

ComfortStar®

Air conditioning and Heating

CPR Series

19.5 SEER | Universal

INVERTER

Heat Pump Horizontal
Side Discharge
Condensing Unit



Warranty Registration required except
California and Quebec, Canada

+ Air Handler
Unit



+ Cased and
Uncased Coil



12201 N. W. 107th Avenue | Medley, FL 33178
Toll Free: 1-866-524-9898 | Phone: 1-305-500-9898 | Fax: 1-305-500-9896
www.comfortstarusa.com | Email us: info@comfortstarusa.com

Comfort, it's in our name

CPR Series

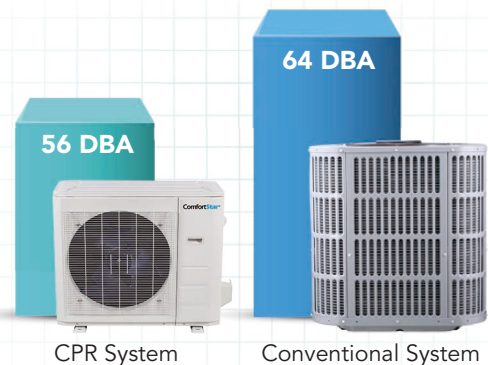
Condensing Unit



Features:

- 24 volt control allows this condensing unit to be connected to any indoor unit controlled by any Heat Pump Thermostat.
- Inverter Compressor = much more reliable than a conventional type.
- Sound level - As low as 56 DBA.
- 50% smaller foot print than a regular condensing unit.
- Self diagnostic.
- Gold fin protection.
- Can be matched with a standard air handler and A coil.
- Low ambient temperature 5F
- Copper + Gold fin aluminum

Low Noise Level



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CPR Series CONDENSING UNIT



SPECIFICATIONS

18,000 | 24,000 | 30,000 | 36,000 | 48,000 | 60,000

OUTDOOR			CPR18CD(O)	CPR24CD(O)	CPR30CD(O)	CPR36CD(O)	CPR48CD(O)	CPR60CD(O)
Power supply (Outdoor)		V- Ph-Hz	208/230V,1Ph, 60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz
MINIMUM CIRCUIT AMPACITY(Outdoor)		A	16	19	20	24	34	34
MAX.FUSE(Outdoor)		A	25	30	35	40	50	60
Cooling	EER	Btu/w	11.1	11.3	10.9	10.4	9.3	10.3
	SEER	Btu/w	19	19.4	19.5	18	17.3	18
Outdoor fan motor	RLA	A	1	1	1.48	1.48	2.4	2.4
	Speed	r/min	840/700/650	810/700/450	950/700/500	950/700/500	850/750/650	850/750/650
Outdoor air flow		m3/h	2465	3700	5100	5100	7650	7650
Outdoor air flow		CFM	1450.00	2175	3000.00	3000.00	4500.00	4500.00
Outdoor noise level		dB(A)	54	56.5	61.5	61	59	61
Throttle type		/	EXV	EXV	EXV	EXV	EXV	EXV
Outdoor unit	Dimension(W*D*H)	mm	805x330x554	890x342x673	946x410x810	946x410x810	952x415x1333	952x415x1333
	Dimension(W*D*H)	inch	31.69x12.99x21.81	35.04x13.46x26.50	37.24x16.14x31.89	37.24x16.14x31.89	37.48x16.34x52.48	37.48x16.34x52.48
	Packing (W*D*H)	mm	915x370x615	995x398x740	1090x500x885	1090x500x885	1095x495x1480	1095x495x1480
	Packing (W*D*H)	inch	36.02x14.57x24.21	39.17x15.67x29.13	42.91x19.69x34.84	42.91x19.69x34.84	43.11x19.49x58.27	43.11x19.49x58.27
	Net/Gross weight	Kg	34.4/36.9	46.4/49.5	64.3/68.7	68.8/73.1	98.7/112.8	98.5/112.7
	Net/Gross weight	lbs.	75.84/81.35	102.3/109.1	141.76/151.46	151.68/161.16	217.59/248.68	217.1/248.5
Refrigerant type		oz	R410A/56.44	R410A/74.08	R410A/107.59	R410A/130.51	R410A/165.79	R410A/172.84
Refrigerant precharge		ft	65	65	65	65	65	65
Additional charge for each ft		oz	0.69	0.69	0.69	0.69	0.69	0.69
Design pressure		PSIG	550/340	550/340	550/340	550/340	550/340	550/340
Refrigerant piping	Liquid side/ Gas side	mm(inch)	9.52mm(3/8in) 19mm(3/4in)	9.52mm(3/8in) 19mm(3/4in)	9.52mm(3/8in) 19mm(3/4in)	9.52mm(3/8in) 19mm(3/4in)	9.52mm(3/8in) 19mm(3/4in)	9.52mm(3/8in) 22mm(7/8in)
	Max. refrigerant piping length	m	30	50	65	65	65	65
	Max. refrigerant piping length	ft	98.42	164.04	213.25	213.25	213.25	213.25
	Max. allowable elevation	m	20	25	30	30	30	30
	Max. allowable elevation	ft	65.62	82.02	98.42	98.42	98.42	98.42
Thermostat type			Wire Control	Wire Control	Wire Control	Wire Control	Wire Control	Wire Control
Room temperature	Indoor(cooling/ heating)	°C	17~32/0~30	17~32/0~30	17~32/0~30	17~32/0~30	17~32/0~30	17~32/0~30
	Indoor(cooling/ heating)	°F	62~90/32~86	62~90/32~86	62~90/32~86	62~90/32~86	62~90/32~86	62~90/32~86
	Outdoor(cooling/heating)	°C	-15~50/-15~24	-15~50/-15~24	-15~50/-15~24	-15~50/-15~24	-15~50/-15~24	-15~50/-15~24
	Outdoor(cooling/heating)	°F	5-122/5-75	5-122/5-75	5-122/5-75	5-122/5-75	5-122/5-75	5-122/5-75

AHU-SG2 Series Universal Multi-position Air Handler



INVERTER

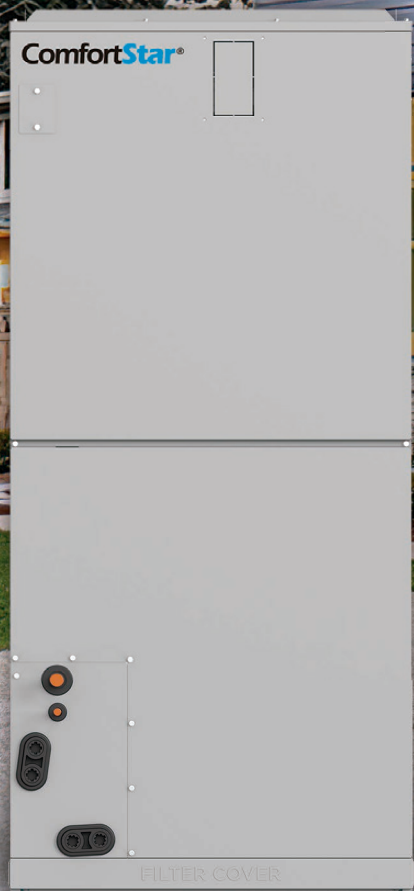
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UL US
LISTED

R410a

AHU-SG2

Universal Multiposition
Series Air Handler



Features:

- **Multiposition**
Upflow
Downflow
Horizontal left
Horizontal right
- **Size:** very compact compared to any other BRAND (please see table).
- **Controls:** very versatile it can be controlled with:
Any 24 volt thermostat
Wifi
- **Static pressure:** will adjust automatically.
- Compatible with existing refrigerant line set, no need to insulate both lines.
- **Heating:** additional heating element kits from 5-20 kw, optional Auxiliary electric
- **UV Light:** Has a dedicated wiring port
- **Humidifier:** Has a dedicated wiring port
- Easy Maintenance.



AHU-SG2 Series

Universal Multiposition Air Handler



SPECIFICATIONS

18,000 | 24,000 | 30,000 | 36,000 | 48,000 | 60,000

INDOOR			AHU18-SG2	AHU24-SG2	AHU30-SG2	AHU36-SG2	AHU48-SG2	AHU60-SG2
Power supply		V- Ph-Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz
Cooling	Capacity (range)	Btu/h	18000(5300-18700)	24000(7400-26000)	30000(9400-33000)	36000(7600-38800)	47000(10500-48000)	57000(4500-60000)
	Input	W	1620	2120	2760	3750	5046	5644
	Rated current	A	7.5	9.7	12.20	15.82	21.9	23.8
	EER	Btu/w	11.1	11.3	10.9	10.4	9.3	10.3
	SEER	Btu/w	19	19.4	19.5	18	17.3	18
Heating	Capacity (range)	Btu/h	18000(5600-18700)	26000(5600-30000)	31000(12200-32000)	36000(6000-36400)	55000(11500-57000)	60000(11500-63000)
	Input	W	1510	2150	2850	3496	5373	4959
	Rated current	A	6.7	9.8	12.40	16.12	23.3	20.9
	COP	W/W	3.49	3.54	3.19	3.02	3.00	3.55
	HSPF4	Btu/w	10.8	11.3	10.3	9.1	10	9.2
	HSPF5	Btu/w	8.8	9.2	8.6	7.1	8.2	7.6
Heating at 17F (-8.33°C)	Capacity	Btu/h	11500	17000	19000	19500	33000	33800
	COP	W/W	2.70	2.75	2.34	2.29	2.00	2.46
Heating at 5F (-15°C)	Capacity	Btu/h	9500	17000	20000	20500	27000	29000
	COP	W/W	1.85	1.75	1.95	1.80	1.75	1.80
MINIMUM CIRCUIT AMPACITY(Indoor)		A	3	4	4.5	4.5	4.5	7
MAX.FUSE(Indoor)		A	15	15	15	15	15	15
Indoor fan motor	Model		ZKFD-250-8-1	ZKFD-250-8-1	ZKFD-375-8-1	ZKFD-375-8-1	ZKFD-560-8-1	ZKFD-750-8-1
	RLA	A	1	3	3.5	3.5	3.5	5
Indoor air flow (Hi/Mi/Lo)		m3/h	980/900/830	1290/1180/1070	1520/1370/1210	1840/1650/1470	2180/1860/1540	2690/2310/1930
Indoor air flow (Hi/Mi/Lo)		CFM	576.47/529.41 488.24	758.82/694.12 629.41	894.12/805.88 711.76	1082.35/970.59 864.71	1282.35/1094.12 905.88	1582.35/1358.82 1135.29
ESP	Range	Pa	0-200	0-200	0-200	0-200	0-200	0-200
	Range	In. wg.	0-0.8	0-0.8	0-0.8	0-0.8	0-0.8	0-0.8
Indoor noise level (Hi/Mi/Lo)		dB(A)	36/34/32	43/40/35.5	43/40/30.5	46.8/44/41.3	53/50/46	52.5/49/44
Throttle type		/	EXV	EXV	EXV	EXV	EXV	EXV
Indoor unit	Dimension(W*D*H)	mm	445*534*1143	445*534*1143	534*534*1245	534*534*1245	534*534*1245	622*534*1346
	Dimension(W*D*H)	inch	21*17-1/2*45	21*17-1/2*45	21.*21*49	21.*21*49	21.*21*49	24-1/2*x21*53
	Packing (W*D*H)	mm	640x530x1280	640x530x1280	640x620x1380	640x620x1380	640x620x1380	640x705x1480
	Packing (W*D*H)	inch	25.20x20.87x50.39	25.20x20.87x50.39	25.20x24.41x54.33	25.20x24.41x54.33	25.20x24.41x54.33	25.20x27.76x58.27
	Net/Gross weight	Kg	48/58.7	48/58.7	58.6/70.6	58.6/70.6	58.6/70.6	73.8/86.5
	Net/Gross weight	lbs.	105.82/129.41	105.82/129.41	129.2/155.6	129.2/155.6	129.2/155.6	162.7/190.7

Maintenance

Evaporator coil can be easily removed by sliding out and configured according to the need of the multiple position installation.



Maintenance

Fan Blower

Easily removable top panel grants access to the slide rail mounted blower assembly

Easily accessible screw for disassembling the blower assembly from the unit.



Installation

Easy to wire

2 easy access PCB's - the Main control and the function board which is to connect a 24V heat pump thermostat. Contains dip switches and digital error code display for diagnostics.

Provides ease of installation, maintenance, and control wiring



Heater

Easy to install and easy to maintain with simple accessibility

Heater Part No.

EAH-05B

EAH-08B

EAH-10B

EEAH-15B

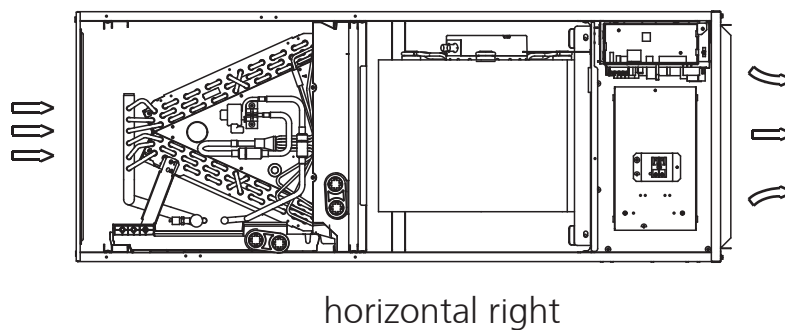
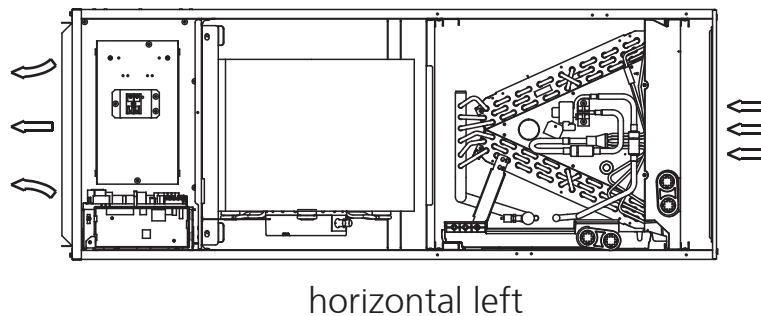
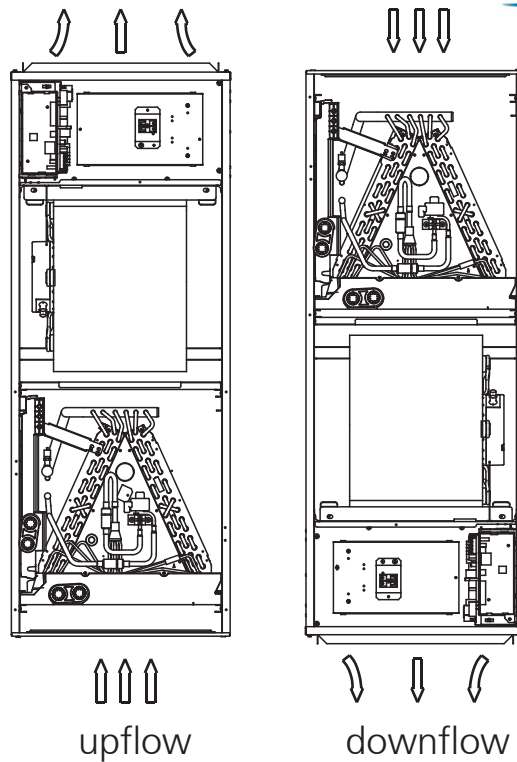
EAH-20B

EAH-25B



Installation

The unit may be installed as upflow, downflow, horizontal left or horizontal right orientations .



NOTE: Vertical up and horizontal left installations, no need to change the direction of the evaporator.

Accessories and Controls

**Compatible with any
24 Volt heat pump thermostat**



Accessories

The ComfortStar AHU-SG2 series air handlers provide reserved connective wiring ports for connecting accessories such as auxiliary heat, UV lamps, humidifiers etc.

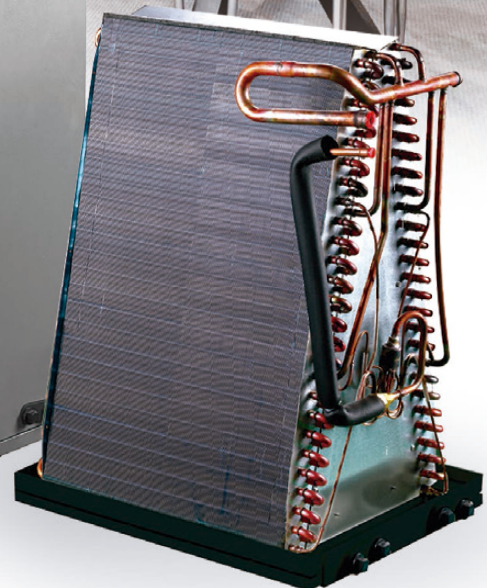


UV Lamp



Humidifier

Cased and Uncased Coil



Cased and Uncased Coil



Features:

Cased Coils come in standard width of

Cased Coils	Ton
17.5"	1.5, 2 Ton
21"	2.5, 3, 4 Ton
24.5"	5 Ton

To fit most furnaces

Painted cabinets resist rust

Cabinets	Ton
18"	1.5, 2 Ton
24"	2.5, 3, 4 Ton
28"	5 Ton

GOLDfin

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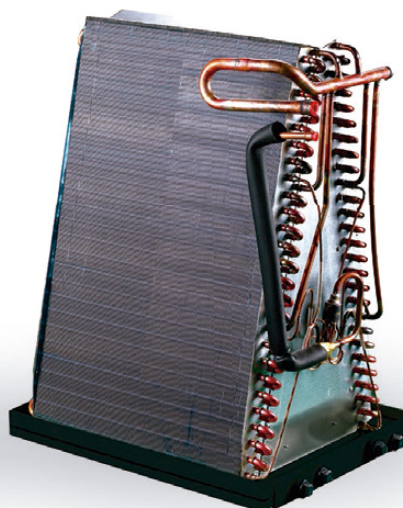
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Cased Coil

MODEL No.	AC18B	AC24B	AC30C	AC36C	AC48C	AC60D
	18,000K	24,000K	30,000K	36,000K	48,000K	60,000K
Dimension(W*D*H) mm	445*533*457	445*533*457	533*533*610	533*533*610	533*533*610	622*533*711
Dimension(W*D*H) inch	17.5*21*18	17.5*21*18	21*21*24	21*21*24	21*21*24	24.5*21*28
Evaporator pipe Diameter	1/4	1/4	1/4	1/4	1/4	1/4
Expansion valve	TXV	TXV	TXV	TXV	TXV	TXV
Refrigerant	R-410a	R-410a	R-410a	R-410a	R-410a	R-410a
Suction Line Size (OD) mm	19	19	19	19	19	22
Liquid Line Size (OD) mm	9	9	9	9	9	9
Suction Line Size (OD) inch	3/4"	3/4"	3/4"	3/4"	3/4"	7/8"
Liquid Line Size (OD) inch	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"

Uncased Coil

MODEL No.	UAC18B	UAC24B	UAC30C	UAC36C	UAC48C	UAC60D
	18,000K	24,000K	30,000K	36,000K	48,000K	60,000K
Dimension(W*D*H) mm	409*529*424	409*529*424	501*529*547	501*529*547	501*529*547	584*529*642
Dimension(W*D*H) inch	16.1*20.8*16.7	16.1*20.8*16.7	19.7*20.8*21.5	19.7*20.8*21.5	19.7*20.8*21.5	23*20.8*25.3
Evaporator pipe Diameter	1/4	1/4	1/4	1/4	1/4	1/4
Expansion valve	TXV	TXV	TXV	TXV	TXV	TXV
Refrigerant	R-410a	R-410a	R-410a	R-410a	R-410a	R-410a
Suction Line Size (OD) mm	19	19	19	19	19	22
Liquid Line Size (OD) mm	9	9	9	9	9	9
Suction Line Size (OD) inch	3/4"	3/4"	3/4"	3/4"	3/4"	7/8"
Liquid Line Size (OD) inch	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"



CPR+AHU Series

Condensing Unit + Air Handler Systems



18,000 | 24,000 | 30,000 | 36,000 | 48,000 | 60,000

INDOOR			AHU18-SG2	AHU24-SG2	AHU30-SG2	AHU36-SG2	AHU48-SG2	AHU60-SG2
OUTDOOR			CPR18CD(O)	CPR24CD(O)	CPR30CD(O)	CPR36CD(O)	CPR48CD(O)	CPR60CD(O)
Power supply		V- Ph-Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz	208/230V,1Ph,60Hz
Cooling	Capacity (range)	Btu/h	18000(5300-18700)	24000(7400-26000)	30000(9400-33000)	36000(7600-38800)	47000(10500-48000)	57000(4500-60000)
	Input	W	1620	2120	2760	3750	5046	5644
	Rated current	A	7.5	9.7	12.20	15.82	21.9	23.8
	EER	Btu/w	11.1	11.3	10.9	10.4	9.3	10.3
	SEER	Btu/w	19	19.4	19.5	18	17.3	18
Heating	Capacity (range)	Btu/h	18000(5600-18700)	26000(5600-30000)	31000(12200-32000)	36000(6000-36400)	55000(11500-57000)	60000(11500-63000)
	Input	W	1510	2150	2850	3496	5373	4959
	Rated current	A	6.7	9.8	12.40	16.12	23.3	20.9
	COP	W/W	3.49	3.54	3.19	3.02	3.00	3.55
	HSPF4	Btu/w	10.8	11.3	10.3	9.1	10	9.2
	HSPF5	Btu/w	8.8	9.2	8.6	7.1	8.2	7.6
Heating at 17F (-8.33°C)	Capacity	Btu/h	11500	17000	19000	19500	33000	33800
	COP	W/W	2.70	2.75	2.34	2.29	2.00	2.46
Heating at 5F (-15°C)	Capacity	Btu/h	9500	17000	20000	20500	27000	29000
	COP	W/W	1.85	1.75	1.95	1.80	1.75	1.80
MINIMUM CIRCUIT AMPACITY(Indoor)		A	3	4	4.5	4.5	4.5	7
MAX.FUSE(Indoor)		A	15	15	15	15	15	15
Indoor fan motor	Model		ZKFD-250-8-1	ZKFD-250-8-1	ZKFD-375-8-1	ZKFD-375-8-1	ZKFD-560-8-1	ZKFD-750-8-1
	RLA	A	1	3	3.5	3.5	3.5	5
Indoor air flow (Hi/Mi/Lo)		m3/h	980/900/830	1290/1180/1070	1520/1370/1210	1840/1650/1470	2180/1860/1540	2690/2310/1930
Indoor air flow (Hi/Mi/Lo)		CFM	576.47/529.41 488.24	758.82/694.12 629.41	894.12/805.88 711.76	1082.35/970.59 864.71	1282.35/1094.12 905.88	1582.35/1358.82 1135.29
ESP	Range	Pa	0-200	0-200	0-200	0-200	0-200	0-200
	Range	In. wg.	0-0.8	0-0.8	0-0.8	0-0.8	0-0.8	0-0.8
Indoor noise level (Hi/Mi/Lo)		dB(A)	36/34/32	43/40/35.5	43/40/30.5	46.8/44/41.3	53/50/46	52.5/49/44
Throttle type		/	EXV	EXV	EXV	EXV	EXV	EXV
Indoor unit	Dimension(W*D*H)	mm	445*534*1143	445*534*1143	534*534*1245	534*534*1245	534*534*1245	622*534*1346
	Dimension(W*D*H)	inch	21*17-1/2*45	21*17-1/2*45	21.*21*49	21.*21*49	21.*21*49	24-1/2*x21*53
	Packing (W*D*H)	mm	640x530x1280	640x530x1280	640x620x1380	640x620x1380	640x620x1380	640x705x1480
	Packing (W*D*H)	inch	25.20x20.87x50.39	25.20x20.87x50.39	25.20x24.41x54.33	25.20x24.41x54.33	25.20x24.41x54.33	25.20x27.76x58.27
	Net/Gross weight	Kg	48/58.7	48/58.7	58.6/70.6	58.6/70.6	58.6/70.6	73.8/86.5
	Net/Gross weight	lbs.	105.82/129.41	105.82/129.41	129.2/155.6	129.2/155.6	129.2/155.6	162.7/190.7

ComfortStar®

Air conditioning and Heating



CPR Series

19.5 SEER | 24 Volt

Heat Pump
Horizontal Side
Discharge Condensing Unit



Warranty Registration required except
California and Quebec, Canada

+ Air Handler
Unit

+ Cased and
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CPR AHU-SG2/2021

Comfort, it's in our name