



# 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-5	1	QTC3095TSE46XFBSXXX	95.6	460-3-60	R410A

PIN:								
QTC3095TSE	46XFBSXXXH	XXBLXCXX44	XEXXXHXHXX	YAXXXXXXXXX	AXXXXXXXXXXX			
....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)	8.8	EER (EER)	9.6
LWT (°F)	44	Min. Flow Rate (USGPM)	100	IPLV (EER)	14.5
Design Flow Rate (USGPM)	229.4	Max. Flow Rate (USGPM)	385		
Evap. Press. Drop (ft H2O)	9	Condenser Data		Physical Data	
Strainer Press. Drop (ft H2O)	5.1	Ambient Temp. Design (°F)	95	Rigging Wt. (lb)	4581
Ext. Kit Press. Drop (ft H2O)	0	Altitude (ft)	0	Operating Wt. (lb)	4654
Total Press. Drop (ft H2O)	14	User Min. Operating Air Temp. (°F)	41	Refrigerant Charge (lb)	113
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	27 / 27 / 27	53 / 53		
Fan QTY/FLA (each)	3 / 4	2 / 4		
High LRA Current	180 / 180 / 180	290 / 290		

Single Point				
Min. Circuit Ampacity	220			
Recommended Fuse/CB Rating	250			
Max. Inverse Time CB Rating	250			
Max. Dual Element Fuse Size (A)	250			
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	111.5
Starter Type	Across The Line		Total Fan kW	8.4
			Total kW	119.9

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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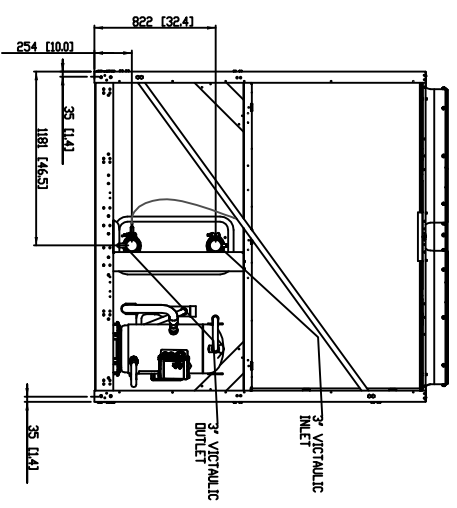
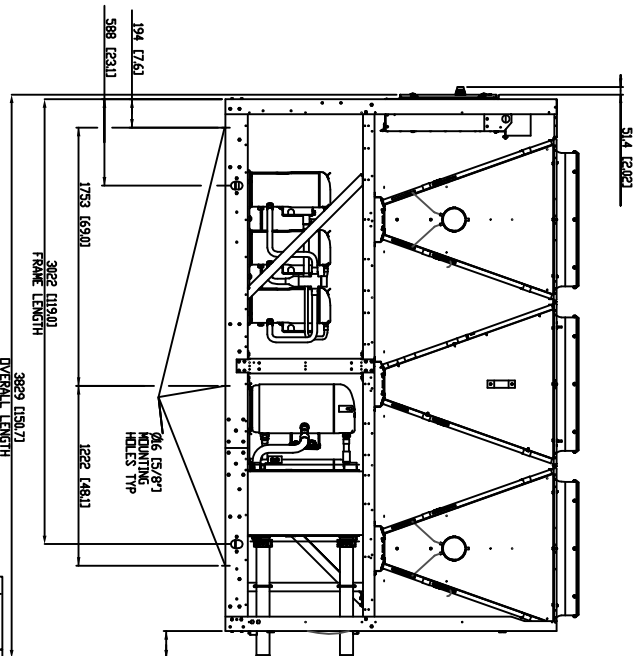
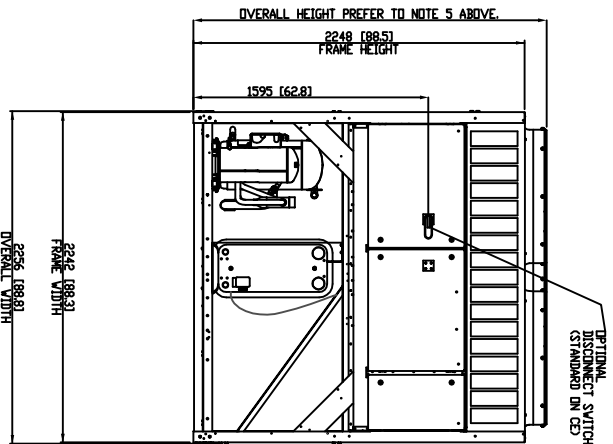
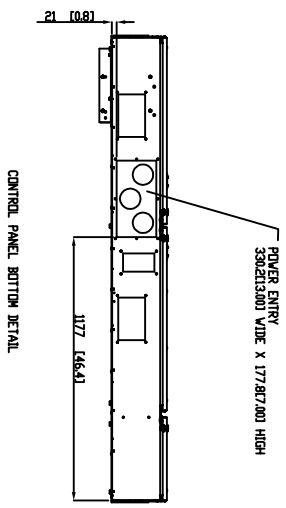
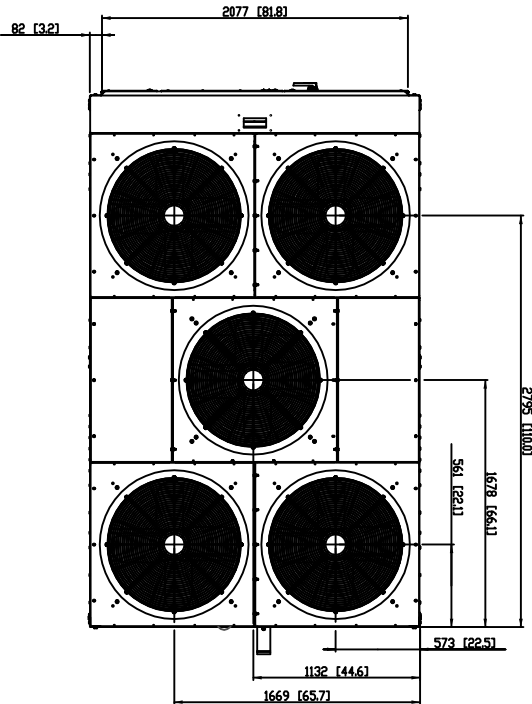
Part Load Rating Data				
Stage	Ambient (°F)	Capacity (TR)	Total kW	Unit Efficiency
1	95	95.6	119.9	9.6
2	89.3	86.5	96.9	10.7
3	75.5	64.4	53.8	14.4
4	64.7	47.4	37.7	15.1
5	55	16	10.2	18.7

Sound Power Levels										
Stage	Ambient (°F)	63	125	250	500	1K	2K	4K	8K	LWA
1	95	97	96	92	92	89	85	82	78	94
2	89.3	97	96	92	92	89	85	82	78	94
3	75.5	97	96	92	92	88	84	81	78	94
4	64.7	93	92	88	88	85	81	78	75	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)	9.6
LWT (°F)	44	Altitude (ft)	0	IPLV (EER)	14.5
Flow Rate (USGPM)	229.4			Net Cooling Capacity (TR)	95.6
Pressure Drop (ft H2O)	9				
Fluid	Water				
Fouling Factor (h.ft <sup>2</sup> .F/Btu)	0.0001				
Fluid Volume (USGAL)	8.8				

- NOTES:
1. PLACEMENT ON A LEVEL SURFACE FREE OF OBSTRUCTIONS (INCLUDING SNOW, FOR WINTER OPERATION) OR AIR RE-CIRCULATION ENSURES RATED PERFORMANCE. RELIABLE OPERATION AND EASE OF MAINTENANCE. SITE RESTRICTIONS MAY COMPROMISE RATED PERFORMANCE. CONSULT WITH THE MANUFACTURER FOR COMPROMISES AND FIELD TESTING AND DISCUSS RATED PERFORMANCE. UNIT CONTROLS WILL OPTIMIZE OPERATION WITHOUT DISBURSED PERFORMANCE. MISTAKE HIGH PRESSURE SAFETY OUTPUT, HOWEVER, THE SYSTEM DESIGNER MUST CONSIDER POTENTIAL PERFORMANCE DEGRADATION.
  2. RECOMMENDED MINIMUM CLEARANCES:
  11. REAR TO WALL - 1828mm(6')
   - 112. REAR TO WALL - 1828mm(6')
  - 113. CONTROL PANEL TO WALL - 1828mm(6')
  - 114. TOP - NO OBSTRUCTIONS ALLOWED.
  - 115. AIR SPACE BETWEEN ADJACENT UNITS - 308mm(12")
  - 116. AIR SPACE BETWEEN UNITS AND WALLS - 308mm(12")
  - 117. AIR SPACE BETWEEN UNITS AND FLOOR - 308mm(12")
  - 118. AIR SPACE BETWEEN UNITS AND CEILING - 308mm(12")
  - 119. AIR SPACE BETWEEN UNITS AND OVERHEAD LIGHTS - 308mm(12")
  - 2. HEIGHT AND CENTER OF GRAVITY - REFER TO AVM REPORT.
  - 3. INSTALLING CONTRACTOR MUST INCLUDE VENT AND DRAIN ACCOMMODATIONS IN CHILLED WATER PIPING NEAR THE EVAPORATOR.
  - 4. NUMBER OF COMPRESSORS MAY VARY FROM DRAWING.
  - 5. NUMBER OF UNITS IS 23944mm-194273 ON MONITREX, MEXICO BULD.
  - 6. ALL UNITS IN MM (INCHES)



THIS DRAWING PERTAINS TO THE FOLLOWING MODELS:  
01C3095T

REVISION	DATE	EC NUMBER	DRAWN BY	CHECKED BY	ENGINEERED BY

DRAWN BY: [blank] CHECKED: [blank] END: [blank]	MATERIAL: [blank] ENG. STD.: [blank] PART NO.: [blank] DATE: [blank]	ALLOCATION: [blank] MODEL: [blank] PART NO.: [blank]	DRAWING NUMBER: [blank] SHEET: [blank] OF [blank]
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