

Ref. No.	LGACC-060413-071
Issued Date	Apr. 13. 2006
Rev. No.	Rev.0
Rev. Date	-

1.Specification

1.1 Compressor

1	Compressor Model Name	ARA049YAA
2	Compressor Type	Hermetic Motor Compressor
3	Compression Type	Scroll Type
4	Displacement	49.07 cm ³ / rev
5	Refrigerant	R410A
6	Oil / Oil Charging Amount	FVC 68D(PVE) 1800 ± 10 cc
7	Nitrogen Gas Holding Pressure	0.8 ± 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 / 3500 watts	
Power Source	3 Ph 380-420volt 50 Hz	
Rated Revolution	2900 rpm	
Insulation Class	E Class	
Winding Resistance (at 25 °C)	U - V	3.21 ± 7% ohm
	V - W	3.14 ± 7% ohm
	W - U	3.25 ± 7% ohm

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Rev. Date	-

1.3 Performance

		at 380 volt	at 420 volt
Cooling Capacity (±5%)	[BTU/h]	42,000	42,500
	[W]	12,305	12,452
Power Input (±5%)	[watts]	4,118	4,167
EER (±5%)	[BTU/wh]	10.2	10.2
Running Current	[A]	7.5	7.5
Locked Rotor Ampere	[A]		50
Sound Level	[dB(A)]	75 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

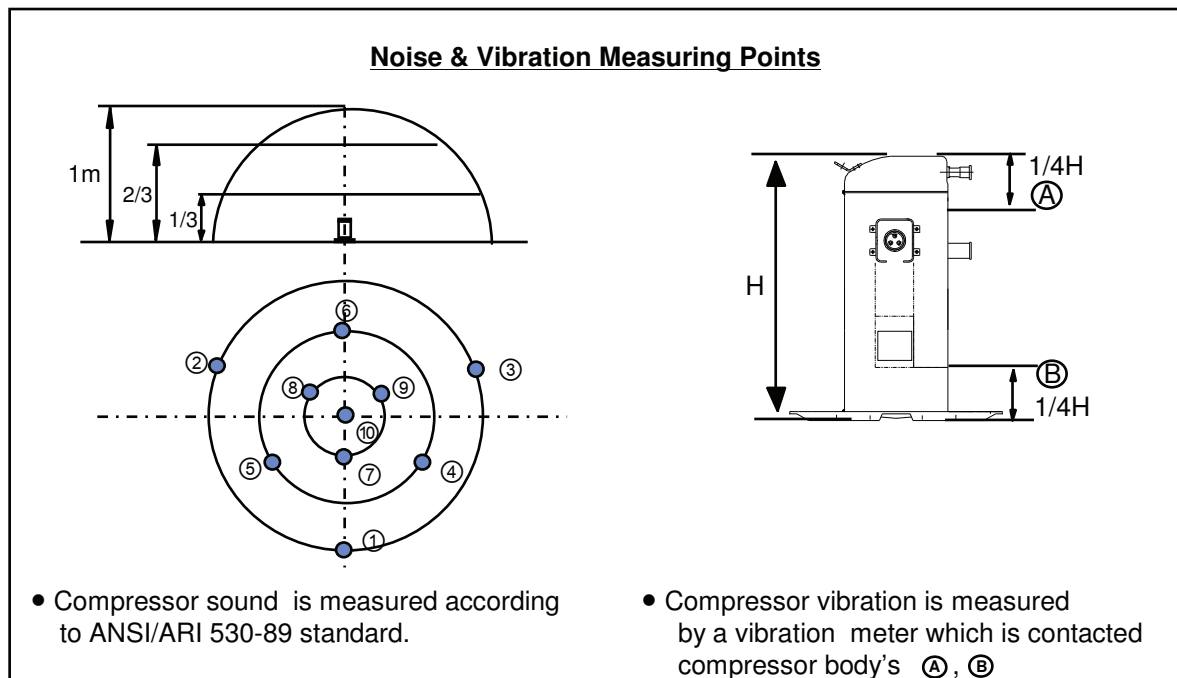
Cond. Temp. : 54.4 °C (130 °F)

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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1.4 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.

1.5 Electrical Component

Part Name		Specification	
Running Capacitor		-	
Overload Protector	Model Name		
	35HM-231 (Internal Type)		
	RUN	Open.Temp.	140 °C± 5°C
		Close Temp.	61 °C± 9°C
S/T	Amps/Time To Trip(at 25°C)	47 A / 2~10 Sec	

2.Delivered Parts List

Parts Name	Type (Model)	EA	Parts' Dwg. NO.	Supply	
			LG	YES	NO
Compressor	ARA049YAA	1	-	YES	NO
O.L.P	34HM - 231	1	Internal Type	YES	NO
Cover, Terminal	-	1	3550U – E002A	YES	NO
Gasket	-	1	4986U - L003A	YES	NO
Grommet	-	4	4022U - L004A	YES	NO
Grommet,Sleeve	-	4	4816U - L001E	YES	NO

※ 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

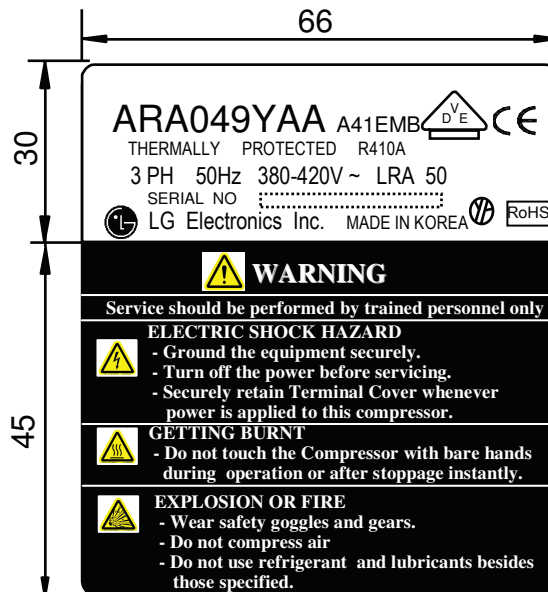
Discharge Pressure	[kg / cm ² G]	42 Max
Suction Pressure	[kg / cm ² G]	1.7 ~ 11.0
Motor Coil Temp.	[°C]	135 Max.
Discharge Temp.	[°C]	130 °C Max.

Refrigerant Charge Limit	5,400g 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 \pm 10 %
Frequency Range	Rated Frequency \pm 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

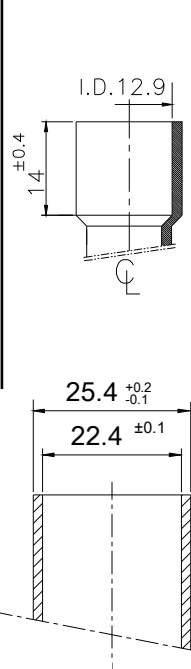
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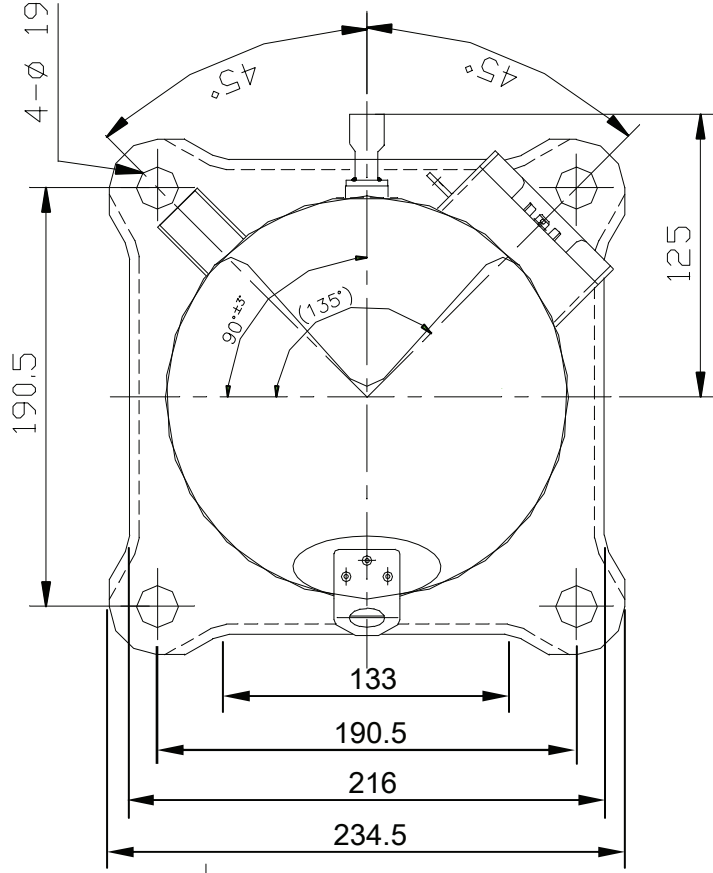
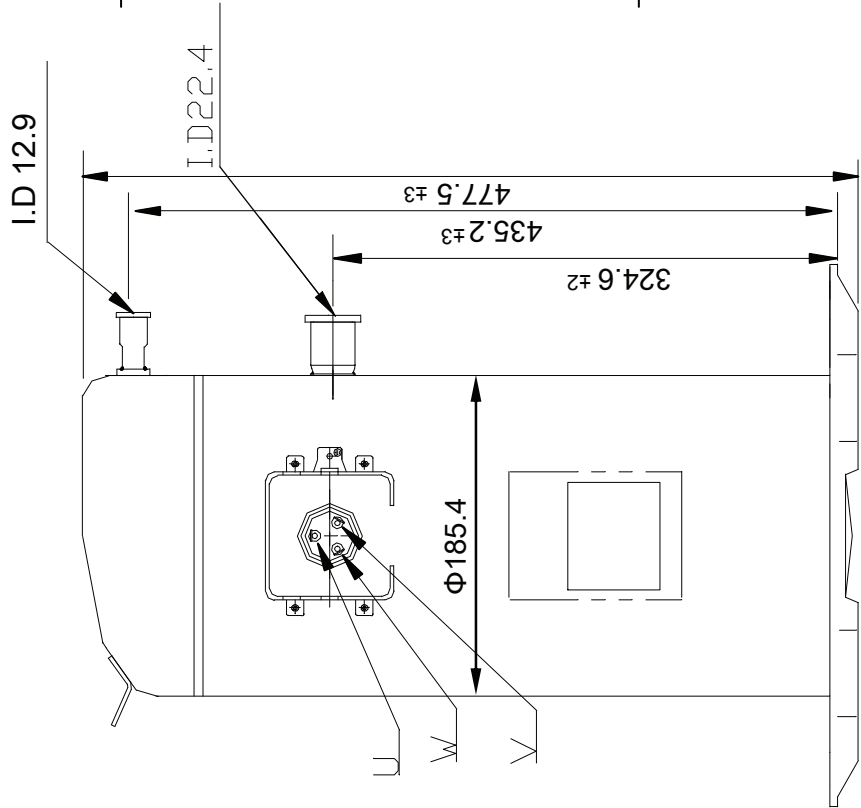
* LABEL *



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Detail Discharge Tube



UNIT	mm	SCALE	N / S
DES. ENGR.	S. H. JI	CHF. ENGR.	W. H. JEONG
Apr. 13. 2006		Apr. 13. 2006	
LG Electronics Inc. COMP. Division		CUSTOMER EMBRITAL	
COMP. OUT LINE			
ARA049YAA			

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