

Secop GTK70AT Compressor Specifications and Equivalents

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The [SECOP GTK70AT](#) is a cornerstone in the world of high-efficiency domestic [refrigeration](#). Engineered in Slovakia, this compressor represents the evolution of the Kappa series, offering a robust solution for Low Back Pressure (LBP) applications. It is specifically designed to handle the demanding pull-down requirements of modern energy-efficient refrigerators and medium-sized chest freezers using [R134a](#) refrigerant.

Technicians value the [GTK70AT](#) for its high reliability and relatively low noise profile. Unlike standard [1/5 HP](#) units, this “Plus” model provides a slight edge in displacement, ensuring that during high-ambient temperature conditions, the cooling curve remains stable without stressing the motor windings.

Technical Data Sheet

Feature	Specification
Model	GTK70AT
Utilisation	LBP (Low Back Pressure)
Domaine	Freezing / Cooling
Cooling Wattage (-23.3°C)	195 W
Cubic Feet Capacity	10 – 14 cu.ft
Litres Capacity	280 – 400 Liters
Kcal/h	168 Kcal/h
Oil Type and Quantity	POE (Polyolester) / 180 ml
Horsepower (HP)	1/5+ HP
Refrigerant Type	R134a
Power Supply	200-240V ~ 50Hz
Cooling Capacity BTU	665 BTU/h
Motor Type	RSIR/RSCR (depending on starter kit)
Displacement	6.64 cm ³
Winding Material	Copper
Pression Charge	Low side (0.5 to 1.5 psi running)
Capillary Recommendation	0.031" or 0.036" (Length varies by design)
Application Range	Double door fridges, Upright freezers
Temperature Range	-35°C to -10°C
Cooling Type	Static (No fan required for compressor)
Commercial Use	Light Commercial / Domestic
Amperage (RLA)	0.9 A to 1.1 A
LRA (Locked Rotor Amps)	6.1 A
Starter Type	PTC Relay
Capacitor	4µF Run Capacitor (Optional for RSCR)
Origin	Slovakia

Efficiency Metrics (COP) – Performance Data

Evaporating Temp (°C)	Cooling Capacity (Watts)	Power Consumption (Watts)	COP (W/W)
-30	140	115	1.22
-25	182	131	1.39
-23.3	195	138	1.41
-20	235	150	1.57
-15	302	171	1.77
-10	385	195	1.97

Comparison: GTK70AT vs. Standard Series

When comparing the [GTK70AT](#) to the older **TLES** or **GL** series, the GTK series offers a more compact shell design which aids in reducing vibration resonance. While a standard [1/5 HP](#) compressor like the [GL70AA](#) uses about 6.0cm³ displacement, the [GTK70AT](#)'s 6.64cm³ displacement allows it to reach target temperatures 15% faster, making it ideal for “Tropical Class” appliances.

Professional Advice & Maintenance Tips

- **Oil Sensitivity:** Always use POE oil if a recharge is necessary. Never mix with mineral oil, as [R134a](#) systems will undergo wax plating and clog the capillary.
- **Filter Drier:** Always replace the filter drier when swapping a compressor. A 20g XH-9 molecular sieve is recommended for this model.
- **Vacuumping:** Ensure a vacuum of at least 500 microns to remove all moisture, as the GTK series is sensitive to internal acid formation if moisture remains.

Compressor Cross-Reference & Replacements

5 Replacements (Same Refrigerant – R134a)

1. Embraco: [EMY70HLC](#) / EMT6170Z
2. Danfoss: [TLS7F](#)
3. Tecumseh: [THG1365YS](#)
4. Huayi: HYE69YL
5. ZMC: [GL70AA](#) / GVV66AA

5 Replacements (Different Refrigerant – R600a/R290)

1. [Secop](#): NLE7.0KK.4 (R600a)
2. Embraco: EMX70CLC (R600a)
3. Jiaxipera: NT1114Y (R600a)

4. [Secop](#): DLE7.5CN (R290 – *High efficiency*)

5. [Tecumseh](#): TLY7.5KK.3 (R600a)

Focus Keyphrase: [Secop GTK70AT](#) Compressor Specifications and Equivalents

SEO Title: [Mbsm](#).pro – [SECOP GTK70AT](#) Compressor: 1/5+ HP [R134a](#) LBP Technical Review

Meta Description: Detailed technical analysis of the [SECOP GTK70AT](#) compressor. Includes cooling capacity, COP efficiency tables, HP ratings, and direct replacement guides for [R134a refrigeration](#) systems.

Slug: [secop-gtk70at](#)-compressor-1-5-hp-[r134a](#)-specs

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Excerpt: The [SECOP](#) GTK70AT is a high-performance 1/5+ HP compressor designed for [R134a](#) Low Back Pressure (LBP) applications. Featuring a 6.64 cm³ displacement and 195W cooling capacity at -23.3°C, this Slovakian-made unit is a reliable choice for domestic freezers and refrigerators. This guide provides full technical specs, COP metrics, and professional replacement equivalents.



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