



FOCUSED ON APPLICATION HVAC



Unit information		
Chiller Model:	CA2-290-4210	
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:	9,140.00 kg	20,150.25 lb
Operating Weight:	9,260.00 kg	20,414.80 lb
Capacity Control:	Slide Valve	
Refrigerant:	R134a	
Refrigerant Charge (Ckt1 / Ckt2):	175.00 kg	175.00 Kg
Starting Control:	Y-Δ	



Performance Information (Cooling Conditions)		
** Cooling Capacity:	1,025.00 kW	291.72 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:	176.30 m³/h	776.23 GPM
Input Power (Electrical):	315.20 kW	
IPLV/NPLV:	4.43 (W/W)	15.13 (Btu/W.h)
COP:	3.25 (W/W)	11.10 EER (Btu/W.h)

Compressor Information		
Brand:	Bitzer	
Model:	CSH9553-180Y-40D	
Compressor Type:	Semi-Hermetic Screw	
Maximum Compressor Current:	254.00 A	
Quantity:	2 Piece/s	
Oil Type (per compressor):	BSE170	1,055.90 oz
Capacity Regulating Range:	12.5% - 100%	

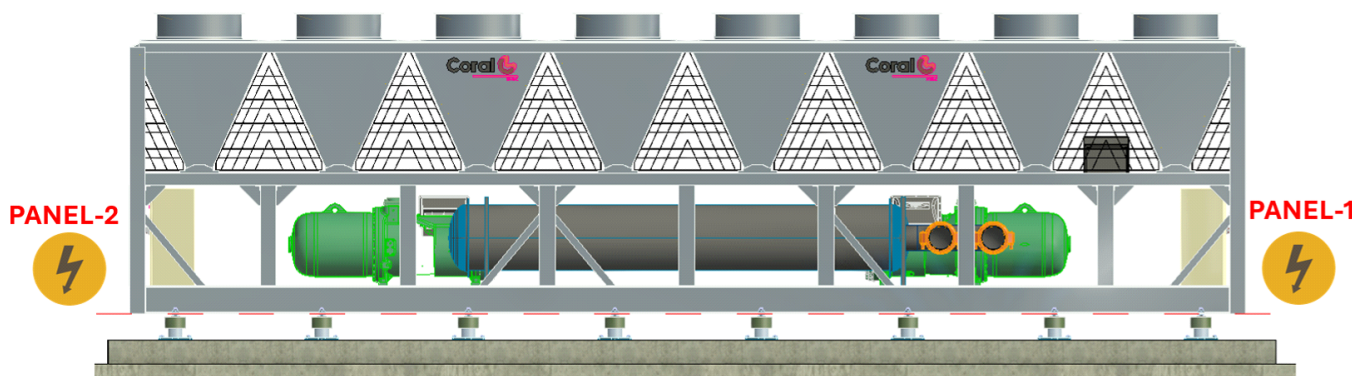
Water-Side Heat Exchanger Information		
Fluid Type:	Water	
Nozzle Type:	Victaulic Coupling	
Water Volume:	190.00 L	50.20 gal
Heat Exchanger Type:	Flooded Shell-and-Tube	
Fouling Factor:	0.018 m²·K/kW	0.1021 ft²·F/Btu
Nozzle Size(DN):	200.00 mm	8.00 in
Water Pressure Drop:	68.00 kPa	22.75 ft CA
Design 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):	296.50 A	296.50 A
Maximum Overcurrent Protection (MOCP):	400.00 A	400.00 A

Electrical Information		
Power Supply:	460V / 3 Ph / 60 Hz	
Voltage Range:	440 V	480 V
Rating Current (A):	434.00 A	
Max. Starting Current (A):	761.00 A	
Maximum Operating Current (A)	593.00 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	1,025.00 kW	315.20 kW	1.0812 kW/TR	3.25 W/W	68.00 kPa	35.00 °C	12.00 °C	7.00 °C
75	769.00 kW	192.70 kW	0.8811 kW/TR	3.99 W/W	68.00 kPa	27.00 °C	10.75 °C	7.00 °C
50	513.00 kW	110.60 kW	0.7580 kW/TR	4.64 W/W	68.00 kPa	19.00 °C	9.50 °C	7.00 °C
25	256.00 kW	48.50 kW	0.6661 kW/TR	5.28 W/W	68.00 kPa	13.00 °C	8.25 °C	7.00 °C

IPLV /NPLV =0.01*A+0.42*B+0.45*C+0.12*D= 4.43 (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	291.71 TR	315.20 kW	1.0812 kW/TR	11.11 (Btu/W.h)	22.75 ft CA	95.00 °F	53.60 °F	44.60 °F
75	218.86 TR	192.70 kW	0.8811 kW/TR	13.63 (Btu/W.h)	22.75 ft CA	80.60 °F	51.35 °F	44.60 °F
50	146.00 TR	110.60 kW	0.7580 kW/TR	15.84 (Btu/W.h)	22.75 ft CA	66.20 °F	49.10 °F	44.60 °F
25	72.86 TR	48.50 kW	0.6661 kW/TR	18.03 (Btu/W.h)	22.75 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= 15.13 EER (Btu/w)

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

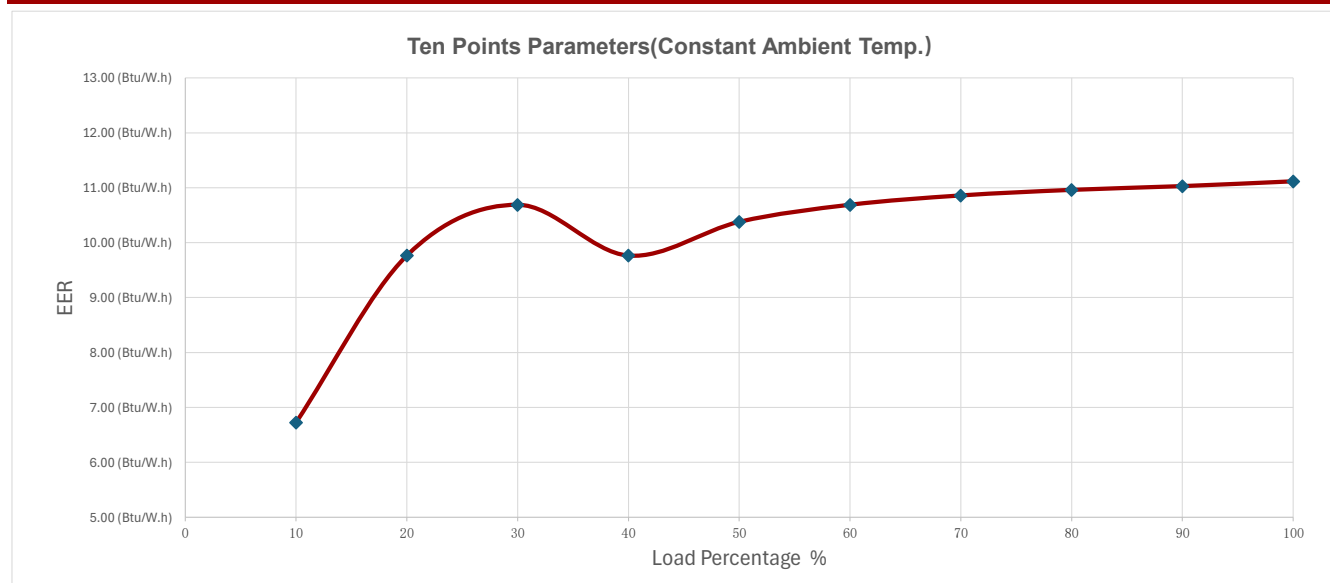
Performance calculations are in accordance with AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).

Ten Points Parameters(Constant Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	292.00 TR	315.20 kW	1.0802 kW/TR	11.12 (Btu/W.h)	22.75 ft CA	35.00 °C	776.23 GPM	7.00 °C
90	262.68 TR	285.80 kW	1.0887 kW/TR	11.03 (Btu/W.h)	22.75 ft CA	35.00 °C	776.23 GPM	7.00 °C
80	233.66 TR	255.80 kW	1.0955 kW/TR	10.96 (Btu/W.h)	22.75 ft CA	35.00 °C	776.23 GPM	7.00 °C
70	204.34 TR	225.80 kW	1.1057 kW/TR	10.86 (Btu/W.h)	22.75 ft CA	35.00 °C	776.23 GPM	7.00 °C
60	175.31 TR	196.80 kW	1.1233 kW/TR	10.69 (Btu/W.h)	22.75 ft CA	35.00 °C	776.23 GPM	7.00 °C
50	146.00 TR	168.80 kW	1.1569 kW/TR	10.38 (Btu/W.h)	22.75 ft CA	35.00 °C	776.23 GPM	7.00 °C
40	116.69 TR	143.40 kW	1.2297 kW/TR	9.76 (Btu/W.h)	22.75 ft CA	35.00 °C	776.23 GPM	7.00 °C
30	87.66 TR	98.40 kW	1.1233 kW/TR	10.69 (Btu/W.h)	22.75 ft CA	35.00 °C	776.23 GPM	7.00 °C
20	58.34 TR	71.70 kW	1.1038 kW/TR	9.76 (Btu/W.h)	22.75 ft CA	35.00 °C	776.23 GPM	7.00 °C
10	29.31 TR	52.30 kW	1.6025 kW/TR	6.73 (Btu/W.h)	22.75 ft CA	35.00 °C	776.23 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

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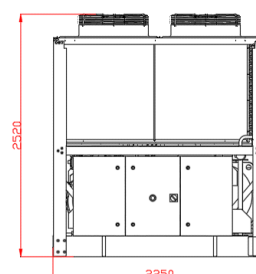
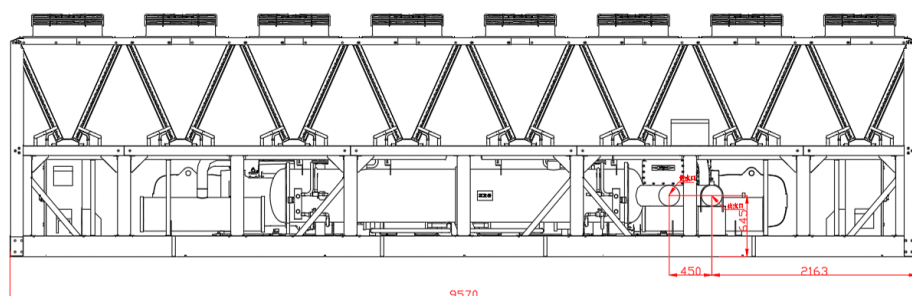
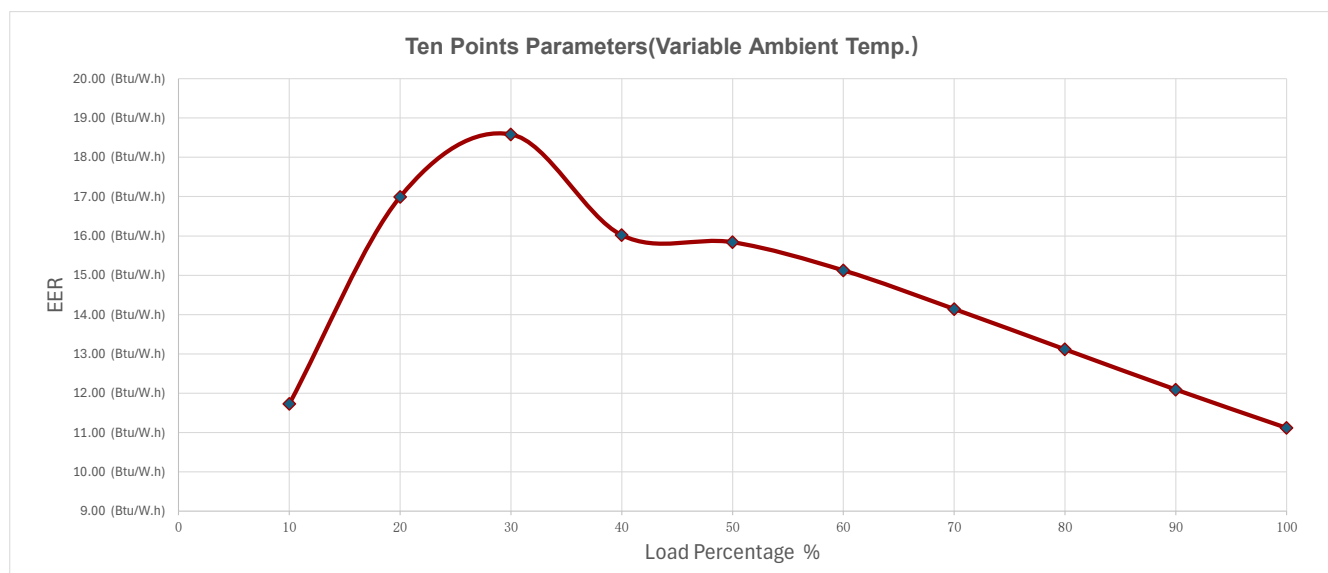


Ten Points Parameters(Variable Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	292.00 TR	315.20 kW	1.0802 kW/TR	11.12 (Btu/W.h)	22.75 ft CA	35.00 °C	776.23 GPM	7.00 °C
90	262.68 TR	260.70 kW	0.9931 kW/TR	12.09 (Btu/W.h)	22.75 ft CA	31.80 °C	776.23 GPM	7.00 °C
80	233.66 TR	213.80 kW	0.9156 kW/TR	13.11 (Btu/W.h)	22.75 ft CA	28.60 °C	776.23 GPM	7.00 °C
70	204.34 TR	173.40 kW	0.8491 kW/TR	14.14 (Btu/W.h)	22.75 ft CA	25.40 °C	776.23 GPM	7.00 °C
60	175.31 TR	139.10 kW	0.7940 kW/TR	15.12 (Btu/W.h)	22.75 ft CA	22.20 °C	776.23 GPM	7.00 °C
50	146.00 TR	110.60 kW	0.7580 kW/TR	15.84 (Btu/W.h)	22.75 ft CA	19.00 °C	776.23 GPM	7.00 °C
40	116.69 TR	87.40 kW	0.7495 kW/TR	16.02 (Btu/W.h)	22.75 ft CA	15.80 °C	776.23 GPM	7.00 °C
30	87.66 TR	56.60 kW	0.6461 kW/TR	18.58 (Btu/W.h)	22.75 ft CA	13.00 °C	776.23 GPM	7.00 °C
20	58.34 TR	41.20 kW	0.7066 kW/TR	16.99 (Btu/W.h)	22.75 ft CA	13.00 °C	776.23 GPM	7.00 °C
10	29.31 TR	30.0	1.0241 kW/TR	11.73 (Btu/W.h)	22.75 ft CA	13.00 °C	776.23 GPM	7.00 °C

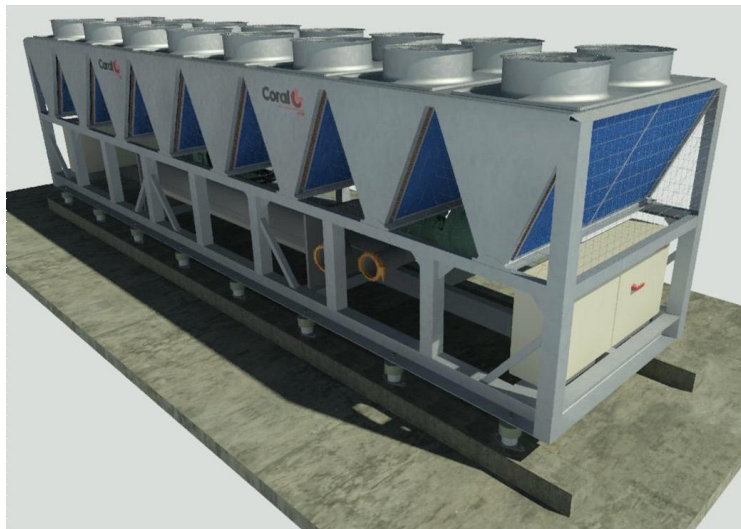
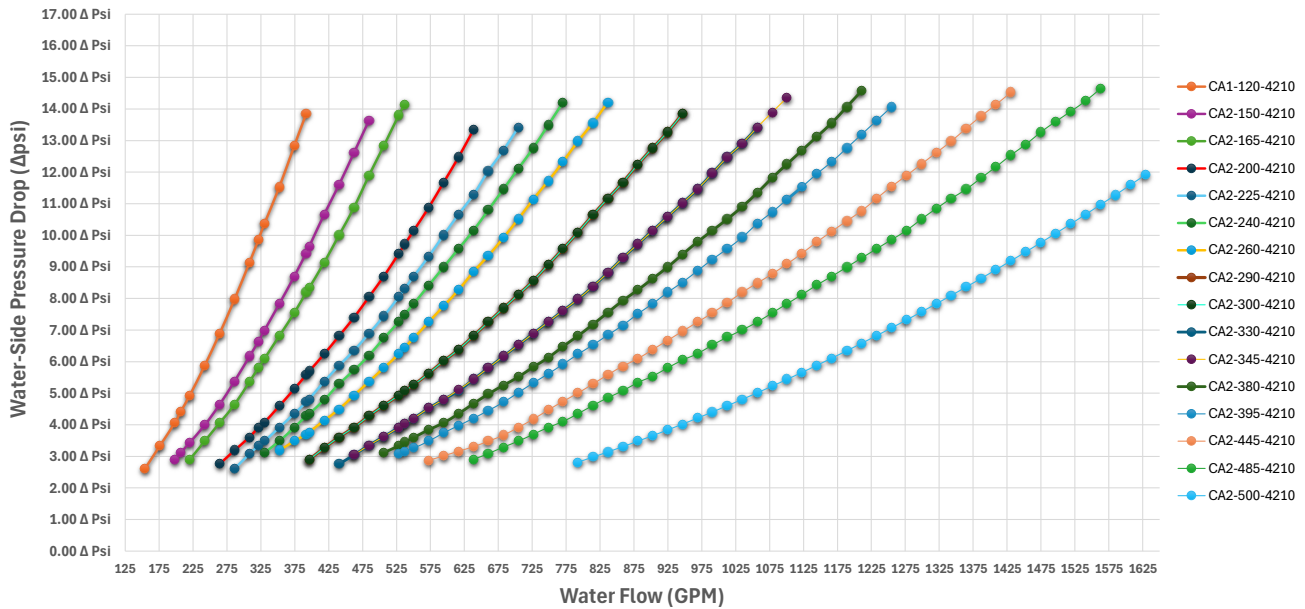
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Dimension Model: CA2-290-4210	Length	Width	Height
	9,570.00 mm	2,250.00 mm	2,520.00 mm

Water Pressure Drop Curve IP (Chiller Coral)



CA2-290-4210

Cooling Capacity:	1,025.00 kW	291.71 TR
Chilled Water Flow:	176.30 m³/h	776.23 GPM
Width:	2,250.00 mm	88.58 in
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