



AIR-COOLED SCROLL CHILLERS

Form QTC2-NM1 (515)

035-24486-000

QTC2020T, 025T, 030T, 035T, 045T STYLE E (60 HZ) 20-46 TON



DUAL CIRCUIT

LD18973a



SINGLE CIRCUIT

LD18972a

R-410A



Issue Date:
May 21, 2015





Design Conditions Datasheet

Unit Tag	Qty	Model No	Net Cooling Capacity (TR)	Nominal Voltage	Refrigerant Type
CH-2	1	QTC2020TEE46XEBSXXX	18.7	460-3-60	R410A

PIN:								
QTC2020TEE	46XEBSXXXH	XXRLXXXX44	XXXXXXXXXX	SXXXXXX1XX	AXXXXXXXXXX			
....5...105...205...305...405...505...605...705...805...90


Evaporator Data		Evaporator Data (Cont.)		Performance Data	
EWT (°F)	54	Min. Flow Rate (USGPM)	10	EER (EER)	10
LWT (°F)	44	Max. Flow Rate (USGPM)	150	IPLV (EER)	15.5
Design Flow Rate (USGPM)	44.9	Condenser Data			
Pressure Drop (ft H2O)	4.9	Ambient Temp. Design (°F)	95	Physical Data	
Fluid	Water	Altitude (ft)	0	Rigging Wt. (lb)	1567
Fouling Factor (h.ft².F/Btu)	0.0001	User Min. Operating Air Temp. (°F)	41	Operating Wt. (lb)	1597
Fluid Volume (USGAL)	1.6	User Max. Operating Air Temp. (°F)	95		
		Compressor Type	Scroll - Hermetic		

Electrical Data				
Circuit	1	2	3	4
Compressor RLA	20 / 20			
Fan QTY/FLA (each)	2 / 1.3			
High LRA Current	125 / 125			

Single Point				
Min. Circuit Ampacity	48			
Recommended Fuse/CB Rating	60			
Max. Inverse Time CB Rating	60			
Max. Dual Element Fuse Size (A)	60			
Unit Short Circuit Withstand (STD)	5 [kA]			
Wire Lugs Per Phase	1	Operating Condition Electrical Data		
Wire Range (Lug Size)	14 AWG - 2/0	Compressor kW	21.5	
Starter Type	Across The Line	Total Fan kW	1	
		Total kW	22.5	

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	18.7	22.5	10
2	72	11.5	8.2	16.9

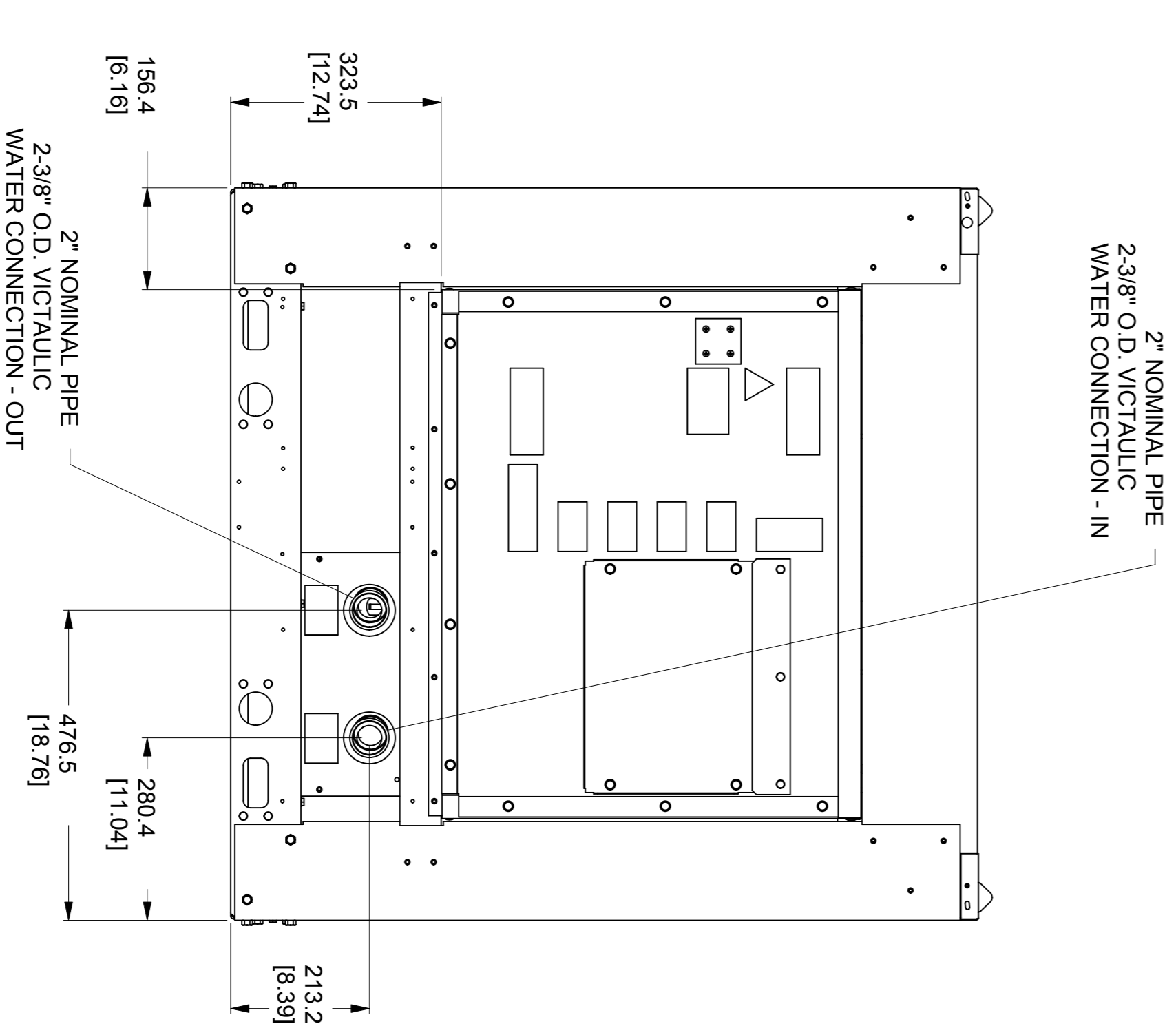
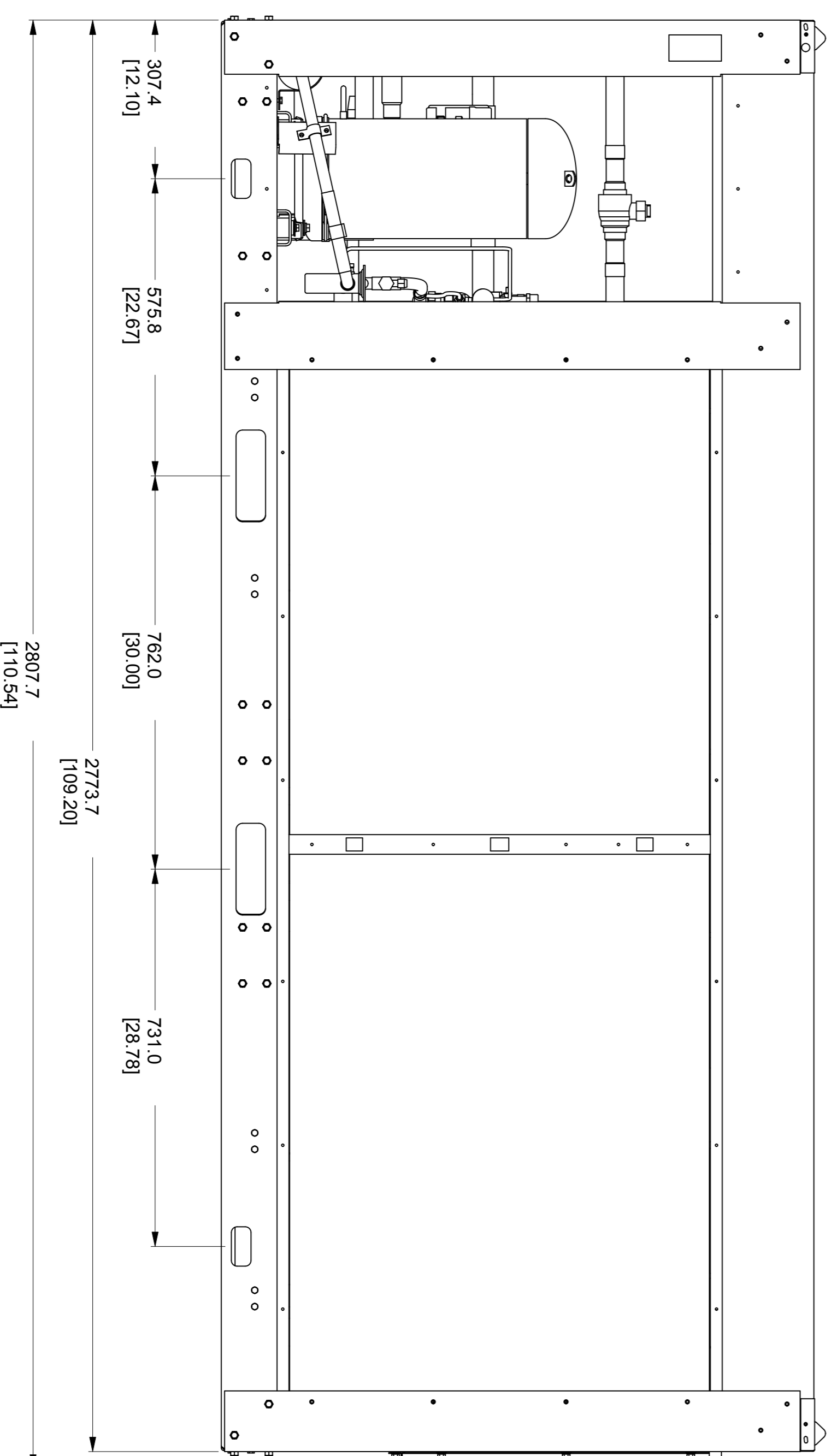
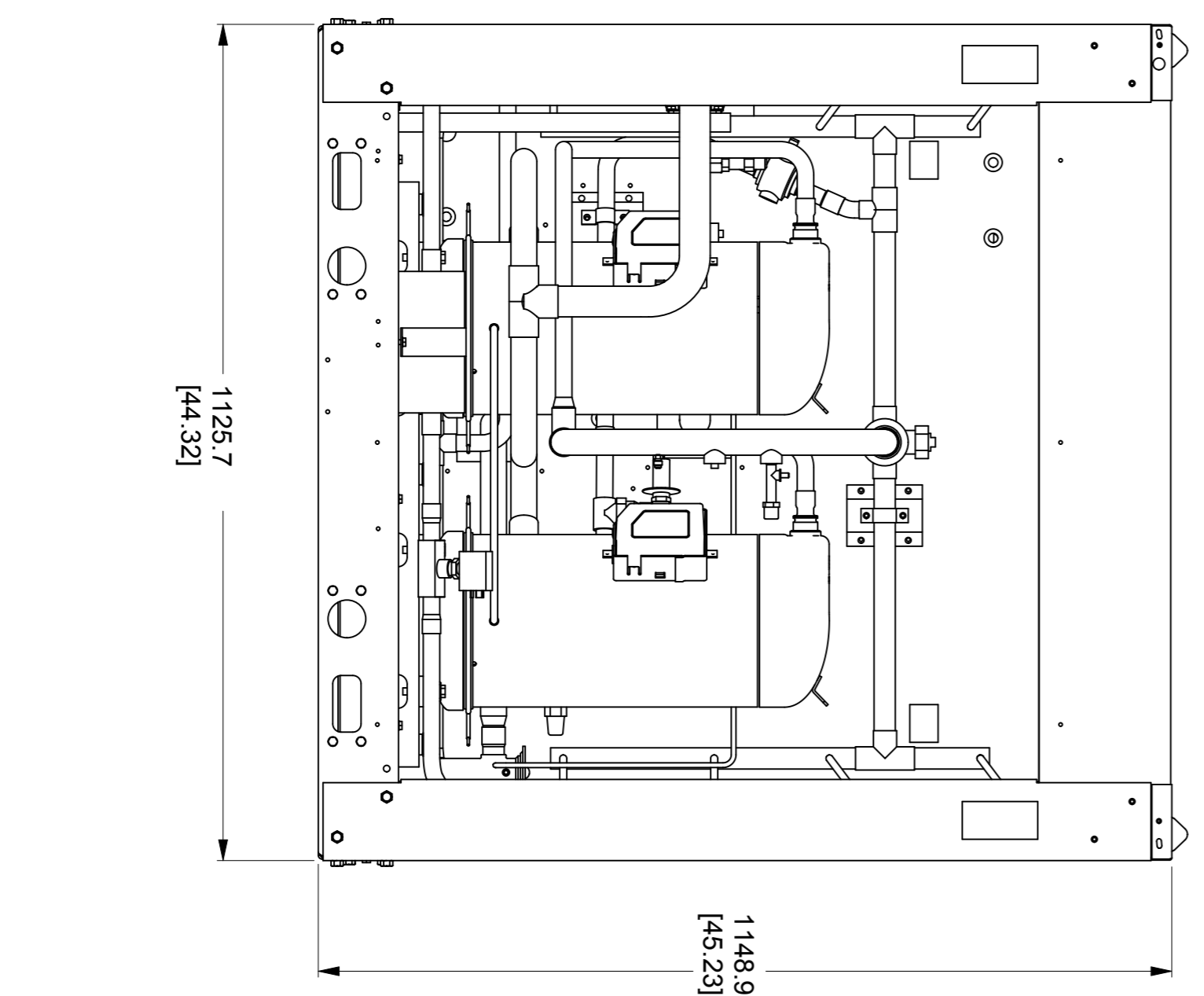
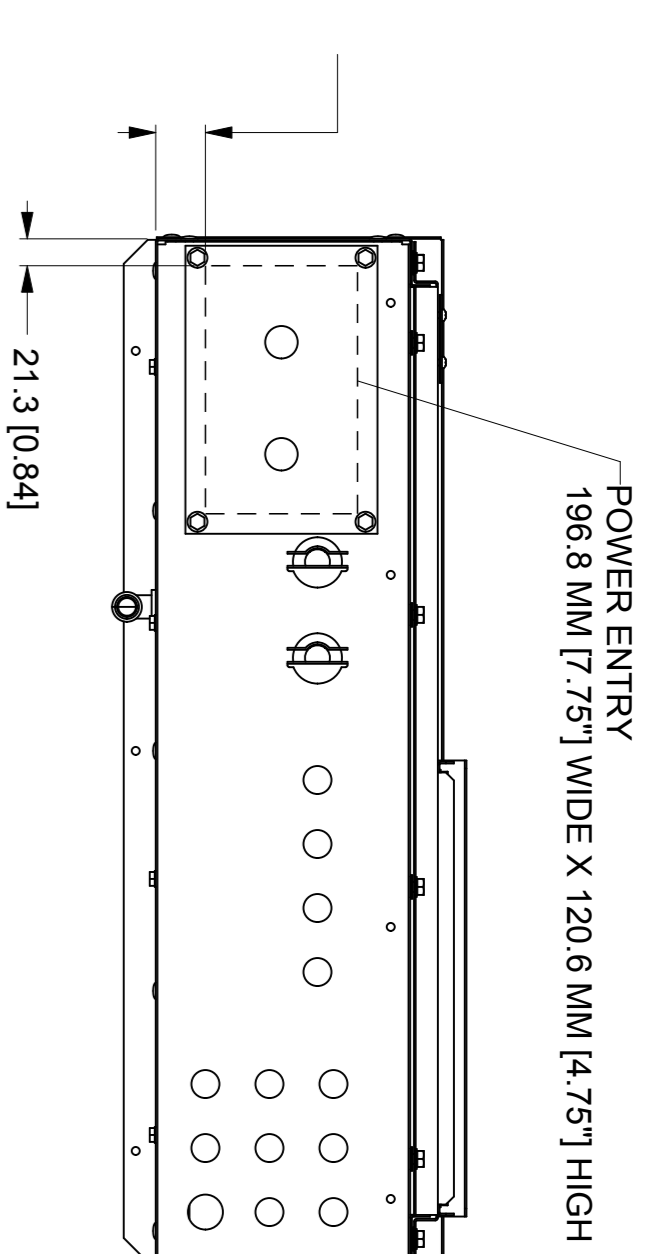
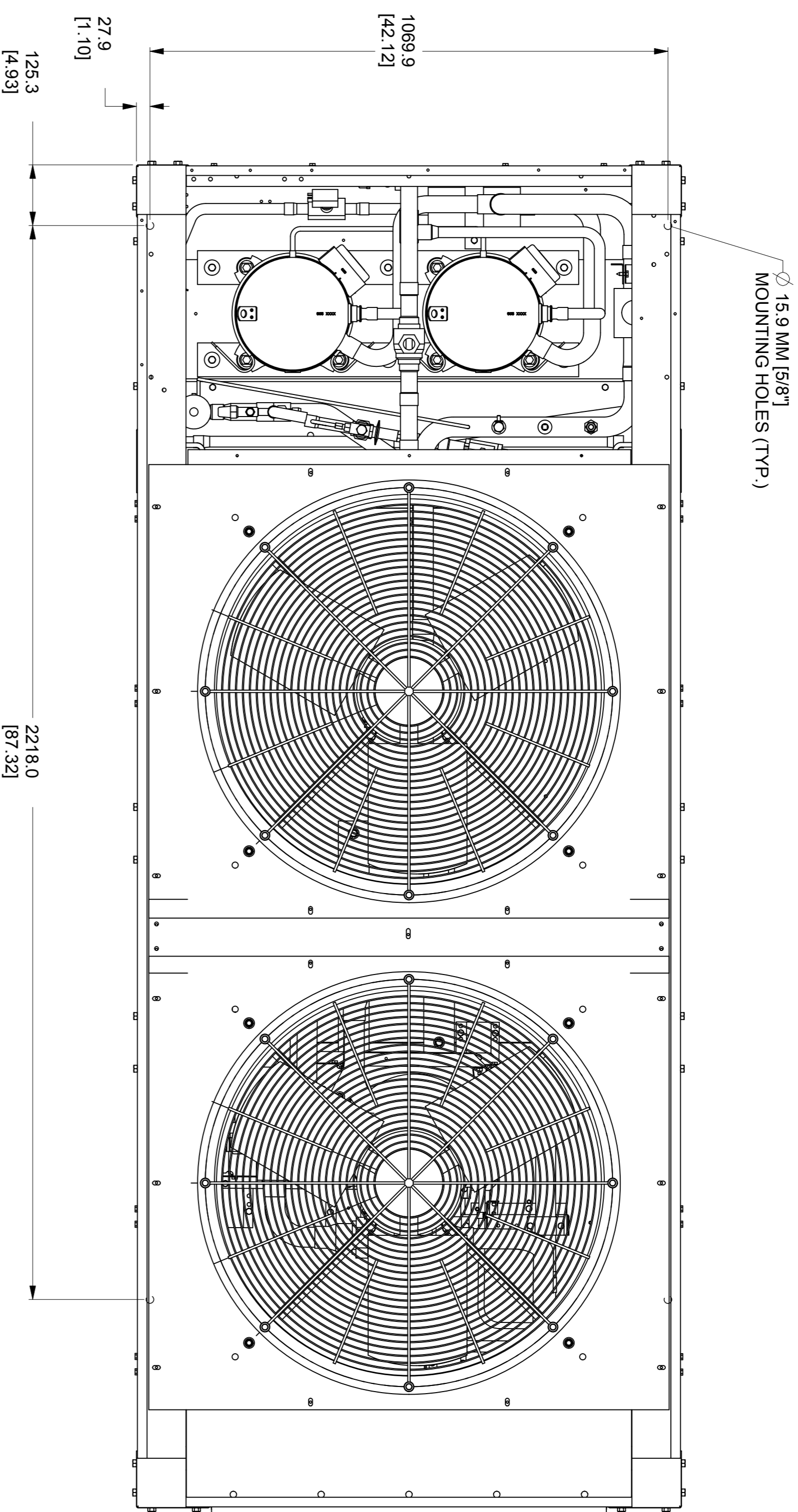
Sound Power Levels										
Stage	Ambient (°F)	63	125	250	500	1K	2K	4K	8K	LWA
1	95	84	83	82	83	80	76	72	71	85
2	72	82	82	81	81	79	74	70	69	83

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
LWT (°F)	44	Altitude (ft)	0	IPLV (EER)	15.5
Flow Rate (USGPM)	44.9			Net Cooling Capacity (TR)	18.7
Pressure Drop (ft H2O)	4.9				
Fluid	Water				
Fouling Factor (h.ft ² .F/Btu)	0.0001				
Fluid Volume (USGAL)	1.6				

FOR UNITS WITH OR WITHOUT OPTIONAL PUMP PACKAGE

- NOTE:
1. PLACEMENT ON A LEVEL SURFACE FREE OF OBSTRUCTIONS (INCLUDING SNOW, FOR WINTER OPERATION) OR AIR-CIRCULATION ENSURES RATE PERFORMANCE. RELIABLE OPERATION AND EASE OF MAINTENANCE. SITE RESTRICTIONS MAY COMPROMISE MINIMUM CLEARANCES INDICATED BELOW, RESULTING IN UNPREDICTABLE AIR FLOW PATTERNS AND POSSIBLE DIMINISHED PERFORMANCE. JOHNSON CONTROLS UNIT CONTROLS WILL OPTIMIZE OPERATION WITHOUT NUISANCE HIGH PRESSURE SAFETY CUTOFF. HOWEVER, THE SYSTEM DESIGNER MUST CONSIDER POTENTIAL PERFORMANCE DEGRADATION.
 - 1.1. RECOMMENDED MINIMUM CLEARANCES:
 - 1.1.1. COIL SIDE TO WALL - 1828.8 MM [72.00"]
 - 1.1.2. COMPRESSOR SIDE TO WALL - 1219.2 MM [48.00"]
 - 1.1.3. CONTROL PANEL TO WALL - 1828.8 MM [72.00"]
 - 1.1.4. TOP - NO OBSTRUCTIONS ALLOWED
 - 1.1.5. DISTANCE BETWEEN ADJACENT UNITS - 3048 MM [120.00"]
 - 1.1.6. NO MORE THAN ONE ADJACENT WALL MAY BE HIGHER THAN UNIT.
 2. WEIGHT AND CENTER OF GRAVITY - REF TO PERFORMANCE SPECIFICATION
 3. FOR MONTERREY, MEXICO AND SAN ANTONIO, TEXAS BUILDS ONLY



THIS DRAWING PERTAINS TO THE FOLLOWING UNITS

YCAL 0019	YCAL 0022
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REV.	DATE	EG. NO.	DR.	CHK.	ENG.
A	17-NOV-2014	DX14-0394	ETE		

ADDED NOTE ABOUT OPTIONAL PUMP PACKAGE

DRAWN.	D.B. NEWSWANGER	15-APR-2014	22-MAR-2006	
MODELER	C.F. JUDE			
CHKD.	D.B. NEWSWANGER	15-APR-2014		

SCALE: 1:1000

507 EAST MICHIGAN STREET, MILWAUKEE, WI, 53202 USA

JOHNSON CONTROLS - BUILDING EFFICIENCY

YCAL PRODUCT DRAWING

CAGE NUMBER: **66935**

DRAWING NUMBER: **035-23980-001**

REVISION: **A1**

VERSION: **0**

ENG. CHG

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

A B C D E F G H I J K L