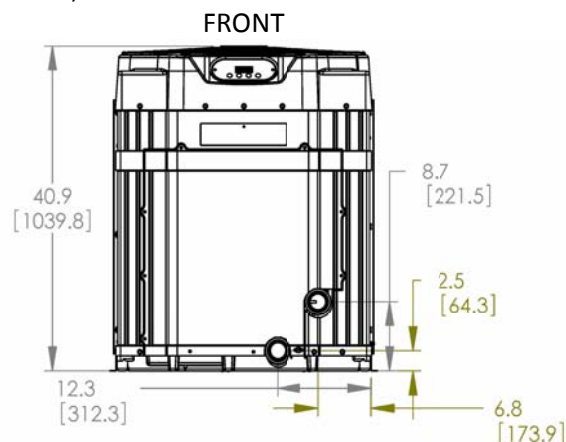
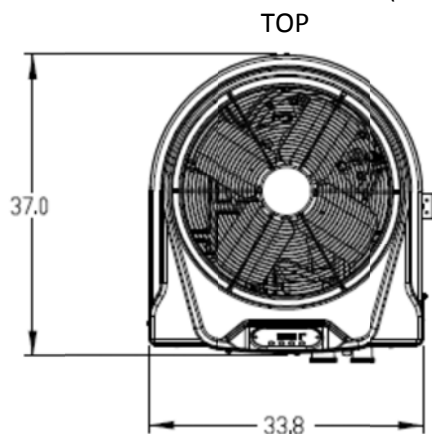


Technical Data Sheet

DIMENSIONS

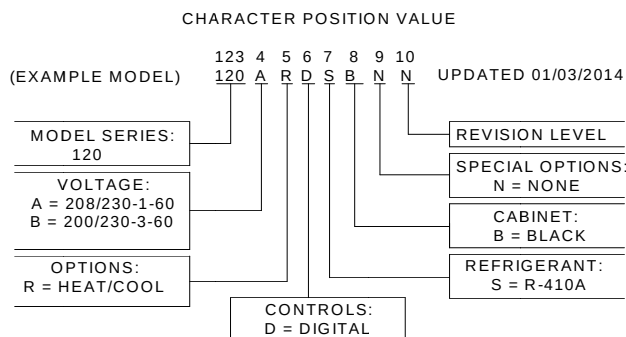
(in inches – millimeters in brackets)



SPECIFICATIONS 1/21/2014

SPECIFICATIONS 1/21/2014			
Information	Data		
HEATING CONDITION (WATER/AIR/RH)	80/80/80	80/80/63	80/50/63
BTU OUTPUT	110,000	103,000	72,000
KW OUTPUT	32.1	30.2	21.1
KW INPUT	5.9	5.7	5.3
COEFFICIENT OF PERFORMANCE	5.5	5.3	4.0
COOLING CONDITION (WATER/AIR/RH)	100/80/63		
REJECTED BTU / KW	86,000 / 25.2		
KW INPUT	7.0		
ENERGY EFFICIENCY RATIO (EER)	12.3		
VOLTAGE/Hz/PHASE	A-VOLTAGE 208-230/60/1	B-VOLTAGE 200-230/60/3	
MINIMUM CIRCUIT AMPACITY	38.4	30.9	
MAX FUSE	60	50	
COMPRESSOR TYPE	Scroll		
REGRIGERANT	R410A		
HEAT EXCHANGER	Titanium Modified Tube In Shell		
WATER PRESSURE DROP	6.4 PSI (at 70 GPM)	6.4 PSI (at 265 LPM)	
WATER FLOW	30 Min/70 Max (GPM)	114 MIN /265 MAX (LPM)	
SHIPPING WEIGHT	315 pounds	142 kilograms	
DECIBELS	55 (at 10 feet)	55 at 3 meters)	

Specifications are subject to change without notice.

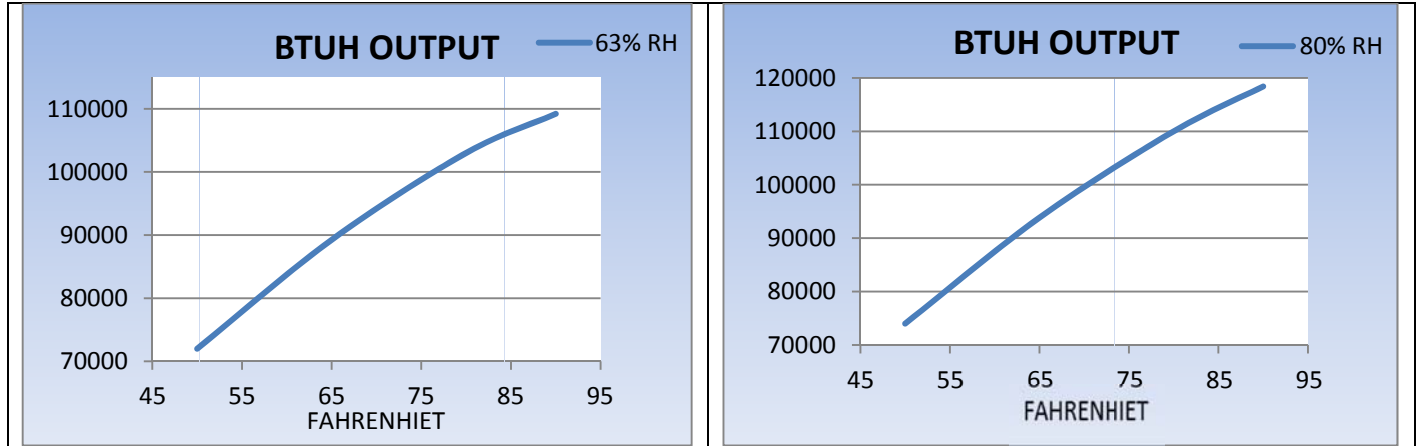


AquaCal AutoPilot, Inc.

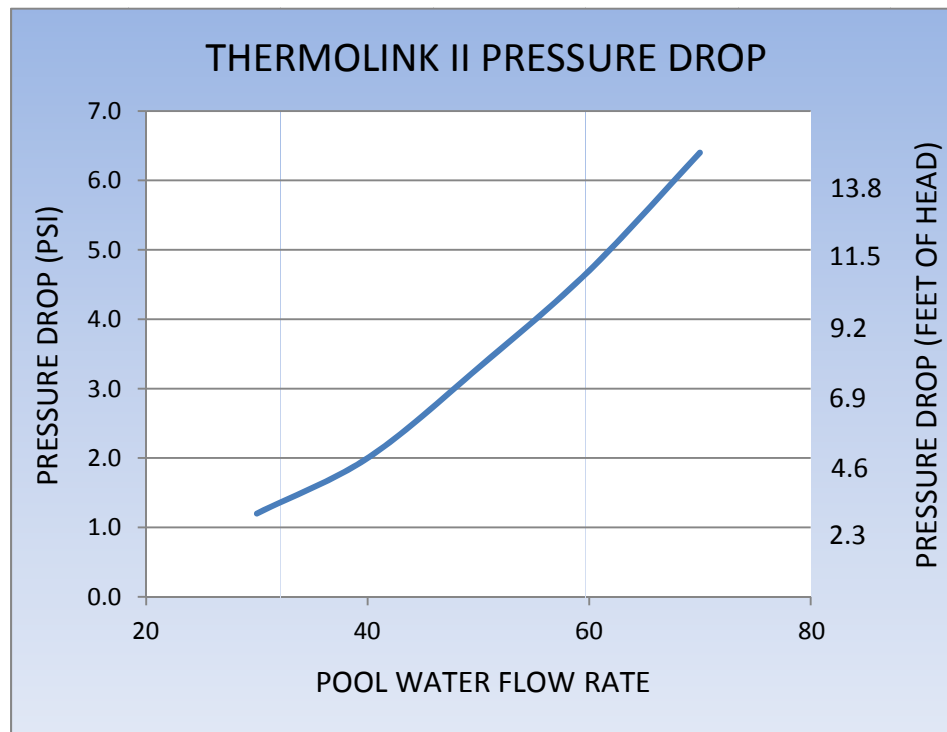
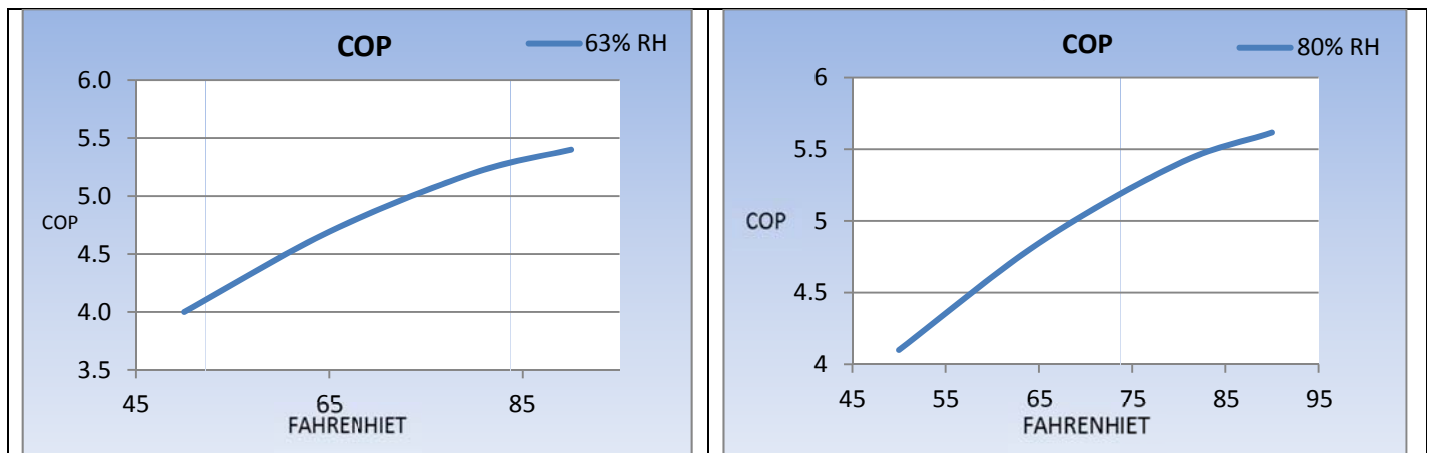
2737 24th Street North, St. Petersburg, FL 33713, USA • Phone (+1) 727-823-5642 • Fax (+1) 727-821-7471

Technical Data Sheet

BTUH PERFORMANCE CURVES



COEFFICIENT OF PERFORMANCE CURVES (COP)



ITEM NO.	DESCRIPTION
1	FAN GRILLE
2	FAN MOTOR
3	FAN BLADE
4	FAN TOP
5	CONTROL PANEL DISPLAY ASSEMBLY
6	COMPRESSOR WRAP
7	EVAPORATOR MESH
8	EVAPORATOR COIL
9	CONTROL BOX COVER
10	CONDENSER KIT FOR SERVICE
11	COMPRESSOR
12	FRONT PANEL
13	TXV
14	BASE
15	THERMOSTAT SENSOR
16	THERMOSTAT, PLASTIC WELL
17	REVERSING VALVE
18	FILTER DRIER & SUPPORT BRACKET

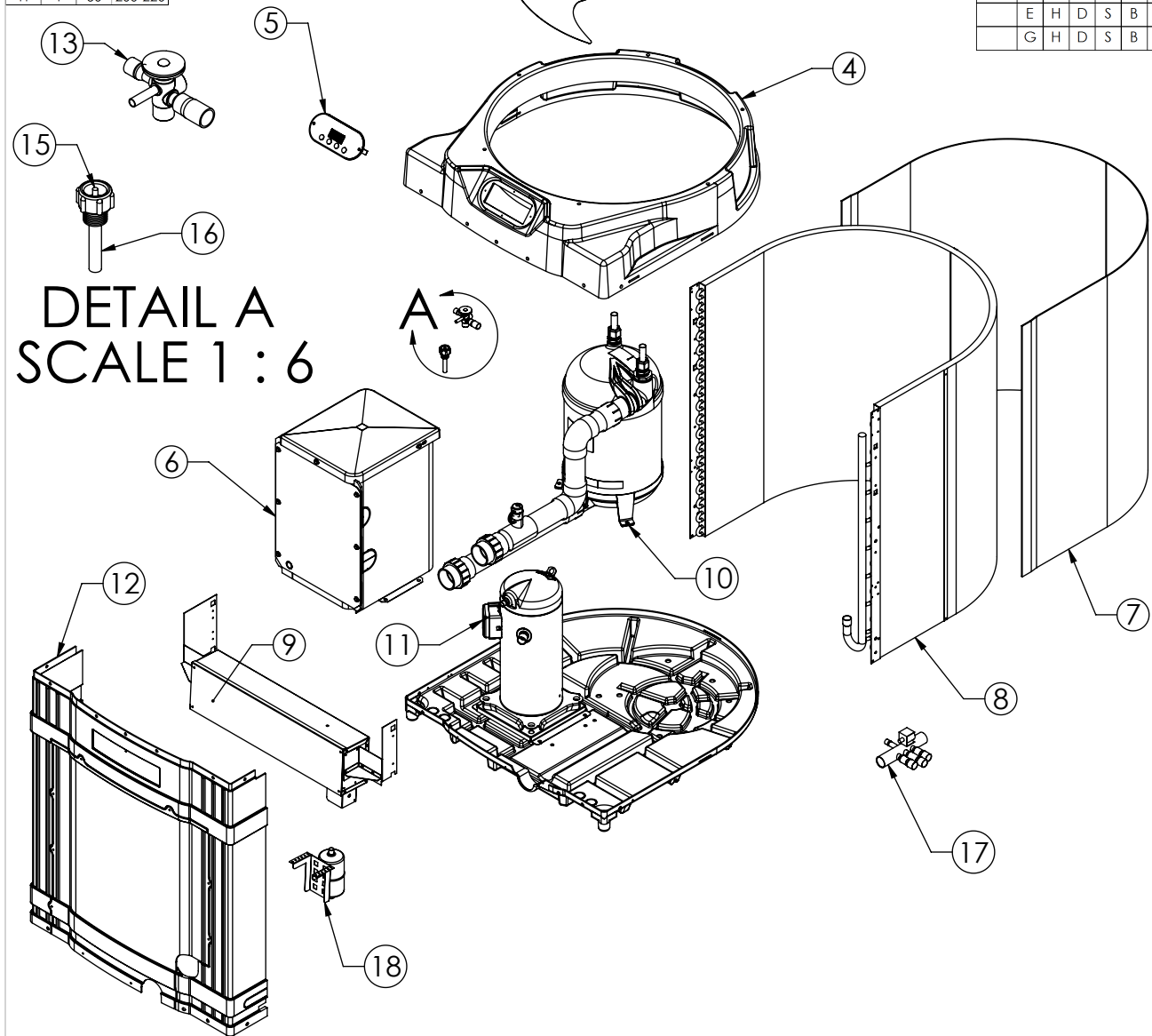
Code	Phase	Hz	Voltage
A	1	60	208-230
B	3	60	208-230
D	3	50	380-415
E	3	60	380-415
G	3	60	460
H	1	50	200-220

SUPERQUIET REVERSING HEATPUMP POOL HEATER: REF NO. LTM0599



DRAWN BY: R. CHAPIN
LAST UPDATE: 11/04/14

Model	Voltage	Reversing	Digital	R410A Refrigerant	Color	REA Condenser	Revision
110	A	R	D	S	B	N	N
120	A	R	D	S	B	N	N
	B	R	D	S	B	N	N
	D	R	D	S	B	N	N
	H	R	D	S	B	N	N
166	A	R	D	S	B	N	N
	B	R	D	S	B	N	N
	D	R	D	S	B	N	N
	E	R	D	S	B	N	N
	G	R	D	S	B	N	N
175	A	H	D	S	B	N	N
	B	H	D	S	B	N	N
	D	H	D	S	B	N	N
	E	H	D	S	B	N	N
	G	H	D	S	B	N	N

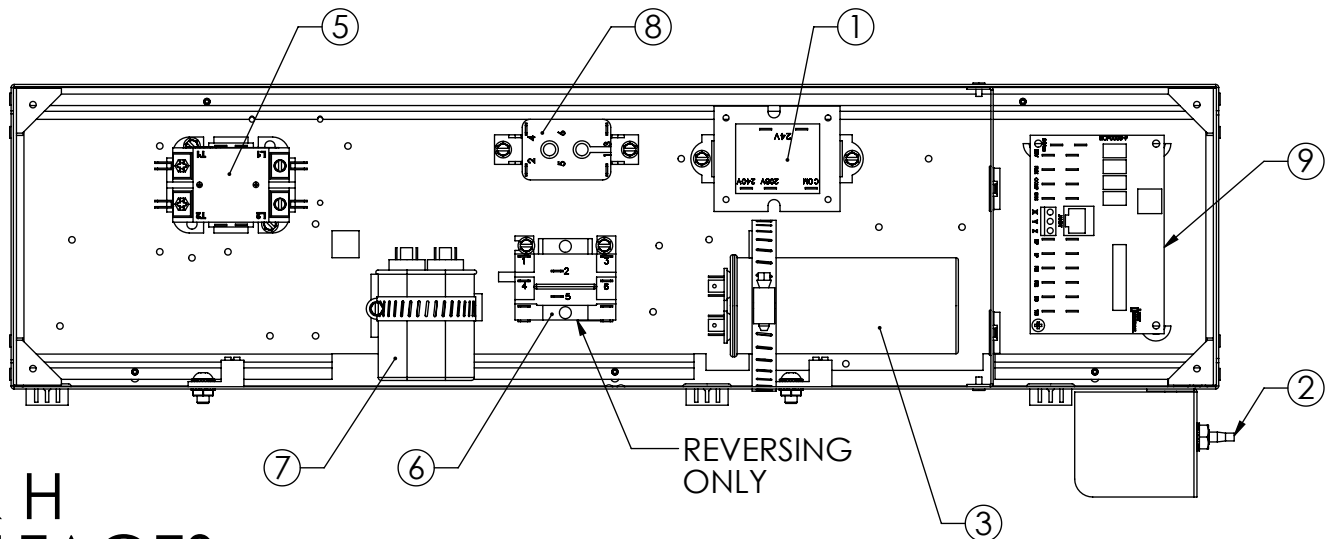


ITEM NO.	DESCRIPTION
1	TRANSFORMER
2	SWITCH, WATER PRESSURE SPDT
3	CAPACITOR, RUN/DUAL
4	PHASE ROTATION MONITOR
5	CONTACTOR
6	RELAY, FAN, DPDT
7	CAPACITOR, FAN
8	RELAY, FAN, SPST
9	MICROPROCESSOR POWER BOARD
10	TERMINAL BLOCK

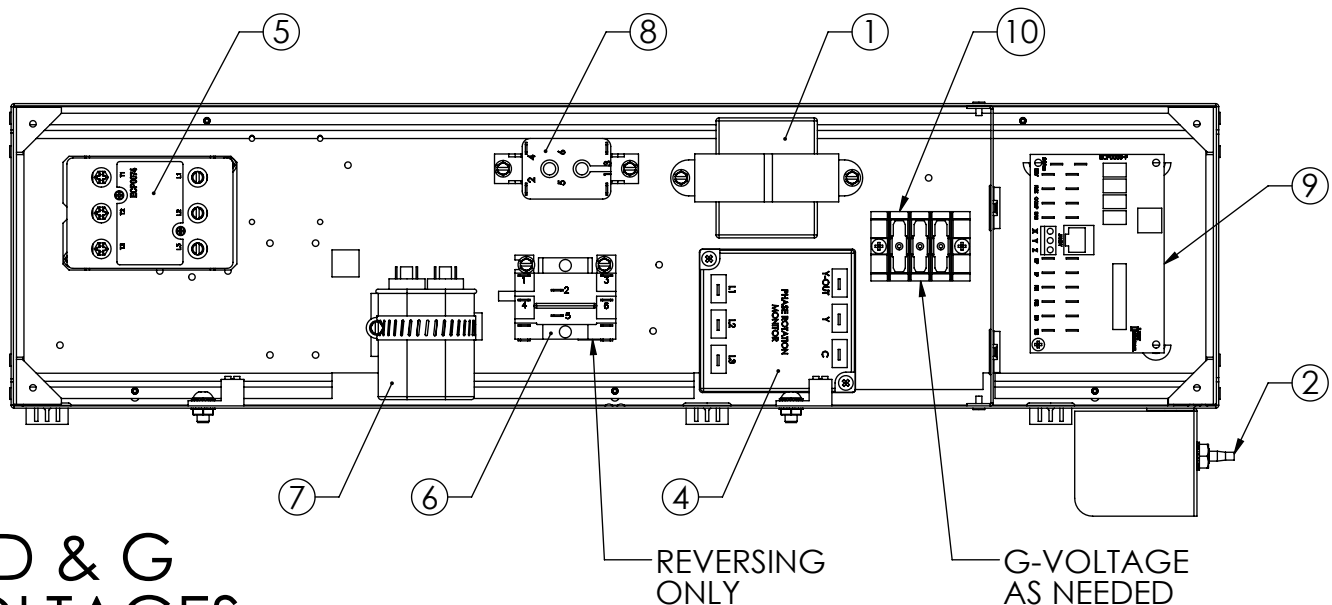


REF. #: LTM0859
 SUPERQUIET N-REV
 (& higher)
 ELECTRICAL COMPONENT
 ASSEMBLIES

DRAWN BY: R.CHAPIN
 LAST UPDATE: 04/08/15
 REVISION: A



A & H
 VOLTAGES



B, D & G
 VOLTAGES

NOTE: EQUIVALENT PARTS MAY VARY IN APPEARANCE & LOCATION



SERVICE PARTS

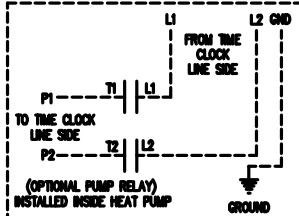
SQ120BRDSBNN

SCHEMATIC	LTM0619
REFRIGERANT CHARGE	118 OZ
MAJOR COMPONENTS	
COMPRESSOR	COS0066
CONDENSER	STK0076
EVAPORATOR	ACP0013
FAN MOTOR	ECS0095
TXV	RES0021
FAN BLADE	MBS0015
FAN GRILL	GRP0009
REFRIGERANT PARTS	
COREMAX REFRIGERANT ACCESS PORT	RES1058
FILTER DRIER	RES0039
HIGH PRESSURE	STK0074
REVERSING VALVE AND COIL	RES0002
ELECTRICAL PARTS	
COMPRESSOR WIRE SET	ECS0277
CONTACTOR	ECP0074
CONTROL PANEL	STA0062
DEFROST SENSOR	6105D
DEFROST (2 SPEED FAN) RELAY	6103
DEFROST PRESSURE SWITCH	REP0057
FAN CAPACITOR	ECS6052
FAN RELAY	ECS0001
MICROPROCESSOR	ECS0005
PHASE ROTATION MONITOR	ECP0059
RUN CAPACITOR	NA
TRANSFORMER	ECS6209
WATER PRES. SWITCH	0015S
WATER TEMP SENSOR	6105D
PLUMBING PARTS	
2" UNIONS	PLS2627
THERMOSTAT WELL	STK1113A

NOTES UNLESS OTHERWISE SPECIFIED

1. USE COPPER CONDUCTORS ONLY.
2. TO BE WIRED IN ACCORDANCE WITH NAT'L ELEC. (NEC) & LOCAL CODES.
3. UNIT EQUIPPED W/PHASE ROTATION MONITOR. IMPROPER PHASING CAUSES IMPROPER COMPRESSOR OPERATION.
4. CONNECT TRANSFORMER TO CORRECT VOLTAGE.
5. G-VOLTAGE WIRE COLORS MAY DIFFER.
6. FOR D-VOLTAGE, CUT BLACK WIRE ON PHASE ROTATION MONITOR
7. EXTERNAL CONTROLLER HOOK UP:
 - A. TWO-WIRE CONTROLLERS (JANDY RS 4,8,8, COMPOOL LX 3800)
 - a. WIRES CONNECT TO Y & Z ON THE MICROPROCESSOR.
 - b. WITH HEATER DISPLAYING WATER TEMPERATURE, PRESS THE UP & DOWN ARROW AT THE SAME TIME UNTIL CF1 APPEARS
 - c. PRESS THE POOL/SPA KEY UNTIL LOC APPEARS; PRESS THE UP ARROW UNTIL 50 APPEARS.
 - d. PRESS THE POOL SPA KEY UNTIL JAO DISPLAYS; PRESS THE UP ARROW UNTIL 2 DISPLAYS.
 - e. SET POOL AND SPA TO DESIRED SET POINTS
 - B. THREE-WIRE CONTROLLERS (JANDY AQUASWITCH, COMPOOL) (USE ONLY COMMON AND THE SPA TERMINALS IN THE CONTROLLER)
 - a. WIRES CONNECT TO FS2 ON THE MICROPROCESSOR.
 - b. WHEN THE HEATER DISPLAYS WATER TEMPERATURE, HOLD THE UP AND DOWN ARROW AT THE SAME TIME UNTIL CF1 APPEARS
 - c. PRESS THE POOL/SPA KEY UNTIL LOC APPEARS; PRESS THE UP ARROW UNTIL 50 DISPLAYS.
 - d. PRESS THE POOL/SPA KEY UNTIL FS2 DISPLAYS; PRESS THE UP ARROW UNTIL 1 APPEARS.
 - e. WHEN THE WATER TEMPERATURE DISPLAYS, SET BOTH THERMOSTATS.
 - C. X Y Z
 - a. X = POOL
Y = COMMON
Z = SPA
 - b. WITH HEATER DISPLAYING WATER TEMPERATURE, PRESS THE UP & DOWN ARROW AT THE SAME TIME UNTIL CF1 APPEARS
 - c. PRESS THE POOL/SPA KEY UNTIL LOC APPEARS; PRESS THE UP ARROW UNTIL 50 APPEARS.
 - d. PRESS THE POOL SPA KEY UNTIL JAO DISPLAYS; PRESS THE UP ARROW UNTIL 3 DISPLAYS.
 - e. SET POOL AND SPA TO DESIRED SET POINTS

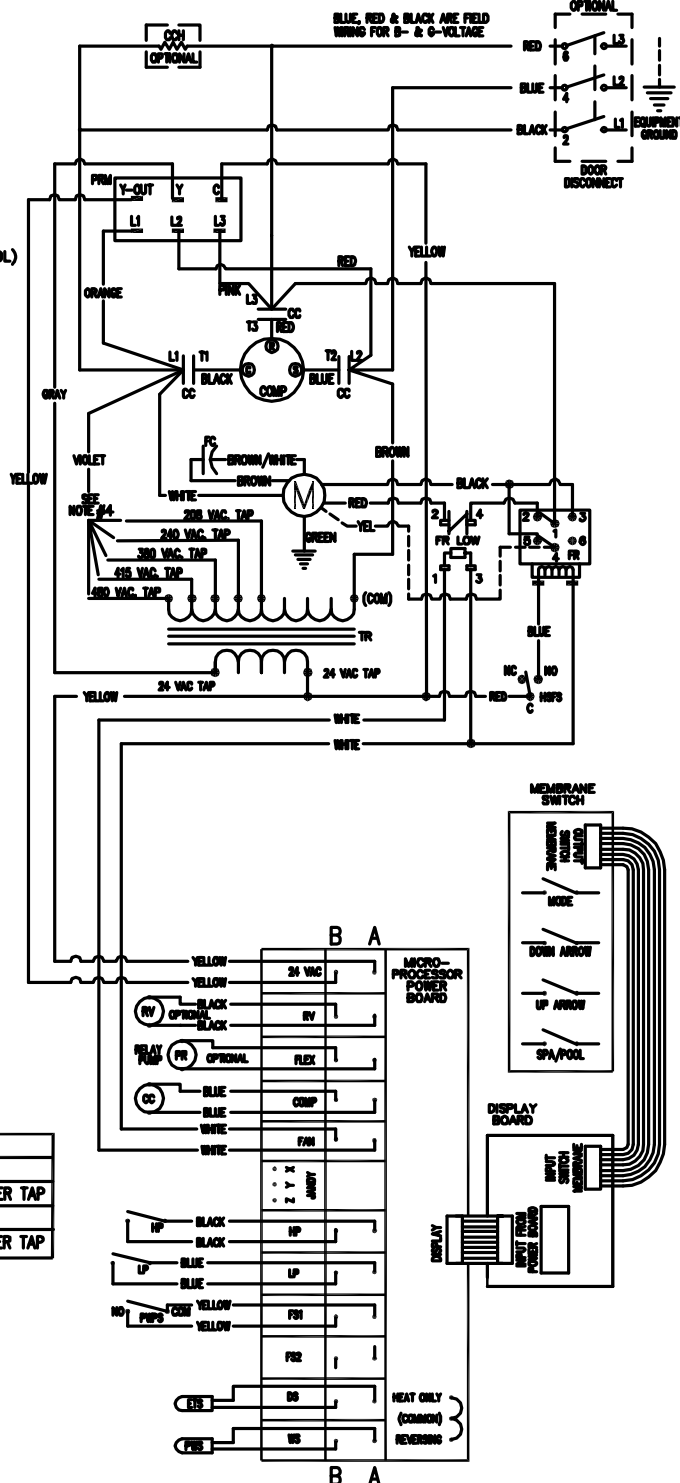
CALL-FLEX PUMP STARTER CONNECTIONS



VOLTAGE CODES	
CODE	DESCRIPTION
B	208-230 VAC, 60 Hz, 3Φ-USE 240 OR 208 VAC TRANSFORMER TAP
G	460 VAC, 60 Hz, 3Φ-USE 480 VAC TRANSFORMER TAP
D	380-415 VAC, 50 Hz, 3Φ-USE 380 OR 415 VAC TRANSFORMER TAP

LEGEND	
—	FACTORY WIRING
---	FIELD WIRING
CC	COMPRESSOR CONTACTOR
COMP	COMPRESSOR MOTOR
ETS	EVAPORATOR TEMPERATURE SENSOR
FC	FAN CAP
FR	FAN MOTOR RELAY
FR LOW	FAN MOTOR RELAY, LOW SPEED
HP	HIGH PRESSURE SWITCH (REFRIGERANT)
LP	LOW PRESSURE SWITCH (REFRIGERANT)
M	FAN MOTOR
PR	PUMP RELAY
PRM	PHASE ROTATION MONITOR
PWPS	POOL WATER PRESSURE SWITCH
PWS	POOL WATER TEMPERATURE SENSOR
RV	REVERSING VALVE
TR	TRANSFORMER
CCH	CRANK CASE HEATER
HSF	HIGH SPEED FAN SWITCH

REVISIONS				
REV.	PCA# / DESCRIPTION	DATE	CHG	ENG
REL-A	INITIAL RELEASE	04/15/14	SCF	SCF
REL-B	UPDATE PER BOM-4630	04/21/14	SCF	SCF
REL-C	UPDATE PER BOM-4741	09/22/14	SCF	SCF
REL-D	MADE YELLOW FAN WIRE OPTIONAL	02/17/15	JH	JH



CAD GENERATED DRAWING.
DO NOT MANUALLY CHANGE



The Innovative Leader in
Pool & Spa Water
Conditioning Equipment
2737 24th St. No.
St. Petersburg, FL 33713

AUTOPILOT SYSTEMS
INC.
SALT CHLORINE GENERATORS

UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:

DECIMALS ANGLES
tbd tbd

MATERIAL
FINISH

DO NOT SCALE DRAWING

DESCRIPTION
HP7R, 3-PH W/2SP FAN

MODELED BY:—
DATE:—

INFORMATION CONTAINED IN THIS
DRAWING IS THE SOLE PROPERTY OF
AQUACAL AUTOPILOT, INC. ANY
REPRODUCTION IN PART OR WHOLE
WITHOUT WRITTEN PERMISSION OF
AQUACAL AUTOPILOT, INC. IS PROHIBITED.

SCALE DWG SIZE
1:1 A

DRAWN BY: SCF
DATE: 04/15/14
PROJECT ENG: SCF
CHK'D BY: JH

DWG. NO. LTM0619
SCALE DWG SIZE
1:1 A

CAD FILE: LTM0619
SHEET 1 OF 1

