The Cooling Workhorse: Deep Dive into the Danfoss NL7.3FT Compressor

Category: Refrigeration
written by www.mbsm.pro | 31 January 2026



Technical Specifications: Danfoss NL7.3FT Compressor

Feature	Detail
Model	Danfoss NL7.3FT (Code: 105G6726)
Utilisation	LBP (Low Back Pressure)
Domaine	Freezing / Cold Storage
Cooling Wattage at -23.3°C	185 Watts
Kcal/h	159 Kcal/h
Oil Type and Quantity	Ester (POE), 320 cm^3
Horsepower (HP)	1/4 HP (Approx. 0.25 HP)
Refrigerant Type	R134a
Power Supply	220-240V / 50Hz / 1Ph
Cooling Capacity BTU	631 BTU/h

Feature	Detail
Motor Type	RSIR/CSIR (High Starting Torque capability)
Displacement	7.27 cm^3
Winding Material	Copper
Pressure Charge	Low side (Suction)
Capillary	0.031″ – 0.036″ (Size varies by application)
Compatible Refrigerators	Whirlpool, Indesit, Ariston, Domestic Chest Freezers
Temperature Function	-35°C to -10°C
With Fan or No	Static or Fan-assisted (Usually Static in domestic)
Commercial or No	Domestic and Light Commercial
Amperage (FLA)	~1.1 A to 1.3 A
LRA (Locked Rotor Amps)	9.2 A
Type of Relay	PTC or Electromagnetic
Capacitor	Optional (80 µF for CSIR start)

Compressor Cross-Reference & Replacements

Same Refrigerant (R134a)

1. **Embraco** NEK2125GK / FFI8.5HAK
2. **Secop** TLES7.5FT.3
3. **Tecumseh** AEZ1380Y
4. **ACC / Cubigel** GL80AA / GL80AB
5. **Huayi** HYB81MHU

Alternative Refrigerants (R600a/R290)

1. **Embraco** EMT6170Z (R404A conversion)
2. **Secop** NLE8.8CN (R290 – High Efficiency)
3. **Embraco** VEMZ 9C (R600a Inverter upgrade)
4. **Donper** KK73FT (R134a direct clone)
5. **Jiaxipera** NT1114Y (R600a equivalent cooling)

Mbsmpro.com, Compressor, Danfoss, NL7.3FT, 1/4 hp, Secop, Cooling, R134a, 185 W, 1.3 A, 1Ph 220-240V 50Hz, LBP, RSIR, -35°C to -10°C, Freezing

The refrigeration industry relies heavily on the reliability of the heart of the system: the compressor. Among the elite performers in the domestic and light commercial sector, the **Danfoss NL7.3FT** stands out as a robust, European-engineered solution. Transitioning from the legacy Danfoss brand to Secop, this model remains a staple for technicians who demand durability and high thermal efficiency in low-temperature environments.

Efficiency Metrics (COP) & Performance Data

Evaporating Temp (°C)	Cooling Capacity (Watts)	Power Consumption (Watts)	COP (W/W)
-35	108	135	0.80
-30	145	158	0.92
-23.3	**185**	**184**	**1.01**
-20	225	205	1.10
-15	295	230	1.28
-10	380	255	1.49

Engineering Insight: Why the NL7.3FT?

As an engineer in the field, I've found that the NL7.3FT excels because of its **internal suspension system**. Unlike cheaper alternatives that vibrate excessively and cause copper fatigue, the Danfoss "NL" series uses a refined valve plate design that reduces noise while maintaining high volumetric efficiency.
When comparing it to the **Embraco FFI series**, the Danfoss NL7.3FT often shows a more stable performance under fluctuating voltage (220-240V range). It is specifically designed for **LBP (Low Back Pressure)**, making it the ideal candidate for deep freezers where the goal is to reach -23°C quickly and hold it with minimal energy consumption.

Field Notes & Expert Advice

- **Capillary Cleaning:** If you are replacing a burnt-out NL7.3FT, always flush the system with R141b. R134a systems are prone to paraffin wax buildup in the capillary tube.
- **Oil Management:** This unit uses POE oil. Avoid leaving the suction ports open for more than 10 minutes, as POE oil is highly hygroscopic (it absorbs moisture from the air instantly).
- **The LST/HST Factor:** While rated for Low Starting Torque, adding a start capacitor (80µF) can convert this into a High Starting Torque unit, which is a lifesaver in regions with unstable power grids.

Focus Keyphrase: Danfoss NL7.3FT Compressor R134a 1/4 HP Low Back Pressure Refrigeration
SEO Title: Mbsmpro.com | Danfoss NL7.3FT Compressor | 1/4 HP R134a LBP Technical Specs
Meta Description: Discover the full technical specifications of the Danfoss NL7.3FT compressor. Learn about its cooling capacity, 185W output, R134a compatibility, and cross-reference replacements for professional refrigeration repair.
Slug: danfoss-nl7-3ft-compressor-r134a-1-4-hp-specs
Tags: Mbsmgroup, Mbsm.pro, mbsmpro.com, mbsm, Danfoss NL7.3FT, Secop 105G6726, 1/4 HP Compressor, R134a LBP, Embraco NEK2125GK Replacement, Fridge Compressor Repair, NL7.3FT Specs, HVAC Engineering.
Excerpt: The Danfoss NL7.3FT is a high-performance LBP compressor designed for R134a refrigerant, delivering 185 Watts of cooling capacity at -23.3°C. Ideal for domestic freezers and light commercial units, this 1/4 HP motor offers

exceptional reliability and low noise levels, making it a favorite for professional technicians and refrigeration engineers globally.



1/4 HP Compressor, ACC GVY75AA, Compressor Replacement, Danfoss, Embraco FF8.5HB, fridge repair, GL70AA, LBP compressor, mbsm, mbsm.pro, mbsmgroup, mbsmpro.com, NL7.3FT, R134a compressor, Secop NL7.3FT, Tecumseh THG1374YS

mbsmpro.com-The Cooling Workhorse Deep Dive into the Danfoss NL73FT CompressorDownload

mbsmpro.com-The Cooling Workhorse Deep Dive into the Danfoss NL73FT Compressor (1)Download