

GMCC



PA270G2CS-4MU1

NO. : YJ170707

DATE: 2017-7-26

## HERMETIC COMPRESSOR SPECIFICATION

Model : PA270G2CS-4MU1

Accept Marking:

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Approved	Drafted

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## 1、(Application)

A/C Type	Cooling & Heating A/C System
Refrigerant Type	R410A
Maximal Refrigerant Charged	2.10Kg Max
Power Source	Single Phase 1Φ-50Hz-220-240V
Safety Approval	TUV、CCC

## 2、(Specification)

Compressor Type	Hermetic Motor Compressor
Displacement	27.0cm <sup>3</sup> /rev.
Oil Charged	ESTER OIL VG74 -750 ml
Weight (Oil Included)	19.2Kg
I. D. of Discharge Pipe	9.8 ±0.1 mm
I. D. of Suction Pipe	16.2 <sup>+0.2</sup> <sub>-0.1</sub> mm

## 3、(Motor Specification)

Motor Type	Single Phase Induction Motor · PSC
Pole Numbers	2 /Poles
Insulation Grade	E /Grade
20°C) Coil Resistance(at 20°C)	Main: 1.37 ±5% Ω Aux. : 1.75 ±5% Ω
Locked Rotor Amps	(at 1Φ-50Hz-240V) 59 ±10% A
Ruing Capacitor	60μF-400V

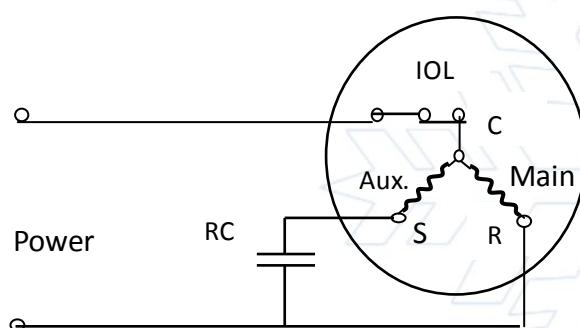
## 4. (Rated Performance Parameters)

Rated Capacity	6825/6875	±5% W
Rated Input Power	2235/2385	±5% W
Rated Input Current	10.55/11.15	±5% A
% COP %	305/288	±5%
NOISE (Sound Power Level)	★ 76	dB(A) MAX
VIBRATION	★ 3.3	m/s <sup>2</sup> MAX

## (Rating Condition)

Power Source	1φ-50Hz-220-240V	1φ-50Hz-220V
Cond. Temp.	54.4°C	★54.4°C
Evap. Temp.	7.2°C	★7.2°C
Return Gas Temp.	35°C	★18°C
Liquid Temp.	46.0°C	
Ambient Temp.	35°C	
Discharge Tube Temp.	85°C (ForcedAir)	

## 5. (Wire Connection Figure)



S: START (Aux Winding) R:  
 RUN (Main Winding) C: COMMON  
 RC: Run Capacitor  
 OLP: Overload Protector

## 6. (Characteristic)

Insulation Resistance	$\geq 30 \text{ M}\Omega$	Nitrogen Charged
Withstanding Voltage	AC1500V-1min	
EARTHING RESISTANCE	0.1 $\Omega$	以下 MAX
Residual Moisture	$\leq 300 \text{mg}$	
Residual Impurities	$\leq 45 \text{mg}$	

## 7. (Limit of System Application)

NO.	Item	Standard (reference)	Limit Cond.	Note
1	Discharge Pressure	3.28 MPa (55°C)	4.15 MPa (65°C)	See the attached chart of limitation of operation pressure.
2	Suction Pressure.	0.89 MPa (-5~10°C)	0.23~1.15 MPa (-25~15°C)	
3	Compressing Ratio	8 Max	8 Max	
4	Motor Coil Temp.	100°C	125°C	
5	Discharge Temp.	100°C	115°C	

## 8. Application Notice:

1. No liquid refrigerant go back to compressor during the whole time.
2. When continuous running (include defrost and dehumidify), compressor bottom temp. subtract condensing temp. should be more than 5°C  
When intermittent running, compressor bottom temp. subtract condensing temp. should be more than 0°C.
3. When intermittent running, each cycle should be longer than 5 minutes. (On: over 2 min, Off: over 2 min)
4. **220V-15%~240V+10%(187~264V)**

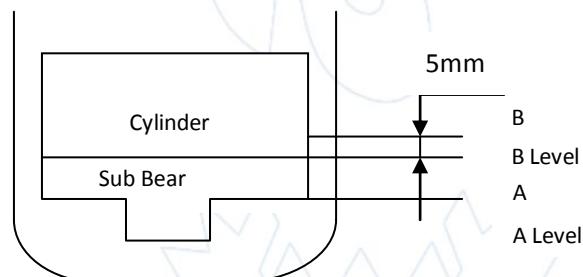
The supply voltage should be **220V-15%~240V+10%(187~264V)**

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5. Pressure should be balanced between high and low pressure side.
6. In operation, abnormal noise is not allowed.
7. 5° .  
Tilt angle should be less than 5° .
8. Oil level confirmation should be tested at:
  - 1)Overload and low load running;
  - 2)Refrigerant soaking starting;
  - 3)Defrost starting and resuming;
  - 4)Connection pipe over 15m;
  - 5)Elevation over 5m;

Oil level confirmation test performed with side glass compressor:

- 1) At steady running (include continuous or intermittent operation): oil level should be higher than B level.
- 2) Within 3 minutes at starting: oil level should be higher than A level.



9. Please confirm that this product can meet your requirements of the productive efficiency and the performance pass rate.

## 9、Other Application Notice

1. 34.3N/mm<sup>2</sup> 19.6N/mm<sup>2</sup>

When design the connection tube, the system should be consider the vibration stress the compressor start, stop and the system transportation status , ensure it doesn't be

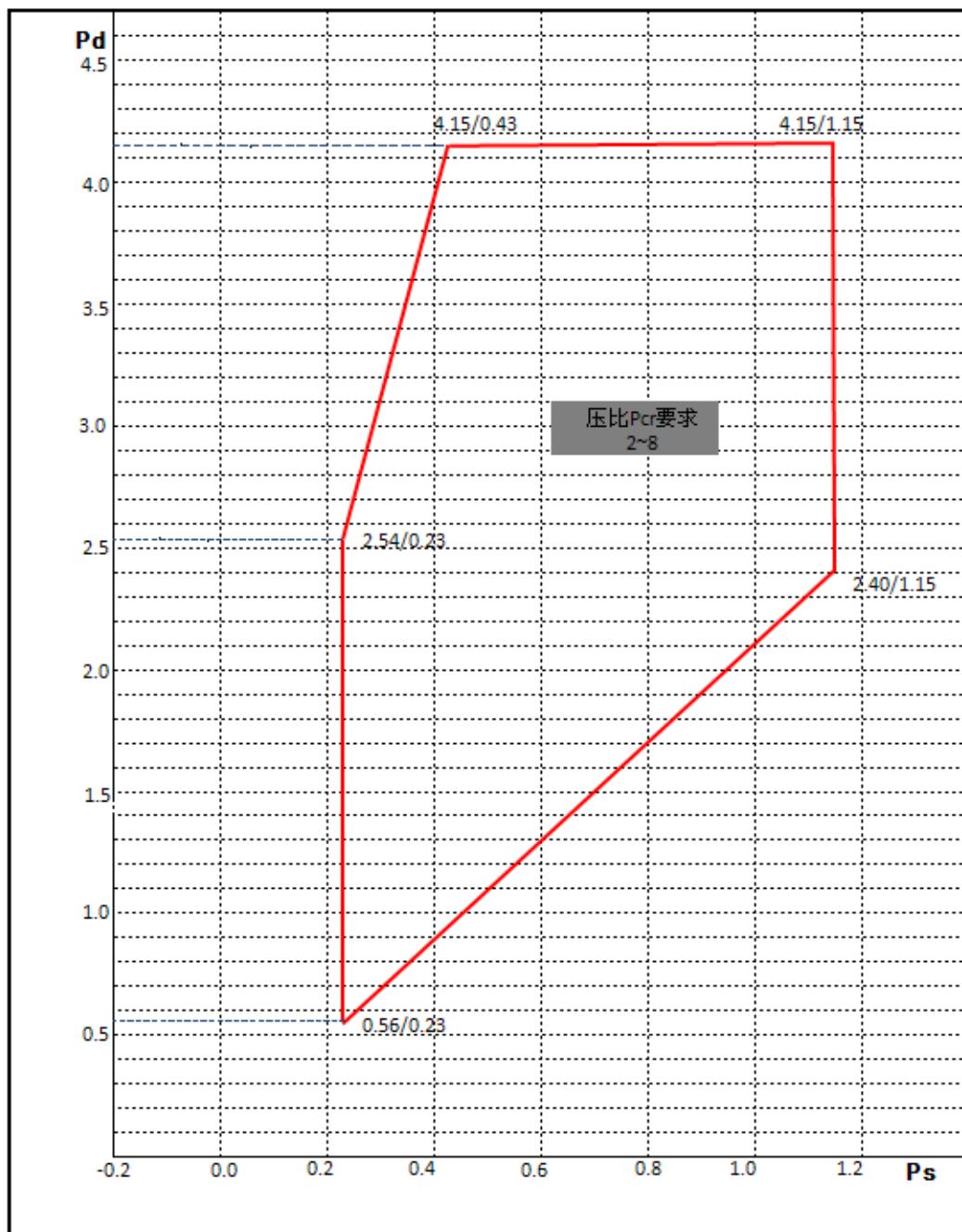
- damaged. The recommendation value of the connection tube stress is below 34.3N/mm<sup>2</sup> at the start, stop status and below 19.6N/mm<sup>2</sup> at the running status.
2. Do not put a compressor on its side or turn it over. And do not fall it off when moving.
  3. Compressing air is not permitted.
  4. Please assemble the compressor in your Air Conditioner rapidly after removing the plug. Don't place the compressor in air for a long time.
  5. Please use the accessories indicated by Our Company.
  6. When the amount of refrigerant charged in the Air Conditioner is over the max amount allowable, compressor specification should be discussed. (Install additional accumulator/heater, etc.)
  7. Refrigerant must always be filled from the higher side of the refrigeration cycle.
  8. Avoiding compressor running in reverse caused by connecting electrical wire incorrectly.

(Don't reuse the compressor after running in reverse.)

9. The compressor should be kept out of storing in open storage or corrosive atmosphere such as chemicals storage and so on.
10. Do not allow electric cables or the like to touch compressor directly.
11. To avoid water droplets and dust into the compressor, moisture-proof or dust-proof measures must be taken.
12. For split type Air Conditioner, the maximum piping length should be 15m, and elevation difference should be within 5m.
13. Do not fill refrigeration cycles with other refrigerant except R410A.
14. Do not touch the compressor with bare hands during operation or immediately after stoppage. compressor is at a high temperature. There is the danger of burns.
15. Wear safety goggles when servicing the unit. When removing the tubes by heating it with burner, there is the danger of burns or eye injury if the refrigerant and/or oil remaining in the tubes is emitted.

## ( Operation Limitation of Compressor)

Unit: MPa (G)

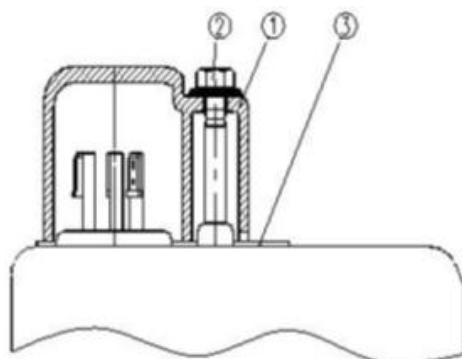
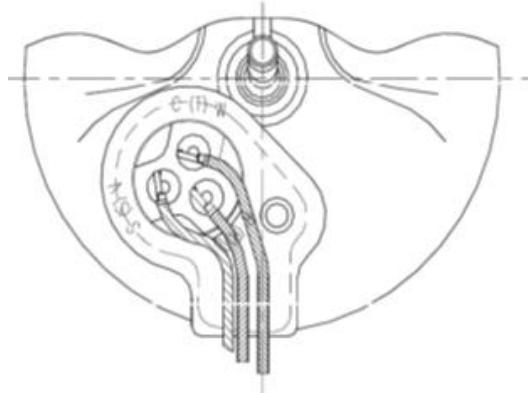
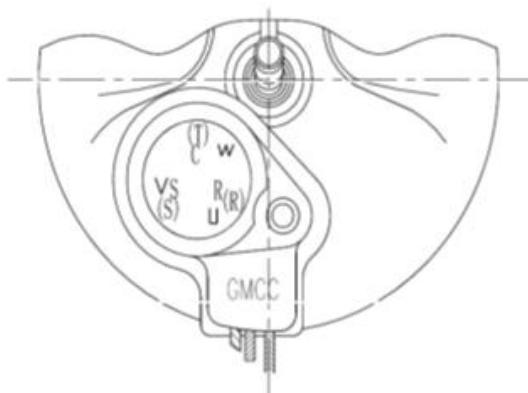


**Drawing/Accessories List (See the Attached Pages)**

(Parts Name)	(Pieces)	(Drawing No.)	
ELE. COMPONENTS	1	1K147221Gr	
TERMINAL COVER	1	1K14720013	
TERMINAL PACKING	1	1K14720132	
TERMINAL NUT	1	1K14300711	
RUBBER CUSHION	3	1K22910410	
EARTHING HEX BOLT	1	1K14300210	Note: GMCC Not Deliver;
WASHER FOR EARTHING BOLT	1	1K14300310	Note: GMCC Not Deliver;
COMPRESSOR DRAWING	1	1K329010Gr	

# ELE COMPONENTS

Drawing No. 1K14722112



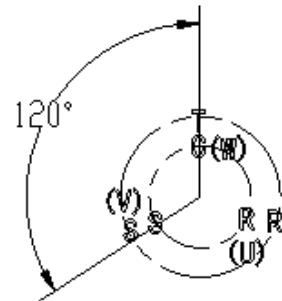
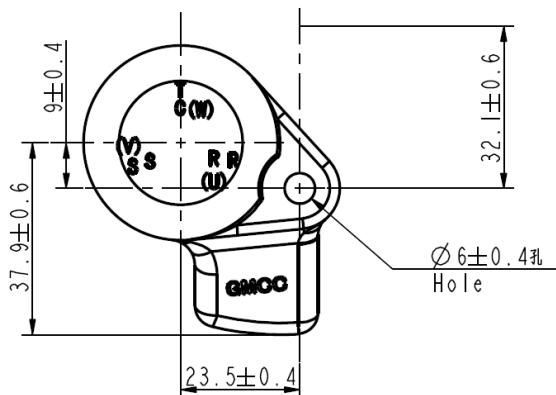
(3)	TERMINAL PACKING	1K14720132
(2)	TERMINAL NUT	1K14300711
(1)	TERMINAL COVER	1K14720013
PART NO	TITLE	DRAWN NO

NOTES

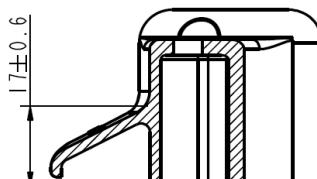
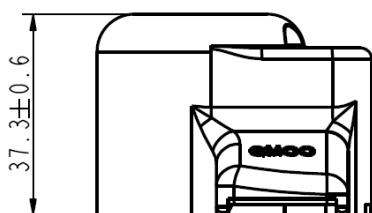
: 1.2 ± 0.2 N m      Tightening torque of terminal nut: 1.2 ± 0.2 Nm

# TERMINAL COVER

Drawing No. 1K14720013



positioned 120°



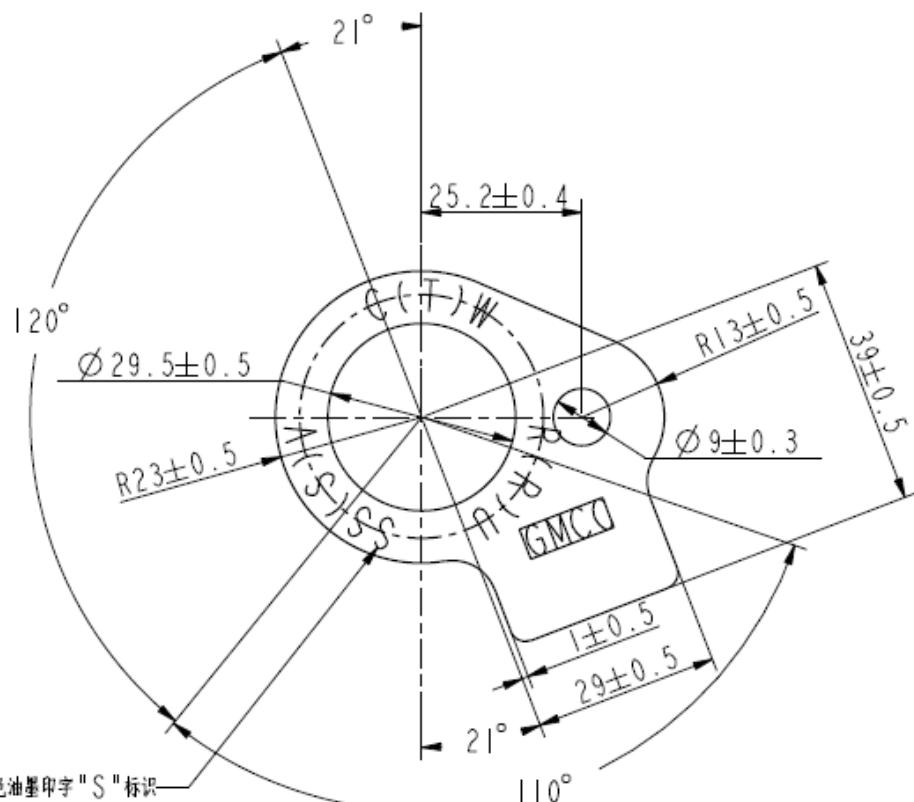
#### NOTES

MATERIAL: POLYBUTYLENE TEREPHTHALATE or BULK MOLDING COMPOUND or  
POLYCARBONATE  
COLOR: BLACK

# RMI PACKING

Drawing No.1K14720132

1±0.2mm  
THICKNESS 1±0.2mm



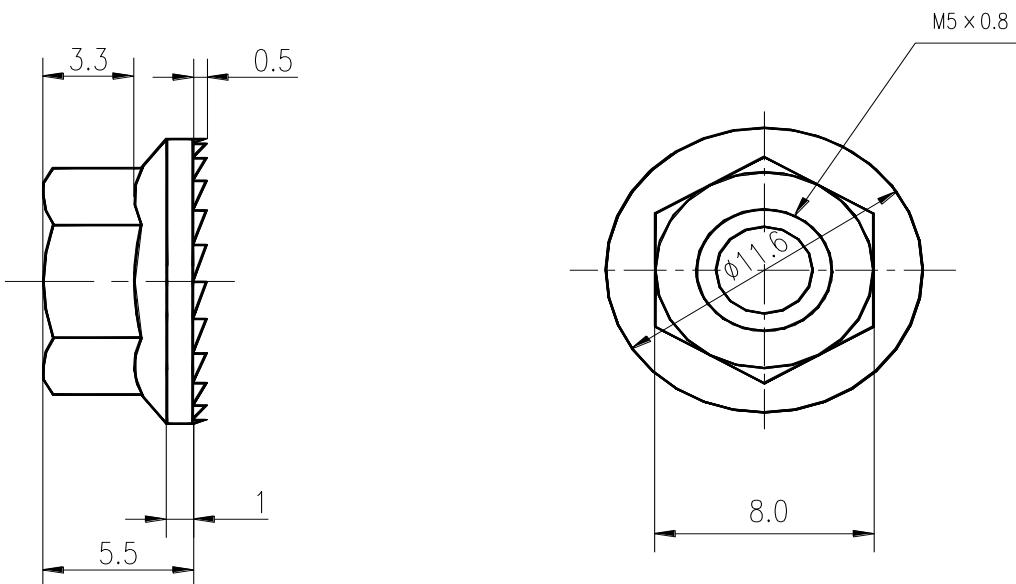
NOTES

MATERIAL:SI

COLOR:BLACK

# TERMINAL NUT

Drawing No. 1K14300711



NOTES

SWCH12A

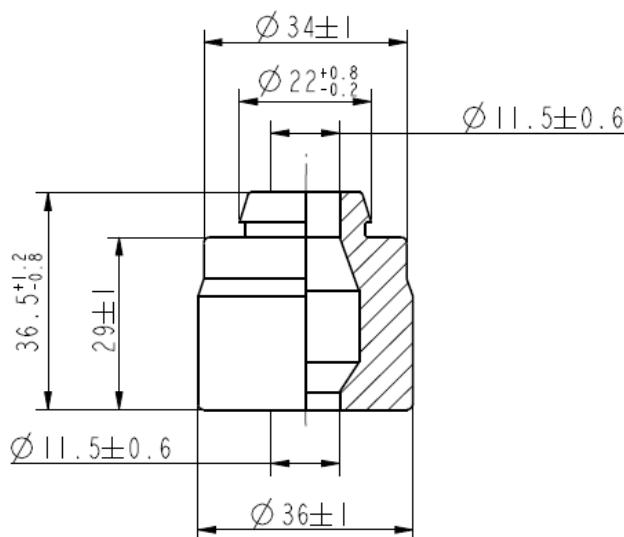
MATERIAL: SWCH12A

Ep-Fe/Zn2-CM2

TREATMENT: WITHOUT HEXAVALENT CHROMIUM COMPOUNDS (Ep-Fe/Zn2-CM2)

# RUBBER CUSHION

Drawing No. 1K22910410



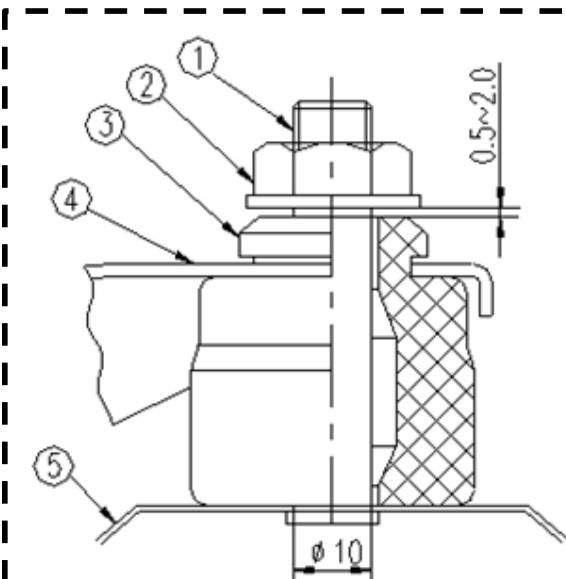
NOTES

三元乙丙胶

MATERIAL: EPDM

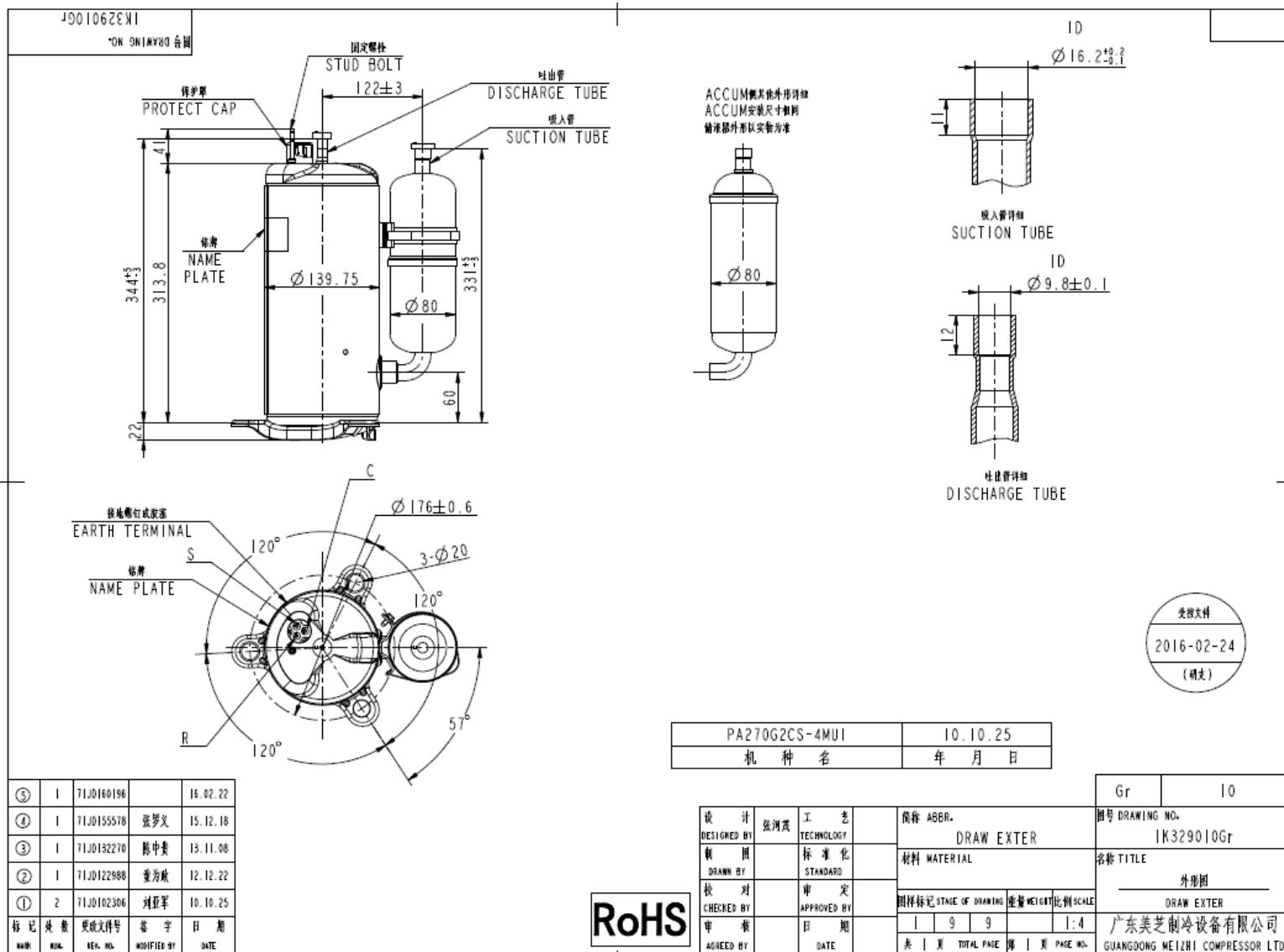
HS=43±4

HARDNESS: HS=43±4



①	螺柱螺栓 STUD BOLT
②	螺母 NUT
③	橡胶垫 RUBBER CUSHION
④	压缩机底座 COMPRESSOR BASE
⑤	底板 BASE PLATE

安装组件  
MOUNTING ASSEMBLY



RoHS