



FOCUSED ON APPLICATION HVAC



Unit information		
Chiller Model	CA2-300-4210	
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:	9,260.00 Kgs	20,414.80 Lbs
Operating Weight:	9,390.00 Kgs	20,701.41 Lbs
Capacity Control	Stepless Control	
Refrigerant:	R134a	
Refrigerant(Ckt1 / Ckt2):	175.00 Kgs	175.00 Kgs
Starting Control:	Y-Δ	

Performance Information(Cooling Condition)		
Cooling Capacity:	1,052.00 Kw	300.00 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):	181.00 m³/hr	796.92 Gpm
Input Power (Electrical):	328.50 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:	CSH9563-210Y-40D	
Type Compressor:	Semi-Hermetic Screw	
Maximal Amperaje Control:	293.00 Amperes	
Quantity:	2.00 Piece	
Oil Model ( by compressor):	BSE170	1,055.90 Oz
Capacity Regulating Range:	25.0% - 100.0 %	

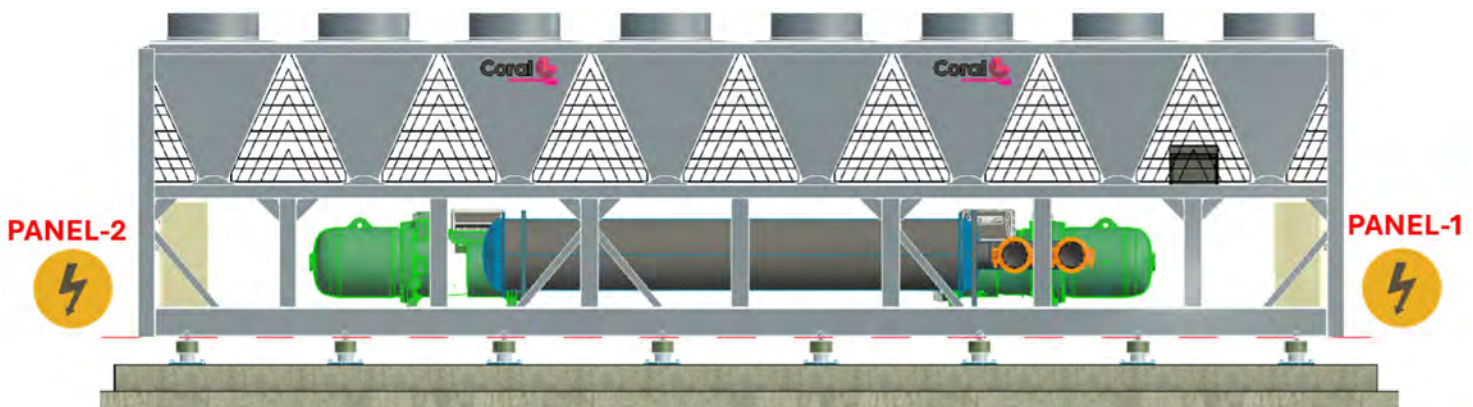
Water Side Heat Exchanger Information		
Fluid Type:	Fresh Water	
Nozzle Type:	Victaulic Couping	
Water Volume:	190.00 Lts	50.19 Galons
Heat Exchanger Type:	Flooded Shell-and-Tube	
Fouling Factor:	0.018 m².K/kW	0.1021 ft².F/Btu
Nozzle Size(DN):	200.00 mm	8.00 in
Water Pressure Drop:	71.00 kPa	23.75 ft CA
Design Pressure of Water Side (Max):	1.00 MPa	145.04 Psi

Air Side Heat Exchanger Information		
Type:	Fine-Tube	
Fan Quantity:	16.00 Units	
Air Flow:	392,000.00 m³/hr	230,722.18 Cfm
Fan Power Input:	2.20 Kw/Unit	35.20 Kw Total

Electrical Conections		
Amperaje	Electrical Circuit 1	Electrical Circuit 2
Maximum operating current (MCA):	335.50 Amp	335.50 Amp
Maximum Overcurrent Protection (MOCP):	500.00 Amp	500.00 Amp

Electrical Information		
Power Supply:	460Volts / 3 Phases / 60 Hertz	
Voltaje Range:	440 Volts	480 Volts
Rating Current (A):	474.00 Amp	
Max. Starting Current (A):	921.00 Amp	
Maximum operating current (A)	671.00 Amp	

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



- \* 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	1,052.00 Kw	328.60 Kw	0.9858 Kw/Tons	3.20 W/W	67.00 kPa	35.00 °C	12.10 °C	7.00 °C
75	789.00 Kw	203.40 Kw	0.8136 Kw/Tons	3.88 W/W	67.00 kPa	27.00 °C	10.80 °C	7.00 °C
50	526.00 Kw	102.20 Kw	0.6132 Kw/Tons	5.15 W/W	67.00 kPa	19.00 °C	9.60 °C	7.00 °C
25	263.00 Kw	53.80 Kw	0.6456 Kw/Tons	4.89 W/W	67.00 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	299.40 Tons	328.60 Kw	0.9858 Kw/Tons	10.93 EER (Btu/w-h)	22.42 ft CA	95.00 °F	53.78 °F	44.60 °F
75	224.55 Tons	203.40 Kw	0.8136 Kw/Tons	13.25 EER (Btu/w-h)	22.42 ft CA	80.60 °F	51.44 °F	44.60 °F
50	149.70 Tons	102.20 Kw	0.6132 Kw/Tons	17.58 EER (Btu/w-h)	22.42 ft CA	66.20 °F	49.28 °F	44.60 °F
25	74.85 Tons	53.80 Kw	0.6456 Kw/Tons	16.70 EER (Btu/w-h)	22.42 ft CA	66.20 °F	46.94 °F	44.60 °F

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

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

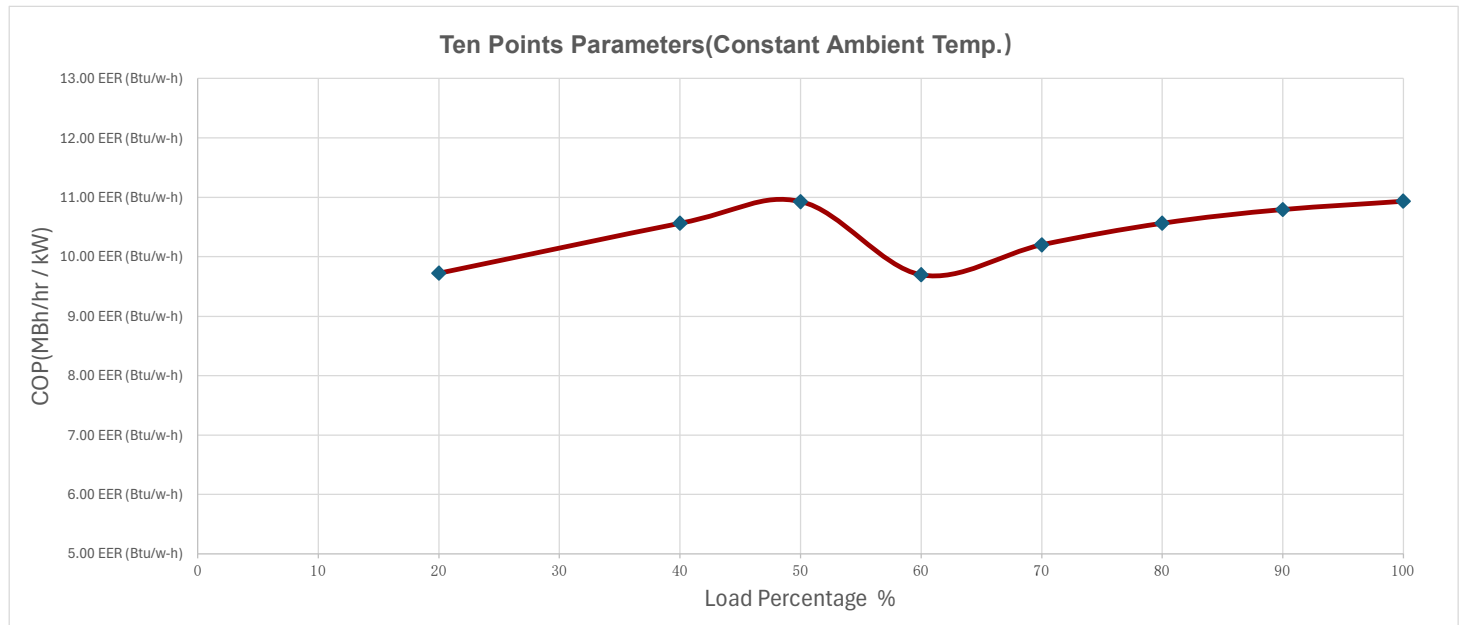
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### Ten Points Parameters(Constant Ambient Temp.)

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	299.40 Tons	328.60 Kw	0.9858 Kw/Tons	10.93 EER (Btu/w-h)	22.42 ft CA	95.00 °F	53.78 °F	44.60 °F
90	269.51 Tons	299.60 Kw	0.9985 Kw/Tons	10.79 EER (Btu/w-h)	22.42 ft CA	95.00 °F	52.88 °F	44.60 °F
80	239.63 Tons	272.20 Kw	1.0203 Kw/Tons	10.56 EER (Btu/w-h)	22.42 ft CA	95.00 °F	51.98 °F	44.60 °F
70	209.46 Tons	246.40 Kw	1.0566 Kw/Tons	10.20 EER (Btu/w-h)	22.42 ft CA	95.00 °F	51.08 °F	44.60 °F
60	179.58 Tons	222.00 Kw	1.1113 Kw/Tons	9.70 EER (Btu/w-h)	22.42 ft CA	95.00 °F	50.18 °F	44.60 °F
50	149.70 Tons	164.20 Kw	0.9863 Kw/Tons	10.93 EER (Btu/w-h)	22.42 ft CA	95.00 °F	49.28 °F	44.60 °F
40	119.82 Tons	136.10 Kw	1.0203 Kw/Tons	10.56 EER (Btu/w-h)	22.42 ft CA	95.00 °F	48.20 °F	44.60 °F
20	89.93 Tons	111.00 Kw	1.1086 Kw/Tons	9.72 EER (Btu/w-h)	22.42 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: CA2-300-4210

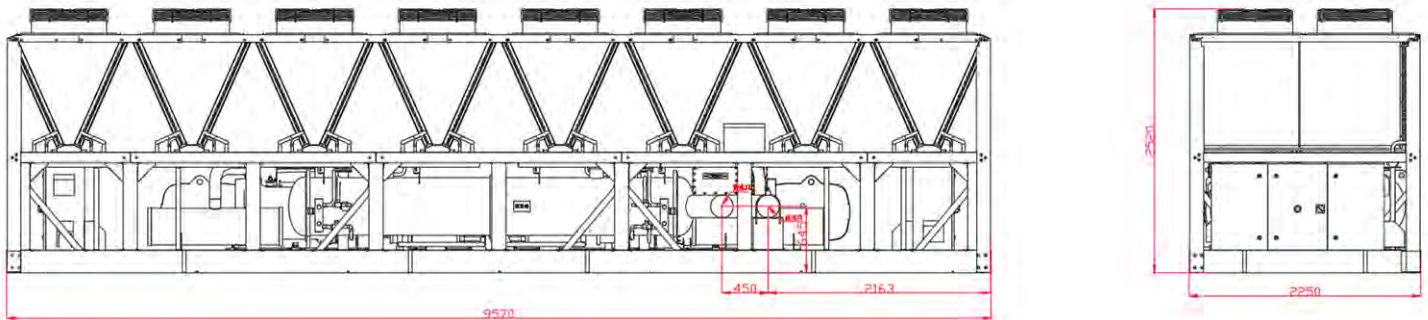
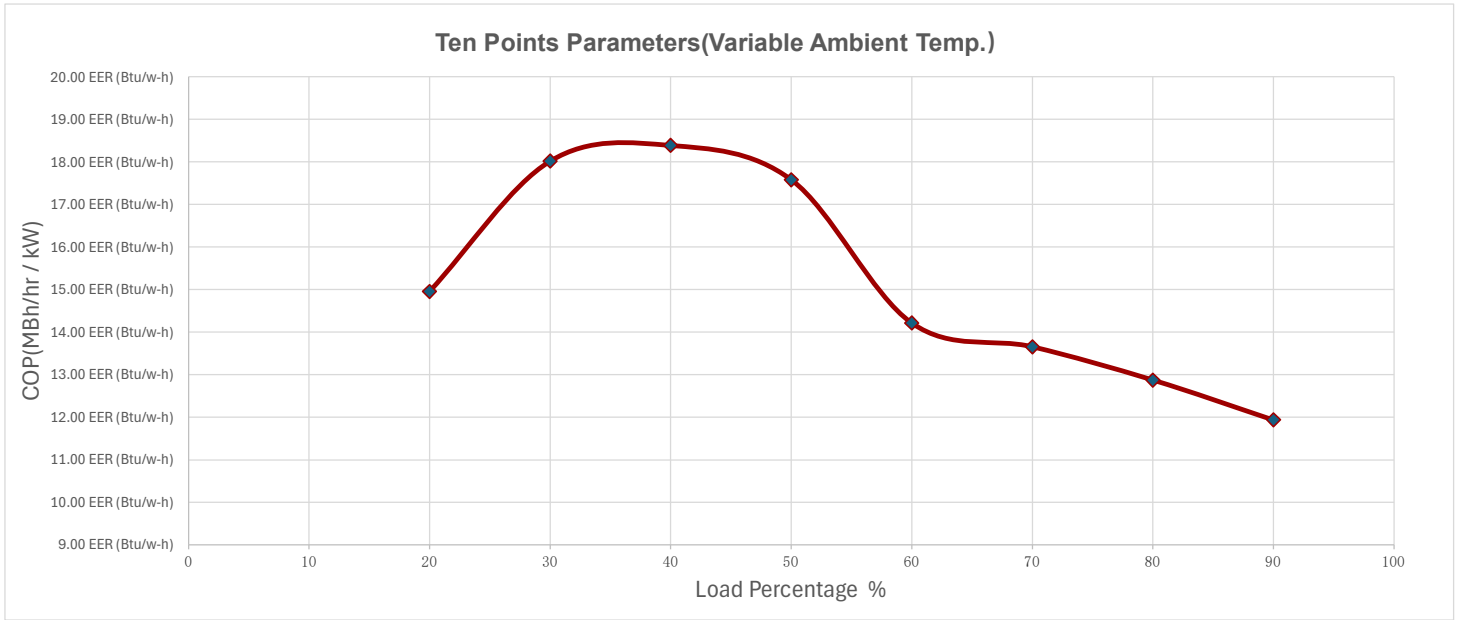


## Ten Points Parameters(Variable Ambient Temp.)

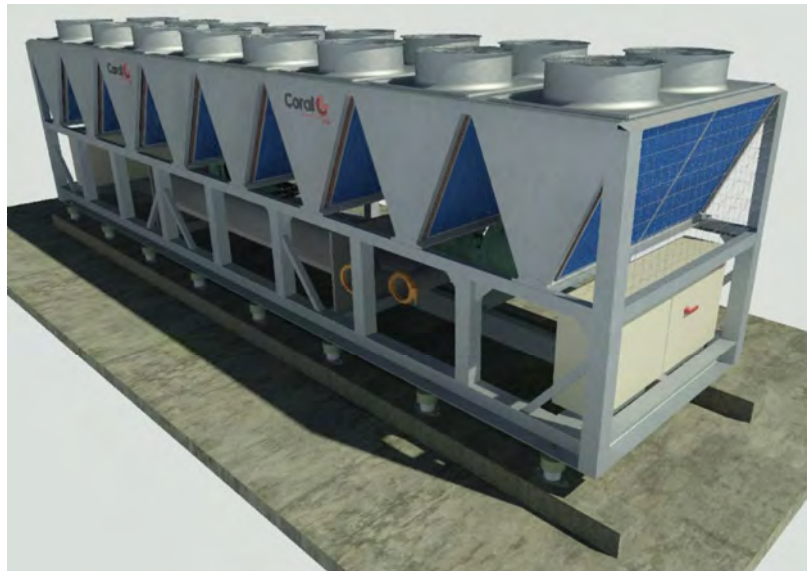
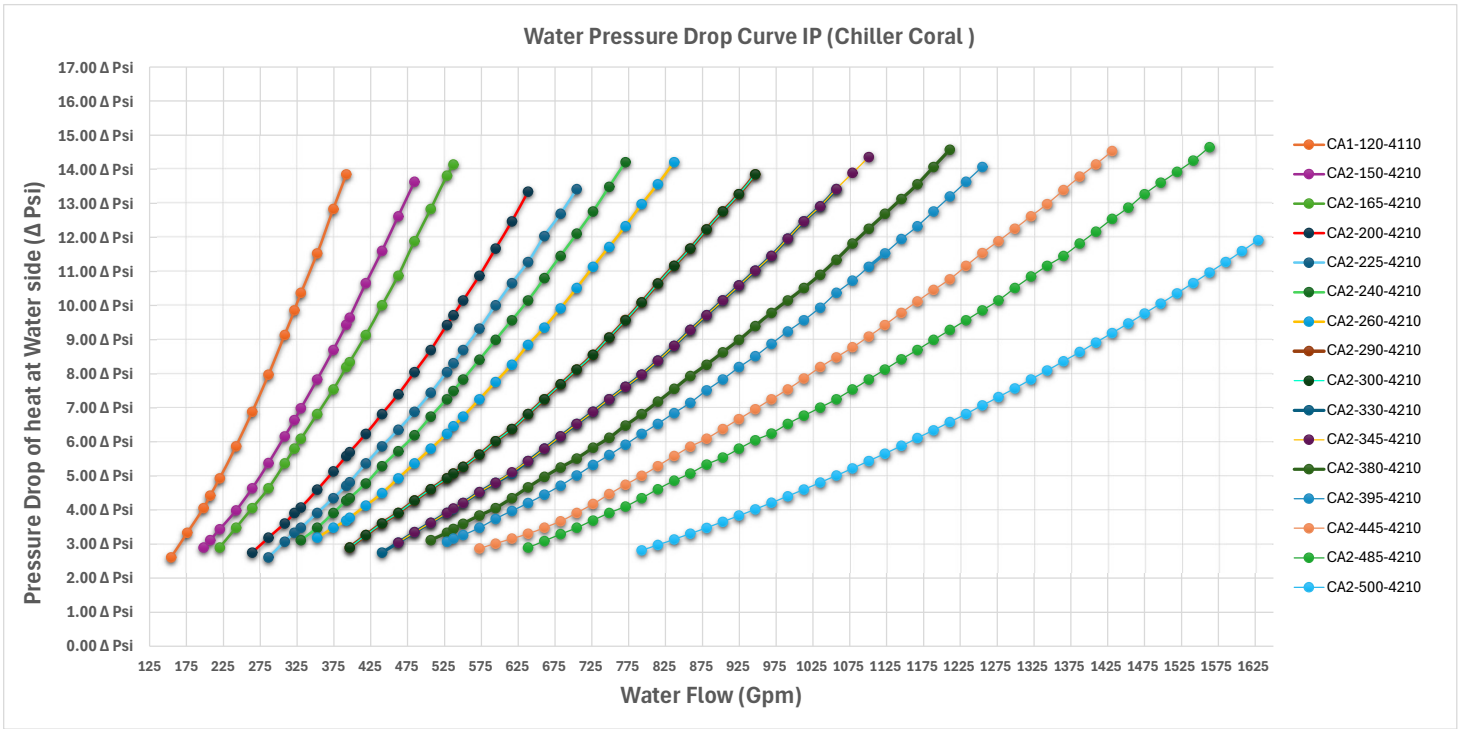
Load %	Cooling Capacity (Tons) (Dual Compressor)	Input Power (Kw)	Cooling kW/Ton	Cooling COP (Btu/w-h)	Evap. WPD (ft CA)	DBT (°F)	EEWT (°F)	ELWT (°F)
90	269.51 Tons	270.90 Kw	0.9028 Kw/Tons	11.94 EER (Btu/w-h)	22.42 ft CA	89.24 °F	52.88 °F	44.60 °F
80	239.63 Tons	223.40 Kw	0.8374 Kw/Tons	12.87 EER (Btu/w-h)	22.42 ft CA	83.48 °F	51.98 °F	44.60 °F
70	209.46 Tons	184.10 Kw	0.7894 Kw/Tons	13.65 EER (Btu/w-h)	22.42 ft CA	77.72 °F	51.08 °F	44.60 °F
60	179.58 Tons	151.60 Kw	0.7582 Kw/Tons	14.21 EER (Btu/w-h)	22.42 ft CA	71.96 °F	50.18 °F	44.60 °F
50	149.70 Tons	102.20 Kw	0.6132 Kw/Tons	17.58 EER (Btu/w-h)	22.42 ft CA	66.20 °F	49.28 °F	44.60 °F
40	119.82 Tons	78.20 Kw	0.5862 Kw/Tons	18.39 EER (Btu/w-h)	22.42 ft CA	60.44 °F	48.20 °F	44.60 °F
30	89.93 Tons	59.90 Kw	0.5982 Kw/Tons	18.02 EER (Btu/w-h)	22.42 ft CA	55.40 °F	47.30 °F	44.60 °F
20	59.77 Tons	48.00 Kw	0.7205 Kw/Tons	14.96 EER (Btu/w-h)	22.42 ft CA	55.40 °F	46.40 °F	44.60 °F

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Chiller Model: CA2-300-4210



Dimension Model: CA2-300-4210	Length	Width	Height
	9,570.00 mm	2,250.00 mm	2,520.00 mm



<b>CA2-300-4210</b>		
Cooling Capacity:	1,052.00 Kw	300.00 Tons
Water Flow (Max):	181.00 m <sup>3</sup> /hr	796.92 Gpm
Width:	2,250.00 mm	88.58 in
Length:	9,570.00 mm	376.77 in
Height:	2,520.00 mm	99.21 in
Fan Quantity:	16.00 Units	
Nozzle Size(DN):	200.00 mm	8.00 in
Operating Weight:	9,390.00 Kgs	20,701.41 Lbs