



FOCUSED ON APPLICATION HVAC



R134a



Unit information

Chiller Model	CA2-330-4210	
Width:	2,250.00 mm	88.58 in
Length:	9,570.00 mm	376.77 in
Height:	2,520.00 mm	99.21 in
Shipping Weight:	9,340.00 kg	20,591.17 lb
Operating Weight:	9,480.00 kg	20,899.82 lb
Capacity Control	Slide Valve	
Refrigerant:	R134a	
Refrigerant Charge (Ckt1 / Ckt2):	210.00 kg	210.00 Kg
Starting Control:	Y-Δ	

Performance Information (Cooling Conditions)

** Cooling Capacity:	1,159.00 kW	329.85 TR
** Entering Water Temp:	12.00 °C	53.60 °F
** Leaving Water Temp:	7.00 °C	44.60 °F
Ambient Temperature (DB):	35.00 °C	95.00 °F
Design Water Flow	199.30 m³/h	877.49 GPM
Input Power (Electrical):	356.60 kW	
IPLV/NPLV:	4.43 (W/W)	15.12 (Btu/W.h)
COP:	3.25 (W/W)	11.10 EER (Btu/W.h)

Compressor Information

Brand:	Bitzer	
Model:	CSH9563-210Y-40D	
Compressor Type:	Semi-Hermetic Screw	
Maximum Compressor Current:	293.00 A	
Quantity:	2 Piece/s	
Oil Type (per compressor):	BSE170	1,055.90 oz
Capacity Regulating Range:	12.5% - 100%	

Water-Side Heat Exchanger Information

Fluid Type:	Water	
Nozzle Type:	Victaulic Coupling	
Water Volume:	208.00 L	54.95 gal
Heat Exchanger Type:	Flooded Shell-and-Tube	
Fouling Factor:	0.018 m².K/kW	0.1021 ft².F/Btu
Nozzle Size(DN):	200.00 mm	8.00 in
Water Pressure Drop:	67.00 kPa	22.42 ft CA
Design Pressure of Water Side (Max):	1.00 MPa	145.04 psi

Air-Side Heat Exchanger Information

Type:	Fin-and-Tube	
Fan Quantity:	16 Units	
Air Flow	392,000.00 m³/h	230,722.18 CFM
Fan Power Input	2.20 kW/unit	35.20 kW Total

Electrical Connections

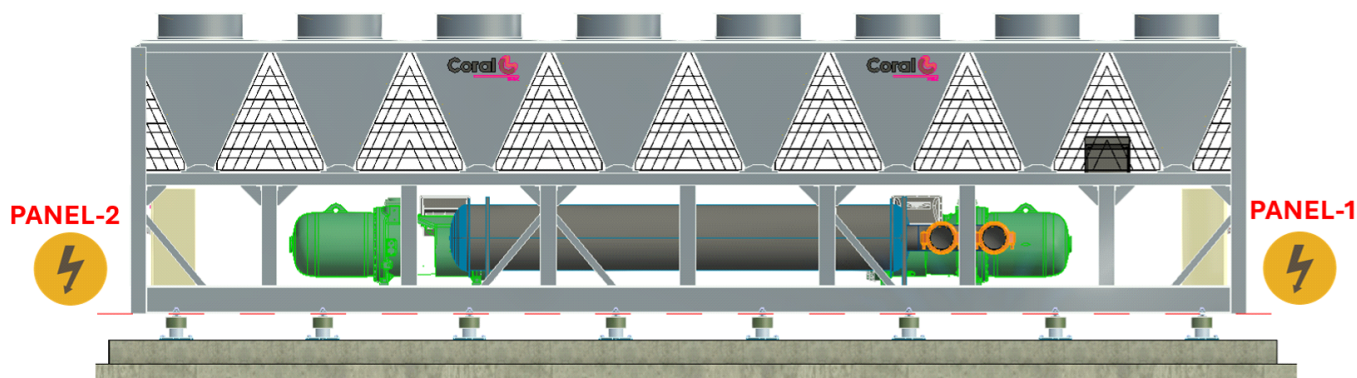
Amperage	Electrical Circuit 1	Electrical Circuit 2
Maximum Operating Current (MCA):	335.50 A	335.50 A
Maximum Overcurrent Protection (MOCP):	500.00 A	500.00 A

Electrical Information

Power Supply:	460V / 3 Ph / 60 Hz	
Voltage Range:	440 V	480 V
Rating Current (A):	506.00 A	
Max. Starting Current (A):	921.00 A	
Maximum Operating Current (A)	671.00 A	

Electrical Panel

Electrical Circuit 1	Electrical Circuit 2
Electrical Connection Point:	Panel E-1



- * Garantía de 2 años en partes y compresores
- * Resortes antivibratorios

- * Refrigerante HFC, libre de cloro, ODP = 0
- * Conexiones de tubería ranurada tipo Victaulic



IPLV/NPLV Points (SI)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD	DBT	EEWT	ELWT
100	1,159.00 kW	356.60 kW	1.0818 kW/TR	3.25 W/W	67.00 kPa	35.00 °C	12.00 °C	7.00 °C
75	869.00 kW	218.30 kW	0.8832 kW/TR	3.98 W/W	67.00 kPa	27.00 °C	10.75 °C	7.00 °C
50	580.00 kW	125.00 kW	0.7578 kW/TR	4.64 W/W	67.00 kPa	19.00 °C	9.50 °C	7.00 °C
25	290.00 kW	54.80 kW	0.6644 kW/TR	5.29 W/W	67.00 kPa	13.00 °C	8.25 °C	7.00 °C

IPLV /NPLV = $0.01 \cdot A + 0.42 \cdot B + 0.45 \cdot C + 0.12 \cdot D = 4.43$ (W/W)

A=EER At 100%; B=EER At 75%; C=EER At 50%; D=EER At 25%;

Performance calculations are in accordance with AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).

IPLV/NPLV Points (IP)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	EEWT	ELWT
100	329.85 TR	356.60 kW	1.0818 kW/TR	11.10 (Btu/W.h)	22.42 ft CA	95.00 °F	53.60 °F	44.60 °F
75	247.32 TR	218.30 kW	0.8832 kW/TR	13.60 (Btu/W.h)	22.42 ft CA	80.60 °F	51.35 °F	44.60 °F
50	165.07 TR	125.00 kW	0.7578 kW/TR	15.85 (Btu/W.h)	22.42 ft CA	66.20 °F	49.10 °F	44.60 °F
25	82.53 TR	54.80 kW	0.6644 kW/TR	18.07 (Btu/W.h)	22.42 ft CA	55.40 °F	46.85 °F	44.60 °F

IPLV /NPLV = $0.01 \cdot A + 0.42 \cdot B + 0.45 \cdot C + 0.12 \cdot D = 15.12$ EER (Btu/w)

A=EER At 100%; B=EER At 75%; C=EER At 50%; D=EER At 25%;

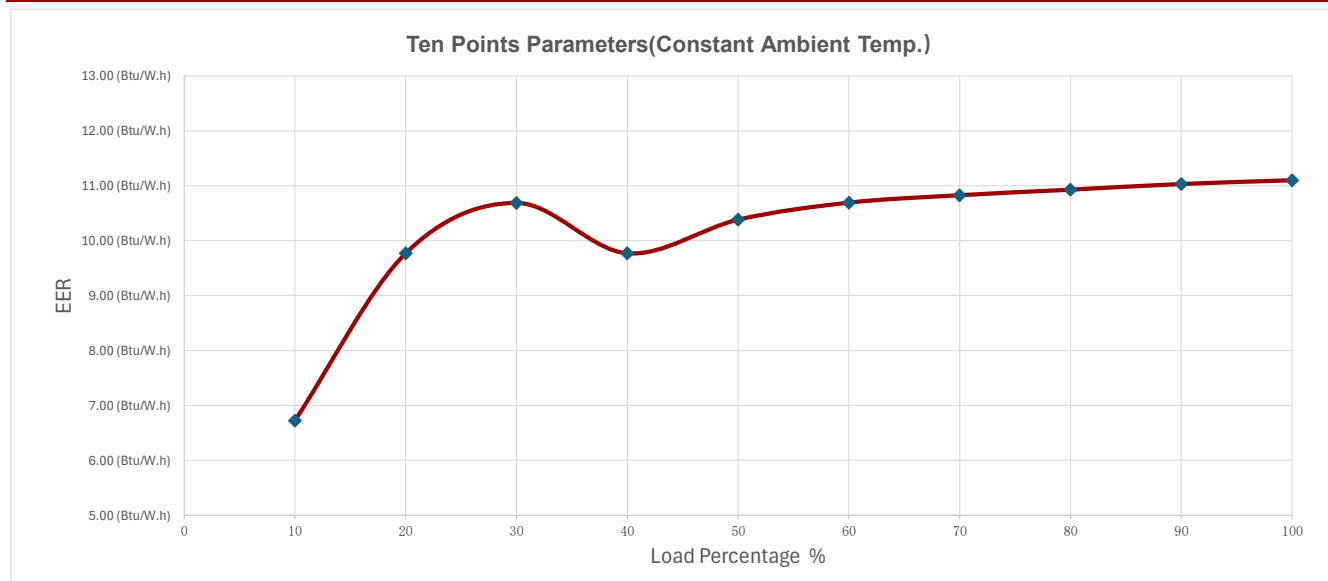
Performance calculations are in accordance with AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).

Ten Points Parameters(Constant Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	329.85 TR	356.60 kW	1.0818 kW/TR	11.10 (Btu/W.h)	22.42 ft CA	35.00 °C	877.49 GPM	7.00 °C
90	296.84 TR	322.90 kW	1.0885 kW/TR	11.03 (Btu/W.h)	22.42 ft CA	35.00 °C	877.49 GPM	7.00 °C
80	263.82 TR	289.70 kW	1.0988 kW/TR	10.93 (Btu/W.h)	22.42 ft CA	35.00 °C	877.49 GPM	7.00 °C
70	230.81 TR	255.80 kW	1.1090 kW/TR	10.83 (Btu/W.h)	22.42 ft CA	35.00 °C	877.49 GPM	7.00 °C
60	197.80 TR	222.00 kW	1.1231 kW/TR	10.69 (Btu/W.h)	22.42 ft CA	35.00 °C	877.49 GPM	7.00 °C
50	165.07 TR	190.80 kW	1.1566 kW/TR	10.38 (Btu/W.h)	22.42 ft CA	35.00 °C	877.49 GPM	7.00 °C
40	132.05 TR	162.20 kW	1.2291 kW/TR	9.77 (Btu/W.h)	22.42 ft CA	35.00 °C	877.49 GPM	7.00 °C
30	99.04 TR	111.20 kW	1.1235 kW/TR	10.69 (Btu/W.h)	22.42 ft CA	35.00 °C	877.49 GPM	7.00 °C
20	66.03 TR	81.10 kW	1.1032 kW/TR	9.77 (Btu/W.h)	22.42 ft CA	35.00 °C	877.49 GPM	7.00 °C
10	33.01 TR	58.90 kW	1.6025 kW/TR	6.73 (Btu/W.h)	22.42 ft CA	35.00 °C	877.49 GPM	7.00 °C

For single COMP chiller, the 10% and 20% load are out of running range, so the data is only for reference; For double COMP chiller, the 10% load are out of running range, so the data is only for reference

Chiller Model: CA2-330-4210

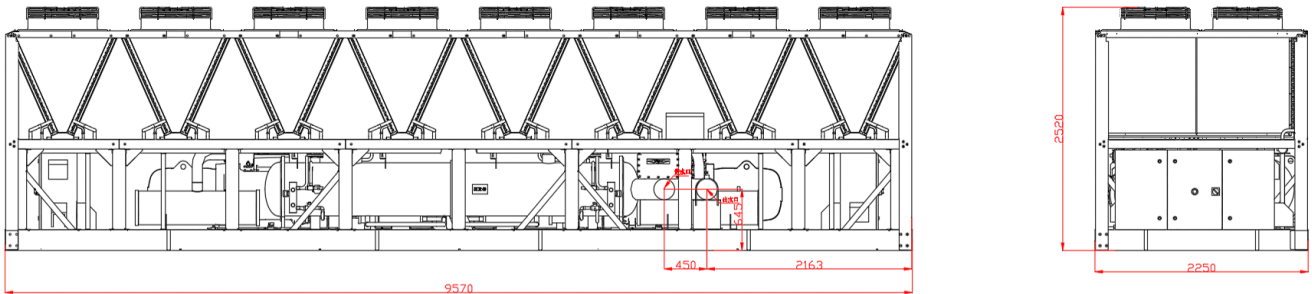
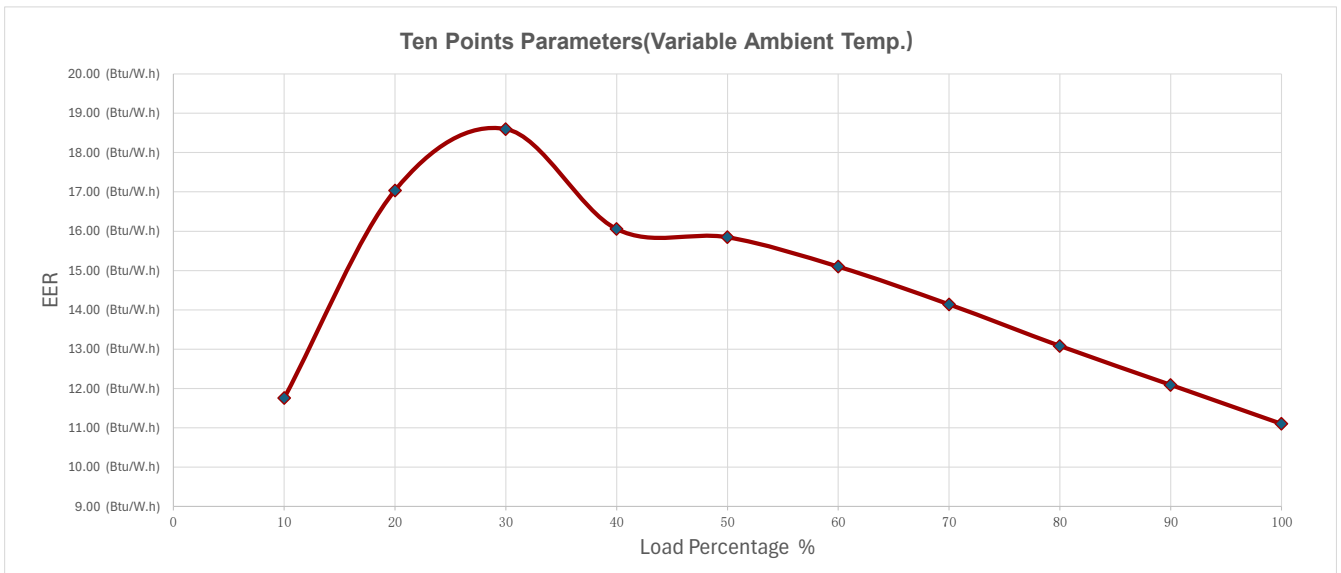


Ten Points Parameters(Variable Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	329.85 TR	356.60 kW	1.0818 kW/TR	11.10 (Btu/W.h)	22.42 ft CA	35.00 °C	877.49 GPM	7.00 °C
90	296.84 TR	294.60 kW	0.9931 kW/TR	12.09 (Btu/W.h)	22.42 ft CA	31.80 °C	877.49 GPM	7.00 °C
80	263.82 TR	242.00 kW	0.9179 kW/TR	13.08 (Btu/W.h)	22.42 ft CA	28.60 °C	877.49 GPM	7.00 °C
70	230.81 TR	195.90 kW	0.8493 kW/TR	14.14 (Btu/W.h)	22.42 ft CA	25.40 °C	877.49 GPM	7.00 °C
60	197.80 TR	157.20 kW	0.7953 kW/TR	15.10 (Btu/W.h)	22.42 ft CA	22.20 °C	877.49 GPM	7.00 °C
50	165.07 TR	125.00 kW	0.7578 kW/TR	15.85 (Btu/W.h)	22.42 ft CA	19.00 °C	877.49 GPM	7.00 °C
40	132.05 TR	98.70 kW	0.7479 kW/TR	16.06 (Btu/W.h)	22.42 ft CA	15.80 °C	877.49 GPM	7.00 °C
30	99.04 TR	63.90 kW	0.6456 kW/TR	18.60 (Btu/W.h)	22.42 ft CA	13.00 °C	877.49 GPM	7.00 °C
20	66.03 TR	46.50 kW	0.7047 kW/TR	17.04 (Btu/W.h)	22.42 ft CA	13.00 °C	877.49 GPM	7.00 °C
10	33.01 TR	33.70 kW	1.0215 kW/TR	11.76 (Btu/W.h)	22.42 ft CA	13.00 °C	877.49 GPM	7.00 °C

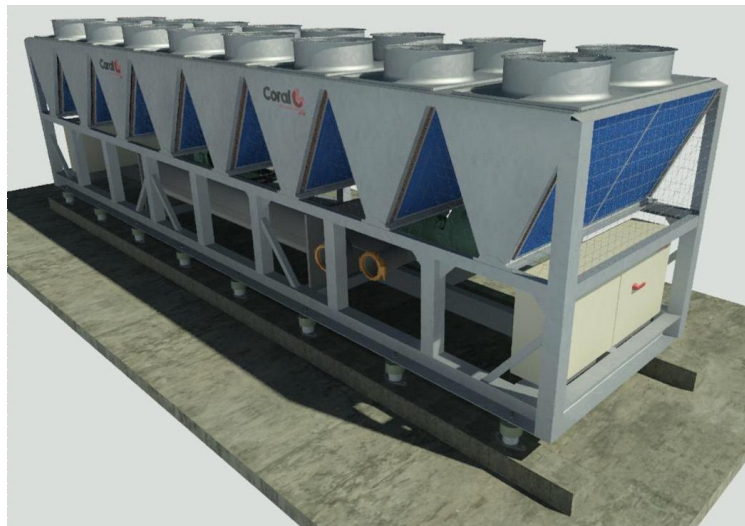
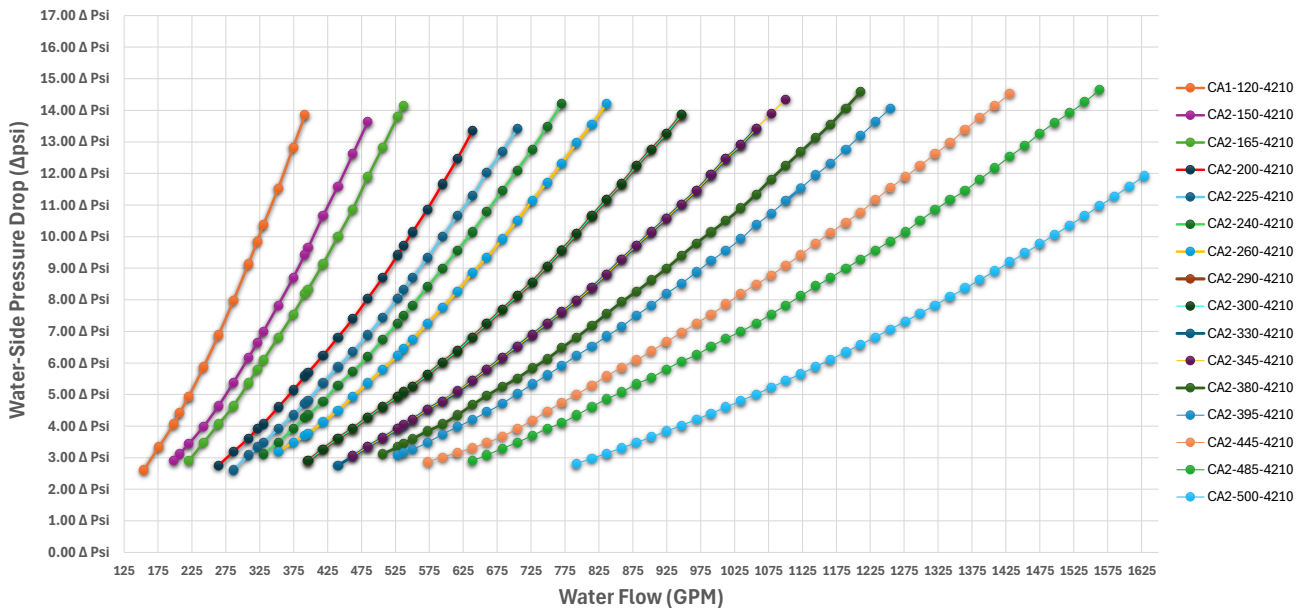
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Chiller Model: CA2-330-4210



Dimension Model: CA2-330-4210	Length	Width	Height
	9,570.00 mm	2,250.00 mm	2,520.00 mm

Water Pressure Drop Curve IP (Chiller Coral)



CA2-330-4210

Cooling Capacity:	1,159.00 kW	329.85 TR
Chilled Water Flow:	199.30 m³/h	877.49 GPM
Width:	2,250.00 mm	88.58 in
Length:	9,570.00 mm	376.77 in
Height:	2,520.00 mm	99.21 in
Fan Quantity:	16 Units	
Nozzle Size(DN):	200.00 mm	8.00 in
Operating Weight:	9,480.00 kg	20,899.82 lb