# Manual S Compliance Report

*Zone 1 AH*

**Jerico Aire**

**Job:** 1
**Date:** Dec 05, 2020
**By:**

Nassau,Bahamas, Nassau, NP Phone: 000-0000

## Project Information

For: Customer
Nassau,Bahamas, Nassau, NP SS0000
Phone: 000-00000

## Cooling Equipment

### Design Conditions

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Outdoor design DB: | 91.4°F | Sensible gain: | 41358 | Btuh | Entering coil DB: | 77.2°F |
| Outdoor design WB: | 79.1°F | Latent gain: | 7637 | Btuh | Entering coil WB: | 63.7°F |
| Indoor design DB: | 75.0°F | Total gain: | 48995 | Btuh | | |
| Indoor RH: | 50% | Estimated airflow: | 1675 | cfm | | |

### Manufacturer's Performance Data at Actual Design Conditions

| | | | | | |
|---|---|---|---|---|---|
| Equipment type: | Split AC | | | | |
| Manufacturer: | Daikin | | Model: | DX16SA0601A+ASPT61D14A | |
| Actual airflow: | 1675 | cfm | | | |
| Sensible capacity: | 44601 | Btuh | 108% of load | | |
| Latent capacity: | 8774 | Btuh | 115% of load | | |
| Total capacity: | 53376 | Btuh | 109% of load | SHR: | 84% |

## Heating Equipment

### Design Conditions

| | | | | | | |
|---|---|---|---|---|---|---|
| Outdoor design DB: | 61.2°F | Heat loss: | 0 | Btuh | Entering coil DB: | 70.0°F |
| Indoor design DB: | 70.0°F | | | | | |

### Manufacturer's Performance Data at Actual Design Conditions

| | | | | | |
|---|---|---|---|---|---|
| Equipment type: | Gas furnace | | | | |
| Manufacturer: | | | Model: | | |
| Actual airflow: | 1675 | cfm | | | |
| Output capacity: | 0 | Btuh | 0% of load | Temp. rise: | 0 °F |

Meets all requirements of ACCA Manual S.

# DHW Report

*Zone 1 AH*

**Jerico Aire**

**Job:** 1
**Date:** Dec 05, 2020
**By:**

Nassau,Bahamas, Nassau, NP Phone: 000-0000

## Project Information

For: Customer
Nassau,Bahamas, Nassau, NP SS0000
Phone: 000-00000

## Design Criteria

Occupants

| Age | Number |
|---|---|
| 0-5 | 0 |
| 6-13 | 2 |
| 14-59 | 2 |
| 60+ | 0 |

| | |
|---|---|
| Not occupied during the day | |
| Dishwasher | |
| Clothes washer | |
| Additional use (gpd) | 0 |
| Setpoint (°F) | 120 |
| Daily use (gpd) | 61 |

## Gas conventional (40 gal, 0.60 EF)

| | |
|---|---|
| Manufacturer | |
| Trade name | |
| Model | |
| AHRI ref. number | |
| Tank size (gal) | 40 |
| Energy factor | 0.60 |
| Input (MBtuh) | 0.0 |
| 1st hour (gal) | 60 |
| Recovery eff. (%) | 77 |

# Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts)

**Form RPER 1 15 Mar 09**

Header Information

Contractor: Jerico Aire

Mechanical license:

Building plan #:

Home address (Street or Lot#, Block, Subdivision): Nassau,Bahamas, Zone 1 AH

| REQUIRED ATTACHMENTS | ATTACHED |
|---|---|
| Manual J1 Form (and supporting worksheets): | Yes ☐ No ☐ |
| or MJ1AE Form* (and supporting worksheets): | Yes ☐ No ☐ |
| OEM performance data (heating, cooling, blower): | Yes ☐ No ☐ |
| Manual D Friction Rate Worksheet: | Yes ☐ No ☐ |
| Duct distribution sketch: | Yes ☐ No ☐ |

## HVAC LOAD CALCULATION (IRC M1401.3)

### Design Conditions

**Winter Design Conditions**

| | | |
|---|---|---|
| Outdoor temperature: | 61 | °F |
| Indoor temperature: | 70 | °F |
| Total heat loss: | 0 | Btuh |

**Summer Design Conditions**

| | | |
|---|---|---|
| Outdoor temperature: | 91 | °F |
| Indoor temperature: | 75 | °F |
| Grains difference: | 66 gr/lb @ 50% RH | |
| Sensible heat gain: | 41358 | Btuh |
| Latent heat gain: | 7637 | Btuh |
| Total heat gain: | 48995 | Btuh |

### Building Construction Information

**Building**

Orientation: Building Front faces East
North, East, West, South, Northeast, Northwest, Southeast, Southwest

| | | |
|---|---|---|
| Number of bedrooms: | 0 | |
| Conditioned floor area: | 1269 | ft² |
| Number of occupants: | 15 | |

**Windows**

| | | |
|---|---|---|
| Eave overhang depth: | 12.0 | ft |
| Internal shade: (Blinds, drapes, etc.) | none | |
| Number of skylights: | 0 | |


## HVAC EQUIPMENT SELECTION (IRC M1401.3)

### Heating Equipment Data

Equipment type: Gas furnace
Furnace, Heat pump, Boiler, etc.

Model:

Heating output capacity: 0 Btuh
Heat pumps - capacity at winter design outdoor conditions

Aux. heating output capacity: 0 Btuh

### Cooling Equipment Data

Equipment type: Split AC
Air Conditioner, Heat pump, etc.

Model: Daikin DX16SA0601A+ASPT61D14A

| | | |
|---|---|---|
| Total cooling capacity: | 53376 | Btuh |
| Sensible cooling capacity: | 44601 | Btuh |
| Latent cooling capacity: | 8774 | Btuh |

### Blower Data

| | | |
|---|---|---|
| Heating cfm: | 1675 | |
| Cooling cfm: | 1675 | |
| Static pressure: | 0.50 | in H2O |

Fan's rated external static pressure for design airflow

## HVAC DUCT DISTRIBUTION SYSTEM DESIGN (IRC M1601.1)

| | | |
|---|---|---|
| Design airflow: | 1675 | cfm |
| Equipment design ESP: | 0.50 | in H2O |
| Total device pressure losses: | -0.3 | in H2O |
| **Available static pressure (ASP):** | 0.24 | in H2O |

| | | |
|---|---|---|
| Longest supply duct: | 239 | ft |
| Longest return duct: | 129 | ft |
| **Total effective length (TEL):** | 368 | ft |
| **Friction rate:** | 0.065 | in/100ft |

Friction Rate = ASP ÷ (TEL x 100)

Duct Materials Used

Trunk duct: Fiberglass board

Branch duct: Round flex vinyl, Fiberglass board

I declare the load calculation, equipment, equipment selection and duct design were rigorously performed based on the building plan listed above. I understand the claims made on these forms will be subject to review and verification.

Contractor's printed name: _____

Contractor's signature: _____ Date: _____

Reserved for County, Town Municipality or Authority having jurisdiction use.

*Home qualifies for MJ1AE Form based on Abridged Edition Checklist