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|-------------|------------------|
| Ref. No. | LGACC-070201-010 |
| Issued Date | Feb. 01. 2007 |
| Rev. No. | Rev. 0 |
| Rev. Date | - |

1.Specification

1.1 Compressor

| | | |
|----|-------------------------------|--------------------------------|
| 1 | Compressor Model Name | ARA081YAC |
| 2 | Compressor Type | Hermetic Motor Compressor |
| 3 | Compression Type | Scroll Type |
| 4 | Displacement | 81.02 cm ³ / rev |
| 5 | Refrigerant | R410A |
| 6 | Oil / Oil Charging Amount | FVC 68D(PVE) 1800cc ± 3% |
| 7 | Nitrogen Gas Holding Pressure | 0.4 ± 0.2 kg/cm ² G |
| 8 | Painting | Black Color Paint |
| 9 | Net Weight (Including Oil) | 39 kg (86.0 lb) |
| 10 | Suction Tube I.D | ∅ 22.4 ± 0.1 mm |
| 11 | Discharge Tube I.D | ∅ 12.9 ± 0.1 mm |

1.2 Motor

| | | |
|------------------------------------|-----------------------------|---------------|
| Motor Type / Starting Type | Three Phase Induction Motor | |
| Pole / Rated Output | 2 Pole / 5300 watts | |
| Power Source | 3 Ph - 380/420volt - 50 Hz | |
| Rated Revolution | 2891 rpm | |
| Insulation Class | B Class | |
| Winding Resistance (at 25 °C) | U - V | 1.96 ± 7% ohm |
| | V - W | 1.91 ± 7% ohm |
| | W - U | 1.99 ± 7% ohm |

1.3 Safety Device

| | | |
|-----------------------|-------------------------------|--------------|
| | SPEC | |
| IPR Valve | Operation Range | Reseal Range |
| | △38.7~45.7kgf/cm ² | - |
| Deep Vacuum operation | Ps 200~500mmHg | |

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1.4 Performance

| | | at 380 volt | at 420 volt |
|--------------------------|-----------|-------------|-------------|
| Cooling Capacity (± 5%) | [BTU/h] | 68,500 | 69,000 |
| | [W] | 20,075 | 20,222 |
| Power Input (±5%) | [watts] | 6,716 | 6,700 |
| EER (±5%) | [BTU/wh] | 10.2 | 10.3 |
| Running Current | [A] | 11.6 | 11.2 |
| Locked Rotor Ampere | [A] | 61 | 74 |
| Sound Level | [dB(A)] | 76 max. | |
| Vibration | [micron] | 50 max. | |

| Starting Condition | Specification | Balance Pressure Condition |
|-----------------------|--|--|
| at Normal Condition | start at 85% of Rated Voltage (323 Volt) | Ps / Pd = 17.14 / 17.14 kg/cm ² G |
| at Overload Condition | start at 90% of Rated Voltage (342 Volt) | Ps / Pd = 19.18 / 19.18 kg/cm ² G |

※) Rating Conditions

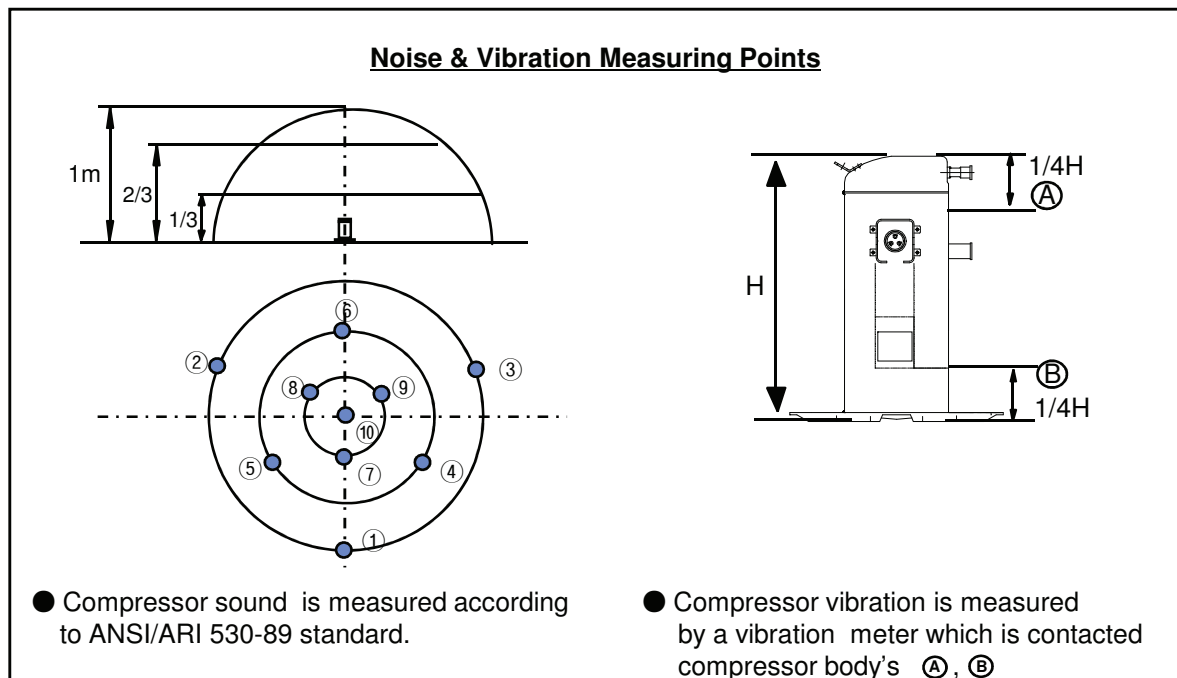
Cond. Temp. : 54.4 °C (130 °F)

Return Gas Temp. : 18.3 °C (65 °F)

Evap. Temp. : 7.2 °C (45 °F)

Liquid Temp. : 46.1 °C (115 °F)

Ambient Temp. : 35.0 °C (95 °F)



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1.5 Others

| | | |
|--|---------------------|---|
| Leak Tight Pressure | High Pressure Side | 40 kg/cm ² G |
| | Lower Pressure Side | - kg/cm ² G |
| Hydrostatic Strength Pressure | High Pressure Side | 170 kg/cm ² G |
| | Lower Pressure Side | 80 kg/cm ² G |
| Insulation Resistance (with 500V D.C Mega Tester) | | 50 MΩ Min. |
| Withstand Voltage | | 2,200 V- 1 sec. Leakage Current is less than 5 mA. |
| Residual Moisture / Residual Impurities | | 200 mg Max. / 80 mg Max. |

1.6 Electrical Component

| Part Name | | Specification | |
|--------------------|----------------------------|---------------|-------------|
| Running Capacitor | | - | |
| Overload Protector | Model Name | | |
| | 34HM - 519 (Internal Type) | | |
| | RUN | Open.Temp. | 155°C ± 5°C |
| | | Close Temp. | 61°C ± 9°C |
| S/T | Amps/Time To Trip(at 25°C) | 65A | |

2.Delivered Parts List

| Parts Name | Type (Model) | EA | Parts' Dwg. NO. | Supply | |
|-----------------|----------------|----|-----------------|-------------------------------------|-------------------------------------|
| | | | LG | YES | NO |
| Compressor | ARA081YAC | 1 | - | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| O.L.P | 34HM - 519 | 1 | Internal Type | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Cover, Terminal | - | 1 | 3550U - E002A | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Gasket | - | 1 | 4986U - L003A | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Grommet | - | 4 | 4022U - L004A | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Grommet,Sleeve | - | 4 | 4816U - L001E | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

※ Refer to Attachments (Accessory Parts Drawings.)

※ O.L.P is the internal type and attached inside of compressor.

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3. Operating Limit

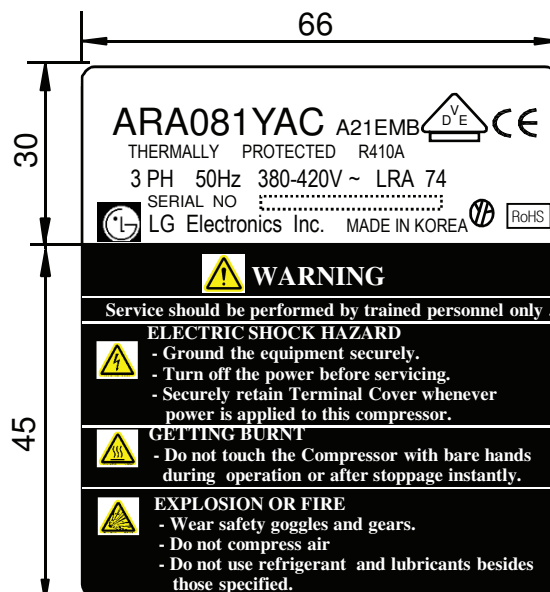
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|--------------------|----------------------------|-------------|
| Discharge Pressure | [kg / cm ² G] | 42 Max |
| Suction Pressure | [kg / cm ² G] | 1.7 ~ 11.0 |
| Motor Coil Temp. | [°C] | 135 Max. |
| Discharge Temp. | [°C] | 130 °C Max. |

| | |
|---------------------------------|---|
| Refrigerant Charge Limit | 5,000g Max. |
| Continuous Flood Back | Continuous Flood Back before the compressor should not be more than 10% of the total circulation quantity of refrigerant. |
| On/Off Interval & Cycles | On / Off = 3 Minutes / 3 Minutes 100,000 Cycles or less |
| Voltage Range | Rated Voltage ± 10 % |
| Frequency Range | Rated Frequency ± 2 % |
| Compression Ratio in Operating | The Compression ratio in operating shall be 6.7 or less , except 3 minutes starting period. |
| Pressure Difference at Starting | When starting, discharge pressure is balanced with suction pressure. |
| Tilt in Operation | The allowable tilt of the compressor in operation shall be 3 ° or less |

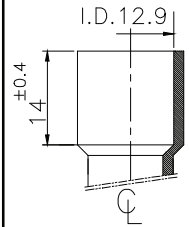
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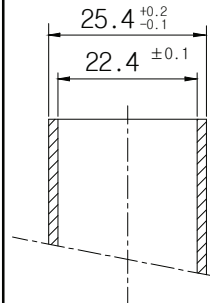
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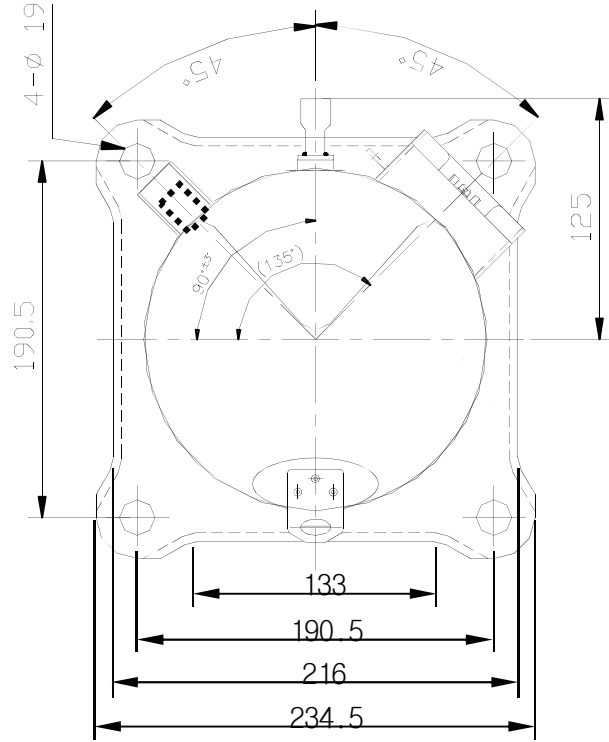
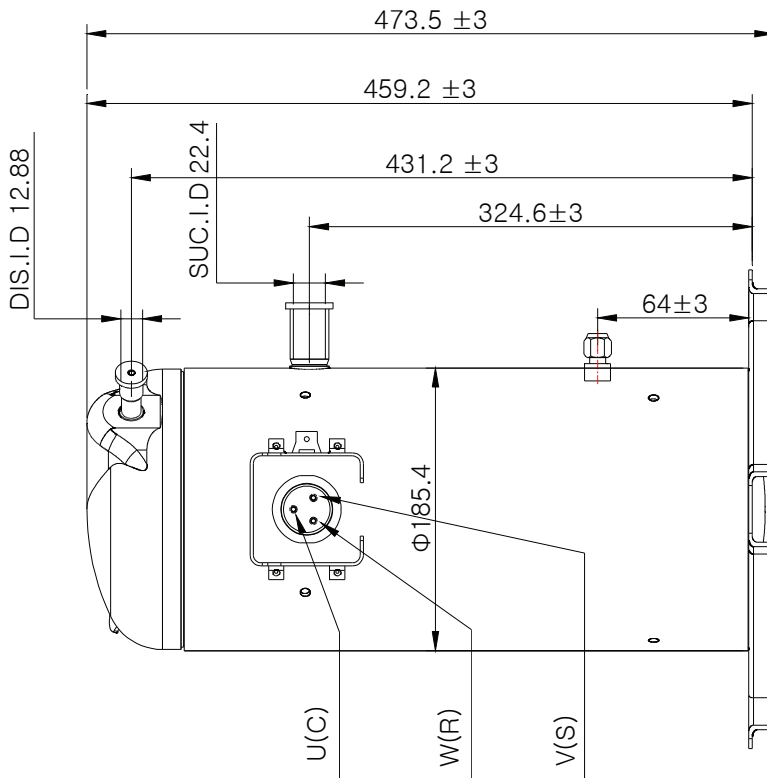
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Detail Discharge Tube



Detail Suction Tube



| | | | | |
|-----------------------|--|--------------|------------|-------------|
| UNIT | | mm | SCALE | N/S |
| DES. ENGR. | | S. H. JI | CHF. ENGR. | W. H. JEONG |
| 01/02/07 | | | 01/02/07 | |
| LG Electronics Inc. | | CM. Division | CUSTOMER | EMBRITAL |
| COMP. OUT LINE | | | | |
| ARA081YAC | | | | |

- NOTES**
1. PAINTING : BLACK PAINT (ELECTRO DEPOSITION)
 2. OIL : FVC 68D(PVE) OR EQUIVALENT 1,800 cc CHARGED
 3. NITROGEN CHARGED AFTER DEHYDRATION