



# 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-9	1	QTC3060THE46XFBSXXX	62.3	460-3-60	R410A

PIN:								
QTC3060THE	46XFBSXXXH	XXBLXCXX44	XXXXXXXXHXXX	YXXXXXXXXXX	XXXXXXXXXXX			
....5...10	....5...20	....5...30	....5...40	....5...50	....5...60	....5...70	....5...80	....5...90


Evaporator Data		Evaporator Data (Cont.)		Performance Data	
EWT (°F)	54	Fluid Volume (USGAL)	5.4	EER (EER)	10.4
LWT (°F)	44	Min. Flow Rate (USGPM)	60	IPLV (EER)	15.6
Design Flow Rate (USGPM)	149.5	Max. Flow Rate (USGPM)	285		
Evap. Press. Drop (ft H2O)	8.8	Condenser Data		Physical Data	
Strainer Press. Drop (ft H2O)	2.2	Ambient Temp. Design (°F)	95	Rigging Wt. (lb)	3704
Ext. Kit Press. Drop (ft H2O)	0	Altitude (ft)	0	Operating Wt. (lb)	3748
Total Press. Drop (ft H2O)	11	User Min. Operating Air Temp. (°F)	41	Refrigerant Charge (lb)	86
Fluid	Water	User Max. Operating Air Temp. (°F)	100		
Fouling Factor (h.ft <sup>2</sup> .F/Btu)	0.0001	Compressor Type	Scroll - Hermetic		

Electrical Data				
Circuit	1	2	3	4
Compressor RLA	24 / 24 / 24	27 / 27		
Fan QTY/FLA (each)	2 / 4	2 / 4		
High LRA Current	145 / 145 / 145	180 / 180		

Single Point				
Min. Circuit Ampacity	150			
Recommended Fuse/CB Rating	175			
Max. Inverse Time CB Rating	175			
Max. Dual Element Fuse Size (A)	175			
Unit Short Circuit Withstand (STD)	5 [kA]			
Wire Lugs Per Phase	1		Operating Condition Electrical Data	
Wire Range (Lug Size)	#6 - 500 kcmil		Compressor kW	65.2
Starter Type	Across The Line		Total Fan kW	6.7
			Total kW	71.9

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](http://www.ahridirectory.org). Auxiliary components included in total KW - Oil heaters, Chiller controls. Auxiliary power is already included in the compressor and fan power





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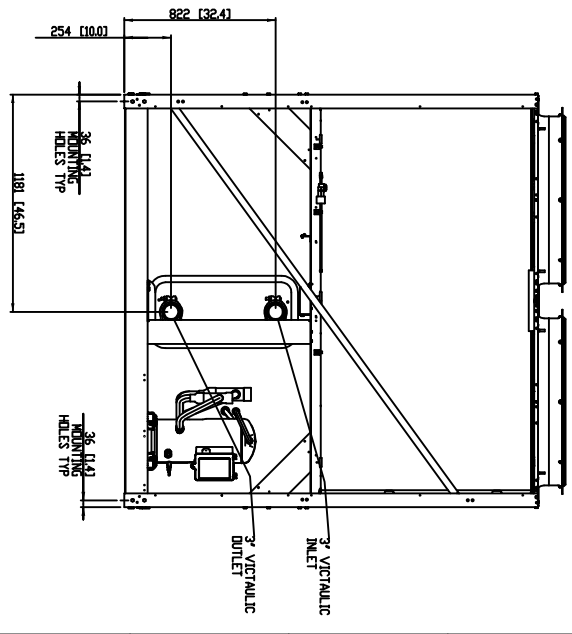
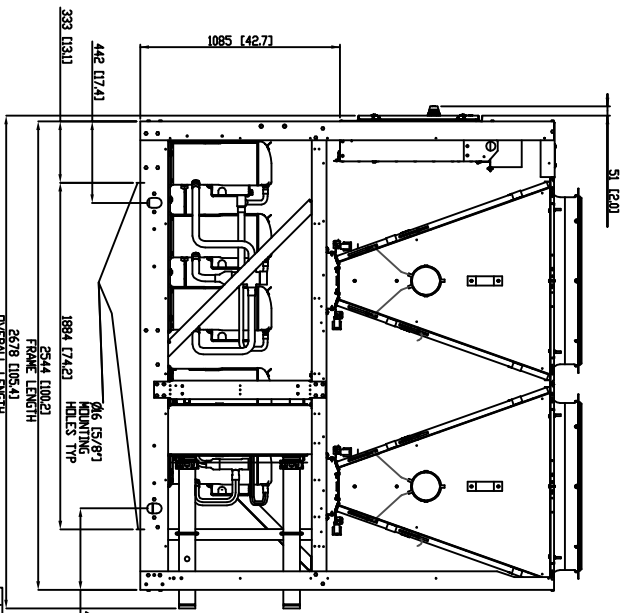
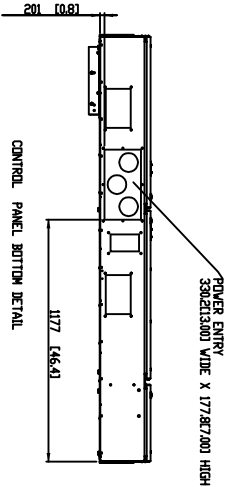
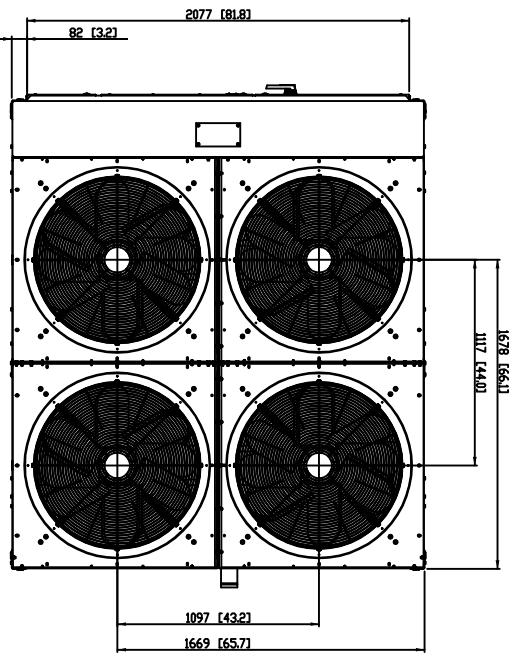
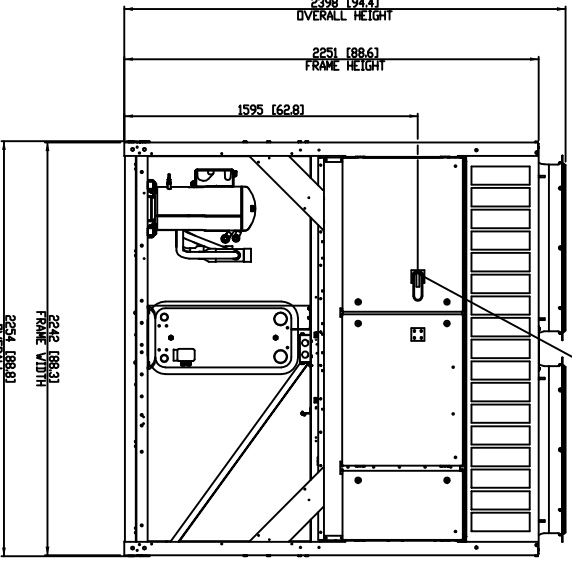
Part Load Rating Data				
Stage	Ambient (°F)	Capacity (TR)	Total kW	Unit Efficiency
1	95	62.3	71.9	10.4
2	87.3	54.3	53.5	12.2
3	75.9	42.5	35.6	14.3
4	63.9	30	21	17.1
5	55	13.8	9	18.5

Sound Power Levels										
Stage	Ambient (°F)	63	125	250	500	1K	2K	4K	8K	LWA
1	95	96	95	91	91	87	83	80	77	93
2	87.3	96	95	91	91	87	83	80	77	93
3	75.9	96	95	91	91	87	83	80	77	93
4	63.9	93	92	88	88	84	80	77	74	90
5	55	90	89	85	85	81	77	74	71	87

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)	10.4
LWT (°F)	44	Altitude (ft)	0	IPLV (EER)	15.6
Flow Rate (USGPM)	149.5			Net Cooling Capacity (TR)	62.3
Pressure Drop (ft H2O)	8.8				
Fluid	Water				
Fouling Factor (h.ft <sup>2</sup> .F/Btu)	0.0001				
Fluid Volume (USGAL)	5.4				

- NOTES:
1. PLACEMENT ON A LEVEL SURFACE FREE OF OBSTRUCTIONS (INCLUDING SNOW FOR WINTER OPERATION) OR AIR RE-CIRCULATION ENSURES RATED PERFORMANCE. RELIABLE OPERATION OF UNIT REQUIRES PROPER INSTALLATION. UNITS SHOULD BE INSTALLED AS INDICATED BELOW RESULTING IN UNBYPASSIBLE AIR FLOW PATTERNS AND POSSIBLE DIMINISHED PERFORMANCE. UNIT CONTROLS WILL OPTIMIZE OPERATION WITHOUT UNSOUND HIGH PRESSURE SAFETY CUTOFF. HOWEVER, THE SYSTEM DESIGNER MUST CONSIDER POTENTIAL PERFORMANCE DEGRADATION.
  2. UNIT SHALL BE INSTALLED AS SHOWN.
  3. SIZE TO WALL - 1888mm(67)
  4. REAR TO WALL - 1888mm(67)
  5. CONTROL PANEL TO WALL - 1888mm(67)
  6. TIP AND OBSTRUCTIONS ALLOWED - 2049mm(70)
  7. UNIT SHALL BE INSTALLED AS SHOWN.
  8. WEIGHT AND CENTER OF GRAVITY - REFER TO AVM REPORT.
  9. INSTALLING NEAR FIRE ADJACENT WALLS MAY BE HIGHER THAN UNIT.
  10. WATER PIPING NEAR THE EVAPORATOR.
  11. REFER TO AVM REPORT FOR WATER PIPING REQUIREMENTS.
  12. OVERALL HEIGHT OF UNIT IS 2394.6mm(94.27') ON MONTECER, MEXICO BUILDS.
  13. ALL UNITS IN MM (INCHES)



THIS DRAWING PERTAINS TO THE FOLLOWING MODELS:

QTC3065T
QTC3060T
QTC3060T

REVISION	DATE	EC NUMBER	DRAWN BY	CHECKED BY	ENGINEERED BY

**QUANTECH**

THIRD ANGLE  
HARD SCALE  
NO UNIT SCALE

DRAWN	QTC3065T	DATE	07/11/11
CHECKED	QTC3060T	DATE	07/11/11
ENGINEERED	QTC3060T	DATE	07/11/11

SCALE: 1:100

MATERIAL	NA	DATE	07/11/11
ENG. STD.	NA	DATE	07/11/11
PLANT NO.	NA	DATE	07/11/11
OUT. SIZE	NA	DATE	07/11/11

PROJECT	QTC3065T	DATE	07/11/11
MODEL	QTC3060T	DATE	07/11/11
VERSION	QTC3060T	DATE	07/11/11