

Coral

FOCUSED ON APPLICATION HVAC



Unit information Water Cooled Screw Chiller		
Chiller Model:	CW2-400-4200	
Width:	1,700.02 mm	66.93 in
Length:	4,549.90 mm	179.13 in
Height:	2,210.05 mm	87.01 in
Shipping Weight:	6,850.00 kg	15,101.66 lb
Operating Weight:	7,650.00 kg	16,865.36 lb
Capacity Control:	Slide Valve	
Refrigerant:	R-134a	
Refrigerant Charge (Ckt1 / Ckt2):	175.00 kg	175.00 kg
Starting Control:	Y-Δ	

Performance Information (Cooling Conditions)		
Cooling Capacity:	1,406.74 kW	400.36 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:	218.49 m³/h	961.98 GPM
Input Power (Electrical):	242.30 kW	
IPLV/NPLV:	7.60 (W/W)	25.96 (Btu/W.h)
COP:	5.81 (W/W)	19.83 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):	200.00 mm	8 in
Water Pressure Drop:	76.90 kPa	25.73 ft CA
Design Pressure of Water-Side:	1.00 MPa	145.03 psi
Passes:	2	
Pipe Wall Thickness:	1.15	
Flow Rate:	218.49 m³/h	961.98 GPM

Electrical Connections		
Amperage:	Electrical Circuit 1	Electrical Circuit 2
Maximum operating current (MCA):	-	----
Operating Current:	333.00 A	----
Maximum Overcurrent Protection (MOC):	----	----

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)	---

Compressor Information	
Brand:	Bitzer
Model:	----
Compressor Type:	Semi-Hermetic Screw
Noise (dB):	92.60 dB
Maximum Compressor Current:	426.00 A
Quantity:	2 Units
Oil Type/Charge (per compressor):	BSE-170 29/29L
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:	77.89 kPa	26.06 ft CA
Design Pressure of Water-Side:	1.00 MPa	145.03 psi
Passes:	2	
Pipe Wall Thickness:	1.15	
Flow Rate:	255.96 m³/h	1,126.96 GPM

Electrical Information	
Power Supply:	460 V / 3 Ph / 60 Hz
Voltage Range:	440 V 480 V
Rating Current (A):	333.00 A
Max. Starting Current (A):	667.00 A
Wiring Current (A):	426.00 A

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)	92.60 dBA	-	-	-	-	-	-

* 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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IPLV/NPLV Points (SI)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD		EWT	LWT
100%	1,410.26 kW	240.30 kW	0.60 kW/TR	5.88 W/W	77.42 kPa	---	12.22 °C	6.67 °C
75%	1,058.57 kW	155.60 kW	0.52 kW/TR	6.80 W/W	77.71 kPa	---	10.83 °C	6.67 °C
50%	706.89 kW	84.00 kW	0.42 kW/TR	8.41 W/W	78.31 kPa	---	9.44 °C	6.67 °C
25%	351.69 kW	47.00 kW	0.47 kW/TR	7.50 W/W	78.61 kPa	---	8.06 °C	6.67 °C

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Cond. WPD		EWT	LWT
100%	1,410.26 kW	240.30 kW	0.60 kW/TR	5.88 W/W	89.07 kPa	---	29.44 °C	34.61 °C
75%	1,058.57 kW	155.60 kW	0.52 kW/TR	6.80 W/W	91.16 kPa	---	23.89 °C	27.69 °C
50%	706.89 kW	84.00 kW	0.42 kW/TR	8.41 W/W	93.85 kPa	---	18.33 °C	20.81 °C
25%	351.69 kW	47.00 kW	0.47 kW/TR	7.50 W/W	94.15 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%	401.00 TR	240.30 kW	0.60 kW	20.06 Btu/W.h	25.90 ft CA	---	54.00°F	44.00°F
75%	301.00 TR	155.60 kW	0.52 kW	23.24 Btu/W.h	26.00 ft CA	---	51.50°F	44.00°F
50%	201.00 TR	84.00 kW	0.42 kW	28.71 Btu/W.h	26.20 ft CA	---	49.00°F	44.00°F
25%	100.00 TR	47.00 kW	0.47 kW	25.62 Btu/W.h	26.30 ft CA	---	46.50°F	44.00°F

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Cond WPD		EWT	LWT
100%	401.00 TR	240.30 kW	0.60 kW	20.06 Btu/W.h	29.80 ft CA	---	85.00°F	94.30°F
75%	301.00 TR	155.60 kW	0.52 kW	23.24 Btu/W.h	30.50 ft CA	---	75.00°F	81.84°F
50%	201.00 TR	84.00 kW	0.42 kW	28.71 Btu/W.h	31.40 ft CA	---	65.00°F	69.45°F
25%	100.00 TR	47.00 kW	0.47 kW	25.62 Btu/W.h	31.50 ft CA	---	65.00°F	67.25°F

NPLV (SI) (AHRI 550/590)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD		EWT	LWT
100%	1,406.80 kW	242.30 kW	0.61 kW/TR	5.81 W/W	76.82 kPa	---	12.22 °C	6.67 °C
75%	1,055.10 kW	156.50 kW	0.52 kW/TR	6.74 W/W	77.42 kPa	---	10.83 °C	6.67 °C
50%	703.40 kW	84.20 kW	0.42 kW/TR	8.35 W/W	77.71 kPa	---	9.44 °C	6.67 °C
25%	351.70 kW	47.10 kW	0.47 kW/TR	7.47 W/W	78.01 kPa	---	8.06 °C	6.67 °C

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Cond. WPD		EWT	LWT
100%	1,406.80 kW	242.30 kW	0.61 kW/TR	5.81 W/W	78.01 kPa	---	29.44 °C	35.00 °C
75%	1,055.10 kW	156.50 kW	0.52 kW/TR	6.74 W/W	79.81 kPa	---	23.89 °C	27.97 °C
50%	703.40 kW	84.20 kW	0.42 kW/TR	8.35 W/W	81.90 kPa	---	18.33 °C	20.99 °C
25%	351.70 kW	47.10 kW	0.47 kW/TR	7.47 W/W	82.20 kPa	---	18.33 °C	19.68 °C

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

NPLV (IP) (AHRI 550/590)

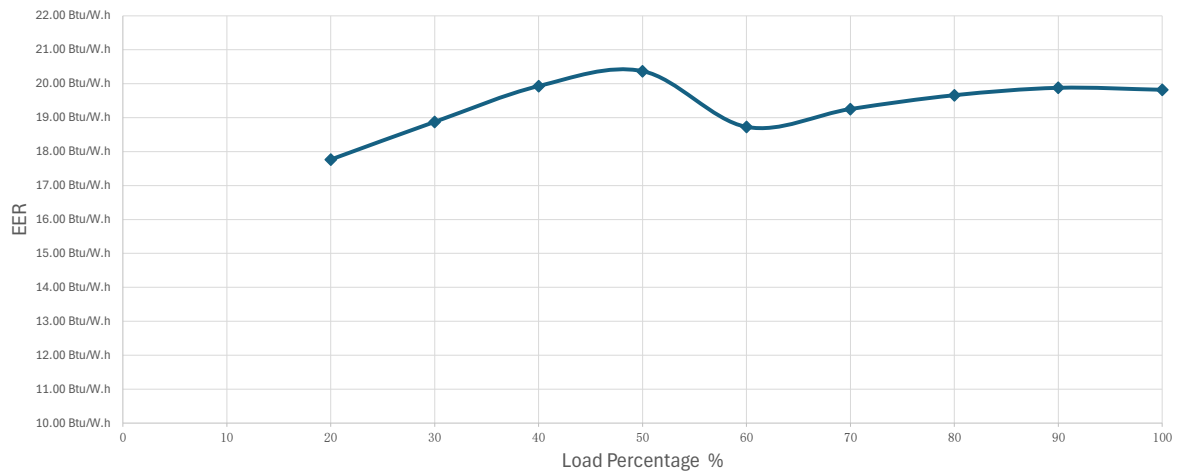
Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD		EWT	LWT
100%	400.00 TR	242.30 kW	0.61 kW/TR	19.83 Btu/W.h	25.70 ft CA	---	54.00°F	44.00°F
75%	300.00 TR	156.50 kW	0.52 kW/TR	23.03 Btu/W.h	25.90 ft CA	---	51.50°F	44.00°F
50%	200.00 TR	84.20 kW	0.42 kW/TR	28.52 Btu/W.h	26.00 ft CA	---	49.00°F	44.00°F
25%	100.00 TR	47.10 kW	0.47 kW/TR	25.53 Btu/W.h	26.10 ft CA	---	46.50°F	44.00°F

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Cond WPD		EWT	LWT
100%	400.00 TR	242.30 kW	0.61 kW/TR	19.83 Btu/W.h	26.10 ft CA	---	85.00°F	95.00°F
75%	300.00 TR	156.50 kW	0.52 kW/TR	23.03 Btu/W.h	26.70 ft CA	---	75.00°F	82.35°F
50%	200.00 TR	84.20 kW	0.42 kW/TR	28.52 Btu/W.h	27.40 ft CA	---	65.00°F	69.78°F
25%	100.00 TR	47.10 kW	0.47 kW/TR	25.53 Btu/W.h	27.50 ft CA	---	65.00°F	67.42°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	400.00 TR	242.40 kW	0.61 kW/TR	19.82 Btu/W.h	54.00°F	44.00°F	85.00°F	95.00°F
90	360.00 TR	217.50 kW	0.60 kW/TR	19.88 Btu/W.h	53.00°F	44.00°F	85.00°F	94.00°F
80	320.00 TR	195.50 kW	0.61 kW/TR	19.66 Btu/W.h	52.00°F	44.00°F	85.00°F	93.01°F
70	280.00 TR	174.70 kW	0.62 kW/TR	19.25 Btu/W.h	51.00°F	44.00°F	85.00°F	92.03°F
60	240.00 TR	153.90 kW	0.64 kW/TR	18.73 Btu/W.h	50.00°F	44.00°F	85.00°F	91.05°F
50	200.00 TR	117.90 kW	0.59 kW/TR	20.37 Btu/W.h	49.00°F	44.00°F	85.00°F	89.98°F
40	160.00 TR	96.40 kW	0.60 kW/TR	19.93 Btu/W.h	48.00°F	44.00°F	85.00°F	89.00°F
30	120.00 TR	76.40 kW	0.64 kW/TR	18.88 Btu/W.h	47.00°F	44.00°F	85.00°F	88.02°F
20	80.00 TR	54.10 kW	0.68 kW/TR	17.77 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 Water Temperature)

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	EVAPORATOR (WPD --- Kpa)		Condenser (WPD --- Kpa)	
					EWT	ELWT	EEWT	ELWT
100	400.00 TR	242.00 kW	0.61 kW/TR	19.81 Btu/W.h	54.00°F	44.00°F	85.00°F	95.00°F
90	360.00 TR	203.00 kW	0.56 kW/TR	21.28 Btu/W.h	53.00°F	44.00°F	81.00°F	89.91°F
80	320.00 TR	171.00 kW	0.53 kW/TR	22.51 Btu/W.h	52.00°F	44.00°F	77.00°F	84.86°F
70	280.00 TR	143.00 kW	0.51 kW/TR	23.50 Btu/W.h	51.00°F	44.00°F	73.00°F	79.84°F
60	240.00 TR	118.00 kW	0.49 kW/TR	24.42 Btu/W.h	50.00°F	44.00°F	69.00°F	74.83°F
50	200.00 TR	84.00 kW	0.42 kW/TR	28.52 Btu/W.h	49.00°F	44.00°F	65.00°F	69.78°F
40	160.00 TR	70.00 kW	0.44 kW/TR	27.59 Btu/W.h	48.00°F	44.00°F	65.00°F	68.83°F
30	120.00 TR	55.00 kW	0.46 kW/TR	26.23 Btu/W.h	47.00°F	44.00°F	65.00°F	67.89°F
20	80.00 TR	39.00 kW	0.48 kW/TR	24.93 Btu/W.h	46.00 °F	44.00 °F	65.00 °F	66.94 °F
10	-	-	-	-	-	-	-	-

Ten Points Parameters(Variable Condenser Water Temperature)

