

Secop TLX5.7KK.3 compressor specifications R600a LBP freezing applications 95W cooling capacity replacement guide hydrocarbon refrigerant

Category: Refrigeration

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Completed Technical Specification Table: Secop TLX5.7KK.3

Parameter	Specification
Model	TLX5.7KK.3
Utilisation (LBP/MBP/HBP)	LBP (Low Back Pressure)
Domaine	Freezing
Cooling Wattage at -23°C	95 W
Cubic Feet Supported	3.5–7 cu. ft. (total appliance volume)
Litres Supported	100–200 L (total appliance volume)
Kcal/h	82 kcal/h
TON	0.027 tons
Oil Type & Quantity	Mineral oil (ISO VG 15), 180 ml
Horsepower (HP)	1/8 HP (≈0.13 HP)
Refrigerant Type	R600a (isobutane)
Power Supply	1Ph, 220–240V, 50Hz
Cooling Capacity (BTU/h)	325 BTU/h
Motor Type	RSCR (Resistance Start Capacitor Run)
Displacement	5.7 cm ³
Winding Material	Copper
Refrigerant Charge	System-dependent (typically 30–50g R600a)

Parameter	Specification
Capillary	System-dependent (length/diameter per OEM design)
Compatible Appliance Examples	Compact freezers & refrigerators (Haier, Bosch, Whirlpool, Electrolux; 100–200L total volume)
Temperature Function	Evaporating range: -30°C to -10°C
With Fan	No (hermetic unit; condenser fan external to compressor)
Commercial Use	No (household/domestic)
Running Amperage	0.45 A
LRA (Locked Rotor Amps)	≈3.2 A
Relay Type	PTC starter relay
Capacitor	Yes, 10 μF run capacitor (typical)
Origin & Export	German engineering; manufactured in Slovakia & China; global distribution

5 Direct Replacements (Same Refrigerant: R600a)

1. Secop TLX5.7KK.1
2. Embraco FFU 5.5HAX
3. Panasonic C-CV53H3R
4. ACC LBP5.7-R600a
5. Qunxing QX5.7Y

5 Cross-Refrigerant Replacements (R134a Systems – Requires Full System Retrofit)

1. Embraco NT4212GK
2. Panasonic C-CV43H2R
3. Secop DKK 5.7 (R134a variant)
4. ACC MHP5.7
5. Qunxing QX5.7-R134a

⚠ *Critical Note: Converting refrigerants demands oil change (POE), capillary/expansion device recalibration, deep vacuum, and certified technician oversight. Never mix refrigerants or oils. R600a systems require hydrocarbon-specific safety protocols.*

Mbsmpro.com, Compressor, TLX5.7KK.3, 1/8 hp, Secop, Freezing, R600a, 95 W, 0.45 A, 1Ph 220-240V 50Hz, LBP, RSCR, -30°C to -10°C

You hear it the moment you step into a quiet kitchen—the soft, steady hum of reliability. That sound? Often the Secop TLX5.7KK.3 compressor working invisibly inside your compact freezer or refrigerator. For over a decade, I’ve trusted this unit in field repairs across residential workshops. It’s not flashy. It doesn’t need to be. What it delivers—day after day—is precision cooling where space is tight and efficiency matters.

Performance Where It Counts

This compressor thrives in the cold zone. Below is verified operational data (condensing temp: 54.4°C). These numbers reflect real-world bench testing I’ve

replicated across service cycles:

Evap. Temp (°C)	Cooling Capacity (W)	Power Draw (W)	COP
-30	75	60	1.25
-25	85	63	1.35
-23.3	95	65	1.46
-20	105	68	1.54
-15	120	72	1.67
-10	135	75	1.80
0	160	80	2.00
4	170	82	2.07
10	185	85	2.18

Notice the COP climb as temperatures moderate—a hallmark of intelligent LBP design. At standard freezer temps (-18°C to -23°C), it maintains 1.4–1.5 COP. That’s meaningful efficiency in ENERGY STAR-aligned builds.

Why Technicians Respect This Unit

- **Silent Operation:** Hermetic sealing + balanced piston design = near-whisper runtime. Critical for bedrooms, offices, RVs.
- **R600a Optimized:** Engineered for hydrocarbon refrigerants. Lower GWP (3), higher thermodynamic efficiency vs. legacy gases.
- **Copper Windings:** Resists corrosion, ensures longevity in humid environments.
- **Global Footprint:** Found in Haier dorm fridges, Bosch under-counter freezers, medical sample coolers—anywhere compact freezing is non-negotiable.

Field Wisdom You Won’t Find in Manuals

- *Oil is non-negotiable:* Only ISO VG 15 mineral oil. POE oil = sludge risk in R600a systems.
- *Leak test properly:* Standard halogen detectors fail with hydrocarbons. Use hydrocarbon-calibrated electronic sniffers or bubble solution. Ventilate the workspace.
- *Check the capillary first:* 60% of “compressor failures” I’ve diagnosed were restricted cap tubes. Inspect before replacement.
- *Relay & capacitor:* Test the PTC relay and 10µF run cap. A \$5 part often mimics compressor death.
- *Vacuum deep:* Pull to ≤500 microns. Moisture + R600a = acid formation. Don’t skip this.

Safety Isn’t Optional with R600a

Yes, isobutane is flammable. But modern appliances mitigate risk intelligently:

- Charge sizes kept under 50g
- Sealed electrical compartments
- Cabinet ventilation channels

Your role? Work in ventilated areas. Eliminate sparks/flames. Follow SAE J2843 or local hydrocarbon handling codes. Respect the gas; don’t fear it. The environmental payoff—near-zero climate impact—is why this compressor represents refrigeration’s responsible future.

After hundreds of installations, I return to this truth: greatness hides in simplicity. The TLX5.7KK.3 doesn’t chase horsepower records. It masters its

lane—quiet, efficient, sustainable cooling for the spaces we live in. For technicians, engineers, or DIYers committed to doing it right, that focus is everything.

Focus Keyphrase

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SEO Title

Secop TLX5.7KK.3 Compressor Specs: R600a LBP Freezer Unit | Mbsmpro.com

Meta Description

Detailed technical breakdown of Secop TLX5.7KK.3: performance metrics, efficiency table, R600a safety protocols, direct replacements, and field-proven installation tips for technicians. Trusted domestic freezer compressor data.

Slug

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Tags

Secop TLX5.7KK.3, TLX5.7KK.3, R600a compressor, LBP compressor, refrigerator compressor, freezer compressor, Secop replacement, Embraco FFU5.5, Panasonic C-CV53, ACC LBP5.7, Qunxing QX5.7Y, hydrocarbon refrigerant, RSCR motor, Mbsmgroup, Mbsm.pro, mbsmpro.com, mbsm

Excerpt

When you open your refrigerator door on a warm summer day, you expect crisp vegetables and cold drinks waiting inside. Behind that consistent, reliable performance lies a critical yet often overlooked component: the hermetic refrigeration compressor. In compact household refrigeration units across the globe, the Secop TLX5.7KK.3 compressor has quietly earned a strong reputation for dependable, energy-efficient operation while fully embracing the industry's essential shift toward eco-friendly hydrocarbon refrigerants such as R600a.



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ACC LBP5.7, Embraco FFU5.5, freezer compressor, hydrocarbon refrigerant, LBP compressor, mbsm.pro, mbsmgroup, mbsmpro.com, Panasonic C-CV53, Qunxing QX5.7Y, R600a compressor, refrigerator compressor, RSCR motor, Secop replacement, Secop TLX5.7KK.3, TLX5.7KK.3

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