

Coral

FOCUSED ON APPLICATION HVAC



Unit information Water Cooled Screw Chiller		
Chiller Model:	CW1-100-4200	
Width:	1,500.12 mm	59.06 in
Length:	3,169.92 mm	124.80 in
Height:	2,009.90 mm	79.13 in
Shipping Weight:	3,000.00 kg	6,613.87 lb
Operating Weight:	3,300.00 kg	7,275.25 lb
Capacity Control:	Slide Valve	
Refrigerant:	R-134a	
Refrigerant Charge (Ckt1 / Ckt2):	130.00 kg	
Starting Control:	Y-Δ	

Performance Information (Cooling Conditions)		
Cooling Capacity:	351.60 kW	100.06 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):	---	---
Design Water Flow:	54.50 m³/h	239.96 GPM
Input Power (Electrical):	64.40 kW	
IPLV/NPLV:	6.98 (W/W)	23.84 (Btu/W.h)
COP:	5.46 (W/W)	18.65 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):	125.00 mm	5 in
Water Pressure Drop:	75.70 kPa	25.33 ft CA
Design Pressure of Water-Side:	1.00 MPa	145.03 psi
Passes:	2	
Pipe Wall Thickness:	1.07	
Flow Rate:	54.50 m³/h	239.96 GPM

Electrical Connections		
Amperage:	Electrical Circuit 1	Electrical Circuit 2
Maximum operating current (MCA):	-	----
Operating Current:	88.00 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)	87.00 dBA	-	-	-	-	-	-

* Garantía de 2 años en partes y compresores

* Aisladores antivibratorios de neopreno

* 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		EWT	LWT
100%	351.69 kW	63.80 kW	0.64 kW/TR	5.53 W/W	76.22 kPa	---	12.22 °C	6.67 °C
75%	263.76 kW	40.40 kW	0.54 kW/TR	6.55 W/W	76.52 kPa	---	10.83 °C	6.67 °C
50%	175.84 kW	23.90 kW	0.48 kW/TR	7.39 W/W	77.12 kPa	---	9.44 °C	6.67 °C
25%	87.92 kW	12.50 kW	0.50 kW/TR	7.04 W/W	77.42 kPa	---	8.06 °C	6.67 °C

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Cond. WPD		EWT	LWT
100%	351.69 kW	63.80 kW	0.64 kW/TR	5.53 W/W	76.82 kPa	---	29.44 °C	34.61 °C
75%	263.76 kW	40.40 kW	0.54 kW/TR	6.55 W/W	78.91 kPa	---	23.89 °C	27.67 °C
50%	175.84 kW	23.90 kW	0.48 kW/TR	7.39 W/W	81.60 kPa	---	18.33 °C	20.82 °C
25%	87.92 kW	12.50 kW	0.50 kW/TR	7.04 W/W	81.90 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%	100.00 TR	63.80 kW	0.64 kW	18.89 Btu/W.h	25.50 ft CA	---	54.00°F	44.00°F
75%	75.00 TR	40.40 kW	0.54 kW	22.38 Btu/W.h	25.60 ft CA	---	51.50°F	44.00°F
50%	50.00 TR	23.90 kW	0.48 kW	25.24 Btu/W.h	25.80 ft CA	---	49.00°F	44.00°F
25%	25.00 TR	12.50 kW	0.50 kW	24.03 Btu/W.h	25.90 ft CA	---	46.50°F	44.00°F

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Cond WPD		EWT	LWT
100%	100.00 TR	63.80 kW	0.64 kW	18.89 Btu/W.h	25.70 ft CA	---	85.00°F	94.30°F
75%	75.00 TR	40.40 kW	0.54 kW	22.38 Btu/W.h	26.40 ft CA	---	75.00°F	81.81°F
50%	50.00 TR	23.90 kW	0.48 kW	25.24 Btu/W.h	27.30 ft CA	---	65.00°F	69.47°F
25%	25.00 TR	12.50 kW	0.50 kW	24.03 Btu/W.h	27.40 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%	351.70 kW	64.40 kW	0.64 kW/TR	5.46 W/W	75.62 kPa	---	12.22 °C	6.67 °C
75%	263.78 kW	40.60 kW	0.54 kW/TR	6.49 W/W	76.22 kPa	---	10.83 °C	6.67 °C
50%	175.85 kW	23.90 kW	0.48 kW/TR	7.35 W/W	76.52 kPa	---	9.44 °C	6.67 °C
25%	87.93 kW	12.50 kW	0.50 kW/TR	7.01 W/W	76.82 kPa	---	8.06 °C	6.67 °C

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Cond. WPD		EWT	LWT
100%	351.70 kW	64.40 kW	0.64 kW/TR	5.46 W/W	67.25 kPa	---	29.44 °C	35.00 °C
75%	263.78 kW	40.60 kW	0.54 kW/TR	6.49 W/W	69.34 kPa	---	23.89 °C	27.96 °C
50%	175.85 kW	23.90 kW	0.48 kW/TR	7.35 W/W	71.44 kPa	---	18.33 °C	21.00 °C
25%	87.93 kW	12.50 kW	0.50 kW/TR	7.01 W/W	71.74 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)

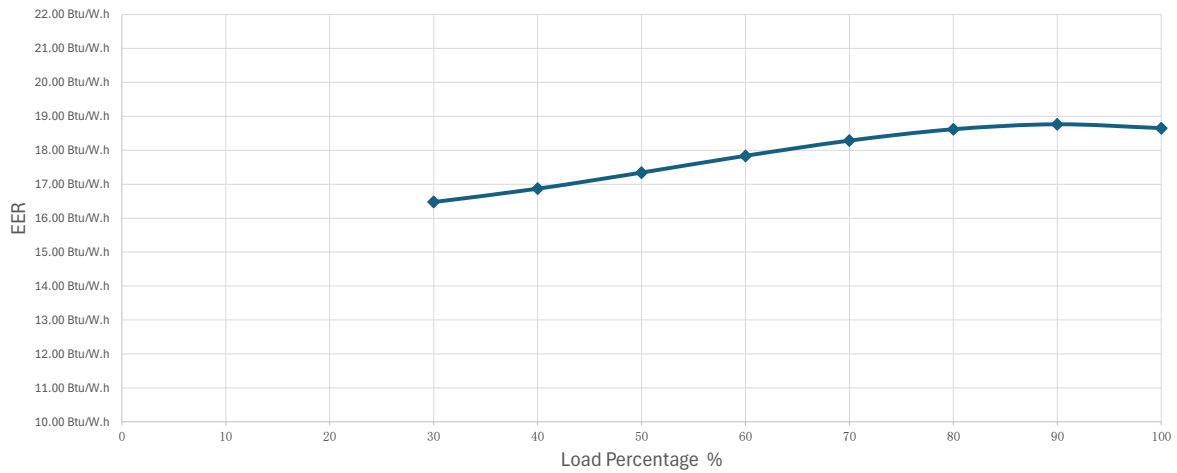
Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD		EWT	LWT
100%	100.00 TR	64.40 kW	0.64 kW/TR	18.66 Btu/W.h	25.30 ft CA	---	54.00°F	44.00°F
75%	75.00 TR	40.60 kW	0.54 kW/TR	22.17 Btu/W.h	25.50 ft CA	---	51.50°F	44.00°F
50%	50.00 TR	23.90 kW	0.48 kW/TR	25.08 Btu/W.h	25.60 ft CA	---	49.00°F	44.00°F
25%	25.00 TR	12.50 kW	0.50 kW/TR	23.95 Btu/W.h	25.70 ft CA	---	46.50°F	44.00°F

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Cond WPD		EWT	LWT
100%	100.00 TR	64.40 kW	0.64 kW/TR	18.66 Btu/W.h	22.50 ft CA	---	85.00°F	95.00°F
75%	75.00 TR	40.60 kW	0.54 kW/TR	22.17 Btu/W.h	23.20 ft CA	---	75.00°F	82.32°F
50%	50.00 TR	23.90 kW	0.48 kW/TR	25.08 Btu/W.h	23.90 ft CA	---	65.00°F	69.80°F
25%	25.00 TR	12.50 kW	0.50 kW/TR	23.95 Btu/W.h	24.00 ft CA	---	65.00°F	67.41°F

Ten Points Parameters(Constant Condenser Entering Water Temperature)

					EVAPORATOR (WPD --- Kpa)		Condenser (WPD --- Kpa)	
Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	EWT	ELWT	EEWT	ELWT
100	100.00 TR	64.40 kW	0.64 kW/TR	18.66 Btu/W.h	54.00°F	44.00°F	85.00°F	95.00°F
90	90.00 TR	57.60 kW	0.64 kW/TR	18.77 Btu/W.h	53.00°F	44.00°F	85.00°F	93.99°F
80	80.00 TR	51.60 kW	0.64 kW/TR	18.62 Btu/W.h	52.00°F	44.00°F	85.00°F	93.00°F
70	70.00 TR	46.00 kW	0.66 kW/TR	18.28 Btu/W.h	51.00°F	44.00°F	85.00°F	92.02°F
60	60.00 TR	40.40 kW	0.67 kW/TR	17.84 Btu/W.h	50.00°F	44.00°F	85.00°F	91.04°F
50	50.00 TR	34.60 kW	0.69 kW/TR	17.34 Btu/W.h	49.00°F	44.00°F	85.00°F	90.06°F
40	40.00 TR	28.50 kW	0.71 kW/TR	16.87 Btu/W.h	48.00°F	44.00°F	85.00°F	89.07°F
30	30.00 TR	21.90 kW	0.73 kW/TR	16.47 Btu/W.h	47.00°F	44.00°F	85.00°F	88.06°F
20	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-

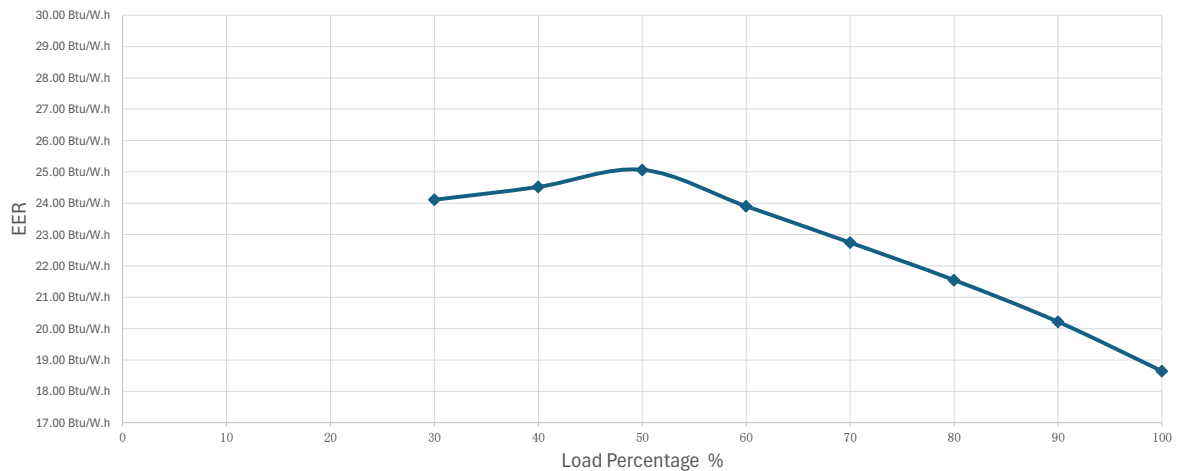
Ten Points Parameters(Constant Condenser Entering Water Temperature)



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	100.00 TR	64.00 kW	0.64 kW/TR	18.65 Btu/W.h	54.00°F	44.00°F	85.00°F	95.00°F
90	90.00 TR	54.00 kW	0.59 kW/TR	20.22 Btu/W.h	53.00°F	44.00°F	81.00°F	89.89°F
80	80.00 TR	45.00 kW	0.56 kW/TR	21.55 Btu/W.h	52.00°F	44.00°F	77.00°F	84.83°F
70	70.00 TR	37.00 kW	0.53 kW/TR	22.75 Btu/W.h	51.00°F	44.00°F	73.00°F	79.81°F
60	60.00 TR	30.00 kW	0.50 kW/TR	23.91 Btu/W.h	50.00°F	44.00°F	69.00°F	74.80°F
50	50.00 TR	24.00 kW	0.48 kW/TR	25.07 Btu/W.h	49.00°F	44.00°F	65.00°F	69.80°F
40	40.00 TR	20.00 kW	0.49 kW/TR	24.52 Btu/W.h	48.00°F	44.00°F	65.00°F	68.85°F
30	30.00 TR	15.00 kW	0.50 kW/TR	24.11 Btu/W.h	47.00°F	44.00°F	65.00°F	67.90°F
20	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-

Ten Points Parameters(Variable Condenser Entering Water Temperature)



Drawings

