



Unit information Water Cooled Screw Chiller		
Chiller Model:	CW2-450-4200	
Width:	1,800.10 mm	70.87 in
Length:	4,549.90 mm	179.13 in
Height:	2,210.05 mm	87.01 in
Shipping Weight:	7,200.00 kg	15,873.28 lb
Operating Weight:	8,000.00 kg	17,636.98 lb
Capacity Control:	Slide Valve	
Refrigerant:	R-134a	
Refrigerant Charge (Ckt1 / Ckt2):	190.00 kg	190.00 kg
Starting Control:	Y-Δ	

Performance Information (Cooling Conditions)		
Cooling Capacity:	1,582.58 kW	450.40 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 :	245.74 m³/h	1,081.96 GPM
Input Power (Electrical):	271.60 kW	
IPLV/NPLV:	7.60 (W/W)	25.96 (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):	200.00 mm	8 in
Water Pressure Drop:	73.79 kPa	24.69 ft CA
Design Pressure of Water-Side:	1.00 MPa	145.03 psi
Passes:	2	
Pipe Wall Thickness:	1.15	
Flow Rate:	245.74 m³/h	1,081.96 GPM

Electrical Connections		
Amperage:	Electrical Circuit 1	Electrical Circuit 2
Maximum operating current (MCA):	-	----
Operating Current:	377.00 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)	93.40 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

Unit information Water Cooled Screw Chiller (page 1)

IPLV/NPLV Points (SI)

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Evap. WPD		EWT	LWT
100%	1,589.62 kW	269.40 kW	0.60 kW/TR	5.90 W/W	74.43 kPa	---	12.22 °C	6.67 °C
75%	1,192.21 kW	174.40 kW	0.51 kW/TR	6.83 W/W	74.73 kPa	---	10.83 °C	6.67 °C
50%	794.81 kW	94.80 kW	0.42 kW/TR	8.38 W/W	75.02 kPa	---	9.44 °C	6.67 °C
25%	397.40 kW	53.10 kW	0.47 kW/TR	7.48 W/W	75.62 kPa	---	8.06 °C	6.67 °C

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Cond. WPD		EWT	LWT
100%	1,589.62 kW	269.40 kW	0.60 kW/TR	5.90 W/W	87.88 kPa	---	29.44 °C	34.61 °C
75%	1,192.21 kW	174.40 kW	0.51 kW/TR	6.83 W/W	89.97 kPa	---	23.89 °C	27.69 °C
50%	794.81 kW	94.80 kW	0.42 kW/TR	8.38 W/W	92.36 kPa	---	18.33 °C	20.81 °C
25%	397.40 kW	53.10 kW	0.47 kW/TR	7.48 W/W	92.66 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%	452.00 TR	269.40 kW	0.60 kW	20.14 Btu/W.h	24.90 ft CA	---	54.00°F	44.00°F
75%	339.00 TR	174.40 kW	0.51 kW	23.33 Btu/W.h	25.00 ft CA	---	51.50°F	44.00°F
50%	226.00 TR	94.80 kW	0.42 kW	28.63 Btu/W.h	25.10 ft CA	---	49.00°F	44.00°F
25%	113.00 TR	53.10 kW	0.47 kW	25.56 Btu/W.h	25.30 ft CA	---	46.50°F	44.00°F

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Cond WPD		EWT	LWT
100%	452.00 TR	269.40 kW	0.60 kW	20.14 Btu/W.h	29.40 ft CA	---	85.00°F	94.30°F
75%	339.00 TR	174.40 kW	0.51 kW	23.33 Btu/W.h	30.10 ft CA	---	75.00°F	81.84°F
50%	226.00 TR	94.80 kW	0.42 kW	28.63 Btu/W.h	30.90 ft CA	---	65.00°F	69.45°F
25%	113.00 TR	53.10 kW	0.47 kW	25.56 Btu/W.h	31.00 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%	1,582.65 kW	271.60 kW	0.60 kW/TR	5.83 W/W	73.83 kPa	---	12.22 °C	6.67 °C
75%	1,188.75 kW	175.40 kW	0.52 kW/TR	6.77 W/W	74.13 kPa	---	10.83 °C	6.67 °C
50%	791.33 kW	95.10 kW	0.42 kW/TR	8.32 W/W	74.73 kPa	---	9.44 °C	6.67 °C
25%	397.42 kW	53.10 kW	0.47 kW/TR	7.46 W/W	75.02 kPa	---	8.06 °C	6.67 °C

Load %	Cooling Capacity	Input Power	Cooling	Cooling COP	Cond. WPD		EWT	LWT
100%	1,582.65 kW	271.60 kW	0.60 kW/TR	5.83 W/W	76.82 kPa	---	29.44 °C	35.00 °C
75%	1,188.75 kW	175.40 kW	0.52 kW/TR	6.77 W/W	78.61 kPa	---	23.89 °C	27.97 °C
50%	791.33 kW	95.10 kW	0.42 kW/TR	8.32 W/W	80.70 kPa	---	18.33 °C	20.99 °C
25%	397.42 kW	53.10 kW	0.47 kW/TR	7.46 W/W	81.00 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)

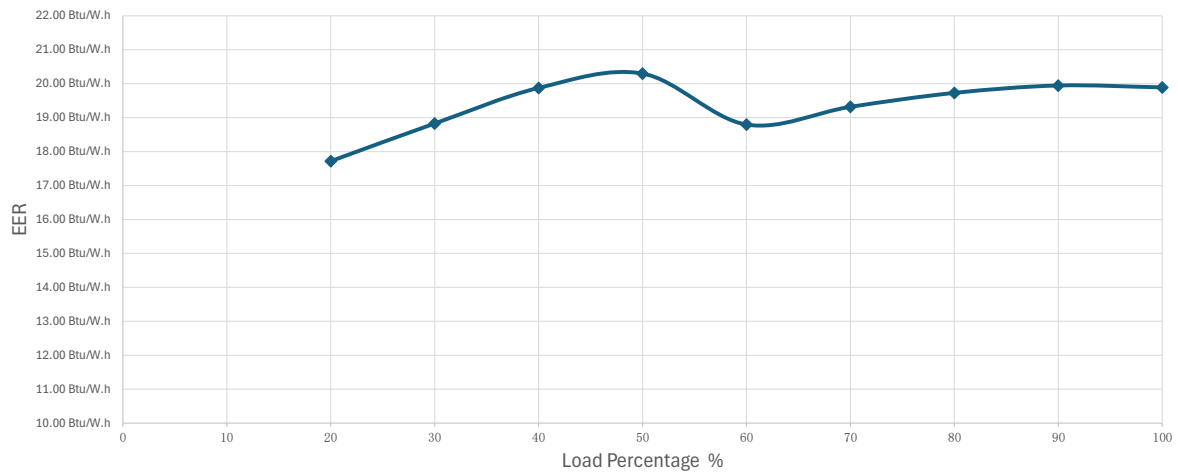
Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Evap. WPD		EWT	LWT
100%	450.00 TR	271.60 kW	0.60 kW/TR	19.90 Btu/W.h	24.70 ft CA	---	54.00°F	44.00°F
75%	338.00 TR	175.40 kW	0.52 kW/TR	23.12 Btu/W.h	24.80 ft CA	---	51.50°F	44.00°F
50%	225.00 TR	95.10 kW	0.42 kW/TR	28.43 Btu/W.h	25.00 ft CA	---	49.00°F	44.00°F
25%	113.00 TR	53.10 kW	0.47 kW/TR	25.46 Btu/W.h	25.10 ft CA	---	46.50°F	44.00°F

Load %	Cooling Capacity	Input Power	Cooling	Cooling EER	Cond WPD		EWT	LWT
100%	450.00 TR	271.60 kW	0.60 kW/TR	19.90 Btu/W.h	25.70 ft CA	---	85.00°F	95.00°F
75%	338.00 TR	175.40 kW	0.52 kW/TR	23.12 Btu/W.h	26.30 ft CA	---	75.00°F	82.35°F
50%	225.00 TR	95.10 kW	0.42 kW/TR	28.43 Btu/W.h	27.00 ft CA	---	65.00°F	69.78°F
25%	113.00 TR	53.10 kW	0.47 kW/TR	25.46 Btu/W.h	27.10 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	450.00 TR	271.70 kW	0.60 kW/TR	19.89 Btu/W.h	54.00°F	44.00°F	85.00°F	95.00°F
90	405.00 TR	243.80 kW	0.60 kW/TR	19.95 Btu/W.h	53.00°F	44.00°F	85.00°F	94.00°F
80	360.00 TR	219.10 kW	0.61 kW/TR	19.73 Btu/W.h	52.00°F	44.00°F	85.00°F	93.01°F
70	315.00 TR	195.80 kW	0.62 kW/TR	19.32 Btu/W.h	51.00°F	44.00°F	85.00°F	92.03°F
60	270.00 TR	172.50 kW	0.64 kW/TR	18.80 Btu/W.h	50.00°F	44.00°F	85.00°F	91.05°F
50	225.00 TR	133.10 kW	0.59 kW/TR	20.30 Btu/W.h	49.00°F	44.00°F	85.00°F	89.99°F
40	180.00 TR	108.80 kW	0.60 kW/TR	19.88 Btu/W.h	48.00°F	44.00°F	85.00°F	89.00°F
30	135.00 TR	86.10 kW	0.64 kW/TR	18.83 Btu/W.h	47.00°F	44.00°F	85.00°F	88.02°F
20	90.00 TR	61.00 kW	0.68 kW/TR	17.72 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	450.00 TR	272.00 kW	0.60 kW/TR	19.91 Btu/W.h	54.00°F	44.00°F	85.00°F	95.00°F
90	405.00 TR	228.00 kW	0.56 kW/TR	21.34 Btu/W.h	53.00°F	44.00°F	81.00°F	89.91°F
80	360.00 TR	192.00 kW	0.53 kW/TR	22.57 Btu/W.h	52.00°F	44.00°F	77.00°F	84.86°F
70	315.00 TR	160.00 kW	0.51 kW/TR	23.60 Btu/W.h	51.00°F	44.00°F	73.00°F	79.84°F
60	270.00 TR	132.00 kW	0.49 kW/TR	24.56 Btu/W.h	50.00°F	44.00°F	69.00°F	74.83°F
50	225.00 TR	95.00 kW	0.42 kW/TR	28.41 Btu/W.h	49.00°F	44.00°F	65.00°F	69.78°F
40	180.00 TR	79.00 kW	0.44 kW/TR	27.53 Btu/W.h	48.00°F	44.00°F	65.00°F	68.84°F
30	135.00 TR	62.00 kW	0.46 kW/TR	26.16 Btu/W.h	47.00°F	44.00°F	65.00°F	67.90°F
20	90.00 TR	44.00 kW	0.48 kW/TR	24.86 Btu/W.h	46.00 °F	44.00 °F	65.00 °F	66.94 °F
10	-	-	-	-	-	-	-	-

Ten Points Parameters(Variable Condenser Water Temperature)

