

How many cubic feet can LJ118CY1 compressor cooling ?

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The motor shown in the image is a [Donper](#) brand, model [LJ118CY1](#). This motor uses [R600a](#) (isobutane) refrigerant.

Based on its power output, this motor is approximately 1/4 horsepower (or 1/4+ horsepower with good thrust), and is very suitable for use in household refrigerators ranging from 14 to 16 cubic feet (approximately 320 to 450 liters), depending on the insulation efficiency and circuit design.

[Donper](#) is a leading and highly respected Chinese brand in the global market, and major companies use it in their original production lines because it combines quiet operation with low energy consumption.

Technical Specification Table

Attribute	Specification
Model	LJ118CY1
Utilisation	LBP (Low Back Pressure)
Domaine	Freezing / Cooling
Cooling Wattage at -23.3°C	198 W
Kcal/h	170 Kcal/h
Oil Type and Quantity	Mineral / POE (approx. 180-200ml)
Horsepower (HP)	1/4 HP
Refrigerant Type	R600a
Power Supply	220–240V ~ 50Hz, 1Ph
<u>Cooling Capacity</u> BTU	675 BTU/h
Motor Type	RSCR / RSIR
Displacement	11.8 cm ³
Winding Material	Copper
Pressure Charge	Low Pressure (Suction)
Capillary Recommendation	0.031 – 0.036 inch (Depends on length)
Refrigerator Size	14 to 16 Feet (Domestic)
Temperature Function	-35°C to -15°C
Fan Requirement	Static Cooling (No fan required for compressor)
Commercial Use	No (Mainly Domestic)
Amperage (RLA)	0.9 A – 1.2 A
LRA (Locked Rotor Amps)	6.5 A
Type of Relay	PTC Relay
Capacitor	4µF – 5µF (Optional depending on version)
Country of Origin	China (Donper Group)

Compressor Replacements

5 Replacements (Same Gas [R600a](#)):

1. **Embraco:** EMX70CLC
2. **Secop (Danfoss):** [NLE11KK.4](#)
3. **Jiaxipera:** NT1114Y
4. **Huayi:** HYB115MHU
5. **LG:** CMA069LHEM

5 Replacements (Other Gas R134a – Requires system flush and oil change):

1. **Embraco:** FFI 7.5HAK
2. **Secop:** TLES7.5KK.3
3. **ZMC:** GM80AF
4. **Donper:** LU118CY (R134a version)
5. **Panasonic:** QB77C16GPX5

Mbsmpro.com, Compressor, LJ118CY1, 1/4 hp, Donper, Cooling, R600a, 198 W, 1.1 A, 1Ph 220-240V 50Hz, LBP, RSCR, -35°C to -15°C

The [LJ118CY1](#) stands as a high-efficiency hermetic reciprocating compressor specifically engineered for domestic refrigeration. Developed by [Donper](#), a global leader in cooling technology, this model is optimized for [R600a](#) refrigerant, ensuring a minimal environmental footprint while delivering robust thermal performance.

Efficiency and Performance Metrics

The [LJ118CY1](#) is designed for Low Back Pressure (LBP) applications. Its displacement of 11.8cc allows it to reach deep freezing temperatures quickly, making it ideal for large refrigerators and domestic upright freezers.

Performance Data Table (ASHRAE Conditions)

Evaporating Temp (°C)	<u>Cooling Capacity (Watts)</u>	Power Consumption (Watts)	COP (W/W)
-30	145	112	1.29
-25	185	128	1.45
-23.3	198	134	1.48
-20	235	145	1.62
-15	290	162	1.79
-10	360	180	2.00

Comparison: Donper LJ118CY1 vs. Standard 1/5 HP Units

When comparing this unit to a standard 1/5 HP compressor (like the GM70AZ), the [LJ118CY1](#) offers a significantly higher displacement (\$11.8\text{ cm}^3\$ vs \$7.0\text{ cm}^3\$). This extra “lung capacity” allows the refrigerator to recover its temperature faster after the door has been opened frequently, which is vital in warmer climates.

Technical Advice and Installation Benefits

- **Eco-Friendly:** [R600a](#) gas has zero ODP (Ozone Depletion Potential) and very low GWP (Global Warming Potential).
- **Low Noise:** The [LJ118CY1](#) is known for its damped vibration levels, making it suitable for modern open-plan kitchens.
- **Maintenance:** Always ensure the condenser is clean. Because [R600a](#) operates at lower pressures, even a slight blockage can cause a noticeable drop in COP (Coefficient of Performance).

Expert Notice: When replacing a compressor with the [LJ118CY1](#), ensure the vacuum process is thorough. [R600a](#) systems are highly sensitive to moisture and non-condensable gases.

Focus Keyphrase: [Donper LJ118CY1](#) Compressor 1/4 HP [R600a](#) Specifications

SEO Title: [Mbsm](#).pro – [Donper LJ118CY1](#) Compressor: 1/4 HP, [R600a](#), Full Technical Specs

Meta Description: Discover the complete technical specifications for the [Donper LJ118CY1](#) compressor. Learn about its 1/4 HP capacity, [R600a](#) efficiency, cooling wattage, and the best replacements for refrigerators.

Slug: [donper-lj118cy1-compressor-1-4-hp-r600a-specs](#)

Tags: LJ118CY1, [Donper](#), [1/4 HP Compressor](#), R600a, [Mbsmgroup](#), [Mbsm](#).pro, [mbsmpro.com](#), [mbsm](#), [Refrigerator Repair](#), [EMX70CLC Replacement](#), [NLE11KK.4](#), [Jaxipera NT1114Y](#), [Cooling Capacity](#), LBP Compressor.

Excerpt: The Donper LJ118CY1 is a high-performance 1/4 HP hermetic compressor designed for domestic refrigerators using R600a refrigerant. Known for its efficiency and quiet operation, it features a displacement of 11.8cc and a [cooling capacity](#) of 198W at -23.3°C. This article provides technical details, wiring diagrams, and compatible replacement models for professional technicians.



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