

## DAMMON ENGINEERING, INC

Date: 2/22/2013 Project: USDA Aphis Facility

Reviewed: David Dammon

Reviewed as noted: \_\_\_\_\_

Revise and ReSubmit: \_\_\_\_\_

Rejected: \_\_\_\_\_

Other: \_\_\_\_\_

Correction or comments made on the shop drawings during this review do not relieve the contractor from compliance with requirements of the drawings and specifications. This check is only for review of the general conformance with the design concept of the project and general compliance with the information given in the contract documents. This contractor is responsible for: confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction; coordinating his or her work with that of all other trades and performing all in a safe and satisfactory manner.

Submittal item: RTU #2

Comments: Notify Electrician of change for RTU #2

Date: 02/01/2013

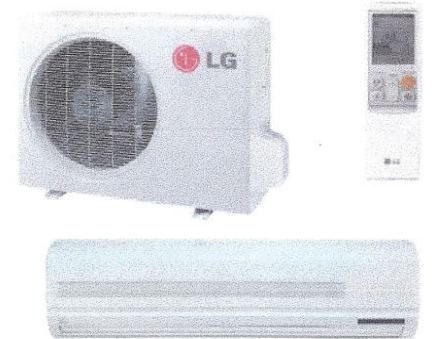
For:  File  Resubmit  
 Approval  Other

PO No.:

Architect: GC:

Engr: Dammon Engineering, Inc. Mech: Taylor Mechanical, LLC

Rep: Shully Strawn  
 (Company) (Project Manager)



**LS240HSV2**  
 High Efficiency Single Zone Inverter  
 Outdoor Unit (ODU) - LSU240HSV2 Indoor Unit (IDU) - LSN240HSV2



**Performance:**

**Cooling:**

Capacity (Btu/h)	22,000
SEER	18.9
EER	12.5

SEER - Seasonal Energy Efficiency Ratio EER - Energy Efficiency Ratio

**Heating:**

Capacity (Btu/h)	27,600
HSPF	10.2

HSPF - Heating Seasonal Performance Factor

Cooling Nominal Test Conditions: Indoor: 80°F DB/67°F WB Outdoor: 95°F DB/75°F WB  
 Heating Nominal Test Conditions: Indoor: 70°F DB/60°F WB Outdoor: 47°F DB/43°F WB

**Electrical:**

**Outdoor Unit:**

Power Supply (V/Hz/Ø)	208-230/60/1
MOP (A)	30
MCA (A)	19.0
Cooling Rated Amps (A)	15.4
Heating Rated Amps (A)	15.4
Compressor (A)	14.6
Fan Motor (A)	0.75

MOP - Maximum Overcurrent Protection MCA - Minimum Circuit Ampacity

**Indoor Unit:**

Power Supply (V/Hz/Ø)	208-230/60/1
Cooling Power Input (kW)	1.76
Heating Power Input (kW)	2.38

**Piping:**

Liquid Line (in, OD)	3/8
Vapor Line (in, OD)	5/8
Additional Refrigerant (oz/ft)	0.38
Max Pipe Length (ft) <sup>2</sup>	98
Piping Length (no add'l refrigerant, ft)	25
Max Elevation (ft)	49

**Controls Features:**

- 24-Hour on/off timer
- 4-Way auto swing
- Auto changeover
- Auto restart
- Built-in low ambient standard, down to 14°F (cooling mode)
- Chaos wind
- Condensate Sensor Connection
- Energy saving
- Inverter (variable speed compressor)
- Jet cool/Jet heat
- Plasma air purifying system
- Self-cleaning indoor coil
- Sleep mode
- Ultra quiet operation

**Optional Accessories (sold separately)**

- 7-Day Programmable Controller (Black) - PQRCVSLO
- 7-Day Programmable Controller (White) - PQRCVSLOQW
- Low Ambient Wind Baffle (Cooling operation to 0°F) - ZLABGP02A
- PI485 - PMNFP14A0

For continual product development, LG reserves the right to change specifications without notice.

LG Electronics U.S.A., Inc., Englewood Cliffs, NJ. All rights reserved. "LG Life's Good" is a registered trademark of LG Corp. /www.lgghvac.com

**Operating Range:**

**Outdoor Unit:**

Cooling (°F DB)	14-118
Heating (°F WB)	5-75

**Indoor Unit:**

Cooling (°F DB)	64-86
Heating (°F DB)	60-86

**Unit Data:**

Refrigerant Type	R410A
Refrigerant Control	EEV
Refrigerant Charge (lbs)	4.41
ODU Sound Pressure (±3 dB(A)) <sup>3</sup>	54
IDU Sound Pressure (±3 dB(A)) <sup>3</sup>	46/43/39
ODU Net Unit Weight (lbs)	141.1
ODU Shipping Weight (lbs)	152.1
IDU Net Unit Weight	33.1
IDU Shipping Weight (lbs)	44.1
Heat Exchanger Coating	GoldFin™
Communication Cable (No x AWG) <sup>4</sup>	4 X 18

**Fan:**

ODU Type	Propeller
IDU Type	Cross Flow
Fan Speeds (Fan/Cooling/Heating)	4/Auto/Chaos
Quantity (ODU + IDU)	1 + 1
Motor/Drive	Brushless Digitally Controlled/Direct
ODU Max Air Flow Rate (CFM)	2,119
IDU Max Air Flow H/M/L (CFM)	700/570/450
Dehumidification (pts/hr)	6.0

**Notes:**

1. Acceptable operating voltage: 187V-253V.
2. Piping lengths are equivalent.
3. Sound Pressure levels are tested in an anechoic chamber under ISO Standard 1996.
4. All communication cable to be minimum 18 AWG, 2-conductor, stranded, shielded and must comply with applicable local and national code.
5. See Engineering Manual for sensible and latent capacities.
6. Power wiring cable size must comply with the applicable local and national code.
7. The indoor unit comes with a dry helium charge.
8. This data is rated 0 ft above sea level, with 24.6 ft of refrigerant line and a 0 ft level difference between outdoor and indoor units.
9. Must follow installation instructions in the applicable LG installation manual.

**Standard Features:**

- Limited Seven Year Compressor Warranty
- Limited Five Year Functional Parts Warranty



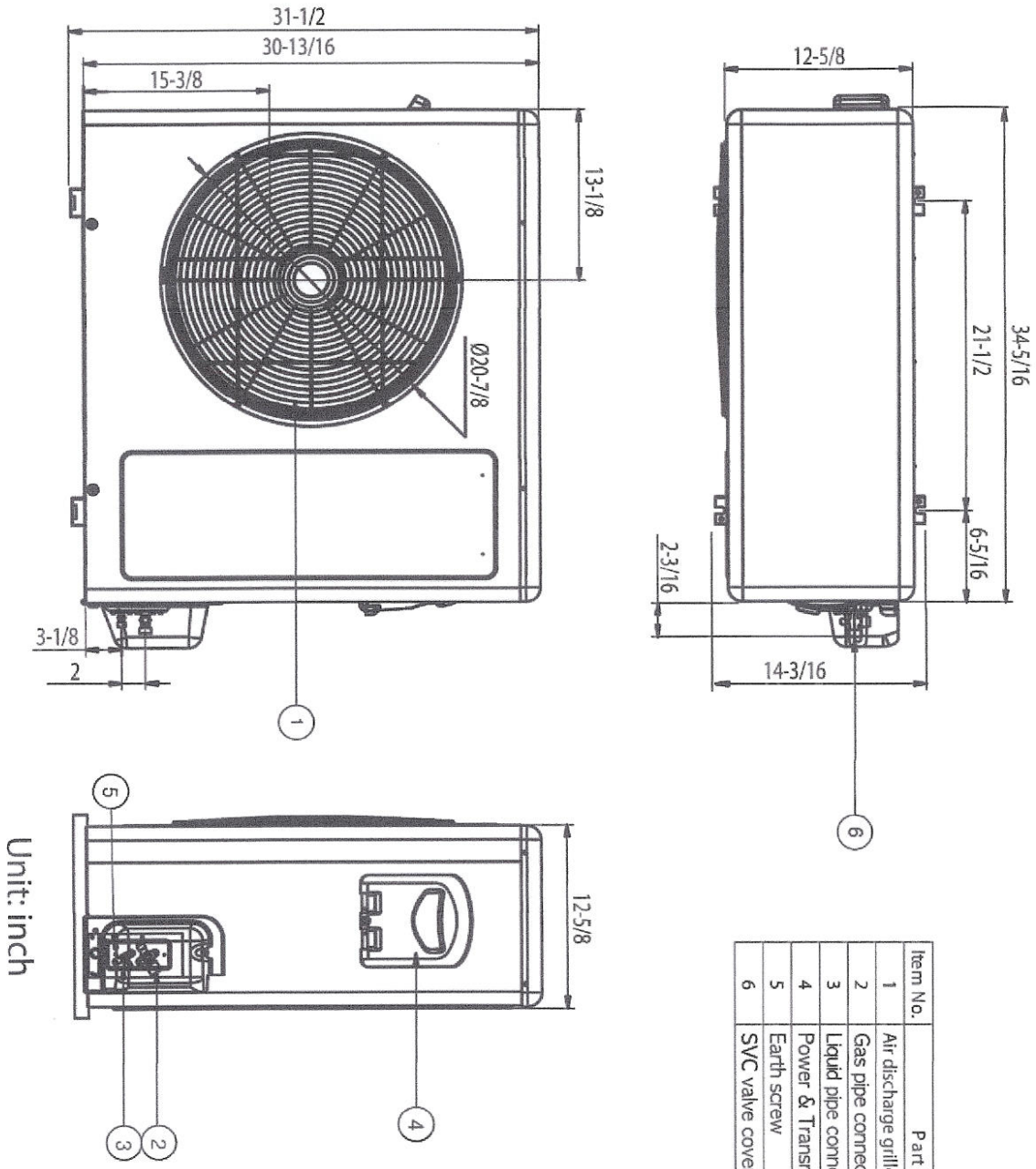
**Outdoor Unit (ODU) - LSU240HSV2**  
 High Efficiency Single Zone Inverter



Tag #: HP1/AH1 replace RTU2

Date: 02/01/2013

PO No.:



Unit: inch

Item No.	Part Name	Remarks
1	Air discharge grille	
2	Gas pipe connection	
3	Liquid pipe connection	
4	Power & Transmission connection	
5	Earth screw	
6	SVC valve cover	

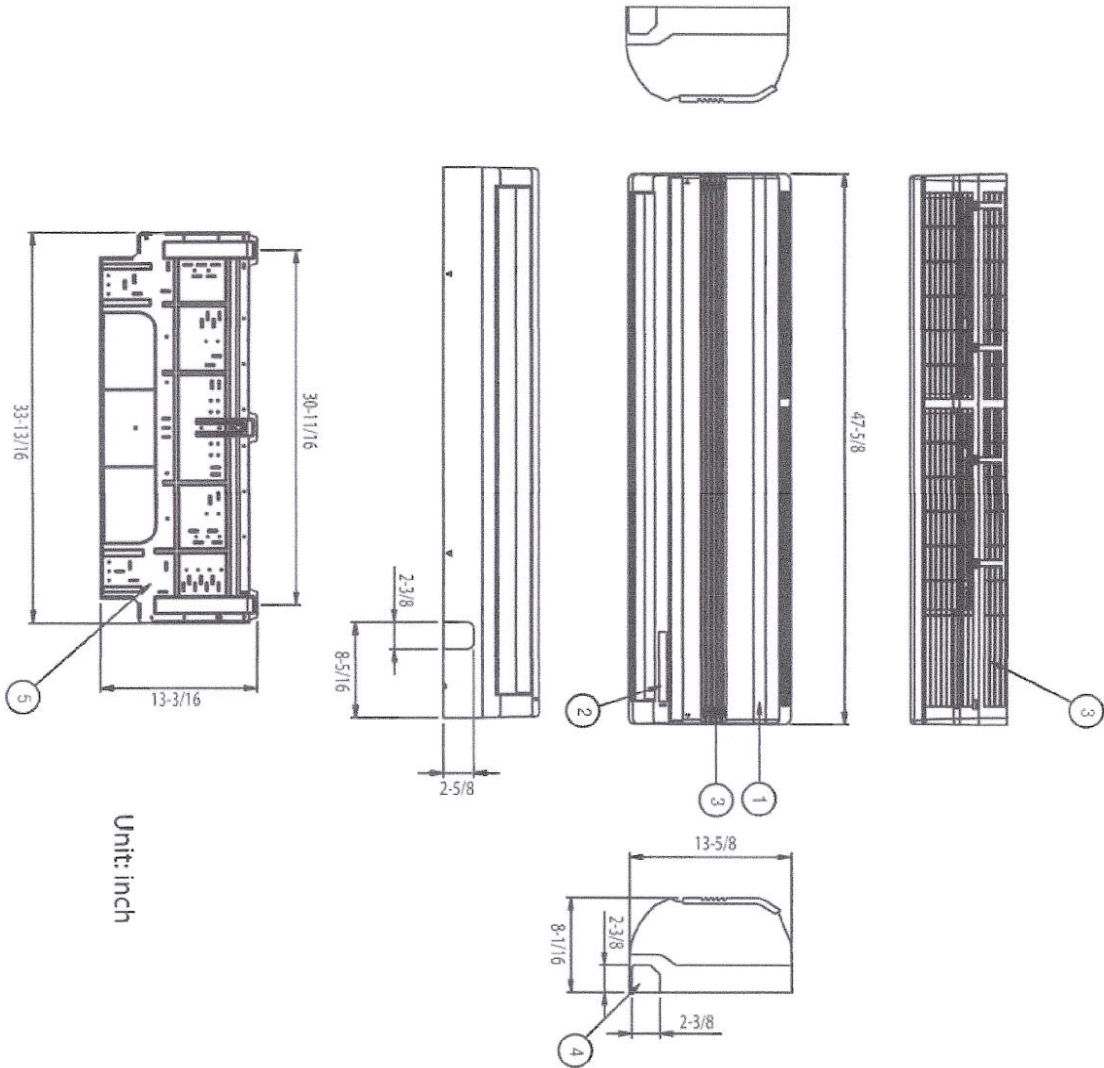
**Indoor Unit (IDU) - LSN240HSV2**  
 High Efficiency Single Zone Inverter



Tag #: HP1/AH1 replace RTU2

Date: 02/01/2013

PO No.:



Unit: inch

Item No.	Part Name	Remarks
1	Front panel	
2	Display & signal receiver	
3	Air suction grille	
4	Knockout hole	For pipe and cable
5	Installation plate	