



AIR-COOLED SCROLL CHILLER

Form QTC3-NM1 (515)

035-24487-000

QTC3055T - QTC3160T WITH BRAZED PLATE HEAT EXCHANGER STYLE B (60 HZ) 4-10 FAN 55 - 160 TON



LD18971a

R-410A



Issue Date:
May 20, 2015



Design Conditions Datasheet

Unit Tag	Qty	Model No	Net Cooling Capacity (TR)	Nominal Voltage	Refrigerant Type
CH-1	1	QTC3140TSE46XFBSXXX	143.0	460-3-60	R410A

PIN:								
QTC3140TSE	46XFBSXXXH	XXBLXCXX44	XEXXXHXHXX	YAXXXXXXXXX	AXXXXXXXXXXX			
....5...105...205...305...405...505...605...705...805...90


Evaporator Data		Evaporator Data (Cont.)		Performance Data	
EWT (°F)	54	Fluid Volume (USGAL)	13.2	EER (EER)	9.6
LWT (°F)	44	Min. Flow Rate (USGPM)	150	IPLV (EER)	15.6
Design Flow Rate (USGPM)	343.2	Max. Flow Rate (USGPM)	625		
Evap. Press. Drop (ft H2O)	11.9	Condenser Data		Physical Data	
Strainer Press. Drop (ft H2O)	3	Ambient Temp. Design (°F)	95	Rigging Wt. (lb)	6339
Ext. Kit Press. Drop (ft H2O)	7	Altitude (ft)	0	Operating Wt. (lb)	6449
Total Press. Drop (ft H2O)	21.9	User Min. Operating Air Temp. (°F)	41	Refrigerant Charge (lb)	145.1
Fluid	Water	User Max. Operating Air Temp. (°F)	100		
Fouling Factor (h.ft ² .F/Btu)	0.0001	Compressor Type	Scroll - Hermetic		

Electrical Data				
Circuit	1	2	3	4
Compressor RLA	53 / 53	53 / 53 / 53		
Fan QTY/FLA (each)	4 / 4	4 / 4		
High LRA Current	290 / 290	290 / 290 / 290		

Single Point				
Min. Circuit Ampacity	311			
Recommended Fuse/CB Rating	350			
Max. Inverse Time CB Rating	350			
Max. Dual Element Fuse Size (A)	350			
Unit Short Circuit Withstand (STD)	5 [kA]			
Wire Lugs Per Phase	1		Operating Condition Electrical Data	
Wire Range (Lug Size)	#4 - 500 kcmil		Compressor kW	165
Starter Type	Across The Line		Total Fan kW	13.4
			Total kW	178.5

Notes:

Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Using Vapor Compression Cycle Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Certified units may be found in the AHRI Directory at www.ahridirectory.org. Auxiliary components included in total KW - Oil heaters, Chiller controls. Auxiliary power is already included in the compressor and fan power





Design Conditions Datasheet

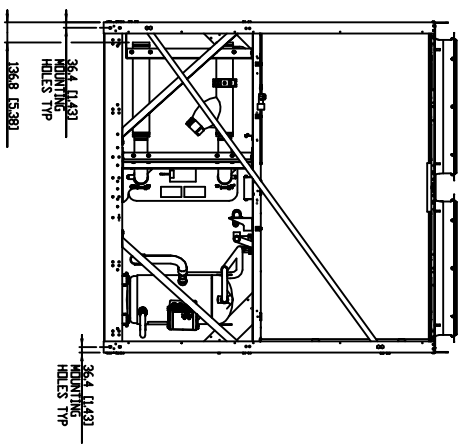
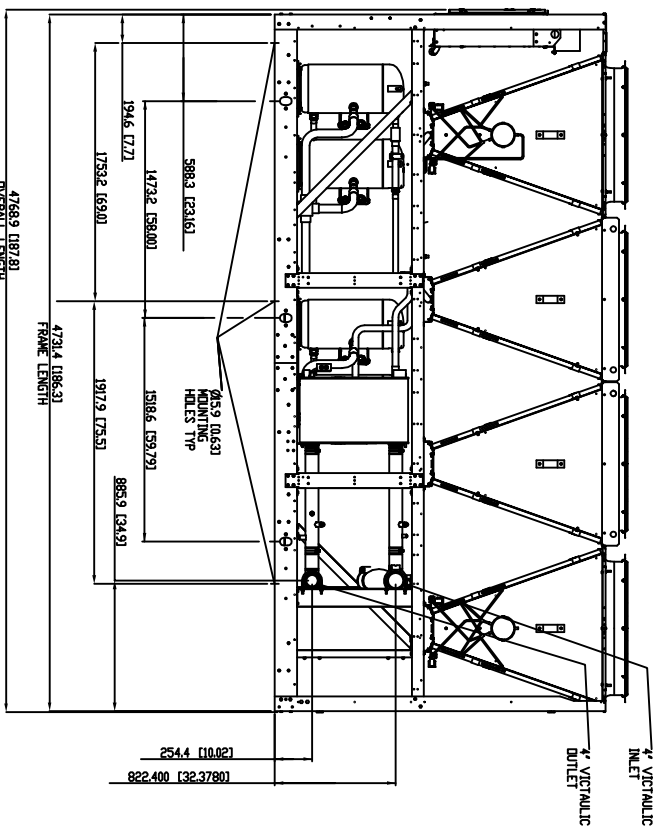
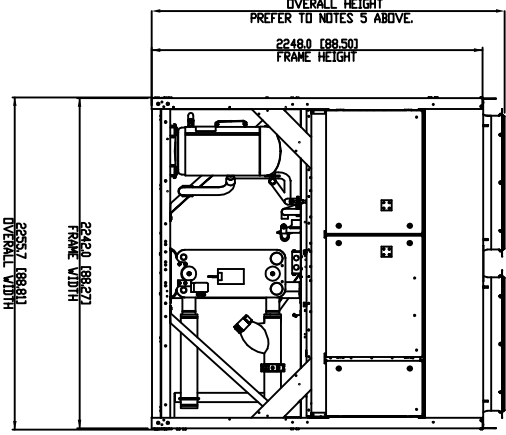
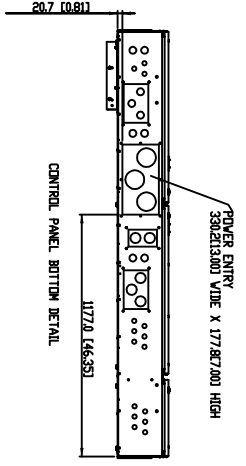
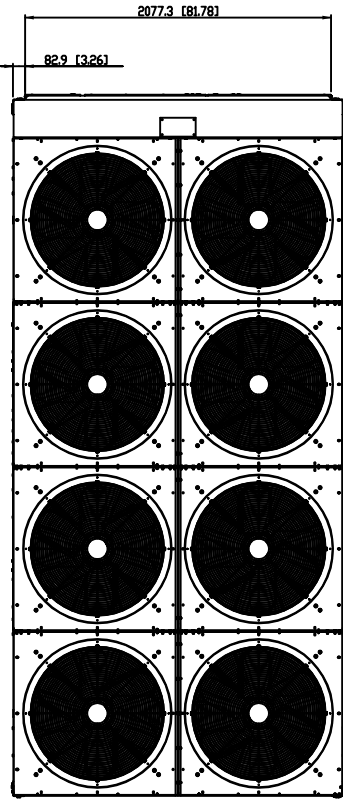
Part Load Rating Data				
Stage	Ambient (°F)	Capacity (TR)	Total kW	Unit Efficiency
1	95	143	178.5	9.6
2	87.3	124.6	125.7	11.9
3	76.7	99.4	84.8	14.1
4	63.8	68.6	47.7	17.2
5	55	34.3	21.7	18.9

Sound Power Levels										
Stage	Ambient (°F)	63	125	250	500	1K	2K	4K	8K	LWA
1	95	99	98	94	94	91	87	84	81	96
2	87.3	99	98	94	94	91	87	84	81	96
3	76.7	99	98	94	94	90	87	84	80	96
4	63.8	96	95	91	91	88	84	81	78	93
5	55	93	92	88	88	85	81	78	75	90

Note: Unit is equipped with Low Sound Fans.

Performance at AHRI Conditions					
Evaporator Data		Condenser Data		Performance Data	
EWT (°F)	54	Ambient Temp. (°F)	95	EER (EER)	9.6
LWT (°F)	44	Altitude (ft)	0	IPLV (EER)	15.6
Flow Rate (USGPM)	343.2			Net Cooling Capacity (TR)	143
Pressure Drop (ft H2O)	11.9				
Fluid	Water				
Fouling Factor (h.ft ² .F/Btu)	0.0001				
Fluid Volume (USGAL)	13.2				

- NOTES:
1. PLACEMENT ON A LEVEL SURFACE FREE OF OBSTRUCTIONS (INCLUDING SNOW, FOR INTER OPERATING OR AIR RECIRCULATION PURPOSES) YIELD PERFORMANCE. REAR PANEL SHOULD BE POSITIONED AT LEAST 100MM (4") FROM WALLS. COMPENSATE MINIMUM CLEARANCES INDICATED BELOW, RESULTING IN UNPREDICTABLE AIR FLOW PATTERNS AND POSSIBLE DIMINISHED PERFORMANCE. UNIT CONTROLS WILL OPTIMIZE OPERATION WITHOUT INTERFERING WITH MINIMUM CLEARANCES. MINIMUM HIGH PRESSURE SAFETY CONTROL, HOWEVER, THE SYSTEM DESIGNER MUST CONSIDER THE FOLLOWING RECOMMENDATIONS:
 11. RECOMMENDED MINIMUM CLEARANCES
 - 11.1. SIDE TO WALL - 1828mm(67")
 - 11.2. REAR TO WALL - 1828mm(67")
 - 11.3. CONTROL PANEL TO WALL AT 1828mm(67")
 - 11.4. DISTANCE BETWEEN ADJACENT UNITS - 3048mm(101")
 - 11.5. DISTANCE BETWEEN ADJACENT UNITS - 3048mm(101")
 - 11.6. NO MORE THAN ONE ADJACENT WALL MAY BE HIGHER THAN UNIT.
 2. WEIGHT AND CENTER OF GRAVITY - REFER TO AVM REPORT.
 3. INSTALLING CONTRACTOR MUST INCLUDE VENT AND DRAIN ACCOMMODATIONS IN ALL UNITS.
 4. NUMBER OF COMPRESSORS MAY VARY FROM DRAWINGS.
 5. OVERALL HEIGHT OF UNIT IS 2394.6mm(942.7") IN MONTERREY, MEXICO BUILD.
 6. ALL UNITS IN MM (INCHES)



THIS DRAWING PERTAINS TO THE FOLLOWING MODELS

Q1C310T
Q1C310T
Q1C310T
Q1C310T

REVISION	DATE	EC NUMBER	DRAWN BY	CHECKED BY	ENGINEERED BY

REVISION

DATE

EC NUMBER

DRAWN BY

CHECKED BY

ENGINEERED BY



QUANTTECH

THIRD ANGLE
NO DIM SCALE

DRAWN	MULTIPLE	66-EC-2812
CHECKED	ASST	66-EC-2812
SCALE	3/4" = 1"	66-EC-2812

DRG NO. 66935

SHEET 1 OF 1

DATE	6/21/05
EC NUMBER	66935
DRAWN BY	AW
CHECKED BY	AW
ENGINEERED BY	AW
SCALE	3/4" = 1"
DRG NO.	66935
SHEET	1 OF 1

