



ENGINEERING DATA

PACKAGED HEAT PUMPS

ELITE 10™  
PACKAGED HEAT PUMPS

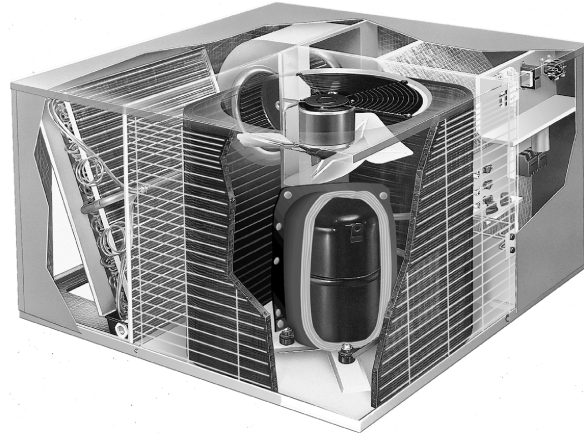
CHP29

(2 To 5 Ton)  
(7.0 To 17.6 kW)

\*23,000 to 59,000 Btuh (6.7 to 17.3 kW) Cooling Capacity  
\*22,600 to 59,000 Btuh (6.6 to 17.3 kW) Heating Capacity  
12,800 to 85,300 Btuh (3.8 To 25.0 Kw) Optional Electric Heat

Bulletin No. 210104  
October 1997  
Supersedes November 1996

\*ARI Certified Ratings



FEATURES

Applications

- Designed for outdoor installations at ground level or rooftop for residential applications.

Approvals

- Ratings are certified by E.T.L.
- Cooling ratings according to DOE test procedures.
- Cooling ratings in accordance with ARI Standard 210/240-94.
- Units are listed by E.T.L. for U.S. and Canada.
- Packaged unit and components within bonded for grounding to meet safety standards required by E.T.L.
- Developed in accordance with ISO 9001 quality standards.
- Each unit test operated at the factory before shipment ensuring dependable operation at start-up.

Equipment Warranty

- Compressor - 5 year limited warranty.
- Parts - 5 year limited warranty on covered components.
- Refer to warranty certificate included with unit for specific details.

Refrigeration System

- External service gauge ports.

Compressor

- Heavy duty, high efficiency reciprocating compressor.
- Overload protected.
- Running gear spring mounted within sealed housing.
- Resiliently mounted on rubber mounts.

Defrost Control

- Solid-state defrost control furnished as standard equipment.
- Gives a defrost cycle (14 minutes) for every 30, 60 or 90 minutes (adjustable) of compressor "on" time at outdoor temperatures below 35°F (2°C).
- Sensor mounted on liquid line determines when defrost cycle is required and also when to terminate cycle.

Indoor and Outdoor Coils

- Copper tube with enhanced fin coils.

Outdoor Coil Fan

- Weather protected heavy duty condenser fan motor with aluminum fan for long life.
- Totally enclosed motor.

Supply Air Blower

- Insulated compartment to reduce sound.
- Easy service split ring design with quick plug-in wiring.
- Multi-speed motor for wide airflow range.
- PSC pre-lubricated motor for low maintenance and maximum efficiency.
- Dynamically balanced blower with resilient motor mounts for smooth and quiet operation.

Controls

- Solid-state blower control.
- Two pole contactor for improved reliability.
- Trade available components.
- Color coded wiring for easy service.

Cabinet

- Low Profile.
- Compact footprint.
- Fully insulated to minimize heat loss.
- Powder paint for maximum durability.
- Easy service access.
- Coil guard furnished.
- One piece "no leak" top design.
- Interchangeable panel for horizontal to down-flow airflow conversion (shipped for horizontal).

Air Filters (Required)

- Not furnished must be field provided.
- Filter rack furnished.

OPTIONAL ACCESSORIES - Must Be Ordered Extra

Thermostat (Optional)

- Not furnished must be ordered extra.

Accessories (Optional)

- Electric Heat (5-25 kW)
- Outdoor Thermostat Kit
- Timed-Off Control (5 minutes)
- Low Ambient Control Kit
- High Pressure Switch Kit (Auto-Reset)



# SPECIFICATIONS

Model No.		CHP29-024	CHP29-030	CHP29-036	CHP29-042	CHP29-048	CHP29-060	
ARI Cooling Ratings	Cooling Capacity — Btuh (kW)	23,000 (6.7)	29,000 (8.5)	34,000 (10.0)	40,000 (11.7)	48,000 (14.1)	59,000 (17.3)	
	Total unit watts	2500	3185	3775	4445	5335	6555	
	SEER (Btuh/Watts)	10.0						
	EER (Btuh/Watts)	9.2	9.1	9.0				
ARI Certified High Temperature Heating Ratings	Total Capacity — Btuh (kW)	22,600 (6.6)	28,600 (8.4)	34,000 (10.0)	40,000 (11.7)	47,000 (13.8)	59,000 (17.3)	
	Total unit watts	2104	2700	3160	3660	4440	5760	
	C.O.P (Coefficient of Performance)	3.1		3.15	3.2	3.1	3.0	
	HSPF — Region IV	6.8		7.0	7.2	6.8		
ARI Certified Low Temperature Heating Ratings	Total Capacity — Btuh (kW)	12,600 (3.7)	15,800 (4.6)	21,000 (6.2)	22,600 (6.6)	27,600 (8.1)	36,000 (10.5)	
	Total unit watts	1850	2310	2800	3010	4040	5275	
	C.O.P (Coefficient of Performance)	2.0		2.2		2.0		
Sound Rating Number (db)		76			80			
Refrigerant Charge (HCFC-22)		4 lbs 11 oz. (2.1 kg)	5 lbs. 0 oz. (2.3 kg)	5 lbs. 9 oz. (2.5 kg)	6 lbs 6 oz. (2.9 kg)	7 lbs. 6 oz. (5.0 kg)	11 lbs 8 oz. (5.2 kg)	
Indoor Coil Blower	Blower wheel size D x W in. (mm)	10 x 6 (254 x 152)	10 x 8 (254 x 203)		10 x 9 (254 x 229)	12 x 10 (305 x 254)		
	Motor horsepower (W)	1/2 (373)					.9 (671)	
Indoor Coil	Net face area - sq. ft. (m <sup>2</sup> )	3.6 (0.33)			4.2 (0.39)	6.1 (0.57)		
	Tube dia. - in. (mm) & No. of rows	5/16 (16.9) - 3			3/8 (9.5) - 3			
	Fins per inch (m)	14 (551)						
Outdoor Coil	Net face area - sq. ft. (m <sup>2</sup> )	10.3 (0.96)	12.3 (1.14)		14.4 (1.34)	17.5 (1.63)		
	Tube dia. - in. (mm) & No. of rows	5/16 (16.9) - 1	3/8 (9.5) - 1				3/8 (9.5) - 2	
	Fins per inch (m)	15 (591)				16 (630)	15 (591)	
Outdoor Coil Fan	Diameter - in. (mm) & No. of blades	18 (457) - 4				20 (508) - 4		
	Air Volume - cfm (L/s)	2100 (990)		2300 (1085)		3000 (1415)		
	Motor horsepower (W)	1/8 (93)		1/4 (187)				
	Motor watts	170		250		325		
Condensate drain size fpt - in. (mm)		(1) 3/4 (19)						
No. & size of filters - in. (mm)		(1) 24 x 25 x 1 (610 x 635 x 25)			(1) 28 x 25 x 1 (711 x 635 x 25)		(1) 30 x 30 x 1 (762 x 762 x 25)	
Net weight of basic unit - lbs. (kg)		260 (118)	280 (127)	300 (136)	330 (149)	420 (195)	440 (200)	
Shipping weight of basic unit - lbs. (kg) (1 Package)		275 (125)	295 (134)	315 (143)	345 (156)	435 (197)	455 (206)	
Electrical characteristics		208/230v-1ph-60 hz						
<b>Optional Accessories - Must be Ordered Extra</b>								
Supplemental Electric Heat - kW range		05-07-10	05-07-10-15-20			10-15-20-25		
Low Ambient Control Kit		<b>42K88</b>						
Timed-Off Control		<b>42K90</b>						
Outdoor Thermostat Kit	Thermostat Kit	LB-29740BA ( <b>56A87</b> )						
	Mounting Box	M-1595 ( <b>31461</b> )						
High Pressure Switch		<b>42K89</b>						

ARI Rated in accordance with ARI Standard 210/240; 95°F (35°C) outdoor air temperature, 80°F (27°C) db / 67°F (19°C) wb entering evaporator air..

Filters are not furnished and must be ordered extra.

## ELECTRICAL DATA

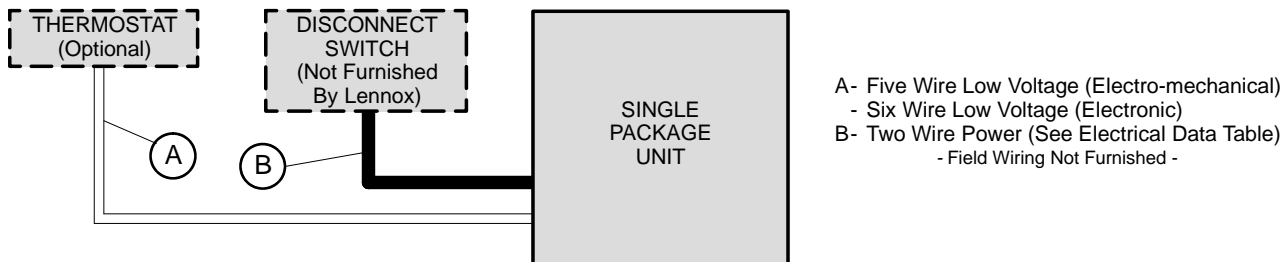
Model No.		CHP29-024	CHP29-030	CHP29-036	CHP29-042	CHP29-048	CHP29-060
Line voltage data - 60hz 1 phase		208/230v					
Compressor	Rated load amps	9.8	13.7	13.8	17.1	21.8	27.8
	Locked rotor amps	56	75	78.8	105	132	170
Outdoor Coil Fan Motor	Full load amps	0.9		1.8			
	Locked rotor amps	1.7		3.8			
Indoor Coil Blower Motor	Full load amps	2.6			3.4	5.0	
	Locked rotor amps	5.5			8.3	10.9	
① Recommended maximum fuse size or circuit breaker size (amps)		25	30		35	45	55
② Minimum Circuit Ampacity		15.8	20.6	21.7	26.6	23.7	41.6
Unit power factor		.97	.96	.98	.95	.98	

② Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirement

① NOTE - Where current does not exceed 100 amps, HACR type circuit breaker may be used in place of fuse (U.S. only).

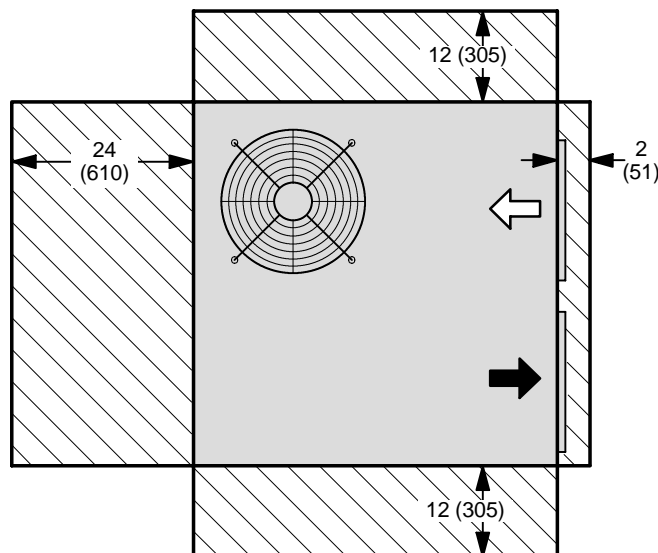
NOTE - Extremes of operating range are plus and minus 10% of line voltage.

## FIELD WIRING



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

## INSTALLATION CLEARANCES - inches (mm)



NOTE — Top Clearance Unobstructed.

## ELECTRIC HEAT DATA

Packaged Unit Model No.	Electric Heater Model No. & Net Weight	kW Input	No. of Steps & Phase	Volts Input	Electric Heat kW Input	Electric Heat Btuh Input	Heater Only Minimum Circuit Ampacity	
							Circuit 1	Circuit 2
CHP29-024	ECH29-05 <b>(71K18)</b> (4 lbs.) (2 kg)	5	1 step (1 phase)	208	3.8	12,800	25.8	----
				220	4.2	14,300	27.1	----
				230	4.6	15,700	28.3	----
				240	5.0	17,100	29.3	----
	ECH29-07 <b>(74K64)</b> (5 lbs.) (2 kg)	7	1 step (1 phase)	208	5.3	18,100	34.8	----
				220	5.9	20,100	36.7	----
				230	6.4	21,800	38.0	----
				240	7.0	23,900	39.7	----
	ECH29-10 <b>(71K19)</b> (5 lbs.) (2 kg)	10	1 step (1 phase)	208	7.5	25,600	48.4	----
				220	8.4	28,700	51.1	----
				230	9.2	31,400	53.3	----
				240	10.0	34,100	55.3	----
CHP29-030 CHP29-036	ECH29-05 <b>(71K18)</b> (4 lbs.) (2 kg)	5	1 step (1 phase)	208	3.8	12,800	25.8	----
				220	4.2	14,300	27.1	----
				230	4.6	15,700	28.3	----
				240	5.0	17,100	29.3	----
	ECH29-07 <b>(74K64)</b> (5 lbs.) (2 kg)	7	1 step (1 phase)	208	5.3	18,100	34.8	----
				220	5.9	20,100	36.7	----
				230	6.4	21,800	38.0	----
				240	7.0	23,900	39.7	----
	ECH29-10 <b>(71K19)</b> (5 lbs.) (2 kg)	10	1 step (1 phase)	208	7.5	25,600	48.4	----
				220	8.4	28,700	51.1	----
				230	9.2	31,400	53.3	----
				240	10.0	34,100	55.3	----
	ECH29-15 <b>(71K20)</b> (17 lbs.) (8 kg)	15	1 step (1 phase)	208	11.3	38,600	48.4	22.6
				220	12.6	43,000	51.1	23.8
				230	13.8	47,100	53.3	25.0
				240	15.0	51,200	55.3	26.0
	ECH29-20 <b>(71K21)</b> (20 lbs.) (9 kg)	20	1 step (1 phase)	208	15.0	51,200	48.4	45.1
				220	16.8	57,300	51.1	47.8
				230	18.4	62,800	53.3	50.0
				240	20.0	68,300	55.3	52.1
CHP29-042	ECH29-05 <b>(71K18)</b> (4 lbs.) (2 kg)	5	1 step (1 phase)	208	3.8	12,800	26.8	----
				220	4.2	14,300	28.1	----
				230	4.6	15,700	29.3	----
				240	5.0	17,100	30.3	----
	ECH29-07 <b>(74K64)</b> (5 lbs.) (2 kg)	7	1 step (1 phase)	208	5.3	18,100	35.8	----
				220	5.9	20,100	37.7	----
				230	6.4	21,800	39.0	----
				240	7.0	23,900	40.7	----
	ECH29-10 <b>(71K19)</b> (5 lbs.) (2 kg)	10	1 step (1 phase)	208	7.5	25,600	49.4	----
				220	8.4	28,700	52.1	----
				230	9.2	31,400	54.3	----
				240	10.0	34,100	56.3	----
	ECH29-15 <b>(71K20)</b> (17 lbs.) (8 kg)	15	1 step (1 phase)	208	11.3	38,600	49.4	22.6
				220	12.6	43,000	52.1	23.8
				230	13.8	47,100	53.3	25.0
				240	15.0	51,200	56.3	26.0
	ECH29-20 <b>(71K21)</b> (20 lbs.) (9 kg)	20	1 step (1 phase)	208	15.0	51,200	49.4	45.1
				220	16.8	57,300	52.1	23.8
				230	18.4	62,800	53.3	25.0
				240	20.0	68,300	56.3	52.1

☐ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

## ELECTRIC HEAT DATA

Packaged Unit Model No.	Electric Heater Model No. & Net Weight	kW Input	No. of Steps & Phase	Volts Input	Electric Heat kW Input	Electric Heat Btuh Input	Heater Only ⓘ Minimum Circuit Ampacity		
							Circuit 1	Circuit 2	Circuit 3
CHP29-048 CHP29-060	ECH29-10 (71K19) (5 lbs) (2 kg)	10	1 step (1 phase)	208	7.5	25,600	51.4	----	----
				220	8.4	28,700	54.1	----	----
				230	9.2	31,400	56.3	----	----
				240	10.0	34,100	58.4	----	----
	ECH29-15 (71K20) (18 lbs.) (8 kg)	15	1 step (1 phase)	208	11.3	38,600	51.4	22.6	----
				220	12.6	43,000	54.1	23.8	----
				230	13.8	47,100	56.3	25.0	----
				240	15.0	51,200	58.4	26.0	----
	ECH29-20 (71K21) (20 lbs.) (9 kg)	20	1 step (1 phase)	208	15.0	51,200	51.4	45.1	----
				220	16.8	57,300	54.1	47.8	----
				230	18.4	62,800	56.3	50.0	----
				240	20.0	68,300	58.4	52.1	----
	ECH29-25 (71K22) (20 lbs.) (9 kg)	25	1 step (1 phase)	208	18.8	64,200	51.7	45.1	22.6
				220	21.0	71,700	54.1	47.8	23.8
				230	23.0	78,500	56.3	50.0	25.0
				240	25.0	85,300	58.4	52.1	26.0

ⓘ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F (75°C).

## BLOWER DATA

### CHP29-024 BLOWER PERFORMANCE

#### ⓘ Horizontal Air Flow

External Static Pressure		Air Volume at Various Blower Speeds					
		High		Medium		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s
.20	50	1100	520	940	445	850	400
.30	75	1060	500	890	420	800	380
.40	100	1000	470	870	410	790	375
.50	125	940	445	840	395	770	365
.60	150	880	415	800	380	750	355
.70	175	800	380	720	385	670	315
.80	200	720	340	660	310	600	285

ⓘ For down-flow air volume, add 0.10 in. w.g. (25 Pa) to duct static.  
NOTE — All air data is measured external to unit without air filters.

### CHP29-042 BLOWER PERFORMANCE

#### ⓘ Horizontal Air Flow

External Static Pressure		Air Volume at Various Blower Speeds					
		High		Medium		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s
.20	50	1640	775	1570	740	1480	700
.30	75	1560	735	1500	710	1430	675
.40	100	1500	710	1440	680	1360	640
.50	125	1400	660	1340	630	1290	610
.60	150	1300	615	1270	600	1230	580
.70	175	1260	595	1200	565	1170	550
.80	200	1160	545	1100	520	1050	495

ⓘ For down-flow air volume, add 0.10 in. w.g. (25 Pa) to duct static.  
NOTE — All air data is measured external to unit without air filters.

### CHP29-030 AND CHP29-036 BLOWER PERFORMANCE

#### ⓘ Horizontal Air Flow

External Static Pressure		Air Volume at Various Blower Speeds					
		High		Medium		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s
.20	50	1400	660	1160	545	1050	495
.30	75	1350	635	1120	530	1020	480
.40	100	1280	605	1080	510	1000	470
.50	125	1200	565	1030	485	950	450
.60	150	1120	530	980	460	910	430
.70	175	1030	485	900	425	840	395
.80	200	920	435	780	370	750	355

ⓘ For down-flow air volume, add 0.10 in. w.g. (25 Pa) to duct static.  
NOTE — All air data is measured external to unit without air filters.

### CHP29-048 AND CHP29-060 BLOWER PERFORMANCE

#### ⓘ Horizontal Air Flow

External Static Pressure		Air Volume at Various Blower Speeds					
		High		Medium		Low	
in. w.g.	Pa	cfm	L/s	cfm	L/s	cfm	L/s
.20	50	2150	1015	1920	905	1750	825
.30	75	2100	990	1870	880	1720	810
.40	100	2030	960	1790	845	1650	780
.50	125	1950	920	1730	815	1600	755
.60	150	1875	885	1650	780	1550	730
.70	175	1750	825	1580	745	1480	700
.80	200	1650	780	1500	710	1400	660

ⓘ For down-flow air volume, add 0.10 in. w.g. (25 Pa) to duct static.  
NOTE — All air data is measured external to unit without air filters.

# RATINGS

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

## CHP29-024 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)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
			cfm	L/s		kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb
					75°F 24°C			80°F 27°C	85°F 29°C	75°F 24°C	80°F 27°C			85°F 29°C	75°F 24°C	80°F 27°C	85°F 29°C			75°F 24°C	80°F 27°C	85°F 29°C				
63°F (17°C)	700	330	22.5	6.6	1910	0.76	0.91	1.00	20.9	6.1	2010	0.77	0.91	1.00	17.6	5.2	2080	0.89	0.92	1.00	15.4	4.5	2170	0.94	0.95	1.00
	800	380	23.0	6.7	1920	0.77	0.93	1.00	21.3	6.2	2020	0.78	0.93	1.00	18.0	5.3	2090	0.90	0.94	1.00	15.7	4.6	2190	0.95	0.97	1.00
	900	425	23.3	6.8	1940	0.85	0.99	1.00	21.6	6.3	2040	0.86	1.00	1.00	18.2	5.3	2120	0.99	0.99	1.00	15.9	4.7	2210	0.99	0.99	1.00
67°F (19°C)	700	330	24.0	7.0	1960	0.59	0.72	0.87	22.5	6.6	2080	0.60	0.74	0.89	200.7	6.1	2190	0.61	0.75	0.90	18.0	5.3	2290	0.67	0.83	0.97
	800	380	24.5	7.2	1970	0.59	0.74	0.89	23.0	6.7	2100	0.61	0.76	0.92	21.2	6.2	2210	0.62	0.77	0.93	18.4	5.4	2310	0.68	0.85	1.00
	900	425	24.8	7.3	1990	0.65	0.80	0.93	23.3	6.8	2120	0.67	0.82	0.96	21.5	6.3	2230	0.68	0.83	0.97	18.7	5.5	2330	0.75	0.92	1.00
71°F (22°C)	700	330	25.7	7.5	2010	0.51	0.55	0.71	26.1	7.6	2160	0.53	0.57	0.64	23.4	6.9	2290	0.53	0.58	0.70	20.9	6.1	2420	0.59	0.64	0.73
	800	380	26.2	7.7	2030	0.52	0.56	0.72	26.6	7.8	2180	0.53	0.58	0.65	23.9	7.0	2310	0.54	0.59	0.71	21.4	6.3	2440	0.60	0.65	0.74
	900	425	26.6	7.8	2050	0.57	0.61	0.75	27.0	7.9	2200	0.59	0.63	0.68	24.3	7.1	2330	0.59	0.63	0.74	21.7	6.4	2460	0.65	0.70	0.77

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

## CHP29-024 - 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		kBtuh	kW			
700	330	28.2	8.3	1910	21.9	6.4	1540	15.4	4.5	1290	10.1	2.9	910	1.6	5.6	690					
800	380	28.5	8.4	1825	22.1	6.5	1550	15.6	4.6	1300	10.3	3.0	920	1.7	5.7	695					
900	425	28.8	8.4	1840	22.3	6.6	1565	15.8	4.6	1310	10.4	3.0	925	1.7	5.7	700					

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

## CHP29-030 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)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
			cfm	L/s		kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb
					75°F 24°C			80°F 27°C	85°F 29°C	75°F 24°C	80°F 27°C			85°F 29°C	75°F 24°C	80°F 27°C	85°F 29°C			75°F 24°C	80°F 27°C	85°F 29°C				
63°F (17°C)	875	415	28.4	8.3	2360	0.74	0.89	1.00	25.7	7.5	2430	0.75	0.88	1.00	24.2	7.0	2640	0.78	0.89	1.00	19.7	5.8	2710	0.90	0.90	1.00
	1000	470	29.0	8.5	2380	0.75	0.91	1.00	26.2	7.7	2450	0.76	0.90	1.00	24.7	7.2	2660	0.79	0.91	1.00	20.1	5.9	2730	0.91	0.92	1.00
	1125	530	29.4	8.6	2400	0.82	0.98	1.00	26.6	7.8	2470	0.84	0.98	1.00	25.1	7.4	2690	0.87	0.98	1.00	20.4	6.0	2760	0.99	0.99	1.00
67°F (19°C)	875	415	30.2	8.9	2420	0.57	0.70	0.84	28.4	8.3	2580	0.59	0.73	0.87	25.7	7.5	2710	0.60	0.74	0.89	23.0	6.7	2840	0.63	0.78	0.93
	1000	470	30.9	9.1	2440	0.58	0.72	0.87	29.0	8.5	2590	0.59	0.74	0.90	26.3	7.7	2730	0.61	0.76	0.92	23.4	6.9	2860	0.64	0.80	0.96
	1125	530	31.3	9.2	2460	0.63	0.78	0.91	29.4	8.6	2610	0.65	0.80	0.93	26.7	7.8	2750	0.67	0.82	0.96	23.8	7.0	2890	0.70	0.86	0.99
71°F (22°C)	875	415	32.4	9.5	2490	0.50	0.54	0.69	29.0	8.5	2520	0.51	0.55	0.62	27.6	8.1	2780	0.53	0.57	0.73	25.4	7.4	2930	0.55	0.60	0.68
	1000	470	33.0	9.7	2500	0.50	0.55	0.70	29.6	8.7	2530	0.52	0.56	0.63	28.1	8.2	2800	0.53	0.58	0.74	25.9	7.6	2950	0.56	0.61	0.69
	1125	530	33.5	9.8	2530	0.55	0.59	0.73	30.0	8.8	2560	0.57	0.61	0.66	28.5	8.4	2830	0.59	0.63	0.77	26.3	7.7	2980	0.62	0.66	0.72

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

## CHP29-030 - 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		kBtuh	kW			
875	415	35.7	10.4	2320	27.7	8.1	1980	19.5	5.7	1665	12.8	3.8	1185	7.1	2.1	910					
1000	470	36.1	10.6	2335	28.0	8.2	1995	19.8	5.8	1675	13.0	3.8	1195	7.2	2.1	915					
1125	530	36.4	10.7	2360	28.3	8.3	2015	19.9	5.8	1690	13.1	3.9	1205	7.2	2.1	925					

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

# RATINGS

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

## CHP29-036 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)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
			kBtuh	kW		Dry Bulb			kBtuh	kW		Dry Bulb			kBtuh	kW		Dry Bulb			kBtuh	kW		Dry Bulb		
					75°F 24°C	80°F 27°C	85°F 29°C	75°F 24°C			80°F 27°C	85°F 29°C	75°F 24°C	80°F 27°C			85°F 29°C	75°F 24°C	80°F 27°C	85°F 29°C						
63°F (17°C)	1050	495	33.3	9.8	2900	0.75	0.90	1.00	31.1	9.1	3040	0.75	0.90	1.00	28.7	8.4	3290	0.78	0.89	1.00	23.2	6.8	3380	0.88	0.93	1.00
	1200	565	34.0	10.0	2920	0.76	0.92	1.00	31.7	9.3	3060	0.76	0.92	1.00	29.3	8.5	3320	0.79	0.91	1.00	23.7	6.9	3410	0.90	0.93	1.00
	1350	635	34.5	10.1	2950	0.83	0.99	1.00	32.2	9.4	3090	0.84	0.99	1.00	29.7	8.7	3350	0.87	0.98	1.00	24.0	7.0	3440	0.99	1.00	1.00
67°F (19°C)	1050	495	35.5	10.4	2980	0.58	0.71	0.86	33.3	9.8	3160	0.59	0.74	0.88	30.5	8.9	3380	0.60	0.74	0.89	27.5	8.1	3550	0.62	0.76	0.91
	1200	565	36.2	10.6	3000	0.58	0.73	0.88	34.0	10.0	3190	0.60	0.75	0.91	31.1	9.1	3400	0.61	0.76	0.92	28.0	8.2	3580	0.62	0.78	0.94
	1350	635	36.7	10.8	3030	0.64	0.79	0.92	34.5	10.1	3220	0.66	0.81	0.94	31.6	9.3	3430	0.67	0.82	0.96	28.5	8.4	3620	0.69	0.84	0.96
71°F (22°C)	1050	495	37.9	11.1	3060	0.51	0.55	0.70	35.3	10.3	3180	0.52	0.56	0.62	32.7	9.6	3470	0.53	0.57	0.73	31.3	9.2	3690	0.54	0.58	0.70
	1200	565	38.7	11.3	3080	0.51	0.56	0.71	36.0	10.6	3200	0.53	0.57	0.63	33.3	9.8	3500	0.53	0.58	0.74	31.9	9.3	3720	0.55	0.60	0.71
	1350	635	39.3	11.5	3110	0.56	0.60	0.74	36.6	10.7	3230	0.58	0.62	0.66	33.8	9.9	3530	0.59	0.63	0.77	32.4	9.5	3760	0.60	0.64	0.74

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

## CHP29-036 - 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	Total Heating Capacity		Comp. Motor kW Input		
kBtuh	kW	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW						
cfm	L/s																				
1050	495	42.4	12.4	2680	32.9	9.6	2280	23.2	6.8	1910	15.3	4.5	1350	8.4	2.5	1020					
1200	565	43.0	12.6	2700	33.3	9.8	2295	23.5	6.9	1925	15.5	4.5	1360	8.5	2.5	1030					
1350	635	43.3	12.7	2725	33.6	9.9	2320	23.7	7.0	1940	15.6	4.6	1370	8.6	2.5	1040					

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

## CHP29-042 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)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
			kBtuh	kW		Dry Bulb			kBtuh	kW		Dry Bulb			kBtuh	kW		Dry Bulb			kBtuh	kW		Dry Bulb		
					75°F 24°C	80°F 27°C	85°F 29°C	75°F 24°C			80°F 27°C	85°F 29°C	75°F 24°C	80°F 27°C			85°F 29°C	75°F 24°C	80°F 27°C	85°F 29°C						
63°F (17°C)	1250	590	39.2	11.5	3290	0.75	0.90	1.00	38.3	11.2	3360	0.77	0.90	1.00	35.4	10.4	3670	0.78	0.89	1.00	29.9	8.8	3750	0.86	0.95	1.00
	1400	660	40.0	11.7	3310	0.76	0.92	1.00	39.1	11.5	3390	0.78	0.92	1.00	36.1	10.6	3700	0.79	0.91	1.00	30.5	8.9	3770	0.87	0.97	1.00
	1550	730	40.6	11.9	3350	0.83	0.99	1.00	39.7	11.6	3420	0.86	0.99	1.00	36.6	10.7	3740	0.87	0.98	1.00	31.0	9.1	3810	0.96	0.99	1.00
67°F (19°C)	1250	590	41.7	12.2	3370	0.58	0.71	0.86	39.2	11.5	3590	0.59	0.74	0.88	37.6	11.0	3760	0.60	0.74	0.89	33.1	9.7	3970	0.67	0.82	0.97
	1400	660	42.6	12.5	3400	0.58	0.73	0.88	40.0	11.7	3610	0.60	0.75	0.91	38.4	11.3	3790	0.61	0.76	0.92	33.8	9.9	4000	0.67	0.84	1.00
	1550	730	43.2	12.7	3430	0.64	0.79	0.92	40.6	11.9	3650	0.66	0.81	0.94	39.0	11.4	3830	0.67	0.82	0.96	34.3	10.1	4040	0.74	0.91	1.00
71°F (22°C)	1250	590	44.6	13.1	3470	0.51	0.55	0.70	44.2	13.0	3720	0.52	0.56	0.65	40.3	11.8	3870	0.53	0.57	0.73	36.0	10.6	4190	0.58	0.63	0.73
	1400	660	45.5	13.3	3490	0.51	0.56	0.71	45.1	13.2	3750	0.53	0.57	0.66	41.1	12.0	3900	0.53	0.58	0.74	36.8	10.8	4220	0.59	0.64	0.74
	1550	730	46.2	13.5	3530	0.56	0.60	0.74	45.7	13.4	3790	0.58	0.62	0.69	41.7	12.2	3940	0.59	0.63	0.77	37.3	10.9	4270	0.65	0.69	0.77

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

## CHP29-042 - 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	Total Heating Capacity		Comp. Motor kW Input		
kBtuh	kW	kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW		kBtuh	kW						
cfm	L/s																				
1250	590	49.9	14.6	3165	38.7	11.4	2705	27.3	8.0	2280	18.0	5.3	1630	9.9	2.9	1255					
1400	660	50.5	14.8	3190	39.2	11.5	2725	27.6	8.1	2295	18.2	5.3	1640	10.0	2.9	1265					
1550	730	51.0	14.9	3220	39.5	11.6	2750	27.9	8.2	2315	18.4	5.4	1660	10.1	3.0	1275					

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

# RATINGS

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

## CHP29-048 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)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
			cfm	L/s		kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb
					75°F 24°C			80°F 27°C	85°F 29°C	75°F 24°C	80°F 27°C			85°F 29°C	75°F 24°C	80°F 27°C	85°F 29°C			75°F 24°C	80°F 27°C	85°F 29°C				
63°F (17°C)	1400	660	47.0	13.8	4190	0.73	0.88	1.00	43.7	12.8	4440	0.76	0.87	1.00	38.2	11.2	4870	0.86	0.89	1.00	34.4	10.1	5350	0.90	0.90	1.00
	1600	755	48.0	14.1	4220	0.74	0.89	1.00	44.6	13.1	4470	0.77	0.89	1.00	39.0	11.4	4900	0.87	0.91	1.00	35.1	10.3	5390	0.91	0.92	1.00
	1800	850	48.7	14.3	4260	0.81	0.97	1.00	45.3	13.3	4510	0.85	0.96	1.00	39.6	11.6	4950	0.96	0.98	1.00	35.6	10.4	5440	0.98	0.99	1.00
67°F (19°C)	1400	660	50.1	14.7	4290	0.56	0.70	0.83	47.0	13.8	4560	0.58	0.72	0.86	43.9	12.9	5040	0.60	0.74	0.89	39.8	11.7	5560	0.63	0.78	0.93
	1600	755	51.1	15.0	4320	0.57	0.71	0.86	48.0	14.1	4590	0.58	0.73	0.88	44.8	13.1	5070	0.61	0.76	0.92	40.6	11.9	5600	0.64	0.80	0.96
	1800	850	51.8	15.2	4360	0.62	0.77	0.89	48.7	14.3	4640	0.64	0.79	0.92	45.5	13.3	5120	0.67	0.82	0.96	41.2	12.1	5650	0.70	0.86	0.99
71°F (22°C)	1400	660	53.6	15.7	4410	0.49	0.53	0.68	53.5	15.7	4690	0.51	0.55	0.64	49.8	14.6	5190	0.53	0.57	0.66	46.0	13.5	5760	0.55	0.60	0.69
	1600	755	54.6	16.0	4440	0.50	0.54	0.69	54.6	16.0	4720	0.51	0.56	0.65	50.8	14.9	5230	0.53	0.58	0.67	46.9	13.7	5800	0.56	0.61	0.70
	1800	850	55.5	16.3	4490	0.55	0.58	0.72	55.4	16.2	4770	0.56	0.60	0.68	51.6	15.1	5280	0.59	0.63	0.70	47.6	14.0	5860	0.62	0.66	0.73

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

## CHP29-048 - 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	Total Heating Capacity		Comp. Motor kW Input		
cfm	L/s	kBtuh		kW	kBtuh		kW	kBtuh		kW	kBtuh		kW	kBtuh		kW	kBtuh		kW	kBtuh
1400	660	57.4	16.8	3710	44.5	13.1	3160	31.4	9.2	2655	20.7	6.1	1885	11.4	3.3	1435				
1600	755	58.1	17.0	3735	45.1	13.2	3185	31.8	9.3	2675	20.9	6.1	1900	11.5	3.4	1445				
1800	850	58.6	17.2	3770	45.5	13.3	3215	32.1	9.4	2695	21.1	6.2	1915	11.6	3.4	1460				

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

## CHP29-060 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)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
			cfm	L/s		kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb				kBtuh	kW	Dry Bulb
					75°F 24°C			80°F 27°C	85°F 29°C	75°F 24°C	80°F 27°C			85°F 29°C	75°F 24°C	80°F 27°C	85°F 29°C			75°F 24°C	80°F 27°C	85°F 29°C				
63°F (17°C)	1750	825	57.8	16.9	4660	0.73	0.88	1.00	49.2	14.4	4950	0.77	0.87	1.00	43.8	12.8	5380	0.85	0.91	1.00	38.8	11.4	5870	0.89	0.90	1.00
	2000	945	59.0	17.3	4700	0.74	0.89	1.00	50.2	14.7	4980	0.78	0.89	1.00	44.7	13.1	5420	0.86	0.92	1.00	39.5	11.6	5910	0.90	0.92	1.00
	2250	1060	59.9	17.6	4740	0.81	0.97	1.00	50.9	14.9	5030	0.86	0.96	1.00	45.4	13.3	5470	0.95	0.97	1.00	40.1	11.8	5970	0.98	0.99	1.00
67°F (19°C)	1750	825	61.5	18.0	4780	0.56	0.70	0.83	57.8	16.9	5080	0.58	0.72	0.86	50.0	14.7	5590	0.61	0.75	0.90	45.5	13.3	6140	0.63	0.77	0.92
	2000	945	62.8	18.4	4810	0.57	0.71	0.86	59.0	17.3	5110	0.58	0.73	0.88	51.0	15.0	5630	0.62	0.77	0.93	46.5	13.6	6180	0.63	0.79	0.95
	2250	1060	63.7	18.7	4860	0.62	0.77	0.89	59.9	17.6	5170	0.64	0.79	0.92	51.8	15.2	5680	0.68	0.83	0.97	47.2	13.8	6240	0.70	0.85	0.97
71°F (22°C)	1750	825	65.8	19.3	4910	0.49	0.53	0.68	61.9	18.1	5220	0.51	0.55	0.70	56.4	16.5	5730	0.53	0.58	0.66	53.1	15.6	6340	0.55	0.59	0.68
	2000	945	67.2	19.7	4950	0.50	0.54	0.69	63.1	18.5	5260	0.51	0.56	0.71	57.5	16.9	5770	0.54	0.59	0.67	54.2	15.9	6380	0.55	0.60	0.69
	2250	1060	68.2	20.0	5000	0.55	0.58	0.72	64.1	18.8	5310	0.56	0.60	0.74	58.4	17.1	5830	0.59	0.63	0.70	55.0	16.1	6440	0.61	0.65	0.72

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

## CHP29-060 - 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	Total Heating Capacity		Comp. Motor kW Input		
cfm	L/s	kBtuh		kW	kBtuh		kW	kBtuh		kW	kBtuh		kW	kBtuh		kW	kBtuh		kW	kBtuh
1750	825	71.1	20.8	4655	55.2	16.2	3975	38.9	11.4	3345	25.6	7.5	2390	14.1	4.1	1835				
2000	945	72.0	21.1	4685	55.8	16.4	4005	39.4	11.5	3370	25.9	7.6	2410	14.3	4.2	1850				
225	1060	72.6	21.3	4730	56.3	16.5	4040	39.7	11.7	3400	26.2	7.7	2430	14.4	4.2	1865				

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



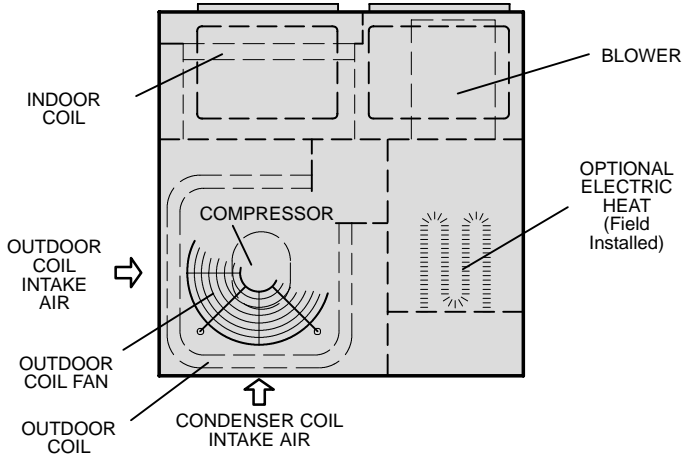
### DIMENSIONS - inches (mm)

#### CORNER WEIGHTS — lbs. (kg)

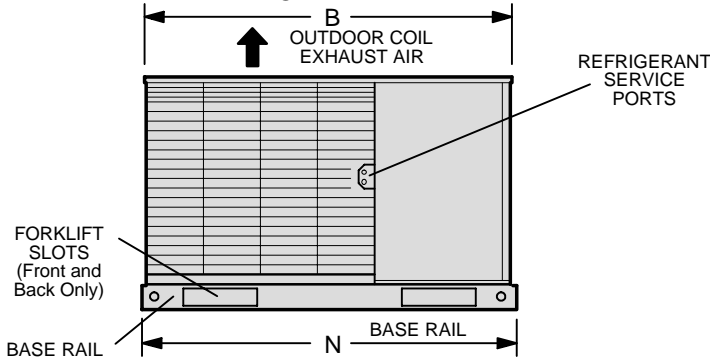
Model Number	AA		BB		CC		DD	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
CHP29-024	78	35	57	26	62	28	83	38
CHP29-030	82	37	61	28	67	30	90	41
CHP29-036	88	40	65	29	71	32	94	43
CHP29-042	96	44	71	32	78	35	103	47
CHP29-048	122	55	89	40	97	44	130	59
CHP29-060	127	58	94	43	101	46	136	62

#### CENTER OF GRAVITY — inches (mm)

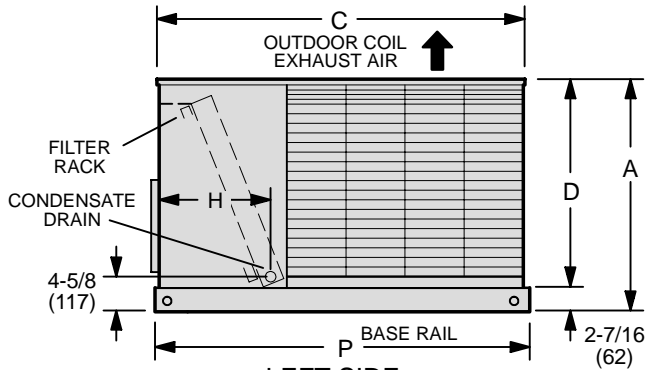
Model Number	EE		FF	
	inch	mm	inch	mm
CHP29-024	21-7/8	556	26-1/2	673
CHP29-030	21-7/8	556	26-1/2	673
CHP29-036	21-7/8	556	26-1/2	673
CHP29-042	21-7/8	556	26-1/2	673
CHP29-048	23-3/4	603	31-1/4	794
CHP29-060	23-3/4	603	31-1/4	794



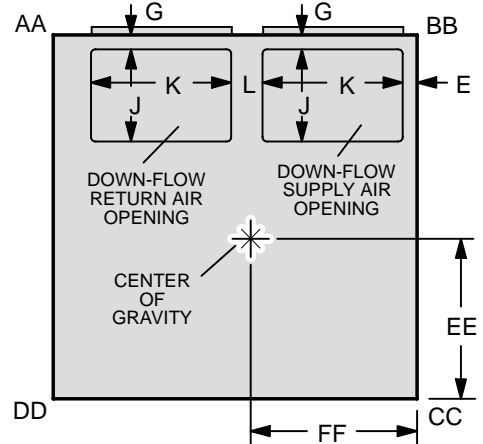
TOP VIEW



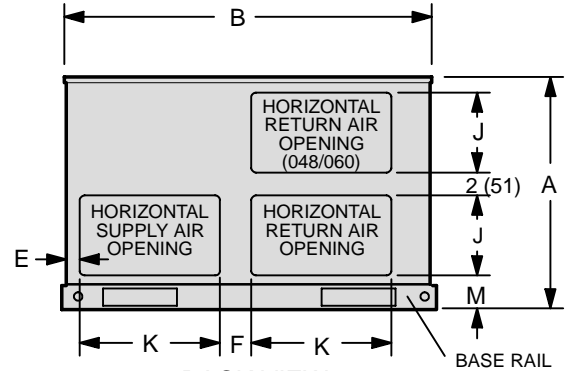
FRONT VIEW



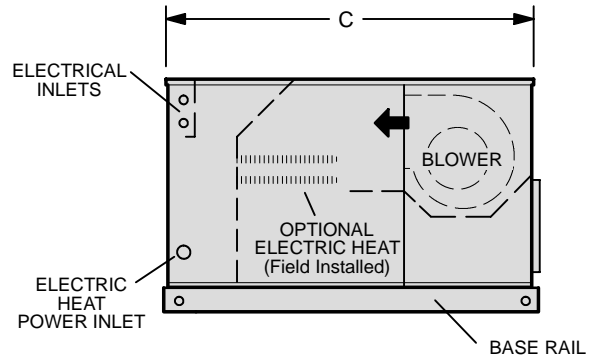
LEFT SIDE



TOP VIEW BASE SECTION



BACK VIEW



RIGHT SIDE

Model Number	A		B		C		D		E		F		G	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
CHP29-024, 030, 036	27-11/16	703	45-5/8	1159	45-5/8	1159	25-1/4	641	1-13/16	46	4	102	1-7/8	48
CHP29-042	31-11/16	805	45-5/8	1159	45-5/8	1159	29-1/4	743	1-13/16	46	4	102	1-7/8	48
CHP29-048, 060	33-11/16	856	54-11/16	1389	49-5/8	1260	31-7/16	799	1-1/8	29	6-1/4	159	2-1/4	57

Model Number	H		J		K		L		M		N		P	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
CHP29-024, 030, 036	15-5/8	397	11-1/2	292	17-1/2	445	4	102	5	127	46-3/8	1179	46-3/8	1179
CHP29-042	15-5/8	397	11-1/2	292	17-1/2	445	4	102	5	127	46-3/8	1179	46-3/8	1179
CHP29-048, 060	17-1/8	435	12	305	21-1/2	546	5-5/8	143	4-1/8	105	55-1/4	1403	50-1/2	1283