

Submittal Data Sheet

Submittal data model no. CPIX48A60A/ WSEHV4860RA1-C
60000 BTU/H AIR SOURCE HEAT PUMP with AIR HANDLER UNIT



Approval: Location: Date: Engineer: Construction: Unit #: Drawing #: Submitted to: Submitted by: Reference:			 WSEHV4860RA1-C  CPIX48A60A	
Set Model: Indoor Unit Model No: CPIX48A60A Outdoor Unit Model No: WSEHV4860RA1-C AHRI certification No: 211624980 Energy Star: Yes			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 220.8 oz Additional Charge 0.3 oz/ft Pre-Charge Length 25 ft (7.6 m) Max Refrigerant Pipe Length 98 ft (29.87 m) Min Refrigerant Pipe Length 10 ft (3.05 m) Max Refrigerant Pipe Elevation 49 ft (14.93 m)	
System Rating: Cooling: Rated Capacity 54000 BTU/H Capacity range 35000-54000 BTU/H Power ICPut 5140 W SEER (SEER2) 17 (15.8) EER (EER2) 10.5 (10) Heating: Rated Capacity @ 47°F 54000 BTU/H Capacity range 35000-60000 BTU/H Power ICPut 4590 W HSPF Region IV 10 (9) (HSPF2 Region IV) COP 3.45 (3.1) Rated Capacity @ 17°F 38000 BTU/H Power ICPut 4230 W COP 2.63			Indoor Unit CPIX48A60A Fan Motor Output Power 1 HP FLA 3.2 A Airflow 1600 CFM Rated External Static Pressure 0.2 in Wg External Static Pressure (Range) 0-.4 in Wg Sound Pressure level 51 dB(A) Dehumidification 7 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	
Operating Range: Cooling Max 129°F (54°C) Min 5°F (-15°C) Heating Max 75°F (24°C) Min - 22°F (- 30°C)			Outdoor Unit WSEHV4860RA1-C Compressor DC Inverter Rotary Compressor RLA 19 A Refrigerant R410a Fan Motor Output Power 1/2 HP x 2 FLA 1.5 A x 2 Crankcase Heater 40 W Sound Pressure level 58 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 35 A MOCP/ Breaker Size 45 A	

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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)
- Auxiliary 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	Qty	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

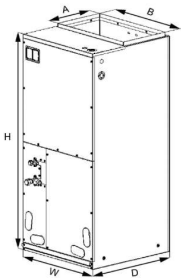


To convert to 2 Ton and 4 Ton, the following changes are made on site



Dimensional Specifications:

Indoor



W	24-3/4
D	21-1/4
H	57-1/4
A	11-5/8
B	20

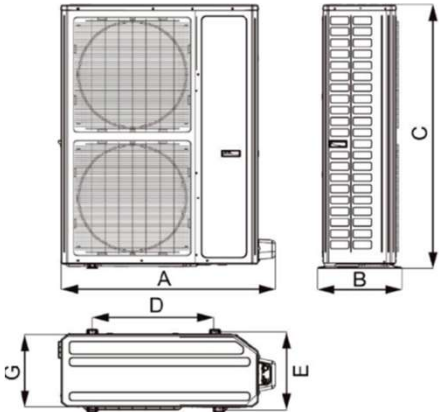
Units: inch

Net Weight (lbs)	202.8
Shipping Weight (lbs)	218

Drain Connector	3/4 in OD
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Dimensional Specifications:

Outdoor



A	42-3/4
B	16-7/8
C	53-3/4
D	24-1/2
E	15-1/2
G	14-1/2

Unit : inch

Net Weight (lbs)	308.6
Shipping Weight (lbs)	337

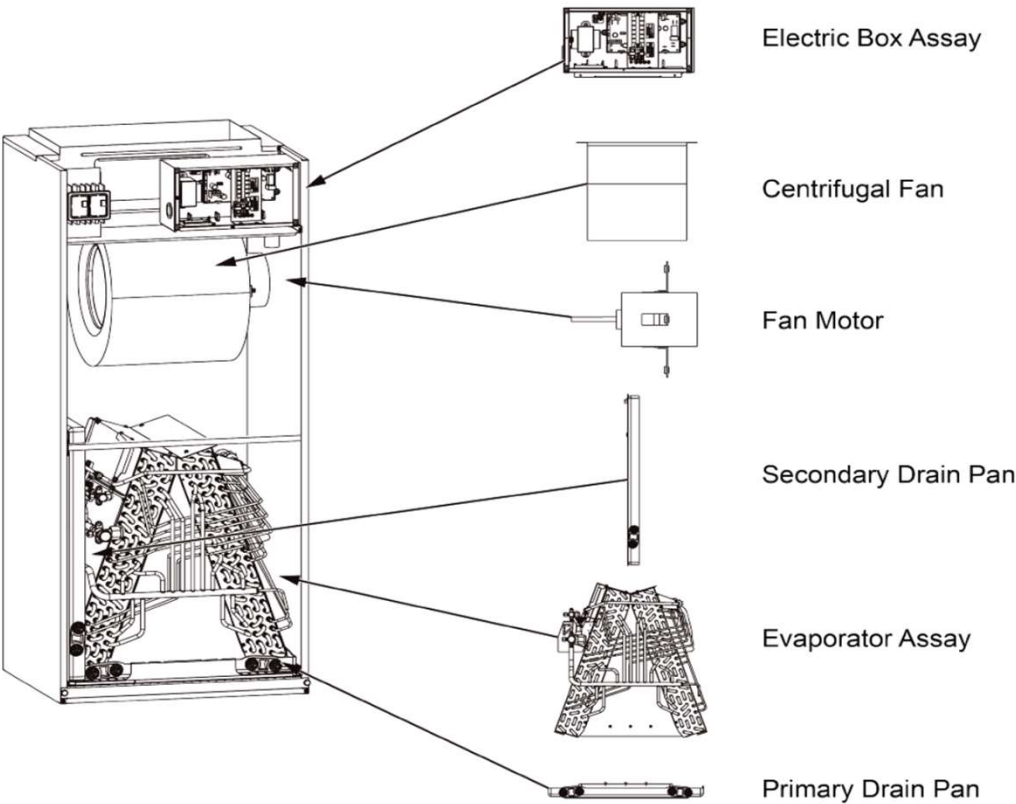
Notes:

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

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Main Parts

INDOOR



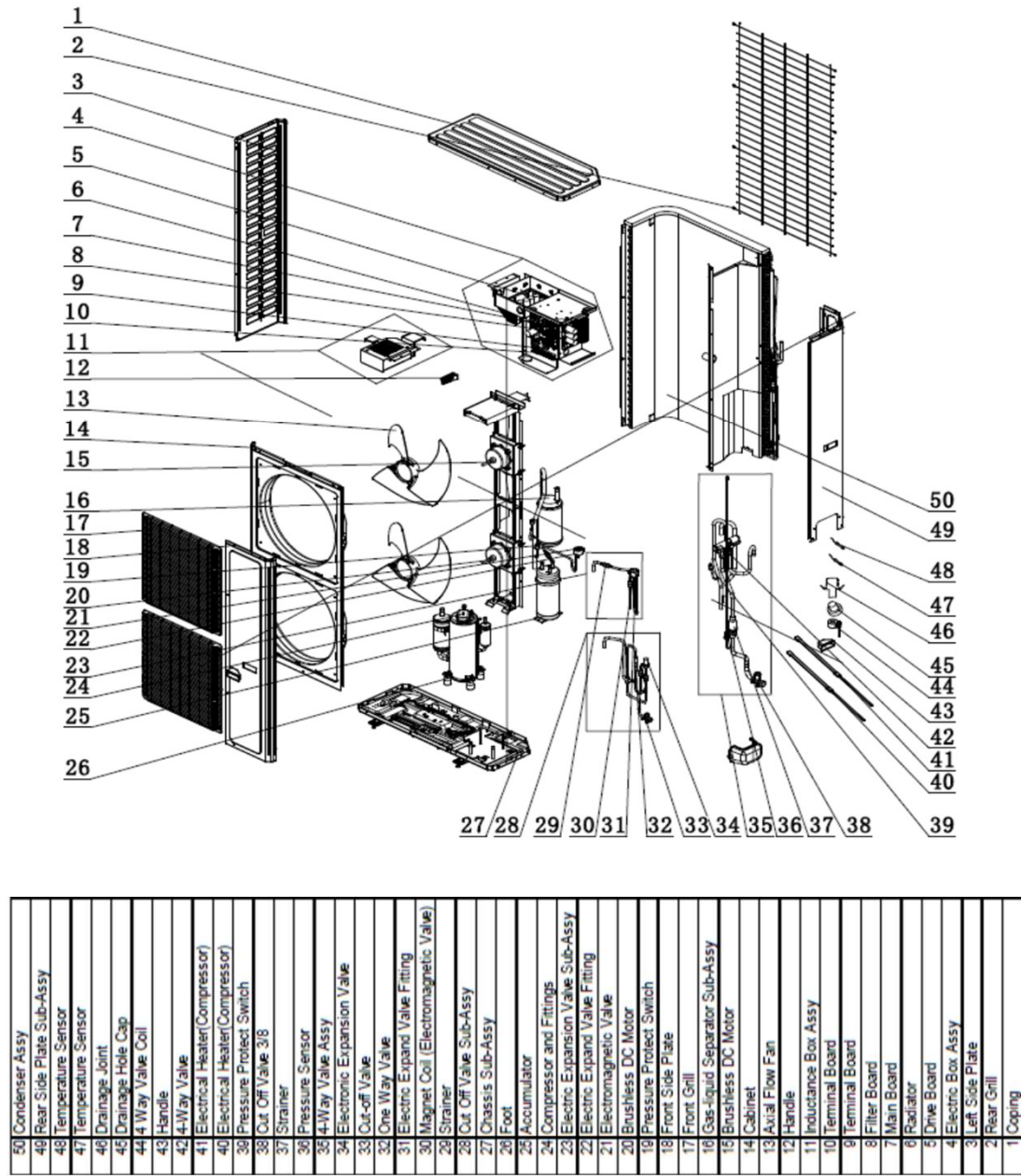
Model	Filter size
NPFX24A36A	490×516×15
NPFX48A60A	525×516×15

Unit: mm

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Main Parts

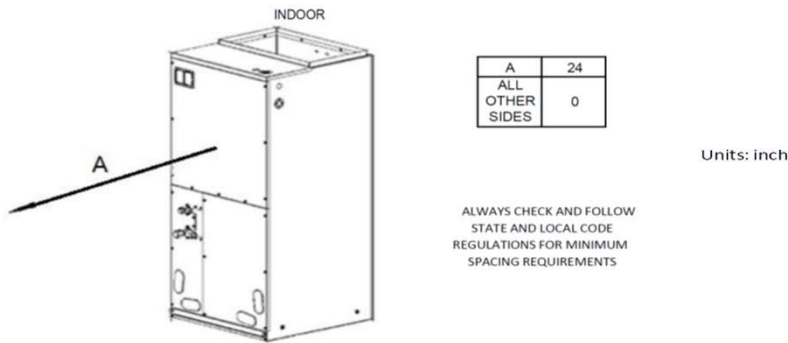
OUTDOOR



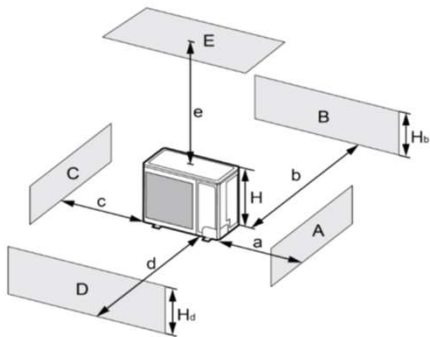
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Minimum Space Requirement

INDOOR



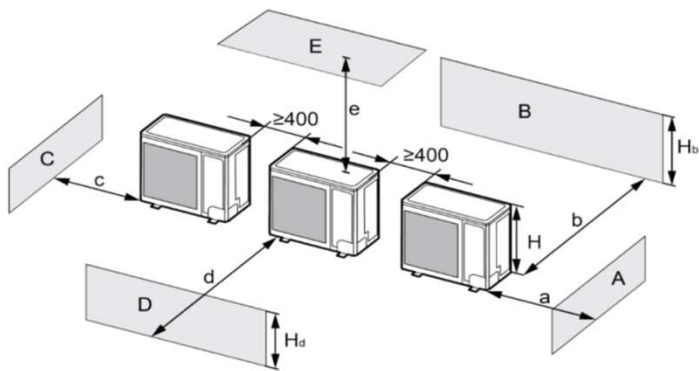
OUTDOOR



A~E	H _b H _d 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 ≤1/2H	-	≥250	-	≥2000	≥1000
		1/2H < H _b ≤H	-	≥250	-	≥2000	≥1000
		H _b > H	Prohibited				
	H _b > H _d	H _d ≤1/2H	-	≥100	-	≥2000	≥1000
		1/2H < H _d ≤H	-	≥200	-	≥2000	≥1000
		H _d > H	Prohibited				

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MULTIPLE OUTDOOR UNIT ARRANGEMENT

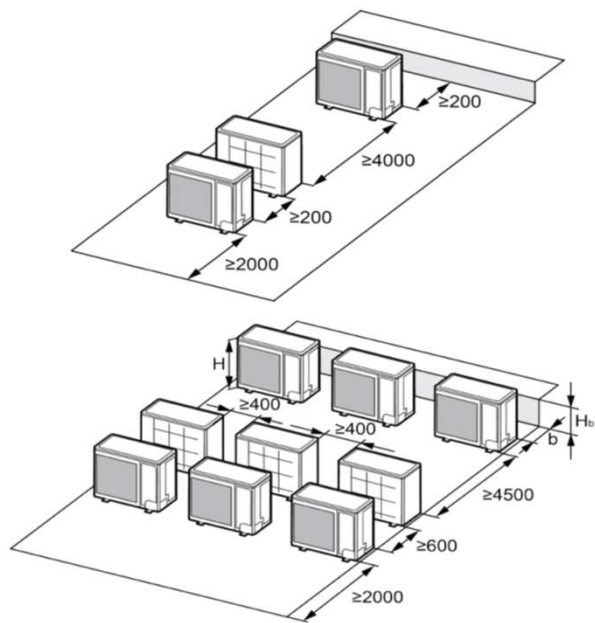


A~E	H _b H _d H		(mm)				
			a	b	c	d	e
A,B,C	—		≥300	≥300	≥1000	-	-
A,B,C,E	—		≥300	≥300	≥1000	-	≥1000
D	—		-	-	-	≥2000	-
D,E	—		-	-	-	≥2000	≥1000
B,D	H _b < H _d	H _d > H	-	≥300	-	≥2000	-
	H _b > H _d	H _d ≤ 1/2H	-	≥250	-	≥2000	-
		1/2H < H _d ≤ H	-	≥300	-	≥2500	-
B,D,E	H _b < H _d	H _b ≤ 1/2H	-	≥300	-	≥2000	≥1000
		1/2H < H _b ≤ H	-	≥300	-	≥2500	≥1000
		H _b > H	Prohibited				
	H _b > H _d	H _d ≤ 1/2H	-	≥250	-	≥2500	≥1000
		1/2H < H _d ≤ H	-	≥300	-	≥2500	≥1000
		H _d > H	Prohibited				

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MULTPLE UNIT HORIZONTAL ARRANGEMENT

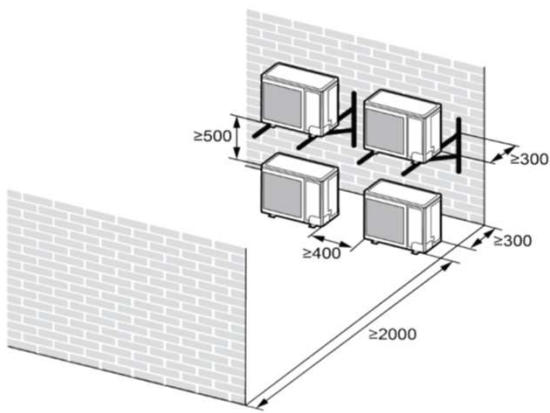
Unit: mm



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

MULTPLE UNIT VERTICAL ARRANGEMENT

Unit: mm



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PERFORMANCE

COOLING PERFORMANCE

Outdoor Ambient Temperature (DB)		Return Air Temperature											
		60°F(15°C)				70°F(21°C)				80°F(27°C)			
		Capacity	Power ICPut	EER	SHC	Capacity	Power ICPut	EER	SHC	Capacity	Power ICPut	EER	SHC
MAX OUTPUT	50°F	32500	3040	10.69	23080	42500	3610	11.77	30170	50000	3800	13.15	35500
	65°F	35100	3400	10.32	24920	45900	4030	11.36	32590	54000	4250	12.70	38340
	75°F	35100	3520	9.97	24920	45900	4180	10.98	32590	54000	4400	12.27	38340
	85°F	35100	3640	9.64	24920	45900	4320	10.61	32590	54000	4550	11.86	38340
	95°F	35100	4040	8.68	24920	45900	4790	9.56	32590	54000	5140	10.50	38340
	105°F	35100	5340	6.56	24920	45900	6340	7.23	32590	54000	6680	8.08	38340
	115°F	29900	4560	6.55	21230	39100	5410	7.22	27760	46000	5700	8.07	32660

HEATING PERFORMANCE

Outdoor Ambient Temperature (DB)		Return Air Temperature											
		60°F(15°C)				70°F(21°C)				80°F(27°C)			
		TC (BtuH)	ICPut Power (watts)	COP		TC (BtuH)	ICPut Power (watts)	COP		TC (BtuH)	ICPut Power (watts)	COP	
MAX OUTPUT	-22°F	28380	6220	1.34		28100	6350	1.30		27540	6410	1.26	
	-15°F	31310	6370	1.44		31000	6500	1.40		30380	6560	1.36	
	-5°F	36360	6610	1.61		36000	6750	1.56		35280	6820	1.51	
	5°F	44440	7010	1.86		44000	7160	1.80		43120	7230	1.75	
	17°F	At AHRI Rated Conditions				37200	4230	2.58		@ 1600 SCFM			
	17°F	49490	6960	2.08		49000	7100	2.02		48020	7170	1.96	
	32°F	54540	6470	2.47		54000	6600	2.40		52920	6660	2.33	
	47°F	56560	5190	3.19		56000	5300	3.09		54880	5350	3.00	
	60°F	60600	5290	3.35		60000	5400	3.25		58800	5450	3.16	

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

LEGEND

DB --- Dry Bulb

WB --- Wet Bulb

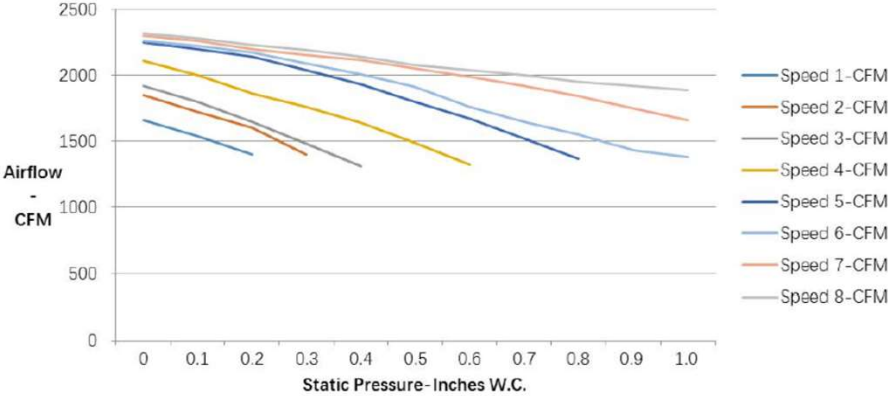
TC --- Total Capacity (BtuH)

SC --- Sensible Capacity (BtuH)

ICPut Power---(Watts)

COP---Coefficient Of Performance

FAN CURVE



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Additional Listing with Gas Furnace and A Coils

AHRI Number	Heat Pump Model Number	Coil Model Number	Furnace Model Number	Capacity	EER2	SEER2	HSPF2 (Region IV)	ENERGY STAR Cold Climate Certified
212404681	WSEHV4860RA1-C	HE50960A205A0000AP	WPV090T5BA	5	10	16	8.5	Yes
212404681	WSEHV4860RA1-C	DE50960C225B2722AP	WPV090T5BA	5	10	16	8.5	Yes
212404684	WSEHV4860RA1-C	HE50960A205A0000AP	WPV100T5BA	5	10	16	8.5	Yes
212404684	WSEHV4860RA1-C	DE50960C225B2722AP	WPV100T5BA	5	10	16	8.5	Yes
212404682	WSEHV4860RA1-C	HE50960A205A0000AP	WUV090T5BA	5	10	16	8.5	Yes
212404682	WSEHV4860RA1-C	DE50960C225B2722AP	WUV090T5BA	5	10	16	8.5	Yes
212404683	WSEHV4860RA1-C	HE50960A205A0000AP	WUV100T5BA	5	10	16	8.5	Yes
212404683	WSEHV4860RA1-C	DE50960C225B2722AP	WUV100T5BA	5	10	16	8.5	Yes

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