



Air Cooled Scroll Chiller Performance Specification

Unit Tag	Qty	Model No.	Capacity (Tons)	Volts/Ph/Hz	Refrigerant		
CH-1	1	YCAL0046EE46	39.32	460/3/60	R410A		
Pin:							
BASE MODEL	POWER	CONTROLS	COMP PIPING	EVAPORATOR	COND	CABINET	WARR
YCAL0046EE46XEB	SDTX	AXXRLXXXX	45XX1XXXX	XXSXXX	XXX	1XXXXXX	FXXXJB
5	10	15	20	25	30	35	40
45	50	55	60				

Evaporator Data		Condenser Data		Performance Data	
EWT (°F)	57.5	Ambient Temp Design (°F)	95.0	EER (EER)	10.1
LWT (°F)	45.0	Altitude (ft.)	0	NPLV.IP(EER)	14.7
Design Flow Rate (gpm)	80.0	Min. Ambient Temp (°F)	28.4		
Pressure Drop (ft.)	6.53	Max. Ambient Temp (°F)	113.0	Physical Data	
Fluid	P.G. 30.0%			Unit Rigging Wt. (lbs.)**	3354
Fouling Factor	0.00010			Unit Operating Wt. (lbs.)**	3639
Water Volume. (gal)	3.5			Skid Rigging Wt. (lbs.)**	744
Min Flow Rate(GPM)	40.0			Skid Operating Wt. (lbs.)**	1267
Max Flow Rate (GPM)	200.0				

Piping Skid Package Data			
Water Volume (gal)	61.2	Combined Water Volume(gal)	64.7*
Piping Package Pressure Drop(ft)	0.8	Combined Fluid Pressure Drop(ft)	19.4*

Electrical Data				
Circuit	1	2	3	4
Compressor RLA	21/21	20/20		
Compressor Start Current (LRA)	125/125	125/125		
Fan QTY/FLA (each)	2/3.4	2/3.4		

Single-Point				
Min. Circuit Ampacity	109			
Recommended Fuse/CB Rating	125			
Max. Inverse Time CB Rating	125			
Max. Dual Element Fuse Size (Amps)	125			
Unit Short Circuit Withstand (STD)	65[kA]			
Wire Lugs Per Phase*	1			
Wire Range (Lug Size)	4AWG - 300			
Starter Type	Across the Line			
			Operating Condition Electrical Data	
			Compressor kW	40.98
			Total Fan kW	5.600
			Total kW	46.58
			Total kW with Hydrokit Power	48.82

Job Name: DuPont 306
Date: ~~6/30~~8/11/2016

York Contract No.:
CH-1 Performance

Job No: 2770F Ver. ~~1.0~~
2.0

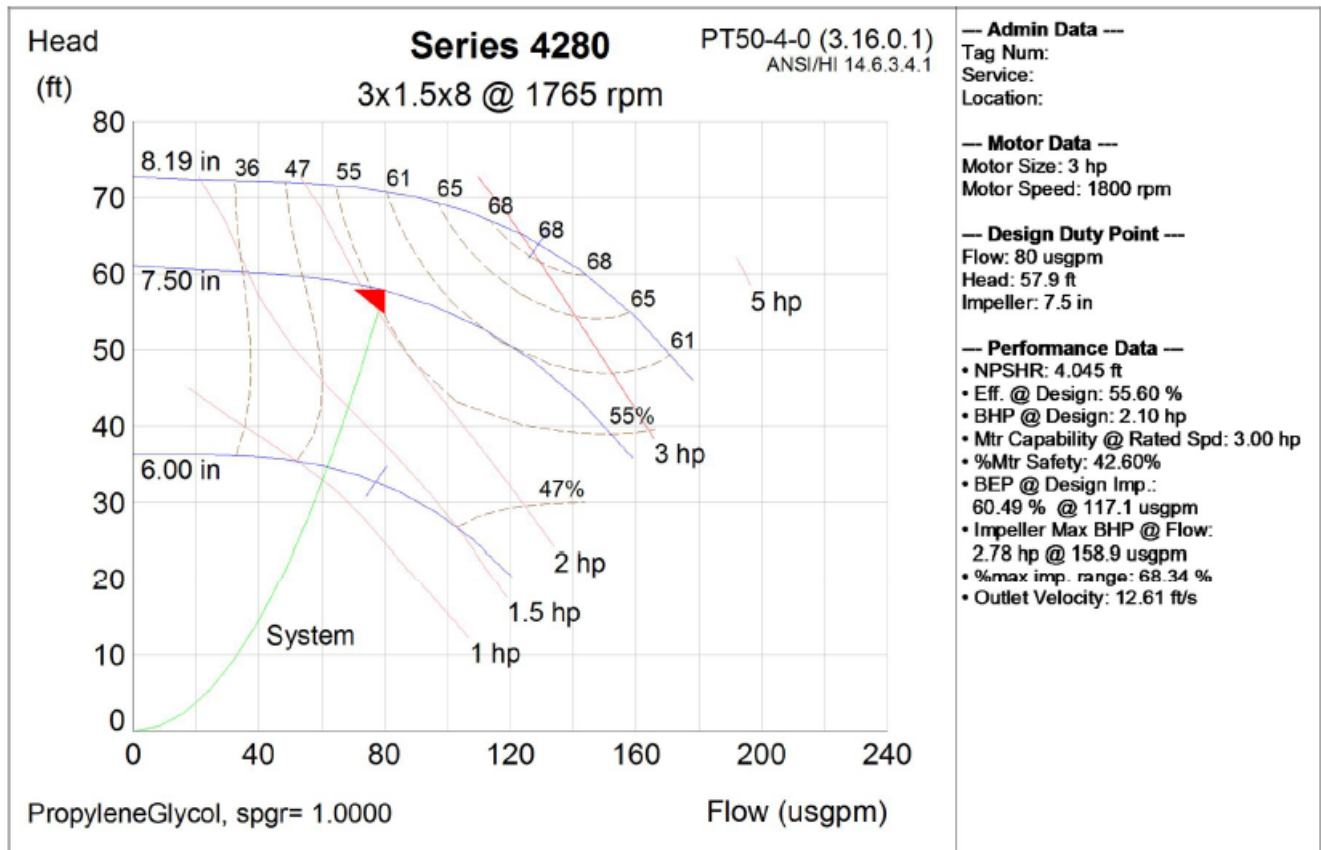
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Part Load Rating Data				
Stage	Ambient (°F)	Capacity (Tons)	Compressor kW	Unit Efficiency
1	95.0	39.32	46.58	10.13
2	83.0	31.45	30.81	12.25
3	69.4	22.51	17.76	15.21
4	55.0	11.67	7.949	17.62

SOUND POWER LEVELS (In Accordance with ARI 370)										
Load %	Ambient (°F)	63	125	250	500	1K	2K	4K	8K	LWA
1	95.0	90	89	89	89	87	84	80	76	92
2	83.0	90	89	89	89	87	84	80	75	91
3	69.4	87	86	86	86	84	81	77	73	89
4	55.0	84	83	83	83	81	78	74	70	85

Performance at AHRI Conditions					
Evaporator Data		Condenser Data		Performance Data	
EWT (°F)	54.0	Ambient Temp Design (°F)	95.0	EER(EER)	10.2
LWT (°F)	44.0	Altitude (ft.)	0	IPLV.IP (EER)	14.7
Design Flow Rate (gpm)	94.37			Capacity(Tons)	39.3
Pressure Drop (ft.)	5.13				
Fluid	Water				
Fouling Factor	0.00010				
Water Volume. (gal)	3.5				

Hydro Kit Data					
Flow	80 UGPM	Impeller Diameter	7.5 in	Efficiency	56%
Head	57.9 H2O	Fluid	Water	Pump Quantity	2
Hydro Kit Performance Data					
Pump Motor Size	3 hp	Pump Motor BHP	2.1	Chiller Evaporator PD	6.5
Pump Motor Speed	1800 RPM	Pump Type	Dual	Hydro-Kit PD	12.1
				Stand AloneSkid PD	0.8
				Head Safety Factor	9.3
				Available Head	29.2





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Fisen Provided Features

Pipe Package

- Allen Bradley Variable Frequency Drive(s) without Bypass
- No Controls or Programming
- In Line Disconnect Switch
- Pump Differential Pressure Gauges
- Evaporator Leaving Thermometer
- Evaporator Leaving Pressure Gauge
- Evaporator Entering Thermometer
- Evaporator Leaving Pressure Gauge

Stand Alone Skid Package

- Single Entering and Leaving Fluid Connection
- ANSI/AWWA C-606 Piping
- Air Separator
 - Manual Air Vent
- Pressurized Expansion Tank
- Fill Station
- 30 Gallon Glycol Makeup Unit
- ¾" Elastomeric Insulation

Field Installed Items(*Fisen Provided)

- Flow Switch
- Vibration Isolation *Must be sized for revised weights.*

Testing Package

- Quality Assurance Inspection
- Electrical Controls Run Test
- Hydronic Pressure Test
- Limited Warranty on Fisen Provided Parts

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Testing and Warranty Features

Electrical Controls Run Test

Modified electrical sub-systems shall be run tested prior to shipment. Electrical verification of all control components, and validation and verification of the sequence of operation shall be performed. Component test measurements and conditions shall be recorded and compared to engineering design data. Test logs shall be available for customer inspection upon request.

Hydronic Pressure Test

Factory installed hydronic system shall be pressure test for leaks prior to shipment. Pressure shall be held for a minimum of 4 hours. Mechanical components, e.g. valves, automatic air vents, etc., shall be tested in place when appropriate. Component test measurements and conditions shall be recorded and compared to engineering design data. Test logs shall be available for customer inspection upon request.

Quality Assurance Inspection

Fisen installed and modified components shall be inspected for compliance against the submittal documents prior to shipment. Submitted dimensions, component compatibility, and documentation shall be visually verified by the project manager prior to the unit being released to shipping for delivery to the customer. Items validated during this inspection include but are not limited to: unit voltage, unit refrigerant, unit mounted disconnect requirements, gas and power connection locations, supply and return duct connection locations, horizontal or vertical airflow, safety labels and warnings, regulatory labeling, presence of ship with materials, correct literature included with unit for shipping, and general compliance of unit against submitted data. A log of this inspection shall be available for customer inspection upon request.

Limited Warranty on Fisen Provided Parts from Ship Date

Fisen shall provide a limited warranty for all Fisen provided parts for 18 months from shipment date or 12 months from start-up, whichever occurs first. Part warranty provides for replacement parts on a standard shipping cycle, express shipping and overnight freight are not included. Any parts replaced under warranty must be returned to Fisen. Failure to return failed parts within 72 hours of receipt of replacement parts may result in being charged for the replacement parts. Expendable parts, parts damaged through incidental damages, damage due to rigging or shipping are not covered under this warranty. Parts warranty is limited to actual part failure and specifically excludes labor. This exclusion refers to, but is not limited to: troubleshooting time, travel time to and from job site, lifting and rigging labor, and miscellaneous administrative labor codes. A detailed warranty letter is available from Fisen field support upon request.

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