



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:	2,520.00 mm	99.21 in
Shipping Weight:	5,340.00 Kgs	11,772.68 Lbs
Operating Weight:	5,420.00 Kgs	11,949.05 Lbs
Capacity Control	Stepless Control	
Refrigerant:	R134a	
Refrigerant(Ckt1 / Ckt2):	125.00 Kgs	125.00 Kgs
Starting Control:	Y-Δ	

Performance Information(Cooling Condition)		
Cooling Capacity:	589.00 Kw	165.00 Tons
Entering Water Temp:	12.00 °C	53.60 °F
Leaving Water Temp:	7.00 °C	44.60 °F
Ambient Temperatura (DB):	35.00 °C	95.00 °F
Water Flow (Max):	101.00 m³/hr	444.69 Gpm
Input Power (Electrical):	183.80 Kw	
IPLV/NPLV (W/W - Btu /w):	4.57 EER (W/W)	15.61 EER (Btu/w)
COP (W/W - Btu /w):	3.20 EER (W/W)	10.93 EER (Btu/w)

Compressor Information		
Brand:	Bitzer	
Model:	CSH8563-125Y-40D	
Type Compressor:	Semi-Hermetic Screw	
Maximal Amperaje Control:	187.20 Amperes	
Quantity:	2.00 Piece	
Oil Model (by compressor):	BSE170	774.30 Oz
Capacity Regulating Range:	25.0% - 100.0 %	

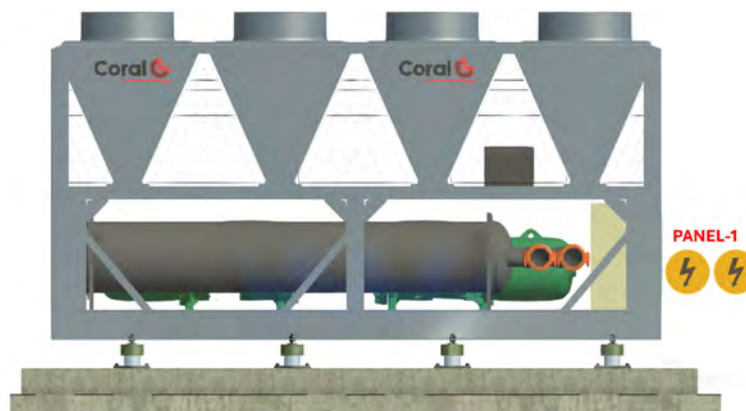
Water Side Heat Exchanger Information		
Fluid Type:	Fresh Water	
Nozzle Type:	Victaulic Couping	
Water Volume:	76.00 Lts	20.08 Galons
Heat Exchanger Type:	Flooded Shell-and-Tube	
Fouling Factor:	0.018 m².K/kW	0.1021 ft².F/Btu
Nozzle Size(DN):	150.00 mm	6.00 in
Water Pressure Drop:	71.00 kPa	23.75 ft CA
Design Pressure of Water Side (Max):	1.00 MPa	145.04 Psi

Air Side Heat Exchanger Information		
Type:	Fine-Tube	
Fan Quantity:	8.00 Units	
Air Flow	196,000.00 m³/hr	115,361.09 Cfm
Fan Power Input	2.20 Kw/Unit	17.60 Kw Total

Electrical Conections		
Amperaje	Electrical Circuit 1	Electrical Circuit 2
Maximum operating current (MCA):	208.50 Amp	208.50 Amp
Maximum Overcurrent Protection (MOCP):	315.00 Amp	315.00 Amp

Electrical Information		
Power Supply:	460Volts / 3 Phases / 60 Hertz	
Voltaje Range:	440 Volts	480 Volts
Rating Current (A):	272.00 Amp	
Max. Starting Current (A):	522.00 Amp	
Maximum operating current (A)	417.00 Amp	

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



- * Garantía 2 Años en partes y en compresores
- * Resortes anti-vibratorios

- * Refrigerante Ecologico
- * Conexiones de Tuberia ranurada (Victaulic)



IPLV/NPLV Points (SI)

Load %	Cooling Capacity (Kw)	Input Power (Kw)	Cooling kW/Ton	Cooling COP (w/w)	Evap. WPD (kPa)	DBT (°C)	EEWT (°C)	ELWT (°C)
100	589.00 Kw	183.80 Kw	0.9848 Kw/Tons	3.20 W/W	72.00 kPa	35.00 °C	12.00 °C	7.00 °C
75	442.00 Kw	113.90 Kw	0.8133 Kw/Tons	3.88 W/W	72.00 kPa	27.00 °C	10.80 °C	7.00 °C
50	295.00 Kw	57.20 Kw	0.6119 Kw/Tons	5.16 W/W	72.00 kPa	19.00 °C	9.50 °C	7.00 °C
25	147.30 Kw	30.10 Kw	0.6449 Kw/Tons	4.89 W/W	72.00 kPa	19.00 °C	8.30 °C	7.00 °C

$$IPLV.SI/NPLV.SI=0.01*A+0.42*B+0.45*C+0.12*D=4.024$$

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

Soft in accordance with the AHRI Water-Cooled Water-Chilling and Heat Pump Water-Heating Packages Using Vapor Compression Cycle , which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).

IPLV/NPLV Points (IP)

Load %	Cooling Capacity (Tons)	Input Power (Kw)	Cooling kW/Ton	Cooling COP (Btu/w-h)	Evap. WPD (ft CA)	DBT (°F)	EEWT (°F)	ELWT (°F)
100	167.63 Tons	183.80 Kw	0.9848 Kw/Tons	10.94 EER (Btu/w-h)	24.09 ft CA	95.00 °F	53.60 °F	44.60 °F
75	125.79 Tons	113.90 Kw	0.8133 Kw/Tons	13.25 EER (Btu/w-h)	24.09 ft CA	80.60 °F	51.44 °F	44.60 °F
50	83.96 Tons	57.20 Kw	0.6119 Kw/Tons	17.61 EER (Btu/w-h)	24.09 ft CA	66.20 °F	49.10 °F	44.60 °F
25	41.92 Tons	30.10 Kw	0.6449 Kw/Tons	16.71 EER (Btu/w-h)	24.09 ft CA	66.20 °F	46.94 °F	44.60 °F

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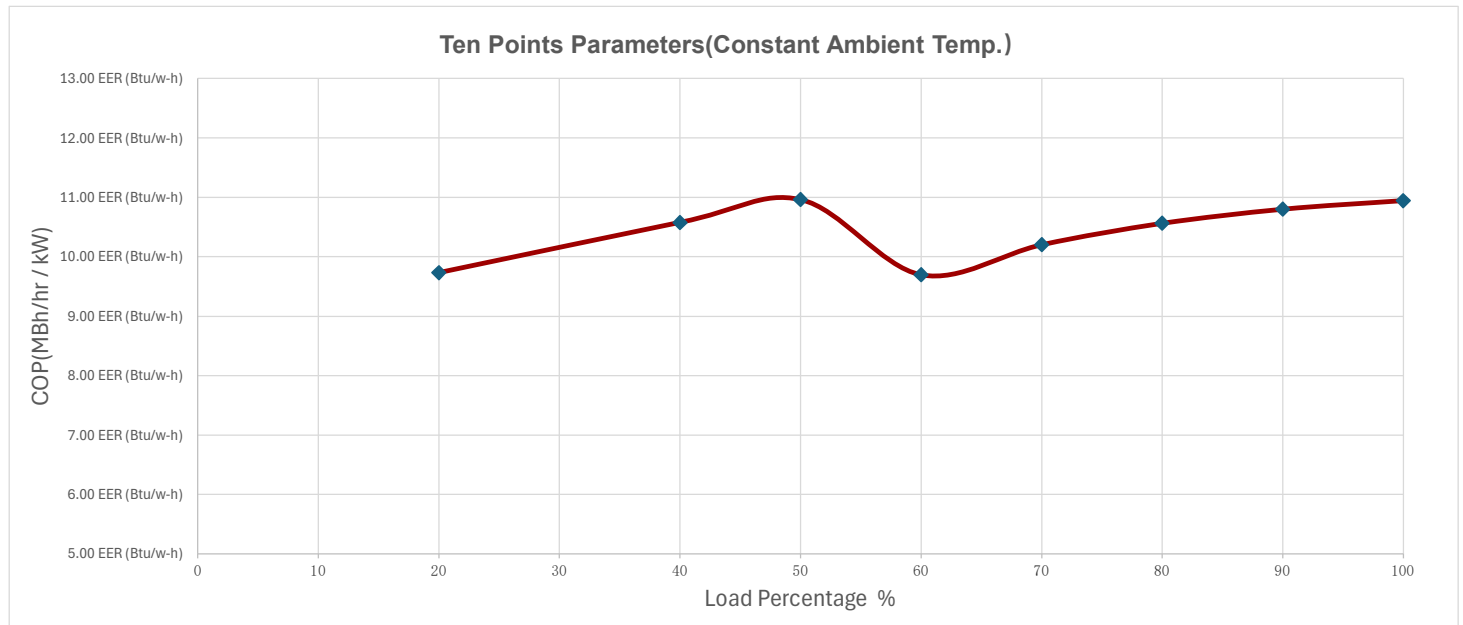
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Ten Points Parameters(Constant Ambient Temp.)

Load %	Cooling Capacity (Tons)	Input Power (Kw)	Cooling kW/Ton	Cooling COP (Btu/w-h)	Evap. WPD (ft CA)	DBT (°F)	EEWT (°F)	ELWT (°F)
100	167.63 Tons	183.80 Kw	0.9848 Kw/Tons	10.94 EER (Btu/w-h)	24.09 ft CA	95.00 °F	53.60 °F	44.60 °F
90	150.84 Tons	167.60 Kw	0.9980 Kw/Tons	10.80 EER (Btu/w-h)	24.09 ft CA	95.00 °F	52.70 °F	44.60 °F
80	134.05 Tons	152.30 Kw	1.0205 Kw/Tons	10.56 EER (Btu/w-h)	24.09 ft CA	95.00 °F	51.80 °F	44.60 °F
70	117.25 Tons	137.90 Kw	1.0563 Kw/Tons	10.20 EER (Btu/w-h)	24.09 ft CA	95.00 °F	50.90 °F	44.60 °F
60	100.46 Tons	124.20 Kw	1.1113 Kw/Tons	9.70 EER (Btu/w-h)	24.09 ft CA	95.00 °F	50.00 °F	44.60 °F
50	83.96 Tons	91.90 Kw	0.9832 Kw/Tons	10.96 EER (Btu/w-h)	24.09 ft CA	95.00 °F	49.10 °F	44.60 °F
40	67.17 Tons	76.20 Kw	1.0190 Kw/Tons	10.58 EER (Btu/w-h)	24.09 ft CA	95.00 °F	48.20 °F	44.60 °F
20	50.37 Tons	62.10 Kw	1.1073 Kw/Tons	9.73 EER (Btu/w-h)	24.09 ft CA	95.00 °F	47.30 °F	44.60 °F

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

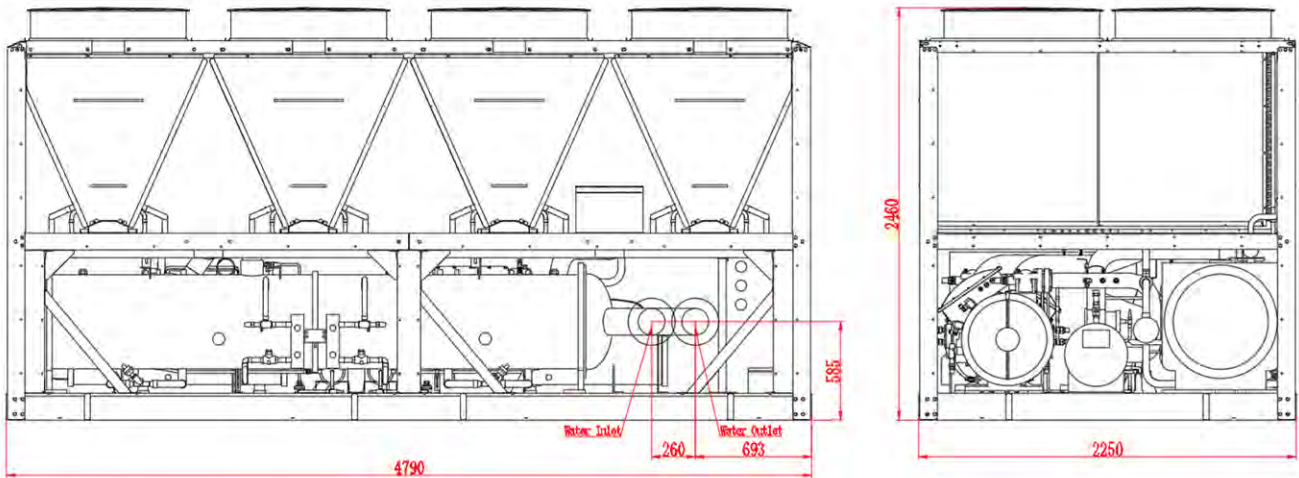
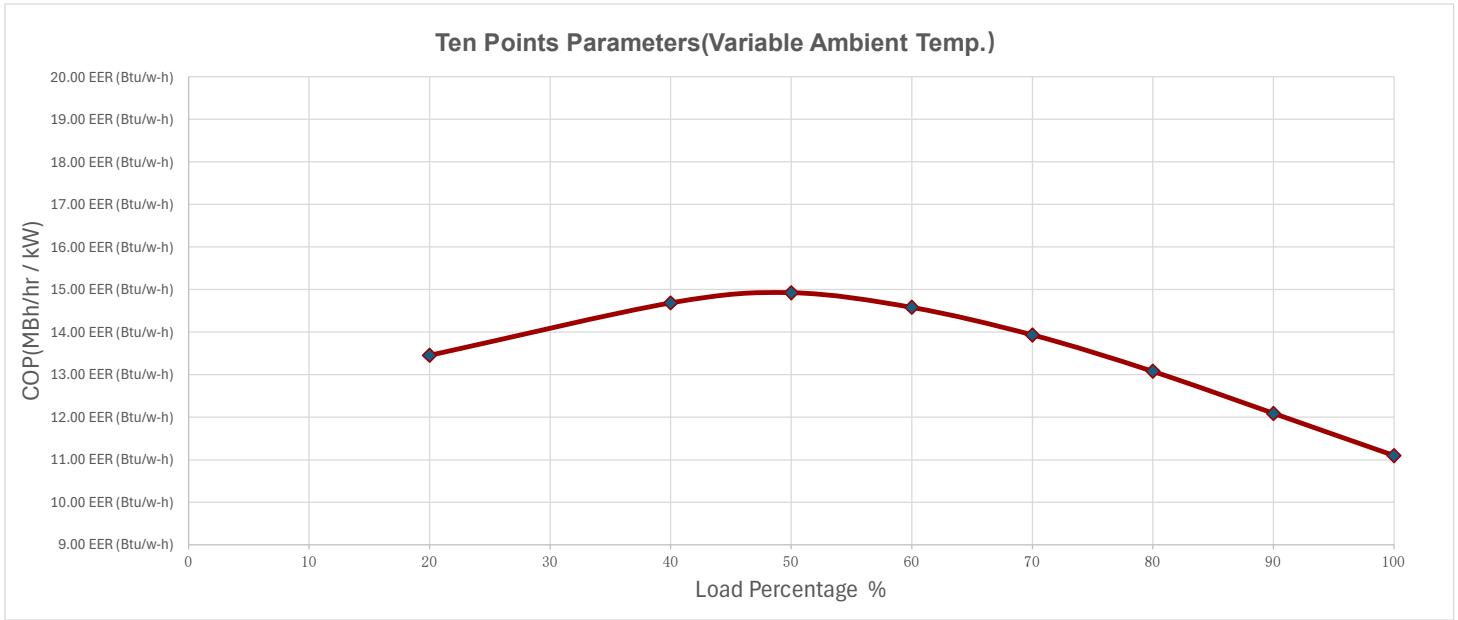


Ten Points Parameters(Variable Ambient Temp.)

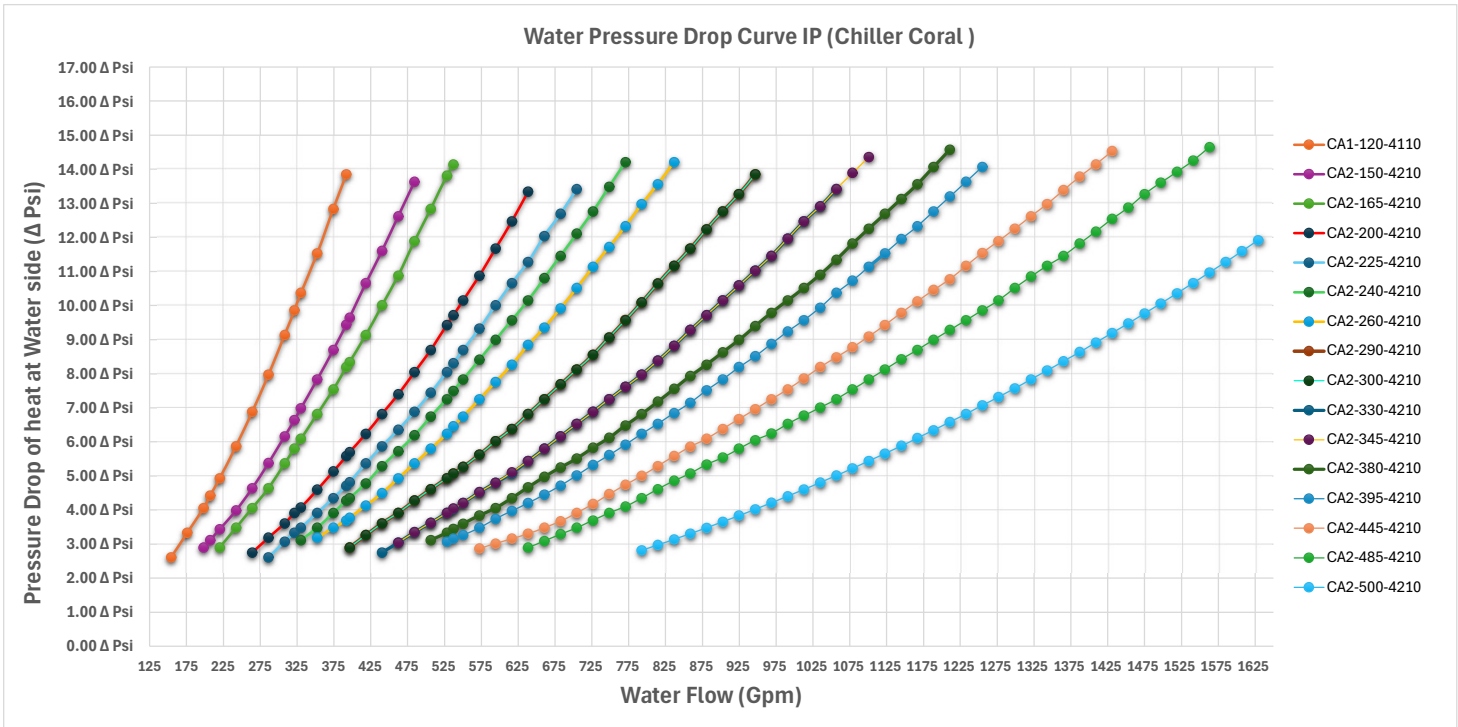
Load %	Cooling Capacity (Tons) (Dual Compressor)	Input Power (Kw)	Cooling kW/Ton	Cooling COP (Btu/w-h)	Evap. WPD (ft CA)	DBT (°F)	EEWT (°F)	ELWT (°F)
100	164.78 Tons	178.30 Kw	0.9700 Kw/Tons	11.10 EER (Btu/w-h)	24.09 ft CA	95.00 °F	53.60 °F	44.60 °F
90	148.28 Tons	147.00 Kw	0.8900 Kw/Tons	12.09 EER (Btu/w-h)	24.09 ft CA	89.24 °F	52.70 °F	44.60 °F
80	131.77 Tons	121.00 Kw	0.8200 Kw/Tons	13.08 EER (Btu/w-h)	24.09 ft CA	83.48 °F	51.80 °F	44.60 °F
70	115.26 Tons	99.30 Kw	0.7700 Kw/Tons	13.93 EER (Btu/w-h)	24.09 ft CA	77.72 °F	50.90 °F	44.60 °F
60	98.76 Tons	81.30 Kw	0.7400 Kw/Tons	14.58 EER (Btu/w-h)	24.09 ft CA	71.96 °F	50.00 °F	44.60 °F
50	82.53 Tons	66.40 Kw	0.7200 Kw/Tons	14.92 EER (Btu/w-h)	24.09 ft CA	66.20 °F	49.10 °F	44.60 °F
40	66.03 Tons	54.00 Kw	0.7300 Kw/Tons	14.69 EER (Btu/w-h)	24.09 ft CA	60.44 °F	48.20 °F	44.60 °F
20	49.52 Tons	44.20 Kw	0.8000 Kw/Tons	13.46 EER (Btu/w-h)	24.09 ft CA	55.40 °F	47.30 °F	44.60 °F

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Dimension Model: CA2-165-4210	Length	Width	Height
	4,790.00 mm	2,250.00 mm	2,520.00 mm



CA2-165-4210

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