

LG BMG110NHMV Inverter Compressor

Site: Mbsmpro

Date: December 31, 2025 | **Author:** www.mbsmpro.com

URL: <https://mbsmpro.com/lg-bmg110nhmv-inverter-compressor/>



Mbsmpro.com, Compressor, BMG110NHMV, 1/4 hp, LG inverter, Cooling & Freezing, R600a, 220-240V 50/60Hz, LBP capacity, BLDC,

–29°C to –10°C

The **LG BMG110NHMV** is a variable-speed **BLDC inverter compressor** for R600a refrigerators and freezers, working on 220–240 V, 50/60 Hz in low-back-pressure applications. With a nominal rating close to **1/4 hp** and a speed range from **1200 to 4500 rpm**, it delivers flexible capacity and high efficiency for modern domestic appliances.

BMG110NHMV technical profile

LG's catalog lists the BMG110NHMV in the **BMG inverter R600a series**, designed for high-efficiency household refrigerators. The nameplate confirms R600a refrigerant, thermal protection and 220–240 V supply.

Main data and operating point

Parameter	BMG110NHMV value
Manufacturer	LG Electronics / LG Compressor & Motor
Series	BMG inverter R600a
Model	BMG110NHMV
Refrigerant	R600a (isobutane)
Motor type	BLDC inverter, variable speed
Supply	220–240 V, 50/60 Hz (inverter-driven, 60–225 Hz)
Application	LBP domestic refrigerator / freezer
Speed range	1200–4500 rpm

Parameter	BMG110NHMV value
Test condition	Evap $-23.3\text{ }^{\circ}\text{C}$ / Cond $54.4\text{ }^{\circ}\text{C}$ / ambient $32\text{ }^{\circ}\text{C}$
Nominal capacity at 4500 rpm	$\approx 262\text{ W}$ (894 Btu/h)
Input power at 4500 rpm	$\approx 146\text{ W}$
COP at 4500 rpm	$\approx 1.79\text{ W/W}$ ($\approx 6.11\text{ Btu/W}\cdot\text{h}$)

At lower speeds like 1500–1800 rpm, capacity drops to around 102–125 W while COP remains near 1.74–1.75, allowing the compressor to modulate for part-load efficiency.

Capacity table across speeds

The inverter control lets the same compressor cover a wide load range without cycling, which is reflected in LG's performance table.

Cooling capacity vs power - BMG110NHMV (R600a LBP)

Speed (rpm)	Capacity (kcal/h)	Capacity (W)	Capacity (Btu/h)	Power (W)	COP (W/W)	EER (Btu/W·h)
4500	225	262	894	146	1.79	6.11
3000	172	200	683	108	1.85	6.32
1800	108	125	427	72	1.75	5.97
1500	88	102	349	59	1.74	5.95
1200	70	82	279	48	1.72	5.87

These values show how the inverter platform lets manufacturers tune energy labels by operating much of the time at lower speeds, while still having 262 W on tap for rapid pull-down.

Comparison with other LG inverter R600a models

LG's catalog groups the BMG110NHMV with BMG110NAMV and BMG089 series models, all R600a BLDC compressors for LBP applications.

Comparing their data helps installers and designers choose the right size.

LG R600a BLDC inverter comparison

Model	Series	Nominal hp class	Capacity at 4500 rpm (W)	Power (W)	COP (W/W)	Typical cabinet volume*
BMG089NAMV	BMG	≈ 3/16 hp	217 W	119 W	1.83	200–260 L refrigerators
BMG089NHMV	BMG	≈ 3/16 hp	217 W	126 W	1.72	high-efficiency 200–260 L
BMG110NAMV	BMG	1/4 hp class	262 W	144 W	1.82	280–350 L fridges/freezers
BMG110NHMV	BMG	1/4 hp class	262 W	146 W	1.79	280–350 L refrigerators / freezers

*Cabinet volume estimates are typical ranges inferred from inverter R600a design practice, not explicit catalog values.

The BMG110NHMV thus occupies a sweet spot between the smaller BMG089 series and larger BMK/BMA models, ideal for mid-size no-frost or multi-door refrigerators where load fluctuates strongly.

Comparison with fixed-speed R600a compressors

To highlight the benefit of inverter technology, it is useful to compare BMG110NHMV with a typical constant-speed R600a compressor of similar hp rating. LG's own reciprocating catalog and third-party suppliers show 1/4 hp fixed-speed R600a models with similar cooling capacity but higher average power consumption.

Inverter vs fixed-speed R600a - indicative comparison

Feature	BMG110NHMV (inverter)	Typical 1/4 hp fixed-speed R600a compressor
Speed control	1200–4500 rpm via BLDC inverter	Single speed (≈ 3000 rpm)
Nominal capacity	≈ 262 W at -23.3 °C	≈ 250 – 270 W at similar point
Input power	146 W at full speed, 48–108 W at reduced speed	≈ 180 – 200 W constant
COP / EER	Up to ≈ 1.85 W/W (6.3 Btu/W·h)	Typically 1.5–1.6 W/W (5.1–5.5 Btu/W·h)

Feature	BMG110NHMV (inverter)	Typical 1/4 hp fixed-speed R600a compressor
Temperature control	Smooth, low-noise modulation	On/off cycling, higher noise and temperature swing
Energy label impact	Enables A+/A++ energy classes in many markets	Usually lower efficiency class

This comparison explains why OEMs increasingly specify BMG-series compressors in premium, energy-efficient refrigerators.

Safety and application notes for R600a systems

Because BMG110NHMV uses **R600a**, a flammable hydrocarbon, system design and service procedures must follow IEC and manufacturer guidelines.

- Charge quantities in household refrigerators are limited, typically below 150 g, to remain within safety limits.
- Electrical components near the compressor must be sealed or spark-free, and any repair involving brazing requires full refrigerant recovery and ventilation.

These constraints do not reduce performance; they simply require disciplined handling, especially when replacing the compressor or modifying pipework.



[mpdf \(1\)Download](#)

Latest Articles

- [Guide de Dépannage de la Carte Inverter : Climatiseur Kolin KSM-IW20WAE](#)
- [RCFF-2HP Capillary Tube for a Samsung 18000 BTU air conditioner](#)
- [Carbon brushes washing machine motors](#)

- [Chauffe-eau Junkers : Restauration d'un Classique](#)
- [WS57H Compressor, 1/6 hp, Capacitor Requirement 4mf](#)
- [Hisense inverter expert, installtion](#)
- [Copeland D3DS5-100X 10 HP Freezer Compressor](#)
- [Bitzer 6G-30.2Y: The High-Performance 30 HP Semi-Hermetic](#)
- [Réparer un chauffe-eau à gaz Olympic 6L](#)
- [Best piping practices for semi-hermetic systems](#)
- [Core ChauffeEau Junkers Mid-1980s to Late 1990s](#)
- [Not recommended R410A to R407c](#)
- [Details of refrigerant R134a](#)
- [The electrical circuit for a timer-based steam refrigerator is an interesting one](#)
- [Changing Filter 1/5 Hp](#)
- [1/5 HP Compressor oil change: How much and how to do it right](#)
- [Deep cleaning AC units from A to Z... that's our craft](#)
- [Plumbing Fittings Explained](#)
- [Can the GL80 compressor be installed in place of the GL90?](#)
- [The process of replacing the air conditioner compressor is successful, and it is working as it was before ?](#)