

COMPRESSOR SPECIFICATION

MODEL: **QXAS-F325N050**

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APPLICATION SCOPE

➤ APPLICATION

This specification is applied to QXAS-F325N050 rotary compressor.

Application	Room air-conditioner
Refrigerant	R410A
Refrigerant charge limit	2800 g Max
Voltage (Rated voltage)/Frequency/Phase	220-240 V~(220V)/50 HZ/1 PHASE

SPECIFICATIONS & CHARACTERISTICS

1. COMPRESSOR DATA

Compressor type	Hermetic motor compressor	
Pump type	Rotary	
The number of cylinders	Single cylinder	
Cylinder nominal volume	32.5	cm ³
Brand of refrigerant oil	Ze-GLES RB68EP or FVC 68D or FV 50S or equivalent	
Refrigerant oil charge	820	ml
Weight(Refrigerant oil included)	24.1 (For reference)	kg
Suction pipe ID.	$\Phi 16.2 \pm 0.05$	mm
Discharge pipe ID.	$\Phi 9.7 \pm 0.06$	mm

2. MOTOR DATA

Motor type	Induction motor(PSC)	
Number of Pole	2 poles	
Winding resistance	(Main Winding) 1.095 ± 7% Ω	(Aux. Winding) 2.06 ± 7% Ω
Insulation class	B	
(220V/50Hz) LRC (LRA)	60A	
Motor winding temp. under locked-rotor condition	Max temp. of motor main/aux. windings shall not exceed 198.9°C at 0.85 times of rated volt. when rotor is locked.	

3. ELECTRICAL COMPONENT

Name	Specification
Running capacitor	60μF/450V
Overload protector	Internal (UP14QE5145-M)
Hermetic Terminal	1/4"quick connect type

※The recommended model of Running capacitor is CBB65 made by Zhuhai Gree Xinyuan Electronic Co., Ltd.

4. PERFORMANCE

➤ RATED PERFORMANCE

Item	ASHRAE condition	Unit
(±5%) Capacity	8000	W
(±5%) Input power	2760	W
COP	2.90	W/W
(±5%) Working current	12.7	A
Sound(A weighed sound power)	≤74	dB (A)
Vibration(Compressor tangential acceleration)	≤5	m/s ²

➤ TESTING CONDITION

Testing condition	ASHRAE condition
Testing power supply	220V/50Hz
Evaporating Temp.	7.2°C
Condensing Temp.	54.4°C
Liquid Temp.	46.1°C
Suction Temp.	35.0°C
Ambient Temp.	35.0°C
Testing air flow	1m/s

➤ GENERAL PERFORMANCE

Minimum starting voltage	187V	
Range of working voltage	ASHREA condition	187V-264V
Compressor cycle	≥ 60000	times
Residual moisture content	≤ 200	mg
Impurity content	≤ 120	mg
Electrical strength	1500V/min or 1800V/s, leak current less than 2mA	
Max. Operating current MOC	16.7A	
Insulation resistance	> 30	MΩ

5. LIMIT OF OPERATING CONDITION

Item	MAX.
Discharge pressure MPa	Refer to pressure guarantee range (Page 16)
Discharging Temp.	105℃
Motor winding Temp.	115℃

6. OVERLOAD PRETECTOR PROPERTY

Overload protector model	/	UP14QE5145-M
Action characteristic	Action temperature	150 °C±5 °C
	Reset temperature	90°C±10° C
First action characteristic	Current	62A
	Action time	(3~10)S
Overload characteristic	/	120° C (16.8-24.2)A

CAUTIONS

No.	Item	Operational standards and limits
1	ΔT (Comp bottom temp–condensing temp)	Continuous Running : more than 5K Intermittent Running(On/Off) : more than 0K
2	Liquid back operation	No liquid back with current variation and strange noise.
3	Allowable vertical inclination at the time of the installation	5 degree and below
4	Split air conditioner max pipe distance	30 m (Need to the special discussion in case of excess)
5	Split air conditioner max difference	15 m (Need to the special discussion in case of excess)
6	Suction water allowable amount in system	below 100 ppm for refrigerant
7	Suction gas allowable amount in system	The compressor should not be operated to form a vacuum and without load; the evacuation of the system shall ensure that absolute pressure is below 133Pa
8	Refrigerant injection	Only R410A is permitted. Refrigerant should be charged from the end of the condenser of the refrigerating systems. It is allowed to fill vaporised refrigerant at the suction side of the compressor for service purposes. Never charge refrigerant to the compressor directly. When the charge amount exceeds designated value, contact us.
9	Impact at the time of transportation	Do not impact over 60g during transportation
10	Storage	Do not open Compressor plugs more than 10 minutes before use
11	Terminal Cover & Nut Fasten Torque	1.5±0.5 N • m
12	Pressure at starting	Pressure should be balanced between high & low pressure side
13	Compressor is charged with dry nitrogen , remove high pressure side (discharge tube side) rubber plug first before application, otherwise refrigerant oil will gush from the compressor.	
14	The electric pulse should not be applied to the hermetic terminals when the compressor is in vacuum condition.	
15	Temperature within systems during stable compressor operation should not be less than -35°C to prevent the wax in the oil from precipitation.	
16	Make sure that wiring is correct before starting the compressor, the duration between two start-ups shall exceed three minutes, it is forbidden to run compressor in reverse direction and in the air.	
17	To prevent compressor from liquid slugging, the suction temperature of the compressor shall be 5°C above the evaporating temperature.	
18	Compressor can be used when ambient temperature is higher than -10°C. Confirm the start-up of compressor if the temperature of compressor surface is below -10°C. Heat up compressor to reach the temperature higher than -10°C with heater if the ambient temperature is below -10°C.	
19	The Safety Performance in accordance with EN 60335-1 Safety of household and Similar electrical appliances General requirements and EN 60335-2-40 Safety of household and similar electrical appliances Particular requirements for Motor-compressor.	

ACCESSORIES & DRAWINGS

1. ACCESSORIES

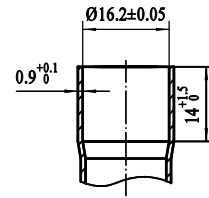
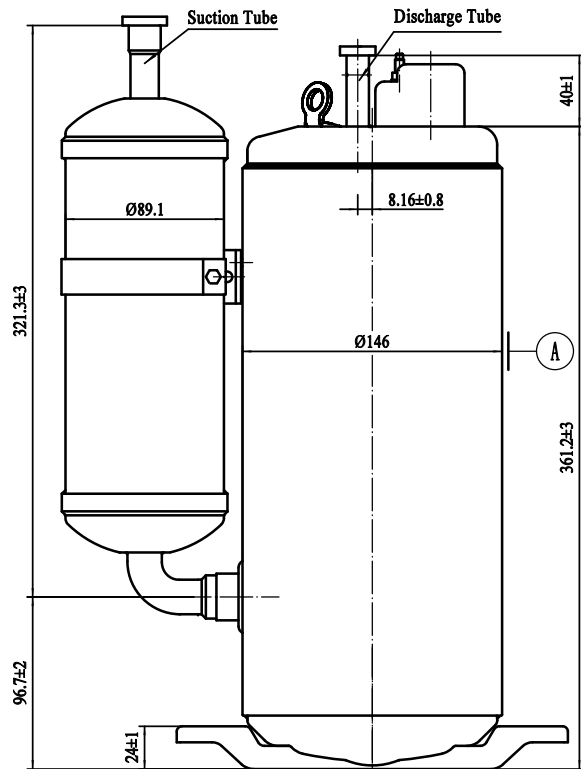
Name	Quantity	Description
Terminal cover	1	Loaded
Nut M5	1	Loaded
Grommet	3	Loaded
Gasket	1	Loaded
Capacitor	1	Not loaded

2. DRAWINGS

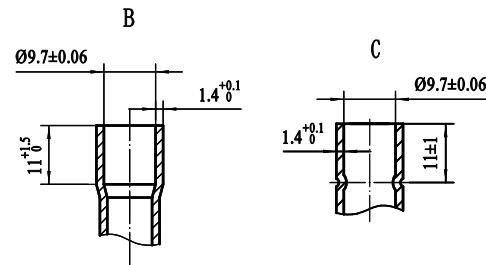
Name	Symbol
Outside dimension	QX-DW-01
Wiring & mounting plate installation diagram	QX-DW-02
Name plate	QX-DW-03
Terminal cover	ZE7.852.058A
Grommet	ZE8.639.027
Gasket	ZE8.683.058A
Nut M5	GB/T6177.1

OUTSIDE DIMENSION

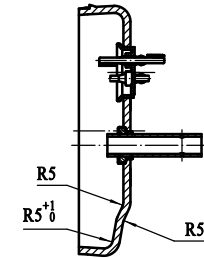
MODEL: QXAS-F325N050



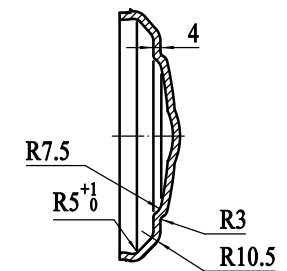
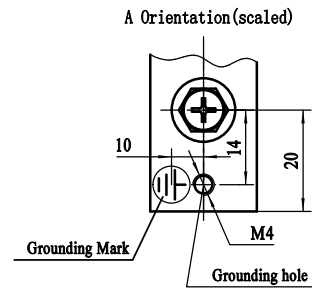
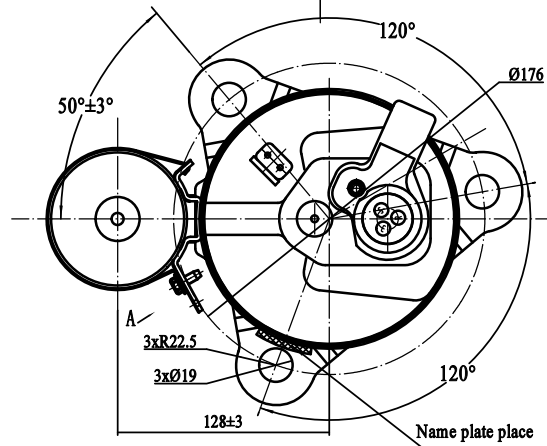
Suction Tube(Scaled)



Discharge Tube(Scaled)(B or C)

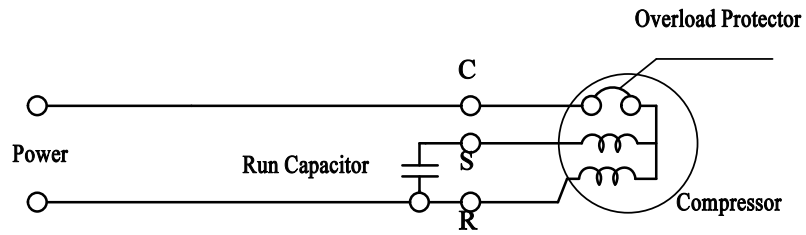


Upper Cover

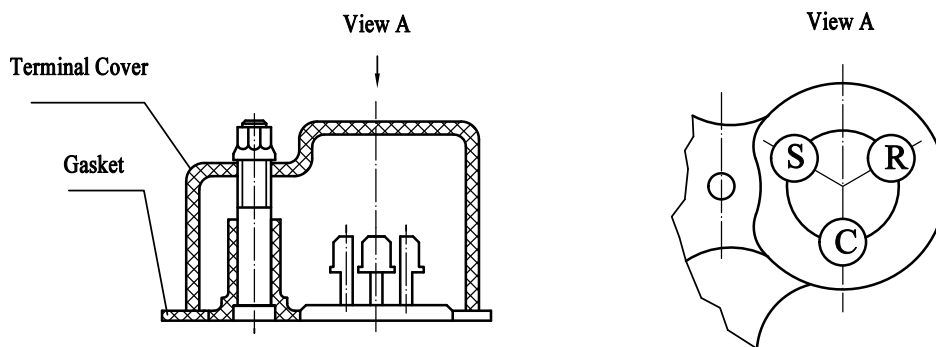


Lower Cover

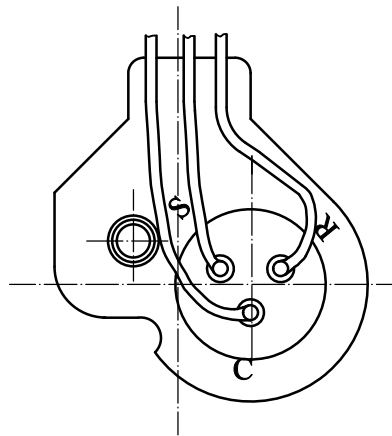
Wiring Diagram



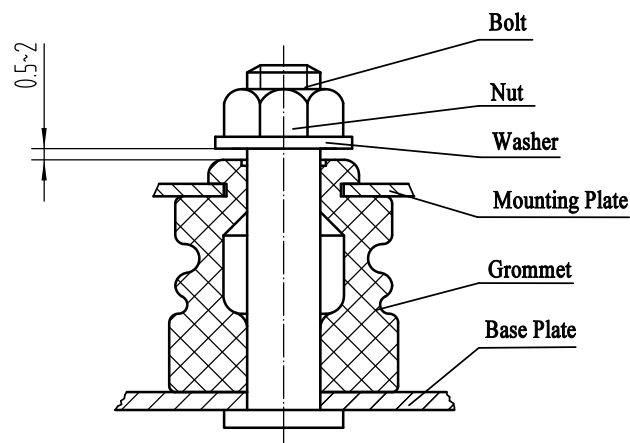
Electric Connecting Drawing



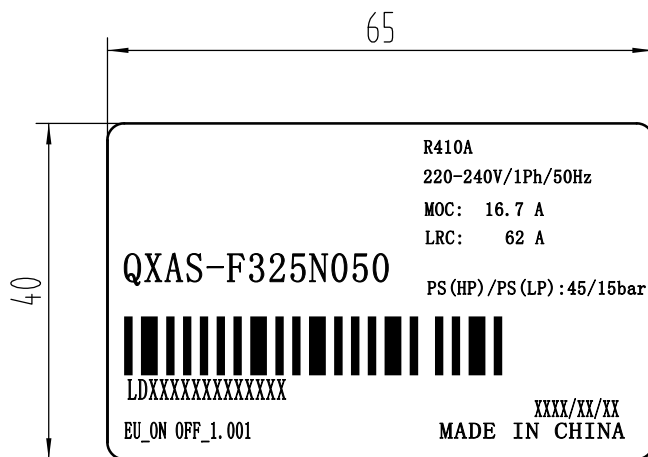
The tightening torque for the metallic flange nut is 1.0~1.5Nm

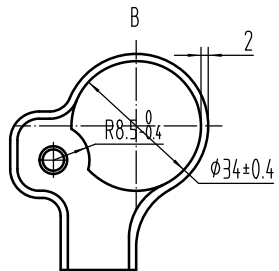
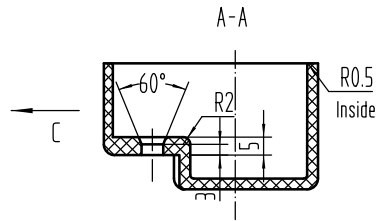
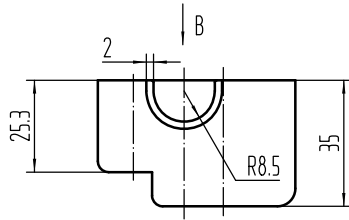
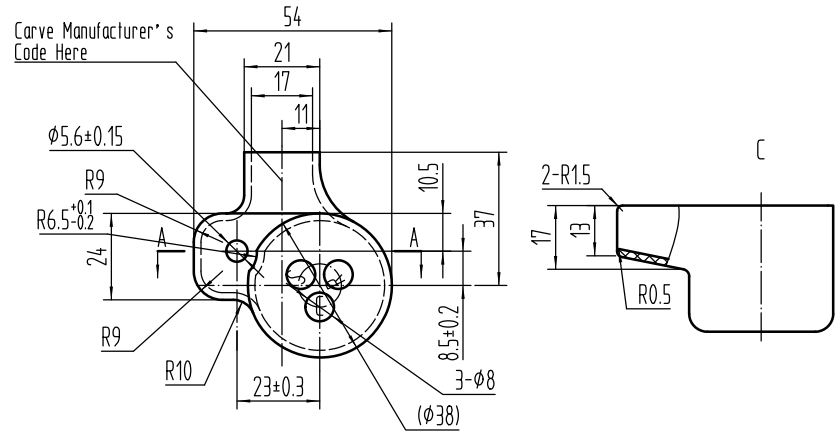


Mounting Plate Installing



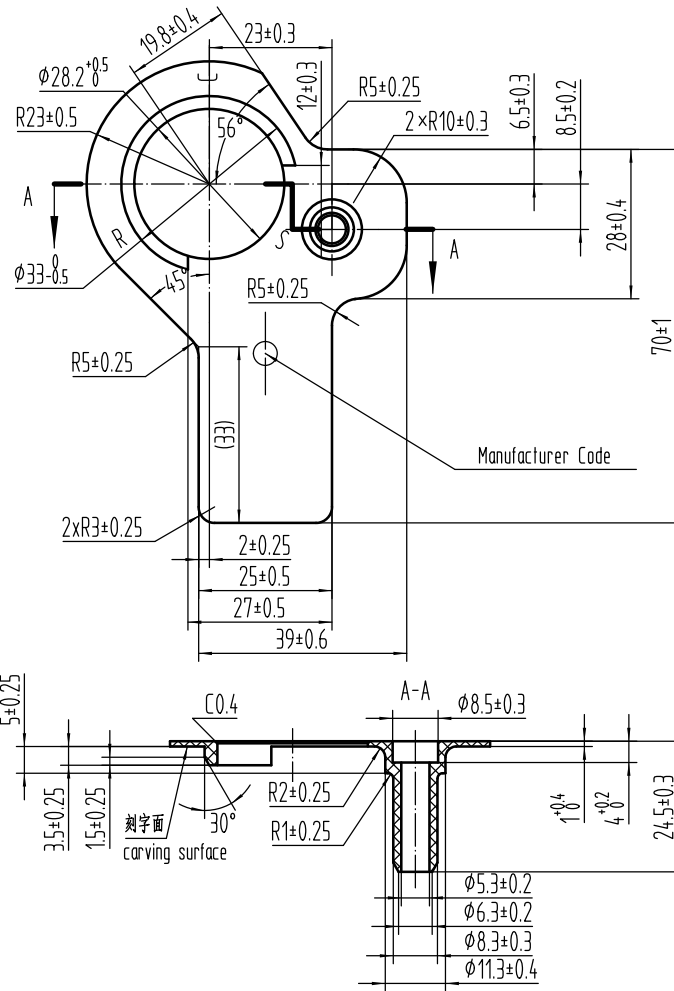
NAME PLATE
MODEL: QXAS-F325N050





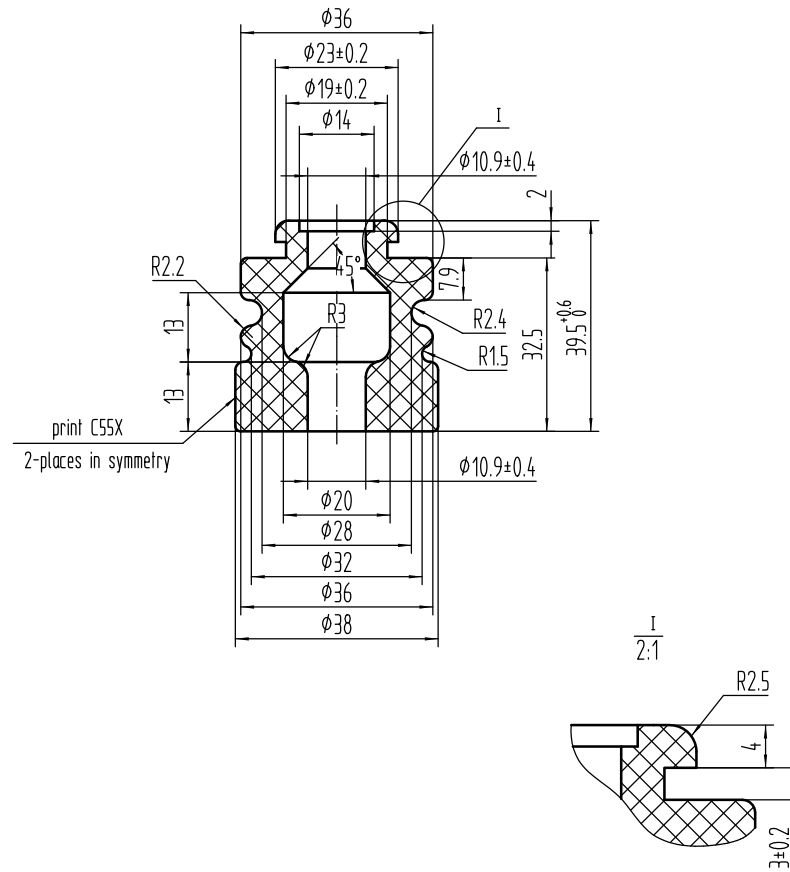
Specifications

1. Part surfaces shall be smooth without burrs.
2. The part is black :
3. The material of part is PBT-G10 or PA66 or PBTFG430.



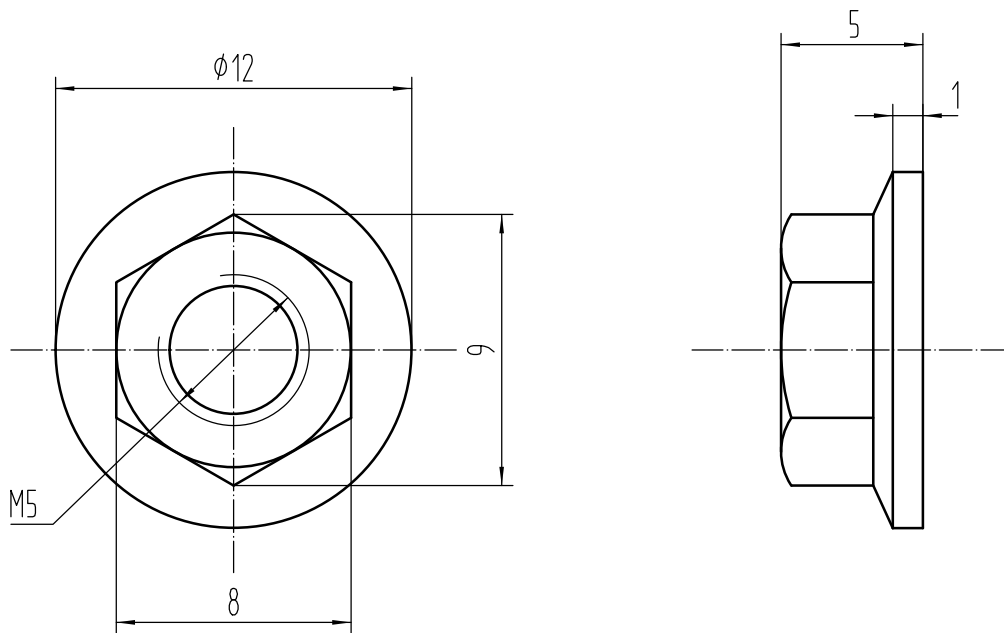
Specifications

1. The part is black ;
2. The material of part is EPDM or Fire retardant silica gel ;
3. The hardness of part is Hs70 \pm 5°.



Specifications

1. The part is black;
2. The material of part is EPDM;
3. The hardness of part is $Hs53 \pm 3^\circ$.



Specifications

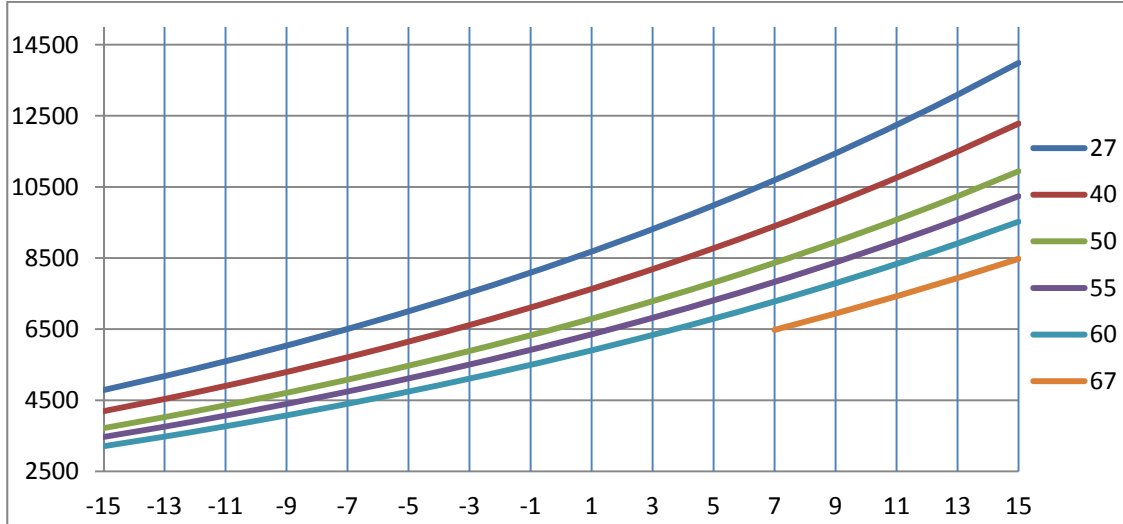
1. The part must adapt to the GB/T6177.1;
2. The material of part is STEEL.

PERFORMANCE DIAGRAM
MODEL: QXAS-F325N050

Degree of superheat: 20K Degree of sub cooling: 8.3K Ambient Temp. 35°C
220V/50HZ/1 PHASE R410A

Cooling capacity (W)

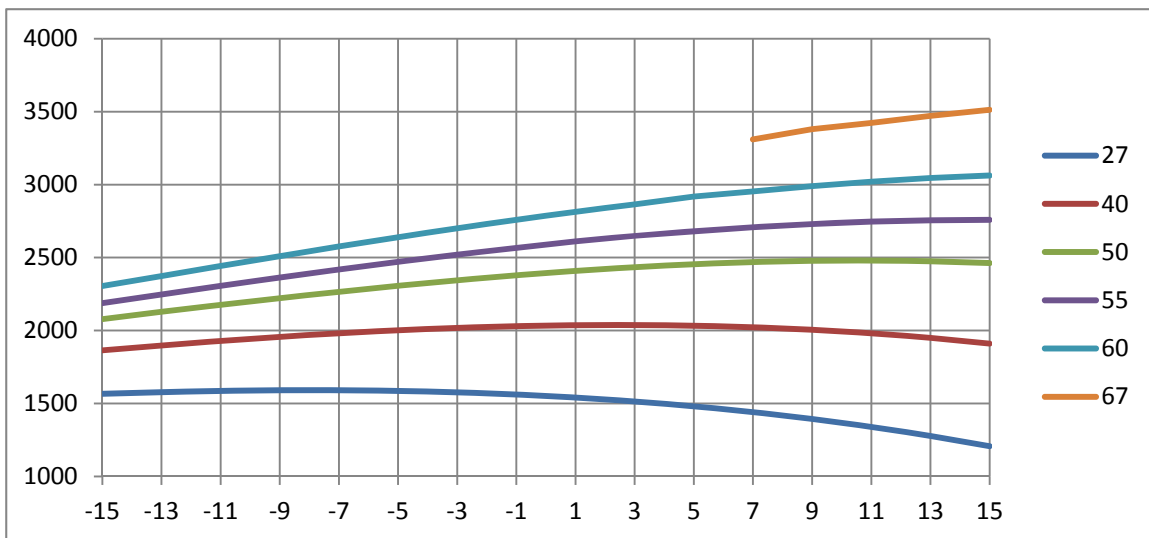
Condensing Temp. (°C)



Evaporating Temp. (°C)

Input Power (W)

Condensing Temp. (°C)

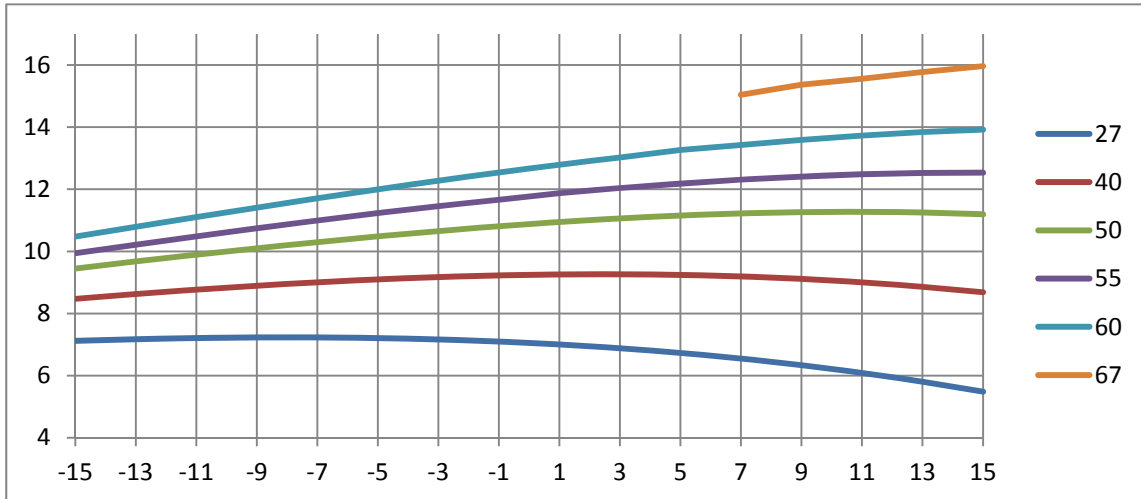


PERFORMANCE DIAGRAM
MODEL: QXAS-F325N050

Degree of superheat: 20K Degree of sub cooling: 8.3K Ambient Temp. 35°C
220V/50HZ/1 PHASE R410A

Working Current (A)

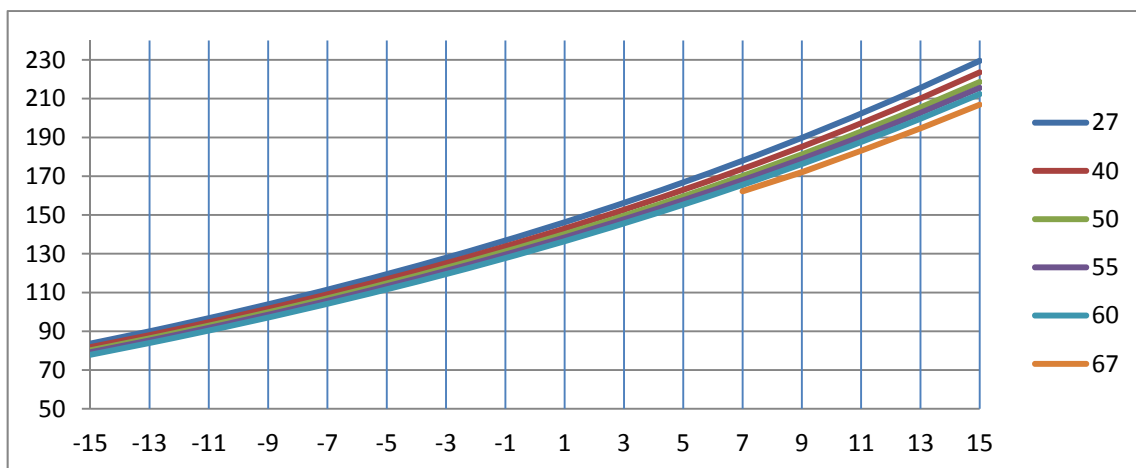
Condensing Temp. (°C)



Evaporating Temp. (°C)

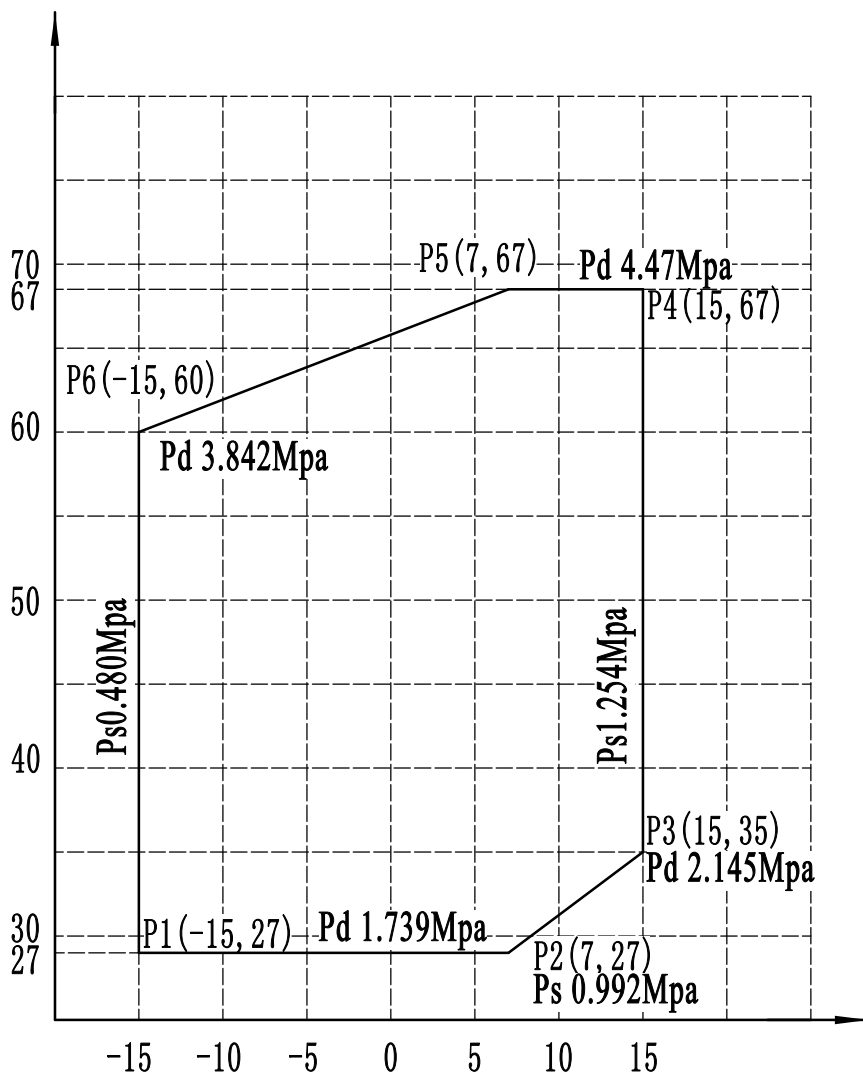
Refrigerant Flow (Kg/h)

Condensing Temp. (°C)



Evaporating Temp. (°C)

Condensing Temp.(°C)



Evaporating Temp.(°C)

220V/50Hz/1PHASE R410A

1. Superheat of suction vapor : 20(K)
2. Above are absolute pressures.

