



A JOHNSON CONTROLS COMPANY

YIA SINGLE-EFFECT CHILLER FACTORY ORDER FORM

Project Name Dow Plaquemine ARU-590D	MLP Effective Date Jul. 10, 2009	Contract-Order No. 9EJ40014-01	Order Rev. No. 01A
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Tag ARU-590D	Model No. YIA-ST-5C2-46-C-S-C	Capacity (tons) 305.0
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	EWT (°F)	LWT (°F)	Flow (gpm)	PD (ft)	Pass	FF	DWP (psig)	Fluid %	Nozzle Arr.	Steam Pressure(PSI)	
										@Generator	13.5
Evap.	54.8	45.0	750.0	19.5	2	0.00050	150.0	WATER	E5	@Valves	15.0
Cond.	87.0	105.3	1000.0	13.9	2/1	0.00100	150.0	WATER	AC5	Steam Cons.(lbs/hr)	
Gen.	N/A	N/A	N/A	N/A	1	0.00000	150.0	STEAM		5812.6	

Voltage:	460/3/60	Bypass Size (for factory use only):	
kW:	7.3	Orifice Size (for factory use only):	

Line #	Equipment Description	Qty.	\$MLP
01	Base Unit/Access. - YIA-ST-5C2-46-C-S-C		
	Base Chiller Model No.: YIA-ST-5C2-46-C-S-C Note: Rating Output must be attached to the Order Form		
	YIA Steam-Fired Chiller Model YIA-ST-5C2-46-C-S-C Application: Cooling Only	1	9152
	Water Box Options		
	Evaporator: 150 psig Compact Water Box	1	N/C
	Condenser: 150 psig Compact Water Box	1	N/C
	Absorber: 150 psig Compact Water Box	1	N/C
	Tube Options		
Evaporator: 0.028" Cu	1	N/C	
Absorber: 0.028" Cu	1	N/C	

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Unit Folder: YIA-5C2

YORKworks 9.68

Currency: United States Dollars

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Line #	Equipment Description	Qty.	\$MLP
01	Base Unit/Access. - YIA-ST-5C2-46-C-S-C - cont'd Condenser: 0.028" Cu	1	N/C
	Other Options		
	Generator Design Working Pressure: 150 psig		
	ANSI Flanges (150 psig) for Chilled/Condenser Water Conns.	1	1100
	ANSI Flanges (150 psig) for Steam Inlet/Condensate Connections	1	148
	Condenser 150 psig Flow Switch	1	179
	Lithium Bromide Charge to Ship Separate from Unit	1	N/C
	Special Quotes -		
	Special Quote # 09002017001 Special tubes - 0.049" wall 90/10 CuNi: Evap = \$54,720 MLP . Abs/Cond = \$65,960 MLP. Generator = \$12,730. See detailed SQ.	1	133410
	Special Quote # 09002017002 Special condensate connection for the generator section. 45 degree elbow. See detailed SQ.	1	1895
Special Quote # 09002017003 Special piping, isolation valves and drain in the purge drum piping. See detailed SQ.	1	5450	
Special Quote # 09002017004 Factory fabricated crossover pipe with crossover pipe support and eyelit for lifting. Wika thermowell installed in pipe . Factory fit up. See detailed SQ.	1	11125	
Special Quote # 09002017005 Continuous external welds. No skip welds on the supports and outside surfaces. See detailed SQ.	1	5295	
Special Quote # 09002017006 Long term storage protection and shipping preparation to include 1/4" thick steel plates with neoprene gaskets to close off all nozzles. Charge refrigerant and water sides with ni	1	8925	

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Line #	Equipment Description	Qty.	\$MLP
01	Base Unit/Access. - YIA-ST-5C2-46-C-S-C - cont'd		
	Detailed custom editable AutoCad "job specific" general arrangement drawing. See detailed SQ. Special Quote # 09002017016	1	4725
	Detailed custom editable AutoCad "job specific" P&ID drawing. See detailed SQ. Special Quote # 09002017017	1	1950
	Detailed custom editable AutoCad "job specific" wiring diagram. See detailed SQ. Special Quote # 09002017018	1	1895
	Production milestone report indicating manufacturing schedule and customer hold points. See detailed SQ. Special Quote # 09002017019	1	980
	Isolation valves to be installed upstream and downstream of the unloader and stabilizer valves. No bleed valves. See detailed SQ. Special Quote # 09002017020	1	7795
	Digital pictures of the unit front, sides and back with chiller assembled and painted and crossover pipe installed. Pictures of every SQ. Detailed pics of Class 1, Div II wiring. See detailed SQ. Special Quote # 09002017021	1	2372
	Wiring/enclosures for Class 1, Div II Group C&D hazardous area with NEMA 4X stainless steel enclosures, rigid galvanized steel conduit, special thermowells, special vacuum gauge, transducer for vacuum pump, lights, etc. See detailed SQ. Special Quote # 09002017022	1	147795
	Four inspections. Internal welding visual, pneumatic leak testing of chiller, hydro testing of tube side of heat exchanger sections and final visual inspection of chiller and electrical. See detailed SQ. Special Quote # 09002017023	1	4100

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Line #	Equipment Description	Qty.	\$MLP
01	Base Unit/Access. - YIA-ST-5C2-46-C-S-C - cont'd		
	Caboline epoxy ctgs of tubes sheets and water boxes for evaporator, absorber and condenser sections to include sacrificial anodes in water boxes. Carbon steel vent & drain couplings & plugs and painted orange. See detailed SQ. Special Quote # 09002017025	1	15925
	Side stream filter system for the solution and refrigerant lines to include filter isolation valves and bleed valves. System will be constructed of stainless. See detailed SQ. Special Quote # 09002017026	1	18995
	Special paint. Surface prep per M-419 paragraph 3.3 - near white blast cleaning. Three coats of Amerlock 400 at 5.0 mils for each coat. Color to be light gray RAL 7035. Two gallons of Amerlock 400 to ship loose. See detailed SQ. Special Quote # 09002017027	1	20895
	Rupture disk piping to be shipped loose and installed at the job site. See detailed SQ. Special Quote # 09002017028	1	2895
	Removable shields over all shell sight glasses. See detailed SQ. Special Quote # 09002017029	1	1750
	Install straight through full port valves for the drains and vents. The valve must be able to be rodable and must be a ball valve. Drains & vents to be 3/4" schedule 80 carbon steel pipe with carbon steel threads. See detailed SQ. Special Quote # 09002017030	1	2595
Six month delayed startup warranty. See detailed SQ.	1	4500	
MLP Subtotal			22906.00



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02	Lithium Bromide Lithium Bromide Solution	1	34026
	MLP Subtotal		34026.00
06	Warranty - 42 Month Parts and Labor Extended Warranty - 42 Months (3 Years) Parts & Labor		
	MLP Subtotal		6614.00

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