



FOCUSED ON APPLICATION HVAC



Unit information		
Chiller Model	CA2-345-4210	
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:	10,850.00 Kgs	23,920.15 Lbs
Operating Weight:	11,000.00 Kgs	24,250.85 Lbs
Capacity Control	Stepless Control	
Refrigerant:	R134a	
Refrigerant(Ckt1 / Ckt2):	210.00 Kgs	210.00 Kgs
Starting Control:	Y-Δ	

Performance Information(Cooling Condition)		
Cooling Capacity:	1,210.00 Kw	345.00 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):	208.00 m³/hr	915.80 Gpm
Input Power (Electrical):	369.10 Kw	
IPLV/NPLV (W/W - Btu /w):	4.67 EER (W/W)	15.95 EER (Btu/w)
COP (W/W - Btu /w):	3.28 EER (W/W)	11.20 EER (Btu/w)

Compressor Information		
Brand:	Bitzer	
Model:	CSH9573-240Y-40D	
Type Compressor:	Semi-Hermetic Screw	
Maximal Amperaje Control:	325.00 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 Coupling	
Water Volume:	208.00 Lts	54.95 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:	72.00 kPa	24.09 ft CA
Design Pressure of Water Side (Max):	1.00 MPa	145.04 Psi

Air Side Heat Exchanger Information		
Type:	Fine-Tube	
Fan Quantity:	20.00 Units	
Air Flow	490,000.00 m³/hr	288,402.73 Cfm
Fan Power Input	2.20 Kw/Unit	44.00 Kw Total

Electrical Conections		
Amperaje	Electrical Circuit 1	Electrical Circuit 2
Maximum operating current (MCA):	378.00 Amp	378.00 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):	527.00 Amp	
Max. Starting Current (A):	1,028.00 Amp	
Maximum operating current (A)	756.00 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	1,210.00 Kw	369.10 Kw	0.9627 Kw/Tons	3.28 W/W	72.00 kPa	35.00 °C	12.00 °C	7.00 °C
75	908.00 Kw	228.70 Kw	0.7949 Kw/Tons	3.97 W/W	72.00 kPa	27.00 °C	10.80 °C	7.00 °C
50	605.00 Kw	114.80 Kw	0.5989 Kw/Tons	5.27 W/W	72.00 kPa	19.00 °C	9.50 °C	7.00 °C
25	302.50 Kw	60.40 Kw	0.6302 Kw/Tons	5.01 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	344.36 Tons	369.10 Kw	0.9627 Kw/Tons	11.20 EER (Btu/w-h)	24.09 ft CA	95.00 °F	53.60 °F	44.60 °F
75	258.42 Tons	228.70 Kw	0.7949 Kw/Tons	13.56 EER (Btu/w-h)	24.09 ft CA	80.60 °F	51.44 °F	44.60 °F
50	172.18 Tons	114.80 Kw	0.5989 Kw/Tons	18.00 EER (Btu/w-h)	24.09 ft CA	66.20 °F	49.10 °F	44.60 °F
25	86.09 Tons	60.40 Kw	0.6302 Kw/Tons	17.10 EER (Btu/w-h)	24.09 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%;

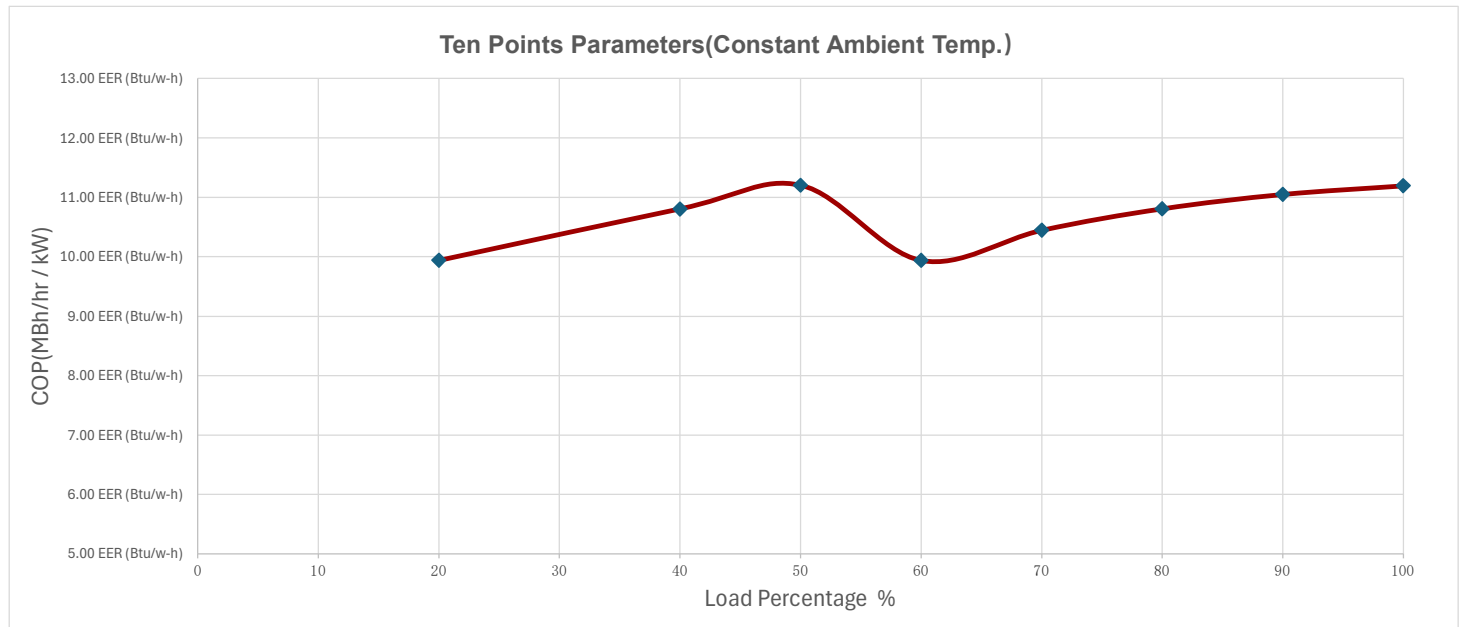
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Ten Points Parameters(Constant Ambient Temp.)

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	344.36 Tons	369.10 Kw	0.9627 Kw/Tons	11.20 EER (Btu/w-h)	24.09 ft CA	95.00 °F	53.60 °F	44.60 °F
90	309.93 Tons	336.60 Kw	0.9755 Kw/Tons	11.05 EER (Btu/w-h)	24.09 ft CA	95.00 °F	52.70 °F	44.60 °F
80	275.49 Tons	305.90 Kw	0.9973 Kw/Tons	10.81 EER (Btu/w-h)	24.09 ft CA	95.00 °F	51.80 °F	44.60 °F
70	241.05 Tons	276.90 Kw	1.0318 Kw/Tons	10.45 EER (Btu/w-h)	24.09 ft CA	95.00 °F	50.90 °F	44.60 °F
60	206.62 Tons	249.40 Kw	1.0845 Kw/Tons	9.94 EER (Btu/w-h)	24.09 ft CA	95.00 °F	50.00 °F	44.60 °F
50	172.18 Tons	184.50 Kw	0.9622 Kw/Tons	11.20 EER (Btu/w-h)	24.09 ft CA	95.00 °F	49.10 °F	44.60 °F
40	137.75 Tons	153.00 Kw	0.9977 Kw/Tons	10.80 EER (Btu/w-h)	24.09 ft CA	95.00 °F	48.20 °F	44.60 °F
20	103.31 Tons	124.70 Kw	1.0842 Kw/Tons	9.94 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: CA2-345-4210

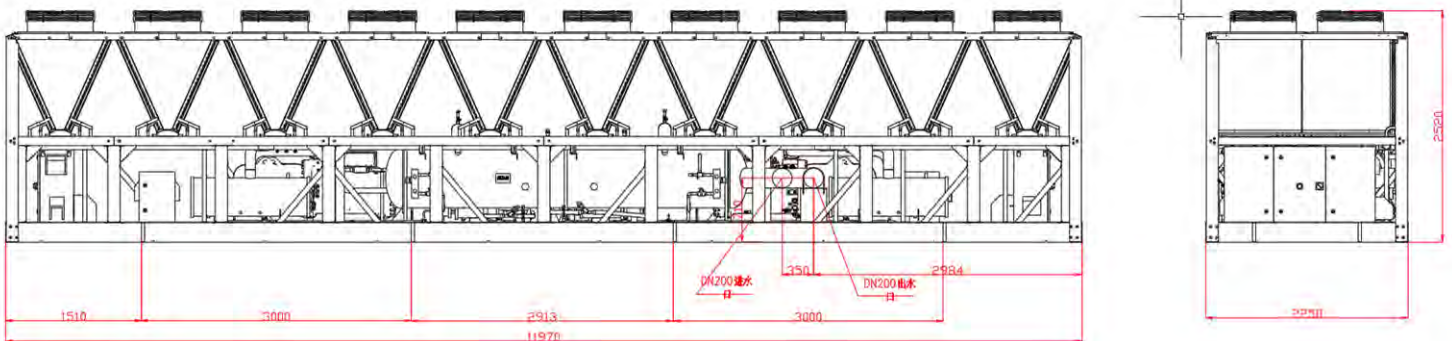
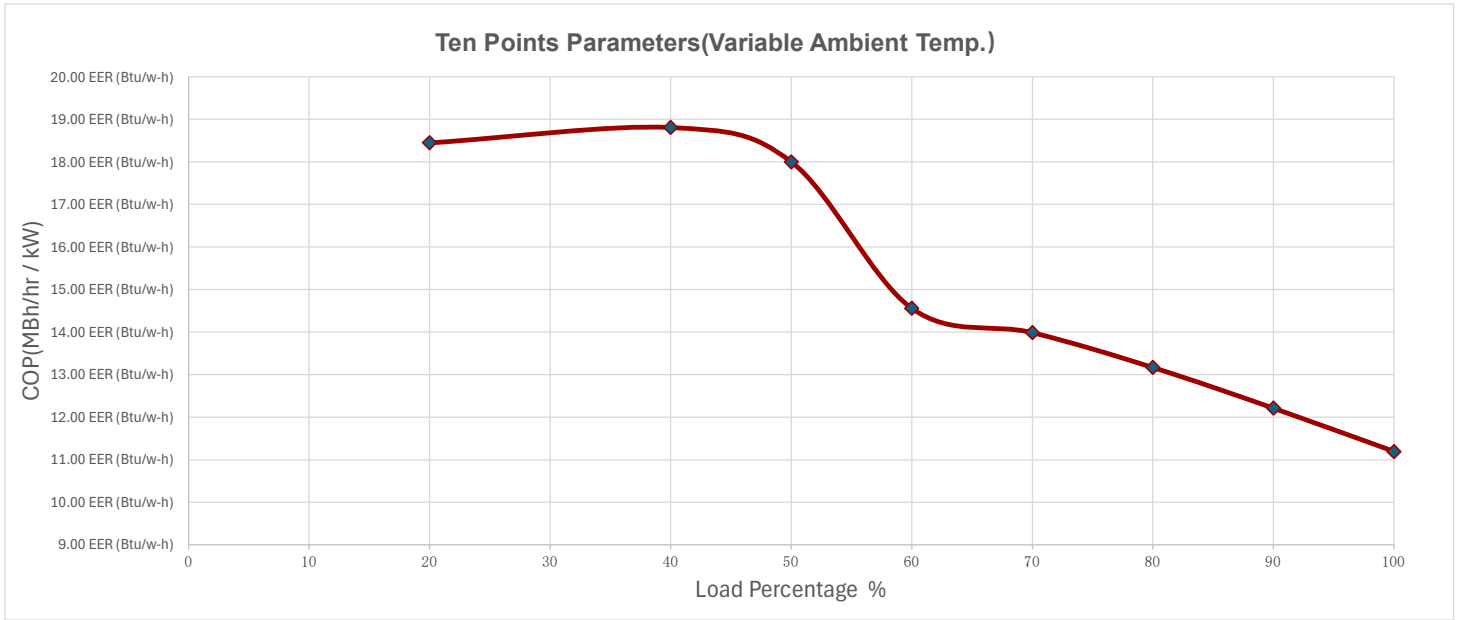


Ten Points Parameters(Variable Ambient Temp.)

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	344.36 Tons	369.10 Kw	0.9627 Kw/Tons	11.20 EER (Btu/w-h)	24.09 ft CA	95.00 °F	53.60 °F	44.60 °F
90	309.93 Tons	304.50 Kw	0.8825 Kw/Tons	12.21 EER (Btu/w-h)	24.09 ft CA	89.24 °F	52.70 °F	44.60 °F
80	275.49 Tons	251.00 Kw	0.8183 Kw/Tons	13.17 EER (Btu/w-h)	24.09 ft CA	83.48 °F	51.80 °F	44.60 °F
70	241.05 Tons	206.80 Kw	0.7706 Kw/Tons	13.99 EER (Btu/w-h)	24.09 ft CA	77.72 °F	50.90 °F	44.60 °F
60	206.62 Tons	170.30 Kw	0.7403 Kw/Tons	14.56 EER (Btu/w-h)	24.09 ft CA	71.96 °F	50.00 °F	44.60 °F
50	172.18 Tons	114.80 Kw	0.5989 Kw/Tons	18.00 EER (Btu/w-h)	24.09 ft CA	66.20 °F	49.10 °F	44.60 °F
40	137.75 Tons	87.90 Kw	0.5732 Kw/Tons	18.80 EER (Btu/w-h)	24.09 ft CA	60.44 °F	48.20 °F	44.60 °F
20	103.31 Tons	67.20 Kw	0.5843 Kw/Tons	18.45 EER (Btu/w-h)	24.09 ft CA	55.40 °F	47.30 °F	44.60 °F

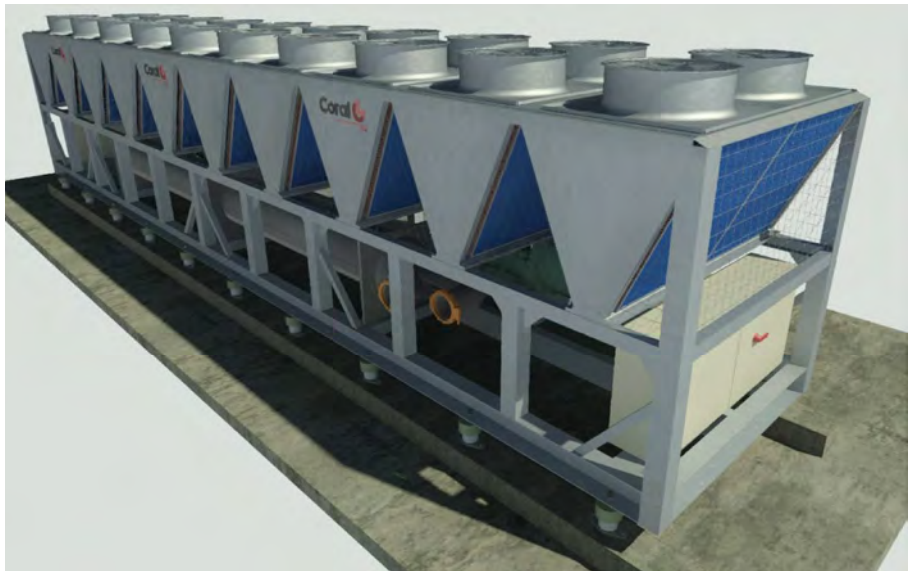
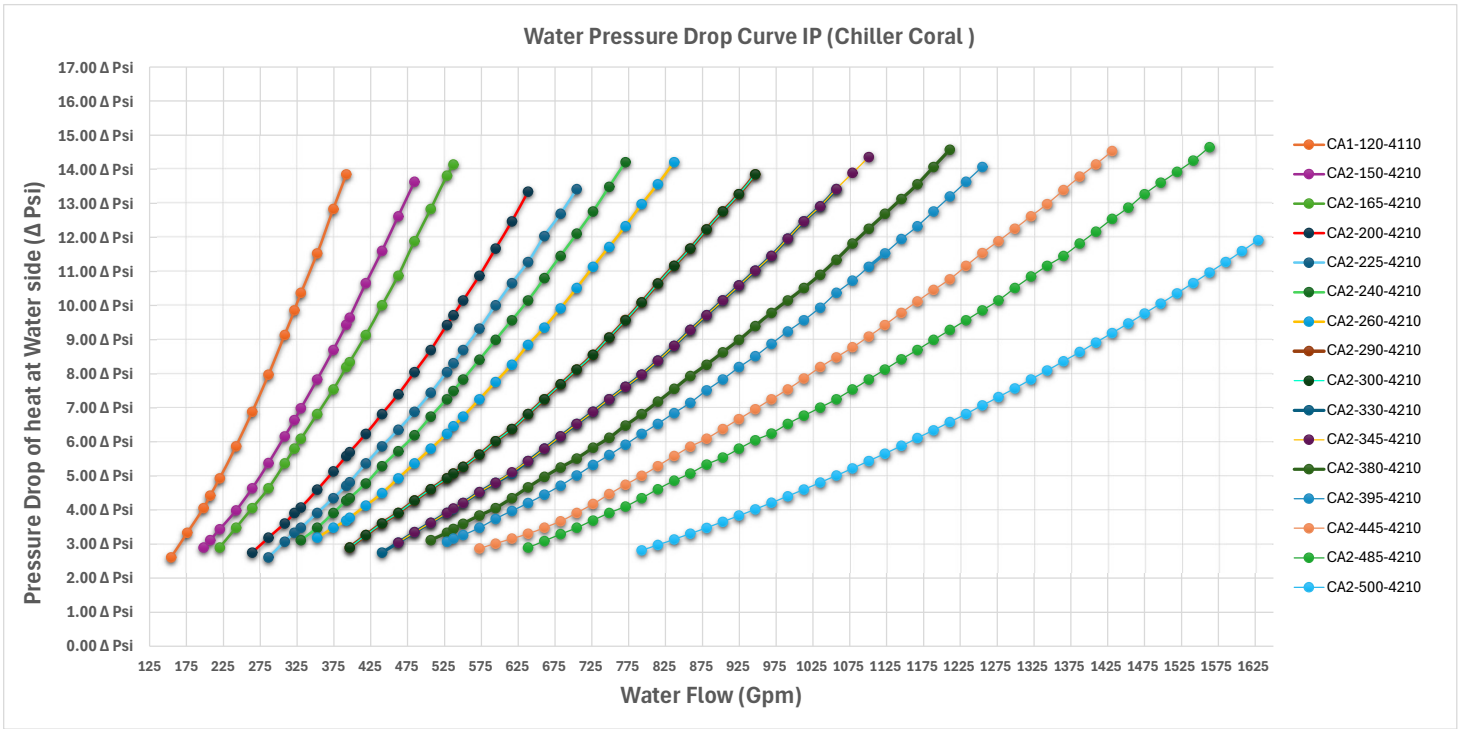
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Chiller Model: CA2-345-4210



Dimension Model: CA2-345-4210	Length	Width	Height
	11,970.00 mm	2,250.00 mm	2,520.00 mm





CA2-345-4210		
Cooling Capacity:	1,210.00 Kw	345.00 Tons
Water Flow (Max):	208.00 m ³ /hr	915.80 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:	20.00 Units	
Nozzle Size(DN):	200.00 mm	8.00 in
Operating Weight:	11,000.00 Kgs	24,250.85 Lbs