

Coral

FOCUSED ON APPLICATION HVAC



Unit information		
Chiller Model:	CA2-165-4210	
Width:	2,250.00 mm	88.58 in
Length:	4,790.00 mm	188.58 in
Height:	2,460.00 mm	96.85 in
Shipping Weight:	5,340.00 kg	11,772.68 lb
Operating Weight:	5,420.00 kg	11,949.05 lb
Capacity Control:	Slide Valve	
Refrigerant:	R134a	
Refrigerant Charge (Ckt1 / Ckt2):	125.00 kg	125.00 Kg
Starting Control:	Y-Δ	

Performance Information (Cooling Conditions)		
** Cooling Capacity:	589.00 kW	167.63 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	101.30 m³/h	446.01 GPM
Input Power (Electrical):	183.80 kW	
IPLV/NPLV:	4.41 (W/W)	15.06 (Btu/W.h)
COP:	3.20 (W/W)	10.93 EER (Btu/W.h)

Water-Side Heat Exchanger Information		
Fluid Type:	Water	
Nozzle Type:	Victaulic Coupling	
Water Volume:	107.00 L	28.27 gal
Heat Exchanger Type:	Flooded Shell-and-Tube	
Fouling Factor:	0.018 m².K/kW	0.1021 ft².F/Btu
Nozzle Size(DN):	150.00 mm	6.00 in
Water Pressure Drop:	71.00 kPa	23.75 ft CA
Design Pressure of Water Side (Max):	1.00 MPa	145.04 psi

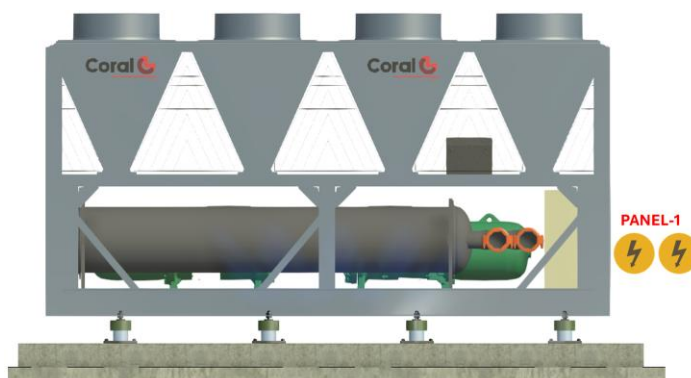
Electrical Connections		
Amperage	Electrical Circuit 1	Electrical Circuit 2
Maximum Operating Current (MCA):	208.50 A	208.50 A
Maximum Overcurrent Protection (MOCP):	315.00 A	315.00 A

Compressor Information		
Brand:	Bitzer	
Model:	CSH8563-125Y-40D	
Compressor Type:	Semi-Hermetic Screw	
Maximum Compressor Current:	187.20 A	
Quantity:	2 Piece/s	
Oil Type (per compressor):	BSE170	774.30 oz
Capacity Regulating Range:	12.5% - 100%	

Air-Side Heat Exchanger Information		
Type:	Fin-and-Tube	
Fan Quantity:	8 Units	
Air Flow	196,000.00 m³/h	115,361.09 CFM
Fan Power Input	2.20 kW/unit	17.60 kW Total

Electrical Information		
Power Supply:	460V / 3 Ph / 60 Hz	
Voltage Range:	440 V	480 V
Rating Current (A):	272.00 A	
Max. Starting Current (A):	522.00 A	
Maximum Operating Current (A)	417.00 A	

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

Coral

IPLV/NPLV Points (SI)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD	DBT	EEWT	ELWT
100	589.00 kW	183.80 kW	1.0972 kW/TR	3.20 W/W	71.00 kPa	35.00 °C	12.00 °C	7.00 °C
75	442.00 kW	111.60 kW	0.8878 kW/TR	3.96 W/W	71.00 kPa	27.00 °C	10.75 °C	7.00 °C
50	295.00 kW	63.90 kW	0.7616 kW/TR	4.62 W/W	71.00 kPa	19.00 °C	9.50 °C	7.00 °C
25	147.00 kW	27.80 kW	0.6649 kW/TR	5.29 W/W	71.00 kPa	13.00 °C	8.25 °C	7.00 °C

IPLV /NPLV =0.01*A+0.42*B+0.45*C+0.12*D= 4.41 (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	167.63 TR	183.80 kW	1.0972 kW/TR	10.94 (Btu/W.h)	23.75 ft CA	95.00 °F	53.60 °F	44.60 °F
75	125.79 TR	111.60 kW	0.8878 kW/TR	13.53 (Btu/W.h)	23.75 ft CA	80.60 °F	51.35 °F	44.60 °F
50	83.96 TR	63.90 kW	0.7616 kW/TR	15.77 (Btu/W.h)	23.75 ft CA	66.20 °F	49.10 °F	44.60 °F
25	41.84 TR	27.80 kW	0.6649 kW/TR	18.06 (Btu/W.h)	23.75 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= 15.06 EER (Btu/w)

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

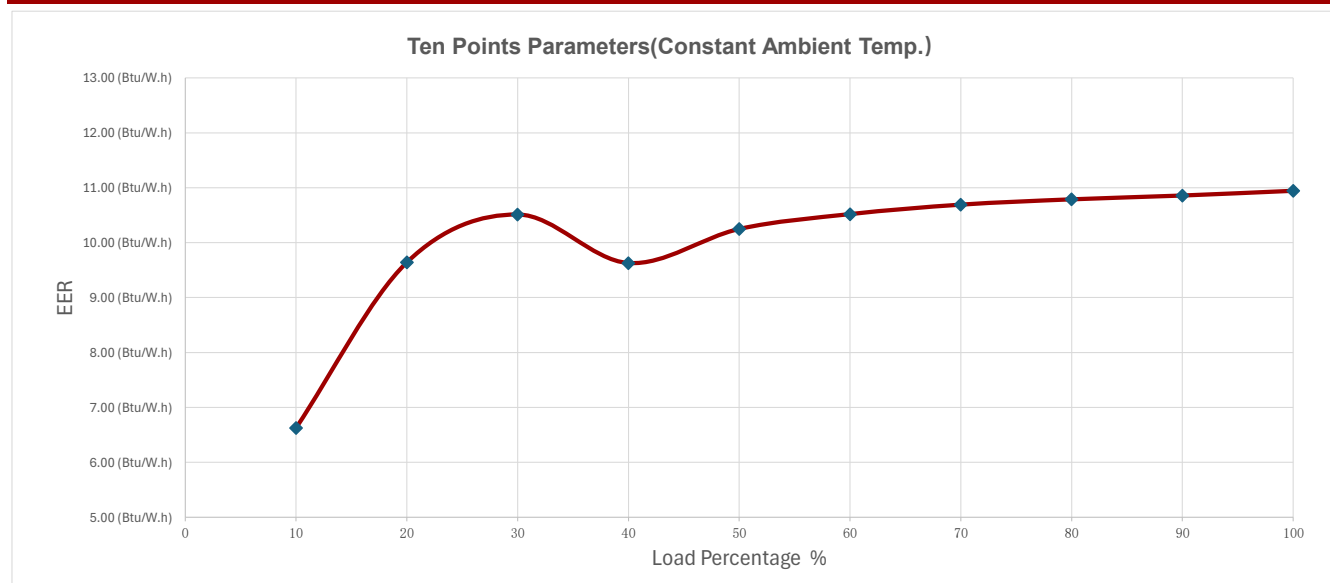
Performance calculations are in accordance with AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).

Ten Points Parameters(Constant Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	167.63 TR	183.80 kW	1.0972 kW/TR	10.94 (Btu/W.h)	23.75 ft CA	35.00 °C	446.01 GPM	7.00 °C
90	150.84 TR	166.70 kW	1.1059 kW/TR	10.86 (Btu/W.h)	23.75 ft CA	35.00 °C	446.01 GPM	7.00 °C
80	134.05 TR	149.10 kW	1.1130 kW/TR	10.79 (Btu/W.h)	23.75 ft CA	35.00 °C	446.01 GPM	7.00 °C
70	117.25 TR	131.60 kW	1.1231 kW/TR	10.69 (Btu/W.h)	23.75 ft CA	35.00 °C	446.01 GPM	7.00 °C
60	100.46 TR	114.60 kW	1.1415 kW/TR	10.52 (Btu/W.h)	23.75 ft CA	35.00 °C	446.01 GPM	7.00 °C
50	83.96 TR	98.30 kW	1.1716 kW/TR	10.25 (Btu/W.h)	23.75 ft CA	35.00 °C	446.01 GPM	7.00 °C
40	67.17 TR	83.70 kW	1.2470 kW/TR	9.63 (Btu/W.h)	23.75 ft CA	35.00 °C	446.01 GPM	7.00 °C
30	50.37 TR	57.50 kW	1.1422 kW/TR	10.51 (Btu/W.h)	23.75 ft CA	35.00 °C	446.01 GPM	7.00 °C
20	33.58 TR	41.80 kW	1.1180 kW/TR	9.64 (Btu/W.h)	23.75 ft CA	35.00 °C	446.01 GPM	7.00 °C
10	16.79 TR	30.40 kW	1.6261 kW/TR	6.63 (Btu/W.h)	23.75 ft CA	35.00 °C	446.01 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: CA2-165-4210

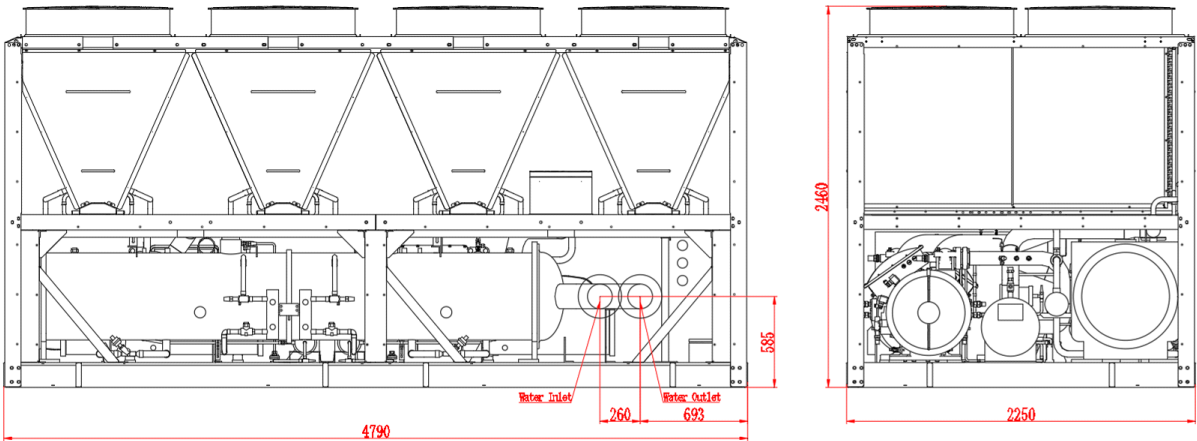
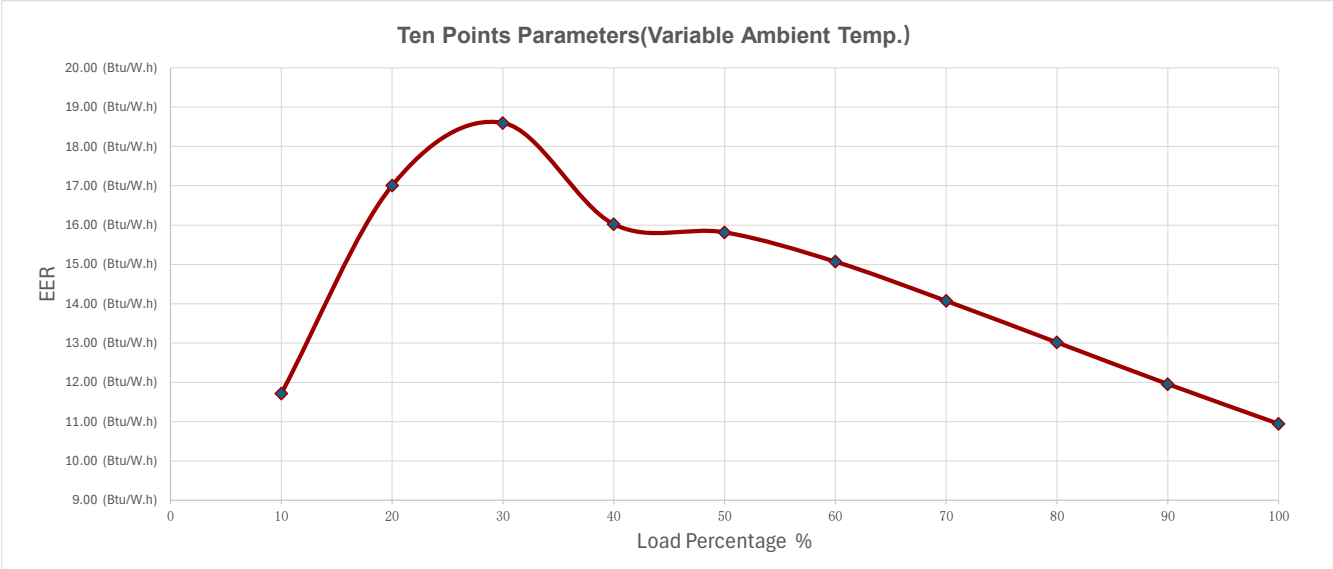


Ten Points Parameters(Variable Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	167.63 TR	183.80 kW	1.0972 kW/TR	10.94 (Btu/W.h)	23.75 ft CA	35.00 °C	446.01 GPM	7.00 °C
90	150.84 TR	151.40 kW	1.0044 kW/TR	11.96 (Btu/W.h)	23.75 ft CA	31.80 °C	446.01 GPM	7.00 °C
80	134.05 TR	123.60 kW	0.9227 kW/TR	13.01 (Btu/W.h)	23.75 ft CA	28.60 °C	446.01 GPM	7.00 °C
70	117.25 TR	100.00 kW	0.8534 kW/TR	14.07 (Btu/W.h)	23.75 ft CA	25.40 °C	446.01 GPM	7.00 °C
60	100.46 TR	80.00 kW	0.7968 kW/TR	15.07 (Btu/W.h)	23.75 ft CA	22.20 °C	446.01 GPM	7.00 °C
50	83.96 TR	63.70 kW	0.7592 kW/TR	15.82 (Btu/W.h)	23.75 ft CA	19.00 °C	446.01 GPM	7.00 °C
40	67.17 TR	50.30 kW	0.7494 kW/TR	16.02 (Btu/W.h)	23.75 ft CA	15.80 °C	446.01 GPM	7.00 °C
30	50.37 TR	32.50 kW	0.6456 kW/TR	18.60 (Btu/W.h)	23.75 ft CA	13.00 °C	446.01 GPM	7.00 °C
20	33.58 TR	23.70 kW	0.7062 kW/TR	17.00 (Btu/W.h)	23.75 ft CA	13.00 °C	446.01 GPM	7.00 °C
10	16.79 TR	17.2	1.0250 kW/TR	11.71 (Btu/W.h)	23.75 ft CA	13.00 °C	446.01 GPM	7.00 °C

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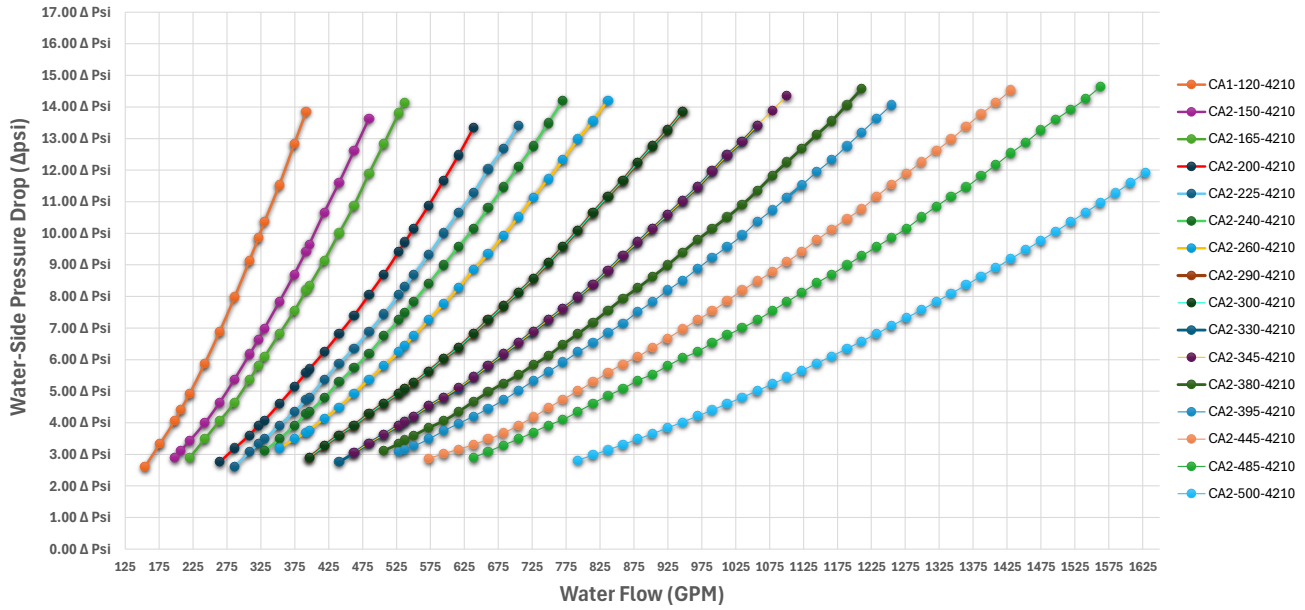
Chiller Model: CA2-165-4210



Dimension Model: CA2-165-4210	Length	Width	Height
	4,790.00 mm	2,250.00 mm	2,460.00 mm



Water Pressure Drop Curve IP (Chiller Coral)



CA2-165-4210

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Chilled Water Flow:	101.30 m³/h	446.01 GPM
Width:	2,250.00 mm	88.58 in
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Height:	2,460.00 mm	96.85 in
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