Johnson Controls

# TRANSMITTAL LETTER

TO: Rick Jones
City od Dover, NH

DATE: June 17, 2010
FROM:
PROJECT:
PROJECT #:

**We are sending you:** ☐ **Enclosed/Attached** ☐ **Under Separate Cover**

- ☐ Shop Drawings
- ☐ Plans
- ☐ Specifications
- ☐ Damper Schedules
- ☐ Valve Schedules
- ☐ Product Data Sheets
- ☐ Copy of Letter
- ☐ Samples
- ☐ Room Schedules
- ☐ Door Schedules
- ☐ Copy of Letter
- ☒ Submittals
- ☐ Operations & Maint. Manuals
- ☐ Device Schedules
- ☐

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- ☐ per your request.
- ☒ for your review and approval.
- ☐ for your review and comment.
- ☐ for your record purposes
- ☐ approved as submitted.
- ☐ approved as noted.
- ☐ for correction & resubmittal.
- ☐ for issue to subcontractors.

| Information Sent | # of Copies | Date Above Action Required By | Comments |
|---|---|---|---|
| 1. AC Equipment: | 1 | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |

**Message/Comments:**
sent via email

Delivered by: Aaron Alibrio — Date: 6/17/10
Received by: — Date:

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# *AIR CONDITIONING PROPOSAL SHEET*

06/15/2010

## LGE

76, Seongsan-dong, Changwon City, Gyeongnam, 641-731, Korea

Prepared by :

ver 2.10.4.12

# AIR CONDITIONING PROPOSAL

| | |
|---|---|
| SUBMITTED TO<br>jci | DATE<br>06/15/2010 |
| ADDRESS<br>Manchester, NH | SALES ENGINEER |
| PHONE | E-MAIL |
| E-MAIL | PHONE |
| COMPLETION DATE | Valid for 30 days from above date |

## Costs

| | |
|---|---|
| Equipments and Accessories | |
| The rest of materials | |
| Labor | |
| Total | |

Note :

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# *Building - Load Output*

1. Project Name :JCI Dover Project

2. Date :06/15/2010

3. Location :Nation(Manchester, United States), Long(-), Lat(43.0), Elev(252ft)

4. Design conditions

| | | Cooling | Heating |
|---|---|---|---|
| Outdoor | DB Temp[F] | 91.0 | -8.0 |
| | WB Temp[F] | 72.0 | -8.3 |
| | RH[%] | 40 | 86 |
| Indoor | DB Temp[F] | 80.6 | 68.0 |
| | WB Temp[F] | 67.1 | 56.8 |
| | RH[%] | 50 | 50 |

5. Cooling and Heating Loads

| FloorName | RoomName | Cooling load[kBtu/h] | | Heating load[kBtu/h] |
|---|---|---|---|---|
| | | Total | Sensible | |
| Floor001 | SS-1 | 18000.00 | 0.00 | 0.00 |
| Floor001 | SS-2 | 7000.00 | 0.00 | 0.00 |
| Floor001 | SS-3 | 7000.00 | 0.00 | 0.00 |
| Floor001 | SS-4 | 18000.00 | 0.00 | 0.00 |
| Floor001 | SS-5 | 12000.00 | 0.00 | 0.00 |
| Floor001 | SS-6 | 7000.00 | 0.00 | 0.00 |
| Floor001 | SS-7 | 7000.00 | 0.00 | 0.00 |
| Floor001 | SS-8 | 7000.00 | 0.00 | 0.00 |
| Floor001 | SS-9 | 7000.00 | 0.00 | 0.00 |
| Floor001 | SS-10 | 9000.00 | 0.00 | 0.00 |
| Floor001 | SS-11 | 18000.00 | 0.00 | 0.00 |
| Floor001 | SS-12 | 7000.00 | 0.00 | 0.00 |
| Floor001 | SS-13 | 18000.00 | 0.00 | 0.00 |

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# *Building - Load Output*

5. Cooling and Heating Loads

| FloorName | RoomName | Cooling load[kBtu/h] | | Heating load[kBtu/h] |
|---|---|---|---|---|
| | | Total | Sensible | |
| Floor001 | SS-14 | 12000.00 | 0.00 | 0.00 |
| Floor001 | SS-15 | 7000.00 | 0.00 | 0.00 |
| Floor001 | SS-16 | 7000.00 | 0.00 | 0.00 |
| Floor001 | SS-17 | 12000.00 | 0.00 | 0.00 |
| Floor001 | SS-18 | 9000.00 | 0.00 | 0.00 |
| Floor001 | SS-19 | 9000.00 | 0.00 | 0.00 |
| Floor001 | SS-20 | 18000.00 | 0.00 | 0.00 |
| Floor002 | SS-21 | 24000.00 | 0.00 | 0.00 |
| Floor002 | SS-22 | 24000.00 | 0.00 | 0.00 |
| Floor002 | SS-23 | 7000.00 | 0.00 | 0.00 |

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# *Model Selection - Summary*

**Project Name :JCI Dover Project**

## 1. Outdoor Units

| Model Name | Quantity | Description |
|---|---|---|
| ARUN038GS2 | 5 | 38Mbh/60Hz/R410A/Heat Pump/MINI/N.America |
| ARUN048GS2 | 2 | 48Mbh/60Hz/R410A/Heat Pump/MINI/N.America |
| | | |
| | | |
| Total | 7 | |

## 2. Indoor Units

| Model Name | Quantity | Description |
|---|---|---|
| ARNU183S5L2 | 5 | Wall Mounted(18MBh) |
| ARNU123SEL2 | 4 | Wall Mounted(12MBh) |
| ARNU093SEL2 | 5 | Wall Mounted(9MBh) |
| ARNU073SEL2 | 5 | Wall Mounted(7MBh) |
| ARNU243TPC2 | 2 | Ceiling Cassette - 4Way(24MBh) |
| ARNU073TEC2 | 1 | Ceiling Cassette - 4Way(7MBh) |
| | | |
| | | |
| | | |
| | | |
| Total | 22 | |

## 3. Pipes

| Index | Dia(Liq:Gas,in) | Length(ft) |
|---|---|---|
| P1 | 3/8 : 5/8 | 203.2 |
| P0 | 1/4 : 1/2 | 190.8 |
| | | |
| | | |

## 4. Branch/Header/Common pipe

| Model Name | Quantity |
|---|---|
| ARBLN01621 | 16 |
| | |
| | |
| | |

## 5. Accessories

| Index | Model Name | Quantit | Description |
|---|---|---|---|
| IDU | PQRCUCS0C | 22 | Simple wired remote controller(normal) for |
| IDU | PT-UMC | 2 | 24~48KBh Standard Grill-4way Cassette |
| IDU | PT-HEC1 | 1 | 7~18KBh Standard Grill-4Way Cassette |

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# Model Selection - System 1A

Project Name :JCI Dover Project 06/15/2010

System No :1/7

## 1. Design conditions

| Summer | | | | | Winter | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Indoor | | | Outdoor | | Indoor | | | Outdoor | |
| DB(F) | WB(F) | RH(%) | DB(F) | WB(F) | DB(F) | WB(F) | RH(%) | DB(F) | WB(F) |
| 80.6 | 67.1 | 50 | 91.0 | 72.0 | 68.0 | 56.8 | 50 | -8.0 | -8.3 |

## 2. Outdoor

| Model Name | Max indoor unit Connectivity | Max total over load(kBtu/h/%) | Indoors/Outdoor Ratio | Product charge(lbs) | Add. Ref. Amount(lbs) |
|---|---|---|---|---|---|
| ARUN038GS2 | 6 | 49.9(130%) | 0.82:1 | 8.16 | 0.00 |

| Rated Capa/Corrected Capa(kBtu/h) | | Rated Power Input/Corrected Power Input(kW) | |
|---|---|---|---|
| Cooling | Heating | Cooling | Heating |
| 38.2/32.4 | 42.7/25.6 | 2.9/2.1 | 3.1/3.3 |

## 3. Pipes

| Index | Dia(Liq:Gas,in) | Length(ft) |
|---|---|---|
| P1 | 3/8 : 5/8 | 18.0 |
| P0 | 1/4 : 1/2 | 12.0 |

## 4. Branch/Header/Common pipe

| Model Name | Quantity |
|---|---|
| ARBLN01621 | 1 |

#Notes : Correction factor compensates Indoor unit Combination, Temperature, Pipe Length Effect etc,

The result can be slightly different from product data book due to simulation.

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# Model Selection - System 1A

**Project Name :JCI Dover Project** **06/15/2010**

**System No :1/7**

## 5. Indoors

| Room | Room Load(kBtu/h) | | | Model Name | Type | Rated TC/Corrected TC(kBtu/h) | | | Capacity Ratio(%) | | | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cooling Total | Cooling Sensible | Heating | | | Cooling Total | Cooling Sensible | Heating | Cooling Total | Cooling Sensible | Heating | |
| Floor001/SS-d | 18000 | 0 | 0.0 | ARNU183S5L2 | WALL_MOUNTED | 19.1/19.7 | 13.4/14.0 | 21.5/15.6 | 0.1 | 0 | 0.0 | NA |
| Floor001/SS-5 | 12000 | 0 | 0.0 | ARNU123SEL2 | WALL_MOUNTED | 12.3/12.7 | 8.6/9.0 | 13.6/10.0 | 0.1 | 0 | 0.0 | NA |

#Notes : Correction factor compensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

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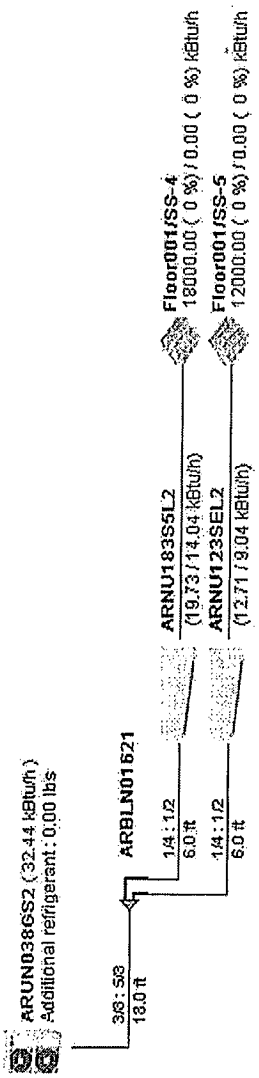
# *Model Selection - System 1A*

System No :1/7 06/15/2010



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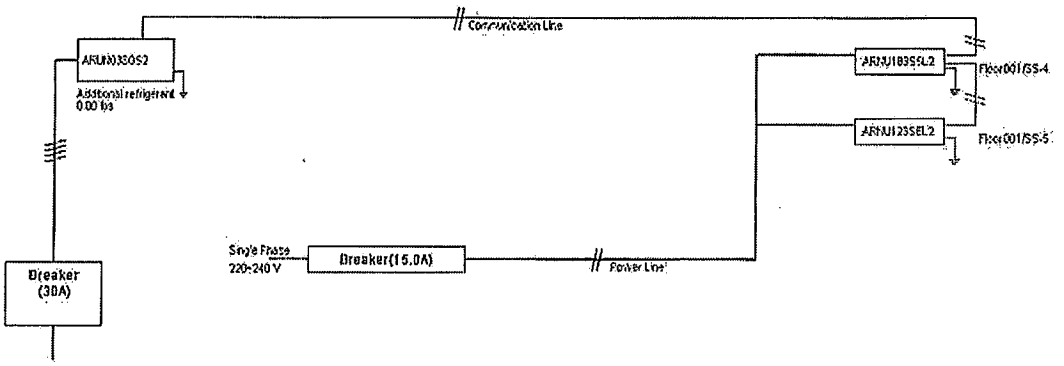
# *Model Selection - System 1A*

**System No :1/7** **06/15/2010**



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# Model Selection - System 1B

**Project Name :JCI Dover Project** **06/15/2010**

**System No :2/7**

## 1. Design conditions

| Summer | | | | | Winter | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Indoor | | | Outdoor | | Indoor | | | Outdoor | |
| DB(F) | WB(F) | RH(%) | DB(F) | WB(F) | DB(F) | WB(F) | RH(%) | DB(F) | WB(F) |
| 80.6 | 67.1 | 50 | 91.0 | 72.0 | 68.0 | 56.8 | 50 | -8.0 | -8.3 |

## 2. Outdoor

| Model Name | Max indoor unit Connectivity | Max total over load(kBtu/h/%) | Indoors/Outdoor Ratio | Product charge(lbs) | Add. Ref. Amount(lbs) |
|---|---|---|---|---|---|
| ARUN038GS2 | 6 | 49.9(130%) | 1.00:1 | 8.16 | 0.00 |

| Rated Capa/Corrected Capa(kBtu/h) | | Rated Power Input/Corrected Power Input(kW) | |
|---|---|---|---|
| Cooling | Heating | Cooling | Heating |
| 38.2/39.4 | 42.7/26.6 | 2.9/2.9 | 3.1/3.1 |

## 3. Pipes

| Index | Dia(Liq:Gas,in) | Length(ft) |
|---|---|---|
| P1 | 3/8 : 5/8 | 29.4 |
| P0 | 1/4 : 1/2 | 29.4 |

## 4. Branch/Header/Common pipe

| Model Name | Quantity |
|---|---|
| ARBLN01621 | 3 |

#Notes : Correction factor compensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

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# *Model Selection - System 1B*

**Project Name :JCI Dover Project** **06/15/2010**

**System No :2/7**

## 5. Indoors

| Room | Room Load(kBtu/h) | | | Model Name | Type | Rated TC/Corrected TC(kBtu/h) | | | Capacity Ratio(%) | | | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cooling Total | Cooling Sensible | Heating | | | Cooling Total | Cooling Sensible | Heating | Cooling Total | Cooling Sensible | Heating | |
| Floor001/SS.3 | 7000 | 0 | 0.0 | ARNU093SEL2 | WALL_MOUNTED | 9.6/9.9 | 6.7/6.8 | 10.9/6.8 | 0.1 | 0 | 0.0 | NA |
| Floor001/SS.2 | 7000 | 0 | 0.0 | ARNU093SEL2 | WALL_MOUNTED | 9.6/9.9 | 6.7/6.8 | 10.9/6.8 | 0.1 | 0 | 0.0 | NA |
| Floor001/SS.1 | 18000 | 0 | 0.0 | ARNU183S5L2 | WALL_MOUNTED | 19.1/19.7 | 13.4/13.9 | 21.5/13.4 | 0.1 | 0 | 0.0 | NA |

#Notes : Correction factor conpensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

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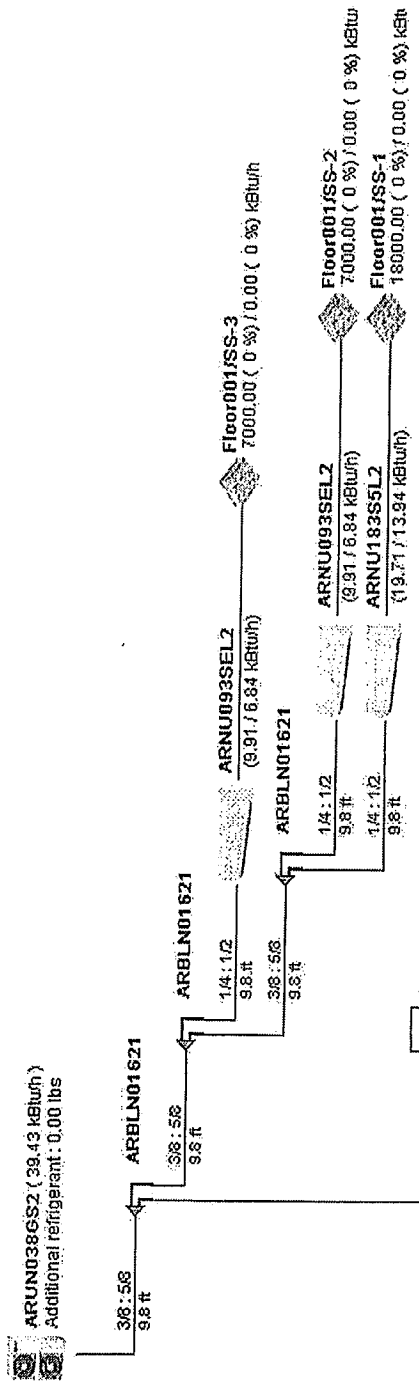
# *Model Selection - System 1B*

**System No :2/7** **06/15/2010**



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Model Selection - Diagram

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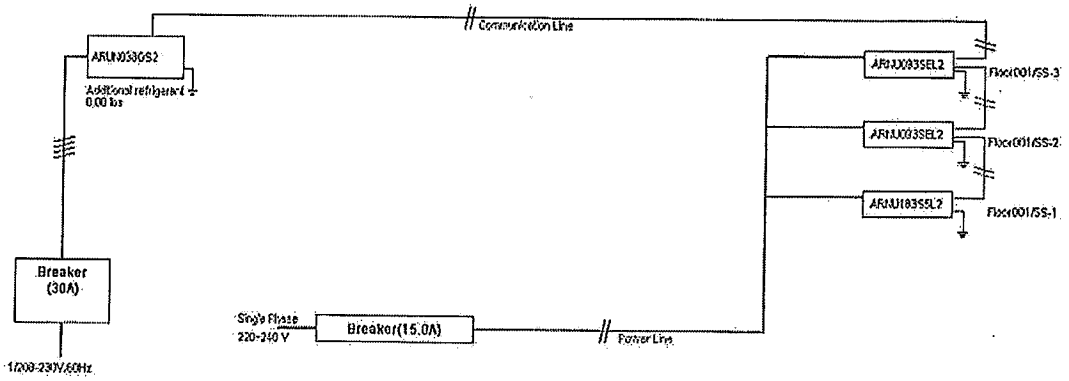
# *Model Selection - System 1B*

**System No :2/7**

**06/15/2010**



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# Model Selection - System 2A

**Project Name :JCI Dover Project** **06/15/2010**

**System No :3/7**

## 1. Design conditions

| Summer | | | | | Winter | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Indoor | | | Outdoor | | Indoor | | | Outdoor | |
| DB(F) | WB(F) | RH(%) | DB(F) | WB(F) | DB(F) | WB(F) | RH(%) | DB(F) | WB(F) |
| 80.6 | 67.1 | 50 | 91.0 | 72.0 | 68.0 | 56.8 | 50 | -8.0 | -8.3 |

## 2. Outdoor

| Model Name | Max indoor unit Connectivity | Max total over load(kBtu/h/%) | Indoors/Outdoor Ratio | Product charge(lbs) | Add. Ref. Amount(lbs) |
|---|---|---|---|---|---|
| ARUN038GS2 | 6 | 49.9(130%) | 0.97:1 | 8.16 | 0.00 |

| Rated Capa/Corrected Capa(kBtu/h) | | Rated Power Input/Corrected Power Input(kW) | |
|---|---|---|---|
| Cooling | Heating | Cooling | Heating |
| 38.2/39.4 | 42.7/26.6 | 2.9/2.9 | 3.1/3.1 |

## 3. Pipes

| Index | Dia(Liq:Gas,in) | Length(ft) |
|---|---|---|
| P1 | 3/8 : 5/8 | 19.6 |
| P0 | 1/4 : 1/2 | 49.0 |

## 4. Branch/Header/Common pipe

| Model Name | Quantity |
|---|---|
| ARBLN01621 | 3 |

#Notes : Correction factor compensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

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# Model Selection - System 2A

**Project Name :JCI Dover Project** **06/15/2010**

**System No :3/7**

## 5. Indoors

| Room | Room Load(kBtu/h) | | | Model Name | Type | Rated TC/Corrected TC(kBtu/h) | | | Capacity Ratio(%) | | | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cooling Total | Cooling Sensible | Heating | | | Cooling Total | Cooling Sensible | Heating | Cooling Total | Cooling Sensible | Heating | |
| Floor001/SS-7 | 7000 | 0 | 0.0 | ARNU073SEL2 | WALL_MOUNTED | 7.5/7.7 | 5.3/5.3 | 8.5/5.3 | 0.1 | 0 | 0.0 | NA |
| Floor001/SS-8 | 7000 | 0 | 0.0 | ARNU073SEL2 | WALL_MOUNTED | 7.5/7.7 | 5.3/5.3 | 8.5/5.3 | 0.1 | 0 | 0.0 | NA |
| Floor001/SS-9 | 7000 | 0 | 0.0 | ARNU093SEL2 | WALL_MOUNTED | 9.6/9.9 | 6.7/6.8 | 10.9/6.8 | 0.1 | 0 | 0.0 | NA |
| Floor001/SS-10 | 9000 | 0 | 0.0 | ARNU123SEL2 | WALL_MOUNTED | 12.3/12.7 | 8.6/9.1 | 13.6/8.5 | 0.1 | 0 | 0.0 | NA |

#Notes : Correction factor compensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

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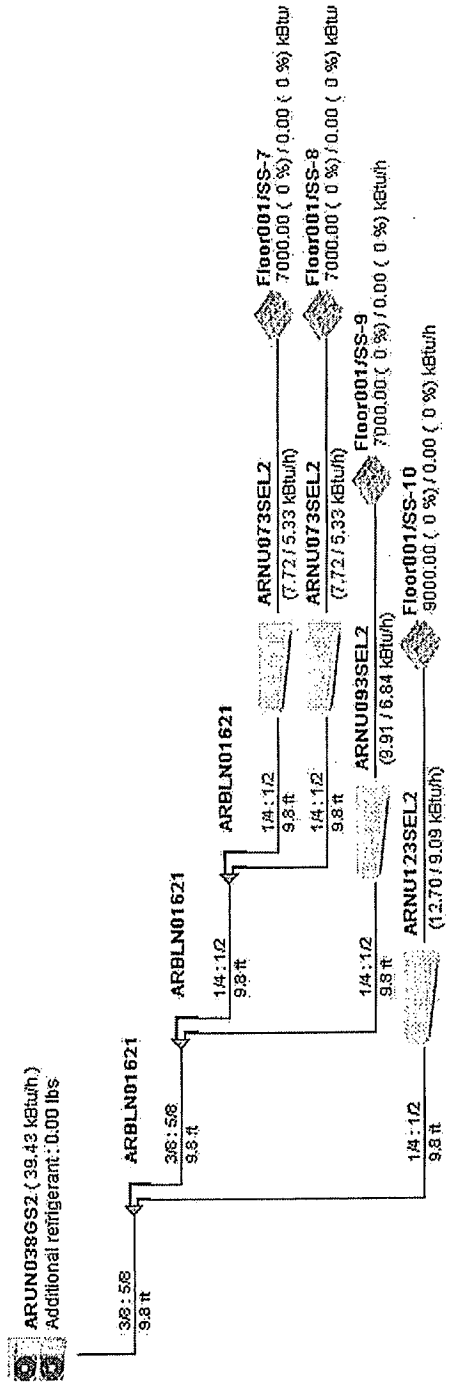
# *Model Selection - System 2A*

**System No :3/7** **06/15/2010**



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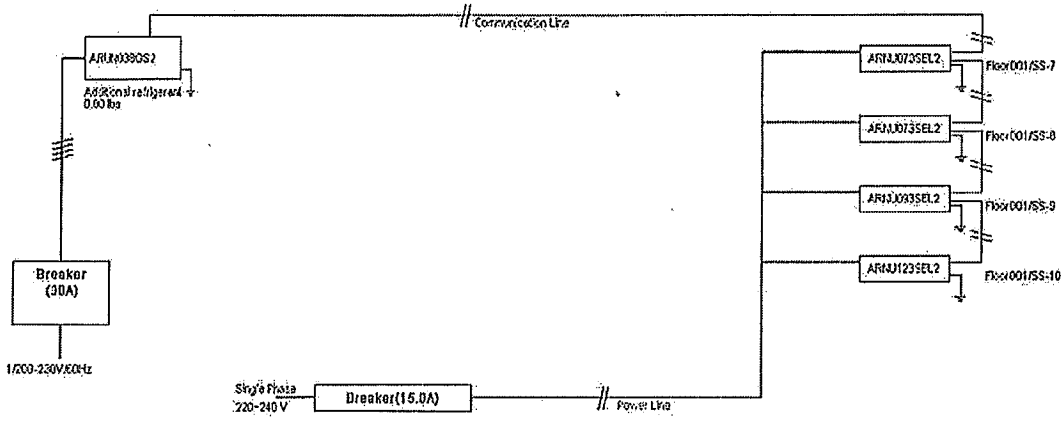
# *Model Selection - System 2A*

**System No :3/7** **06/15/2010**



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# Model Selection - System 2B

**Project Name :JCI Dover Project** **06/15/2010**

**System No :4/7**

## 1. Design conditions

| Summer | | | | | Winter | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Indoor | | | Outdoor | | Indoor | | | Outdoor | |
| DB(F) | WB(F) | RH(%) | DB(F) | WB(F) | DB(F) | WB(F) | RH(%) | DB(F) | WB(F) |
| 80.6 | 67.1 | 50 | 91.0 | 72.0 | 68.0 | 56.8 | 50 | -8.0 | -8.3 |

## 2. Outdoor

| Model Name | Max indoor unit Connectivity | Max total over load(kBtu/h/%) | Indoors/Outdoor Ratio | Product charge(lbs) | Add. Ref. Amount(lbs) |
|---|---|---|---|---|---|
| ARUN048GS2 | 8 | 62.4(130%) | 0.96:1 | 8.16 | 0.00 |

| Rated Capa/Corrected Capa(kBtu/h) | | Rated Power Input/Corrected Power Input(kW) | |
|---|---|---|---|
| Cooling | Heating | Cooling | Heating |
| 47.8/49.3 | 54.6/34.0 | 3.8/3.8 | 4.0/4.0 |

## 3. Pipes

| Index | Dia(Liq:Gas,in) | Length(ft) |
|---|---|---|
| P1 | 3/8 : 5/8 | 19.6 |
| P0 | 1/4 : 1/2 | 29.4 |

## 4. Branch/Header/Common pipe

| Model Name | Quantity |
|---|---|
| ARBLN01621 | 2 |

#Notes : Correction factor compensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

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# *Model Selection - System 2B*

**Project Name :JCI Dover Project** **06/15/2010**

**System No :4/7**

## 5. Indoors

| Room | Room Load(kBtu/h) | | | Model Name | Type | Rated TC/Corrected TC(kBtu/h) | | | Capacity Ratio(%) | | | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cooling Total | Cooling Sensible | Heating | | | Cooling Total | Cooling Sensible | Heating | Cooling Total | Cooling Sensible | Heating | |
| Room | 0 | 0 | 0.0 | ARNU183S5L2 | WALL_MOUNTED | 19.1/19.7 | 13.4/13.9 | 21.5/13.4 | 0 | 0 | 0.0 | NA |
| Room | 0 | 0 | 0.0 | ARNU073SEL2 | WALL_MOUNTED | 7.5/7.7 | 5.3/5.3 | 8.5/5.3 | 0 | 0 | 0.0 | NA |
| Room | 0 | 0 | 0.0 | ARNU183S5L2 | WALL_MOUNTED | 19.1/19.7 | 13.4/13.9 | 21.5/13.4 | 0 | 0 | 0.0 | NA |

#Notes : Correction factor compensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

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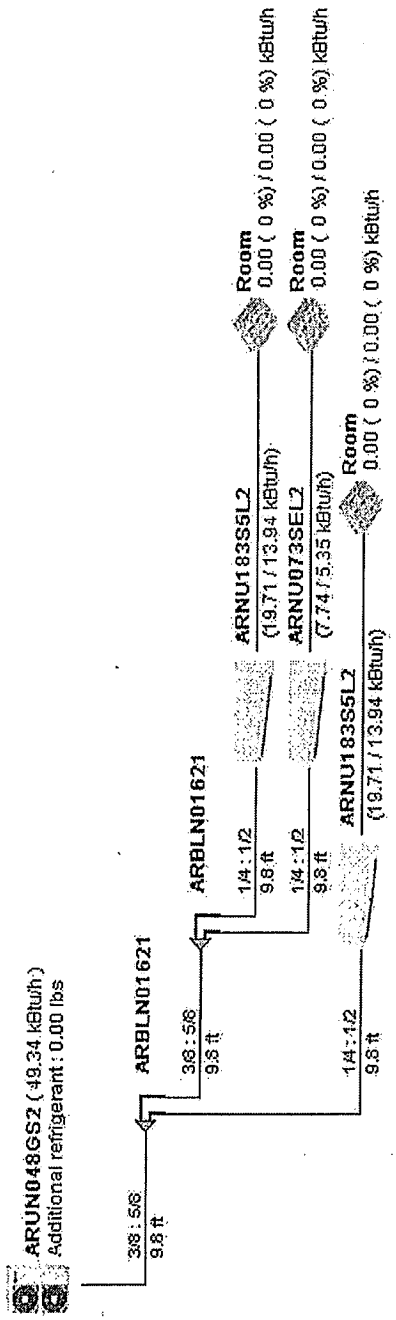
# *Model Selection - System 2B*

**System No :4/7** **06/15/2010**



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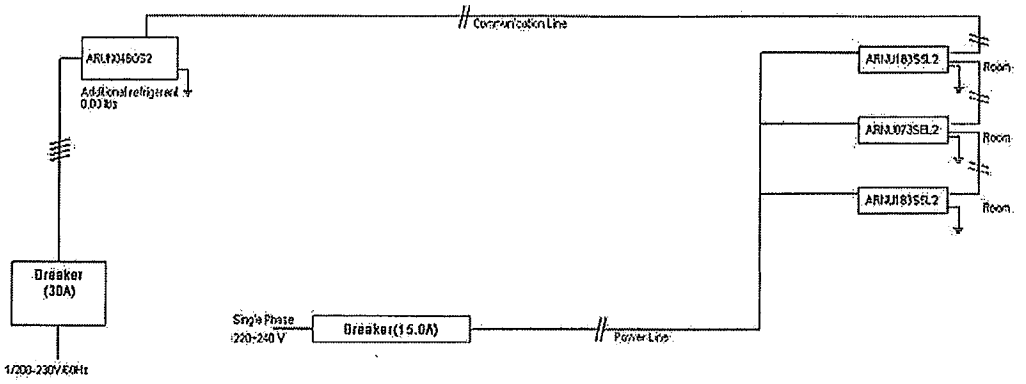
# *Model Selection - System 2B*

System No :4/7 06/15/2010



ver 2.10.4.12

# Model Selection - System 3A

Project Name :JCI Dover Project 06/15/2010

System No :5/7

## 1. Design conditions

| Summer | | | | | Winter | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Indoor | | | Outdoor | | Indoor | | | Outdoor | |
| DB(F) | WB(F) | RH(%) | DB(F) | WB(F) | DB(F) | WB(F) | RH(%) | DB(F) | WB(F) |
| 80.6 | 67.1 | 50 | 91.0 | 72.0 | 68.0 | 56.8 | 50 | -8.0 | -8.3 |

## 2. Outdoor

| Model Name | Max indoor unit Connectivity | Max total over load(kBtu/h/%) | Indoors/Outdoor Ratio | Product charge(lbs) | Add. Ref. Amount(lbs) |
|---|---|---|---|---|---|
| ARUN038GS2 | 6 | 49.9(130%) | 1.04:1 | 8.16 | 3.11 |

| Rated Capa/Corrected Capa(kBtu/h) | | Rated Power Input/Corrected Power Input(kW) | |
|---|---|---|---|
| Cooling | Heating | Cooling | Heating |
| 38.2/40.0 | 42.7/26.6 | 2.9/2.8 | 3.1/3.6 |

## 3. Pipes

| Index | Dia(Liq:Gas,in) | Length(ft) |
|---|---|---|
| P1 | 3/8 : 5/8 | 29.4 |
| P0 | 1/4 : 1/2 | 39.2 |

## 4. Branch/Header/Common pipe

| Model Name | Quantity |
|---|---|
| ARBLN01621 | 3 |

#Notes : Correction factor compensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

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# Model Selection - System 3A

**Project Name :JCI Dover Project** **06/15/2010**

**System No :5/7**

## 5. Indoors

| Room | Room Load(kBtu/h) | | | Model Name | Type | Rated TC/Corrected TC(kBtu/h) | | | Capacity Ratio(%) | | | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cooling Total | Cooling Sensible | Heating | | | Cooling Total | Cooling Sensible | Heating | Cooling Total | Cooling Sensible | Heating | |
| Floor001/SS-14 | 12000 | 0 | 0.0 | ARNU123SEL2 | WALL_MOUNTED | 12.3/12.4 | 8.6/8.8 | 13.6/8.3 | 0.1 | 0 | 0.0 | NA |
| Floor001/SS-15 | 7000 | 0 | 0.0 | ARNU073SEL2 | WALL_MOUNTED | 7.5/7.6 | 5.3/5.4 | 8.5/5.0 | 0.1 | 0 | 0.0 | NA |
| Floor001/SS-16 | 7000 | 0 | 0.0 | ARNU073SEL2 | WALL_MOUNTED | 7.5/7.6 | 5.3/5.4 | 8.5/5.0 | 0.1 | 0 | 0.0 | NA |
| Floor001/SS-17 | 12000 | 0 | 0.0 | ARNU123SEL2 | WALL_MOUNTED | 12.3/12.4 | 8.6/8.8 | 13.6/8.3 | 0.1 | 0 | 0.0 | NA |

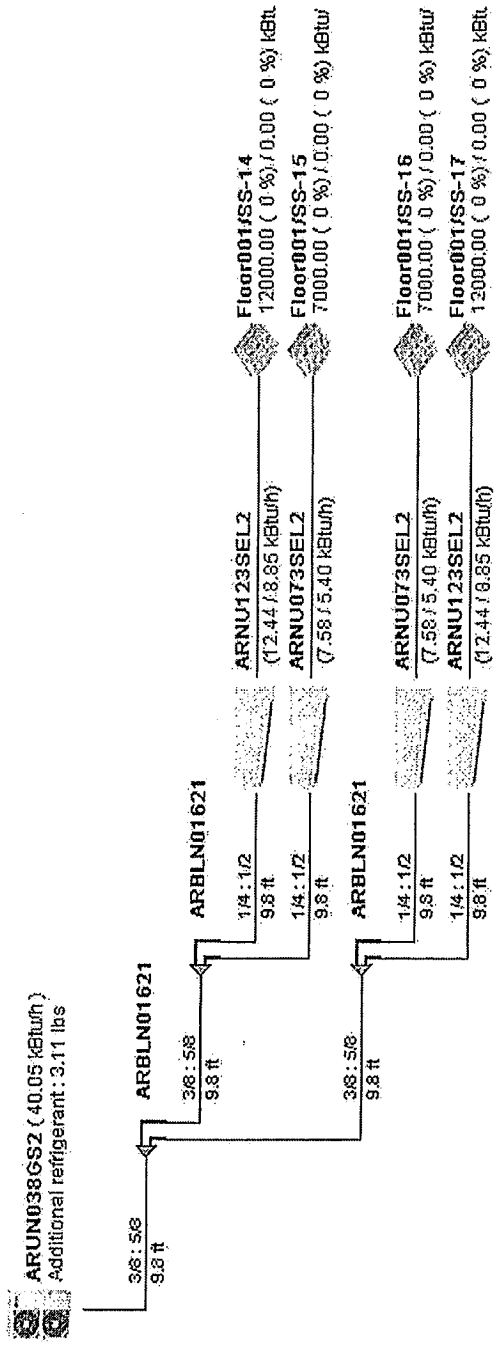
#Notes : Correction factor compensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

ver 2.10.4.12

# *Model Selection - System 3A*

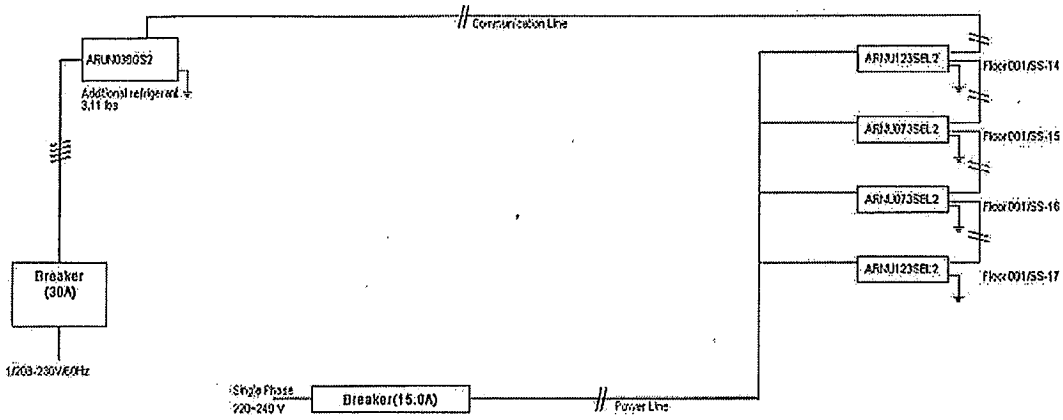
**System No :5/7** **06/15/2010**



ver 2.10.4.12

# *Model Selection - System 3A*

**System No :5/7** **06/15/2010**



ver 2.10.4.12

# Model Selection - System 3B

Project Name :JCI Dover Project 06/15/2010

System No :6/7

## 1. Design conditions

| Summer | | | | | Winter | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Indoor | | | Outdoor | | Indoor | | | Outdoor | |
| DB(F) | WB(F) | RH(%) | DB(F) | WB(F) | DB(F) | WB(F) | RH(%) | DB(F) | WB(F) |
| 80.6 | 67.1 | 50 | 91.0 | 72.0 | 68.0 | 56.8 | 50 | -8.0 | -8.3 |

## 2. Outdoor

| Model Name | Max indoor unit Connectivity | Max total over load(kBtu/h/%) | Indoors/Outdoor Ratio | Product charge(lbs) | Add. Ref. Amount(lbs) |
|---|---|---|---|---|---|
| ARUN038GS2 | 6 | 49.9(130%) | 1.00:1 | 8.16 | 0.14 |

| Rated Capa/Corrected Capa(kBtu/h) | | Rated Power Input/Corrected Power Input(kW) | |
|---|---|---|---|
| Cooling | Heating | Cooling | Heating |
| 38.2/39.4 | 42.7/26.6 | 2.9/2.8 | 3.1/3.8 |

## 3. Pipes

| Index | Dia(Liq:Gas,in) | Length(ft) |
|---|---|---|
| P1 | 3/8 : 5/8 | 48.0 |
| P0 | 1/4 : 1/2 | 22.0 |

## 4. Branch/Header/Common pipe

| Model Name | Quantity |
|---|---|
| ARBLN01621 | 2 |

#Notes : Correction factor compensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

ver 2.10.4.12

# *Model Selection - System 3B*

**Project Name :JCI Dover Project** **06/15/2010**

**System No :6/7**

## 5. Indoors

| Room | Room Load(kBtu/h) | | | Model Name | Type | Rated TC/Corrected TC(kBtu/h) | | | Capacity Ratio(%) | | | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cooling Total | Cooling Sensible | Heating | | | Cooling Total | Cooling Sensible | Heating | Cooling Total | Cooling Sensible | Heating | |
| Floor001/SS-20 | 18000 | 0 | 0.0 | ARNU183S5L2 | WALL_MOUNTED | 19.1/19.4 | 13.4/13.7 | 21.5/13.4 | 0.1 | 0 | 0.0 | NA |
| Floor001/SS-19 | 9000 | 0 | 0.0 | ARNU093SEL2 | WALL_MOUNTED | 9.6/9.7 | 6.7/6.7 | 10.9/6.8 | 0.1 | 0 | 0.0 | NA |
| Floor001/SS-18 | 9000 | 0 | 0.0 | ARNU093SEL2 | WALL_MOUNTED | 9.6/9.7 | 6.7/6.7 | 10.9/6.8 | 0.1 | 0 | 0.0 | NA |

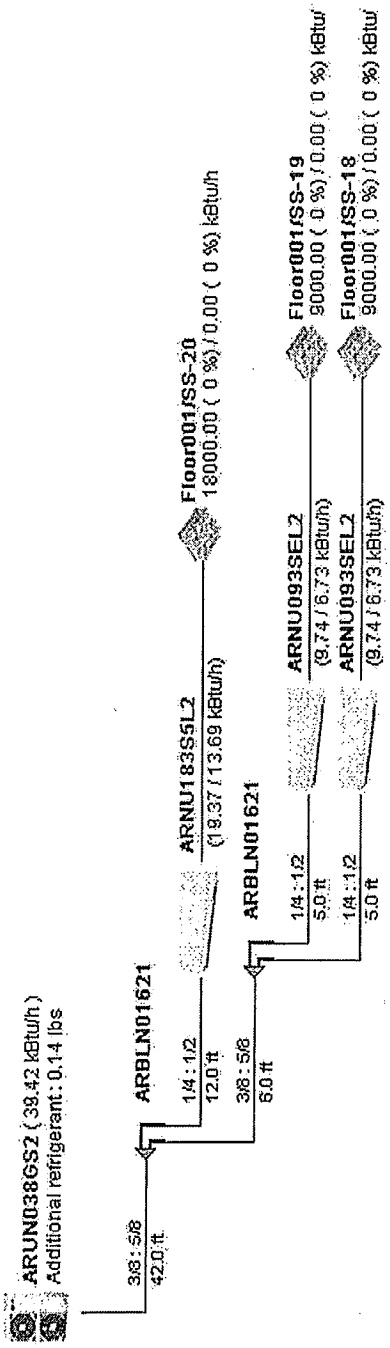
#Notes : Correction factor conpensates Indoor-unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

ver.2.10.4.12

# *Model Selection - System 3B*

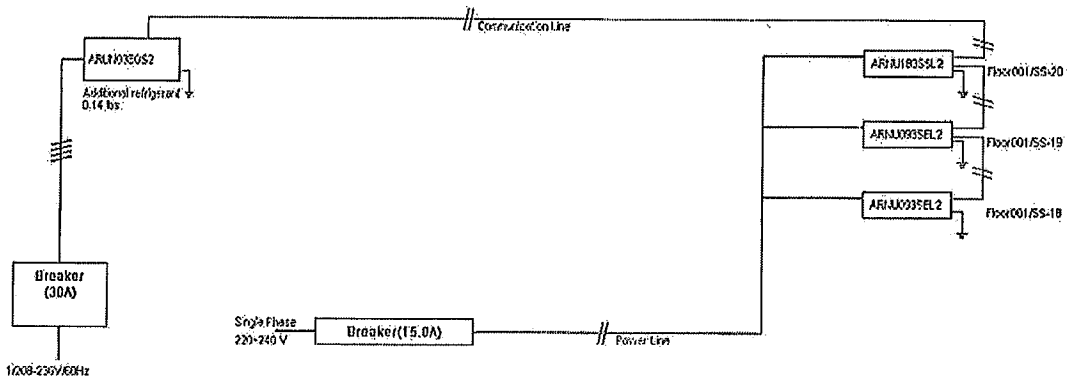
System No :6/7 06/15/2010



Ver.2.10.4.12

# *Model Selection - System 3B*

**System No :6/7** **06/15/2010**



ver 2.10.4.12

# *Model Selection - System 4 Roof*

**Project Name :JCI Dover Project** **06/15/2010**

**System No :7/7**

## 1. Design conditions

| Summer | | | | | Winter | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Indoor | | | Outdoor | | Indoor | | | Outdoor | |
| DB(F) | WB(F) | RH(%) | DB(F) | WB(F) | DB(F) | WB(F) | RH(%) | DB(F) | WB(F) |
| 80.6 | 67.1 | 50 | 91.0 | 72.0 | 68.0 | 56.8 | 50 | -8.0 | -8.3 |

## 2. Outdoor

| Model Name | Max indoor unit Connectivity | Max total over load(kBtu/h/%) | Indoors/Outdoor Ratio | Product charge(lbs) | Add. Ref. Amount(lbs) |
|---|---|---|---|---|---|
| ARUN048GS2 | 8 | 62.4(130%) | 1.17:1 | 8.16 | 1.75 |

| Rated Capa/Corrected Capa(kBtu/h) | | Rated Power Input/Corrected Power Input(kW) | |
|---|---|---|---|
| Cooling | Heating | Cooling | Heating |
| 47.8/52.3 | 54.6/34.2 | 3.8/3.7 | 4.0/4.4 |

## 3. Pipes

| Index | Dia(Liq:Gas,in) | Length(ft) |
|---|---|---|
| P1 | 3/8 : 5/8 | 39.2 |
| P0 | 1/4 : 1/2 | 9.8 |

## 4. Branch/Header/Common pipe

| Model Name | Quantity |
|---|---|
| ARBLN01621 | 2 |

#Notes : Correction factor compensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

ver.2.10.4.12

# *Model Selection - System 4 Roof*

**Project Name :JCI Dover Project** **06/15/2010**

**System No :7/7**

## 5. Indoors

| Room | Room Load(kBtu/h) | | | Model Name | Type | Rated TC/Corrected TC(kBtu/h) | | | Capacity Ratio(%) | | | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cooling Total | Cooling Sensible | Heating | | | Cooling Total | Cooling Sensible | Heating | Cooling Total | Cooling Sensible | Heating | |
| Floor002/SS-21 | 24000 | 0 | 0.0 | ARNU243TPC2 | CASSETTE_4WAY | 24.2/22.6 | 16.9/16.1 | 27.3/14.8 | 0.1 | 0 | 0.0 | NA |
| Floor002/SS-22 | 24000 | 0 | 0.0 | ARNU243TPC2 | CASSETTE_4WAY | 24.2/22.6 | 16.9/16.1 | 27.3/14.8 | 0.1 | 0 | 0.0 | NA |
| Floor002/SS-23 | 7000 | 0 | 0.0 | ARNU073TEC2 | CASSETTE_4WAY | 7.5/7.0 | 5.3/5.0 | 8.5/4.6 | 0.1 | 0 | 0.0 | NA |

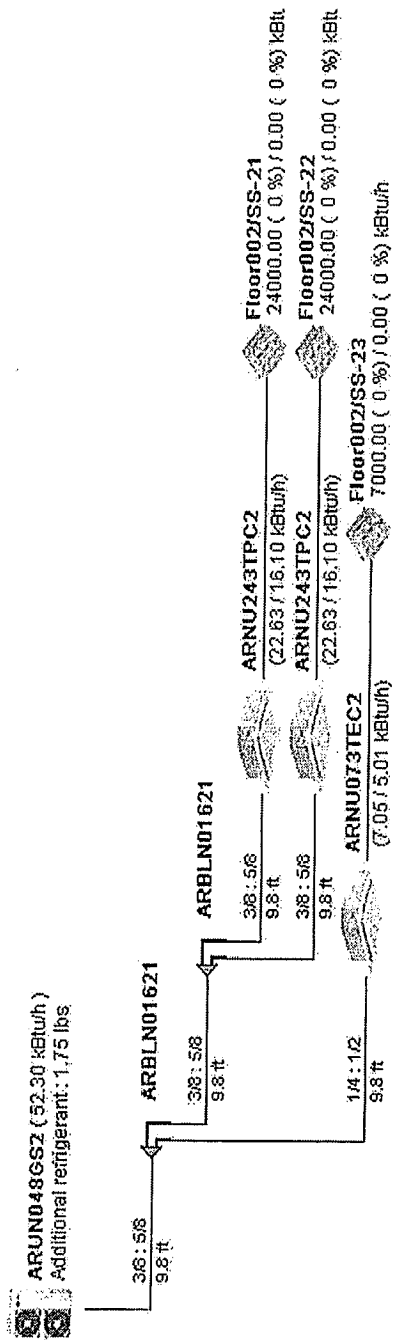
#Notes : Correction factor conpensates Indoor unit Combination, Temperature, Pipe Length Effect etc.

The result can be slightly different from product data book due to simulation.

ver 2.10.4.12

# *Model Selection - System 4 Roof*

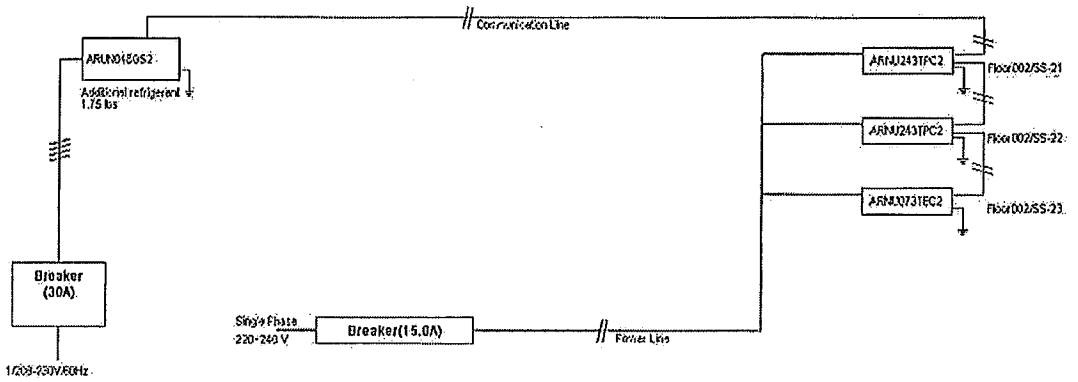
**System No :7/7** **06/15/2010**



ver 2.10.4.12

# *Model Selection - System 4 Roof*

**System No :7/7** **06/15/2010**



ver 2.10.4.12

# *Model Selection - Analysis*

**Project Name :JCI Dover Project**

## 1. Outdoor Units

| Model Name | Quantity | Unit Price | Total Price |
|---|---|---|---|
| ARUN038GS2 | 5 | | 0 |
| ARUN048GS2 | 2 | | 0 |
| | | | 0 |
| Total | 7 | 0 | 0 |

## 2. Indoor Units

| Model Name | Quantity | Unit Price | Total Price |
|---|---|---|---|
| ARNU183S5L2 | 5 | | 0 |
| ARNU123SEL2 | 4 | | 0 |
| ARNU093SEL2 | 5 | | 0 |
| ARNU073SEL2 | 5 | | 0 |
| ARNU243TPC2 | 2 | | 0 |
| ARNU073TEC2 | 1 | | 0 |
| | | | 0 |
| | | | 0 |
| | | | 0 |
| Total | 22 | 0 | 0 |

## 3. Pipes

| Dia(Liq:Gas,in) | Length(ft) | Unit Price | Total Price |
|---|---|---|---|
| 1/4 | 190.8 | | 0 |
| 1/2 | 190.8 | | 0 |
| 3/8 | 203.2 | | 0 |
| 5/8 | 203.2 | | 0 |
| Total | 788 | 0 | 0 |

## 4. Branch/Header/Common pipe

| Model Name | Quantity | Unit Price | Total Price |
|---|---|---|---|
| ARBLN01621 | 16 | | 0 |
| | | | 0 |
| | | | 0 |
| | | | 0 |
| Total | 16 | 0 | 0 |

## 5. Accessories

| Model Name | Quantity | Unit Price | Total Price |
|---|---|---|---|
| PQRCUCS0C (IDU) | 22 | | 0 |
| PT-UMC (IDU) | 2 | | 0 |
| PT-HEC1 (IDU) | 1 | | 0 |
| Total | 25 | 0 | 0 |

| | |
|---|---|
| Total price | 0 |

ver 2.10.4.12

# *Model Selection - Analysis*

Total

Total Price

| | |
|---|---|
| Job Name : | Location : |
| Purchaser : | P.O. No. : |
| Engineer : | Architect : |
| Submitted To : | Date : |
| Submitted By : | For : ☐ Reference ☐ Approval ☐ Construction |
| Unit Designation : Schedule No.: | Model No.: |

# Submittal Data : ARNU073SEL2

**Multi V ™ Series - 1/2 Ton Indoor Unit Wall Mounted Type**

LG

## Capacities :

| | |
|---|---|
| Cooling Capacity (Btu/h) | 7,500 |
| Power Input (W, Cooling) | 40 |
| Heating Capacity (Btu/h) | 8,500 |
| Power Input (W, Heating) | 40 |

Cooling Nominal Test Condition :
Indoor : 80°F DB / 67°F WB
Outdoor : 95°F DB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

Heating Nominal Test Condition :
Indoor : 70°F DB
Outdoor : 47°F DB / 43°F WB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

## Power Supply :

| | |
|---|---|
| Power Supply (V,Hz,Ph) | 230/208,60,1 |
| Minimum Circuit Ampacity (A) | 1.3 |
| Maximum Overcurrent Protection (A) | 15 |
| Full Load Amps (A) | 0.2 |

## Fan :

| | |
|---|---|
| Fan Type | Cross Flow Fan |
| Quantity | 1 |
| Fan Motor Output (W) | 20 |
| Air Flow Rate (CFM, H/M/L) | 200/175/160 |
| Drive | BLDC Direct |

## Refrigerant Piping :

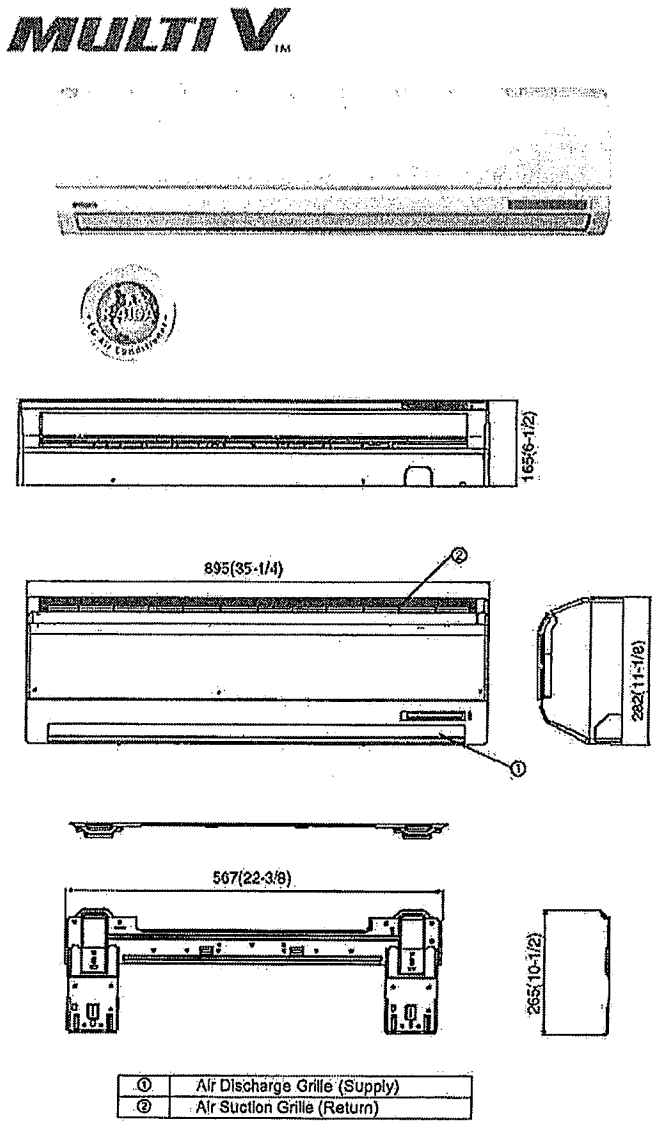
| | |
|---|---|
| Refrigerant | R410A |
| Control | Electronic Expansion Valve |
| Liquid Side Piping (inches, O.D) | 1/4 |
| Gas Side Piping (inches, O.D) | 1/2 |
| Drain Piping (inches, O.D, I.D) | 3/4, 5/8 |

## Unit Data :

| | |
|---|---|
| Air Filter | Resin Mesh Type, Washable |
| Sound Pressure (dB(A), H/M/L Cool, 3.3ft front) | 37/33/23 |
| Weight (lbs) | 20 |

## Standard Features :

- One Year Functional Parts Warranty
- Plasma Air Purifying System
- Auto Clean
- Auto Changeover (available with Multi V Sync II)
- Auto Restart
- BLDC Fan Motor
- Chaos Swing Air Circulation
- Self Diagnosis
- Two Thermistor Control




| | |
|---|---|
| ① | Air Discharge Grille (Supply) |
| ② | Air Suction Grille (Return) |

## Accessory Option :

- Handheld Remote Controller – PQWRHDF0
- Standard Type Wired Remote Controller – PQRCUSA1
- Simple Type Wired Remote Controller – PQRCUCS0C
  - without mode – PQRCFCS0C
- Dry Contact Unit
  - PQDSB1
  - PQDSBC

Note :



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| | |
|---|---|
| Job Name : | Location : |
| Purchaser : | P.O. No. : |
| Engineer : | Architect : |
| Submitted To : | Date : |
| Submitted By : | For : ☐ Reference ☐ Approval ☐ Construction |
| Unit Designation : Schedule No.: | Model No.: |

# Submittal Data : ARNU093SEL2

Multi V ™ Series - 3/4 Ton Indoor Unit
Wall Mounted Type

LG

## Capacities :

| | |
|---|---|
| Cooling Capacity (Btu/h) | 9,600 |
| Power Input (W, Cooling) | 40 |
| Heating Capacity (Btu/h) | 10,900 |
| Power Input (W, Heating) | 40 |

Cooling Nominal Test Condition :
Indoor : 80°F DB / 67°F WB
Outdoor : 95°F DB
Pipe Length : 25ft per Indoor unit
Level Difference : 0ft

Heating Nominal Test Condition :
Indoor : 70°F DB
Outdoor : 47°F DB / 43°F WB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

## Power Supply :

| | |
|---|---|
| Power Supply (V,Hz,Ph) | 230/208,60,1 |
| Minimum Circuit Ampacity (A) | 1.3 |
| Maximum Overcurrent Protection (A) | 15 |
| Full Load Amps (A) | 0.2 |

## Fan :

| | |
|---|---|
| Fan Type | Cross Flow Fan |
| Quantity | 1 |
| Fan Motor Output (W) | 20 |
| Air Flow Rate (CFM, H/M/L) | 245/230/210 |
| Drive | BLDC Direct |

## Refrigerant Piping :

| | |
|---|---|
| Refrigerant | R410A |
| Control | Electronic Expansion Valve |
| Liquid Side Piping (inches, O.D) | 1/4 |
| Gas Side Piping (inches, O.D) | 1/2 |
| Drain Piping (inches, O.D, I.D) | 3/4, 5/8 |

## Unit Data :

| | |
|---|---|
| Air Filter | Resin Mesh Type, Washable |
| Sound Pressure (dB(A), H/M/L Cool, 3.3ft front) | 39/35/25 |
| Weight (lbs) | 20 |

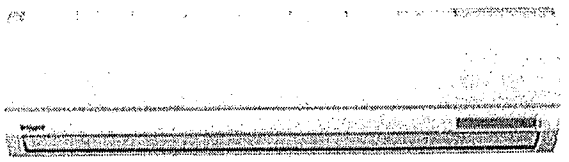
## Standard Features :

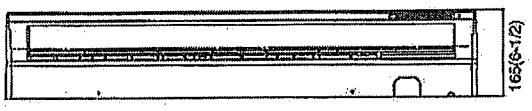
- One Year Functional Parts Warranty
- Plasma Air Purifying System
- Auto Clean
- Auto Changeover (available with Multi V Sync II)
- Auto Restart
- BLDC Fan Motor
- Chaos Swing Air Circulation
- Self Diagnosis
- Two Thermistor Control

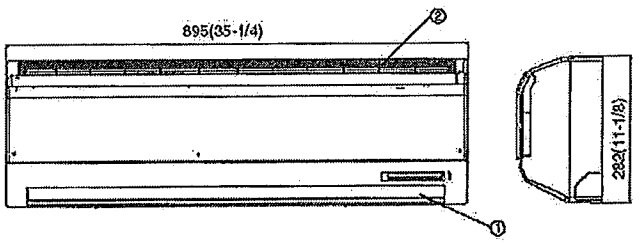
## Accessory Option :

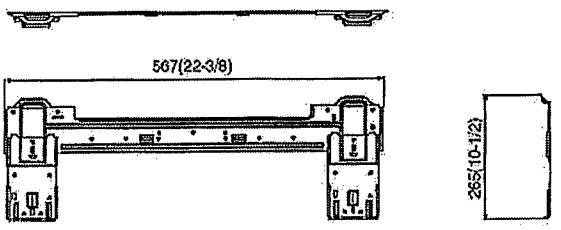
- Handheld Remote Controller – PQWRHDF0
- Standard Type Wired Remote Controller – PQRCUSA1
- Simple Type Wired Remote Controller – PQRCUCS0C
  - without mode – PQRCFCS0C
- Dry Contact Unit
  - PQDSB1
  - PQDSBC

MULTI V






| | |
|---|---|
| ① | Air Discharge Grille (Supply) |
| ② | Air Suction Grille (Return) |

Note :

LG Electronics Inc. HVAC Division
1000 Sylvan Avenue, Englewood Cliffs, NJ 07632 / www.lgusa.com www.lghvac.com

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| | |
|---|---|
| Job Name : | Location : |
| Purchaser : | P.O. No. : |
| Engineer : | Architect : |
| Submitted To : | Date : |
| Submitted By : | For : ☐ Reference ☐ Approval ☐ Construction |
| Unit Designation : Schedule No.: | Model No.: |

# Submittal Data : ARNU123SEL2

**Multi V ™ Series - 1 Ton Indoor Unit Wall Mounted Type**

LG

## Capacities :

| | |
|---|---|
| Cooling Capacity (Btu/h) | 12,300 |
| Power Input (W, Cooling) | 40 |
| Heating Capacity (Btu/h) | 13,600 |
| Power Input (W, Heating) | 40 |

Cooling Nominal Test Condition :
Indoor : 80°F DB / 67°F WB
Outdoor : 95°F DB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

Heating Nominal Test Condition :
Indoor : 70°F DB
Outdoor : 47°F DB / 43°F WB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

## Power Supply :

| | |
|---|---|
| Power Supply (V,Hz,Ph) | 230/208,60,1 |
| Minimum Circuit Ampacity (A) | 1.3 |
| Maximum Overcurrent Protection (A) | 15 |
| Full Load Amps (A) | 0.2 |

## Fan :

| | |
|---|---|
| Fan Type | Cross Flow Fan |
| Quantity | 1 |
| Fan Motor Output (W) | 20 |
| Air Flow Rate (CFM, H/M/L) | 335/320/210 |
| Drive | BLDC Direct |

## Refrigerant Piping :

| | |
|---|---|
| Refrigerant | R410A |
| Control | Electronic Expansion Valve |
| Liquid Side Piping (Inches, O.D) | 1/4 |
| Gas Side Piping (inches, O.D) | 1/2 |
| Drain Piping (inches, O.D, I.D) | 3/4, 5/8 |

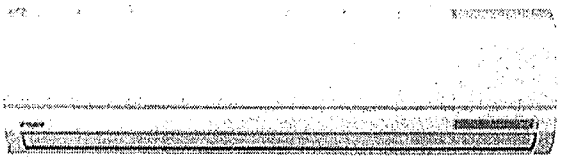
## Unit Data :

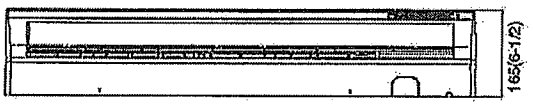
| | |
|---|---|
| Air Filter | Resin Mesh Type, Washable |
| Sound Pressure (dB(A), H/M/L Cool, 3.3ft front) | 41/36/27 |
| Weight (lbs) | 20 |

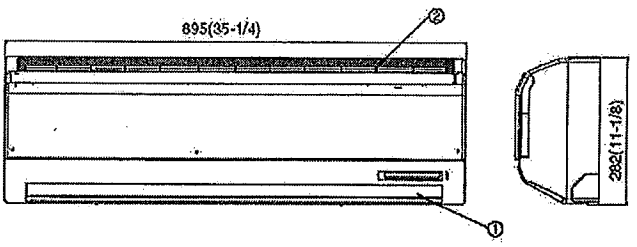
## Standard Features :

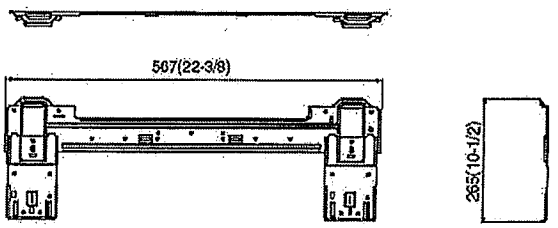
- One Year Functional Parts Warranty
- Plasma Air Purifying System
- Auto Clean
- Auto Changeover (available with Multi V Sync II)
- Auto Restart
- BLDC Fan Motor
- Chaos Swing Air Circulation
- Self Diagnosis
- Two Thermistor Control

MULTI V™






| | |
|---|---|
| ① | Air Discharge Grille (Supply) |
| ② | Air Suction Grille (Return) |

## Accessory Option :

- Handheld Remote Controller – PQWRHDF0
- Standard Type Wired Remote Controller – PQRCUSA1
- Simple Type Wired Remote Controller – PQRCUCS0C
  - without mode – PQRCFCS0C
- Dry Contact Unit
  - PQDSB1
  - PQDSBC

**Note :**



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| | |
|---|---|
| Job Name : | Location : |
| Purchaser : | P.O. No. : |
| Engineer : | Architect : |
| Submitted To : | Date : |
| Submitted By : | For : ☐ Reference ☐ Approval ☐ Construction |
| Unit Designation : Schedule No.: | Model No.: |

# Submittal Data : ARNU153SEL2

**Multi V ™ Series - 1 1/4 Ton Indoor Unit Wall Mounted Type**

LG

## Capacities :

| | |
|---|---|
| Cooling Capacity (Btu/h) | 15,400 |
| Power Input (W, Cooling) | 40 |
| Heating Capacity (Btu/h) | 17,100 |
| Power Input (W, Heating) | 40 |

Cooling Nominal Test Condition :
Indoor : 80°F DB / 67°F WB
Outdoor : 95°F DB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

Heating Nominal Test Condition :
Indoor : 70°F DB
Outdoor : 47°F DB / 43°F WB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

## Power Supply :

| | |
|---|---|
| Power Supply (V,Hz,Ph) | 230/208,60,1 |
| Minimum Circuit Ampacity (A) | 1.3 |
| Maximum Overcurrent Protection (A) | 15 |
| Full Load Amps (A) | 0.2 |

## Fan :

| | |
|---|---|
| Fan Type | Cross Flow Fan |
| Quantity | 1 |
| Fan Motor Output (W) | 20 |
| Air Flow Rate (CFM, H/M/L) | 370/320/300 |
| Drive | BLDC Direct |

## Refrigerant Piping :

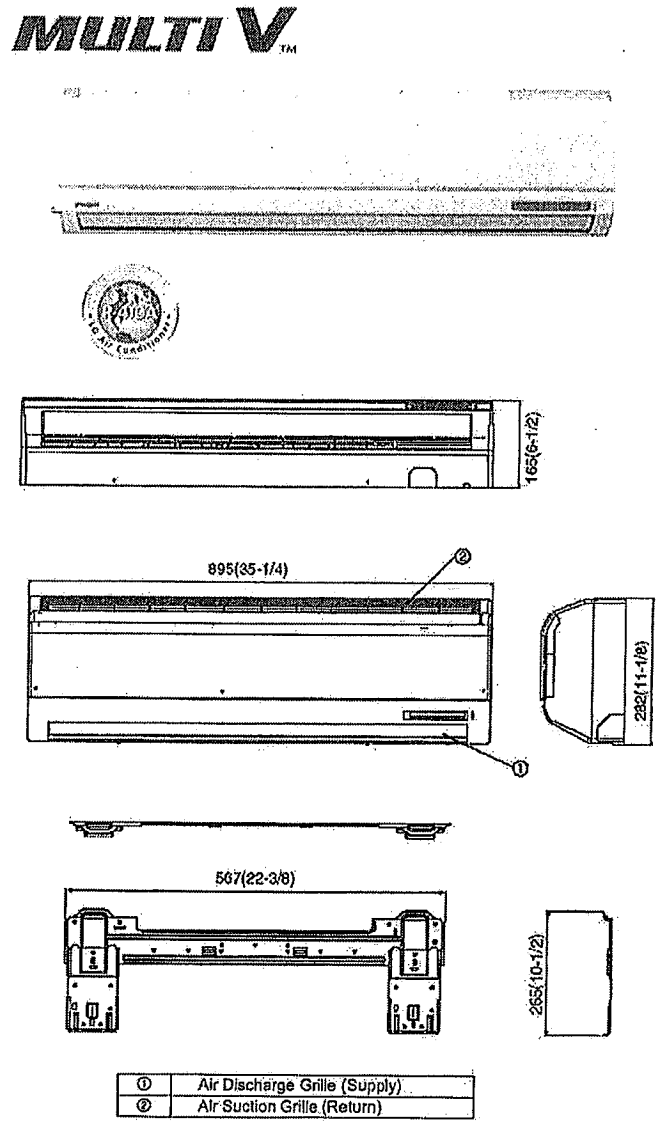
| | |
|---|---|
| Refrigerant | R410A |
| Control | Electronic Expansion Valve |
| Liquid Side Piping (Inches, O.D) | 1/4 |
| Gas Side Piping (Inches, O.D) | 1/2 |
| Drain Piping (inches, O.D, I.D) | 3/4, 5/8 |

## Unit Data :

| | |
|---|---|
| Air Filter | Resin Mesh Type, Washable |
| Sound Pressure (dB(A), H/M/L Cool, 3.3ft front) | 42/36/27 |
| Weight (lbs) | 20 |

## Standard Features :

- One Year Functional Parts Warranty
- Plasma Air Purifying System
- Auto Clean
- Auto Changeover (available with Multi V Sync II)
- Auto Restart
- BLDC Fan Motor
- Chaos Swing Air Circulation
- Self Diagnosis
- Two Thermistor Control




| | |
|---|---|
| ① | Air Discharge Grille (Supply) |
| ② | Air Suction Grille (Return) |

## Accessory Option :

- Handheld Remote Controller – PQWRHDF0
- Standard Type Wired Remote Controller – PQRCUSA1
- Simple Type Wired Remote Controller – PQRCUCS0C
  - without mode – PQRCFCS0C
- Dry Contact Unit
  - PQDSB1
  - PQDSBC

Note :



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| | |
|---|---|
| Job Name : | Location : |
| Purchaser : | P.O. No. : |
| Engineer : | Architect : |
| Submitted To : | Date : |
| Submitted By : | For : ☐ Reference ☐ Approval ☐ Construction |
| Unit Designation : Schedule No.: | Model No.: |

# Submittal Data : ARNU183S5L2

**Multi V ™ Series - 1 1/2 Ton Indoor Unit Wall Mounted Type**

LG

## Capacities :

| | |
|---|---|
| Cooling Capacity (Btu/h) | 19,100 |
| Power Input (W, Cooling) | 40 |
| Heating Capacity (Btu/h) | 21,500 |
| Power Input (W, Heating) | 40 |

Cooling Nominal Test Condition :
Indoor : 80°F DB / 67°F WB
Outdoor : 95°F DB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

Heating Nominal Test Condition :
Indoor : 70°F DB
Outdoor : 47°F DB / 43°F WB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

## Power Supply :

| | |
|---|---|
| Power Supply (V,Hz,Ph) | 230/208,60,1 |
| Minimum Circuit Ampacity (A) | 1.3 |
| Maximum Overcurrent Protection (A) | 15 |
| Full Load Amps (A) | 0.2 |

## Fan :

| | |
|---|---|
| Fan Type | Cross Flow Fan |
| Quantity | 1 |
| Fan Motor Output (W) | 20 |
| Air Flow Rate (CFM, H/M/L) | 425/370/320 |
| Drive | BLDC Direct |

## Refrigerant Piping :

| | |
|---|---|
| Refrigerant | R410A |
| Control | Electronic Expansion Valve |
| Liquid Side Piping (inches, O.D) | 1/4 |
| Gas Side Piping (inches, O.D) | 1/2 |
| Drain Piping (inches, O.D, I.D) | 3/4, 5/8 |

## Unit Data :

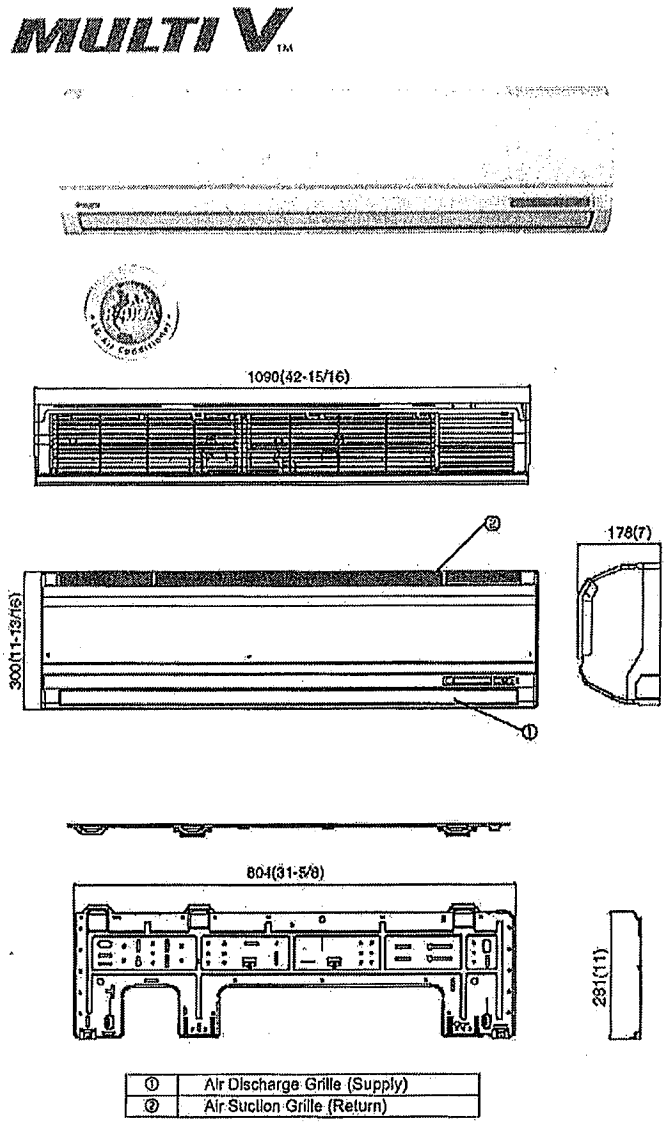
| | |
|---|---|
| Air Filter | Resin Mesh Type, Washable |
| Sound Pressure (dB(A), H/M/L Cool, 3.3ft front) | 44/40/36 |
| Weight (lbs) | 27 |

## Standard Features :

- One Year Functional Parts Warranty
- Plasma Air Purifying System
- Auto Clean
- Auto Changeover (available with Multi V Sync II)
- Auto Restart
- BLDC Fan Motor
- Chaos Swing Air Circulation
- Self Diagnosis
- Two Thermistor Control

## Accessory Option :

- Handheld Remote Controller – PQWRHDF0
- Standard Type Wired Remote Controller – PQRCUSA1
- Simple Type Wired Remote Controller – PQRCUCS0C
  - without mode – PQRCFCS0C
- Dry Contact Unit
  - PQDSB1
  - PQDSBC




| | |
|---|---|
| ① | Air Discharge Grille (Supply) |
| ② | Air Suction Grille (Return) |

**Note :**



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| | |
|---|---|
| Job Name : | Location : |
| Purchaser : | P.O. No. : |
| Engineer : | Architect : |
| Submitted To : | Date : |
| Submitted By : | For : ☐ Reference ☐ Approval ☐ Construction |
| Unit Designation : Schedule No.: | Model No.: |

# Submittal Data : ARNU243S5L2

**Multi V ™ Series - 2 Ton Indoor Unit Wall Mounted Type**

LG

## Capacities :

| | |
|---|---|
| Cooling Capacity (Btu/h) | 24,200 |
| Power Input (W, Cooling) | 40 |
| Heating Capacity (Btu/h) | 27,300 |
| Power Input (W, Heating) | 40 |

Cooling Nominal Test Condition :
Indoor : 80°F DB / 67°F WB
Outdoor : 95°F DB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

Heating Nominal Test Condition :
Indoor : 70°F DB
Outdoor : 47°F DB / 43°F WB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

## Power Supply :

| | |
|---|---|
| Power Supply (V,Hz,Ph) | 230/208,60,1 |
| Minimum Circuit Ampacity (A) | 1.3 |
| Maximum Overcurrent Protection (A) | 15 |
| Full Load Amps (A) | 0.2 |

## Fan :

| | |
|---|---|
| Fan Type | Cross Flow Fan |
| Quantity | 1 |
| Fan Motor Output (W) | 20 |
| Air Flow Rate (CFM, H/M/L) | 495/460/355 |
| Drive | BLDC Direct |

## Refrigerant Piping :

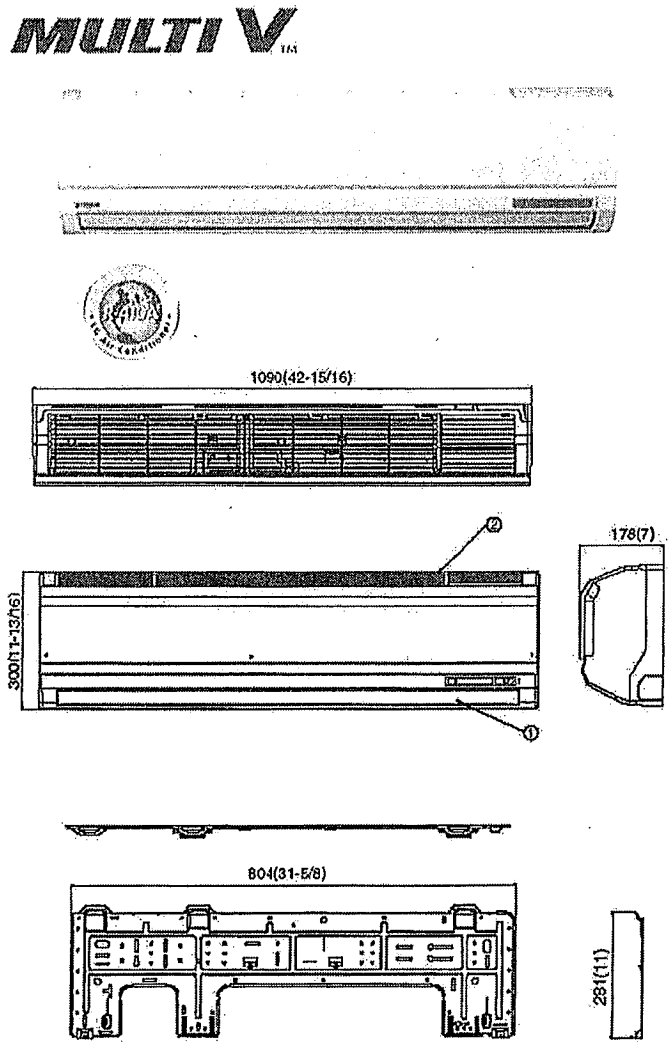
| | |
|---|---|
| Refrigerant | R410A |
| Control | Electronic Expansion Valve |
| Liquid Side Piping (inches, O.D) | 3/8 |
| Gas Side Piping (inches, O.D) | 5/8 |
| Drain Piping (inches, O.D, I.D) | 3/4, 5/8 |

## Unit Data :

| | |
|---|---|
| Air Filter | Resin Mesh Type, Washable |
| Sound Pressure (dB(A), H/M/L Cool, 3.3ft front) | 46/41/38 |
| Weight (lbs) | 27 |

## Standard Features :

- One Year Functional Parts Warranty
- Plasma Air Purifying System
- Auto Clean
- Auto Changeover (available with Multi V Sync II)
- Auto Restart
- BLDC Fan Motor
- Chaos Swing Air Circulation
- Self Diagnosis
- Two Thermistor Control




| | |
|---|---|
| ① | Air Discharge Grille (Supply) |
| ② | Air Suction Grille (Return) |

## Note :

## Accessory Option :

- Handheld Remote Controller – PQWRHDF0
- Standard Type Wired Remote Controller – PQRCUSA1
- Simple Type Wired Remote Controller – PQRCUCS0C
  - without mode – PQRCFCS0C
- Dry Contact Unit
  - PQDSB1
  - PQDSBC



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| | |
|---|---|
| Job Name : | Location : |
| Purchaser : | P.O. No. : |
| Engineer : | Architect : |
| Submitted To : | Date : |
| Submitted By : | For : ☐ Reference ☐ Approval ☐ Construction |
| Unit Designation : Schedule No.: | Model No.: |

# Submittal Data : ARNU243TPC2

**Multi V ™ Series - 2 Ton Indoor Unit**
**4 Way Ceiling Cassette Type**

LG

## Capacities :

| | |
|---|---|
| Cooling Capacity (Btu/h) | 24,200 |
| Power Input (W, Cooling) | 33 |
| Heating Capacity (Btu/h) | 27,300 |
| Power Input (W, Heating) | 33 |

Cooling Nominal Test Condition :
Indoor : 80°F DB / 67°F WB
Outdoor : 95°F DB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

Heating Nominal Test Condition :
Indoor : 70°F DB
Outdoor : 47°F DB / 43°F WB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

## Power Supply :

| | |
|---|---|
| Power Supply (V,Hz,Ph) | 230/208,60,1 |
| Minimum Circuit Ampacity (A) | 1.2 |
| Maximum Overcurrent Protection (A) | 15 |
| Full Load Amps (A) | 0.2 |

## Fan :

| | |
|---|---|
| Fan Type | Turbo Fan |
| Quantity | 1 |
| Fan Motor Output (W) | 30 |
| Air Flow Rate (CFM, H/M/L) | 600/530/460 |
| Drive | BLDC Direct |

## Refrigerant Piping :

| | |
|---|---|
| Refrigerant | R410A |
| Control | Electronic Expansion Valve |
| Liquid Side Piping (inches, O.D) | 3/8 |
| Gas Side Piping (inches, O.D) | 5/8 |
| Drain Piping (inches, O.D, I.D) | 1 1/4, 1 |

## Unit Data :

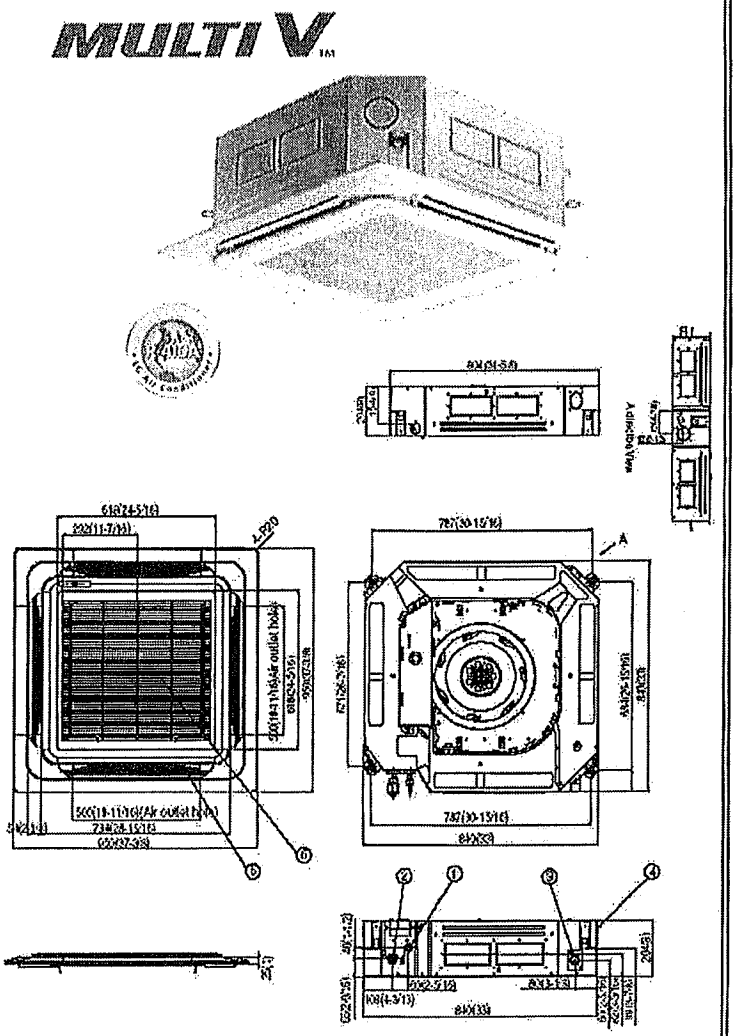
| | |
|---|---|
| Air Filter | Mesh Type, Washable |
| Sound Pressure (dB(A), H/M/L Cool, 4.9ft front) | 38/35/31 |
| Weight (lbs, Unit) | 46 |
| Weight (lbs, Front Panel PT-UMC) | 11 |

## Standard Features :

- One Year Functional Parts Warranty
- Built-in Drain Pump with safety switch
- ESP Control
- Plasma Air Purifying System
- Auto Changeover (available with Multi V Sync II)
- Auto Restart
- BLDC Fan Motor
- Self Diagnosis
- Two Thermistor Control

## Accessory Option :

- Handheld Remote Controller – PQWRHDF0
- Standard Type Wired Remote Controller – PQRCUSA1
- Simple Type Wired Remote Controller – PQRCUCS0C
  - without mode – PQRCFCS0C
- Dry Contact Unit
  - PQDSB1
  - PQDSBC
- Front Panel – PT-UMC (required)
- Auto Elevation Grille – PTEGM0
- Fresh Air Kit – PTVK410 + PTVK420



| | |
|---|---|
| ① | Liquid Side Pipe Connection |
| ② | Gas Side Pipe Connection |
| ③ | Drain Pipe Connection |
| ④ | Power Supply Connection |
| ⑤ | Air Discharge (Supply) |
| ⑥ | Air Suction (Return) |

**Note :**



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Job Name :
Purchaser :
Engineer :
Submitted To :
Submitted By :
Unit Designation : Schedule No.:

Location :
P.O. No. :
Architect :
Date :
For : ☐ Reference ☐ Approval ☐ Construction
Model No.:

# Submittal Data : ARUN048GS2 Multi V ™ Mini - 4 Ton Outdoor Unit

LG

## Capacities :

| | |
|---|---|
| Cooling Capacity (Btu/h) | 47,800 |
| Power Input (kW, Cooling) | 3.8 |
| EER (COP) | 12.6 (3.68) |
| Heating Capacity (Btu/h) | 54,600 |
| Power Input (kW, Heating) | 4.0 |
| COP | 4.0 |

Cooling Nominal Test Condition :
Indoor : 80°F DB / 67°F WB
Outdoor : 95°F DB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

Heating Nominal Test Condition :
Indoor : 70°F DB
Outdoor : 47°F DB / 43°F WB
Pipe Length : 25ft per indoor unit
Level Difference : 0ft

## Power Supply :

| | |
|---|---|
| Power Supply (V,Ph,Hz) | 230/208,60,1 |
| Minimum Circuit Ampacity (A) | 33 |
| Maximum Overcurrent Protection (A) | 55 |
| Maximum Starting Current (A) | - |
| Running Current (A) | 27 |

## Operating Range :

| | |
|---|---|
| Cooling Operating Range (°F DB) | 21 - 115 |
| Heating Operating Range (°F WB) | -4 - 61 |

## Compressor :

| | |
|---|---|
| Type | DC Scroll |
| Quantity | 1 (Inverter) |
| Motor Output (kW) | 2.8 |
| Oil Type | FV50S |

## Fan :

| | |
|---|---|
| Fan Type | Propeller Fan |
| Quantity | 2 |
| Fan Motor Output (kW) | 0.12 + 0.12 |
| Air Flow Rate (CFM) | 3,885 |
| Drive | DC Inverter Direct |

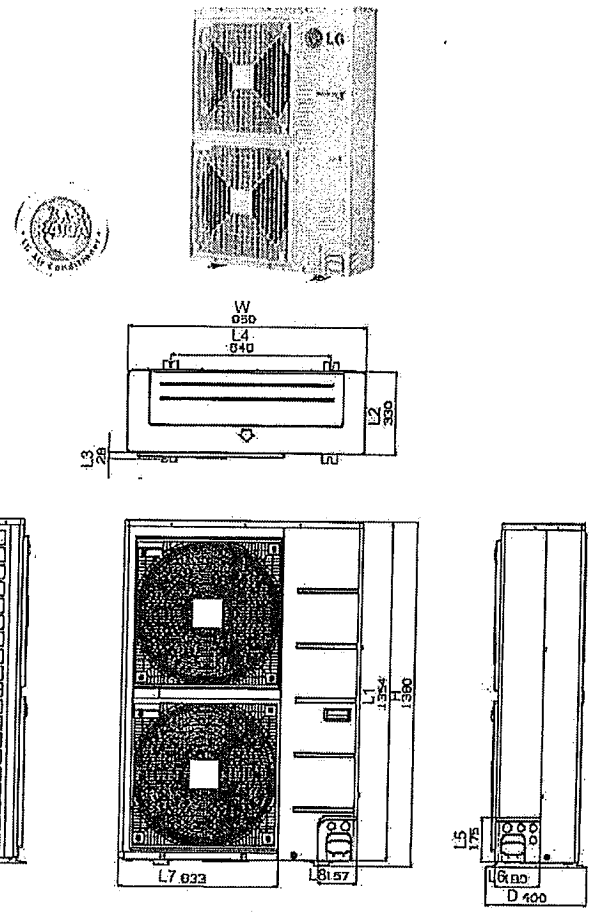
## Refrigerant Piping :

| | |
|---|---|
| Refrigerant | R410A |
| Factory Charge (lbs) | 8.2 |
| Control | Electronic Expansion Valve |
| Liquid Side Piping (inches, O.D) | 3/8 Flare |
| Gas Side Piping (inches, O.D) | 5/8 Braze |

## Unit Data :

| | |
|---|---|
| Maximum Number of Indoor Units | 8 |
| Sound Pressure (dB(A), High Cool, 3.3ft front) | 51 |
| Weight (lbs) | 260 |

MULTI V™ MINI




| | | | |
|---|---|---|---|
| W | 37 3/8 | L4 | 21 1/4 |
| H | 54 5/16 | L5 | 6 7/8 |
| D | 15 3/4 | L6 | 7 1/16 |
| L1 | 53 5/16 | L7 | 24 15/16 |
| L2 | 13 | L8 | 6 3/16 |
| L3 | 1 1/8 | | |

## Standard Features :

- Warranty with LG Certified Installation
  - Two Year Functional Parts Warranty
  - Additional Four Year Compressor Warranty
- DC Inverter Compressor and Fan Motor
- Black Box Function
- Night Quiet Operation
- Fault Detect and Diagnosis
- Gold Fin ™ Anti-corrosion Treatment for Condenser

Note :

LG Electronics Inc. HVAC Division
1000 Sylvan Avenue, Englewood Cliffs, NJ 07632 / www.lgusa.com www.lghvac.com

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