



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-3	1	QTC3160TSE46XFBSXXX	167.4	460-3-60	R410A

PIN:								
QTC3160TSE	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)	10	EER (EER)	9.6
LWT (°F)	44	Min. Flow Rate (USGPM)	120	IPLV (EER)	15.6
Design Flow Rate (USGPM)	401.7	Max. Flow Rate (USGPM)	625		
Evap. Press. Drop (ft H2O)	21.5	Condenser Data		Physical Data	
Strainer Press. Drop (ft H2O)	4.1	Ambient Temp. Design (°F)	95	Rigging Wt. (lb)	7624
Ext. Kit Press. Drop (ft H2O)	9.5	Altitude (ft)	0	Operating Wt. (lb)	7708
Total Press. Drop (ft H2O)	35.1	User Min. Operating Air Temp. (°F)	41	Refrigerant Charge (lb)	177
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 / 53		
Fan QTY/FLA (each)	5 / 4	5 / 4		
High LRA Current	290 / 290 / 290	290 / 290 / 290		

Single Point				
Min. Circuit Ampacity	372			
Recommended Fuse/CB Rating	400			
Max. Inverse Time CB Rating	400			
Max. Dual Element Fuse Size (A)	400			
Unit Short Circuit Withstand (STD)	5 [kA]			
Wire Lugs Per Phase	2		Operating Condition Electrical Data	
Wire Range (Lug Size)	#4 - 500 kcmil		Compressor kW	192.1
Starter Type	Across The Line		Total Fan kW	16.8
			Total kW	208.9

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. Auxiliary components included in total KW - Oil heaters, Chiller controls. Auxiliary power is already included in the compressor and fan power





Design Conditions Datasheet

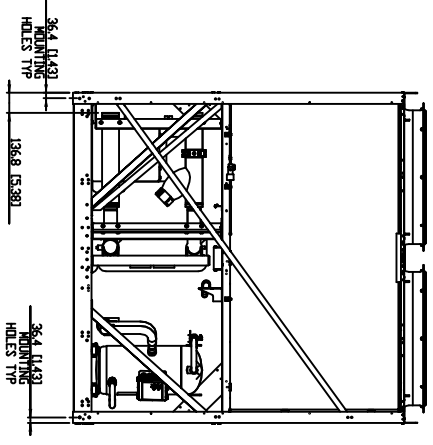
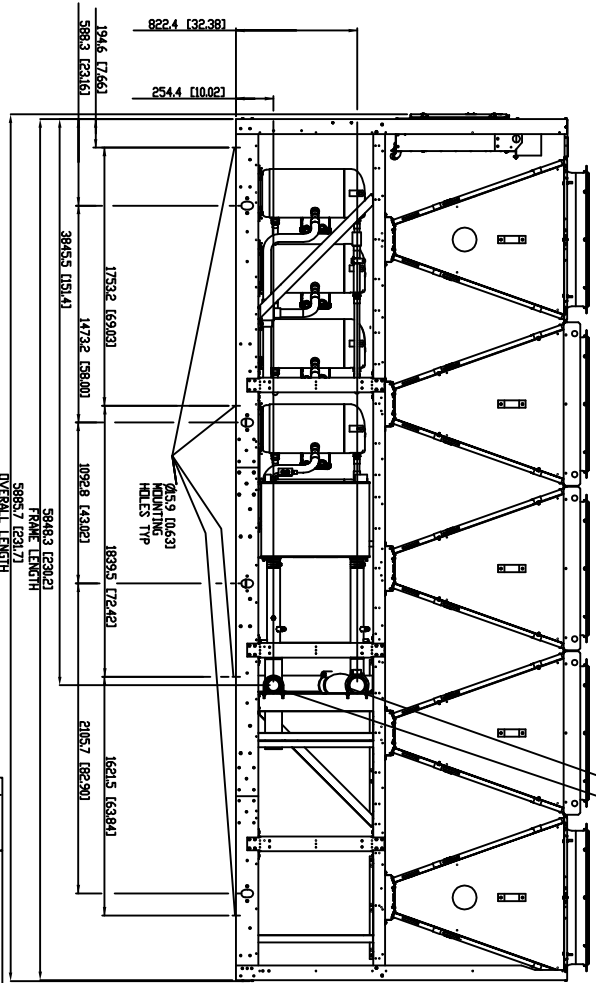
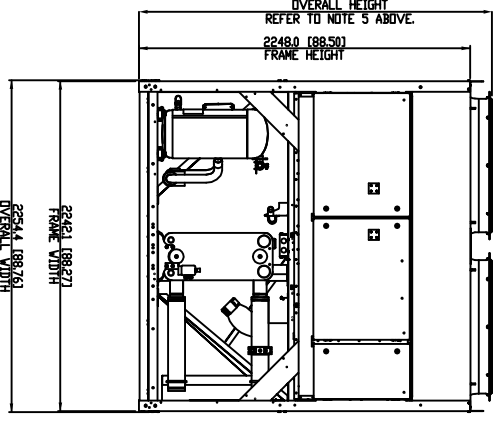
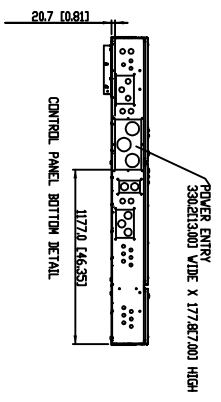
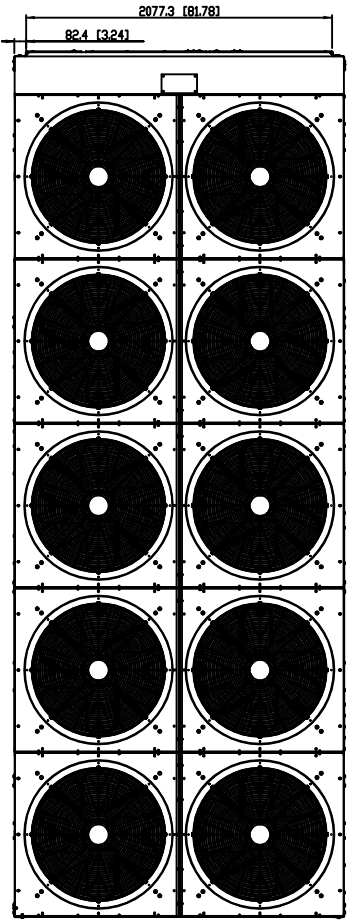
Part Load Rating Data				
Stage	Ambient (°F)	Capacity (TR)	Total kW	Unit Efficiency
1	95	167.4	208.9	9.6
2	88.2	148.5	159.1	11.2
3	80.8	127.9	115.6	13.3
4	71.4	101.5	81.1	15
5	59.9	69.5	45.6	18.3
6	55	34.5	21.6	19.2

Sound Power Levels										
Stage	Ambient (°F)	63	125	250	500	1K	2K	4K	8K	LWA
1	95	100	99	95	95	92	88	85	82	97
2	88.2	100	99	95	95	92	88	85	82	97
3	80.8	100	99	95	95	91	88	85	81	97
4	71.4	100	99	95	95	91	88	84	81	97
5	59.9	96	95	91	91	88	84	81	78	93
6	55	49	38	56	69	76	74	70	65	79

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)	401.7			Net Cooling Capacity (TR)	167.4
Pressure Drop (ft H2O)	21.5				
Fluid	Water				
Fouling Factor (h.ft ² .F/Btu)	0.0001				
Fluid Volume (USGAL)	10				

- NOTES:
1. PLACE UNIT ON A LEVEL SURFACE FREE OF OBSTRUCTIONS (INCLUDING SNOW, FOR INTERIOR PLACEMENT) OR AN AIR-RESISTANCE BARRIER (INCLUDING SNOW, FOR EXTERIOR PLACEMENT) AND MAINTAIN CLEARANCES AS SHOWN.
 2. MAINTAIN MINIMUM CLEARANCES AS SHOWN TO PREVENT AIR FLOW PATTERNS AND POSSIBLE DIMINISHED PERFORMANCE.
 3. UNPREDICTABLE AIR FLOW PATTERNS AND POSSIBLE DIMINISHED PERFORMANCE. UNIT CONTROLS WILL OPTIMIZE OPERATION WITHOUT MAINTAINING HIGH PRESSURE SAFETY CONTROL, HOWEVER, THE SYSTEM DESIGNER SHALL BE RESPONSIBLE FOR MAINTAINING CLEARANCES.
 4. NUMBER OF COMPRESSORS MAY VARY FROM DRAWING.
 5. OVERALL HEIGHT OF UNIT IS 23946mm (94277) IN MONTERREY, MEXICO BUILD.
 6. ALL UNITS IN MM (INCHES).



THIS DRAWING PERTAINS TO THE FOLLOWING MODELS

QTC3150T
QTC3160T
QTC3170T

REVISION	DATE	EC NUMBER	DRAWN BY	CHECKED BY	ENGINEERED BY

QUANNTTECH

THIRD ANGLE
ISO METRIC SCALE

DRAWING NUMBER: 035-24512-006
CASE NUMBER: 66935
PLOT SIZE: A1
DRG. IND: 3

MATERIAL: WA
ENG. STD.: WA
Dwg. No.: 035-24512-006
REV. 1

13 12 11 10 9 8 7 6 5 4 3 2 1