



FOCUSED ON APPLICATION HVAC



Unit information		
Chiller Model	CA2-485-4210	
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:	12,040.00 kg	26,543.65 lb
Operating Weight:	12,240.00 kg	26,984.58 lb
Capacity Control	Slide Valve	
Refrigerant:	R134a	
Refrigerant Charge (Ckt1 / Ckt2):	290.00 kg	290.00 Kg
Starting Control:	Y-Δ	

Performance Information (Cooling Conditions)		
** Cooling Capacity:	1,715.00 kW	488.09 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	295.00 m³/h	1,298.85 GPM
Input Power (Electrical):	510.80 kW	
IPLV/NPLV:	4.65 (W/W)	15.89 (Btu/W.h)
COP:	3.36 (W/W)	11.48 EER (Btu/W.h)

Compressor Information		
Brand:	Bitzer	
Model:	CSH9593-300Y-40D	
Compressor Type:	Semi-Hermetic Screw	
Maximum Compressor Current:	402.00 A	
Quantity:	2 Piece/s	
Oil Type (per compressor):	BSE170	1,055.90 oz
Capacity Regulating Range:	12.5% - 100%	

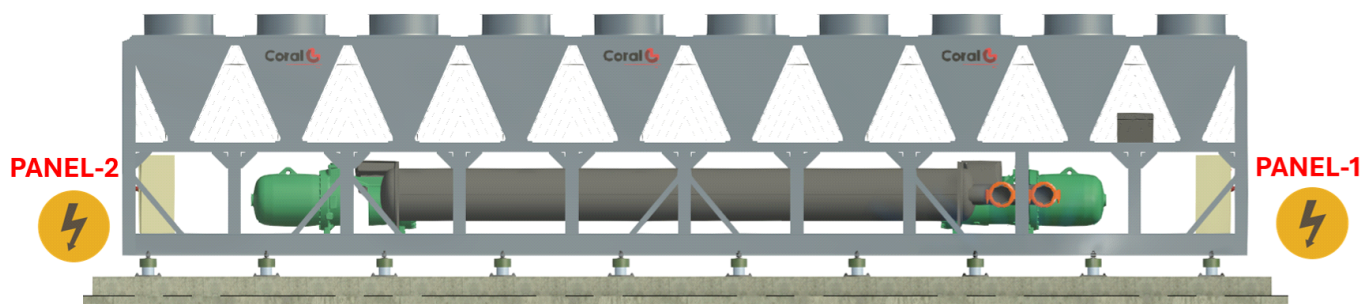
Water-Side Heat Exchanger Information		
Fluid Type:	Water	
Nozzle Type:	Victaulic Coupling	
Water Volume:	304.00 L	80.32 gal
Heat Exchanger Type:	Flooded Shell-and-Tube	
Fouling Factor:	0.018 m².K/kW	0.1021 ft².F/Btu
Nozzle Size(DN):	200.00 mm	8.00 in
Water Pressure Drop:	73.00 kPa	24.42 ft CA
Design Pressure of Water Side (Max):	1.00 MPa	145.04 psi

Air-Side Heat Exchanger Information		
Type:	Fin-and-Tube	
Fan Quantity:	20 Units	
Air Flow	450,000.00 m³/h	264,859.65 CFM
Fan Power Input	2.20 kW/unit	44.00 kW Total

Electrical Connections		
Amperage	Electrical Circuit 1	Electrical Circuit 2
Maximum Operating Current (MCA):	455.00 A	455.00 A
Maximum Overcurrent Protection (MOCP):	630.00 A	630.00 A

Electrical Information		
Power Supply:	460V / 3 Ph / 60 Hz	
Voltage Range:	440 V	480 V
Rating Current (A):	711.00 A	
Max. Starting Current (A):	1,260.00 A	
Maximum Operating Current (A)	910.00 A	

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



- * Garantía de 2 años en partes y compresores
- * Resortes antivibratorios

- * Refrigerante HFC, libre de cloro, ODP = 0
- * Conexiones de tubería ranurada tipo Victaulic



IPLV/NPLV Points (SI)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD	DBT	EEWT	ELWT
100	1,715.00 kW	510.80 kW	1.0472 kW/TR	3.36 W/W	73.00 kPa	35.00 °C	12.00 °C	7.00 °C
75	1,286.00 kW	311.40 kW	0.8514 kW/TR	4.13 W/W	73.00 kPa	27.00 °C	10.75 °C	7.00 °C
50	858.00 kW	175.50 kW	0.7192 kW/TR	4.89 W/W	73.00 kPa	19.00 °C	9.50 °C	7.00 °C
25	429.00 kW	75.40 kW	0.6180 kW/TR	5.69 W/W	73.00 kPa	13.00 °C	8.25 °C	7.00 °C

IPLV /NPLV =0.01*A+0.42*B+0.45*C+0.12*D= 4.65 (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	488.09 TR	510.80 kW	1.0472 kW/TR	11.47 (Btu/W.h)	24.42 ft CA	95.00 °F	53.60 °F	44.60 °F
75	365.99 TR	311.40 kW	0.8514 kW/TR	14.10 (Btu/W.h)	24.42 ft CA	80.60 °F	51.35 °F	44.60 °F
50	244.19 TR	175.50 kW	0.7192 kW/TR	16.70 (Btu/W.h)	24.42 ft CA	66.20 °F	49.10 °F	44.60 °F
25	122.09 TR	75.40 kW	0.6180 kW/TR	19.43 (Btu/W.h)	24.42 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= 15.89 EER (Btu/w)

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

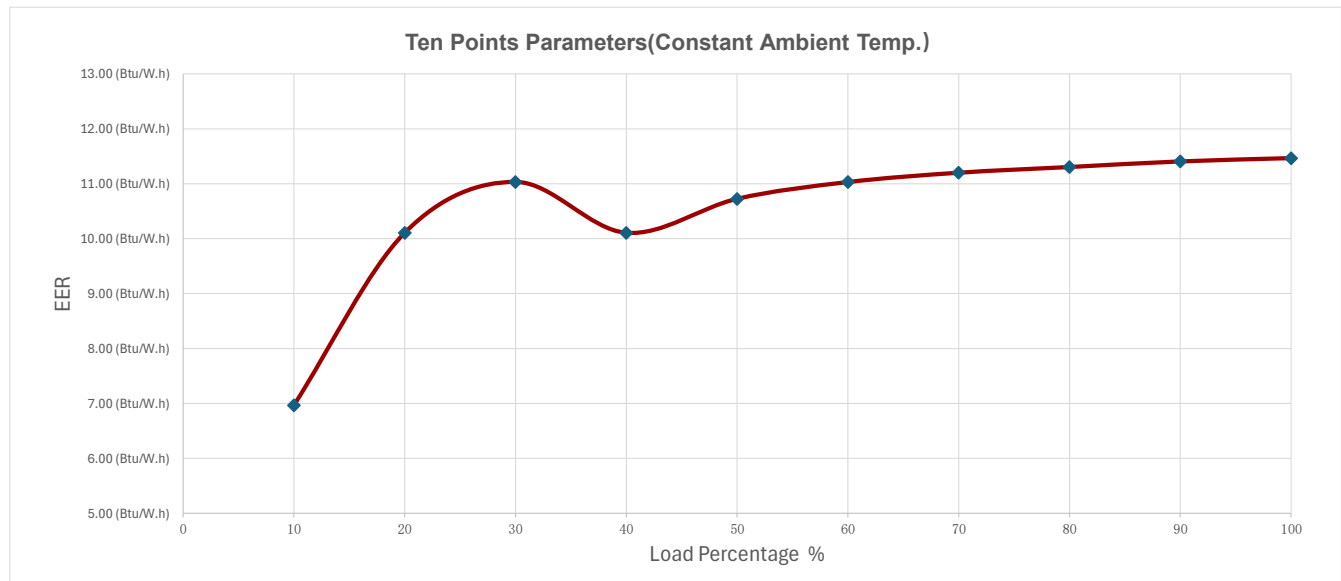
Performance calculations are in accordance with AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).

Ten Points Parameters(Constant Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	488.09 TR	510.80 kW	1.0472 kW/TR	11.47 (Btu/W.h)	24.42 ft CA	35.00 °C	1,298.85 GPM	7.00 °C
90	439.42 TR	462.30 kW	1.0528 kW/TR	11.41 (Btu/W.h)	24.42 ft CA	35.00 °C	1,298.85 GPM	7.00 °C
80	390.47 TR	414.50 kW	1.0622 kW/TR	11.30 (Btu/W.h)	24.42 ft CA	35.00 °C	1,298.85 GPM	7.00 °C
70	341.80 TR	366.20 kW	1.0721 kW/TR	11.20 (Btu/W.h)	24.42 ft CA	35.00 °C	1,298.85 GPM	7.00 °C
60	292.85 TR	318.60 kW	1.0886 kW/TR	11.03 (Btu/W.h)	24.42 ft CA	35.00 °C	1,298.85 GPM	7.00 °C
50	244.19 TR	273.20 kW	1.1195 kW/TR	10.73 (Btu/W.h)	24.42 ft CA	35.00 °C	1,298.85 GPM	7.00 °C
40	195.23 TR	231.80 kW	1.1881 kW/TR	10.11 (Btu/W.h)	24.42 ft CA	35.00 °C	1,298.85 GPM	7.00 °C
30	146.57 TR	159.40 kW	1.0883 kW/TR	11.03 (Btu/W.h)	24.42 ft CA	35.00 °C	1,298.85 GPM	7.00 °C
20	97.62 TR	115.90 kW	1.0664 kW/TR	10.11 (Btu/W.h)	24.42 ft CA	35.00 °C	1,298.85 GPM	7.00 °C
10	48.95 TR	84.30 kW	1.5468 kW/TR	6.97 (Btu/W.h)	24.42 ft CA	35.00 °C	1,298.85 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: CA2-485-4210

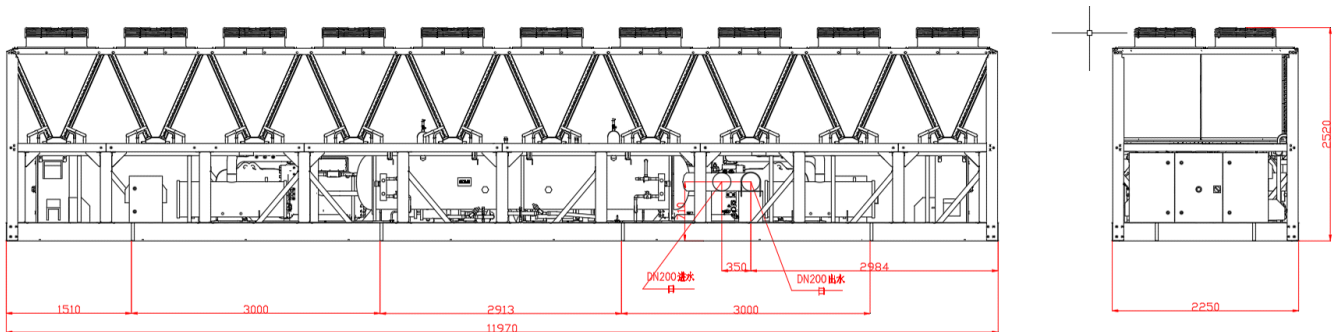
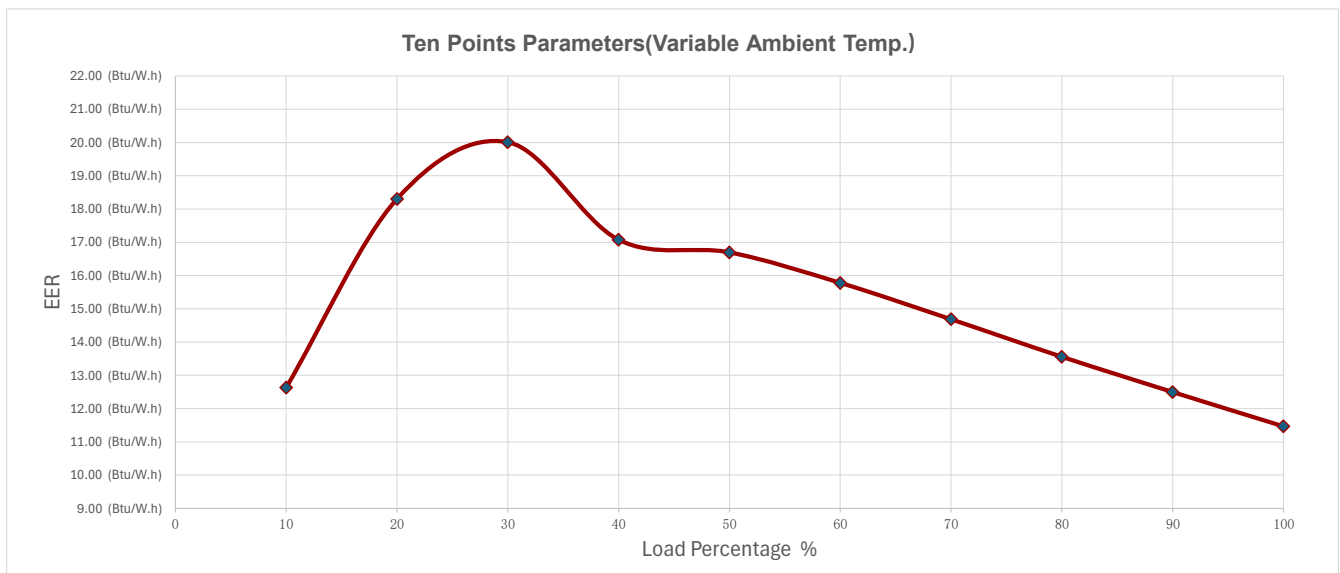


Ten Points Parameters(Variable Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	488.09 TR	510.80 kW	1.0472 kW/TR	11.47 (Btu/W.h)	24.42 ft CA	35.00 °C	1,298.85 GPM	7.00 °C
90	439.42 TR	421.90 kW	0.9608 kW/TR	12.50 (Btu/W.h)	24.42 ft CA	31.80 °C	1,298.85 GPM	7.00 °C
80	390.47 TR	345.60 kW	0.8857 kW/TR	13.56 (Btu/W.h)	24.42 ft CA	28.60 °C	1,298.85 GPM	7.00 °C
70	341.80 TR	279.30 kW	0.8177 kW/TR	14.69 (Btu/W.h)	24.42 ft CA	25.40 °C	1,298.85 GPM	7.00 °C
60	292.85 TR	222.70 kW	0.7609 kW/TR	15.78 (Btu/W.h)	24.42 ft CA	22.20 °C	1,298.85 GPM	7.00 °C
50	244.19 TR	175.50 kW	0.7192 kW/TR	16.70 (Btu/W.h)	24.42 ft CA	19.00 °C	1,298.85 GPM	7.00 °C
40	195.23 TR	137.20 kW	0.7032 kW/TR	17.08 (Btu/W.h)	24.42 ft CA	15.80 °C	1,298.85 GPM	7.00 °C
30	146.57 TR	87.90 kW	0.6001 kW/TR	20.01 (Btu/W.h)	24.42 ft CA	13.00 °C	1,298.85 GPM	7.00 °C
20	97.62 TR	64.00 kW	0.6560 kW/TR	18.30 (Btu/W.h)	24.42 ft CA	13.00 °C	1,298.85 GPM	7.00 °C
10	48.95 TR	46.50 kW	0.9505 kW/TR	12.63 (Btu/W.h)	24.42 ft CA	13.00 °C	1,298.85 GPM	7.00 °C

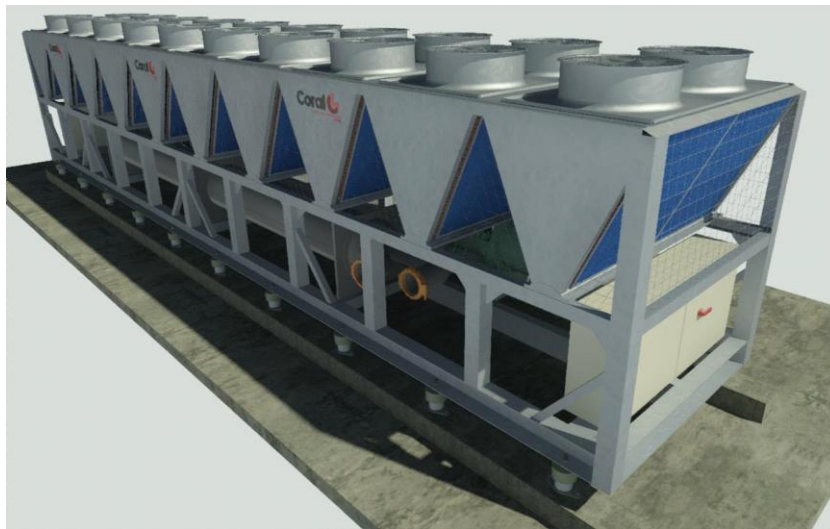
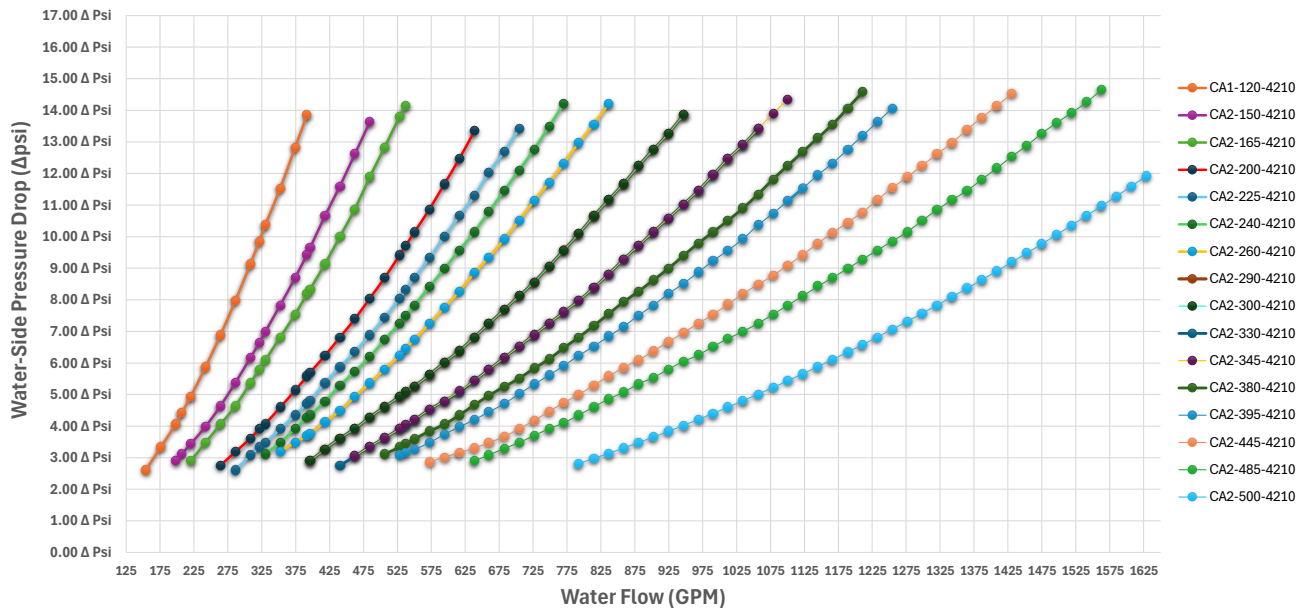
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Chiller Model: CA2-485-4210



Dimension Model: CA2-485-4210	Length	Width	Height
	11,970.00 mm	2,250.00 mm	2,520.00 mm

Water Pressure Drop Curve IP (Chiller Coral)



CA2-485-4210

Cooling Capacity:	1,715.00 kW	488.09 TR
Chilled Water Flow:	295.00 m³/h	1,298.85 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 Units	
Nozzle Size(DN):	200.00 mm	8.00 in
Operating Weight:	12,240.00 kg	26,984.58 lb