



Product Data Sheet

GVM38AA

Variant Code G*

Revision 3

1 Application

| Application | Refrigerant | Expansion Device | Cooling Type |
|-------------|-------------|------------------|--------------|
| LBP | R134a | Capillary | Static |

1.1 Application Conditions

| | | |
|---|------|-----|
| Max. Ambient temp. ¹ | [°C] | 43 |
| Max. Steady discharge temp. ² | [°C] | 120 |
| Max. Peak discharge temp. ² | [°C] | 135 |
| Max. Steady condensing temp. ³ | [°C] | 60 |
| Max. Peak condensing temp. ³ | [°C] | 70 |
| Max. Winding temp. ⁴ | [°C] | 130 |

¹...static

²...measured on discharge tube, 50 mm from the shell

³...measured in the middle of condenser

⁴...calculated out of the measured difference of resistance

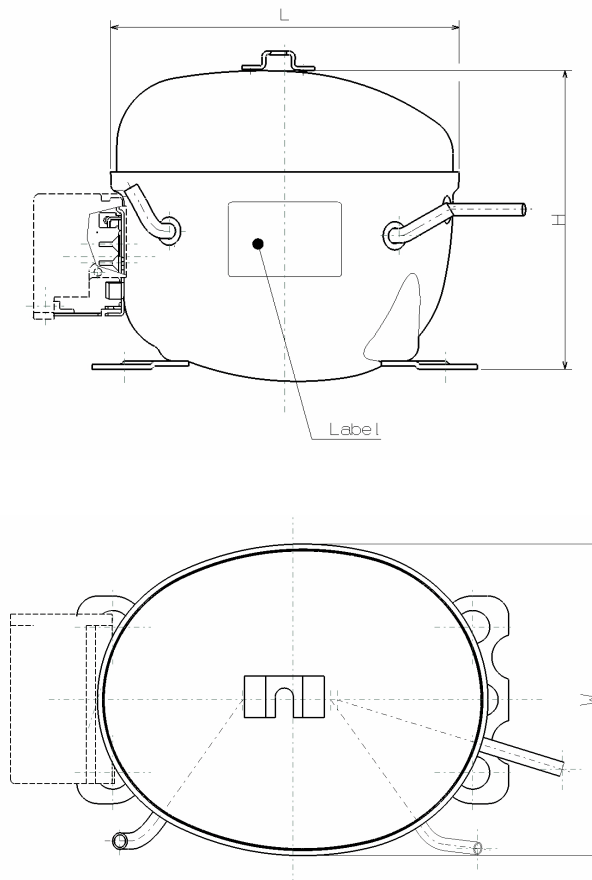
*...Variant code according to Label; see General Product Documentation

ACC reserves the right to change the data without prior notice

2 Mechanical Data

| | | |
|-------------------------|--------------------|-------------|
| Displacement | [cm ³] | 3,87 |
| Net Weight ¹ | [kg] | 7,45 |
| Oil Type | | Ester |
| Oil Charge | [ml] | 163 |
| Oil Viscosity | [cst] | 15 |
| Suction muffler | | Semi direct |
| Length L | [mm] | 184,5 |
| Width W | [mm] | 150 |
| Height H | [mm] | 169,5 |

¹...Compressor without accessories



3 Electrical Data

| | | |
|---|------|------------|
| Power supply | [V] | 220 - 240 |
| Voltage range ¹ | [V] | 187 – 264 |
| Frequency | [Hz] | 50 |
| Phase | [ph] | 1 |
| Motor type | | RSIR |
| Rated current / Locked rotor current @ steady state | [A] | 0,8 / 3,9 |
| Max. locked rotor current / Locked rotor current measured after 4 sec | [A] | 10,9 / 4,4 |
| Main wind. Resistance @ 25°C | [Ω] | 24,9 |
| Start wind. Resistance @ 25°C | [Ω] | 19,6 |

¹...@ +43°C windings temperature - 3.5 barA equalize d pressure

All data measured according to EN 60335

3.1 Electrical Component Data

| | | |
|-----------------|------|------|
| Terminal board | | ECC |
| Starting device | Code | K100 |
| PTC | Type | A |
| Run Capacitor | [μF] | - |

3.2 Motor Protector

| | | |
|-----------------|------------|------------|
| Motor Protector | Wanbao | BDG |
| Type | B59 115 xx | AE 37 FJ x |
| Code | MF | F7 |

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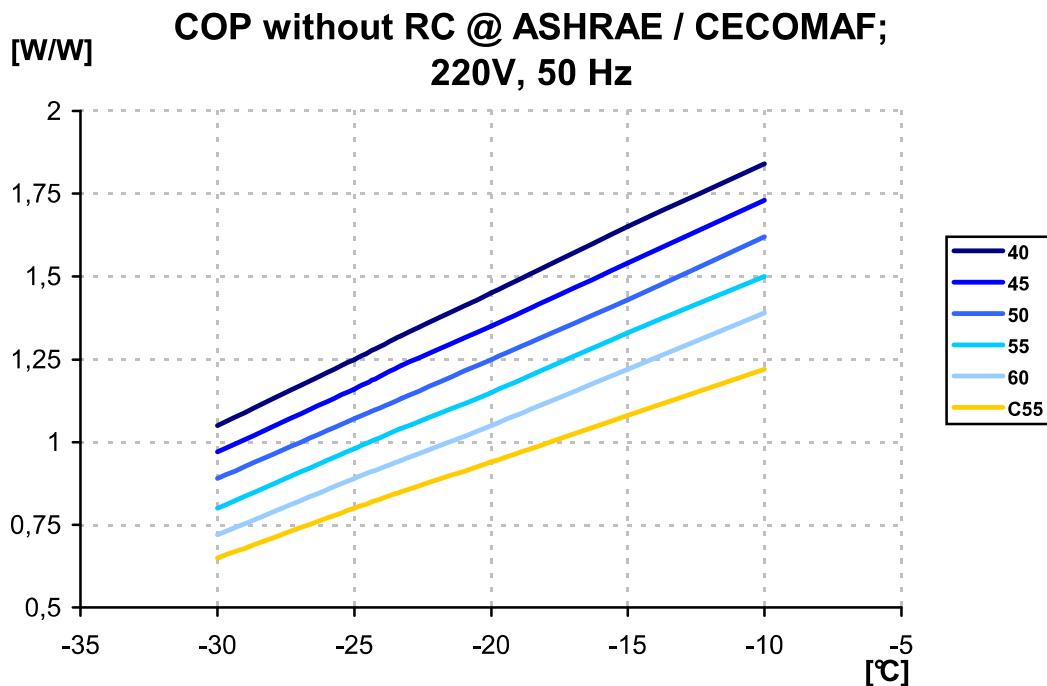
4 Performance Data

4.1 COP, Cooling Capacity and Input Power according to EN 12900

Performance Table COP without RC @ ASHRAE / CECOMAF; 220V, 50Hz; [W/W]:

| Evap. temp. [°C] | | -30 | -25 | -23,3 | -20 | -15 | -10 | |
|--------------------|--------------|-----|------|-------|------|------|------|------|
| Condensing temp. @ | ASHRAE [°C] | 40 | 1,05 | 1,25 | 1,32 | 1,45 | 1,65 | 1,84 |
| | | 45 | 0,97 | 1,16 | 1,23 | 1,35 | 1,54 | 1,73 |
| | | 50 | 0,89 | 1,07 | 1,13 | 1,25 | 1,43 | 1,62 |
| | | 55 | 0,8 | 0,98 | 1,04 | 1,15 | 1,33 | 1,5 |
| | | 60 | 0,72 | 0,89 | 0,94 | 1,05 | 1,22 | 1,39 |
| | CECOMAF [°C] | C55 | 0,65 | 0,8 | 0,85 | 0,94 | 1,08 | 1,22 |

Performance Graph COP without RC:

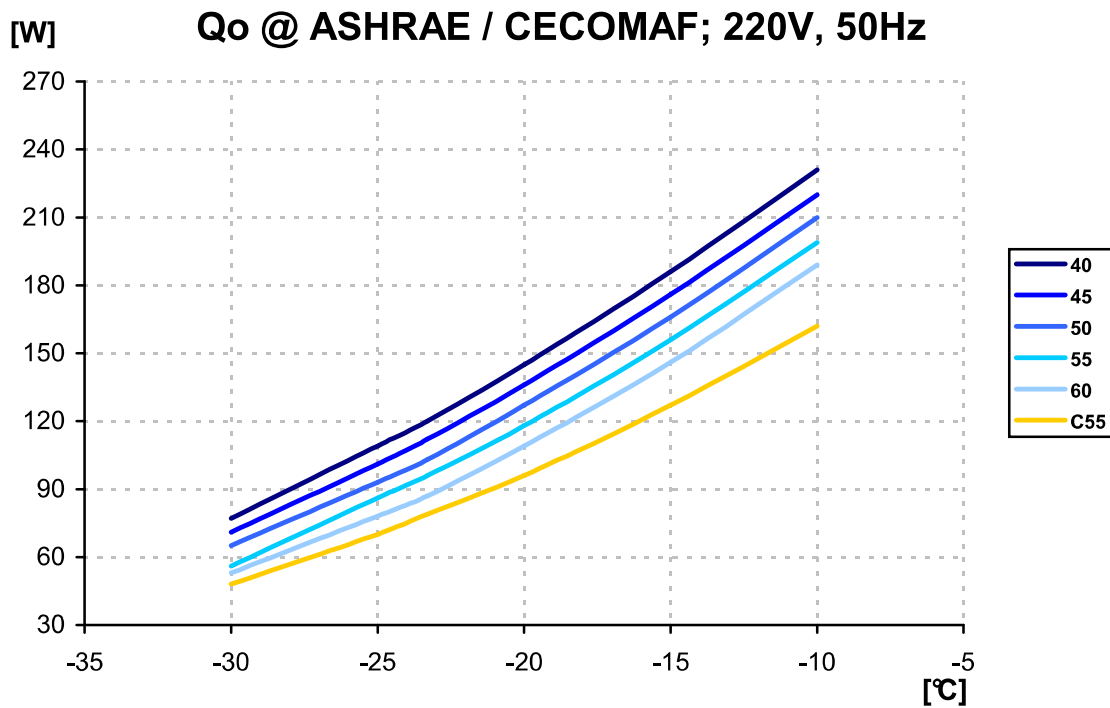




Performance Table Cooling Capacity @ ASHRAE / CECOMAF; 220V, 50Hz; [W]:

| Evap. temp. [°C] | | -30 | -25 | -23,3 | -20 | -15 | -10 | |
|--------------------|--------------|-----|-----|-------|-----|-----|-----|-----|
| Condensing temp. @ | ASHRAE [°C] | 40 | 77 | 109 | 120 | 145 | 186 | 231 |
| | | 45 | 71 | 101 | 112 | 136 | 176 | 220 |
| | | 50 | 65 | 93 | 103 | 127 | 166 | 210 |
| | | 55 | 56 | 86 | 96 | 118 | 156 | 199 |
| | | 60 | 53 | 78 | 87 | 109 | 146 | 189 |
| | CECOMAF [°C] | C55 | 48 | 70 | 79 | 96 | 127 | 162 |

Performance Graph Cooling Capacity:

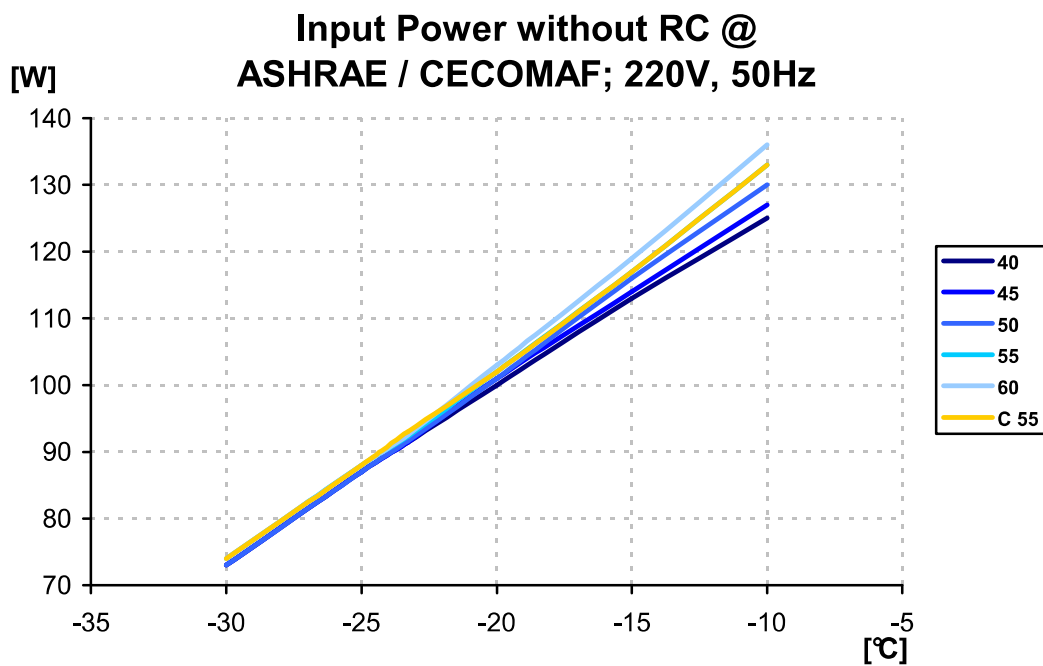


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Performance Table Input Power without RC @ ASHRAE / CECOMAF; 220V, 50Hz; [W]:

| Evap. temp. [°C] | | -30 | -25 | -23,3 | -20 | -15 | -10 | |
|--------------------|--------------|-----|-----|-------|-----|-----|-----|-----|
| Condensing temp. @ | ASHRAE [°C] | 40 | 73 | 87 | 91 | 100 | 113 | 125 |
| | | 45 | 73 | 87 | 91 | 101 | 114 | 127 |
| | | 50 | 73 | 92 | 91 | 101 | 116 | 130 |
| | | 55 | 74 | 88 | 92 | 102 | 117 | 133 |
| | | 60 | 74 | 88 | 93 | 103 | 119 | 136 |
| | CECOMAF [°C] | C55 | 74 | 88 | 93 | 102 | 117 | 133 |

Performance Graph Input Power without RC:



| Test Conditions @ 220V/50Hz | | ASHRAE | CECOMAF |
|-----------------------------|------|--------|---------|
| Evaporating temp. | [°C] | -23,3 | -25 |
| Condensing temp. | [°C] | 55 | 55 |
| Sub cooling temp. | [°C] | 32 | 55 |
| Suction temp. | [°C] | 32 | 32 |
| Ambient temp. | [°C] | 32 | 32 |

Tolerance Range:

COP +/-7%
Cooling Capacity +/-5%

4.2 Rated current @ 55°C condensing temperature

| | | | | |
|--------------------------|------|------|-------|------|
| Evaporating temperature | [°C] | -30 | -23,3 | -10 |
| Rated current without RC | [A] | 0,63 | 0,67 | 0,77 |

5 Reliability Tests

| | |
|------------------------------------|--------|
| High Temperature CECOMAF GT4 – 002 | passed |
| Wear CECOMAF GT4 – 003 | passed |
| On – Off CECOMAF GT4 – 004 | passed |
| ASTM according to ACC-CQ-W-08058 | passed |