# Mbsm.pro, Compressor, BTF60AA, 1/7 hp, r600a, lbp, Serbian Compressor, serie T, from 180 L to 200 L, from 70 to 75 W

Category: compressor
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## Siberia Compressor Catalogue Overview

The **Siberia Compressor Catalogue** provides detailed specifications and performance data for various compressor series designed for refrigeration systems. These compressors are available in multiple configurations, including **R134a** and **R600a** refrigerants, catering to different cooling capacities and applications. Below is an organized breakdown of the catalog's key sections:

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## 1. Compressor Series Overview

### S Series (Low Back Pressure – LBP)

- **Refrigerants:** R600a (High Efficiency), R600a (Medium Efficiency), R134a
- **Applications:** Suitable for small to medium-sized refrigerators.

- **Key Features:**
  - Compact design
  - Low noise and vibration
  - High reliability

## V Series (Low Back Pressure – LBP)

- **Refrigerants:** R600a, R134a
- **Applications:** Ideal for compact refrigeration units.
- **Key Features:**
  - Energy-efficient operation
  - Small footprint
  - Environmentally friendly refrigerants

## F Series (Low Back Pressure – LBP)

- **Refrigerants:** R134a, R600a
- **Applications:** Designed for larger refrigeration systems.
- **Key Features:**
  - High cooling capacity
  - Multiple motor types (RSIR/RSCR)
  - Robust performance under varying conditions

## T Series (Low Back Pressure – LBP)

- **Refrigerants:** R600a, R134a
- **Applications:** Versatile use in household and commercial refrigeration.
- **Key Features:**
  - Very compact size
  - Low noise and vibration
  - High reliability

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# 2. Performance Specifications

## Example: T Series Compressors (R600a)

| Model | Power (HP) | Displacement (cm³) | Cooling Capacity (W) | Input Power (W) | Rated Current (A) | COP | Oil Charge (ml) |
|---|---|---|---|---|---|---|---|
| BTF60AA | 1/7 | 6.0 | 105 | 74 / 70 | 0.52 / 0.40 | 1.42 / 1.50 | 180 |
| BTF60AA® | 1/7 | 6.0 | 105 | 68 / 64 | 0.50 / 0.34 | 1.54 / 1.65 | 180 |
| BTR60AA© | 1/7 | 6.0 | 105 | 66 / 60 | 0.42 / 0.29 | 1.60 / 1.75 | 180 |

## Example: S Series Compressors (R600a)

| Model | Displacement (cm³) | Motor Type | Cooling Capacity (W) | Input Power (W) | Rated Current (A) | COP | Oil Charge (ml) |
|---|---|---|---|---|---|---|---|
| BSR51AA | 5.1 | RSCR | 92 | 53 | 0.26 | 1.75 | 200 |

| Model | Displacement (cm³) | Motor Type | Cooling Capacity (W) | Input Power (W) | Rated Current (A) | COP | Oil Charge (ml) |
|---|---|---|---|---|---|---|---|
| BSR58AA | 5.8 | RSCR | 105 | 60 | 0.29 | 1.75 | 200 |
| BSR68AA | 6.8 | RSCR | 120 | 69 | 0.33 | 1.75 | 200 |

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# 3. Special Requirements for Refrigerants

## R134a Compressors

- The open time of the compressor connection pipe should not exceed **10 minutes** .
- Use dedicated vacuum pumps and charging equipment for R134a.
- Avoid using organic substances incompatible with R134a in the refrigeration system.
- Ensure strict control of moisture, impurities, paraffin, silicone oil, and chloride ions.

## R600a Compressors

- Follow safety protocols for hydrocarbon refrigerants during installation and operation.
- Do not tamper with the pre-filled specialized oil in the compressor.
- Use appropriate tools and equipment to ensure safe handling of R600a.

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# 4. Refrigerator Size Estimation

The cooling capacity of a compressor determines the refrigerator size it can support. For example:

- **BTF60AA (1/7 HP):**
  - Cooling Capacity: **105 W**
  - Approximate Refrigerator Size: **157.5 – 210 liters**
    - Calculation: 105W×1.5to2=157.5to210liters

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# 5. Outline Drawings and Packaging

Each compressor model includes detailed outline drawings and packaging specifications. For instance:

- **Packaging Dimensions:**
  - Carton Size: 1120mm×824mm×870mm
  - Container Capacity: Up to **28 units** per container.

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# 6. General Requirements for Installation and Operation

- Store compressors in a dry, well-ventilated area.
- Avoid tilting or inverting during transportation.
- Install within **10 minutes** after removing protective plugs.

• Ensure reliable grounding during operation.
• Avoid high-voltage or vacuum conditions during startup.

To determine the refrigerator size (in liters) that a **1/7 HP** compressor can cool, we need to refer to the performance data of the compressors listed in the provided files. Specifically, the **BTF60AA** compressor (1/7 HP) is a good reference point for this calculation.

# Key Specifications for BTF60AA (1/7 HP):

• **Cooling Capacity:** 105 W
• **Refrigerant:** R600a
• **Voltage:** 220-240V / 50Hz

The cooling capacity of a compressor directly correlates with the volume of the refrigerator it can cool. Typically:

• **1 W of cooling capacity** can cool approximately **1.5 to 2 liters** of refrigerator volume.

# Calculation:

For the **BTF60AA** compressor with a cooling capacity of **105 W** , the approximate refrigerator volume it can cool is:

Refrigerator Volume=Cooling Capacity (W)×Factor (1.5 to 2)Refrigerator Volume=105W×1.5to2Refrigerator Volume=157.5to210liters

# Table for 1/7 HP Compressor:

Below is a table summarizing the approximate refrigerator size (in liters) based on the cooling capacity of a **1/7 HP** compressor:

| Compressor Model | Power (HP) | Cooling Capacity (W) | Approximate Refrigerator Size (Liters) |
|---|---|---|---|
| **BTF60AA** | 1/7 | 105 | 157.5 – 210 |

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