

DATA SHEET

MODEL : GVY57AA a
E.R. 10230.1

2011年
EDITION

第一版
FIRST EDITION

生产文件
PRODUCTION DOC.

2011年3月29日

| | | | |
|-------------------------------|---------------------------|--|--------------|
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|-------------------------------|---------------------------|--|--------------|

1. BASIC DATA

1.1 OPERATION:

| | |
|--|-----------------|
| Application: | LBP |
| Refrigerant: | R134a |
| Expansion device: | Capillary tube |
| Cooling: | Static |
| Evaporating Temperature Range: | -35 to -10°C |
| Max Ambient Temperature: | 43°C (110°F) |
| Max Operating Discharge Temperature ⁽¹⁾ : | 120°C (248°F) |
| Max Peak Discharge Temperature ^(1, 2) : | 135°C (275°F) |
| Max Operating Condensing Temperature: | 60°C (140°F) |
| Max Peak Condensing Temperature ⁽²⁾ : | 70°C (158°F) |
| Max Winding Temperature: | 130°C (266°F) |
| Max Impurities: | 30 mg |
| Max Water Content: | 100 mg |

1.2 COMPRESSOR

| | |
|--------------------------------|------------------------------|
| Displacement: | 5.7 cc |
| Cylinder Bore: | 20.6 mm |
| Stroke: | 17.2 mm |
| Net Weight ⁽³⁾ : | 8.7 Kg |
| Shell size: | Middle(See Outline drawing) |
| Oil charge: | 200 cc |
| Oil Type: | RL 9 EB |
| Oil viscosity ⁽⁴⁾ : | 9 cSt |
| Suction system: | Semi-direct |

1.3 MOTOR

| | |
|--|-------------|
| Power supply: | 220--240 V |
| Voltage limits: | 187 - 264 V |
| Frequency: | 50 Hz |
| Phase: | 1 |
| Motor Type: | RSIR/RSCR |
| Electrical Insulation Class: | B |
| Locked Rotor Current at 220 V- Max value with RC: | 11.69A |
| Locked Rotor Current at 220 V- Max value without RC: | 11.95A |
| Locked Rotor Current at 220 V- After 4 s with RC: | 5.01A |
| Locked Rotor Current at 220 V- After 4 s without RC: | 5.10A |
| Main Winding Resistance at 20°C (68°F): | 19.10 Ω |
| Start Winding Resistance at 20°C (68°F): | 16.35 Ω |

(1) Measured at 5 cm from the shell with insulated termocouples

(2) For transient conditions during "Pull Down"

(3) With oil and without external electricals

(4) Measured at 40°C (104°F)

1.4 ELECTRICALS

Motor-protector

| | | | | | | |
|--------------------------------|-----------|---------|---------|---------|------------------|--------------|
| Manufacturer: | ELECTRICA | | WANBAO | | SENSATA | |
| Type: | T0730 | T0530 | B80-120 | B88-110 | C2/4TM 276 NFBYY | C2 308 NFBYY |
| Open Temperature°C: | 120-130 | 105-115 | 115-125 | 105-115 | 115-125 | 115-125 |
| Close Temperature°C: | 70-52 | 70-52 | 71-53 | 70-52 | 70-52 | 70-52 |
| U.T.C. at A:(70°C) | 2 | 2.4 | 1.7 | 2.4 | 1.96 | 2.36 |
| Time Check Current A:(7.5-14s) | 7.5 | 8.8 | 8 | 8.8 | 9(5-15s) | 11(5-15s) |
| Max Current A: | 20 | 18 | 17.5 | 18 | 17.4 | 23 |

PTC starting device

| | | |
|---------------------------|---|---|
| Assembly type | 8100 or K100 | |
| PTC Pill: | Siemens | Murata |
| | A196 | PTH 422B111AR120Q351P |
| Resistance at 25°C, 100V: | 11-19 Ohm | 9-16 Ohm |
| V max: | 350 V | 350 V |
| I max: | 8 A | 8 A |
| Curie temp. | 120°C | 120°C |
| Dimensions: | 20 mm (diameter), 3.2 mm (thickness) | 20 mm (diameter), 3.3 mm (thickness) |

Run capacitor (optional)

| | |
|---------------|--------------------------|
| Type | plastic or metallic case |
| Capaciy | 4 μ F |
| Vmax | 450V |
| Working hours | 10000h |

Connecting-board

| | |
|--------------|---------------|
| Type | ZEM2 or ECC |
| Fast-on size | 4.8 or 6.3 mm |

2. CALORIMETER DATA

| 2.1 Calorimeter test with Capacitor | | Evaporating Temperature °C) | | |
|--|-------|-----------------------------|-------|------|
| | | -30 | -23.3 | -10 |
| Cooling Capacity | (W) | 92 | 157 | 322 |
| Input Power | (W) | 89 | 109 | 162 |
| COP | (W/W) | 1.03 | 1.44 | 1.99 |
| Current | (A) | 0.58 | 0.60 | 0.73 |

| 2.1 Calorimeter test without Capacitor | | Evaporating Temperature °C) | | |
|---|-------|-----------------------------|-------|------|
| | | -30 | -23.3 | -10 |
| Cooling Capacity | (W) | 91 | 155 | 318 |
| Input Power | (W) | 94 | 115 | 171 |
| COP | (W/W) | 0.97 | 1.35 | 1.86 |
| Current | (A) | 0.88 | 0.81 | 0.99 |

Test conditions according to ASHRAE:

| | | | |
|---------------------------|-------|-------------------|----------------|
| Condensing temperature: | +55°C | Cooling: | Static cooling |
| Subcooling temperature: | +32°C | Supply Voltage: | 220 V |
| Superheating temperature: | +32°C | Supply Frequency: | 50 Hz |
| Suction temperature: | +32°C | Run capacitor | 4 μ F |
| Room temperature: | +32°C | | |

3. OTHER PERFORMANCES

| 3.1 Starting test | Motor Temp. / Equalized Press. | |
|---------------------------|--------------------------------|------------------|
| | 90°C / 5 Bar A | 43°C / 6.5 Bar A |
| Without Capacitor | | |
| Min. Starting Voltage (V) | | 169 |

According to ACC-CQ-PRO-99016.D

| 3.2 Acoustic test | -25/+55°C | -20/+50°C | -23.3/+40°C |
|--|-----------|-----------|-------------|
| | ISO3745 | GB9098 | USA STD |
| A-weighted SPL (dBA) | | 41.5 | |
| Vibration Level (dB) | | | |
| Vibration Index TVI (mm/s ²) | | 0.34 | |
| Gas pulse level TPI (mBar) | | | |

| 3.3 Life test | Wear 500 h | High Temp. 2000 h | On Off 500 KCycles |
|---------------|---------------|----------------------|-----------------------|
| Test Results | NA | NA | NA |

Wear Test according to CECOMAF GT4003

High Temperature Test according to CECOMAF GT4002

On Off Test according to CECOMAF GT4004

| 3.4 Transport test | 2 h - 0,75 m/s ² | | |
|--------------------|-----------------------------|------------|-------------|
| | x - 3.25 Hz | y - 7.5 Hz | z - 11.5 Hz |
| Test Results | | NA | |

According to GB / T4857.10-92

| 3.5 oil transport test | Oil flow (g/h) |
|------------------------|-------------------|
| | |
| Test Results | NA |

According to ACC-CQ-ES-99002.D

| 3.5 Impact test | |
|-----------------|----|
| Test Results | NA |

According to ECC-CQ-W-01042

4. COMPRESSOR OUTLINE

