

Tecumseh CAJ9480T: The French-Made Heart of Legacy R22 Cold Rooms

Category: Refrigeration

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On the faded nameplate of this weathered compressor shell, one line stands out with absolute clarity: **CAJ9480T - R22/R502 - Made in France**. It is the unmistakable signature of a Tecumseh L'Unité Hermétique fully hermetic compressor, a workhorse still beating quietly inside thousands of small cold rooms and refrigerated cabinets around the world.

Identifying the CAJ9480T from the label

The image shows a classic welded-shell compressor with a rectangular white label fixed on the body and a smaller green Tecumseh/L'Unité sticker below it.

Printed on the label, the model **CAJ9480T** appears alongside the refrigerant family *R22/R502*, the voltage range *208-220 V - 50 Hz*, and the note *THERMALLY PROTECTED*, confirming an internally protected single-phase motor.

The mention *Country of origin: France* links this unit to Tecumseh's European manufacturing line, known under the historic **L'Unité Hermétique** brand, widely used in commercial refrigeration.

Technical profile of the CAJ9480T

Behind this modest steel shell lies a carefully engineered medium-temperature compressor designed for reliability more than show.

- It is a **fully hermetic reciprocating** compressor, meaning the electric motor and pistons are sealed in the same welded housing, minimizing leaks and simplifying service on the field.
- In most data sheets the CAJ9480T is rated around **5/8 HP** for R22 at 230 V, 50 Hz, suitable for small cold rooms, counters and display cases working in positive temperatures.
- Typical electrical figures published for this model include a **Rated Load Amps (RLA)** close to 4 A and a **Locked Rotor Amps (LRA)** around 24 A, values that match the *LRA 24* marking on many factory labels.

The following table summarises the key technical characteristics generally associated with a Tecumseh CAJ9480T in R22 applications.

Parameter	Typical CAJ9480T value
Compressor type	Fully hermetic reciprocating piston
Nominal horsepower	Approx. 5/8 HP (medium temperature)
Refrigerant	R22 (older labels may mention R22/R502; some variants accept R438A)
Voltage / frequency	220–240 V, single phase, 50 Hz (voltage code F/FZ)
Displacement	About 15.2 cm ³ /rev
Rated Load Amps (RLA)	≈ 3.9–4.0 A at 50 Hz
Locked Rotor Amps (LRA)	≈ 24 A
Motor type	CSR, high-start torque with start and run capacitor
Oil charge	Around 475–780 ml, mineral or alkylbenzene depending on version
Origin	Tecumseh / L'Unité Hermétique, France

These values are essential for technicians who want to cross-check compatibility when replacing a damaged unit or when sizing contactors, cables and protections.

Real-world applications and typical uses

For many shop owners, the CAJ9480T is not a product code but “the compressor in the cold room that never stops”.

- It is widely installed in **small walk-in cold rooms**, butcher counters, beverage coolers and positive-temperature cabinets where cooling capacity around 2 kW at medium evaporating temperatures is sufficient.
- The evaporating temperature envelope usually runs from roughly -23 °C up to +12 °C, allowing the same base model to work in both cooler and slightly higher temperature applications when correctly selected.
- Because R22 has been phased down in many markets, the CAJ9480T often appears in **maintenance and retrofit** projects: technicians may replace the original compressor with the same reference, or move to compatible alternative refrigerants when regulations and Tecumseh documentation allow it.

In all cases, checking the exact family (CAJ9480T-FZ, CAJ9480T-AJ2, etc.) is crucial, as each variant is optimized for specific refrigerants, voltages and accessories.

Installation notes from the field

Even the best compressor will not forgive poor installation. Technicians who work daily with CAJ-series models usually insist on a few practical rules:

- *Clean piping and proper brazing:* use nitrogen during brazing, replace the filter drier, and avoid introducing scale or moisture, which can quickly degrade the oil and shorten compressor life.
- *Accurate vacuum and charge:* a deep vacuum combined with a charge adjusted to sight glass, superheat and manufacturer charts protects the compressor from liquid slugging and overheating.
- *Respect of operating envelope:* the Tecumseh performance sheets show clear limits for high condensing temperatures and low evaporating pressures; staying inside this window prevents excessive motor current and thermal overload trips.
- *Correct starting equipment:* since the CAJ9480T uses a CSR motor, the correct run capacitor, start capacitor and potential relay must be installed and wired following the original schematic to avoid hard starts and nuisance tripping.

For older R22 equipment, technicians also need to keep an eye on evolving regulations and encourage owners to plan long-term upgrades towards more sustainable refrigerants and systems.





[Technical Specifications - Tecumseh Compressor 5_8hp R22 MHBP CAJ9480TDownload](#)