

The TWS Sapphire Digital Thermostat is a replacement for the older Tempwise 2000 (TW Series) digital thermostat. With all of the features of the new Sapphire thermostat it allows you to replace the older control without having to cut new holes in your cabinetry. Installation is easy!

- Sapphire Blue LED display
- Temperature sensing from the faceplate or remote sensor
- Largest fan and compressor circuit rating in the business.
- User friendly programming
- Unique fuse protection for circuits.

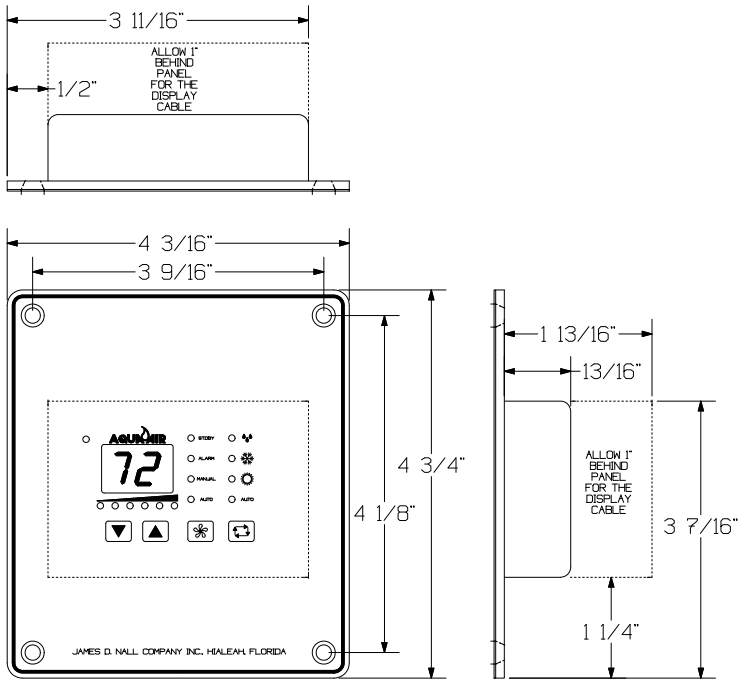


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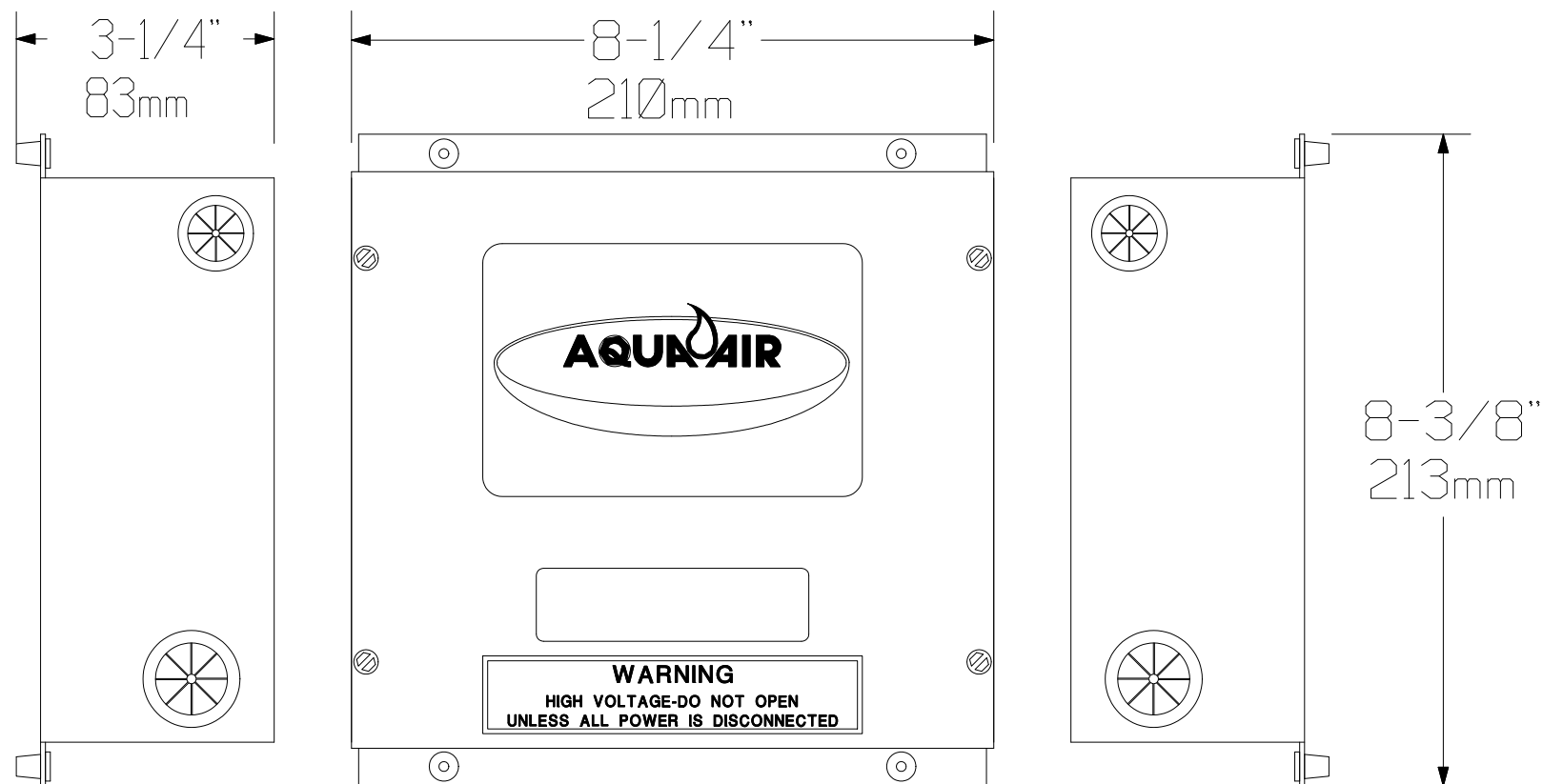
## *Tempwise Sapphire Features*

- Highest fan circuit rating in the industry...12 AMPS !!
- Will control up to four Aqua Air 16KBTUH fan coils
- Sapphire Blue LED's with brightness control
- Dual voltage 115/230 capability
- Display cables are 50% smaller in diameter than the competitions making routing a snap
- Field replaceable fuse protection
- Modular plug connection for high and low pressure switches
- Uses less bulky 4 pin plugs for the display cable instead of the competitions 8
- Continuous room temperature display with one touch set point temperature display or change
- Maintains room temperature to within 2 degrees of set point
- Remote temperature sensing bulb or faceplate air temperature sensor can be used
- Fahrenheit or Centigrade temperature display
- Automatic or six manually selected fan speeds
- High speed and low speed fan limit settings
- LED bar graph visually indicates fan speed
- Fan can be set to run continuous or to cycle on and off as the room reaches the set point
- De-humidification mode controls room temperature and humidity level
- Non-volatile EEPROM memory. Controller will not lose settings in memory due to power interruptions

# TWS THERMOSTAT DIMENSIONS



## CONTROL MODULE

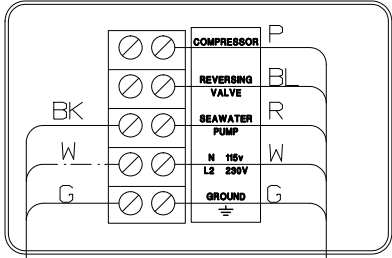


| FUSES         |       |
|---------------|-------|
| FAN (F2)      | 25A   |
| TX-PRIM. (F1) | 500mA |
| TX-SEC. (F3)  | 500mA |

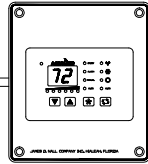
TWS-01  
DISPLAY HEAD  
with INTERNAL AIR SENSOR

MAXIMUM CIRCUIT RATINGS  
REVERSING VALVE 1/4A  
FAN MOTOR 12A  
COMPRESSOR 20A

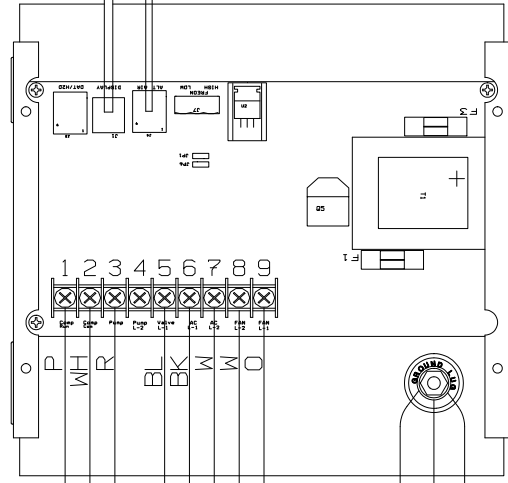
KH, KHL SERIES  
CONDENSING UNIT  
VOLTAGE SAME AS SYSTEM INPUT



TWSDC-15 DISPLAY CABLE



ALTERNATE AIR SENSOR  
TW2-SENSOR-07

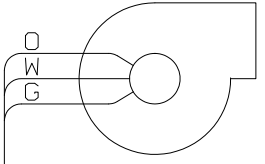


TWS  
DIGITAL  
THERMOSTAT

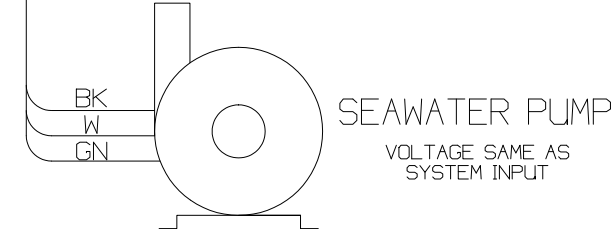
TERMINAL BLOCK CONNECTIONS

1. COMPRESSOR L1
2. COMPRESSOR L2
3. PUMP L1
4. PUMP L2 / REV. VALVE
5. REV. VALVE L1
6. POWER INPUT L1
7. POWER INPUT L2 or N
8. FAN L2
9. FAN L1

NOTE: ALL L2's ARE COMMON  
TO EACH OTHER

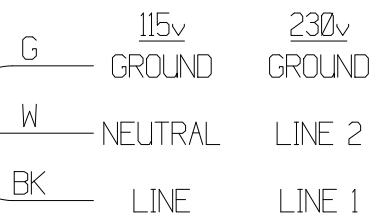


FAN COIL UNIT  
VOLTAGE SAME  
AS SYSTEM  
VOLTAGE



SEAWATER PUMP  
VOLTAGE SAME AS  
SYSTEM INPUT

SYSTEM VOLTAGE



CONNECT TO SHIP'S  
CIRCUIT BREAKER PANEL  
TO PROPERLY SIZED  
CIRCUIT BREAKER

|  |          |  |          |
|--|----------|--|----------|
| <b>AQUA-AIR</b>  |          | <b>MARINE AIR CONDITIONING SYSTEMS</b> |          |
| TWS w/ KH, KHL COND. UNIT, SINGLE FAN COIL AND PUMP 115-1-60 |          |  |          |
| DRAWING NUMBER   | 4012-30B | DRAWN BY                               | DN       |
| SCALE  | NONE     | DATE                                   | 06-08-09 |
| APPROVED BY  |          | REVISION DATE                          |          |
|  |          | REV                                    | A        |