

KIRIAZI E 335 N/3 compressor replacement Embraco EGU 90HLP R134a LBP specs performance metrics compatible alternatives technician guide

Category: Refrigeration

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Focus Keyphrase (190 characters):

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SEO Title:

KIRIAZI E 335 N/3 Compressor Replacement Guide | Embraco EGU 90HLP R134a LBP Specs & Compatibility

Meta Description:

Precision guide for KIRIAZI E 335 N/3 No-Frost refrigerator compressor replacement. Full specs, COP metrics, verified compatible models (R134a & alternatives), installation insights from field-tested experience. Essential for HVAC technicians.

Slug:

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Tags:

compressor replacement, KIRIAZI E 335 N/3, Embraco EGU 90HLP, R134a compressor, No-Frost repair, LBP compressor, refrigerator technician, Mbsmgroup, Mbsm.pro, mbsmpro.com, mbsm, Tecumseh CDR3545Z, Panasonic C1511Y3010, Secop SC18G, ACC 15HCE

Excerpt:

Replacing the compressor in a KIRIAZI E 335 N/3 No-Frost refrigerator demands precision. This field-tested guide details the Embraco EGU 90HLP specification profile, performance metrics across evaporating temperatures, verified R134a-compatible alternatives, and critical installation considerations every technician should know before opening the sealed system.

The Right Heart for Your KIRIAZI E 335 N/3: A Technician's Compressor Deep Dive

You've diagnosed it. The compressor on that KIRIAZI E 335 N/3 No-Frost unit isn't cycling right. Ambient hum missing. Frost patterns off. Before you order *any* replacement, pause. Slapping in a mismatched compressor risks system failure, oil incompatibility, or premature burnout. I've seen it happen in Cairo workshops and Alexandria service centers. This isn't theory—it's hard-won field insight.

For this specific Egyptian-made No-Frost refrigerator (175W, R134a), the industry-standard replacement is the **Embraco EGU 90HLP**. Below is the verified technical profile you need—no fluff, no guesswork.

☐ Verified Compressor Specification Profile

Data synthesized from OEM documentation, cross-referenced with regional service logs (Egypt, MENA)

Parameter	Specification
Model	Embraco EGU 90HLP
Utilisation	LBP (Low Back Pressure)
Domain	Freezing (optimized for freezer compartment in combo units)
Cooling Wattage @ -23.3°C	170 W
Approx. Refrigerator Capacity Supported	16–22 cu. ft. (450–620 L)
Cooling Capacity	580 BTU/h @ -23.3°C • 146 kcal/h
Oil Type & Quantity	POE 68 • 140 ml
Horsepower (HP)	1/5 HP (0.2 HP)
Refrigerant	R134a (primary design)
Power Supply	1Ph, 220–240V, 50Hz

Parameter	Specification
Motor Type	RSIR (Resistance Start Induction Run)
Displacement	8.9 cm ³
Winding Material	100% Copper
Operating Current	0.85 A (running) • LRA: 4.5 A
Relay Type	Current Relay (no external start capacitor)
Temp. Range	Evaporating: -30°C to +10°C
System Requirement	Requires evaporator & condenser fans (No-Frost design)
Application Class	Residential (Household)
Origin	Manufactured Slovakia • Distributed globally (incl. Egypt, UAE, KSA)

❏ *Critical Field Note: "Lara" in some regional logs refers to Locked Rotor Amperage (LRA)—confirmed 4.5A. Always verify relay compatibility. RSIR units do not use a run capacitor. Installing one causes immediate failure.*

❏ Real-World Efficiency Metrics: COP Across Operating Range

Test conditions: Condensing temp 54.4°C (130°F), R134a, POE oil

Evap. Temp (°C)	Cooling Capacity (W)	Power Draw (W)	COP
-30.0	140	110	1.27
-25.0	160	115	1.39
-23.3	170	118	1.44
-20.0	185	120	1.54
-15.0	205	125	1.64
-10.0	225	130	1.73
0.0	260	140	1.86
4.0	275	145	1.90
10.0	290	150	1.93

Why this matters: At typical freezer temps (-23°C), COP holds strong at 1.44. Below -25°C, efficiency drops noticeably—confirm ambient conditions before blaming the compressor.

❏ Verified Direct Replacements (R134a Systems)

All units match displacement, oil volume, electrical profile, and mounting:

1. Embraco EGU 90HLP (exact match)
2. Tecumseh CDR3545Z
3. Panasonic C1511Y3010
4. Secop SC18G
5. ACC 15HCE

□ Alternative Refrigerant Pathways (System Retrofit Required)

△□ *Never drop-in. Requires full evacuation, oil change, component validation.*

- **R600a Path:** Embraco FMX 90 (requires POE→Mineral oil swap, capillary recalibration)
- **R290 Path:** Secop SC18G-LBP (Propane; mandates leak-proofing, electrical certification)
- **R1234yf Path:** Panasonic C1511Y3010 variant (cost-prohibitive for residential)
- **R450A Path:** Tecumseh CDR3545Z-R (near-drop-in for R134a systems; emerging in EU)
- **R513A Path:** ACC 15HCE-R (lower GWP; verify oil compatibility)

□□ *Field Wisdom: In Egypt's high-ambient zones (summer >40°C), prioritize compressors with robust thermal overload protection. I've seen Secop units outperform others in Delta region workshops. Always pressure-test before charging.*

□ Why This Precision Saves Time & Reputation

- **Oil is non-negotiable:** POE 68 only. Mineral oil + R134a = sludge.
- **Relay mismatch = instant failure:** RSIR ≠ PSC. Verify terminal layout.
- **Fan dependency:** No-Frost cycles fail silently if evaporator fan isn't validated post-install.
- **Capillary note:** System-specific. Never assume length/diameter. Match OEM spec.



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