

Coral

FOCUSED ON APPLICATION HVAC



Unit information Water Cooled Screw Chiller		
Chiller Model:	CW2-300-4200	
Width:	1,599.95 mm	62.99 in
Length:	4,500.12 mm	177.17 in
Height:	2,109.98 mm	83.07 in
Shipping Weight:	5,900.00 kg	13,007.27 lb
Operating Weight:	6,600.00 kg	14,550.51 lb
Capacity Control:	Slide Valve	
Refrigerant:	R-134a	
Refrigerant Charge (Ckt1 / Ckt2):	135.00 kg	135.00 kg
Starting Control:	Y-Δ	

Performance Information (Cooling Conditions)		
Cooling Capacity:	1,055.06 kW	300.27 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:	163.75 m³/h	720.97 GPM
Input Power (Electrical):	183.90 kW	
IPLV/NPLV:	7.40 (W/W)	25.27 (Btu/W.h)
COP:	5.74 (W/W)	19.59 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:	72.81 kPa	24.36 ft CA
Design Pressure of Water-Side:	1.00 MPa	145.03 psi
Passes:	2	
Pipe Wall Thickness:	1.15	
Flow Rate:	163.75 m³/h	720.97 GPM

Electrical Connections		
Amperage:	Electrical Circuit 1	Electrical Circuit 2
Maximum operating current (MCA):	-	----
Operating Current:	262.00 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):	91.30 dB
Maximum Compressor Current:	332.00 A
Quantity:	2 Units
Oil Type/Charge (per compressor):	BSE-170 29/18L
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:	75.08 kPa	25.12 ft CA
Design Pressure of Water-Side:	1.00 MPa	145.03 psi
Passes:	2	
Pipe Wall Thickness:	1.15	
Flow Rate:	192.37 m³/h	846.98 GPM

Electrical Information	
Power Supply:	460 V / 3 Ph / 60 Hz
Voltage Range:	440 V 480 V
Rating Current (A):	262.00 A
Max. Starting Current (A):	493.00 A
Wiring Current (A):	332.00 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)	91.30 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

Coral

Unit information Water Cooled Screw Chiller (page 1)

V3.01

IPLV/NPLV Points (SI)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD		EWT	LWT
100%	1,058.57 kW	182.30 kW	0.61 kW/TR	5.81 W/W	73.23 kPa	---	12.22 °C	6.67 °C
75%	794.81 kW	117.70 kW	0.52 kW/TR	6.75 W/W	73.53 kPa	---	10.83 °C	6.67 °C
50%	531.04 kW	65.40 kW	0.43 kW/TR	8.09 W/W	74.13 kPa	---	9.44 °C	6.67 °C
25%	263.76 kW	36.90 kW	0.49 kW/TR	7.18 W/W	74.43 kPa	---	8.06 °C	6.67 °C

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Cond. WPD		EWT	LWT
100%	1,058.57 kW	182.30 kW	0.61 kW/TR	5.81 W/W	86.08 kPa	---	29.44 °C	34.61 °C
75%	794.81 kW	117.70 kW	0.52 kW/TR	6.75 W/W	87.88 kPa	---	23.89 °C	27.68 °C
50%	531.04 kW	65.40 kW	0.43 kW/TR	8.09 W/W	90.27 kPa	---	18.33 °C	20.81 °C
25%	263.76 kW	36.90 kW	0.49 kW/TR	7.18 W/W	90.57 kPa	---	18.33 °C	19.59 °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%	301.00 TR	182.30 kW	0.61 kW	19.84 Btu/W.h	24.50 ft CA	---	54.00°F	44.00°F
75%	226.00 TR	117.70 kW	0.52 kW	23.04 Btu/W.h	24.60 ft CA	---	51.50°F	44.00°F
50%	151.00 TR	65.40 kW	0.43 kW	27.64 Btu/W.h	24.80 ft CA	---	49.00°F	44.00°F
25%	75.00 TR	36.90 kW	0.49 kW	24.53 Btu/W.h	24.90 ft CA	---	46.50°F	44.00°F

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Cond WPD		EWT	LWT
100%	301.00 TR	182.30 kW	0.61 kW	19.84 Btu/W.h	28.80 ft CA	---	85.00°F	94.30°F
75%	226.00 TR	117.70 kW	0.52 kW	23.04 Btu/W.h	29.40 ft CA	---	75.00°F	81.83°F
50%	151.00 TR	65.40 kW	0.43 kW	27.64 Btu/W.h	30.20 ft CA	---	65.00°F	69.46°F
25%	75.00 TR	36.90 kW	0.49 kW	24.53 Btu/W.h	30.30 ft CA	---	65.00°F	67.26°F

NPLV (SI) (AHRI 550/590)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD		EWT	LWT
100%	1,055.10 Kw	183.90 Kw	0.61 Kw/Ton	5.74 w/w	72.93 kPa	---	12.22 °C	6.67 °C
75%	791.33 Kw	118.40 Kw	0.53 Kw/Ton	6.69 w/w	73.23 kPa	---	10.83 °C	6.67 °C
50%	527.55 Kw	65.60 Kw	0.44 Kw/Ton	8.04 w/w	73.53 kPa	---	9.44 °C	6.67 °C
25%	263.78 Kw	36.80 Kw	0.49 Kw/Ton	7.16 w/w	74.13 kPa	---	8.06 °C	6.67 °C

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Cond. WPD		EWT	LWT
100%	1,055.10 kW	183.90 kW	0.61 kW/TR	5.74 W/W	75.02 kPa	---	29.44 °C	35.00 °C
75%	791.33 kW	118.40 kW	0.53 kW/TR	6.69 W/W	76.82 kPa	---	23.89 °C	27.97 °C
50%	527.55 kW	65.60 kW	0.44 kW/TR	8.04 W/W	78.91 kPa	---	18.33 °C	20.99 °C
25%	263.78 kW	36.80 kW	0.49 kW/TR	7.16 W/W	79.21 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)

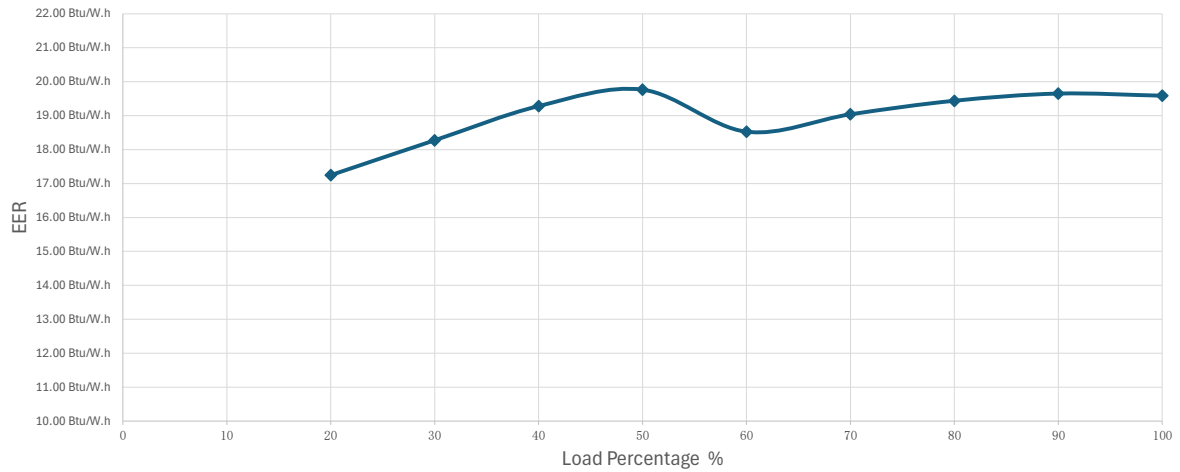
Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD		EWT	LWT
100%	300.00 TR	183.90 kW	0.61 kW/TR	19.59 Btu/W.h	24.40 ft CA	---	54.00°F	44.00°F
75%	225.00 TR	118.40 kW	0.53 kW/TR	22.83 Btu/W.h	24.50 ft CA	---	51.50°F	44.00°F
50%	150.00 TR	65.60 kW	0.44 kW/TR	27.46 Btu/W.h	24.60 ft CA	---	49.00°F	44.00°F
25%	75.00 TR	36.80 kW	0.49 kW/TR	24.45 Btu/W.h	24.80 ft CA	---	46.50°F	44.00°F

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Cond WPD		EWT	LWT
100%	300.00 TR	183.90 kW	0.61 kW/TR	19.59 Btu/W.h	25.10 ft CA	---	85.00°F	95.00°F
75%	225.00 TR	118.40 kW	0.53 kW/TR	22.83 Btu/W.h	25.70 ft CA	---	75.00°F	82.34°F
50%	150.00 TR	65.60 kW	0.44 kW/TR	27.46 Btu/W.h	26.40 ft CA	---	65.00°F	69.79°F
25%	75.00 TR	36.80 kW	0.49 kW/TR	24.45 Btu/W.h	26.50 ft CA	---	65.00°F	67.43°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	300.00 TR	183.90 kW	0.61 kW/TR	19.59 Btu/W.h	54.00°F	44.00°F	85.00°F	95.00°F
90	270.00 TR	165.00 kW	0.61 kW/TR	19.65 Btu/W.h	53.00°F	44.00°F	85.00°F	94.00°F
80	240.00 TR	148.30 kW	0.62 kW/TR	19.44 Btu/W.h	52.00°F	44.00°F	85.00°F	93.01°F
70	210.00 TR	132.50 kW	0.63 kW/TR	19.04 Btu/W.h	51.00°F	44.00°F	85.00°F	92.03°F
60	180.00 TR	116.70 kW	0.65 kW/TR	18.53 Btu/W.h	50.00°F	44.00°F	85.00°F	91.05°F
50	150.00 TR	91.10 kW	0.61 kW/TR	19.77 Btu/W.h	49.00°F	44.00°F	85.00°F	89.99°F
40	120.00 TR	74.70 kW	0.62 kW/TR	19.28 Btu/W.h	48.00°F	44.00°F	85.00°F	89.01°F
30	90.00 TR	59.10 kW	0.66 kW/TR	18.27 Btu/W.h	47.00°F	44.00°F	85.00°F	88.03°F
20	60.00 TR	41.80 kW	0.70 kW/TR	17.25 Btu/W.h	46.00 °F	44.00 °F	85.00 °F	87.04 °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	300.00 TR	184.00 kW	0.61 kW/TR	19.60 Btu/W.h	54.00°F	44.00°F	85.00°F	95.00°F
90	270.00 TR	154.00 kW	0.57 kW/TR	21.07 Btu/W.h	53.00°F	44.00°F	81.00°F	89.91°F
80	240.00 TR	129.00 kW	0.54 kW/TR	22.30 Btu/W.h	52.00°F	44.00°F	77.00°F	84.86°F
70	210.00 TR	108.00 kW	0.51 kW/TR	23.33 Btu/W.h	51.00°F	44.00°F	73.00°F	79.83°F
60	180.00 TR	89.00 kW	0.50 kW/TR	24.21 Btu/W.h	50.00°F	44.00°F	69.00°F	74.83°F
50	150.00 TR	66.00 kW	0.44 kW/TR	27.46 Btu/W.h	49.00°F	44.00°F	65.00°F	69.79°F
40	120.00 TR	54.00 kW	0.45 kW/TR	26.50 Btu/W.h	48.00°F	44.00°F	65.00°F	68.85°F
30	90.00 TR	43.00 kW	0.48 kW/TR	25.14 Btu/W.h	47.00°F	44.00°F	65.00°F	67.90°F
20	60.00 TR	30.00 kW	0.50 kW/TR	23.84 Btu/W.h	46.00 °F	44.00 °F	65.00 °F	66.95 °F
10	-	-	-	-	-	-	-	-

Ten Points Parameters (Variable Condenser Water Temperature)

