



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 Kgs	20,150.25 Lbs
Operating Weight:	9,260.00 Kgs	20,414.80 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:	1,026.00 Kw	290.00 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):	177.00 m³/hr	779.31 Gpm
Input Power (Electrical):	315.20 Kw	
IPLV/NPLV (W/W - Btu /w):	4.68 EER (W/W)	15.98 EER (Btu/w)
COP (W/W - Btu /w):	3.26 EER (W/W)	11.13 EER (Btu/w)

Compressor Information		
Brand:	Bitzer	
Model:	CSH9553-180Y-40D	
Type Compressor:	Semi-Hermetic Screw	
Maximal Amperaje Control:	254.00 Amperes	
Quantity:	2.00 Piece	
Oil Model (by compressor):	BSE170	1,055.90 Oz
Capacity Regulating Range:	25.0% - 100.0 %	

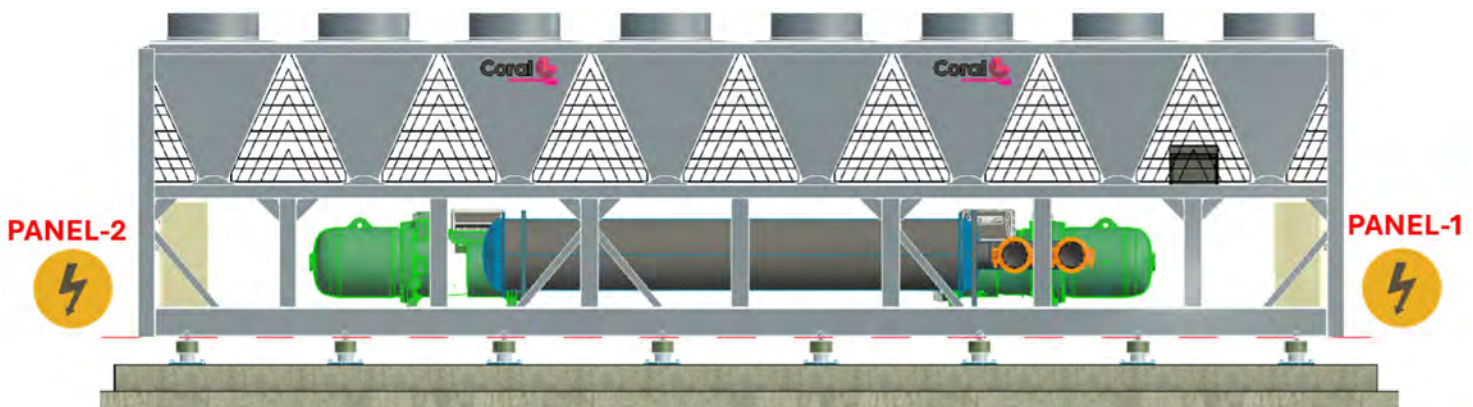
Water Side Heat Exchanger Information		
Fluid Type:	Fresh Water	
Nozzle Type:	Victaulic Couping	
Water Volume:	190.00 Lts	50.19 Galons
Heat Exchanger Type:	Flooded Shell-and-Tube	
Fouling Factor:	0.018 m².K/kW	0.1021 ft².F/Btu
Nozzle Size(DN):	200.00 mm	8.00 in
Water Pressure Drop:	68.00 kPa	22.75 ft CA
Design Pressure of Water Side (Max):	1.00 MPa	145.04 Psi

Air Side Heat Exchanger Information		
Type:	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):	296.50 Amp	296.50 Amp
Maximum Overcurrent Protection (MOCP):	400.00 Amp	400.00 Amp

Electrical Information		
Power Supply:	460Volts / 3 Phases / 60 Hertz	
Voltaje Range:	440 Volts	480 Volts
Rating Current (A):	434.00 Amp	
Max. Starting Current (A):	761.00 Amp	
Maximum operating current (A)	593.00 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	1,027.00 Kw	315.40 Kw	0.9692 Kw/Tons	3.26 W/W	55.00 kPa	35.00 °C	12.60 °C	7.00 °C
75	770.00 Kw	194.40 Kw	0.7968 Kw/Tons	3.96 W/W	55.00 kPa	27.00 °C	11.20 °C	7.00 °C
50	514.00 Kw	97.50 Kw	0.5987 Kw/Tons	5.27 W/W	55.00 kPa	19.00 °C	9.80 °C	7.00 °C
25	256.80 Kw	49.60 Kw	0.6096 Kw/Tons	5.18 W/W	55.00 kPa	19.00 °C	8.40 °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	292.28 Tons	315.40 Kw	0.9692 Kw/Tons	11.12 EER (Btu/w-h)	18.40 ft CA	95.00 °F	54.68 °F	44.60 °F
75	219.14 Tons	194.40 Kw	0.7968 Kw/Tons	13.53 EER (Btu/w-h)	18.40 ft CA	80.60 °F	52.16 °F	44.60 °F
50	146.28 Tons	97.50 Kw	0.5987 Kw/Tons	18.00 EER (Btu/w-h)	18.40 ft CA	66.20 °F	49.64 °F	44.60 °F
25	73.08 Tons	49.60 Kw	0.6096 Kw/Tons	17.68 EER (Btu/w-h)	18.40 ft CA	66.20 °F	47.12 °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%;

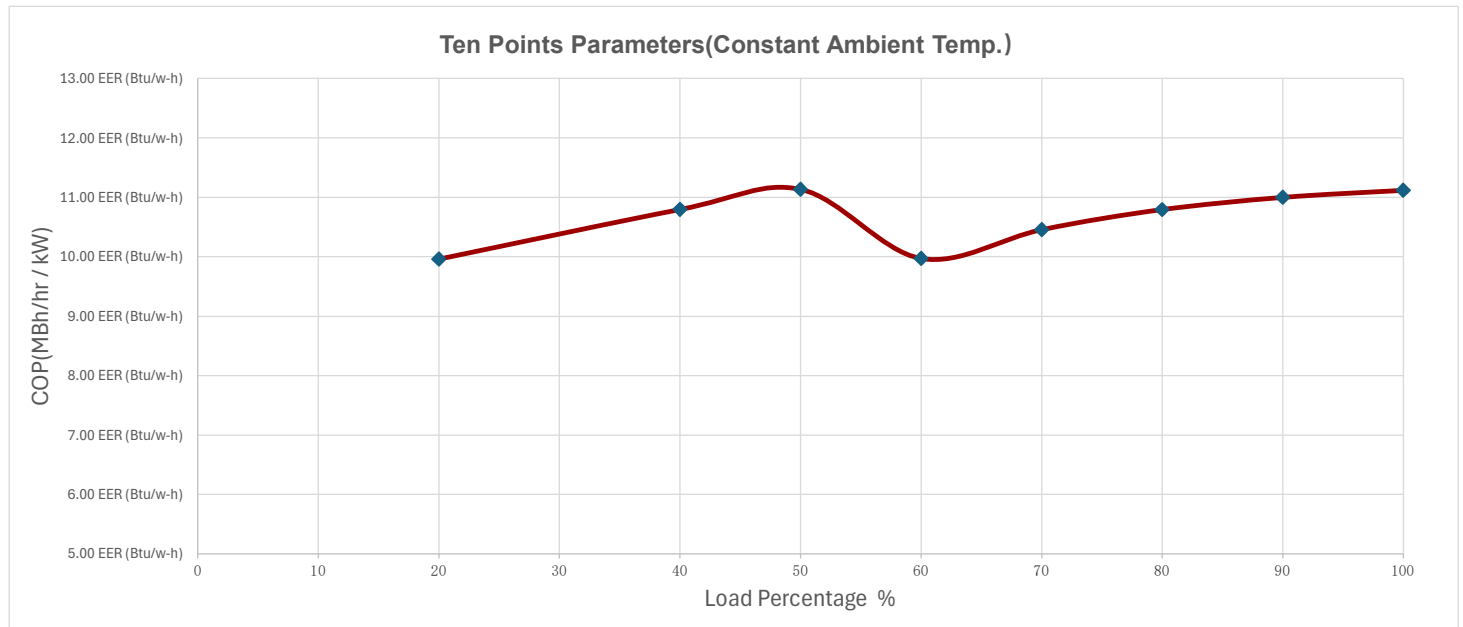
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Ten Points Parameters(Constant Ambient Temp.)

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	292.28 Tons	315.40 Kw	0.9692 Kw/Tons	11.12 EER (Btu/w-h)	18.40 ft CA	95.00 °F	54.68 °F	44.60 °F
90	262.97 Tons	286.90 Kw	0.9799 Kw/Tons	11.00 EER (Btu/w-h)	18.40 ft CA	95.00 °F	53.60 °F	44.60 °F
80	233.94 Tons	260.10 Kw	0.9986 Kw/Tons	10.79 EER (Btu/w-h)	18.40 ft CA	95.00 °F	52.52 °F	44.60 °F
70	204.63 Tons	234.80 Kw	1.0306 Kw/Tons	10.46 EER (Btu/w-h)	18.40 ft CA	95.00 °F	51.62 °F	44.60 °F
60	175.31 Tons	211.10 Kw	1.0808 Kw/Tons	9.97 EER (Btu/w-h)	18.40 ft CA	95.00 °F	50.54 °F	44.60 °F
50	146.28 Tons	157.70 Kw	0.9681 Kw/Tons	11.13 EER (Btu/w-h)	18.40 ft CA	95.00 °F	49.64 °F	44.60 °F
40	116.97 Tons	130.00 Kw	0.9982 Kw/Tons	10.80 EER (Btu/w-h)	18.40 ft CA	95.00 °F	48.56 °F	44.60 °F
20	87.66 Tons	105.60 Kw	1.0821 Kw/Tons	9.96 EER (Btu/w-h)	18.40 ft CA	95.00 °F	47.66 °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: CA2-290-4210

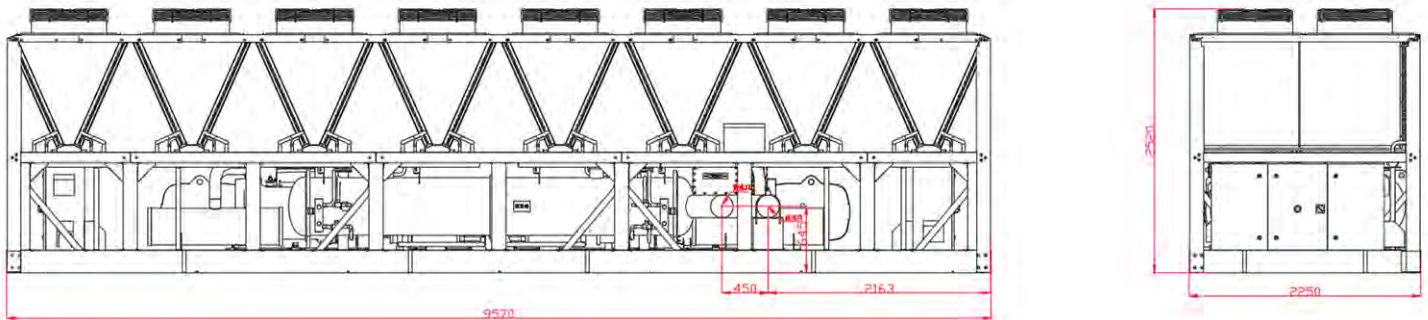
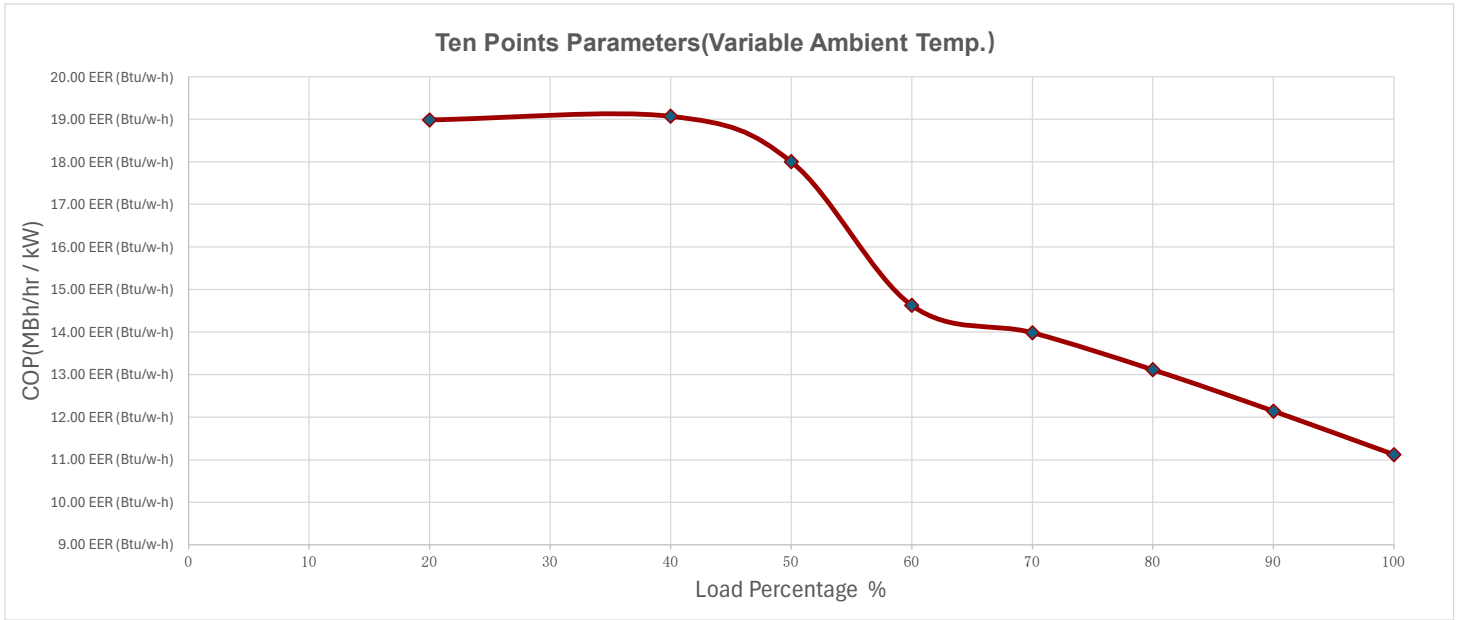


Ten Points Parameters(Variable Ambient Temp.)

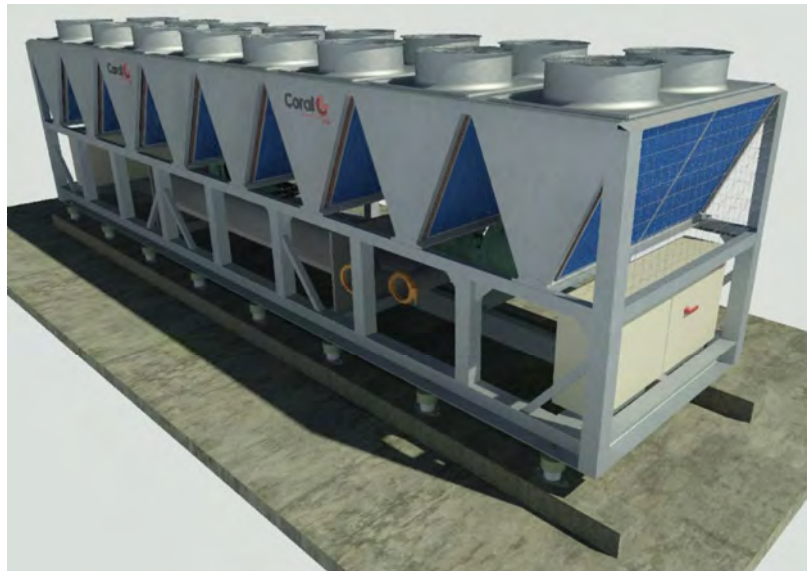
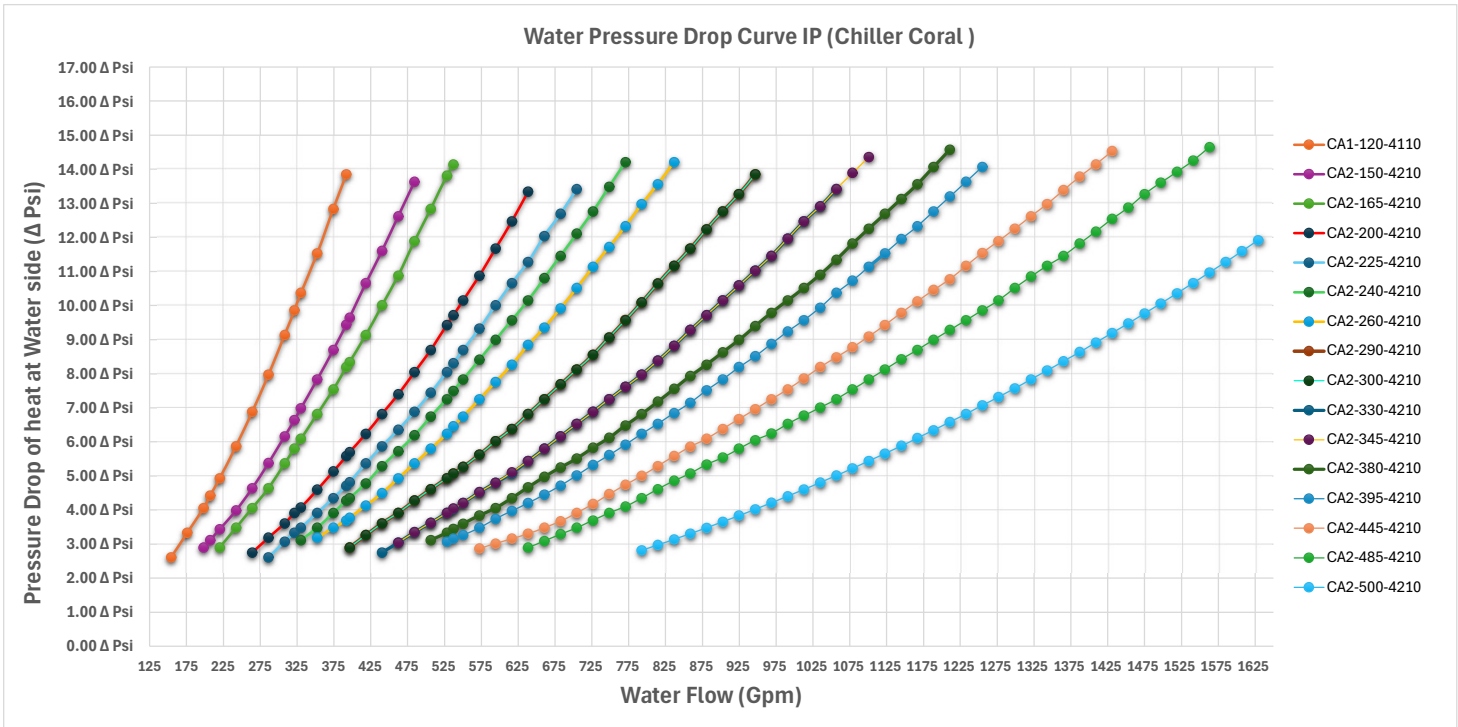
Load %	Cooling Capacity (Tons) (Dual Compressor)	Input Power (Kw)	Cooling kW/Ton	Cooling COP (Btu/w-h)	Evap. WPD (ft CA)	DBT (°F)	EEWT (°F)	ELWT (°F)
100	292.28 Tons	315.40 Kw	0.9692 Kw/Tons	11.12 EER (Btu/w-h)	18.40 ft CA	95.00 °F	54.68 °F	44.60 °F
90	262.97 Tons	259.80 Kw	0.8874 Kw/Tons	12.15 EER (Btu/w-h)	18.40 ft CA	89.24 °F	53.60 °F	44.60 °F
80	233.94 Tons	214.00 Kw	0.8216 Kw/Tons	13.12 EER (Btu/w-h)	18.40 ft CA	83.48 °F	52.52 °F	44.60 °F
70	204.63 Tons	175.60 Kw	0.7708 Kw/Tons	13.98 EER (Btu/w-h)	18.40 ft CA	77.72 °F	51.62 °F	44.60 °F
60	175.31 Tons	143.80 Kw	0.7367 Kw/Tons	14.63 EER (Btu/w-h)	18.40 ft CA	71.96 °F	50.54 °F	44.60 °F
50	146.28 Tons	97.50 Kw	0.5987 Kw/Tons	18.00 EER (Btu/w-h)	18.40 ft CA	66.20 °F	49.64 °F	44.60 °F
40	116.97 Tons	73.60 Kw	0.5652 Kw/Tons	19.07 EER (Btu/w-h)	18.40 ft CA	60.44 °F	48.56 °F	44.60 °F
20	87.66 Tons	55.40 Kw	0.5677 Kw/Tons	18.99 EER (Btu/w-h)	18.40 ft CA	55.40 °F	47.66 °F	44.60 °F

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



CA2-290-4210		
Cooling Capacity:	1,026.00 Kw	290.00 Tons
Water Flow (Max):	177.00 m ³ /hr	779.31 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:	9,260.00 Kgs	20,414.80 Lbs