



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	QTC3075TSE46XFBSXXX	77.8	460-3-60	R410A

PIN:								
QTC3075TSE	46XFBSXXXH	XXBLXCXX44	XXXXXXXXHXXX	YAXXXXXXXXXX	AXXXXXXXXXXX			
....5...105...205...305...405...505...605...705...805...90


Evaporator Data		Evaporator Data (Cont.)		Performance Data	
EWT (°F)	54	Fluid Volume (USGAL)	6.7	EER (EER)	10
LWT (°F)	44	Min. Flow Rate (USGPM)	100	IPLV (EER)	15.6
Design Flow Rate (USGPM)	186.7	Max. Flow Rate (USGPM)	355		
Evap. Press. Drop (ft H2O)	9.2	Condenser Data		Physical Data	
Strainer Press. Drop (ft H2O)	3.4	Ambient Temp. Design (°F)	95	Rigging Wt. (lb)	3906
Ext. Kit Press. Drop (ft H2O)	0	Altitude (ft)	0	Operating Wt. (lb)	3998
Total Press. Drop (ft H2O)	12.6	User Min. Operating Air Temp. (°F)	41	Refrigerant Charge (lb)	106
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	27 / 27 / 27	24 / 24 / 24		
Fan QTY/FLA (each)	2 / 4	2 / 4		
High LRA Current	180 / 180 / 180	145 / 145 / 145		

Single Point				
Min. Circuit Ampacity	177			
Recommended Fuse/CB Rating	200			
Max. Inverse Time CB Rating	200			
Max. Dual Element Fuse Size (A)	200			
Unit Short Circuit Withstand (STD)	5 [kA]			
Wire Lugs Per Phase	1			
Wire Range (Lug Size)	#6 - 500 kcmil			
Starter Type	Across The Line			
			Operating Condition Electrical Data	
			Compressor kW	86.3
			Total Fan kW	6.7
			Total kW	93

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	77.8	93	10
2	88.6	69.5	74.9	11.1
3	80.6	59.2	52.9	13.4
4	71.5	47.3	37.4	15.2
5	59.7	32	21.3	18
6	55	16.9	10.8	18.9

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	88.6	96	95	91	91	87	83	80	77	93
3	80.6	96	95	91	91	87	83	80	77	93
4	71.5	95	94	90	90	86	82	79	76	91
5	59.7	93	92	88	88	84	80	77	74	90
6	55	57	47	N/A	66	65	62	59	50	69

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)	15.6
Flow Rate (USGPM)	186.7			Net Cooling Capacity (TR)	77.8
Pressure Drop (ft H2O)	9.2				
Fluid	Water				
Fouling Factor (h.ft ² .F/Btu)	0.0001				
Fluid Volume (USGAL)	6.7				

