

# Secop GTK70AT Compressor

## Specifications and Equivalents

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# **Mbsm.pro, Compressor, SECOP, GTK70AT, 1/5+ HP, R134a, 220-240V 50Hz, LBP, Refrigerator, Freezer**

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.

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## **Technical Data Sheet**

<b>Feature</b>	<b>Specification</b>
<b>Model</b>	GTK70AT
<b>Utilisation</b>	LBP (Low Back Pressure)
<b>Domaine</b>	Freezing / Cooling
<b>Cooling Wattage (-23.3°C)</b>	195 W
<b>Cubic Feet Capacity</b>	10 - 14 cu.ft

<b>Feature</b>	<b>Specification</b>
<b>Litres Capacity</b>	280 - 400 Liters
<b>Kcal/h</b>	168 Kcal/h
<b>Oil Type and Quantity</b>	POE (Polyolester) / 180 ml
<b>Horsepower (HP)</b>	1/5+ HP
<b>Refrigerant Type</b>	R134a
<b>Power Supply</b>	200-240V ~ 50Hz
<b>Cooling Capacity BTU</b>	665 BTU/h
<b>Motor Type</b>	RSIR/RSCR (depending on starter kit)
<b>Displacement</b>	6.64 cm <sup>3</sup>
<b>Winding Material</b>	Copper
<b>Pression Charge</b>	Low side (0.5 to 1.5 psi running)
<b>Capillary</b>	0.031" or 0.036" (Length varies by design)
<b>Recommendation</b>	Double door fridges, Upright freezers
<b>Application Range</b>	
<b>Temperature Range</b>	-35°C to -10°C
<b>Cooling Type</b>	Static (No fan required for compressor)
<b>Commercial Use</b>	Light Commercial / Domestic
<b>Amperage (RLA)</b>	0.9 A to 1.1 A
<b>LRA (Locked Rotor Amps)</b>	6.1 A
<b>Starter Type</b>	PTC Relay

<b>Feature</b>	<b>Specification</b>
<b>Capacitor</b>	4μF Run Capacitor (Optional for RSCR)
<b>Origin</b>	Slovakia

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### **Efficiency Metrics (COP) - Performance Data**

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

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### **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 6.0cm<sup>3</sup> displacement, the GTK70AT's 6.64cm<sup>3</sup> 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.
  - **Vacuuming:** 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.
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## 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 / GVY66AA

### 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)
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**Focus Keyword:** 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

**Tags:** Mbsmgroup, Mbsm.pro, mbsmpro.com, mbsm, GTK70AT, Secop, R134a, 1/5 HP, Refrigeration, Compressor Replacement, EMY70HLC, TLS7F, THG1365YS, GL70AA, HVAC Slovakia.

**Excerpt:** The SECOP GTK70AT is a high-performance 1/5+ HP compressor designed for R134a Low Back Pressure (LBP) applications. Featuring a 6.64 cm<sup>3</sup> 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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1/5 hp, Compressor Replacement, EMY70HLC, GL70AA, GTK70AT, mbsm, mbsm.pro, mbsmgroup, mbsmpro.com, R134a, refrigeration, Secop, THG1365YS, TLS7F

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