFPA-90A-2002: Standard for Installation of Air Conditioning and Ventilation Systems > 25,000 ft^3.

F. UL 1995 & CAN/CSA-C22.2 No. 236-M95: Standard for Heating and Cooling Equipment.

G. ISO 9001 Quality Systems – Model for Quality Assurance in Production, Installation, and Servicing.

H. NAECA: US National Appliance Energy Conservation Act of 1988. (US Only).

1.3 SYSTEM DESCRIPTION

A. Design Requirements:
  1. Unit construction shall be in compliance with the following standards:
    a. UL 1995 & CAN/CSA-C22.2 No. 236-M95: Standard for Heating and Cooling Equipment.

B. Performance Requirements:
  1. ARI Rated Net Cooling Efficiency shall meet or exceed NAECA: US National Appliance Energy Conservation Act of 1988. (US Only).

1.4 SUBMITTALS

A. Product Data:
  1. Model Number.
  2. External Static Pressure.
  3. Equipment Sound Rating.
  4. Unit Weight.
  5. Unit Voltage.
  6. Maximum Overcurrent Protection.
  7. Minimum Circuit Ampacity.
  8. Field Installed Accessory List.
  9. Equipment Feature List.

B. Shop Drawings:
  1. Plan View with dimensions.
  2. Front View with dimensions.
  3. End View with dimensions.
  4. Back View with dimensions.

C. Quality Assurance/Control:
  1. ARI Directory Listing (for units = 248 kBtuh).
  2. UL, ETL or CSA Listing.
  3. ISO 9001 Registration.

D. Closeout Submittals:
  1. Equipment inspection report.
  2. Equipment operation test report.
  3. Operation and Maintenance manuals.
  4. Warranty Cards.

1.5 QUALITY ASSURANCE

A. Qualifications:
  1. Manufacturer's factory shall be ISO 9001 registered.
  2. Installing contractors shall be manufacturer trained.
  3. Manufacturer shall have parts and service available throughout the U.S.A. and Canada.

B. Regulatory Requirements:
  1. Local Energy and Mechanical Codes.
  2. NAECA: US National Appliance Energy Conservation Act of 1988. (US Only)

C. Certifications
  1. ARI Standard 210/240-94: Unitary Air Conditioning Equipment (capacities from 0 to 65 kBtuh).
  2. ISO 9001 Quality Systems – Model for Quality Assurance in Production, Installation, and Servicing.

1.6 DELIVERY, STORAGE AND HANDLING

A. Packing, Shipping, Handling, and Unloading:
  1. Units shall be shipped, handled, and unloaded according to manufacturer's instructions.

B. Acceptance at Site:
  1. For owner provided product, Contractor shall be responsible for acceptance of equipment at site.

C. Storage and Protection:
  1. Contractor shall be responsible for storage and protection of equipment from damage until it is installed.
  2. Factory shipping covers shall remain in place until installation.

1.7 WARRANTY

A. Compressors:
  1. Shall have a limited warranty for five years.

B. All other covered parts:
  1. Shall have a limited warranty for one year.

1.8 SYSTEM START UP, OWNERS INSTRUCTIONS, COMMISSIONING

A. System Start Up:
  1. The unit shall be started up per manufacturer's instructions.

B. Owner's Instructions:
  1. Manufacturer representative shall instruct owner's representative on start up and operation of the equipment if required by the owner.

C. Commissioning:
  1. Manufacturer trained contractor shall statically and dynamically test the operation of the unit to verify its conformance to design criteria if required by the engineer.

1.9 MAINTENANCE

A. Replacement parts:
  1. A list of common replacement parts shall be provided to the owner if required by the owner.

B. Maintenance Service:
1. Outdoor coils shall be cleaned annually before the cooling season.
2. Refrigeration system operations shall be checked annually for proper operation.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Lennox Industries Inc. S-Class™ Units.

2.2 EQUIPMENT

A. General:
1. Direct expansion, air-to-air mechanical outdoor electric split system heat pump unit with vertical airflow. All factory installed wiring, piping, refrigerant holding charge, and options shall be provided within the unit enclosure. Unit shall be matched with a suitable air-handling unit for proper operation.
2. Units shall be available in 208-230V/3Ph/60Hz voltages.
3. Unit sound rating shall not exceed 76 dB

2.3 COMPONENTS

A. Cabinet:
1. All exterior panels shall be constructed of G90 or 60 post painted galvanized steel with a 0.20 – 0.30 mils urethane primer and 0.70 - 0.80 mils polyester coat on the top side and a 0.15 – 0.25 mils urethane primer and 0.20 to 0.30 mils. Polyester coat on the backside. Coating shall be resistant to 1,000 hours of salt spray per ASTM B-117; 500 hours of humidity exposure per ASTM D2247; and 168 hours of heat resistance per ASTM D3454. Coating shall be impact resistant per ASTM D2794; Abrasion resistant per ASTM D4060; and Solvent resistant per NCCA No. II-18. Coating shall have H minimum pencil hardness per ASTM D3363. Coating shall have a 3T no tape pick off Flexibility per NCCAII-19. Coating shall have a “no tape pick off” cross hatch adhesion resistance per ASTM D3359.
2. Cabinet top panel shall be one piece.
3. Cabinet constructed shall be HushTone® type to minimize sound levels.
4. Openings shall be provided for side electrical connections.
5. Compressor and control box shall be located in a separate compartment to provide protection from the weather and keep sound transmissions to a minimum.
6. High-density polyethylene feet shall raise the unit 2 ¾” off the mounting surface.
7. The fan guard shall be steel wire coated with a corrosion-resistant PVC (polyvinyl chloride)
8. The coil guards shall be steel wire coated with a non-corrosive PVC (polyvinyl chloride) coating.

B. Wiring:

1. Shall not touch any hot-gas refrigerant lines.
2. Shall not touch any sharp metal edges.

C. Heating / Cooling System:
1. Cooling system shall be capable of operating from 45° F (7° C) to 125° F (52° C) without the installation of additional controls.
2. Cooling system shall be capable of operating from 0° F (-18° C) to 125° F (52° C) with the installation of additional controls.
3. Heating system shall be capable of operating from 45° F (7° C) to 75° F (24° C) without the installation of additional controls
4. Shall have one independent compressor circuit on 3 – 5 ton units.
5. The compressor circuit shall have a self-sealing suction line access port for reading refrigerant pressures.
6. The compressor circuit shall have a self-sealing liquid line access port for reading refrigerant pressures.
7. The compressor circuit shall have a suction valve that can be fully shut off, while liquid valve may be front seated to manage refrigerant charge while servicing system.
8. Refrigerant access ports shall be located inside the cabinet.
9. The compressor circuit shall have an automatic reset high-pressure switch to protect the compressor from extreme refrigerant pressures.
10. The compressor circuit shall have an automatic reset low-pressure switch to protect the compressor from the loss of refrigerant charge.
11. The compressor circuit shall have a hi-capacity liquid line filter-drier with 100% molecular-sieve bead type drier to protect the compressor and thermostatic expansion valve from moisture and dirt.
12. The compressor circuit shall be leak tested to 0.3 oz/year.
13. The compressor circuit shall have a R-410a refrigerant system charge.
14. Copper tubing shall not touch sharp metal surfaces.
15. Shall have a 4-way interchange-reversing valve that switches unit from cooling to heating. Reversing valve shall operate on pressure differential between outdoor unit and indoor unit of the system

D. Outdoor coils:
1. Shall be constructed with enhanced aluminum fins mechanically bonded to copper tubes and be pressure leak tested to 500 psig (3477 kPa).
2. A maximum fin per inch count of 22 shall be used for cleanability.

E. Compressors:
1. Shall be Copeland® Ultra Tech™ two stage scroll type with sweat connections for the suction and discharge lines.
2. Shall provide two-stage operation.
3. Shall contain a slider ring, internal solenoid and two bypass ports on the fixed scroll to allow compressor to operate at 67% capacity.
4. Shall be resiliently mounted.
5. Shall have thermal overload protection for all windings with automatic reset.
6. Shall have crankcase heaters.
7. Shall have a voltage application range of + 10% / -5 % of unit nameplate voltage.
8. Shall be refrigerant cooled.
9. Shall be isolated from the outdoor fan air stream to allow system operation check without disrupting airflow.
10. Shall have reverse rotation protection.

F. Heating / Cooling Controls:
1. Shall support up to two stages of cooling or heating from a thermostat or an external DDC controller.
2. Shall have a high-pressure switch with automatic reset to protect the compressor from extreme pressures.
3. Shall have a low pressure switch with automatic reset to protect the compressor from loss of charge and the evaporator coil from freezing.
4. Shall have a Discharge Temperature Switch that shuts off the unit if operating conditions cause the compressor discharge line temperature to rise above setpoint. If temperature drops below setpoint, switch shall automatically reset
5. Shall have a solid-state Defrost Control with anti-short cycle (5 minutes) incorporated into the board. Will provide a demand defrost cycle whenever the system heating performance falls below optimum levels.
6. Complete service access shall be provided for controls.

G. Outdoor Fan Motor:
1. Shall be direct drive type with permanently lubricated sleeve bearings.
2. Shall have thermal overload protection with automatic reset and be watertight.
3. Motor mount shall be isolated from the fan safety guard.
4. Shall include a rain shield to provide additional protection from moisture.
5. Shall have ability to remove the motor without removing the top panel of the unit.

H. Outdoor Fans
1. Shall be propeller type constructed of corrosion resistant material and discharge vertically with a finger safety guard.
2. Shall have ability to remove the fan without removing the top panel of the unit.

2.4 ACCESSORIES

A. Hail Guards:
1. Shall be available for field installation.
2. Hail guards constructed of galvanized steel, 22 gauge bird screen with Powder paint finish metal salt spray tested for 1,000 hours ASTM B117.

B. Mounting base:
1. Shall be available for field installation.
2. Constructed of high-density polyethylene structural material.

C. Refrigerant Line Kit:
1. Shall be available for field installation on 3 and 4-ton units only.
2. Shall include both vapor and liquid lines.
3. Refrigerant line kits shall be clean when shipped.
4. Refrigerant lines shall be cleaned, dried, and sealed at the factory.
5. Vapor lines shall be fully insulated.

D. Low Ambient Kit, Operation to 30° F (-1° C):
1. Shall be available for field installation.
2. Shall provide unit operation to 30° F (-1° C).

E. Low Ambient Kit, Operation to 0° F (-18° C):
1. Shall be available for field installation.
2. Shall provide unit operation to 0° F (-18° C).

F. Mild Weather Kit:
1. Shall be available for field installation.
2. Shall provide heating unit operation above 75° F (23.88° C).

G. Freezestat
1. Shall be available for field installation
2. Shall cycle the compressor off when suction line temperature falls below the desired set point.

H. Indoor Blower Speed Relay Kit
1. Shall be available for field installation
2. Shall reduce indoor blower speed during continuous fan or first-stage compressor operation.

I. Time Delay Relay
1. Shall be available for field installation
2. Shall delay the indoor blower-off time during the cooling cycle.

2.5 SOURCE QUALITY CONTROL

A. Tests, Inspections:
1. Unit shall be run tested at the factory.

B. Verification of Performance:
1. Factory run test record shall be available for review if requested.

PART 3 EXECUTION

3.1 INSTALLERS

A. Installers shall be manufacturer trained.

B. Installers shall be trained in installation of R-410A equipment.

3.2 EXAMINATION

A. Site shall be examined and deemed acceptable to receive the units prior to installation.

3.3 INSTALLATION

A. Unit shall be installed per manufacturer's instructions.

3.4 CONSTRUCTION

A. Interface with Other Work
1. Unit shall be compatible with building automation system described in Section 15900.

B. Sequences of Operation
1. Unit shall have two stages of heating and cooling.
2. Refrigeration system and outdoor fan shall operate when a demand for cooling is received from the building automation system (depending on low ambient temperature setting).
3. Refrigeration system and outdoor fan shall operate when a demand for heating is received from the building automation system.

3.5 FIELD QUALITY CONTROL

A. Site Tests, Inspection:
1. Equipment Operation Test shall be conducted by manufacturer-trained contractor to verify proper operation.

LENNOX®

COMMERCIAL COMFORT SYSTEMS

- For the latest technical information, visit us at www.lennox.com.
- For online ordering and warranty access, contractors with Lennox customer accounts visit www.lennoxdavenet.com
- Contact us at 1-800-4-LENNOX

CERTIFICATION APPLIES ONLY WHEN THE COMPLETE SYSTEM IS LISTED WITH ARI