WPMR91S, the refrigerator requires exactly 13 grams of R600a refrigerant.

Category: Refrigeration
written by www.mbsm.pro | 29 January 2026



Based on the data provided in the nameplate, the refrigerator requires exactly **13 grams** of **R600a** refrigerant.

Technical Specification Table

Feature	Details
Model	White Point WPMR91S
Utilization	LBP (Low Back Pressure)
Domaine	Cooling (Mini-Bar / Domestic Refrigerator)
Oil Type and Quantity	Mineral or Ester Oil (approx. 160ml)
Horsepower (HP)	1/12 HP
Refrigerant Type	R600a (Isobutane)
Power Supply	220-240V / 50Hz
Cooling Capacity BTU	Approx. 310 BTU/h
Motor Type	RSIR (Resistance Start – Induction Run)
Displacement	4.0 cm³ to 4.5 cm³
Winding Material	Copper

Feature	Details
Pression Charge	0.5 to 1 PSI (Low side running)
Capillary	0.026 ID
Compatible Models	Compact refrigerators, Under-counter coolers
Temperature Function	+5°C to -18°C (Internal)
With Fan or No	No (Static Cooling)
Commercial or No	No (Domestic)
Amperage in Function	0.50 A
LRA	2.6 A
Type of Relay	PTC Relay
Capacitor	No (Standard RSIR)

Compressor Replacements

5 Replacements (Same Gas – R600a):
- **Jiaxipera** T1110Y
- **Danfoss/Secop** TLES4KK.3
- **Embraco** EMX20CLC
- **Huayi** B43H
- **Wanbao** ASD43Y

5 Replacements (Other Gas – R134a – Requires Flushing):
- **Embraco** EMI 30HER
- **Jiaxipera** ZBS1111cy
- **Danfoss** TLS3F
- **Donper** S43CZ
- **Cubigel** GL45AA

Mbsmpro.com, White Point, WPMR91S, Refrigerator, 1/12 hp, R600a, 13g, 0.50 A, 220-240V 50Hz, LBP, Made in Turkey

The **White Point WPMR91S** represents the modern standard for compact, energy-efficient refrigeration. Manufactured in Turkey, this unit is specifically designed for domestic cooling applications, utilizing the thermodynamic advantages of **R600a (Isobutane)**. Unlike older systems that used heavy refrigerant loads, this high-efficiency cycle operates with a precision charge of only **13 grams**.

Thermodynamics and Efficiency

The WPMR91S is built around a Low Back Pressure (LBP) cycle. With a rated current of **0.50 Amperes**, the electrical footprint is remarkably low. The integration of R600a allows the compressor to operate at lower pressures compared to R134a, which reduces mechanical wear on the piston and valves, extending the lifespan of the motor.

Engineering Comparison: R600a vs. R134a

Technical Parameter	WPMR91S (R600a)	Equivalent R134a Unit
Mass Charge	13g	~45g – 60g
Operating Pressure	Below Atmospheric (Vacuum)	Positive Pressure
COP (Efficiency)	Higher	Lower
Environmental Impact	GWP 3 (Eco-Friendly)	GWP 1430 (High Impact)

Professional Maintenance Notice

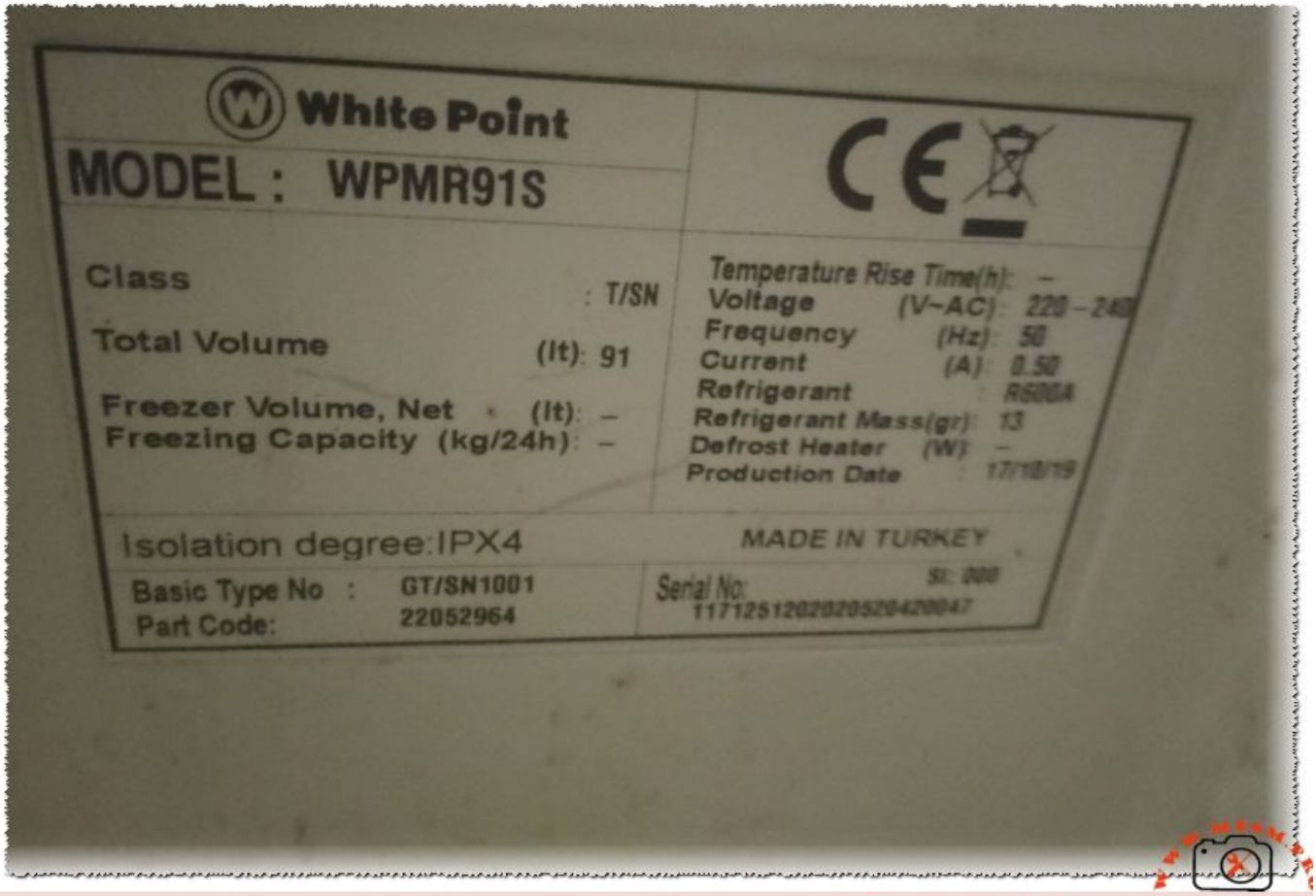
As an expert in the field, I must emphasize that when servicing the WPMR91S, the **13g charge** is critical. Because the volume is so small, traditional manifold gauges can trap a significant percentage of the gas in the hoses.

- **Scale Precision:** Use a digital scale accurate to 1 gram.
- **Vacuum:** A deep vacuum is mandatory as R600a systems are highly sensitive to moisture and non-condensables.
- **Safety:** R600a is flammable. Ensure no open flames or sparks are present during the charging process.

Benefits for the End User

The primary benefit of this specific engineering setup is the **Isolation Degree IPX4**, which provides protection against moisture ingress, making it ideal for various climates. The use of a PTC relay instead of a mechanical start relay further reduces the “click” noise during startup, providing a quieter user experience.

Focus Keyphrase: White Point WPMR91S Refrigerator R600a 13g Compressor
SEO Title: Mbsmpro.com | White Point WPMR91S Specs | R600a 13g Refrigerator Guide
Meta Description: Full technical data for White Point WPMR91S. Features 13g R600a refrigerant, 0.50A current, and 1/12 HP compressor details. Expert guide for replacement and repair.
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Excerpt: The White Point WPMR91S is a high-efficiency 91-liter refrigerator utilizing a specialized 13-gram R600a refrigerant charge. Operating at 0.50A, this Turkish-made unit is designed for optimal LBP performance. This guide provides comprehensive technical specifications, compressor cross-references, and engineering insights for professional technicians and hobbyists looking for reliable maintenance data and replacement parts.



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