

Secop TLES6FT.3 R134a 1/5 HP LBP Compressor Specifications and Replacement Guide

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When it comes to domestic refrigeration, few names carry as much weight as [Secop](#). Formerly known under the Danfoss brand, these Slovakian-made powerhouses have become the backbone of reliable household cooling. Today, we're breaking down the [TLES6FT.3](#), a Low Back Pressure ([LBP](#)) [compressor](#) designed for efficiency and long-term durability in [R134a](#) systems.

If you're a technician in the field, you know that the TLES series is prized for its compact footprint and low noise levels. It's a "set it and forget it" component that handles the rigorous demands of modern energy standards without breaking a sweat.

Technical Data & Performance Specifications

The following data provides a granular look at the mechanical and electrical heart of this unit.

Feature	Specification
Model	TLES6FT.3
Utilisation	LBP (Low Back Pressure)
Domaine	Freezing / Cooling
Cooling Wattage (-23.3°C)	149 Watts (ASHRAE)
Cooling Capacity (BTU/h)	508 BTU/h
Cubic Feet Capacity	Approx. 7 to 9.5 cu. ft.
Liters Capacity	200 – 270 Liters
Kcal/h	128 Kcal/h
Oil Type and Quantity	POE (Polyolester) / 180 ml
Horsepower (HP)	1/5 HP
Refrigerant Type	R134a
Power Supply	220-240V / 50Hz / 1 Phase
Motor Type	RSIR/CSIR (Depending on Starter)
Displacement	5.70 cm ³
Winding Material	Copper
Pressure Charge	Low Pressure (Suction Side)
Capillary Tube (Suggested)	0.031" ID x 3 meters (Approx.)
Appliance Type	Refrigerators, Deep Freezers
Operating Temp Range	-35°C to -10°C
Cooling Method	Static (No Fan Required)
Commercial Class	Domestic / Light Commercial
Amperage (RLA)	0.95 A – 1.1 A
Locked Rotor Amps (LRA)	7.5 A
Start Relay	PTC or Electromagnetic
Run Capacitor	Optional (usually not required for RSIR)
Country of Origin	Slovakia

Efficiency Metrics (COP) & Performance Curve

Efficiency is where the [TLES6FT.3](#) truly shines. The Coefficient of Performance (COP) varies based on the evaporating temperature. Use this table for precise diagnostics during system charging.

Evaporating Temp (°C)	Cooling Capacity (Watts)	Power Consumption (Watts)	COP (W/W)
-35	82	88	0.93
-30	110	102	1.08
-23.3 (Standard)	149	122	1.22
-20	172	134	1.28
-15	215	150	1.43
-10	268	168	1.60

Wiring & Connection Schematic

For the electrics, the [TLES6FT.3](#) utilizes a standard triangular pin configuration. Proper wiring is essential to prevent winding burnout.

- **Common (C):** Top Pin.
- **Run (R):** Bottom Right Pin.
- **Start (S):** Bottom Left Pin.
- **Logic:** The PTC starter bridges the Start and Run windings briefly to initiate rotation. If using a CSIR setup, a start capacitor (usually 60-80 µF) is placed in series with the start winding.

Cross-Reference & Replacement Guide

If the [TLES6FT.3](#) is unavailable, these alternatives offer similar displacement and BTU output.

Direct [R134a](#) Replacements (Same Gas)

1. **Embraco:** EMS 55 HLC / EMYe 70 CLP
2. **ZMC/Zem:** [GL60AA](#)
3. **ACC / Cubigel:** [GVY57AA](#)
4. **Huayi:** [HYE60MT](#)
5. **Tecumseh:** [THB1355Y](#)

R600a Conversion Alternatives (Requires System Flush)

Note: Converting from [R134a](#) to R600a requires a complete change of the capillary tube and filter drier.

1. **Secop:** TLY5.7KK.3

2. **Embraco:** EMX55CLC
3. **Jiaxipera:** T1114Y
4. **Sikap:** HMK95AA
5. **Donper:** L72CZ1

Expert Insight: Installation & Maintenance Notice

As a field engineer, I've seen these units last 15+ years when installed correctly. The [TLES6FT.3](#) is a “high-tolerance” unit, but it is sensitive to moisture. Because it uses **POE oil**, which is highly hygroscopic (absorbs water), you must keep the system sealed until the very moment of brazing.

- **Pro-Tip:** Always replace the filter drier when swapping this [compressor](#). A 15g or 20g drier is standard for this capacity.
- **Vacuuuming:** Do not skip the vacuum stage. A minimum of 250 microns is recommended to ensure the POE oil remains stable.
- **Charging:** Charge by weight according to the refrigerator manufacturer's label. Overcharging [R134a](#) systems will lead to high head pressure and premature valve failure.

Focus Keyphrase

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Meta Description

Get the technical specs for the [Secop TLES6FT.3 compressor](#). [1/5 HP](#), [R134a](#), 149W cooling capacity. Includes wiring diagrams, replacement cross-references, and expert COP tables.

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Excerpt

The [Secop TLES6FT.3](#) is a cornerstone of modern domestic refrigeration. This [1/5 HP](#), [R134a compressor](#) is engineered in [Slovakia](#) for Low Back Pressure applications, offering a cooling capacity of 149W. Known for its quiet operation and energy efficiency, it is the ideal choice for medium-sized refrigerators and deep freezers looking for long-term reliability.



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