

Coral

FOCUSED ON APPLICATION HVAC



Unit information		
Chiller Model	CA2-430-4210	
Width:	2,250.00 mm	88.58 in
Length:	11,970.00 mm	471.26 in
Height:	2,520.00 mm	99.21 in
Shipping Weight:	11,280.00 kg	24,868.14 lb
Operating Weight:	11,460.00 kg	25,264.97 lb
Capacity Control	Slide Valve	
Refrigerant:	R134a	
Refrigerant Charge (Ckt1 / Ckt2):	250.00 kg	250.00 Kg
Starting Control:	Y-Δ	

Performance Information (Cooling Conditions)		
** Cooling Capacity:	1,511.00 kW	430.03 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	259.90 m³/h	1,144.31 GPM
Input Power (Electrical):	458.30 kW	
IPLV/NPLV:	4.51 (W/W)	15.41 (Btu/W.h)
COP:	3.30 (W/W)	11.27 EER (Btu/W.h)

Water-Side Heat Exchanger Information		
Fluid Type:	Water	
Nozzle Type:	Victaulic Coupling	
Water Volume:	280.00 L	73.98 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:	72.00 kPa	24.09 ft CA
Design Pressure of Water Side (Max):	1.00 MPa	145.04 psi

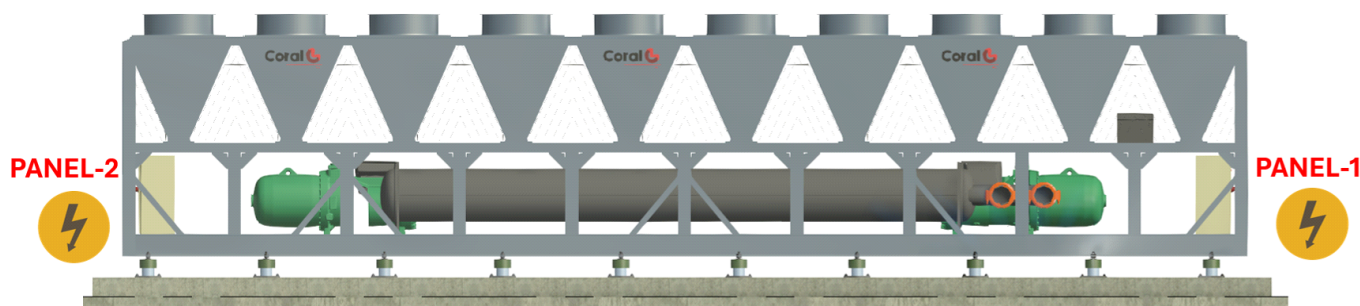
Electrical Connections		
Amperage	Electrical Circuit 1	Electrical Circuit 2
Maximum Operating Current (MCA):	416.00 A	416.00 A
Maximum Overcurrent Protection (MOCP):	630.00 A	630.00 A

Compressor Information		
Brand:	Bitzer	
Model:	CSH9583-280Y-40D	
Compressor Type:	Semi-Hermetic Screw	
Maximum Compressor Current:	363.00 A	
Quantity:	2 Piece/s	
Oil Type (per compressor):	BSE170	1,055.90 oz
Capacity Regulating Range:	12.5% - 100%	

Air-Side Heat Exchanger Information		
Type:	Fin-and-Tube	
Fan Quantity:	20 Units	
Air Flow	490,000.00 m³/h	288,402.73 CFM
Fan Power Input	2.20 kW/unit	44.00 kW Total

Electrical Information		
Power Supply:	460V / 3 Ph / 60 Hz	
Voltage Range:	440 V	480 V
Rating Current (A):	647.00 A	
Max. Starting Current (A):	1,221.00 A	
Maximum Operating Current (A)	832.00 A	

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



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

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

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IPLV/NPLV Points (SI)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD	DBT	EEWT	ELWT
100	1,511.00 kW	458.30 kW	1.0664 kW/TR	3.30 W/W	72.00 kPa	35.00 °C	12.00 °C	7.00 °C
75	1,133.00 kW	281.10 kW	0.8723 kW/TR	4.03 W/W	72.00 kPa	27.00 °C	10.75 °C	7.00 °C
50	756.00 kW	159.80 kW	0.7432 kW/TR	4.73 W/W	72.00 kPa	19.00 °C	9.50 °C	7.00 °C
25	378.00 kW	69.10 kW	0.6427 kW/TR	5.47 W/W	72.00 kPa	13.00 °C	8.25 °C	7.00 °C

IPLV /NPLV =0.01*A+0.42*B+0.45*C+0.12*D= 4.51 (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	430.03 TR	458.30 kW	1.0664 kW/TR	11.26 (Btu/W.h)	24.09 ft CA	95.00 °F	53.60 °F	44.60 °F
75	322.45 TR	281.10 kW	0.8723 kW/TR	13.77 (Btu/W.h)	24.09 ft CA	80.60 °F	51.35 °F	44.60 °F
50	215.16 TR	159.80 kW	0.7432 kW/TR	16.16 (Btu/W.h)	24.09 ft CA	66.20 °F	49.10 °F	44.60 °F
25	107.58 TR	69.10 kW	0.6427 kW/TR	18.68 (Btu/W.h)	24.09 ft CA	55.40 °F	46.85 °F	44.60 °F

IPLV /NPLV =0.01*A+0.42*B+0.45*C+0.12*D= 15.41 EER (Btu/w)

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

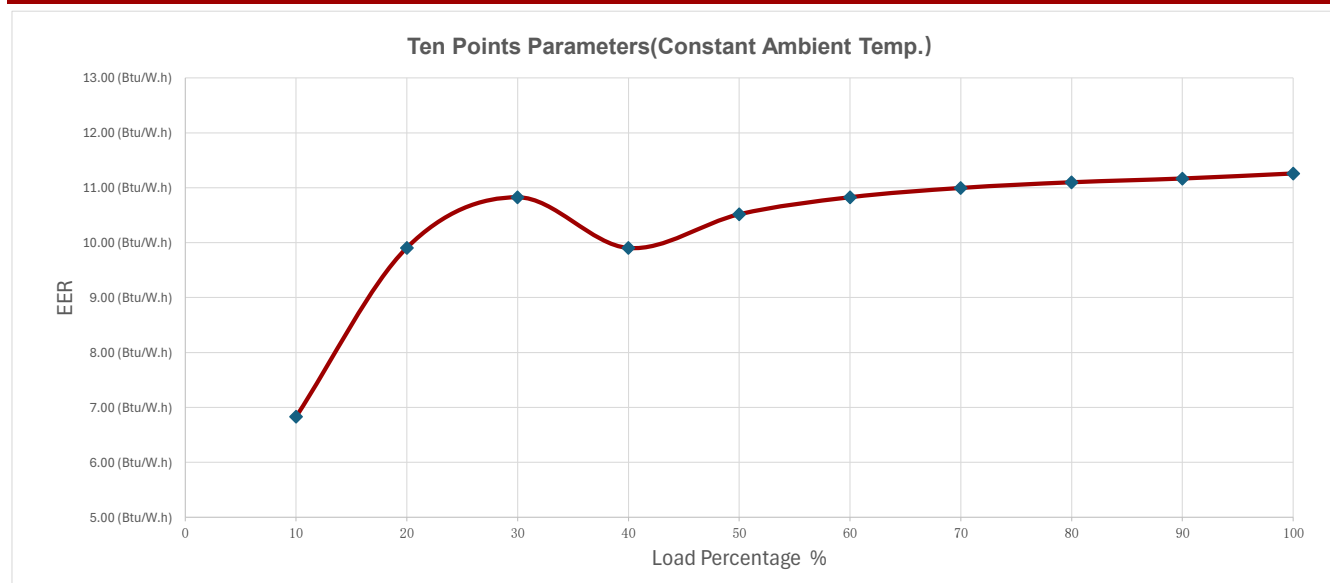
Performance calculations are in accordance with AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).

Ten Points Parameters(Constant Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	430.03 TR	458.30 kW	1.0664 kW/TR	11.26 (Btu/W.h)	24.09 ft CA	35.00 °C	1,144.31 GPM	7.00 °C
90	387.05 TR	415.90 kW	1.0752 kW/TR	11.17 (Btu/W.h)	24.09 ft CA	35.00 °C	1,144.31 GPM	7.00 °C
80	344.08 TR	372.00 kW	1.0818 kW/TR	11.10 (Btu/W.h)	24.09 ft CA	35.00 °C	1,144.31 GPM	7.00 °C
70	301.10 TR	328.60 kW	1.0920 kW/TR	11.00 (Btu/W.h)	24.09 ft CA	35.00 °C	1,144.31 GPM	7.00 °C
60	258.13 TR	286.10 kW	1.1091 kW/TR	10.83 (Btu/W.h)	24.09 ft CA	35.00 °C	1,144.31 GPM	7.00 °C
50	215.16 TR	245.50 kW	1.1418 kW/TR	10.52 (Btu/W.h)	24.09 ft CA	35.00 °C	1,144.31 GPM	7.00 °C
40	171.90 TR	208.30 kW	1.2126 kW/TR	9.90 (Btu/W.h)	24.09 ft CA	35.00 °C	1,144.31 GPM	7.00 °C
30	128.92 TR	142.90 kW	1.1091 kW/TR	10.83 (Btu/W.h)	24.09 ft CA	35.00 °C	1,144.31 GPM	7.00 °C
20	85.95 TR	104.10 kW	1.0879 kW/TR	9.91 (Btu/W.h)	24.09 ft CA	35.00 °C	1,144.31 GPM	7.00 °C
10	42.97 TR	75.50 kW	1.5780 kW/TR	6.83 (Btu/W.h)	24.09 ft CA	35.00 °C	1,144.31 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: CA2-430-4210

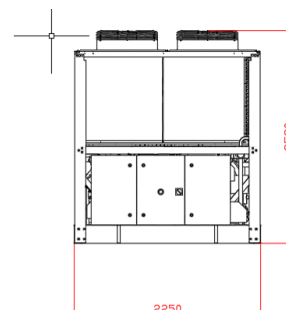
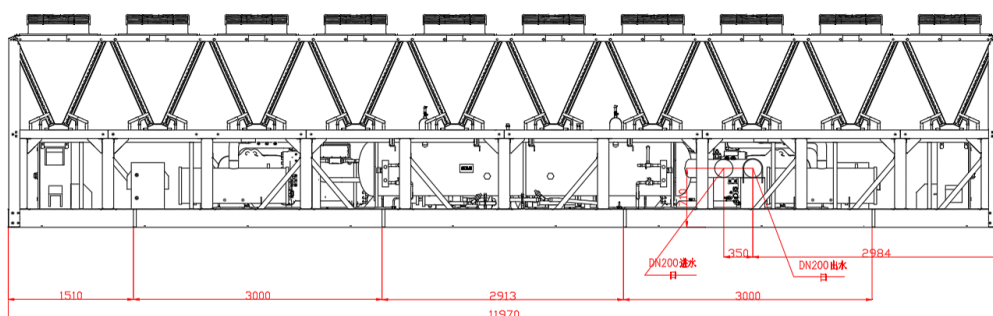
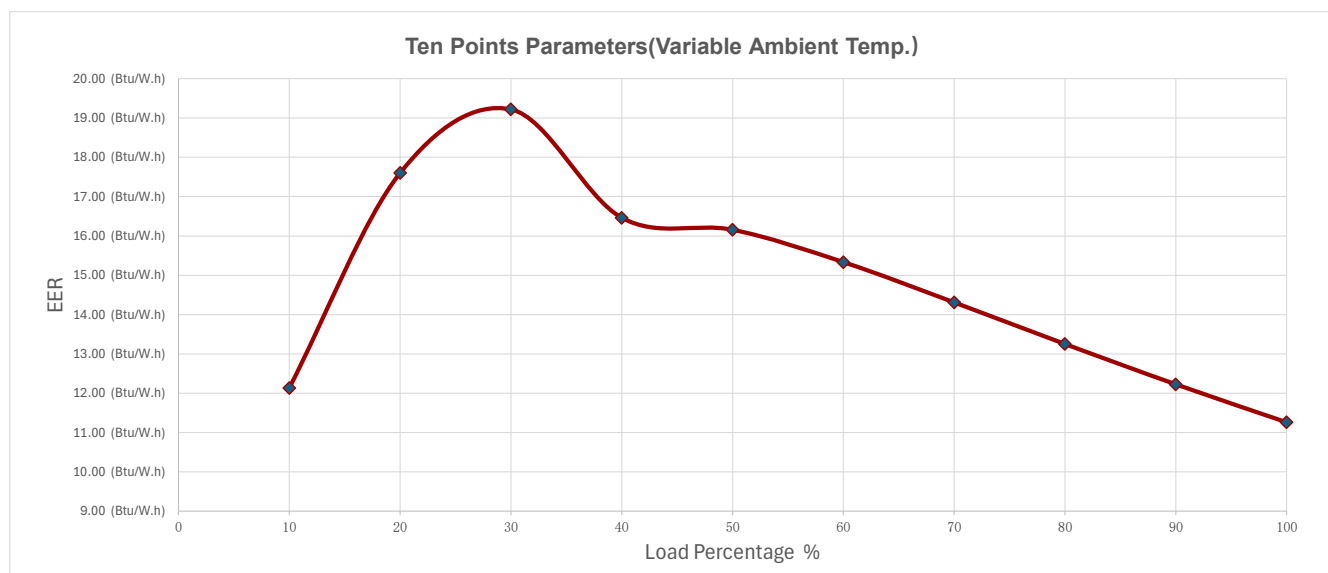


Ten Points Parameters(Variable Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	430.03 TR	458.30 kW	1.0664 kW/TR	11.26 (Btu/W.h)	24.09 ft CA	35.00 °C	1,144.31 GPM	7.00 °C
90	387.05 TR	379.90 kW	0.9822 kW/TR	12.23 (Btu/W.h)	24.09 ft CA	31.80 °C	1,144.31 GPM	7.00 °C
80	344.08 TR	311.60 kW	0.9062 kW/TR	13.25 (Btu/W.h)	24.09 ft CA	28.60 °C	1,144.31 GPM	7.00 °C
70	301.10 TR	252.50 kW	0.8391 kW/TR	14.31 (Btu/W.h)	24.09 ft CA	25.40 °C	1,144.31 GPM	7.00 °C
60	258.13 TR	202.00 kW	0.7831 kW/TR	15.33 (Btu/W.h)	24.09 ft CA	22.20 °C	1,144.31 GPM	7.00 °C
50	215.16 TR	159.80 kW	0.7432 kW/TR	16.16 (Btu/W.h)	24.09 ft CA	19.00 °C	1,144.31 GPM	7.00 °C
40	171.90 TR	125.30 kW	0.7294 kW/TR	16.46 (Btu/W.h)	24.09 ft CA	15.80 °C	1,144.31 GPM	7.00 °C
30	128.92 TR	80.50 kW	0.6248 kW/TR	19.22 (Btu/W.h)	24.09 ft CA	13.00 °C	1,144.31 GPM	7.00 °C
20	85.95 TR	58.60 kW	0.6822 kW/TR	17.60 (Btu/W.h)	24.09 ft CA	13.00 °C	1,144.31 GPM	7.00 °C
10	42.97 TR	42.5	0.9896 kW/TR	12.13 (Btu/W.h)	24.09 ft CA	13.00 °C	1,144.31 GPM	7.00 °C

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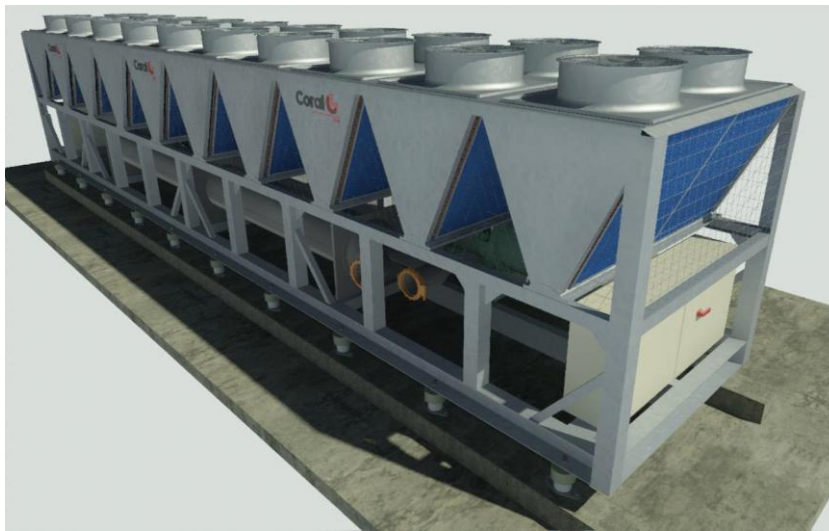
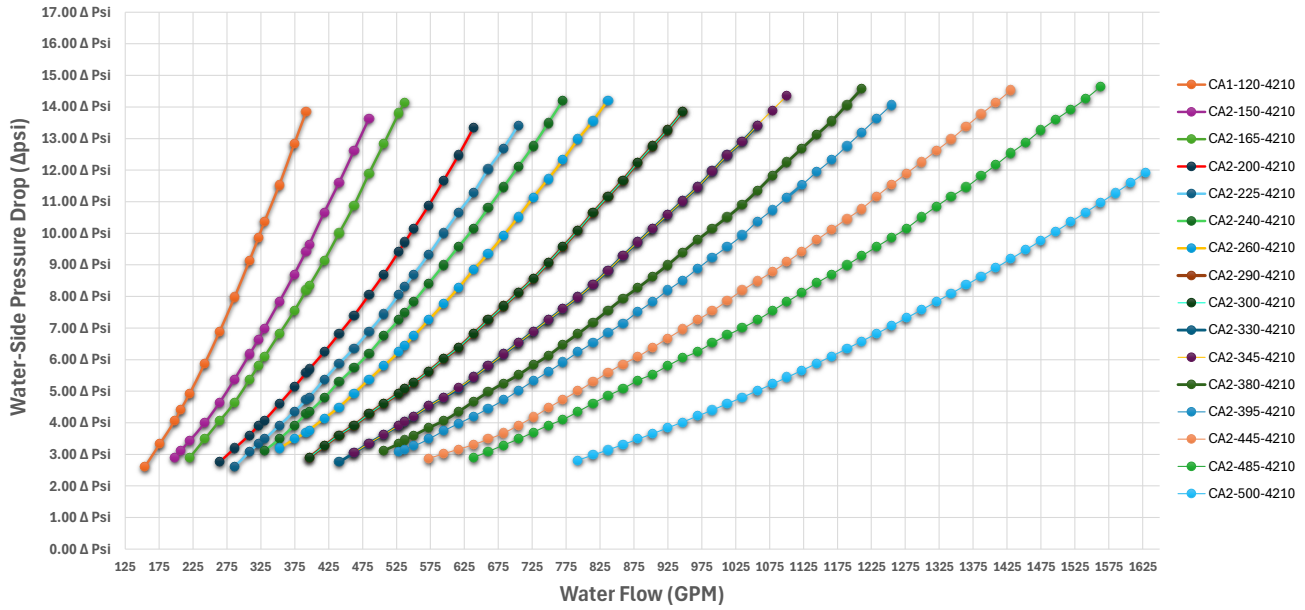
Chiller Model: CA2-430-4210



Dimension Model: CA2-430-4210	Length 11,970.00 mm	Width 2,250.00 mm	Height 2,520.00 mm
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Water Pressure Drop Curve IP (Chiller Coral)



CA2-430-4210

Cooling Capacity:	1,511.00 kW	430.03 TR
Chilled Water Flow:	259.90 m³/h	1,144.31 GPM
Width:	2,250.00 mm	88.58 in
Length:	11,970.00 mm	471.26 in
Height:	2,520.00 mm	99.21 in
Fan Quantity:	20 Units	
Nozzle Size(DN):	200.00 mm	8.00 in
Operating Weight:	11,460.00 kg	25,264.97 lb