

●FOR RETURN

Document No.

DATE : 2010.05.07

●CUSTOMER : SHINCO

DRAFT	1st CHECK	2nd CHECK	APPROVE

FOR APPROVAL
SPECIFICATION OF ROTARY COMPRESSOR
MODEL : UG8D185JUAEH

FOR CUSTOMER'S APPROVAL			
APPROVAL	YES		NO
DATE OF APPROVAL			
SIGNATURE			
COMPANY NAME			
REMARKS			
ACCESSORY PARTS			
ITEMS	PART NO	Q'TY	REMARKS
COVER TERMINAL	DB63-02310A	1	
NUT	6021-001142	1	
GASKET	DB63-00817A	1	
SPRING OLP	-	-	
GROMMET- ISOLATOR	DB63-01049A	3	
OVERLOAD PROTECTOR	-	-	INTERNAL (14HM1026)
Please approve compressor specification, out-drawings, accessories and packing specifications.			

SUZHOU SAMSUNG ELECTRONICS CO., LTD
ROTARY COMPRESSOR DIV

**ROTARY COMPRESSOR
SPECIFICATION SHEET**



三星电子

MODEL : UG8D185JUAEH

SPEC. NO :

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Approved by internal system

1. APPLICATION

H/P & Cooling Type Air conditioner

Rated Voltage & Frequency 1PH 220~240V 50Hz

Refrigerant R-410A

2. COMPRESSOR DATA

Pump Type Rolling Piston Type

Displacement 21.7cc/rev

Oil Type FREOL α68ES-T (POE) or Ze-GLES RB68EP or equivalent

Initial Charged 550 cc

Net Weight(Included Oil) 15.82kg

Painting Black

Suction Tube I.D 12.85mm

Discharge Tube I.D 9.70 mm

3. MOTOR DATA

Motor Type Permanent Split Capacitor

Locked Rotor Amps 40.0Amp at 240 V

Motor Resistance Main Winding : 1.81Ohm at 20°C

Sub Winding : 2.82 Ohm at 20°C

Insulation Class E Class

4. ELECTRICAL COMPONENTS

Overload Protector 14HM1026(INTERNAL)

Running Capacitor 50uF / 450 VAC

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5.NOMINAL PERFORMANCE

Voltage (V)	240	-	Note
Cooling Capa. (Btu/h)	18,900	-	-
Running Current (A)	8.8	-	-
Input (W)	1,928	-	-
EER (Btu/W.h)	9.8	-	-
Noise (dBA)	60.0↓	-	Max of 4 point measurement at 90cm from surface
Vibration (μm)	150.0↓	-	Larger tangential vibration displacement at 90° & 180° points

RATING CONDITION

Condensing Temperature 54.4°C (130°F)

Evaporating Temperature 7.2°C (45°F)

Return Gas Temperature 35.0°C (95°F)

Liquid Temperature 46.1°C (115°F)

Ambient Temperature 35.0°C (95°F)

Compressor Cooling 1 m/s air cooling

* Return Gas Temp. for Noise & Vibration is 15.0°C (59°F)

6.GENERAL CHARACTERISTICS

No	Item	Characteristics
1	Operating voltage range	Within ±10% of the rated voltage
2	Starting voltage	No less than 85% of the rated voltage at compressor terminal in pressure balancing condition
3	Hydrostatic pressure rise	High pressure side : 165 kgf/cm ² .G max Low pressure side : 85 kgf/cm ² .G max
4	Residual moisture/Residual impurity	80 mg Max / 50 mg Max
5	Insulation resistance	50 MΩ min (with 500 V DC mega tester)
6	Withstand voltage	At 1800 V/sec(1250 v/min) Leakage current is less than 2.5 mA

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No	Item	Operational standards and limits
1	Quantity of refrigerant charge	Split type : Max.1,460g / Window type : Max. 1,020g (Need to the special discussion in case of excess)
2	Condensing temp (pressure)	28°C~65°C (17.20~42.30 kg/cm ² .G)
3	Evaporating temp (pressure)	-25°C~+12.7°C (2.33~10.90 kg/cm ² .G)
4	Compression ratio	2 ~ 8
5	Suction gas superheat	Superheat 1°C min
6	Liquid subcool	Sufficient liquid subcool is recommended
7	Discharge gas temp.	115°C max.
8	Motor winding temp.	130°C max.
9	Bottom shell temperature	Min. 5 °C higher than condensing temp.
10	Abnormal pressure rise	70.0kg/cm ² .G max.
11	On-Off cycle	On : 3 Minutes min , Off : 3 Minutes min → Total 200,000 cycles
12	Oil level	Steady-state : higher than 5mm based bottom plane of cylinder Transient-state : higher than bottom plane of bottom flange
13	Vibration of tubing	Tubing vibration displacement : Max 0.8mm (±10% of rated voltage) If the resonance of the pipe can be checked, above condition is not necessary
14	Tube stress	Starting & stop : less than 3.5 kg/mm ² Normal operating : less than 1.25 kg/mm ²
15	Spacing of tubing	Between tube and moving parts : Min. 13.0 mm Between tube and non-moving parts : Min. 10.0 mm
16	Length of tubing	15m max between indoor and outdoor sections (Need to the special discussion in case of excess)
17	Height difference of tubing	7m max between indoor and outdoor sections (Need to the special discussion in case of excess)
18	Tilt of operation	The allowable tilt of compressor under operation should be 5° or less
19	Storage	Do not open compressor rubber plugs more than 10 minutes before
20	External shock	External shock should be less than 60 G
21	Prohibition of air or vacuum operating	Do not operate the compressor in air or vacuum
22	Terminal Cover & Nut Fasten Torque	15±5 kgf-cm

* Effective Period of This Document*

This document will be effective after Samsung's receipt with your authorized signature.

When design modification is approved by the customer, the current document is unavailable.

ROTARY COMPRESSOR

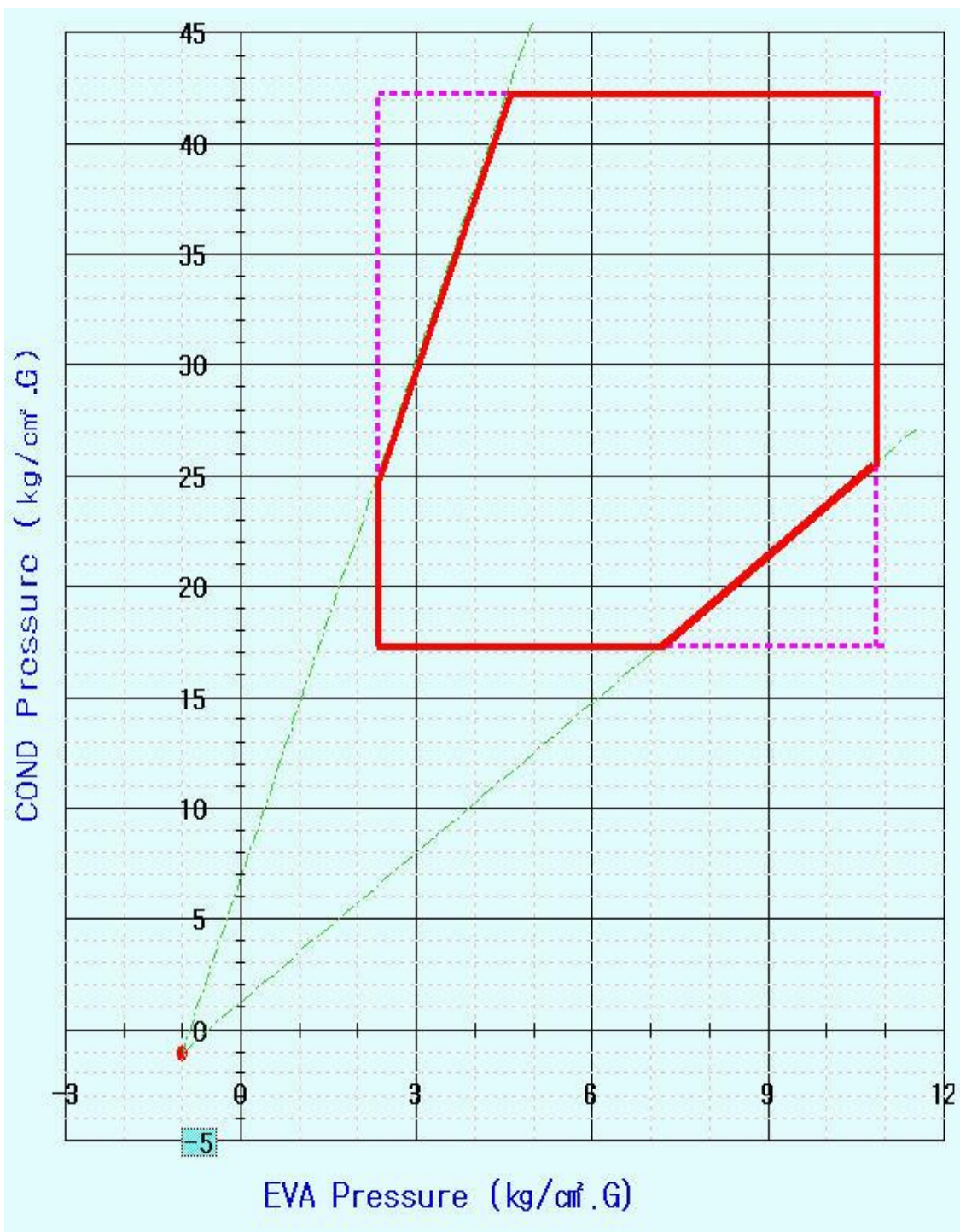
APPLICATION ENVELOPE

SPEC. NO : 0

MODEL : UG8D185JUAEH

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ROTARY COMPRESSOR

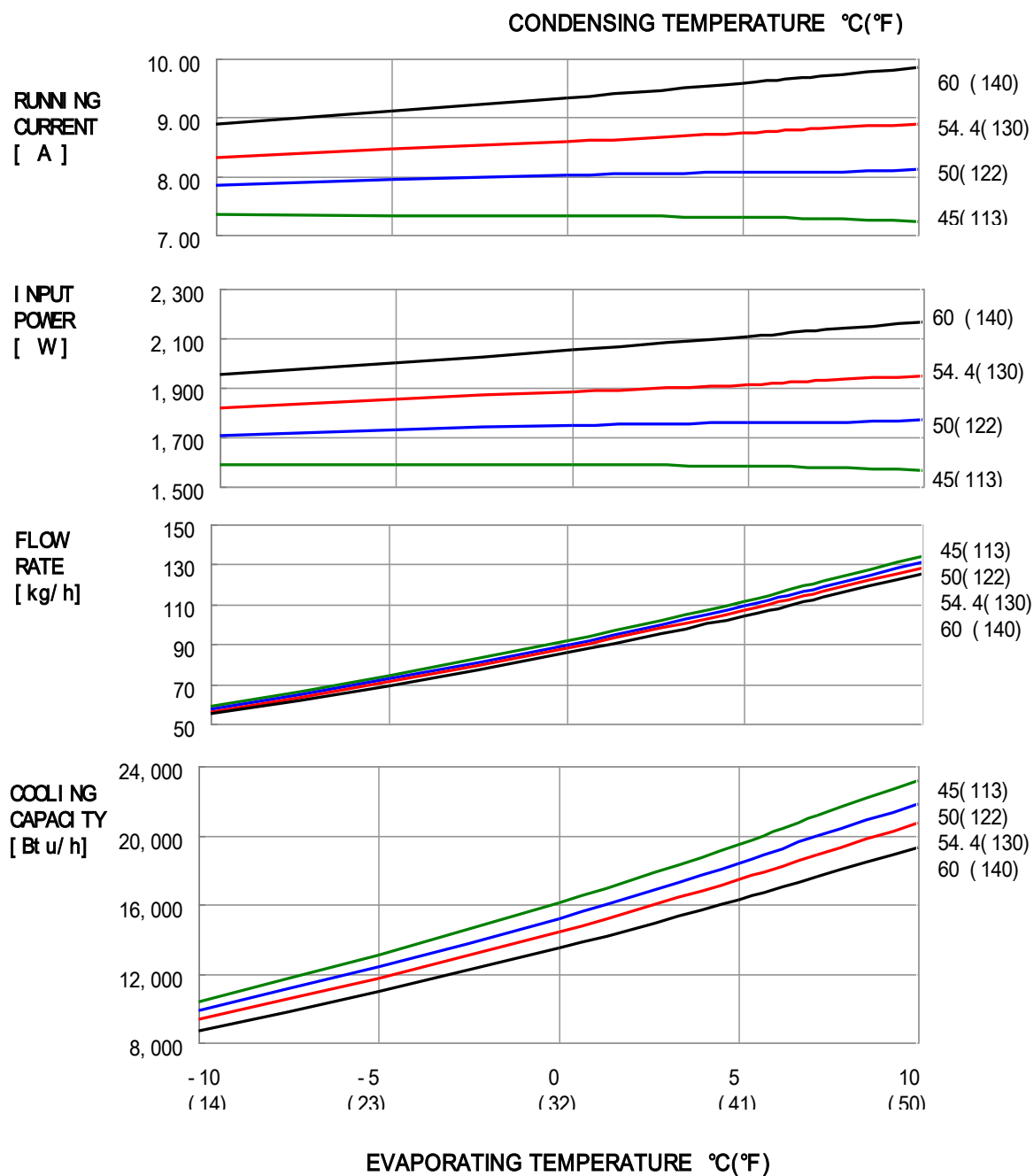
PERFORMANCE CURVE

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BASED ON
SUCTION TEMP. : 35°C (95°F)
SUB COOL TEMP. : 8.3°C (15°F)
AMBIENT TEMP. : 35°C (95°F)
VOLTAGE : 240V


ROTARY COMPRESSOR

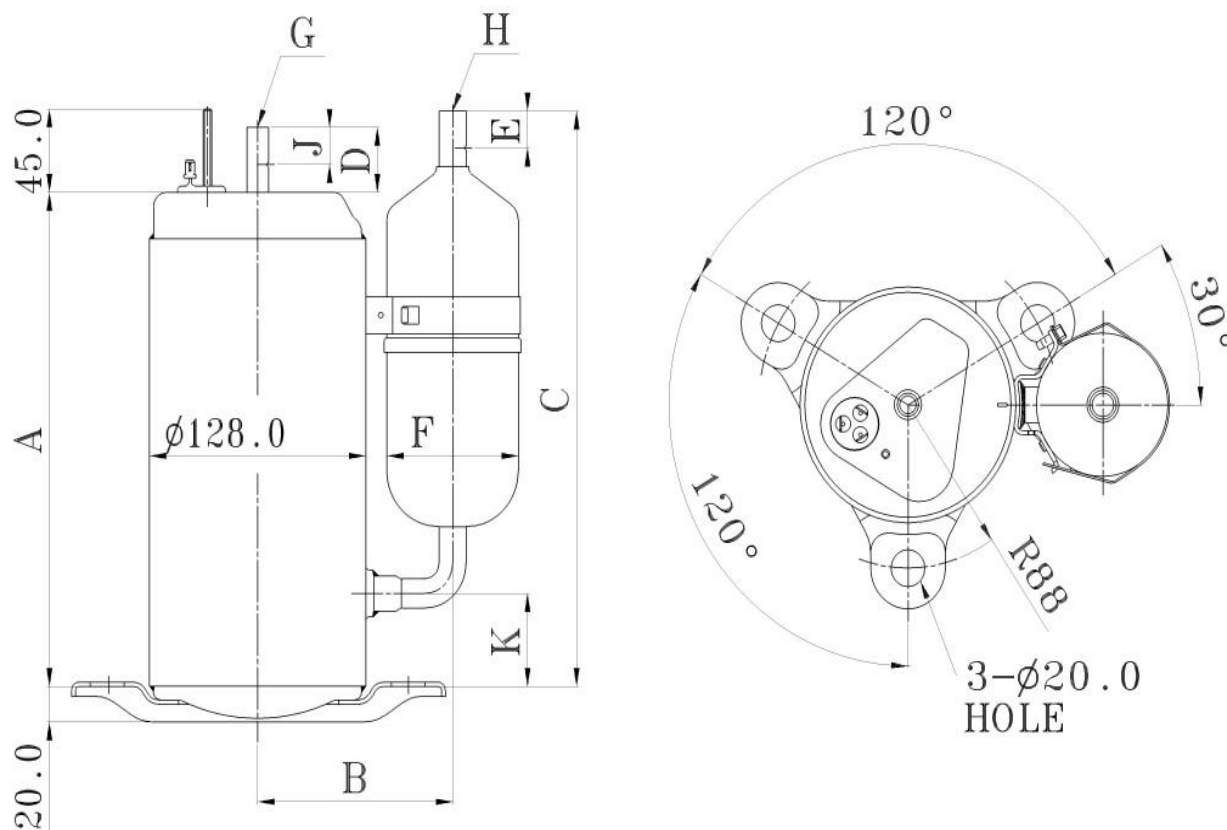
OUTDRAWING DIMENSION

MODEL : UG8D185JUAEH

SPEC. NO : 0

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☞ The foot angle is +30 degree from horizontal line that connecting compressor body center with accumulator center.

UNIT: mm

MODEL NO.	DIMENSIONS							Accum (OD) F	TUBE (I.D)	
	A	B(±3.0)	C	D	E	J	K		G(±0.15)	H(±0.15)
UG8D185JUAEH	271.8	114.47	310.6	35.0	15.0	15.0	50.61	77.4	9.7	12.85

ROTARY COMPRESSOR

ACCESSORY DIMENSION



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MODEL : UG8D185JUAEH

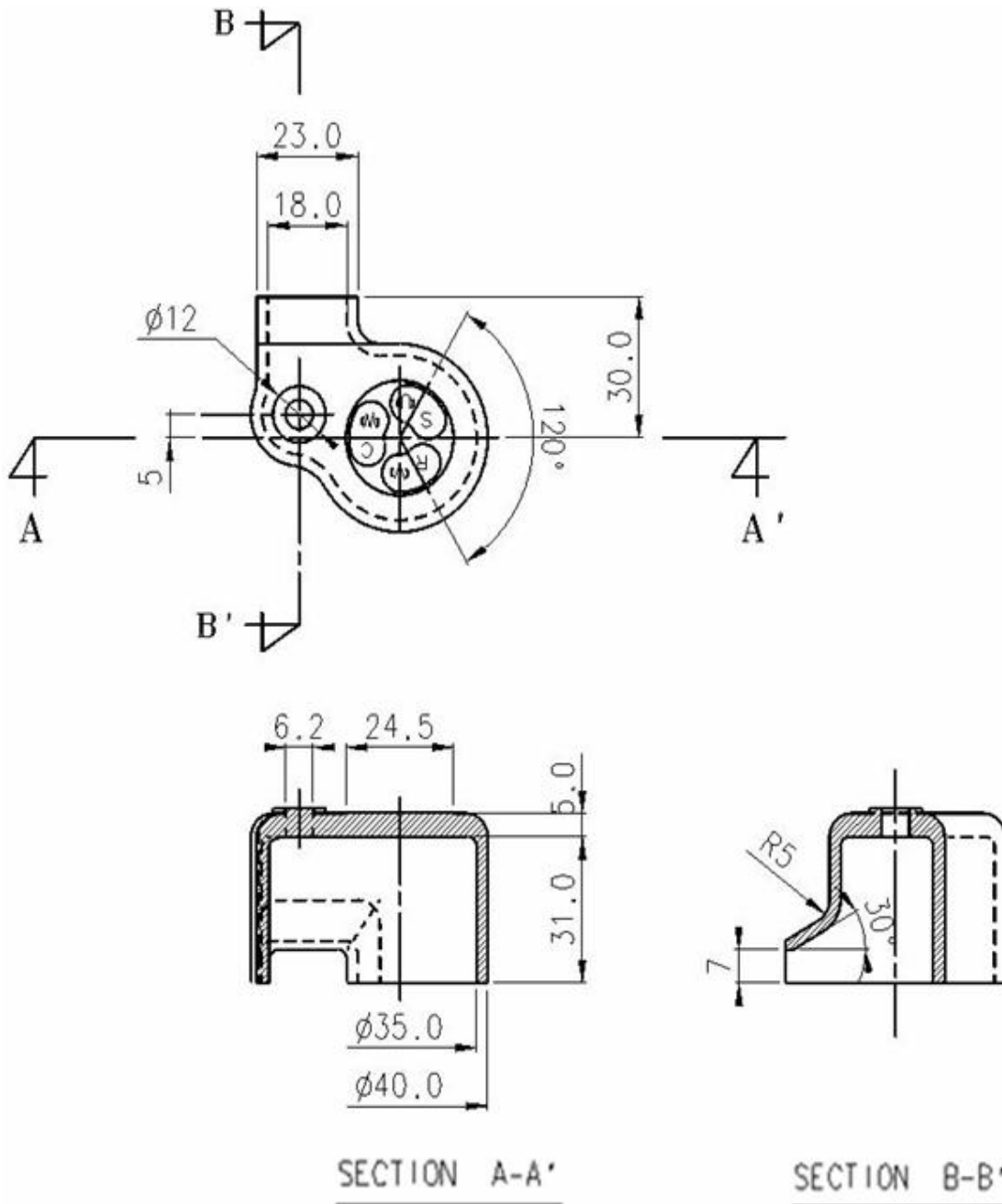
SPEC. NO : 0

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ITEM	COVER TERMINAL	PART NO.	DB63-02310A	Q'TY	1	REMARK
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- Material : SABIC N1250
- Color : Black
- U.L 94 , 5VA



ROTARY COMPRESSOR



ACCESSORY DIMENSION



三星电子

MODEL : UG8D185JUAEH	SPEC. NO : 0	
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ITEM	OLP - SPRING	PART NO.	-	Q'TY	-	REMARK	-

ITEM	GROMMET-ISOLATOR	PART NO.	DB63-01049A	Q'TY	3	REMARK	
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- Material : NR
- Hardness : $43^{\circ} \pm 5^{\circ}$

ROTARY COMPRESSOR



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ACCESSORY DIMENSION

SPEC. NO : 0

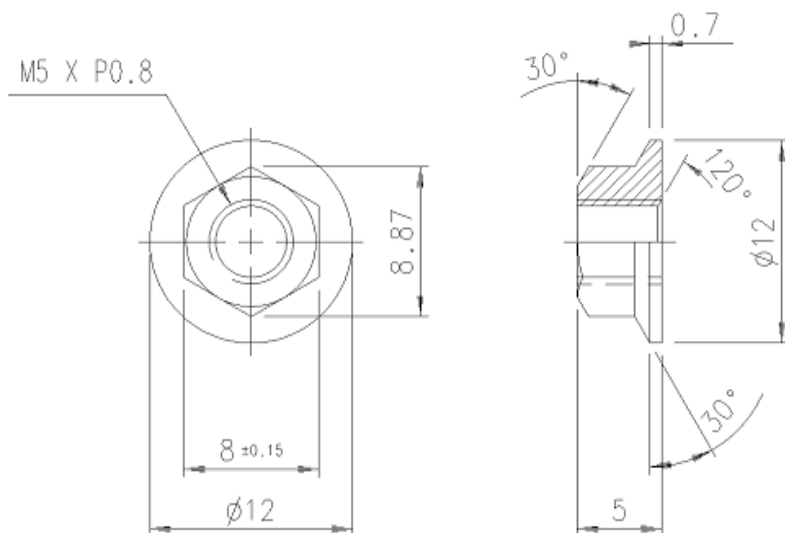
MODEL : UG8D185JUAEH

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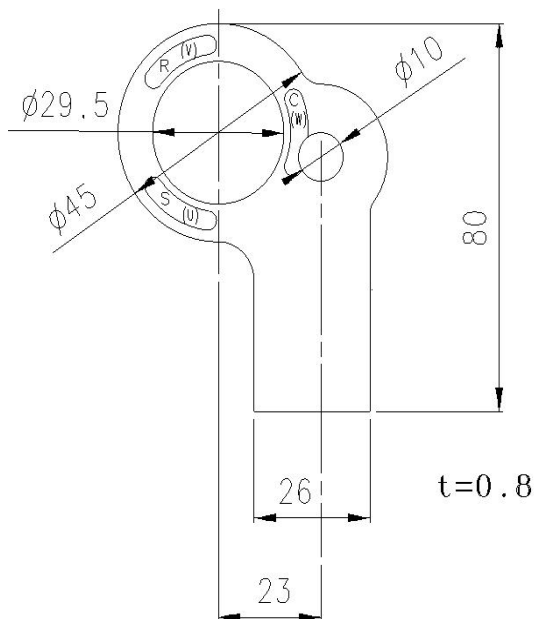
ITEM	NUT	PART NO.	6021-001142	Q'TY	1	REMARK	
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-Material : SWCH10A



ITEM	GASKET	PART NO.	DB63-00817A	Q'TY	1	REMARK	
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- Material : EPDM RUBBER
- Hardness : 80-85
- Thickness : 0.8 ± 0.2


ROTARY COMPRESSOR

ACCESSORY DIMENSION

SPEC. NO : 0

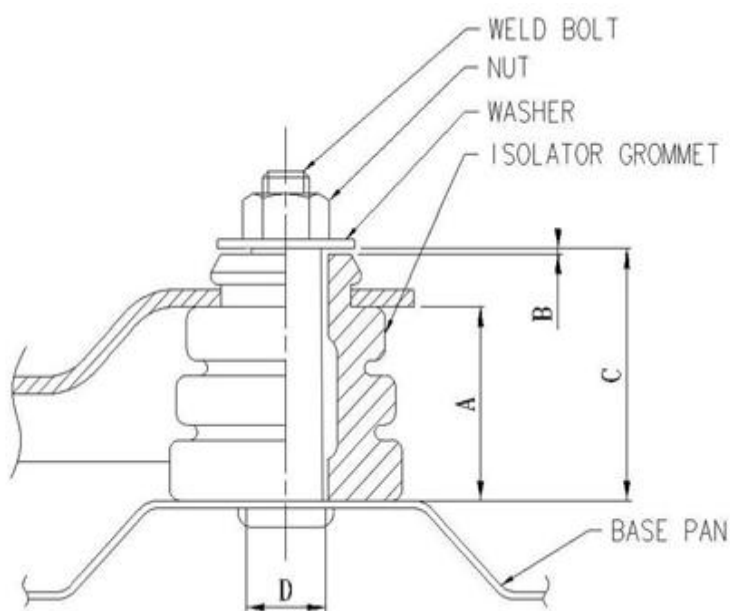
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ITEM	OVERLOAD PROTECTOR (OLP)	PART NO.	-	Q'TY	-	REMARK	3HM206
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ITEM	MOUNTING TYPE (1 FOOT TYPE)	PART NO.		Q'TY	1	REMARK	
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A	33.0 mm
B	0.5 ~ 2.0 mm
C	42.0 mm
D	10.7 mm

ROTARY COMPRESSOR

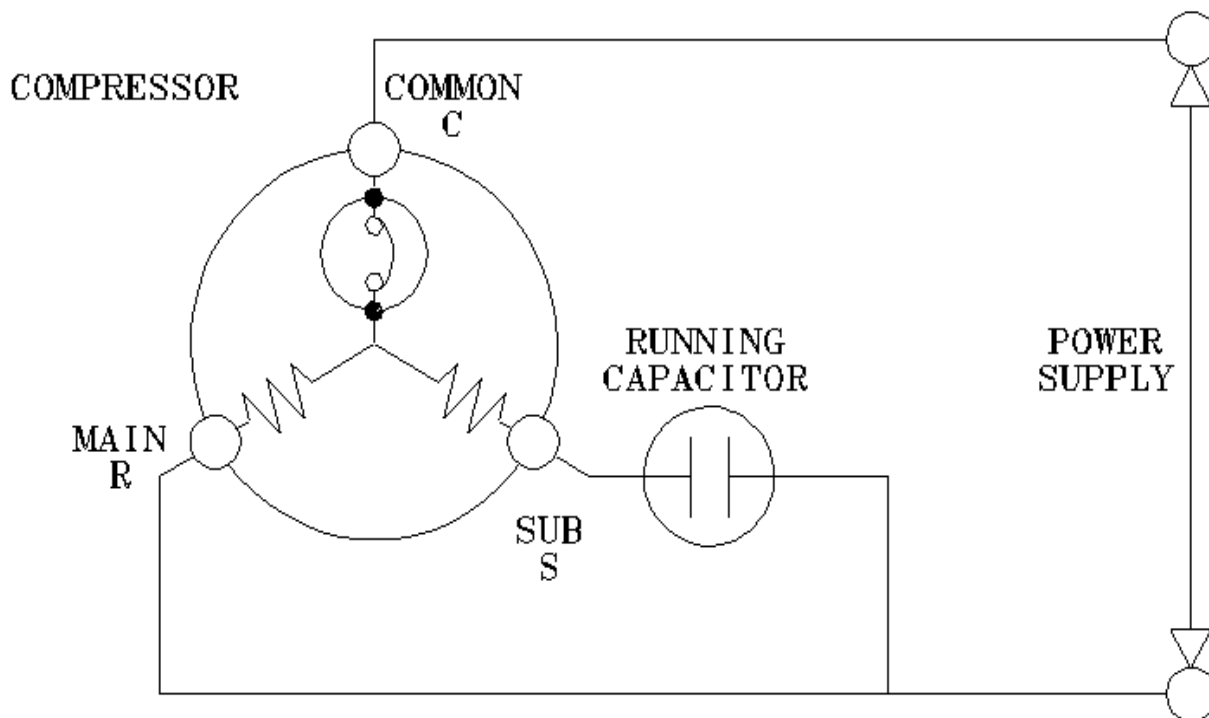
WIRING DIAGRAM

MODEL : UG8D185JUAEH

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FEET CONTAINER

MODEL : UG8D185JUAEH

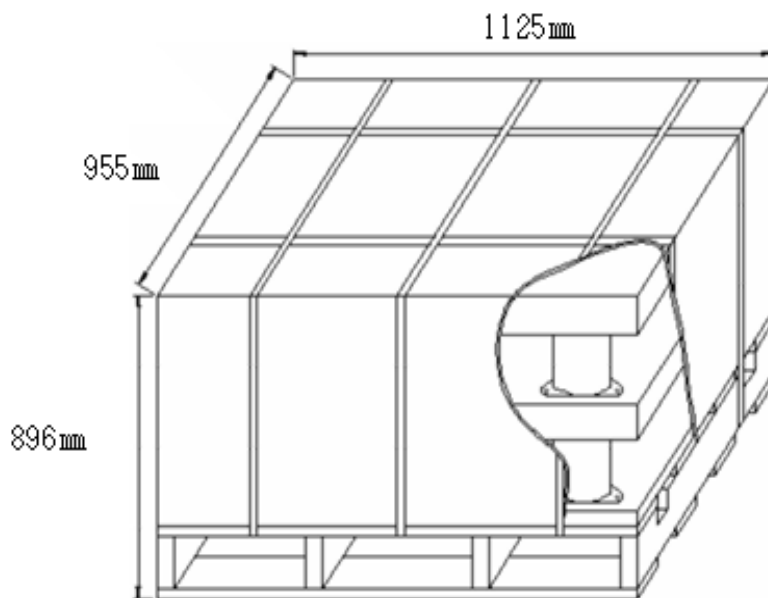
SPEC. NO : 0

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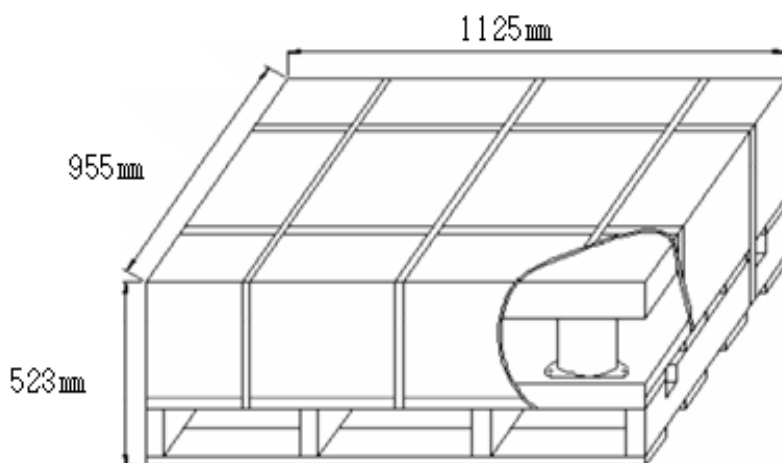
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FRAME	Compressor Q'ty / Carton		Carton Q'ty (20 ft)		Accessory Box ⑤ (Carton)	Loading Quantity ⑥ (pcs)
	1 step ① (pcs)	2 step ② (pcs)	1 step ③ (Carton)	2 step ④ (Carton)		
48F	30	60	4	16	4	1,080

Total Compressor Q'ty = ① * ③ + ② * ④ = ⑥ (1080pcs)



2 STEP PACKING ⑥



1 STEP PACKING ①

A/C SET TEST DATA

Please, fill in the below to check whether is applied or not the exact compressor to your A/C.

1. General data

No	Item	Data
1	Air conditioner model name	
2	Compressor name	
3	Refrigerant charge	Standard (kg). Max (kg)
4	Length of tubing (m)	
5	Height difference of tubing (m)	
6	Air conditioner Type	Window () or Split () / Cooling () or H/P ()
7	Sales area	

2. Data in overload running condition & low temperature's

No	Condition	Data						
1	Overload running	Item		Indoor temp.			Out door temp.	
		Cooling	DB/WB : / °C			DB/WB : / °C		
		Heating	DB/WB : / °C			DB/WB : / °C		
		Item		Cooling			Heat pump	
			Low Voltage	Rated Voltage	High Volatage	Low Voltage	Rated Voltage	High Volatage
		Voltage (V)						
		Input (W)						
		Current (A)						
		T-coil(°C)						
		T-top (°C)						
		T-dis (°C)						
		T-suction(°C)						
		T-cond (°C)						
		T-eva (°C)						
		High pressure (kg/cm ² .G)						
Low pressure (kg/cm ² .G)								

No	Condition	Data
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2	Low Temp. running	Item	Indoor temp.			Out door temp.		
		Cooling	DB/WB : / °C			DB/WB : / °C		
		Heating	DB/WB : / °C			DB/WB : / °C		
			Cooling			Heat pump		
			Low Voltage	Rated Voltage	High Volatage	Low Voltage	Rated Voltage	High Volatage
		Voltage (V)						
		Input (W)						
		Current (A)						
		T-coil(°C)						
		T-top (°C)						
		T-dis (°C)						
		T-suction(°C)						
		T-cond (°C)						
		T-eva (°C)						
High pressure (kg/cm ² .G)								
Low pressure (kg/cm ² .G)								

3. Starting ability data & stall's

Items	Judgment	Test voltage (V)	Test Current (A)	High pressure (kg/cm ² .G)	Low pressure (kg/cm ² .G)	T-top (°C)
Restarting ability after overload running	OK () NG ()					
Starting ability in soaking condition (Nekomi)	OK () NG ()					
Stall	OK () NG ()					

4. Electirc parts specification

Electric parts						
Running capacitor	uF /	Vac	Starting capacitor	uF /	Vac	
Starting relay	(Model name :)					
PTC relay	Ω V (Model name :)					
OLP	(Model name :)					