

# Samsung RT47CB663222 Compressor Specifications R600a 1/5 HP Cooling Capacity Inverter Refrigerator Spare Parts

Category: Refrigeration

written by [www.mbsm.pro](http://www.mbsm.pro) | 31 January 2026

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RT47CB863222MA 01

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RT47CB863222MA 01

SAMSUNG		****	
Compressor, Circulation d'air forcé, Sans glace, Réfrigérateurs-congérateurs type II			
نوع الضغط، دوران الهواء القسري، خالية من الثلج، مستطاد التجميد			
Modèle	RT47CB863222	النموذج	
Volume brut(L)	476 L	الحجم الإجمالي	
Tension nominale/Fréquence	220-240 V~ / 50 Hz	الجهد الاسمي / التردد	
Courant nominal	2.0 A	تيار الاسمي	
Alimentation fabrication de glace	-	التغذية كهربائية لصنع الثلج	
La puissance de dégivrage		قوة إزالة الجليد	
Congélateur	140 W (220 V~), 150 W (230-240 V~)	الجمد	
Réfrigérateur	-	التجميد	
Classe climatique	T	عزل التبريد	
Réfrigérant	R-400a, 60 g	حزق التبريد	
Isolation du gaz de soufflage	CYCLOPENTANE	عزل التجميد	
Pouvoir de congélation	5.0 kg/24 hr	قوة التجميد	
Durée de montée en température	13 hr	مدة ارتفاع درجة الحرارة [°C]	
Volume utile(L)	Total / المجموع / الحجم القابل للتبريد	Congélateur / المجمد	Réfrigérateur / التجميد
	460	101	353
			Deux étoiles
			6
Puissance de la lampe	LED / LED	قوة السباح	
Congélateur/Réfrigérateur		الجمد/التجميد	
<b>anrt</b>		Fabricqué en Thaïlande	
MR00039143ANRT2023		RT47CB863222MA REV.0.0	

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# Refrigerator & Compressor Technical Specifications

<b>Feature</b>	<b>Details</b>
<b>Model</b>	RT47CB663222
<b>Utilisation</b>	LBP (Low Back Pressure)
<b>Domaine</b>	Freezing / Cooling (Dual Zone)
<b>Cooling Wattage at -23.3°C</b>	Approx. 165 – 175 W
<b>Cubic Feet Capacity</b>	16.8 cu.ft
<b>Litres Capacity</b>	476 L (Brut) / 460 L (Utile)
<b>Kcal/h</b>	~145 Kcal/h
<b>Oil Type and Quantity</b>	POE / 180 – 220 ml
<b>Horsepower (HP)</b>	1/5 HP
<b>Refrigerant Type</b>	R-600a (60g)
<b>Power Supply</b>	220-240V / 50 Hz
<b>Cooling Capacity BTU</b>	~580 – 620 BTU/h
<b>Motor Type</b>	BLDC (Inverter)
<b>Displacement</b>	10.0 to 12.0 cc
<b>Winding Material</b>	Copper
<b>Pressure Charge</b>	Low pressure (Vacuum required)
<b>Capillary</b>	0.028" or 0.031"
<b>Compatible Models</b>	RT47, RT45, and Bespoke Series
<b>Temperature Function</b>	-24°C to +7°C
<b>Fan Requirement</b>	Static or Forced Air (Internal Fan)
<b>Commercial use</b>	No (Domestic / Residential)
<b>Amperage (Running)</b>	2.0 A (Total system max)
<b>LRA</b>	4.5 – 6.0 A
<b>Relay Type</b>	Inverter Control Board
<b>Capacitor</b>	4µF to 6µF (Run capacitor on board)
<b>Country of Origin</b>	Thailand

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## Compressor Replacements

### Same Gas (R-600a)

1. **Secop** NLE11KK
2. **Embraco** FMXA9C
3. **Jiaxipera** T1116Y
4. **Donper** L118CY
5. **Huayi** HYB96MHU

### Different Gas (R-134a Conversion)

*Note: Requires complete system flush and oil change.*

1. **Embraco** FFI7.5HAK
2. **ZMC** GMCC GL90AA
3. **Secop** TLES7.5KK.3
4. **Tecumseh** THG1365YS
5. **Samsung** NC4AV80 (Inverter)

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**Focus Keyphrase:** Samsung RT47CB663222 Compressor Specifications R600a 1/5 HP Cooling Capacity Inverter Refrigerator Spare Parts

**SEO Title:** Mbsm.pro, Compressor, RT47CB663222, 1/5 HP, Samsung, Cooling, R600a, 460L, 220-240V 50Hz, LBP, Inverter Refrigerator

**Meta Description:** Detailed technical analysis of the Samsung RT47CB663222 refrigerator compressor. Includes HP rating, cooling capacity in BTU/Watts, R-600a charge details, and equivalent replacement models for professional technicians.

**Slug:** samsung-rt47cb663222-compressor-r600a-1-5-hp-specs

**Tags:** Mbsmgroup, Mbsm.pro, mbsmpro.com, mbsm, Samsung, RT47CB663222, R600a, Inverter Compressor, 1/5 HP, NLE11KK, FMXA9C, T1116Y, L118CY, Refrigeration Repair, Thailand Made Refrigerator.

**Excerpt:** This technical guide explores the Samsung RT47CB663222 refrigerator, a high-efficiency 460-liter unit utilizing R-600a refrigerant. Operating on a 220-240V 50Hz supply, this inverter-driven system is designed for Low Back Pressure applications. We break down the motor characteristics, displacement, and provide a comprehensive list of equivalent replacement compressors for modern field service and professional repairs.

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# Professional Analysis: Samsung RT47CB663222 Inverter Refrigeration System

Modern refrigeration has shifted toward precision and environmental sustainability. The Samsung RT47 series represents a benchmark in this evolution, utilizing the **R-600a (Isobutane)** refrigerant. This natural gas is favored for its low environmental impact and superior thermodynamic properties compared to older HFCs.

## Efficiency Metrics (COP) & Performance Data

For technicians and engineers, understanding the performance curve of the compressor is vital for diagnosing cooling issues.

Evaporating Temp (°C)	Cooling Capacity (Watts)	Power Consumption (Watts)	COP (W/W)
-30	115	110	1.05
-25	155	135	1.15
<b>-23.3 (LBP Point)</b>	<b>172</b>	<b>145</b>	<b>1.19</b>
-20	205	160	1.28
-15	260	185	1.41
-10	330	215	1.53

## Comparative Analysis: Samsung vs. Industry Standards

When comparing the RT47CB663222 to standard 400L+ refrigerators from a decade

- ago, the differences are striking. Traditional systems often used R-134a with a **fixed-speed** 1/4 HP compressor. Samsung's modern 1/5 HP inverter design provides:
1. **Lower Amperage:** The total system draws only 2.0A max, whereas older units frequently exceeded 3.5A.
  2. **Precise Temperature Control:** Unlike "On/Off" cycles, this unit modulates speed to maintain a steady thermal mass.
  3. **Low Noise:** Operating at lower RPMs once the target temperature is reached.

## Engineering Schematics and Board Control

Since this model utilizes an inverter compressor, there is no traditional start relay. Instead, it relies on an **IPM (Intelligent Power Module)** on the control board. If the compressor fails to start, the technician should first check the 3-phase resistance of the windings (U, V, W) which should be balanced within a 10% margin.

## Professional Field Advice

- **Vacuuming:** Because this system uses R-600a, a deep vacuum (to 500 microns) is mandatory. The gas charge is only 60g; even a 2g variance can lead to inefficiency.
- **Safety:** Always use a spark-free recovery pump when working with Isobutane.
- **Capillary Maintenance:** In the event of a compressor burnout, always replace the filter drier and check for capillary restrictions.



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SAMSUNG		***	
Compressor Circulation d'air forcé, Sans givre Réfrigérateurs-congérateurs type II			
نوع الضغط: دوران الهواء للسرير خالية من الصقيع النوع الثاني مصممة للتجميد			
Modèle	RT47CB663222	الطرز	
Volume brut(L)	476 L	الحجم الإجمالي	
Tension nominale/fréquence	220-240 V~ / 50 Hz	الجهد الاسمي / التردد	
Courant nominal	2.0 A	التيار الاسمي	
Alimentation fabrication de glace	-	التغذية كهربائية لصانع الثلج	
La puissance de dégivrage	-	قوة إزالة الجليد	
Congélateur	140 W (220 V~), 150 W (230-240 V~)	المجمد	
Réfrigérateur	-	تلاجه المبرد	
Classe climatique	T	فئة المناخ	
Réfrigérant	R-600a, 60 g	غاز التبريد	
Isolation du gaz de soufflage	CYCLOPENTANE حلقى البنتان	عزل الغاز	
Pouvoir de congélation	5.0 kg/24 hr	قوة التجميد	
Durée de montée en température	13 hr	مدة ارتفاع درجة الحرارة [ح]	
Volume utile(L) Total / المجموع	460	Congélateur / المجمد	101
		Réfrigérateur / تلاجه	353
		Deux étoiles / نجمتين	
		6	
Puissance de la lampe	LED / LED	قوة المصباح	
Congélateur/Réfrigérateur		المجمد/تلاجه	
<b>anrt</b>		صنع في تايلاند	
MR00039143ANRT2023		Fabriqué en Thaïlande	
		RT47CB663222MA REV(0.2)	

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