



FOCUSED ON APPLICATION HVAC



Unit information

Chiller Model	CA2-150-4210	
Width:	2,250.00 mm	88.58 in
Length:	4,790.00 mm	188.58 in
Height:	2,460.00 mm	96.85 in
Shipping Weight:	5,240.00 kg	11,552.22 lb
Operating Weight:	5,320.00 kg	11,728.59 lb
Capacity Control	Slide Valve	
Refrigerant:	R134a	
Refrigerant Charge (Ckt1 / Ckt2):	108.00 kg	108.00 Kg
Starting Control:	Y-Δ	

Performance Information (Cooling Conditions)

** Cooling Capacity:	528.00 kW	150.27 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	90.80 m³/h	399.78 GPM
Input Power (Electrical):	164.60 kW	
IPLV/NPLV:	4.44 (W/W)	15.17 (Btu/W.h)
COP:	3.21 (W/W)	10.96 EER (Btu/W.h)

Compressor Information

Brand:	Bitzer	
Model:	CSH8553-110Y-40D	
Compressor Type:	Semi-Hermetic Screw	
Maximum Compressor Current:	163.60 A	
Quantity:	2 Piece/s	
Oil Type (per compressor):	BSE170	774.30 oz
Capacity Regulating Range:	12.5% - 100%	

Water-Side Heat Exchanger Information

Fluid Type:	Water	
Nozzle Type:	Victaulic Coupling	
Water Volume:	101.00 L	26.68 gal
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:	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:	Fin-and-Tube	
Fan Quantity:	8 Units	
Air Flow	196,000.00 m³/h	115,361.09 CFM
Fan Power Input	2.20 kW/unit	17.60 kW Total

Electrical Connections

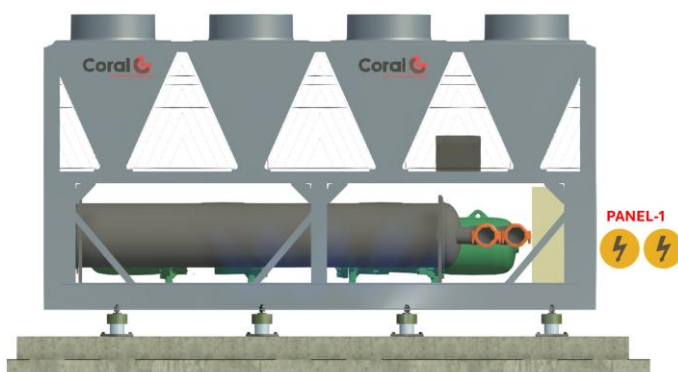
Amperage	Electrical Circuit 1	Electrical Circuit 2
Maximum Operating Current (MCA):	185.00 A	185.00 A
Maximum Overcurrent Protection (MOCP):	315.00 A	315.00 A

Electrical Information

Power Supply:	460V / 3 Ph / 60 Hz	
Voltage Range:	440 V	480 V
Rating Current (A):	242.00 A	
Max. Starting Current (A):	485.00 A	
Maximum Operating Current (A)	370.00 A	

Electrical Panel

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



- * 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	528.00 kW	164.60 kW	1.0961 kW/TR	3.21 W/W	68.00 kPa	35.00 °C	12.00 °C	7.00 °C
75	396.00 kW	99.50 kW	0.8834 kW/TR	3.98 W/W	68.00 kPa	27.00 °C	10.75 °C	7.00 °C
50	264.00 kW	56.70 kW	0.7551 kW/TR	4.66 W/W	68.00 kPa	19.00 °C	9.50 °C	7.00 °C
25	132.00 kW	24.70 kW	0.6579 kW/TR	5.34 W/W	68.00 kPa	13.00 °C	8.25 °C	7.00 °C

IPLV /NPLV =0.01*A+0.42*B+0.45*C+0.12*D= 4.4420

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	150.27 TR	164.60 kW	1.0961 kW/TR	10.96 (Btu/W.h)	22.75 ft CA	95.00 °F	53.60 °F	44.60 °F
75	112.70 TR	99.50 kW	0.8834 kW/TR	13.59 (Btu/W.h)	22.75 ft CA	80.60 °F	51.35 °F	44.60 °F
50	75.13 TR	56.70 kW	0.7551 kW/TR	15.90 (Btu/W.h)	22.75 ft CA	66.20 °F	49.10 °F	44.60 °F
25	37.57 TR	24.70 kW	0.6579 kW/TR	18.25 (Btu/W.h)	22.75 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= 15.17 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).

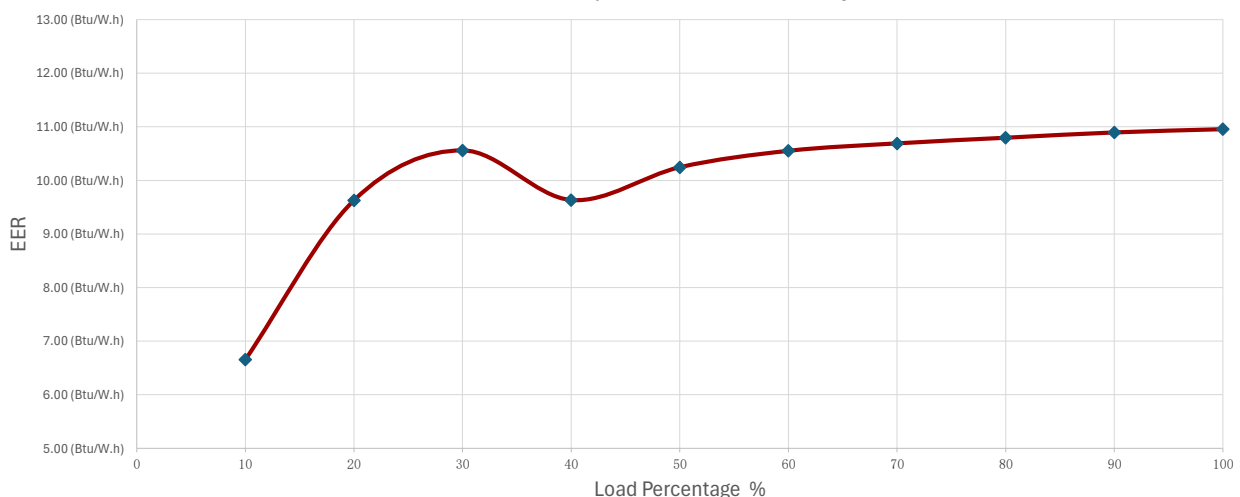
Ten Points Parameters(Constant Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	150.27 TR	164.60 kW	1.0961 kW/TR	10.96 (Btu/W.h)	22.75 ft CA	35.00 °C	399.78 GPM	7.00 °C
90	135.18 TR	148.90 kW	1.1022 kW/TR	10.89 (Btu/W.h)	22.75 ft CA	35.00 °C	399.78 GPM	7.00 °C
80	120.10 TR	133.50 kW	1.1123 kW/TR	10.80 (Btu/W.h)	22.75 ft CA	35.00 °C	399.78 GPM	7.00 °C
70	105.30 TR	118.20 kW	1.1232 kW/TR	10.69 (Btu/W.h)	22.75 ft CA	35.00 °C	399.78 GPM	7.00 °C
60	90.22 TR	102.60 kW	1.1380 kW/TR	10.55 (Btu/W.h)	22.75 ft CA	35.00 °C	399.78 GPM	7.00 °C
50	75.13 TR	88.00 kW	1.1720 kW/TR	10.25 (Btu/W.h)	22.75 ft CA	35.00 °C	399.78 GPM	7.00 °C
40	60.05 TR	74.80 kW	1.2464 kW/TR	9.63 (Btu/W.h)	22.75 ft CA	35.00 °C	399.78 GPM	7.00 °C
30	44.97 TR	51.10 kW	1.1371 kW/TR	10.56 (Btu/W.h)	22.75 ft CA	35.00 °C	399.78 GPM	7.00 °C
20	30.17 TR	37.60 kW	1.1195 kW/TR	9.63 (Btu/W.h)	22.75 ft CA	35.00 °C	399.78 GPM	7.00 °C
10	15.08 TR	27.20 kW	1.6197 kW/TR	6.65 (Btu/W.h)	22.75 ft CA	35.00 °C	399.78 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: CA2-150-4210

Ten Points Parameters(Constant Ambient Temp.)



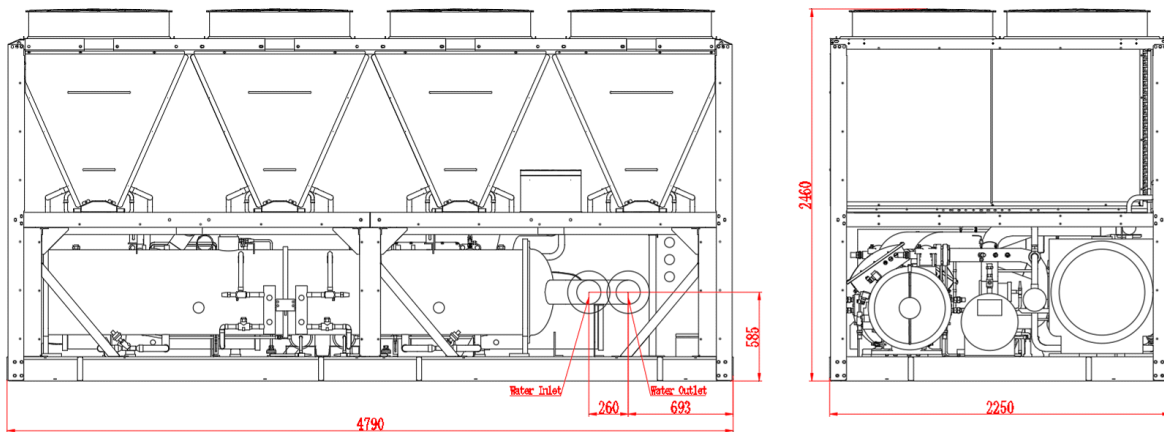
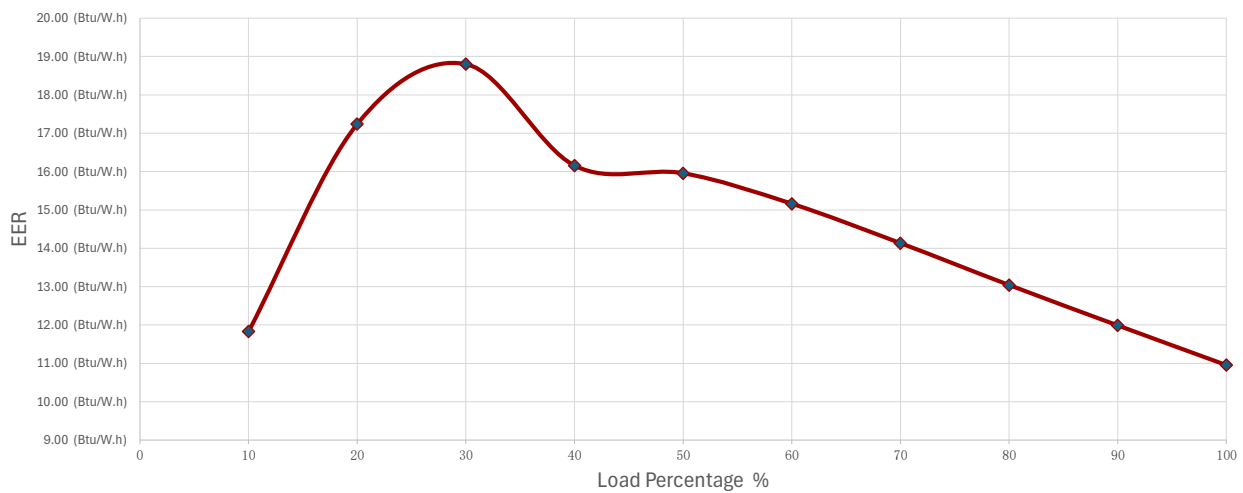
Ten Points Parameters(Variable Ambient Temp.)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD	DBT	FLOW RATE	ELWT
100	150.27 TR	164.60 kW	1.0961 kW/TR	10.96 (Btu/W.h)	22.75 ft CA	35.00 °C	399.78 GPM	7.00 °C
90	135.18 TR	135.30 kW	1.0015 kW/TR	11.99 (Btu/W.h)	22.75 ft CA	31.80 °C	399.78 GPM	7.00 °C
80	120.10 TR	110.50 kW	0.9207 kW/TR	13.04 (Btu/W.h)	22.75 ft CA	28.60 °C	399.78 GPM	7.00 °C
70	105.30 TR	89.40 kW	0.8495 kW/TR	14.13 (Btu/W.h)	22.75 ft CA	25.40 °C	399.78 GPM	7.00 °C
60	90.22 TR	71.40 kW	0.7919 kW/TR	15.16 (Btu/W.h)	22.75 ft CA	22.20 °C	399.78 GPM	7.00 °C
50	75.13 TR	56.50 kW	0.7525 kW/TR	15.96 (Btu/W.h)	22.75 ft CA	19.00 °C	399.78 GPM	7.00 °C
40	60.05 TR	44.60 kW	0.7432 kW/TR	16.16 (Btu/W.h)	22.75 ft CA	15.80 °C	399.78 GPM	7.00 °C
30	44.97 TR	28.70 kW	0.6387 kW/TR	18.80 (Btu/W.h)	22.75 ft CA	13.00 °C	399.78 GPM	7.00 °C
20	30.17 TR	21.00 kW	0.6966 kW/TR	17.24 (Btu/W.h)	22.75 ft CA	13.00 °C	399.78 GPM	7.00 °C
10	15.08 TR	15.30 kW	1.0150 kW/TR	11.83 (Btu/W.h)	22.75 ft CA	13.00 °C	399.78 GPM	7.00 °C

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Chiller Model: CA2-150-4210

Ten Points Parameters(Variable Ambient Temp.)



Dimension Model: CA2-150-4210

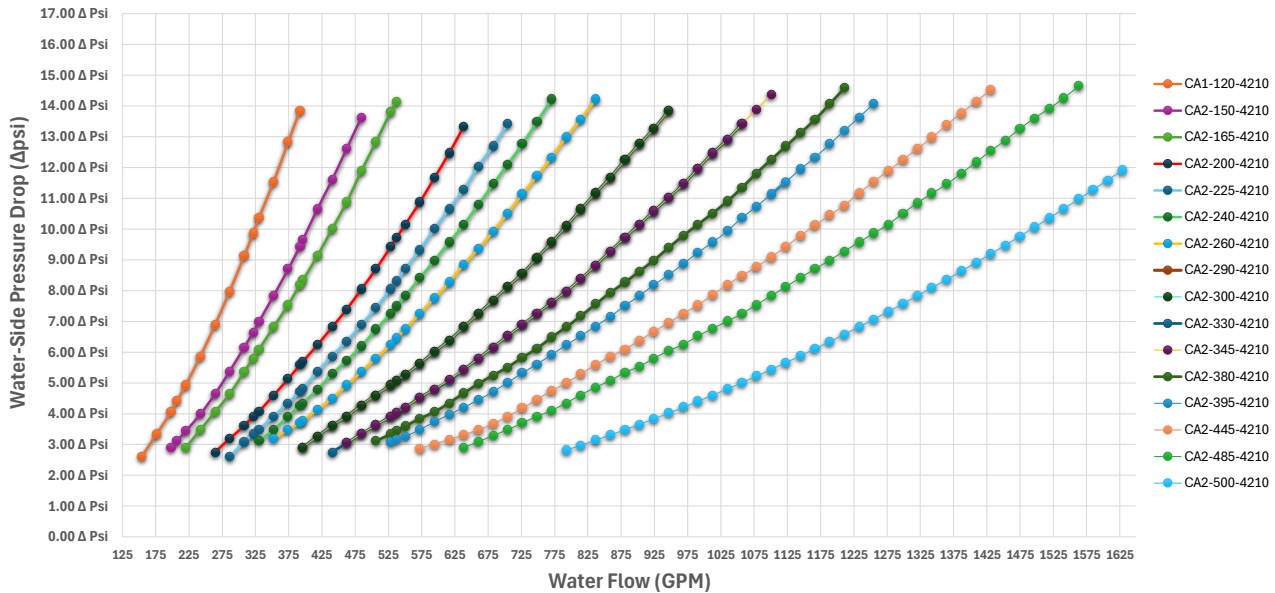
Length
4,790.00 mm

Width
2,250.00 mm

Height
2,460.00 mm

Coral

Water Pressure Drop Curve IP (Chiller Coral)



CA2-150-4210

Cooling Capacity:	528.00 kW	150.27 TR
Chilled Water Flow:	90.80 m ³ /h	399.78 GPM
Width:	2,250.00 mm	88.58 in
Length:	4,790.00 mm	188.58 in
Height:	2,460.00 mm	96.85 in
Fan Quantity:	8 Units	
Nozzle Size(DN):	150.00 mm	6.00 in
Operating Weight:	5,320.00 kg	11,728.59 lb