



FOCUSED ON APPLICATION HVAC



Unit information		
Chiller Model	CA2-380-4210	
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:	11,040.00 kg	24,339.03 lb
Operating Weight:	11,200.00 kg	24,691.77 lb
Capacity Control	Slide Valve	
Refrigerant:	R134a	
Refrigerant Charge (Ckt1 / Ckt2):	240.00 kg	240.00 Kg
Starting Control:	Y-Δ	

Performance Information (Cooling Conditions)		
** Cooling Capacity:	1,335.00 kW	379.94 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	229.60 m³/h	1,010.90 GPM
Input Power (Electrical):	402.20 kW	
IPLV/NPLV:	4.52 (W/W)	15.45 (Btu/W.h)
COP:	3.32 (W/W)	11.34 EER (Btu/W.h)

Water-Side Heat Exchanger Information		
Fluid Type:	Water	
Nozzle Type:	Victaulic Coupling	
Water Volume:	256.00 L	67.64 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:	73.00 kPa	24.42 ft CA
Design Pressure of Water Side (Max):	1.00 MPa	145.04 psi

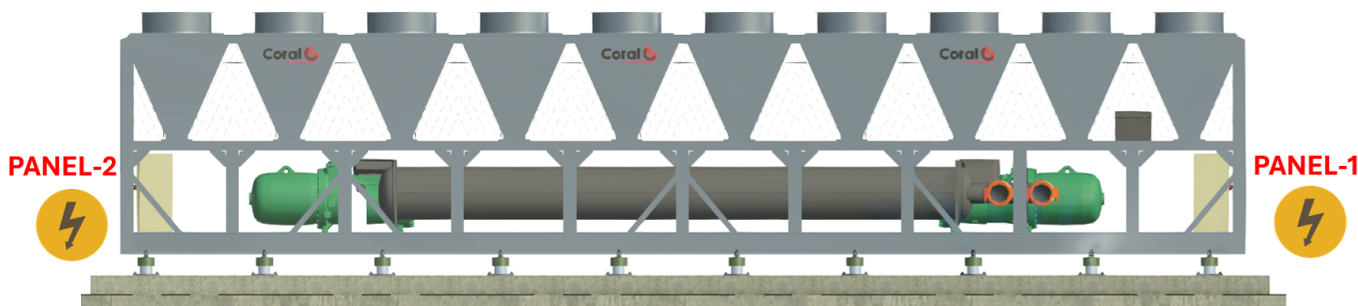
Electrical Connections		
Amperage	Electrical Circuit 1	Electrical Circuit 2
Maximum Operating Current (MCA):	378.00 A	378.00 A
Maximum Overcurrent Protection (MOCP):	500.00 A	500.00 A

Compressor Information		
Brand:	Bitzer	
Model:	CSH9573-240Y-40D	
Compressor Type:	Semi-Hermetic Screw	
Maximum Compressor Current:	325.00 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):	566.00 A	
Max. Starting Current (A):	1,028.00 A	
Maximum Operating Current (A)	756.00 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



IPLV/NPLV Points (SI)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD	DBT	EEWT	ELWT
100	1,335.00 kW	402.20 kW	1.0593 kW/TR	3.32 W/W	73.00 kPa	35.00 °C	12.00 °C	7.00 °C
75	1,001.00 kW	248.40 kW	0.8725 kW/TR	4.03 W/W	73.00 kPa	27.00 °C	10.75 °C	7.00 °C
50	668.00 kW	141.20 kW	0.7432 kW/TR	4.73 W/W	73.00 kPa	19.00 °C	9.50 °C	7.00 °C
25	334.00 kW	60.00 kW	0.6316 kW/TR	5.57 W/W	73.00 kPa	13.00 °C	8.25 °C	7.00 °C

IPLV /NPLV =0.01*A+0.42*B+0.45*C+0.12*D= 4.52 (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	379.94 TR	402.20 kW	1.0593 kW/TR	11.34 (Btu/W.h)	24.42 ft CA	95.00 °F	53.60 °F	44.60 °F
75	284.88 TR	248.40 kW	0.8725 kW/TR	13.76 (Btu/W.h)	24.42 ft CA	80.60 °F	51.35 °F	44.60 °F
50	190.11 TR	141.20 kW	0.7432 kW/TR	16.16 (Btu/W.h)	24.42 ft CA	66.20 °F	49.10 °F	44.60 °F
25	95.06 TR	60.00 kW	0.6316 kW/TR	19.01 (Btu/W.h)	24.42 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= 15.45 EER (Btu/w)

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

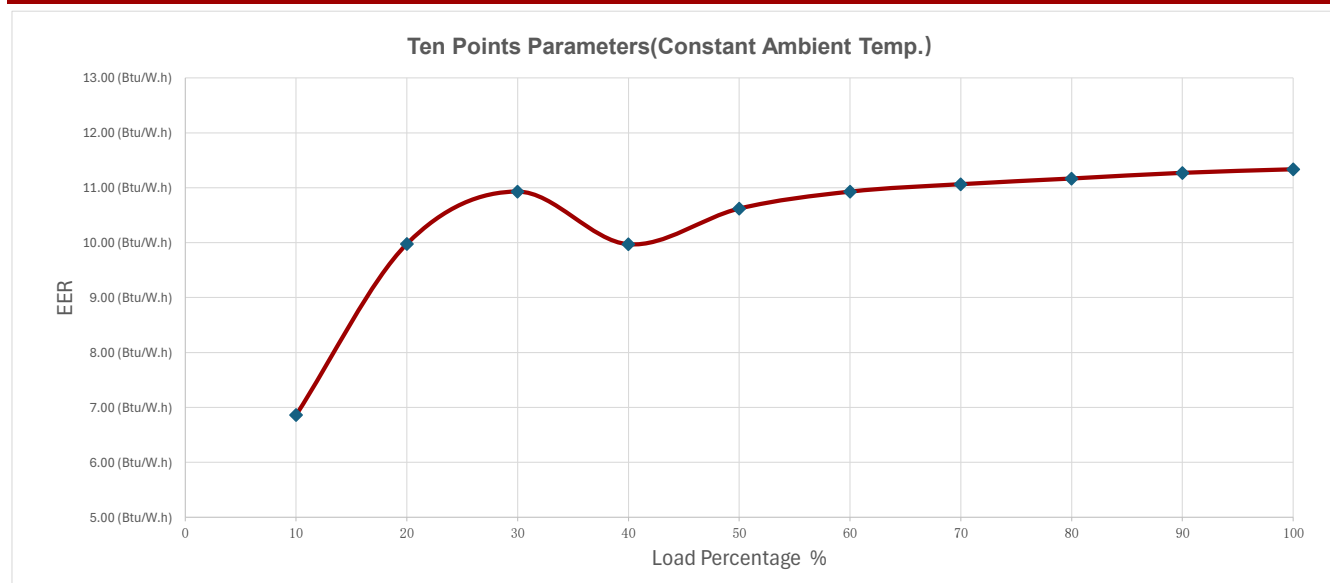
Performance calculations are in accordance with AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).

Ten Points Parameters(Constant Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	379.94 TR	402.20 kW	1.0593 kW/TR	11.34 (Btu/W.h)	24.42 ft CA	35.00 °C	1,010.90 GPM	7.00 °C
90	342.09 TR	364.20 kW	1.0653 kW/TR	11.27 (Btu/W.h)	24.42 ft CA	35.00 °C	1,010.90 GPM	7.00 °C
80	303.95 TR	326.60 kW	1.0752 kW/TR	11.17 (Btu/W.h)	24.42 ft CA	35.00 °C	1,010.90 GPM	7.00 °C
70	266.10 TR	288.60 kW	1.0853 kW/TR	11.06 (Btu/W.h)	24.42 ft CA	35.00 °C	1,010.90 GPM	7.00 °C
60	227.96 TR	250.30 kW	1.0987 kW/TR	10.93 (Btu/W.h)	24.42 ft CA	35.00 °C	1,010.90 GPM	7.00 °C
50	190.11 TR	214.80 kW	1.1306 kW/TR	10.62 (Btu/W.h)	24.42 ft CA	35.00 °C	1,010.90 GPM	7.00 °C
40	151.98 TR	182.90 kW	1.2043 kW/TR	9.97 (Btu/W.h)	24.42 ft CA	35.00 °C	1,010.90 GPM	7.00 °C
30	114.12 TR	125.30 kW	1.0986 kW/TR	10.93 (Btu/W.h)	24.42 ft CA	35.00 °C	1,010.90 GPM	7.00 °C
20	75.99 TR	91.40 kW	1.0804 kW/TR	9.98 (Btu/W.h)	24.42 ft CA	35.00 °C	1,010.90 GPM	7.00 °C
10	38.14 TR	66.70 kW	1.5709 kW/TR	6.86 (Btu/W.h)	24.42 ft CA	35.00 °C	1,010.90 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: CA2-380-4210

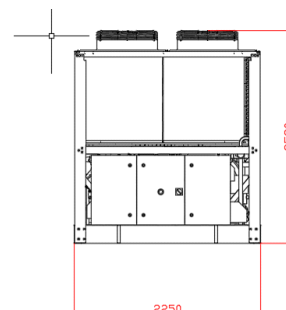
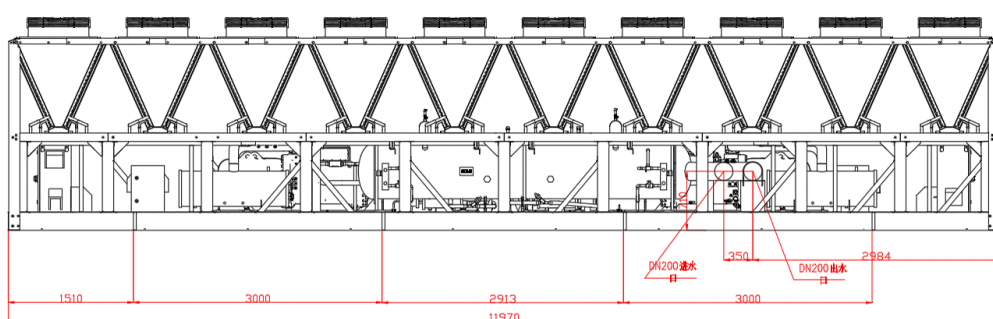
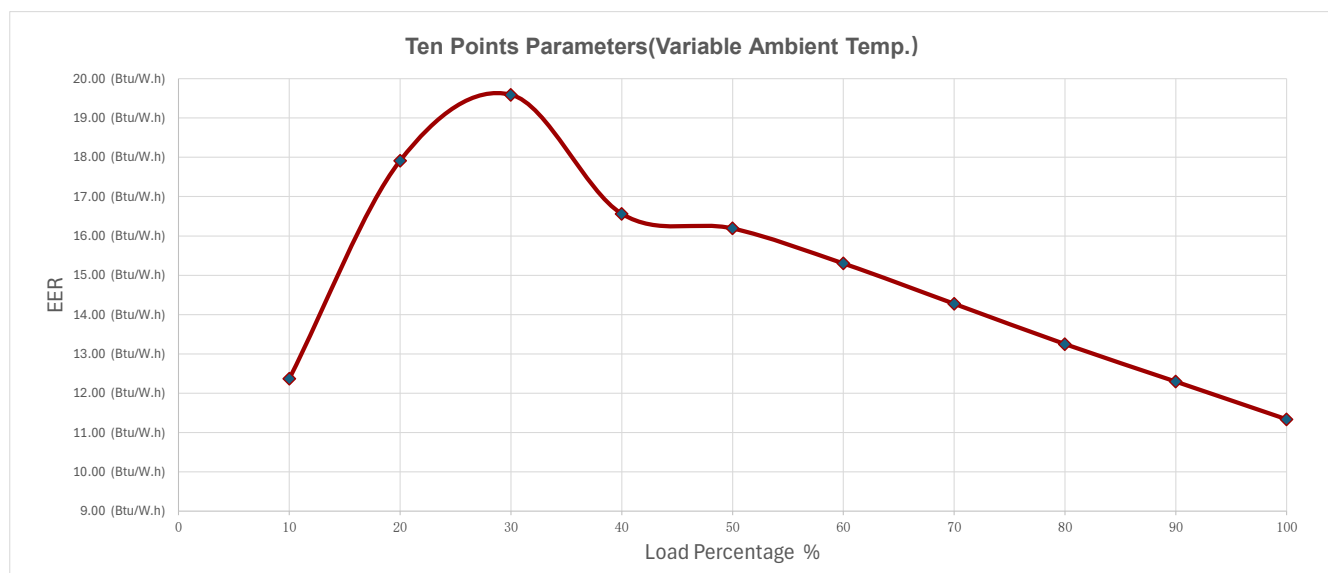


Ten Points Parameters(Variable Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	379.94 TR	402.20 kW	1.0593 kW/TR	11.34 (Btu/W.h)	24.42 ft CA	35.00 °C	1,010.90 GPM	7.00 °C
90	342.09 TR	333.90 kW	0.9767 kW/TR	12.29 (Btu/W.h)	24.42 ft CA	31.80 °C	1,010.90 GPM	7.00 °C
80	303.95 TR	275.30 kW	0.9063 kW/TR	13.25 (Btu/W.h)	24.42 ft CA	28.60 °C	1,010.90 GPM	7.00 °C
70	266.10 TR	223.70 kW	0.8412 kW/TR	14.27 (Btu/W.h)	24.42 ft CA	25.40 °C	1,010.90 GPM	7.00 °C
60	227.96 TR	178.80 kW	0.7848 kW/TR	15.30 (Btu/W.h)	24.42 ft CA	22.20 °C	1,010.90 GPM	7.00 °C
50	190.11 TR	140.90 kW	0.7416 kW/TR	16.19 (Btu/W.h)	24.42 ft CA	19.00 °C	1,010.90 GPM	7.00 °C
40	151.98 TR	110.10 kW	0.7249 kW/TR	16.56 (Btu/W.h)	24.42 ft CA	15.80 °C	1,010.90 GPM	7.00 °C
30	114.12 TR	69.90 kW	0.6129 kW/TR	19.59 (Btu/W.h)	24.42 ft CA	13.00 °C	1,010.90 GPM	7.00 °C
20	75.99 TR	50.90 kW	0.6703 kW/TR	17.91 (Btu/W.h)	24.42 ft CA	13.00 °C	1,010.90 GPM	7.00 °C
10	38.14 TR	37.0	0.9708 kW/TR	12.37 (Btu/W.h)	24.42 ft CA	13.00 °C	1,010.90 GPM	7.00 °C

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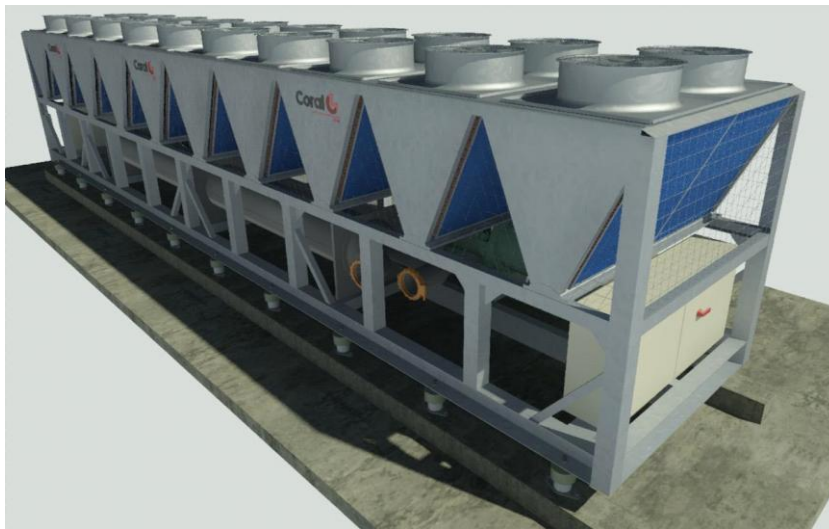
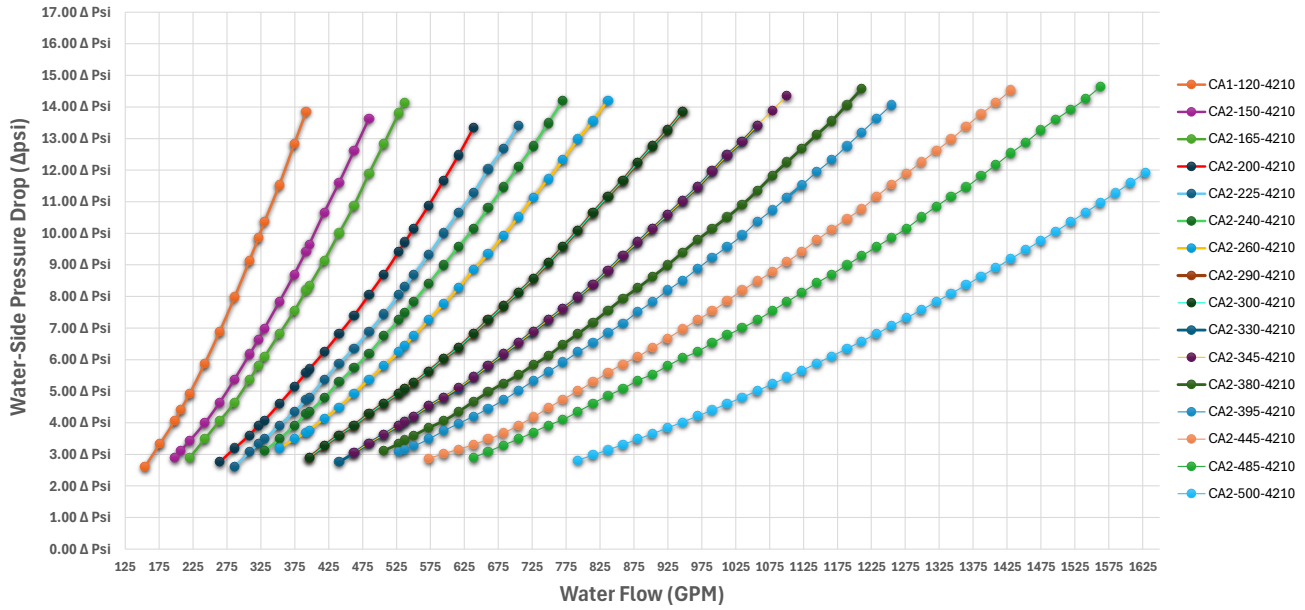
Chiller Model: CA2-380-4210



Dimension Model: CA2-380-4210	Length 11,970.00 mm	Width 2,250.00 mm	Height 2,520.00 mm
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Coral

Water Pressure Drop Curve IP (Chiller Coral)



CA2-380-4210

Cooling Capacity:	1,335.00 kW	379.94 TR
Chilled Water Flow:	229.60 m³/h	1,010.90 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:	11,200.00 kg	24,691.77 lb