

Coral

FOCUSED ON APPLICATION HVAC



Unit information Water Cooled Screw Chiller		
Chiller Model:	CW2-200-4200	
Width:	1,549.91 mm	61.02 in
Length:	4,500.12 mm	177.17 in
Height:	2,109.98 mm	83.07 in
Shipping Weight:	4,750.00 kg	10,471.96 lb
Operating Weight:	5,450.00 kg	12,015.19 lb
Capacity Control:	Slide Valve	
Refrigerant:	R-134a	
Refrigerant Charge (Ckt1 / Ckt2):	120.00 kg	120.00 kg
Starting Control:	Y-Δ	

Performance Information (Cooling Conditions)		
Cooling Capacity:	703.37 kW	200.18 TR
Entering Water Temp (Evaporator):	12.22 °C	54.00 °F
Leaving Water Temp (Evaporator):	6.66 °C	43.99 °F
Entering Water Temp (Condenser):	29.44 °C	84.99 °F
Leaving Water Temp (Condenser):	35.00 °C	95.00 °F
Ambient Temperature (DB):	---	---
Evaporator Water Flow:	109.24 m³/h	480.97 GPM
Input Power (Electrical):	120.70 kW	
IPLV/NPLV:	7.77 (W/W)	26.54 (Btu/W.h)
COP:	5.83 (W/W)	19.90 EER (Btu/W.h)

Water-Side Heat Exchanger Information (Evaporator)		
Fluid Type:	Water	
Nozzle Type:	Victaulic Coupling	
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 in
Water Pressure Drop:	69.70 kPa	23.32 ft CA
Design Pressure of Water-Side:	1.00 MPa	145.03 psi
Passes:	2	
Pipe Wall Thickness:	1.15	
Flow Rate:	109.24 m³/h	480.97 GPM

Electrical Connections		
Amperage:	Electrical Circuit 1	Electrical Circuit 2
Maximum operating current (MCA):	-	----
Operating Current:	171.00 A	----
Maximum Overcurrent Protection (MOCP):	----	----

Options	
Bottom Channels	YES
Circuit Breaker	NO
Safety Valve	Single Safety Valves
Thermal Insulation:	20 mm
Shock Absorber	Rubber Vibration Isolator
Rubber Ball Cleaning Device	NO
Testing	Factory Self-Testing
RS485	YES
Control Cabinet IP rating	IP20
Harmonic Wave (Only Frequency)	---

Noise (Full Load)							
Frequency (Hz)	1/3rd octave	1st octave	63.00 Hz	125.00 Hz	250.00 Hz	500.00 Hz	1,000.00 Hz
Noise (dBA)	89.70 dBA	-	-	-	-	-	-

Compressor Information	
Brand:	Bitzer
Model:	----
Compressor Type:	Semi-Hermetic Screw
Noise (dB):	89.70 dB
Maximum Compressor Current:	217.00 A
Quantity:	2 Units
Oil Type/Charge (per compressor):	BSE-170 21/14L
Capacity Regulating Range:	12.5%-100%

Water-Side Heat Exchanger Information (Condenser)		
Fluid Type:	Water	
Nozzle Type:	Victaulic Coupling	
Heat Exchanger Type:	Shell-and-Tube	
Fouling Factor:	0.044 m².K/kW	0.2497 ft².F/Btu
Nozzle Size (DN):	200.00 mm	8 in
Water Pressure Drop:	65.48 kPa	21.91 ft CA
Design Pressure of Water-Side:	1.00 MPa	145.03 psi
Passes:	2	
Pipe Wall Thickness:	1.15	
Flow Rate:	127.87 m³/h	562.99 GPM

Electrical Information	
Power Supply:	460 V / 3 Ph / 60 Hz
Voltage Range:	440 V 480 V
Rating Current (A):	171.00 A
Max. Starting Current (A):	325.00 A
Wiring Current (A):	217.00 A

* Garantía de 2 años en partes y compresores

* Refrigerante HFC, libre de cloro, ODP = 0

* Aisladores antivibratorios de neopreno

* Conexiones de tubería ranurada tipo Victaulic

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V3.01

IPLV/NPLV Points (SI)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD		EWT	LWT
100%	706.89 kW	119.60 kW	0.60 kW/TR	5.90 W/W	70.24 kPa	---	12.22 °C	6.67 °C
75%	531.04 kW	76.40 kW	0.51 kW/TR	6.94 W/W	70.54 kPa	---	10.83 °C	6.67 °C
50%	351.69 kW	41.00 kW	0.41 kW/TR	8.60 W/W	71.14 kPa	---	9.44 °C	6.67 °C
25%	175.84 kW	22.80 kW	0.45 kW/TR	7.75 W/W	71.44 kPa	---	8.06 °C	6.67 °C

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Cond. WPD		EWT	LWT
100%	706.89 kW	119.60 kW	0.60 kW/TR	5.90 W/W	75.02 kPa	---	29.44 °C	34.61 °C
75%	531.04 kW	76.40 kW	0.51 kW/TR	6.94 W/W	76.82 kPa	---	23.89 °C	27.68 °C
50%	351.69 kW	41.00 kW	0.41 kW/TR	8.60 W/W	78.91 kPa	---	18.33 °C	20.80 °C
25%	175.84 kW	22.80 kW	0.45 kW/TR	7.75 W/W	78.91 kPa	---	18.33 °C	19.58 °C

Performance calculated in accordance with AHRI Standards 550/590 (I-P) and AHRI 551/591 (SI).

IPLV/NPLV Points (IP)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD		EWT	LWT
100%	201.00 TR	119.60 kW	0.60 kW	20.15 Btu/W.h	23.50 ft CA	---	54.00°F	44.00°F
75%	151.00 TR	76.40 kW	0.51 kW	23.68 Btu/W.h	23.60 ft CA	---	51.50°F	44.00°F
50%	100.00 TR	41.00 kW	0.41 kW	29.38 Btu/W.h	23.80 ft CA	---	49.00°F	44.00°F
25%	50.00 TR	22.80 kW	0.46 kW	26.46 Btu/W.h	23.90 ft CA	---	46.50°F	44.00°F

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Cond. WPD		EWT	LWT
100%	201.00 TR	119.60 kW	0.60 kW	20.15 Btu/W.h	25.10 ft CA	---	85.00°F	94.30°F
75%	151.00 TR	76.40 kW	0.51 kW	23.68 Btu/W.h	25.70 ft CA	---	75.00°F	81.82°F
50%	100.00 TR	41.00 kW	0.41 kW	29.38 Btu/W.h	26.40 ft CA	---	65.00°F	69.44°F
25%	50.00 TR	22.80 kW	0.46 kW	26.46 Btu/W.h	26.40 ft CA	---	65.00°F	67.24°F

NPLV (SI) (AHRI 550/590)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD		EWT	LWT
100%	703.40 Kw	120.70 Kw	0.60 Kw/Ton	5.83 w/w	69.64 kPa	---	12.22 °C	6.67 °C
75%	527.55 Kw	76.80 Kw	0.51 Kw/Ton	6.87 w/w	70.24 kPa	---	10.83 °C	6.67 °C
50%	351.70 Kw	41.20 Kw	0.41 Kw/Ton	8.54 w/w	70.54 kPa	---	9.44 °C	6.67 °C
25%	175.85 Kw	22.80 Kw	0.46 Kw/Ton	7.72 w/w	70.84 kPa	---	8.06 °C	6.67 °C

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Cond. WPD		EWT	LWT
100%	703.40 kW	120.70 kW	0.60 kW/TR	5.83 W/W	65.46 kPa	---	29.44 °C	35.00 °C
75%	527.55 kW	76.80 kW	0.51 kW/TR	6.87 W/W	66.95 kPa	---	23.89 °C	27.96 °C
50%	351.70 kW	41.20 kW	0.41 kW/TR	8.54 W/W	68.75 kPa	---	18.33 °C	20.98 °C
25%	175.85 kW	22.80 kW	0.46 kW/TR	7.72 W/W	69.05 kPa	---	18.33 °C	19.67 °C

Performance calculated in accordance with AHRI Standards 550/590 (I-P) and AHRI 551/591 (SI).

NPLV (IP) (AHRI 550/590)

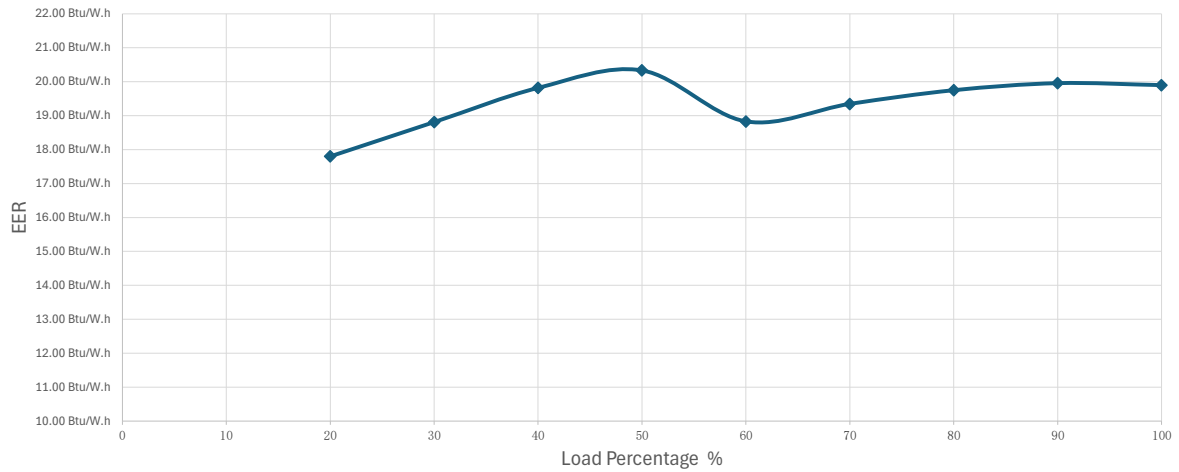
Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD		EWT	LWT
100%	200.00 TR	120.70 kW	0.60 kW/TR	19.90 Btu/W.h	23.30 ft CA	---	54.00°F	44.00°F
75%	150.00 TR	76.80 kW	0.51 kW/TR	23.46 Btu/W.h	23.50 ft CA	---	51.50°F	44.00°F
50%	100.00 TR	41.20 kW	0.41 kW/TR	29.16 Btu/W.h	23.60 ft CA	---	49.00°F	44.00°F
25%	50.00 TR	22.80 kW	0.46 kW/TR	26.35 Btu/W.h	23.70 ft CA	---	46.50°F	44.00°F

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Cond. WPD		EWT	LWT
100%	200.00 TR	120.70 kW	0.60 kW/TR	19.90 Btu/W.h	21.90 ft CA	---	85.00°F	95.00°F
75%	150.00 TR	76.80 kW	0.51 kW/TR	23.46 Btu/W.h	22.40 ft CA	---	75.00°F	82.33°F
50%	100.00 TR	41.20 kW	0.41 kW/TR	29.16 Btu/W.h	23.00 ft CA	---	65.00°F	69.77°F
25%	50.00 TR	22.80 kW	0.46 kW/TR	26.35 Btu/W.h	23.10 ft CA	---	65.00°F	67.41°F

Ten Points Parameters(Constant Condenser Entering Water Temperature)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	EVAPORATOR (WPD --- Kpa)		Condenser (WPD --- Kpa)	
					EWT	ELWT	EEWT	ELWT
100	200.00 TR	120.70 kW	0.60 kW/TR	19.90 Btu/W.h	54.00°F	44.00°F	85.00°F	95.00°F
90	180.00 TR	108.30 kW	0.60 kW/TR	19.96 Btu/W.h	53.00°F	44.00°F	85.00°F	94.00°F
80	160.00 TR	97.30 kW	0.61 kW/TR	19.75 Btu/W.h	52.00°F	44.00°F	85.00°F	93.01°F
70	140.00 TR	86.90 kW	0.62 kW/TR	19.35 Btu/W.h	51.00°F	44.00°F	85.00°F	92.03°F
60	120.00 TR	76.50 kW	0.64 kW/TR	18.83 Btu/W.h	50.00°F	44.00°F	85.00°F	91.05°F
50	100.00 TR	59.10 kW	0.59 kW/TR	20.33 Btu/W.h	49.00°F	44.00°F	85.00°F	89.98°F
40	80.00 TR	48.50 kW	0.61 kW/TR	19.82 Btu/W.h	48.00°F	44.00°F	85.00°F	89.00°F
30	60.00 TR	38.30 kW	0.64 kW/TR	18.81 Btu/W.h	47.00°F	44.00°F	85.00°F	88.03°F
20	40.00 TR	27.00 kW	0.67 kW/TR	17.80 Btu/W.h	46.00 °F	44.00 °F	85.00 °F	87.03 °F
10	-	-	-	-	-	-	-	-

Ten Points Parameters(Constant Condenser Entering Water Temperature)



Ten Points Parameters(Variable Condenser Entering Water Temperature)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	EVAPORATOR (WPD --- Kpa)		Condenser (WPD --- Kpa)	
					EWT	ELWT	EEWT	ELWT
100	200.00 TR	121.00 kW	0.60 kW/TR	19.91 Btu/W.h	54.00°F	44.00°F	85.00°F	95.00°F
90	180.00 TR	101.00 kW	0.56 kW/TR	21.48 Btu/W.h	53.00°F	44.00°F	81.00°F	89.90°F
80	160.00 TR	84.00 kW	0.53 kW/TR	22.85 Btu/W.h	52.00°F	44.00°F	77.00°F	84.85°F
70	140.00 TR	70.00 kW	0.50 kW/TR	24.04 Btu/W.h	51.00°F	44.00°F	73.00°F	79.82°F
60	120.00 TR	57.00 kW	0.48 kW/TR	25.20 Btu/W.h	50.00°F	44.00°F	69.00°F	74.82°F
50	100.00 TR	41.00 kW	0.41 kW/TR	29.17 Btu/W.h	49.00°F	44.00°F	65.00°F	69.77°F
40	80.00 TR	34.00 kW	0.43 kW/TR	28.24 Btu/W.h	48.00°F	44.00°F	65.00°F	68.83°F
30	60.00 TR	27.00 kW	0.45 kW/TR	26.98 Btu/W.h	47.00°F	44.00°F	65.00°F	67.88°F
20	40.00 TR	19.00 kW	0.47 kW/TR	25.82 Btu/W.h	46.00 °F	44.00 °F	65.00 °F	66.93 °F
10	-	-	-	-	-	-	-	-

Ten Points Parameters(Variable Condenser Entering Water Temperature)

