Submittal Data Sheet
Subbmittal data model no. CPFX24A36A / WSEHV2436RA1-C
36000 BTU/H AIR SOURCE HEAT PUMP with AIR HANDLER UNIT

CONTINENTAL

Approval:
Location:
Date:
Engineer:
Construction:
Unit #:
Drawing #:
Subnitted to:
Submitted by:
Reference:


WSEHV2436RA1-C CPFX24A36A

Set Model:

Indoor Unit Model No:	**CPFX24A36A**
Outdoor Unit Model No:	**WSEHV2436RA1-C**
AHRI certification No:	**211624978**
Energy Star:	**Yes**

System Rating:

Cooling:

Rated Capacity	36000 BTU/H
Capacity range	18000-37000 BTU/H
Power Input	3270 W
SEER (SEER2)	18 (16)
EER (EER2)	11 (10)

Heating:

Rated Capacity @ 47°F	36000 BTU/H
Capacity range	18000-38000 BTU/H
Power Input	3010 W
HSPF Region IV (HSPF2 Region IV)	10 (9)
COP	3.5 (3.1)
Rated Capacity @ 17°F	24400 BTU/H
Power Input	2860 W
COP	2.5

Operating Range:

Cooiling	Max	129°F (54°C)
	Min	5°F (-15°C)
Heating	Max	75°F (24°C)
	Min	- 22°F (- 30°C)

Refrigerant Piping data:

Gas Pipe Size (OD)	3/4 in	(19.05 mm)
Liquid Pipe Size (OD)	3/8 in	(9.52 mm)
Connection Method	Flared (Std), Brazing (Opt)	
Factory Charge	148.8 oz	
Additional Charge	0.3 oz/ft	
Pre-Charge Length	25 ft	(7.6 m)
Max Refirgerant Pipe Length	98 ft	(29.87 m)
Min Refirgerant Pipe Length	10 ft	(3.05 m)
Max Refirgerant Pipe Elevation	49 ft	(14.93 m)

Indoor Unit CPFX24A36A

Fan Motor Output Power	1/2 HP		
FLA	2.1 A		
Airflow	1000 CFM		
Rated External Static Pressure	0.15	in Wg	
External Static Pressure (Range)	0-.4	in Wg	
Sound Pressure level	47	dB(A)	
Dehumidification	6	pt/hr	

Power Supply (dedicated circuit: Size per local code)

Normal Operational Voltage	208/230V, 1 Phase, 60 Hz		
Voltage Range	187-253 V		
MCA	4 A	MOCP/ Breaker Size	15 A

Outdoor Unit WSEHV2436RA1-C

Compressor	DC Inverter Rotary Compressor	
RLA	16 A	
Refrigerant	R410a	
Fan Motor Output Power	1/2 HP	
FLA	1.5 A	
Crankcase Heater	40 W	
Sound Preassure level	57	dB(A)

Power Supply (dedicated circuit: Size per local code)

Normal Operational Voltage	208/230V, 1 Phase, 60 Hz
Voltage Range	187-253 V
MCA	24 A
MOCP/ Breaker Size	35 A

General Features:

Multi-speed Constant Torque (CT) ECM Blower Motor in the AHUs
All aluminum A-coil
Fully- insulated cabinet design
Integrated Filter rack with tool-less door access
Whisper Quiet Operation
24 VAC Thermostat Compatible
Anti-Corrosion Fin Coating
10 yrs limited Compressor & Part warranty (Residential Use)
Auxillary Heater compatible
Intelligent Defrosting
EEV in Outdoor Unit & TXV in Indoor Unit
Low Voltage Start up
Basepan with Electric Heater
Power Failure recovery
Self Diagnosis

Accessories (Optional)

Electrical Heat Strips

Air Handler Model	Cooling Capacity (Ton)	Optional Electric Strip Heater	
		Model	Capacity
CPFX24A/ CPFX24A36A	2.0 / 3.0	WHS5KW	5 kW
CPFX24A/ CPFX24A36A	2.0 / 3.0	WHS8KW	8 kW
CPFX24A36A/ CPFX48A/ CPFX48A60A	3.0 / 4.0 / 5.0	WHS10KW	10 kW
CPFX24A36A/ CPFX48A/ CPFX48A60A	3.0 / 4.0 / 5.0	WHS15KW	15 kW
CPFX48A/ CPFX48A60A	4.0 / 5.0	WHS20KW	20 kW

Outdoor unit accessories

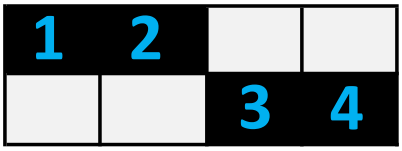
No.	Name	Appearance	Q'ty	Usage
1	Throw-over pipe		1	Connect the unit with the liquid pipe
2	Throw-over pipe		1	Connect the unit with the gas pipe

To convert Flare nut connection to Brazing connection

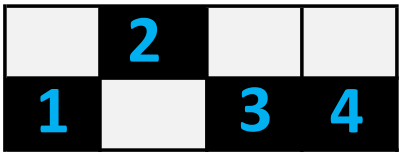
Dip Switch Settings:

CAPACITY CAN BE SWITCHED BY DIP SWITCHES OF OUTDOOR UNIT

As a standard, outdoor units comes this setting for 3 Ton & 5 Ton capacities

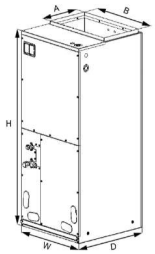


To convert to 2 Ton and 4 Ton, the following changes are made on site



Dimensional Specifications:

Indoor



W	21-1/4
D	21-1/4
H	48-1/4
A	11-5/8
B	20

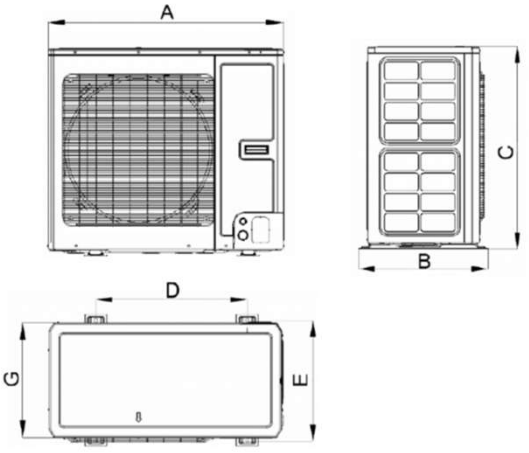
Units: inch

Net Weight (lbs)	156.5
Shipping Weight (lbs)	170

Drain Connector	3/4 in OD

Dimensional Specifications:

Outdoor



A	37
B	20-7/8
C	32-1/4
D	24
E	19-1/8
G	18-1/8

Units: inch

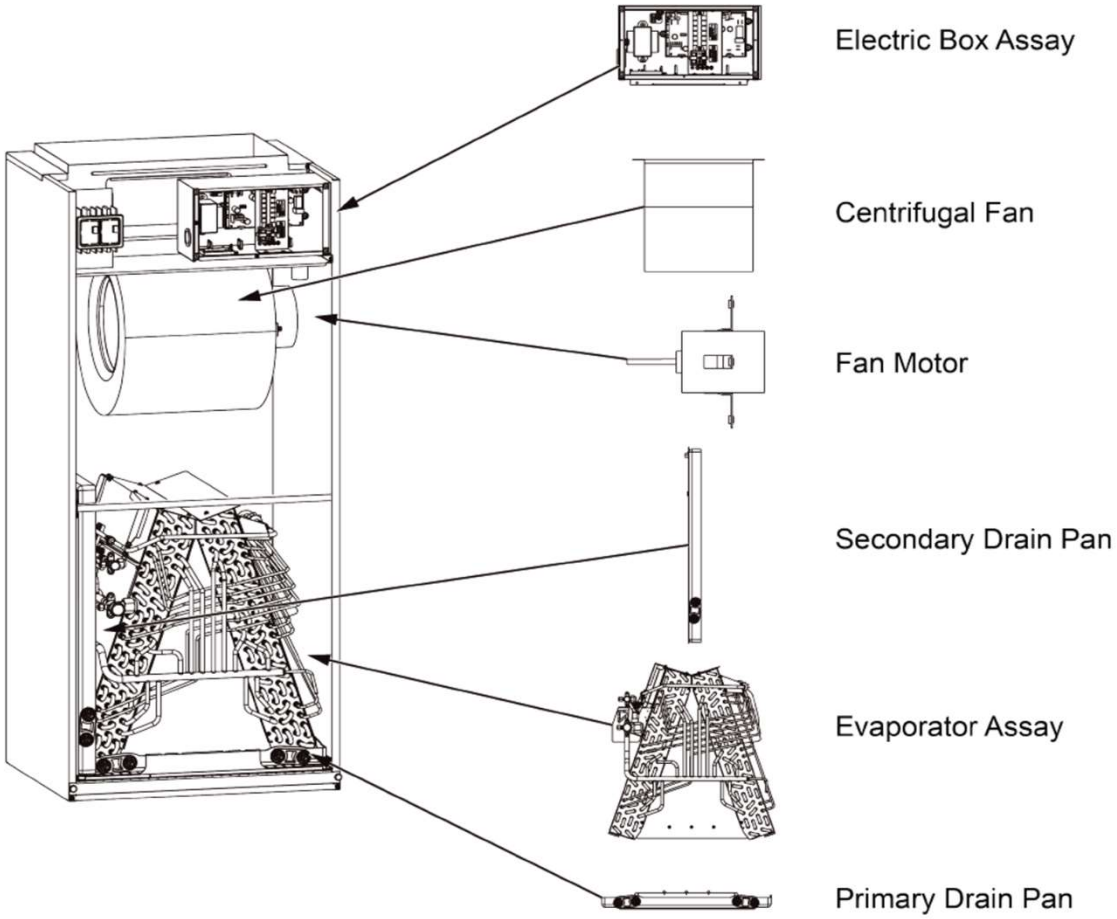
Net Weight (lbs)	217.2
Shipping Weight (lbs)	240

Notes:

1. Power wiring size must comply with applicable National/ Regional/ Provincial/ State Codes for both Indoor & Outdoor unit Dedicated Circuit
2. Test Conditions are based on AHRI 210/240

Main Parts

INDOOR

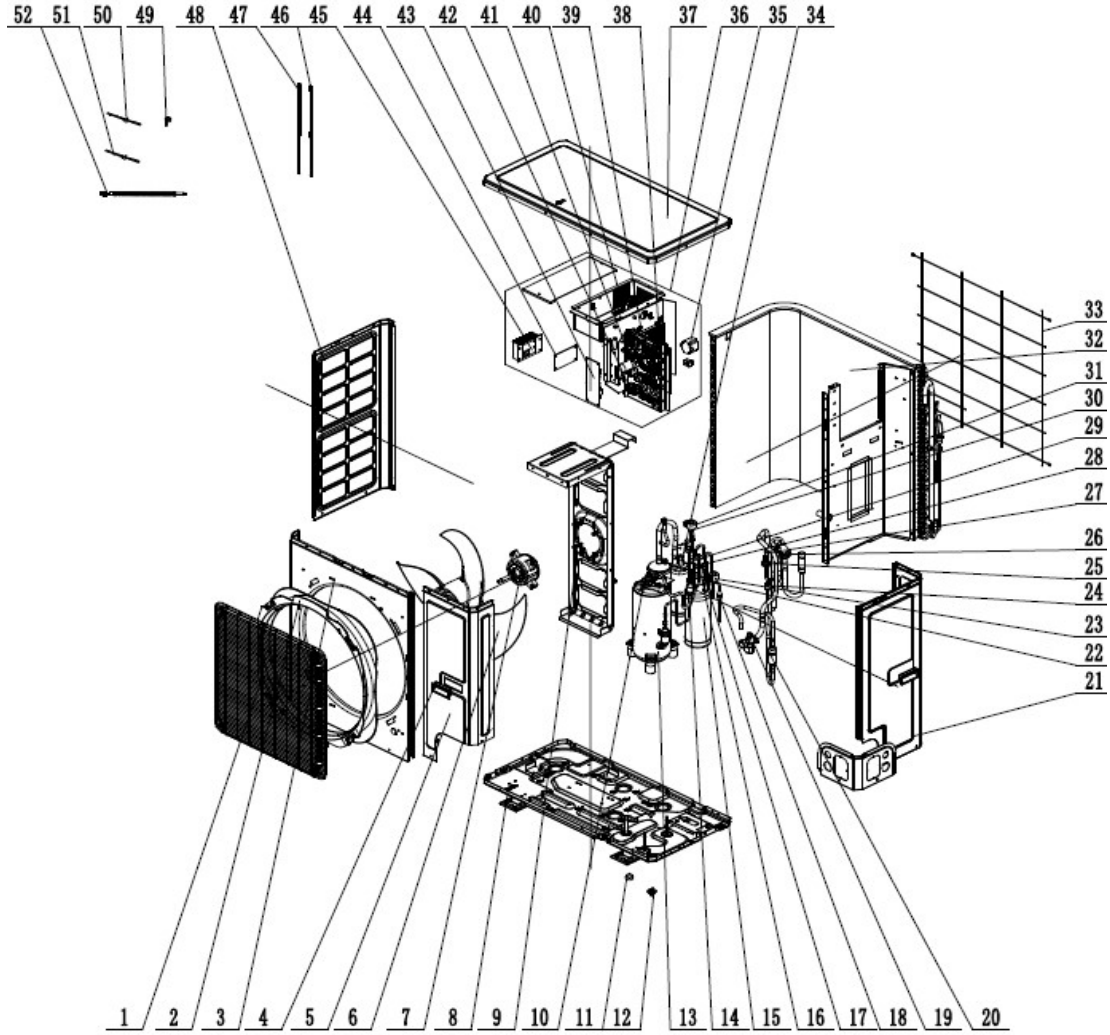


Model	Filter size
NPFX24A36A	490×516×15
NPFX48A60A	525×516×15

Unit: mm

Main Parts

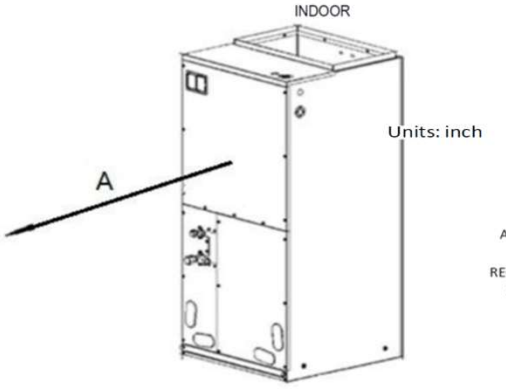
OUTDOOR



52	Corrugated Pipe
51	Temperature Sensor
50	Temperature Sensor
49	Magnet Coil
48	Left Side Plate
47	Electrical Heater(Compressor)
46	Electrical Heater
45	Radiator
44	Power Switch
43	Filter Board
42	Terminal Board
41	Terminal Board
40	PFC Inductance
39	Main Board
38	Main Board
37	Coping
36	Electric Box Assy
35	Inductance
34	Gas-liquid Separator
33	Rear Grill
32	Condenser Assy
31	Electric Expand Valve Fitting
30	Electronic Expansion Valve
29	One Way Valve
28	Strainer
27	Filter
26	4-way Valve
25	Pressure Sensor
24	Pressure Protect Switch
23	Electric Expand Valve Fitting
22	Electronic Expansion Valve
21	Rear Side Plate
20	Silencer
19	Cut off Valve
18	Strainer
17	Magnet Coil (Electromagnetic Valve)
16	Electromagnetic Valve
15	Accumulator
14	Strainer
13	Compressor and Fittings
12	Drainage Joint
11	Drainage Hole Cap
10	Cut off Valve
9	Motor Support Sub-Assy
8	Chassis Sub-Assy
7	Brushless DC Motor
6	Axial Flow Fan
5	Front Side Plate
4	Handle
3	Cabinet
2	Diversion Circle
1	Front Grill

Minimum Space Requirement

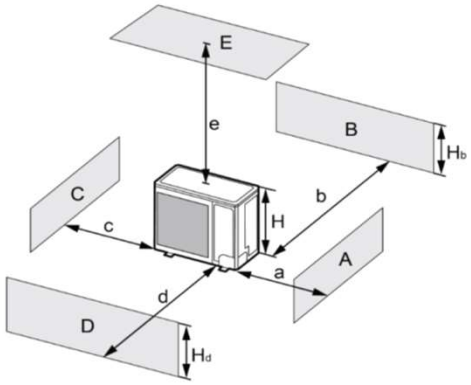
INDOOR
OUTDOOR



A	24
ALL OTHER SIDES	0

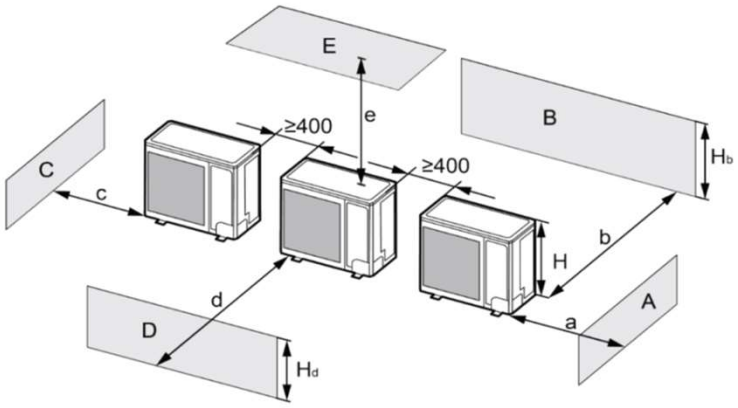
ALWAYS CHECK AND FOLLOW STATE AND LOCAL CODE REGULATIONS FOR MINIMUM SPACING REQUIREMENTS

MULTIPLE OUTDOOR UNIT ARRANGEMENT



A~E	Hb Hd H		(mm)				
			a	b	c	d	e
B	—		-	≥100	-	-	-
A,B,C,	—		≥300	≥100	≥100	-	-
B,E	—		-	≥100	-	-	≥1000
A,B,C,E	—		≥300	≥150	≥150	-	≥1000
D	—		-	-	-	≥1000	-
D,E	—		-	-	-	≥1000	≥1000
B,D	$H_b < H_d$	$H_d > H$	-	≥100	-	≥1000	-
	$H_b > H_d$	$H_d < H$	-	≥100	-	≥1000	-
B,D,E	$H_b < H_d$	$H_b \leq 1/2H$	-	≥250	-	≥2000	≥1000
		$1/2H < H_b \leq H$	-	≥250	-	≥2000	≥1000
		$H_b > H$	Prohibited				
	$H_b > H_d$	$H_d \leq 1/2H$	-	≥100	-	≥2000	≥1000
		$1/2H < H_d \leq H$	-	≥200	-	≥2000	≥1000
		$H_d > H$	Prohibited				

MULTIPLE OUTDOOR UNIT ARRANGEMENT

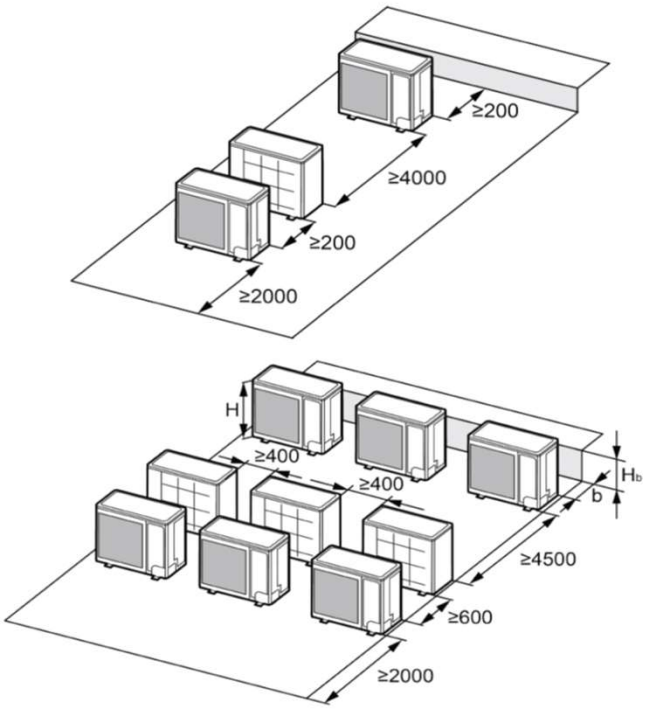


A~E	Hb Hd H		(mm)				
			a	b	c	d	e
A,B,C	—		≥300	≥300	≥1000	-	-
A,B,C,E	—		≥300	≥300	≥1000	-	≥1000
D	—		-	-	-	≥2000	-
D,E	—		-	-	-	≥2000	≥1000
B,D	$H_b < H_d$	$H_d > H$	-	≥300	-	≥2000	-
	$H_b > H_d$	$H_d \le 1/2H$	-	≥250	-	≥2000	-
		$1/2H < H_d \le H$	-	≥300	-	≥2500	-
B,D,E	$H_b < H_d$	$H_b \le 1/2H$	-	≥300	-	≥2000	≥1000
		$1/2H < H_b \le H$	-	≥300	-	≥2500	≥1000
		$H_b > H$	Prohibited				
	$H_b > H_d$	$H_d \le 1/2H$	-	≥250	-	≥2500	≥1000
		$1/2H < H_d \le H$	-	≥300	-	≥2500	≥1000
		$H_d > H$	Prohibited				

H_b H	(mm)
$H_b \le 1/2H$	b ≥ 250
$1/2H < H_b \le H$	b ≥ 300
$H_b > H$	Prohibited

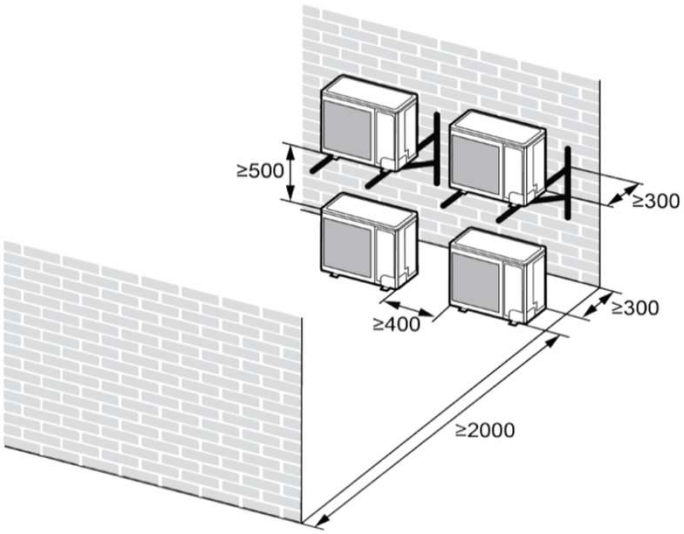
MULTPLE UNIT HORIZONTAL ARRANGEMENT

Unit: mm



MULTPLE UNIT VERTICAL ARRANGEMENT

Unit: mm



PERFORMANCE

COOLING PERFORMANCE

Outdoor Ambient Temperature (DB)		Return Air Temperature											
		60°F(15°C)				70°F(21°C)				80°F(27°C)			
		Capacity	Power Input	EER	SHC	Capacity	Power Input	EER	SHC	Capacity	Power Input	EER	SHC
MAX OUTPUT	50°F	23400	2120	11.03	16510	30600	2510	12.19	21590	36000	2650	13.58	25400
	65°F	24050	2080	11.56	16900	31450	2470	12.73	22100	37000	2600	14.23	26000
	75°F	23400	2240	10.44	16614	30600	2710	11.29	21726	36000	2800	12.86	25560
	85°F	23400	2400	9.75	16575	30600	2850	10.73	21675	36000	3000	12.00	25500
	95°F	23400	2610	8.96	16380	30600	3100	9.87	21420	36000	3270	11.00	25200
	105°F	23400	3680	6.35	16185	30600	4370	7	21165	36000	4600	7.82	24900
	115°F	21450	3440	6.23	15730	28050	4080	6.87	20570	33000	4300	7.67	24200

HEATING PERFORMANCE

Outdoor Ambient Temperature (DB)		Return Air Temperature											
		60°F(15°C)				70°F(21°C)				80°F(27°C)			
		TC (BtuH)	Input Power (watts)	COP		TC (BtuH)	Input Power (watts)	COP		TC (BtuH)	Input Power (watts)	COP	
MAX OUTPUT	-22°F	18600	4060	1.34		18430	4150	1.30		18000	4190	1.26	
	-15°F	21300	4340	1.44		21100	4430	1.39		20600	4470	1.35	
	-5°F	25500	4530	1.65		25250	4630	1.60		24750	4670	1.55	
	5°F	30300	4700	1.89		30000	4800	1.83		29400	4850	1.78	
	17°F	At AHRI Rated Conditions				24400	2860	2.50		@ 1000 SCFM			
	17°F	36360	5340	1.99		36000	5450	1.93		35280	5500	1.88	
	32°F	36360	4700	2.27		36000	4800	2.20		35280	4850	2.13	
	47°F	38380	3530	3.18		38000	3600	3.09		37240	3640	3.00	
	60°F	38580	3330	3.39		38200	3400	3.29		37400	3400	3.22	

NOTE: THESE ARE "MAX OUTPUT" VALUES ARE BASED ON COMPUTER SIMULATIONS

LEGEND

DB --- Dry Bulb

WB --- Wet Bulb

TC --- Total Capacity (BtuH)

SC --- Sensible Capacity (BtuH)

Input Power---(Watts)

COP---Coefficient Of Performance

FAN CURVE