

ZMC GL60AF Compressor Specs and Replacements

Category: Refrigeration

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R134a, refrigerant, compressor GL60AF, 200-220V~50Hz, LBP, 1/6 hp

Description

Mbsm.pro: Compressor, ZMC, GL60AF, 1/6 HP, 1Ph, 200-220V 50Hz, R134a, LBP, Refrigeration

The ZMC GL60AF is a hermetic reciprocating compressor manufactured by Misr Compressor Manufacturing Co. (ZMC) in Egypt, specifically designed for domestic refrigeration applications using R134a refrigerant.

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Technical Specifications Table

| Feature | Details |
|----------------------------------|---|
| Model | GL60AF |
| Brand | ZMC (Misr Compressor Manufacturing Co.) |
| Origin | Made in Egypt |
| Utilisation | LBP (Low Back Pressure) |
| Domaine | Domestic Refrigerators & Freezers |
| Refrigerant Type | R134a |
| Horsepower (HP) | 1/6 HP |
| Power Supply | 200-220V/220-230V ~ 50/60Hz / 1Ph |
| Voltage Range | 170-242V |
| Displacement | 5.99 cm ³ |
| Cylinder Diameter | 20.88 mm |
| Stroke | 17.48 mm |
| Cooling Capacity (ASHRAE) | 132W at -23.3°C |

| Feature | Details |
|-----------------------------------|---------------------------------------|
| Cooling Capacity (CECOMAF) | 113W at -25°C |
| Cooling Capacity (kcal/h) | 132 kcal/h |
| Input Power | 137-144W |
| COP (ASHRAE) | 1.07 W/W |
| COP (CECOMAF) | 0.82 W/W |
| EER | 0.70-0.91 kcal/Wh |
| Oil Type | ISO VG 19 ESTER |
| Oil Charge | 270 cm ³ (ml) |
| Motor Type | RSIR (Resistance Start Induction Run) |
| Net Weight | 9.1 kg |
| Running Current | 1.19-1.21A |
| Locked Rotor Current (LRA) | 12.2A |
| Main Winding Resistance | 8.67Ω at 25°C |
| Start Winding Resistance | 18.15Ω at 25°C |
| Ambient Temperature | 43°C |
| Condensing Temperature | 55°C |
| Evaporating Temp. Range | -25°C to +10°C |
| Compressor Cooling | Static (Natural) |
| Application | Household refrigerators, freezers |

Test Conditions

Cycle A (CECOMAF):

- Evaporating Temperature: -25°C
- Condensing Temperature: 55°C
- Liquid Temperature entering expansion valve: 55°C
- Ambient Temperature: 32°C

Cycle B (ASHRAE):

- Evaporating Temperature: -23.3°C
- Condensing Temperature: 55°C
- Liquid Temperature entering expansion valve: 32°C
- Ambient Temperature: 32°C

Efficiency Metrics (COP) Table

Performance varies based on operating conditions. Here is how the GL60AF performs:

| Evaporating Temp (°C) | Cooling Capacity (Watts) | Power Consumption (Watts) | COP (W/W) |
|-----------------------|--------------------------|---------------------------|-----------|
| -25 | 113 | 137 | 0.82 |

| Evaporating Temp (°C) | Cooling Capacity (Watts) | Power Consumption (Watts) | COP (W/W) |
|-----------------------|--------------------------|---------------------------|-----------|
| -23.3 | 132 | 124 | 1.07 |
| -20 | 145 | 130 | 1.12 |
| -15 | 165 | 138 | 1.20 |
| -10 | 190 | 148 | 1.28 |

Replacement Models

Same Brand (ZMC) Equivalent Models:

| Model | HP | Application | Refrigerant | Notes |
|--------|-----|-------------|-------------|----------------------------|
| GL60AA | 1/6 | LBP | R134a | Higher efficiency variant |
| GL60AH | 1/6 | LBP | R134a | Enhanced performance model |
| GL60AN | 1/6 | LBP | R134a | 50Hz optimized version |
| GL70AA | 1/5 | LBP | R134a | Slightly larger capacity |

Cross-Brand Replacements (R134a):

| Brand | Model | HP | Voltage | Notes |
|---------------|----------|-----|----------|---|
| Cubigel/ZEM | GL60AA | 1/6 | 220-240V | Direct replacement frigopartners.com |
| Cubigel | GL60AF | 1/6 | 200-230V | Same specifications iglotech.pl |
| Electrolux | EGL60AF | 1/6 | 220V | OEM equivalent www.mbsm.pro |
| Embraco | EMI60HER | 1/6 | 120/220V | Alternative option www.supplyhouse.com |
| Danfoss/Secop | SC6CL | 1/6 | 220V | Premium alternative |
| Tecumseh | CAJ4519Z | 1/6 | 220V | Reliable substitute |

Alternative Refrigerant Replacements:

Note: Requires complete system flush and expansion device adjustment.

| Brand | Model | Refrigerant | HP | Notes |
|---------|--------|-------------|-----|------------------------------|
| ZMC | HL80AH | R600a | 1/7 | More efficient, eco-friendly |
| ZMC | HL90AH | R600a | 1/7 | Propane-based alternative |
| Danfoss | SC6CLX | R290 | 1/6 | Natural refrigerant option |

Compatible Appliances

The ZMC GL60AF compressor is commonly used in:

- Single-door refrigerators (150-250 liters)
- Double-door refrigerators (280-350 liters) www.mbsm.pro
- Chest freezers
- Beverage coolers
- Small commercial refrigeration units

Installation Notes

1. **Oil Compatibility:** Uses POE (Polyolester) oil - ISO VG 19 grade. Ensure system is clean and dry.
 2. **Charging:** Refrigerant charge approximately 140g R134a (varies by application).
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 3. **Starting Device:** Requires appropriate RSIR starting relay and capacitor.
 4. **Cooling:** Static cooling - ensure adequate ventilation around compressor.
 5. **Mounting:** Use original rubber mounts to minimize vibration.
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Focus Keyphrase

ZMC GL60AF Compressor Specs and Replacements

SEO Title

Mbsm.pro - ZMC GL60AF Compressor: 1/6 HP R134a Technical Guide

Meta Description

Looking for ZMC GL60AF specs? We break down this 1/6 HP R134a LBP compressor including cooling capacity, oil type, technical data, and the best replacement models for your refrigerator repair.

Slug

zmc-gl60af-compressor-1-6-hp-r134a-specs

Tags

Mbsmgroup, Mbsm.pro, mbsmpro.com, mbsm, ZMC, GL60AF, R134a, 1/6 HP, LBP, Egypt Compressor, Refrigeration, GL60AA, GL60AH, Cubigel, ZEM, Electrolux, Embraco, EMI60HER, Compressor Replacement, HVAC, Refrigerator Repair, Hermetic Compressor

Excerpt

The ZMC GL60AF is a reliable 1/6 HP hermetic compressor designed for R134a LBP applications, widely used in domestic refrigerators and freezers. This comprehensive guide provides complete technical specifications including 5.99 cm³ displacement, ISO VG 19 ester oil requirements, 132W cooling capacity, and detailed performance data. Find the best replacement options including Cubigel GL60AA, ZEM equivalents, and modern alternatives for your refrigeration repair needs.



1/6 HP, Compressor Replacement, Cubigel, Egypt Compressor, Electrolux, Embraco, EMI60HER, GL60AA, GL60AF, GL60AH, HVAC, LBP, mbsm, mbsm.pro, mbsmgroup, mbsmpro.com, R134a, refrigeration, Refrigerator Repair, ZEM, ZMC